A TECHNICAL REVIEW OF THE ALCES LAKE RARE EARTH MINERAL EXPLORATION PROJECT, BEAVERLODGE DOMAIN, SASKATCHEWAN, CANADA

FOR

APPIA RARE EARTHS & URANIUM CORP.

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1. SUMMARY

1.1 INTRODUCTION AND TERMS OF REFERENCE

This Technical Report ("**Report**") has been prepared in accordance with the guidelines of National Instrument 43-101 ("**NI 43-101**") by Watts, Griffis and McOuat Limited ("**WGM**") Senior Geologist, Mr. Albert Workman. An initial site visit was made by Mr. Workman during 20-21 September, 2021 to Appia's exploration camp located at Alces Lake, a short distance north of Lake Athabasca. A second site visit was made to the project during 1-2 August, 2022 following completion of Appia's 2022 drilling program. Mr. Workman is a Qualified Person in accordance with the definition prescribed in NI 43-101, being a member of the Association of Professional Engineers and Geoscientists of Saskatchewan ("**APEGS**") as well as being a member of the Professional Geoscientists of Ontario.

This Technical Report provides an update on exploration previously reported in March, 2021 by Appia Rare Earths & Uranium Corp. ("**Appia**"), formerly known as Appia Energy Corp. The Effective Date of this report is 31 January, 2023 (the "**Effective Date**"). The delay between the site visits and this report were due to large workloads at the geochemical lab which inordinately delayed the delivery and Appia's assessment of analytical results.

The full-time availability of a helicopter allowed Mr. Workman to visit all areas of the property being explored at the time of the site visits. During these visits, all mineralized zones of any importance were examined. During the first site visit, Mr. Workman collected a suite of 17 check samples comprising 4 grab samples of bedrock mineralization and 13 samples of quartered drill core from representative and well mineralized drill hole. During the second site visit, representative samples were taken from three diamond drill holes. These samples remained in the possession of Mr. Workman until they were picked up by courier from his residence and delivered for analysis to the SGS laboratory. The initial set was delivered to the facility in Burnaby, British Columbia but was re-directed to the laboratory in Lakefield, Ontario which was better able to handle the high REE content of the samples. The second shipment was sent directly to the Lakefield facility for analysis.

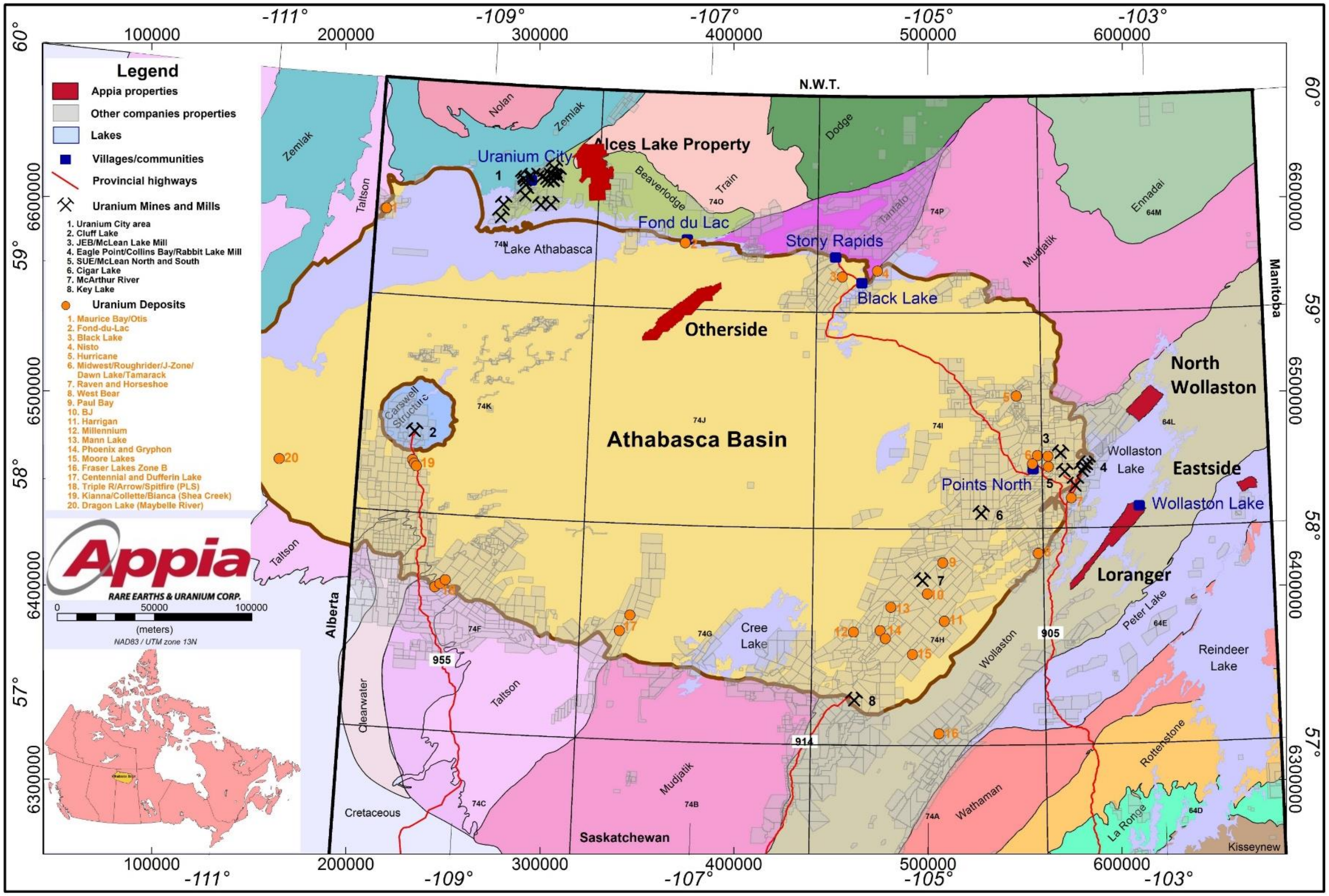

Figure 1: Location of Appia's Alces Lake Project in northern Saskatchewan, Canada. The Athabasca Basin, prolific for its unconformity-type uranium deposits, is shown as well as the historical Beaverlodge uranium mining area.

1.2 PROPERTY DESCRIPTION AND OWNERSHIP

The Alces Lake rare earth (“**REE**”) project is located approximately 34 kilometres east-northeast of Uranium City and 18.5 km north of Lake Athabasca (Figure 1). The Property on which the project is located is centred approximately at UTM co-ordinates 667080E and 6618316 N in Zone 12N. The property covers portions of National Topographic System (“NTS”) index map sheets 74N09 and 74O12. The Appia exploration property consists of a single mineral disposition (S-112033) with an area of 1,518 ha (3,751 acres) in which the company holds a 90% interest and an additional 35 mineral dispositions totalling 38,522.44 ha. (95,150 acres) in which Appia has sole (100%) ownership.

1.3 ACCESS, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the Alces Lake project area is provided by fixed wing charter services out of the airport at Fort McMurray, Alberta situated about 390 km to the southwest. There is no summer or winter road access to the Alces property at this time. Alternative airports in the region include Fond-du-Lac and Stony Rapids that are accessible all-year-round by scheduled flight services provided by Transwest Air. During the winter an ice-road is established between Stony Rapids and Uranium City and maintained by the Saskatchewan Department of Highways and Transportation. The road passes approximately five (s) kilometres south of Appia’s Alces Lake Property. There is no established infrastructure in the project area.

The Project is located within the Taiga Shield Ecozone, an area of northern boreal forest that experiences long, cold, snowy winters, brief transitional periods, and cool and humid summers. Temperatures in the area average between 14°-17°C during June through August. From November through March, the average temperature is sub-zero, the coldest month being January when the temperature averages -24°C. Snowfalls can be quite variable and heavy at times although mean average annual accumulation is only 650 mm.

The area is characterized by rolling hills caused by bedrock ridges. Typical relief is less than 100 metres. Tree cover averages approximately 80% and is composed of black spruce and jack pine. Low-lying protected areas along drainages are commonly populated by tamarack and birch.

1.4 HISTORY

During the 1950s, the Alces Lake area was subject to geological mapping, prospecting, ground radiometric surveying, minor trenching and limited diamond drilling. A few companies such as Goldfields Uranium Mines Ltd., Fargo Oils Ltd and J.H. Wilson, carried out exploration programs; however, the Beaverlodge area near Uranium City was main focus of exploration and mining activity in this region. Numac's airborne survey in the Alces Lake area resulted in the detection of 287 anomalies that led to the discovery of 79 radioactive occurrences. These were subsequently revisited by Wilson who trenched the better showings and discovered radioactive pegmatites which were named the SCRUB showing. However, the principal metal of interest was uranium and no significant value was given to rare metal mineralization.

During 1975, the Saskatchewan Mining and Development Corporation ("**SMDC**") used water and lake sediment geochemical sampling together with VLF-EM techniques over the Alces Lake water body, however the program failed to identify mineralization of economic significance. The areas experienced no significant activity through the remainder of the 1990s.

During the summer of 2010, the Saskatchewan Geological Survey completed sampling and geological mapping in the area of the J.H. Wilson discovery trenches. The exploration program verified the existence of high-grade rare earth elements ("**REE**"s) from the old trench blasts, but also discovered some new outcrop showings. The close association between rare earth mineralization and anomalous radioactivity was documented. The radioactivity was primarily due to the presence of thorium mineralization (thorite) however uranium contents were also elevated.

Appia acquired mineral dispositions covering the know REE prospects in 2011 and in October of that year Appia and Mr. Scott Bell carried out an initial helicopter-supported prospecting program in the area of the Wilson trenches. The samples contained total REE ("**TREE**") concentrations ranging from 1.97% to 16.08% (Bell, 2013). In September, 2013 Appia revisited the area with a six-man crew and established a cut-line picket-grid over the REE mineralization. Prospecting and various geophysical surveys were carried out in the vicinity of the Wilson trenches resulting in the discovery of a new prospect, the Ivan Zone, indicated by scintillometer readings exceeding 56,000 counts per second ("**cps**"). Samples were collected and analyzed at the SRC laboratory, producing results ranging from 1.06% to 10.38% total REEs in the Wilson trench area, and from 4.66% to 36.20% total REEs in the Ivan zone (Bell, 2014).

Appia subsequently completed helicopter-borne geophysical exploration consisting of magnetometer and radiometric surveys, radiometric prospecting with scintillometers, geological mapping, trenching and channel sampling which has resulted in the discovery of many more rare earth-bearing prospects. Appia's success in discovering additional zones of mineralization has largely been the result of systematic prospecting with a scintillometer or spectrometer along fold limbs that are identified and traced on the basis of the magnetometer survey.

During September-October, 2013, a picketed grid was cut in the area of the Wilson trenches with parallel 50-metre lines on a 25-metre spacing. Ground VLF-EM and magnetic surveys were carried out at 5 m intervals along the lines. Continued prospecting in this area resulted in the discovery of the Ivan Zone 90 m northeast of the Wilson trenches. Scintillometer readings from the Ivan zone were consistently greater than 56,000 cps (maximum scale). A total of 14 rock samples were collected and analyzed at the Saskatchewan Research Council Geolab producing assays in the range of 1.06% to 10.38t% TREE in the Wilson trench area and from 4.66% to 36.20% TREE in the Ivan zone (Bell, 2014).

Following a hiatus in the exploration activity, Appia contracted a helicopter-borne geophysical survey comprising versatile time domain electromagnetics (VTEM Plus), horizontal magnetic gradiometer and RSI ARGS RSX-5 TM spectrometer over the property to Geotech Ltd. during late May, 2016. A total of 154.3 line-km of data was acquired. At least three regional geological suites were identified. In addition, the radiometric component of the survey outlined many large anomalous targets requiring ground follow-up investigations. The area around the Wilson trenches and Ivan zones was centered on the strongest and largest radiometric anomaly (Bell and Sykes, 2016).

The following year, during August and September 2017, Appia completed ground reconnaissance exploration over the Alces Lake property during which 61.7 km of traverses covered an area of approximately 1.83 km2. A total of 121 unique sites were examined of which 99 were anomalously radioactive occurrences. A total of 52 individual rock samples were collected over a period of seven days, including grab samples and channel samples from outcrops as well as boulder samples. Six new rare earth element ("**REE**")-bearing zones were discovered: Danny, SE Danny, Hinge, North Regional, NW Wilson and SE Wilson. The Wilson trenches and Ivan zone were revisited to acquire continuous cut channel samples. Geochemical assay highlights from select zones are reported below as rare earth oxides ("**REO**"). Any sample with a length interval indicates a channel cut. The mineralization from all the areas show uniformly high concentrations of REEs. The sum of critical REEs (Nd+Pr+Dy+Tb) account for approximately 23% to 25% of the total rare earth elements present. Critical REEs are defined as those with scarce supply, in high demand, and criticality in much high-tech applications such as electric vehicles, cell phones, wind turbines and magnets.

During June 9th and continuing through most of September, 2018 Appia carried out a full exploration program that began with the construction of a 4-season camp at Alces Lake, and continued with surface prospecting and diamond drilling on the property. The main field activities included excavating and channel sampling 437.6 m of rock samples from six radioactive outcrops (Bell, Charles, Dante, Dylan, Ivan and Wilson). Fifteen short diamond drill holes totalling 335.35 metres were completed to test the Charles, Ivan and Wilson targets. This was Appia's inaugural drilling program which carried on through 2022 by the end of which 278 diamond drill holes had been completed totalling 32,436.12 m testing 22 radioactive zones containing significant concentrations of rare earth metals and uranium (see Appendix 3 for the table of drill holes). These zones were shown to carry relatively high concentrations of the critical REEs, demonstrating an abundance equal to 23%-25% of the total REE content.

During the period from June through to mid-September, 2019, the exploration activities included re-opening the Alces Lake exploration camp and bringing important equipment and supplies to the site. Trails linking the various REE-bearing zones were refurbished and two new radioactive target zones (Quartzite and Thomas) were eexcavated and channel sampled. A 200 m x 300 m grid was established for geophysical surveying that included DSM, gravity, magnetic and orthophotography focusing on the high-grade REE-bearing zones and their immediately surrounding areas. A total of 10.78 m of channel samples were sawn and sampled along three profiles spaced at 1-2 m across the newly discovered Oldman zone. During this period, 42 diamond drill holes totalling 2,026.05 m were completed in the Charles, Dante, Ivan, Regional, Mikaela and Richard zones. A total of 274 half-core samples collectively totaling 133.55 m were sawn from the core.

During 2020, the Danny, Ermacre, Hinge and Cone zones were primarily of interest and all were targeted by diamond drilling, some for the first time. Results were mixed and typically indicated low total REE contents (<0.5%). It was also noted that extensive hematite, limonite and chlorite alteration has been frequently observed near the Wilson zone and trending toward the Hinge zone indicating a possible structural linkage. Hematite is prevalent within large patches of biotite-rich pegmatites, and commonly filling voids and cracks within broken feldspars and quartz. Limonite typically replaces hematite as is most commonly observed within the Wilson zone trenches (Sykes, 2020). Retrograde chlorite alteration was limited to replacement of biotite (Farkas, 2018).

Exploration during 2021 resulted in the discovery of the Biotite Lake zone, an area characterized by a pronounced but small radiometric anomaly along a trend of elevated radiometric responses paralleling the southern shore of Alces Lake. Mapping of outcrop revealed NE-SW trending mineralized pegmatites and biotite-rich shears. The channel sampling carried out at that time returned 7.69 m averaging 1.01% TREO. Diamond drilling totalling 700m was relatively unsuccessful in intersecting subsurface extensions of the surface mineralization. A 250 m by 50 m radiometric anomaly adjacent to the Wilson-Richard-Charles-Bell ("**WRCB**") zone was found to extend towards the southwest. Very localized occurrences of massive to semi-massive monazite were observed within this anomaly. The mineralization is comparable to the WRCB pegmatites however far more elusive and isolated. The Western Anomaly area also came into focus in 2021, a large target area containing the exposures of Diablo, Sweet Chili Heat, Roulette, Buffalo, Nacho, Cool Ranch and Zesty. All of these sites were channel sampled with the exception of Nacho. Drilling in the Western Anomaly was focused on Sweet Chili Heat. The named sites are characterized by exposures of REE-bearing pegmatite veins and mineralized shear zones, both oriented NS/SW. The scale of the radiometric anomaly appears to be influenced by significant exposures of weakly radioactive granitic rocks of little economic interest. The pegmatite exposures are concentrated proximal to the axial plane of a SW plunging regional fold closure.

The Magnet Ridge zone, formally known as Auger, was aggressively drilled in 2022. A linear, NW-SE trending radiometric anomaly extends over a strike length of 400 m. Topographically, the anomalous area represents a ridge with gentle slopes on the SW, SE, and NW side but sloping steeply on the NE face into the large structural corridor which transects the property, normal to the St Louis Fault. The zone is well exposed over the anomaly’s length and exhibits a background radioactivity of 1000-3000 counts per second, or at least 10X background. The bedrock is composed of quartz-biotite schist, referred to internally as PBS (pebbly biotite shist). The REE grades in bedrock are low but atypically continuous relative to other identified occurrences at Alces Lake.

1.5 GEOLOGY AND MINERALIZATION

The project area lies within the Archean Beaverlodge Domain of the Rae Province of the Canadian Shield. The Alces Lake area lies is situated approximately 25 km east of the historic Beaverlodge uranium mining centre. Bedrock geology underlying the property belongs to the Murmac Bay Group, an assemblage of quartzite, mafic volcanic, minor carbonate, komatiitic rocks and psammite to pelite (Ashton et al., 2001). Regional metamorphism and deformation has created an early migmatitic to gneissic foliation (S1), an early set of isoclinal folds (F2) trending east-southeast, local northwest-trending folds (F3), northeast-trending folds (F4), and minor north-trending late folds (F5) shown in Figure 2. Three lithological groupings are present on the Appia property: a psammo-pelitic group, a complex group and a leucogranite group.

The psammo-pelitic group is the most extensive and composed of foliated to schistose and medium to coarse grained rocks predominantly composed of foliation-parallel, 2-5 mm thick quartz bands interspersed within metre-scale layers of quartzo-feldspathic gneiss containing up to 25%, centimetre-sized garnet. Garnet is commonly replaced by muscovite which is locally abundant. Quartzite layers, 20 cm to 6 m thick occur locally throughout the psammo-pelitic gneiss. Grey-pink biotite-chlorite gneiss is also present and contains minor, 1-20 m thick, rusty, schistose biotite-chlorite-sillimanite-pyrite-graphite layers. Massive quartzite layers have apparent thicknesses between 50 and 160 m are present at three locations. The quartzite is medium grained, in shades of grey to white, and is composed of >90% quartz, <3% hornblende and trace amounts of pyrite and garnet with variable feldspar proportions. An amphibolite unit was observed with or near quartzite at several locations. Large bodies of grey-pink, medium-grained, strongly foliated granitic gneiss containing 20 to 25% biotite and pyroxene is present locally in the psammo-pelitic gneiss.

The second group is thought to form the core of a major, south-plunging regional synform having a north-south axial trace. It comprises a complex assemblage of rock types including:

- fine- to medium-grained, massive, pyroxene-rich rocks that contain trace pyrite;
- medium-grained, purplish grey-green, biotite- and garnet-rich gneiss containing approximately 0.5% pyrite;
- cream-coloured to grey, coarse-grained garnet diatexite;
- grey, medium to coarse-grained, strongly foliated biotite-muscovite psammo-pelite that contains on average 50% quartz, 30% biotite and 1-7% garnet; and,
- altered, red feldspathic gneiss that contains 7-15% biotite and 10% garnet partially replaced by chlorite, <5% quartz and 0.5-3% pyrite associated with monazite mineralization.

The third group is composed of late, grey-pink, medium to coarse-grained, homogeneous, massive to very weakly foliated leucogranite containing 30% quartz and 40-50% K-feldspar. This unit crops out at the western end and on the south side of Alces Lake. The granite is in sheared contact with psammo-pelites on the east side. A zone of cherty, resinous brown to reddish-tan ultra-mylonite separates the granite to the north from the psammo-pelitic gneiss to the south. The 108°/43°S gneissosity (S1) exhibited by rock units south of Alces Lake is the earliest foliation and generally strikes north-northeast to north-northwest. Three generations of foliation have subsequently overprinted the primary gneissosity:

- a rarely seen S2 striking SE to SSE that forms irregular, millimetre-spaced cleavage planes cutting S1 in quartz-rich psammo-pelitic gneiss;
- a 3rd generation NNE to NE foliation (S3) that is steeply dipping and defined by reorientation of mineral grains in gneiss layers;
- a 4th generation ENE foliation (S4), commonly associated with shear zones, that is represented by a steeply dipping cleavage planes that cut all older foliations

Appia has identified REE-bearing and barren pegmatites occurring with lit-par-lit geometry that is manifests itself in both gradational and sharp contacts, commonly cross-cutting the gneissic foliation. These pegmatites are typically 020° to 060° striking and dip 60°-75°SE. Appia has commonly observed S-folds and other variations in the foliation as well as extensive areas of hematite, limonite and chlorite alteration, especially near the Wilson zone and trending toward the Hinge zone. Hematite is prevalent within large patches of biotite-rich pegmatites, and commonly filling voids and cracks within broken feldspars and quartz. Limonite typically replaces hematite as is observed within the Wilson zone trenches (Sykes, 2020). Retrograde chlorite alteration was limited to replacement of biotite (Farkas, 2018).

The REE mineralized system is a combination of late-orogenic to metasomatic biotite schist, pegmatite augen and monazite accumulations that clearly cross-cut and are commonly in sharp contact with regional gneiss formations. Biotite schist, which is also typically sulphide-rich, shows signs of shear remobilization, having also incorporated and ‘rolled’ pegmatite clasts within the shears. Biotite-rich quartzo-feldspathic pegmatite dikes/sills were also identified as REE host rocks. The REE host mineral has been identified as monazite. The pegmatites both follow and cross-cut regional gneissosity, where exposed, and show clear late tectonic and brittle structural emplacement within the surrounding gneiss. REE mineralization is consistent in all zones and rock types; occurring as isolated 1-3 mm (average) monazite grains, 1-3 cm thin clusters (lenses) of monazite grains along the foliation, to isolated massive metre-scale clusters. Irrespective of grade or the host lithology, whether metasediment or orthogneiss, the ratios between the individual REEs is consistent from one zone to another.

Appia’s drilling has produced some very high-grade intersections. The highest grade x thickness zones for each of the more extensively drilled zones are presented as follows. Appia has defined “high-grade” as mineralization with a total rare earth oxide (“**TREO**”) content exceeding 4%. While the following intersections are not representative of average grades, these sections do attest to the potential for commercially attractive mineralization in at or near-surface zones.

- Charles 11.75% TREO over 1.3 m in drill hole CH-19-014 beginning at surface;
- Dante 23.89% TREO over 1.2 m in drill hole DT-19-004B starting at 16.3 m;
- Ivan 31.34% TREO over 7.9 m in drill hole IV-19-012 starting at 9.7 m; and,
- Richard 8.72% TREO over 7.5 m in drill hole RI-19-001 beginning at 11.2 m.

The mineralization from all areas explored to date shows uniformly high concentrations of REEs with the sum of the ‘critical’ REOs neodymium (“Nd”), praseodymium (“Pr”), dysprosium (“Dy”) and terbium (“Tb”) accounting for approximately 24% of the TREO content. Critical REEs are defined as those that are in high-demand for electronic and high-tech applications with scarce or geographically constrained supply. In many cases, the engineering design and production of a device, such as electric vehicles, cell phones, wind turbines and magnets is wholly dependent on a supply of the rare earth metal needed.

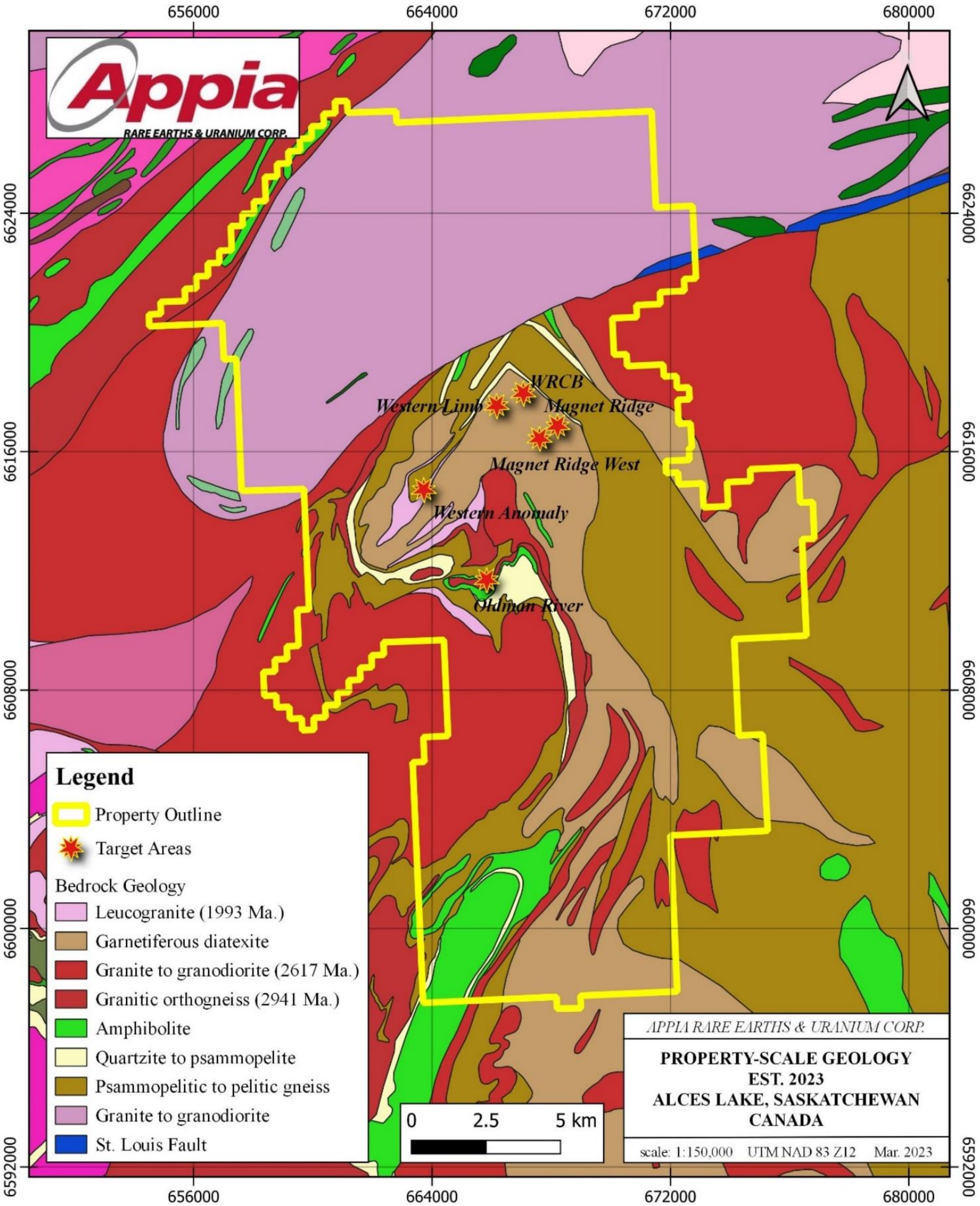

Figure 2: Geology of the Alces Lake property.

1.6 DEPOSIT TYPE

The Alces Lake REE mineralization is associated with thorium and uranium in sheared and brecciated pegmatites that occur as irregular, dike-like bodies within Paleoproterozoic metasedimentary country rocks predominantly represented by paragneiss and orthogneiss. The pegmatites both follow and shallowly cut across the metamorphic foliation (gneissosity). Where exposed on surface, the close relationship between late, brittle deformation and pegmatite emplacement into the gneiss is very clear. The pegmatites are thought to have an anatectic origin whereby various granitic and pegmatitic sheets were generated at different times in response to crustal thickening and melting of the lower crust, and then emplaced into existing and reactivated shear zones and faults (Poliakovska et al, 2022). Where exposed on surface, the close relationship between late, brittle deformation and pegmatite emplacement into the gneiss is very clear. Poliakovska et al believe that the REEs were mostly derived from the lower crust with the evolved pegmatites acting as a carrier, noting only a minor role for hydrothermal fluids. Based solely on empirical observations, notably the close relationship between biotite and monazite as an open-space filling in the pegmatite and in country rocks, WGM is of the opinion that late-stage, residual fluids played a major role in carrying the REEs into brittle fractures / shears within the crystallized and cooling pegmatite and into the adjacent gneiss.

Biotite-rich quartzo-feldspathic pegmatite dikes/sills are the predominant REE host rock. These rocks may be potassically altered in some sections. Monazite has been identified as the REE host mineral. Minor sulphide deposition as very finely disseminated and poikiloblastic pyrite mineralization accompanies the rare earths. Localized oxidation has resulted in broad patches of hematite alteration.

1.7 EXPLORATION

During October, 2011, Appia Energy Corp. and Mr. Scott Bell carried out a helicopter-supported prospecting program in the area of the Wilson trenches that were previously resampled by Wilson. The samples contained total REE concentrations ranging from 1.97% to 16.08% (Bell, 2013).

During a 2-week period in late September, 2013 a six-man crew established a cut-line picket-grid over the REE mineralization and ground VLF-EM and magnetometer surveys were completed. Prospecting continued around the Wilson trenches, and a new zone, Ivan, was discovered, indicated by scintillometer readings that were consistently greater than 56,000 cps (maximum scale). Samples were collected and analyzed at the SRC laboratory, producing results ranging from 1.06% to 10.38% total REEs in the Wilson trench area, and from 4.66% to 36.20% total REEs in the Ivan zone (Bell, 2014).

Follow-up helicopter-borne geophysical surveying was carried out during 2016. At least three regional geological domains were distinguished and many large radiometric anomalies were discovered requiring ground follow-up investigations. The areas around the Wilson trenches and Ivan zones were centred on the strongest and largest radiometric anomaly (Bell and Sykes, 2016).

During 2017, Appia completed a highly focused reconnaissance exploration program covering an area of approximately 1.83 km^2, identifying 99 radioactive occurrences. Bedrock samples were collected identifying six REE-bearing zones. Total rare earth oxide ("**TREO**") contents with the lengths given for any cut channel samples:

Ivan Zone:	49.64 weight % REO over 0.95 m 45.92 % REO over 1.85 m
Wilson Zone:	30.76% REO in boulder 18.53% REO over 2.7 m 9.07% REO over 4.6 m including 20.94% REO over 1.8 m 6.62% REO over 1.8 m
Danny Zone:	13.63% to 2.43 weight % REO in outcrop grab samples
Hinge Zone:	8.73% to 3.74% REO in boulders 1.90% REO over 1.5 m
NW Wilson Zone:	5.10% to 1.68% REO in boulders and outcrop grab samples

All zones demonstrated mineralization that contained high concentrations of rare earth metals. The sum of the critical rare earth metals neodymium ("**Nd**"), praseodymium ("**Pr**"), dysprosium ("**Dy**") and terbium ("**Tb**") accounted for approximately 23% to 25% of the total content. "Critical rare earth metals" are defined as those with scarce supply and in high demand.

In 2018, Appia completed prospecting, radiometric surveying and geological mapping programs in preparation for diamond drilling selected targets. During 2019, a 200 m x 300 m geophysical survey was conducted by MWH Geo International Surveys Inc. from June 3 to 18. This survey focused on DEM, gravity, aeromagnetic, and orthophotography within and adjacent to the main prospect areas. Intermittent radiometric prospecting and hand digging/removing the overburden materials was conducted on multiple targets of interest, including what was then known as the Quartzite and Thomas outcrop areas. Ground reconnaissance was conducted by Appia's geologic crew with the goal to revisit and provide further detail on past discovered zones, while also visiting newly discovered geophysical targets along the way. Once all targets were visited, surface channel sampling was conducted on the Thomas and Quartzite zones which are within a 50 m radius of each other. A total of 7.93 m of channel samples were saw-cut along 4 profile lines - 15 systematic channel samples were collected from the two zones. Channel sample lines were spaced approximately 1.0 to 2.0 m apart such that the uniformity of mineralization might be better understood. This exploration was supported through the use of a Trimble Geo 7X handheld differential GPS for spatial control, a RS-125 spectrometer from Radiation Solutions Inc. of Mississauga, Ontario and two gas-powered 12" diamond-bladed Stihl TS410 Quick Cut Saws for cutting bedrock channel samples.

During 2018, Appia completed 16 diamond drill holes totalling 350.17 metres of BQ-sized drill core in the newly discovered Charles Zone as well as the Ivan and Wilson prospects. The highest grade-thickness geochemical assay results from the high-grade drill hole sections of each zone were:

Charles Zone:	10.01%	REO	over	3.55 m starting at 9.00 m in CH-18-008
Ivan Zone:	15.56%	REO	over	1.20 m starting at 6.20 m in IV-18-001
Wilson Zone:	15.47%	REO	over	1.05 m starting at 16.80 m in WI-18-004

Spatial control in the drill holes was achieved through the use of an EZ-TRAC down-hole survey instrument by Reflex to map drill hole deviation[1]. ACTIII BQ-size tools were used to provide oriented drill core marks. All drill holes were downhole probed with an HLP2375, NAI short crystal, natural gamma probe in combination with a 4MXA-1000 300 m wireline winch and Matrix box. The foregoing results confirmed the continuity of high-grade REO mineralization below surface and confirmed that critical REO concentrations continued to account for 23-25% of the total REO content within the surface and drill core samples.

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[1] Magnetic declination and magnetic field components were calculated using the following NRCAN websites (http://geomag.nrcan.gc.ca/calc/mdcal-en.php and http://geomag.nrcan.gc.ca/calc/mfcal-en.php).

Continuing geological mapping programs in 2019 outlined the Dante, Mikaela and Richard Zones. Drilling resumed on the Charles and Ivan Zones, and the new zones were tested with the completion of a total of 43 diamond drill holes (2,011.25 m), including three holes that were abandoned close to surface due to caving problems. This drilling focused on extending the known zones described above, and shallowly testing the new discoveries. In additional two regional targets were drilled. The Charles Zone was tested to a vertical depth approaching 100 m, however the other drilling rarely exceeded 50 m below surface. The 2019 drilling is summarized as follows:

Zone Tested	Number of Holes	Total Drilling
Charles (CH)	8	404.5 metres
Dante (DT)	8	339.8 metres
Ivan (IV)	21	983.15 metres
Mikaela (MK)	2	95.40 metres
Regional Target (AL)	2	96.40 metres
Richard (RI)	2	92.00 metres

During 2020, geological mapping outlined new zones of anomalous radioactivity at Cone, Danny and Ermacre, and the Hinge Zone of the Alces Lake fold structure was also drill-tested. A total of 18 diamond drill holes were completed totalling 2,507 metres. Most of the drilling was dedicated to shallowly testing the newly discovered zones of radioactivity. Cone and Danny were explored well below 100 m and drilling continued at the Wilson Zone at depth whereas the Richard Zone was approached with very shallow holes. Details concerning the distribution of the drill holes of the drilling are as follows:

Zone Tested	Number of Holes	Total Drilling
Cone (CO)	2	592.20 metres
Danny (DAN)	4	444.80 metres
Ermacre (ER)	1	20.40 metres
Hinge (HN)	1	326.10 metres
Richard (RI)	5	125.10 metres
Wilson (WI)	5	998.40 metres

During 2021, detailed geological mapping continued and 100 diamond drill holes were completed totalling 8,075.94 m of NQ-sized core drilling. For the most part, the drilling focused on testing new zones of anomalous radioactivity at Biotite Lake, Diablo Oldman, SCH and WRCB as summarized below, however some of the drilling was dedicated to extending the Danny zone. Several of the holes in the WRCB Zone tested the target at or well below 100 m from surface (21-WRC-016, '-017 and '-065), however the other zones were typically tested to a maximum vertical depth of less than 50 m. Details concerning the allocation of drilling to the various zones follow:

Zone Tested	Number of Holes	Total Drilling
Biotite Lake (BIO)	13	684.52 metres
Danny (DAN)	7	430.83 metres
Diablo (DIA)	4	192.0 metres
Oldman (OLD)	8	480.0 metres
Sweet Chili Heat (SCH)	14	990.82 metres
Wilson-Richard-Charles-Bell (WRCB)	54	5,297.77 metres

During 2022, an additional 101 diamond drill holes were completed by Appia between March 24th and July 23rd. These holes tested new zones that had been discovered in the previous year by Appia's geological team as well as continued drilling on the Danny and Hinge Zones and extensions of the zone connecting Wilson, Richard and Charles. Several zones showed promising results based on initial radiometric reading from drill core and were explored to depths well in excess of 100 m. The 2022 drilling program totalled 17,792.68 metres of NQ diameter core drilling as follows:

Zone Tested	Number of Holes	Total Drilling
Augier (AUG)	35	5,468.13 metres
Danny (DAN)	7	2,001.61 metres
Hinge (HNG)	1	207.00 metres
Magnetic Ridge West (MRW)	10	2,160.10 metres
Strocen (STR)	5	1,044.03 metres
West Limb (WEL)	6	1,004.66 metres
Western Anomaly (WES)	5	949.50 metres
Wilson-Richard-Charles (WRC)	32	4,957.65 metres

With the completion of the 2022 drilling program, Appia has drilled 278 diamond drill holes totalling 30,737.04 m and tested 22 radioactive zones that contain significant concentrations of rare earth metals and uranium.

1.8 SAMPLE PREPARATION AND QA/QC

Bedrock grab samples and cut channel samples were sent to the Saskatchewan Research Council ("**SRC**") Geoanalytical Laboratory in Saskatoon, Saskatchewan, Canada for preparation and analysis. The SRC laboratory is an ISO/IEC 17025:2005 (CAN-P-4E) certified laboratory for major element and REE analysis. Appia primarily relies on the SRC's whole-rock analysis to provide data for major oxides, and a lithium borate fusion process for complete digestion in determining REE contents. During the course of the project, samples have also been sent to Actlabs, a well-known and an equally certified geochemical facility. Appia has ensured that the sample preparation and analytical procedures used are essentially the same to ensure that the analytical data produced is comparable and of equal confidence. The sample preparation and digestions used ensure that a representative sample is pulverized and all analytes are totally digested (e.g. using a 4-acid digestion for REEs and trace elements and a lithium borate fusion for major elements).

Initially, Appia relied on the SRC laboratory's internal protocols for quality control. Most recently, duplicate and blank samples have been added to the sample stream by Appia – these samples are blind to the lab. Appia's QA/QC protocols are more fully described in Chapter 11 of this report.

1.9 DATA VERIFICATION

WGM's review of Appia's geochemical database for rock and drill core samples indicates that sample location data, related geological information and analytical data are systematically entered into well-organized Excel Workbooks. A comparison of analytical results contained in 29 Certified Certificates from ALS and MSALABS, and representing several thousand samples, to the values for the same samples in Aurania's database, showed no errors. A review of the drill hole database and logs shows them to be robust and reliable.

During the site visits, the Author collected of 33 samples in an effort to closely match as possible samples collected previously by Appia and confirm those results. These included four (4) bedrock samples and 29 drill core samples from four representative drill holes.

The results for rare earth elements ("**REE**"s), uranium, thorium and other trace elements from all WGM's samples match within an acceptable range the values from the comparable samples collected by Appia. Drill hole collar co-ordinates for holes surveyed by Mr. Workman with a handheld GPS unit also matched well with the co-ordinates in the database. Appia's drill core data collection protocols ensure the collection of quantitative data necessary for modelling the mineralization.

As noted, the author was able to visit all of the active target areas discussed in this report and was able to audit and verify a selection of the sample / drill hole locations and exposed mineralization. The author confirmed the location of a random sampling of drill hole and prospect locations, however for reasons of expediency, no attempt was made to visit or confirm every site. The conclusions provided in this report are therefore made under the assumption that Appia's field personnel have accurately reported sample locations and adequately reported their geological context.

1.10 ENVIRONMENTAL AND SOCIAL

Appia and WGM are unaware of any pre-existing environmental liabilities on the Alces Lake dispositions, and based on the lack of a mining history on the Property, there is no reason to believe that continuing exploration and future production would be prevented. Appia's mineral rights are maintained provided that it completes sufficient exploration each year to satisfy the annual assessment requirements specified in the Mining Regulations. Appia must also file its exploration project plans with the Saskatchewan government for approval, and such plans are forwarded to First Nations and other potentially affected parties or communities for comment, however, these groups do not have a veto over Appia's plans. Certain specific conditions may be imposed if the exploration or development project impacts on environmentally sensitive areas including lands such as parks that are set aside for environmental purposes. Local concerns regarding traditional fishing and hunting areas may be considered, however it has not been the practice of the provincial authorities to unnecessarily burden companies seeking to explore for mineral deposits. Subject to the current regulations concerning mineral projects in the Province of Saskatchewan, Appia's rights to the exploitation of mineral resources on its project lands are therefore protected.

In addition to existing regulations, the provincial authorities encourage social engagement with First Nations and other local communities, however it is the sole responsibility of the provincial authorities to ensure that such communities are informed regarding exploration projects. At this time, Appia has maintained an open channel of communications with community leaders however given the location of the project, no conflicts or disputes have arisen.

1.11 CONCLUSIONS

Appia's approach to exploring the Alces Lake project area is sound, developing its exploration approach based on geophysical surveying, prospecting, trenching, sampling and subsequent drilling of the historical Wilson Zone. As other satellite zones are discovered through geological prospecting and radiometric surveying, they are similarly mapped, sampled and drill-tested. Although a structural control on pegmatite-hosted mineralization is evident, the lack of a known single structural control dictates that the exploration of each REE prospect must be approached on a customized basis.

Notwithstanding the foregoing, photographic and petrographic evidence shows the close association between alteration and structure which at Alces Lake manifests itself as faults and shear zones. Both ductile and brittle deformation are present, however mineralization appears to be associated with the brittle phase, and Appia geologists have certainly paid suitable attention to structure in the logging of drill core. Thin sections clearly show monazite as a late mineral phase occurring along fractures and in voids in broken quartz-rich rock, and associated with sericite (potassic) alteration and sometimes with pyrite.

Appia's program has yet to discover a major mine-scale REE deposit, however the large number of high-grade prospects in the Alces Lake area indicates that a substantial REE endowment is present in this area. On a global scale, such occurrences are rare.

The exploration carried out during the period July, 2021 through December, 2022, has yielded a tremendous amount of new data. This needs to be compiled with other exploration data, especially geophysical data and satellite imagery, to identify structurally complex geological settings that have the potential to host a larger deposit. Current global REE demand and politics support Appia's on-going exploration program and the potential for high-grade lenses/zones on the Alces Lake property.

1.12 RECOMMENDATIONS AND PROPOSED EXPENDITURES

WGM believes Appia's highest priority is to examine the existing exploration data to determine how best to apply what has been learned to identify where significant new exploration targets can be developed near surface. This should involve the selection of survey techniques that can identify specific targets rather than general areas of potential. This is especially important given the large size of the Alces Lake property and the large number of targets already identified, with new targets expected from the completion of additional surface exploration.

With perhaps few exceptions, the blind drilling of the down-dip projection of near surface mineralization is seen as high-risk. Although the relationship between REE mineralization and sulphides is variable, IP-resistivity surveying would be a useful means of modelling the structural complexity of the subsurface. It is clear that pyrite was also redistributed during the REE-mineralizing event, and so IP-chargeability anomalies also represent viable targets for drilling; however, Appia'e experience with IP surveying has been mixed because the REE mineralization (monazite) in the subsurface is not responsive to IP. This approach can only be used to model the geology and this alone does not assure the presence of mineralization. Since survey lines must be cut, IP surveying is also expensive and thus should be used sparingly in areas of greatest potential. WGM notes that Appia attempted an IP survey in 2022 and the project was abandoned on the recommendation of the contractor due to challenging surface conditions in maintaining good electrode contact with the ground. In WGM's opinion, this is a contractor issue relating to surface conditions and the use of proper electrodes. Improper electrodes such as stell pins can generate excessive noise. Inadequate coupling between the electrodes and the ground can be overcome through the use of wire mesh electrodes or electrode pots filed with copper sulphate solution.

Over the duration of this project, including the last 4 years of diamond drilling, Appia has accumulated a very large amount of sample data which is recorded in Excel files. The format of the files is complex with separate worksheets for hole locations, survey data, major rock types, structure, mineralization, radioactivity, sulphide, specific gravity and nine separate worksheets devoted to alteration minerals. This approach lends itself very well to 3D modelling of selected parameters, however it impedes an understanding of what the hole encounters. Data in itself is not information. Each hole should be summarized in a plain language, half to full-page compilation identifying the target, explaining how it was drilled, major aspects of the geology encountered, any mineralization that was intersected and the samples taken.

The author has reviewed Appia's proposed program for the next stage of exploration and its associated budget of C$4,000,000. Appia's main focus will be three-fold:

1) Drilling to trace and better delineate the Magnet Ridge area to the southeast following a trend of increasing grade along the western limb of the fold structure in addition to more detailed drilling at Sweet Chile Heat and Diablo where the presence of higher grading mineralization is indicated;

2) reconnaissance mapping, prospecting and sampling along the eastern limb and along the main structural corridor on the new claim blocks to the north and south that have recently been added to the Alces Lake project; and,
3) exploring the western margin of the regional shear zone adjacent to the eastern limb of the fold, along which many of the REE prospects have been discovered.

As a secondary interest, Appia is also formulating a plan to initiate drilling on other radiometric targets (thorium-channel anomalies) due to the close geochemical association of monazite with thorium.

The above-mentioned budget includes an allowance of $800,000 for an airborne gravity gradiometer ("**AGG**") survey over the northern half of the Alces Lake property to improve Appia's understanding of the geology of the central part of the property including the fold nose area. The budget also includes an allowance for approximately 5,000 m of diamond drilling. While rock samples will still be collected for geochemical analysis in a commercial laboratory in accordance with exploration best practices, the field teams will be aided with the use of a portable XRF mineral analyser that will allow Appia's geologists the ability to measure REE contents on-site without the lag-time involved in sending samples to a laboratory and waiting for results.

2. INTRODUCTION AND TERMS OF REFERENCE

2.1 INTRODUCTION

This Technical Report (the "**Report**") has been prepared in accordance with the guidelines of National Instrument 43-101 ("**NI 43-101**") covering Standards of Disclosure for Mineral Projects, Form 43-101F1 and Companion Policy 43-101CP of the Canadian Securities Administrators. The Report was prepared for Appia Rare Earths & Uranium Corp. ("**Appia**") by Watts, Griffis and McOuat Limited ("**WGM**") Senior Geologist, Albert W. (Al) Workman, P.Geo., ("**the author**"). Site visits to the Alces Lake area were carried out by the author who is a Qualified Person ("**QP**") accredited as a member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan ("**APEGS**").

2.2 TERMS OF REFERENCE

Appia requested that WGM prepare this report on the Alces Lake Project ("**the Project**") in accordance with NI 43-101. The Report provides a summary of the results of previous exploration activities which resumed following a hiatus of several years. Since 2021, Appia has continued its drilling program each year. Recent exploration on the Appia property has proven the existence of significant zones of rare earth element ("**REE**") mineralization that are relatively high-grade compared to similar deposits on a global scale. This information is believed by Appia to represent a change that is material to the company.

2.3 SOURCES OF INFORMATION

Reports, personal communications, and data generated by Appia its geologists and its contractors since April 2014, are the primary sources of information in this Report.

The Author visited all of the mineralized zones on the property, freely photographed important features and was not restricted in any way in collecting check samples. A Terraplus RS-125 gamma ray spectrometer was used for guidance purposes in selecting samples for analysis, both from bedrock and from drill core, because the REE mineralization is associated with thorium and uranium.

The main source of information concerning the geology was the report for Appia on the results of the 2019 exploration program authored by Guest, Freeborne and Branning and dated March, 2022 as well as other more recent reports. Presentations and research by various Appia consultants and staff are referenced herein.

The status of the Appia exploration property is taken from the aforementioned report by Guest et al (2022).

Analytical results for the independently collected WGM check samples were provided by the SGS laboratory in Burnaby, British Columbia.

2.4 DETAILS OF PERSONAL INSPECTION OF THE PROPERTY

An initial site visit was made by the author during 20-21 September, 2021 to Appia's exploration camp located at Alces Lake, a short distance north of Lake Athabasca. A second site visit was made to the project during 1-2 August, 2022 following completion of Appia's 2022 drilling program. The author is a Qualified Person in accordance with the definition prescribed in NI 43-101, being a member of the Association of Professional Engineers and Geoscientists of Saskatchewan ("**APEGS**") as well as being a member of the Professional Geoscientists of Ontario. With more than 45 years exploration experience in total, Mr. Workman also has relevant experience having previously worked on granite and felsic volcanic-hosted uranium and REE projects in Saskatchewan, Ontario, Nova Scotia, Nevada and Saudi Arabia.

2.5 UNITS AND CURRENCY

All units of weights and measures are metric. All concentrations reported as percentages are weight-percent measurements. All currency amounts are given in Canadian dollars ("**Cdn$**") unless otherwise specified. Total rare earth element ("**TREE**") or total rare earth oxide ("**TREO**") contents are the sum of the respective elemental or oxide concentrations for cerium, dysprosium, erbium, europium, gadolinium, holmium, lanthanum, lutetium, neodymium, praseodymium, samarium, terbium, thulium and ytterbium. Thulium and promethium contents were not determined as they typically occur in very low traces.

3. RELIANCE ON OTHER EXPERTS

The conclusions tendered in this report are based on the observations and review of WGM's senior geologist, Mr. Al Workman, P.Geo. Subject to its review, WGM has also incorporated descriptions of the regional and local geology from various published sources which are listed in the 'References' section of this report. The discussion of permitting and environmental is based on information provided by Appia and in discussions with its project managers, Mr. Nik Guest and Mr. David Murray.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Alces Lake rare earth (“**REE**”) project is located approximately 34 kilometres east-northeast of Uranium City and 18.5 km north of Lake Athabasca (Figure 1). The Property on which the project is located is centred approximately at UTM co-ordinates 667080E and 6618316 N in Zone 12N. The property covers portions of National Topographic System (“NTS”) index map sheets 74N09 and 74O12.

4.2 PROPERTY DESCRIPTION, TERMS AND MAINTENANCE

In Saskatchewan, mineral exploration permits are referred to as “dispositions” whereas in other jurisdictions such allowances may be referred to as exploration licences or mining claims.

The mineral dispositions are defined by The Mineral Tenure Registry Regulations, 2017, by the Province of Saskatchewan. The dispositions are registered electronically; a legal survey is not required. A searchable mineral disposition map may be accessed on-line at https://mars.isc.ca/MARSWeb/publicmap/FeatureAvailabilitySearch.aspx. This map shows all registered dispositions in the province and details concerning the location, size and good standing dates may be viewed through this portal. Any person seeking to make an application to acquire mineral rights can determine if the area of interest is available. They can also identify the current owner for contact purposes.

Initially, the Appia exploration property consisted of a single mineral disposition (S-112033) with an area of 1,518 ha (3,751 acres) in which the company held a 90% interest with the remaining 10% retained by the original owner, a Mr. Scott Bell. During July-September, 2014-2018 Appia acquired an additional fifteen (15) mineral dispositions totalling 12,816 ha. (31,669 acres). Appia has sole (100%) ownership of these additional mineral dispositions. Together with the historical dispositions, these are summarized in Table 1 and illustrated in Figure 3.

Assessment expenditures required to maintain the claims in good standing during the first 10-year period is currently CDN $15/ha and CDN $25/ha for claims over 10 years in age. Only the original disposition acquired from Mr. Bell (S-112033) has been held for longer than 10 years and is subject to the higher assessment rate.

Table 1
List of Appia Mineral Dispositions of the Alces Lake Property

Mineral Disposition	Area (ha)	Assessment Work (Annual in Cdn. $)	Issuance Date (dd/mm/yy)	Next Review Date (dd/mm/yy)
S-112033	1,518.00	37,950.00	18-01-2011	02-12-2023
MC00011502	870.51	13,057.58	04-07-2018	04-07-2023
MC00011503	1,300.29	19,504.37	04-07-2018	04-07-2023
MC00011504	1,235.16	18,527.42	04-07-2018	04-07-2023
MC00011505	439.93	6,599.00	04-07-2018	04-07-2023
MC00011506	1,413.43	21,201.41	04-07-2018	04-07-2023
MC00011507	506.04	7,590.60	04-07-2018	04-07-2023
MC00011508	886.17	13,292.48	04-07-2018	04-07-2023
MC00011509	129.78	1,946.64	04-07-2018	04-07-2023
MC00012338	447.73	6,715.91	15-08-2018	15-08-2023
MC00012339	625.63	9,384.44	15-08-2018	15-08-2023
MC00012359	1,076.77	16,151.61	29-08-2018	29-08-2023
MC00012365	884.61	13,269.11	29-08-2018	29-08-2023
MC00012366	1,332.68	19,990.19	29-08-2018	29-08-2023
MC00012369	1,141.64	17,124.60	29-08-2018	29-08-2023
MC00012386	525.50	7,882.55	04-09-2018	04-09-2023
MC00014133	1743.665	26154.98	02-07-2020	02-07-2023
MC00014134	1499.827	22497.41	02-07-2020	02-07-2023
MC00014996	1827.888	27418.32	09-08-2021	08-09-2023
MC00014997	2671.655	40074.83	09-08-2021	08-09-2023
MC00014998	357.006	5355.09	09-08-2021	09-08-2023
MC00014999	1432.942	21494.13	09-08-2021	09-08-2023
MC00015000	692.805	10392.08	09-08-2021	09-08-2023
MC00015001	67.142	1007.13	09-08-2021	09-08-2023
MC00015014	1727.952	25919.28	16-08-2021	16-08-2023
MC00015015	1577.534	23663.01	16-08-2021	16-08-2023
MC00015016	989.894	14848.41	16-08-2021	16-08-2023
MC00015017	394.902	5923.53	16-08-2021	16-08-2023
MC00015018	1964.026	29460.39	16-08-2021	16-08-2023
MC00015019	1602.346	24035.19	16-08-2021	16-08-2023
MC00015020	1178.038	17670.57	16-08-2021	16-08-2023
MC00015021	1620.726	24310.89	16-08-2021	16-08-2023
MC00016773	1754.349	26,315.24	03-02-2023	03-02-2024
MC00016783	34.151	512.27	03-02-2023	03-02-2024
MC00016791	1051.720	15,775.80	03-02-2023	03-02-2024
TOTAL = 32	**38,522.44**	**593,016.46**		

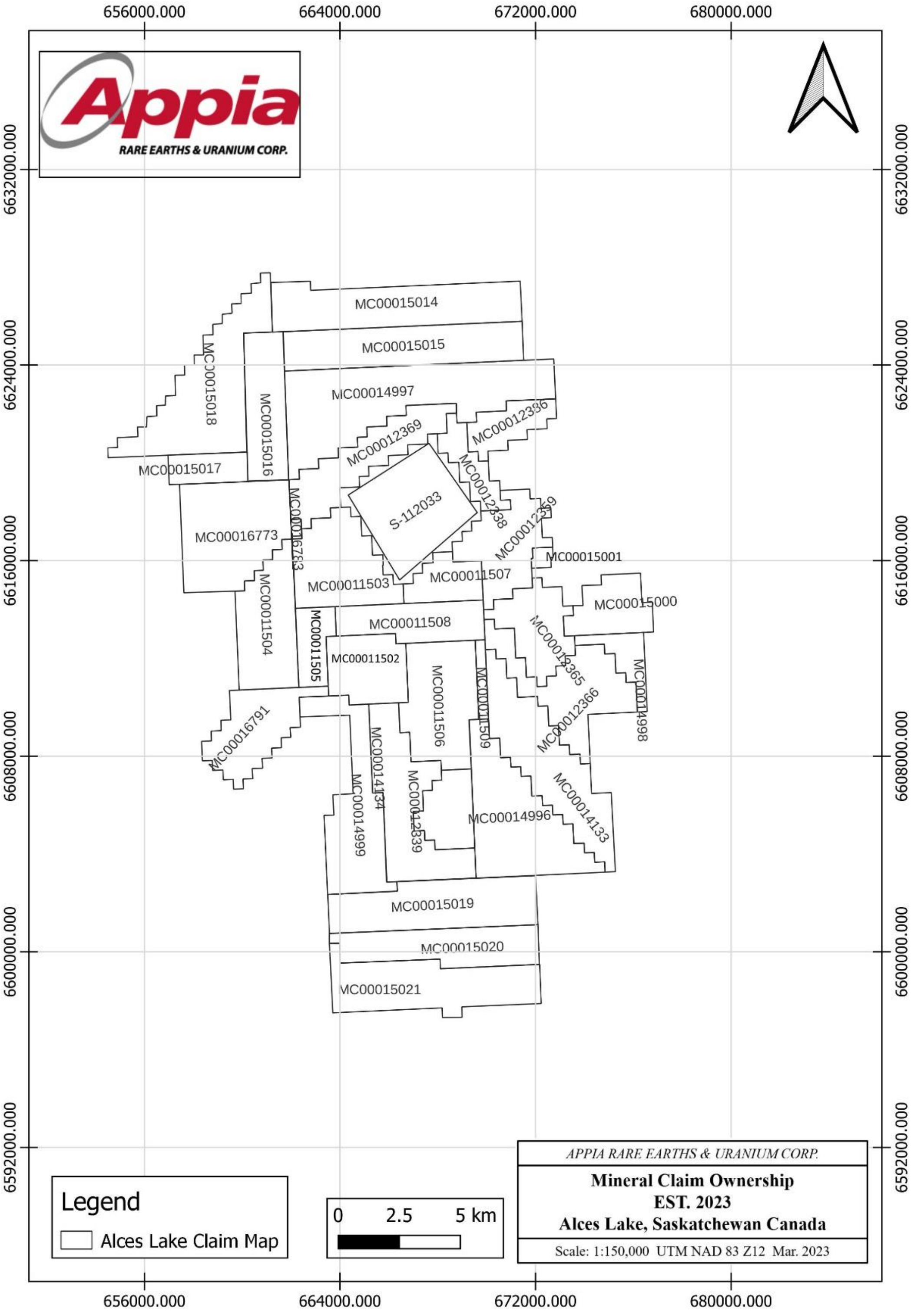

Figure 3: Map showing the arrangement of exploration dispositions (licences) comprising the Alces Lake Project.

4.3 SASKATCHEWAN MINING LAW

In Canada, mineral rights are most commonly owned by government entities on land that is referred to as "Crown Land". Private individuals or corporations also own land, referred to as "Freehold Land" which may in some cases include underlying mineral rights. Across Canada, approximately 89% of the land is Crown Land, the remainder being Freehold Land. Mineral rights fall under the jurisdiction of provincial governments that establish laws and regulations that govern the process for individuals and companies to acquire and maintain mineral rights.

The Crown Minerals Act (C-50 and subsequently amended) of Saskatchewan can be downloaded from the internet at https://publications.saskatchewan.ca/#/products/453. Guidelines governing how licence-holders should operate in the Province are found on-line at: http://saskmining.ca/ckfinder/userfiles/files/BMP%20August%202016_Draft.pdf. These two documents provide a relatively complete framework of how mineral projects can be initiated and sustained in the Province of Saskatchewan. Other federal and provincial acts and regulations also have effect, such as those governing national parks, navigable waterways, wildlife and the environment.

In the province of Saskatchewan, mineral dispositions require a specified amount of expenditure at a rate of $15.00 per hectare. No expenditures are required in the first year following acquisition, however the expenditure requirements must be completed by the second anniversary date and filed with the authorities within 90 days. Extensions may be granted upon request and payment of a non-refundable deferral fee of $250.00 per disposition plus a refundable deposit of $0.041 per hectare per day of the deferral. Failure to complete the required work within the required timeframe results in forfeiture of the deposit.

The provincial government has established a framework, the First Nation and Métis Consultation Policy, which establishes a legal duty for the provincial government to consult with and accommodate First Nation and Métis communities in advance of any decisions or actions regarding mineral exploration and development projects that have the potential to adversely impact the exercise of:

(1) Treaty and Aboriginal rights such as the right to hunt, fish and trap for food on unoccupied Crown land and other land to which a community has a right-of-access for these purposes; and,

(2) Traditional uses of land and resources such as the gathering of plants for food or medicinal purposes and carrying out ceremonial or spiritual observances and practices on unoccupied Crown land and other land to which a community has a right of access for these purposes.

The duty to consult falls on the shoulders of the government, and it is triggered when a company submits a plan relating to a mineral (or other) project with the potential to impact the community. As part of this process, mineral project proponents are encouraged to voluntarily engage with First Nation and Métis communities to establish a working relationship to allow for the proactive exchange of information, including potential impacts and opportunities, that can be carried through the life-cycle of the project.

The exploration programs completed by Appia have been in areas that lack any existing or historical First Nation or Métis community. Since March 2021, Appia has engaged Dr. John Belhumeur as its independent advisor in respect to First Nations, Métis and Government relations associated with exploring its Alces Lake property. Dr. Belhumeur is well qualified having spent over 30 years as a consultant for Aboriginal affairs with regard to resource project development and bridge-building between Aboriginal citizens, resource companies, and various levels of government. In having Cree /Ojibwa ancestry, Dr. Belhumeur understands the role of traditional knowledge in protecting the environment, ensuring sustainable mineral development and the need for employment opportunities within stakeholder communities, policies that Appia supports and applies to its field operations.

4.4 TAXES AND ROYALTIES

Appia’s Alces Lake exploration property is not subject to tax or royalty payments.

5. ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

Access to the Alces Lake project area is provided by chartered float-plane services by McMurray Aviation out of the airport at Fort McMurray, Alberta situated about 390 km to the southwest. Float plane services to the Property is also possible by Transwest Air out of Stony Rapids. Both Fort McMurray and Stony Rapids have year-round by scheduled flight services. Stony Rapids is accessible year-round via Highway 905 which is maintained by the provincial government, but it is periodically subject to restrictions based on winter snow conditions. Alternative indirect access can be arranged through charter flights to Uranium City which has a 1,200 m runway but currently lacks scheduled passenger services. It is located near Ace Lake about 30 km to the west-southwest of the Alces Lake property. Personnel and equipment must then be transported to the Appia camp by helicopter.

There is no summer or winter road access to the Alces property. Several unpaved bush roads extend to within approximately 20 km of the project site. During the winter months, an ice-road is established between Stony Rapids and Uranium City. The Saskatchewan Department of Highways and Transportation oversees the safety and jurisdictional authority of the ice-road. The ice-road is typically open to public transportation from early-February to end-March, depending on weather conditions.

5.2 CLIMATE

The Project is located within the Taiga Shield Ecozone, an area of northern boreal forest that experiences long, cold, snowy winters, brief transitional periods, and cool and humid summers. Tree cover averages approximately 80% and is composed of black spruce and jack pine. Low-lying protected areas along drainages are commonly populated by tamarack and birch.

Temperatures in the area average between 14°-17°C during June through August. From November through March, the average temperature is sub-zero, the coldest month being January when the temperature averages -24°C. Snowfalls can be quite variable and heavy at times although mean average annual accumulation is only 65 cm. Wind speeds generally average greater than 10 km/hour with slightly less wind during the period November through

January. Strong winds exceeding 20 km/hour are uncommon. The summer solstice produces nearly 19 hours of daylight whereas the winter solstice delivers only 6 hours of sun.

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

Uranium City, with a population 72 (2020), offers permanent housing, limited supplies and some equipment repair services, however for greater choice and reliability of supply, Appia's project is supplied by regular flights out of Fort McMurray and delivered directly to the camp by floatplane. The Appia camp is located at UTM coordinates 667925 E and 6620575 N (NAD83, UTM Zone 12N). The camp includes lodging for personnel, a fully equipped kitchen, dry, showers and laundry, toilet facilities, office facilities, a satellite tele-communications system, a service garage, several core logging enclosures and a separate enclosure for cutting drill core and bagging samples. The helipad and fuel storage area is adjacent to the camp. The camp is capable of supporting year round exploration activity.

During the course of the project, Appia's camp is supported by chartered Grand Caravan aircraft equipped with floats / skis from Fort McMurray, Alberta. Helicopters are used during every operational period to shuttle fuel and waste to and from Uranium City for the operation of camp infrastructure and equipment. Alternative aircraft that are available include Twin Otter float planes operated by Transwest Air out of Stony Rapids.

With the provision of food and fuel, the camp is well equipped with a water purification system that provided hot and cold running water 24/7 and a satellite dish that provides telephone an internet service. The camp is fully equipped with first aid, fire and bear-deterrent provisions to provide for a safe workplace.

5.4 PHYSIOGRAPHY

The Property area is characterized by numerous hills and valleys occupied by rivers, streams and lakes creating a rolling and at time rugged landscape which is typical of the region east of Uranium City. The Alces Lake waterbody and feeding river systems drain into the Oldman River, and thence south to Lake Athabasca where waters continue into the Slave River system that flows into Great Slave Lake in the Northwest Territories.

Watercourses including muskeg-covered areas are generally at an elevation of 370 to 375 m asl. Relief over short distances is typically less than 100 m with slopes very rarely exceeding 30-40 degrees. Some hills rise upwards of 100 to 150 m above base (lake) levels.

Glacial till extensively covers the bedrock and even steeply sloping hillsides can lack outcrop exposure due to overburden accumulations, nevertheless bedrock exposures are generally quite common. The ability to easily distinguish the rock types is difficult due to algal mat and lichen growth.

The Property occupies land within the Northern Provincial Forest of the Saskatchewan Crown Forest Areas. Vegetation is softwood common to a northern boreal forest. The most common trees are jack pine and black spruce, with few poplar and birch clusters, while tamarack, stunted black spruce, willow and alder are most common in the lower wetland areas. Poplar, birch and tamarack tend to occur in valleys that offer access to water and perhaps some protection during severe winter months. Ground cover comprises primarily sphagnum moss, reindeer lichen, Labrador Tea, and other various shrubs. Thick brush and deadfall are commonly encountered in areas that have been affected by forest fires. Generally, the trees are all small in size but local patches of heavy timber have been encountered.

6. HISTORY

The Appia project is located approximately 25 km east of the famous Beaverlodge uranium mining centre. Within the region, 284 uraninite (a.k.a. 'pitchblende') occurrences were known by 1969, of which 36 were explored underground with 16 of them advancing to a mining operation. Uranium mineralization occurs predominantly as vein-type systems localized in shears and faults but includes fracture-fillings or disseminations, or as a combination of both, with pitchblende as the main uranium-bearing mineral. Some of the uranium mines were significant. In the 1950s, the Lost Mine shipped 103,408 tonnes of ore to the Lorado Mill from which was recovered 223,574 kg (492,896 lbs) of U_3O_8. During eight years of operation in the 1960s, the Gunnar Mine processed approximately 4,988,500 tonnes of ore with an average grade of 0.175% U_3O_8 containing more than 19.2 M lbs of U_3O_8. The Eldorado-Ace-Fay Mine produced in excess of 19.2 tonnes (42.4 M lbs) of U_3O_8. The total production from the Beaverlodge vein systems from 1953 to 1982 was 22,467,229 kg of U3O8 (Potter, 2021).[2]

The uranium deposits in the Beaverlodge camp were recognized as carrying anomalous REE mineralization in ratios similar to those found in the leucogranite host rocks. Total REE contents ranged from 20 ppm to 2,595 ppm, however, at the time of mining there was no interest in REE's due to the relatively small market for such metals.

During the 1950s, the Alces Lake area was subject to geological mapping, prospecting, ground radiometric surveying, minor trenching and limited diamond drilling. A few companies such as Goldfields Uranium Mines Ltd., Fargo Oils Ltd and J.H. Wilson, carried out exploration programs; however, the Beaverlodge area near Uranium City was main focus of exploration and mining activity in this region.

A second period of uranium exploration occurred between 1966 and 1968 consisted of an airborne radiometric survey and ground prospecting by Numac Oil & Gas Ltd. This coincided with airborne surveying activity over the Athabasca Basin by the Dynamic Group in the search for sandstone-hosted (roll-front) uranium deposits. This program was ultimately carried forward by Gulf Minerals and its partners resulting in the discovery of the Rabbit Lake unconformity-type uranium deposit. Numac's airborne survey in the Alces Lake area resulted in the detection of 287 anomalies that led to the discovery of 79 radioactive occurrences. These were subsequently revisited by Wilson who trenched the better showings and discovered

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[2] E.G. Potter, 2021, **Geochemistry of uranium-bearing veins from the Uranium City-Beaverlodge district, northern Saskatchewan**, Geological Survey of Canada Open File 7873.

radioactive pegmatites which were named the "SCRUB" showing. However, the principal metal of interest was uranium and no significant value was given to rare metal mineralization.

During 1975, SMDC explored for the continuation of uranium deposits along the eastern strike of the St. Louis Fault, a major control on uranium mineralization in the mines in the Beaverlodge area. SMDC used water and lake sediment geochemical sampling together with VLF-EM techniques over the Alces Lake water body. The program failed to identify mineralization of economic significance. While exploration continued in the Uranium City area, principally for gold and uranium, the areas to the east saw no significant activity through the remainder of the 1990s.

During the summer of 2010, the Saskatchewan Geological Survey completed sampling and geological mapping in the area of the J.H. Wilson discovery trenches. The exploration program verified the existence of high-grade rare earth elements ("**REE**"s) from the old trench blasts, but also discovered some new outcrop showings. Samples taken from the trenches contained as much as 28.9% total REEs with spectrometer readings as high as 53,500 total counts per second ("**cps**") from the old trench areas (Normand, 2010). During October the following year, Appia Energy Corp. and Mr. Scott Bell initiated exploration in the Alces Lake area with a helicopter-supported prospecting program in the area of the Wilson trenches that were previously resampled by Wilson. Appia's exploration program is described in detail in the following chapter of this report entitled "Exploration".

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGICAL SETTING

The Alces Lake area lies north of the Athabasca Basin and approximately 25 km east of the historic Beaverlodge uranium mining centre. The project area lies within the Beaverlodge Domain of the Rae Craton, located in the western Churchill Province of the Canadian Shield. It is also 50 km south of the Hoidas Lake REE deposit. Bedrock geology underlying the property belongs to the Murmac Bay Group, an assemblage of quartzite, mafic volcanic, minor carbonate, komatiitic rocks and psammite to pelite (Ashton et al., 2001). Regional deformation has created an early migmatitic to gneissic foliation (S1), an early set of isoclinal folds (F2) trending east-southeast, local northwest-trending folds (F3), northeast-trending folds (F4), and minor north-trending late folds (F5).

7.2 LOCAL GEOLOGICAL SETTING

Four lithological groupings are present on the Appia property which from oldest to youngest represent: S-type granitic gneiss dated 3.0-2.7 Ga, granitic to granodioritic gneiss dated 2.6 Ga, the Murmac Bay Group, a psammo-pelitic assemblage including quartzite and amphibolite dated 2.3-2.1 Ga, and a leucogranite/leucogranodiorite group dated 1.93 Ga. The geology of the area within which Appia's exploration has focused is illustrated in Figure 4.

The Murmac Bay Group is Paleoproterozoic in age and is the most extensively exposed formation; it is composed of foliated to schistose and medium to coarse grained rocks. Up to 30% of the rock volume is composed of foliation-parallel, 2-5 mm thick quartz bands interspersed within metre-scale layers of quartzo-feldspathic gneiss containing up to 25%, centimetre-sized garnet. Micaceous minerals commonly replace garnet; muscovite is locally abundant. Quartzite layers, 20 cm to 6 m thick occur locally throughout the psammo-pelitic gneiss. Grey-pink biotite-chlorite gneiss is also present and contains minor, 1-20 m thick, rusty, schistose biotite-chlorite-sillimanite-pyrite-graphite layers. Massive quartzite layers (Bmq unit), have apparent thicknesses between 50 and 160 m are present at three locations. The quartzite is medium grained, in shades of grey to white, and is composed of >90% quartz, <3% hornblende and trace amounts of pyrite and garnet with variable feldspar proportions. An amphibolite unit (Bmm) was observed with or near quartzite at several locations. Large bodies of grey-pink, medium-grained, strongly foliated granitic gneiss containing 20 to 25% biotite and pyroxene is present locally in the psammo-pelitic gneiss.

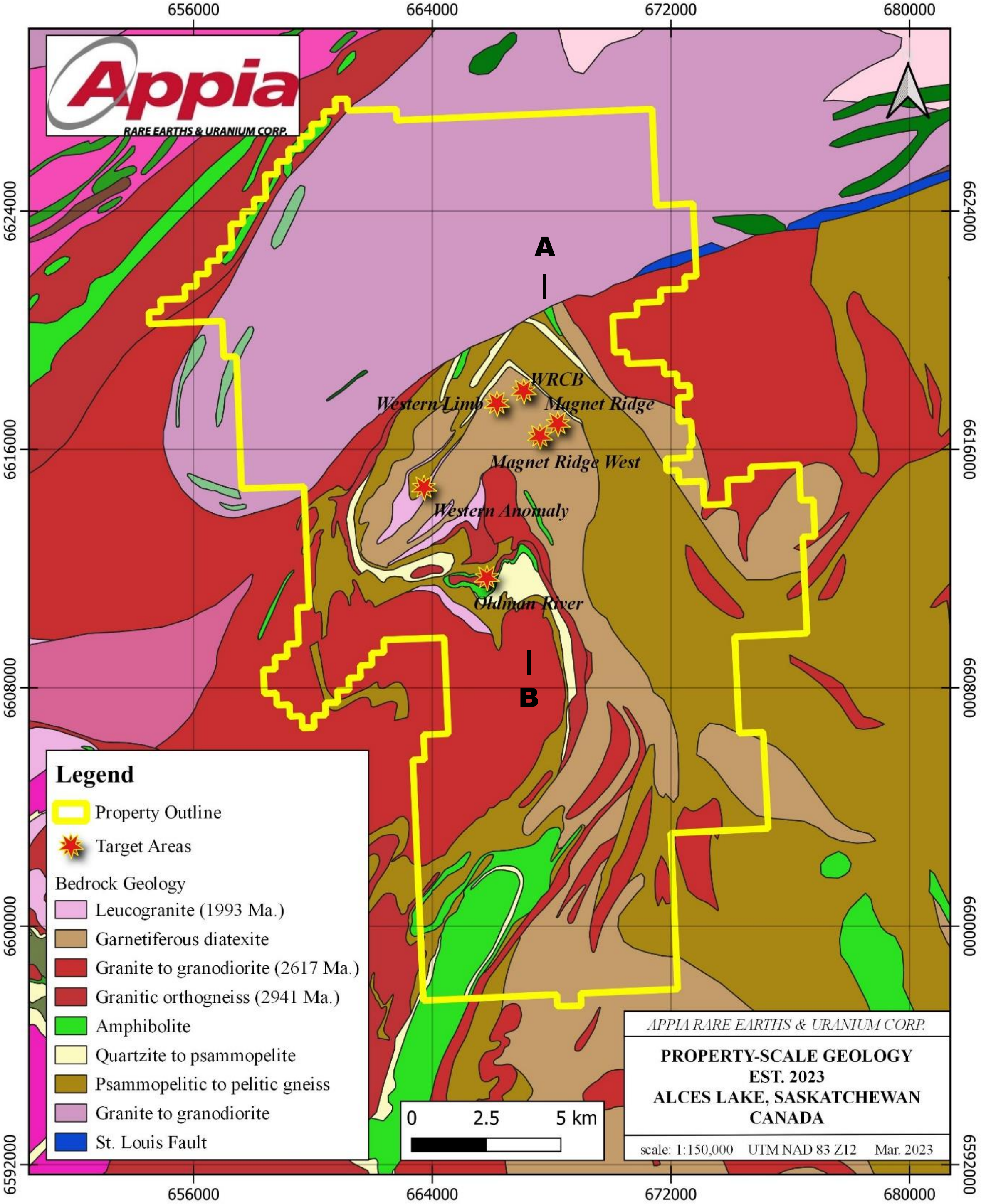

Figure 4: Regional Geology of the Alces Lake Project. The fold axis can be approximated along A-B.

The granitic to granodioritic gneiss (BMx) is thought to form the core of a major, south-plunging regional synform having a north-south axial trace. Although this may be true at a regional scale, structural measurements by Appia in the hinge of this purported structure are inconsistent with this interpretation. Many foliation measurements are parallel to the axial trace in the reported hinge, but the BMx contacts with surrounding rocks are perpendicular to this trace. It is clear that the borders of the synform are delimited by faults. The rocks of this group comprise a complex assemblage of lithologies which include:

- fine- to medium-grained, massive, pyroxene-rich rocks that contain trace pyrite;
- medium-grained, purplish grey-green, biotite- and garnet-rich gneiss containing approximately 0.5% pyrite;
- cream-coloured to grey, coarse-grained garnet diatexite;
- grey, medium to coarse-grained, strongly foliated biotite-muscovite psammo-pelite that contains on average 50% quartz, 30% biotite and 1-7% garnet; and,
- altered, red feldspathic gneiss that contains 7-15% biotite and 10% garnet partially replaced by chlorite, <5% quartz and 0.5-3% pyrite associated with monazite mineralization.

The youngest group is composed of late, grey-pink, medium to coarse-grained, homogeneous, massive to very weakly foliated leucogranite containing 30% quartz and 40-50% K-feldspar. This unit (Blg) crops out at the western end and on the south side of Alces Lake. The granite is in sheared contact with psammo-pelites on the east side. A zone of cherty, resinous brown to reddish-tan ultramylonite separates the granite to the north from the psammo-pelitic gneiss to the south. The 108°/43°S gneissosity (S1) exhibited by rock units south of Alces Lake is the earliest foliation and generally strikes north-northeast to north-northwest. Three generations of foliation have subsequently overprinted the primary gneissosity:

- a rarely seen S2 striking SE to SSE that forms irregular, millimetre-spaced cleavage planes cutting S1 in quartz-rich psammopelitic gneiss;
- a 3rd generation NNE to NE foliation (S3) that is steeply dipping and defined by reorientation of mineral grains in gneiss layers;
- a 4th generation ENE foliation (S4), commonly associated with shear zones, that is represented by a steeply dipping cleavage planes that cut all older foliations

Four thermo-tectonic events have been recognized in the Beaverlodge Domain (Bethune et al, 2013):

Arrowsmith Orogeny	2.4 – 2.3 Ga
Thelon-Taltson Orogeny	1.99 – 1.93 Ga
Trans-Hudson Orogeny	1.9 – 1.8 Ga
NE-trending brittle faults	1.78 Ga

The Arrowsmith Orogeny is recognized as a collisional event resulting in granulite facies conditions. Only the orthogneiss found in the region is old enough to have recorded this event based on monazite age dating. There is little evidence of this event that can be seen visually. The Thelon-Taltson Orogeny was progressive, peaking at granulite facies and causing displacement along the basement-cover unconformity (orthogneiss-paragneiss contact), tight folding about upright NNW-trending axes and development of schistosities S0/S1/S2 transposing the foliation that dominates the domain. The Trans-Hudson Orogeny resulted in tectonism along the Snowbird Tectonic Zone consisting of dextral transpression and movement along the Black Bay Fault. Ductile deformation of mineral grains occurs towards these shear/fault zones.

Appia has identified REE-bearing and barren pegmatites occurring with lit-par-lit geometry that is manifests itself in both gradational and sharp contacts, commonly cross-cutting the gneissic foliation. These pegmatites are typically 020° to 060° striking and dip 60°-75°SE. Appia has commonly observed S-folds and other variations in the foliation as well as extensive areas of hematite, limonite and chlorite alteration, especially near the Wilson zone and trending toward the Hinge zone. Hematite is prevalent within large patches of biotite-rich pegmatites, and commonly filling voids and cracks within broken feldspars and quartz. Limonite typically replaces hematite as is observed within the Wilson zone trenches (Sykes, 2020). Retrograde chlorite alteration was limited to replacement of biotite (Farkas, 2018).

Appia’s understanding of the geology and the distribution of mineralized zones has been improved through the use of magnetometer and gravity surveying, and inverse modelling. As a result, new geological units / zones were identified based on their respective and contrasting geophysical characteristics. Major litho-structural controls on the location of mineralization have been identified at various scales from lineament analysis of magnetic/gravity/radiometric images superimposed on geological maps (Poliakovska, Annesley and Sykes, 2020). This approach has allowed Appia to constrain its exploration to zones defined by specific geophysical responses, and then focused on targets characterized by higher radiometric profiles.

7.2 MINERALIZATION

7.2.1 INTRODUCTION

Mineralization occurs in a variety of settings. On a regional scale, rare earth element ("**REE**") mineralization occurs along the limbs of large-scale folding of the country rocks within a district-scale (10s of kms) re-folded synformal anticline. The anticline's eastern limb hosts many of the major REE-bearing zones. This limb is bordered by a 30-40 km long, deeply rooted NW-trending shear zone/fault corridor. Ductile-brittle to brittle 060° to 090°-trending faults cross-cut this corridor. On a local to outcrop scale, prospective REE zones/deposits at Alces Lake are controlled by shear zones, faults, and folds in combination with lithological contacts and changes in rheological behaviour. These features control the emplacement of residual pegmatite and monazite deposition. REE's are present in the pegmatites as well as in polyphase anatectic pods/boudins/zones (residual crustal melts) along/near major lithological transitions (Poliakovska et al, 2022; Sykes et al, 2018; Poliakovska et al, 2020).

The dominant host rock to REE mineralization, predominantly as monazite, is biotite-rich, quartzo-feldspathic pegmatite dikes/sills. Where exposed, bodies of pegmatites both follow and cross-cut the regional gneissosity. The temporal relationship is very clear – the pegmatites were emplaced under ductile to ductile-brittle during waning metamorphic conditions. In some zones, the pegmatite shows ductile folding or boudinage structure whereas in other prospects the deformation is along linear features and purely brittle. The structures into which they were emplaced underwent a subsequent reactivation resulting in brittle deformation and voids into which monazite was deposited followed by a period of retrograde alteration.

Although monazite is closely associated with biotite and muscovite, is also frequently occurs overprinting and/or cemented by quartz and feldspar (Sykes, 2020). Monazite typically comprises as much as 15% to 20% of the rock volume and in some cases as much as 85% as in the Ivan Zone. It occurs as euhedral to subhedral, orange to red crystals, locally occurring as 1-15 cm thick massive lenses and fist-sized bodies of millimetre-sized grains within the biotite schists and quartzo-feldspathic pegmatites. The larger bodies can be associated with quartz-feldspar accumulations. These pegmatites commonly show REE concentrations with grades ranging from 1.077% to 54.45% total rare earth oxides ("**TREO**"s). Typical paragneiss country rock returns total REO contents in the range of 0.01% and 0.90%.

Cerium is the predominant REE with percentages up to 21.80% total rock sample, therefore the monazite can be classified as Ce-monazite. The monazite crystals share a uniform distribution and high concentration of critical REEs, such as neodymium ("**Nd**"), up to 8.14% of the REEs, and praseodymium ("**Pr**"), up to 2.46% of the REEs.

The monazites are also enriched with Th with weight-percentages as high as 6.83% ThO_2. Lesser concentrations of uranium are also present ranging from trace levels as high as 0.18% U_3O_8. Uranium tends to substitute for Th within the monazite structure. Zircon is also present within biotite schists and quartzo-feldspathic pegmatites and occurs as rounded to subhedral crystals measuring up to 0.6 mm in diameter; most of these crystals display strong concentric zoning and many contain a rounded, homogeneous core of earlier zircon. Zircon contents are more variable than monazite, with grades ranging from 1 ppm to 19,300 ppm Zr.

7.2.2 WILSON-RICHARD-CHARLES-BELL ZONE

The Wilson-Richard-Charles-Bell ("**WRCB**") has been the focus of much of the historical activity on the Appia property. The zone comprises four sub-zones which define the WRCB as named above. These zones are located along the trace of a strong topographic lineament marking a fault corridor. REE mineralization occurs in pegmatite bodies that have a lit-par-lit geometry within the sheared gneiss host rocks. The highest grading REE mineralization resides in the Wilson and Charles Zones. The Richard and Bell components are relatively lower grading and thinner extensions. Typical mineralization is shown in Plates 1-6.

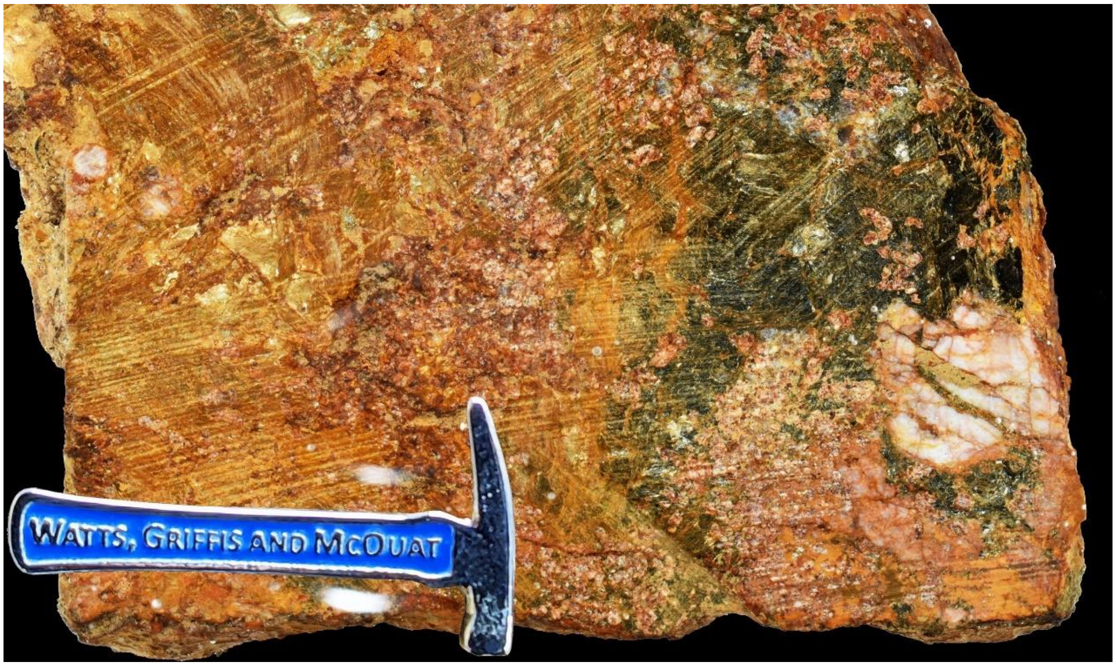

Plate 1: Photo of brecciated Fe-stained pegmatite on SE-trending shear in the Wilson Zone

Plate 2: Photo of brecciated pyrite-bearing pegmatite in the Charles Zone

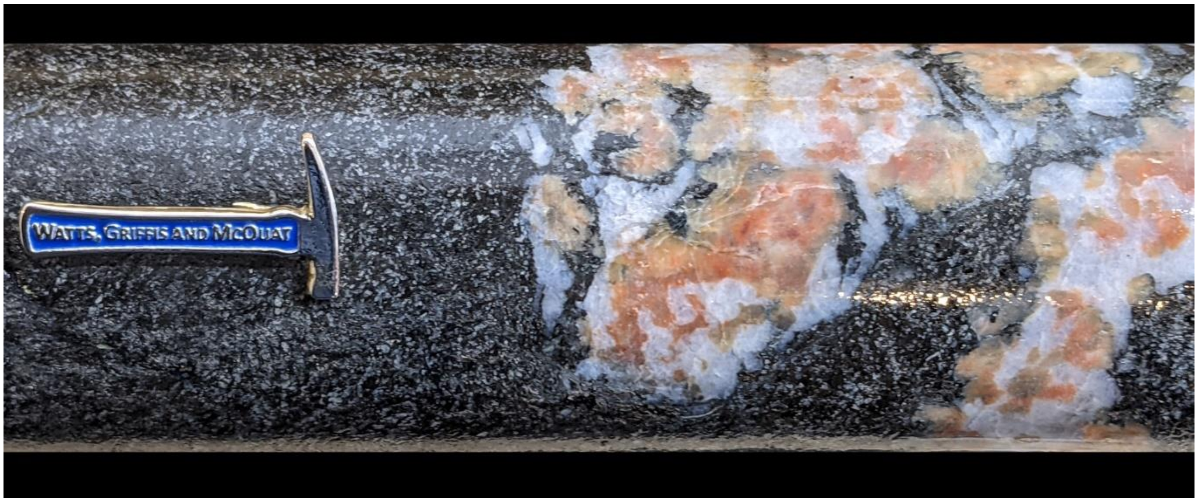

Plate 3: Photo of biotite schist with small pegmatite bodies in the Richard Zone - monazite is present in biotite-filled fractures. Radioactivity = 7,600 counts per second (total). DDH RI-19-001 at 18.0 m

Plate 4: Photo of typical Wilson-Richard-Charles high-grade zone. DDH 21-WRC-016 within section 50.15-40.50 m (in sample #2655 containing 12.83% total rare earth oxides). Sheared and brecciated zone - pink areas are semi-massive monazite with ~5% finely disseminated pyrite. Total count radioactivity = 9,000 to 10,000 cps. (3 cm hammer scale).

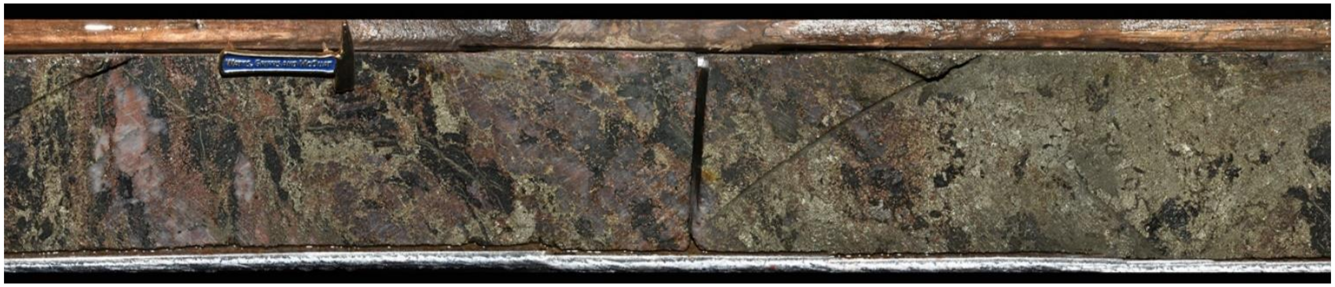

Plate 5: Continuation of above: DDH 21-WRC-016 within section 40.50-40.88 m in sample #2655 assaying 12.83% total rare earth oxides). Sheared / brecciated zone - pink areas are semi-massive monazite with coarse pyrite as a void-filling phase. Some original pegmatitic quartz-feldspar boudins. Total count radioactivity = 4,000 to 6,000 cps. (3 cm hammer)

Plate 6: Continuation of above: DDH 21-WRC-016 within section 40.88-41.32 m in sample #2656 assaying 7.34% total rare earth oxides.). Strongly sheared and brecciated zone - pink areas are fine-grained monazite with poikiloblastic pyrite as a void-filling phase. Some original quartz-feldspar boudins. Total count radioactivity = 4,000 to 7,000 cps. (3 cm hammer scale)

The Wilson Zone component of the WRCB consists of five internal components referred to as the “Northwest”, “North”, “Central”, “South-Central” and “South” segments. They are found along a continuous structural feature that is continuous with the Wilson, Richard, Charles and Bell zones (Figure 5). The Northwest area has only been grab sampled (12,033 ppm TREE based on five samples) whereas the other portions have been channel sampled. A total of 39 profiles were channel sampled of which 31 produced average TREE contents that are of potential economic importance. They are summarized as follows:

79,035 ppm / 1.80 m
55,402 ppm / 2.70 m
94,915 ppm / 4.69 m
79,277 ppm / 2.70 m
120,977 ppm / 1.81 m
21,909 ppm / 5.31 m
52,254 ppm / 3.77 m
62,059 ppm / 3.46 m
9,362 ppm / 7.06 m
4,906 ppm / 1.40 m
6,444 ppm / 4.50 m
34,519 ppm / 1.80 m
23,671 ppm / 4.34 m
38,951 ppm / 5.22 m
46,629 ppm / 4.09 m
67,926 ppm / 1.62 m
42,579 ppm / 8.11 m
46,039 ppm / 4.11 m
29,976 ppm / 6.54 m
5,884 ppm / 1.00 m
6,488 ppm / 1.50 m
8,539 ppm / 2.80 m
42,910 ppm / 5.77 m
23,983 ppm / 3.93 m
119,527 ppm / 4.75 m
67,628 ppm / 5.97 m
52,440 ppm / 4.13 m
66,564 ppm / 1.61 m
23,913 ppm / 6.08 m
4,983 ppm / 1.40 m
14,132 ppm / 4.29 m

All better mineralized channel samples have a weighted average grade and width of 42,557 ppm TREE across 3.80 m. If the additional eight less well mineralized channel profiles are included, the average TREE grade decreases to 39,263 ppm with an average width of 3.29 m.

Diamond drilling of four short 22.2-47.5 m holes during 2018 amounted to an aggregate length of 138.2 m. The best intersection was in drill hole WI-18-004 which produced a 1.05 m interval from 16.80 to 17.85 m grading 15.47% TREO. During 2020, extensive hematite, limonite and chlorite alteration was mapped along a trend leading towards the Hinge Zone. Bodies of biotite-rich pegmatite contained pervasive hematite commonly filling voids and fractures in feldspar and quartz. Limonite replaced hematite in more highly oxidized rocks. Chlorite occurs as a replacement to biotite. Follow-up drilling resulted in the completion of 5 additional deeper holes (165.9-233.8 m) to maximum vertical depths of 195 m (avg 135 m). Multiple REE-bearing zones were intersected in all the holes although average grades were lower than the near-surface holes. WI-20-005 returned the best results with two intersections, 0.35% TREE over 2.45 m and 0.51% TREE over 5.85 m. The 10 main intersections in the 5 holes produce an average intersection of 0.33% TREO over 2.8 m. Mineralization in the Wilson Zone predominantly occurs within 85 metres of surface.

The WRCB Zone was tested with a total of 111 diamond drill holes totalling 13,730.72 metres. A cross-section of the Wilson-Richard Zone is found in Figure 6 which also shows the AMP Zone in the structural footwall. In comparing the near surface drilling from 2019 to the deeper drilling in 2020, it is clear that either the grade of the Wilson Zone decreases with depth or the zone has an unidentified lateral plunge that has not been intersected in the deeper holes.

Initially, the Richard Zone component of the WRCB was only grab sampled on surface and reported a single value of 4,040 ppm TREE. During 2019, it was tested by two holes RI-19-001 and RI-19-002, 61.8 m and 30.2 m in length, respectively, of which the first hole produced a 7.5 metre intersection of 8.72% TREO at 11.2-18.7 m. Five holes were completed in 2020 ranging in length from 23.8 to 26.9 m (RI-20-003 to '-007). These holes targeted a conductivity-high feature detected in the IP surveying conducted over WRCB. RI-20-004 produced a 5.8 m intersection at 7.6-13.4 m averaging 6.55% TREO.

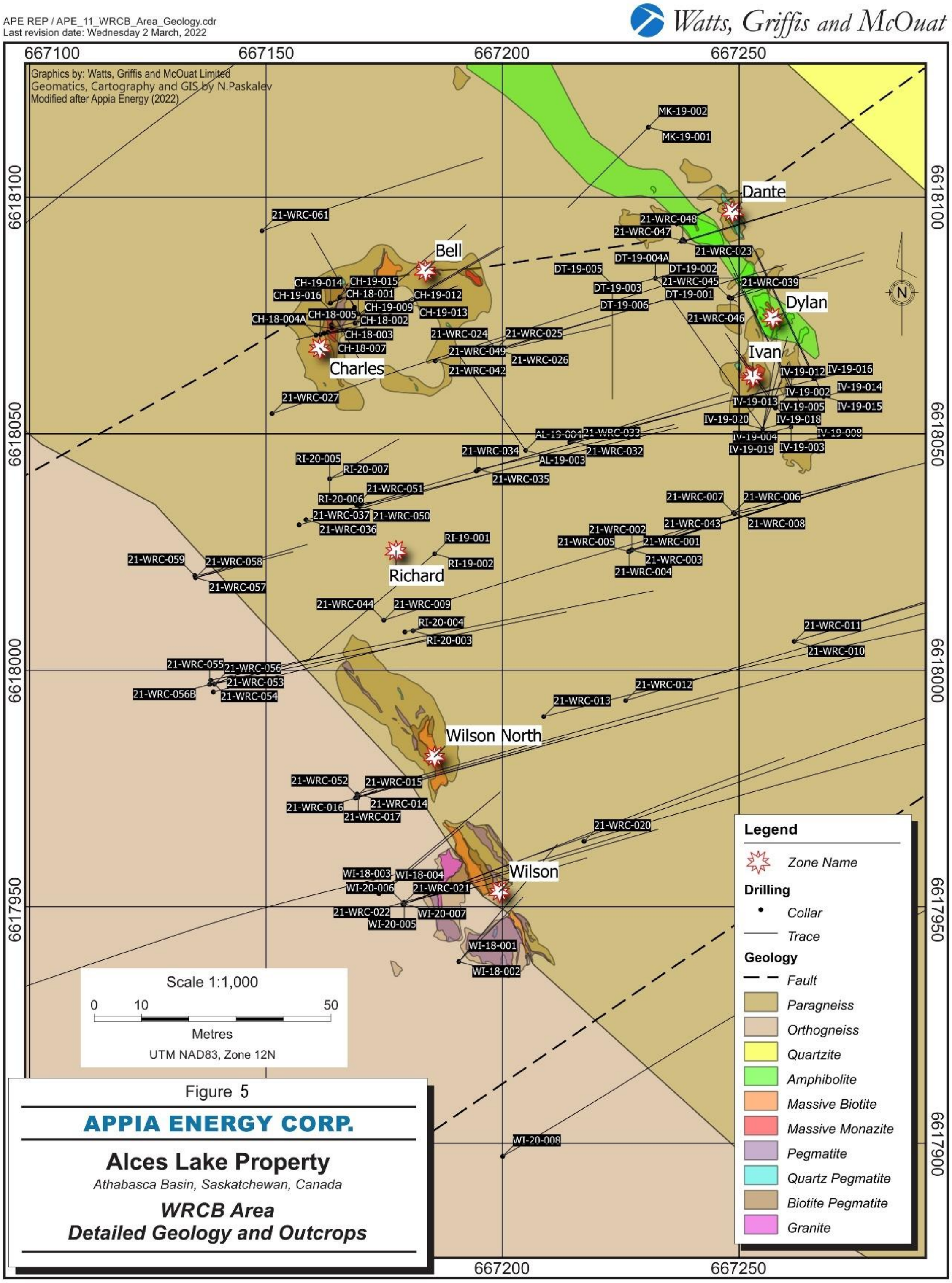

Figure 5: Geology of the Wilson-Richard-Charles-Bell Zones in relation to other REE-bearing zones and showing drill hole locations.

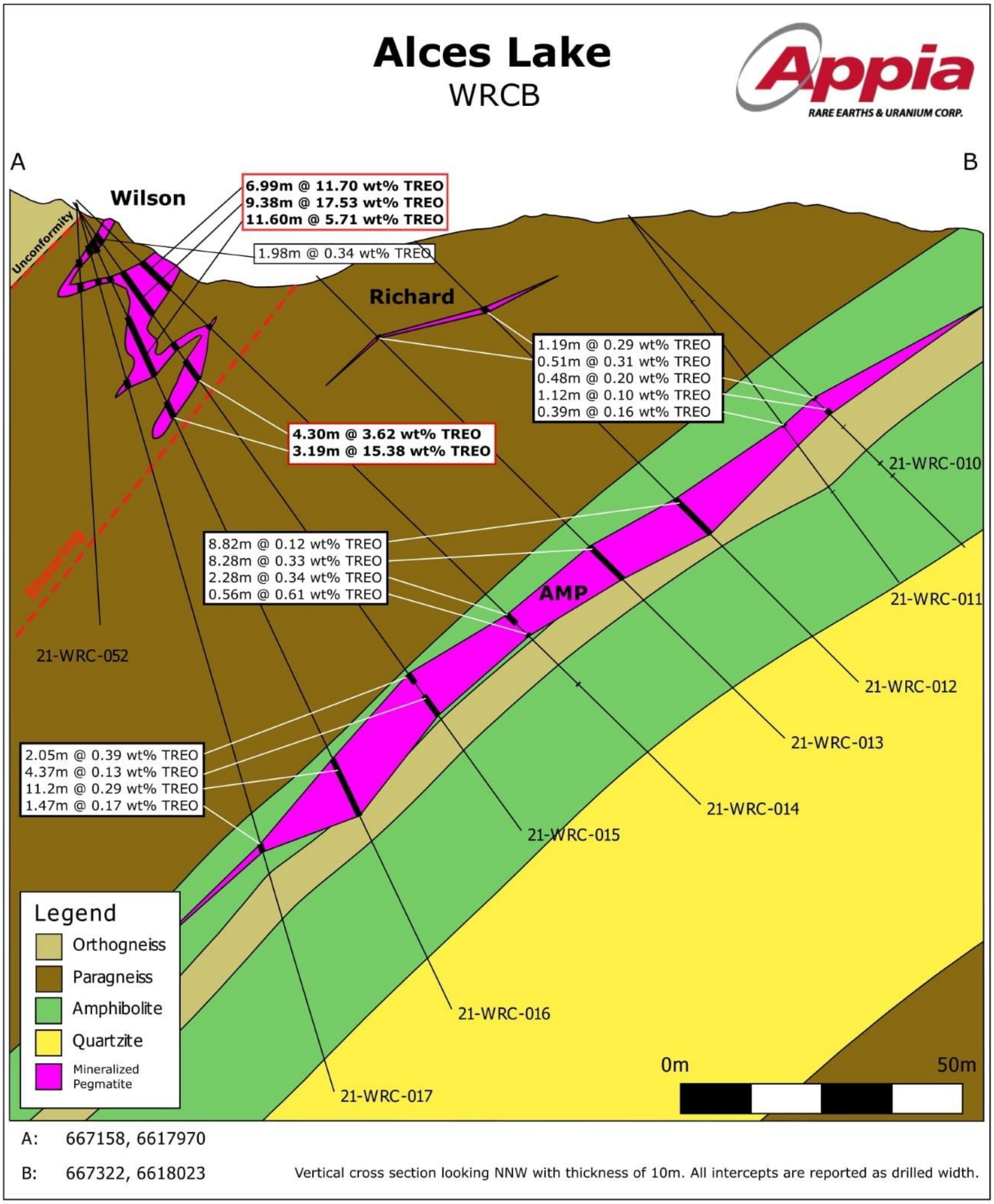

Figure 6: Sectional view of the AMP Zone showing its spatial relationship with other members of the WRCB

The Charles Zone was exposed, mapped and sampled using a diamond saw to cut 23 channels into bedrock. A detailed map of the zone together with the Bell Zone is presented in Figure 7 and a section through the Charles Zone and the location of the relatively minor Mikaela Zone is illustrated by drill hole MK-19-002 near the northern margin of Figure 8. A total of 229 channel samples were analysed from the Charles Zone. Eighteen (18) of the channels produced average TREE values across widths that are of potential economic interest as follows:

37,425 ppm / 3.02 m
43,103 ppm / 1.18 m
24,141 ppm / 2.39 m
53,085 ppm / 4.94 m
46,117 ppm / 2.12 m
10,007 ppm / 3.23 m
13,272 ppm / 1.00 m
19,506 ppm / 1.34 m
15,511 ppm / 2.81 m
124,118 ppm / 5.13 m
82,128 ppm / 3.08 m
8,022 ppm / 1.57 m
7,885 ppm / 1.21 m
32,584 ppm / 3.08 m
21,961 ppm / 2.39 m
64,088 ppm / 3.84 m
6,290 ppm / 1.59 m
34,006 ppm / 1.41 m

The better mineralized section of the 18 channel profiles has an average width of 2.52 m and a weighted average grade of 45,570 ppm TREE. The inclusion of 5 less well mineralized channel samples results in a slightly greater width of mineralization, 2.56 m and a lower weighted average grade of 35,312 ppm TREE. Excluding two holes abandoned at 1.85 m and 6.0 m respectively, the Charles Zone was tested during 2018 with 8 short holes at -45^{o} to -65^{o} and totalling 159.32 m. The best intersection was 10.02% TREO over 3.55 m beginning at 9.0 m down the hole. Following that, eight additional shallow holes were completed at varying angles (-45^{o} to -88^{o}) during 2019 totalling 404.5 m (avg. 50.6 m). CH-19-010 and CH-19-011 intersected zones averaging 8.09% TREO over 2.8 m and 3.81% TREO over 1.0 m, respectively. Several other holes had short intersections at surface ranging from 4.45% TREO to 11.98% TREO however REE-bearing monazite mineralization did not continue at further depths within these drill holes.

The Bell Zone, a component of the WRCB, is located 20 m east and adjacent to the Charles showing. These two showings are often discussed as one combined showing, the Charles-Bell zone, and located with Wilson and Richard along the NE-SW trending Charles-Bell Fault. The Charles-Bell zones are identical from a geologic context as they are both within the paragneiss boundary with paragneiss being the dominant lithology. The zones are also host to various cross-cutting and semi-parallel quartzo-feldspathic and massive monazite pegmatites. The Charles-Bell fault shows left-lateral displacement amongst pegmatites. The fault does not appear to have displaced monazite-bearing pegmatites at surface, but drilling may suggest otherwise (see figures below). If true, this evidence supports the concept of multiple injections of pegmatitic intrusions and post-fault monazite deposition.

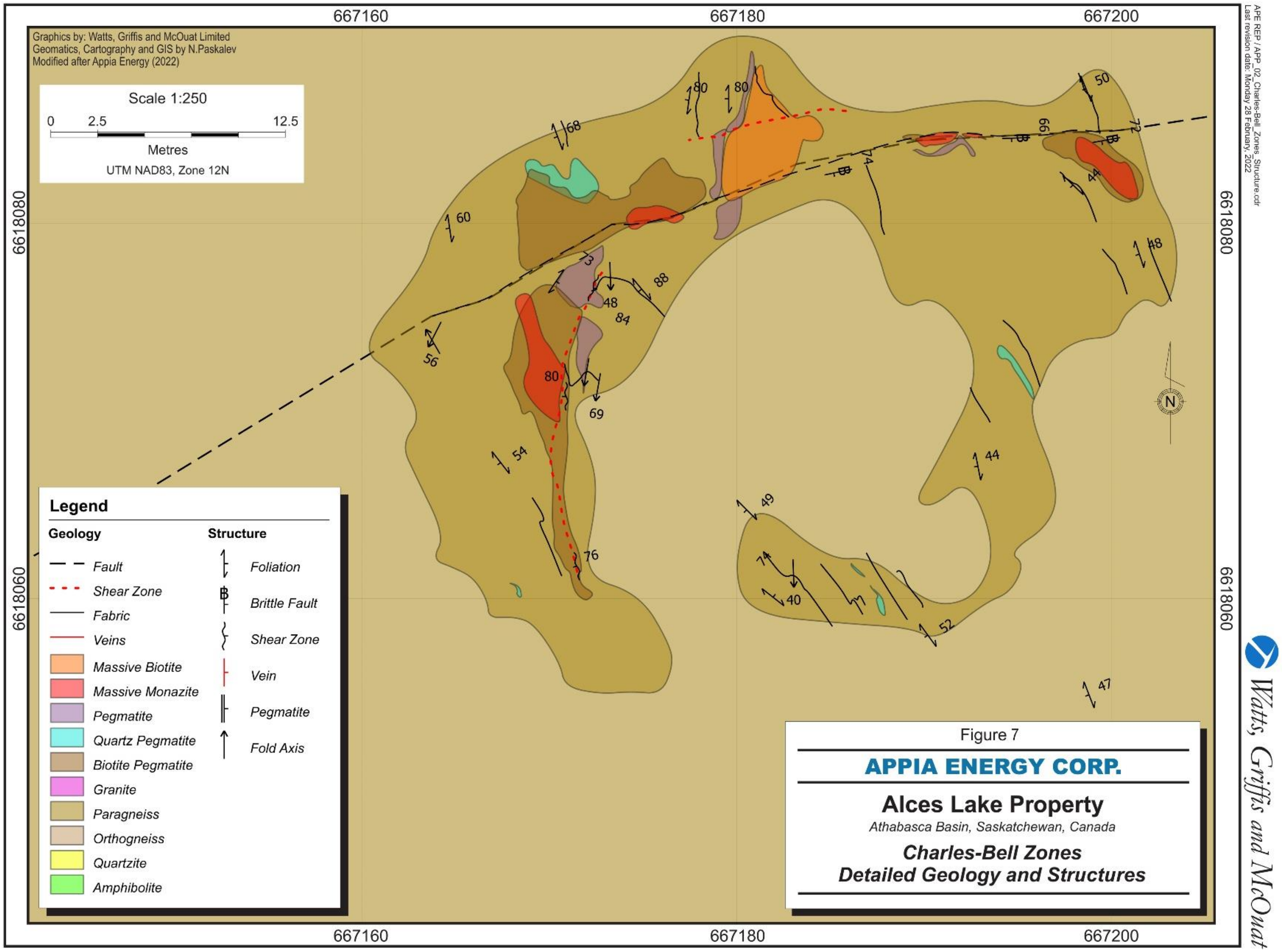

Figure 7

APPIA ENERGY CORP.

Alces Lake Property

Athabasca Basin, Saskatchewan, Canada

Charles-Bell Zones
Detailed Geology and Structures

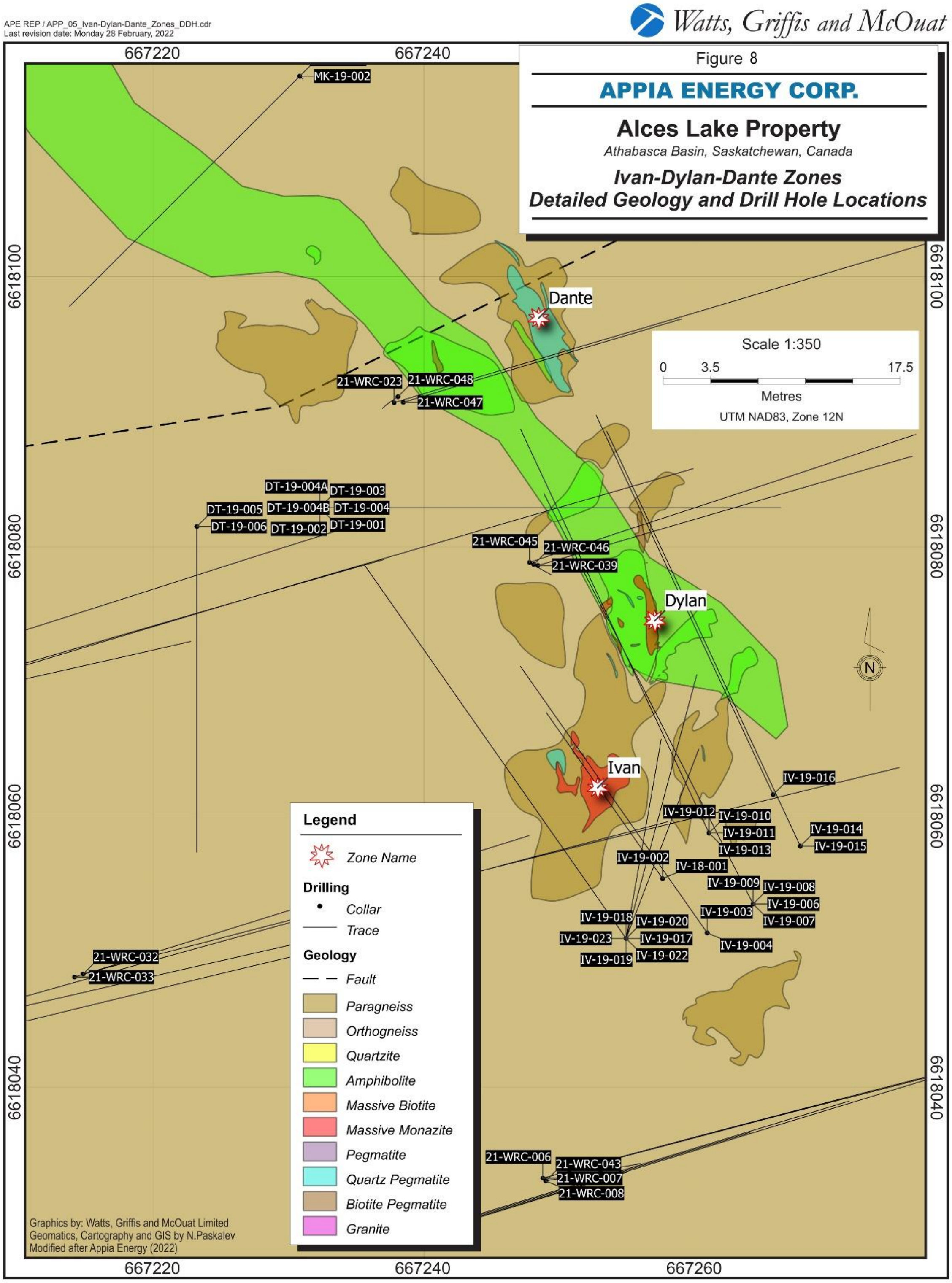

Figure 8: Geology of the Ivan, Dylan and Dante Zones and drill hole locations.

The Bell Zone was channel sampled on 9 profiles and produced 14 samples exceeding 1% TREE content out of the 44 channel samples analysed. The best profile averaged 14.31% TREE across 1.49 m. Six other profiles produced average TREE values of interest:

61,880 ppm / 1.97 m	95,309 ppm / 1.99 m	79,407 ppm / 1.16 m
24,575 ppm / 0.80 m	23,668 ppm / 0.88 m	47,714 ppm / 1.29 m

These well-mineralized channel samples produce an average width of 1.35 m across the Bell Zone with a weighted average TREE grade of 62,512 ppm. The inclusion of three relatively unmineralized profiles reduces the average width of the zone to 1.27 m with a weighted average TREE grade of 44,415 ppm.

Although not name-plated in the WRCB, the AMP zone is located within this zone exposed both on surface and continuing to depth. It is a large and continuous zone of mineralization that crosses the WRCB area located within the orthogneiss-amphibolite footwall. It is a planar geological unit composed predominantly of mafic minerals, and believed to be a restite product of partial melting during intense metamorphism. It is thought to be somewhat younger than the gneissic country rock, and it exists within a NNW-trending, kilometre-scale structural corridor. The AMP Zone dips to the southwest parallel to other members of the WRCB and has a very large areal extent, measuring 110 m by 45 m and open along strike. It is exposed at surface in the Ivan/Dante area and plunges westerly parallel to the metamorphic foliation as a chute of mineral enrichment and interpreted tectonic thickening. This is a newly discovered style of mineralization at Alces Lake, identified and delineated for the first time in 2021. Outcropping in the WRCB area, the zone has uninterrupted continuity from surface to a depth of 300 metres and remains open down plunge. The host rock is believed to be glimmerite, a dark micaceous rock consisting of mostly biotite with metamorphosed and altered feldspars. Grades within the AMP zone are largely between 0.1 wt% and 0.6 wt% TREO. The AMP zone is constrained to being within the paragneiss-amphibolite boundary. It can be noted that the presence of hematite and chlorite alteration, +/- magnetite, may be found along the amphibolite boundary. Figure 8 is a sectional view of the AMP Zone showing its spatial relationship with other members of the WRCB.

7.2.3 IVAN ZONE

As exploration extended outwards from then Wilson Zone during 2017, prospecting led to the discovery of the Ivan Zone located approximately 90 m to the northeast (Figure 8). Scintillometer measurements from the zone were consistently greater than 56,000 cps (maximum scale). Brittle structures were observed exclusively at the Ivan zone. Brecciated pegmatite, shear kinematics and abnormally sharp contacts with massive monazite mineralization strongly support a structural control to mineralization. Typical Ivan Zone mineralization is shown in Plate 7. A total of 14 rock samples were collected and analyzed at the Saskatchewan Research Council (“**SRC**”). The analytical results from the samples ranged from 4.656% to 36.201% TREE in the Ivan zone (Bell, 2014). Not surprisingly, the Wilson-Ivan area was centered on the strongest and largest radiometric anomaly detected during a 154.3 line-km helicopter-borne, geophysical survey (VTEM, mag-gradiometer, spectrometer) over the Property completed by Geotech Ltd, in 2016 (Bell and Sykes, 2016).

Systematic channel sampling was initially completed on 10 profiles most of which produced individual samples containing high-grade TREE values exceeding 10% although in many cases the mineralization was very narrow and confined to specific shears. The more interesting profiles included the following:

170,763 ppm / 3.20 m
211,933 ppm / 0.95 m
50,343 ppm / 5.18 m
246,386 ppm / 3.10 m
171,561 ppm / 1.85 m
102,764 ppm / 0.50 m
173,020 ppm / 6.69 m
139,780 ppm / 0.17 m
27,344 ppm / 2.65 m

The geology of the Ivan Zone and its spatial relationship to the Dante and Zones is shown in Figure 8. The Ivan Zone was explored by 21 short diamond drill holes totalling 983.15 metres. A vertical section is shown in Figure 9 in which the rock formations appear to be flat-lying because the holes tested the structural zone and were therefore subparallel to the major rock units.

The first hole drilled in 2018 (IV-18-001) intersected a 1.2 m section beginning at 6.2 m with an average grade of 15.56 et% TREO. During 2019, the Ivan Zone was tested with 21 short 14.8 to 48.2 metre diamond drill holes and a single 80.8 m hole collectively totalling 997.95 m. Drill hole IV-19-012 intersected a 7.9 m interval grading 31.34% TREO beginning at 9.7 m in the hole. This mineralization occurs as zones of massive monazite leading Appia to define high-grade mineralization as that which exceeds 4% TREO. However, variability in the results of the drilling at the Ivan Zone also caused Appia to question the effectiveness of using gravity survey data as a guide for targeting drill holes at depth.

Plate 7: DDH IV-19-023 (Ivan Zone) 12,4 to 18,0 metres - 13,1 to 18,45 m averages 5.95% TREO. The core size is NQ and the core tray is approximately 1.5 m in length. 20 The section extends from biotite-pegmatite through the monazite-mineralized zone into amphibolite in the footwall. The lower photo is a close-up of the centre-right section of the uppermost view of the entire core tray. (3 cm hammer scale)

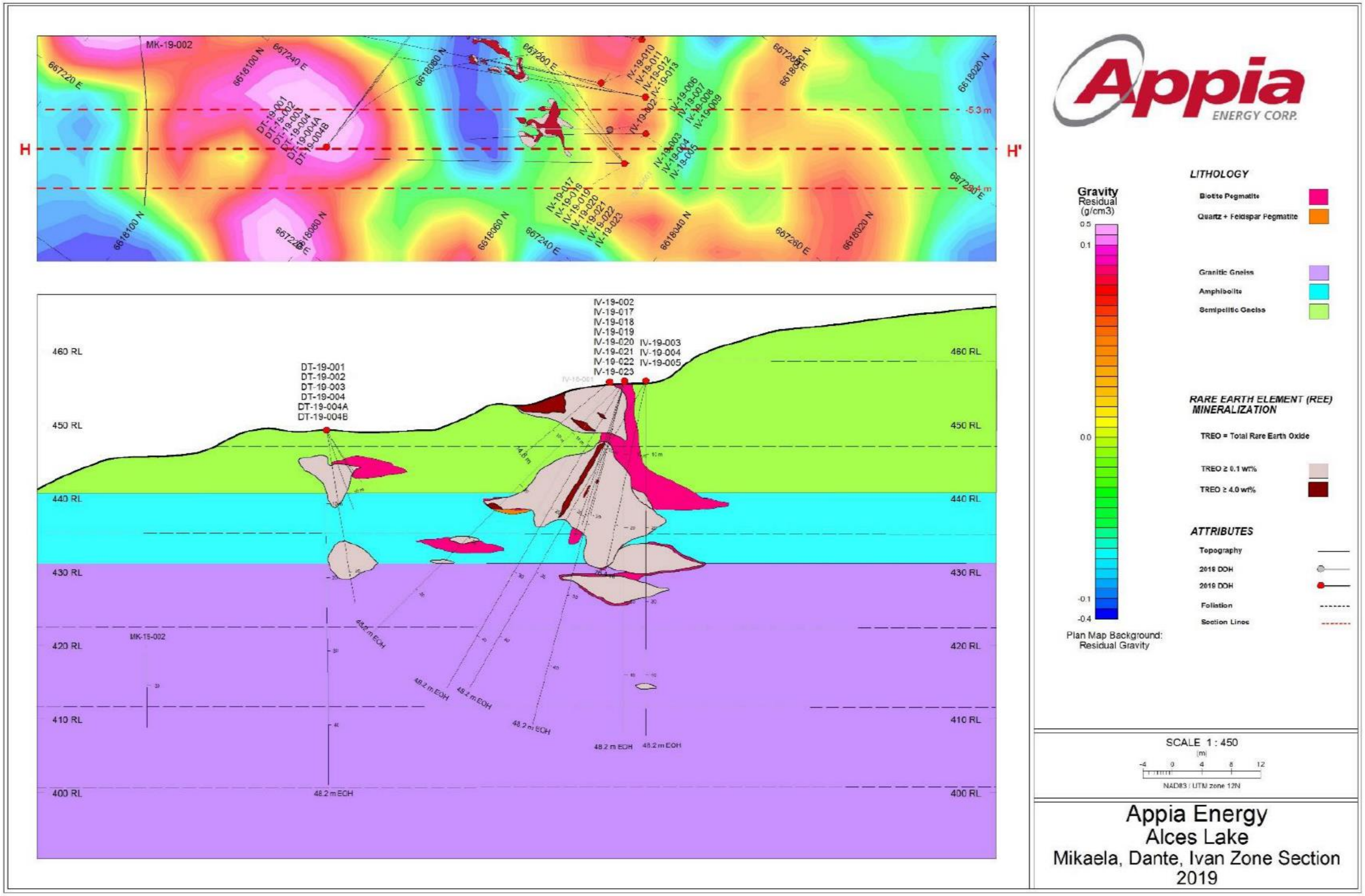

Figure 9: Vertical section across the Mikaela, Dante and Ivan Zones. Rock formations appear to be flat-lying due to the orientation of the drill holes.

Key intersections from the 2018 and 2019 drilling program that exceeded 0.25% TREO are as follows in Table 2. Seventeen of 23 holes showed significant mineralization. The true thickness of the mineralized intervals is approximately 70% of the core length.

Table 2
Summary of Key Intersections in the Ivan Zone

Drillhole	from ----------	to (metres)	Length ----------	Total REO (%)
IV-18-001	5.20	8.90	3.70	5.23
IV-19-003	10.25	21.90	11.65	15.85
IV-19-005	41.20	42.20	1.00	0.28
IV-19-006	19.40	22.30	2.90	0.31
IV-19-008	11.3	17.30	6.00	1.92
IV-19-009	11.25	19.00	7.75	3.76
IV-19-010	9.70	12.60	2.90	0.46
IV-19-011	7.90	14.40	6.50	6.16
IV-19-012	8.70	24.25	15.55	16.06
IV-19-013	6.00	11.95	5.95	4.45
as above	22.60	28.50	5.90	6.88
IV-19-016	4.00	6.00	2.00	0.26
IV-19-018	19.30	21.40	2.10	0.27
IV-19-019	1.00	5.80	4.80	1.33
as above	20.70	23.00	2.30	0.34
IV-19-020	22.50	25.05	2.55	12.91
IV-19-021	10.30	15.10	4.80	0.94
IV-19-022	1.00	26.20	25.20	0.82
IV-19-023	13.10	18.45	5.35	5.95

To summarize its findings, Appia discovered Ivan to be a ductile deformed, unique unit containing very high-grade REE monazite mineralization. In cross section and 3D modeling the country rock displays very predictable lithologies in comparison with other local zones, however the Ivan mineralized body itself is sporadic, small and difficult to trace.

7.2.4 DANTE ZONE

The Dante Zone was channel sampled across seven profiles, the last being a single 0.5 m sample. Of 36 sample analysed, 11 samples exceeded 1% TREE and two individual samples exceeded 10% TREE with the highest grade being 309724 ppm (30.97%). The averages across the core of the mineralized zones were 20,606 ppm across 2.25 m, 4,357 ppm across 2.38 m, 10,151 ppm across 1.61 m, 36,400 ppm across 0.83 m, 14,304 ppm across 1.73 m and 41,344 across 2.21 m. The weighted average of the six channels sampled was 19,928 ppm (19.9% TREE) over 1.84 m.

Appia explored the zone by drilling eight short diamond drill holes (DT-19-001 to '006 plus DT-19-004A and 4B) totalling 339.8 m. Six of these holes were drilled from within a 2-metre area at varying angles and on different bearings. The last two holes were drilled about 12 m distant from the first six, in opposite directions and at different angles. The purpose of this closely spaced drilling was to investigate the Dante Zone near surface – the maximum vertical depth of the drilling was 48 m. The most significant intersections for the Dante Zone exceeding 0.2% TREO are shown in Table 3. Typical mineralization is shown in Plate 8.

Table 3
Summary of Key Intersections in the Dante Zone

Drillhole	from ----------	to (metres)	Length ----------	Total REO (%)
DT-19-001	3.9	6.5	2.6	0.261
as above	10.5	22.5	12	0.281
DT-19-002	4.8	11.3	6.5	0.290
DT-19-003	5.5	10.5	5	0.237
as above	32.5	34.5	2	0.280
DT-19-004A	5.8	10.5	4.7	0.286
DT-19-004B	5.8	10	4.2	0.294
as above	15.9	18.5	2.6	11.456
DT-19-005	19.2	21.7	2.5	0.221
DT-19-006	32.6	43.2	10.6	0.203

Plate 8: Photo of typical Dante Zone mineralization in DDH DT-19-004B at 16.75 m in sample #0785 - biotite pegmatite with brick red fractured feldspars and strong monazite mineralization with biotite-filled fracturing. Total count radioactivity = 2,700-4,200 cps. (3 cm hammer scale)

Appia's drilling has revealed that the Dante Zone is mainly located in the paragneiss to amphibolite unit, and its intersects the upper tip of the AMP zone. Within this area of intersection, there is semi-continuous, low-grade mineralization present from depths of 5.5 m to 20.1 m. The mineralized pegmatite is classified as a glimmerite, hosting mafic-dominant schist with plagioclase and traces of monazite. Additionally, spotty potassic alteration of the feldspars is observed as can be seen ion the accompanying photo (Plate 8). The upper boundary of mineralization is classic paragneiss, while the lower boundary of mineralization is amphibolite to orthogneiss. According to geochemical analysis, the total rare earth oxide percentage grades (TREO%) at depths 5.50 m to 20.1 m range from 0.203% to 0.290%. Notably, DT-19-004B intersected a high-grade body from depths of 15.9 m to 18.5 m, indicating 11.46% TREO.

7.2.5 MAGNET RIDGE ZONE

The Magnet Ridge Zone, formerly known as the Auger Zone, was aggressively drilled in 2022 to test a linear, NW-SE trending radiometric anomaly extending over a length of 400 m (Figure

10). Background total count radioactivity measures 1,000 to 3,000 cps along this zone. The anomalous zone is located adjacent to the steeply dipping NE face of an otherwise gentle ridge which represents the edge of a structural corridor cutting the Alces Lake property normal to the regionally extensive St Louis Fault.

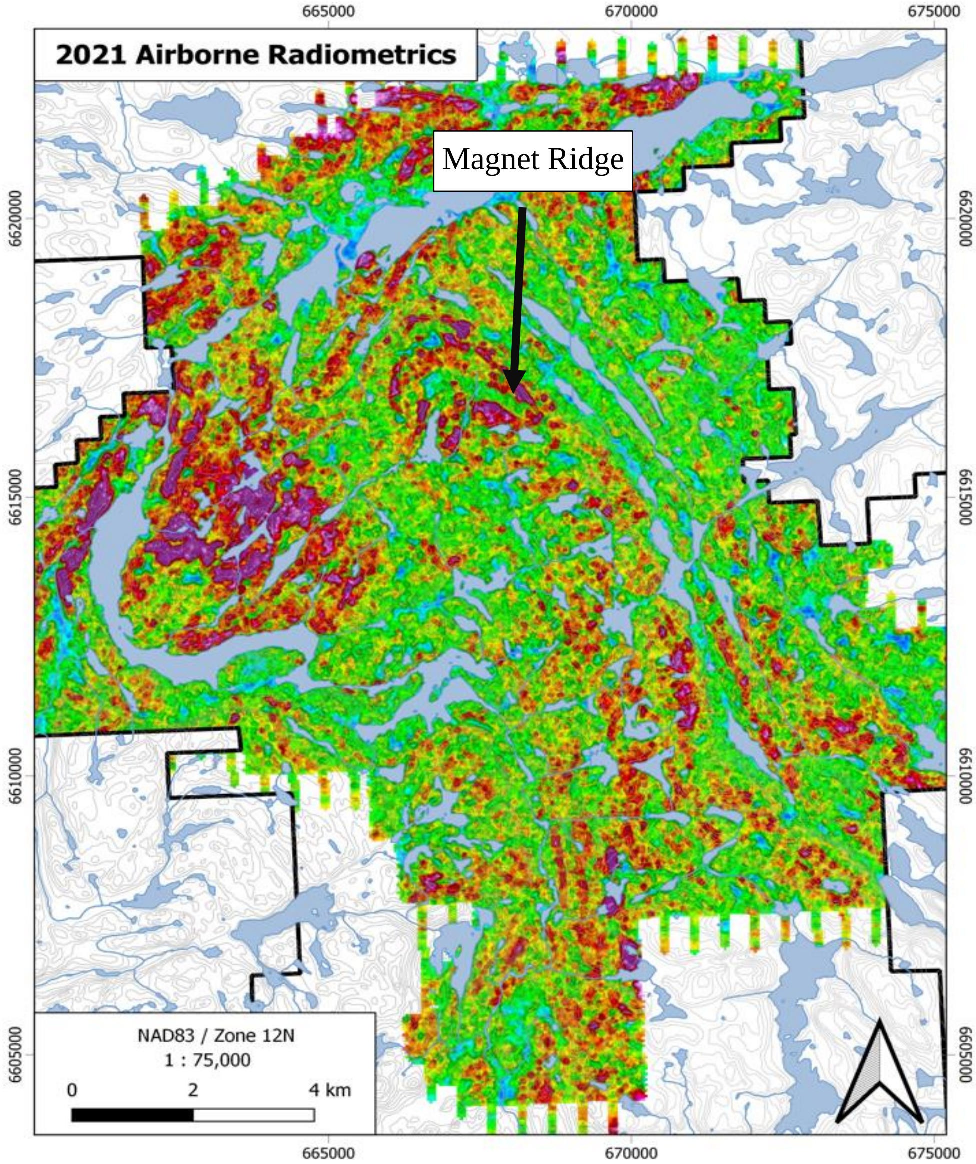

Figure 10: Location of the Magnet Ridge Zone along the flank of a radiometric high normal to the NE-trending St. Louis Fault (radiometric low) near the top margin of the figure.

The bedrock is composed of a quartz-biotite schist, referred to internally as "**PBS**" (pebbly biotite shist). Appia interprets this to be a "Glimmerite". The REE contents of the bedrock are low, but atypically continuous in that they lack the variability that characterizes some of the other prospects at Alces lake. One channel sample taken in 2021 returned 0.7% TREO over 8 metres including some short sections grading as high as 1.6% TREO. The assay results from diamond drilling carried out during 2022 demonstrate continuity but lower grades in the range of 0.1% TREO over 30.76 metres in drill hole 22-AUG-002 to as high as 0.31% TREO over 19.85 metres in drill hole 22-AUG-031. Of the 34 drill holes completed, 13 mineralized holes produced an average grade of 0.15% TREO over an average width (core length) of 26.71 metres. In addition to these holes, Appia drilled 10 diamond drill holes totalling 2160.1 m at Magnetic Ridge West. True thickness in these zones is approximately 75-90% of the core length. The most significant intersections for Magnet Ridge and Magnet Ridge West exceeding 0.2% TREO are given in Table 4. Typical mineralization is shown in Plates 9, 10 and 11.

Table 4
Summary of Key Intersections in the Magnet Ridge-Magnet Ridge West Zones

Drillhole	from ----------	to (metres)	Length ----------	Total REO (%)
		Magnet Ridge		
22-AUG-003	23.24	26.20	2.96	0.24
as above	28.30	29.53	1.23	0.26
22-AUG-013	5.10	15.73	10.63	0.22
as above	25.03	62.11	37.08	0.20
22-AUG-015	99.43	99.86	0.43	0.23
22-AUG-016	101.65	101.79	0.14	0.38
22-AUG-024	37.35	37.52	0.17	0.44
22-AUG-028	12.84	16.21	3.37	0.22
22-AUG-030	4.98	23.65	18.67	0.25
22-AUG-031	5.12	27.42	22.30	0.29
		Magnet Ridge West		
22-MRW-004	96.00	97.02	1.02	0.38
22-MRW-007	136.78	137.00	0.22	0.58

Plate 9: Photo of typical Magnet Ridge Zone: DDH 22-AUG-001: 5.29-5.68 m (sample #003898) – brecciated pegmatitic zone. Total count radioactivity = 390-420 cps. 3,260 ppm TREE over 0.39 m. (3 cm hammer scale)

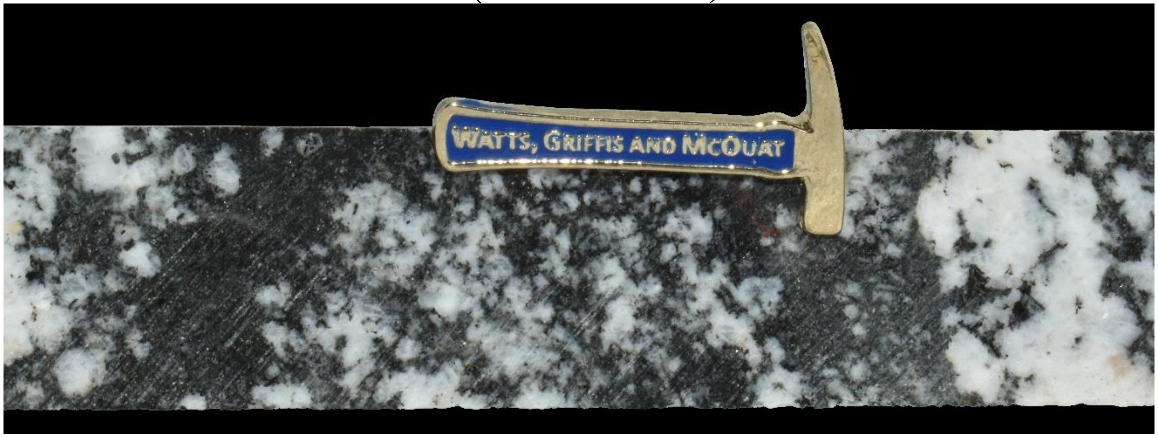

Plate 10: Photo of typical Magnet Ridge Zone: DDH 22-AUG-001: 6.83-7.19 m (sample #003903) - sheared and brecciated paragneiss with biotite. Total count radioactivity = 750-820 cps. 5,200 ppm TREE over 0.36 m. (3 cm hammer scale)

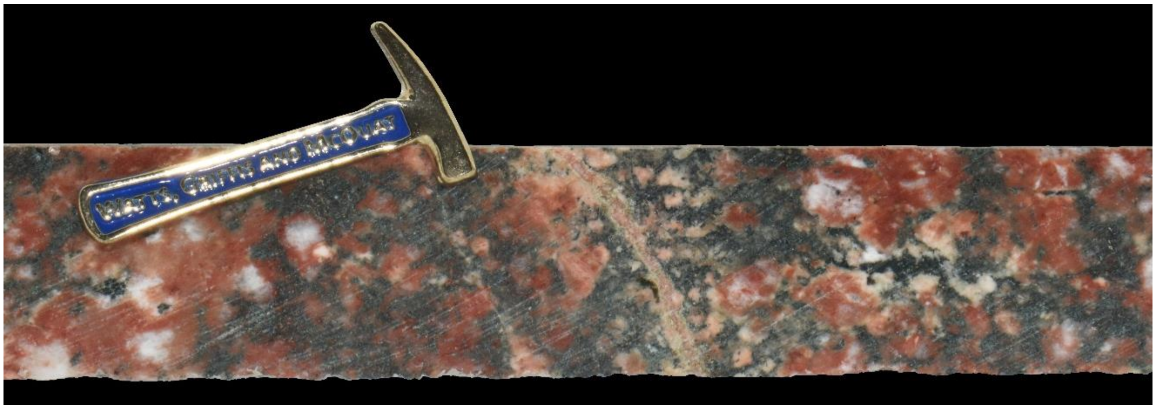

Plate 11: Photo of typical Magnet Ridge Zone: DDH 22-AUG-001: 13.21-13.74 m (sample #003920) - brecciated pegmatite with biotite and minor monazite. Total count radioactivity = 200-250 cps. 1.051 ppm TREE over 0.53 m (3 cm hammer scale)

A 20 m by 35 m area of interest expressing anomalous radioactivity (700-4,500 cps) is located a short distance southwest of Magnet Ridge. Bedrock in the area comprises orthogneiss with K-spar rich zones, pegmatite, pebbly biotite-schist (“**PBS**”), and sections of orthogneiss containing reworked pegmatites. One common feature shared by all lithologies is the anomalously high biotite content. Visible monazite was common and associated with high radiometric count rates that were greatest in the biotite-rich section of pegmatite having a textural fabric that is best described as pebbly biotite schist as identified in the Auger drill holes.

7.2.6 DANNY ZONE

The Danny Zone is a radiometric anomaly measuring 250 m in length and up to 50 m in width containing very localized bodies of massive to semi-massive monazite. Initial sampling in 2017 resulted in grab samples containing 2.43% to 13.63% TREO. Detailed mapping was completed in 2021 (Figure 11). The zone is located adjacent to the Wilson-Richard-Charles-Bell (“**WRCB**”) Zone towards the southwest. The mineralization is comparable to the WRCB pegmatites, however the REE mineralization is not as continuous. Strongly mineralized areas were channel sampled on five profiles and produced assays ranging from 0.85% TREO over 0.79 m to as high as 6.23% TREO across 1.69 m. Only two profiles produced a weighted average grade exceeding 1% TREE: 22,352 ppm across 0.81 m and 51,951 ppm across 1.69 m. Two other profiles produced 9.983 ppm TREE across 1.2 m and 7,087 ppm across 0.79 m. These are indicative of a narrow structural zone with localized high-[grade mineralization.

Initially, four diamond drill holes were completed in 2020, three of which (DN-20-001, ‘-003 and ‘-004) were 23.2 m to 29.3 m in length while DN-20-002 was 368.8 m in length. The best monazite-bearing intersection was in the fourth hole at 22.35-22.95 m averaging 0.22% TREO. Magnetic Ridge West. True thickness in these zones is approximately 75-90% of the core length. The most significant intersections for the Danny Zone exceeding 0.2% TREO are shown in Table 5.

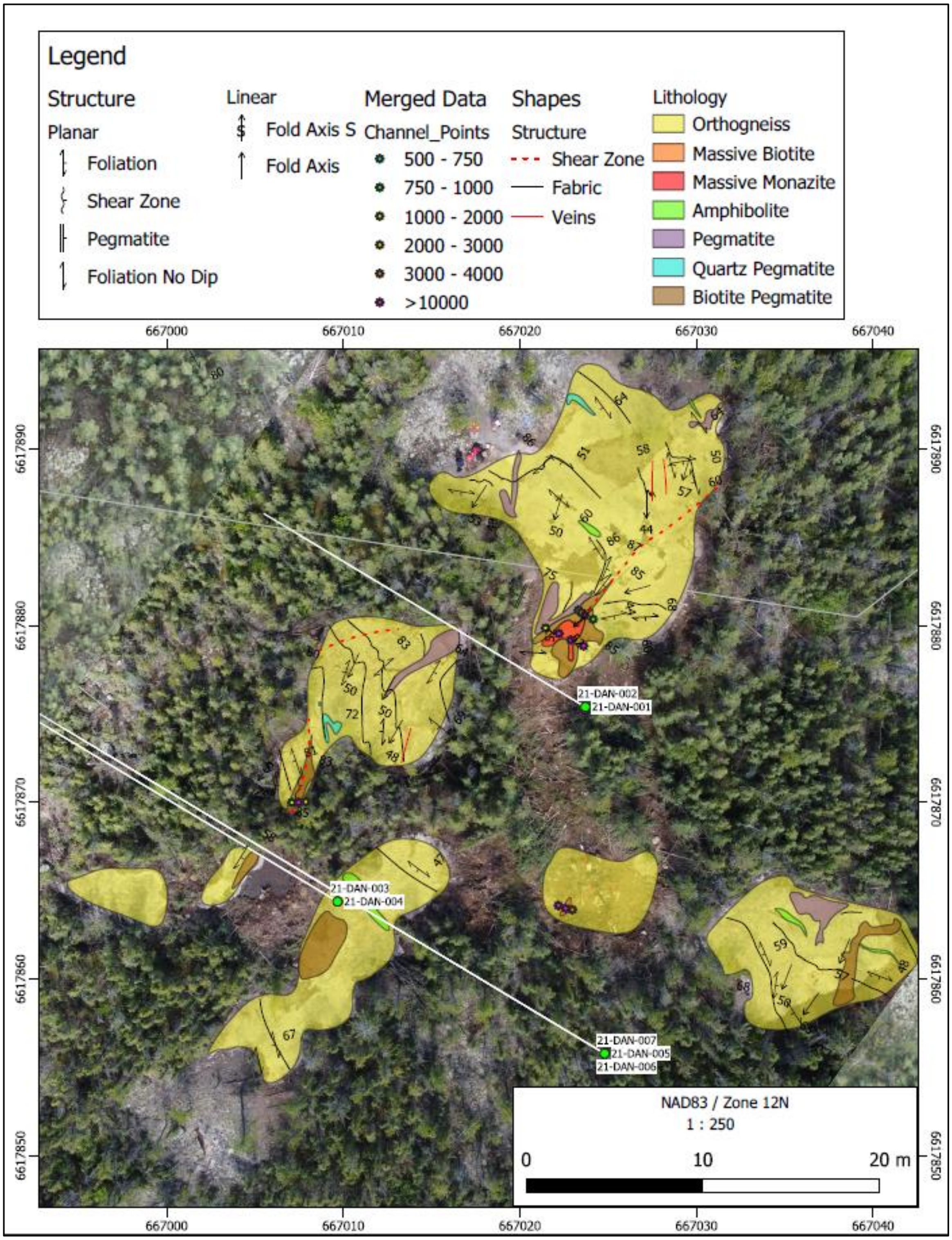

Figure 11: Geological map of the Danny Zone showing the major lithologies and levels of radioactivity.

Table 5
Summary of Key Intersections in the Danny Zone

Drillhole	from ----------	to (metres)	Length ----------	Total REO (%)
DN-20-002	58.85	59.10	0.25	0.75
DN-20-003	3.25	3.40	0.15	0.43
21-DAN-001	3.04	3.08	0.04	12.03
21-DAN-002	1.28	3.44	2.16	0.46
21-WRC-064	98.74	104.06	5.32	0.21
22-DAN-001	125.84	127.00	1.16	0.20
22-WRC-003	60.00	62.07	2.07	0.33
22-WRC-003B	210.00	219.11	9.11	0.35
22-WRC-017	192.04	201.62	9.58	0.22

The Danny Zone was drill-tested several times in 2022. Some of the better intersections from holes initiated on monazite-rich bedrock exposed at surface include 14.96% TREO over 0.66 m. It is evident by the localized nature of the monazite bodies that these are reflective of local structural controls that have created traps for REE-bearing fluids. Appia's understanding of the zone is incomplete but developing as additional information from satellite zone is assimilated to create an improved metallogenic model.

7.2.7 BIOTITE LAKE ZONE

The Biotite Lake Zone was discovered and mapped in 2021. The area is a pronounced but small radiometric anomaly along a trend of elevated radiometric responses paralleling the southern shore of Alces Lake. Geological mapping of the outcrop along the trend revealed NE-trending REE-bearing pegmatites and biotite shears (Figure 12). Channel sampling during 2021 returned assays as high as 8,397 ppm TREE across 7.69 m.

During 2021, Appia's drilling of 13 holes totalling 684.52 m was relatively unsuccessful in intersecting subsurface extensions of the mineralization seen on surface. Several holes had higher grading TREO intersections of 0.65% over 3.69 m in 21-BIO-001, 0.89% over 1.54 m in 21-BIO-003 and 0.51% over 0.46 m in 21-BIO-006. Drill hole 21-BIO-004 produced two intersections assaying 0.52% over 1.91 m and 1.50% over 1.42 m, or a composited weighted average TREO content of 0.585% over 5.78 m. A photo of the mineralization is presented in Plate 12.

The most significant intersections for the Biotite Lake Zone exceeding 0.2% TREO are shown in Table 6.

Table 6
Summary of Key Intersections in the Biotite Lake Zone

Drillhole	from	to	Length	Total REO
	----------	(metres)	----------	(%)
21-BIO-001	2.53	6.22	3.69	0.653
21-BIO-002	6.86	8.10	1.24	0.409
21-BIO-003	17.48	19.95	2.47	0.586
21-BIO-004	20.11	25.89	5.78	0.585
21-BIO-006	5.00	6.07	1.07	0.271
21-BIO-007	26.06	26.50	0.44	0.555

Plate 12: Photo of typical Biotite Lake Zone. DDH 21 BIO-004 – White feldspars in orthogneiss associated with mineralization in sample #006996 at 24.51-25.11 m. Total count radioactivity = 1,200 cps. containing 2,909 ppm total rare earth oxides.

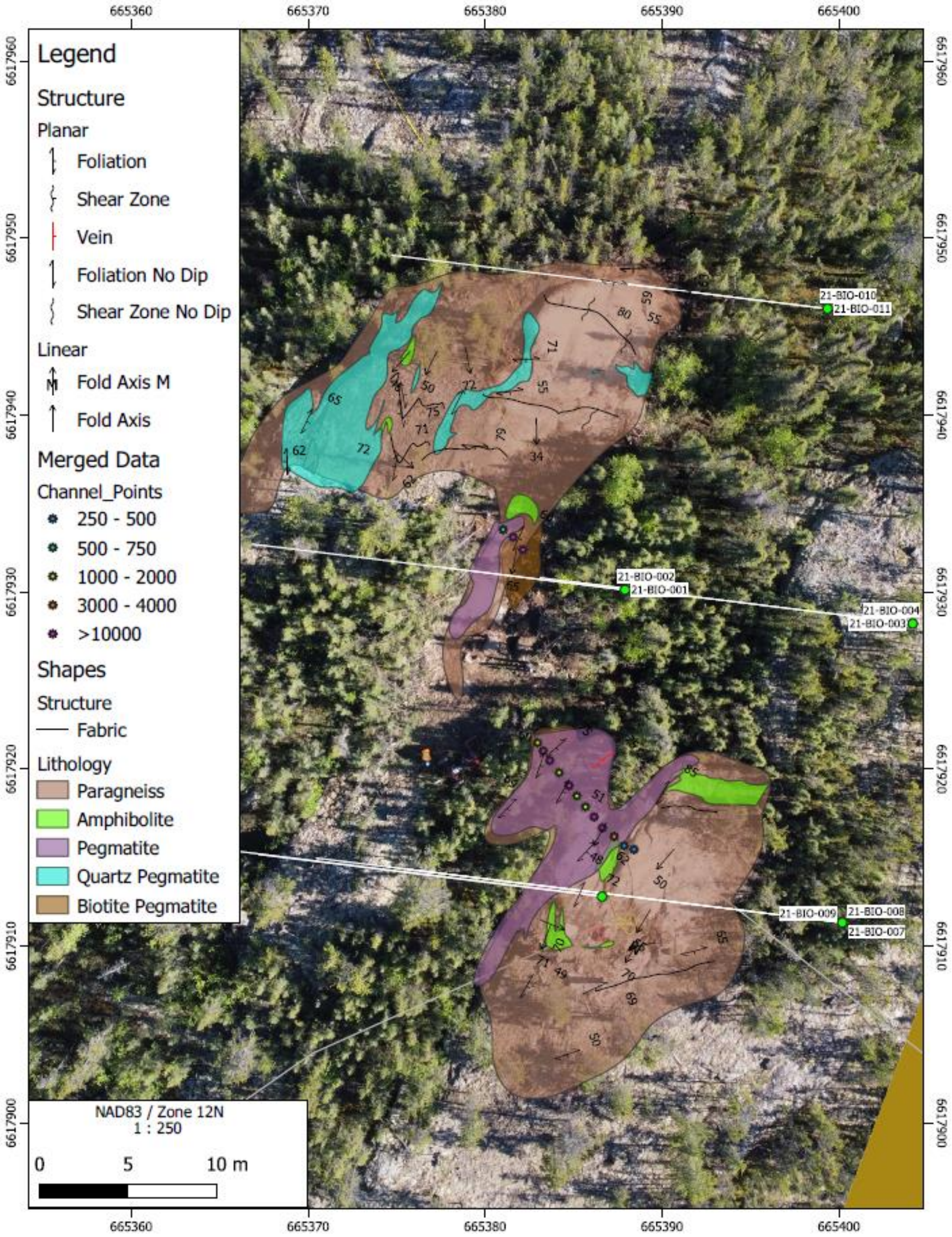

Figure 12: Geological Map of the Biotite Lake Zone.

7.2.8 OLDMAN ZONE

The REE-bearing rocks in the Oldman Zone define a 175 m long exposure of weakly mineralized biotite-rich shear zones located southeast of the Western Anomaly. Figure 13 illustrates that the alignment of radioactive occurrences has an approximate north-easterly trend, the shears themselves strike north-northeasterly and dip steeply to the northwest. The structures have an apparent geometry that is axial planar to the most recent phase of folding measured in the area. Lithologically, the mineralization occurs along a biotite-bearing shear zone that is axial-planer to the main fold structure.

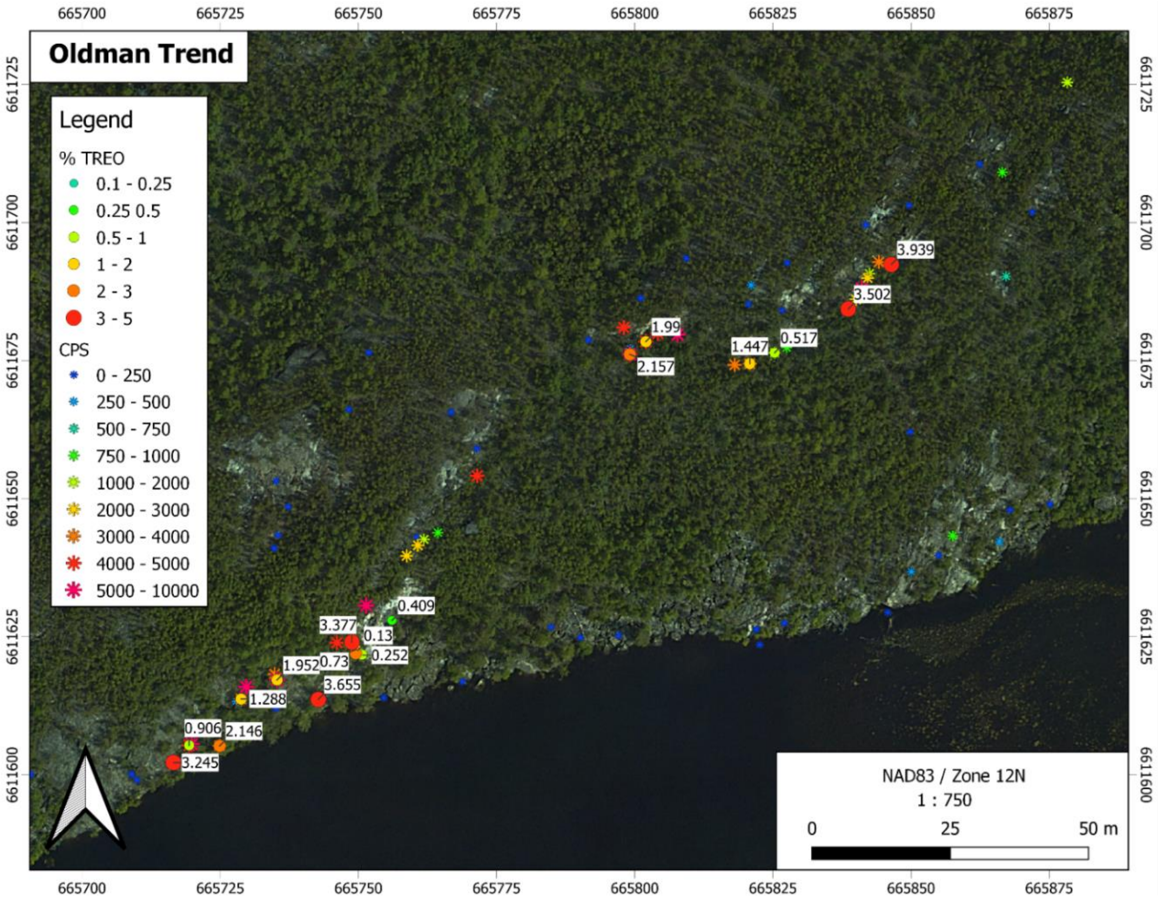

Figure 13: Google Earth image showing the location of the total count radioactive anomalies defining the Oldman Zone and samples containing significant REE contents.

Of 30 outcrop grab and channel samples collected from the Oldman Zone, none exceeding one metre in length, 13 contained greater than 1% TREE and several exceeded 3% (maximum 32,839 ppm). Collected during 2020, composited channel sample assays produced intervals of

0.11% TREO across 3.96 m, 0.89% TREO across 5.95 m and 0.69% TREO across 0.87 m. Grab sample taken during 2021 produced assays of 1-5% TREO.

Eight short holes totalling 480 m were drilled during 2021; however, the REE contents of the drill core samples were unremarkable with the exception of hole 21-OLD-12 which intersected a 20-centimetre interval containing 1.53% TREO. The remaining holes intersected no more than 0.062% TREO over sub-metre intervals. Additional work to better define the surface geology is required before a complete understanding of the zone will be possible.

7.2.9 WEST LIMB ZONE

The West Limb target was identified by Appia's prospecting teams which reported visible monazite mineralization along a linear radiometric anomaly within the western limb of the main fold structure that hosts the WRCB to the east. The fold structure is clearly visible in Figure 14 as defined by the high (red) and low(green-yellow) radiometric responses from the various lithologies present. On surface, REE mineralization occurs within areas that have an elevated radioactivity profile.

Eight initial grab samples produced assays ranging from 0.03% to 23.69% TREO. A mid-range samples (e.g. #8235) grading 0.14% TREO was biotite-rich and resembled a finer-grained biotite-pegmatite typically logged in drill holes as pebble-biotite schist. A sample containing 2.22% TREO was from a 25 cm wide biotite-rich shear zone that contained dark, altered quartz around its margins and was very discontinuous. The highest grading sample contained massive monazite in golf ball-sized clusters giving readings of 6000 cps on the scintillometer from a 30 cm wide section of uncertain continuity.

The zone was tested during 2022 with a total of 6 diamond drill holes totalling 1,007.05 m. The most significant mineralization is shown in Table 7 for those holes intersecting greater than 0.2% TREO. The TREO% of the mineralization was 0.322% and 0.246%, respectively. In the drill core, the Western Limb Zone predominantly comprises classic orthogneiss with a minor amount of amphibolite. Mafic pegmatites and quartzo-feldspathic pegmatites are observed throughout the core. The drill core contained a notable lack of major brittle structures. Although the zone showed favourable surface assays, the 2022 drilling results lacked sufficient higher grading intervals to encourage additional work. At depths of 6.72 to 9.74 m and 29.17 to 29.93 m, minor, patchy mineralization was intersected.

Despite the disappointing drilling results, further exploration of the Western Limb Zone may still be warranted, as the presence of mineralization indicates some potential for higher grades at depth. It is noteworthy that the upper portion of the orthogneiss is dominantly mafic, containing plagioclase and quartz leucosome. However, potassic alteration dominates the lower portion of the orthogneiss, specifically within the range of 104.50 m to 155.5 m, depending on which hole is referenced. This alteration style is present in the WRCB Zone and in some areas at Magnet Ridge, and in both zones economically interesting mineralization is present. Appia plans to send a prospecting team to revisit this zone to determine if more drilling needs to be done.

Table 7
Summary of Key Intersections in the West Limb Zone

Drillhole	from	to	Length	Total REO
	----------	(metres)	----------	(%)
22-WEL-001	29.17	29.93	0.76	0.246
22-WEL-004	6.72	9.74	3.02	0.322

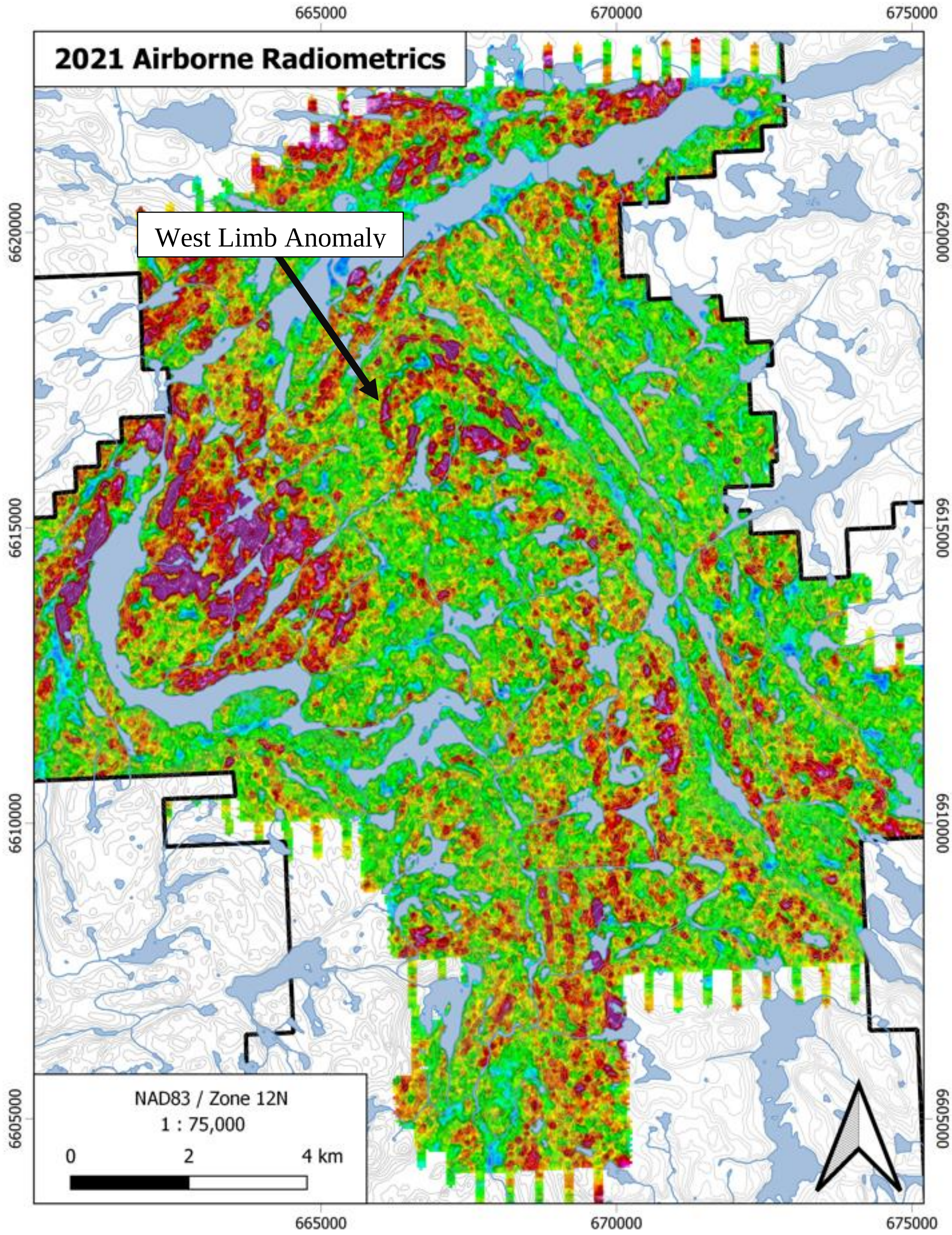

Figure 14: Radiometric map of the total count radioactivity over the central Alces Lake property showing the location of the West Limb Anomaly (Zone).

7.2.10 STROCEN ZONE

The Strocen Zone is a 100 m long radiometric anomaly approximately midway between the Magnet Ridge Zone and the WRCB Zone. The bedrock in this area consists of orthogneiss and pebbly biotite schist (“**PBS**”) which is consistent with the rock type found at Magnet Ridge. Localized bodies of quartz pegmatite, occasionally garnet-rich, were found in some of the drill holes. Three initial grab samples, #442-#444, produced TREO assays of 1.63%, 0.62% and 3.89%, respectively. A single channel sample taken in 2021 retuned a 1.68 m interval containing 2.16% TREO.

Exploration in 2022 resulted in the completion of five diamond drill holes ranging in length from 159 m to 294 m and totalling 1,044.03 m. As most of the holes were drilled at less than -45^{o}, the sole exception being 22-STR-003 at -75^{o}, the completion depths were approximately 110 m to 200 m. Relatively little anomalous radioactivity was present in the hole. In the first four holes, total rare earth element (“**TREE**”) contents ranged from 0.10% to 0.18% over core lengths of 0.30 to 0.54 metres. The final hole, 22-STR-005, intersected only TREE trace levels. A summary of intersections exceeding 0.10% TREO is given in Table 8.

Table 8
Summary of Key Intersections in the Biotite Lake Zone

Drillhole	from	to	Length	Total REO
	----------	(metres)	----------	(%)
22-STR-001	51.34	53.40	2.06	0.11
22-STR-002	39.72	43.16	3.44	0.13
22-STR-003	14.60	15.25	0.65	0.18
22-STR-003	34.04	35.95	1.91	0.10
22-STR-003	165.61	167.03	1.42	0.17
22-STR-004	38.62	39.40	0.78	0.12

7.2.11 HINGE ZONE

The Hinge Zone is defined as the north-plunging closure of the main fold on the Alces Lake property. It is well shown in the magnetometer survey (Figure 15). As noted previously, the main fold at Alces Lake is thought to be an overturned anticline with a fold axis plunging to the S-SW. Prior to 2020, the zone had not been previously mapped or channel sampled in any detail, nor had the hinge of this fold been drill-tested. Seven out of a total of eight grab samples produced assays of 1.16% to 8.73% TREO from rocks described as "pegmatite". The eighth sample assayed only 0.04% TREO from rock described as "pelitic gneiss". The three highest grading samples containing 7.53%, 4.50% and 8.73% TREO were from boulders of presumed local origin.

During 2020, Appia tested the zone with a single 326.1 m long drill hole (HN-20-001) on the basis of its discovery of a band of highly radioactive rocks extending up the eastern limb of the fold. This zone extends over the closure of the fold and then fades on the western side of the hinge. No significant mineralization was encountered in the drilling, the best intersection being in drill hole HN-20-001 with a 45 cm interval at 128.65-129.10 m grading 0.13% TREO. During 2022, Appia geologists collected additional grab samples that returned assays ranging from 0.06% to 34.11% TREOs.

Late in the 2022 drilling program, Appia geologists noticed that the trend of the magnetic low that extended from Augier (Magnet Ridge) to Strocen, and continued around the main fold apex, also corresponded to a radiometric high. Drill hole 22-HNG-001was drilled to 186 m to test this area which was thought to correlate with the pebbled biotite schist ("PBS") lithology. More specifically, the hole explored the area of maximum curvature in the fold structure to test for possible thickening of this unit which commonly contains lower grading REE mineralization.

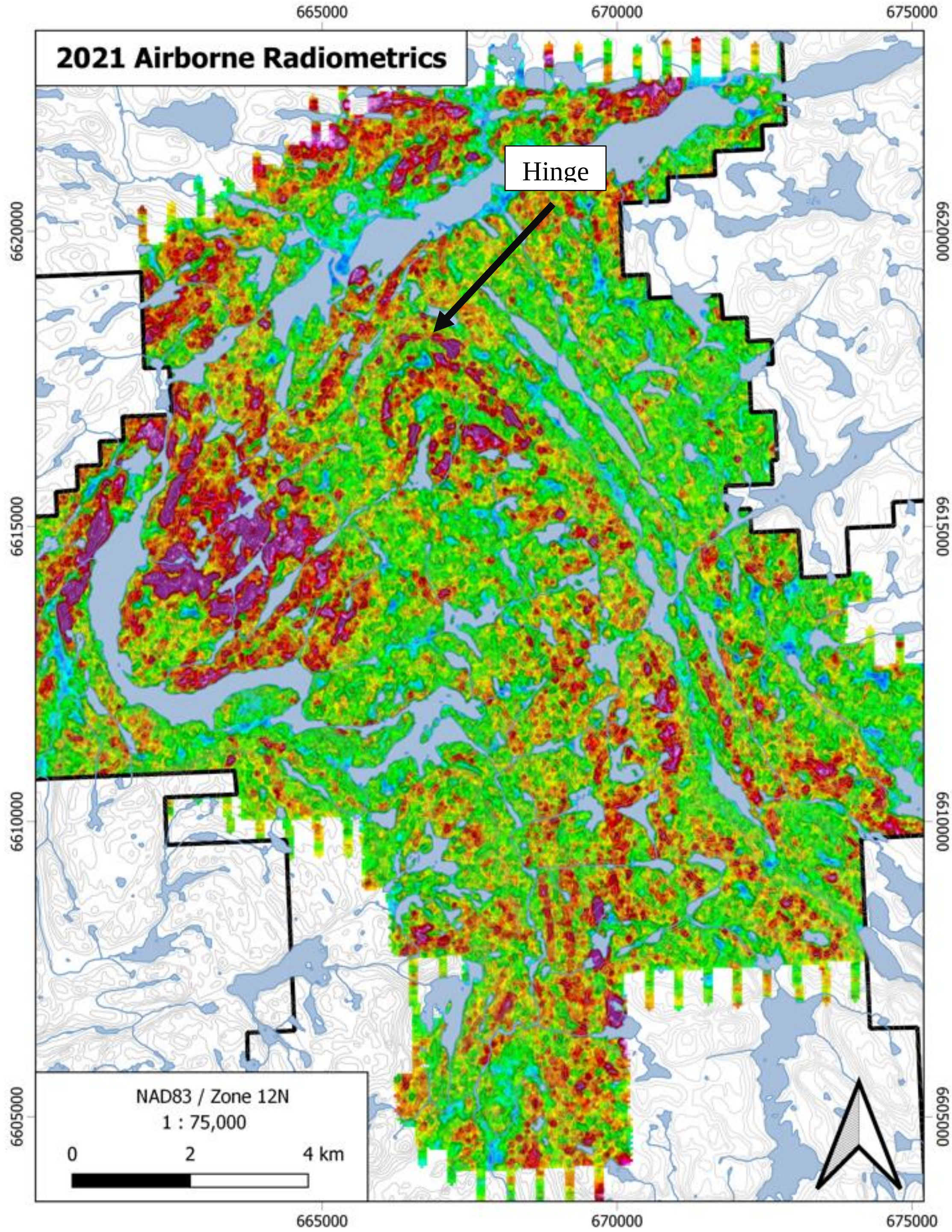

Figure 15: Map showing the radiometric response of the Hinge Zone area.

7.2.12 WESTERN ANOMALY ZONE AND THE DIABLO ZONE

The Western Anomaly is a large target area containing the radioactive occurrences known as Diablo, Sweet Chilli Heat, Roulette, Buffalo, Nacho, Cool Ranch, and Zesty. All of these sites were channel sampled during 2021 with the exception of Nacho. The named sites are characterized by exposures of REE-bearing pegmatite veins and mineralized shear zones oriented both NS and SW (Figure 16). The scale of the radiometric anomaly appears to be influenced by significant exposures of weakly radioactive granitic rocks of little economic interest. The pegmatite exposures are concentrated proximal to the axial plane of a SW-plunging regional fold closure. Initial grab sampling of the zone produced TREO assays as high as 0.57% with an average of 0.31% based on four samples. Photos showing portions of the Diablo Zone are included as Plates 11 and 12.

Appia's drilling during 2021 was focused on Sweet Chilli Heat where 14 holes were completed totalling 990.82 m. Diablo was tested with 4 holes totalling 192.0 m. The most interesting intersections, those of 0.2% or greater TREO content, are summarized in Table 9. The initial hole at Sweet Chili Heat, 21-SCH-001, produced an intersection grading 3.52% TREO over 3.46 m. The hole that followed, 21-SCH-002, intersected 1.27% TREO over 2.4 m as well as a second interval assaying 9.67% TREO over 0.24 m. The third hole produced a TREO intersection of 12.64% over 0.32 m and the fourth hole produced two intervals, 2.20% over 1.05 m and 3.44% over 0.36 m. The fifth and sixth holes intersected 1.72% over 0.77 m and 1.67% over 1.28 m, respectively. The seventh hole (21-SCH-007B) intersected 7.2% TREO over 0.14 m. The remaining holes intersected anomalous but low values not exceeding 0.25% TREO.

Diablo hole 21-DIA-001 was the only hole in this zone with interesting TREO intersections, all near-surface, with three intervals assaying 5.34% over 1.93 m, 2.08% over 1.65 m and 1.96% over 0.55 m. The other holes intersected narrow sections assaying 0.97% TREO over 0.14 m to 0.25% over 0.46 m.

Of five diamond drill holes completed during 2022 totalling 949.5 m, only one hole returned a significant result of 0.447% TREO over a 2.07 m interval beginning at 6.72 m in drill hole 22-WES-004.

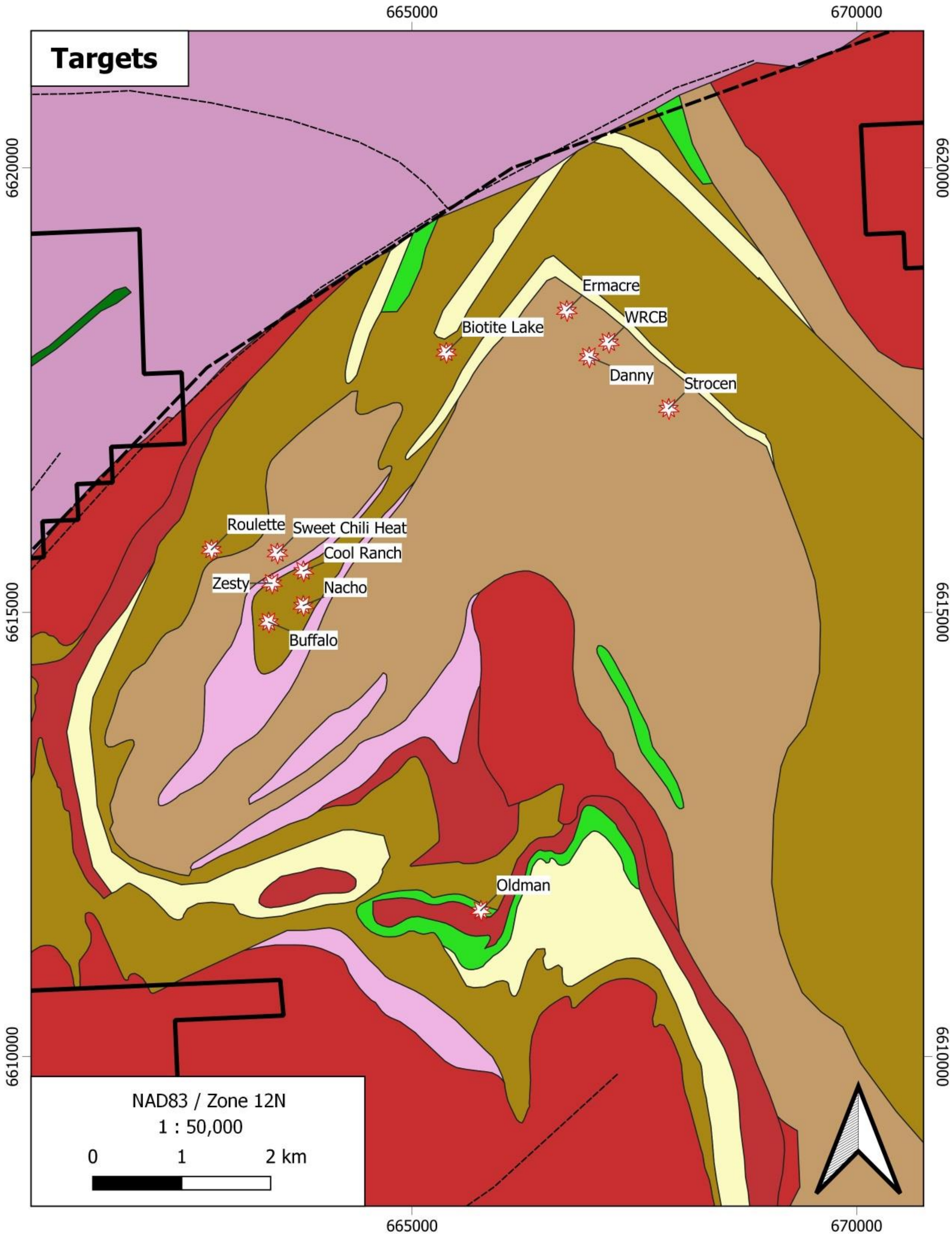

Figure 16: Geological map of the Sweet Chili Heat Zone showing its location in relation to other zones.

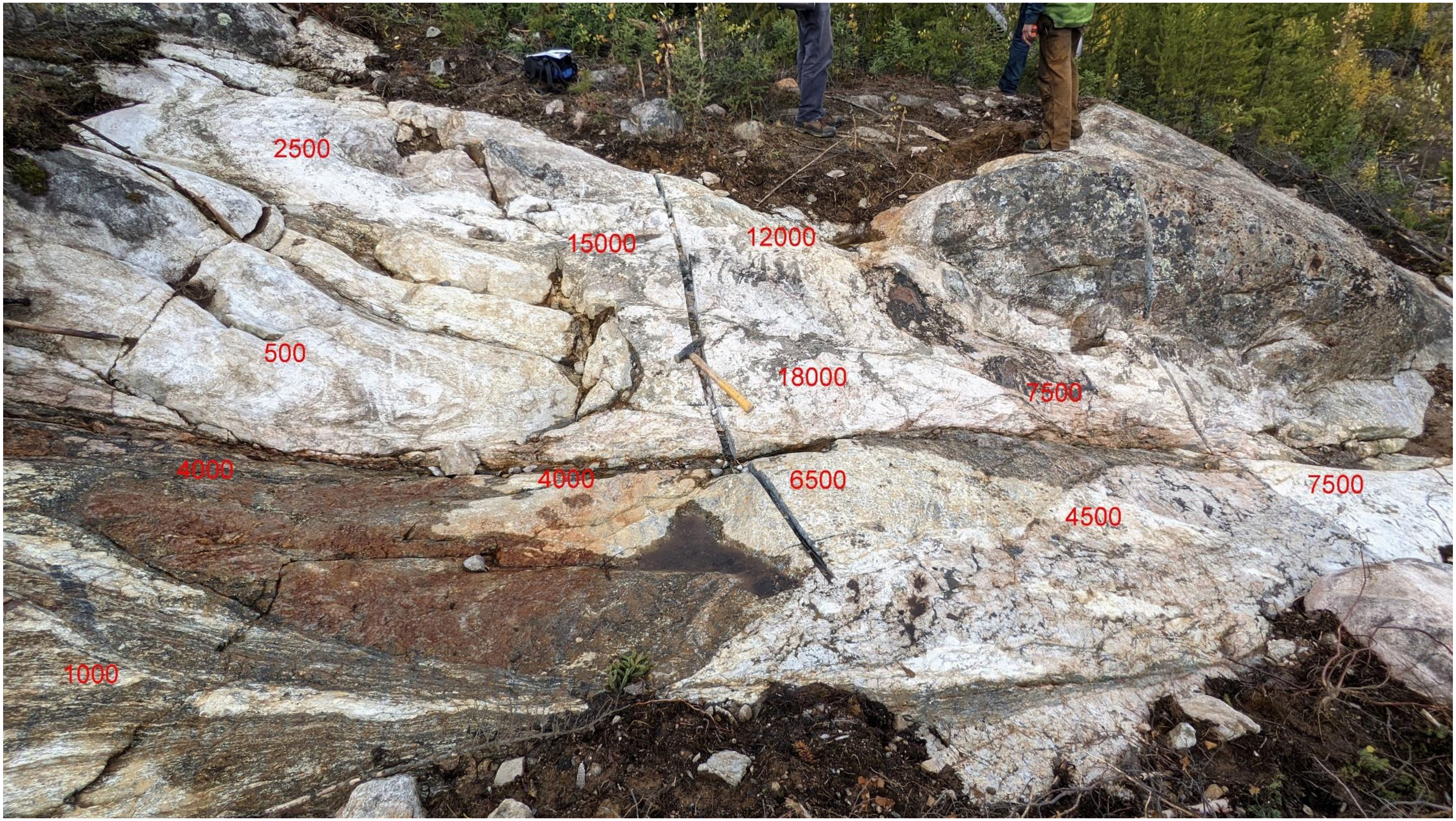

Plate 13: Photo of Diablo Zone showing footwall gneiss at lower left and adjacent paragneiss and pegmatitic rock. Total count radioactivity is shown in red as counts per second. The dark green zones are biotite and monazite as late void-filling mineralization. A close-up of the central area is given in Plate 12. Appia channel sampled across the zone. (note hammer for scale).

Plate 14: Detailed photo of the central part of Plate 11 showing dark green biotite-monazite mineralization filling voids in pegmatite as a result of brittle-ductile shearing. This location produced 15,000 to 18,000 cps (total count).

Table 9
Summary of Key Intersections in the Western Anomaly Zones

Drillhole	from	to	Length	Total REO
	----------	(metres)	----------	(%)
		Sweet Chili Heat		
21-SCH-001	6	10.43	4.43	2.759
21-SCH-001	30.53	31.83	1.3	0.379
21-SCH-002	6	8.4	2.4	1.269
21-SCH-002	20.05	21.8	1.75	1.382
21-SCH-003	11.2	13.5	2.3	1.889
21-SCH-004	6.27	7.8	1.53	1.530
21-SCH-004	27.48	31.39	3.91	0.368
21-SCH-005	5.58	6.48	0.9	1.558
21-SCH-005	21.81	23.64	1.83	0.498
21-SCH-006	20.13	23.97	3.84	0.783
21-SCH-007B	44.22	46.36	2.14	0.599
22-WES-003	20.32	21.9	1.58	0.272
		Diablo Zone		
21-DIA-001	6.11	13.2	7.09	1.593
21-DIA-001	22	29.8	7.8	0.648

7.2.13 ERMACRE ZONE

The Ermacre Zone is a 50m x 50m highly radiometric anomaly hosted by biotite-rich pegmatite in semipelitic gneiss (country rock) located about 400 m northwest of the WRCB Zone (Figure 17). Appia's initial geological mapping indicated that the zone is located along an axial planar body of biotite pegmatite, however more recent thinking suggests that the outcrop is more suitably described as a plunging linear feature in the fold hinge rather than a planar feature in the axial plane.

A more detailed view of the Ermacre Zone is shown in Figure 18 in which the Appia's trenching is clearly visible. Appia's 2021 channel sampling returned assays of 2.49% TREO over 2.16 m, 2.84% TREO over 3.09 m and 3.40% TREO over 0.77 m. The zone was explored with 445 m of drilling during 2021 and the results were poor, the best hole being ER-20-001 which returned a 2.1 m long intersection at 4.8-6.9 m grading 0.30% TREO. The intersections from the two holes are summarized in Table 10. Appia believes the results were unrepresentative due to a mis-interpretation of the geology.

Table 10
Summary of Key Intersections in the West Limb Zone

Drillhole	from	to	Length	Total REO
	----------	(metres)	----------	(%)
ER-20-001	4.05	6.90	2.85	0.24
22-WRC-033	12.53	23.05	10.52	0.06

The single drill hole indicated the presence of diatexic paragneiss cut by a biotite-rich shear zone between 5.3 m and 6.9 m. Minor limonite-filled fractures were also present throughout the area, similar to those observed in the Wilson component of the WRCB. Although scintillometer readings were carried out, revealing 100-200 cps, they were not considered significant enough to continue drilling. However, geochemical assays conducted on the samples collected from the biotite-rich shear zone indicated the presence of low-grade TREO contents ranging from 0.3% to 0.6% between 6.0 to 6.9 m. This TREO content and rock package is comparable to that of the AMP zone. Based on its newly acquired knowledge of the AMP Zone, and its potential for large-tonnage, low-grade bodies, the Ermacre Zone may yet be shown to contain economically viable REE deposits. Consequently, follow-up drilling is scheduled for 2023 with the goal of obtaining more information to better characterize this zone.

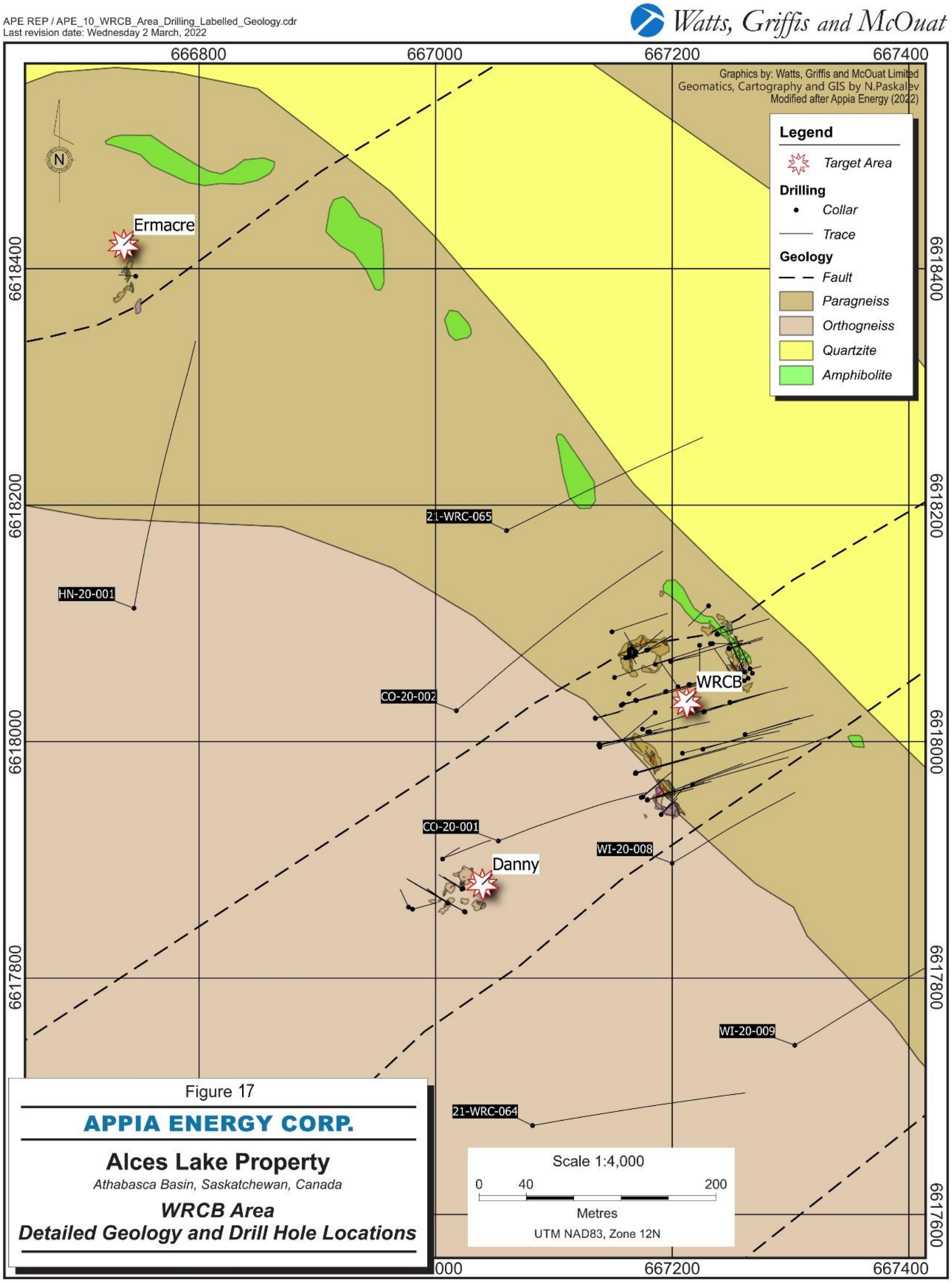

Figure 17

APPIA ENERGY CORP.

Alces Lake Property

Athabasca Basin, Saskatchewan, Canada

WRCB Area
Detailed Geology and Drill Hole Locations

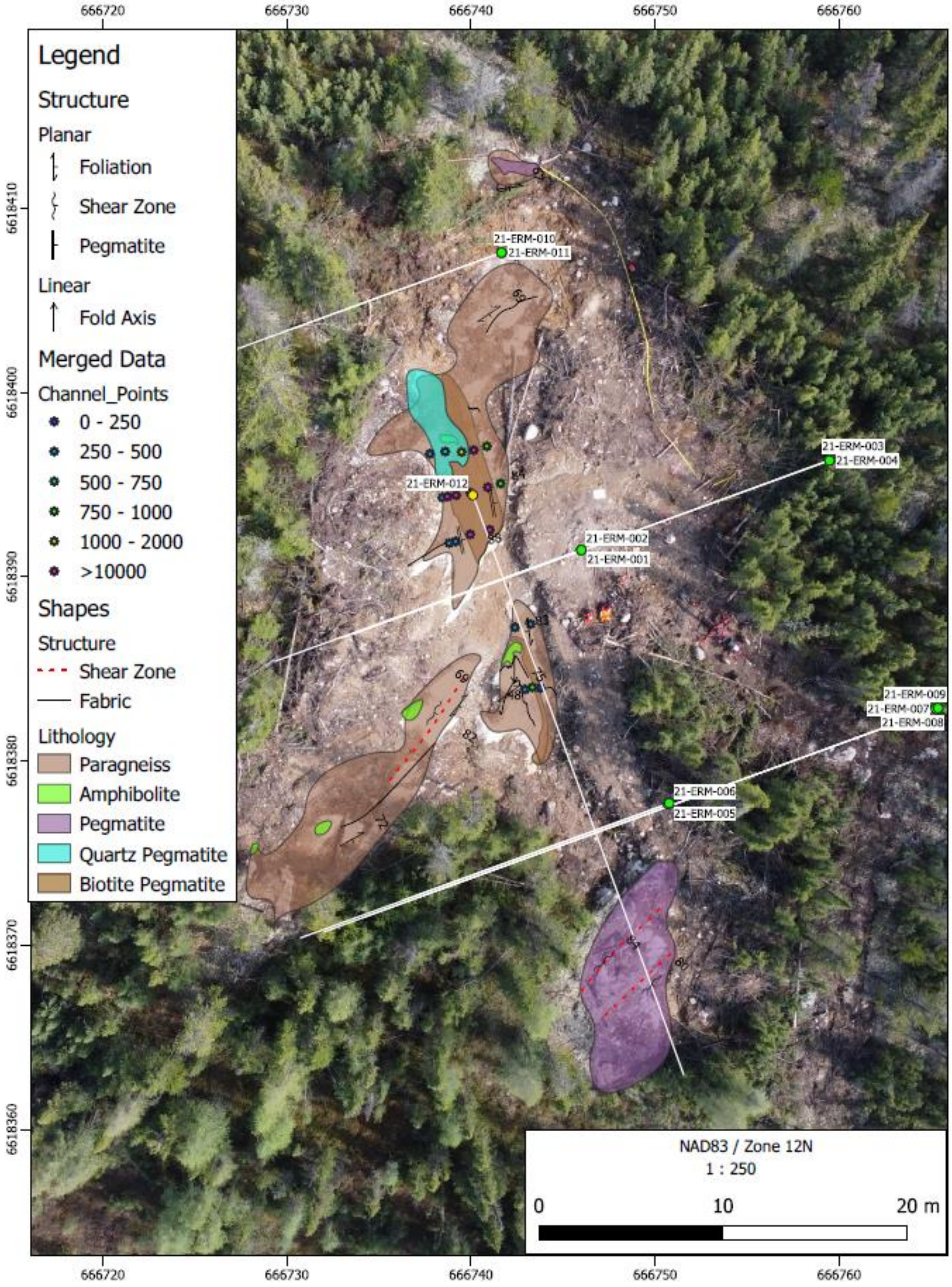

Figure 18: Geological map of the Ermacre Zone showing the geology, trench and drill hole locations.

7.2.14 OTHER ZONES

Four additional zones have been diamond drilled during 2020. Two relatively deep holes CO-20-001 and CO-20-002) were drilled at the Cone Zone to lengths of 285.6 m and 306.6 m, or vertical depths of approximately 260 m and 212 m. The Mikaela Zone was tested by two shallow diamond drill holes, 47.2 m and 48.2 m in length. Neither hole returned an interesting REE intersection. The Regional Target was similarly tested by two holes totalling 96.4 m.

The drilling at Cone was designed to improve the understanding and the 3D lithology of this area which is an extension of the WRCB Zone. The Cone Zone is a subzone located within the general region of the WRCB, and its geological characteristics are similar to those of the WRCB. Orthogneiss, paragneiss, amphibolite and quartzite represent the lithological sequence, often intruded by pegmatites. While a few biotite-rich pegmatites were discovered at Cone, which are similar to the host rock typically hosting REE-bearing monazite, no mineralization was present. The midpoint of the first deeper hole produced a 30 cm intersection of 0.175% TREO. The remaining samples in both holes failed to contain interesting REE values. Consequently, no follow-up drilling was conducted. The lack of significant mineralization in the Cone Zone indicates that further exploration of the area may not yield economically viable REE deposits. However, the information gathered from the drillings may prove useful in better understanding the geological characteristics of the region and aid in future exploration operations.

The Mikaela Zone is situated northeast of the Ivan Zone and within the WRCB region. The Mikaela zone is situated within the amphibolite to quartzite boundary of the WRCB area. The two holes completed were designed to follow up on favorable surface testing results, however the analytical results were unfavorable. Further analysis suggests that the 30 cm wide interval containing 0.26% TREO may be situated at the top of the AMP Zone. A hematite, epidote, and chlorite-altered fault is present between the depths of 1.5 m to 12.3 m. This fault is a common occurrence in relation to the AMP Zone. Despite the promising findings, Appia does not intend to follow up on the Mikaela zone in the near future due to extensive drilling already completed in the WRCB area and near the Mikaela Zone.

The two holes drilled on the "Regional Target" during the early stages of the Alces Lake Project (AL-19-003 and AL-19-004) are in fact best reclassified as testing possible extensions of the WRCB Zone. Neither hole produced an interesting intersection.

A 100 m^2 area of interest referred to as "**ALA**" is located southwest of the Augier Zone now known as Magnet Ridge. Most of the bedrock in the ALA area is orthogneiss composed of plagioclase, quartz and biotite. Some areas of the gneiss are enriched in K-Spar, and a few areas exhibit cavities where garnets have been weathered out. Compositional zoning in the orthogneiss trends north to north-easterly with a dominant westerly near-vertical dip. There is no variation in radioactivity across the zone that could be attributed to the composition of the orthogneiss. A short, 25 cm wide massively biotite-filled shear zone is noted at one location, however the shear is very discontinuous at surface and cannot be traced. Radioactivity at this locations produces values as high as 10,000 counts per second ("**cps**") , clearly indicative of thorium and the presence of monazite. The margins of this shear were accompanied by dark altered quartz, probably a result of the radiation damage. At another location, a zone approximately 76 cm wide contains massive monazite, massive biotite and biotite rich orthogneiss resembling pebbly biotite schist with radioactivity as high as 41,000 cps. Golf ball sized hand samples retrieved from outcrop were reading as high as 7,000 cps. The structure appears to be continuous for at least 3 metres along strike parallel to the foliation in the orthogneiss. About 30-40lbs of rock was removed for assaying, however no results are currently available. As a general note, the three highly radioactive occurrences are westerly dipping and are located over a distance of 25 m along a similar N to NE trend-line suggesting continuity in the bedrock below the overburden.

8. DEPOSIT TYPES

REE mineralization occurs in pegmatites that have been injected into brittle shear zones and fracture systems in the gneissic host rocks as well as in anatectic bodies/pods that occur along major shears. In the most general sense, the mineralization can be classified as vein stockworks that follow major shear zones, and expand into larger monazite-bearing bodies where brecciation occurs that creates open spaces. Narrower zones of mineralization, such as the Ivan Zone, are thought to represent areas where little dilation or extension occurred resulting in a poorly transmissive conduit. Broader zones of mineralization, such as Wilson and Charles may be due to greater extension which allowed a greater volume of pegmatite to be emplaced which in turn allowed for greater circulation of REE-bearing fluids. In this sense, the intersection of faults and shears is believed to result in larger zones of mineralization. Areas where extensional fractures may occur in the apex of fold structures, such as in the Hinge Zone, are also believed to represent favourable exploration targets.

9. EXPLORATION

9.1 PROCEDURES/PARAMETERS OF SURVEYS AND INVESTIGATION

During October, 2011 Appia Energy Corp. and Mr. Scott Bell initiated exploration in the Alces Lake area with a helicopter-supported prospecting program in the area of the Wilson trenches that were previously resampled by Wilson. Fifteen (15) rock samples were collected in total; however, only 5 samples were sent for analysis at the Geoanalytical Laboratory of the Saskatchewan Research Council ("**SRC**") in Saskatoon, Saskatchewan. The samples contained total REE concentrations ranging from 1.97% to 16.08% (Bell, 2013).

During a 2-week period in late September, 2013 a six-man crew established a cut-line picket-grid over the REE mineralization with a 200 m baseline and 50-metre long cross-lines at 25 m intervals. Ground VLF-EM and magnetometer surveys were carried out on the cross lines at 5-metre intervals. Prospecting continued around the Wilson trenches, and a new zone, Ivan, was discovered 90 m northeast of the Wilson trenches. Scintillometer readings from the Ivan zone were consistently greater than 56,000 cps (maximum scale). A total of 14 rock samples were collected and analyzed at the SRC laboratory, producing results ranging from 1.06% to 10.38% total REEs in the Wilson trench area, and from 4.66% to 36.20% total REEs in the Ivan zone (Bell, 2014).

During a short period in May, 2016, Geotech Ltd. carried out a helicopter-borne geophysical survey over the Property for Appia and Bell totalling 154.3 line-kilometres. Versatile time domain TM electromagnetics (VTEM Plus), horizontal magnetic gradiometer and RSI ARGS RSX-5 spectrometer data were collected. At least three regional geological domains were distinguished and differentiated. In addition, the radiometric part of the survey outlined many large anomalous targets requiring ground follow-up investigations. The areas around the Wilson trenches and Ivan zones were centred on the strongest and largest radiometric anomaly (Bell and Sykes, 2016).

Following its airborne geophysical (magnetometer and gamma-ray spectrometer) surveying, Appia's ground exploration program has followed a systematic approach of prospecting with hand-held scintillometers and spectrometers to determine the precise location of anomalously radioactive zones in the field. The approach uses the radioactivity of thorium as a pathfinder for monazite since the REEs themselves are not radioactive. As of the date of this report, Appia's initial sampling included 5 radioactive boulders and 138 grab samples from various showings including Oldman, Cliff, Danny, Wilson, Quartzite, Biotite Lake, Shrek and the Western Anomaly.

During a 2-week period beginning on 22 August, 2017 Appia completed a ground reconnaissance exploration program over the Property. Relatively small-size (localized) grids were established over the REE prospects because of the limited footprint of the target areas. These were then used for systematic surface surveying of radioactivity and the planning of diamond drill holes.

A total of 61.7 kilometres ("km") were traversed over an 11-day period covering an area of approximately 1.83 km^2. A total of 121 unique locations were visited with ninety-nine (99) of those locations recorded as radioactive occurrences. Fifty-two (52) individual samples were collected from outcrop exposures as grab or channel samples, or from boulders. Six (6) REE-bearing zones were discovered: Danny, SE Danny, Hinge, North Regional, NW Wilson and SE Wilson. The Wilson trenches and Ivan zone previously detailed by Bell (2013; 2014) were revisited to acquire continuous cut-channel samples. Selected zones have been reported as follows in respect to weight percent total rare earth oxide ("**REO**") contents with the lengths given for any cut channel samples:

Ivan Zone:	49.64 weight % REO over 0.95 m 45.92 % REO over 1.85 m
Wilson Zone:	30.76% REO in boulder 18.53% REO over 2.7 m 9.07% REO over 4.6 m including 20.94% REO over 1.8 m 6.62% REO over 1.8 m
Danny Zone:	13.63% to 2.43 weight % REO in outcrop grab samples
Hinge Zone:	8.73% to 3.74% REO in boulders 1.90% REO over 1.5 m
NW Wilson Zone:	5.10% to 1.68% REO in boulders and outcrop grab samples

All zones demonstrated mineralization that contained high concentrations of rare earth metals. The sum of the critical rare earth metals neodymium ("**Nd**"), praseodymium ("**Pr**"), dysprosium ("**Dy**") and terbium ("**Tb**") accounted for approximately 23% to 25% of the total content.

“Critical rare earth metals” are defined as those with scarce supply and in high demand. Though used in small quantities, these metals are essential in many high-tech applications such as electric vehicles, cell phones, wind turbines and magnets. When alloyed with other metals, their addition imparts special properties that are essential to the functioning or improved performance of the manufactured item.

From early June through late September in 2018, Appia carried out ground exploration consisting of prospecting, radiometric surveying and geological mapping followed by diamond drilling. In support of this program, a field camp and supporting communications and other infrastructure was established on Alces Lake.

Following the discovery of major radioactive showings, the bedrock was exposed by stripping the overburden and removing any vegetation growth that may be present. Typically, the overburden is less than one metre in thickness. Some hydraulic stripping was used to wash the bedrock to remove lichen and other firmly attached growth such that a clean surface is available for mapping. The exposure is surveyed by GPS instrumentation to provide a highly accurate outline within which the geology is mapped. Detailed radiometric readings are taken at this time and profiles across the mineralization are marked for channel sampling. Typically, these profiles are approximately 5 metres apart however they may be closer if the geology is irregular. Channel samples averaged 53 centimetres in length and sample intervals were defined by the geology. All cleared and sampled bedrock exposures were photographed in detail.

The new bedrock sampling totalled 437.6 m of excavations and channel samples within six (6) radioactive outcrops (Bell, Charles, Dante, Dylan, Ivan, and Wilson). The highest grade-thickness geochemical assay results from the high-grade sections of each channel sampled zone expressed as weight percent total REO are highlighted as follows:

Bell Zone:	14.31%	REO	over	1.49 m
Charles Zone:	14.90%	REO	over	5.13 m
Dante Zone:	12.09%	REO	over	0.79 m
Dylan Zone:	41.53%	REO	over	1.02 m
Ivan Zone:	22.35%	REO	over	6.21 m
Wilson Zone:	14.35%	REO	over	4.75 m

Following the recognition that REE mineralization in monazite was closely associated with structures such as faults, shear zones, tension fractures and breccia pods, the exploration incorporated reliance on satellite imagery and airborne geophysical interpretations, especially of magnetometer data, to identify structural lineaments and offsets as likely exploration targets.

These areas were prospected on the ground with gamma ray spectrometers in the search for zones of anomalous radioactivity. Following the discovery of an anomaly, the radioactive zone was traced to ascertain its strike. “Hot-spots” were marked with orange plastic flagging. These zones were subsequently stripped of overburden to allow geological mapping and channel sampling. Based on these results, drill sites were selected to test each zone.

It was noted that some rocks associated peripherally with the mineralization contained elevated pyrite contents. Typical background levels pf pyrite average less than 1% whereas average contents as high a 4% have been noted across some samples. On a cm-scale, pyrite may comprise 10% or more of the rock volume. This observation suggested a potential for using induced polarization (IP-resistivity) surveying to model the subsurface geometry of REE-bearing rocks. However, Appia’s testing of IP as an exploration tool failed to generate useful results. The essential problem is that pyrite content is too irregular to be a useful vector for REE mineralization. Many highly mineralized zones contain no anomalous pyrite, and rocks averaging 4% or more pyrite may occur at some distance from mineralization. In other holes, wide zones having 3-4% pyrite showed no significant mineralization. This irregular relationship is illustrated in Figure 19 where the scintillometer readings in counts per second are used as a proxy for REE content. No discernible relationship can be seen between REE contents and pyrite contents. Figure 20 illustrates an uncommon example of a pyrite-bearing intersection within the same mineralized zone as the preceding figure. A close relationship is noted between radioactivity and pyrite content. In viewing these two illustrations, the author notes that the relationship between pyrite and REE contents may be too sporadic to support the cost of establishing a grid and carrying out extensive IP surveying. Short-profile IP surveying should be considered, even on a reconnaissance basis, as a viable exploration tool in those zones where a pyrite-REE association can be recognized as it represents a means of modelling the subsurface and better directing Appia’s drilling.

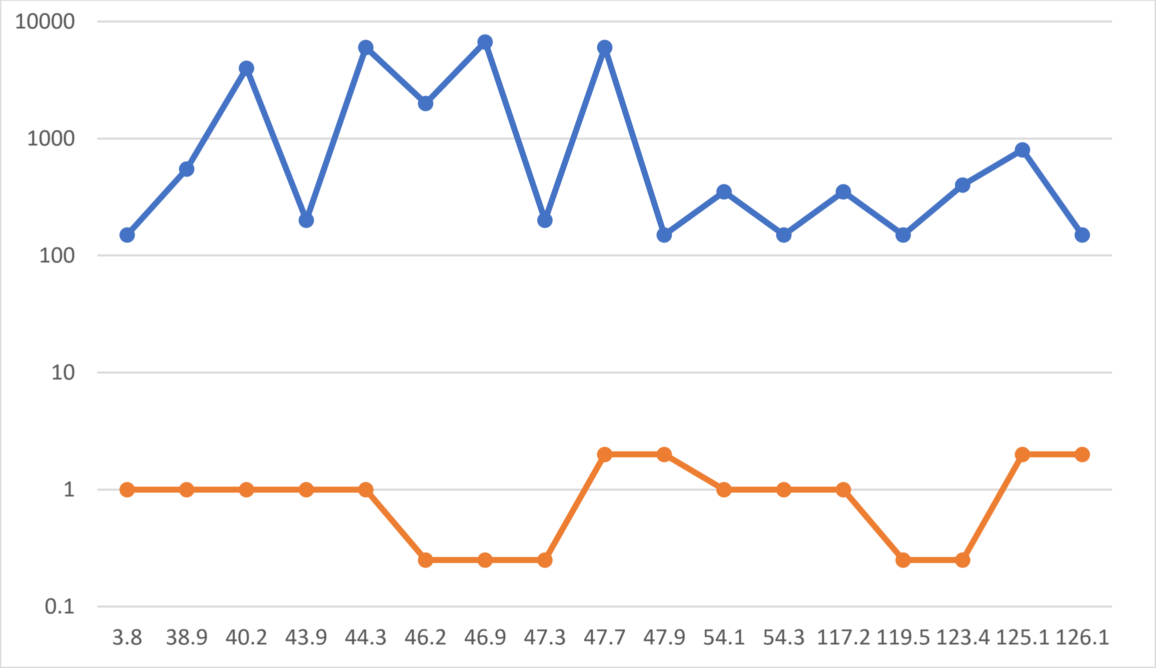

Figure 19: Relationship Between Pyrite Content and Mineralization. Depth down the hole is located on the X-axis. The Y axis (logarithms) shows radioactivity in counts per second (blue) and pyrite content (orange). Data is taken from 22-WRC-024.

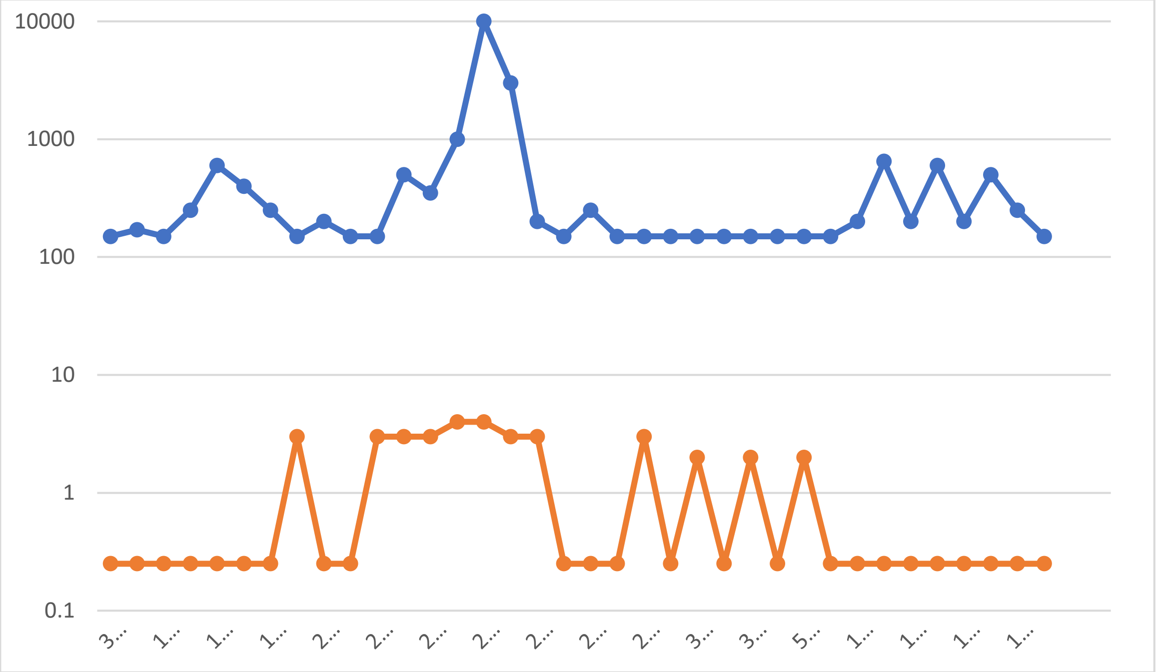

Figure 20: Relationship between pyrite content and mineralization. The axes are the same for the preceding figure. Data is taken from 22-WRC-022 showing a rare close spatial relationship between pyrite content and a highly radioactive zone. Note that other spikes in radioactivity have no associated increase in pyrite content.

Based on the initial very favourable results from channel samples, Appia initiated a series of drilling programs beginning in 2018 and continuing through August, 2022 that are described in the following chapter entitled "**10. Drilling**".

This work was initiated by the re-opening of the Alces Lake camp and rebuilding trails from May 31st through July 8th, 2019. A 200 m by 300 m DSM-gravity-aeromagnetometer survey with orthophotography was completed focusing on high-grade REE surface zones during June. During September, two radioactive outcrops ("Quartzite" and "Thomas") as well as the Oldman Zone were excavated and channel sampled on 1-2 m intervals. Radioactivity was used by Appia as its main guide to identifying targets for drilling because thorium and uranium are closely associated with REEs in monazite. Due to persistent backlogs of samples at the major geochemical laboratories, and the resulting delays in the delivery of analytical results, Appia has relied heavily on the gamma ray spectral data for the targeting of follow-up drill holes. A total of 42 diamond drill holes totalling 2026.05 m was completed in the Charles, Dante, Ivan, Mikaela and Richard zones between June 11th and August 8th. A total of 274 drill hole samples were cut with an aggregate length of 133.55 m. Sample lengths were adjusted to geological variations rather than adhering to an arbitrary standard length in order that the relationship between REE content and lithology / mineralogy might be better understood.

9.2 SAMPLING METHODS AND SAMPLE QUALITY

9.2.1 SURFACE SAMPLING

With the exception of promethium, the REEs are not radioactive. This element is extremely rare and is not present in any significant concentrations in the Alces Lake area. Nevertheless, exploration teams can use the natural radioactivity of thorium and uranium as a proxy in exploring for REEs because of the two metals are closely associated with REE mineralization. Appia geologists collect grab sample from bedrock that emits significantly higher than background levels of gamma-ray activity. Most of this emission is due to thorium which on average is many times more abundant than uranium in the mineralization on the Appia property. A Super Scint RS-125 spectrometer developed by Radiation Solutions Inc. of Mississauga, Ontario, was used to outline the extent of radioactivity within the outcrops for determining the length of channel samples. The different emission energies of the gamma-rays can be analysed with a spectrometer to initially indicate whether mineralization is relatively uranium rich in comparison to thorium. Due to the Archean age of the pegmatites, the uranium channel on the spectrometer can be used to give an approximation of actual uranium content as the uranium is in equilibrium with its daughter (decay) products. The same can also be said of thorium using the thorium channel.

Appia stripped and channel sampled any zones that demonstrated traceable continuity (indicating that they were more than a spot or spurious feature). Two gasoline-powered 12" diamond-bladed Stihl TS410 Quick Cut Saws were used to make two parallel cuts into the bedrock approximately 5 cm apart across the radioactive zone and into wall rock on both sides. A chisel was used to extract the rock between the cuts which was then placed in a numbered plastic bag for subsequent analysis. Samples range in length from 17 cm to 2.0 m. The average length of 965 samples taken was 53 cm. The location of each profile was surveyed using a Trimble Geo 7X handheld differential GPS. The location of individual samples along the channel was adjusted relative to the end points. Sample data was entered into an Excel spreadsheet file with headings for the sample number, a sample reference identifier, from and to meterages for the channel sample, the sample length, UTM co-ordinates and elevation, the lithology and the target name as well as a grid name (number) if available. The sample identifier denotes the year the sample was taken and the batch number for the group of samples sent to the laboratory.

Due to the glaciated nature of the bedrock, the sub-arctic relatively cool and dry climate, there is very limited bedrock weathering in the Alces Lake area. Visible weathering of the pegmatite does not extend\ more than 1-2 cm into bedrock except in rock that is sheared and/or highly fractured. Sulphide mineralization, typically pyrite, is preserved within less than 1 cm of surface. Given the use of a diamond saw to cut approximately 5 cm into bedrock, channel sample quality is thought to be excellent. WGM is satisfied that Appia collected samples that were representative of the underlying bedrock and not significantly affected by weathering conditions.

Appia's samples of boulders also benefited from the impact of glaciation which removed any (soft) highly weathered material from the outer margins of the rock. Appia's grab samples were variable weathered, especially in rusty shear zones, and were taken with the goal of demonstrating the presence of mineralization and not necessarily as being representative of the average mineralization in a particular zone. Provided the "grab" context of such samples is recorded, this approach during the early stages of a project is acceptable. Grab sampling is always best if it includes low-mineralized or wall rock material as well as the mineralization.

WGM reviewed the distribution of bedrock grab samples in respect to combined U + Th values against the contained (total) REE content. Total U+Th content was used as a proxy for radioactivity since gamma-ray emissions were the primary vector used in selecting samples for analysis. The relationship is shown in Figure 21 which plots geochemical U+Th content against total REE content. As can be seen, Appia selected a large number of samples with low to moderate levels of radioactivity. Those with less than 100 ppm U+Th accounted for 58 (42%) of the samples collected. Those with higher levels of radioactivity (>500 ppm U+Th) account for 40 (29%) of the grab samples and these exceed 3,600 ppm total REEs. WGM concludes that Appia's sampling was representative of industry best practices and was not driven by a desire to produce misleading results.

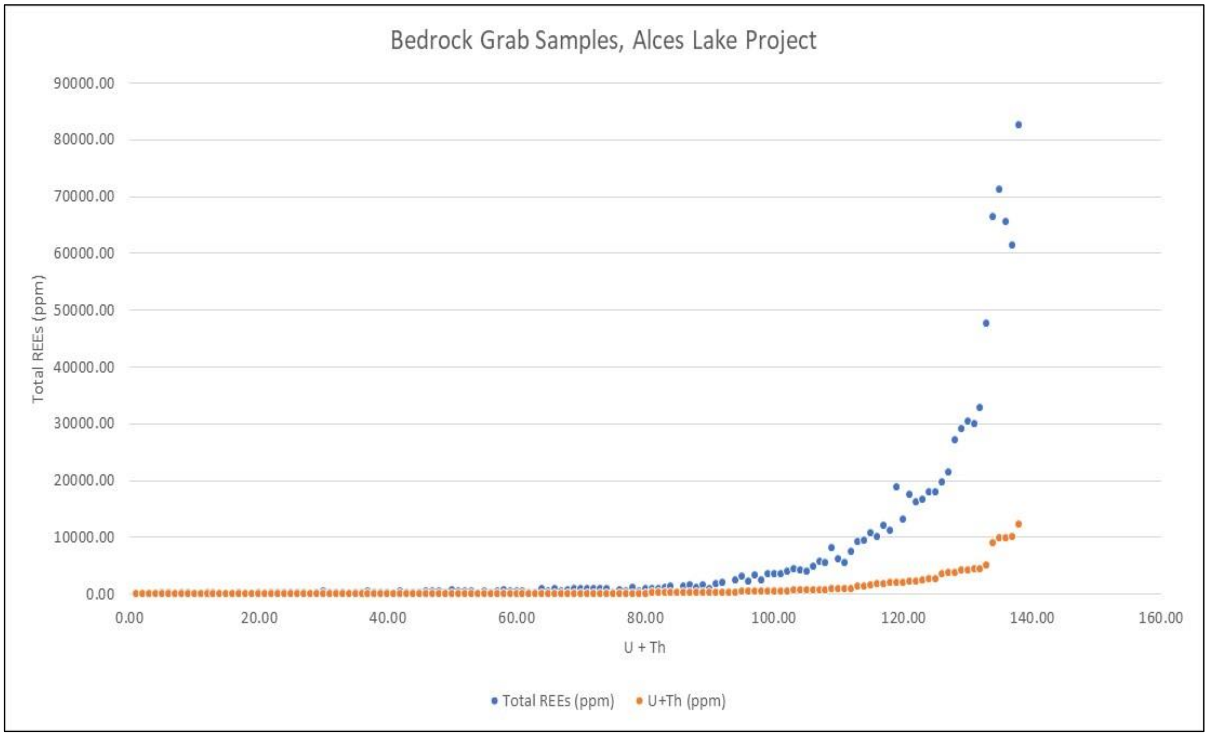

Figure 21: The graph plots geochemical U+Th content in parts per million (horizontal axis) against total REE content in part per million (vertical axis). A total of 138 bedrock grab samples collected by Appia are represented in the graph.

WGM also reviewed the distribution of bedrock channel samples in respect to combined U + Th content against the contained (total) REE content. As with the bedrock grab samples, total U+Th content was used as a proxy for radioactivity - gamma-ray emissions and the local geology guided the selection of locations to be channelled and sampled for analysis. A total of 970 channel samples were analysed by Appia. The relationship between radioactivity and total REE content is shown in Figure 22 which uses a logarithmic scale for the Y-axis due to the great range of REE values. Geochemical U+Th content is plotted against total REE content. A total of 391 samples (40%) contained less than 100 ppm U+Th, a very similar percentage to that indicated for grab samples. However, given the targeted nature of the channel sampling, the range of mineralization shows significantly higher grades than the grab samples. A total of 420 (43%) of the 971 channel samples contained >500 ppm U+Th and >3,200 ppm total REEs; 354 samples (36%) of the samples contained >1,000 ppm U+Th and nearly all of these exceeded 5,500 ppm REEs.

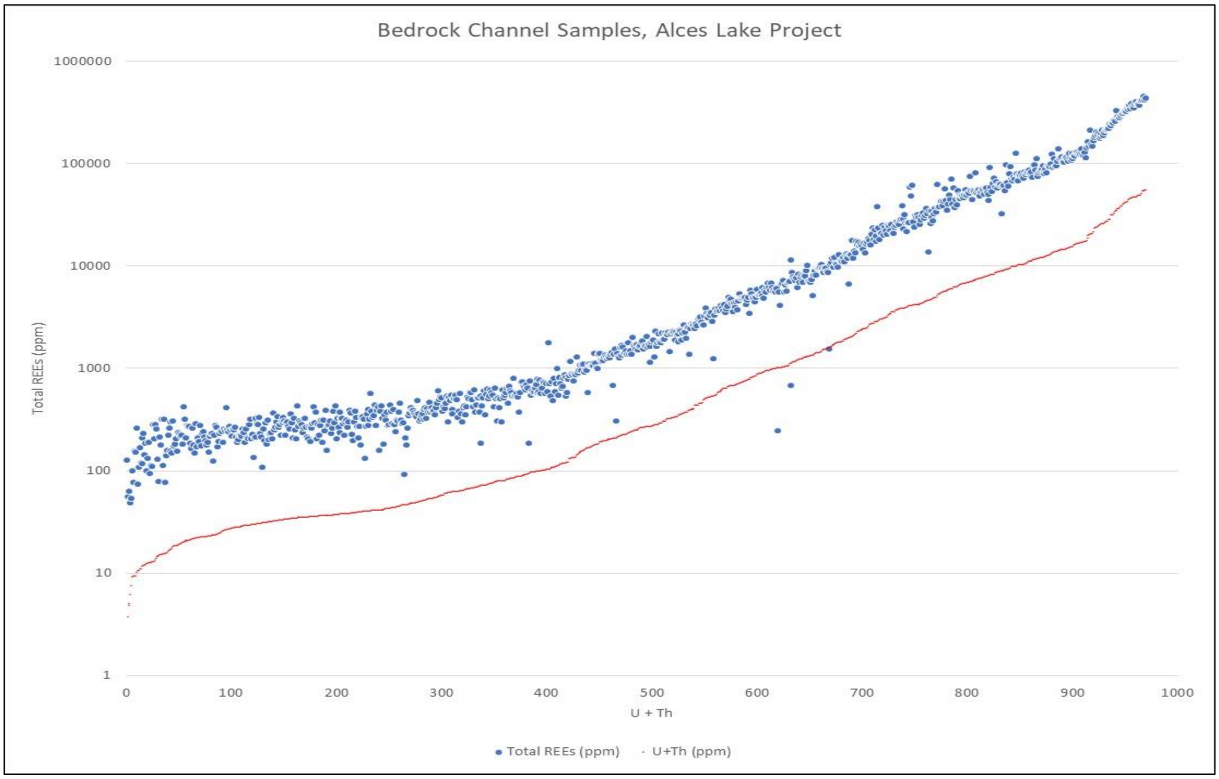

Figure 22: The graph plots geochemical U+Th content in parts per million (horizontal axis) against total REE content in part per million (vertical axis). A total of 970 bedrock channel samples are represented.

In general, the total REE contents were correspondingly greater in the channel samples than in the grab sample population. The two populations are summarized in respect to total REE content as follows:

Grab Samples:	> 500 ppm U+Th	29% of population	3,556 to 82,580 ppm REEs
Channel Samples:	> 500 ppm U+Th	43% of population	1,240 to 453,718 ppm REEs

WGM concludes that Appia's sampling was guided by radiometric responses; however, sampling was consistent with industry best practices and was not driven by a desire to produce misleading results.

Appia's initial programs did not make use of control samples. During 2021, Appia introduced the use of certified reference materials , duplicate samples and blanks. This program included 21 control samples in a population of 240 bedrock grad and channel samples.

Concurrent with on-going surface exploration during 2019, Appia initiated diamond drilling programs designed to explore the subsurface continuity, dimensions and grade of mineralization outlined on surface. The 2019 program recovered BQ-sized drill core (3.64 cm diameter). Since that time, Appia has used 4.76 cm diameter NQ-sized core as its standard. Although the wall rocks and mineralized zones are generally well recovered except where highly sheared, the use of the larger core size has resulted in improved sample recovery, typically exceeding 95% (Plate 15).

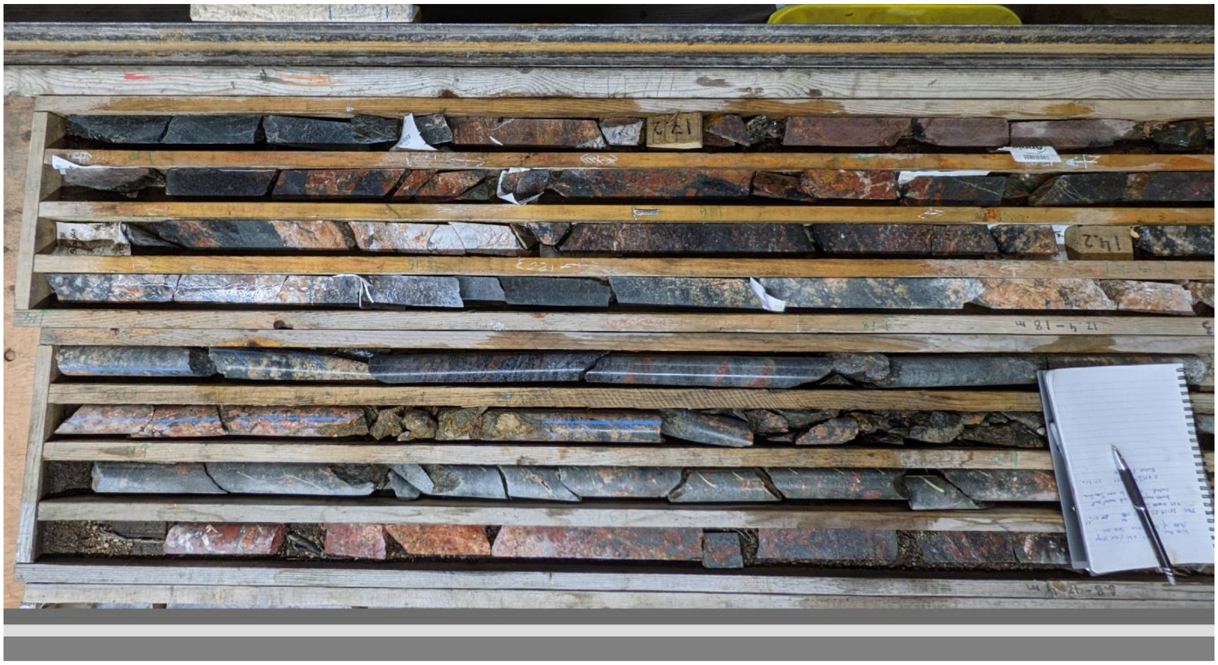

Plate 15: Typical tray of drill core showing excellent recovery of the mineralized zone (cut sections).

Drill core is placed in NQ-sized, wooden core trays sufficient to accommodate approximately six metres of core per box. Each box was labelled with the drill hole ID, box number and from-to depths with marker directly on the box. Dymo brand metal embossing tape was used for labels on the front of each box. Each label included the drill hole ID, box number, and depth ranges. The first box of each drill hole also had a label with "Appia Energy Corp." and a blue ribbon was stapled to the front. Drill core meter marks were recorded with green crayon.

Radiometric data from the drill core was recorded using a Radiation Solutions SuperScint RS-125 gamma ray spectrometer for all drill holes. Radiometric data intervals were recorded in red crayon directly on the drill core and the levels were recorded in the drill log. Drill core photos were taken using various Samsung and Apple smartphone devices. All drill core was cross-piled and stored at the core shack location. Drill core data was logged into a proprietary Access database built for Appia Energy Corp. Drill data and information was recorded for Collar, Downhole Deviation Survey, Box Metreage, Summary and Detailed Geology, Structural Zones, Non-Oriented Point Structures, Geotechnical Data, Alteration (Deslicification, Silicification, Clay, Hematite, Limonite, Chlorite, Carbonate), Mineralization (Monazite, Graphite, Sulphides), Radiometrics, and Sample intervals.

Drill core exceeding 250 counts-per-second (“**cps**”) defined intervals to be cut for sampling purposes. Intervals on the shoulders of such zones was also sampled. Core sample intervals ranged from 10 cm to 1.1 m lengths to correlate, as-best-as-possible, with spectrometer readings. Specific scintillometer ranges were not pre-defined for sampling purposes. Thus, the sample intervals are defined in the context of the radioactivity (mineralization) present in each hole.

All channel and diamond drill samples were placed in sample bags with the appropriate sample tag, sealed, and stored in white sample pails, and shipped directly from the project site at the end of the exploration program and hand-delivered to Saskatchewan Research Council’s Geoanalytical Laboratory (“**SRC**”) in Saskatoon, SK. With the substantially increased drilling and sampling in 2021 and 2022, sets of samples were sealed in labelled plastic pails and sent by float plane and/or fixed wing airplane to the McMurray Aviation base in Fort McMurray where staff arranged for delivery of the samples to the SRC according to specific instructions. Appia e-mails the SRC a list of the numbered pails and the contents of each by which SRC determined and confirmed back to Appia the integrity of the shipment.

Geochemical assay results were provided by the SRC, an ISO/IEC 17025:2005 (CAN-P-4E) certified laboratory for major element and REE analysis using the Whole-Rock and Rare Earth Element Lab Packages. The Rare Earth Element analysis uses a lithium metaborate fusion to dissolve refractory minerals, such as monazite.

9.3 RESULTS AND INTERPRETATION OF SURFACE EXPLORATION

9.3.1 GRAVITY SURVEYING

The 2019 geophysical gravity survey conducted by MWH Geo-Surveys International Inc. provided valuable insight regarding the surface-bearing REE zones. The primary purpose of this small, 200 m x 300 m survey was to detect contrasts in gravity signatures between monazite-bearing surface showings (monazite has a density of about 5 g/cm^3) and surrounding country rocks composed of metapelite, granitic rock and amphibolite (2.6-3.0 g/cm^3). This gravity survey proved to be useful in showing distinctions between the mineralized pegmatites seen on surface and the surrounding rocks. The Wilson, Charles, Bell, Dante, Mikaela, Dylan and Ivan zones, all of which contain visible and locally massive monazite mineralization, are all characterized by gravity highs. This suggested that the monazite mineralization seen on surface may be part of a larger system extending to depth. Potential factors that may influence a gravity survey are overburden, alteration, and fault structures.

In the Ivan Zone, diamond drill hole IV-19-003 was the first hole to test the depth-effectiveness of the gravity survey. This hole returned 11.65 m of semi-massive to massive monazite mineralization, providing evidence to support Appia's exploration model. Diamond drilling within the Ivan Zone continued with limited success until holes '-008 and '-009 followed by success in holes '-011 to '-013 inclusive as well as '-020, '-022 and '023. Of these, hole IV-19-012 intersected 7.90 m of REE-bearing, massive monazite with an average grade of 31.34% TREO. The remaining thirteen holes drilled in the Ivan zone produced no meaningful mineralization, raising questions regarding the effectiveness of using gravity anomalies as a definitive tool for tracing REE-bearing monazite at depth. Diamond drilling at the Mikaela Zone tested its potential gravity high and surface REE relationship. Two total holes were drilled at the Mikaela zone, neither of which produced a return of REE mineralization. Appia concluded that gravity was a useful tool for target identification if the mineralized zones were large or very high grade, but it was not useful in respect to defining mineralization at depth.

The drilling of 8 holes on the Dante zone resulted in narrow (80 cm) intersections in each of holes DT-19-004 and DT-19-004B consisting of monazite-rich pegmatites with grades averaging 15.06% and 28.33% TREOs, respectively. Diamond drilling on the Charles and Bell Zones tested the potential down-dip correlation between monazite showings and gravity highs. Of the eight holes drilled on the Charles Zone, CH-19-010 and CH-19-011 showed promise with intersections at 7.60 m to 9.80 m averaging 8.09% TREO and at 7.80 m to 8.80 m averaging 3.81% TREO, respectively. Unfortunately, no further REE-bearing monazite mineralization was found within the other holes. As at the Ivan Zone, the usefulness of a surface gravity survey as a reliable vector for REE-bearing monazite at depth is in doubt. Wilson, Dante, and Mikaela show much stronger gravity highs than Ivan and Charles. It was thought at the time that drilling on the Wilson, Dante and Mikaela Zones would resolve this question.

9.3.2 MAGNETOMETER SURVEYING

The 2019 magnetic geophysical survey, also completed by MWH Geo-Surveys International Inc., helped Appia to refine its mapping of lithological contacts within the Alces Lake property. Thus as a mapping toll, the magnetometer survey assisted Appia in understanding fold structures and late-stage offsetting fault zones. Host rock lithologies such as quartzite and ortho/granitic gneiss give a low magnetic response in comparison to the semipelitic gneiss and magnetite-rich fault zones within the amphibolite unit. At surface, there is no direct correlation between REE-bearing lithologies and magnetic readings, probably due to the occurrence of the injected REE-bearing pegmatites within both low-mag and high-mag geophysical anomalies. As a result of this ambiguity, the magnetometer responses cannot be used to identify mineralized zones.

A high-resolution, airborne (fixed-wing) magnetometer and gamma-ray spectrometer survey was carried out during 2021 by Special Projects Inc. ("**SPI**") of Calgary, Alberta. This survey incorporated a 16 litre NaI(Tl) crystal sensor configured as a 4x4 array with 16 individually digitized one-litre detectors. The survey was optimized for the detection of small anomalies (e.g. radioactive boulders). The earth's magnetic field was measured with a high-resolution magnetometer utilizing optically pumped Cs and magneto-resistive sensors with inertial (AHRS) attitude compensation. A Riegl laser system was used for measuring ground clearance and topographic mapping. Magnetic field corrections were provided by a CS magnetometer station established at Points North Landing, a GSM-19 magnetometer located at Uranium City and a third at APPIA's Alces Lake exploration camp. A test survey was flown following aircraft and aircrew mobilization on 30 June for a total of 480 line-kilometres with a profile line spacing of 50 metres on north-south flight lines. It was determined that the geology and terrain favoured an east-west survey line direction. The actual survey commenced on 8 July, 2022 and resulted in the completion of 365 east-west profiles and 35 north-south tie lines for a total of 3,912 line-kilometres. The steep terrain in the Alces Lake area demanded that re-flights were required to ensure complete coverage and optimum data quality. The steep slope at the north end required modelling corrections for the shielding effects associated with the gamma spectrometer system. Terrain in this specific area also caused the magnetometer attitude to exceed the polar dead zone active region resulting in occasional gaps in the magnetometer profiles, a problem that was alleviated through the extraction and interpolation of total field data for each line.

A high-resolution photogrammetric survey was also completed over the Alces Lake survey area during 29 June –1 July. Image data processing was performed by Special Projects Inc with preliminary products delivered as required for initial exploration and mapping. The area flown consists of 140,000 images with a ground resolution of approximately eight centimetres (8 cm). The data collected was trimmed to 58,000 images to generally cover the Alces Lake survey area only. Basic processing was performed to generate detailed digital elevation model ("**DEM**") data in areas specified by client. These surveys produced excellent resolution of total magnetic field (Figure 23) and radiometric data (Figure 24) reflecting the contrasting magnetic and radiometric properties of the lithological units comprising the fold nose in the central part of the Alces Lake property. The surveys also show that the ENE-trending St. Louis Fault effectively cuts off the nose of the fold in the northern part of the Appia property.

Additional ground-based geophysical surveying comprising total magnetic field and very low frequency electromagnetic ("**VLF**") surveys were carried out for Appia during 12-27 June, 2021 by Aurora Geosciences Ltd. ("**Aurora**"). The focus of this survey was on the actual fold nose area representing less than 25% of the area covered by the preceding airborne survey. A total of 98 kilometres of walking traverses were completed with total field magnetic, residual magnetic field, and vertical gradient measurements taken at nominal 10-metre intervals using Mag/VLF 6 GSM-19 magnetometers and GEM Overhauser magnetometer sensors. The VLF in-phase and out-of-phase readings were taken using GEM VLF sensors. The survey grid was designed without cut-lines and with a profile spacing of 25 metres located to cover portions of the main fold structure that hosts the mineralized zones. Two different grid orientations were used to allow for optimum profiling across the fold limbs, and different VLF transmitter stations were used to allow for optimum coupling between bedrock structure and the transmitter signal. Handheld GPS receivers were used by the crew to navigate the grid. Some gaps occurred in the recorded data over impassable terrain. Two base magnetometers were set approximately 3 km north of the survey area to allow data levelling for quality control purposes. Residual magnetic intensity data shows two aspects of the fold geology very clearly (Figure 25):

1) the contrasting magnetic properties of the different lithologies striking approximately WNW on the limb of the fold; and,
2) discordant lineaments cutting NNW across the fold limbs at an intersection angle of approximately 30 degrees.

The contoured Fraser filtered in-phase VLF data showed several strong (narrow) linear conductive zones striking north-westerly through the area hosting many of the REE-bearing prospects and aligning closely with the discordant features observed in the residual magnetic intensity map.

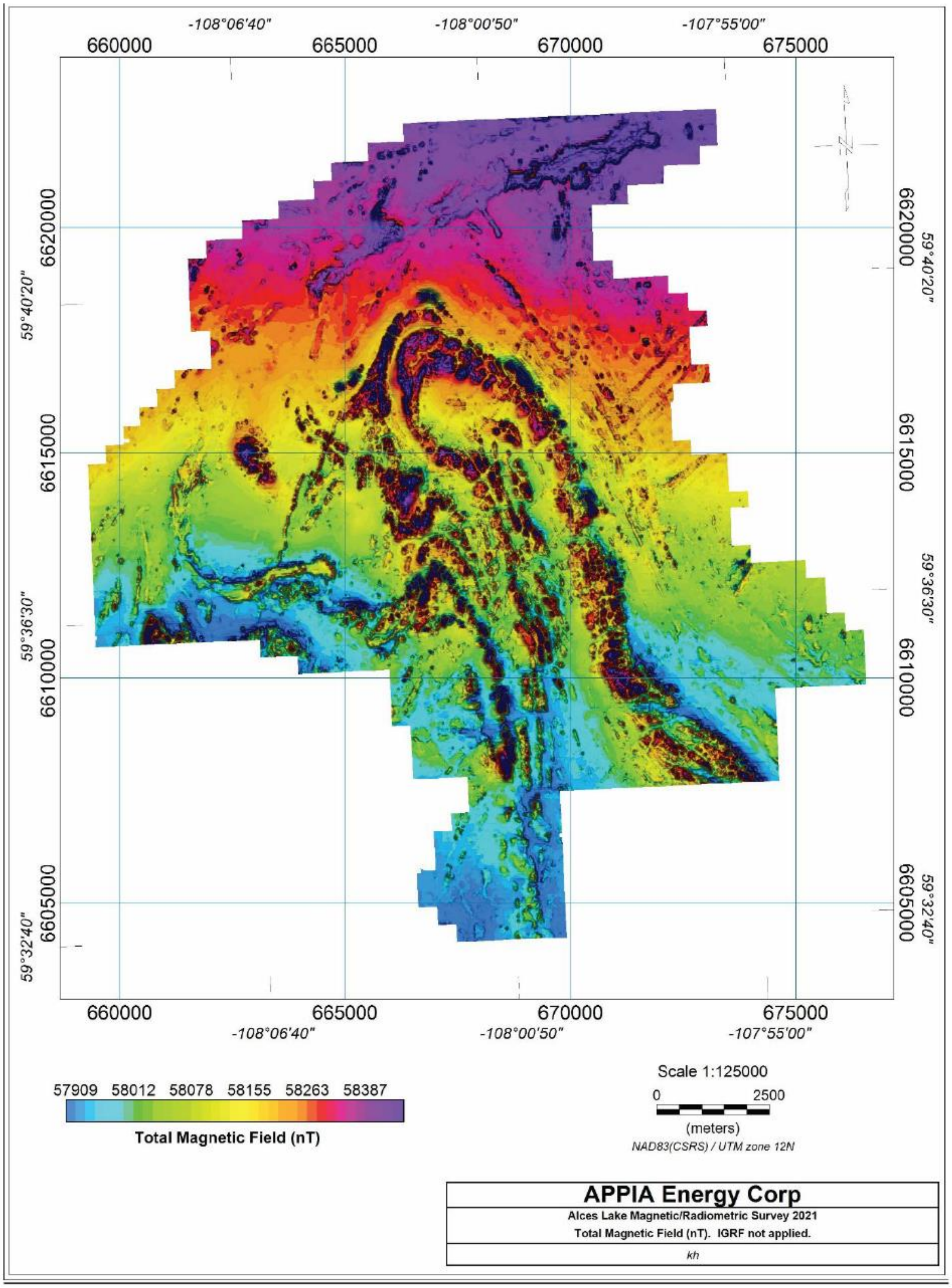

Figure 23: Airborne total-field magnetometer survey of the central Appia Property showing the Alces Lake fold nose. The area north of 6615000 and east of 666500 is detailed in Figure 25.

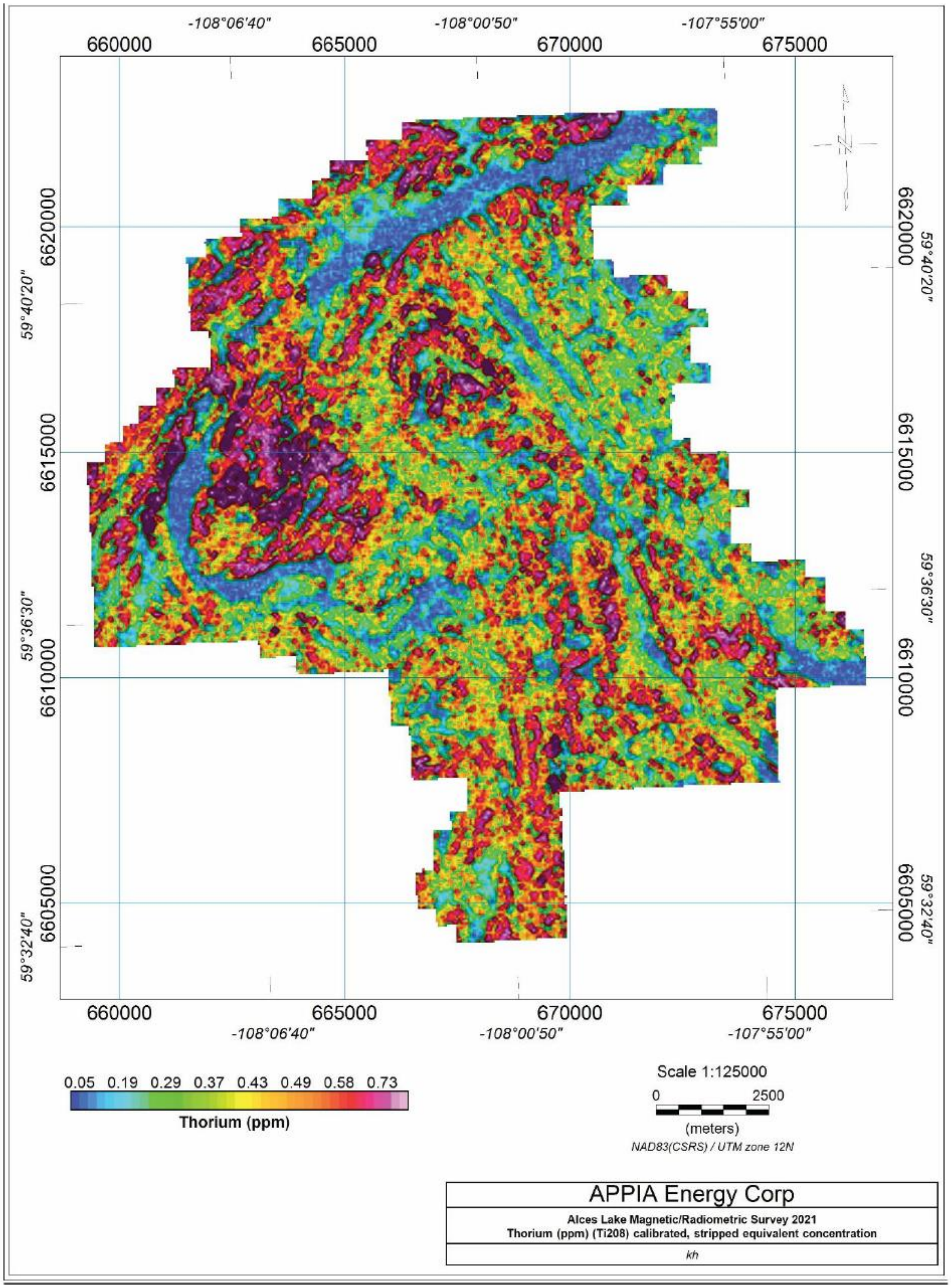

Figure 24: Airborne Th-channel radiometric map of the central Appia Property showing the Alces Lake fold nose. The area north of 6615000 and east of 666500 is detailed in Figure 25.

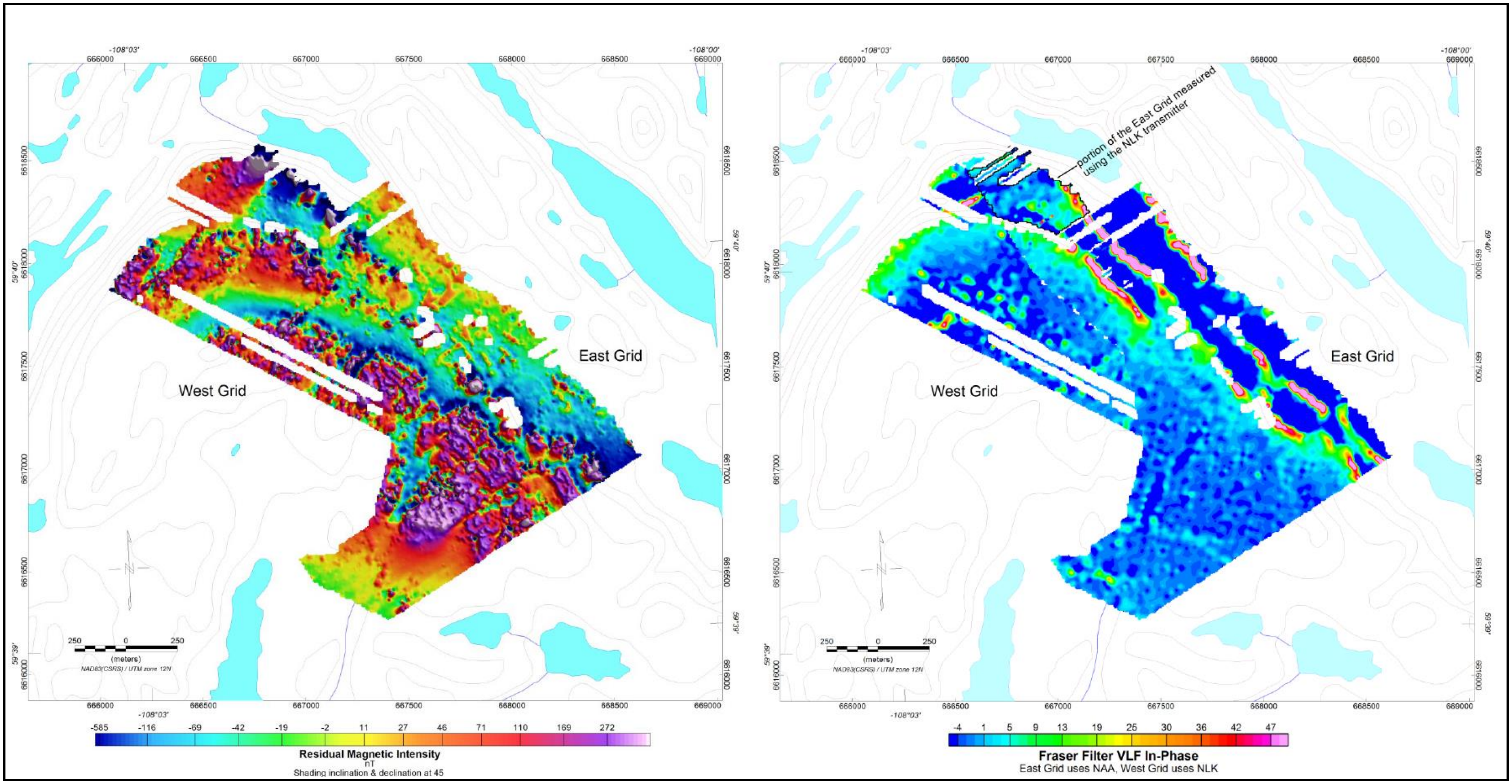

Figure 25: High-resolution ground geophysical surveys detailing the Alces Lake fold nose: residual magnetic intensity at left and Fraser filtered VLF-EM at right.

White areas within the colour contoured maps indicate data gaps. Magnetometer data shows the fold axis striking approximately NW-SE. VLF data shows conductive zones (red and pink) that are discordant with the eastern limb of the fold. In the Alces Lake area, the signal from the NAA transmitter in Cutler, Maine couples best with SE-striking features in bedrock. The NLK station is located in Seattle, Washington and in this area it is best for SW-trending features.

9.3.3 LITHOGEOCHEMISTRY AND MINERALOGY

Early in the Appia project, rare earth mineralization (monazite) was identified by Farkas (2018) as being associated with pegmatite, and specifically with the minerals quartz, biotite, chlorite (after biotite), feldspar, sericite/white mica (after feldspar). The secondary micas, chlorite and sericite (white mica) are believed to be retrograde minerals derived from biotite. Minor to trace minerals include garnet (almandine – locally abundant), rutile, zircon, hematite and apatite. The rare earth elements are all solely hosted within monazite. Normand (2014) reported the same major minerals but also included epidote-allanite in minor to trace proportions.

Appia's drill hole and channel samples show a wide range of average TREO concentrations. These rocks have been divided into three (3) domains based on the level of mineralization: unmineralized, low-grade (TREO), and high-grade (TREO). Unmineralized samples had a defined range of 0.006% to 0.04% TREO. These rocks are confined to metasedimentary and granitic gneiss. Low-grade TREO mineralization had a defined range of 0.09 to 3.93% TREO; all of this mineralization occurs in amphibolite, quartzo-feldspathic pegmatites and biotite-rich pegmatites. High-grade TREO mineralization has a defined range of 4.0 to 54.45% TREO. These rocks are biotite-rich pegmatites and biotite-rich shear zones. Monazite is solely hosted within various pegmatite-style rock units throughout all zones. High concentrations of Fe_2O_3, MgO and TiO_2 coexist in biotite-rich pegmatites, whereas higher concentrations of Na_2O and K_2O are found in the more quartzo-feldspathic pegmatite host. Although numerous petrographic and field samples show monazite within feldspar and quartz grains, TREO grades have proven to be higher in the biotite-rich rocks, especially in the biotite masses situated in shear zones, in comparison with the quartzo-feldspathic rocks. A Fe/Mg ratio of 2.3 in the biotite suggests that most of the iron present as hematite was exsolved during the alteration of biotite to chlorite. The high TiO2 content of biotite (2.8%) from the pegmatites suggest they were derived from deep-sourced partial melting in the mid-crustal levels during orogenesis.

High concentrations of CaO could reflect the presence of significantly higher concentrations of apatite. The presence of apatite, a common REE-bearing mineral, does not seem to affect the LREO:TREO ratio, therefore suggesting that the apatite present in the Alces Lake pegmatites has little to no contained REEs. Farkas (2018) demonstrated that apatite formed post-monazite.

9.3.4 STRUCTURE

On a large or regional scale, foliation measurements in the field indicate that the older rock units, thought to be represented by Archean gneiss, possibly overlie younger Proterozoic metasedimentary rock units. Normand (2014) had made similar observations and concluded that the Alces Lake area is characterized as a recumbent anticline. The previously mentioned Figure 4 earlier in this report shows the approximate location of the interpreted axial plane of the fold which is moderately north-plunging and open to isoclinal. It is truncated to the north by the regional-scale St. Louis Fault.

High-grade monazite mineralization occurs on the eastern limb of the fold, however low-radioactive pegmatites were also observed within the Hinge Zone and to the northeast of the eastern limb within the Dante Zone. These pegmatites are clearly mineralized and with appropriate deformation, economically interesting mineralization may be present in the form of shear-hosted, high-grade bodies. Outcrop-scale structures observed in bedrock exposures support the interpretation of a shear system having been developed along the eastern limb. Normand (2014) noted that the Wilson Zone outcrops along a lineament that is visible in SPOT satellite imagery, indicating that the Wilson area is situated on a fault corridor.

Field relationships indicate that the present monazite mineralization was formed and deformed from pre-existing mineralization in pegmatite during high-grade metamorphism related to D1 and/or D2 in the Beaverlodge Domain. Pegmatites have been found within all lithological units. Lit-par-lit structuring is common in monazite-bearing pegmatite following the contact between Archean orthogneiss and metasedimentary paragneiss within the Wilson Zone. It is important to note that REE-bearing pegmatites within the Wilson zone generally follow a subparallel orientation to the dominant gneissic foliation. However, pegmatites perpendicular to and cross-cutting the foliation are also present locally, most notably within the Charles Zone indicating the opening of fractures in many directions in the gneiss country rock during the deformation event. The injection of pegmatite and the development of high-grade monazite mineralization is therefore a late event that overprints the host sequence of paragneiss, amphibolite and orthogneiss. Brittle fault and shear structures are thought to have played a vital role in creating the environment for mineralization, however, the region is also cut by very late faults such as the St. Louis Fault which thus far have not been shown to contain REE mineralization.

On the scale of local structures, the occurrence of euhedral monazite crystals suggests that they formed late and under low-stress conditions, whereas rounded monazite grains indicates an earlier mode of occurrence during ductile shear. These earlier monazite grains are also corroded and grain margins show evidence of resorption – this supports WGM's belief in a genetic model by which REEs were co-deposited in pegmatite, and subsequently remobilized and redeposited as a result of fluid movements during deformation, ultimately migrating into low-stress 'shadows' to be deposited as high-grade monazite bodies. Appia personnel have noted the partial resorption of monazite by quartz and biotite locally (Farkas, 2018). Biotite grains (and chlorite after biotite) within the pegmatites show preferred orientation of cleavage planes and occasional mm-scale folding. Quartz is variably deformed; an earlier generation of quartz shows highly strained ductile deformation and micro-folds (Farkas, 2018).

No simple conclusions have been drawn from the structural evidence. No single structural determinant has been identified that holds host to the REE-bearing monazite mineralization. At this time, local factors seem to play the dominant role in determining the size and grade of monazite-bearing zones. Nevertheless, the intersection of structures may offer greater opportunities for openings to host pegmatite bodies. Although the Ivan Zone appears to pinch out at approximately 27 m below surface, structural evidence indicates that the shear on which it occurs has much greater continuity and that the Ivan Zone monazite may reappear and swell at depth. The Dante Zone monazite body, which is within 25 m of the Ivan Zone, displays this type of pinch-and-swell structure. It is clear that a better understanding of the structural fabrics within the Alces Lake project area is needed before a reliable predictive model can be developed.

10. DRILLING

10.1 INTRODUCTION

Appia's initial drilling program commenced in 2018 with the completion of 16 very shallow holes totalling 350.17 m and mostly focused on the Charles Zone.

Most initial drill holes were less than 100 m in length to shallowly test the targeted zones. All of the drilling was helicopter supported to avoid the costly exercise of road building in rolling terrain and its environmental impact. Drilling equipment and project personnel were moved from site to site by an AStar 350 helicopter supplied by Mustang Helicopters. Hole locations were dictated by surface topography, and in some cases, multiple holes were drilled from a single drill pad, the first being at -45 to -50 degrees, and the second being at a much steeper angle to undercut the higher intersection. The drilling has produced NQ-size core to ensure high recovery rates in zones than can be friable and easily broken.

The mineralization was tested to a maximum vertical depth of approximately 25 m. The drilling completed in 2018 and 2019 is summarized in Table 11.

Table 11
Summary of Diamond Drill Hole Completion Data, 2018-2019

DDH	Year	Target	Length	Easting	Northing	Elev.	Comments
				2018			
CH-18-000	2018	Charles	1.85	667169	6618077	450	Trial – drill breakdown- hole abandoned
CH-18-001	2018	Charles	28.52	667169	6618075	450	Completed as planned - target explained
CH-18-002	2018	Charles	15.00	667167	6618072	451	Abandoned - target not explained
CH-18-003	2018	Charles	13.50	667164	6618073	450	Abandoned - target was explained
CH-18-004	2018	Charles	6.00	667161	6618071	451	Abandoned - target not explained
CH-18-004A	2018	Charles	15.80	667161	6618071	451	Completed as planned - target explained
CH-18-005	2018	Charles	21.00	667162	6618071	451	Completed as planned - target explained
CH-18-006	2018	Charles	17.50	667162	6618071	451	Completed as planned - target explained
CH-18-007	2018	Charles	18.00	667163	6618071	451	Completed as planned - target explained
CH-18-008	2018	Charles	30.00	667164	6618072	450	Completed as planned - target explained
IV-18-001	2018	Ivan	30.00	667258	6618055	455	Completed as planned - target explained
IV-19-002	2018	Ivan	14.80	667258	6618055	455	Abandoned - target not explained
WI-18-001	2018	Wilson	47.50	667191	6617938	466	Completed as planned - target explained
WI-18-002	2018	Wilson	22.20	667191	6617938	466	Completed as planned - target explained
WI-18-003	2018	Wilson	43.70	667174	6617953	466	Completed as planned - target explained
WI-18-004	2018	Wilson	24.80	667175	6617953	465	Completed as planned - target explained
Total:	**16**	**holes**	**350.17**	**metres**			
				2019			
CH-19-009	2019	Charles	46.30	667169	6618073	450	Completed as planned - target not explained
CH-19-010	2019	Charles	48.20	667169	6618074	450	Completed as planned - target explained
CH-19-011	2019	Charles	43.40	667169	6618074	450	Completed as planned - target explained

Table 11 (continued)

DDH	Year	Target	Length	Easting	Northing	Elev.	Comments
CH-19-012	2019	Charles	48.20	667178	6618077	449	Completed as planned - target explained
CH-19-013	2019	Charles	33.80	667180	6618078	449	Completed as planned - target not explained
CH-19-014	2019	Charles	20.60	667164	6618078	450	Completed as planned - target explained
CH-19-015	2019	Charles	97.20	667166	6618079	450	Completed as planned - target not explained
CH-19-016	2019	Charles	66.80	667164	6618076	450	Completed as planned - target not explained
DT-19-001	2019	Dante	48.20	667232	6618083	449	Completed as planned - target not explained
DT-19-002	2019	Dante	48.20	667232	6618083	449	Completed as planned - target not explained
DT-19-003	2019	Dante	48.20	667232	6618083	449	Completed as planned - target not explained
DT-19-004	2019	Dante	17.70	667232	6618083	449	Abandoned - target was explained
DT-19-004A	2019	Dante	48.20	667232	6618083	449	Completed as planned - target not explained
DT-19-004B	2019	Dante	32.90	667234	6618083	449	Completed as planned - target explained
DT-19-005	2019	Dante	48.20	667223	6618082	449	Completed as planned - target not explained
DT-19-006	2019	Dante	48.20	667223	6618082	449	Completed as planned - target not explained
IV-19-003	2019	Ivan	48.15	667261	6618051	456	Completed as planned - target explained
IV-19-004	2019	Ivan	26.40	667261	6618051	456	Abandoned - target not explained
IV-19-005	2019	Ivan	48.20	667261	6618051	456	Completed as planned - target not explained
IV-19-006	2019	Ivan	48.20	667264	6618054	455	Completed as planned - target not explained
IV-19-007	2019	Ivan	48.20	667264	6618054	455	Completed as planned - target not explained
IV-19-008	2019	Ivan	48.20	667264	6618054	455	Completed as planned - target explained
IV-19-009	2019	Ivan	48.20	667264	6618054	455	Completed as planned - target explained
IV-19-010	2019	Ivan	80.80	667261	6618059	455	Completed as planned - target not explained
IV-19-011	2019	Ivan	48.20	667261	6618059	455	Completed as planned - target explained
IV-19-012	2019	Ivan	38.10	667261	6618059	455	Completed as planned - target explained
IV-19-013	2019	Ivan	46.60	667261	6618059	455	Completed as planned - target explained
IV-19-014	2019	Ivan	47.90	667268	6618058	455	Completed as planned - target not explained
IV-19-015	2019	Ivan	47.90	667268	6618058	455	Completed as planned - target not explained
IV-19-016	2019	Ivan	48.20	667266	6618062	455	Completed as planned - target not explained
IV-19-017	2019	Ivan	48.20	667255	6618051	456	Completed as planned - target not explained
IV-19-018	2019	Ivan	47.90	667255	6618051	456	Completed as planned - target explained
IV-19-019	2019	Ivan	47.30	667255	6618051	456	Completed as planned - target not explained
IV-19-020	2019	Ivan	47.80	667255	6618051	456	Completed as planned - target explained
IV-19-021	2019	Ivan	35.50	667255	6618051	456	Completed as planned - target not explained
IV-19-022	2019	Ivan	47.80	667255	6618051	456	Completed as planned - target not explained
IV-19-023	2019	Ivan	35.40	667255	6618051	456	Completed as planned - target not explained
MK-19-001	2019	Mikaela	47.20	667231	6618115	440	Completed as planned - target not explained
MK-19-002	2019	Mikaela	48.20	667231	6618115	440	Completed as planned - target not explained
RI-19-001	2019	Richard	61.80	667186	6618025	452	Completed as planned - target explained
RI-19-002	2019	Richard	30.20	667186	6618025	452	Completed as planned - target not explained
Total:	**41**	**holes**	**1914.85**	**metres**			

Note: All co-ordinates are in UTM Zone 12V and were measured by a differential GPS using the NAD83 datum. All holes were located on Appia disposition S-112033.

The drilling rig was owned directly by Appia which retained its own drillers as a cost-cutting measure. In part because of this, breakdowns compromised five of the holes completed. In most cases however, Appia succeeded in building confidence and justifying additional exploration to be carried out the following year.

Following the initial drilling program, Appia's commenced a more aggressive diamond drilling program with the services of under contract to Apex Diamond Drilling Ltd. on June 11th, 2019. The program concluded on August 8th with a total of 41 holes totalling 1914.85 m of core drilling completed in the Charles, Dante, Ivan, Mikaela and Richard target areas. As with the initial drilling, the goal was to shallowly test the mineralized zones - only four holes exceeded 50 m in length. The holes were drilled on various orientations (bearings and dips) to correspond with the differences in orientation of the various zones. Most holes were drilled at approximately -45° to -90°. The Charles Zone was the most deeply tested with a sub-vertical hole drilled to 97.2 m. Most other holes targeted the mineralization between 20 and 50 m below surface. The entire drilling program ran smoothly, and there were no major incidents or setbacks. Apex left their diamond drill and much of their operating equipment at the Main Working Area in anticipation for a 2020 season drill project. All drill holes were completed using BQ-size drill rods and all holes were left open at surface. The drill moved between holes using an excavator.

The early drilling produced BQ-sized core that was placed in wooden core boxes sufficient to accommodate 6.0 m of core per box. Each box was labelled with the drill hole ID, box number and from-to depths with a TM marker directly on the box. Dymo-brand metal embossing tape was also used for labels on the front of each box. The label included the drill hole ID, the box number and the depth ranges measured along the hole trace. The first box of each drill hole also had a label with "Appia Energy Corp" and a blue ribbon was stapled to the front. Drill core meter marks were recorded with green crayon. Total count radiometric data was recorded using an RS-125 spectrometer for all drill holes. Radiometric data intervals were recorded in red crayon directly on the drill core. Photos of the core were taken using various Samsung and Apple smartphone devices and uploaded to the project information base.

All drill core was cross-piled and stored at the core shack location. Drill core data was logged into a proprietary Access database built for Appia Energy Corp. Drill data and information was recorded for: Collar, Downhole Deviation Survey, Box Meterage, Summary and Detailed Geology, Structural Zones, Non-Oriented Point Structures, Geotechnical Data, Alteration (Desilicification, Silicification, Clay, Hematite, Limonite, Chlorite, Carbonate), Mineralization (Monazite, Graphite, Sulphides), Radiometrics, and Sample intervals.

Gamma-ray spectrometer measurements were vital to decision-making during the exploration program due to the long (6-week) turn-around times being experienced at the major geochemical laboratories, a reflection of high levels of activity in the exploration sector as well as shortages of staff. Spectral gamma-ray data was useful due to the close association of thorium and uranium with the major REE-bearing mineral monazite. Drill core exceeding 250 counts-per-second ("**cps**") defined sample intervals to the split for analysis; the sampling was also extended into the shoulders of each zone. Drill core sample intervals ranged from 10 cm to 1.1 m in length to correlate, as-best-as-possible, with scintillometer readings greater than 250 cps. Scintillometer ranges were not defined for sampling purposes.

All diamond drill samples were placed in sample bags with the appropriate pre-numbered sample tag, sealed, and stored in white plastic sample pails prior to shipping directly from the Appia Property to the Geoanalytical Laboratory at the Saskatchewan Research Council ("**SRC**") in Saskatoon, Saskatchewan. The SRC laboratory is an ISO/IEC 17025:2005 (CAN-P-4E) certified laboratory for major element and REE analysis using the Whole-Rock and Rare Earth Element Lab Packages. The Rare Earth Element analysis uses a lithium metaborate fusion which achieves total digestion of refractory minerals such as monazite. In contrast to partial digestions such as aqua regia and 3-acid digestions, Appia's approach assures that all of the metals report to the solution being analysed. All reported geochemical results passed rigorous internal QA/QC review at the SRC.

The 2019 program was followed during 2020 by 18 holes totalling 2,507.0 m (Table 12). The purpose of this drilling was to test the mineralized zones more deeply to investigate the vertical continuity of the zones in respect to geometry and REE content. The drilling also tested the newly discovered Cone, Ermacre and Hinge Zones. Drilling continued at the Danny and Wilson Zone at depth with intersections between 150 and 300 m from surface, whereas the Richard Zone and Ermacre Zones were shallowly tested at <25 m from surface. The Hinge Zone of the Alces Lake fold structure was drill-tested in recognition that possible tension fracturing might produce a favourable setting for mineralization. Details summarizing the distribution of the drill holes in the 2020 drilling program are as follows:

Zone Tested	Number of Holes	Total Drilling
Cone (CO)	2	592.20 metres
Danny (DAN)	4	444.80 metres
Ermacre (ER)	1	20.40 metres
Hinge (HN)	1	326.10 metres
Richard (RI)	5	125.10 metres
Wilson (WI)	5	998.40 metres

Table 12
Summary of Diamond Drill Hole Completion Data, 2020

DDH	Year	Target	Length	Easting	Northing	Elev.	Comments
CO-20-001	2020	Cone	285.60	667053	6617916	496	Completed as planned - target explained
CO-20-002	2020	Cone	306.60	667018	6618026	497	Completed as planned - target not explained
DN-20-001	2020	Danny	23.50	667006	6617901	499	Completed as planned - target not explained
DN-20-002	2020	Danny	368.80	667006	6617901	499	Completed as planned - target not explained
DN-20-003	2020	Danny	29.30	666981	6617858	500	Completed as planned - target explained
DN-20-004	2020	Danny	23.20	666977	6617860	500	Completed as planned - target not explained
ER-20-001	2020	Ermacre	20.40	666747	6618394	433	Completed as planned - target explained
HN-20-001	2020	Hinge	326.10	666745	6618113	481	Completed as planned - target not explained
RI-20-003	2020	Richard	26.90	667181	6618008	451	Completed as planned - target not explained
RI-20-004	2020	Richard	26.80	667179	6618008	451	Completed as planned - target explained
RI-20-005	2020	Richard	23.80	667163	6618040	451	Completed as planned - target explained
RI-20-006	2020	Richard	23.80	667163	6618040	451	Completed as planned - target not explained
RI-20-007	2020	Richard	23.80	667163	6618040	451	Completed as planned - target not explained
WI-20-005	2020	Wilson	230.40	667179	6617951	466	Completed as planned - target explained
WI-20-006	2020	Wilson	198.20	667179	6617951	466	Completed as planned - target explained
WI-20-007	2020	Wilson	165.90	667179	6617951	466	Completed as planned - target explained
WI-20-008	2020	Wilson	170.10	667200	6617897	472	Completed as planned - target explained
WI-20-009	2020	Wilson	233.80	667304	6617743	484	Completed as planned - target explained
Total:	**18**	**holes**	**2507.00**	**metres**			

Note: All co-ordinates are in UTM Zone 12V and were measured by a differential GPS using the NAD83 datum. All holes were located on Appia disposition S-112033.

Detailed geological mapping and radiometric prospecting continued during 2021. One hundred NQ-sized cored diamond drill holes were completed totalling 8,075.94 m (see Appendix 1). The drilling mostly focused on exploring newly identified zones of anomalous radioactivity at Biotite Lake, Diablo Oldman and Sweet Chili Heat as well as extensions of the Wilson-Richard-Charles-Bell (WRCB) and Danny Zones. Several of the holes in the WRCB Zone tested the target at or well below 100 m from surface (21-WRC-016, '-017 and '-065), however the other zones were typically tested to a maximum vertical depth of less than 50 m. Details concerning the allocation of drilling to the various zones follow:

Zone Tested	Number of Holes	Total Drilling
Biotite Lake (BIO)	13	684.52 metres
Danny (DAN)	7	430.83 metres
Diablo (DIA)	4	192.0 metres
Oldman (OLD)	8	480.0 metres
Sweet Chili Heat (SCH)	14	990.82 metres
Wilson-Richard-Charles-Bell (WRCB)	54	5,297.77 metres

Appendix 2 contains a summary of the significant results from this drilling program.

Between March 24th and July 23rd 2022, an additional 100 diamond drill holes were completed by Appia to explore new zones that had been discovered during the previous year by its geological team. The location and set-up details for these drill holes are presented in Appendix 1. Drilling also continued on the Danny and Hinge Zones as well as extensions of the zone connecting Wilson, Richard and Charles. Several zones showed promising results based on initial radiometric reading from drill core. These were further explored to depths well in excess of 100 m. The 2022 drilling program totalled 19,476.96 metres of NQ diameter core drilling as follows:

Zone Tested	Number of Holes	Total Drilling
Augier (AUG)	34	6950.42 metres
Danny (DAN)	2	366.82 metres
Hinge (HNG)	1	186.00 metres
Magnetic Ridge West (MRW)	10	2160.10 metres
Strocen (STR)	5	1044.03 metres
West Limb (WEL)	6	1007.05 metres
Western Anomaly (WES)	5	949.50 metres
Wilson-Richard-Charles (WRC)	37	6813.05 metres

Appendix 2 contains a summary of the significant results from this drilling program.

With the completion of the 2022 drilling program, Appia has drilled 278 diamond drill holes totalling 32,43612 m and tested 22 radioactive zones that contain significant concentrations of rare earth metals and uranium.

10.2 SUMMARY OF DRILLING RESULTS

A complete summary of all significant drill hole intersections exceeding 0.1% TREOs is found in Appendix 1.

As follow-up to the initial channel sampling, the initial 15 diamond drill holes tested the newly discovered Charles Zone as well as the Ivan and Wilson prospects. The highest grade-thickness geochemical assay results from the high-grade drill hole sections of each zone are highlighted below as follows, the starting point being measured from surface along the axis of the core:

Charles Zone:	10.01% REO over 3.55 m starting at 9.00 m in CH-18-008
Ivan Zone:	15.56% REO over 1.20 m starting at 6.20 m in IV-18-001
Wilson Zone:	15.47% REO over 1.05 m starting at 16.80 m in WI-18-004

These results confirmed the continuity of high-grade REO mineralization below surface. Differences in thickness probably reflect the selective siting of channel sample locations on surface as well as irregularities in the host-rock geology. Nevertheless, the initial exploration program confirmed that critical REO concentrations continued to account for 23-25% of the total REO content within the surface and drill core samples.

Continued drilling of the WRCB zone during 2019-2022 produced intersections as great as 17.53% TREO over a core length of 9.38 m in drill hole 21-WRC-015 and 13.27% TREO over 3.70 m in 21-WRC-016. The Ivan Zone, an extension of the WRCB, produced intersection as great as 16.06% TREO over 15.55 m in IV-19-012. In all, 43 drill holes targeting the WRCB produced intersections in excess of 1% TREO over core lengths of 0.65 to 15.55 m, and averaging 6.98% TREO over 4.62 m. The true thickness of these intersections is approximately 70-90% of the intersection length. Of 151 holes targeting the WRCB Zone, including those in the Ivan, Dante, Cone and Mikaela extensions, only 23 holes returned less than significant results, meaning an intersection with less than 0.1% TREO.

The AMP Zone represents a large-volume lower grade resource that is well tested by the current drilling and open in most directions.

Appia's drilling on the Danny Zone has shown only narrow intersections to date. Of 20 holes completed during 2020 through 2022, only three returned no significant TREO assays (<0.1%). Although the widths were very narrow, strong mineralization did occur locally: 12.03% TREO over 4 cm in 21-DAN-001 and 0.75% TREO over 25 cm in DN-20-002. Wider zones of lower grading mineralization were found in 21-DAN-002 with 0.46% TREO over 2.16 m and in hole 22-WRC-017 which produced 0.22% TREO over 9.58 m.

Of the 13 holes completed at Biotite Lake during 2021, six returned intersections of 0.27% TREO over 1.07 m to 0.65% TREO over 3.69 m. The geology of this area is not well understood and the interpretation of these results is being reviewed.

Magnet Ridge was tested with 34 diamond drill holes, only two of which failed to produce an assay of less than 0.1% TREO. Only five holes produced intersections exceeding 0.25% TREO, ranging from 0.25% to 0.44%. Two twinned holes drilled one metre apart produced comparable results, and they were interesting because of the widths of mineralization: 22.30 m averaging 0.29% TREO in drill hole 22-AUG-031 and 18.67 m averaging 0.25% in hole 22-AUG-030. Some of the holes had multiple intersections and anomalous TREO contents over considerable hole lengths such as 22-AUG-001 with 0.15% over 53.05 m, 22-AUG-003 with 0.18% over 41.89 m and 22-AUG-029 with 0.17% over 41.47 m. Of 22 holes with intersections exceeding 10 m of hole length, some with multiple long intersections, the average was 0.15% TREO over 23.3 m.

Of the 10 holes that explored Magnet Ridge West, only two produced significant results over narrow widths: 22-MRW-007 with 0.58% TREO over 0.22 m and 22-MRW-004 with 0.38% TREO over 1.02 m. Only one hole failed to intersect TREO mineralization equal to or exceeding 0.10%. In general, the lower grade of the zone was similar to Magnet Ridge although only three holes had intersections greater than 10 m of core length: 22-MRW-005 with 0.17% over 19.64 m, 22-MRW-006 with 0.12% over 23.98 m and 22-MRW-009 with 0.13% over 11.53 m (average = 0.14% TREO over 18.38 m). Although the drilling tested the zone at a range of depths below 100 m from surface, there was no evidence for improved grades or greater widths of mineralization at depth.

Eight holes shallowly tested the Oldman Zone; however, only 21-OLD-012 produced an intersection of interest with a 0.20 m core length assaying 1.53% TREO. Four holes failed to intersect mineralization. The longest intersection was 0.06% TREO over 2.34 m in drill hole 21-OLD-001.

The Strocen Zone was explored by five holes which returned TREO contents ranging from 0.07% over one metre to 0.18% over 0.65 m. The longest intersection was near surface in drill hole 22-STR-002 which cut 3.44 m averaging 0.13% TREO. The three deeper holes drilled at Strocen failed to intersect wider or higher grading mineralization.

The Ermacre and Hinge Zones were each tested with two holes. The best intersections were 0.24% TREO over 2.85 m very near surface in drill hole ER-20-01 at Ermacre, and 0.13% TREO over 0.45 m at approximately 100 m depth in drill hole HN-20-001 at Hinge.

The Western Limb was tested with six shallow diamond drill holes during 2022. Two holes interested near-surface mineralization: 22-WEL-001 intersected 0.19% TREO over 1.24 m and 0.25% TREO over 0.76 m, and a 3.20 m section of core in 22-WEL-004 averaged 0.32% TREO. These intersections were within 20 m of surface. At a vertical depth of about 60 m, a 0.78 m section in 22-WEL-005 assayed 0.12% TREO. Three other shallow holes failed to return interesting REE mineralization.

The Western Anomaly Zone was tested with 23 diamond drill holes during 2021 and 2022. The drilling mostly targeted the zone at less than 50 m with the exception of 22-WES-001 which intersected mineralization at a depth of approximately 125 m below surface in two low-grade intervals grading 0.08% TREO over 1.59 m and 0.12% TREO over 3.78 m. Nine shallow holes intersected mineralization exceeding 0.25% TREO over core lengths ranging from 0.90 m to 7.80 m, all within 30 m of surface. The best intersections were 2.76% TREO over a core length of 4.43 m in hole 21-SCH-001 in the Sweet Chili Heat area, and 1.59% TREO over 7.09 m in drill hole 21-DIA-001 in the Diablo area. The longest intersection was 0.65% TREO over 7.80 m in a second zone in 21-DIA-001. The Sweet Chili Heat holes commonly produced multiple intersections of interest. The seven uppermost intersections in holes 21-SCH-001 through 21-SCH-007 have an average grade of 1.58% TREO over an average width of 2.51 m.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 SAMPLE PREPARATION AND ASSAYING

Appia's rationale and to sampling is described in Section 9 above. Bedrock samples were collected from +/- 5 cm wide channels cut into the bedrock surface with a diamond saw and removed with a chisel. Selected sections of drill core were sawn in half along the axis of the metamorphic fabric; one half was placed in a plastic sample bag together with the pre-numbered sample tag (ticket) and the other half was returned to the core tray for archival purposes.

Appia's 2021 samples were analysed at the Saskatchewan Research Council ("**SRC**") Geolab located in Saskatoon. During 2022, samples were divided between the SRC and ACTLABS to quicken the delivery of results.

One receipt of the samples, the project laboratory entered the sample numbers into its Laboratory Information Management System ("**LIMS**") by which each sample was bar coded and tracked as it went through the requested sample preparation and analytical procedures.

During the course of the project, Appia has delivered sample for analysis to both the SRC Geolab and the Actlabs geochemical laboratories. Sample preparation and analytical procedures were harmonized to ensure that the same fundamental approach was being used to ensure consistency in respect to the sub-sample being digested for analysis. The entirety of each sample was crushed to 80% passing 2 mm, following which a Jones sample divider was used to produce a 250 g subsample which was then reduced using mild steel ring and puck pulverizer to 95% passing 75 µm (200 #). Cleaner (wash) sand was used in the crusher between samples to essentially eliminate carry-over contamination. After crushing, the reject portion was returned to the sample bag and retained according to Appia's instructions. The pulverized subsample (pulp) was homogenized and a small portion was digested for instrumental analysis.

For trace element analysis at the SRC by OES-MS instrumentation, a 0.125 g pulp was gently heated in a mixture of ultrapure hydrofluoric- nitric and perchloric acids in a Teflon coated tube until dry and the residue was then dissolved in dilute ultrapure nitric acid. This process ensures the complete digestion of all refractory mineral phases in the sample. Major oxides and rare earth elements are determined through lithium metaborate fusion of a 0.1 g pulp in a Claisse TheOx® fusion instrument (oven) after which the sample bead is dissolved in dilute nitric acid and REE contents were measured by ICP-OES instrumentation.

At Actlabs, Appia selected analysis using a 8-REE Assay Package supplemented with a Major Oxide-Trace Elements Fusion digestion and an ICPOES/ICPMS instrumental finish. A lithium metaborate/tetraborate fusion was employed for major oxides with subsequent instrumental analysis by ICP-OES and ICP-MS. Mass balance is required as an additional quality control technique and elemental totals of the oxides should be between 98 to 101%. In certain circumstances the presence of small amounts of phosphate will have very severe consequences to Nb_2O_5 assays by this method with results being very low for Nb_2O_5. Reanalysis is required for Nb_2O_5 by fusion XRF. Trace element contents were determined through the use of a 4-acid (hydrochloric, nitric, perchloric and hydrofluoric) digestion to ensure complete dissolution of the pulp. ACTLABS refers to this as a near total digestion however for all practical purposes, this approach assures complete digestion of all refractory minerals. Metals contents were measured with an ICPOES/ICPMS finish.

Appia's analysis pre-2022 was carried out at the SRC laboratory using the same total digestion procedure as described above. Trace (indicator) element contents were determined using a partial digestion with which a 0.5 g pulp was digested with 2.25 ml of 8:1 nitric:hydrochloric acid for 1 hour at 95^{o}C. This digestion allows for the dissolution of all minerals except for certain refractory minerals such as zircon, and it prevents the volatilization of some trace elements that occurs when hydrofluoric acid is used when seeking total digestion. Elemental concentrations were determined instrumentally by ICP-OES. Major oxides and rare earth elements are determined through lithium metaborate fusion of a 0.1 g pulp in a Claisse TheOx® fusion instrument (oven) after which the sample bead is dissolved in dilute nitric acid and REE contents were measured by ICP-OES instrumentation.

11.2 QA/QC

Appia approaches its quality control / quality assurance protocols by inserting blanks at each point in the number sequence ending in '25 and '75. Samples ending in '00 and '50 are Certified Reference Materials ("**CRM**"s), and samples ending in '15 and '65 are duplicates of the previous samples. These QA/QC samples are blind to the laboratory. Duplicates were not run in 2021 but added for 2022. In 2022 Appia enhanced its QA/QC protocols by alternating between laboratory (pulp) duplicates as well as submitting quarter-core duplicates. Appia instructed the laboratory to insert blanks into the sample stream at locations identified by empty pre-number sample bags.

During 2021, Activation Laboratories Ltd. ("**Actlabs**") inserted the REE-1 CRM for its internal quality control. The Saskatchewan Research Council Geolab has a variety of CRM's that it inserts. As with all labs, any internal QA/QC sample failure results in that batch of samples being re-analysed.

11.3 SECURITY

Appia's drill core is stored in conventional core racks at the camp on Alces Lake. Drill core is moved to a dedicated facility for cutting to produce samples for analysis. The remote location of the camp precludes outside intervention.

After the drill core is cut for sampling and placed in plastic bags, the bags are secured with lock-ties and stored in white plastic pails on which the sample number series is written together with shipping information. The samples are routinely collected by McMurray Aviation which routinely services the camp with equipment and supplies, and back-hauls samples and empty fuel containers. Delivery of the samples to the project laboratory, the Saskatchewan Research Council ("**SRC**") located at 820 51st Street East in the city of Saskatoon, is co-ordinated by McMurray Serv-U Expediting located in Fort McMurray, Alberta, a trucking and expediting company that provides year-round 24/7 services to the resource industries.

Appia corresponds with the SRC Geolab to ensure it receives the number of pails and samples, and the sample series as expected. Shipments are examined at the lab to detect whether any sample bags have been opened or damaged in transit. The lab routinely reports back to Appia on its receipt of samples.

12. DATA VERIFICATION

12.1 DRILLING

Prior to the date of this report, Appia completed several programs of diamond drilling and in completing this assignment for Appia, WGM visited the Alces Lake property while drilling was underway in September, 2021 and again in August, 2022. These drilling programs are described in Section 10. As of the Effective Date of this report, Appia has completed 271 diamond drill hole totalling 26,601.42 m of drilling and has sampled 3,894.59 m of drill core producing 7,150 samples. As of the date of this report, Appia has suspended exploration activity for a seasonal beak. All analytical data has been received from the Saskatchewan Research Council laboratory in Saskatoon and its evaluation of the most recent exploration data is an on-going process.

12.1.1 DRILL HOLE COLLAR VERIFICATION

During the site visit, the author recorded UTM coordinates for a selection of drill holes and zones with a Garmin *GPSmap 76CSx* handheld GPS instrument at the collars of selected drill holes at Sweet Chile Heat, Diablo, Magnet Ridge and Magnet Ridge West. The co-ordinates match within the 6 m margin of error typical for the GPS (Table 13). Elevations did not match as closely; however, this is not unusual with handheld units GPS units. In detail, the 2021 GPS readings included two significant variations of 10 m and 29 m respectively. The remaining four measurements were between 1.0 and 3.2 m of Appia's stated locations. The variance was not realized while the WGM geologist was on-site. Appia has confirmed the location and WGM concludes that the cause is a short-term loss of GPS signal at the time its measurement was taken. Of the eight measurements made by WGM in 2022, half varied by 3.2 m or less from the Appia's stated locations, and the remaining half differed by a maximum of 5.7 m. Given that Appia's surveying utilizes a differential GPS in contrast to WGM's WAAS-enabled GPS, WGM accepts Appia's site locations as the more accurate measurements. In conclusion, however, the Appia locations were suitably confirmed by WGM's random audit of 14 sites.

Table 13
Comparison of Drill Hole Collar Coordinates and Outcrops at Sweet Chili Heat, Wilson-Richard-Charles, Diablo and Magnet Ridge

Drill Hole	**Appia UTM Co-Ordinates**			**WGM UTM Co-Ordinates**		
	Easting	**Northing**	**Elev.**	**Easting**	**Northing**	**Elev.**
21-SCH-001 and ‘002	663485	6615663	422	663485	6615662	417
21-SCH-005 and ‘006	663493	6615679	421	663476	6615655	420
21-WRC-016	667169	6617973	466	667166	6617974	468
WI-20-006	667179	6617951	466	667179	6617954	472
MK-19-001	667231	6618115	440	667229	6618114	441
Diablo Zone	664071	6615292	425	664081	6615288	430
22-AUG-001 and ‘002	668129	6616894	448	668132	6616894	481
22-AUG-003 and ‘’004	668189	6616770	442	668193	6616774	479
22-AUG-013 and ‘014	668144	6616851	449	668145	6616848	474
22-AUG-019 and ‘020	668171	6616817	447	668173	6616821	484
22-MRW-001 and ‘002	667692	6616599	451	667695	6616599	484
22-MRW-003 and ‘004	667741	6616503	442	667743	6616504	472
22-WES-004	663443	6615528	393	663442	6615527	432
22-WRC-022 to ‘025	667169	6617962	437	667165	6617963	457

Both sets of data use the NAD-83 survey datum.

12.1.2 BEDROCK SAMPLE AND DRILL CORE ASSAY VERIFICATION

During the first site visit in 2021, the author selected and supervised the collection of 4 bedrock chip samples as well as 13 drill core intervals from one mineralized section in drill hole 21-WRC-015 in the Wilson North Zone to check analytical results from intervals with strong mineralization based on gamma-ray spectrometer readings. During the second site visit in 2022, the author selected 16 intervals from various drill holes for quartering and independent analysis.

All selected drill core sample intervals matched those also taken by Appia. Appia’s drill core samples were composed of half the core while the WGM samples were from cutting the remaining core in half again and taking half of that (a “quarter core” sample). Ideally, the entire remaining half of the core would be sampled to produce a true duplicate; however, for the purpose of this report where the objective is to verify the assays received by Appia, the quarter core samples are adequate. This also allows Appia to retain a quarter-core sample for archival purposes.

The WGM check sample locations are given in Table 14. The author's samples were sealed in plastic bags and collections of samples were placed in larger bags and sealed with pre-numbered locking ties. The author personally inspected the bags on return to his home and noted that the security ties were intact. In respect to geology, the bedrock samples closely matched areas previously channel sampled or chip sampled by Appia.

The WGM samples were submitted to the SGS laboratory in Burnaby, British Columbia. WGM requested that the laboratory prepare the samples using lab codes CRU16 and PUL18. The outcrop and core samples were crushed in their entirety to 90% passing a 3 mm sieve. The crusher product was then homogenized and a 1,000-gram sub-sample (split) was then pulverized in chromium steel ring and puck pulverizer to 90% passing 75 microns. The relatively large sample prepared ensured that most of the original sample was pulverized and that a large, homogenous and representative sample was available for analysis. WGM requested that the laboratory use analytical techniques GC_XRF76V which is a conventional whole rock analysis for 13 major oxides expressed in percent (SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5, MnO, Cr_2O_3, V_2O_5 and ZrO_2), and GC_IMS93A combined with GC_XRF76V-AE to determine REEs and Zr. The first procedure uses a borate fusion to achieve complete sample dissolution. The second process is a sodium peroxide fusion that was selected due to the relatively high concentrations of REEs in the WGM samples, and the desire to ensure complete dissolution to produce representative results that are comparable to the 4-acid digestion used by Appia. The XRF pressed pellet technique was used solely for zirconium.

The results shown in Table 15 demonstrate that the WGM assays are a reasonably close match for those obtained by Appia. WGM's samples taken from mineralized outcrop had generally higher REE contents than Appia's samples, in some cases 50-60% higher at the 5,000 to 10,000 ppm level. This was not unexpected since WGM's samples were composite chip samples and Appia's samples were more representative channel samples. WGM observed no systemic bias in the outcome of Appia sampling that might be attributed to selective sampling.

TABLE 14
LOCATION OF WGM CHECK SAMPLES

Sample #	Sample Type	Sample Media	Zone / Interval	UTM C-ordinates		
				Easting	**Northing**	**Elev.**
AWW-001	Outcrop	Chip	Dante Zone	667253	6618098	449
AWW-002			Charles Zone	667162	6618071	446
AWW-003			Wilson Zone	667177	6617986	456
AWW-004			Sweet Chili Heat Zone	663476	6615655	420
QT-S2514	Drill Hole 21-WRC-015	Quarter Core	14.79 - 15.22 m	667169	6617973	466
QT-S2516			15.75 - 15.97 m			
QT-S2518			16.27 - 16.62 m			
QT-S2520			17.04 - 17.24 m			
QT-S2522			17.32 - 17.77 m			
QT-S2524			18.00 - 18.43 m			
QT-S2527			18.70 - 19.22 m			
QT-S2529			19.90 - 20.61 m			
QT-S2531			21.10 - 21.43 m			
QT-S2533			21.93 - 22.35 m			
QT-S2535			22.75 - 23.41 m			
QT-S2537			23.67 - 24.00 m			
QT-S2539			24.60 - 25.86 m			
003841	Drill Hole 22-WRC-003B	Quarter Core	208.73 - 209.23 m	667161	6617807	454
003848			211.74 - 212.06 m			
003854			213.12 - 213.45 m			
003860			214.69 - 215.26 m			
003869			216.91 - 217.16 m			
009392	Drill Hole 22-MRW-006	Quarter Core	160.32 - 160.85 m	667607	6616444	433
009395			162.00 - 162.39 m			
009413			169.14 - 169.55 m			
009422			173.18 - 173.51 m			
009423			173.51 - 173.91 m			
003896	Drill Hole 22-AUG-001	Quarter Core	4.67 - 4.99 m	668132	6616894	481
003898			5.29 - 5.68 m			
003902			6.50 - 6.83 m			
003903			6.83 - 7.19 m			
003920			13.21 - 13.74 m			

Note: Locations given for drill holes are the locations of the collars (NAD-83 datum).

As illustrated in Figures 26, 27 and 28, WGM samples taken from spit core show a more random relationship with Appia's reported assays which WGM believes is attributable to the relative coarse character of the monazite mineralization and its irregular distribution in the rock. The first figure illustrates the comparison of La, Ce and Nd values for Appia's half-core samples and WGM's quarter-core check samples. The second figure compares assay values for Pr, Sm and Gd. These six elements are representative of the entire REE population, however the concentrations of these other elements is significantly less and therefore the percentage variance can be much greater in some instances. As with any irregularly distributed mineralization, such as gold mineralization, a larger sample mass will always produce more representative assays than a smaller mass. In this regard, WGM's quarter core sample would be expected to produce values with some variance from the Appia sample assays, nevertheless, a comparison of the two assay populations fails to indicate any evidence of sampling the core selectively to maximize the analytical results.

The correlation coefficients between the WGM and Alces sample populations for individual rare earth and other metals are excellent at 0.98 to 0.99 with the exception of some low values for Tm, Lu and Yb (0.82, 0.88 and 0.85). These lower correlations are thought to be a manifestation of the low contents for these metals; however, these values illustrate rather good correspondence between the two populations. Some outliers are present in the WGM check sample population. Given the coarse character of the monazite mineralization, commonly occurring as cm-scale and larger clots clusters fractures and voids, it would be surprising to have a complete absence of variances in the check sample population. It is interesting to note that the variance differ from element to element between the WGM samples and the corresponding Appia samples.

12.2 DATABASE VERIFICATION

WGM's audit of Appia's drill hole database found no errors in the analytical data when comparing the data entered with the original certificates issued by the project laboratory. Those certificates are issued in both PDF and Excel format. Appia's incorporation of the Excel format data directly into its database has avoided any potential for transcription errors. WGM audited 20 randomly selected certificates.

As of the date of this report, no errors were found.

TABLE 15
COMPARISON OF APPIA ASSAYS AND WGM CHECK SAMPLE RESULTS FOR SELECTED METALS WITH HIGHER CONCENTRATIONS

Sample #	**La**		**Ce**		**Pr**		**Nd**		**Sm**		**Gd**		**Tb**		**Dy**		**Ho**		**Er**		**Yb**		**U**		**Th**	
	WGM	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**	**WGM**	**Appia**
	all values are in ppm																									
AWW-001	4870	3620	10400	7960	1130	817	4040	2700	571	376	263	220	17	12	52	39	5	5	8	14	2	1	73	59	3010	2680
AWW-002	16600	14500	34500	31000	3830	3280	13700	10600	2040	1440	964	871	65	41	213	139	21	17	35	45	11	4	265	185	10100	8840
AWW-003	20600	14900	43300	28900	4800	3200	17200	10700	2470	1490	1090	858	74	44	232	160	23	19	35	53	8	6	272	197	12900	8760
AWW-004	11700	11000	24600	21400	2660	2420	9270	7860	1190	1110	483	395	29	27	82	74	7	8	12	13	5	5	107	103	5840	5410
QT-S2514	124	36	263	64	28	8	108	25	16	4	8	3	1	1	4	4	1	1	3	3	3	n.a.	0	4	60	18
QT-S2516	30100	25500	64500	54000	7250	6500	26100	23300	3910	3360	1750	1580	123	114	379	340	34	35	53	52	14	n.a.	447	392	19500	16000
QT-S2518	30500	41300	65200	84000	7250	10400	26100	36800	3940	5340	1750	2450	120	177	354	532	33	51	53	84	17	n.a.	453	645	19000	24200
QT-S2520	49700	46500	106000	96000	11900	11500	42600	41800	6320	6010	2920	2760	194	195	615	610	59	61	88	89	23	n.a.	737	786	31800	28100
QT-S2522	16700	17500	35500	36700	3930	4320	14200	14800	2110	2170	951	1040	66	77	205	230	20	23	30	38	7	n.a.	253	285	10600	10700
QT-S2524	25300	25300	53000	52500	5890	6170	21300	21100	3140	3140	1420	1480	90	103	261	289	23	28	41	43	10	n.a.	421	556	15100	15000
QT-S2527	52800	47000	113000	96200	12600	11500	44700	41200	6610	5740	2920	2690	194	183	574	544	52	51	75	73	14	n.a.	829	783	32200	27600
QT-S2529	38600	37700	81400	77200	9060	9020	32400	32400	4740	4550	2130	2080	138	146	418	422	38	41	58	59	15	n.a.	612	632	23200	21900
QT-S2531	63300	60500	134000	119000	15000	14900	53300	53700	7830	7520	3510	3480	228	242	666	698	61	68	91	89	20	n.a.	1020	1050	38200	35000
QT-S2533	59000	60200	125000	120000	13900	15000	49600	52600	7210	7370	3200	3420	209	236	625	695	58	67	85	97	22	n.a.	895	952	35100	34900
QT-S2535	28800	24300	60600	50900	6800	6050	24100	20800	3520	3070	1590	1390	104	101	313	289	29	28	46	45	13	n.a.	440	404	17400	14500
QT-S2537	1130	3070	2440	6660	277	768	996	2780	161	405	72	197	4	14	14	40	1	4	2	6	1	n.a.	22	54	684	1970
QT-S2539	116	18	228	36	27	4	107	15	15.0	3	8	2	1	1	4	3	1	1	4	3	3	n.a.	2	5	63	15
003841	47	43	70	84	8.5	10	30	35	5.3	6	6.9	4.3	0.8	0.8	5.2	5.8	1.3	1.1	3	2.8	3	2.9	2	1.4	13.7	20
003848	1270	1160	2540	2290	281	256	1020	929	143	129	57.3	59.1	4.6	4.3	10.2	10.5	1.1	1.3	2.4	2.9	1.6	0.9	24	22.6	728	681
003854	1330	1530	2620	3010	287	344	1030	1220	143	170	65.5	78.9	4.4	4.9	9.4	11.6	1.2	1.2	2.6	3.4	0.9	0.9	21	29.1	763	861
003860	2090	2180	4230	4290	466	496	1700	1780	247	243	109	113.0	7.1	8.3	18.5	20.5	2	2.0	3.5	4.4	0.8	0.9	39	42.3	1260	1360
003869	225	252	431	516	48.2	59	168	210	21.0	30	11.7	12.8	0.9	1.0	2.3	2.7	0.5	0.4	0.5	0.8	<0.5	0.4	5	5.7	123	162
003896	405	411	816	827	89.9	95	318	344	41.7	48	16.3	19.2	1.2	0.9	3.3	2.8	<0.3	0.3	0.8	0.6	0.7	0.4	9	9.5	237	259
003898	1130	1050	2280	2090	246	243	902	874	128	119	46.2	48.4	3	2.7	6.6	6.2	1	0.6	1	1.8	1	0.5	23	27.6	709	692
003902	590	620	1180	1240	129	140	458	504	58.9	70	21.1	28.1	1.8	1.6	4.8	3.9	0.5	0.5	<0.5	1.1	0.7	0.6	11	13.0	342	394
003903	1710	1830	3390	3620	373	411	1300	1460	179	199	75.5	83.6	4.3	4.2	7.7	10.1	0.6	1.0	1.1	2.6	<0.5	0.8	31	32.8	1020	1160
003920	320	372	629	772	70.6	89	256	319	35.1	48	20.9	20.3	1.4	1.5	3.2	5.5	0.5	0.5	1.7	1.2	0.6	0.9	8	8.7	174	242
004503	378	437	753	1030	82.5	105	303	375	41.9	55	20.9	25.0	1.4	2.0	4.2	5.8	0.6	0.8	1.4	2.1	1	1.1	6	10.2	227	282
009392	66	106	119	208	14.6	25	46	89	8.0	12	4.7	7.8	0.7	0.8	3.8	4.9	0.8	1.1	3.5	3.0	4.4	3.9	< 2	2.6	30.9	68
009395	236	367	464	709	51.4	84	192	297	24.3	41	12.5	18.6	1.5	1.3	5.2	5.4	1.3	0.8	3.1	1.7	2.6	1.7	3	6.4	132	246
009413	128	73	250	145	27.4	18	100	70	17.4	11	8.4	5.0	1.1	0.6	6.7	3.7	1	0.7	3.3	2.3	4.8	2.7	4	1.7	78.7	53
009422	4840	4990	9810	10400	1060	1150	3970	4270	500	529	250	229.0	16.3	18.3	56	51.7	5.8	5.4	6.4	9.6	1.8	2.8	67	75.7	3620	4090
009423	659	789	1310	1610	150	183	544	675	72.7	87	35.1	36.0	2.8	3.2	8.2	9.8	0.9	0.8	2	1.8	0.9	0.9	13	14.3	510	692

NOTE: Eu, Lu and Tm are excluded: Eu ranges from 1.3 to 7.3 ppm; Lu has a maximum of 3-4 ppm; most are ≤1 ppm. Appia did not determine Tm; WGM samples carried ≤6 ppm.

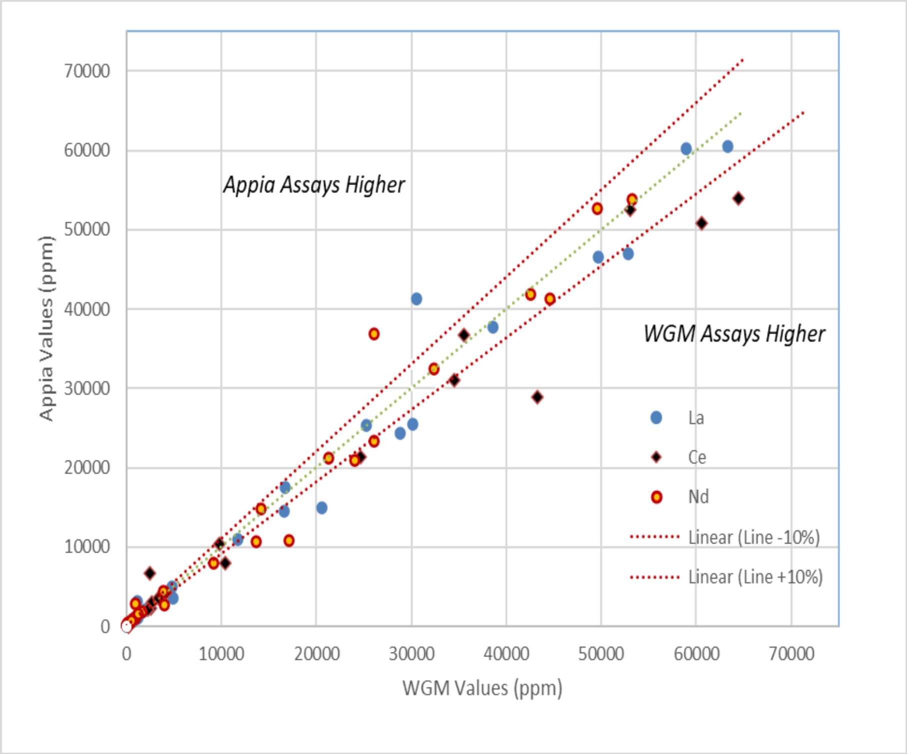

Figure 26: Graph illustrates variances between Appia and WGM samples from 33 check samples analysed by WGM and sourced from bedrock and drill core. Values for lanthanum, cerium and neodymium are shown.

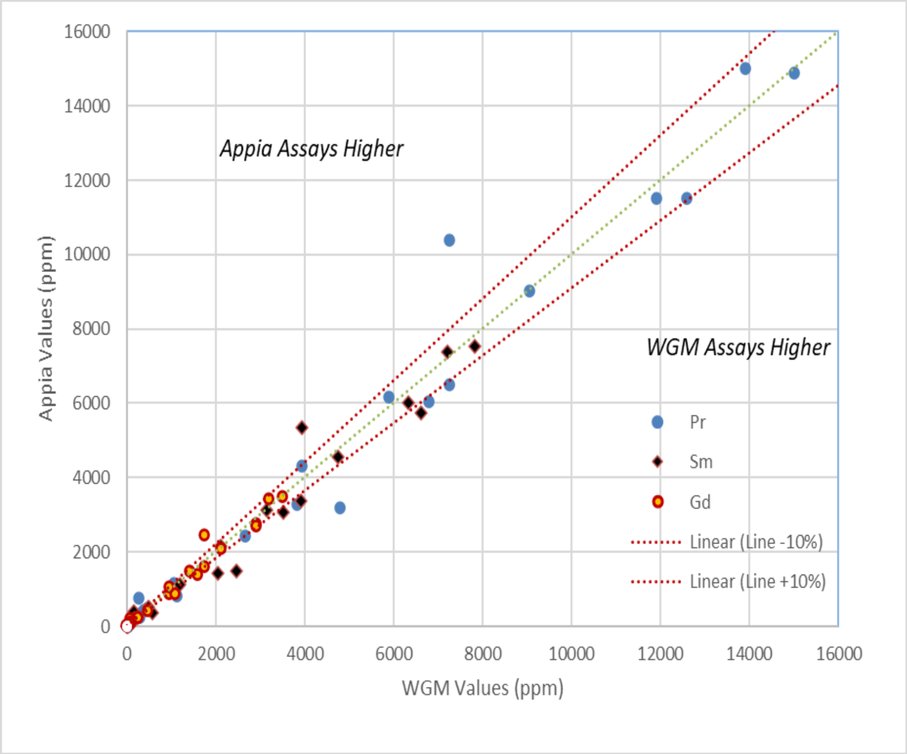

Figure 27: Graph illustrates variances between Appia and WGM samples from 33 check samples analysed by WGM and sourced from bedrock and drill core. Values for praseodymium, samarium and gadolinium are shown.

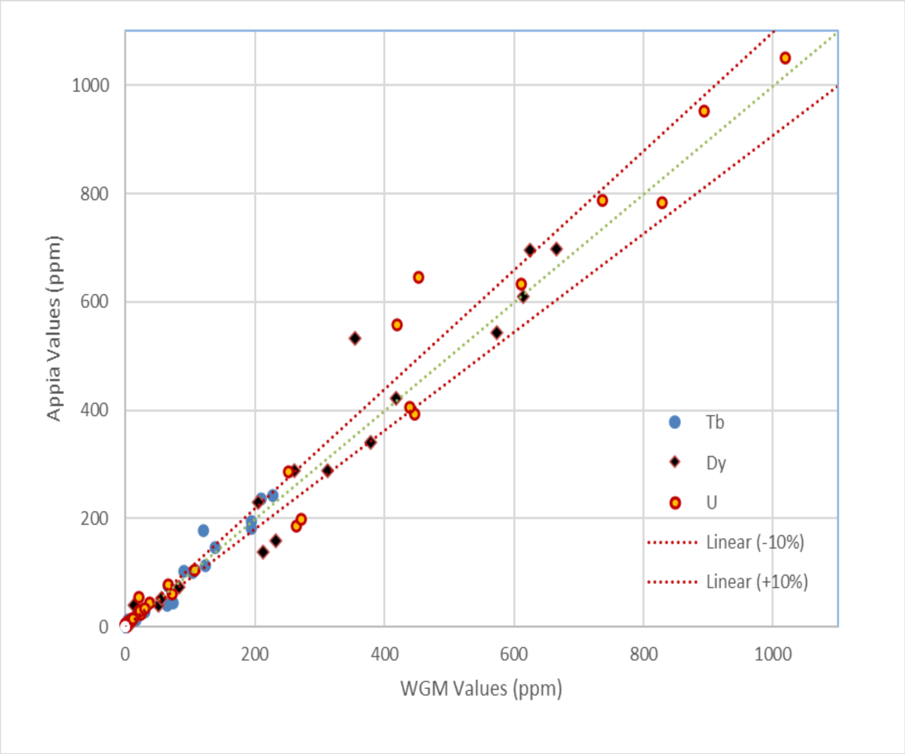

Figure 28: Graph illustrates variances between Appia and WGM samples from 33 check samples analysed by WGM and sourced from bedrock and drill core. Values for terbium, dysprosium and uranium are shown.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

In March and April 2021, Appia Investigated means by which magnetic and heavy liquid separation might be used to create a heavy mineral concentrate containing much or all of the rare earth-bearing mineral. Prior mineralogical studies had shown that the Alces Lake REEs are hosted exclusively in monazite. The magnetic and heavy media tests were followed by flotation test work.

Initial magnetic separation tests were performed on the -0.5/+0.038 mm screen fraction of material crushed to -5.6 mm and representing 36% of the sample mass. The results showed limited rejection of barren material with 98% TREO recovery into 83% of the test feed mass.

Preliminary heavy liquid tests were performed on the -5.6/+0.5 mm screen fraction and representing 51% of the of sample mass. Some promise was noted with the sink fraction at a specific gravity of 3.0 having a mass equal to 37% of the feed (63% rejection) and containing 92% of the rare earth metals. At a specific gravity of 2.9, the mass of the sink fraction increased to 45% (55% rejection) and rare earth recovery increased to 95%.

During early 2022, Appia carried out bench-scale monazite processing and metallurgical testing on a representative 50 kg sample from the Alces Lake property. The material was a composite of mineralization from the WRCB Zone with a grade of approximately 9% TREO. The test work was carried out at the Saskatchewan Research Council ("**SRC**"), and was preliminary in nature. It investigated various means of producing a rare earth-bearing mineral concentrate as well as means by which rare earth metals could be extracted.

Heavy liquid separation and flotation were tested and the results compared. Heavy liquid separation tests recovered 95% of the total rare earth metals in 45% of the mass of a deslimed feed sample.

Froth flotation was a major component of this initial testing program. Grind size, slimes removal, regrind, circuit configuration and reagents were all varied during the investigation. The circuit and procedure that was developed included a grind to 80% passing 106 µm, no desliming, oleic acid collector with sodium silicate as a gangue depressant in roughing and initial cleaning, and with reverse cleaning final stages. This was tested in preliminary locked cycle tests and shown to deliver a concentrate containing 48% total rare earth oxides for a recovery of 73%. Additional beneficiation work is planned to confirm and improve upon these initial test results. Beneficiation tests were also planned for new samples representing other mineralized zones from the Alces Lake property.

Two preliminary caustic cracking/acid leach tests were performed on a flotation concentrate containing 45.5% total rare earth oxides. Test CC-1 was done on the as-received flotation concentrate and test CC-2 was carried out on the same concentrate after grinding to pass 45 µm. Each caustic crack residue was leached with hydrochloric acid. TREO extractions in these tests were 87% and 78% respectively. Appia anticipates that recoveries in excess of 90% will be attained with further testing and optimization.

Some recent attention to gallium follows the rare earths through the beneficiation process as it reports to the concentrate.

14. MINERAL RESOURCE ESTIMATES

There are no Mineral Resources currently defined on the Alces Lake property

15. MINERAL RESERVE ESTIMATES

There are no Mineral Resources on the Alces Lake property that could represent a basis for making a Mineral Reserve estimate.

16. MINING METHODS

Not applicable for a project with no mineral resources.

17. RECOVERY METHODS

Not applicable for an early-stage project with no mineral resources.

18. PROJECT INFRASTRUCTURE

Not applicable for an early-stage project with no mineral resources. For general discussion of infrastructure in the region refer to Section 5.

19. MARKET STUDIES AND CONTRACTS

Not applicable for an early-stage project with no mineral resources.

20. ENVIRONMENTAL STUDIES, PERMIT AND SOCIAL OR COMMUNITY IMPACT

20.1 ENVIRONMENTAL STUDIES AND LIABILITIES

The Alces Lake property is located in a remote area separate from the Beaverlodge uranium mining camp. No environmental studies are yet required for the project nor is the author aware of any that have any been carried out on the property in the past. No previous mining activity has been undertaken on the property, consequently the author is unaware of any environmental liabilities in this area, nor would any be expected other than those arising out of compliance with the environmental obligations prescribed under the laws of Saskatchewan and Canada.

The Appia project is not located in a protected area or in an area where there is private ownership of surface rights. In the Province of Saskatchewan, the issuance of exploration rights (referred to as “dispositions”) extends to the owner the right to carry out exploration activities subject only to an application to the Ministry of the Environment (Fish, Wildlife and Lands) located in Prince Albert, Saskatchewan (the “**MOE**”). These activities must be specified in advance and the approval is normally granted within 30 days. While approval is not automatic, limitation are not normally imposed except in very unusual circumstances. As of the date of this reports, Appia has carried out a very wide variety of activities resulting in surface disturbances without objection from the MOE.

Notwithstanding the rights to explore granted under the provincial Mining Act and the MOE, Appia is responsible for conducting its activities in accordance with the provisions in its application, and amendments thereof, as well as other rules imposed by various laws and regulations. For example, the construction of exploration camps must meet building and safety codes. Exploration work must not impact water courses or water bodies. Fuel supply facilities must include containments to prevent the contamination of groundwater. Drill holes that are artesian must be capped (sealed); refuse must be properly handled …… etc. While these restrictions carry costs to the operator, the costs are not onerous during the course of a project; however, such costs tend to increase in lock-step with the advancement of a project from initial reconnaissance exploration through more costly surveys and diamond drilling. Certain costs are also incurred if a project is terminated according to any requirements for removal of structures and equipment, or site remediation. During its site visits, the WGM author observed that Appia had taken measures to ensure compliance and no issues of non-compliance were seen. Appia carries out routine morning briefing sessions to ensure camp personnel are informed concerning any activities during the day that might create require special diligence from an environmental or safety perspective.

20.2 COMMUNITY RELATIONS AND SOCIAL IMPACT

Canada is a signatory to the Universal Declaration of Human Rights and United Nations Declaration on the Rights of Indigenous People, among others. The application for approval of exploration activities imposes a duty on the MOE to notify local communities and representatives of indigenous groups as to the planned exploration work. In many cases, those notified reside in a wide area having little or no actual residential or commercial presence in the area to be explored. Appia operates its project in an area that lacks road access, and hence no organized commercial activity is carried out in this area.

Notwithstanding the duty of the government regulators, exploration companies are well advised to independently notify key groups that have real or potential interests in the exploration area. Appia conducts its operations in compliance with these principles, which may be important to the future success of the Alces Lake project. In accordance with this approach, on 4 October, 2022 Appia announced that it had signed a Letter of Intent (“**LOI**”) with the Fond du Lac Denesuline First Nation, effective 22 September, in respect to advancing its Alces Lake project within the traditional and historical territories of the First Nation. The LOI strengthens Appia’s relationship with indigenous peoples and the Fond du Lac community as well as with neighbouring communities within the Athabasca Region. Appia and the First Nation have communicated with the Federal Government in respect to its 2022 budget programs and are collaborating in respect to supporting a critical minerals strategy that provides for economic growth and the creation of jobs in this sector to the benefit to Appia and local stakeholders. The Parties have agreed to work together to obtain project funding as necessary. It is Appia’s stated desire to be a responsible steward of the environment and a good corporate citizen and to these ends have a mutual working relationship with the Fond du Lac Denesuline First Nation. Chief Kevin Mercredi has been quoted to say, “Council and I are pleased that Appia Rare Earths & Uranium Corp recognizes the importance of the traditional lands of Fond du Lac and has taken the initiative to reach out to Fond du Lac to work together for our long-term mutual benefit in the spirit of respect and co-operation. Our intention is to create long-term and sustainable benefits for our First Nation, and we see this as an important opportunity and recognize the importance of this resource to Canada and the World. To be a significant part of this development is of great importance to our collective futures.”

21. CAPITAL AND OPERATING COSTS

Not applicable for an exploration project at this stage with no established mineral resources.

22. ECONOMIC ANALYSIS

Not applicable for an exploration project at this stage with no established mineral resources.

23. ADJACENT PROPERTIES

No significant exploration is being carried out on exploration lands that would be considered as adjacent to Appia's Alces Lake Property.

The Hoidas Lake REE deposit is located 30 km NNE of the high-grade REE-bearing zones near Alces Lake. An anastomosing NE-striking system of apatite-allanite-diopside veins parallel to the Hoidas-Nisikkatch Fault ("**HNF**") are hosted in potassically altered and hematized monzogranite to granodiorite and tonalitic gneiss of similar age to those rock in the Alces Lake area (Halpin, 2010). The main REE-bearing minerals are allanite and apatite with lesser amounts of monazite, bastnaesite and chevkinite. The veins occur along shear zones and riedel structures (dilation zones) closely associated with the HNF, with alteration and shearing attenuating away from this fault. Mineralization occurs as a series of 26 showing traceable over a distance of approximately 10 km. Of these, the JAK Zone is the most extensively explored. REE mineralization occurs in a series of veins which from oldest to youngest are: (1) diopside-alanite veins; (2) apatite breccia veins (+ biotite); (3) green apatite clast-supported breccia veins; and, (4) coarse red apatite veins. Veins typically have sharp contacts with the host rocks. While it is clear that the veins are younger than the host rocks and probably coeval with deformation, their temporal relationship to host rock magmatism and metamorphic events cannot be determined by field observations.

WGM believes that the Hoidas Lake mineralization is significant in that it occurs in a structural setting that may not be significantly different from the setting of the Alces Lake mineralization. Hoidas mineralization, while mineralogically more diverse that that at Alces Lake which is principally monazite, nevertheless shows the importance of a major structural trend in localizing REE deposition.

24. OTHER RELEVANT DATA AND INFORMATION

No other relevant data are presented here that is material to the Appia project.

25. INTERPRETATION AND CONCLUSIONS

25.1 GENERAL

Appia's Alces Lake Project consists of mineral exploration dispositions which in other jurisdictions might be referred to as 'exploration licences' or 'mining claims'. The exploration property is situated on Crown land that is not subject to the private ownership of surface rights. All the dispositions are in good standing as of the Effective Date. They convey to Appia the right to explore for and mine any mineral deposits that it discovers, subject only to provincial and federal regulations and accommodating the indigenous peoples community rights as is now customary.

The project is easily accessible by helicopter or float plane from Uranium City and other points within northern Saskatchewan and Alberta. Topography presents minor challenges to accessing specific area for exploration and this necessitates helicopter support. Supplies and equipment can be transported directly to the Appia base camp by floatplane or delivered via the airport at Uranium City followed by a short heli-lift to the Appia camp.

Appia has carried out comprehensive exploration over only a small portion of the entire Alces Lake Property and has discovered a large number of outcropping or near-surface rare earth metal prospects. In a global context, these prospects are very high-grade and enriched in many of the higher value rare earth elements.

25.2 RARE EARTH METALS

The exploration work by Appia on its Alces Lake Project has resulted in the discovery of 19 prospects having levels of rare earth mineralization that are considered to be high-grade in comparison with most global REE occurrences. REE mineralization is associated with thorium and uranium in sheared and brecciated pegmatite and metasomatic biotite schist that occurs along structural breaks that shallowly cross-cut the litho-structural layering in the paragneiss, orthogneiss and amphibolite country rocks. Following pegmatite emplacement, mineralization is thought to have occurred as a result of late-stage magmatic-hydrothermal fluids circulating in brittle shear and fracture zones that developed as the pegmatites cooled. Monazite, the principle REE-bearing mineral, occurs in biotite schist and pegmatite augen, typically as individual 1-5 mm grains, clusters and lenses of grains to several centimetres in size, and as massive metre-scale clusters elongated along the plane of shear and filling late, brittle fractures. The biotite schist contains rolled clasts of pegmatite as a result of ductile deformation. Pyrite occurs as a late mineral phase, typically as fine disseminations in schist, fracture fillings and as undeformed cm-scale poikiloblastic accumulations filling voids.

Appia and WGM believe that the pegmatites at Alces Lake are very similar to those described in the Fraser Lakes B Deposit, also located in northern Saskatchewan (McKechnie, 2012). Both areas were affected by the Trans-Hudson orogeny after which residual mineralizing fluids containing U, Th and REEs entered permeable formations and structural zones. At the Fraser Lakes B Deposit, the residual pegmatites and leucogranite have the same hosting role as the residual pegmatites at Alces Lake. The two mineralizing events are through to be of approximately the same age. In radioactive pegmatites, McKechnie describes the strong association between U-Th-REE mineralization and biotite which commonly comprises 30% of the rock volume, and up to 90% locally. The main difference between the two regions is that monazite is not always the bearer of REEs at the Fraser Lakes Deposit whereas monazite is the prevalent REE-bearing mineral in the Alces Lake area. In a similar M.Sc. Thesis, McKeough (2013) discusses late-stage fractionation of a U-Th-REE enriched volatile phase which infiltrated late-forming, partially crystallized pegmatites at Kulyk Lake in the Wollaston Domain of northern Saskatchewan. This late metamorphic process is not uncommon in many other types of mineral deposits and is certainly applicable to the Alces Lake mineralization.

Appia's drilling has produced some very high-grade intersections. The highest-grade x thickness zones for each of the more extensively drilled zones are presented as follows. Appia has defined "high-grade" as mineralization with a total rare earth oxide ("**TREO**") content exceeding 4%. While the following intersections are not representative of average grades, these sections do attest to the potential for commercially attractive mineralization in zones that are at or close to surface.

- Charles 11.75% TREO over 1.3 m in drill hole CH-19-014 beginning at surface;
- Dante 23.89% TREO over 1.2 m in drill hole DT-19-004B starting at 16.3 m;
- Ivan 31.34% TREO over 7.9 m in drill hole IV-19-012 starting at 9.7 m; and,
- Richard 8.72% TREO over 7.5 m in drill hole RI-19-001 beginning at 11.2 m.

Some of the highest grade-thickness geochemical assay results were discovered in the Wilson-Richard-Charles-Bell ("**WRCB**") Zone and the nearby Dante and Ivan Zones with intersections as great as 17.53% TREO over a core length of 9.38 m in drill hole 21-WRC-015. Critical REE concentrations account for 23-25% of the total REE budget in the mineralization - a fact that is common in all of the Alces. The Ivan Zone, an extension of the WRCB, produced intersection as great as 16.06% TREO over 15.55 m in IV-19-012. In all, 43 drill holes targeting the WRCB produced intersections in excess of 1% TREO over core lengths of 0.65 to 15.55 m, and averaging 6.98% TREO over 4.62 m. With a true thickness of these intersections is approximately 70-90% of the intersection length, this zone is clearly a priority target for continuing exploration. It represents an opportunity on which to base part of the metallogenic model.

The 23 shallow diamond drill holes at the Western Anomaly Zone produced nine holes exceeding 0.25% TREO over core lengths ranging from 0.90 m to 7.80 m. The best intersection was 2.76% TREO over a core length of 4.43 m in hole 21-SCH-001 in the Sweet Chili Heat area. In the Diablo area, drill hole 21-DIA-001 intersected 1.59% TREO over 7.09 m. The longest intersection was 0.65% TREO over 7.80 m in a second zone in 21-DIA-001. The Sweet Chili Heat holes commonly produced multiple intersections of interest. The seven uppermost intersections in holes 21-SCH-001 through 21-SCH-007 have an average grade of 1.58% TREO over an average width of 2.51 m. Clearly this area warrants careful follow-up exploration.

The Danny Zone has shown only narrow intersections to date of percent-grade mineralization (e.g. 12.03% TREO over 4 cm in 21-DAN-001 and 0.75% TREO over 25 cm in DN-20-002). Wider zones of lower grading mineralization were found in some holes (e.g. 0.22% TREO over 9.58 m in 22-WRC-017). At this time, the Danny Zone does not appear to be a prime target for exploration although the presence of this zone indicates that the area has perhaps experienced a significant amount of REE movement. The challenge will be to find a focal point (structure) that has been more strongly saturated with REE-bearing fluids.

Drilling in the Magnet Ridge target area produced only five holes with intersections exceeding 0.25% TREO. A significant number of drill holes did produce long intersections: 22-AUG-031 averaging 0.29% TREO over 22.30 m; 22-AUG-030 averaging 0.25% TREO over 18.67 m; 22-AUG-001 averaging 0.15% TREO over 53.05 m; 22-AUG-003 averaging 0.18% TREO over 41.89 m; and, 22-AUG-029 averaging 0.17% TREO over 41.47 m. Of 22 holes with intersections exceeding 10 m of hole length, some with multiple long intersections, the average was 0.15% TREO over 23.3 m. This may be indicative of a more "porphyry-style" of mineralization rather than a strictly shear zone-hosted type of deposit.

The drilling to date at Magnet Ridge West has produced only narrow widths of mineralization, in some sense similar to that at Magnet Ridge although fewer holes intersected TREO mineralization over intervals greater than 10 m: 22-MRW-005 with 0.17% over 19.64 m, 22-MRW-006 with 0.12% over 23.98 m and 22-MRW-009 with 0.13% over 11.53 m (average = 0.14% TREO over 18.38 m). Although the drilling tested the zone at a range of depths below 100 m from surface, there was no evidence for improved grades or greater widths of mineralization at depth. The Magnet Ridge West area may be simply the fringe of the main zone at Magnet Ridge.

Drilling at the Oldman, Strocen, Ermacre, Hinge and Western Limb Zones failed to intersect mineralization of significant interest. Some narrow high-grade intersections were present locally (e.g. 1.53% TREO over 0.20 m in 21-OLD-012) indicating that attention to the geology in this area may allow for the exploration model to be sufficiently modified to justify additional drilling in the future. The Hinge Zone concept as a locus for pegmatite emplacement appears to be valid, so some additional prospecting, geological and geophysical work in this area is certainly justified.

Of the 13 holes completed at Biotite Lake during 2021, six returned intersections of 0.27% TREO over 1.07 m to 0.65% TREO over 3.69 m. The geology of this area is not well understood and the interpretation of these results is being reviewed.

The mineralization from all areas explored to date shows uniformly high concentrations of REEs with the sum of the ‘critical’ REOs neodymium (“Nd”), praseodymium (“Pr”), dysprosium (“Dy”) and terbium (“Tb”) accounting for approximately 24% of the TREO content. Critical REEs are defined as those that are in high-demand for electronic and high-tech applications with scarce or geographically constrained supply. In many cases, the engineering design and production of a device, such as electric vehicles, cell phones, wind turbines and magnets, is wholly dependent on a supply of the rare earth metal needed.

As of the writing of this report, Appia needs time to compile the data from its exploration to date. Its exploration program has shown that many of the rare earth prospects have limited size although the grade can be very high by global standards. A defensible genetic model is needed for the mineralization that explains the differences between the various mineralized zones. Although the mineralizing process is opportunistic in that it exploits pegmatite emplacement and structural conduits, a single unified model may not be possible.

The known mineralization may support small-scale mining commensurate with market demands, and the production of a rare earth concentrate.

The global market for rare earth metals is relatively small in comparison to the demand for the major base metals such as copper, zinc…..etc. REE supply is also largely dependent on a single nation supplier, China, despite decades of expressed concern regarding China's willingness to use REE supply as a political tool to influence other countries (e.g. Japan[3]). Japan has reacted by diversifying its supply base, reducing its dependence on China's REE exports from close to 100% of its supply in 2010 to somewhat less than 60% as of 2020. While the lessons learned have prodded the industrialized west to seek out alternative sources of supply, China still accounted for 168,000 tonnes (60%) of the 280,000 tonnes produced globally during 2021. Alternative supplies from the USA, Myanmar, Australia and others make up the balance of the global supply chain. In Canada, several exploration projects are underway that may achieve production of an up-graded concentrate in the next few years. The owners of the Nechalcho Project near Yellowknife plan to produce 5,000 tonnes per year by 2025. Given the high grade of the Alces Lake prospects, there is potential for Appia to produce a high-grade concentrate which would require only a small operating pit.

25.3 URANIUM

In addition to the rare earth elements, the Alces Lake prospects contain uranium mineralization. Of 1,108 outcrop channel samples, 131 (11.7%) contained more than 250 ppm U and of these 24 samples (2.2%) exceeded 1,000 ppm U. Based on 1,108 channel samples, a correlation coefficient (0.97) is noted between total rare earth ("**TREE**") contents and uranium contents. This relationship between REE and uranium is also borne out in the drilling whereby a correlation coefficient of 0.95 was returned based on 7,150 samples. While the uranium content is certainly low-grade, the correlation could indicate that any future production of a rare earth concentrate would contain potentially valuable uranium if a selective solvent extraction process can be developed.

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[3] In September, 2010, the Government of China blocked REE exports to Japan after Japan seized a Chinese commercial vessel that was illegally fishing in Japan's territorial waters, and which had collided with two Japanese coast guard vessels while trying to escape. China threatened additional actions if Japan did not comply with its demands *(New York Times, 22 September 2010)*.

25.4 PROTOCOLS AND DATA VERIFICATION

The Author has reviewed Appia's protocols for collecting samples of all types, through insertion of control samples, to incorporation of geochemical analyses from the Saskatchewan Research Council's laboratory into the Project database. Appia's sampling protocols are in compliance with industry best practices. Appia has improved its QA/QC protocols which currently meet what is necessary for an exploration program at this stage keeping in mind that its work has been spread across a large number of prospects, and therefore the advancement of individual REE prospects is still early-stage in many cases.

There have been few QA/QC failures despite having to track data from 9 elements (gold, silver, arsenic, copper, mercury, molybdenum, lead, antimony and zinc). Most failures were found to be mislabeling of blanks and standards. The company, in reviewing those failures, determined no reanalysis was required. Any error resulting from not resolving a QA/QC failure are insignificant at this early stage of exploration. None of the samples of any type will be incorporated in a resource estimate and no sample result within a batch having a QA/QC failure could potentially mislead the market in a material way.

Lastly, data verification, including comparison of results from select laboratory certificates and drill logs, with the Appia's geochemical or drill hole Excel databases, found no errors. In the Author's opinion, Appia's databases, maps, and reports can be relied upon.

25.5 ENVIRONMENTAL AND SOCIAL

Environmental management and community relations are vital to the Alces Lake project as problems with either could result in the project being delayed or halted. The author has some relevant and recent experience in this subject area from discussions and meetings with an indigenous group in northern Saskatchewan, and the author has found such dealings to be friendly and supportive. The author believes that Appia is handling its engagements in a responsible and proactive manner. Appia has recently retained the services of an individual to be specifically responsible for outreach to indigenous peoples and other stake-holders.

Any mineral exploration project can be impacted either positively or negatively by significant political or social events that are largely out of the control of the company operating the project. Appia's project is located in a politically stable region of Saskatchewan that has embraced mineral exploration as a significant contributor to the provincial economy. The Alces Lake area lies a short distance north of the Athabasca Basin, home of the world's highest grading uranium mining operations. The Appia project is also located a short distance east of the Beaverlodge uranium district within which underground and open pit mining operations proliferated during the 30-year period from 1952 through 1982. Saskatchewan's laws and regulations are therefore seen as a protective foundation for Appia's mineral interests.

25.6 OVERALL

Appia's approach to exploring the Alces Lake property is sound, progressing from early prospecting and airborne surveying through surface radiometric (scintillometer) prospecting, geological mapping, trenching and channel sampling to diamond drilling. Targets for drilling have been well defined in advance of drilling, and the drill holes have been well-planned. Drill hole outcomes have met with variable success which is the nature of early-stage exploration programs. In some cases, especially in the early stages of the project, holes were drilled very close to each other to test continuity of the mineralization on individual targets.

Appia's protocols are sufficient to ensure high-quality exploration data. WGM's check sampling produced results comparable to Appia's reported assays. WGM's audit of the analytical database in comparison to original lab certificates revealed no errors; however, WGM found the project information base contained in various Excel files to be awkward for users and recommended its conversion to an Access database, which Appia has subsequently done.

Time is an important factor in successful exploration. Having a large number of targets, Appia has been systematically testing each to determine which targets have the greatest potential for a sizeable / economically viable deposit. Part of this process is also learning the nature of the geological factors that control mineralization. Much has been accomplished and learned, especially from the two drilling programs completed in the 2-year period preceding this report.

The ground-based geophysical work completed by Aurora Geosciences Ltd. ("**Aurora**") during 2021 comprised total magnetic field and very low frequency electromagnetic ("**VLF**") surveys. These were very effective in tracing contrasting lithological units and conductive structures that are spatially associated with mineralization. Although some REE prospects may not be associated with VLF conductors, this survey technique offers a higher resolution than airborne surveying. Additional surveys are warranted as a tool in support of geological mapping because REE mineralization is hosted within pegmatite bodies emplaced into structural zones. VLF conductors may serve as vectors towards potentially mineralized zones.

25.7 EXPLORATION EXPENDITURES

WGM has reviewed Appia's costs and determined that the costs incurred, which are rounded and summarized as follows for the 2022 exploration program in Table 16, are appropriately distributed for a project of this magnitude in this location. Approximately $5,262,310 or 70% of the total cost, was expended on drilling, surveying, sample analysis and helicopter support, central items to the exploration program that are not subject to modifications of approach. Appia paid wages totalling $1,061,425 for camp support and catering, medical and exploration personnel, or 14% of the total budget. In WGM's opinion, this is reasonable given that drilling costs on exploration projects in remote areas typically account for one third of total expenses. Personnel costs and helicopter costs each commonly exceed 25% of the total expenditures.

TABLE 16
Actual Alces Lake Project Expenditures During 2022
(in Canadian Dollars)

Expenditure Item	Cost
Field Equipment & Computer Software	58,930
Wages - Camp Support Personnel	328,040
Camp Catering	225,600
Wages - Exploration Team	392,070
Camp Operations, Communications & Maintenance	185,800
Freight & Storage	148,320
Food and Fuel	347,940
Logistics and Expediting	35,940
Diamond Drilling	3,074,190
Laboratory Fees	240,720
Surveying and Geophysics	82,090
Helicopter (Time and Fuel)	1,865,310
Vehicle Assets	47,150
Health & Safety (Medic)	115,715
Permits & Compliance	16,020
Travel (Domestic & Charter)	395,250
Total	**7,559,085**

26. RECOMMENDATIONS

26.1 GENERAL

In continuing exploration on the Alces Lake project, Appia should assess its existing exploration data to determine how best to apply what has been learned to identify where significant new exploration targets can be developed near surface. This should involve the selection of survey techniques that can identify specific targets rather than general areas of potential.

Continued exploration programs should include, but not limited to:

a) a concentrated effort put forth additional ground radiometric prospecting and geological mapping with a large focus on structural mapping along the large regional shear zone along the eastern limb of the Alces Lake fold;

b) additional stripping of overburden to expose and sample outcrops to improve the geological visualization of radioactive prospects such as Biotite Lake. Prioritized targets should undergo geological mapping, supported by SWIR spectral analysis, rock chip channel sampling with a diamond saw, and where possible, trenching;

c) short, closely-spaced definition drilling within the currently exposed prospect areas, especially WRCB, to delineate an initial Mineral Resource that is compliant with NI 43-101 and CIM standards and guidelines;

d) focused diamond drilling to extend the higher grading Sweet Chili Heat and Diablo Zones;

e) additional reconnaissance drilling to trace the Magnet Ridge Zone to the southeast following a trend of increasing grade along the western limb of the fold structure;

f) focused diamond drilling to shallowly test specific radiometric and/or gravity anomalies within 50 m of surface for REE-bearing monazite mineralization; and,

g) continued geological mapping, supported by the interpretation of high-resolution satellite imagery, over Appia’s regional claims to determine the presence of additional mineralization in areas where ‘fertile” pegmatites may occur.

The poor outcome of induced polarization (“**IP**”) surveying by the previous contractor should be used as an indicator of the need for a different approach. Problems involving getting current into bedrock were cited for the poor performance. During its site visits, WGM could see no fundamental reason why there should be coupling problems between bedrock and the electrodes provided appropriate equipment is used. WGM believes that IP surveying should be used on a continuing trial basis over prospects known to contain a strong structural control (i.e. shearing) and/or sulphide or magnetite mineralization associated with REEs, and test-drilling of any associated chargeability or conductive anomalies detected (specifications a=25 metres; n=1-8). WGM notes that the use of steel electrodes is probably inappropriate, and recommends the use of pots or wire mesh. Appia should discuss the previous survey with an independent IP contractor to assess the potential for success using a modified approach or different technology.

Insights may also be provided by selective petrographic and mineralogical investigations of a typical REE prospect (or several) including fluid inclusion investigations, microprobe analysis and age-dating however this is not viewed as critical to exploration success.

A key consideration of the next exploration program should be to determine what geological factors can lead to the formation of a higher grading or larger deposit. Appia's expanded claim holdings include several historic uranium showings that should also be evaluated. The next program should include detailed mapping of new and existing showings, a significant prospecting and surface sampling effort, and aggressive channel sampling of surface anomalies. Appia may consider reducing the amount of drilling as a component of the overall exploration costs.

26.2 PROTOCOLS

Appia's exploration and QA/QC protocols meet generally accepted exploration practices. The author has some recommendations as follows:

- channel sample locations should be numbered (scratched or imprinted) on aluminum tags and affixed to the bedrock surface such that a permanent record is produced of the sample locations;
- in reviewing drill core in the trays, it is often uncertain which sample tag corresponds with a marked interval, that is, whether the tag marks the start point for a sample or the end point – some means should be found to make this clearer;
- at such time as one or more target areas move to advanced exploration, the protocol for responding to standard or blank failures will need to be formalized with Appia's assay laboratory;
- Results from Appia's duplicate sampling in the soil and stream sediment programs show very good correlations and the frequency of taking field duplicates can be reduced.

- The format of the drill hole data files must be improved to allow the reader to better understand the information provided by each hole. The existing format is needlessly complex and should be simplified, whether this is done by continuing to use Excel or through the use of a database program such as MS Access that allows information to be extracted into a user-friendly report format. While the observations of the geologist are vital, the geologist's interpretation of inter-relationship is also vital to understanding, and as such these linkages are crucial to the knowledge-base of each targeted zone.

26.3 PROPERTY MAINTENANCE

Appia has completed sufficient exploration work and related expenditures to maintain the Alces Lake dispositions in good standing until at least May, 2025, however two dispositions will require additional exploration expenditures on or before 30 September, 2023. Two additional groups of six dispositions and eight dispositions will require additional expenditures, respectively, on or before 7 November, 2023 and 14 November, 2023. Appia should assess its property holdings to ensure that the good-standing status of key dispositions is maintained.

Appia's primary exploration goal should remain focused on the identification of targets for follow-up exploration. As a secondary goal, however, Appia may wish to identify areas of the property that could be relinquished to allow its expenditures to be attributed to a smaller land holding since assessment requirements are based on the number of hectares under licence.

26.4 PROPOSED BUDGET AND APPROACH

Appia's estimated upper limit for an exploration budget during 2023 is $4 million. The proposed budget summarized in Table 17 covers an exploration program with a duration of 78-days. The current budget is for an expenditure of $3,556,400., the majority of it covering work during June, July and August, 2023. The proposed program includes 5,000 m of diamond drilling at an all-inclusive cost of $200 per metre. Drilling accounts for nearly 30% of overall expenditures. As in typical of exploration programs in areas such as Alces Lake, support costs are significant. Helicopter and fuel costs account for 30% of the budget. WGM believes that this is a reasonable approach with sufficient contingency to cover weather delays and a redirection of major exploration items if needed, especially as it might impact geophysical surveying or diamond drilling. In the Author's opinion, the proposed exploration strategy and budget is also appropriate for the current stage of exploration in the Appia Project, and in consideration of timelines mandated under Saskatchewan's assessment requirements to maintain the Alces Project property in good standing. A graphical representation of the budget is shown in Figure 29.

TABLE 17
Proposed Alces Lake Project Drilling Budget for 2023
(in Canadian Dollars)

Expenditure Item	**Estimated Cost**
Camp Equipment, Freight & Misc.	$ 38,500
Wages - Exploration Team & Support Personnel	497,150
Project Administration	300,000
Groceries (Food)	80,000
Diamond Drilling	1,000,000
Laboratory Fees	150,000
Surveying and Geophysics	500,000
Helicopter	550,400
Fuel	64,000
Travel (Domestic & Charter)	76,350
Contingency (10%)	300,000
Total	**$3,556,400**

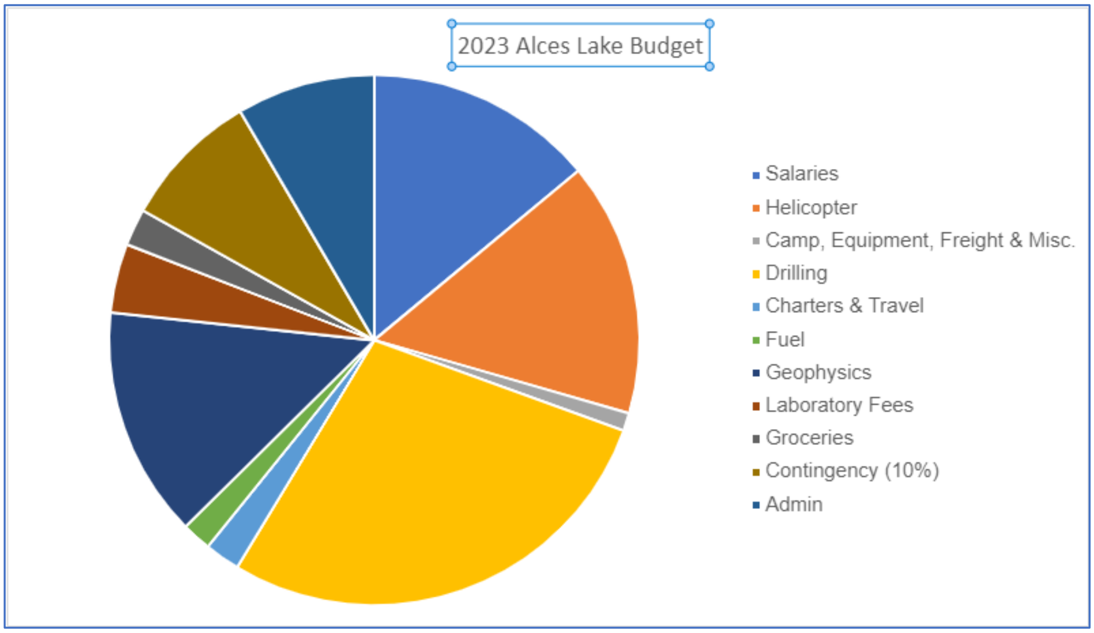

Figure 29: Chart illustrating the allocation of the 2023 Alces Lake exploration budget.

27. DATE AND SIGNATURE PAGE

This report titled "*A Technical Review of the Alces Lake Rare Earth Mineral Exploration Project, Beaverlodge Domain, Saskatchewan, Canada for Appia Rare Earths and Uranium Corp.*" with an effective date of 31 January, 2023, was prepared and signed by the following author:

Dated 30 May, 2023.

PROFESSIONAL GEOSCIENTIST
A.W. WORKMAN
MEMBER 10906
2023 05 30
YR. MN. DAY
SASKATCHEWAN

Albert W. (Al) Workman,
B.Sc., P.Geo. (Sask., Ont.), AusIMM, SEG
Senior Associate Exploration Geologist
Watts, Griffis and McOuat Limited

CERTIFICATE

I, Al Workman, do hereby certify that:

1. I reside at 2-228 Blueski George Crescent, The Blue Mountains, Ontario, L9Y 0V8, Canada.
2. I am a Senior Geologist and Vice-President with Watts Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by Professional Engineers Ontario since 1969, and professional geoscience by the Association of Professional Engineers and Geoscientists of Saskatchewan and the Professional Geoscientists of Ontario.
3. This certificate accompanies the report titled *"A Technical Review of the Alces Lake Rare Earth Mineral Exploration Project, Beaverlodge Domain, Saskatchewan, Canada for Appia Rare Earths and Uranium Corp."* with an effective date of 31 January, 2023.
4. I am a graduate of Brock University, St. Catharines, Ontario with an Honours B.Sc. Degree in Geological Sciences (1975).
5. I am a Professional Geologist licensed by the Association of Professional Engineers and Geoscientists of Saskatchewan (Membership Number 10906) and the Professional Geoscientists of Ontario (Membership Number 0170).
6. I am a "Qualified Person" for the purpose of this report under National Instrument 43-101 (“**NI 43-101**”).
7. I visited the Alces Lake Project on two occasions, the first being on 20-21 September, 2021, and more recently on 1-2 August, 2022.
8. I am solely responsible for the content of this Report as qualified under Section 3 – Reliance on Other Experts.
9. I am independent of the issuer as described in Section 1.5 of NI 43-101.
10. I have had no involvement, in any capacity other than as an independent Qualified Person, on Appia’s Alces Lake Project or with Appia Rare Earths and Uranium Corp. or any of its affiliates.
11. I have read NI 43-101 and Form 43-101F1 and have prepared this technical report in compliance with NI 43-101, Form 43-101F1 and generally accepted Canadian mining industry practice.
12. As of the effective date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

A.W. WORKMAN
MEMBER 10906
2023 05 30
YR. MN. DAY

Albert W. (Al) Workman, B.Sc., P.Geo.
Senior Associate Exploration Geologist
Watts, Griffis and McOuat Limited

REFERENCES

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APPENDICES

APPENDIX 1:

SUMMARY OF APPIA DRILL HOLE INTERSECTIONS

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
2018 Drilling						
CH-18-000	2018	WRCB	No Significant Result			
CH-18-001	2018	WRCB	3.85	5.10	1.25	**9.15**
CH-18-002	2018	WRCB	No Significant Result			
CH-18-003	2018	WRCB	0.00	1.75	1.75	**6.22**
			8.00	8.90	0.90	0.34
CH-18-004	2018	WRCB	No Significant Result			
CH-18-004A	2018	WRCB	1.50	2.80	1.30	0.17
			12.15	14.80	2.65	**1.41**
CH-18-005	2018	WRCB	10.75	14.25	3.50	**1.70**
CH-18-006	2018	WRCB	1.50	2.15	0.65	**3.53**
			10.45	13.40	2.95	**5.83**
CH-18-007	2018	WRCB	0.75	2.15	1.40	**6.72**
			11.85	14.70	2.85	**2.01**
CH-18-008	2018	WRCB	0.00	2.05	2.05	**3.69**
			8.50	14.55	6.05	**5.91**
CH-19-009	2018	WRCB	No Significant Result			
IV-18-001	2018	WRCB / AMP	5.20	8.90	3.70	**5.23**
			11.60	20.40	8.80	0.29
WI-18-001	2018	WRCB	2.15	6.75	4.60	0.20
			12.00	12.95	0.95	**0.60**
WI-18-002	2018	WRCB	3.30	8.90	5.60	**0.79**
			12.30	15.90	3.60	**2.22**
WI-18-003	2018	WRCB	13.70	14.30	0.60	0.25
WI-18-004	2018	WRCB	12.90	18.80	5.90	**3.05**
2019 Drilling						
AL-19-003	2019	WRCB	No Significant Result			
AL-19-004	2019	WRCB	No Significant Result			
CH-19-010	2019	WRCB	7.10	11.30	4.20	**4.36**
CH-19-011	2019	WRCB	7.40	8.80	1.40	**2.74**
CH-19-012	2019	WRCB	8.20	11.90	3.70	0.27
CH-19-013	2019	WRCB	10.30	11.20	0.90	0.23
CH-19-014	2019	WRCB	0.00	2.10	2.10	**7.49**
CH-19-015	2019	WRCB	0.00	2.30	2.30	**2.56**
CH-19-016	2019	WRCB	0.00	1.10	1.10	**4.45**
DT-19-001	2019	WRCB / AMP	3.90	6.50	2.60	0.26
			10.50	22.50	12.00	0.28
DT-19-002	2019	WRCB / AMP	4.80	11.30	6.50	0.29
			15.70	21.40	5.70	0.14
			32.00	35.90	3.90	0.14

>0.25%	>.50%	>1.00%	>5.00%	>10.00%

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
DT-19-003	2019	WRCB / AMP	5.50	10.50	5.00	0.24
			15.30	20.50	5.20	0.09
			32.50	34.50	2.00	0.28
DT-19-004	2019	WRCB	No Significant Result			
DT-19-004A	2019	WRCB / AMP	5.80	10.50	4.70	0.29
			17.60	18.90	1.30	0.13
DT-19-004B	2019	WRCB / AMP	5.80	10.00	4.20	0.29
			15.90	18.50	2.60	**11.46**
DT-19-005	2019	WRCB / AMP	19.20	21.70	2.50	0.22
DT-19-006	2019	WRCB / AMP	32.60	43.20	10.60	0.20
IV-19-002	2019	WRCB	3.80	8.40	4.60	0.10
IV-19-003	2019	WRCB / AMP	10.25	21.90	11.65	**15.85**
IV-19-004	2019	WRCB / AMP	12.20	14.10	1.90	0.11
			21.10	26.40	5.30	0.16
IV-19-005	2019	WRCB / AMP	12.00	18.50	6.50	0.13
			21.30	26.90	5.60	0.13
			41.20	42.20	1.00	0.28
IV-19-006	2019	WRCB / AMP	13.00	16.60	3.60	0.09
			19.40	22.30	2.90	0.31
			32.20	34.70	2.50	0.05
IV-19-007	2019	WRCB / AMP	12.00	14.60	2.60	0.20
			19.25	20.60	1.35	0.20
IV-19-008	2019	WRCB / AMP	11.30	17.30	6.00	**1.92**
			20.25	25.35	5.10	0.14
			32.70	34.20	1.50	0.07
IV-19-009	2019	WRCB / AMP	11.25	19.00	7.75	**3.76**
			21.85	28.60	6.75	0.17
IV-19-010	2019	WRCB / AMP	9.70	12.60	2.90	0.46
			18.30	21.70	3.40	0.13
			55.00	58.00	3.00	0.06
IV-19-011	2019	WRCB / AMP	7.90	14.40	6.50	**6.16**
			18.30	22.15	3.85	0.13
IV-19-012	2019	WRCB / AMP	8.70	24.25	15.55	**16.06**
IV-19-013	2019	WRCB / AMP	6.00	11.95	5.95	**4.45**
			19.15	20.30	1.15	0.11
			22.60	28.50	5.90	**6.88**
IV-19-014	2019	WRCB / AMP	6.80	9.60	2.80	0.07
			14.65	16.85	2.20	0.07
			24.00	27.65	3.65	0.09

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
IV-19-015	2019	WRCB / AMP	7.05	8.20	1.15	0.11
			15.75	18.35	2.60	0.10
			38.00	39.40	1.40	0.06
			41.60	42.10	0.50	0.12
			45.35	46.30	0.95	0.08
IV-19-016	2019	WRCB / AMP	4.00	6.00	2.00	0.26
			12.50	22.00	9.50	0.14
			38.15	39.90	1.75	0.17
			43.20	43.80	0.60	0.16
IV-19-017	2019	WRCB / AMP	1.40	8.00	6.60	0.11
			14.00	22.00	8.00	0.23
			26.15	30.40	4.25	0.17
IV-19-018	2019	WRCB / AMP	0.80	5.60	4.80	0.20
			12.20	13.20	1.00	0.18
			19.30	21.40	2.10	0.27
			27.10	29.10	2.00	0.11
IV-19-019	2019	WRCB / AMP	1.00	5.80	4.80	**1.33**
			20.70	23.00	2.30	0.34
IV-19-020	2019	WRCB / AMP	1.10	5.35	4.25	0.16
			22.50	25.05	2.55	**12.91**
			30.10	31.35	1.25	0.15
			34.50	35.40	0.90	0.12
IV-19-021	2019	WRCB / AMP	1.00	6.10	5.10	0.19
			10.30	15.10	4.80	**0.94**
			18.05	18.75	0.70	0.12
			21.00	26.00	5.00	0.14
IV-19-022	2019	WRCB / AMP	1.00	26.20	25.20	**0.82**
IV-19-023	2019	WRCB / AMP	1.00	8.00	7.00	0.16
			13.10	18.45	5.35	**5.95**
			20.50	24.40	3.90	0.14
MK-19-001	2019	WRCB	No Significant Result			
MK-19-002	2019	WRCB	1.20	1.50	0.30	0.26
			10.40	15.10	4.70	0.11
RI-19-001	2019	WRCB	9.80	19.20	9.40	**7.18**
RI-19-002	2019	WRCB	No Significant Result			
2020 Drilling						
CO-20-001	2020	Danny	130.15	131.40	1.25	0.15
CO-20-002	2020	WRCB	249.35	250.15	0.80	0.09
DN-20-001	2020	Danny	No Significant Result			
DN-20-002	2020	Danny	58.85	59.10	0.25	**0.75**
			344.40	345.00	0.60	0.16

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
DN-20-003	2020	Danny	3.25	3.40	0.15	0.43
			20.80	23.90	3.10	0.07
			26.20	27.40	1.20	0.14
DN-20-004	2020	Danny	22.35	23.20	0.85	0.17
ER-20-001	2020	Ermacre	4.05	6.90	2.85	0.24
HN-20-001	2020	Hinge	128.65	129.10	0.45	0.13
RI-20-003	2020	WRCB	No Significant Result			
RI-20-004	2020	WRCB	7.60	14.40	6.80	**5.59**
RI-20-005	2020	WRCB	6.90	7.30	0.40	0.19
			9.80	10.90	1.10	**5.27**
RI-20-006	2020	WRCB	No Significant Result			
RI-20-007	2020	WRCB	No Significant Result			
WI-20-005	2020	WRCB / AMP	7.35	12.50	5.15	0.19
			108.40	115.20	6.80	0.45
WI-20-006	2020	WRCB / AMP	5.80	8.45	2.65	0.45
			14.60	15.50	0.90	0.17
			21.45	21.95	0.50	0.13
			29.25	32.75	3.50	0.13
			38.65	40.45	1.80	0.16
			133.50	134.55	1.05	0.20
WI-20-007	2020	WRCB / AMP	9.60	11.40	1.80	0.13
			110.30	118.10	7.80	0.20
			120.45	120.90	0.45	0.23
			126.20	126.90	0.70	0.21
WI-20-008	2020	WRCB / AMP	28.55	30.55	2.00	0.45
			134.50	139.85	5.35	0.16
			145.75	147.80	2.05	0.06
WI-20-009	2020	WRCB	76.30	79.35	3.05	0.15
			172.00	173.00	1.00	0.14
2021 Drilling						
21-BIO-001	2021	Biotite Lake	2.53	6.22	3.69	**0.65**
21-BIO-002	2021	Biotite Lake	6.86	8.10	1.24	0.41
21-BIO-003	2021	Biotite Lake	17.48	19.95	2.47	**0.59**
21-BIO-004	2021	Biotite Lake	20.11	25.89	5.78	**0.58**
21-BIO-005	2021	Biotite Lake	No Significant Result			
21-BIO-006	2021	Biotite Lake	5.00	6.07	1.07	0.27
21-BIO-007	2021	Biotite Lake	26.06	26.50	0.44	**0.56**
21-BIO-008	2021	Biotite Lake	No Significant Result			
21-BIO-009	2021	Biotite Lake	No Significant Result			
21-BIO-010	2021	Biotite Lake	No Significant Result			
21-BIO-011	2021	Biotite Lake	No Significant Result			
21-BIO-012	2021	Biotite Lake	No Significant Result			

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
21-BIO-013	2021	Biotite Lake	No Significant Result			
21-DAN-001	2021	Danny	3.04	3.08	0.04	**12.03**
			8.78	10.31	1.53	0.18
21-DAN-002	2021	Danny	1.28	3.44	2.16	0.46
			8.21	9.50	1.29	0.08
			16.74	18.00	1.26	0.19
21-DAN-003	2021	Danny	16.25	17.31	1.06	0.08
21-DAN-004	2021	Danny	5.69	6.86	1.17	0.10
21-DAN-005	2021	Danny	No Significant Result			
21-DAN-006	2021	Danny	No Significant Result			
21-DAN-007	2021	Danny	14.07	16.26	2.19	0.07
			19.32	23.41	4.09	0.19
21-DIA-001	2021	Western Anomaly	38.44	43.17	4.73	0.15
			6.11	13.20	7.09	**1.59**
			22.00	29.80	7.80	**0.65**
21-DIA-002	2021	Western Anomaly	28.18	30.23	2.05	0.09
			8.10	10.40	2.30	0.07
21-DIA-002B	2021	Western Anomaly	9.96	12.32	2.36	0.15
			17.27	19.75	2.48	0.19
21-DIA-003	2021	Western Anomaly	1.78	3.76	1.98	0.17
			22.74	26.28	3.54	0.12
			32.45	34.70	2.25	0.10
21-OLD-001	2021	Oldman	8.97	11.31	2.34	0.06
21-OLD-002	2021	Oldman	15.52	17.37	1.85	0.06
21-OLD-006	2021	Oldman	No Significant Result			
21-OLD-007	2021	Oldman	No Significant Result			
21-OLD-010	2021	Oldman	No Significant Result			
21-OLD-011	2021	Oldman	No Significant Result			
21-OLD-012	2021	Oldman	6.40	6.60	0.20	**1.53**
21-OLD-013	2021	Oldman	7.24	8.17	0.93	0.06
21-SCH-001	2021	Western Anomaly	6.00	10.43	4.43	**2.76**
			30.53	31.83	1.30	0.38
21-SCH-002	2021	Western Anomaly	6.00	8.40	2.40	**1.27**
			20.05	21.80	1.75	**1.38**
21-SCH-003	2021	Western Anomaly	11.20	13.50	2.30	**1.89**
			21.14	22.35	1.21	0.12
			25.83	26.86	1.03	0.11
			35.12	36.60	1.48	0.09

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
21-SCH-004	2021	Western Anomaly	6.27	7.80	1.53	**1.53**
			15.25	18.46	3.21	0.14
			20.93	25.00	4.07	0.06
			27.48	31.39	3.91	0.37
21-SCH-005	2021	Western Anomaly	5.58	6.48	0.90	**1.56**
			21.81	23.64	1.83	**0.50**
21-SCH-006	2021	Western Anomaly	20.13	23.97	3.84	**0.78**
21-SCH-007	2021	Western Anomaly	No Significant Result			
21-SCH-007B	2021	Western Anomaly	34.01	36.13	2.12	0.10
			44.22	46.36	2.14	**0.60**
21-SCH-008	2021	Western Anomaly	9.36	11.34	1.98	0.09
			25.95	26.95	1.00	0.13
21-SCH-009	2021	Western Anomaly	No Significant Result			
21-SCH-010	2021	Western Anomaly	19.62	21.09	1.47	0.08
21-SCH-011	2021	Western Anomaly	25.65	27.25	1.60	0.07
21-SCH-012	2021	Western Anomaly	24.43	26.01	1.58	0.07
			42.22	44.38	2.16	0.08
			59.48	60.54	1.06	0.08
21-SCH-013	2021	Western Anomaly	No Significant Result			
21-WRC-001	2021	WRCB / AMP	9.13	10.10	0.97	0.18
			24.50	26.18	1.68	**0.63**
			38.23	48.90	10.67	0.16
21-WRC-002	2021	WRCB / AMP	39.18	42.40	3.22	0.42
			45.50	49.31	3.81	0.11
			71.57	71.96	0.39	0.22
21-WRC-003	2021	WRCB / AMP	38.95	44.95	6.00	0.32
21-WRC-004	2021	WRCB / AMP	16.51	17.53	1.02	0.23
			40.13	42.33	2.20	0.24
			46.42	48.42	2.00	0.26
			67.64	68.12	0.48	0.17
21-WRC-005	2021	WRCB / AMP	14.75	16.01	1.26	0.08
			49.90	52.66	2.76	0.27
			55.46	58.52	3.06	0.12
21-WRC-006	2021	WRCB / AMP	36.47	39.43	2.96	0.08
21-WRC-007	2021	WRCB / AMP	24.81	41.05	16.24	0.14
21-WRC-008	2021	WRCB / AMP	12.94	13.33	0.39	0.25
			20.22	22.98	2.76	0.16
			30.38	34.72	4.34	0.15
			38.18	38.79	0.61	0.14
21-WRC-009	2021	WRCB / AMP	8.24	11.73	3.49	**3.31**
			28.03	29.15	1.12	0.05
			74.28	78.71	4.43	0.21
			82.69	84.91	2.22	0.18

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
21-WRC-010	2021	WRCB / AMP	46.19	46.80	0.61	0.18
			49.18	50.30	1.12	0.10
21-WRC-011	2021	WRCB / AMP	16.57	19.21	2.64	0.06
			26.78	27.52	0.74	0.18
			46.32	46.71	0.39	0.16
			60.46	61.05	0.59	0.15
21-WRC-012	2021	WRCB / AMP	15.85	18.10	2.25	0.18
			64.95	73.77	8.82	0.12
21-WRC-013	2021	WRCB / AMP	14.28	15.79	1.51	0.13
			68.07	76.60	8.53	0.32
21-WRC-014	2021	WRCB / AMP	16.09	23.39	7.30	**11.21**
			32.32	33.12	0.80	0.19
			106.13	112.54	6.41	0.21
			123.57	123.86	0.29	0.29
21-WRC-015	2021	WRCB / AMP	6.56	9.11	2.55	0.28
			15.22	24.60	9.38	**17.53**
			30.63	38.80	8.17	**2.20**
			101.95	111.74	9.79	0.15
21-WRC-016	2021	WRCB / AMP	7.49	9.92	2.43	0.24
			13.05	16.61	3.56	0.17
			22.41	35.00	12.59	**5.27**
			38.92	42.62	3.70	**13.27**
			108.32	120.00	11.68	0.28
21-WRC-017	2021	WRCB / AMP	7.34	9.62	2.28	0.23
			13.99	15.48	1.49	0.20
			32.11	34.58	2.47	**0.51**
			118.22	119.69	1.47	0.17
21-WRC-020	2021	WRCB / AMP	68.49	70.21	1.72	0.25
			84.77	85.88	1.11	0.18
			88.45	90.95	2.50	0.06
21-WRC-021	2021	WRCB / AMP	39.65	41.05	1.40	0.19
			45.35	45.71	0.36	**0.88**
			120.33	131.44	11.11	0.23
21-WRC-022	2021	WRCB	7.63	12.63	5.00	0.16
21-WRC-023	2021	WRCB / AMP	10.90	12.64	1.74	**1.48**
21-WRC-024	2021	WRCB / AMP	31.53	35.00	3.47	**5.64**
21-WRC-025	2021	WRCB / AMP	34.35	35.94	1.59	0.23
			39.44	39.94	0.50	0.22
			63.37	64.09	0.72	**0.88**
21-WRC-026	2021	WRCB / AMP	39.82	40.50	0.68	0.30
			47.79	54.66	6.87	0.40
			60.00	63.38	3.38	0.17

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
21-WRC-027	2021	WRCB / AMP	68.15	70.09	1.94	0.23
			77.99	79.23	1.24	0.24
			87.81	89.41	1.60	0.17
21-WRC-032	2021	WRCB / AMP	16.75	18.28	1.53	0.19
			32.23	40.37	8.14	0.25
			54.52	55.07	0.55	0.24
			73.06	73.90	0.84	0.22
21-WRC-033	2021	WRCB / AMP	35.50	38.58	3.08	0.12
21-WRC-034	2021	WRCB / AMP	46.30	50.44	4.14	0.18
			55.86	57.78	1.92	0.12
21-WRC-035	2021	WRCB / AMP	52.58	54.00	1.42	0.14
			60.50	63.35	2.85	0.17
21-WRC-036	2021	WRCB / AMP	78.28	81.45	3.17	0.22
			88.04	91.51	3.47	0.28
21-WRC-037	2021	WRCB / AMP	106.23	109.69	3.46	0.10
21-WRC-039	2021	WRCB / AMP	2.09	4.23	2.14	0.27
21-WRC-042	2021	WRCB	No Significant Result			
21-WRC-043	2021	WRCB	12.19	13.03	0.84	0.07
			16.28	20.40	4.12	0.14
21-WRC-044	2021	WRCB	11.15	14.48	3.33	**7.98**
21-WRC-045	2021	WRCB / AMP	1.70	5.15	3.45	0.27
			10.35	12.78	2.43	0.12
21-WRC-046	2021	WRCB / AMP	1.22	6.69	5.47	0.34
			12.71	13.53	0.82	**4.15**
21-WRC-047	2021	WRCB	No Significant Result			
21-WRC-048	2021	WRCB	No Significant Result			
21-WRC-049	2021	WRCB	No Significant Result			
21-WRC-050	2021	WRCB	8.01	11.21	3.20	**1.73**
			24.49	25.67	1.18	0.21
21-WRC-051	2021	WRCB	6.38	7.19	0.81	0.22
21-WRC-052	2021	WRCB	9.61	15.78	6.17	0.34
21-WRC-053	2021	WRCB	19.46	21.36	1.90	0.32
			50.25	55.54	5.29	**4.16**
21-WRC-054	2021	WRCB / AMP	116.97	120.19	3.22	0.27
21-WRC-055	2021	WRCB	27.43	29.51	2.08	**0.84**
21-WRC-056	2021	WRCB	No Significant Result			
21-WRC-056B	2021	WRCB	No Significant Result			
21-WRC-057	2021	WRCB	No Significant Result			
21-WRC-058	2021	WRCB	No Significant Result			
21-WRC-059	2021	WRCB	6.53	8.50	1.97	**0.66**
			159.88	160.00	0.12	**0.54**
21-WRC-061	2021	WRCB / AMP	67.21	68.60	1.39	0.39

>0.25%	>.50%	>1.00%	>5.00%	>10.00%

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
21-WRC-064	2021	Danny	11.46	12.81	1.35	0.08
			33.51	34.92	1.41	0.10
			65.11	65.77	0.66	0.16
			98.74	104.06	5.32	0.21
			122.00	123.02	1.02	0.14
			132.00	133.74	1.74	0.08
			146.26	147.13	0.87	0.06
			243.86	247.00	3.14	0.19
21-WRC-065	2021	WRCB	63.74	64.34	0.60	0.15
2022 Drilling						
22-AUG-001	2022	Magnet Ridge	1.30	54.35	53.05	0.15
22-AUG-002	2022	Magnet Ridge	1.80	25.10	23.30	0.18
			30.80	35.70	4.90	0.08
			37.80	51.90	14.10	0.10
			55.05	60.90	5.85	0.07
			71.00	72.00	1.00	0.18
			118.47	119.72	1.25	0.06
22-AUG-003	2022	Magnet Ridge	23.24	26.20	2.96	0.24
			28.30	29.53	1.23	0.26
			31.78	73.67	41.89	0.18
			190.20	191.39	1.19	0.08
22-AUG-004	2022	Magnet Ridge	24.93	53.00	28.07	0.15
			57.00	73.06	16.06	0.11
22-AUG-005	2022	Magnet Ridge	23.53	69.07	45.54	0.12
			71.09	81.01	9.92	0.11
			93.13	94.13	1.00	0.15
			233.23	234.87	1.64	0.07
22-AUG-006	2022	Magnet Ridge	37.68	50.10	12.42	0.13
			67.50	81.61	14.11	0.08
			87.61	91.37	3.76	0.08
			187.66	188.37	0.71	0.08
22-AUG-007	2022	Magnet Ridge	49.30	77.50	28.20	0.17
			80.50	94.86	14.36	0.07
			125.79	126.90	1.11	0.11
22-AUG-008	2022	Magnet Ridge	No Significant Result			
22-AUG-009	2022	Magnet Ridge	47.85	51.37	3.52	0.07
			72.63	73.87	1.24	0.07
22-AUG-010	2022	Magnet Ridge	No Significant Result			
22-AUG-011	2022	Magnet Ridge	31.99	36.29	4.30	0.11
			92.01	98.02	6.01	0.08
22-AUG-012	2022	Magnet Ridge	72.00	83.17	11.17	0.10

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-AUG-013	2022	Magnet Ridge	5.10	15.73	10.63	0.22
			25.03	62.11	37.08	0.20
			67.47	69.72	2.25	0.13
			90.13	91.81	1.68	0.06
22-AUG-014	2022	Magnet Ridge	4.72	16.79	12.07	0.19
			24.35	36.80	12.45	0.12
			39.30	41.85	2.55	0.08
			45.95	54.64	8.69	0.07
			57.00	67.86	10.86	0.07
			71.44	76.50	5.06	0.07
			84.61	90.85	6.24	0.07
22-AUG-015	2022	Magnet Ridge	9.25	10.61	1.36	0.05
			13.00	14.04	1.04	0.05
			46.13	56.61	10.48	0.09
			61.91	66.77	4.86	0.11
			99.43	99.86	0.43	0.23
			108.72	111.10	2.38	0.11
22-AUG-016	2022	Magnet Ridge	68.00	77.23	9.23	0.10
			80.88	85.82	4.94	0.07
			101.65	101.79	0.14	0.38
			105.90	108.81	2.91	0.11
22-AUG-017	2022	Magnet Ridge	60.36	67.60	7.24	0.07
			96.93	103.45	6.52	0.07
22-AUG-018	2022	Magnet Ridge	183.25	186.25	3.00	0.10
			189.90	190.24	0.34	0.16
22-AUG-019	2022	Magnet Ridge	15.81	38.88	23.07	0.15
			43.88	63.67	19.79	0.11
22-AUG-020	2022	Magnet Ridge	10.02	11.02	1.00	0.05
			16.02	22.02	6.00	0.06
			27.02	67.07	40.05	0.14
			95.77	97.22	1.45	0.12
			108.88	112.90	4.02	0.08
22-AUG-021	2022	Magnet Ridge	50.15	54.20	4.05	0.16
			58.25	74.10	15.85	0.13
			80.27	88.78	8.51	0.09
22-AUG-022	2022	Magnet Ridge	51.26	55.50	4.24	0.11
			72.37	76.11	3.74	0.11
			78.98	82.37	3.39	0.13
22-AUG-023	2022	Magnet Ridge	109.53	115.18	5.65	0.08
			117.46	121.09	3.63	0.15
22-AUG-024	2022	Magnet Ridge	37.35	37.52	0.17	0.44
			63.74	66.75	3.01	0.08
			97.67	100.72	3.05	0.10

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-AUG-025	2022	Magnet Ridge	86.30	87.38	1.08	0.17
22-AUG-026	2022	Magnet Ridge	20.60	56.58	35.98	0.17
			59.00	81.20	22.20	0.08
			92.24	92.96	0.72	0.14
			95.48	96.48	1.00	0.09
22-AUG-027	2022	Magnet Ridge	21.42	28.62	7.20	0.10
			40.42	44.49	4.07	0.13
			46.57	47.54	0.97	0.06
			102.84	103.84	1.00	0.06
22-AUG-028	2022	Magnet Ridge	12.84	16.21	3.37	0.22
			19.81	27.96	8.15	0.19
			33.70	63.56	29.86	0.14
22-AUG-029	2022	Magnet Ridge	20.44	61.91	41.47	0.17
			90.53	90.91	0.38	0.14
			99.42	100.26	0.84	0.09
22-AUG-030	2022	Magnet Ridge	4.98	23.65	18.67	0.25
22-AUG-031	2022	Magnet Ridge	5.12	27.42	22.30	0.29
			46.55	47.80	1.25	0.10
22-AUG-032	2022	Magnet Ridge	74.82	86.62	11.80	0.06
			93.93	96.90	2.97	0.07
22-AUG-033	2022	Magnet Ridge	42.13	45.82	3.69	0.08
			61.36	64.18	2.82	0.08
			98.62	102.25	3.63	0.10
			104.94	106.04	1.10	0.08
			108.12	110.29	2.17	0.11
22-AUG-034	2022	Magnet Ridge	68.26	78.14	9.88	0.10
22-DAN-001	2022	Danny	39.01	40.01	1.00	0.05
			41.01	42.15	1.14	0.06
			52.90	54.84	1.94	0.08
			125.84	127.00	1.16	0.20
22-DAN-002	2022	Danny	11.00	12.53	1.53	0.14
			17.75	20.00	2.25	0.07
			31.33	33.83	2.50	0.09
			62.70	63.17	0.47	0.11
			65.95	68.62	2.67	0.14
22-HNG-001	2022	Hinge	No Significant Result			
22-MRW-001	2022	Magnet Ridge West	46.34	51.14	4.80	0.07
			66.81	67.88	1.07	0.13
			71.64	72.87	1.23	0.08
22-MRW-002	2022	Magnet Ridge West	37.31	39.81	2.50	0.06
			45.33	48.17	2.84	0.06
			53.01	56.01	3.00	0.06
			58.16	60.31	2.15	0.10

>0.25%	>.50%	>1.00%	>5.00%	>10.00%

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-MRW-003	2022	Magnet Ridge West	34.48	42.18	7.70	0.09
			57.89	60.32	2.43	0.08
22-MRW-004	2022	Magnet Ridge West	46.87	47.94	1.07	0.12
			63.95	70.23	6.28	0.08
			96.00	97.02	1.02	0.38
22-MRW-005	2022	Magnet Ridge West	110.31	110.80	0.49	0.12
			129.12	132.84	3.72	0.08
			135.00	136.10	1.10	0.05
			153.63	173.27	19.64	0.17
			182.24	191.93	9.69	0.10
22-MRW-006	2022	Magnet Ridge West	118.66	120.33	1.67	0.11
			132.22	137.54	5.32	0.06
			139.66	145.59	5.93	0.07
			150.81	174.79	23.98	0.12
22-MRW-007	2022	Magnet Ridge West	118.06	121.00	2.94	0.09
			128.02	128.33	0.31	0.18
			136.78	137.00	0.22	**0.58**
			148.15	155.04	6.89	0.06
			159.31	164.61	5.30	0.08
			167.43	175.93	8.50	0.07
			184.52	186.31	1.79	0.06
22-MRW-008	2022	Magnet Ridge West	62.79	66.00	3.21	0.08
			75.58	76.13	0.55	0.14
			80.03	86.53	6.50	0.08
			106.68	111.00	4.32	0.08
22-MRW-009	2022	Magnet Ridge West	91.09	95.44	4.35	0.06
			97.76	99.89	2.13	0.05
			175.17	186.70	11.53	0.13
22-MRW-010	2022	Magnet Ridge West	69.43	70.91	1.48	0.07
			159.30	162.45	3.15	0.10
22-STR-001	2022	Strocen	51.34	53.40	2.06	0.11
22-STR-002	2022	Strocen	39.72	43.16	3.44	0.13
			54.41	55.81	1.40	0.09
			145.95	147.82	1.87	0.10
22-STR-003	2022	Strocen	14.60	15.25	0.65	0.18
			24.48	25.35	0.87	0.08
			34.04	35.95	1.91	0.10
			165.61	167.03	1.42	0.17
22-STR-004	2022	Strocen	38.62	39.40	0.78	0.12
22-STR-005	2022	Strocen	132.99	133.99	1.00	0.07
22-WEL-001	2022	Western Limb	6.46	7.70	1.24	0.19
			29.17	29.93	0.76	0.25
22-WEL-002	2022	Western Limb	No Significant Result			

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-WEL-003	2022	Western Limb	No Significant Result			
22-WEL-004	2022	Western Limb	6.72	9.74	3.02	0.32
22-WEL-005	2022	Western Limb	88.42	89.20	0.78	0.12
22-WEL-006	2022	Western Limb	No Significant Result			
22-WES-001	2022	Western Anomaly	189.69	193.47	3.78	0.12
			195.96	197.55	1.59	0.08
22-WES-002	2022	Western Anomaly	82.46	86.90	4.44	0.08
22-WES-003	2022	Western Anomaly	12.61	16.83	4.22	0.14
			20.32	21.90	1.58	0.27
			23.98	26.25	2.27	0.09
			82.00	83.13	1.13	0.07
22-WES-004	2022	Western Anomaly	No Significant Result			
22-WES-005	2022	Western Anomaly	No Significant Result			
22-WRC-001	2022	WRCB / AMP	18.95	19.43	0.48	0.28
			21.45	23.00	1.55	0.24
			65.52	69.03	3.51	0.29
			76.38	77.54	1.16	0.14
22-WRC-002	2022	WRCB	70.42	71.01	0.59	0.30
			79.88	80.08	0.20	0.27
22-WRC-003	2022	Danny	53.50	56.56	3.06	0.07
			60.00	62.07	2.07	0.33
			100.66	101.83	1.17	0.09
			105.59	107.85	2.26	0.13
22-WRC-003B	2022	Danny - AMP	40.91	42.08	1.17	0.08
			55.62	56.30	0.68	0.11
			59.08	61.89	2.81	0.09
			210.00	219.11	9.11	0.35
22-WRC-004	2022	Danny	11.12	12.00	0.88	0.10
			147.37	151.60	4.23	0.11
22-WRC-005	2022	Danny	91.58	92.80	1.22	0.13
22-WRC-006	2022	WRCB / AMP	11.85	12.40	0.55	0.18
			58.05	69.61	11.56	0.14
22-WRC-007	2022	WRCB / AMP	68.30	73.38	5.08	0.15
			75.48	81.47	5.99	0.20
			87.42	88.01	0.59	0.21
			95.14	96.10	0.96	0.19
22-WRC-008	2022	WRCB / AMP	77.30	78.60	1.30	**0.81**
			169.45	179.75	10.30	0.42
22-WRC-009	2022	WRCB / AMP	171.15	172.96	1.81	**0.51**
			175.87	177.03	1.16	0.17
			183.62	185.00	1.38	0.13

>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

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Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-WRC-010	2022	WRCB / AMP	86.72	87.75	1.03	0.08
			89.88	91.50	1.62	0.34
			186.14	190.29	4.15	0.13
22-WRC-011	2022	WRCB	11.68	15.59	3.91	0.05
			54.22	55.24	1.02	0.13
			96.30	97.70	1.40	0.15
			210.64	211.17	0.53	0.11
22-WRC-012	2022	WRCB / AMP	31.83	33.83	2.00	0.18
			65.40	66.40	1.00	0.08
			137.35	140.19	2.84	0.23
			152.87	153.20	0.33	0.24
22-WRC-013	2022	WRCB / AMP	6.60	7.93	1.33	0.26
			10.83	13.65	2.82	0.19
			35.37	37.56	2.19	0.06
22-WRC-014	2022	WRCB / AMP	7.00	8.06	1.06	0.32
			11.50	14.18	2.68	0.14
22-WRC-015	2022	WRCB / AMP	9.15	10.90	1.75	0.27
			16.92	17.30	0.38	0.18
22-WRC-016	2022	WRCB / AMP	92.85	93.05	0.20	**0.51**
			190.07	202.20	12.13	0.33
22-WRC-017	2022	WRCB / AMP	11.47	15.24	3.77	0.09
			192.04	201.62	9.58	0.22
22-WRC-018	2022	WRCB / AMP	10.87	12.83	1.96	0.16
			96.70	100.78	4.08	0.17
			181.88	188.14	6.26	0.13
			194.17	204.53	10.36	0.24
22-WRC-019	2022	WRCB / AMP	80.06	80.52	0.46	0.33
			164.52	177.53	13.01	0.28
			180.79	181.11	0.32	0.25
			189.18	192.52	3.34	0.10
22-WRC-020	2022	WRCB / AMP	76.87	80.90	4.03	0.30
			86.15	87.03	0.88	0.20
			173.34	174.87	1.53	**0.52**
			178.29	179.25	0.96	0.13
			183.79	185.36	1.57	0.06
22-WRC-021	2022	WRCB / AMP	78.12	86.82	8.70	0.40
			182.16	182.51	0.35	0.44
			185.00	186.90	1.90	0.28
22-WRC-022	2022	WRCB / AMP	17.48	24.50	7.02	**1.37**
			113.53	121.06	7.53	0.41

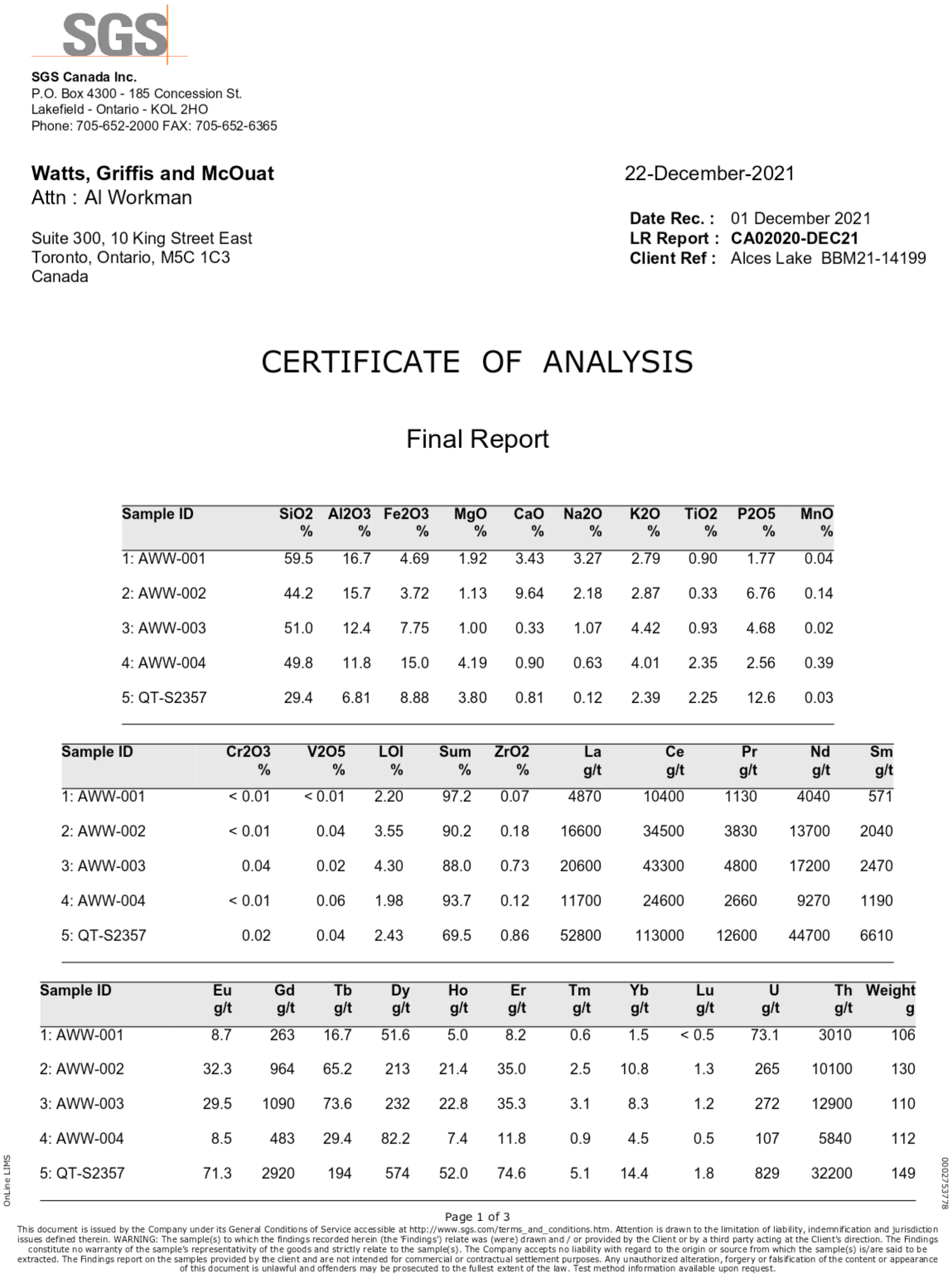
>0.25%	**>.50%**	**>1.00%**	**>5.00%**	**>10.00%**

Summary of Significant REE Intersections in Appia Drill Holes

Drillhole Name	Year	Zones Intersected	Interval in Metres			Intervals >0.1% TREO
			from	to	Length	Composite grade
22-WRC-023	2022	WRCB / AMP	17.52	21.40	3.88	**0.61**
			42.69	44.10	1.41	**4.76**
			56.22	57.65	1.43	0.07
			113.18	119.67	6.49	0.20
			131.33	131.70	0.37	0.25
22-WRC-024	2022	WRCB / AMP	16.92	20.29	3.37	0.26
			38.86	47.84	8.98	**9.46**
			54.14	54.78	0.64	0.21
			117.20	119.20	2.00	0.47
			123.00	127.66	4.66	0.25
22-WRC-025	2022	WRCB / AMP	20.16	21.75	1.59	**0.64**
			25.23	25.47	0.24	0.28
			135.69	136.26	0.57	0.30
22-WRC-026	2022	WRCB	25.08	29.65	4.57	0.16
22-WRC-027	2022	WRCB / AMP	31.16	32.40	1.24	**4.70**
			128.64	129.80	1.16	0.29
22-WRC-028	2022	WRCB	19.49	21.05	1.56	0.19
			33.11	33.37	0.26	0.28
			116.98	117.30	0.32	0.33
22-WRC-029	2022	WRCB / AMP	18.00	19.51	1.51	0.27
			40.75	44.67	3.92	**5.97**
			49.73	54.61	4.88	**2.69**
			116.93	126.79	9.86	0.12
22-WRC-030	2022	Southern Block	44.36	46.00	1.64	**0.80**
22-WRC-031	2022	Southern Block	No Significant Result			
22-WRC-032	2022	Southern Block	153.74	158.40	4.66	0.10
22-WRC-033	2022	Ermacre	12.53	23.05	10.52	0.06
22-WRC-034	2022	WRCB	No Significant Result			
22-WRC-035	2022	WRCB	No Significant Result			
22-WRC-036	2022	WRCB	No Significant Result			

>0.25%	>.50%	>1.00%	>5.00%	>10.00%

APPENDIX 2:
ANALYTICAL RESULTS FOR WGM CHECK SAMPLES



SGS Canada Inc.
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Watts, Griffis and McOuat
Attn : Al Workman

Suite 300, 10 King Street East
Toronto, Ontario, M5C 1C3
Canada

22-December-2021

Date Rec. : 01 December 2021
LR Report : **CA02020-DEC21**
Client Ref : Alces Lake BBM21-14199

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %
1: AWW-001	59.5	16.7	4.69	1.92	3.43	3.27	2.79	0.90	1.77	0.04
2: AWW-002	44.2	15.7	3.72	1.13	9.64	2.18	2.87	0.33	6.76	0.14
3: AWW-003	51.0	12.4	7.75	1.00	0.33	1.07	4.42	0.93	4.68	0.02
4: AWW-004	49.8	11.8	15.0	4.19	0.90	0.63	4.01	2.35	2.56	0.39
5: QT-S2357	29.4	6.81	8.88	3.80	0.81	0.12	2.39	2.25	12.6	0.03

Sample ID	Cr2O3 %	V2O5 %	LOI %	Sum %	ZrO2 %	La g/t	Ce g/t	Pr g/t	Nd g/t	Sm g/t
1: AWW-001	< 0.01	< 0.01	2.20	97.2	0.07	4870	10400	1130	4040	571
2: AWW-002	< 0.01	0.04	3.55	90.2	0.18	16600	34500	3830	13700	2040
3: AWW-003	0.04	0.02	4.30	88.0	0.73	20600	43300	4800	17200	2470
4: AWW-004	< 0.01	0.06	1.98	93.7	0.12	11700	24600	2660	9270	1190
5: QT-S2357	0.02	0.04	2.43	69.5	0.86	52800	113000	12600	44700	6610

Sample ID	Eu g/t	Gd g/t	Tb g/t	Dy g/t	Ho g/t	Er g/t	Tm g/t	Yb g/t	Lu g/t	U g/t	Th g/t	Weight g
1: AWW-001	8.7	263	16.7	51.6	5.0	8.2	0.6	1.5	< 0.5	73.1	3010	106
2: AWW-002	32.3	964	65.2	213	21.4	35.0	2.5	10.8	1.3	265	10100	130
3: AWW-003	29.5	1090	73.6	232	22.8	35.3	3.1	8.3	1.2	272	12900	110
4: AWW-004	8.5	483	29.4	82.2	7.4	11.8	0.9	4.5	0.5	107	5840	112
5: QT-S2357	71.3	2920	194	574	52.0	74.6	5.1	14.4	1.8	829	32200	149

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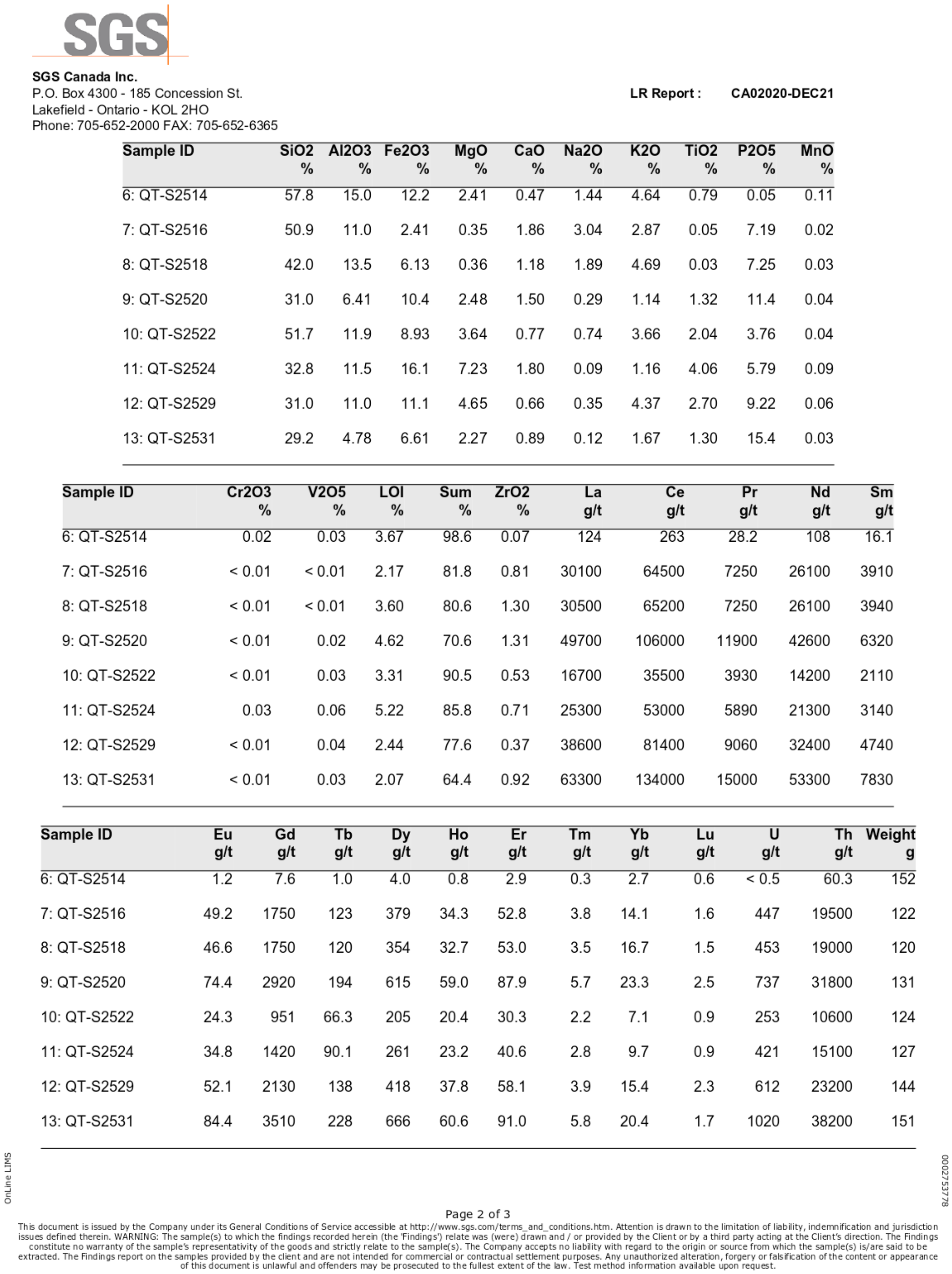

SGS Canada Inc.
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LR Report : **CA02020-DEC21**

Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %
6: QT-S2514	57.8	15.0	12.2	2.41	0.47	1.44	4.64	0.79	0.05	0.11
7: QT-S2516	50.9	11.0	2.41	0.35	1.86	3.04	2.87	0.05	7.19	0.02
8: QT-S2518	42.0	13.5	6.13	0.36	1.18	1.89	4.69	0.03	7.25	0.03
9: QT-S2520	31.0	6.41	10.4	2.48	1.50	0.29	1.14	1.32	11.4	0.04
10: QT-S2522	51.7	11.9	8.93	3.64	0.77	0.74	3.66	2.04	3.76	0.04
11: QT-S2524	32.8	11.5	16.1	7.23	1.80	0.09	1.16	4.06	5.79	0.09
12: QT-S2529	31.0	11.0	11.1	4.65	0.66	0.35	4.37	2.70	9.22	0.06
13: QT-S2531	29.2	4.78	6.61	2.27	0.89	0.12	1.67	1.30	15.4	0.03

Sample ID	Cr2O3 %	V2O5 %	LOI %	Sum %	ZrO2 %	La g/t	Ce g/t	Pr g/t	Nd g/t	Sm g/t
6: QT-S2514	0.02	0.03	3.67	98.6	0.07	124	263	28.2	108	16.1
7: QT-S2516	< 0.01	< 0.01	2.17	81.8	0.81	30100	64500	7250	26100	3910
8: QT-S2518	< 0.01	< 0.01	3.60	80.6	1.30	30500	65200	7250	26100	3940
9: QT-S2520	< 0.01	0.02	4.62	70.6	1.31	49700	106000	11900	42600	6320
10: QT-S2522	< 0.01	0.03	3.31	90.5	0.53	16700	35500	3930	14200	2110
11: QT-S2524	0.03	0.06	5.22	85.8	0.71	25300	53000	5890	21300	3140
12: QT-S2529	< 0.01	0.04	2.44	77.6	0.37	38600	81400	9060	32400	4740
13: QT-S2531	< 0.01	0.03	2.07	64.4	0.92	63300	134000	15000	53300	7830

Sample ID	Eu g/t	Gd g/t	Tb g/t	Dy g/t	Ho g/t	Er g/t	Tm g/t	Yb g/t	Lu g/t	U g/t	Th g/t	Weight g
6: QT-S2514	1.2	7.6	1.0	4.0	0.8	2.9	0.3	2.7	0.6	< 0.5	60.3	152
7: QT-S2516	49.2	1750	123	379	34.3	52.8	3.8	14.1	1.6	447	19500	122
8: QT-S2518	46.6	1750	120	354	32.7	53.0	3.5	16.7	1.5	453	19000	120
9: QT-S2520	74.4	2920	194	615	59.0	87.9	5.7	23.3	2.5	737	31800	131
10: QT-S2522	24.3	951	66.3	205	20.4	30.3	2.2	7.1	0.9	253	10600	124
11: QT-S2524	34.8	1420	90.1	261	23.2	40.6	2.8	9.7	0.9	421	15100	127
12: QT-S2529	52.1	2130	138	418	37.8	58.1	3.9	15.4	2.3	612	23200	144
13: QT-S2531	84.4	3510	228	666	60.6	91.0	5.8	20.4	1.7	1020	38200	151

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LR Report : **CA02020-DEC21**

Sample ID	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %
14: QT-S2533	25.1	6.98	9.47	3.71	0.77	0.09	2.04	2.21	13.6	0.04
15: QT-S2535	29.7	11.3	17.6	5.02	0.52	0.09	3.03	2.68	6.69	0.13
16: QT-S2537	86.9	5.67	1.81	0.27	0.11	0.55	1.88	0.04	0.29	0.01
17: QT-S2539	90.5	3.77	3.23	0.48	0.11	0.33	0.68	0.03	0.03	0.06
18-DUP: QT-S2539	90.8	3.79	3.24	0.48	0.11	0.33	0.69	0.03	0.03	0.06

Sample ID	Cr2O3 %	V2O5 %	LOI %	Sum %	ZrO2 %	La g/t	Ce g/t	Pr g/t	Nd g/t	Sm g/t
14: QT-S2533	< 0.01	0.05	2.54	66.6	0.98	59000	125000	13900	49600	7210
15: QT-S2535	0.02	0.05	5.13	82.0	0.82	28800	60600	6800	24100	3520
16: QT-S2537	< 0.01	< 0.01	1.03	98.6	0.06	1130	2440	277	996	161
17: QT-S2539	0.14	< 0.01	0.53	99.9	0.08	116	228	26.7	107	15.0
18-DUP: QT-S2539	0.14	< 0.01	0.50	100.2	0.09	---	---	---	---	---

Sample ID	Eu g/t	Gd g/t	Tb g/t	Dy g/t	Ho g/t	Er g/t	Tm g/t	Yb g/t	Lu g/t	U g/t	Th g/t	Weight g
14: QT-S2533	80.8	3200	209	625	57.5	85.4	5.4	21.8	1.1	895	35100	158
15: QT-S2535	40.2	1590	104	313	29.1	46.4	3.4	13.1	1.1	440	17400	130
16: QT-S2537	2.5	72.1	4.3	13.9	1.2	2.1	< 0.3	0.6	< 0.5	21.5	684	99.6
17: QT-S2539	0.5	8.1	0.9	4.4	1.1	3.5	0.5	2.8	0.7	1.7	62.5	125
18-DUP: QT-S2539	---	---	---	---	---	---	---	---	---	---	---	---

Control Quality Analysis - not suitable for commercial exchange

Shamim Tootoonchi
Project Coordinator, Minerals Services,
Analytical

OnLine LIMS

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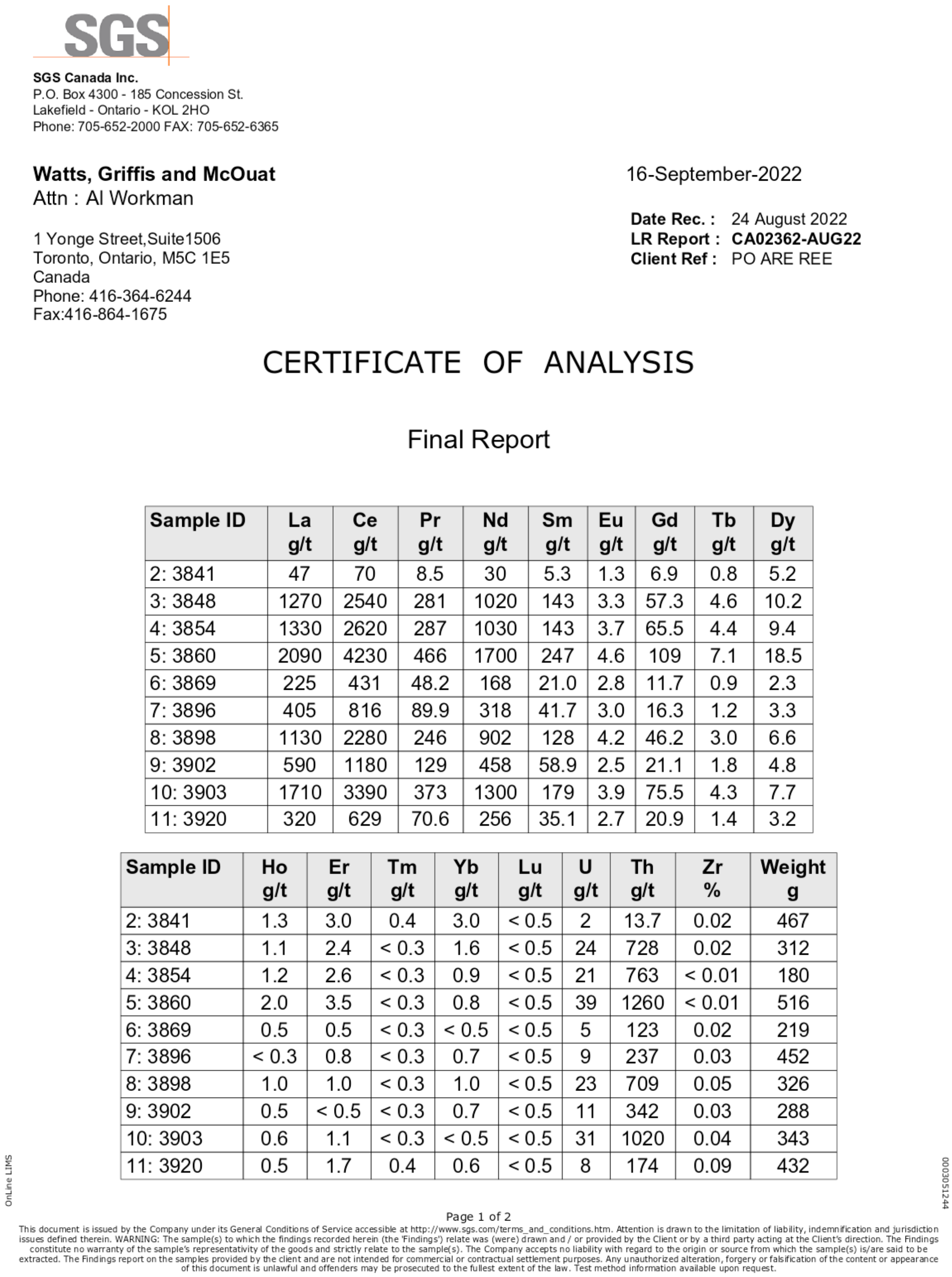

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16-September-2022

Date Rec. : 24 August 2022
LR Report : **CA02362-AUG22**
Client Ref : PO ARE REE

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Final Report

Sample ID	La g/t	Ce g/t	Pr g/t	Nd g/t	Sm g/t	Eu g/t	Gd g/t	Tb g/t	Dy g/t
2: 3841	47	70	8.5	30	5.3	1.3	6.9	0.8	5.2
3: 3848	1270	2540	281	1020	143	3.3	57.3	4.6	10.2
4: 3854	1330	2620	287	1030	143	3.7	65.5	4.4	9.4
5: 3860	2090	4230	466	1700	247	4.6	109	7.1	18.5
6: 3869	225	431	48.2	168	21.0	2.8	11.7	0.9	2.3
7: 3896	405	816	89.9	318	41.7	3.0	16.3	1.2	3.3
8: 3898	1130	2280	246	902	128	4.2	46.2	3.0	6.6
9: 3902	590	1180	129	458	58.9	2.5	21.1	1.8	4.8
10: 3903	1710	3390	373	1300	179	3.9	75.5	4.3	7.7
11: 3920	320	629	70.6	256	35.1	2.7	20.9	1.4	3.2

Sample ID	Ho g/t	Er g/t	Tm g/t	Yb g/t	Lu g/t	U g/t	Th g/t	Zr %	Weight g
2: 3841	1.3	3.0	0.4	3.0	< 0.5	2	13.7	0.02	467
3: 3848	1.1	2.4	< 0.3	1.6	< 0.5	24	728	0.02	312
4: 3854	1.2	2.6	< 0.3	0.9	< 0.5	21	763	< 0.01	180
5: 3860	2.0	3.5	< 0.3	0.8	< 0.5	39	1260	< 0.01	516
6: 3869	0.5	0.5	< 0.3	< 0.5	< 0.5	5	123	0.02	219
7: 3896	< 0.3	0.8	< 0.3	0.7	< 0.5	9	237	0.03	452
8: 3898	1.0	1.0	< 0.3	1.0	< 0.5	23	709	0.05	326
9: 3902	0.5	< 0.5	< 0.3	0.7	< 0.5	11	342	0.03	288
10: 3903	0.6	1.1	< 0.3	< 0.5	< 0.5	31	1020	0.04	343
11: 3920	0.5	1.7	0.4	0.6	< 0.5	8	174	0.09	432

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LR Report : **CA02362-AUG22**

Sample ID	La g/t	Ce g/t	Pr g/t	Nd g/t	Sm g/t	Eu g/t	Gd g/t	Tb g/t	Dy g/t
12: 4503	378	753	82.5	303	41.9	2.0	20.9	1.4	4.2
13: 9392	66	119	14.6	46	8.0	1.5	4.7	0.7	3.8
14: 9395	236	464	51.4	192	24.3	1.7	12.5	1.5	5.2
15: 9413	128	250	27.4	100	17.4	1.8	8.4	1.1	6.7
16: 9422	4840	9810	1060	3970	500	7.3	250	16.3	56.0
17: 9423	659	1310	150	544	72.7	2.3	35.1	2.8	8.2

Sample ID	Ho g/t	Er g/t	Tm g/t	Yb g/t	Lu g/t	U g/t	Th g/t	Zr %	Weight g
12: 4503	0.6	1.4	0.4	1.0	< 0.5	6	227	0.07	534
13: 9392	0.8	3.5	0.7	4.4	0.7	< 2	30.9	0.03	432
14: 9395	1.3	3.1	0.7	2.6	0.5	3	132	0.03	407
15: 9413	1.0	3.3	0.6	4.8	0.6	4	78.7	0.02	407
16: 9422	5.8	6.4	0.9	1.8	< 0.5	67	3620	0.03	346
17: 9423	0.9	2.0	< 0.3	0.9	< 0.5	13	510	0.03	376

`Control Quality Analysis - not suitable for commercial exchange`

Akshat

Akshat Bhandari
Project Coordinator,
Minerals Services

APPENDIX 3:

DRILL HOLE SPECIFICATIONS

Survey Data for 2018-2022 Drilling, Alces Lake Project

DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
				2018 Drilling					
CH-18-000	2018	Charles	667169	6618077	450	12	336	-44	1.85
CH-18-001	2018	Charles	667169	6618075	450	12	330	-47	28.52
CH-18-002	2018	Charles	667167	6618072	451	12	277	-46	15.00
CH-18-003	2018	Charles	667164	6618073	450	12	016	-64	13.50
CH-18-004	2018	Charles	667161	6618071	451	12	257	-45	6.00
CH-18-004A	2018	Charles	667161	6618071	451	12	077	-61	15.80
CH-18-005	2018	Charles	667162	6618071	451	12	083	-63	21.00
CH-18-006	2018	Charles	667162	6618071	451	12	083	-65	17.50
CH-18-007	2018	Charles	667163	6618071	451	12	084	-63	18.00
CH-18-008	2018	Charles	667164	6618072	450	12	077	-65	30.00
IV-18-001	2018	Ivan	667258	6618055	455	12	325	-60	30.00
IV-18-002	2018	Ivan	667258	6618055	455	12	325	-40	14.80
WI-18-001	2018	Wilson	667191	6617938	466	12	040	-47	47.50
WI-18-002	2018	Wilson	667191	6617938	466	12	045	-30	22.20
WI-18-003	2018	Wilson	667174	6617953	466	12	050	-40	43.70
WI-18-004	2018	Wilson	667175	6617953	465	12	050	-30	24.80
				2019 Drilling					
CH-19-009	2019	Charles	667169	6618073	450	12	070	-60	46.30
CH-19-010	2019	Charles	667169	6618074	450	12	050	-60	48.20
CH-19-011	2019	Charles	667169	6618074	450	12	050	-45	43.40
CH-19-012	2019	Charles	667178	6618077	449	12	060	-60	48.20
CH-19-013	2019	Charles	667180	6618078	449	12	060	-45	33.80
CH-19-014	2019	Charles	667164	6618078	450	12	068	-75	20.60
CH-19-015	2019	Charles	667166	6618079	450	12	030	-88	97.20
CH-19-016	2019	Charles	667164	6618076	450	12	150	-80	66.80
DT-19-001	2019	Dante	667232	6618083	449	12	000	-90	48.20
DT-19-002	2019	Dante	667232	6618083	449	12	090	-75	48.20
DT-19-003	2019	Dante	667232	6618083	449	12	090	-60	48.20
DT-19-004	2019	Dante	667232	6618083	449	12	090	-45	17.70
DT-19-004A	2019	Dante	667232	6618083	449	12	090	-45	48.20
DT-19-004B	2019	Dante	667234	6618083	449	12	090	-45	32.90
DT-19-005	2019	Dante	667223	6618082	449	12	180	-90	48.20
DT-19-006	2019	Dante	667223	6618082	449	12	180	-60	48.20
IV-19-003	2019	Ivan	667261	6618051	456	12	325	-60	48.15
IV-19-004	2019	Ivan	667261	6618051	456	12	325	-78	26.40
IV-19-005	2019	Ivan	667261	6618051	456	12	360	-90	48.20
IV-19-006	2019	Ivan	667264	6618054	455	12	333	-90	48.20
IV-19-007	2019	Ivan	667264	6618054	455	12	333	-75	48.20
IV-19-008	2019	Ivan	667264	6618054	455	12	333	-60	48.20

Survey Data for 2018-2022 Drilling, Alces Lake Project

DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
IV-19-009	2019	Ivan	667264	6618054	455	12	333	-45	48.20
IV-19-010	2019	Ivan	667261	6618059	455	12	360	-90	80.80
IV-19-011	2019	Ivan	667261	6618059	455	12	335	-75	48.20
IV-19-012	2019	Ivan	667261	6618059	455	12	335	-60	38.10
IV-19-013	2019	Ivan	667261	6618059	455	12	335	-45	46.60
IV-19-014	2019	Ivan	667268	6618058	455	12	335	-70	47.90
IV-19-015	2019	Ivan	667268	6618058	455	12	335	-45	47.90
IV-19-016	2019	Ivan	667266	6618062	455	12	335	-50	48.20
IV-19-017	2019	Ivan	667255	6618051	456	12	325	-90	48.20
IV-19-018	2019	Ivan	667255	6618051	456	12	325	-75	47.90
IV-19-019	2019	Ivan	667255	6618051	456	12	325	-60	47.30
IV-19-020	2019	Ivan	667255	6618051	456	12	325	-45	47.80
IV-19-021	2019	Ivan	667255	6618051	456	12	021	-65	35.50
IV-19-022	2019	Ivan	667255	6618051	456	12	015	-65	47.80
IV-19-023	2019	Ivan	667255	6618051	456	12	010	-65	35.40
MK-19-001	2019	Mikaela	667231	6618115	440	12	131	-90	47.20
MK-19-002	2019	Mikaela	667231	6618115	440	12	225	-60	48.20
AL-19-003	2019	Regional	667205	6618046	449	12	360	-90	48.20
AL-19-004	2019	Regional	667205	6618046	449	12	325	-60	48.20
RI-19-001	2019	Richard	667186	6618025	452	12	230	-55	61.80
RI-19-002	2019	Richard	667186	6618025	452	12	230	-70	30.20
			2020 Drilling						
CO-20-001	2020	Cone	667053	6617916	496	12	068	-63	285.60
CO-20-002	2020	Cone	667018	6618026	497	12	049	-44	306.60
DN-20-001	2020	Danny	667006	6617901	499	12	050	-45	23.50
DN-20-002	2020	Danny	667006	6617901	499	12	073	-85	368.80
DN-20-003	2020	Danny	666981	6617858	500	12	075	-45	29.30
DN-20-004	2020	Danny	666977	6617860	500	12	335	-45	23.20
ER-20-001	2020	Ermacre	666747	6618394	433	12	275	-45	20.40
HN-20-001	2020	Hinge	666745	6618113	481	12	011	-45	326.10
RI-20-003	2020	Richard	667181	6618008	451	12	075	-65	26.90
RI-20-004	2020	Richard	667179	6618008	451	12	255	-90	26.80
RI-20-005	2020	Richard	667163	6618040	451	12	060	-45	23.80
RI-20-006	2020	Richard	667163	6618040	451	12	060	-65	23.80
RI-20-007	2020	Richard	667163	6618040	451	12	060	-60	23.80
WI-20-005	2020	Wilson	667179	6617951	466	12	069	-45	230.40
WI-20-006	2020	Wilson	667179	6617951	466	12	080	-79	198.20
WI-20-007	2020	Wilson	667179	6617951	466	12	069	-59	165.90
WI-20-008	2020	Wilson	667200	6617897	472	12	058	-45	170.10
WI-20-009	2020	Wilson	667304	6617743	484	12	058	-44	233.80

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DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
2021 Drilling									
21-BIO-001	2021	Biotite Lake	665387	6617930	395	12	276	-45	30.00
21-BIO-002	2021	Biotite Lake	665387	6617930	395	12	277	-75	12.00
21-BIO-003	2021	Biotite Lake	665404	6617928	397	12	275	-45	54.00
21-BIO-004	2021	Biotite Lake	665404	6617928	397	12	275	-76	73.38
21-BIO-005	2021	Biotite Lake	665387	6617913	401	12	276	-46	45.83
21-BIO-006	2021	Biotite Lake	665387	6617913	401	12	276	-67	51.00
21-BIO-007	2021	Biotite Lake	665399	6617912	398	12	273	-46	38.10
21-BIO-008	2021	Biotite Lake	665400	6617911	399	12	274	-61	62.21
21-BIO-009	2021	Biotite Lake	665400	6617911	399	12	272	-77	90.00
21-BIO-010	2021	Biotite Lake	665400	6617944	390	12	277	-46	39.00
21-BIO-011	2021	Biotite Lake	665400	6617944	390	12	277	-75	51.00
21-BIO-012	2021	Biotite Lake	665404	6617928	396	12	195	-89	81.00
21-BIO-013	2021	Biotite Lake	665404	6617928	396	12	273	-63	57.00
21-DAN-001	2021	Danny	667022	6617875	495	12	301	-45	32.00
21-DAN-002	2021	Danny	667023	6617876	496	12	301	-65	45.00
21-DAN-003	2021	Danny	667010	6617863	498	12	305	-44	29.83
21-DAN-004	2021	Danny	667010	6617863	498	12	302	-65	45.00
21-DAN-005	2021	Danny	667024	6617856	496	12	299	-47	51.00
21-DAN-006	2021	Danny	667025	6617856	496	12	299	-54	96.00
21-DAN-007	2021	Danny	667025	6617856	497	12	298	-66	132.00
21-DIA-001	2021	Diablo	664068	6615293	427	12	128	-46	54.00
21-DIA-002	2021	Diablo	664067	6615293	427	12	131	-70	75.00
21-DIA-002B	2021	Diablo	664067	6615293	427	12	127	-84	27.00
21-DIA-003	2021	Diablo	664053	6615302	432	12	126	-45	36.00
21-OLD-001	2021	Oldman	665831	6611699	380	12	137	-45	39.00
21-OLD-002	2021	Oldman	665831	6611699	380	12	139	-64	51.00
21-OLD-006	2021	Oldman	665790	6611686	377	12	137	-47	51.00
21-OLD-007	2021	Oldman	665790	6611687	377	12	137	-71	75.00
21-OLD-010	2021	Oldman	665761	6611664	381	12	137	-44	51.00
21-OLD-011	2021	Oldman	665761	6611664	380	12	139	-66	75.00
21-OLD-012	2021	Oldman	665740	6611637	374	12	137	-45	60.00
21-OLD-013	2021	Oldman	665739	6611636	374	12	135	-66	78.00
21-SCH-001	2021	Sweet Chili Heat	663484	6615663	422	12	120	-45	57.00
21-SCH-002	2021	Sweet Chili Heat	663484	6615663	423	12	120	-70	90.00
21-SCH-003	2021	Sweet Chili Heat	663477	6615654	425	12	118	-46	39.00
21-SCH-004	2021	Sweet Chili Heat	663477	6615654	423	12	118	-70	54.00
21-SCH-005	2021	Sweet Chili Heat	663493	6615679	421	12	115	-46	102.00
21-SCH-006	2021	Sweet Chili Heat	663490	6615680	421	12	114	-71	114.00
21-SCH-007	2021	Sweet Chili Heat	663459	6615675	431	12	118	-45	33.00

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DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
21-SCH-007B	2021	Sweet Chili Heat	663459	6615675	431	12	118	-46	60.00
21-SCH-008	2021	Sweet Chili Heat	663459	6615675	431	12	118	-57	81.00
21-SCH-009	2021	Sweet Chili Heat	663459	6615675	430	12	120	-68	100.00
21-SCH-010	2021	Sweet Chili Heat	663499	6615703	419	12	115	-45	45.00
21-SCH-011	2021	Sweet Chili Heat	663499	6615703	419	12	113	-73	65.28
21-SCH-012	2021	Sweet Chili Heat	663450	6615640	432	12	113	-44	60.54
21-SCH-013	2021	Sweet Chili Heat	663449	6615640	433	12	114	-63	90.00
21-WRC-001	2021	Wilson-Richard-Charles-Bell	667227	6618025	456	12	73	-47	85.00
21-WRC-002	2021	Wilson-Richard-Charles-Bell	667227	6618025	456	12	73	-55	81.50
21-WRC-003	2021	Wilson-Richard-Charles-Bell	667227	6618025	456	12	73	-65	88.65
21-WRC-004	2021	Wilson-Richard-Charles-Bell	667227	6618025	456	12	73	-74	98.00
21-WRC-005	2021	Wilson-Richard-Charles-Bell	667227	6618025	456	12	72	-81	108.00
21-WRC-006	2021	Wilson-Richard-Charles-Bell	667249	6618033	458	12	74	-44	69.05
21-WRC-007	2021	Wilson-Richard-Charles-Bell	667249	6618033	458	12	75	-63	66.00
21-WRC-008	2021	Wilson-Richard-Charles-Bell	667249	6618033	458	12	80	-80	39.00
21-WRC-009	2021	Wilson-Richard-Charles-Bell	667175	6618011	451	12	72	-54	117.75
21-WRC-010	2021	Wilson-Richard-Charles-Bell	667262	6618006	464	12	73	-45	84.00
21-WRC-011	2021	Wilson-Richard-Charles-Bell	667262	6618006	464	12	73	-54	81.00
21-WRC-012	2021	Wilson-Richard-Charles-Bell	667226	6617994	459	12	73	-44	111.00
21-WRC-013	2021	Wilson-Richard-Charles-Bell	667209	6617990	453	12	76	-45	117.03
21-WRC-014	2021	Wilson-Richard-Charles-Bell	667169	6617974	466	12	74	-44	154.23
21-WRC-015	2021	Wilson-Richard-Charles-Bell	667169	6617973	466	12	74	-55	137.00
21-WRC-016	2021	Wilson-Richard-Charles-Bell	667169	6617973	466	12	74	-65	158.00
21-WRC-017	2021	Wilson-Richard-Charles-Bell	667169	6617973	466	12	74	-75	164.16
21-WRC-020	2021	Wilson-Richard-Charles-Bell	667217	6617964	455	12	73	-46	120.00
21-WRC-021	2021	Wilson-Richard-Charles-Bell	667179	6617951	467	12	73	-70	159.00
21-WRC-022	2021	Wilson-Richard-Charles-Bell	667179	6617951	467	12	73	-44	69.00
21-WRC-023	2021	Wilson-Richard-Charles-Bell	667238	6618091	449	12	73	-46	66.25
21-WRC-024	2021	Wilson-Richard-Charles-Bell	667199	6618068	448	12	73	-44	87.00
21-WRC-025	2021	Wilson-Richard-Charles-Bell	667199	6618068	448	12	73	-58	75.44
21-WRC-026	2021	Wilson-Richard-Charles-Bell	667199	6618068	449	12	78	-74	84.56
21-WRC-027	2021	Wilson-Richard-Charles-Bell	667151	6618054	451	12	71	-43	118.40
21-WRC-032	2021	Wilson-Richard-Charles-Bell	667215	6618048	452	12	75	-45	88.00
21-WRC-033	2021	Wilson-Richard-Charles-Bell	667214	6618048	451	12	73	-60	69.45
21-WRC-034	2021	Wilson-Richard-Charles-Bell	667194	6618042	450	12	73	-47	96.00
21-WRC-035	2021	Wilson-Richard-Charles-Bell	667195	6618042	450	12	77	-64	96.00
21-WRC-036	2021	Wilson-Richard-Charles-Bell	667158	6618032	451	12	76	-47	120.00
21-WRC-037	2021	Wilson-Richard-Charles-Bell	667157	6618031	450	12	75	-67	132.79
21-WRC-039	2021	Wilson-Richard-Charles-Bell	667248	6618079	450	12	73	-44	39.21
21-WRC-042	2021	Wilson-Richard-Charles-Bell	667186	6618065	451	12	73	-45	24.00

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DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
21-WRC-043	2021	Wilson-Richard-Charles-Bell	667249	6618033	458	12	74	-89	29.30
21-WRC-044	2021	Wilson-Richard-Charles-Bell	667175	6618011	451	12	72	-89	27.04
21-WRC-045	2021	Wilson-Richard-Charles-Bell	667248	6618079	450	12	71	-71	88.76
21-WRC-046	2021	Wilson-Richard-Charles-Bell	667248	6618079	451	12	131	-88	31.91
21-WRC-047	2021	Wilson-Richard-Charles-Bell	667238	6618091	450	12	73	-69	60.00
21-WRC-048	2021	Wilson-Richard-Charles-Bell	667238	6618091	448	12	251	-89	61.79
21-WRC-049	2021	Wilson-Richard-Charles-Bell	667186	6618065	451	12	73	-70	27.00
21-WRC-050	2021	Wilson-Richard-Charles-Bell	667170	6618035	451	12	73	-45	60.00
21-WRC-051	2021	Wilson-Richard-Charles-Bell	667169	6618035	451	12	79	-80	24.00
21-WRC-052	2021	Wilson-Richard-Charles-Bell	667169	6617973	466	12	74	-87	75.00
21-WRC-053	2021	Wilson	667139	6617995	472	12	75	-44	69.00
21-WRC-054	2021	Wilson	667138	6617998	471	12	77	-55	165.00
21-WRC-055	2021	Wilson-Richard-Charles-Bell	667138	6617997	473	12	77	-64	168.00
21-WRC-056	2021	Wilson-Richard-Charles-Bell	667139	6617997	473	12	75	-75	93.00
21-WRC-056B	2021	Wilson-Richard-Charles-Bell	667138	6617997	473	12	75	-85	63.00
21-WRC-057	2021	Wilson-Richard-Charles-Bell	667135	6618020	464	12	73	-43	33.00
21-WRC-058	2021	Wilson-Richard-Charles-Bell	667135	6618020	464	12	75	-70	60.00
21-WRC-059	2021	Wilson-Richard-Charles-Bell	667135	6618020	464	12	98	-88	204.00
21-WRC-061	2021	Wilson-Richard-Charles-Bell	667149	6618093	450	12	71	-59	95.00
21-WRC-065	2021	Wilson-Richard-Charles-Bell	667060	6618179	450	12	64	-45	259.50
21-DN-005	2021	Wilson-Richard-Charles-Bell	667082	6617675	493	12	79	-65	399.00
			2022 Drilling						
22-AUG-001	2022	Augier (Magnet Ridge)	668129	6616894	448	12	60	-53	285.69
22-AUG-002	2022	Augier (Magnet Ridge)	668129	6616894	448	12	60	-60	196.15
22-AUG-003	2022	Augier (Magnet Ridge)	668189	6616770	442	12	60	-44	286.86
22-AUG-004	2022	Augier (Magnet Ridge)	668191	6616770	442	12	60	-61	282.00
22-AUG-005	2022	Augier (Magnet Ridge)	668124	6616812	442	12	58	-45	376.75
22-AUG-006	2022	Augier (Magnet Ridge)	668124	6616811	442	12	58	-60	426.00
22-AUG-007	2022	Augier (Magnet Ridge)	668149	6616743	439	12	58	-45	130.67
22-AUG-008	2022	Augier (Magnet Ridge)	668076	6616870	442	12	51	-46	173.78
22-AUG-009	2022	Augier (Magnet Ridge)	668071	6616911	441	12	45	-45	189.00
22-AUG-010	2022	Augier (Magnet Ridge)	668071	6616911	440	12	45	-76	213.00
22-AUG-011	2022	Augier (Magnet Ridge)	668098	6616870	447	12	45	-45	197.85
22-AUG-012	2022	Augier (Magnet Ridge)	668097	6616871	443	12	45	-81	232.00
22-AUG-013	2022	Augier (Magnet Ridge)	668144	6616851	449	12	44	-45	180.00
22-AUG-014	2022	Augier (Magnet Ridge)	668144	6616851	449	12	41	-76	110.12
22-AUG-015	2022	Augier (Magnet Ridge)	668101	6616772	439	12	45	-44	112.90
22-AUG-016	2022	Augier (Magnet Ridge)	668101	6616772	439	12	48	-80	145.89
22-AUG-017	2022	Augier (Magnet Ridge)	668037	6616840	442	12	45	-45	228.50
22-AUG-018	2022	Augier (Magnet Ridge)	668037	6616839	442	12	45	-80	243.00
22-AUG-019	2022	Augier (Magnet Ridge)	668171	6616817	447	12	45	-45	224.77

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DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
22-AUG-020	2022	Augier (Magnet Ridge)	668170	6616817	445	12	43	-82	219.76
22-AUG-021	2022	Augier (Magnet Ridge)	668142	6616743	438	12	43	-47	210.42
22-AUG-022	2022	Augier (Magnet Ridge)	668142	6616742	438	12	47	-81	234.00
22-AUG-023	2022	Augier (Magnet Ridge)	668077	6616807	441	12	41	-45	141.00
22-AUG-024	2022	Augier (Magnet Ridge)	668077	6616807	441	12	43	-80	156.00
22-AUG-025	2022	Augier (Magnet Ridge)	668191	6616719	438	12	45	-45	158.67
22-AUG-026	2022	Augier (Magnet Ridge)	668121	6616824	442	12	46	-44	225.00
22-AUG-027	2022	Augier (Magnet Ridge)	668121	6616824	443	12	43	-80	189.00
22-AUG-028	2022	Augier (Magnet Ridge)	668192	6616791	444	12	49	-45	174.00
22-AUG-029	2022	Augier (Magnet Ridge)	668192	6616791	444	12	49	-80	117.31
22-AUG-030	2022	Augier (Magnet Ridge)	668252	6616748	441	12	45	-44	181.88
22-AUG-031	2022	Augier (Magnet Ridge)	668251	6616747	441	12	44	-80	189.00
22-AUG-032	2022	Augier (Magnet Ridge)	668191	6616719	438	12	47	-80	132.45
22-AUG-033	2022	Augier (Magnet Ridge)	668091	6616794	440	12	45	-43	228.00
22-AUG-034	2022	Augier (Magnet Ridge)	668091	6616793	440	12	45	-80	159.00
22-DAN-001	2022	Danny	667031	6617706	461	12	20	-45	167.09
22-DAN-002	2022	Danny	666976	6617773	465	12	17	-45	199.73
22-DN-006	2022	Danny	667162	6617806	454	12	73	-46	286.86
22-DN-007	2022	Danny	667161	6617806	454	12	73	-55	282.00
22-DN-008	2022	Danny	667082	6617675	493	12	72	-45	376.75
22-DN-009	2022	Danny	667082	6617675	493	12	70	-80	426.00
22-DN-010	2022	Danny	667158	6617814	450	12	72	-47	243.00
22-HNG-001	2022	Hinge	666539	6617658	455	12	331	-44	186.00
22-MRW-001	2022	Magnetic Ridge West	667692	6616599	451	12	44	-46	200.50
22-MRW-002	2022	Magnetic Ridge West	667691	6616598	452	12	43	-61	206.97
22-MRW-003	2022	Magnetic Ridge West	667741	6616503	442	12	44	-44	205.05
22-MRW-004	2022	Magnetic Ridge West	667741	6616503	444	12	44	-60	216.00
22-MRW-005	2022	Magnetic Ridge West	667606	6616443	434	12	44	-45	222.00
22-MRW-006	2022	Magnetic Ridge West	667607	6616444	433	12	45	-55	252.00
22-MRW-007	2022	Magnetic Ridge West	667606	6616444	433	12	46	-65	218.55
22-MRW-008	2022	Magnetic Ridge West	667537	6616524	434	12	46	-45	228.00
22-MRW-009	2022	Magnetic Ridge West	667671	6616369	428	12	45	-72	201.00
22-MRW-010	2022	Magnetic Ridge West	667671	6616369	428	12	45	-54	210.03
22-STR-001	2022	Strocen	667818	6617252	454	12	50	-43	294.00
22-STR-002	2022	Strocen	667863	6617278	455	12	50	-43	159.00
22-STR-003	2022	Strocen	667864	6617276	455	12	51	-75	216.00
22-STR-004	2022	Strocen	667836	6617203	483	12	50	-45	162.00
22-STR-005	2022	Strocen	667837	6617205	455	12	50	-44	213.03
22-WEL-001	2022	West Limb Zone	666050	6616942	461	12	86	-44	148.00
22-WEL-002	2022	West Limb Zone	666047	6616997	467	12	86	-44	150.39
22-WEL-003	2022	West Limb Zone	666026	6617042	493	12	86	-45	174.00

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DDH	Year	Target Area	Easting	Northing	Elevation	UTM_Zone	AZ	Dip	Length
22-WEL-004	2022	West Limb Zone	666034	6616901	461	12	91	-44	189.81
22-WEL-005	2022	West Limb Zone	666043	6617095	466	12	87	-45	188.85
22-WEL-006	2022	West Limb Zone	666071	6617066	464	12	90	-44	156.00
22-WES-001	2022	Western Anomaly	663443	6615528	313	12	125	-45	201.00
22-WES-002	2022	Western Anomaly	664150	6615314	388	12	322	-44	189.00
22-WES-003	2022	Western Anomaly	663409	6614884	422	12	294	-45	166.50
22-WES-004	2022	Western Anomaly	663443	6615528	393	12	125	-45	219.00
22-WES-005	2022	Western Anomaly	663392	6615404	433	12	114	-45	174.00
22-WRC-001	2022	Wilson-Richard-Charles	667170	6618060	419	12	75	-45	102.05
22-WRC-002	2022	Wilson-Richard-Charles	667170	6618060	419	12	75	-64	360.32
22-WRC-006	2022	Wilson-Richard-Charles	667203	6618022	420	12	73	-65	101.66
22-WRC-007	2022	Wilson-Richard-Charles	667203	6618021	420	12	75	-80	108.00
22-WRC-008	2022	Wilson-Richard-Charles	667144	6617886	451	12	71	-44	189.00
22-WRC-009	2022	Wilson-Richard-Charles	667143	6617885	451	12	71	-53	213.00
22-WRC-010	2022	Wilson-Richard-Charles	667143	6617884	450	12	72	-74	220.32
22-WRC-011	2022	Wilson-Richard-Charles	667142	6617884	451	12	73	-75	232.00
22-WRC-012	2022	Wilson-Richard-Charles	667200	6617897	440	12	74	-46	180.00
22-WRC-013	2022	Wilson-Richard-Charles	667201	6618111	407	12	71	-43	54.00
22-WRC-014	2022	Wilson-Richard-Charles	667201	6618111	407	12	72	-58	58.00
22-WRC-015	2022	Wilson-Richard-Charles	667201	6618111	407	12	75	-75	55.00
22-WRC-016	2022	Wilson-Richard-Charles	667158	6617844	450	12	71	-52	228.50
22-WRC-018	2022	Wilson-Richard-Charles	667158	6617844	450	12	74	-61	224.77
22-WRC-019	2022	Wilson-Richard-Charles	667139	6617909	449	12	73	-43	219.76
22-WRC-020	2022	Wilson-Richard-Charles	667139	6617909	449	12	73	-53	210.42
22-WRC-021	2022	Wilson-Richard-Charles	667138	6617909	449	12	73	-65	234.00
22-WRC-022	2022	Wilson-Richard-Charles	667170	6617963	434	12	73	-45	141.00
22-WRC-023	2022	Wilson-Richard-Charles	667168	6617961	436	12	73	-54	156.00
22-WRC-024	2022	Wilson-Richard-Charles	667169	6617962	437	12	73	-63	158.67
22-WRC-025	2022	Wilson-Richard-Charles	667168	6617961	437	12	76	-79	225.00
22-WRC-026	2022	Wilson-Richard-Charles	667147	6617983	439	12	74	-77	189.00
22-WRC-027	2022	Wilson-Richard-Charles	667149	6617983	437	12	74	-64	174.00
22-WRC-028	2022	Wilson-Richard-Charles	667149	6619783	437	12	71	-55	117.31
22-WRC-029	2022	Wilson-Richard-Charles	667149	6617983	437	12	72	-46	181.88
22-WRC-030	2022	Wilson-Richard-Charles	667612	6617665	323	12	50	-44	189.00
22-WRC-031	2022	Wilson-Richard-Charles	667617	6617676	440	12	47	-55	132.45
22-WRC-032	2022	Wilson-Richard-Charles	667564	6617468	4444	12	50	-46	228.00
22-WRC-033	2022	Wilson-Richard-Charles	666786	6618381	403	12	260	-45	159.00
22-WRC-034	2022	Wilson-Richard-Charles	667144	6618038	420	12	73	-56	50.00
22-WRC-035	2022	Wilson-Richard-Charles	667144	6618038	420	12	67	-70	51.00
22-WRC-036	2022	Wilson-Richard-Charles	667145	6618038	419	12	71	-86	55.33