APPIA ENERGY CORP.

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the nine months ended June 30, 2020

APPIA ENERGY CORP.

Management's Discussion and Analysis – June 30, 2020
As of August 25, 2020

The following management's discussion and analysis ("MD&A") of the financial condition and results of operations of Appia Energy Corp. ("Appia" or the "Company") constitutes management's review of the exploration activity and factors that affected the Company's financial and operating performance for the nine months ended June 30, 2020. The MD&A was prepared as of August 25, 2020 and should be read in conjunction with the unaudited condensed interim financial statements for the three and nine months ended June 30, 2020, the ("Financial Statements") and the audited financial statements for the year ended September 30, 2019, including the notes thereto. Unless otherwise stated, all amounts discussed herein are denominated in Canadian dollars. The Company's Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as described in Note 2 to the Financial Statements.

Executive Summary

Appia is a Canadian mineral exploration company listed on the Canadian Securities Exchange under the trading symbol "API", and in the USA the shares trade on the OTCQB platform as OTCQB:" APAAF". In Germany the shares trade under the symbols A0I.F, A0I.MU and A0I.BE. Appia is focused on the rare earth element ("REE") deposits at Alces Lake, particularly high priced "critical REE's", and on exploring high-grade, near-surface uranium deposits in the Athabasca Basin area.

In December 2019, the Company closed non-brokered private placements of 8,079,000 flow-through units ("FT Units) at $0.16 per FT Unit and 43,500 working capital units ("WC Units") at $0.15 per WC Unit for gross proceeds of $1,299,165 expected to be used for exploration of the Company's Alces Lake REE property and other properties in Saskatchewan's Athabasca Basin area. The private placement Units included warrants and currently there are 11,216,014 warrants outstanding, most of which are exercisable at prices ranging from $0.25 to $0.35 per share until December 2020 and January 2021, a possible source of additional financing.

On November 5, 2019 Appia announced the discovery of a new high-grade sub-surface zone at Alces Lake, ("Richard"). The Richard zone returned 7.58 wt% TREO* over 8.9 m starting within 10 m of the surface. The Richard zone discovery was targeted based on small surface showings and a working geological model.

On November 20, 2019 Appia announced the discovery of eight new surface outcrop zones and showings in the prospecting program carried out during the summer. The new discoveries have expanded known surface REE mineralization within an area of 500 m by 500 m and the new Biotite Lake discovery expanded the 2,500 m^2 footprint to over 1.8 km west of the Wilson zone, the most distal high-grade REO occurrence discovered on the property by Appia to date. A grab sample from the Biotite Lake zone returned 2.57 wt% TREO*. Assay results of all 2019 sampled surface discoveries are included in Appendix - Table 3 (page 20) to this report.

The REE mineralization system within the Alces Lake area is considered to be far more widespread than previously thought, with more discoveries of surface mineralization beneath the overburden.

At the end of June, 2020, a field crew started Phase 1 of the Alces Lake exploration activities for the summer of 2020, designed to discover additional surface and subsurface high-grade REE occurrences outlined in the two previous years.

Phase 1 included;
- regional ground prospecting, mapping and sampling over historic REE occurrences and along two 2 km-long trends with previously identified radiometric showings of interest;
- ground geophysical surveys (audiomagnetotellurics, ground penetrating radar) to attempt to map the REE minerals and structural system beneath the surface in order to prioritize drill targets.

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

Highlights from the Phase1 program include;

i) the discovery of biotite-rich pegmatites (i.e., the host rocks of REE-bearing mineral system) in five new areas of exploration (Ermacre, Mason, Sean, Ken and Scott zones),
ii) the identification of the historic Oldman zone (previously Oldman River zone), and
iii) a site visit to the Hawker zone 3 uranium veins surface zone.

Five new surface exposures exhibiting high to off-scale radioactivity associated with biotite-rich pegmatites, and possible monazite mineralization, were discovered on the property; the Ermacre, Mason, Sean, Ken and Scott showings. The Ermacre and Ken zones are ~600 m and ~7.5 km northwest and southwest of the main high-grade REE Alces Lake outcrop area(s), respectively. Biotite-rich pegmatites are the rock types hosting high concentrations of monazite within the main Outcrops. More investigation is required within each of these newly discovered areas.

The Appia field crew visited historic reported occurrences and anomalies previously identified by ground prospecting and radiometric surveying conducted over parts of the property between 1955 and 1969, and again by the Saskatchewan Geological Survey in 2011.

On August 4, 2020 the Company announced that it had acquired by way of online staking 3,243 hectares (8,014 acres) additional contiguous claims at Alces Lake, expanding the project size to 17,577 hectares (43,434 acres), of which less than 15% of the area has been tested to date.

On August 17, 2020 the Company announced that diamond drilling had commenced and that Phase 2 of the summer ground exploration program was progressing at Alces Lake.

The Company maintains a 100% interest in 12,545 hectares (31,000 acres), including rare earth element and uranium deposits over five mineralized zones in the Elliot Lake Camp, Ontario, which historically produced over 300 million pounds of U_3O_8 and is the only Canadian camp that has had significant rare earth element (yttrium) production. The deposits are largely unconstrained along strike and down dip.

Saskatchewan Properties

Alces Lake

2019 calendar year

The field exploration crew mobilized to Alces Lake on June 6, 2019, and that month completed a ground gravity geophysical survey over an area measuring 200 m x 300 m centred on the high-grade REE zones identified in 2018. These zones correlate very closely with recently identified gravity highs, suggesting monazite mineralization can be detected below the surface.

To test the gravity survey results, the first drill hole assayed, IV-19-03, intersected 11.65 m of semi-massive to massive monazite mineralization, indicating that gravity-high readings might be detecting clusters of monazite beneath the surface. Assays for the 11.65 m intersection reported 16.10 wt% TREO*, starting 10.25 m down hole, located 5 metres from the 2018 IV-18-01 drill hole which assayed 15.56 wt% TREO* over 1.2 m. The best intersection of the program returned 16.06 wt% TREO* over 15.55 m, including 49.17 wt% TREO over 3.7 m in drill hole IV-19-012 (Ivan zone). Drill hole IV-19-012 is on strike with IV-19-03 and this extremely high-grade corridor remains open along strike.

On November 5, 2019 the Company announced the assay results from all 44 short drill holes, with 40 intersecting the REE minerals system and 19 intersecting high-grade Total Rare Earth Oxides. REE mineralization greater than 1.897 wt% TREO are considered high-grade**, as this represents the 75th percentile for global REO deposit grades of advanced stage projects, excluding the three largest projects in production. See Appendix - Table 2, (page 19) for individual assays of intersections for each 2019 drill hole.

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results
****** see "Note" below Appendix – Table 3 (page 20) for detailed definition of "High-grade" REO

In addition to those results, Appia announced the discovery of a new high-grade sub-surface zone, ("Richard") which returned 7.58 wt% TREO* over 8.9 m starting within 10 m of the surface. The Richard zone discovery was targeted based on small surface showings and a working geological model.

On November 20, 2019 Appia announced the discovery of eight new surface outcrop zones and showings in the prospecting program carried out during the summer. The new discoveries have expanded known surface REE mineralization within an area of 500m by 500m with the new Biotite Lake discovery expanding the 2,500 m^2 footprint to over 1.8 km west of the Wilson zone, the most distal high-grade REO occurrence discovered on the property by Appia to date. A grab sample from the Biotite Lake zone returned 2.57 wt% TREO*. Assays of the channel samples and grab samples taken from the different zones and showings are included in Appendix - Table 3, (page 20).

The REE mineralization system within the Alces Lake area is considered to be far more widespread than previously thought, with more discoveries of surface mineralization beneath the overburden. The 2020 summer program is expected to discover (and uncover) many more high-grade REE-bearing surfaces zones.

High concentrates of gallium oxide were identified in the 2017 prospecting litho-geochemical results. Ten samples with a variety of TREO grades from the 2018 Alces Lake exploration program were sent in 2019 to ACT Labs in Ancaster, Ontario, for inter-lab quality assurance element grade checks. ACT Labs confirmed high concentrations of gallium, but the ACT Labs results returned much higher values than those from the 2017 samples simply due to the different analytical digestion techniques used.

The ACT Labs gallium results were as expected, with a range of 21.51 ppm to 1,150.64 ppm Ga_2O_3 and showing a positive linear correlation with TREO (see Appendix - Table 4, page 21). Five samples with greater than 4.0 wt% TREO produced an average value of 599.78 ppm (0.060 wt%) Ga_2O_3. Gallium is one of the few elements that exhibits a similar positive linear correlation with TREO, suggesting that gallium is part of the mineralization system and could be directly related to monazite.

Gallium is one of several elements deemed "critical" by the United States Government, and is used in numerous modern technological applications, in wireless communications such as 5G, cell phones, laser diodes, semiconductors, solar energy, magnetic materials, and military defense. Gallium is scarce and expensive. Appia will continue its gallium studies in the coming months, starting with re-analysing its high-grade TREO samples for the presence of gallium.

2020 calendar year

At the end of June, 2020, a field crew started the Alces Lake Phase 1 exploration activities for the summer of 2020, designed to discover additional surface and subsurface high-grade REE occurrences outlined in the two previous years.

Phase 1 included;

- regional ground prospecting, mapping and sampling over historic REE occurrences and along two 2 km-long trends with previously identified radiometric showings of interest;
- ground geophysical surveys (audiomagnetotellurics, ground penetrating radar) to attempt to map the REE minerals and structural system beneath the surface in order to prioritize drill targets.

Highlights from the Phase1 program include;

iv) the discovery of biotite-rich pegmatites (i.e., the host rocks of REE-bearing mineral system) in five new areas of exploration (Ermacre, Mason, Sean, Ken and Scott zones),
v) the identification of the historic Oldman zone (previously Oldman River zone), and
vi) a site visit to the Hawker zone 3 uranium veins surface zone.

Five new surface exposures exhibiting high to off-scale radioactivity associated with biotite-rich pegmatites, and possible monazite mineralization, were discovered on the property; the Ermacre, Mason, Sean, Ken and Scott showings. The Ermacre and Ken zones are ~600 m and ~7.5 km northwest and southwest of the main high-grade

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

REE Alces Lake outcrop area(s), respectively. Biotite-rich pegmatites are the rock types hosting high concentrations of monazite within the main Outcrops. More investigation is required within each of these newly discovered areas.

The Appia field crew visited historic reported occurrences and anomalies previously identified by ground prospecting and radiometric surveying conducted over parts of the property between 1955 and 1969, and again by the Saskatchewan Geological Survey in 2011.

A total of twenty-four samples were delivered to Saskatchewan Research Council's Geoanalytical Laboratory in Saskatoon, SK, for multi-element analysis. Lab analysis results will be announced after they have been received and reviewed by the Company.

On August 17, 2020 the Company announced that diamond drilling had commenced and that Phase 2 of the summer ground exploration program was progressing at Alces Lake.

Phase 2 of the 2020 summer program includes:

- 2,000 to 3,000 m of diamond drilling following the strike extension of the Wilson, Charles and Ivan zones, and reconnaissance drilling on select regional geological and geophysical targets of interest;
- additional regional ground prospecting, mapping and sampling over areas of interest
- excavated overburden removal and outcrop washing

Summary

On August 10,2020 the Company published the following summary of the high-grade rare earth element and uranium at Alces Lake.

Since detailed exploration began at Alces Lake in 2017, a total of **s**eventy-four (74) REE and uranium-bearing surface zones and occurrences of the REE and U minerals system(s) (the "Minerals System") have been discovered on the Property. To date, less than 15% of the Property surface has been explored on the ground. The zones all share numerous similarities with each other; high REE grades (>2 wt% total rare earth oxides, "TREO") are hosted within both biotite-rich quartzo-feldspathic pegmatites and/or thick biotite-rich pods ("cores"), and low-grade REE mineralization (<2 wt% TREO) are hosted within quartzo-feldspathic pegmatites with very little biotite present ("halos"). Appia is using the geological information from the low-grade halos to target the high-grade cores.

Surface channel and diamond drill samples from within six zones (Bell, Charles, Dante, Dylan, Ivan, Wilson) returned an average composite grade of 16.65 wt% TREO*****. The Ivan zone hosts some of the highest grades observed on the property. Surface mineralization from the Ivan zone returned up to 53.01 wt% TREO* over 1.97 m, or ~85% monazite, i.e., the mineral hosting the REEs. Diamond drill hole IV-19-012 intersected 16.06 wt% TREO* over 15.55 m, including 49.17 wt% TREO* over 3.70 m. Critical elements required for rare earth magnets (neodymium, praseodymium, dysprosium and terbium) account for between 23% and 25% of the TREO. Rare earth magnets are used in a wide range of modern technological applications. Hence, the rare earth magnet industry is projected to grow rapidly over the next 30 years in-line with the adoption of electric vehicles and wind turbines, in particular.

The Minerals System has been discovered as far as 12 km away from the Company's previous areas of diamond drilling, and the cumulative showings represent approximately 10 km of a 45 km-long regional strike length. The scale and high number of surface discoveries suggests the Minerals System is widespread at surface, but it is not readily detectable by eye or other surface geophysical methods due to overburden cover. The Company believes that the Minerals System is even more connected, widespread, and voluminous beneath the surface.

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

Athabasca Basin Area

Loranger and Eastside

The Loranger group of mineral claims in the Athabasca Basin area was acquired by staking in March 2016, and shares similar geological and geophysical signatures to known high-grade, high-tonnage uranium deposits in the Basin such as NexGen Energy's Arrow deposits, Cameco's Rabbit Lake/Collins Bay/Eagle point deposits which have produced over 300 M lbs U_3O_8, and others.

In April 2017 the Company reported the completion of the first seven holes of the diamond drilling program on the Loranger property with the geochemical assay results reported in a news release on May 24, 2017. Six of the seven holes intersected U_3O_8 for up to 70+ metres. In June 2017 a 117 km ground prospecting and a radiometric survey was completed, identifying far more radioactive occurrences than reported in historical records.

In March 2019 a total of 1,063 metres was drilled in eight holes on the Loranger property. A combination of radioactivity, alteration, structural styles, and characteristic mineral assemblages share visual similarities with nearby basement-hosted Athabasca high-grade uranium deposits. Highlights of the winter drilling include 3.15 m of 0.032 wt% U_3O_8 at 96.75 m drill hole depth in hole LOR-19-03 and 0.7 m grading 0.066 wt% U_3O_8 at 105.5 m drill hole depth in hole LOR-19-02. The program has identified a new 900 metre–long uranium mineralization trend which is open along strike and at depth.

Together with the 2017 drill program, only 5 of the 22 gravity low targets on Loranger have now been tested with 15 drill holes totalling 2,524 metres. Only 2.3 km of the total 94 km of conductive strike length has so far been tested.

Eastside

The Eastside property was acquired by staking in June 2017. Historic prospecting identified three outcrop samples along a 1.7 km geological strike which returned 2,538 ppm, 6,650 ppm and 7,575 ppm uranium. Five boulders of similar lithological provenance to the outcrops, and located down-ice from the outcrops, returned greater than 1,000 ppm uranium. A detailed airborne radiometric, magnetic and VLF-EM survey of 1,178 line-kilometres was flown over the property in September 2017 and identified new radiometric anomalies that were not identified in historic prospecting reports.

Ground prospecting on the Eastside and North Wollaston properties is being planned to visit the high-uranium content outcrops and boulder fields, and to explore the on-strike outcrop and up-ice boulder directions in search for other surface uranium showings.

2020

The field crew started the 2020 summer exploration activities on the Loranger and Eastside properties on May 27 and on July 21 presented the exploration and surface channel sample results.

Highlights include:

-a composite sample length of 65.75 metres returning 0.018 wt% U_3O_8 from within area 51 of the Eastside property
-a 1.0 metre channel sample returning 0.471 wt% total rare earth oxide (TREO*) from Area D of the Loranger property

At Eastside, the Company successfully identified numerous pegmatite dykes ("**dykes**") in outcrops ranging in thickness from 1 metre to greater than 20 metres width exhibiting elevated radioactivity (>300 counts-per-second ("**cps**"). A majority of the dykes could typically be followed for more than 10 metres along strike-length before being lost underneath overburden. Discrete trends (from 1 metre to 3 metres thick) within the dykes contained spotty anomalous radioactivity (>1,000 cps) to "off-scale" radioactivity (>9,999 cps). Two dykes with the most radioactivity rock exposure (Area 51 and Area 7575) were channel sampled and returned composite sample grades with uranium

* see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

concentrations exceeding 0.01 wt% U_3O_8. Areas 51 and 7575 are on strike with each other but are separated by 1.5 km which is covered by overburden.

Four separate occurrences of “off-scale” radioactivity was identified along four different dyke trends, however only one of those was exposed well-enough at surface to be channel sampled (Area 51, Line 3 channel sample). Helicopter reconnaissance identified three large areas (>500 m x >500 m) with many dykes exposed at surface, however time was limited and those outcrops were not visited.

At Loranger, eight outcrop areas were visited over a total of 3 days. Similar to the Eastside property, pegmatite dykes with elevated radioactivity were discovered within outcrops. Of particular interest was a pegmatite-rich outcrop area (Area D) with anomalous and elevated radioactivity trends observed within 100 to 300 m of a bifurcating and bending conductor. As has been observed on the property in previous exploration programs, radioactivity levels tend to increase with proximity to graphitic conductors suggesting the graphitic structural trends remain the primary focus for continued exploration on the property. No conductive outcrops were exposed on the property.

Area D was channel sampled, with no significant uranium values >0.01 wt% U_3O_8 obtained. The observed radioactivity was emanating from thorium rather than uranium. One sample line (line 7) did return anomalous rare earth element (“REE”) results of interest; 0.471 wt% TREO* over 1.0 m.

The same geological formations at the southern end of the property can be inferred (by airborne magnetic signatures) to continue over 45 km to the north end of the property within the RCV and gravity low target areas that were drilled in 2017. Diamond drilling in the RCV area returned 72.9 m at 0.012 wt% U_3O_8 (see news release dated May 24, 2017).

Both properties remain underexplored.

Overall Outlook

Saskatchewan

The REE Minerals System at Alces Lake has been discovered as far as 12 km away from the Company’s previous areas of diamond drilling, and the cumulative showings represent approximately 10 km of a 45 km-long regional strike length. The scale and high number of surface discoveries suggests the Minerals System is widespread at surface, but it is not readily detectable by eye or other surface geophysical methods due to overburden cover. The Company believes that the Minerals System is even more connected, widespread, and voluminous beneath the surface.

The 2020 summer exploration program is in its second phase with both diamond drilling and ground work in progress at Alces Lake. Considerable work has gone into defining the Minerals System. The addition of 3,243 hectares (8.014 acres) expanded the property area to a total of 17,577 hectares (43,434 acres). The two new land acquisitions now provide Appia with an additional 11 km of prospective trends to explore for additional high-grade rare earth element and uranium zones, bringing the total to 45 km along a continuous regional geological trend. Appia is the largest landholder in an emerging rare earth minerals system district in northern Saskatchewan.

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The” off-scale” radioactivity identified this summer on Eastside, as well as the new REE discovery on Loranger require further follow-up. Both Loranger and Eastside remain underexplored at this time.

Health and safety

The declaration by the World Health Organization that the COVID-19 infectious virus is a global pandemic delayed the start of the 2020 exploration program this calendar year. Although Saskatchewan has not experienced the dire results in other Provinces, there are government-imposed restrictions on access to the properties and regulation of proposed activity.

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

To ensure safe work conditions are met for the workforce, the Company developed exploration guidelines that comply with the Saskatchewan Public Health Order and the specific Northern Saskatchewan Administration District Order in order to maintain social distancing and help prevent the transmission of the COVID-19 infectious virus.

Global financial equity markets have declined considerably and remain volatile, which may affect the ability to raise funds for the continuation of the proposed programs. The timing of a return to normal is difficult to project but the 2020 summer exploration programs, although delayed, are in progress.

Uranium and REEs Outlook

More work to expand the Elliot Lake, Ontario Resources at Teasdale and the preparation of a Preliminary Economic Analysis of the project will be contingent on an improved price for uranium and a clearer picture of supply and demand for REEs. Critical REEs, such as Nd, Pr, and Dy are currently experiencing strong price increases.

The tsunami in Japan resulted in the shut-down of all its 54 nuclear reactors, resulting in a severe drop in uranium prices. Thirty-six reactors in all are expected to be restarted. More than 30 reactors are currently operating.

There are currently 64 reactors reported to be under construction around the world. A reactor start-up requires twice as much uranium in its first year of operation, and normal industry practice is to build up a stockpile to ensure a seven year supply, but with the current low spot price of uranium, operators have adopted a wait-and-see attitude on pricing, are not rebuilding their stockpiles to “normal” levels, and are not actively seeking to sign long-term delivery contracts.

The United States has about 100 operating reactors and has announced the intent to extend their lives from 60 to 80 years, in recognition of the clean energy aspect of nuclear power. The USA does not have the capability of economically supplying more than a fraction of its required uranium oxide domestically at current prices.

China has 42 operating nuclear reactors, 16 reactors under construction and a further 43 planned as part of the plan to reduce the use of coal for generating electricity. India has 29 reactors on line or under construction and South Kores has 28 reactors operating. Low sulphur thermal coal in Asia is currently selling around US$80 per tonne, an added incentive to move to nuclear power. The production of REEs requires a lot of electric power.

There is an increased interest in miniature nuclear reactors, which could be helpful for remote communities and mining projects not near a power grid.

Kazatomprom, Kazakhstan’s largest uranium producer (25% of global output), cut production by 7% in 2018, and a three-month period of non-production was in effect throughout the country during the summer of 2020.

Cameco indefinitely shut down the McArthur River mine and recently suspended operations at Cigar Lake, the world’s largest single largest uranium mine. Cameco is using up its inventory of mined uranium and is expected to be purchasing 5 million pounds on the spot market this year in order to satisfy its contractual delivery requirements. As it would likely take an estimated 12 to 18 months to restart the McArthur River mine, Cameco will need to continue to purchase on the spot market until a restart proceeds. This is expected to have an effect on spot prices, which are currently around US$33.

The uranium demand forecast shows an increase from China, and by 2021 known supply sources are projected to be unable to match demand. Industry opinion is that a contract price of US$60 per pound is needed before any new mining project advances. The World Nuclear Association recently projected an annual production shortfall of 50 million pounds in the near future.

There is a much higher level of concern expressed in the US about the reliance of China being the supplier of critical rare earths. 15 REEs were identified as critical for weapon-related applications by the military. The Department of Defense has agreed to work toward securing its critical REE supply chain from sources other than China, and is planning to assist in financing companies that can separate and process from 500 to 5,000 tonnes of REEs annually in North America. Canadian companies are eligible to apply for money under the program.

***** see Appendix – Table 1 (page 18) for individual REO grades supporting reported TREO results

China has controlled most of the world supply of REEs but is now reported to be unable to supply its own requirements. Known current mine production is less than consumption. Demand is expected to significantly increase, with no known supply sources able to meet this demand.

Russia has publicly stated that they are planning to be self-sufficient in REE production by 2025. The capital cost of a mine, bringing the ore metal to a concentrate stage and subsequently separating the individual REEs requires government assistance if the supply chain is to remain within the country.

The political stability of countries supplying the US with uranium and REEs has caused concern in the United States, as it relies on imports of uranium for reactors and for the supply of REEs required by the defence industry, for electronics and high strength magnets needed in the electric vehicle and wind farm applications.

Ontario Properties

Appia holds over 13,008 hectares (32,143 acres) encompassing five mineralized zones in the Elliot Lake area of northern Ontario. The zones are called Teasdale, Banana Lake, Canuc, Bouck Lake and Buckles Lake. The Elliot Lake area produced some 360 M lbs. of U_3O_8 from 13 underground mines between 1955 and 1996 and is the only mining camp in Canada that had significant historical commercial REE production.

No work was been carried out in recent years, as the current market price for uranium oxide and REEs does not warrant additional work at this time

Teasdale Lake Zone

The following two tables set out the resources reported in the NI 43-101 report entitled “Update Report on the Appia Energy Corp. Uranium-Rare Earth Property, Elliot Lake District, North-Central Ontario, Canada,” by Watts Griffis and McOuat (“WGM”) dated July 30, 2013 which has been filed on SEDAR (www.sedar.com). It should be noted that the contents for the rare earth components are for rare earth metals, whereas it has become more common to report the contents as equivalent rare earth oxides.

Table 1
Summary of Teasdale Zone Uranium and Rare Earth Mineral Resource Estimate

Zone	Tonnes (‘000)	Tons (‘000)	TREE (lbs/ton)	U_3O_8 (lbs/ton)	Average Thickness (m)	Contained TREE ('000 lbs)	Contained U_3O_8 ('000 lbs)
INDICATED RESOURCES							
UR	6,733	7,422	4.20	0.484	4.61	31,199	3,593
IQ	3,006	3,314	1.98	0.259	2.27	6,578	0.857
LR	3,355	3,699	2.68	0.958	2.60	9,912	3,544
Total	13,095	14,435	3.30	0.554	9.48	47,689	7,995
INFERRED RESOURCES							
UR	18,326	20,201	3.87	0.421	4.33	78,080	8,498
IQ	10,209	11,254	1.64	0.184	2.78	18,464	2,070
LR	9,972	10,992	3.33	0.869	2.71	36,631	9,564
Total	38,507	42,447	3.14	0.474	9.82	133,175	20,115

Note:
1. Mineral Resources effective July 30, 2013
2. Mineral Resources are estimated at a cut-off value of $100 per tonne, using a uranium price of US$70/lb U_3O_8, a TREE price of $78/kg, and a C$:US$ exchange rate of 1:0.9. TREE includes all the REE elements from lanthanum to lutetium plus yttrium.
3. Mineral Resources, which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There are no known specific problems at this date.
4. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.
5. The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005.
6. Specific Gravity of 2.85 tonnes/m^3 (or 3.14 tons/m^3) was used.
7. Indicated amounts may not precisely sum due to rounding.

Table 2
Individual REE Resource Grade Composition Summary

Zone	Light REE (grams/tonne)						Heavy REE (grams/tonne)									
	La	Ce	Pr	Nd	Sm	Eu	**Gd**	**Tb**	**Dy**	**Ho**	**Er**	**Tm**	**Yb**	**Lu**	**Hf**	**Y**
INDICATED RESOURCES																
UR	540	951	93.9	313	51.7	1.9	32.8	3.9	17.2	2.7	7.0	0.9	5.5	0.8	6.8	72.9
IQ	256	452	44.9	148	24.4	1.0	14.7	1.8	7.7	1.2	3.1	0.4	2.5	0.4	3.6	30.6
LR	332	596	59.4	201	35.1	1.7	23.2	3.0	14.2	2.3	5.9	0.8	4.5	0.6	3.3	58.1
Average	**422**	**745**	**73.8**	**247**	**41.1**	**1.7**	**26.2**	**3.2**	**14.3**	**2.3**	**5.8**	**0.8**	**4.6**	**0.7**	**5.2**	**59.4**
INFERRED RESOURCES																
UR	498	876	85.9	285	47.2	1.8	29.3	3.5	15.9	2.5	6.5	0.9	5.3	0.8	6.8	67.9
IQ	213	374	37.0	122	20.0	0.8	12.3	1.4	6.4	1.0	2.6	0.4	2.2	0.3	3.3	26.5
LR	417	747	73.9	249	43.4	1.9	28.5	3.6	16.4	2.6	6.6	0.9	5.2	0.7	4.5	66.4
Average	**401**	**709**	**69.9**	**232**	**39.0**	**1.6**	**24.6**	**3.0**	**13.5**	**2.1**	**5.5**	**0.7**	**4.4**	**0.6**	**5.3**	**56.5**

Historical Estimates

Table 3

1979 Historical U_3O_8 Estimates on Appia's Elliot Lake Properties

Zone	Quantity (tons)	Grade (lbs U_3O_8/ton)	Contained U_3O_8 (lbs)
Teasdale Lake Zone	17,458,200	1.206	20,787,200
Buckles Zone (Gemico Block #3)	42,800,000	0.38	16,264,000
Bouck Zone (Gemico Block #10)	20,700,000	0.75	15,525,000
Banana Lake Zone	175,800,000	0.76	133,608,000
Canuc Zone	7,000,000	1.86	13,020,000
Total	**263,758,200**	**0.76**	**199,204,200**

The foregoing historical resources were not estimated in accordance with definitions and practices established for the estimation of Mineral Resources and Mineral Reserves by the Canadian Institute of Mining and Metallurgy. As such, the historical resources are not compliant with Canada's security rule NI 43-101 and are unreliable for

investment decisions. Neither Appia nor its Qualified Persons have done sufficient work to classify the historical resources as mineral resources under current mineral resource terminology and are not treating the historical resources as current mineral resources. Nevertheless, most of the historical resources were estimated by mining companies active in the Elliot Lake camp using assumptions, methods and practices that were accepted at the time, and based on corroborative mining experience.

Banana Lake Zone

Based on drilling by Appia during 2007, a subsequent Mineral Resource estimate for the Banana Lake Zone was prepared in 2011 by WGM in accordance with the provisions of NI 43-101. Some of Appia's drilling included holes that were wedged from historical drill holes that Appia re-entered. This resource, first reported in Workman and Breede (2011), is summarized in Table 4. A single hole drilled in 2012 to 1,647 metres did not encounter the typical geological formation with assays returning no significant values of U_3O_8, thorium or REEs. WGM, however, is of the belief that this hole did not materially impact the potential for additional resources in the Banana Lake Zone.

. Table 4
Summary of Banana Lake Zone Mineral Resource Estimate

Category	Tons ('000)	Specific Gravity (tons/m^3)	lbs. U_3O_8/ton	Total lbs U_3O_8 ('000)
Inferred Resources	30,315	3.14	0.912	27,638

:

1. Effective, April 1, 2011
2. Mineral Resources, which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.
4. The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005.
5. A cut-off grade of 0.6 lb. U_3O_8 was used
6. Specific Gravity of 2.85 tonnes/m^3 (or 3.14 tons/m^3) was used.
7. Indicated amounts may not precisely sum due to rounding.

Summary:

The Company is considering the next stage of the Teasdale exploration and evaluation. The longer-term outlook for uranium prices is positive and the successful recovery of the REEs, particularly the critical elements of the total rare earths encountered, is very encouraging. Factors favourable for the project include the following:

- new mine infrastructure development would be in brownfield areas already disturbed by industrial and mining activity;
- water, electrical, transportation and communications infrastructure are in place or close at hand;
- the recovery of uranium from Elliot Lake ore is well known. Based on Teasdale Lake test results, the recovery of REEs appears to face no significant technical uncertainties;
- Appia is not responsible in any manner for potential future environmental impacts arising out of historical mining operations or waste disposal; and,
- The Cameco uranium refinery is located approximately 60 km away, near Blind River.

The National Instrument 43-101 ("NI 43-101") report on the Elliot Lake properties completed in 2013 incorporated a new concept of simultaneously mining a nine-metre high underground zone, including the Upper Reef, the Rare Earth Elements in the Intermediate Quartzite Zone and the Lower Reef. With the REE content by weight being over six times the uranium content, the economic value of the mineralized zone has been greatly enhanced. A significant portion of the previously categorized Inferred Resources was upgraded to Indicated Resources, and additional resources were defined.

Appia holds over 13,008 hectares (32,143 acres) encompassing five mineralized zones in the Elliot Lake area of northern Ontario. The zones are called Teasdale, Banana Lake, Canuc, Bouck Lake and Buckles Lake. The Elliot Lake area produced some 360 M lbs. of U_3O_8 from 13 underground mines between 1955 and 1996 and is the only mining camp in Canada that had significant historical commercial REE production (yttrium).

More work to expand the Resources at Teasdale and the preparation of a Preliminary Economic Analysis of the project will be contingent on an improved price for uranium and a clearer picture of supply and demand for REEs.

Results of Operations

Exploration related expenses incurred for the three and nine months ended June 30, 2020 were $179,633 and $282,577 (2019 - $359,765 and $826,938) with $136,521 spent on the Alces Lake Project (2019 - $445,557).

General and administrative expenses for the three months ended June 30, 2020 of $78,900 compared to $151,336 in 2019, lower due to the decrease in office and general to $13,626 (2019 - $21,888), investor relations to $11,171 (2019 - $52,312) and in non-cash share-based payments to $4,882 (2019 - $23,411) resulting from the vesting of share options.

General and administrative expenses for the nine months ended June 30, 2020 of $288,280 compared to $413,473 in 2019, lower due to the decrease in professional fees to $50,383 (2019 - $60,585), and investor relations to $73,199 (2019 - $150,638) and in non-cash share-based payments to $19,608 (2019 - $36,119) resulting from the vesting of share options.

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The Company's net loss and comprehensive loss (exploration and administration costs) for the nine months was $612,615, compared to $1,289,716 in 2019 when the Loranger drilling took place.

Selected Quarterly Information

2019 - 2020	Jun 30, 2020	Mar 31, 2020	Dec 31, 2019	Sep 30, 2019
	$	$	$	$
Net loss and comprehensive loss	(274,213)	(141,348)	(197,054)	(1,015,464)
Net loss per share – basic and diluted	(0.00)	(0.00)	(0.00)	(0.01)
Total assets	2,237,052	2,444,650	2,597,860	1,648,952

2018 - 2019	Jun 30, 2019	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018
	$	$	$	$
Net loss and comprehensive loss	(530,961)	(520,533)	(238,222)	(722,974)
Net loss per share – basic and diluted	(0.00)	(0.00)	(0.00)	(0.01)
Total assets	2,692,429	2,753,935	2,690,479	2,018,637

Capital Resources and Liquidity

At June 30, 2020, the Company had working capital of $418,994 (after providing $774,546 owing to related parties) compared to a working capital deficiency of $280,039 as at September 30, 2019 and had working capital of $110,000 at August 25, 2020 (after providing for $765,000 owing to related parties).

On December 31, 2018 the Company closed a non-brokered private placement of 2,189,500 FT Units for gross proceeds of $602,112 and the first tranche of a non-brokered private placement of up to 4,000,000 WC Units with the sale of 1,425,000 WC Units for gross proceeds of $342,000.

Each FT Unit was priced at $0.275 and consists of one common share and one-half of a share purchase warrant. Each full warrant entitles the holder to purchase one common share at a price of $0.40 per FT Warrant Share for 12 months from closing. Broker warrants exercisable at $0.275 for 12 months from closing for 175,160 common shares were issued to finders.

Each WC Unit was priced at $0.24 and consists of one common share and one common share purchase warrant. Each WC Warrant entitles the holder to purchase one common share at a price of $0.35 per WC Warrant Share for 24 months from closing.

On January 16, 2019 the Company closed the final tranche of the non-brokered private placement of 1,884,121 WC Units for aggregate gross proceeds of $482,159.

In April 2019 the Company closed a non-brokered private placement of 1,000,000 flow-through shares for gross proceeds of $400,000. Each flow-through share was priced at $0.40.

In December 2019, the Company closed non-brokered private placements of 8,079,000 flow-through units (“FT Units) at $0.16 per FT Unit and 43,500 working capital units (“WC Units”) at $0.15 per WC Unit for gross proceeds of $1,299,165 expected to be used for exploration of the Company's Alces Lake rare earth element property and other properties in Saskatchewan’s Athabasca Basin area. The private placement Units included warrants and there are currently 11,216,014 warrants outstanding, most of which are exercisable at prices ranging from $0.25 to $0.35 per share until December 2020 and January 2021, a possible source of additional financing.

The Company has no operating revenue and has historically funded its operations with equity based private placements. The Company’s future exploration plans are contingent on raising capital but has financial resources to fund its planned exploration program and administration costs for the next twelve months.

The Company’s ability to meet its obligations and continue as a going concern is dependent on the ability to identify and complete future financings. While the Company has been successful in raising financings, there can be no assurance that it will be able to do so in the future.

Common Share Data

The Company is authorized to issue an unlimited number of no-par value common shares. The following table provides the details of changes in the number of issued common shares.

	Number	Amount
	#	$
Balance, September 30, 2018	58,402,007	10,508,355
Flow-through units private placement December 31, 2018	2,189,500	602,112
Working capital units private placement December 31, 2018	1,425,000	342,000
Working capital units private placement January 16, 2019	1,884,121	452,189
Flow-through units private placement April 5, 2019	1,000,000	400,000
Less: Value associated with warrants issued	-	(107,862)
Warrants exercised	411,840	142,304
Share issue costs	-	(132,777)
Balance, September 30, 2019	65,312,468	12,206,321
Working capital units private placement December 16, 2019	43,500	6,525
Flow-through units private placement December 16, 2019	5,087,500	814,000
Finder's fee shares issued December 16, 2019	322,467	48,370
Flow-through units private placement December 31, 2019	2,991,500	478,640
Less: Value associated with warrants issued	-	(292,294)
Share issue costs	-	(103,631)
Balance, June 30, 2020	73,757,435	13,157,931
Warrants exercised	105,825	16,932
Balance, August 25, 2020	73,863,260	13,174,863

Common share purchase stock options

The Company has a stock option plan (the "Plan") for the benefit of directors, officers and consultants. The total number of shares which may be reserved and set aside for issuance to eligible persons may not exceed 10% of the issued and outstanding common shares.

As at June 30, 2020, 3,750,000 common shares were reserved for the exercise of stock options granted under the Plan.

The following table provides the details of changes in the number of issued common share purchase options during the period:

	Options	Weighted-average exercise price $
Outstanding at September 30, 2018	3,750,000	0.28
Granted	300,000	0.40
Outstanding at September 30, 2019	4,050,000	0.29
Expired	(300,000)	0.40
Outstanding at June 30, 2020	3,750,000	0.28
Exercisable at June 30, 2020	3,750,000	0.28
Granted, August 4, 2020	1,200,000	0.25
Outstanding at August 25, 2020	4,950,000	0.27
Exercisable at August 25, 2020	4,350,000	0.27

Number of stock options	Number exercisable	Remaining contractual life	Exercise price per share	Expiry date
500,000	500,000	9.5 months	$0.10	April 14, 2021
100,000	100,000	13.7 months	$0.30	August 22, 2021
2,950,000	2,950,000	19 months	$0.30	February 1, 2022
200,000	200,000	37 months	$0.30	August 1, 2023
1,200,000	600,000	60 months	$0.25	August 4, 2025
4,950,000	4,350,000			

The weighted average fair value of all the options granted and outstanding is $0.27 per share option, each contract fair value was estimated at the date of grant using the Black-Scholes pricing model with the following assumptions: risk-free weighted-average interest rate of 0.65%-2.20%, expected dividend yield of nil, expected volatility of 84.97%-155% and expected life term from 22 to 60 months. Options that have been issued and remain outstanding generally vest half immediately on the date of grant and half twelve months from the date of grant.

Warrants

On certain issuances of common shares, the units include warrants entitling the holder to acquire additional common shares of the Company, and the Company also grants warrants as consideration for services associated with the private placement of such issues.

The following table provides the details of changes in the number of outstanding common share purchase warrants:

	Number of shares	Value $
Balance September 30, 2018	14,345,009	601,390
Expired, unexercised	(2,963,169)	(230,951)
Warrants exercised	(411,840)	(30,494)
Private placement warrants issued	4,772,364	107,862
Balance September 30, 2019	15,742,364	447,807
Expired, unexercised	(8,962,364)	(207,693)
Private placement warrants issued	4,436,014	292,294
Balance June 30, 2020	11,216,014	532,408
Exercised	(105,825)	(2,268)
Balance August 25, 2020	11,110,189	530,140

A summary of the outstanding warrants is as follows:

	Number of shares	Remaining contractual life	Exercise price per share	Expiry date
Warrants	43,500	5.5 months	$0.25	December 15, 2020
Warrants	2,543,750	5.5 months	$0.25	December 15, 2020
Warrants	239,376	5.5 months	$0.16	December 15, 2020
Warrants	1,425,000	6 months	$0.35	December 31, 2020
Warrants	1,495,750	6 months	$0.25	December 31, 2020
Warrants	7,813	6 months	$0.16	December 31, 2020
Warrants	4,950,000	18.7 months	$0.30	January 20, 2022
Warrants	405,000	19 months	$0.30	January 30, 2022
Balance, August 25, 2020	11,110,189			

The number of common shares outstanding on August 25, 2020 was 73,863,260. Taking into account outstanding share purchase options and warrants, the fully diluted number of common shares that could have been outstanding on August 25, 2020 was 89,923,449.

Related Party Transactions

During the three and nine months ended June 30, 2020, the Company incurred related party expenses totaling $61,521 (2019 – $63,985) and $188,081 (2019 - $194,158). These expenses related to management fees paid or payable to key management personnel; Tom Drivas, Chief Executive Officer, Frank van de Water, Chief Financial Officer, James Sykes, Vice-President, Exploration and Development, and office administration services paid to Romios Gold Resources Inc., a company with a number of common directors and officers. The amount charged for office administration services is included under office and general expenses. At June 30, 2020, $641,730 (2019 -

$611,730) of accumulated related party expenditures was payable to Tom Drivas and $19,816 (2019 - $37,621) was payable to the other officers and Romios Gold Resources Inc.

Two insiders subscribed for 50,000 and 468,750 FT units in the December 2019 private placements.

Key management personnel were not paid post-retirement benefits, termination benefits, or other long-term benefits during the period ended June 30, 2020 and 2019.

During the three and nine months ended June 30, 2020, the Company incurred expenses of $4,000 (2019 – $3,000) and $16,000 (2019 - $12,500) for independent directors' fees. At June 30, 2020, $113,000 (2019 - $93,000) of accrued directors' fees was outstanding.

During the nine months ended June 30, 2020, the Company incurred expenses of $37,476 (2019 - $36,206) for legal fees to a law firm related to a director of the Company, William R. Johnstone. At June 30, 2020 $nil (2019 – $1,232) was payable to this related party.

As disclosed in Note 5 to the financial statements, the Elliot Lake exploration properties were acquired from a related party that holds a 1% Uranium Production Payment Royalty and a 1% NSR Royalty on any precious or base metals payable provided that the price of uranium is greater than US$130 per pound.

Carrying value of exploration and evaluation assets

The Company regularly reviews the carrying value of its properties to determine whether the cost of these assets will be recoverable from future cash flows or from the proceeds of their disposal. Assumptions underlying the cash flow estimates would include the forecasted prices for uranium and rare earth elements, planned production levels, and operating, capital, exploration and reclamation costs, which are all subject to risks and uncertainties. Management has determined that there is no impairment of the carrying value of its exploration properties.

Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements.

Financial Instruments and risk management

The Company is required to disclose information about the fair value of its financial assets and liabilities. Fair value estimates are made at the balance sheet dates, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties in significant matters of judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect these estimates.

The Company's financial instruments recognized in the balance sheet consist of cash and cash equivalents, HST/GST receivable and current liabilities. The fair value of these financial instruments approximates their carrying value due to the short maturity or current market rate associated with these instruments.

Risk Factors

There are a number of risks that could affect Appia's business prospects. They include the speculative nature and the ability to finance the exploration and development of the Company's mineral properties, operating hazards, environmental and other government regulations, competition in the marketplace, markets for the Company's securities and the demand for uranium and rare earth elements. The Company's viability will depend on defining recoverable and economic resources and establishing positive comprehensive feasibility studies leading to production decisions. After completion of positive feasibility studies, the Company's success is dependent on maintaining the title and beneficial interest in the properties, obtaining the necessary governmental approvals and the successful financing, construction and operation of a facility to profitably extract the contained metals.

Financial Capability and Additional Financing

The Company had a cash position of $790,000 and working capital of $110,000 at August 25, 2020, (after providing for $765,000 owing to related parties), has no source of operating income and has no assurance that additional funding will be available to it for further exploration and development of its projects. Although the Company has been successful in the past in financing its activities through the sale of equity securities, there can be no assurance that it will be able to obtain sufficient financing in the future to continue as a going concern.

Pandemic COVID-19 risk

The declaration by the World Health Organization that the COVID-19 infectious virus is a global pandemic delayed the start of the 2020 exploration program this calendar year. Although Saskatchewan has not experienced the dire results in other Provinces, there are government imposed restrictions on access to the properties and regulation of proposed activity.

To ensure safe work conditions are met for the workforce, the Company developed exploration guidelines that comply with the Saskatchewan Public Health Order and the specific Northern Saskatchewan Administration District Order, in order to maintain social distancing and help prevent the transmission of the COVID-19 infectious virus.

Global financial equity markets have declined considerably and remain volatile, which may affect the ability to raise funds for the continuation of the proposed programs. The timing of a return to normal is difficult to project but the 2020 summer exploration programs, although delayed, are in progress.

Land access

Under the modified Mining Act (Ontario), the Company is required to obtain permits to conduct exploration and evaluation activities on its Ontario properties. The Ontario Government is required to consult with the First Nations in order to reach agreement to permit activity in areas considered to have been historically inhabited.

Similar restrictions have been enacted in Saskatchewan, requiring the Company to obtain permission to occupy the camp at Alces Lake. The impact of possible delays on the Company's intended exploration activity is not predictable.

Special Note Regarding Forward-Looking Statements

Certain statements in this MD&A may constitute "forward-looking" statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially from the statements made. When used in this report, the words "estimate", "believe", "anticipate", "intend", "expect", "plan", "may", "should", and "will", are intended to identify forward-looking statements, and reflect the current expectations of the management of the Company with respect to future events, and are subject to risks and uncertainties, such as reduced funding and general economic and market factors. New risk factors may arise from time to time and it is not possible for management of the Company to predict all of those risk factors or the extent to which any factor or combination of factors may cause actual results, performance or achievements of the Company to be materially different from those expressed or implied in such forward-looking statements. Investors should not place undue reliance on forward-looking statements as a prediction of actual results. The Company does not undertake or assume any obligation to update these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events, except as required by law.

Additional Information

Additional information may be found on the Company's website at www.appiaenergy.ca and on SEDAR.

The technical information included in this MD&A regarding Saskatchewan was reviewed and approved by Dr. Irvine Annesley, P.Geo, advisor to the Board of Directors of Appia, a Qualified Person as defined by National Instrument 43-101, and the technical information regarding the Elliot Lake properties has been reviewed and approved by Al

Workman, P.Geo. Senior Geologist, Watts, Griffis and McOuat Ltd., a Qualified Person in accordance with the Canadian regulatory requirements as set out in NI 43-101.

Four tables are attached for individual REO grades supporting reported TREO grades in the text, as well as lithogeochemical results for all 2019 diamond drill holes and all new surface discoveries. Table 4 reports recent lithogeochemical results on 2017 and 2018 select samples tested for gallium as well as TREO.

Appendix – Table 1: Individual REO grades supporting reported TREO grades directly in the text

Program Year	Sample Source	La_2O_3 (wt%)	CeO_2 (wt%)	Pr_6O_{11} (wt%)	Nd_2O_3 (wt%)	Sm_2O_3 (wt%)	Eu_2O_3 (wt%)	Gd_2O_3 (wt%)	Tb_4O_7 (wt%)	Dy_2O_3 (wt%)	Ho_2O_3 (wt%)	Er_2O_3 (wt%)	Yb_2O_3 (wt%)	Lu_2O_3 (wt%)	Y_2O_3 (wt%)	ThO_2 (wt%)	U_3O_8 (wt%)	TREO (wt%)	CREO (wt%)
Reference - pages 2 and 4																			
2019	IV-19-012	3.653	7.798	0.889	2.946	0.413	0.005	0.205	0.014	0.036	0.004	0.006	0.001	0.000	0.089	2.081	0.054	16.059	3.890
2019	includes	11.233	23.833	2.753	8.996	1.258	0.016	0.626	0.042	0.110	0.011	0.019	0.002	0.001	0.266	6.365	0.164	49.165	11.918
2019	RI-19-001	1.701	3.667	0.408	1.405	0.198	0.003	0.091	0.008	0.022	0.003	0.004	0.001	0.000	0.065	1.012	0.028	7.575	1.845
2019	Biotite Lake	0.562	1.241	0.137	0.462	0.074	0.002	0.042	0.003	0.011	0.001	0.002	0.001	0.000	0.032	0.403	0.019	2.568	0.614
Reference - page 3																			
2017	Outcrop (cut)	10.731	23.708	3.008	9.506	1.426	0.016	0.662	0.056	0.124	0.011	0.091	0.003	0.001	0.292	5.505	0.199	49.638	12.711
2018	Charles Lower	2.149	4.255	0.488	1.529	0.214	0.003	0.121	0.006	0.022	0.003	0.007	0.001	0.000	0.069	1.109	0.034	8.868	2.049
2018	Dylan	7.407	15.841	1.719	5.444	0.708	0.010	0.407	0.020	0.066	0.008	0.021	0.001	0.000	0.174	3.842	0.100	31.827	7.259
Reference - page 4																			
2018	sand - NM	0.082	0.169	0.019	0.055	0.009	0.001	0.006	0.001	0.005	0.001	0.002	0.003	0.001	0.032	0.038	0.003	0.386	0.081
2018	sand - FM	0.006	0.018	0.002	0.007	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.003	0.007	0.001	0.041	0.011
2018	Ivan-L4**	12.343	26.186	2.875	9.260	1.171	0.016	0.663	0.033	0.110	0.013	0.035	0.002	0.000	0.302	6.179	0.143	53.007	12.293
2019	IV-19-003	3.550	7.820	0.860	3.080	0.410	0.000	0.220	0.020	0.040	0.000	0.000	0.000	0.000	0.090	2.070	0.050	16.100	4.000
2018	IV-19-001	3.730	7.550	0.870	2.680	0.360	0.000	0.200	0.010	0.030	0.000	0.010	0.000	0.000	0.100	1.800	0.060	15.560	3.610

Appendix – Table 2: Lithogeochemical results for all Summer 2019 drill holes

Zone	DDH	From (m)	To (m)	Interval (m)	La_2O_3 (wt%)	CeO_2 (wt%)	Pr_6O_{11} (wt%)	Nd_2O_3 (wt%)	Sm_2O_3 (wt%)	Eu_2O_3 (wt%)	Gd_2O_3 (wt%)	Tb_4O_7 (wt%)	Dy_2O_3 (wt%)	Ho_2O_3 (wt%)	Er_2O_3 (wt%)	Yb_2O_3 (wt%)	Lu_2O_3 (wt%)	Y_2O_3 (wt%)	ThO_2 (wt%)	U_3O_8 (wt%)	TREO (wt%)	CREO (wt%)
Charles	CH-19-009	No Significant Results																				
Charles	CH-19-010	7.60	9.80	2.20	1.809	3.954	0.434	1.500	0.212	0.003	0.095	0.007	0.018	0.002	0.003	0.001	0.000	0.047	1.009	0.029	8.085	1.963
Charles	CH-19-011	7.80	8.80	1.00	0.833	1.865	0.208	0.715	0.101	0.001	0.046	0.004	0.010	0.001	0.002	0.001	0.000	0.027	0.507	0.013	3.813	0.938
Charles	CH-19-012	9.70	10.10	0.40	0.312	0.654	0.078	0.272	0.036	0.001	0.016	0.001	0.005	0.001	0.002	0.003	0.000	0.025	0.217	0.005	1.405	0.357
Charles	CH-19-013	No Significant Results																				
Charles	CH-19-014	0.00	1.30	1.30	2.692	5.844	0.648	2.223	0.310	0.004	0.137	0.011	0.028	0.003	0.005	0.001	0.000	0.072	1.502	0.042	11.978	2.913
Charles	CH-19-015	0.00	0.70	0.70	1.747	3.710	0.408	1.423	0.203	0.003	0.095	0.008	0.023	0.003	0.004	0.001	0.000	0.065	0.915	0.027	7.692	1.864
Charles	CH-19-016	0.00	1.10	1.10	1.010	2.155	0.239	0.824	0.116	0.002	0.052	0.004	0.011	0.001	0.002	0.001	0.000	0.031	0.556	0.016	4.449	1.080
Dante	DT-19-001	No Significant Results																				
Dante	DT-19-002	No Significant Results																				
Dante	DT-19-003	No Significant Results																				
Dante	DT-19-004	16.90	17.70	0.80	3.086	6.713	0.714	2.577	0.357	0.004	0.176	0.013	0.031	0.003	0.004	0.001	0.000	0.080	1.826	0.047	13.758	3.338
Dante	DT-19-004A	No Significant Results																				
Dante	DT-19-004B	15.90	17.50	1.60	4.122	9.092	0.962	3.472	0.487	0.006	0.236	0.017	0.040	0.005	0.005	0.001	0.000	0.104	2.444	0.061	18.550	4.498
Dante	DT-19-005	No Significant Results																				
Dante	DT-19-006	No Significant Results																				
Ivan	IV-19-002	No Significant Results																				
Ivan	IV-19-003	10.25	21.90	11.65	3.55	7.82	0.86	3.08	0.41	0.00	0.22	0.02	0.04	0.00	0.00	0.00	0.00	0.09	2.07	0.05	16.10	4.00
	Includes	13.30	16.00	2.70	6.792	15.050	1.673	5.990	0.797	0.009	0.430	0.034	0.071	0.007	0.009	0.001	0.000	0.178	3.900	0.107	31.044	7.777
Ivan	IV-19-004	No Significant Results																				
Ivan	IV-19-005	No Significant Results																				
Ivan	IV-19-006	No Significant Results																				
Ivan	IV-19-007	No Significant Results																				
Ivan	IV-19-008	12.80	13.50	0.70	3.518	7.690	0.859	2.962	0.418	0.005	0.203	0.014	0.038	0.004	0.006	0.001	0.000	0.095	1.980	0.066	15.813	3.877
Ivan	IV-19-009	12.60	13.80	1.20	5.340	11.583	1.278	4.361	0.618	0.008	0.304	0.021	0.055	0.006	0.010	0.002	0.000	0.137	2.992	0.083	23.722	5.723
Ivan	IV-19-010	No Significant Results																				
Ivan	IV-19-011	9.85	10.90	1.05	8.525	18.210	2.017	6.997	0.977	0.012	0.491	0.033	0.085	0.008	0.014	0.002	0.000	0.205	4.746	0.136	37.576	9.144
Ivan	IV-19-012*	8.70	24.25	15.55	3.653	7.798	0.889	2.946	0.413	0.005	0.205	0.014	0.036	0.004	0.006	0.001	0.000	0.089	2.081	0.054	16.059	3.890
	Includes	9.70	17.60	7.90	7.130	15.219	1.735	5.748	0.805	0.010	0.400	0.027	0.071	0.007	0.012	0.002	0.000	0.173	4.058	0.105	31.339	7.591
	Includes	9.70	13.40	3.70	11.233	23.833	2.753	8.996	1.258	0.016	0.626	0.042	0.110	0.011	0.019	0.002	0.001	0.266	6.365	0.164	49.165	11.918
Ivan	IV-19-013	9.90	11.95	2.05	2.753	6.121	0.685	2.360	0.338	0.004	0.169	0.011	0.031	0.003	0.005	0.001	0.000	0.075	1.653	0.042	12.556	3.091
	And	22.60	24.40	1.80	5.031	10.985	1.203	4.148	0.579	0.007	0.290	0.020	0.051	0.005	0.009	0.001	0.000	0.127	2.886	0.073	22.457	5.430
Ivan	IV-19-014	No Significant Results																				
Ivan	IV-19-015	No Significant Results																				
Ivan	IV-19-016	No Significant Results																				
Ivan	IV-19-017	No Significant Results																				
Ivan	IV-19-018	No Significant Results																				
Ivan	IV-19-019	5.50	5.80	0.30	4.070	8.623	0.939	3.241	0.455	0.006	0.211	0.016	0.042	0.004	0.007	0.001	0.000	0.104	2.253	0.103	17.719	4.244
Ivan	IV-19-020	24.10	25.05	0.95	8.007	16.667	1.803	6.257	0.858	0.011	0.388	0.030	0.078	0.008	0.013	0.002	0.001	0.197	4.387	0.108	34.318	8.178
Ivan	IV-19-021	14.80	15.10	0.30	2.264	5.245	0.581	2.017	0.281	0.004	0.125	0.010	0.027	0.003	0.004	0.001	0.000	0.065	1.309	0.033	10.625	2.639
Ivan	IV-19-022	15.20	17.80	2.60	1.468	3.147	0.337	1.191	0.165	0.002	0.075	0.006	0.016	0.002	0.003	0.001	0.000	0.042	0.801	0.021	6.453	1.552
Ivan	IV-19-023	15.75	17.45	1.70	4.140	8.857	0.958	3.309	0.465	0.006	0.201	0.016	0.041	0.004	0.007	0.001	0.000	0.104	2.172	0.062	18.109	4.330
Mikaela	MK-19-001	No Significant Results																				
Mikaela	MK-19-002	No Significant Results																				
Richard	RI-19-001	9.80	18.70	8.90	1.701	3.667	0.408	1.405	0.198	0.003	0.091	0.008	0.022	0.003	0.004	0.001	0.000	0.065	1.012	0.028	7.575	1.845
Richard	RI-19-002	No Significant Results																				
Regional	AL-19-003	No Significant Results																				
Regional	AL-19-004	No Significant Results																				

Appendix – Table 3: Lithogeochemical results for new surface discoveries

Zone	Sample Type (Grab, Channel)	From (m)	To (m)	Interval (m)	La_2O_3 (wt%)	CeO_2 (wt%)	Pr_6O_{11} (wt%)	Nd_2O_3 (wt%)	Sm_2O_3 (wt%)	Eu_2O_3 (wt%)	Gd_2O_3 (wt%)	Tb_4O_7 (wt%)	Dy_2O_3 (wt%)	Ho_2O_3 (wt%)	Er_2O_3 (wt%)	Yb_2O_3 (wt%)	Lu_2O_3 (wt%)	Y_2O_3 (wt%)	ThO_2 (wt%)	U_3O_8 (wt%)	TREO (wt%)	CREO (wt%)
Thomas	CS 1	0.50	1.70	1.20	0.109	0.225	0.026	0.094	0.015	0.000	0.008	0.001	0.002	0.000	0.000	0.000	0.000	0.006	0.067	0.002	0.487	0.123
Quartzite	CS 1	0.45	2.06	1.61	0.116	0.233	0.026	0.090	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.071	0.001	0.485	0.118
Quartzite	CS 2	0.35	2.06	1.71	0.111	0.221	0.025	0.085	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.071	0.001	0.460	0.112
Quartzite	CS 3	0.00	1.92	1.92	0.109	0.224	0.025	0.087	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.074	0.001	0.464	0.114
Biotite Lake	Grab 1				0.562	1.241	0.137	0.462	0.074	0.002	0.042	0.003	0.011	0.001	0.002	0.001	0.000	0.032	0.403	0.019	2.568	0.614
Biotite Lake	Grab 2				0.538	1.107	0.128	0.441	0.068	0.001	0.039	0.003	0.010	0.001	0.002	0.001	0.000	0.028	0.382	0.016	2.367	0.583
Biotite Lake	Grab 3				0.305	0.623	0.073	0.250	0.038	0.001	0.021	0.002	0.005	0.001	0.001	0.001	0.000	0.017	0.214	0.010	1.336	0.330
Biotite Lake	Grab Avg				0.468	0.990	0.112	0.384	0.060	0.001	0.034	0.003	0.009	0.001	0.002	0.001	0.000	0.026	0.333	0.015	2.090	0.509

The REEs Thulium (Tm) and Promethium (Pm) are not reported because they are both extremely scarce in nature, and Pm forms as a product of spontaneous fission of U-238

TREO = Total Rare Earth Oxide = sum of La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3

CREO = Critical Rare Earth Oxide = sum of Pr_6O_{11}+Nd_2O_3+Eu_2O_3+Tb_4O_7+Dy_2O_3

Highlighting Nd grades associated with high-grade TREO

Highlighting Pr grades associated with high-grade TREO

Highlighting "high-grade" TREO and CREO (i.e. >1.897 wt% TREO)

Indicates light rare earth elements (LREEs; La, Ce, Pr, Nd, Sm)

Indicates heavy rare earth elements (HREEs; Eu, Gd, Tb, Dy, Ho, Er, Yb, Lu, Y)

Indicates radioactive elements (not a rare earth element)

Conditions Used for Reporting Composite Results (Appendix – Table 1)

- a cut-off grade of 4.0 wt% TREO was applied to all individual samples used in composite grade calculations
- maximum internal dilution along channel lines and/or drill holes does not exceed 2.0 m

Sand - Magnetic Separation Results: "NM" = non-magnetic, "FM" - ferro-magnetic

***NOTE on Th: the Th value mentioned on page 4 is calculated using the ThO2 value associated with Ivan-L4 (6.179 wt% ThO2) divided by the conversion factor (1.0690) noted in the last row of the table

Conditions Used for Reporting Composite Results (Appendix – Table 2)

- all intervals are reported with cutoff grade = 1.0 wt% TREO, with exception of IV-19-012* reported with cutoff grade = 0.1 wt% TREO
- maximum internal dilution along drill holes does not exceed 2.0 m consecutively
- drill hole "intervals" are reported as down-hole; true thickness has not been determined

Conditions Used for Reporting Composite Results (Appendix – Table 3)

- all intervals are reported with cutoff grade = 0.1 wt% TREO
- maximum internal dilution along channel lines does not exceed 2.0 m consecutively
- true thicknesses have not been determined

Note: >1.897 wt% TREO represents >75th percentile for global REO deposit grades of advanced stage-projects (excluding Gakara, Steenkampskraal and Mount Weld CLD deposits). The global REO deposit information was derived from publicly available information as of January 31, 2018, from individual company websites, SEDAR technical report filings, and the Technology Metals Research Advanced Rare Earth Projects Index (http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-rare-earth-projects-index/)

Appendix – Table 4: Gallium (Ga_2O_3) and Total Rare Earth Oxide lithogeochemical results from select samples 2017 and 2018

Sample	Zone	Year	Ga_2O_3 (wt%)	La_2O_3 (wt%)	CeO_2 (wt%)	Pr_6O_{11} (wt%)	Nd_2O_3 (wt%)	Sm_2O_3 (wt%)	Eu_2O_3 (wt%)	Gd_2O_3 (wt%)	Tb_4O_7 (wt%)	Dy_2O_3 (wt%)	Ho_2O_3 (wt%)	Er_2O_3 (wt%)	Yb_2O_3 (wt%)	Lu_2O_3 (wt%)	Y_2O_3 (wt%)	TREO (wt%)	CREO (wt%)
102020	Hinge	2017	0.004	0.971	2.211	0.211	0.875	0.109	0.001	0.063	0.006	0.014	0.001	0.010	0.001		0.034	4.508	1.107
102021	Hinge	2017	0.011	1.888	4.263	0.454	1.679	0.225	0.001	0.111	0.009	0.024	0.001	0.017	0.001		0.055	8.729	2.168
102034	NW Wilson	2017	0.009	0.997	2.309	0.256	0.922	0.131	0.001	0.069	0.007	0.017	0.001	0.011	0.001		0.047	4.771	1.204
102035	NW Wilson	2017	0.008	1.082	2.432	0.324	0.960	0.146	0.001	0.075	0.007	0.016	0.001	0.011	0.001		0.038	5.095	1.308
102036	Wilson	2017	0.013	2.568	5.921	0.714	2.379	0.361	0.003	0.175	0.015	0.038	0.002	0.025	0.001		0.090	12.293	3.149
102037	Danny	2017	0.010	1.935	4.471	0.476	1.842	0.275	0.002	0.145	0.015	0.049	0.001	0.026	0.005		0.156	9.400	2.385
102038	Danny	2017	0.011	2.639	6.007	0.672	2.437	0.348	0.003	0.176	0.018	0.048	0.001	0.030	0.003		0.150	12.532	3.178
102039	Danny	2017	0.005	2.850	6.511	0.761	2.635	0.385	0.003	0.196	0.020	0.054	0.001	0.034	0.003		0.171	13.626	3.474
102041	Danny	2017	0.012	2.111	4.778	0.509	1.901	0.266	0.001	0.125	0.012	0.026	0.001	0.019	0.001		0.065	9.815	2.449
102042	Danny	2017	0.014	2.533	5.823	0.674	2.297	0.327	0.002	0.150	0.013	0.032	0.002	0.023	0.001		0.074	11.951	3.019
102044	Wilson	2017	0.019	5.266	11.977	1.402	4.746	0.705	0.006	0.325	0.028	0.062	0.006	0.047	0.001		0.146	24.716	6.243
102045	Wilson	2017	0.011	5.653	12.775	1.571	5.084	0.778	0.007	0.364	0.032	0.070	0.007	0.051	0.002		0.169	26.564	6.763
102046	Wilson	2017	0.013	2.451	5.565	0.668	2.215	0.331	0.003	0.158	0.014	0.032	0.002	0.023	0.001		0.074	11.538	2.933
102050	Wilson	2017	0.017	3.905	8.820	1.063	3.475	0.517	0.005	0.242	0.021	0.045	0.005	0.034	0.001		0.107	18.240	4.608
102051	Wilson	2017	0.015	6.556	14.864	1.788	5.865	0.882	0.008	0.413	0.035	0.085	0.007	0.058	0.002		0.193	30.756	7.781
102063	Wilson	2017	0.008	1.278	2.899	0.348	1.160	0.171	0.001	0.085	0.007	0.016	0.001	0.013	0.001		0.038	6.019	1.532
102064	Wilson	2017	0.015	3.213	7.297	0.865	2.903	0.434	0.003	0.206	0.019	0.042	0.003	0.030	0.001		0.095	15.113	3.833
102065	Wilson	2017	0.012	4.246	9.655	1.122	3.848	0.558	0.005	0.266	0.024	0.052	0.005	0.039	0.001		0.126	19.945	5.050
102066	Wilson	2017	0.012	6.075	13.881	1.607	5.492	0.815	0.007	0.382	0.034	0.075	0.007	0.056	0.002		0.179	28.612	7.214
102067	Wilson	2017	0.015	4.633	10.478	1.232	4.139	0.621	0.006	0.294	0.026	0.056	0.005	0.041	0.001		0.137	21.669	5.460
102068	Ivan	2017	0.031	10.731	23.708	3.008	9.503	1.427	0.016	0.662	0.056	0.124	0.011	0.091	0.003		0.292	49.634	12.708
102069	Ivan	2017	0.035	11.235	25.182	3.129	9.899	1.496	0.017	0.685	0.059	0.130	0.013	0.097	0.003		0.314	52.260	13.234
102070	Ivan	2017	0.020	7.283	16.461	2.030	6.518	1.009	0.010	0.466	0.040	0.087	0.009	0.062	0.002		0.208	34.185	8.685
102075	Richard	2018	0.002	0.113	0.237	0.026	0.083	0.011	0.000	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.485	0.112
102077	Charles	2018	0.003	0.005	0.010	0.001	0.004	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.005	0.029	0.006
102179	Charles	2018	0.014	0.917	1.953	0.209	0.646	0.085	0.001	0.051	0.003	0.009	0.001	0.004	0.002	0.000	0.034	3.915	0.868
102196	Charles	2018	0.029	2.369	4.963	0.529	1.644	0.220	0.003	0.136	0.007	0.021	0.002	0.007	0.001	0.000	0.062	9.964	2.204
102465	Wilson	2018	0.013	0.941	2.015	0.210	0.663	0.097	0.001	0.056	0.003	0.012	0.001	0.004	0.001	0.000	0.032	4.037	0.890
102672	Wilson	2018	0.008	0.477	1.004	0.110	0.351	0.049	0.001	0.027	0.001	0.005	0.001	0.001	0.000	0.000	0.013	2.040	0.468
102712	Ivan	2018	0.115	12.784	26.779	2.972	9.491	1.206	0.016	0.680	0.034	0.116	0.014	0.036	0.002	0.001	0.319	54.450	12.629
102749	Ivan	2018	0.049	4.574	9.803	1.070	3.463	0.441	0.006	0.249	0.012	0.041	0.005	0.013	0.001	0.000	0.110	19.788	4.593
102830	Dylan	2018	0.085	9.218	20.391	2.271	7.101	0.916	0.012	0.521	0.025	0.085	0.010	0.028	0.001	0.001	0.207	40.789	9.495
102833	Dante	2018	0.022	2.299	5.061	0.505	1.632	0.234	0.003	0.137	0.008	0.026	0.003	0.008	0.001	0.000	0.071	9.989	2.174

The REEs Thulium (Tm) and Promethium (Pm) are not reported because they are both extremely scarce in nature, and Pm forms as a product of spontaneous fission of U-238

TREO = Total Rare Earth Oxide = sum of $La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3$

CREO = Critical Rare Earth Oxide = sum of $Pr_6O_{11}+Nd_2O_3+Eu_2O_3+Tb_4O_7+Dy_2O_3$

Highlighting Nd grades associated with high-grade TREO

Highlighting Pr grades associated with high-grade TREO

Highlighting "high-grade" TREO and CREO (i.e. >1.897* wt% TREO)

Indicates light rare earth elements

Indicates heavy rare earth elements

*Note: >1.897 wt% TREO represents >75th percentile for global REO deposit grades of advanced stage-projects (excluding Gakara, Steenkampskraal and Mount Weld CLD deposits). The global REO deposit information was derived from publicly available information as of January 31, 2018, from individual company websites, SEDAR technical report filings, and the Technology Metals Research Advanced Rare Earth Projects Index (http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-rare-earth-projects-index/)