## APPENDIX A: MINERAL PROJECT

### 1. Property Description and Location

**(a)** The Appia uranium-REE property (the "**Property**") comprises a group of 100 unpatented staked mineral claims located in Buckles, Bouck, Beange, Bolger, Gunterman, Joubin and Lehman Townships and near the town of Elliot Lake in north-central Ontario. Elliot Lake is located on Highway 108 approximately 26 km north of Highway 17, also known as the Trans-Canada Highway. The area is situated in UTM zone 17. The geographic co-ordinates of the town of Elliot Lake are 46$^{o}$23'N latitude and 82$^{o}$39'W longitude.

The Property totals 12,545 hectares (31,000 acres) encompassing five mineralized zones called Teasdale, Banana Lake, Canuc, Bouck Lake and Buckles Lake. The claims have not been surveyed.

**(b)** Appia has a 100% interest in the mineral rights, having initially acquired 61 claims from Canada Enerco Corporation ("**CEC**"), a related company, under the terms of an agreement dated November 1, 2007. CEC originally staked the claims in accordance with the Mining Act of Ontario. Two claims were transferred to Denison Mines Inc. ("**Denison**") in order to permit the construction of a new tailings infrastructure; in exchange Appia acquired the right of access onto claims held by Denison in the Elliot Lake area as well as the right to use former Denison mine workings to facilitate the exploration and development by Appia. Denison granted Appia a 3% net smelter return royalty on any production from the two claims transferred by Appia.

Appia purchased 6 claims from Dan Patrie Exploration Ltd. ("**Patrie**") in February 2008 and subsequently staked an additional 35 claims. Appia does not own the surface rights to the underlying mineral claims. The surface rights belong to the Crown and some belong to the City of Elliot Lake. Surface rights can be acquired and there is sufficient area to construct the infrastructure necessary for mining and processing operations.

The mineral claims are subject to annual exploration expenditure requirements which must be met in order to maintain the claims in good standing. An annual assessment report must be filed on the anniversary date of each claim; work credits may be spread over contiguous claims. At this time the total annual work commitment is $324,000. At the date of this Listing Statement Appia has filed expenditures in excess of requirements of over $3 million which can be used for meeting future work commitments , which currently amount to $324,000 per year.

**(c)** CEC retained a 1% Uranium Production Payment Royalty and a 1% Net Smelter Return Royalty on any precious or base metals, payable provided that the realized price on uranium sales is greater than US$130 per pound. Appia is required to maintain the Property in good standing. The royalty also applies to subsequently staked claims

Pursuant to the agreement with CEC, Appia granted a participation right to a company that is now Uranium One Inc. to acquire up to 9.9% equity of the Company pursuant to an initial financing or initial public offering at the same price and terms as other subscribers.

Patrie retains a 1% net smelter royalty on the production from the six claims acquired by Appia, provided that the realized price on uranium sales is greater than US$130 per pound.

**(d)** Appia is not responsible for any prior or existing environmental liabilities to which the Property is subject. Three of the mineral claims, while valid, are currently subject to a decommissioning licence issued under the *Nuclear Safety and Control Act*. The licence holder, Denison, is obligated to undertake a work program relating to control of environmental impacts and restoration of the land. Appia is required to avoid exploration activities that might interfere with the execution of such work programs. Denison does not have the authority to grant access to these claims for the purpose of exploration drilling. Appia has no plan to explore these claims at this time.

**(e)** Known uranium mineralization occurs in five main areas of the Property based on drill hole evidence, summarized as follows:

| | |
|---|---|
| Teasdale Zone | located in Buckles Township approximately 1 km east of the former Can-Met Mine and situated obliquely on strike (and down dip) about 4 km southeast of the Panel Mine. |
| Gemico Block 3 | located on boundary between Buckles and Joubin Townships and situated obliquely down-plunge from the Stanrock Mine |
| Gemico Block 10 | located in southeastern Bouck Township and down-dip of the Spanish American Mine |
| Banana Lake Zone | located in Beange Township and western Bouck Township, and situated in the centre of the Quirke Lake Syncline. |
| The Canuc Zones | located in west-central Bouck Township, and situated southwest of the Spanish American Mine in an area not intensively drilled. |

The Teasdale and Banana Lake Zones have Mineral Resource Estimates calculated in accordance with NI 43-101 standards.

Historical Resource Estimates of $U_3O_8$ exist for all five zones but are not compliant with NI 43-101. These estimates can be found in section 10 of this report.

Figure 1, attached to this report, is a geological map of the Elliot Lake Area, shows the outline of the claims owned by Appia, the location of the five zones as well as the location of past producing mines, none of which is on the Property.

Decommissioning of most of the past producing mines occurred from 1990 to 1998 and by late 1999 the major reclamation work on the Rio Algom and Denison mill tailings sites and facilities was completed. Waste management and tailings management including water quality monitoring is being carried out by Denison on behalf of the mine owners, and will be sustained. No adverse effects have been noted for wildlife, fish and invertebrates and the decommissioning is considered a success.

**(f)** Discussions with government representatives in Sault Ste. Marie indicate that there are no impediments in the mining and environmental statutes that would constitute fatal flaws to the Appia project. There are no land withdrawals in the Appia project area that would negatively impact Appia's exploration plans. However, it is clear that the new Ontario Mining Act imposes on Appia a duty to consult with local stakeholders prior to undertaking advanced exploration programs which would include diamond drilling. Recent changes in the Mining Act are intended to avoid future conflicts, and do not impose a need for Appia to give up any of its mineral rights. Local stakeholders are expected to discuss any concerns in good faith and not un-necessarily impede exploration. The residents of Elliot Lake and its Chamber of Commerce are very interested in the new jobs and tax revenue that renewed mining would bring to the town.

Permitting for the recommended additional drilling at the Teasdale Zone is expected to follow the normal application process, without difficulty. Permits have not been applied for.

## 2. Accessibility, Climate, Local Resources, Infrastructure and Physiography

**(a)** Access

The Appia Property is located approximately mid-way between the city of Sudbury 126 km by road to the east and the City of Sault Ste. Marie 181 km to the west. It can be reached via the Trans-Canada Highway (#17), and then via Highway #108 approximately 26 km north to the town of Elliot Lake. Elliot Lake is located near the northern margin of the developed corridor along the TransCanada Highway. As a result, there are no paved roads extending more than 20 km north of the city. Elliot Lake Municipal Airport has no regularly scheduled flights, and is currently being used for occasional auto racing.

**(b)** Population centre

The City of Elliot Lake can be reached by regular northern Ontario bus service, but it is not currently serviced by air. Regularly scheduled air travel from Toronto is available on a daily basis into both Sudbury and Sault Ste. Marie.

Elliot Lake's population of approximately 11,500 is a small fraction of its former size during the uranium boom of the 1970's when its population exceeded 30,000. It is now a local supply centre for recreation areas in the north, offering a wide variety of food sources as well as general mechanical supplies and services (equipment repair, welding, auto maintenance, etc). All the major Canadian banks are represented in the city.

The Ontario government maintains two offices in Elliot Lake: the Office of the Worker Advisor which operates under the Ministry of Labour, and an office of the Ministry of Northern Development and Mines (50 Hillside Dr. North, Elliot Lake ON P5A 1X4 - Telephone (705) 848-7133. The latter office is also a "Service Ontario" office which provides a broad range of administrative services for other ministries such as transportation and health (renewal of driver's licences and health cards).

An integrated health centre has been constructed in Elliot Lake that houses the community's doctors and other health care professionals. The city is serviced with 24-hour 911-response ambulance service provided by the Algoma District Services Administration Board. The board provides one on-site ambulance and crew 24 hours a day and an additional crew on weekdays from 8 to 4 pm for transfers to service the other outlying areas. For emergency transportation to other centres, a helicopter landing pad is located at the Elliot Lake Hospital. Air Bravo Corporation operates an air ambulance service, servicing all of north-eastern Ontario and provides charter services. Policing services in Elliot Lake are provided by the Elliot Lake detachment of the Ontario Provincial Police (OPP). Officers patrol the streets and are on duty 24 hours a day 7 days a week. The Elliot Lake fire service provides 24 hour service with a complement of 34 firefighters. They have a fully equipped fire hall with an aerial pumper and a complement of rescue vehicles.

Local and long-distance communication facilities are well developed in Elliot Lake, and many hotels can provide internet services.

**(c)** Climate

The Elliot Lake area has a northern boreal climate, moderated by its proximity to Lake Huron, with warm summers and cold dry winters. The coldest months are January and February which average -17$^{o}$ to -

18$^{o}$C. The summers are hottest during July and August with maximum temperatures of 22$^{o}$ to 24$^{o}$; summer nights tend to be cool with minimum temperatures of 11$^{o}$ to 12$^{o}$C.

Most of the precipitation in Elliot Lake falls during the spring months of April through May and during September-October. Absolute summer and winter temperatures are moderated by the area’s proximity to Lake Huron, one of the largest of the Great Lakes. Although on a latitude equal to that of Kirkland Lake, the Elliot Lake area does not experience the cold weather that the former centre receives.

Roads are well maintained and electric power is available to the Property site. Climate will not affect operations as underground mining is proposed.

**(d)** Infrastructure

The project is situated in the famous Elliot Lake uranium mining camp. Located at the end of a regional highway, the city of Elliot Lake contains a full complement of local Government, health, education and other services. The town has good drinking water, sewage treatment, communications and electrical services which are sufficient to support mining operations. A 4,500 ft (1,385 m) paved runway (46$^{o}$21’06”N 82$^{o}$33’40”W) is located about 6.4 km ESE of the town although it is not serviced by regular flights at this time and its surface condition is unknown. The runway has an ESE-WNW direction striking approximately 112 degrees.

With a history of production, all required services will be available right to the proposed project site. Water will be readily available from the lakes, with the necessary environmental controls over waste water treatment. Tailings and waste storage areas are available on site as is the potential plant site.

**(e)** Physiography

Located in the Canadian Shield, the project area is gently rolling with occasional bedrock scarps as much as 25 m in height (Plate 1). Elevations range from approximately 300 to 500 metres above sea level. The city of Elliot Lake is situated at 312 m above sea level. The area is dotted with a great number of lakes which is typical of the shield. The largest of these is Quirke Lake. The lakes drain towards the south into the North Channel, a body of water which forms part of Lake Huron.

Soils in the project area are generally thin as a result of protracted periods of glaciation during the Pleistocene. Areas between bedrock ridges are generally filled with glacial till with an upper muskeg or peat-covered surface. Drainage may be poor locally.

There is relatively little agriculture in the project area due to the thin soils and the short growing period having only 112 frost-free days (versus 160 days for Toronto), both representing major obstacles to market-oriented agricultural development. Some private gardens are grown locally to produce vegetables for local consumption.

Silvaculture is a major industry in the area which produces pine and spruce for the construction industry, as well as cedar and a few hardwoods such as birch as a specialty woods.

## 3. History

**(a)** Ownership of the Property; Exploration by Province

The five mineralized zones which comprise Appia’s Property were owned by other mining companies during the production era at Elliot Lake.

Historical estimates of $U_3O_8$ mineralization, thought to be authored by Doug Sprague, P.Eng., Chief Geologist for Rio Algom Ltd. **("RIO")** and shown on a RIO map (Rio Algom, 1979), were based on mine data as well as a series of deep drill holes completed by Kerr McGee and other exploration companies in widely separated areas of the Property. RIO's estimates increased the total remaining uranium resource to approximately 200 million pounds of $U_3O_8$. These historical resources, located in five separate zones down-dip from past-producing mines, are summarized in the following table:

**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 | 17,458,200 | 1.206 | 20,787,200 |
| Gemico Block #3 | 42,800,000 | 0.38 | 16,264,000 |
| 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.

On November 1, 2007, the Corporation entered into an agreement (the "**CEC Vending Agreement**") with Canada Enerco Corp. ("**CEC**"), a corporation controlled by a Director and officer of the Corporation, pursuant to which the Corporation acquired a 100% interest in sixty-one (61) of the claims (the "**CEC Claims**") comprising a part of the Property in consideration for 35,000,000 Common Shares of the Corporation and a 1% Uranium Production Royalty and a 1% Net Smelter Returns Royalty in respect of precious and base metals on the CEC Claims both where the price of uranium exceeds US$130 per pound (collectively the "**CEC Royalties**"). The CEC Claims are subject to an area of interest provision whereby any mining claims acquired by the Corporation within 20 kilometres from the existing boundary of the CEC Claims are subject to the CEC Royalties. On November 2, 2007, the Corporation also entered into two (2) share option agreements with CEC whereby the Corporation had the option to buy back 1,000,000 of the Common Shares issued to CEC at the price of $1 per share, expiring August 31, 2008 and the option to buy back 9,000,000 Common Shares issued to CEC at the price of $2 per share, subject to adjustment downward, in tranches of 1,000,000 shares, expiring November 2, 2012. In the fiscal year ended September 30, 2008, the Corporation exercised the first option to buy back 1,000,000 Common Shares by the payment to CEC of $1,000,000. These shares were returned to treasury for cancellation in fiscal 2009. The second option was conditional upon the Corporation spending at least $10 million on exploration on the Property prior to November 1, 2011, to define an NI 43-101 compliant uranium mineral resource on the Property. The maximum purchase price for the option was to be determined as $0.10 multiplied by the number of pounds of uranium resource defined in the NI 43-101 report. In the event that the maximum purchase price was less than $20 million, the option price of the 9,000,000 Common Shares would be adjusted to equal the maximum purchase price divided by 10,000,000. The Corporation did not spend the required $10 million on exploration and the second option expired on November 1, 2011. Two (2) of the CEC Claims (the "**Denison Claims**") were transferred to Denison Mines Inc. ("**Denison**") pursuant to an Assignment and Royalty Agreement dated July 22, 2009 (the "**Denison Agreement**") leaving fifty-nine (59) active claims. The Corporation retains a 3% Net

Smelter Returns Royalty on the sale of any product produced from ore mined from the Denison Claims. The Denison Claims remain subject to the CEC Royalties. Pursuant to the Denison Agreement, the Corporation was granted a right of access to or over the surface of any surface rights held by Denison in the Elliot Lake area as well as access to all of Denison's workings and operations to facilitate the exploration and development of any mining claims in the Elliot Lake area in which the Corporation has a beneficial interest, subject to certain restrictions.

On February 27, 2008, the Corporation entered into a Vending Agreement (the "**Patrie Agreement**") with Dan Patrie Exploration Ltd. to acquire a further six (6) claims (the "**Patrie Claims**") that comprise part of the Property in consideration for $20,000 in cash, 50,000 Common Shares valued at $1.00 per share and a 1% Uranium Production Royalty on the Patrie Claims for all Uranium sold at a price of at least US$130 per pound (the "**Patrie Royalty**"). The Corporation can repurchase one-half of the Patrie Royalty for $1,000,000 and the Corporation has a right of first refusal on the remaining portion of the Patrie Royalty.

A further thirty-five (35) staked claims were acquired by the Corporation (the "**Staked Claims**") and are subject to the CEC Royalties. Pursuant to a royalty agreement dated February 2, 2012 (the "**Royalty Agreement**"), CEC and the Corporation clarified the terms of the CEC Royalties.

The Corporation is subject to an Assumption of Obligations Agreement (the "**EMC Agreement**") dated November 2, 2007 among the Corporation, CEC, Quincy Gold Corp. and Energy Metals Corporation ("**EMC**") (now owned by Uranium One Inc.) pursuant to which EMC has the right to purchase from the Corporation, at the offering price, up to 9.9% of the Common Shares issued pursuant to the first public offering of securities by the Corporation by prospectus resulting in the listing of the Corporation's securities on a stock exchange. Alternatively, if the Corporation effects a reverse takeover, merger or other business combination with a company listed on a recognized stock exchange, EMC will have the right to purchase, on closing of the transaction, up to 9.9% of the securities of the resulting company at the same price as securities are issued for the acquisition of the Corporation.

CEC staked the claims sold to Appia, but did not do any drilling on the Property.

(b) Three year period

Appia did not add to the claims on the Property within the last three financial years and there are no agreements to acquire any claims in the Elliot Lake area as at the date of the Listing Statement.

(c) Names of prospective vendors

Not applicable, as there are no purchase agreements in existence.

## 4. Geological Setting

### *Regional Geology*

The Elliot Lake area is located on the southern margin of the Archean component of the Superior Province of the Canadian Shield. As is typical across North America, the margin is marked by a series of structural basins and troughs which contain late Archean to early Proterozoic sedimentary rocks. These rock formations are important in that they host significant iron formation deposits as well as most of the known occurrences of uraniferous quartz-pebble conglomerate. Although the deposits are diverse, and differ in age by as much as several hundred million years, they share many sedimentary and structural characteristics. The sedimentary sequences laid down on the shield margins record several transgressive cycles each resulting in deposition of fluvial-to-marine or glacial-to-marine conglomerates and sandstones, followed by shallow-marine clastic or carbonate rocks. Generally the final cycle of sedimentation ends with deep-water-marine dark shales, greywacke and volcanic rocks. Episodes of extension, compression, intrusive magmatism and metamorphism occurred during the same approximate period of time.

The structural basins or troughs that contain uranium-bearing conglomerate formed within or on the Archean continental crust, and apparently near its margin, however the southern limit of the Archean has not been precisely located because Paleozoic, and younger sedimentary rocks cover most of the area south of the early Proterozoic basins.

The Lake Huron region, within which Elliot Lake is located, contains the early Proterozoic Huronian Supergroup, of which the basal deposits in the Elliot Lake district contain the world's most important deposits of uranium in Precambrian conglomerate.

The Huronian Supergroup is a southward-thickening, mainly clastic succession which is well exposed north of Lake Huron. It forms as east-west trending belt overlying the southern portion of the Superior Province of the Canadian Shield. The rock succession is divisible into three megacycles, each composed of coarse-grained fluvial sandstones overlain by glacio-marine/lacustrine mixtites and marine/lacustrine siltstone plus shale with a capping deltaic succession which is overlain by coarse sediments laid down during the next transgressive cycle. Prograding deltas and abandoned channels combined with non-synchronous southeast to northwest flooding to add a large diachronous element to lithofacies boundaries.

Each megacycle can be sub-divided into a three-part succession beginning with the development of a glacial outwash plain, followed by isostatic depression and flooding as the ice sheet advanced into the area and then an interval of glacio-marine deposition with development of a fine-grained marine/lacustrine succession as glacial melting raised the water level, and finally delta progradation as isostatic rebound began to outstrip the rising water.

The ore-bearing conglomerate beds in the district are found in the Matinenda Formation, the basal unit of the Elliot Lake Group within the Huronian Supergroup. The uranium-bearing conglomerate is a clean, well sorted, coarse-pebble conglomerate which was apparently deposited in a mixed littoral and fluvial-deltaic fan environment, possibly as the early Proterozoic sea transgressed up onto the Archean craton. The conglomerate is overlain by and interfingers in a time-transgressive relationship with the shallow-marine McKim Formation.

The Elliot Lake Group is successively overlain by the Hough Lake, the Quirke Lake, and the Cobalt Groups, each of which begins with basal paraconglomerates which show evidence of being deposited in a glacial or glacio-marine environment. Each of the paraconglomeratic formations is succeeded by shallow-marine clastic or carbonate rocks. The entire succession, as well as most individual formations, thickens to the southeast and feathers out onto the Archean craton to the north.

Pyrite is the main iron mineral found in the Matinenda Formation, whereas superseding formations contain predominantly hematite. The Th-U ratio in radioactive placer deposits first increases to greater than ten in the Lorrain Formation. This is thought to present strong evidence that during the early Proterozoic deposition of the Huronian Supergroup, a profound change in the Earth's atmosphere resulted in a transition from non-oxidizing to oxidizing conditions. Neither the uranium in the quartz-pebble conglomerates nor the iron formation deposits found elsewhere on the edge of the Archean craton would have been stable had the earth's atmosphere not been anoxic at the time of deposition.

This prevailing view concerning the atmosphere is clouded somewhat by some who argue that episodic post-depositional modification of the uraniferous conglomerates leached iron from detrital ilmeno-magnetite grains, caused some uraninite to be replaced by coffinite ([U,Th]SiO4) and resulted in the dissolution and alteration of monazite to uranothorite ([Th,U]SiO4). Brannerite was also a product of the reaction of U and TiO2. Further alteration resulted in the precipitation of secondary pyrite under conditions of low to moderate Eh and slightly acid pH for ilmeno-magnetite leaching, and low Eh and near-neutral pH for pyrite precipitation. Under such conditions uraninite and coffinite are relatively stable. The Authors conclude that the simple presence and preservation of detrital uraninite cannot be used to draw conclusions about the oxygen content of the late Archean atmosphere at approximately 2,350 Ma.

Mafic volcanic rocks underlying or interbedded with the lowest beds of the Matinenda are most abundant in the vicinity of two east-trending fault zones (the Murray and Flack faults), which also mark zones of abrupt change in style of sedimentation and the thickness of stratigraphic units. These basin-bounding faults apparently acted as hinge lines that were zones of crustal bending, faulting, and minor volcanism during deposition of the Huronian strata.

The Huronian Supergroup lies unconformably upon Algoman granitic rocks which have been dated at about 2,500 Ma. They are intruded by a series of post-Huronian rocks, the oldest of which is the Nipissing Diabase, dated at about 2,100 Ma.

### *Geology of the Elliot Lake Area*

The Elliot Lake area is underlain by an approximately east-west trending basin within which the Huronian sedimentary strata on-lap the Archean basement to the north, and presumably also to the south. Uranium mineralization occurs in the predominantly quartzose and arkosic rocks of the Matinenda Formation, located near the base of the Huronian sequence and unconformably overlying the Archean basement.

The Huronian succession is folded into an east-west trending syncline, the Quirke Lake Syncline, which is located immediately north of the city of Elliot Lake. Uranium-bearing Matinenda Formation strata are exposed on the limbs of the fold, but occur at vertical depths of +/- 1,500 m (5,000 ft) near the centre axis of the basin. Uranium mines are located on both limbs and the Quirke Lake structure has been well tested and explored by underground mine developments as well as deep exploration drilling. The Can-Met, Denison, Panel, Quirke, New Quirke, Stanrock and Spanish American mines are located on the north limb whereas the Buckles, Milliken, Lacnor, Nordic and Stanleigh mines are situated on the south limb.

During the mid-1980s, more than half of Canada's reasonably assured uranium resources, though expensive to develop and mine, were contained in the Quirke Lake Syncline despite the addition of high-grade deposits found in the Athabasca Basin of northern Saskatchewan.

The Matinenda Formation is the coarse-grained sandstone unit at the base of the stratigraphically lowest megacycle. To the north, it on-laps over an irregular Archean basement surface, filling paleo-valleys and draping over intervening hills. Uranium-bearing quartz-pebble conglomerates occur within the sandstones in the lower part of the Matinenda Formation, forming laterally extensive deposits with NW-trending long axes. In a general sense, the NW end of the conglomerates either abuts against basement or is cut off by an erosive scour at the base of the overlying Ramsay Lake Formation. The conglomerates die out to the southeast by an increase in the proportion of interbedded sandstone wedges and a general reduction in grain size.

The uranium-bearing portion of the Matinenda Formation is divided into three members. From uppermost downwards, these are the Manfred Member, the Stinson Member and the Ryan Member. The presence and thickness of these members and their uranium-bearing zones is dependent on the relative elevation of the Archean unconformity and the topography of its surface.

Two principal ore zones are present: the Quirke Ore Zone on the north limb of the basin (the Quirke Lake Syncline), and the Nordic Ore Zone on the south limb. The Quirke Ore Zone occurs in the Manfred Member of the Matinenda Formation. The Nordic Ore Zone occurs in the Ryan Member. It is important to note that there is no Ryan Member on the north limb and the Manfred Member is absent on the south limb.

The Stinson Member of the Matinenda Formation lacks uranium in economically interesting concentrations. The base of the Stinson in some areas of the Nordic Ore Zone is marked by angular, grey granite-clast conglomerate (as compared to quartz pebble clasts in the ore reefs), usually with a matrix of mostly smaller grey granitic material and some, mostly minor, pyrite. This horizon, is usually 2.0-5.5 m thick and is called the Stinson basal conglomerate - it can be very useful as a marker or reference horizon to indicate the top of the Nordic Ore Zone reef hosting Ryan Member.

On balance of evidence, a fluvial placer mode of origin is accepted as the most reasonable genetic model for the uranium deposits hosted in the Matinenda Formation. The model is consistent with that for the proposed origin of the gold-uranium paleoplacers in South Africa, but unlike the Witwatersrand, however, the uranium-bearing section at Elliot Lake does not contain intraformational unconformities. The deposits occur as laterally extensive sheets that do not show the evidence of reworking that is apparent in South Africa. Rather, at Elliot Lake the occurrence of large-scale flood events has been proposed as a means of widely depositing detrital uranium. The documented presence of glacially derived mixtites associated with Matinenda sediments leads to speculation that catastrophic ice-margin lake drainage flowing down an outwash fan deposited the uraniferous conglomeratic units present in the lower Matinenda Formation.

The Quirke Ore Zone is a classic sedimentary delta type of deposit. Quartzose and conglomeratic sediments bearing detrital uranium were introduced through a narrow 1,800 m (6,000 ft.) wide valley in the basement and spread out to the east and southeast to cover an area of approximately 80 square kilometres (30 sq. miles). There is very little Stinson Member and no Ryan Member between the Manfred Member and the basement in the Quirke Ore Zone. Where the Manfred Member is thickest, there are two pairs of reefs separated by 36 m (120 feet) of quartzite. The past producing mines of the Quirke Ore Zone were: Denison, Stanrock, CanMet, Quirke (1), New Quirke (2), Panel and Spanish American.

Outside of the mined areas at its southeast end, much of the Nordic Ore Zone is not well defined by surface diamond drilling. It has been thought to begin approximately 6.5 kilometres (4 miles) northwest of Banana Lake as a 1.5 - 2.5 km (1 - 1.5 mile) wide basement depression channel with relatively steep basement. It extends for approximately 11 km (7 miles) south and southeast of Banana Lake, widening to approximately 13 km (8 miles). There may be some Stinson Member but no Manfred Member overlying the Ryan Member in the Nordic Ore Zone. Where the Ryan Member is thickest there are three reefs in the Nordic Ore Zone. In descending order these are the Pardee, the Nordic and the Lacnor Reefs. The past producing mines of the Nordic Ore Zone were: Stanleigh, Milliken, Lacnor, Nordic and Buckles. Most of the uranium produced was from mining in the Nordic and Lacnor Reefs. Where there is sufficient thickness of the Ryan Member above the Pardee Reef, thin conglomerate or pebble beds called "Floater Reefs" may be present, but to date these occurrences are very thin and do not appear to be economic.

Below the Lacnor Reef, Appia holes BL-07-01, BL-08-02 and BL-08-03 have intersected reefs composed of rounded 8-15cm (3-6 inch) white quartz cobbles (Cobble Reef or Cobble Quartzite), with pale olive green irregular-shaped siltstone clasts and a few black chert clasts. Uranium grades in these rocks appear to be related to the amount of pyrite in the individual beds.

Another zone called the Pardee Zone is located approximately 4.5 km (3 miles) east of the Nordic Mine, east of the southeast corner of the Nordic Ore Zone. The Pardee Zone is approximately 2.5 square kilometres (1 square mile) in size and is separated from the Nordic Ore Zone by a high basement ridge. Pele Mountain Resources has been working on the Pardee Zone since early 2007 and has completed 188 surface diamond drill holes. The company has most recently referred to its deposit as the Eco Ridge Deposit.

The uranium-bearing conglomerates are massively bedded, but do show localized evidence of horizontal stratification. Trough cross-stratification due to meandering deltaic channel development is present in the pebble conglomerates in areas where numerous sandstone lenses occur. Occasionally the cross-sets can be traced from the conglomerate into sandstone lenses. Sandstones interlayered with the conglomerate and forming units separating conglomerate packages are generally trough cross-stratified with cross-set amplitude averaging approximately 12 cm.

Detrital uraninite and brannerite is concentrated in the more massive portions of the longitudinal bars as well as in lags along horizontal reactivation surfaces in stacked bars. The bars themselves represent rare, discrete high energy events in a succession that is dominated by braid-channel deposits (trough cross-stratified sandstones). The gravel bars are localized in the lower portion of the formation, usually being confined to paleovalleys.

The water-borne transport of uranium detritus was from north to south during deposition of the lower portions of the Matinenda. As time passed the regional paleoflow direction gradually changed to NW to SE and eventually to WNW to ESE. The counter-clockwise rotation in paleocurrent direction is thought to reflect crustal subsidence to the east of the area in which the Matinenda Formation was studied.

One interesting aspect of the Matinenda Formation is the presence of pyrobitumen in and near ore-bearing horizons. The occurrence of stratiform and dispersed kerogens in the Matinenda Formation has been reported with the conclusion that the kerogens formed from mats of cyanobacteria that were affected by diagenetic and low-grade metamorphic processes including partial remobilization.

During burial and metamorphism, rising temperatures cracked the kerogens to form petroleum, which migrated into fractures and subsequently became pyrobitumen through a combination of water-washing and thermal cracking which converted the oil into a more tarry form. As this tarry material detached from the wall, it formed spheroids that floated upward and were trapped in vuggy openings in the fractures. It is clear to WGM that the presence of kerogens might have contributed to the stabilization of uranium minerals under strongly reducing conditions in the mineralized beds.

Economically interesting uranium mineralization is not pervasive throughout the basin. The favourable horizon is affected by the topography on which the conglomerates were deposited, as well as scours (river channels) which eroded down through the conglomerates following their initial deposition. As is also clear, large areas in the deep basin such as that near Banana Lake, have been shown to contain uranium values exceeding 0.5 lbs per ton. Yttrium-REE minerals have long been known to co-exist with uranium.

## 5. Exploration Information

The exploration completed in the recent past by Appia is summarized as follows:

**2006** Geophysical Surveying

- Airborne MegaTem electromagnetic and magnetic survey by Fugro Airborne Surveys of Toronto (Mississauga);

- 3-line dipole-dipole IP test survey by Gradient Geophysics Inc. of Missoula, Montana using a 152 m (500 ft) electrode spacing and collecting data for n=1 to n=6. Some electrical sounding also performed.

**2007-2008** Phase 1 diamond drilling program

- diamond drilling (6 holes; 2,650.2 m/8,695 ft) of the Teasdale Zone to corroborate some of the previous drill holes and thereby support a NI 43- 101 compliant Mineral Resource estimate;

- diamond drilling of 4 wedged holes (1,235 m/4,052 ft) on the Banana Lake Zone from two previous deep historical holes drilled by Kerr McGee (1969 and 1974) to corroborate the previous deep intersections

**2008** Phase 2 diamond drilling program

- two new cored holes from surface on the Banana Lake Zone as well as a short wedge cut from the second hole (total of 3,109 m/10,200 ft).

Appia's early 2007-08 and 2008 drilling programs are summarized in the following table:

**Appia's Diamond Drill Hole Locations and Set-Up Information, 2007-2008 Drilling Programs**

| Drill Hole | Wedge Depth | Geographic and UTM Co-Ordinates | | | | | Bearing | Dip | Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| | | Latitude | Longitude | Zone | Easting | Northing | | | |
| Q-07-01 | ---- | 46° 29' 16.35" N | 82° 31' 20.97" W | 17T | 383151 | 5149382 | 0 | -90 | 327.0 |
| Q-07-02 | ---- | 46° 28' 45.52" N | 82° 31' 24.33" W | 17T | 383061 | 5148432 | 0 | -90 | 609.0 |
| Q-07-03 | ---- | 46° 28' 52.28" N | 82° 31' 49.52" W | 17T | 382528 | 5148651 | 0 | -90 | 546.0 |
| Q-08-04 | ---- | 46° 29' 02.17" N | 82° 30' 55.30" W | 17T | 383690 | 5148934 | 0 | -90 | 410.0 |
| Q-08-05 | ---- | 46° 29' 12.41" N | 82° 31' 09.89" W | 17T | 383385 | 5149256 | 0 | -90 | 375.0 |
| Q-08-06 | ---- | 46° 28' 55.43" N | 82° 29' 51.32" W | 17T | 385050 | 5148700 | 0 | -90 | 377.0 |
| BL-07-01-W1 | 1,179.0 m | 46° 27' 03.30" N | 82° 41' 24.35" W | 17T | 370200 | 5145537 | 0 | -90 | 345.0 |
| BL-07-01-W2 | 1,169.6 m | 46° 27' 03.30" N | 82° 41' 24.35" W | 17T | 370200 | 5145537 | 0 | -90 | 317.6 |
| BL-08-02-W1 | 1,397.4 m | 46° 27' 18.85" N | 82° 41' 56.75" W | 17T | 369519 | 5146032 | 0 | -90 | 125.6 |
| BL-08-02-W2 | 1,067.0 m | 46° 27' 18.85" N | 82° 41' 56.75" W | 17T | 369519 | 5146032 | 0 | -90 | 453.0 |
| BL-08-03 | ---- | 46° 27' 18.94" N | 82° 40' 50.89" W | 17T | 370924 | 5146005 | 0 | -90 | 1,538.0 |
| BL-08-04 | ---- | 46° 27'18.72" N | 82° 41' 21.98" W | 17T | 370263 | 5146123 | 0 | -90 | 1,510.0 |
| BL-08-04-W1 | 1,439.0 m | 46° 27' 18.86" N | 82° 41' 56.76" W | 17T | 369519 | 5146032 | 0 | -77.5 | 61.0 |

**2012** diamond drilling program

Since the completion of the drilling programs in 2008, additional diamond drilling was completed by Appia on the Teasdale Zone during 2012 which has confirmed and materially increased the size of the Teasdale Deposit. The drilling totalled 16 holes completed from surface, one wedged hole and one abandoned hole totalling 8,130.2 m of drilling.

Diamond Drill Hole Locations and Set-Up Information, 2012 Teasdale Drilling Program

| Drill Hole | Geographic and UTM Co-Ordinates | | | | | Elevation (m) | Bearing | Dip | Length (m) |
|---|---|---|---|---|---|---|---|---|---|
| | Latitude | Longitude | Zone | Easting | Northing | | | | |
| AEC 12-01 | 46° 28' 57.13" N | 82° 31' 6.88" W | 17T | 383440 | 5148783 | 338 | 0 | -90 | 522 |
| AEC 12-01a [1] | 46° 28' 57.13" N | 82° 31' 6.88" W | 17T | 383440 | 5148783 | 338 | 0 | -90 | 75.2 |
| AEC 12-02 | 46° 29' 20.51" N | 82° 31' 15.04" W | 17T | 383280 | 5149508 | 337 | 0 | -90 | 244 |
| AEC 12-03 | 46° 29' 20.25" N | 82° 31' 15.03" W | 17T | 383280 | 5149500 | 338 | 20 | -80 | 216 |
| AEC 12-04 | 46° 28' 55.92" N | 82° 31' 53.61" W | 17T | 382443 | 5148765 | 342 | 133 | -70 | 637 |
| AEC 12-05 | 46° 29' 20.35" N | 82° 31' 14.89" W | 17T | 383283 | 5149503 | 340 | 180 | -75 | 284 |
| AEC 12-05b [2] | 46° 28' 36.41" N | 82° 31' 46.87" W | 17T | 382575 | 5148160 | 365 | 60 | -70 | 633 |
| AEC 12-06 | 46° 29' 13.78" N | 82° 30' 57.03" W | 17T | 383660 | 5149293 | 320 | 0 | -90 | 294 |
| AEC 12-07 | 46° 29' 11.87" N | 82° 30' 56.97" W | 17T | 383660 | 5149234 | 347 | 180 | -65 | 381 |
| AEC 12-08 | 46° 28' 36.41" N | 82° 31' 46.87" W | 17T | 382575 | 5148160 | 365 | 0 | -55 | 705 |
| AEC 12-09 | 46° 29' 11.87" N | 82° 30' 56.97" W | 17T | 383660 | 5149234 | 347 | 225 | -65 | 384 |
| AEC 12-10 | 46° 28' 50.92" N | 82° 31' 10.88" W | 17T | 383351 | 5148593 | 335 | 0 | -90 | 552 |
| AEC 12-11 | 46° 29' 5.24" N | 82° 31' 22.49" W | 17T | 383112 | 5149040 | 361 | 0 | -90 | 451 |
| AEC 12-12 | 46° 28' 50.92" N | 82° 31' 10.88" W | 17T | 383351 | 5148593 | 335 | 280 | -70 | 615 |
| AEC 12-13 | 46° 29' 5.24" N | 82° 31' 22.49" W | 17T | 383112 | 5149040 | 361 | 280 | -70 | 460 |
| AEC 12-14 | 46° 28' 50.98" N | 82° 31' 11.02" W | 17T | 383348 | 5148595 | 336 | 0 | -70 | 585 |
| AEC 12-15 | 46° 28' 51.24" N | 82° 31' 10.75" W | 17T | 383354 | 5148603 | 362 | 120 | -60 | 672 |
| AEC 12-16 | 46° 29' 5.24" N | 82° 31' 22.49" W | 17T | 383112 | 5149040 | 361 | 0 | -65 | 420 |

*Notes:*
*1 a second hole was wedged from 422.8 m - the length shown is the hole length below the wedge.*
*2 original hole AEC 12-05 was abandoned and redrilled*

Appia's drilling was carried out during the summer months using a barge to transport the drill on Teasdale Lake and drill sites were positioned on the shore of the lake. This approach precluded the need and expense of a helicopter for moving the drill and equipment between sites. Special care and attention was used to prevent petroleum products and other drill run-off from entering the lake. All drilling was carried out to produce NQ sized core, however some lower sections were drilled with BQ core due to problems higher in the hole and a need to reduce.

The original drilling plan called for drill sites to be established on ice platforms in Teasdale Lake during the winter in order to assure an optimum drill hole spacing in the target zone. This was deemed important as the purpose of the recommended drilling campaign was to support a new (up-dated) Mineral Resource estimate for the Teasdale Deposit. With Appia's approach to summer drilling, multiple holes were drilled from many of the drill sites on different angles and bearings to ensure that the uranium-bearing target horizon was intersected in much the same manner as originally planned. The 2012 drilling accomplished much of what was previously proposed, although only 17 of the proposed 39 holes were drilled, leaving many areas with significant resource potential yet to be tested.

### (a) Results

See section 7-Drilling and section 10- Mineral Resource Estimates.

### (b) Interpretation of the exploration information

The drilling at Banana Lake and the Teasdale Lake zones provided the information required for NI 43-101 Mineral Resource Estimates; in the case of Banana Lake samples were only assayed for $U_3O_8$, but at Teasdale the Mineral Resource Estimates also include the Rare Earth Elements. See section 10- Mineral Resource Estimates.

### (c) Contractors

The airborne MegaTem geophysical survey was done by Fugro Airborne Surveys, Toronto.
IP test survey was done by Gradient Geophysics Inc., Montana
Drilling was carried out in 2007-2008 by Boart Longyear Alberta, Limited
Drilling was carried out in 2012 by Richard Lavoie, 9208-1934 Quebec Inc.

All drill holes were geologically logged by Mr. Alan MacEachern, P.Geo., formerly the Chief Mine Geologist for Denison Mines Ltd., who also selected and submitted the samples for analysis.

### (d) Reliability of the data

See section 8-Sampling and Analysis, section 9-Security of Samples and section 10-Mineral Resource Estimates

## 6. Mineralization

The ore mineralogy can be summarized as follows:

- mineralization consists primarily of detrital grains of brannerite and uraninite, together with minor uranothorite, monazite and secondary coffinite associated with pyrite, pyrrhotite, zircon, rutile and Ti-magnetite as interstitial fill in a quartz pebble conglomerate;
- main ore mineral is brannerite, containing small inclusions of pyrrhotite and radiogenic galena, and occurring as ovoid, reddish-brown grains associated with bladed rutile surrounded by uranium oxides and rare earth oxides
- second most important ore mineral is uraninite which occurs as black subhedral grains up to 0.1 mm in size containing approximately 6% $ThO_2$ by substitution;
- monazite is a lesser ore mineral which contains an unusually high uranium content as inclusions (also uranothorite or thorite) - occurs as rounded to subangular grains typically less than 0.3 mm in diameter;
- pyrite content is typically 10-15% of the rock (Robertson, 1981) which only rarely occurs as fracture fillings; also occurs as inclusions in monazite;
- uranothorite and coffinite have been identified as minor mineral phases;
- yttrium has been an important by-product of uranium mining but the other REEs have not seen production to date;
- the average REE balance in the Elliot Lake camp is: 0.8% $La_2O_3$, 3.7% $CeO_2$, 1.0% $Pr_6O_{11}$, 4.1% $Nd_2O_3$, 4.5% $Sm_2O_3$, 0.2% $Eu_2O_3$, 8.5% $Gd_2O_3$, 1.2% $Tb_4O_7$, 11.2% $Dy_2O_3$, 2.6% $Ho_2O_3$, 5.5% $Er_2O_3$, 0.9% $Tm_2O_3$, 4.0% $Yb_2O_3$, 0.4% $Lu_2O_3$, and 51.4% $Y_2O_3$ ;
- non-metallic gangue minerals in the matrix of the conglomerate are represented by quartz, feldspar and sericite. In some mines a dark grey to black hued ore is reported to contain fine grained chlorite;
- thucholite, an organo-uranly compound (U-bearing radioactive bitumen), occurs locally as thin laminae and as a void-filling mineral phase within ore zones at Elliot Lake; and,
- uranium ores are hard and very well indurated resulting in favourable rock conditions for underground mining.

The deposits at Elliot Lake have historically been referred to as uranium deposits because of the far greater economic importance derived from past uranium production than that from REEs and thorium. However, in the Elliot Lake deposits, REEs occur in much greater abundance than uranium. In the Teasdale Deposit Mineral Resource Estimates the average REE content is approximately 6 times greater than the average uranium grade. Even in that part of the deposit with the highest uranium grade, the REE grade averages approximately 3 times greater.

There are few references as to the physical dimensions of the Elliot Lake deposits, in part because the mines often exploited individual portions of the same large sheet-like deposit. The mineralization is commonly referred to as stratabound and 3-5 metres in thickness and having “good lateral continuity.

Kerr Addison reported on the Agnew Lake Mine giving appreciable insights into the size of the deposits from the resource estimation parameters in use at that mine. Only deposits of considerable uniformity and size would permit the use of drill hole spacing of 400 feet (122 m) for the outlining of probable reserves as defined by Kerr Addison’s mine engineering department. Given the need for accountability in production planning, one can well appreciate the uniformity of grade that supported the use of such a wide spacing as the standard convention.

Robertson (1981) describes the physical dimensions of the deposits. The largest of the deposits, the Denison Mine, measured 19,500 m long by 1,400 m to 8,000 m wide. The deposit carried an average grade of 2.5 lbs of $U_3O_8$ per ton of ore. The next largest at Rio Algom’s Quirke Mine measured 13,000 m by 1,800-5,500 m wide. The Quirke A Reef at the #1 mine was 3.5 m thick. The Quirke #2 mine’s C Reef was 1.8-3.6 m thick and other uranium-bearing horizons were present. A typical geological section through the Denison Mine is shown in Figure 2, attached.

## 7. Drilling results

The type and extent of drilling by Appia is set out in Section 5 - Exploration Information and the interpretation of results are set out in Section 10 - Mineral Resource Estimates.

The Appia drilling intersected the uraniferous conglomerates at varying depths due to the Matinenda Formation’s moderate southerly dip.

Most of the Matinenda formation is composed of quartzite with occasional interbeds of pebbly quartzite. The quartz-pebble conglomerates that are the important uranium-bearing horizons (“reefs”) are located in the lowermost part of the Matinenda. Although thin uranium-bearing conglomerate horizons may occur anywhere in the lower half of the Matinenda, two major mineralized horizons are specifically recognized as being of economic importance: the Upper Reef (“**UR**”) and the Lower Reef (“**LR**”), separated by the Intermediate Quartzite (“**IQ**”).

Although quartzite is not the major host to mineralization, it is not unusual for grades in excess of 250 ppm U and 2,000 ppm TREEs to occur in thin, gritty to pebbly quartzite beds up to 25 cm thick in the hanging wall above the main U-bearing horizons. For example, in hole AEC12-12, a 20 cm thick pebbly-quartzite (“**PQ**”) bed located 1.35 m above the UR carries 413 ppm U and 6,063 ppm TREEs. Moving upwards and away from the uranium host rocks, these matrix-supported PQ beds become less common and occur farther apart resulting in a gradual lowering of overall (bulk) grades for both U and REEs. These horizons also occur in the footwall section immediately below the main uranium-bearing reefs, and have accordingly been referred to as Hanging Wall Pebbly Quartzite or Footwall Pebbly Quartzite in the company’s drill hole logs. Some quartzite sections contain thin horizons that are pyrite-bearing, with the pyrite occurring as fine, scattered grains or as continuous mm-scale seams along bedding laminations.

In most of the drill holes, the UR is poor to faint, and is a mixture of interbedded pebbly quartzite, conglomerate and minor quartzite. According to MacEachern, it was unrecognized and not assayed in most of the historical Conecho logs, and it is not shown on mine plans covering the eastern areas of the Panel Mine adjacent to the Teasdale Deposit. Doug Sprague did not include the UR on his plan of reserve blocks for Conecho. The assaying of drill core for REE mineralization resulted in Appia's discovery of REE mineralization of potential economic significance in most beds of PQ and in quartzite adjacent to the thin conglomerate beds that comprise the UR. The UR is enriched in REEs relative to U and the average ratio of REEs to U is 10.4:1. The average thickness is 4.4 m.

The IQ comprises the section immediately overlying the LR, and is composed of between two and four metres of quartzite with minor PQ and little or no quartz-pebble conglomerate. It averages approximately 2.7 m in thickness and on rare occasions it exceeds 4 m in thickness, however in hole AEC12-13 the IQ is only 52 cm in thickness. This hole is unusual in that it is also characterized by a strongly mineralized siltstone unit underlying the lower reef which is discussed further in the following text. These variations may be imposed by bedding-parallel slips (faults) that are difficult to recognize in the core. Because of U and REE enrichment in the PQ horizons, the IQ typically contains between 50 and 200 ppm U (average = 99 ppm) and between 500 and 1,500 ppm TREEs (average = 938 ppm). In the IQ unit, the REE:U ratio averages 9.1 : 1 in the Appia drill holes. In general, the average grade of the IQ increases with higher PQ contents.

The LR is the main carrier of uranium, and it is this reef that was exploited in the Elliot Lake uranium mines. Most of the Appia holes intersected a LR ranging in thickness from 1.4 m to 5.4 m, and the average length of the LR in the Teasdale drill holes was 2.95 m. The true thickness of the LR is approximately 2.7 m and it averages 438 ppm U and 1,512 ppm TREEs. In holes where the geology shows the reef to be poorly developed or compromised by intrusive rocks, grades may be substantially lower. In the well developed LR, the REE:U ratio is 3.4:1.

Appia's continuing drilling of the Teasdale area has extended the area of known mineralization beyond the limits imposed by the company's first phase of drilling. The earlier drilling confirmed the results reported from the original Conecho drilling carried out during 1954-55 and provided some new geological and assay data between the older holes. Appia's initial drilling program also confirmed as "reasonable" an earlier resource estimate by Rio Algom's Chief Geologist Doug Sprague, P.Eng., and provided a basis whereby Appia disclosed a modest NI 43-101 compliant resource estimate for the Teasdale deposit. The drilling carried out by Appia in 2012 substantially extended the area of known mineralization, with the mineralized zone open down-dip.

All of the Appia holes completed in the 2012 drilling program intersected the uranium REE bearing horizons in the lower part of the Matinenda Formation, namely the UR, IQ and LR horizons. The total length of the mineralized sections in the drill holes varied from 8.6 m to 11.4 m in the recent drill holes. The grades-thicknesses encountered by Appia were more or less the same as those intersections taken from historical records, although complete comparisons are impossible since the upper reef was not recognized as such at the time, and the original holes were assayed only for uranium. The Appia drilling does show that the mineralized zone extends to the boundary of the company's claims and is probably contiguous with the mineralization that remains in the old Panel Mine workings.

The new mineral resources estimate, and the parameters on which it is based are contained in Section 10 of this report.

## 8. Sampling and Analysis

**(a)** Sampling methods

The sampling procedure utilized by Appia's personnel during the drill program is summarized as follows:

- the core was geologically logged and sections were selected for analysis based on geology and radiometric activity using a hand-held RS-125 Super-SPEC portable gamma ray spectrometer ;
- the mineralized core intervals were split in the core shack in Elliot Lake using a diamond core saw - one half of the drill core was bagged, a pre-numbered sample tag was placed in the bag and the samples sealed before being sent to Activation Laboratories (ActLabs) in Ancaster, Ontario for analysis;
- the remaining half of the core was retained in the core tray as a permanent record;
- at the lab, the samples were dried, crushed and pulverized in preparation for the analysis for uranium, thorium, REEs, silver and 28 trace elements as well as the major oxides; and,
- the trays of split drill core are stored in core racks that are inside a locked building in Elliott Lake.

After geologically logging the core, the mineralized sections were delimited for sampling by permanent marks across the core and a cutting line was added to ensure consistent sampling. Individual samples were selected based on geology such that conglomerate horizons, pebbly quartzite beds and intervals of quartzite were sampled separately. No sample exceeded one metre in length, and samples as short as 15 cm were taken.

Appia's 2012 drilling program generated 1,211 routine drill core samples.

**(b)** Reliability of data

It is important to understand that the equivalent potassium, uranium and thorium data provided by portable spectrometers allow insight into the elemental make-up of a radioactive source, but they do not provide analytical data. Such data can only be accurately provided through conventional geochemical analysis under controlled conditions in a laboratory. Equivalent metal data is calculated based on statistical algorithms integral to the instrument's software, and the accuracy of such data is influenced by the manner in which the instrument is used, its performance, ambient conditions and operator experience.

Radiometric data was used only as a guide in selecting intervals to be sampled and assayed.

**(c)** Sample quality

There are no known factors that may have resulted in sample biases.

**(d)** Parameters used to establish the sampling intervals

All of the Appia holes completed in the 2012 drilling program intersected the uranium REE bearing horizons in the lower part of the Matinenda Formation, namely the UR, IQ and LR horizons, and all core from these horizons was sampled. See Section 7 - Drilling for details.

**(e)** Quality Control measures and data verification

Appia's exploration work was under the management of Alan MacEachern who provided oversight for the Appia exploration program as well as core logging and sampling. WGM visited the project site during 15 July, 2013 and confirmed drill hole locations and briefly examined the drill core which had been extensively sampled both for routine analysis and for metallurgical testing.

Although the WGS-84 datum would normally be used for the Elliot Lake project, Appia uses the NAD-27 (Canada) datum for all location measurements to maintain consistency with the Ministry of Northern Development and Mines ("**MNDM**") which uses this datum for its records of drill hole locations stored in its ERMES database. During the previous Appia drilling program, WGM used the NAD-27 datum for checking drill hole locations. In comparing the use of WGS-84 and NAD-27, WGM has found that the physical difference in co-ordinates between the two datums was 3-5 metres as measured on the ground. The GPS Utility software licensed to WGM converted between the two datums and between geographic coordinates and UTM co-ordinates with no significant variance after the data is discounted for the estimated position error.

As part of its data corroboration efforts, WGM secured original assay certificates for the Appia drill core samples from Actlabs. WGM carried out a detailed audit of the project's assay database and found no errors that would have compromised the resource estimate. WGM questioned the accuracy of one down-hole survey value which was in error in the drill hole database and this was corrected after referring to the original survey data.

In confirming the locations of drill sites, WGM measured the locations of the holes compared with the original measurements. In general the WGM coordinates compared favourably with the original co-ordinates, and in no cases were the variances sufficient to significantly influence the Teasdale resource estimate.

Appia's 2012 drilling program generated 1,211 routine drill core samples. 69 duplicate samples, 47 certified standards and 27 blank samples were inserted into the sample stream and blindly submitted to the laboratory for quality assurance/quality control ("**QA/QC**") purposes. All samples were analysed as batches and the lab was not aware of the QA/QC samples. Three different certified standards from the CANMET and CDN Labs of Burnaby, B.C. were used (DL 1A, UTS-4 and BL-3).

## 9. Security of samples

No surface sampling has been carried out by Appia on the Property; all samples submitted for analysis were derived from diamond drill core.

The Appia drill core samples were submitted to Activation Laboratories ("**Actlabs**") of Ancaster, Ontario. Actlabs is a fully accredited geochemical laboratory that meets both ISO/IEC 17025, with CAN-P-1579 standards, as recommended by the Toronto Stock Exchange-Ontario Securities Commission mineral standards taskforce.

On receiving the samples, Actlabs dried and crushed the entire core sample to a nominal 85% passing a #10 mesh screen, before repeated riffle splitting of the crusher product to generate an aliquot of approximately 250 g. The subsample was then pulverized to a nominal 95% passing a #200 mesh screen using a ring and puck pulverizer to ensure that REE minerals were sufficiently reduced to ensure complete fusion during the assaying technique. Cleaner (wash) sand was used between each sample to prevent carry-over.

Most elements including the REEs, uranium, thorium and silver, were determined in accordance with Actlabs' fusion-mass spectrometer technique; some trace elements and the major oxides used the fusion-ICP technique (both Code 8 analyses).

The Code 8 Nb-Zr-Y-Ta-U-Th-Phosphate assay package was used to analyze for these elements by fusion with lithium metaborate/tetraborate in platinum crucibles with the molten glass cast into a glass disc. These glass disks were then analyzed on a Panalytical Axios Advanced wavelength dispersive XRF instrument. REEs and major oxides were determined separately using an ICP and ICP/MS instrument after a lithium metaborate/tetraborate fusion. Mass balance is required as an additional quality control technique and elemental totals of the oxides should be between 98 to 101%. Although an acid digestion can be used for REEs, it is not advised since REEs can occur as resistate minerals meaning that any such digestion will produce a partial analysis reflecting only acid-soluble REEs.

Previously, the analysis of Appia's samples for uranium was primarily by Actlabs' Code 5D which uses neutron activation and delayed neutron counting (DNC). Approximately one gram of sample was weighed into a polyethylene capsule which in turn was sealed into a carrier vial for neutron irradiation within a slowpoke nuclear reactor. The sequentially irradiated samples are transferred automatically to the BF3 counting array detector using a computer automated system. Calibration is achieved with certified reference materials.

All elements in the sample absorb neutrons which produce a subsequent emission that can be used to measure the composition of the sample using an array of BF3 neutron detectors. This technique, more generally referred to as neutron activation analysis, is ideal for measuring uranium and many other trace elements from sub-ppm to percentage levels. The method does have limitations as certain interferences can occur. It measures total metal content which may not be relevant in the sense of mineral economics, for example, it measures total uranium rather than soluble uranium. While the difference may be trivial in most geological environments, DNC analysis may include non-recoverable uranium that is contained in the crystal lattice of resistate minerals such as zircon. Fortunately, the Elliot Lake mineralization contains no significant amount of refractory minerals and thus the uranium concentration database should be unaffected by mineralogically induced assay variability.

A few samples were analysed for gold using an Actlabs Code 1A2 procedure which is a conventional 1050$^{o}$C fire assay on a 30 g charge with an atomic absorption instrumental finish giving a 5 ppb lower detection limit (the upper limit is 3,000 ppb). Normally, any sample exceeding the upper limit of 3,000 ppb is reanalyzed using a gravimetric finish in which the prill is weighed.

The Appia geologist retained possession of samples until they were delivered to the courier for shipping to the lab.

All the split cores are currently being stored in core racks that are inside a locked building in the town of Elliot Lake. The un-split cores, not generally mineralized or of importance from a resource standpoint, are being stored outside the building, cross-stacked, in a fenced area. Sample intervals from the drill program are permanently recorded in drill logs combined with the assay results.

## 10. Mineral Resource Estimates

A Technical Report in accordance with the provisions of National Instrument 43-101 ("**NI 43-101**") reporting standards, entitled "Update Report on the Appia Energy Corp Uranium-Rare Earth Property, Elliot Lake District, North-Central Ontario, Canada" dated July 30, 2013 was filed on SEDAR (www.sedar.com) on August 14, 2013. The report was completed by Watts, Griffis and McOuat ("**WGM**"), Consulting Geologists and Engineers, Toronto, Canada. Al Workman, P.Geo was responsible for all sections of the Report and jointly responsible with Kurt Breede, P.Eng for the uranium-rare earth Mineral Resource Estimate for the Teasdale Zone and the Banana Lake Zone. John Goode, P.Eng was responsible for the Mineral Processing and Metallurgical Testing section of the Report. All three are Independent Consultants and Qualified Persons as defined in National Instrument 43-101.

## (a) Quantity, grade and categories of Mineral Resource Estimates

### *Teasdale Lake Zone*

It should be noted that the contents for the rare earth components in the following two tables are for rare earth metals, whereas it has become more common to report the contents as equivalent rare earth oxides, which results in an average increase of approximately 46% for the oxides versus the metallic form.

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 |

Notes:
1. Mineral Resources effective 30 July, 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** |

(b) Assumptions, parameters and methods used for estimates

The estimate of the uranium Mineral Resources in the Teasdale Zone (Table 1) was initially reported in Workman and Breede (2011) based on historical drill hole assays and 6 diamond drill holes completed by Appia during 2007-2008. The estimate was prepared using a polygonal model and geological constraints including a minimum bed thickness of 2.44 m (8.0 ft.) which takes into consideration the continuity of grade within the various mineralized beds and historical mining practices. The mineralized zone was geologically constrained by the well-defined markers provided by the upper surface of the highest mineralized bed and the lower surface of the basal bed. The resources were reported for each of the three geological units that comprise the mineralized zone: Upper Reef ("**UR**"), Intermediate Quartzite ("**IQ**") and Lower Reef ("**LR**"), as well as the average grade across all three units. As a result of the inclusion of the Upper Reef to incorporate its significant REE elements content as well as the Quartzite, neither of which were mined historically, all drill hole intersections substantially exceeded the minimum thickness for mining. No grade cut-off or high capping was used for this estimate as the grades were themselves quite robust and the utilization of a cut-off grade would require complex economic modelling of individual metals that is not required at this time.

Appia's diamond drilling on the Teasdale Zone in 2012 comprised 16 holes from surface totalling 8,130 metres. Appia analysed 1,211 samples from the 16 diamond drill holes for uranium, REEs and trace elements. The recognition of economically significant REE values at Teasdale supported the inclusion of REEs in the most recent resource estimate. However, because the historical holes were not assayed for REEs, some areas solely tested by historical drilling and lacking REE data had to be excluded from the current NI 43-101 compliant estimate. Nevertheless, Appia's 2012 drilling program materially increased the size of the Teasdale Deposit. Based on Appia's 2012 drilling in addition to the six holes it completed in 2008, the Teasdale resources are summarized in Table 1. A cut-off value of $100 per tonne was used based on a projected uranium price of US$70 per lb. $U_3O_8$ and a combined total REE price of US$78 per kg.

SGS Canada Inc., Lakefield, Ontario, Canada completed its report entitled "An Investigation Into The Recovery of Uranium and Rare Earth Elements ("**REEs**") from the Teasdale Property" which formed a very important aspect of the resource calculation. With the total REE content being six times the uranium content of the Indicated Resources, the economic value has been greatly enhanced. SGS reported a recovery rate of 90% for uranium and recovery of most REEs in the 80% to 90% range.

With a change in mine plan to include mining the UR, the IQ**,** as well as the LR that comprise the mineralized zone and now including the REEs, a significant portion of the previous Inferred Resource was upgraded to Indicated Resource and additional resources were defined.

***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 3. 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 3
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 |

Notes:
1. Effective, 1 April, 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.

### (c) **Effect of risks on the Mineral Resource Estimates**

*Permitting risk*

The successful site restoration of all the past producing uranium mines at Elliot Lake should be seen as evidence that impacts can be managed in an environmentally responsible manner.

Permitting factors include:

- the Elliot Lake mine sites are under the administrative jurisdiction of the Canadian Nuclear Safety Commission ('**NSC**"), a federal body established for the regulation and monitoring of all infrastructure in Canada related to the nuclear industry;
- the environmental monitoring of the decommissioned sites falls within the mandate of the Joint Review Commission ("**JRC**") which is composed of representatives from the Ministry of Northern Development and Mines, the Ministry of Natural Resources, the MOE and two federal bodies – Environment Canada and the Department of Fisheries and Oceans;
- the NSC is the main driver in setting objectives for the JRC;

- the MOE is aware that uranium exploration has been renewed in the Elliot Lake area and that considerable expenditures are being made in the search for new uranium deposits;
- there are no land withdrawals in the Appia project area that would negatively impact Appia's exploration plans; and,
- subject to meeting statutory requirements, completing the permitting process and gaining the required approvals, there are no current regulations or policies that would preclude a return to production of any of the decommissioned mines, or the mining of new deposits.

A current development that may affect the process is that on May 21, 2014 Appia received a copy of a letter from the City of Elliot Lake appealing to the Provincial Mining Recorder to intervene in Appia's refusal to sign any "Consent to the Disposition of Surface Rights" in respect of certain of its staked mining claims in Elliot Lake required to provide access to a proposed lakefront cottage lot development.

In June 2013 Appia met with the Cottage Lot Program planning body, Elliot Lake Retirement Living, and advised them in particular of the Company's concern that the cottage lots facing Quirke Lake and backing on to Teasdale Lake would be in close proximity to the Company's intended development site for mining its Teasdale Lake Zone mineral resources, and that the proposed creation of these lots should be reconsidered.

Appia intends to protect its rights under the Mining Act. At this time, any effect of the City's action is indeterminable.

*Commodity risk-metal prices*

As indicated in Table 1, the Mineral Resource Estimate for the Teasdale Lake Zone was based on a price of US$70 per pound of $U_3O_8$, a TREE price of US$78per kg and a C$:US$ exchange rate of $1:$0.90. When Appia started the project in 2007, the long-term supply contract price for $U_3O_8$ was US$95 compared to approximately US$50 per pound at the date of the Listing Statement.

A consensus exists that current low uranium prices are unsustainable. There has been a significant supply of reactor fuel through the downgrading of Russian weapons grade uranium over ten years, but largely completed in 2013. An existing surplus is working its way through the system, and as Japan returns most of its idled reactors to full power and as new reactors come on line to meet the energy demands of developing countries, more robust uranium prices are forecast beginning in 2015. China currently has 29 reactors under construction and many more on the drawing boards as the country begins to address an air pollution crisis of major importance. The use of green nuclear power vs coal to produce electricity will increase demand for $U_3O_8$. The price of $U_3O_8$ is not significant to the cost of power generation. A doubling of the price of $U_3O_8$ from US$70 to US$140 per pound would increase the estimated fuel costs from US$0.75 cents to US$1.05 cents per kwh.

China currently controls an estimated 90% of the REE supply in the world and has used a pricing policy to eliminate competition. The competition for REE supplies as China reduced its exports has been softened by some renewed production from the USA and new production from Australia, but the supply line is tenuous and some writers warn of an impending shortage of REEs in the face of growing demand. Some of the highly technical applications of REES in electronics and for aerospace and weaponry will add political pressure to locate reliable sources. The importance of REEs to manufacturing is not currently being reflected in their prices.

*Financing risk*

Appia has not completed a preliminary economic assessment for the Property, but the project on an Adjacent Property with a somewhat similar resource as Teasdale has had a favourable assessment, with an estimated capital cost in the $400 million range.

It is quite clear that Appia could expand the existing Resource with more drilling, at a very low cost per pound of $U_3O_8$, by adding more mineable tonnage, but metal prices need to increase to make this a valid goal for the time being.

Sufficient costs have been incurred on the Project such that little cost needs to be incurred to maintain the Company's interest in the Property in good standing for up to ten years.

*Political and societal risk*

There is little question that there is a political and societal fear of uranium and the nuclear industry. Of the three incidents that have occurred in the world, only Chernobyl can be categorized as a nuclear meltdown. Three Mile Island was a procedural issue and Fukushima resulted from design error and a natural cause. Japan is gradually bringing nuclear generators back on line and expects to re-permit 80% of its existing reactors.

The permitting process for the Property may take longer than a typical mining project because of the number of Agencies that form part of the permitting process because of the uranium aspect. Residents in Elliot Lake are expected to approve of new activity in the mining sector

*Other risks*

Appia does not expect any legal or title risks concerning the Property, nor does it expect any mining or metallurgical risks (see section 11- Mining Operations).

## 11. Mining operations

*Mining methods*

Although it is premature to speculate concerning future mine development on the Appia claims, it is certain that any potential mine development would be as an underground operation. The history of mine development in the Elliot Lake camp strongly suggests that the mining method would be room and pillar, or some modified version of this method. With the recent recognition of significant rare earth mineralization in the Upper Reef, Appia is considering several possible mining scenarios including:

- mining and processing the uranium-rich Lower Reef alone;
- mining the REE-enriched Upper Reef, extracting the Intermediate Quartzite to be used as back-fill and then mining the Lower Reef for its uranium; and,
- mining and processing the Upper and Lower Reefs simultaneously with the Intermediate Quartzite as a single unit having an average thickness of nine metres, permits the use of larger equipment and thus achieve the maximum cost-reductions that the greater back height and scale offers.

No certain decisions have been made in this regard as of the date of this report, but the Mineral Resource Estimate is based on mining and processing all three levels at the same time.

*Metallurgical process*

Based on the metallurgical testing to date, the favoured flowsheet option includes a simple grind, a flotation process to recover a high grade concentrate, pre-leach and acid baking of the flotation concentrate and acid leaching of the flotation tailings. With the REE total content being six times the uranium content of the Indicated Resources, the recovery of the REEs is a very significant factor in determining the economic value of the resources. Testwork carried out at SGS Canada facilities indicated a recovery rate of approximately 90% for uranium with the recovery of most REEs in the 80% to 90% range. It is believed that planned additional testwork and data analysis will substantiate these data and probably lead to improved recovery.

*Other considerations*

As the Property is still in the evaluation stage, it is premature to consider production forecasts, sales contracts, mine life, taxes and expected payback of capital.

## 12. Exploration and development

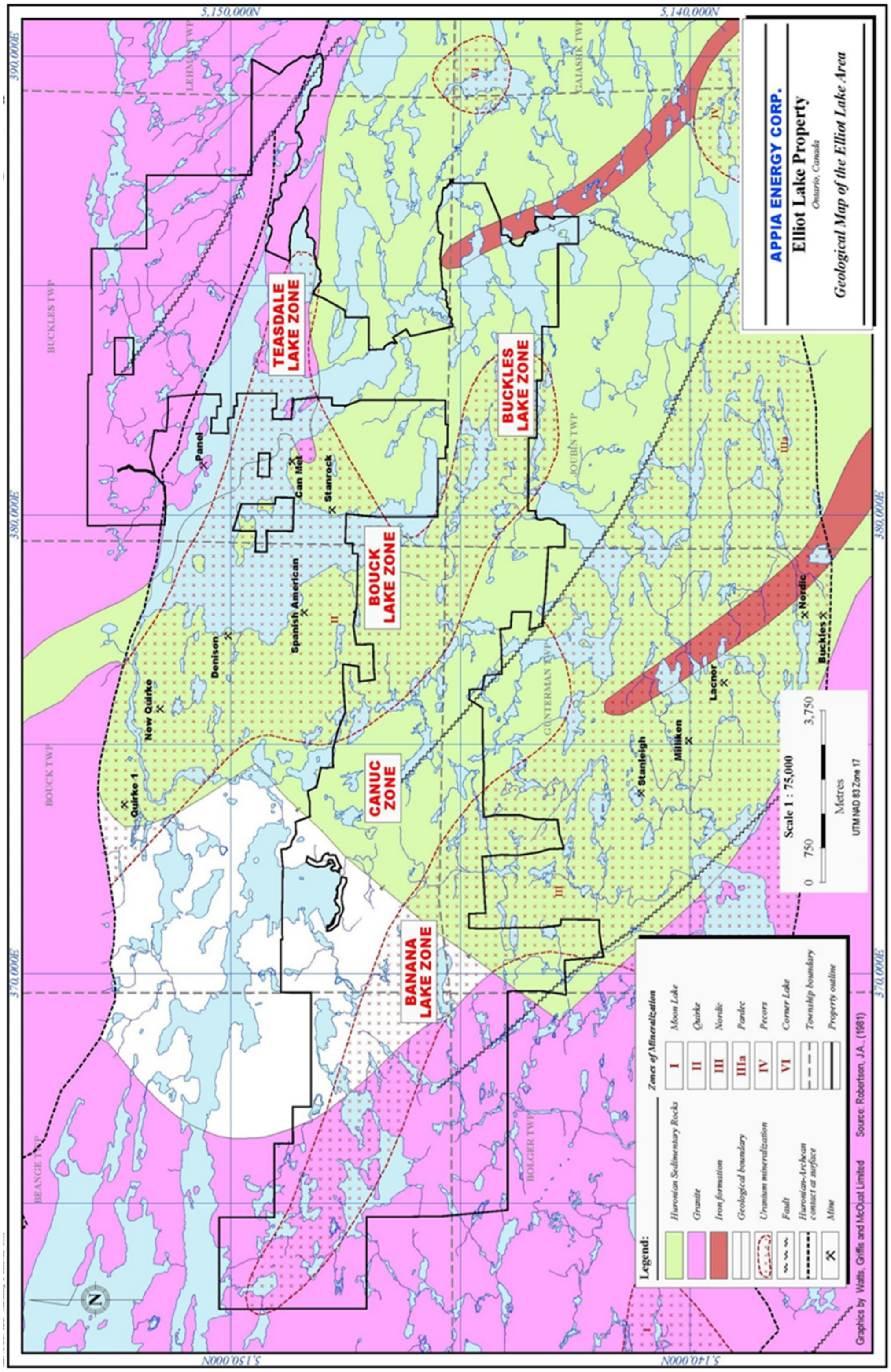
WGM has recommended a continuation of the exploration drilling and proposed a 14 diamond drill-hole program, potentially to increase the size of the area tested and the size of the Inferred Resource. Based on the geological model and the uniformity of grade within the Teasdale Deposit, WGM believes that a large percentage of the holes will intersect economically interesting mineralization. In light of the encouraging results of the metallurgical testing program carried out by SGS Lakefield, additional testing is recommended to focus on the beneficiation, pre-leach and acid bake and tailings leach route.

The Company is considering the next stage of the Teasdale exploration and evaluation. The outlook for uranium prices is positive and the successful recovery of the REEs, particularly the heavy 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 is in place or close at hand;
- the recovery of uranium from Elliot Lake ore is well known. Based on Teasdale Lake Zone test results, the recovery of REEs appears to face no significant technical uncertainties;
- Appia bears no responsibility (liability) in any manner for existing or potential future impacts arising out of historical mining operations and waste disposal; and,
- The Cameco uranium refinery is located approximately 50 km away, near Blind River.

Additional funding will be required to fully pursue the exploration and development of its properties. Appia will monitor financial market conditions, and if possible, complete a financing or seek a joint venture partner in order to advance the development of the Property.

Figure 1



APPIA ENERGY CORP.
Elliot Lake Property
Ontario, Canada
Geological Map of the Elliot Lake Area
TEASDALE LAKE ZONE
BUCKLES LAKE ZONE
BOUCK LAKE ZONE
CANUC ZONE
BANANA LAKE ZONE
Panel
Can Met
Stanrock
Spanish American
Denison
New Quirke
Quirke 1
Stanleigh
Milliken
Lacnor
Nordic
Buckles
BUCKLES TWP
BOUCK TWP
BEANGE TWP
BOLGER TWP
GUNTERMAN TWP
JOUBIN TWP
GALASHA TWP
LEHMAN TWP
5,150,000N
5,140,000N
390,000E
380,000E
370,000E
Legend:
Huronian Sedimentary Rocks
Granite
Iron formation
Geological boundary
Uranium mineralization
Fault
Huronian-Archean contact at surface
Mine
Zones of Mineralization
I Moon Lake
II Quirke
III Nordic
IIIa Pardee
IV Pecors
VI Corner Lake
Township boundary
Property outline
Scale 1 : 75,000
0 750 3,750
Metres
UTM NAD 83 Zone 17
Graphics by Watts, Griffis and McOuat Limited
Source: Robertson, J.A., (1981)

Figure 2

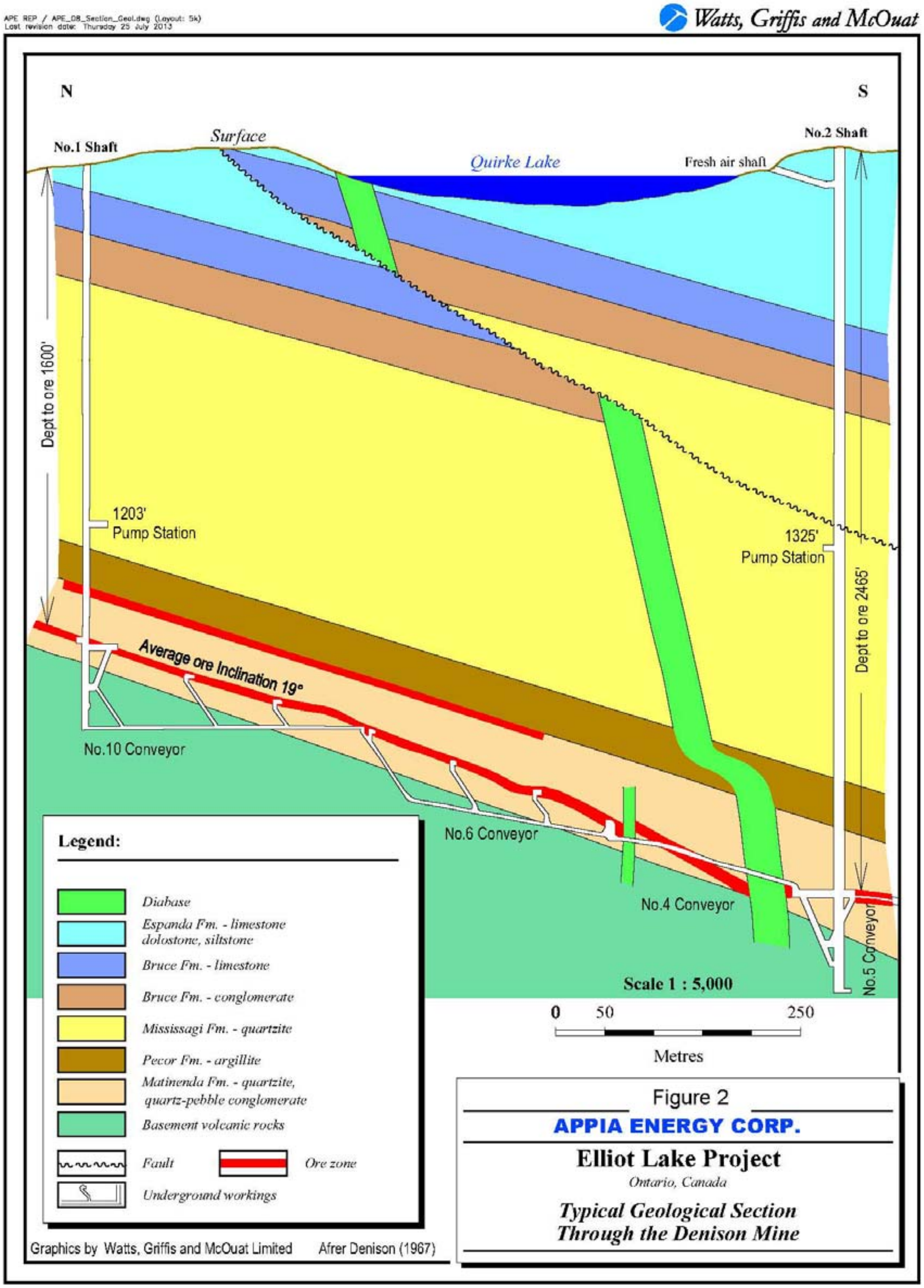
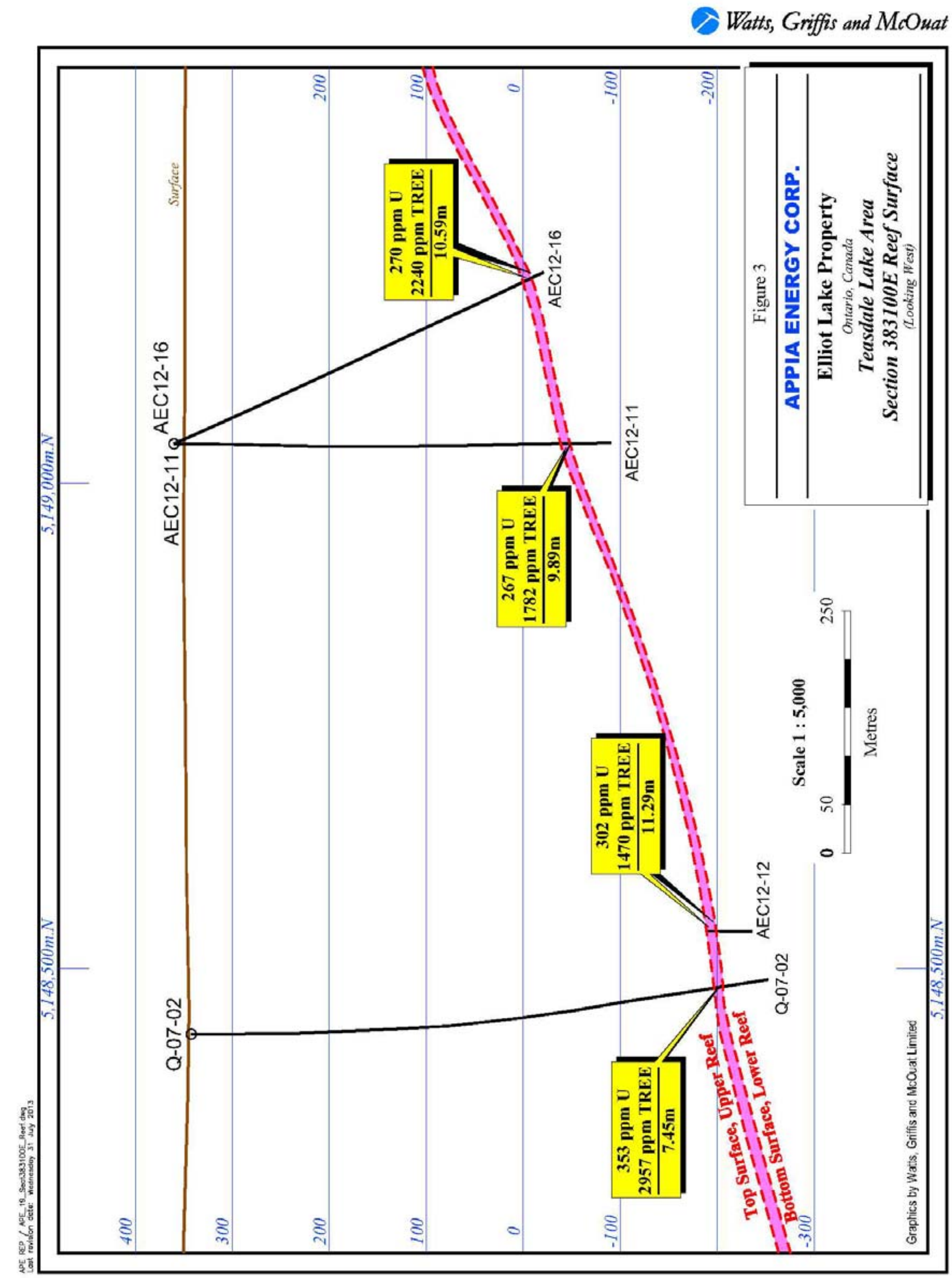

APE REP / APE_08_Section_Geol.dwg (Layout: 5k)
Last revision date: Thursday 25 July 2013
Watts, Griffis and McOuat
N
S
No.1 Shaft
Surface
Quirke Lake
Fresh air shaft
No.2 Shaft
Dept to ore 1600'
1203' Pump Station
1325' Pump Station
Dept to ore 2465'
Average ore Inclination 19°
No.10 Conveyor
No.6 Conveyor
No.4 Conveyor
No.5 Conveyor
Legend:
Diabase
Espanda Fm. - limestone dolostone, siltstone
Bruce Fm. - limestone
Bruce Fm. - conglomerate
Mississagi Fm. - quartzite
Pecor Fm. - argillite
Matinenda Fm. - quartzite, quartz-pebble conglomerate
Basement volcanic rocks
Fault
Ore zone
Underground workings
Scale 1 : 5,000
0 50 250
Metres
Graphics by Watts, Griffis and McOuat Limited
Afrer Denison (1967)
Figure 2
APPIA ENERGY CORP.
Elliot Lake Project
Ontario, Canada
Typical Geological Section Through the Denison Mine

Figure 3



Watts, Griffis and McOuat
APPIA ENERGY CORP.
Figure 3
Elliot Lake Property
Ontario, Canada
Teasdale Lake Area
Section 383100E Reef Surface
(Looking West)
Scale 1 : 5,000
0 50 250
Metres
Surface
5,149,000m.N
5,148,500m.N
AEC12-16
AEC12-11
AEC12-12
Q-07-02
270 ppm U
2240 ppm TREE
10.59m
267 ppm U
1782 ppm TREE
9.89m
302 ppm U
1470 ppm TREE
11.29m
353 ppm U
2957 ppm TREE
7.45m
Top Surface, Upper Reef
Bottom Surface, Lower Reef
400
300
200
100
0
-100
-200
-300
Graphics by Watts, Griffis and McOuat Limited