

**TRÊS ESTRADAS PROJECT  
INDEPENDENT TECHNICAL REPORT –**

**Scoping Study - Memorandum**

**Lavras do Sul, RS, BRASIL**

Prepared by GE21 Ltda on behalf of:

**Agua Resources**

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## NOTICE TO READER

This Notice accompanies the filing by Aguia Resources Limited (the "**Company**") of the report titled "Três Estradas Project Independent Technical Report – Scoping Study – Memorandum, Lavras do Sul, RS, Brazil", effective April 4, 2018 with an issue date of February 11, 2020 (the "**Technical Report**"). The Company confirms that the mineral resource estimate contained in the Technical Report has been prepared in compliance with National Instrument 43-101 of the Canadian Securities Administrators ("**NI 43-101**") and accordingly, the Technical Report does not contain a reconciliation of the material differences between the mineral resource categories used in the Technical Report and those otherwise utilized under the JORC Code (as defined in NI 43-101), pursuant to Section 7.1 of NI 43-101.



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## UNITS, SYMBOLS AND ABBREVIATIONS

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<b>Abbreviations</b>		
<b>Long Form</b>	<b>Short</b>	<b>Notes</b>
A million years	Ma	
Australian Institute of Geoscientists	AIG	Professional association
Azimuth by Dynamic Anisotropy tools	Az_Din	
Brazil	BR	
Centimetre	cm	
Coefficient of variation	CoefVar	
Compensação Financeira por Exploração Mineral	CFEM	
Competent Person	CP	
Diamond drill	DD	
Dip	DIP	Direction or angle that the plane of a rock formation makes with horizontal
Dip by Dynamic Anisotropy tools	Dip_Din	
East	E	
Hectare	ha	
Indicated resource	Ind	
International System of Units	SI	
IRPJ	IR	Income Tax
Kilometre	km	
Life of mine	LOM	
Major radius/ minor radius ratio of variogram ellipsoid	RM	
Major radius/semi minor radius ratio of variogram ellipsoid	RSM	
Maximum	Max	
Measured resource	Mea	
Medida Provisória	MP	Provisional Decree
Meter	m	
Millimetre	mm	
Minimum	Min	
North	N	
Ordinary Kriging	OK	

<b>Abbreviations</b>		
<b>Long Form</b>	<b>Short</b>	<b>Notes</b>
A million years	Ma	
Plano de Controle Ambiental	PCA	Environmental Control Plan
Qualified Person	QP	
Quality Assurance and Quality Control	QAQC	
Run-of-Mine	ROM	Run-of-mine
Social Contribution	CSLL	
South	S	
South American Datum	SAD	South American Datum
Standard deviation	StDev	
Strip Ratio	SR	Total waste(t)/Total mineral(t)
Three-dimensional	3D	
Variographic range 1	a1	
Variographic range 2	a2	
Variographic sill 1	c1	
Variographic sill 2	c2	
West	W	

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## 1 INTRODUCTION

Aguia Resources Ltd. (Aguia) contracted GE21 Consultoria Mineral Ltda (GE21) to prepare a Technical Report and Scoping Study that is compliant with JORC (2012) for a Mineral Resources and Reserves of the Três Estradas Phosphate Project (Três Estradas Project). The Três Estradas Phosphate Project is located 320 kilometres (km) southwest of Porto Alegre, the capital city of Rio Grande do Sul State in southern Brazil (see Figure 1).



**Figure 1 – Project Location Map**

Aguia is an exploration and development company focused on Brazilian phosphate projects to supply the Brazilian agriculture sector. Aguia is listed on the Australian Stock Exchange (ASX) under the symbol AGR. The company's corporate offices are located in Sydney, Australia and Porto Alegre, Brazil. The company currently controls over 1,110 km<sup>2</sup> of land in the states of Rio Grande do Sul and Paraíba, containing phosphate mineralization, through exploration permits, which has acquired from the Brazilian National Department of Mineral Production (DNPM). The company seeks to develop its holdings of phosphate deposits into viable mining operations providing phosphate to Brazil's agriculture industry.

The Project was divided in three phases objecting the phosphate concentrated and aglime (agricultural lime, crushed limestone or dolomite used for soil treatment production)

**Phase 1 (Saprolite):** Open pit mining of 1.3Mtpy (run-of-mine, or ROM) of saprolitic ore, to the processing plant, which will produce an average of 300ktpy of phosphate concentrate (phosrock);

**Phase 2 (Carbonatite):** Mining an average of 3.3Mtpy (ROM) of Carbonatite ore, with expansion of the processing plant to produce 300,000tpy of phosphate concentrate and 2.8 Mtpy of aglime. 1 Mtpy of aglime will be sold, the remainder stored in a Tailings Dam.

**Phase 3 (Aglime):** Following mining operations., recovery of 1Mtpy of the remaining aglime from the tailings Dam.

Most recently Aguia started studies aiming to produce a Direct Application Natural Fertilizer (DANF) in Phase 1 (Saprolite) over the production of phosphate concentrate. The DANF production is based in the high natural  $P_2O_5$  grade in the saprolite (8.78%  $P_2O_5$  in average).

This report is related to the first Phase 1 of the project, where only saprolite rock will be mined, considering the production of DANF.

All costs are expressed in Australian Dollars and an exchange rate used is AUD \$1.00 = R\$2.85.

GE21 professionals have completed a site visit to the Três Estradas Phosphate Project on December, 10 to 12, 2019.

Geologist Bernardo Viana, a professional with 18 years of geological and mining related experience ranging from execution, management and coordination of geology projects, to resource estimation in a variety of commodities including Fe, Mn Bauxite, Au, Cu, Ni, Zn and Phosphate in Brazil, Uruguay, Peru, Argentina, Venezuela, Colombia, Chile and Angola. He is a CP, member of the Australian Institute of Geoscientists (“MAIG”) and is independent of Águia Resources.

Mining Engineer Porfirio Cabaleiro Rodrigues, who is a professional with more than 40 years of mining related experience, ranging from execution, management and coordination of mining projects, including to resource estimation in a variety of commodities including Fe, Au, U, Phosphates RRE, and  $W_2O_3$  in South Americas. He is also a member of the Australian Institute of Geoscientists (“MAIG”) and is independent of Aguia Resources.

Mineral Resource estimation and classification of Três Estradas Project was executed by Millcreek Mining Group, with a effective date of March 13, 2018, as verified by GE21 on NI43-101 Technical Report titled “Três Estradas Phosphate Project, Rio Grande do Sul, Brazil, issued on April 4,2018.

GE21 received data related to the mineral resource and verified that there are no flaws in the mineral resources model. GE21 agrees with Mineral Resource classification from Millcreek.

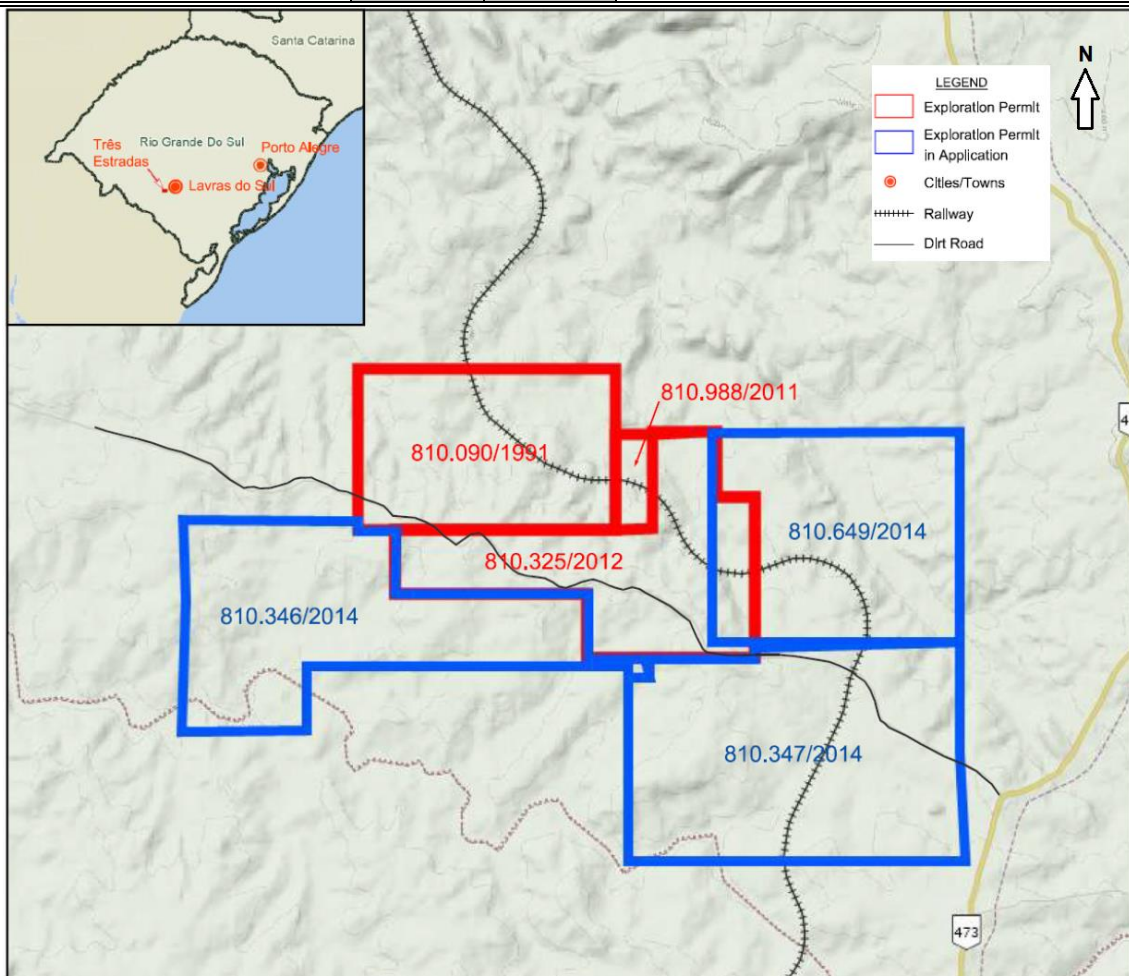
Três Estradas Phosphate Project area is situated at latitude -30.906137°, longitude -54.197328°. Mineral tenure is held through three mineral rights, all issued by the National Mining

Agency (ANM), previously Departamento Nacional de Produção Mineral (DNPM), as listed in Table 1.

The three mineral rights combined cover a total area of 2,075.34ha. Figure 2 shows the three exploration permits for Três Estradas. Aguia holds 100% interest in the three mineral rights permits covering the Três Estradas Phosphate Project area.

**Table 1 – Tenement Permits Area Summary**

ANM Permit	Issuing Date	Period	Expiry Date	Area (ha)	Status	Municipality/State	Title Holder
810.090/1991	8/16/2010	2	8/16/2012	1,000.00	Final Report Presented	Lavras do Sul/RS	Agua Fertilizantes S.A.
810.325/2012	5/03/2017	3	5/03/2020	900.95	Permit Extension	Lavras do Sul/RS	Agua Fertilizantes S.A.
810.988/2011	4/15/2015	3	4/15/2018	84.39	Extension Submitted	Lavras do Sul/RS	Falcon Petróleo S.A.
				<b>Total Area</b>	<b>2,075.34</b>		



**Figure 2 – Tenement permit areas - location map**

The landscape surrounding Lavras do Sul and the Três Estradas Phosphate Project site can be characterized as low, gently sloping hills. The gentle hills and intervening valleys are a mix of Pampas grass lands, shrubs and small to medium height trees.

Três Estradas Phosphate Deposit is located between two hydrographic basins: the Santa Maria River Basin and the Camaquã River Basin. Elevation for the Três Estradas Phosphate Project area ranges from 249m to 367m with a mean elevation of 348m MASL for the deposit area (Figure 3).



**Figure 3 – Três Estradas Phosphate Deposit landscape**

## **2 OBJECTIVE**

GE21 Consultoria Mineral Ltda. (GE21) was engaged by Aguia Resources to develop a Scoping Study on the phosphate deposit with focus in the potential production of a Direct Application Natural Fertilizer from the Sapolite rock during the Project Phase 1. This Scoping Study was developed in accordance with the provisions of JORC Code (2012).

The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

The economic analysis presented in the chapter 12 was based on potentially recoverable resources

## **3 LOCAL RESOURCES AND INFRASTRUCTURE**

Electric power for the region is provided by Companhia Estadual de Energia (CEEE – State Electric Power Company). CEEE has 62 substations in Rio Grande do Sul with a total capacity of 8,237.4MVA and 6,056 km of transmission lines that are supported by 15,058 structures and operate voltages of 230, 138, and 69 kilovolts.

The water supply in the Lavras do Sul and Bagé municipalities is managed by the Rio Grande do Sul State water utility, CORSAN. Regional water demands are carefully managed during the summer months when demand is high due to local rice farming in order to avoid impact on the urban supply.

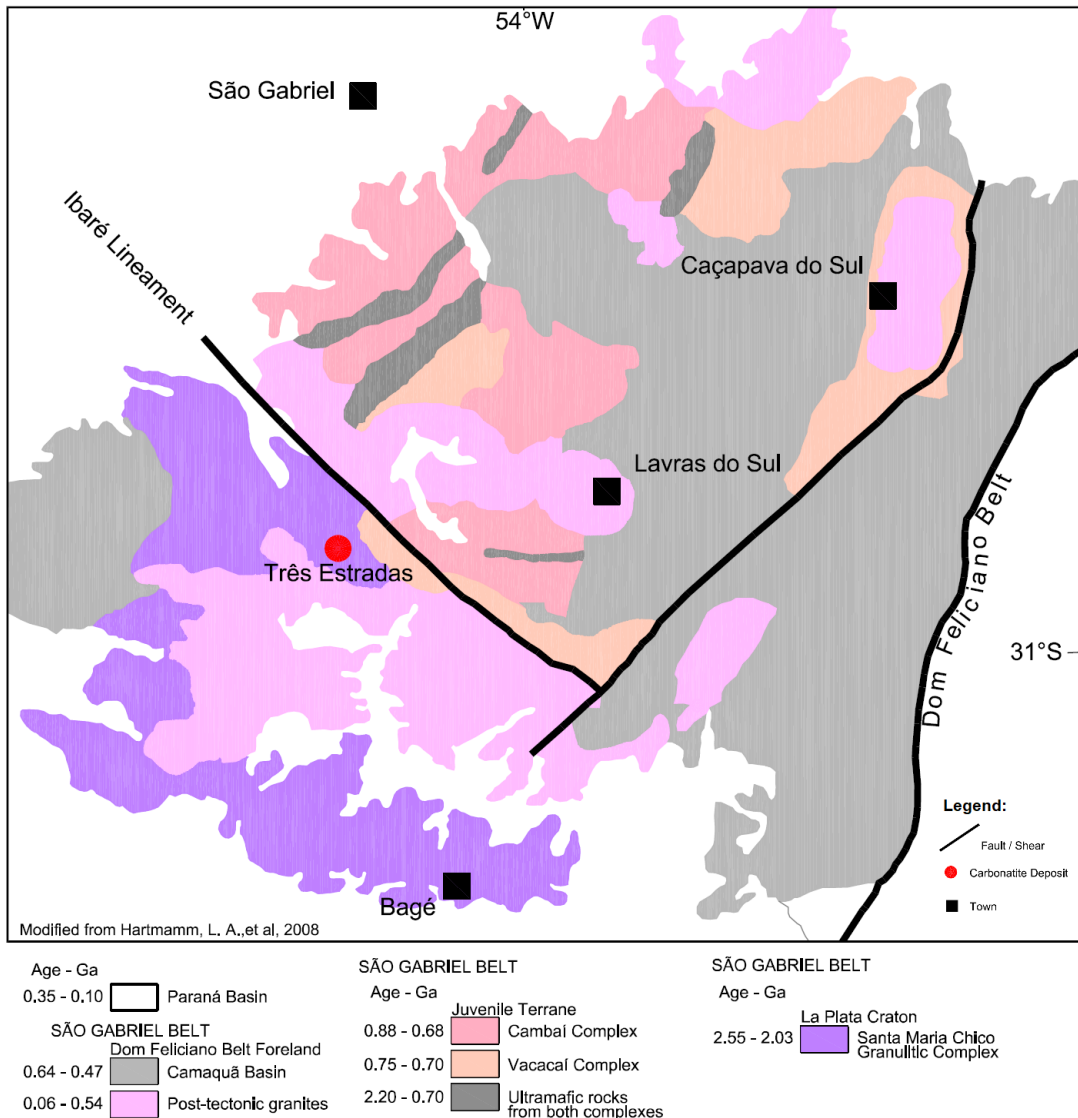
A railroad crosses through the Três Estradas Phosphate Project area and through Lavras do Sul. The railroad is operated by RUMO Logistics and links the cities of Cacequi and Rio Grande. The city of Rio Grande is the largest seaport in the state.

## 4 GEOLOGY

The Três Estradas Phosphate Project is situated in the Santa Maria Chico Granulitic Complex (SMCGC), part of the Taquarembó Domain (Figure 5). The SMCGC exposes the deepest structural levels within Brazil and may represent the western edge of the Precambrian Rio de la Plata Craton. The granulite complex is bounded to the northeast by the Ibaré Lineament, to the west by Phanerozoic cover, and to the south by Neoproterozoic Braziliano granites (potential melts of the granulite). The age of the granulite protolith is late Archean to early Paleoproterozoic (ca. 2.5-2.3 Ga), and can therefore be interpreted as the basement to the Taquarembó Domain and as an extension of the Valentines-Rivera Granulitic Complex within bordering Uruguay.

The Três Estradas deposit consists of an elongated carbonatite intrusion (meta-carbonatite and amphibolite) with a strike of 50° to 60°. The meta-carbonatite and amphibolite form a tightly folded sequence with limbs dipping steeply from 70° to vertical (90°). The surface expression of the intrusion is approximately 2.5 km along strike with a width of approximately 300m. The Late Archean to Early Proterozoic intrusion is intensely recrystallized and metamorphosed to amphibolite assemblages. The carbonatite intrusion is bound mostly by biotite gneiss along with meta-syenite along its northeast and southeast boundaries

Phosphate mineralization, occurring as the mineral apatite ( $\text{Ca}_5(\text{PO}_4)_3(\text{F},\text{Cl},\text{OH})$ ), is the primary mineralization of economic interest at Três Estradas. Apatite is the only phosphate-bearing mineral occurring in the carbonatites. At Três Estradas phosphate mineralization occurs in both fresh and weathered meta-carbonatite and amphibolite. Phosphate also becomes highly enriched in the overlying saprolite.



**Figure 4 – Regional Geological Map -Três Estradas Project**

The targeted area consists of an elongated carbonatite intrusion with a strike of 50° to 60° similar to that of the Cerro dos Cabritos Fault. Shear sense indicators suggest a sinistral sense of motion along this fault. The carbonatite and amphibolite form a tightly folded sequence with limbs dipping steeply from 70° to vertical (90°). The surface expression of the intrusion is approximately 2.5 km along strike with a width of approximately 300m.

With the exception of meta-syenite along its northeast and southeast boundaries, the carbonatite is surrounded by biotite gneiss of the SMCGC. The carbonatite is tightly folded and strongly foliated, resulting in a well-developed gneissic texture. Locally, abundant subparallel quartz veins are present resulting in elevated topographic ridges as the quartz is more resistant to weathering than the surrounding country rock. These veins range from a few centimetres to a couple of meters in width and can be up to 300m long. Also flanking the carbonatite is a minor unit of meta-tonalite with intercalated meta-carbonatite and amphibolite. The unit is characterized

by gneissic banding, a grey-green colour on weathered surfaces and a recrystallized granular texture.

## 5 EXPLORATION

The geological mapping of the three exploration permits was executed by Aguia geologists on a scale of 1:10,000. Mapping was performed along north-south profiles at intervals of 100m. Within the area surrounding the meta-carbonatite, geologic mapping was completed at a scale of 1:1,000. Detailed mapping of the carbonatite complex was completed at a scale of 1:200. Images from Landsat 7, sensor ETM+ and Geoeye-1 satellites were used to help in the geological interpretation and in the understanding of physiographic and infrastructure aspects.

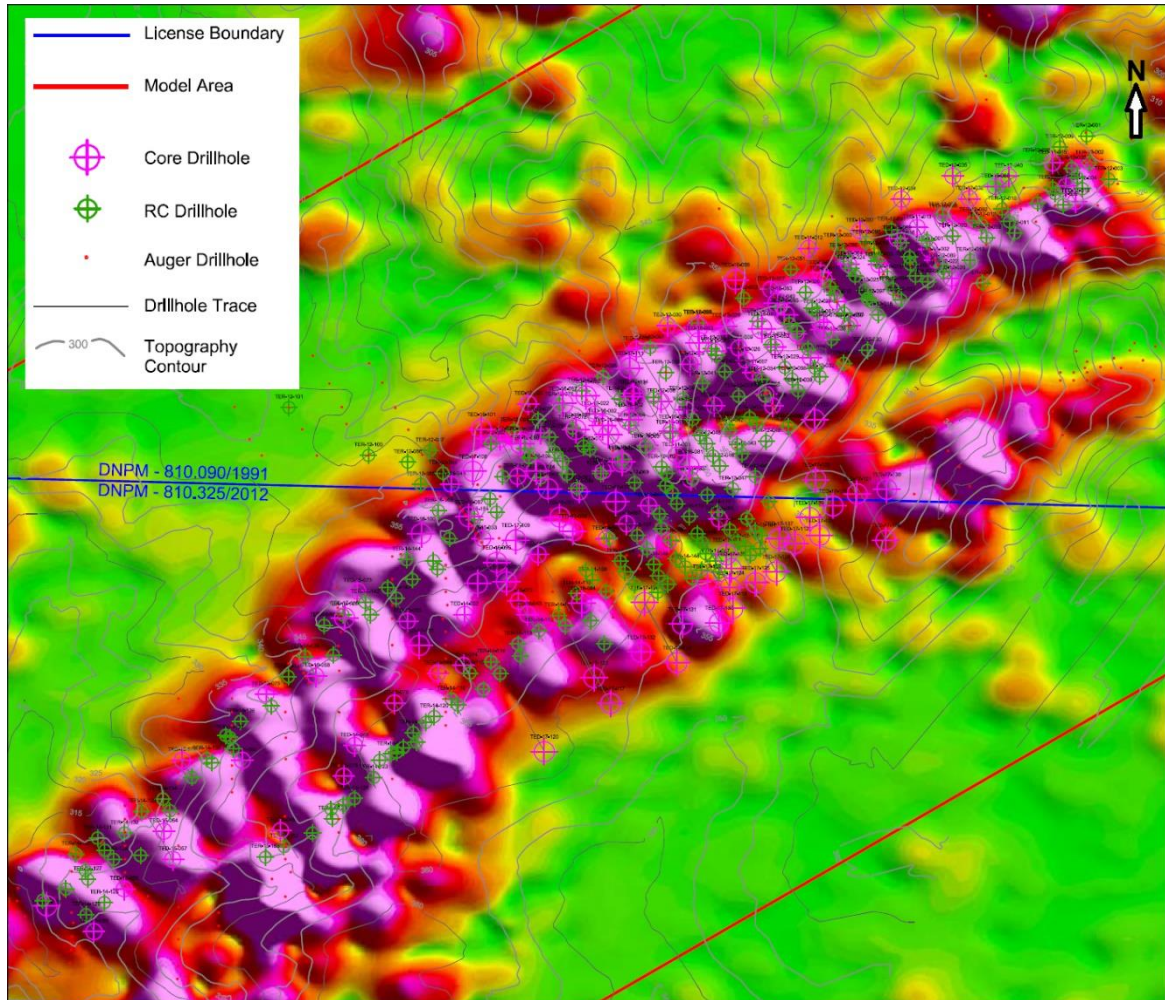
In March 2012, Aguia commissioned a detailed topographic survey of the meta-carbonatite area using differential GPS technology. The survey was carried out by Planageo – Servicos e Consultoria Ltda., from Caçapava do Sul, RS, Brazil. The survey comprised 35.35 kilometers, consisting of survey lines spaced 25m apart and control lines spaced 100m apart. In addition, relief points between the lines, borehole collars, and auger borehole collars from the first exploration campaign were used to build the topography. In December 2016, Aguia completed an expanded detailed topographic survey of the area to cover an extended area beyond the main deposit. The air survey was carried out by SAI (Servicos Aéreos Industriais) or Industrial Air Services, using Lidar technology (light detection and ranging) including a new set of orthorectified images.

Aguia executed a soil sampling program in the northern portion of the meta-carbonatite exposure. The program covered a small area of the meta-carbonatite along the southern edge of DNPM #810.090/91 to complement the historical soil sampling completed by Santa Elina. Soil samples were collected every 25m along lines spaced 100m apart, for a total of 52 soil samples. Results of both soil sampling programs were used to delimit  $P_2O_5$  anomalies in a northeast direction following the Cerro dos Cabritos Fault, to test for a continuation of the meta-carbonatite in that direction. Values higher than 1.42%  $P_2O_5$  were considered first order anomalies and values between 0.83% and 1.42%  $P_2O_5$ , were considered second order anomalies.

A total of 77 rock samples have been collected from within the project area. The majority of these samples represent meta-carbonatite. Assay results yielded up to 32%  $P_2O_5$  within the meta-carbonatite. Fresh or weathered carbonatite yielded mean values of 4% to 5%  $P_2O_5$ . Gneiss and meta-syenite rocks within the area did not return any significant  $P_2O_5$  grades. Few results are available from the amphibolite unit, as outcrops are scarce in the area.

Aguia made use of data from an airborne geophysical survey completed by CPRM, using rectified imagery for Total Magnetic Field (TMF), signal amplitude of TMF, First Derivative of the TMF, Uranium Concentration and Total Count of Gamma spectrometry. The magnetic anomalies identified in the airborne survey assisted in delineating areas of interest and led to Aguia completing a ground-based magnetic survey over the entire northern tenement area in

March, 2012 (Figure 5). The survey was carried out by AFC Geofísica, Ltda. from Porto Alegre, Brazil. The survey comprised 104 kilometers oriented north-south. Survey lines and control lines were spaced at 25m and 100m apart respectively.



**Figure 5 – Drillhole location map and total magnetic field geophysical survey map**

## 6 DRILLING

Aguia has completed five drilling campaigns on the Três Estradas area between 2011 and 2017. Drilling has included 139 core holes (20,509.5m), 244 reverse circulation (RC) holes (7,800.0m) and 487 auger holes (2,481.65m). Table 2 presents a summary of Aguia's drilling activities at Três Estradas. Figure 6 presents an example of interpreted vertical NW-SE drillhole section.



**Table 2 – Aguia’s drilling activities summary**

Company	Drilling Campaign	Time Period	Type	No. of Holes	Total Length (m)
Águia Resources, Ltd.	1	Oct - Nov 2011	Core	19	1,317.15
			Auger	26	169.90
	2	Jul - Oct 2012	Core	21	4,016.75
			Auger	158	994.65
			RC	105	2,151.00
	3	Nov 2014 - Jan 2015	Core	20	3,272.90
			RC	49	1,153.00
			Auger	203	818.70
	4	Oct - Dec 2015	Core	18	2,194.65
			Auger	100	498.40
	5	Nov 2016 – Jun 2017	Core	61	9,708.05
			RC	90	4,496.00
			<b>Total</b>	<b>719</b>	<b>30,791.15</b>

Aguia used REDE Engenharia e Sondagens S.A. (REDE) to complete all core drilling in the five drilling campaigns at Três Estradas. Auger drilling was completed by Aguia personnel and RC drilling was undertaken by Geosedna Perfurações Especiais S.A. (Geosedna). All drill collars are surveyed using differential GPS both before and after drill hole completion. Coordinates are recorded in Universal Transverse Mercator (UTM) using the SAD69 Datum, Zone 21S. Following completion of a drill hole, collar locations are marked by concrete markers with an embedded plastic collar pipe and an aluminum tag identifying drill hole ID, coordinates, azimuth, dip, and penetration depth.

All core holes were drilled using wireline coring methods. HQ size (63.5mm diameter core) core tools were used for drilling through weathered material and NQ size (47.6mm diameter core) tools were used for drilling through fresh rock. Core recovery has exceeded 90% in 97% of all core holes.

All but 10 of the core holes (129) have been drilled as angle holes with dip angles ranging from -45° to -75°, with the majority drilled at -60°. Two principal orientations have been used in core drilling. Ninety-six (96) of the core holes have an azimuth bearing of 150°, with the remaining 33 angle holes having an azimuth of 330°. Beginning in the second drilling campaign at Três Estradas, down hole surveys were completed on core holes using a Maxibore II down-hole survey tool. Readings are collected on three-meter intervals. A total of 96 core holes have received down-hole surveys at Três Estradas.

RC drilling was used to complete 244 holes with a cumulative length of 7,800.0m. All RC holes were drilled vertically (-90°) using 140mm button hammer bit. Holes were primarily drilled dry.

Auger drilling was completed by Águia personnel testing the extents of mineralization in the overlying saprolites. Auger holes were drilled to a maximum depth of 15m. Two tipper scarifier motorized augers were used to drill the auger holes.

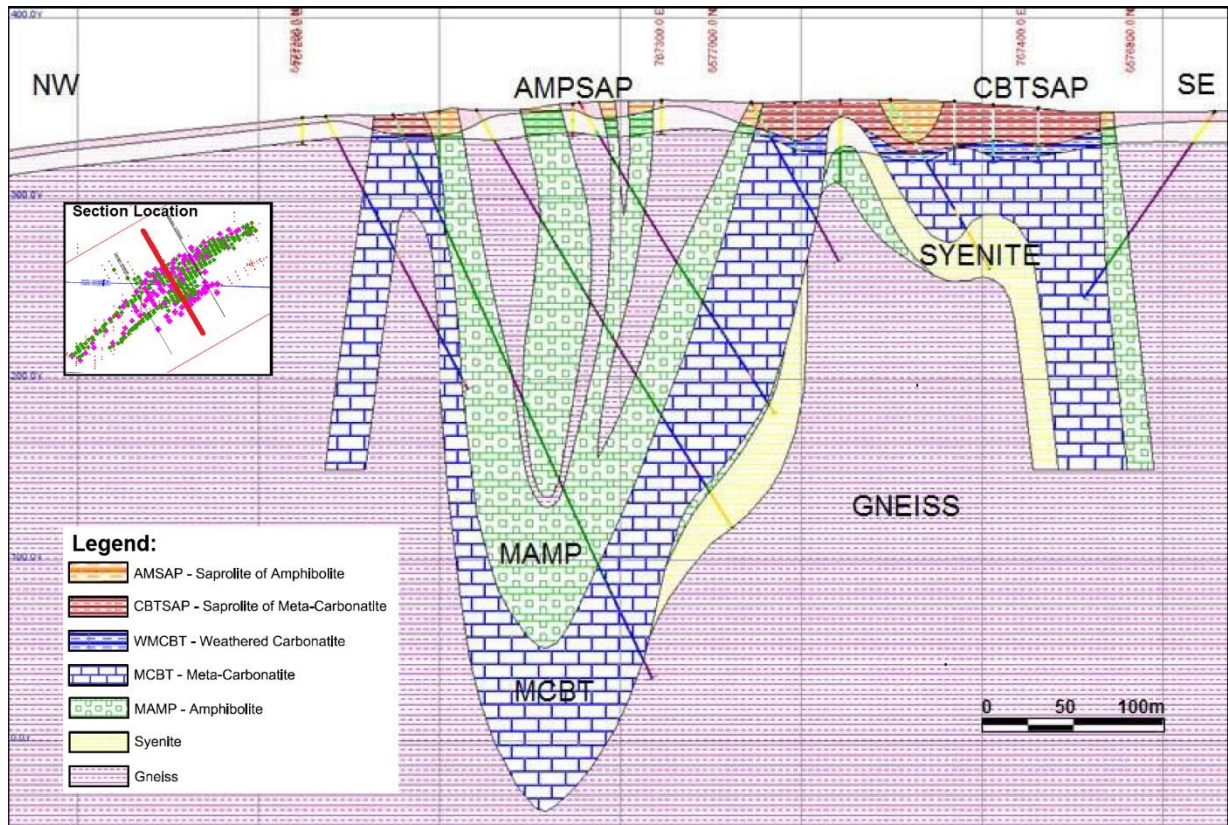


Figure 6 – Interpreted vertical NW-SE drillhole section

## 7 SAMPLE PREPARATION, ANALYSES AND SECURITY

According to Millcreek Mining Group, Aguia has followed standard practices in their geochemical surveys, core, RC and auger drilling programs. They have followed a set of standard procedures in collecting cuttings and core samples, logging and data acquisition for the project. Their procedures are well documented and meet generally recognized industry standards and practices.

All core logging is completed by Aguia geologists and directly entered into a comprehensive database program. Aguia's geologists are responsible for identifying and marking core intervals for sampling. Sample intervals range in length from 0.15m to 6.20m with 90% of all core samples falling within the range of 0.8m to 1.2m. Digital and hard copies of all sampling and shipment documentation are stored in the project office at Lavras do Sul. Documentation includes: geological logs, core photographs, core recovery records, portable XRF readings and down-hole surveys.

From the start of exploration activities up through October, 2012, ALS Laboratory in Vespasiano, MG was the primary facility used for the analysis of soil, rock and drilling samples. After October, 2012, all subsequent samples from Três Estradas were sent to SGS Geosol, also in Vespasiano, as the primary analytical laboratory.

The ALS laboratory in Vespasiano is primarily an intake and preparation facility. Samples are crushed and pulverized into rejects and pulps and entered into the ALS tracking system before being forwarded to ALS Peru S.A. in Lima or ALS Minerals in North Vancouver, Canada. The ALS laboratories used by Águia are commercial fee-for-service testing facilities and are independent of Águia. The SGS Geosol laboratory is a full analytical facility. SGS Geosol is an internationally recognized mineral testing laboratory. Its management system is accredited to ISO 9001:2008 by ABS Quality Evaluation Inc., Texas, USA. SGS Geosol is not specifically accredited for the methods used to analyze the samples submitted by Águia. The SGS Geosol laboratory is a commercial fee-for-service testing facility and is independent of Águia.

XRF analysis has been used to determine major oxide amounts on all auger, core and RC samples following the same procedures outlined above for rock samples. Sample pulps are fused with lithium metaborate and analyzed by XRF for  $\text{Al}_2\text{O}_3$ ,  $\text{CaO}$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{K}_2\text{O}$ ,  $\text{MgO}$ ,  $\text{MnO}_2$ ,  $\text{Na}_2\text{O}$ ,  $\text{P}_2\text{O}_5$ ,  $\text{SiO}_2$ , and  $\text{TiO}_2$ . All oxides are reported in weight percent. In addition, samples from the first campaign of drilling at Três Estradas were also subjected to the 31 element ICP analysis.

During the first drilling campaign in 2011, the specific gravity of 48 core samples were measured by SGS Geosol using a standard weight in water and weight in air methodology. Uncut core segments of approximately 15 to 20 centimetre lengths were wrapped in PVC film and submerged in water. Águia took over this testing with all subsequent drilling following the same procedures used by SGS Geosol. To date, 4,216 specific gravity measurements have been determined for Três Estradas.

For quality assurance and quality control of analyses (QA/QC), Águia used a combination of reference samples, blanks, duplicate samples and umpire check assays. Águia followed a protocol for accepting/refusing each batch of assays returned from the analytical laboratory. Reference, blanks and duplicate samples were inserted into the stream of drill samples such that one in 20 samples was a reference sample, one in every 30 samples was a blank sample, and one in every 30 samples was a duplicate sample. Table 3 summarizes the samples used to evaluate QA/QC of the drilling samples.

**Table 3 – QAQC samples summary**

Type	Core	%	RC	%	Total	%	
<b>Sample Assays</b>	16,046	67.29	7,800	32.71	23,846	100.00	
<b>Reference Samples</b>	<b>GRE-3</b>	15	0.06	104	0.44	119	0.50
	<b>GRE-4</b>	182	0.76	0	0.00	182	0.76
	<b>ITAK-910</b>	561	2.35	192	0.81	753	3.16
	<b>ITAK-911</b>	57	0.24	102	0.43	159	0.67
<b>Blanks</b>	<b>Fine</b>	466	1.95	237	0.99	703	2.95
	<b>Coarse</b>	470	1.97	237	0.99	707	2.96
<b>Check Assays</b>	478	2.00	301	1.26	779	3.27	
<b>Duplicates</b>	733	3.07	412	1.73	1,145	4.80	
<b>Total QA/QC Samples</b>					<b>4,547</b>	<b>19.07</b>	

Agua used two certified control samples, GRE-3 and GRE-4, prepared by Geostats Pty. Agua had two samples prepared by Instituto de Tecnologia August Kekulé (ITAK) to be used as certified reference samples. Both samples were prepared from meta-carbonatite material sourced from Três Estradas.

Blank samples are used to monitor physical contamination during sample preparation. A coarse-grained blank was created using locally-sourced quartz to track possible carryover contamination of samples through crushing and pulverizing of samples. The fine-grained blank is used to monitor and track any other signs of physical contamination that may affect analytical results.

Duplicate samples were used to track analytical precision. Duplicate samples were prepared by creating two identical samples for an interval. The second pulp is re-inserted with a blind identity into the submitted samples. There are 1,145 pairs of duplicate samples for Três Estradas. Selected samples were routinely subject to a second umpire analysis as a further check to laboratory performance. There are 713 check assays for Três Estradas showing a strong correlation with R2 equal to 0.9992.

According to Millcreek Mining Group personnel results from quality assurance and quality control of analyses program is considered inside acceptance limits for the purpose of Mineral Resource classification. GE21 evaluated the procedures and results related to QA/QC during the site visit. GE21 did not detect flaws or inconsistencies in the QA/QC procedures. Results are inside acceptance limits for mineral industry.

## **8 MINERAL RESOURCES**

The mineral resource model prepared by Agua for Três Estradas used 139 core holes and 244 RC holes information gathered during the period of October 2011 to June 2017. Sampling information from auger holes are not considered in the model.

The database used for mineral resource evaluation includes 139 core holes (20,509.5m) and 244 RC holes (7,800m) for the Três Estradas deposit (Table 4)

**Table 4 – Drillhole database summary**

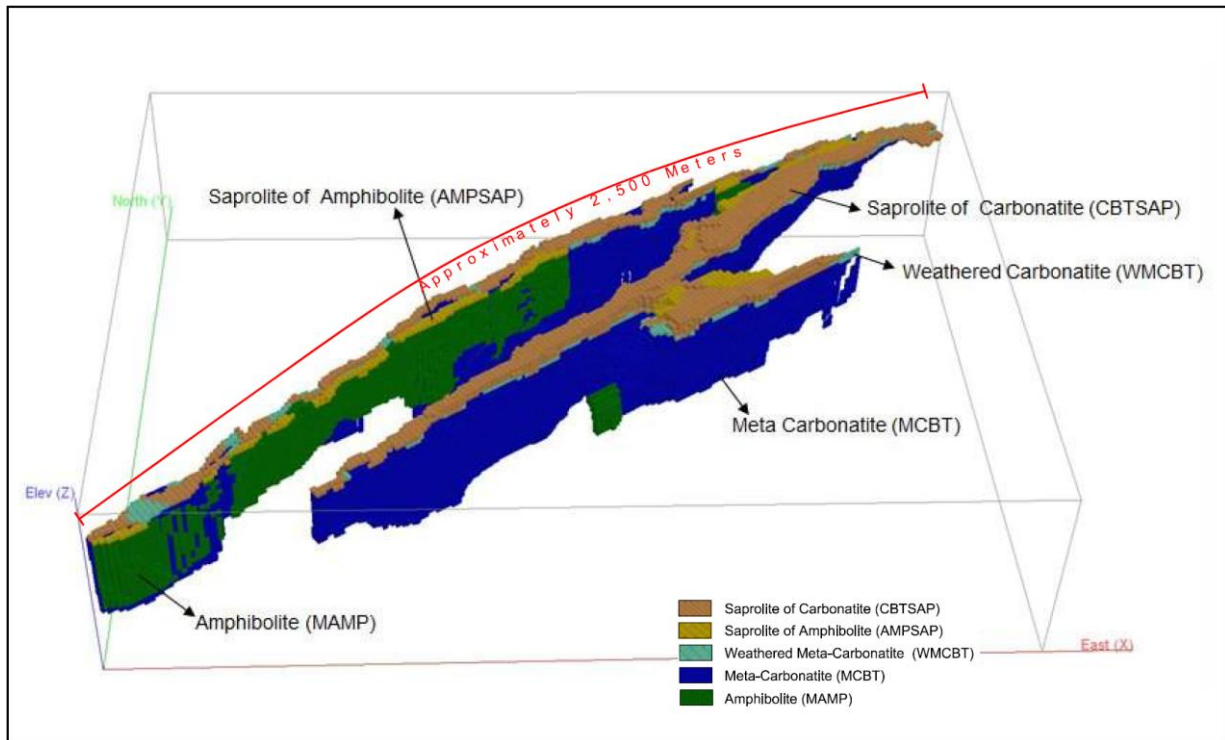
Drilling	Count	Cumulative Meters	Assay Intervals
Core Holes	139	20,509.5	16,046
RC Holes	244	7,800.0	7,800
<b>Total</b>	<b>383</b>	<b>28,309.5</b>	<b>23,846</b>

Agua has developed a geologic block model of the Três Estradas Property phosphate deposit using GEMSTM software. Modelling was constructed by developing a series of vertical sections spaced at 50m intervals. Three-dimensional shells were developed by linking the vertical sections together with tie lines. Mineralization has an approximate strike length of 2,400m and extends to a depth of 370m below surface (Figure 7). Mineralized zones range in thickness from 5m to 100m. The outer mineralized envelopes were modelled into wireframe solids using a 3.00% P<sub>2</sub>O<sub>5</sub> cut-off grade. The model recognizes five mineralized, lithologic domains and nine non-mineralized domains as listed in Table 5.

**Table 5 – Lithological and mineralization domains summary**

Typology	Domain	Average Ordinary Kriging Density	Block Model Code	Description
<b>MINERALIZED</b>	CBTSAP	1.60	120	Saprolite of Carbonatite
	WMCBT	2.80	110	Weathered Carbonatite
	MCBT	2.85	100	Meta-Carbonatite
	AMPSAP	1.65	220	Saprolite of Amphibolite
	MAMP	2.87	200	Amphibolite
<b>WASTE</b>	AMPSAP-WASTE	1.77	22	Saprolite of Amphibolite Waste
	WMAMP-WASTE	2.83	21	Weathered Amphibolite Waste
	MAMP-WASTE	2.91	20	Amphibolite Waste
	W-SAP	1.81	32	Saprolite Waste (Meta-Syenite, Gneiss)
	W-WEATH	2.59	31	Weathered Waste (Meta-Syenite, Gneiss)
	W-ROCK	2.68	30	Fresh Rock Waste (Meta-Syenite, Gneiss)
	CBTSAP-WASTE	1.63	42	Saprolite of Carbonatite Waste
	WMCBT-WASTE	2.76	41	Weathered Carbonatite Waste
	MCBT-WASTE	2.80	40	Meta-Carbonatite Waste

Agua constructed wireframes of the meta-carbonatite and the amphibolite. Meta-carbonatite is differentiated by weathering into three domains: saprolite (CBTSAP), weathered carbonatite (WMCBT), and fresh meta-carbonatite (MCBT). Amphibolite is separated into two domains: saprolite (AMPSAP) and fresh amphibolite (MAMP).



**Figure 7 – Geological 3D model presenting mineralized lithologic domains**

Grade estimations were made using ordinary kriging interpolation for all of the mineralized domains. All assays were composited to 1.0m lengths. All estimations are based on a homogeneous block model. Dimensions of the block model are displayed in Table 6.

**Table 6 – Block model summary**

Dimensions	Minimum	Maximum	Block Size	Number of blocks
X	766,350	769,110	12	230
Y	6,575,650	6,576,820	6	195
Z	-100	400	10	50
Rotation	40°			

Agua has employed a high-grade limit was applied to reduce the influence of the high-grade values.

Agua performed a series of variograms and variogram maps in GEMS mining software to model the spatial continuity of the six oxides ( $P_2O_5$ , CaO,  $Al_2O_3$ ,  $Fe_2O_3$ , MgO, and  $SiO_2$ ) and for specific gravity of MCBT and MAMP geological domains.

The estimation for the six oxide variables ( $P_2O_5$ , CaO,  $Al_2O_3$ ,  $Fe_2O_3$ , MgO, and  $SiO_2$ ) and specific gravity were done using ordinary kriging interpolation for all the domains: MCBT, WMCBT, MAMP, CBTSAP and AMPSAP. All estimations are based on 1.0m composites on a homogeneous block model with unitary dimensions of 12m N, by 6m E, and 10m in elevation rotated 40° in a clock-wise direction.

Three estimation passes were used with progressively relaxed search ellipsoids and data requirements based on the Variography:

- **Pass 1:** Blocks estimated in the first pass using half the distance of variogram range and based on composites from a minimum of three boreholes;
- **Pass 2:** Blocks estimated in the first two passes within the full range of the variogram and based on composites from a minimum of two boreholes; and
- **Pass 3:** All remaining blocks within the wireframe limits in an unconfined search not classified in the first two estimation passes.

The Grade estimate was validated by visual verification on adherence and consistence of drilling intercepts and wireframe and block model domains adherence. Validation on grade estimate was performed by statistical comparisons over kriged grades and composited samples grades. Grade averages, standard deviations and swath plot graphs were checked. According to Millcreek Mining Group the adherence, smoothing on grade estimate, and global and local biases as inside acceptance limits.

The resource classification involved a two-stage process.

Stage 1: Relevant mathematical parameters were saved in the block model and the blocks.

Stage 2: The above variables were used as supporting mathematical variables for finalization of the resource classification process. At this stage, the resource blocks were coded manually for achieving the following:

Most of Measured category blocks were supported by three or more holes and nearly 20 composites;

Measured category blocks have at least one drill hole within half of the variogram range (major axis);

Most of indicated category blocks are supported by at least two drill holes and nearly 15 composites;

Measured category blocks have at least one drill hole within half of the variogram range (major axis);

Remaining blocks with a  $P_2O_5$  grade estimation were coded as an Inferred Resource.

The phosphate mineralization at the Três Estradas phosphate deposit is considered to be amenable to extraction using conventional open-pit mining and minerals processing methods.

The estimated in-situ resource identifies 87.03Mt of Measured plus Indicated material with an average grade of 4.05%  $P_2O_5$ , using a minimum cut-off of 3.0%  $P_2O_5$ . The in-situ estimate also identifies a further 26.58MT of Inferred resource, with an average grade of 3.64%  $P_2O_5$ .

Approximately 5% of the deposit (4.8Mt) is hosted in the saprolite ore which overlies the meta-Aguia Resources; Três Estradas Project; Lavras do Sul; RS, Brasil  
Scoping Study - Memorandum - February 11,2020

carbonatite and amphibolite ores. (For the purpose of this report, the term 'carbonatite' is inclusive of the relatively minor quantity of amphibolite ore, unless specifically stated otherwise.)

The mineral resource is defined here as the portion of the in-situ geologic resource for which there is a reasonable expectation of economic extraction. Using the Lerchs-Grossman algorithm, a mineable pit shell was developed using the above parameters. The pit shell captures the resources estimated in the block model that have reasonable prospects for economic extraction. Optimization parameters are derived from previous geologic studies and preliminary economic assessments of Três Estradas.

The Mineral Resource identifies 83.21 Mt of Measured and Indicated material with an average grade of 4.11% P<sub>2</sub>O<sub>5</sub> using a minimum cut-off of 3.0% P<sub>2</sub>O<sub>5</sub> (Table 7). The estimate also identifies 21.85Mt of Inferred material with an average grade of 3.67% P<sub>2</sub>O<sub>5</sub>. By classification, 79% of the resources contained within the mineable resource pit shell are Measured and Indicated with the remaining 21% of the resource classified as Inferred resource.

**Table 7 – Summary of Mineral Resource Estimate**

<b>Mineral Resource Estimate Table* - Três Estradas Phosphate Project Effective Date September 8, 2017 - Block Model: 12 m x 6 m x 10 m</b>						
<b>Resource Classification</b>	<b>Domain</b>	<b>Tonnage (t x 1000)</b>	<b>P2O5 (%)</b>	<b>CaO (%)</b>	<b>P2O5 as Apatite (%)</b>	<b>CaO as Calcite (%)</b>
Measured	AMSAP	55	6.63	10.75	15.7	19.19
	CBTSAP	796	10.18	18.2	24.11	32.49
	WMCBT	1,686	4.24	34.07	10.03	60.82
	MCBT	33,004	3.85	34.26	9.12	61.15
	MAMP	655	3.72	19.09	8.81	34.08
<b>Total Measured</b>		<b>36,196</b>	<b>4.01</b>	<b>33.59</b>	<b>9.5</b>	<b>59.95</b>
Indicated	AMSAP	653	5	11.49	11.85	20.5
	CBTSAP	3,834	9.21	16.24	21.82	28.99
	WMCBT	1,026	4.38	34.57	10.39	61.71
	MCBT	36,984	3.67	35.08	8.69	62.62
	MAMP	4,517	3.98	19.63	9.43	35.04
<b>Total Indicated</b>		<b>47,014</b>	<b>4.18</b>	<b>31.72</b>	<b>9.91</b>	<b>56.63</b>
<b>Total Measured + Indicated Resources</b>		<b>83,210</b>	<b>4.11</b>	<b>32.53</b>	<b>9.73</b>	<b>58.07</b>
Inferred	CBTSAP	45	5.41	20.17	12.82	36.01
	WMCBT	45	3.93	33.86	9.32	60.44
	MCBT	20,247	3.65	34.72	8.64	61.98
	MAMP	1,508	3.89	19.21	9.22	34.3
<b>Total Inferred</b>		<b>21,845</b>	<b>3.67</b>	<b>33.62</b>	<b>8.69</b>	<b>60.01</b>

\* Mineral resources are not mineral reserves and do not have demonstrated economic viability. All numbers have been rounded to reflect relative accuracy of the estimates. Mineral resources are reported within a conceptual pit shell at a cut-off grade of 3% P<sub>2</sub>O<sub>5</sub>. Mineral Resource classification of Três Estradas Project was performed by Millcreek Mining Group March 13, 2018.



## 9 MINING METHODS

### 9.1 Introduction

The Três Estradas Project will be an open pit operation utilizing an own mining fleet with a hydraulic excavator 2.0m<sup>3</sup> of capacity and 10m<sup>3</sup> haul trucks, associated with correspondent ancillary equipment. The mine planning model adopted is a “diluted” model, adding approximately 5% dilution and 95% of recovery to the source model.

The disposal of waste rock will be executed on an area close to the pit. The site shall be adequately prepared to include drainage at its base and channels to direct the flow of water with the aim of aiding geotechnical stability and mitigating the erosion of the stockpiled material. The operation of this phase, in accordance with the ascending method, shall begin during the construction of the heap at the base of this area. Waste rock will be disposed by truck, which will then be uniformly distributed and levelled by an operator using a tractor. The procedure is then repeated, stacking another bank above the original one, while maintaining a ramp for the trucks to be able to access the area.

### 9.2 Geotechnics

Table presents the geotechnical parameters that were adopted. The data was provided by Aguia Resources (WBH115-16-AGUI-RTE-0002\_REV\_A\_eng\_summary document developed by Walm Engenharia e Tecnologia Ambiental) and showed in Table 8 .

**Table 8 – Geotechnical Slopes**

Lithotype	Face angle (°)	Bench width (m)	Bench height (m)	Inter-ramp general slope (°)
Soil/Saprolite	45	7.2	15	34
Others	75	13.5	30	55

\*In Project Phase 1, only the saprolite lithotype data was considered.

### 9.3 Pit Optimization

The determination of the optimal pit was based on:

- The definition of the economic and geometric parameters in order to produce the economic function and legal and proprietary restrictions;
- A calculation of the interlocking of optimal pits using Geovia Whittle 4.3 software;
- The selection of the minimum optimal pit with enough mineralized material to supply a production of 300 ktpa during Life of Mine (LOM).

The economic and geometric parameters were defined from a combination of first principles and GE21's database of projects of similar scale and characteristics.

The sequence of optimal pits was obtained by varying the revenue factor from 10% to 100% with respect to the product's selling price. To determine the evolution of the pits over time,

an annual production scale of 300 ktpa of ROM was established, at an Annual Discount Rate of 8%. Table 9 presents the pit optimization first principle parameters used to definition the sequence of pits, and Table 10 Presents the pit optimization results of the Três Estradas Project.

**Table 9 – Optimization Parameters**

		Item	Unit	Value
	Economic Parameters	Sell Price	Exchange rate (Australian Dollar)	2.85
			AUD \$/t com P <sub>2</sub> O <sub>5</sub> CBTSAP	72.0
			AUD \$/t com P <sub>2</sub> O <sub>5</sub> AMPSAP	43.2
	Resources	Class	Measured	
			Indicated	
			Inferred	
	ROM	Density	g/cm <sup>3</sup>	model
		Grade	%	model
	Mining	Recovery	%	98
		Dilution		2
Physical	Block Model		<b>Unit</b>	<b>Value</b>
		X	m	12
		Y		6
	Z	10		
Slope Angle	Degree	°	34	
Mass Recovery		%	95	
Cut-off Grade	<b>Grade</b>	<b>Unit</b>	<b>Value</b>	
	P <sub>2</sub> O <sub>5</sub>	%	3	
<b>Costs</b>	Ore	AUD \$/t mov.	2.32	
	Waste		2.32	
	Process	AUD \$/t.fed	4.81	
	Selling Cost and G&A	AUD\$/t DANF	3.34	

The Table 10 show the pit optimization results and choose pit it's highlighted.

**Table 10 – Pit Optimization Results**

Pit	Rev Factor	Rock (Mt)	Ore (Mt)	Strip Ratio	P <sub>2</sub> O <sub>5</sub> (%)
1	0.3	6.89	5.39	0.28	8.31
2	0.33	7.16	5.46	0.31	8.29
3	0.36	7.34	5.50	0.33	8.28
4	0.39	7.39	5.51	0.34	8.28
5	0.42	7.43	5.52	0.35	8.28
6	0.45	7.53	5.54	0.36	8.27
7	0.51	7.54	5.54	0.36	8.27
8	0.54	7.60	5.55	0.37	8.27
9	0.60	7.61	5.55	0.37	8.27
10	0.63	7.63	5.55	0.37	8.27
11	0.80	7.64	5.55	0.38	8.27
12	1.00	7.66	5.55	0.38	8.27

#### 9.4 Pit Design

The Mine Design or Pit Design, consists of projecting, based on an optimal pit, an operational pit that allows for the safe and efficient development of mining operations.

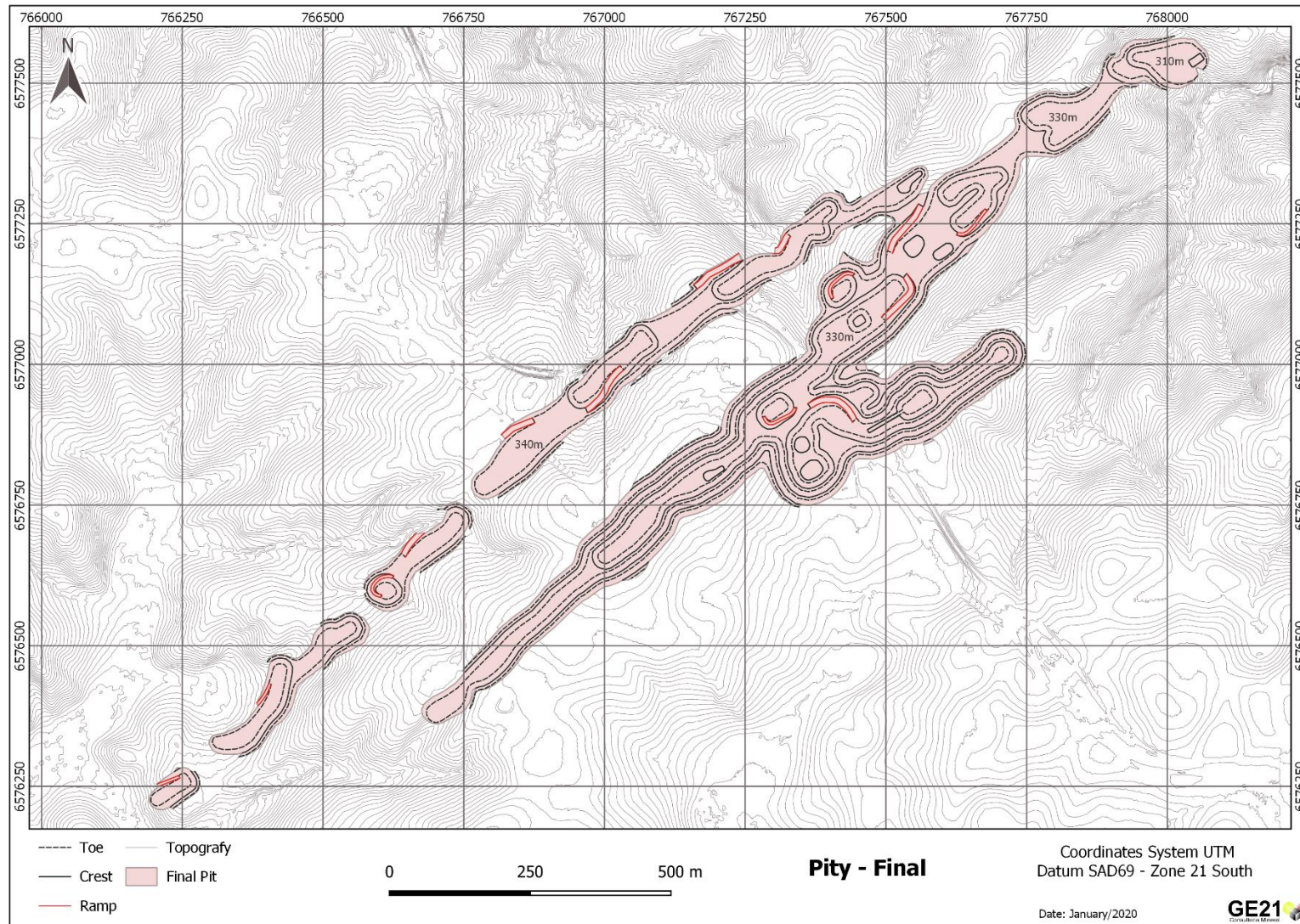
The methodology consists of establishing an outline of the toes and crests of the benches, safety berms, work sites and mining site access ramps while adhering to the geometric and geotechnical parameters that were defined. GE21, due the nature of the report does not project any ramp or primary access in the pit design. The assumptions that were adopted for the operationalization of the final pit shells for each period of mining were:

- Minimize the loss of mineralized material;
- Define the access routes to attain shorter average transport distances.

Table 11 presents the geometric parameters that were adopted to develop the mine design for each end of period. The data was obtained from Três Estrada BFS report provided by Aguia Resources and validated by GE21 technical team. Figure 8 presents the Final Pit Design results.

**Table 11 – Final Pit Design results**

Description	Unit	Value
Road Ramp width	m	10
Ramp maximum grade	%	10
Face Angle	degree	45
Slope Angle	degree	34
Bench height	m	10
Berm width	m	5



**Figure 8 – Final Pit Design**

The Mineable Resources result is shown in Table 12.

**Table 12 – Mineable Resources**

Block dimensions 12x6x10 (m) Mine Recovery 98%, Dilution 2% (Effective date 04/04/2018)									
	Mt	P <sub>2</sub> O <sub>5</sub>	CaO	MgO	SiO <sub>2</sub>	K <sub>2</sub> O	Fe <sub>2</sub> O <sub>3</sub>	MnO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Mea	0.7	10.6	18.8	5.9	30.9	0.5	19.9	0.9	5.1
Ind	4.4	8.5	15.5	5.1	33.1	0.5	17.9	0.8	6.3
Inf	0.04	5.3	20.0	5.4	28.9	0.5	12.0	0.5	6.6
<b>Total ROM</b>	<b>5.1</b>	<b>8.79</b>	<b>15.94</b>	<b>5.17</b>	<b>32.77</b>	<b>0.50</b>	<b>18.15</b>	<b>0.8</b>	<b>6.17</b>
<b>Waste</b>	<b>2.5</b>								
SR	<b>0.49</b>								

Mineable Resources were estimated following the parameters: Sell price for DANF= AUD\$ 72,00 and for Amphibolite Phosphate Concentrated -AUD\$ 43.20

Mining costs: AUD\$ 2.32 /t mined, processing costs: AUD\$ 4.81 /t milled and G\$A:AUD\$ 3.34/t DANF,

Dilution 0% and Recovery 98%

Final slope angle : 34°

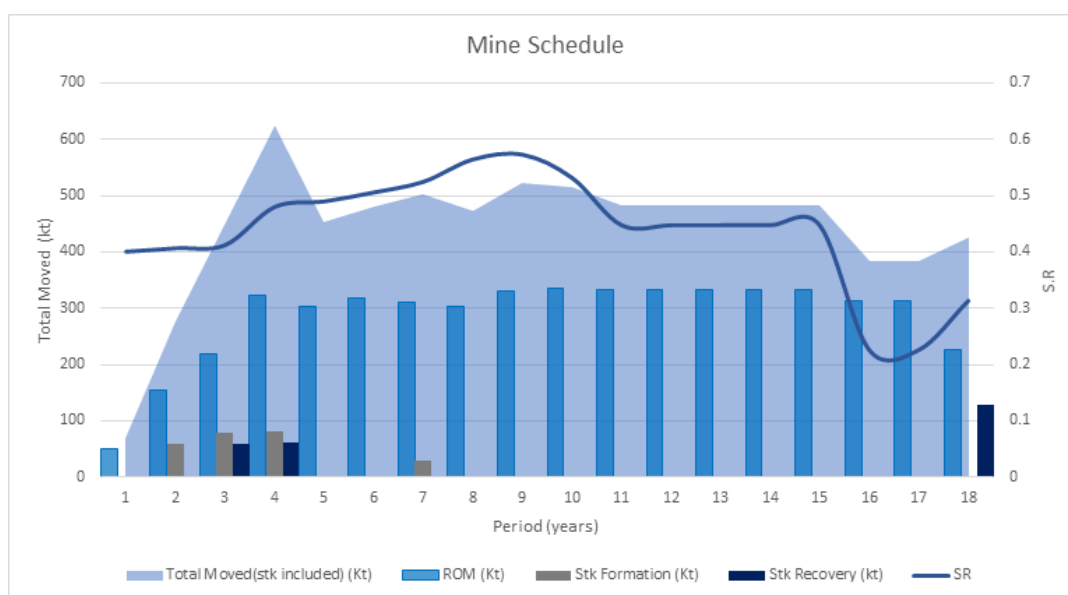
The Competent Person for the estimate is Guilherme Gomides Ferreira, BSc. (MEng), MAIG, an employee of GE21

## 9.5 Mine Scheduling

The mine production scheduling was generated in GEOVIA Minesched™ 9.1.0, where the following assumptions used were:

- Production rate: 300kt of ROM after 3 years of ramp up;
- P<sub>2</sub>O<sub>5</sub> grade stabilization for Carbonate;
- Increasing Stripping Ratio

The mine scheduling results are presented at Figure 9: Mine Scheduling and at Table 13 below and in the Figure 10 to Figure 21 present the final pit design of years 1 to 10,15 and 18.

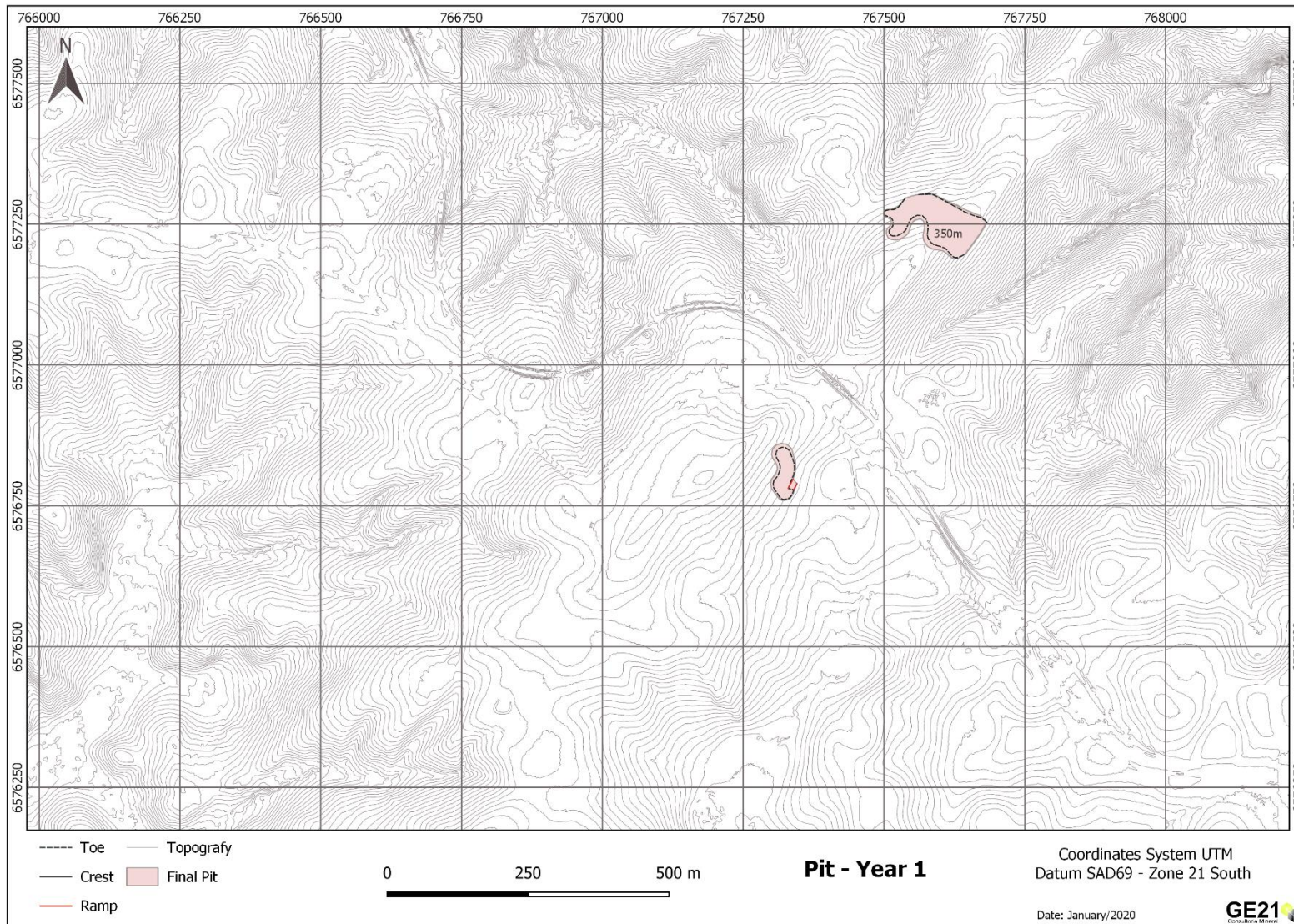


**Figure 9: Mine Scheduling**

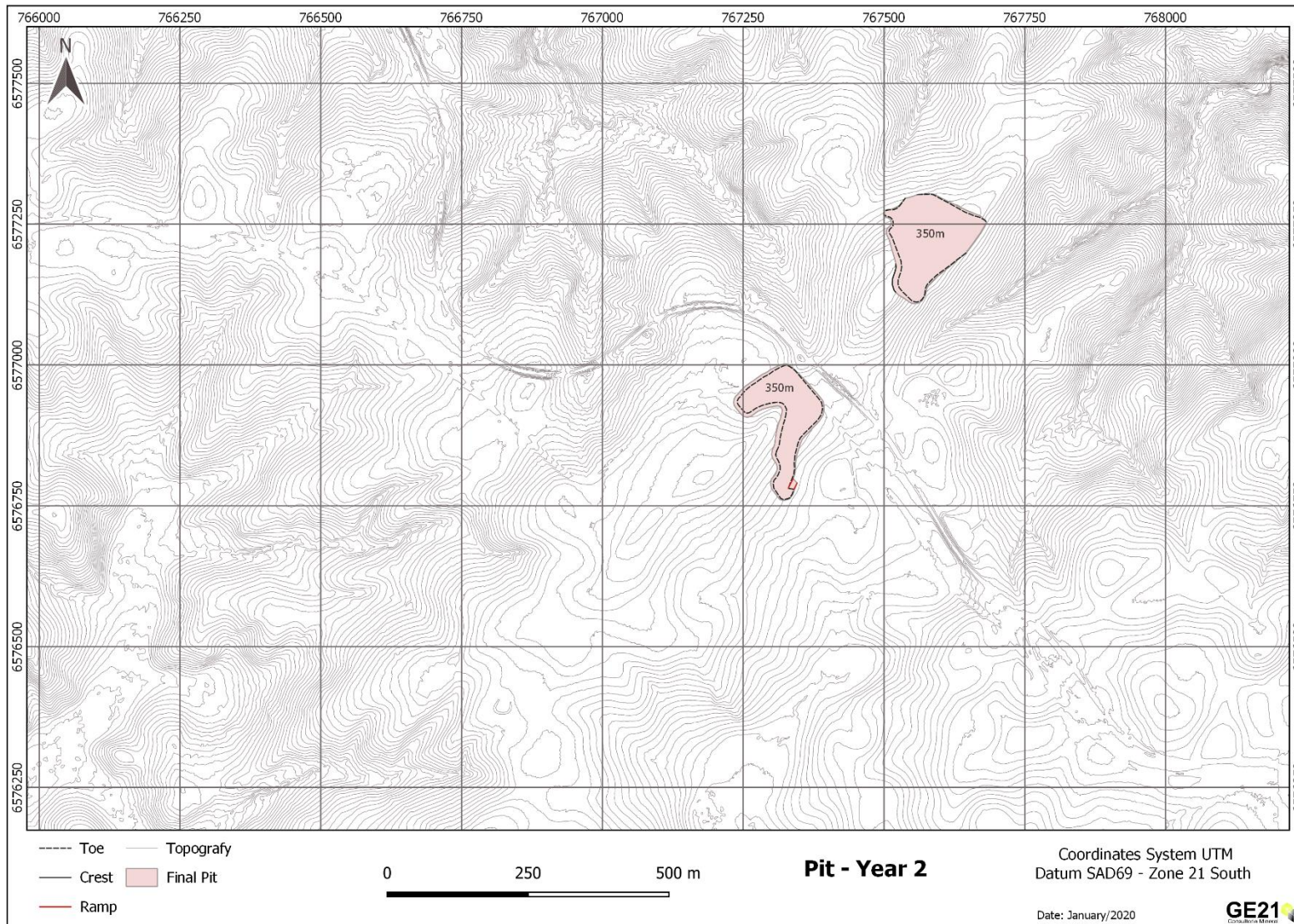
Table 13 – Mine Scheduling

ROM																	Waste	S.R	
CBTSAP									AMPSAP										
Mass	P <sub>2</sub> O <sub>5</sub>	CaO	MgO	MnO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O(%)	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Mass	P <sub>2</sub> O <sub>5</sub>	CaO	MgO	MnO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O(%)	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	kt	
Kt	%								Kt	%									
42.2	11.6	14.4	1.89	0.91	24.4	0.09	32.1	5.2	7.8	3.1	9.6	7.04	0.38	16.7	1.42	41.2	9.9	20.1	0.40
140.3	10.2	14.9	1.93	0.93	19.8	0.31	34.3	6.7	15.0	3.7	8.9	6.05	0.38	16.2	1.52	42.1	9.9	63.3	0.41
203.5	8.7	11.6	2.20	1.07	23.9	0.20	34.7	6.6	16.2	3.8	12.1	7.64	0.42	17.2	0.91	40.4	7.2	90.8	0.41
231.3	10.7	18.5	4.42	0.76	16.7	0.21	31.0	5.4	92.0	4.7	11.6	7.53	0.40	15.7	1.01	40.2	8.6	155.4	0.48
240.3	10.8	14.9	3.42	1.22	19.5	0.30	34.3	5.7	64.1	4.9	7.6	3.71	0.51	15.6	1.21	44.0	11.3	149.3	0.49
270.9	10.8	18.5	4.07	0.94	20.6	0.16	27.2	5.1	47.8	3.3	9.1	6.57	0.45	15.1	1.34	42.3	10.0	161.5	0.51
279.5	9.5	19.0	4.76	0.76	18.8	0.45	27.7	5.6	30.3	3.7	10.7	8.48	0.40	16.4	1.57	39.9	8.3	162.8	0.53
260.9	10.2	14.7	4.04	0.93	23.2	0.30	29.0	5.8	41.3	6.6	11.1	8.82	0.62	16.4	0.38	36.3	7.0	170.8	0.57
283.7	10.4	15.6	4.59	0.91	19.4	0.52	31.7	6.3	47.6	6.7	11.1	6.29	0.58	16.1	0.85	38.3	8.3	190.1	0.57
286.3	10.8	17.1	4.35	1.01	18.6	0.37	30.1	5.8	49.3	3.7	12.9	8.10	0.41	15.7	1.20	40.4	8.0	178.7	0.53
1 551.4	9.6	17.0	5.52	0.91	18.0	0.44	30.5	5.2	115.4	7.3	11.5	8.94	0.69	15.7	0.65	36.7	7.1	747.3	0.45
618.7	5.5	16.4	5.60	0.55	13.5	0.59	34.9	6.6	144.7	4.1	12.9	8.66	0.40	14.3	1.23	40.1	8.5	412.8	0.54
<b>4 408</b>	<b>9.4</b>	<b>16.5</b>	<b>4.69</b>	<b>0.87</b>	<b>18.4</b>	<b>0.40</b>	<b>31.2</b>	<b>5.7</b>	<b>672</b>	<b>5.11</b>	<b>11.2</b>	<b>7.6</b>	<b>0.49</b>	<b>15.5</b>	<b>1.04</b>	<b>39.8</b>	<b>8.5</b>	<b>2 502.9</b>	<b>0.49</b>

Product								
Mass (95% Recovery)	P <sub>2</sub> O <sub>5</sub>	CaO	MgO	MnO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O(%)	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
Kt	%							
47.5	9.5	13.9	2.58	0.84	20.4	0.44	35.0	6.90
91.2	9.5	13.9	2.58	0.84	20.4	0.44	35.0	6.90
190.3	9.3	12.5	2.12	1.03	23.1	0.21	34.4	7.59
288.6	10.1	16.8	4.07	0.81	18.1	0.23	32.0	5.92
289.2	9.6	13.3	3.48	1.07	18.7	0.49	36.4	6.97
302.8	9.7	16.5	4.60	0.84	19.4	0.41	30.3	6.21
265.5	9.5	19.0	4.76	0.76	18.8	0.45	27.7	5.65
287.1	9.7	14.2	4.69	0.89	22.3	0.31	30.0	5.98
314.8	9.9	15.0	4.83	0.86	18.9	0.57	32.6	6.62
318.8	9.8	16.4	4.90	0.92	18.2	0.49	31.6	6.16
1 583.5	9.4	16.6	5.75	0.89	17.9	0.46	30.9	5.37
846.8	5.0	15.0	6.52	0.50	14.0	0.79	36.6	6.00
<b>4 855</b>	<b>8.72</b>	<b>15.8</b>	<b>5.13</b>	<b>0.82</b>	<b>18.0</b>	<b>0.50</b>	<b>32.5</b>	<b>6.0</b>



**Figure 10 - Year 1**



**Figure 11 – Year 2**



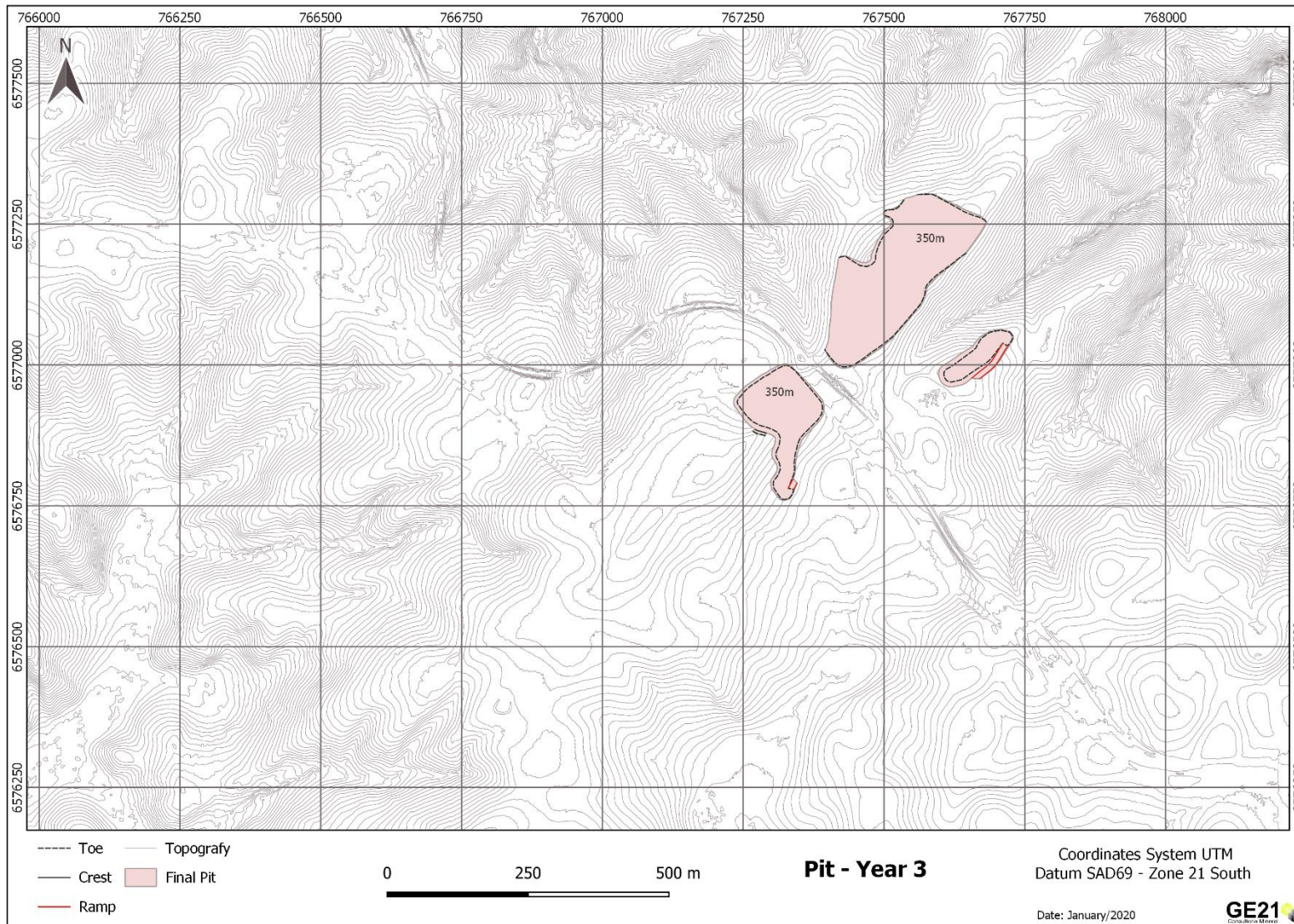
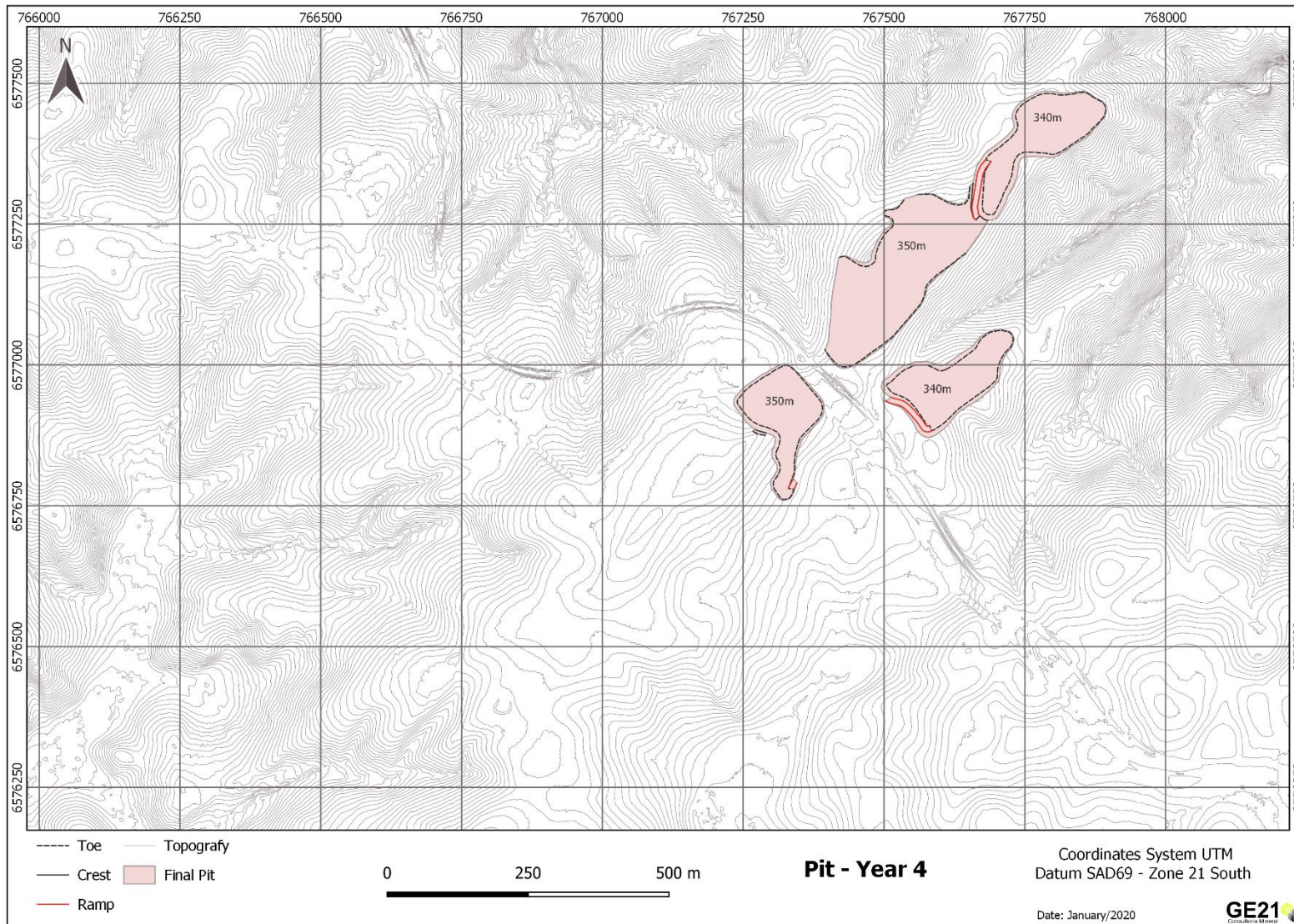


Figure 12 – Year 3



**Figure 13 – Year 4**

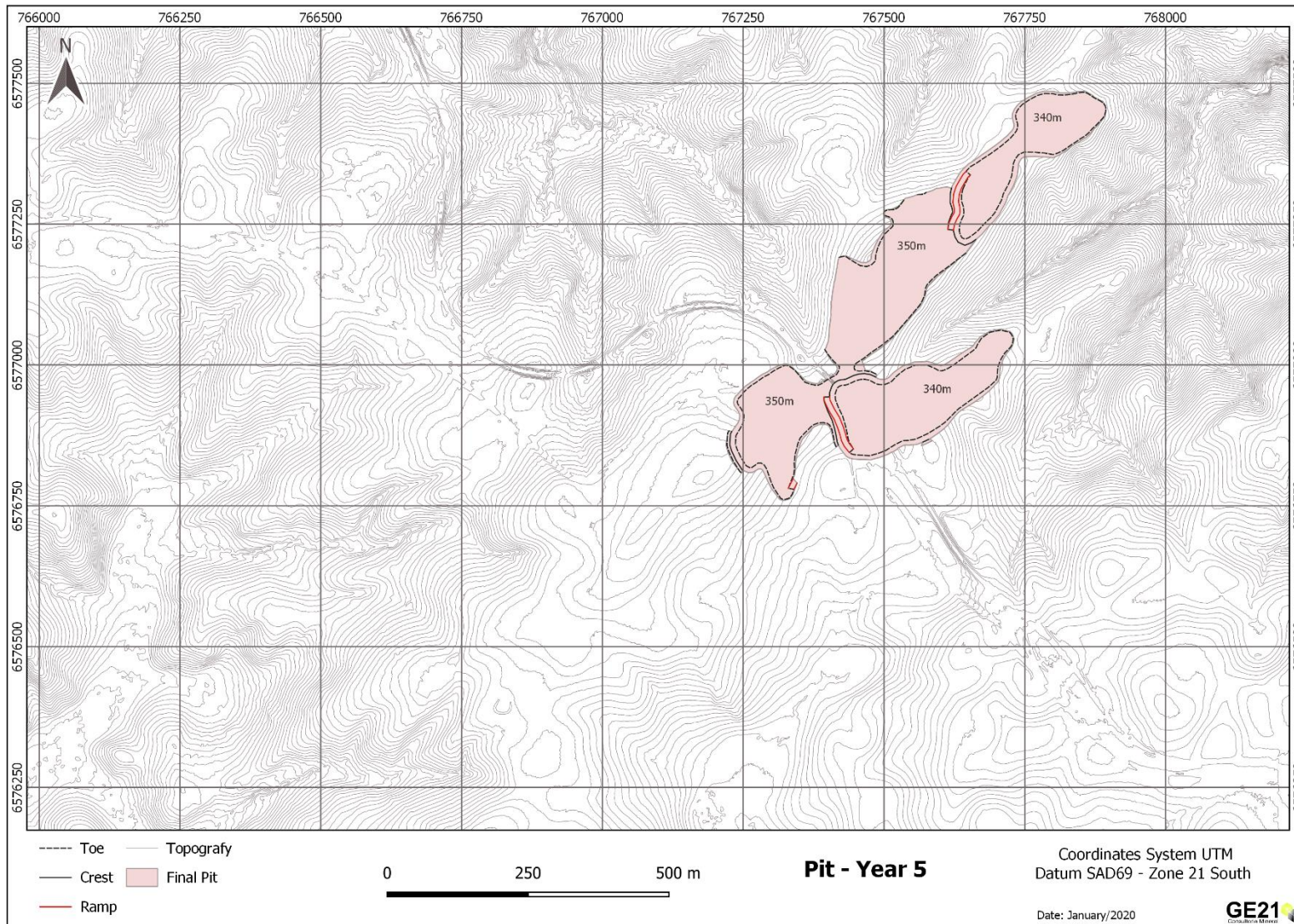
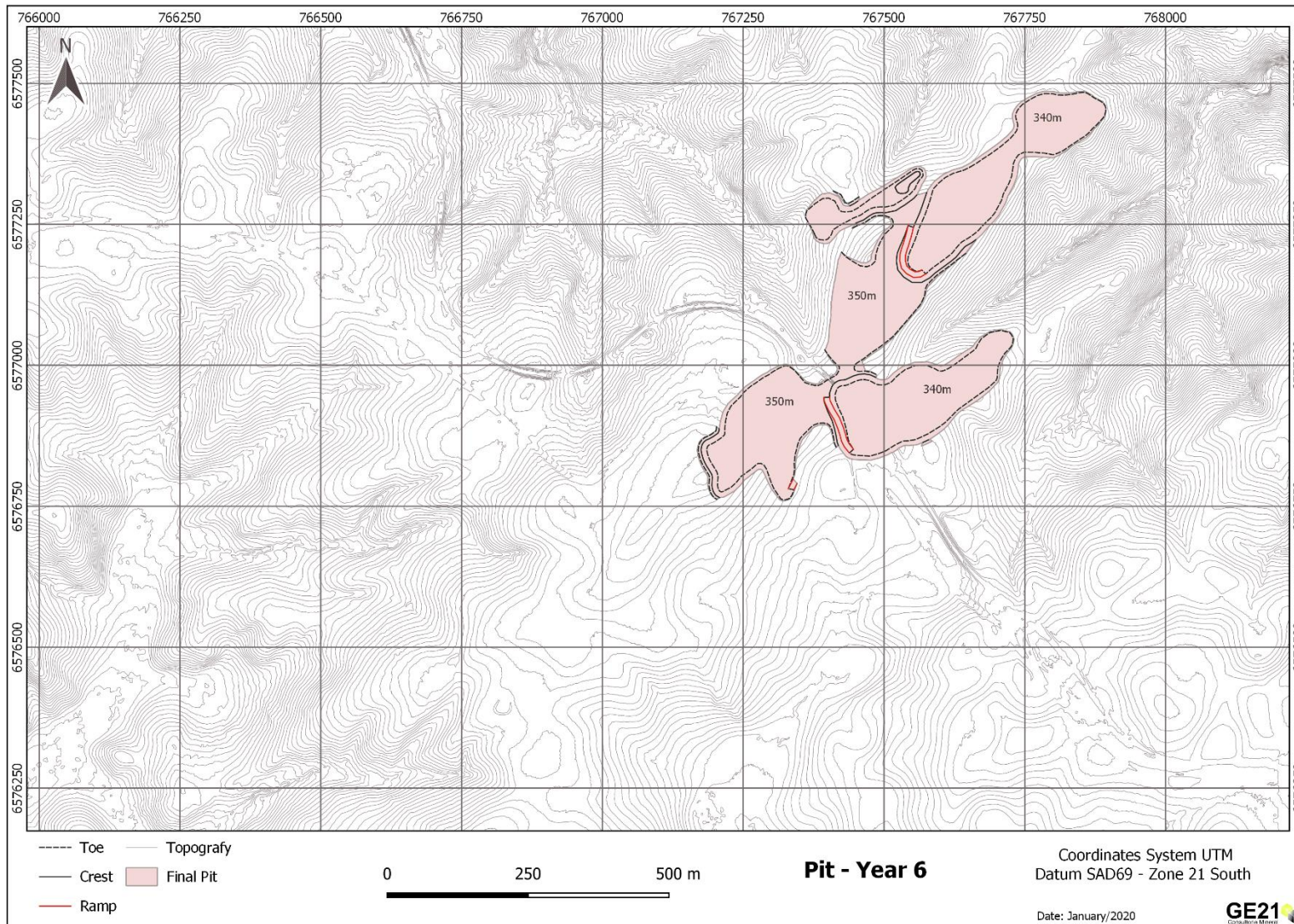
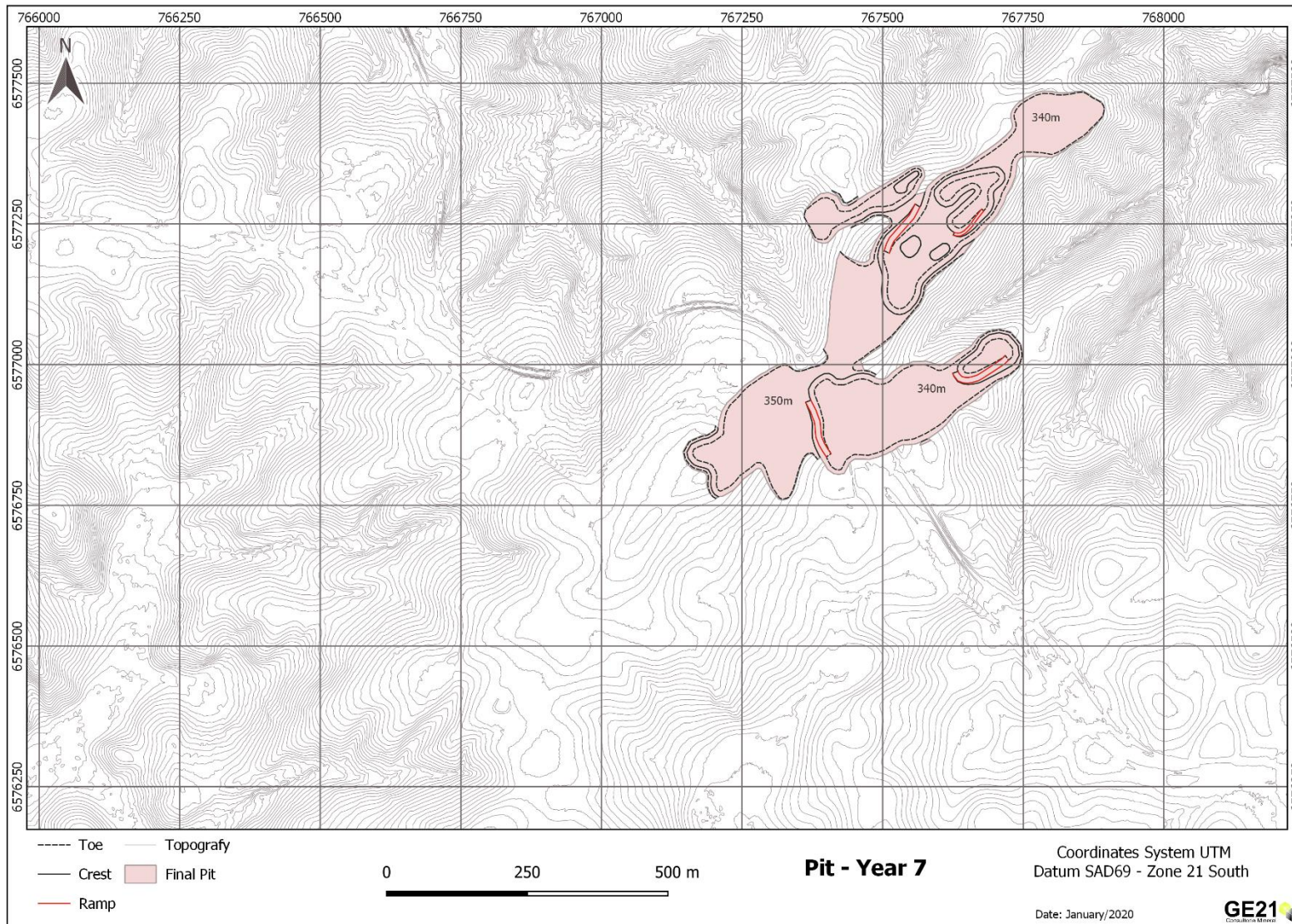


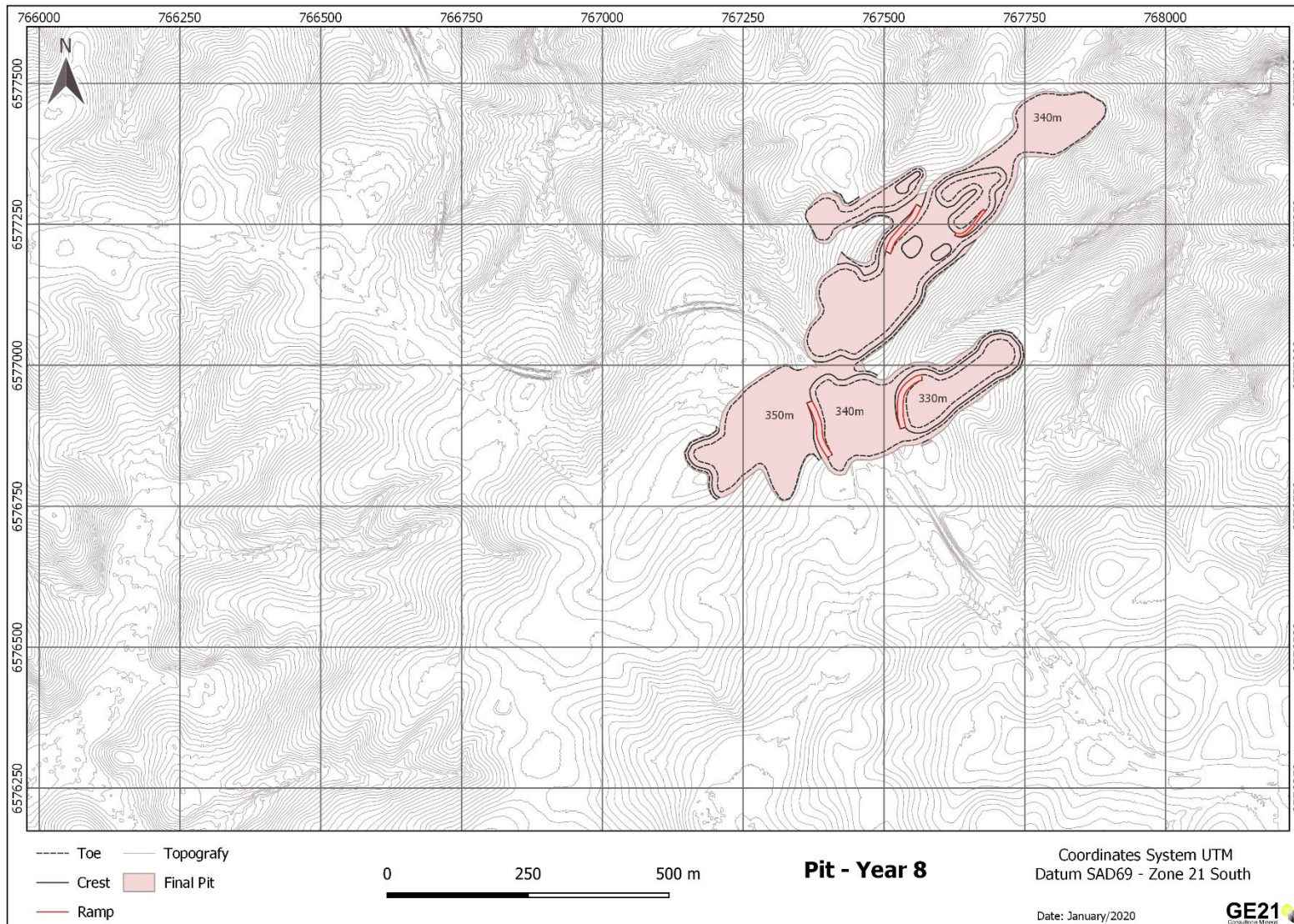
Figure 14 – Year 5



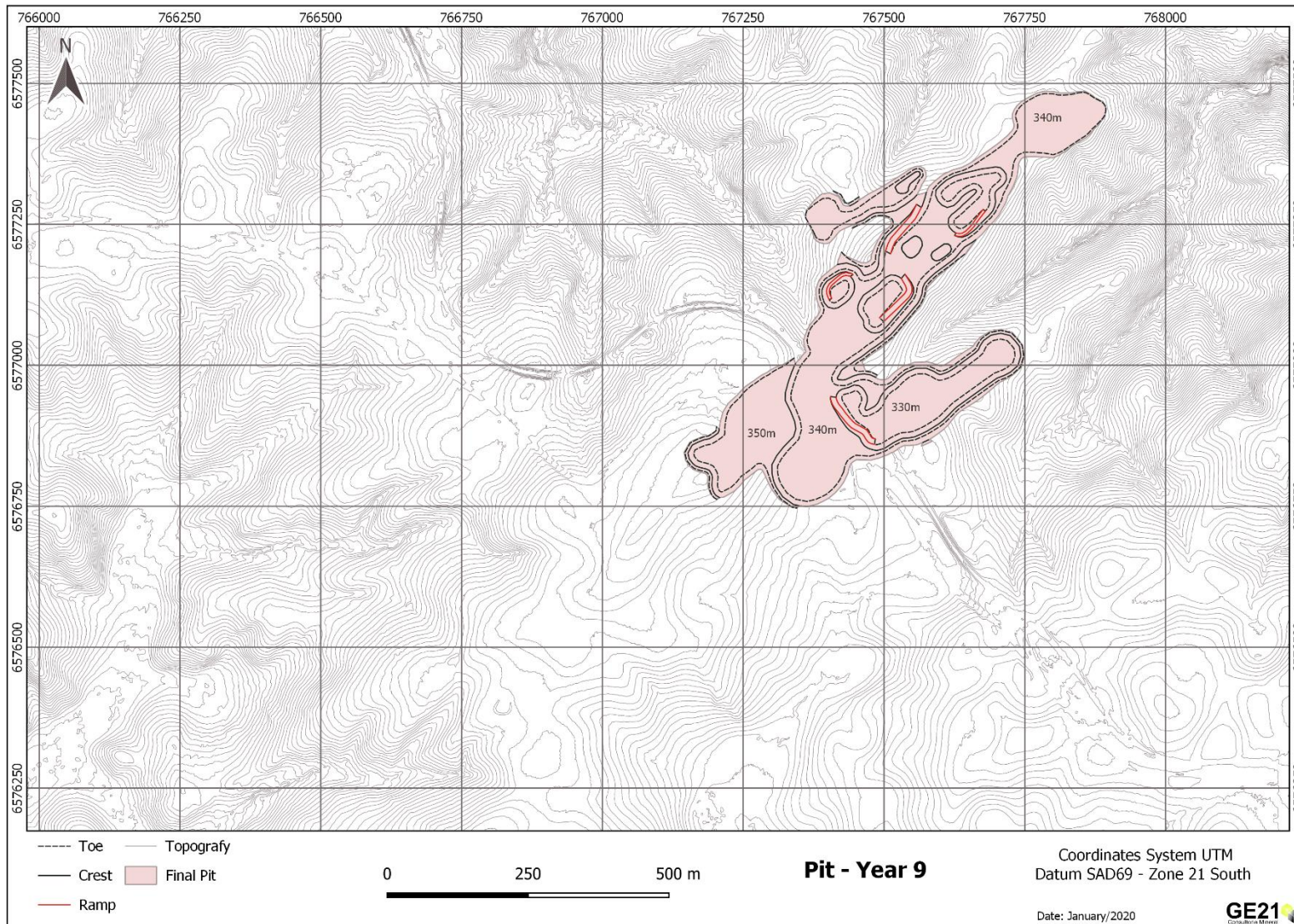
**Figure 15 – Year 6**



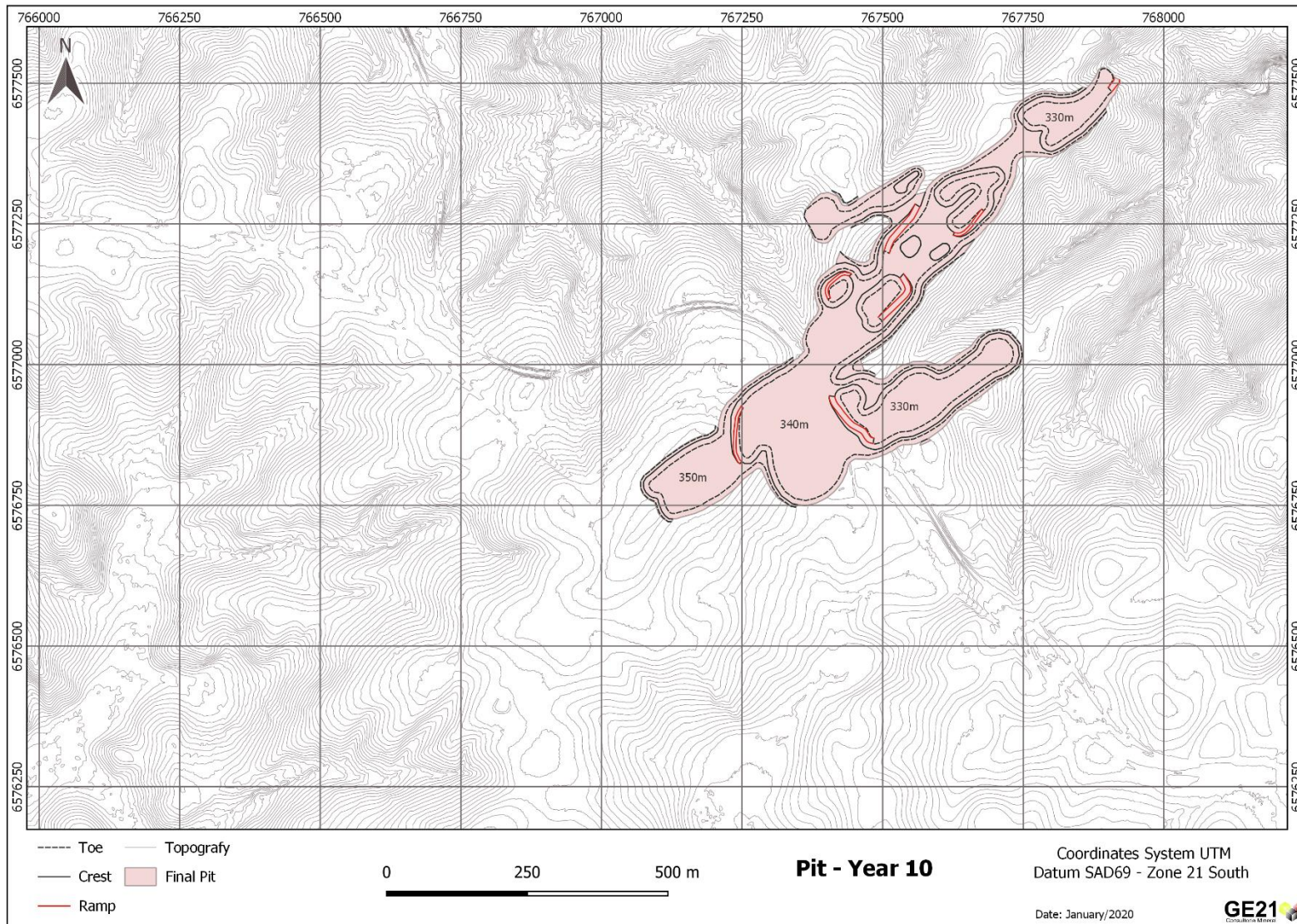
**Figure 16 – Year 7**



**Figure 17 – Year 8**

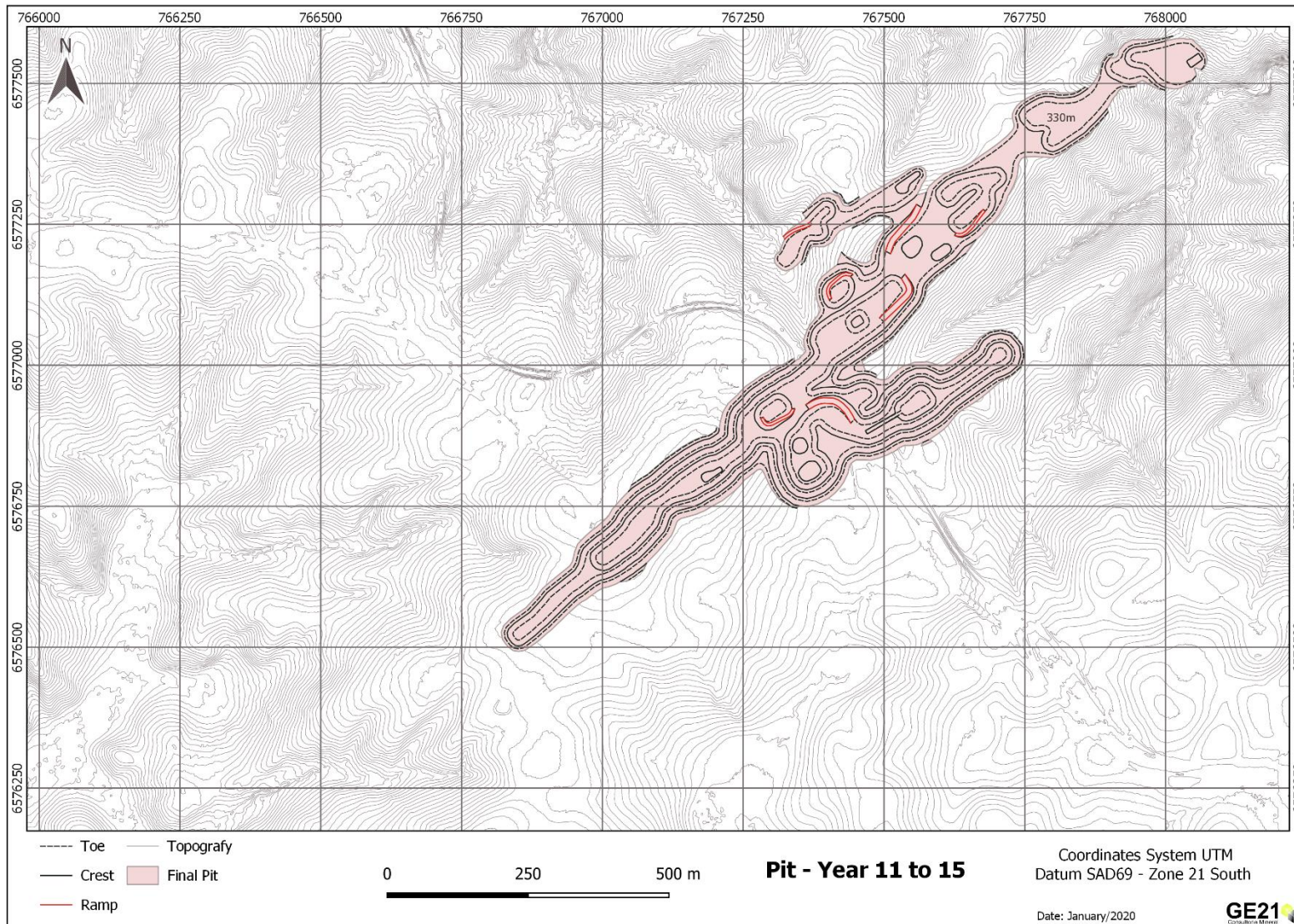


**Figure 18 – Year 9**

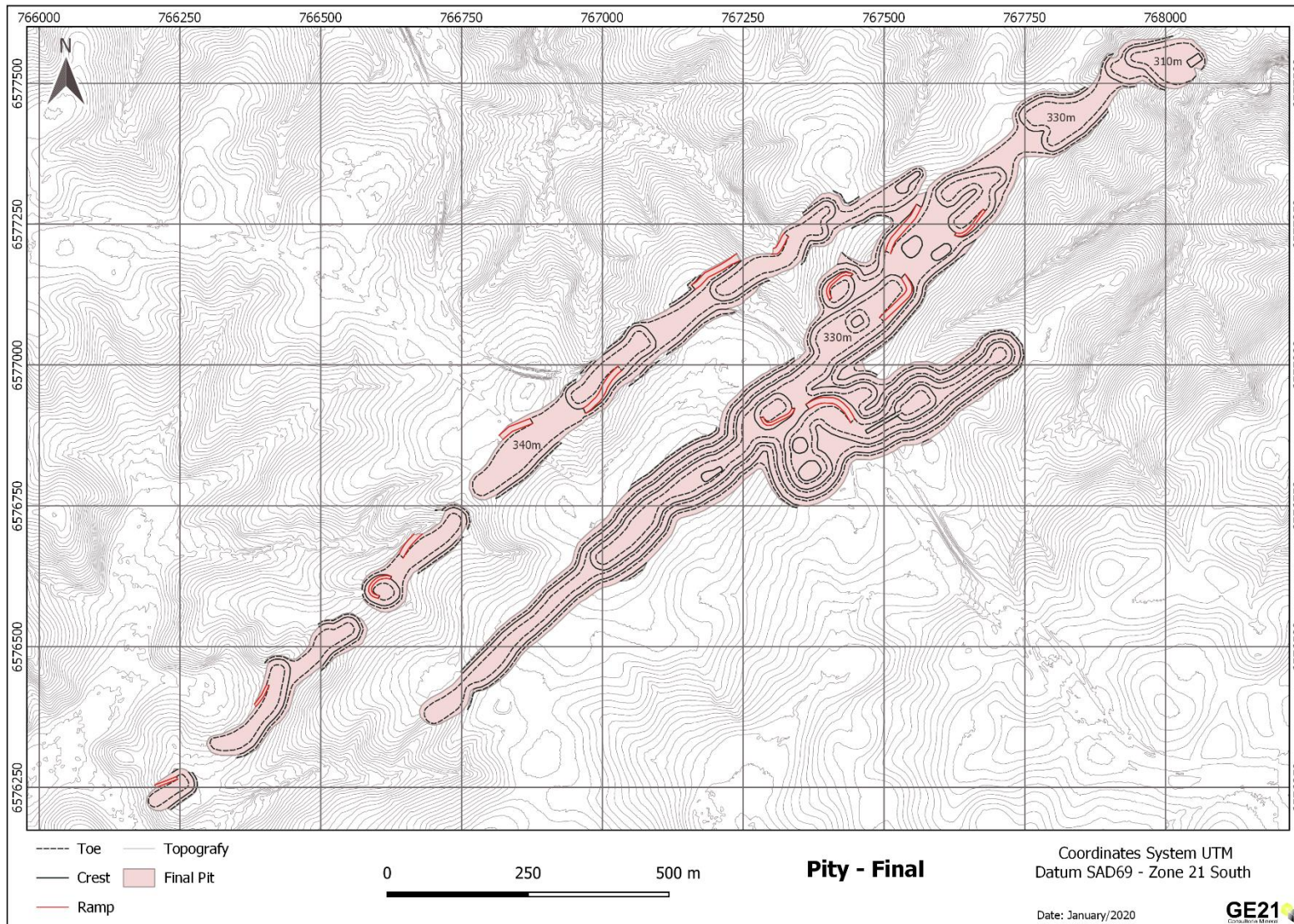


**Figure 19 – Year 10**





**Figure 20 – Year 15**



**Figure 21 – Final**

### 9.6 Mine Fleet Sizing

Mine equipment will be provided by the contractor in the first 3 years, in year 4, all mine equipment will be purchased by the company. The mining equipment are based on a small-scale projection to meet the selectivity requirements of the proposed mining. A CAT 330 hydraulic excavator, or similar, equipped with a bucket with a volume of 2.0m<sup>3</sup> was selected, as well as Scania trucks, or similar, with 10m<sup>3</sup> of capacity.

GE21 has estimated the required yearly mine fleet to achieve the mine schedule and the results are shown at Figure 22 to Figure 23 below.

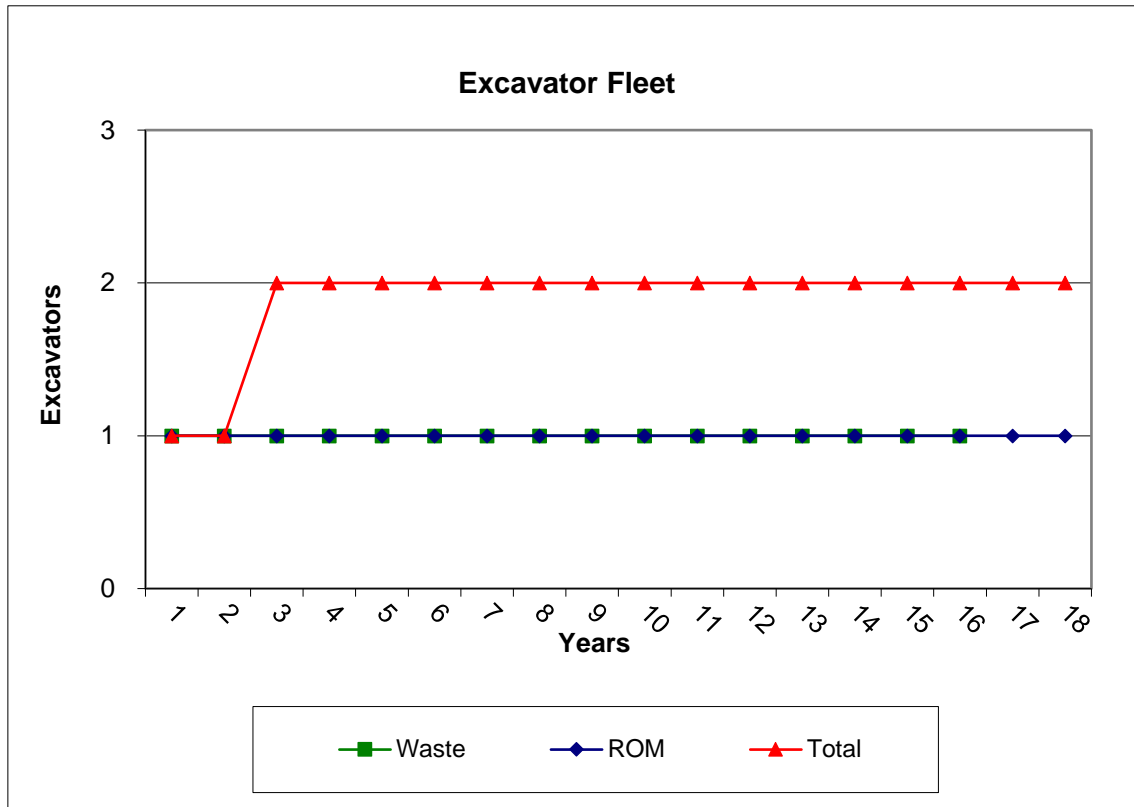
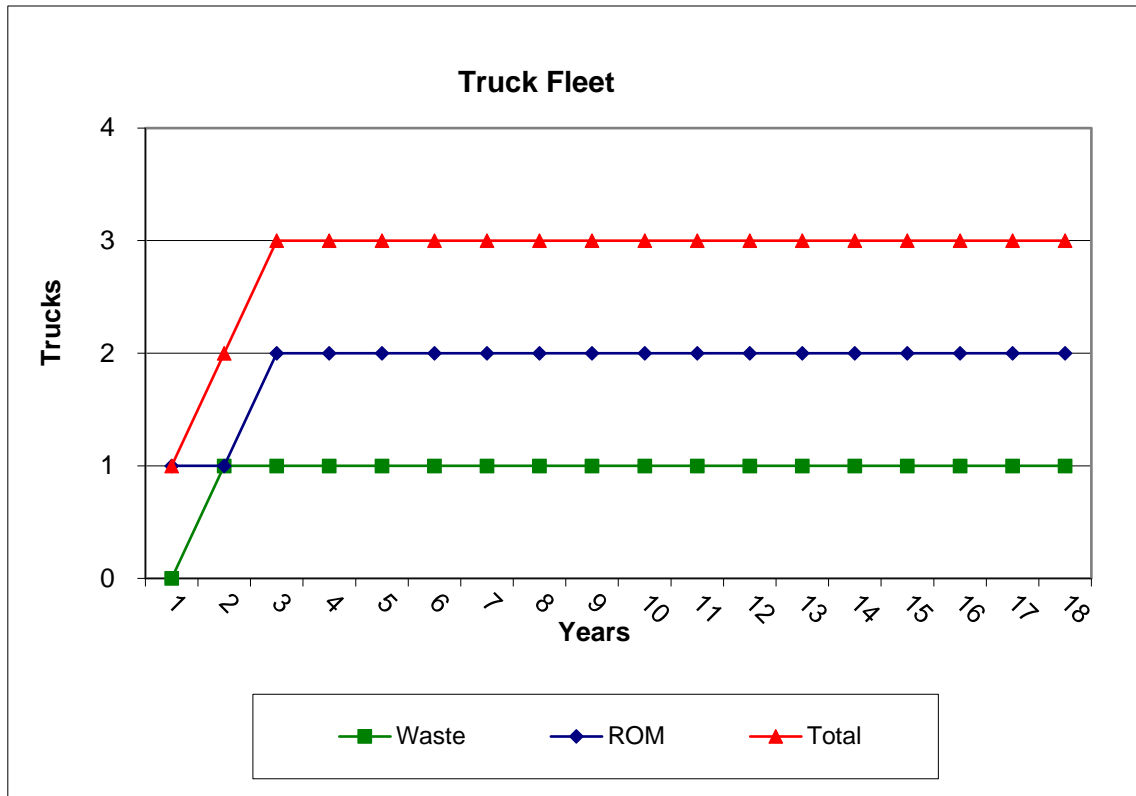


Figure 22 – Excavator Fleet Requirement per Year

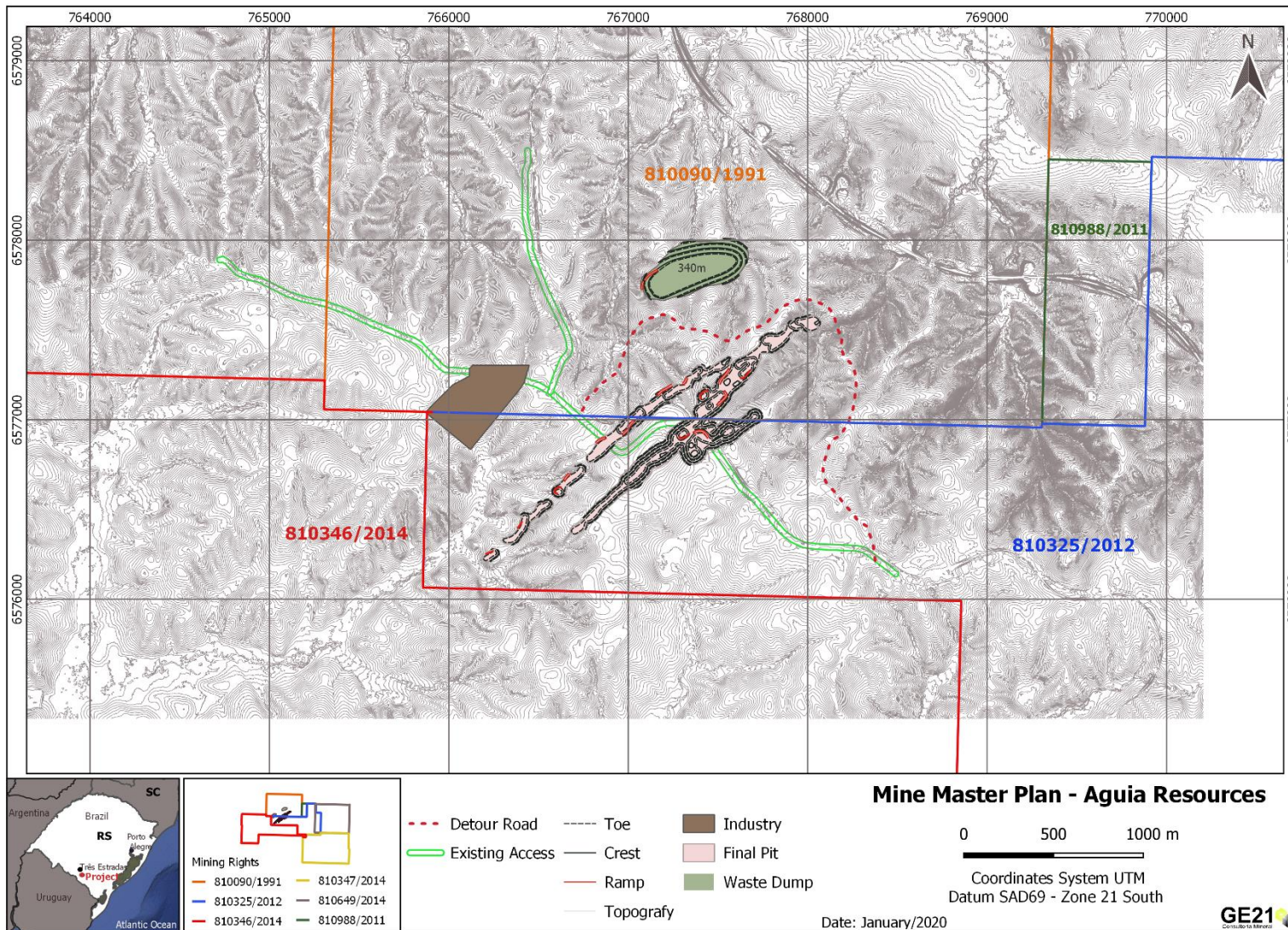


**Figure 23 – Truck Fleet Requirement per Year**

### 9.7 Mine Layout

The Figure 24 presents the Três Estradas Project Site Layout. This layout presents the main structures of the project and were arranged based on the following assumptions:

- Minimized haulage distance between Mine / Plant and Mine;
- Final Pit, Waste dump, Plant and access layout
- Honoured the Preliminary License (LP) limits



**Figure 24 – Três Estradas Project Layout**

## 10 RECOVERY METHODS

The ROM will be transported by 10m<sup>3</sup> trucks from the mine to the stockpile area. The ROM will be reclaimed from the stockpile with a front-end loader and a truck to feed the processing plant.

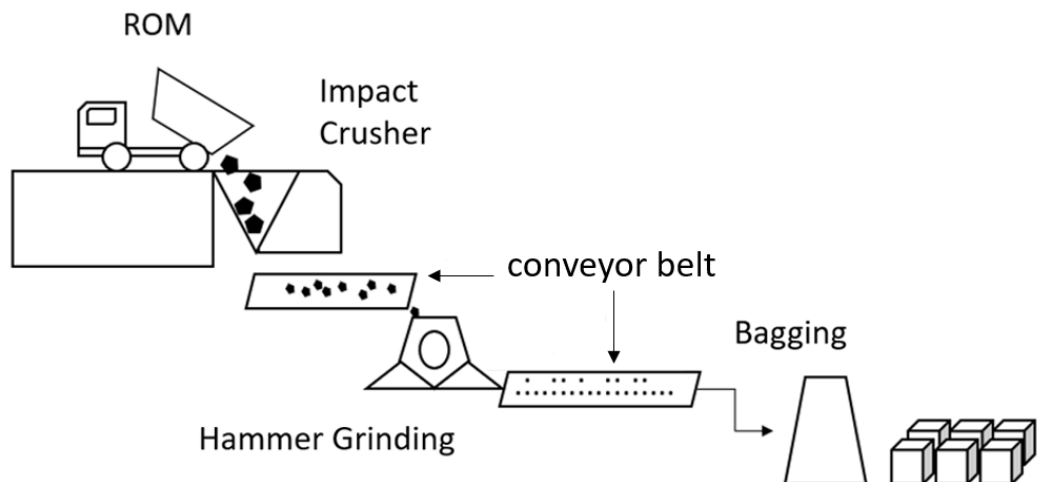
Considering the production of a DANF product during the Project Phase 1 the facility will consist of simple processing plant with the following flow:

- The transported material is dumped into a vibrating feeder with capacity of 120 tph
- Crushing circuit – Consisting of a primary impact crusher, hopper, and conveyance to mills
- Milling circuit – Consisting of 4 hammer mills in parallel, hoppers and conveyance to the warehouse

In Table 14 are showed the plant equipment and Figure 25 – Process Flowsheet the simplified process flowsheet.

**Table 14 – Plant Equipment's**

Item	Units
Conveyor Belt (30"X 18MTS) C/P	1
Conveyor Belt (30"X 6MTS) S/P	1
Conveyor Belt (30"X 33MTS) C/P	1
Conveyor Belt (30"X 11MTS) C/P	1
Trip Car Unit Transportation	2
Trip Car	2
Impact Crusher	1
Vibrating Feeder	1
Hammer Mill	4
Steel Structure	1



**Figure 25 – Process Flowsheet**

## 11 CAPEX and OPEX

The costs for the project include the initial capital cost (Initial CAPEX) and the operational cost (OPEX). All costs are expressed in Australian Dollars and an exchange rate used is AUD \$1.00 = R\$2.85. The CAPEX are presented in the Table 15 and OPEX in the Table 16

The capital costs cover the following major Cost Centres:

- Mine Equipment;
- Infrastructure;
- Processing Plant;
- Environmental and Permits;
- Others.

**Table 15 – Summarized Project CAPEX**

<i>Item</i>	<i>Value AUD\$(Mi)</i>
Mine Equipment (year 3)	1.26
Infrastructure (buildings, security facilities, power)	3.89
Processing Plant	1.88
Environmental and permits	0.26
Others	2.43
Contingency (9%)	0.85
<b>Total</b>	<b>10.57</b>

The CAPEX and OPEX were estimated through a combination of experience and familiarity with similar mining projects in the region, as well as the use of industry guidelines and databases.

The average annual operating cost for Três Estradas Phosphate Project – Phase 1 is estimated to be AUD 11.87/t of DANF.

The OPEX costs presented in Table 16 were estimated according to the values used in similar project operations.

**Table 16 – Mine OPEX Estimation**

<b>Item</b>	<b>Units</b>	<b>Value</b>
Mine (Loading and transportation)	AUD\$/t mined	2.32
Plant	AUD\$/t ROM	4.81
Sales Costs	(AUD/t DANF)	3.34

## 12 ECONOMIC ANALYSIS

### 12.1 Taxes

Table 17 below summarizes the taxes that are considered in this project economic evaluation.

**Table 17 – Taxes**

Tax Rates	
Item	%
IRPJ(15% until R\$ 240.000,00 of EBITDA)	15
IRPJ (25 % over R\$ 240.000,00 of EBITDA)	25
CSLL(9% of EBITDA)	9
CFEM (2% of gross revenue)	2

The tax due for the Project was estimated taking into consideration the existing tax laws applied to revenues forecasted for the project.

- CFEM – Financial Compensation for the Exploitation of Mineral Resources

Financial Compensation for the Exploration of Mineral Resources (CFEM) is the consideration paid to the Government of Brazil for the extraction and economic exploration of Brazilian mineral resources.

CFEM focuses on net sales of the raw mineral product, or on the intermediate cost of production when the mineral product is consumed or transformed in an industrial process

The CFEM rate for this project is 2.0%.

- IR – Income Tax:

A tax rate of 25% is applied to pre-tax profit but this value has a 75% discount due to the tax incentive offered by Sudam (Superintendência do Desenvolvimento da Amazônia).

- Social Contribution:

The social contribution tax is 9% calculated based on Real Profit.

### 12.2 Discounted Cash Flow

A Discounted Cash Flow – DCF – base case scenario was developed to assess the project based on economic-financial parameters, on the results of the mine scheduling and on the Sustaining CAPEX and OPEX estimate.

The Project base case estimates a Net Present Value of AUD\$ 69.3 million, at a Discount Rate of 8% per year post tax, as presented in Table 18 and Table 19 .



**Table 18 - Annual Cash Flow**

Period	Discounted Cash Flow																			Total
	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	
<b>Mine</b>	-	79.6	219	370	541	454	480	442	503	521	514	483	483	483	483	483	431	431	461	<b>7 733</b>
ROM (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	313.0	313.0	287.3	5 102
ROM Grade (%)	-	9.50	9.50	9.29	10.10	9.58	9.65	9.47	9.69	9.90	9.76	9.41	9.41	9.41	9.41	9.41	5.04	5.04	5.04	8.76
Stock Formation(Kt)	-	-	59.3	78.8	82.0	-	-	-	30.3	-	-	-	-	-	-	-	-	-	-	250.4
Stock Recovery (Kt)	-	-	-	59.3	62.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128.5
Waste(t)	-	20.1	63.3	90.8	155.4	149.3	161.5	162.8	170.8	190.1	178.7	149.5	149.5	149.5	149.5	149.5	118.1	118.1	174.1	2 500
Feed Plant (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	313.0	313.0	287.3	5 102
Mass Recovery (%)	-	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
<b>P2O5 DANF. @9% (kt)</b>	-	47.5	91.2	190.3	288.7	289.2	302.8	265.5	287.1	314.8	318.8	316.7	316.7	316.7	316.7	316.7	297.4	297.4	281.5	<b>4 855.4</b>
P2O5 DANF Sell Price (AUD/t conc)	-	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	43.2	43.2	43.2	67.2
<b>OPEX (AUD\$ x1000)</b>	-	(571.6)	(1 237)	(2 255)	(3 397)	(3 548)	(3 678)	(3 358)	(3 510)	(3 751)	(3 855)	(3 831)	(3 829)	(3 829)	(3 829)	(3 829)	(3 213)	(3 151)	(2 941)	<b>(57 613)</b>
<b>Mine</b>	-	(227.6)	(576)	(877)	(941)	(1 089)	(1 103)	(1 100)	(1 069)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 050)	(994)	<b>(18 036)</b>
Loading and transportation - Total AUD\$x1000	-	(227.6)	(532)	(774)	(833)	(1 089)	(1 103)	(1 100)	(1 046)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 050)	(897)	(17 660)
Stock Formation AUD\$	-	-	(44)	(59)	(61)	-	-	-	(23)	-	-	-	-	-	-	-	-	-	-	(188)
Stock Recovery AUD\$	-	-	-	(44)	(47)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(96)
<b>Process</b>	-	(173)	(332)	(693)	(1 416)	(1 418)	(1 485)	(1 303)	(1 408)	(1 544)	(1 564)	(1 553)	(1 553)	(1 553)	(1 553)	(1 553)	(1 459)	(1 459)	(1 339)	<b>(23 360)</b>
Process Cost- Phosphate Rock AUD\$x1000	-	(173.0)	(332.2)	(693.0)	(1 416.0)	(1 418.4)	(1 485.2)	(1 302.5)	(1 408.1)	(1 544.0)	(1 563.7)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 458.6)	(1 458.6)	(1 338.9)	(23 360)
<b>G&amp;A (AUD\$ x1000)</b>	-	(171)	(328)	(685)	(1 039)	(1 041)	(1 090)	(956)	(1 033)	(1 133)	(1 148)	(1 140)	(1 140)	(1 140)	(1 140)	(1 140)	(642)	(642)	(608)	<b>(16 218)</b>
<b>Gross Revenue (AUD\$ x1000)</b>	-	3 420	6 568	13 699	20 784	20 820	21 800	19 119	20 669	22 662	22 953	22 802	22 802	22 802	22 802	22 802	12 846	12 846	12 161	<b>324 356</b>
<b>EBITDA (AUD\$ x1000)</b>	-	2 848	5 331	11 444	17 387	17 271	18 121	15 760	17 159	18 912	19 097	18 971	18 973	18 973	18 973	18 973	9 633	9 695	9 220	<b>266 743</b>
Depreciation (AUD\$ x1000)	-	(1 154)	(1 154)	(1 154)	(1 393)	(1 393)	(239)	(239)	-	(108)	(108)	(108)	(108)	(108)	(108)	(108)	-	(108)	(108)	(7 833)
<b>EBIT (US\$ x1000)</b>	-	1 694	4 177	10 290	15 994	15 878	17 882	15 521	16 919	18 912	18 989	18 863	18 865	18 865	18 865	18 973	9 524	9 586	9 112	<b>258 910</b>
IRPJ (15% de R\$ 240 000/ano do EBIT)	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(227)
AIR (25% sobre Exc R\$ 0.24 mi/ano do EBIT)	-	(403)	(1 023)	(2 551)	(3 977)	(3 948)	(4 449)	(3 859)	(4 209)	(4 707)	(4 726)	(4 695)	(4 695)	(4 695)	(4 695)	(4 722)	(2 360)	(2 376)	(2 257)	(64 349)
CSLL (9% do EBIT)	-	(152)	(376)	(926)	(1 439)	(1 429)	(1 609)	(1 397)	(1 523)	(1 702)	(1 709)	(1 698)	(1 698)	(1 698)	(1 698)	(1 708)	(857)	(863)	(820)	(23 302)
CFEM (2% sobre Receita Bruta)	-	(68)	(131)	(274)	(416)	(416)	(436)	(382)	(413)	(453)	(459)	(456)	(456)	(456)	(456)	(456)	(257)	(257)	(243)	(6 487)
<b>Free Operating Cash Flow (AUD\$ x1000)</b>	-	1 058	2 634	6 526	10 149	10 071	11 375	9 870	10 762	12 037	12 082	12 002	12 003	12 003	12 003	12 075	6 038	6 079	5 779	<b>164 545</b>
<b>Free Operating Cash Flow (AUD\$ x1000)</b>	-	1 058	2 634	6 526	10 149	10 071	11 375	9 870	10 762	12 037	12 082	12 002	12 003	12 003	12 003	12 075	6 038	6 079	5 779	<b>164 545</b>
<b>CAPEX (AUD\$ x1000)</b>	(9 306)	(40)	-	(1 260)	-	-	-	-	-	(570)	-	-	-	-	-	(570)	-	-	-	<b>(11 746)</b>
<b>Mine</b>	-	-	-	(1 260)	-	-	-	-	-	(570)	-	-	-	-	-	(570)	-	-	-	(2 400)
Plant	(1 880)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1 880)
Environment	(260)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(260)
Infra	(3 890)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(3 890)
Others	(2 430)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2 430)
Working Capital	-	(40)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(40)
Contingency	(846)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(846.0)
<b>Cash Flow (AUD\$ x1000)</b>	(9 306)	1 018	2 634	5 266	10 149	10 071	11 375	9 870	10 762	11 467	12 082	12 002	12 003	12 003	12 003	11 505	6 038	6 079	5 779	<b>152 799</b>
<b>NPV (AUD\$ x1000)</b>	69 355	WACC (%) 8%																		

**Table 19: Discounted Cash Flow Result**

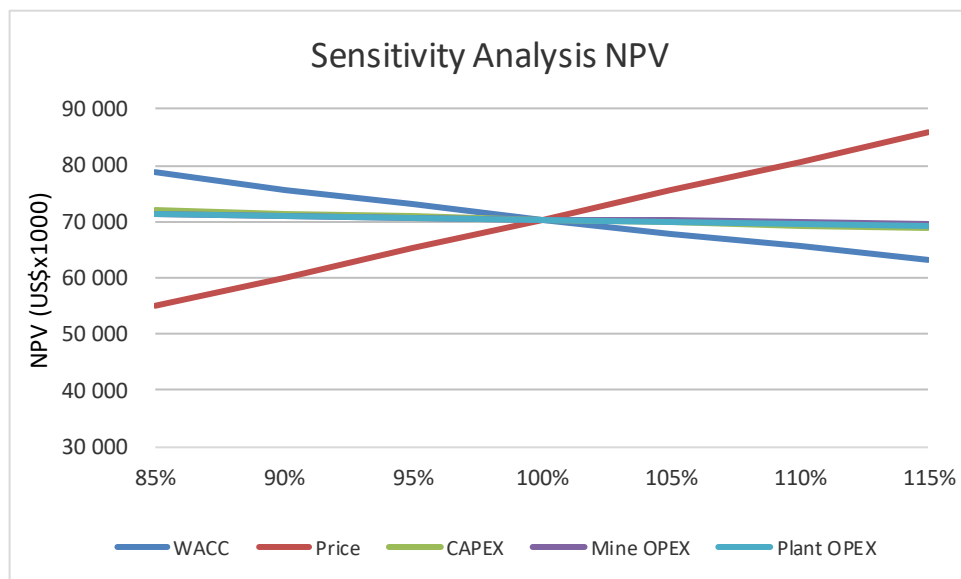
<b>CAPEX (AUD\$ M)</b>	10.57
<b>NPV (AUD\$ M)@8%</b>	69.3
<b>IRR (%)</b>	51
<b>Payback time (years)</b>	3.3

### 12.3 Sensitivity Analysis

A sensitivity analysis was undertaken to evaluate the impact of the resulting economic indicators for the following attributes, within the cash flow:

- WACC
- Sell price
- Mine OPEX
- Plant OPEX.

The WACC, OPEX, NPV, was evaluated by varying its value from -15% to +15%. Figure 26 shows the sensitivity analysis developed by GE21.



**Figure 26 – NPV Sensitivity Diagram**

GE21 concluded based on in Sensitivity Analysis that project profitability is most affected by the concentrate price and WACC.

## 13 CONCLUSION AND RECOMMENDATION

Mineral Resource classification of Três Estradas Project was performed by Millcreek Mining Group March 13, 2018, as verified by GE21 on NI43-101 Technical Report format titled “Três Estradas Phosphate Project, Rio Grande do Sul, Brazil dated on April 4,2018. GE21 received data related to the mineral resource estimates and verified that there are no flaws in the mineral resources model. GE21 agrees with Mineral Resource classification from Millcreek.

According to Millcreek Mining Group results from quality assurance and quality control of analyses program is considered inside acceptance limits for the purpose of Mineral Resource classification. GE21 evaluated the procedures and results related to QA/QC during the site visit. GE21 did not detect flaws or inconsistencies in the QA/QC procedures. Results are inside acceptance limits for mineral industry.

The Mineral Resource identifies 83.21 Mt of Measured and Indicated material with an average grade of 4.11% P<sub>2</sub>O<sub>5</sub> using a minimum cut-off of 3.0% P<sub>2</sub>O<sub>5</sub>. The estimate also identifies 21.85Mt of Inferred material with an average grade of 3.67% P<sub>2</sub>O<sub>5</sub>. By classification, 79% of the resources contained within the mineable resource pit shell are Measured and Indicated with the remaining 21% of the resource classified as Inferred resource.

This Scoping Study presents the Project's technical and economic viability potential to produce DANF. According to economic analysis, the project's NPV was AUD \$ 69.3 million @WACC of 8% and an internal rate of return of 51%.

The result of the Scoping Study referred to in this report is preliminary in nature, is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised

GE21 recommends continuing this study with the preparation of a Pre-Feasibility Study in accordance with 2012 JORC or the CIM NI43.101 definitions

## 14 REFERENCES

**Millcreek Mining Group** - April 4, 2018 - Três Estradas Phosphate Project, Rio Grande do Sul, Brazil

**Walm Engenharia**, Geomechanical Modeling And Slope Designing Of The Fosfato Três Estradas Project - Aguia Resources, English Summary Of The Report Wbh115-16-Agui-Rte-0002\_Rev\_A

11th February 2020

INDEPENDENT TECHNICAL REPORT ON EXPLORATION AND MINERAL  
RESOURCE ESTIMATE

TRÊS ESTRADAS PHOSPHATE PROJECT – AGUIA RESOURCES LTD.

## **JORC Code, 2012 Edition – Table 1 report template**

Aguia Resources Ltd.. (Aguia) in December 2019 contracted GE21 Consultoria Ltda (GE21) to prepare a Scoping Study of Mineable Resource of the Três Estradas Phosphate Project (Três Estradas Project that in compliant with JORC Code (2012)

Mineral Resource classification of Três Estradas Project was performed by Millcreek Mining Group March 13, 2018, as verified by GE21 on NI43-101 Technical Report format named “Três Estradas Phosphate Project, Rio Grande do Sul, Brazil dated on April 4,2018. GE21 received data related to the mineral resource certification and verified that there are no flaws in the mineral resources model. GE21 agrees with Mineral Resource classification from Millcreek.

The Company’s mineral property is considered to represent an Advanced Exploration Project which is inherently speculative in nature. The property is also considered to be sufficiently prospective in general, subject to varying exploration risk degrees.

### Section 1 Sampling techniques and data (criteria in this group apply to all succeeding groups)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	<ul style="list-style-type: none"> <li>In the Três Estradas Project area procedures for soil sampling, rock chip samples and drilling samples (auger drilling, reverse circulation and diamond drilling) were compliant with mineral industry standards.</li> <li>Samples were sent to laboratories that are commercial fee-for-service testing facilities and are independent of Aguia</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or</li> </ul>	<ul style="list-style-type: none"> <li>Aguia has followed standard practices in their geochemical surveys, core, RC and auger drilling programs. They have followed a set of standard procedures in collecting cuttings and core samples, logging and data acquisition for the project. Their procedures are well documented and meet generally recognized industry standards and practices.</li> <li>All core logging is completed by Aguia geologists and directly entered into a comprehensive database program. Aguia's geologists are responsible for identifying and marking core intervals for sampling. Sample intervals range in length from 0.15m to 6.20m with 90% of all core samples falling within the range of 0.8m to 1.2m. Digital and hard copies of all sampling and shipment documentation are stored in the project office at Lavras do Sul. Documentation includes geological logs, core photographs, core recovery records, portable XRF readings and down-hole surveys.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	<ul style="list-style-type: none"> <li>• Drill type (eg. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (eg. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Aguia has completed five drilling campaigns on the Tres Estradas area between 2011 and 2017. Drilling has included 139 core holes (20,509.5m), 244 reverse circulation (RC) holes (7,800.0m) and 487 auger holes (2,481.65m).</li> <li>• All core holes were drilled using wireline coring methods. HQ size (63.5mm diameter core) core tools were used for drilling through weathered material and NQ size (47.6mm diameter core) tools were used for drilling through fresh rock. Core recovery has exceeded 90% in 97% of all core holes. RC drilling was used to complete 244 holes with a cumulative length of 7,800.0m. All RC holes were drilled vertically (-90°) using 140mm button hammer bit. Holes were primarily drilled dry.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• Whether core and chip sample recoveries have been properly recorded and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• Digital and hard copies of all sampling and shipment documentation are stored in the project office at Lavras do Sul. Documentation includes geological logs, core photographs and core recovery records.</li> <li>• Aguia has followed standard practices in their core, RC, and auger drilling programs. They have followed a set of standard procedures in collecting cuttings and core samples, logging, and data acquisition for the project. Their procedures are well documented and meet generally recognized industry standards and practices. Millcreek considers the exploration data collected by Aguia to be of sufficient quality to support mineral resource evaluation.</li> <li>• There was no investigation about relationship between sample recovery and grade.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul style="list-style-type: none"> <li>• Digital and hard copies of all sampling and shipment documentation are stored in the project office at Lavras do Sul. Documentation includes geological logs, core photographs, core recovery records, portable XRF readings and down-hole surveys. Detailed geological logs are completed for every core hole using an appropriate logging form. Sampling intervals in the amphibolite and the carbonatite are typically targeted for a 1.0m length but may fall within a range of 0.50m to 1.50m. Samples in the unmineralized gneiss host rock may have considerably longer lengths of up to 6.2m.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.</li> </ul>	<ul style="list-style-type: none"> <li>The logging is qualitative in nature. A photographic record is maintained for all core boxes with each photograph recording three boxes;</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>100% diamond drillholes was logged. The portable XRF is used for RC Drilling samples to screen samples for further testing at the analytical laboratory.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Fresh core is split lengthwise using a core saw. Samples are systematically taken using the right half of the core, returning the left half of the core to the core box for archival storage.</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Dry RC samples are split using a Jones riffle splitter</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>The ALS laboratory in Vespasiano is primarily an intake and preparation facility. Samples are crushed and pulverized into rejects and pulps.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>Lab management system is consistent with ISO 9001:2008 requirements for sampling preparation.</li> </ul>
	<ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected.</li> </ul>	<ul style="list-style-type: none"> <li>90% of all core samples falling within the range of 0.8m to 1.2m.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grainsize of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling intervals in the amphibolite and the carbonatite are typically targeted for a 1.0m length but may fall within a range of 0.50m to 1.50m. Samples in the unmineralized gneiss host rock may have considerably longer lengths of up to 6.2m</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>Chemical analyses were conducted in the laboratories ALS laboratory and SGS Geosol, both labs located in Vespasiano-MG. Sample pulps from the Reverse Circulation and Diamond Drill programs are assayed by X-Ray fluorescence for the following elements and oxides: The assaying regime is the standard for the determination of phosphate mineralizations. The technique is considered to be total.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	<ul style="list-style-type: none"> <li>The portable XRF is used for Drilling samples to screen samples for further testing at the analytical laboratory</li> </ul>
	<ul style="list-style-type: none"> <li>Nature of quality control procedures adopted (eg. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>For quality assurance and quality control of analyses (QA/QC), ÁguiaAguia uses a combination of reference samples, blanks, duplicate samples and umpire check assays. ÁguiaAguia follows a protocol for accepting/refusing each batch of assays returned from the analytical laboratory. Reference, blanks and duplicate samples were inserted into the stream of drill samples such that one in 20 samples was a reference sample, one in every 30 samples was a blank sample, and one in every 30 samples was a duplicate sample.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>In 2012, SRK Consulting (Canada) Inc., was engaged by Aguia to prepare a geological model and mineral resource estimate for the project, in accordance with the JORC code. The results of additional drilling were incorporated in an updated resource estimate released by Aguia in January, 2013. In early 2016, Millcreek was engaged by Aguia to complete a new PEA for the Tres Estradas Phosphate Project. In accordance with accepted standards and best-practises for certification of resources, Millcreek personnel have completed two site visits to the Tres Estradas Phosphate Project. The first site visit took place between March 17, 2016 and March 19, 2016.</li> <li>Twin holes were not performed in Tres Estradas Project.</li> <li>Digital and hard copies of all sampling and shipment documentation are stored in the project office at Lavras do Sul. Documentation includes geological logs, core photographs, core recovery records, portable XRF readings and down-hole surveys.</li> <li>There were no adjustments on assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul style="list-style-type: none"> <li>All drill collars are surveyed using differential GPS both before and after drill hole completion. Três Estradas, down hole surveys were completed on core holes using a Maxibore II down-hole survey tool. Readings are collected on three-meter intervals.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinates are recorded in Universal Transverse Mercator (UTM) using the SAD69 Datum, Zone 21S.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Differential GPS is considered a precise topographic survey methodology.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Diamonds drillholes and RC drillholes were arranged in a regular grid varying from 25 x 50m to 100 x 50m grid.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	<ul style="list-style-type: none"> <li>Millcreek considers the exploration data collected by Aguia to be of sufficient quality to support mineral resource evaluation.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Sample compositing was applied.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type</li> </ul>	<ul style="list-style-type: none"> <li>In general terms, the geological unit contacts are sub-vertical and the holes are dipping 60°. Intercepts were produced at 45° average angle which isn't the best condition, but it's considered acceptable for mineral resource estimate purpose.</li> </ul>
	<ul style="list-style-type: none"> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The relationship between the drilling orientation and the orientation of key mineralized structures don't indicate necessarily sampling bias.</li> </ul>
Sample Security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The core and chips were transported by the company's personnel from the drill site to the core storage facilities. Drill boxes are labelled with hole number and depth interval and the core is photographed prior to logging.</li> </ul>

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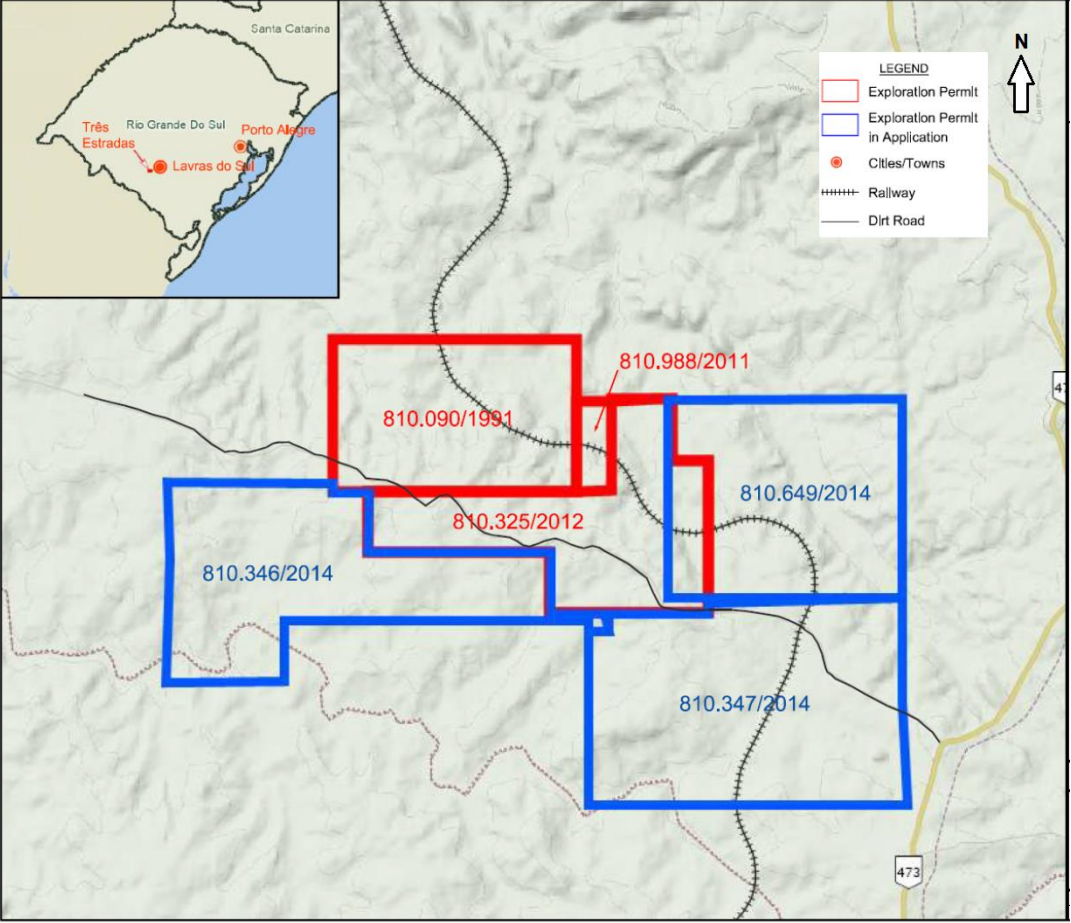
INDEPENDENT TECHNICAL REPORT ON EXPLORATION AND MINERAL  
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Criteria	JORC Code Explanation	Commentary
Audits or reviews	<ul style="list-style-type: none"><li>The results of any audits or reviews of sampling techniques and data.</li></ul>	<ul style="list-style-type: none"><li>In 2012, SRK Consulting (Canada) Inc., was engaged by Aguia to prepare a geological model and mineral resource estimate for the project, in accordance with the JORC code. In early 2016, Millcreek was engaged by Aguia to complete a new PEA for the Tres Estradas Phosphate Project. Audits and reviews of sampling techniques were performed in these works.</li></ul>

**Section 2 Reporting of Exploration Results****(criteria listed in the preceding group apply also to this group)**

Criteria	JORC Code Explanation	Commentary																																								
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The three mineral rights combined cover a total area of 2,075.34ha. Aguia holds 100% interest in the three mineral rights permits covering the Tres Estradas Phosphate Project area.</li> </ul> <table border="1"> <thead> <tr> <th>ANM Permit</th> <th>Issuing Date</th> <th>Period</th> <th>Expiry Date</th> <th>Area (ha)</th> <th>Status</th> <th>Municipality/State</th> <th>Title Holder</th> </tr> </thead> <tbody> <tr> <td>810.090/1991</td> <td>8/16/2010</td> <td>2</td> <td>8/16/2012</td> <td>1,000.00</td> <td>Final Report Presented</td> <td>Lavras do Sul/RS</td> <td>Agua Fertilizantes S.A.</td> </tr> <tr> <td>810.325/2012</td> <td>5/03/2017</td> <td>3</td> <td>5/03/2020</td> <td>900.95</td> <td>Permit Extension</td> <td>Lavras do Sul/RS</td> <td>Agua Fertilizantes S.A.</td> </tr> <tr> <td>810.988/2011</td> <td>4/15/2015</td> <td>3</td> <td>4/15/2018</td> <td>84.39</td> <td>Extension Submitted</td> <td>Lavras do Sul/RS</td> <td>Falcon Petróleo S.A.</td> </tr> <tr> <td colspan="4"></td> <td><b>Total Area</b></td> <td><b>2,075.34</b></td> <td colspan="2"></td> </tr> </tbody> </table>	ANM Permit	Issuing Date	Period	Expiry Date	Area (ha)	Status	Municipality/State	Title Holder	810.090/1991	8/16/2010	2	8/16/2012	1,000.00	Final Report Presented	Lavras do Sul/RS	Agua Fertilizantes S.A.	810.325/2012	5/03/2017	3	5/03/2020	900.95	Permit Extension	Lavras do Sul/RS	Agua Fertilizantes S.A.	810.988/2011	4/15/2015	3	4/15/2018	84.39	Extension Submitted	Lavras do Sul/RS	Falcon Petróleo S.A.					<b>Total Area</b>	<b>2,075.34</b>		
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		 <ul style="list-style-type: none"> <li>• The permit 810.325/2012 is currently operating under a permit extension. Falcon has requested for an extension of the permit 810.988/2011 which is currently under ANM’s review. The Final Exploration Report regarding the permit 810.090/1991 was file with ANM in September 09<sup>th</sup>, 2012.</li> </ul>

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Criteria	JORC Code Explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Lavras do Sul was originally developed in the 1880's as a gold mining camp on the Camaquã of Lavras River. In 1959, more detailed studies were organized by the ANM, which were followed in the 1970s by major survey and sampling programs of all mineral occurrences by the Companhia de Pesquisa e Recursos Minerais (CPRM – The Geological Survey of Brazil). In recent years there have been renewed exploration activities for gold and base metals in the region by Companhia Brasileira do Cobre (CBC), Amarillo Mining, Companhia Riograndense de Mineração (CRM) and Votorantim Metais Zinco SA.</li> <li>Phosphate mineralization was first observed at Três Estradas in a gold exploration program being conducted jointly by Santa Elina and CBC. Santa Elina was prospecting for gold in ANM #810.090/1991, conducting soil, stream sediment and rock geochemistry, ground geophysical surveys (magnetrometry and induced polarization) and a limited drilling program.</li> <li>Exploration results for gold were not encouraging and Santa Elina pulled out of the joint venture with CBC. However, the phosphate chemical analysis from two core boreholes in the ANM #810.090/1991 area yielded results of 6.41% P<sub>2</sub>O<sub>5</sub> from soil and 6.64% P<sub>2</sub>O<sub>5</sub> from core. This information was communicated to CPRM.</li> <li>Following petrographic studies, apatite mineralization occurring in carbonatite was confirmed. In July 2011, CBC entered into a partnership with Aguiá Metais Ltda, a subsidiary of Aguiá Resources Ltd., to explore and develop phosphate deposits in Rio Grande do Sul State.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Três Estradas Phosphate Project is situated in the Santa Maria Chico Granulitic Complex (SMCGC), part of the Taquarembó domain. The SMCGC exposes the deepest structural levels within Brazil and may represent the western edge of the Precambrian Rio de la Plata Craton. The Três Estradas deposit consists of an elongated carbonatite intrusion (meta-carbonatite and amphibolite) with a strike of 50° to 60°. The meta-carbonatite and amphibolite form a tightly folded sequence with limbs dipping steeply from 70° to vertical (90°). The surface expression of the intrusion is approximately 2.5 km along strike with a width of approximately 300m. The Late Archean to Early Proterozoic intrusion is intensely recrystallized and metamorphosed to amphibolite assemblages. The carbonatite intrusion is bound mostly by biotite gneiss along with meta-syenite along its northeast and southeast boundaries</li> <li>Phosphate mineralization, occurring as the mineral apatite (<math>\text{Ca}_5(\text{PO}_4)_3(\text{F},\text{Cl},\text{OH})</math>), is the primary mineralization of economic interest at Três Estradas. Apatite is the only phosphate-bearing mineral occurring in the carbonatites. At Três Estradas phosphate mineralization occurs in both fresh and weathered meta-carbonatite and amphibolite. Phosphate also becomes highly enriched as secondary mineralization in the overlying saprolite.</li> </ul>

Criteria	JORC Code Explanation	Commentary																																				
		<p>54°W</p> <p>São Gabriel</p> <p>Ibaré Lineament</p> <p>Caçapava do Sul</p> <p>Lavras do Sul</p> <p>Três Estradas</p> <p>Dom Feliciano Belt</p> <p>31°S</p> <p>Bagé</p> <p>Legend:</p> <ul style="list-style-type: none"> <li>Fault / Shear</li> <li>Carbonatite Deposit</li> <li>Town</li> </ul> <p>Modified from Hartmann, L. A., et al, 2008</p> <table border="0"> <tr> <td>Age - Ga</td> <td>0.35 - 0.10</td> <td>Paraná Basin</td> <td>SÃO GABRIEL BELT</td> <td>Age - Ga</td> <td>Juvenile Terrane</td> <td>SÃO GABRIEL BELT</td> <td>Age - Ga</td> <td>La Plata Craton</td> </tr> <tr> <td></td> <td>0.64 - 0.47</td> <td>Dom Feliciano Belt Foreland</td> <td></td> <td>0.88 - 0.68</td> <td>Cambaí Complex</td> <td></td> <td>2.55 - 2.03</td> <td>Santa Maria Chico Granulitic Complex</td> </tr> <tr> <td></td> <td>0.06 - 0.54</td> <td>Camaquã Basin</td> <td></td> <td>0.75 - 0.70</td> <td>Vacacaí Complex</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Post-tectonic granites</td> <td></td> <td>2.20 - 0.70</td> <td>Ultramafic rocks from both complexes</td> <td></td> <td></td> <td></td> </tr> </table>	Age - Ga	0.35 - 0.10	Paraná Basin	SÃO GABRIEL BELT	Age - Ga	Juvenile Terrane	SÃO GABRIEL BELT	Age - Ga	La Plata Craton		0.64 - 0.47	Dom Feliciano Belt Foreland		0.88 - 0.68	Cambaí Complex		2.55 - 2.03	Santa Maria Chico Granulitic Complex		0.06 - 0.54	Camaquã Basin		0.75 - 0.70	Vacacaí Complex						Post-tectonic granites		2.20 - 0.70	Ultramafic rocks from both complexes			
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Drill Hole Information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:                             <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Tres Estradas project have 383 drillholes including diamond drillholes and RC drillholes. Tables and map below present the location and average grades by intercept domain type.</li> </ul> <table border="1" data-bbox="1057 459 1839 663"> <thead> <tr> <th>Drilling</th> <th>Count</th> <th>Cumulative Meters</th> <th>Assay Intervals</th> </tr> </thead> <tbody> <tr> <td>Core Holes</td> <td>139</td> <td>20,509.5</td> <td>16,046</td> </tr> <tr> <td>RC Holes</td> <td>244</td> <td>7,800.0</td> <td>7,800</td> </tr> <tr> <td><b>Total</b></td> <td><b>383</b></td> <td><b>28,309.5</b></td> <td><b>23,846</b></td> </tr> </tbody> </table>	Drilling	Count	Cumulative Meters	Assay Intervals	Core Holes	139	20,509.5	16,046	RC Holes	244	7,800.0	7,800	<b>Total</b>	<b>383</b>	<b>28,309.5</b>	<b>23,846</b>
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Criteria	JORC Code Explanation	Commentary
		<p>DNPM - 810.090/1991 DNPM - 810.325/2012</p> <ul style="list-style-type: none"> <li>— License Boundary</li> <li>— Model Area</li> <li>⊕ Core Drillhole</li> <li>⊕ RC Drillhole</li> <li>• Auger Drillhole</li> <li>— Drillhole Trace</li> <li>— Topography Contour</li> </ul> <p>0 50 100 150 200 METERS SAD99 Zone 21S</p>

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		<b>Domain</b>	<b>Rock Code</b>	<b>Stats*</b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>CaO</b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>MgO</b>	<b>SiO<sub>2</sub></b>
		<b>AMPSAP</b>	210	Average	5.22	10.75	8.44	15.21	7.42	40.67
				Std. Dev.	2.99	4.48	3.18	2.90	3.28	8.87
				Minimum	0.16	0.44	2.24	6.28	0.24	22.60
				Maximum	15.10	24.50	21.20	24.90	14.60	81.30
				Count	447					
		<b>CBTSAP</b>	110	Average	9.67	16.57	5.60	18.45	4.80	31.32
				Std. Dev.	5.29	8.36	3.17	6.66	3.43	11.77
				Minimum	0.00	0.00	0.00	0.00	0.00	0.00
				Maximum	36.90	49.30	19.70	73.40	15.50	96.60
				Count	2122					
		<b>WMCBT</b>	120	Average	4.49	34.82	2.26	9.02	5.89	13.87
				Std. Dev.	2.08	8.74	2.00	3.75	2.86	8.80
				Minimum	0.99	5.17	0.09	2.57	0.76	1.34
				Maximum	19.00	50.90	14.74	39.80	16.60	79.10
				Count	993					
		<b>MCBT</b>	100	Average	3.79	34.31	2.10	7.95	7.71	11.94
				Std. Dev.	1.33	7.85	2.12	2.81	3.20	8.65
				Minimum	0.00	0.00	0.00	0.00	0.00	0.00
				Maximum	19.00	52.40	20.20	67.10	17.50	98.50
				Count	8743					
		<b>MAMP</b>	200	Average	3.81	19.49	6.75	12.60	9.04	33.31
				Std. Dev.	1.55	4.25	1.62	2.57	1.52	6.94
				Minimum	0.03	0.14	0.00	1.45	0.10	2.44
				Maximum	11.77	43.00	13.40	22.10	16.70	97.60
				Count	670					

Criteria	JORC Code Explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cut-off grades are usually material and should be stated.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralization intervals intersected by drilling was aggregated by weighted average length.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	<ul style="list-style-type: none"> <li>Intercept limits was guided by lithological interpretations during core-logging.</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Metal equivalents were not reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Intercepts were produced at 45° average angle which isn't the best condition, but it's considered acceptable for mineral resource estimate purpose.</li> </ul>
	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>In general terms, the geological unit contacts are sub-vertical, and the holes are dipping 60°.</li> </ul>

11th February 2020

INDEPENDENT TECHNICAL REPORT ON EXPLORATION AND MINERAL  
RESOURCE ESTIMATE

TRÊS ESTRADAS PHOSPHATE PROJECT – AGUIA RESOURCES LTD.

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"><li>• If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (eg. 'downhole length, true width not known').</li></ul>	<ul style="list-style-type: none"><li>• Intercepts were produced at 45° average angle.</li></ul>

Criteria	JORC Code Explanation	Commentary
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See following pictures:                     <div data-bbox="824 363 1989 1216" style="border: 1px solid black; padding: 5px;"> </div> </li> </ul>

Criteria	JORC Code Explanation	Commentary
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling databases are highly organized with drilling Intercepts and it's grade x length reports are properly stored and readily available within on the drillhole database.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances</li> </ul>	<ul style="list-style-type: none"> <li>One historical trench exists on the tenement, cut perpendicular to the meta-carbonatite. According to Aguiá, this trench was dug over 10 years ago by Santa Elina while prospecting for gold in the area. Within the trench Aguiá sampled three vertical channels. Within each channel, two samples were collected from bottom to top. The P<sub>2</sub>O<sub>5</sub> results from these samples vary from 24.10% to 28.80%.</li> <li>Aguiá made use of data from an airborne geophysical survey completed by CPRM, using rectified imagery for Total Magnetic Field (TMF), signal amplitude of TMF, First Derivative of the TMF, Uranium Concentration and Total Count of Gamma spectrometry. The magnetic anomalies identified in the airborne survey assisted in delineating areas of interest and led to Aguiá completing a ground-based magnetic survey over the entire northern tenement area in March, 2012. The survey was carried out by AFC Geofísica, Ltda. from Porto Alegre, Brazil. The survey comprised 104 line kilometers oriented north-south. Survey lines and control lines were spaced at 25m and 100m apart respectively.</li> </ul>

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Criteria	JORC Code Explanation	Commentary
Further work	<ul style="list-style-type: none"><li>• The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li><li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li></ul>	<ul style="list-style-type: none"><li>• Millcreek considers the exploration data collected by Aguia to be of sufficient quality to support mineral resource evaluation.</li></ul>

**Section 3 Estimation and reporting of Mineral Resources****(criteria listed in the first group, and where relevant in the second group, apply also to this group)**

Criteria	JORC Code Explanation	Commentary																
Database integrity	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> </ul>	<ul style="list-style-type: none"> <li>The database used for mineral resource evaluation includes 139 core holes (20,509.5m) and 244 RC holes (7,800m) for the Tres Estradas deposit (table below). The database was provided to Millcreek in a digital format and represents the Tres Estradas Project exploration dataset as of August 8, 2017.</li> </ul> <table border="1"> <thead> <tr> <th>Drilling</th> <th>Count</th> <th>Cumulative Meters</th> <th>Assay Intervals</th> </tr> </thead> <tbody> <tr> <td>Core Holes</td> <td>139</td> <td>20,509.5</td> <td>16,046</td> </tr> <tr> <td>RC Holes</td> <td>244</td> <td>7,800.0</td> <td>7,800</td> </tr> <tr> <td><b>Total</b></td> <td><b>383</b></td> <td><b>28,309.5</b></td> <td><b>23,846</b></td> </tr> </tbody> </table>	Drilling	Count	Cumulative Meters	Assay Intervals	Core Holes	139	20,509.5	16,046	RC Holes	244	7,800.0	7,800	<b>Total</b>	<b>383</b>	<b>28,309.5</b>	<b>23,846</b>
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	<ul style="list-style-type: none"> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Millcreek checked about errors, as gaps or overlapping data, or other material inconsistencies in collar, survey and interval data tables.</li> </ul>																
Site Visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Millcreek has completed a thorough review and verification of the drilling database and found the database to be sufficient for resource modeling.</li> <li>The first site visit took place between March 17, 2016 and March 19, 2016. Millcreek's representatives included Mr. Steven Kerr (C.P.G.-10352) and Mr. Alister Horn (MMSAQP-01369), who are considered Qualified Persons (QPs) under the NI 43-101 Standards of Disclosure for Mineral Projects. Mr. Kerr made a second site visit to the project on March 8 and 9, 2017, during the most recent drilling program. No material work has been done on the property since Mr. Kerr's most recent visit, and the QPs consider their personal inspections to be considered current, for their respective fields.</li> </ul>																
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Agua has developed a geologic block model of the Três Estradas Property phosphate deposit using GEMSTM software. Modeling was constructed by developing a series of vertical sections spaced at 50m intervals. Three-dimensional shells were developed by linking the vertical sections together with tie lines. Mineralization has an approximate strike length of 2,400m and extends to a depth of 370m below surface. Confidence of geological model is directly associated to drillhole data adherence.</li> </ul>																



Criteria	JORC Code Explanation	Commentary																																																															
	<ul style="list-style-type: none"> <li>Nature of the data used and of any assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The outer mineralized envelopes were modeled into wireframe solids using a 3.00% P2O5 cut-off grade.</li> </ul>																																																															
	<ul style="list-style-type: none"> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> </ul>	<ul style="list-style-type: none"> <li>Modeling was constructed by developing a series of interpreted vertical sections spaced at 50m intervals.</li> </ul>																																																															
	<ul style="list-style-type: none"> <li>The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The model recognizes five mineralized, lithologic domains and nine non-mineralized domains as listed in table below: <table border="1" data-bbox="952 571 2063 1173"> <thead> <tr> <th>Typology</th> <th>Domain</th> <th>Average Ordinary Kriging Density</th> <th>Block Model Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td rowspan="5">MINERALIZED</td> <td>CBTSAP</td> <td>1.60</td> <td>120</td> <td>Saprolite of Carbonatite</td> </tr> <tr> <td>WMCBT</td> <td>2.80</td> <td>110</td> <td>Weathered Carbonatite</td> </tr> <tr> <td>MCBT</td> <td>2.85</td> <td>100</td> <td>Meta-Carbonatite</td> </tr> <tr> <td>AMPSAP</td> <td>1.65</td> <td>220</td> <td>Saprolite of Amphibolite</td> </tr> <tr> <td>MAMP</td> <td>2.87</td> <td>200</td> <td>Amphibolite</td> </tr> <tr> <td rowspan="9">WASTE</td> <td>AMPSAP-WASTE</td> <td>1.77</td> <td>22</td> <td>Saprolite of Amphibolite Waste</td> </tr> <tr> <td>WMAMP-WASTE</td> <td>2.83</td> <td>21</td> <td>Weathered Amphibolite Waste</td> </tr> <tr> <td>MAMP-WASTE</td> <td>2.91</td> <td>20</td> <td>Amphibolite Waste</td> </tr> <tr> <td>W-SAP</td> <td>1.81</td> <td>32</td> <td>Saprolite Waste (Meta-Syenite, Gneiss)</td> </tr> <tr> <td>W-WEATH</td> <td>2.59</td> <td>31</td> <td>Weathered Waste (Meta-Syenite, Gneiss)</td> </tr> <tr> <td>W-ROCK</td> <td>2.68</td> <td>30</td> <td>Fresh Rock Waste (Meta-Syenite, Gneiss)</td> </tr> <tr> <td>CBTSAP-WASTE</td> <td>1.63</td> <td>42</td> <td>Saprolite of Carbonatite Waste</td> </tr> <tr> <td>WMCBT-WASTE</td> <td>2.76</td> <td>41</td> <td>Weathered Carbonatite Waste</td> </tr> <tr> <td>MCBT-WASTE</td> <td>2.80</td> <td>40</td> <td>Meta-Carbonatite Waste</td> </tr> </tbody> </table> </li> <li>Agua constructed wireframes of the meta-carbonatite and the amphibolite. Metacarbonatite is differentiated by weathering into three domains: saprolite, weathered carbonatite, and fresh meta-carbonatite. Amphibolite is separated into two domains: saprolite and fresh amphibolite.</li> </ul>	Typology	Domain	Average Ordinary Kriging Density	Block Model Code	Description	MINERALIZED	CBTSAP	1.60	120	Saprolite of Carbonatite	WMCBT	2.80	110	Weathered Carbonatite	MCBT	2.85	100	Meta-Carbonatite	AMPSAP	1.65	220	Saprolite of Amphibolite	MAMP	2.87	200	Amphibolite	WASTE	AMPSAP-WASTE	1.77	22	Saprolite of Amphibolite Waste	WMAMP-WASTE	2.83	21	Weathered Amphibolite Waste	MAMP-WASTE	2.91	20	Amphibolite Waste	W-SAP	1.81	32	Saprolite Waste (Meta-Syenite, Gneiss)	W-WEATH	2.59	31	Weathered Waste (Meta-Syenite, Gneiss)	W-ROCK	2.68	30	Fresh Rock Waste (Meta-Syenite, Gneiss)	CBTSAP-WASTE	1.63	42	Saprolite of Carbonatite Waste	WMCBT-WASTE	2.76	41	Weathered Carbonatite Waste	MCBT-WASTE	2.80	40	Meta-Carbonatite Waste
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Dimensions	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>Three-dimensional shells were developed by linking the vertical sections together with tie lines. Mineralization has an approximate strike length of 2,400m and extends to a depth of 370m below surface. Mineralized zones range in thickness from 5m to 100m.</li> </ul>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, maximum distance of extrapolation from data points.</li> </ul>	<ul style="list-style-type: none"> <li>All assays were composited to 1.0m lengths. A high-grade limit was identified for each mineral domain and shows 9% P<sub>2</sub>O<sub>5</sub> was selected as the high-grade limit. Therefore, in the grade estimation process of P<sub>2</sub>O<sub>5</sub>, when the composite grade reaches 9% or more the size of search ellipsoids reduces to half of its original size.</li> <li>Three estimation passes were used with progressively relaxed search ellipsoids and data requirements based on the Variography: <ul style="list-style-type: none"> <li><b>Pass 1:</b> Blocks estimated in the first pass using half the distance of variogram range and based on composites from a minimum of three boreholes;</li> <li><b>Pass 2:</b> Blocks estimated in the first two passes within the full range of the variogram and based on composites from a minimum of two boreholes; and</li> <li><b>Pass 3:</b> All remaining blocks within the wireframe limits in an unconfined search not classified in the first two estimation passes.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	<ul style="list-style-type: none"> <li>No checks with previous estimates or mine production records has been made.</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions made regarding recovery of by-products.</li> </ul>	<ul style="list-style-type: none"> <li>No estimation of recovery factors has been made.</li> </ul>
	<ul style="list-style-type: none"> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> </ul>	<ul style="list-style-type: none"> <li>The estimation for the six oxide variables (P<sub>2</sub>O<sub>5</sub>, CaO, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MgO, and SiO<sub>2</sub>) and specific gravity were done using ordinary kriging interpolation for all the domains: MCBT, WMCBT, MAMP, CBTSAP and AMPSAP.</li> </ul>
	<ul style="list-style-type: none"> <li>In the case of block model interpolation, the block size in relation to the average sample</li> </ul>	<ul style="list-style-type: none"> <li>The block dimensions were defined as 12m x 6m x 10m, and drilling grid dimensions can be considered as 25m x 50m x 1m. Millcreek considers block sizes appropriate for mineral</li> </ul>

Criteria	JORC Code Explanation	Commentary
	spacing and the search employed.	resource estimates.
	<ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	<ul style="list-style-type: none"> <li>None made.</li> </ul>
	<ul style="list-style-type: none"> <li>Any assumptions about correlation between variables.</li> </ul>	<ul style="list-style-type: none"> <li>No assumptions were made by Millcreek regarding the correlation between variables</li> </ul>
	<ul style="list-style-type: none"> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>Aguia performed a series of variograms and variogram maps in GEMS mining software to model the spatial continuity of the six oxides (P<sub>2</sub>O<sub>5</sub>, CaO, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MgO, and SiO<sub>2</sub>) and for specific gravity of MCBT and MAMP. Grade estimations were made using ordinary kriging interpolation for all of the mineralized domains</li> </ul>
Estimation and modelling techniques (cont.)	<ul style="list-style-type: none"> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	<ul style="list-style-type: none"> <li>Under supervision of Millcreek, Aguia conducted a top-cut analysis. Through visual inspection of the gradual changes of the mean values, a high-grade limit was identified for each mineral domain. 9% P<sub>2</sub>O<sub>5</sub> was selected as the high-grade limit. Therefore, in the grade estimation process of P<sub>2</sub>O<sub>5</sub>, when the composite grade reaches 9% or more the size of search ellipsoids reduces to half of its original size.</li> </ul>
	<ul style="list-style-type: none"> <li>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>Millcreek has conducted an audit of the block model prepared by Aguia and of the resources estimated from the model. Millcreek loaded the Tres Estradas block model into the Maptek VulcanR software system, a geology and mine planning software that competes directly with GEMS. The Millcreek audit and validation of the Tres Estradas block model consisted of the following steps: <ul style="list-style-type: none"> <li>1. Visual Validation: The drill hole composited drilling data was loaded into Vulcan software to compare the grade estimation block/drill hole grade relationships in cross section view. A visual inspection of vertical cross sections spaced at 50m spacing along the strike of the mineralization showed strong correlation between drill hole assays and composited values in the model.</li> <li>2. Statistical Validation: Two types of statistical validations were carried out: general statistical comparisons and statistical structures: General statistics and comparison of histograms</li> <li>3. Spatial Validation (Swath plots): The block model was evaluated using a series of swath plots. A swath plot is a graphical display of the grade distribution derived from a series of bands, or swaths, generated as sections through the deposit.</li> </ul> </li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>4. Specific Gravity (SG) Model Validation: The SG composited data was used to create a krigged model that represents the variability of SG in the deposit.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Sample weighting and assay analysis were performed on dry basis.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Mineral resources are reported within a conceptual pit shell at a cutoff grade of 3% P<sub>2</sub>O<sub>5</sub>.</li> </ul>
Mining factors or assumptions.	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Using the Lerchs-Grossman algorithm, Millcreek has developed a mineable pit shell using the above parameters. The pit shell captures the resources estimated in the block model that have reasonable prospects for economic extraction.</li> <li>The pit optimization results are used solely for the purpose of testing the “reasonable prospects for economic extraction” and do not represent an attempt to estimate mineral reserves, simply what portion of the resource is considered ‘mineable’. Further work has been performed to propose the portion of the ‘mineable’ resource that is economically optimized.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Metallurgical factors or assumptions.	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The pit optimization also considers the recovery of calcite as a by-product to mining and processing of the meta-carbonatite. Calcite recovery through column flotation is further addressed in subsequent sections of the report.</li> </ul>
<ul style="list-style-type: none"> <li>Environmental factors or assumptions</li> </ul>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The environmental impact and permitting review relies on work completed by Golder Associates in 2015, 2016 and 2017. Golder Associates has been instrumental in collecting and analysing environmental field data to develop the necessary regulatory material submitted to the Rio Grande do Sul's Government.</li> <li>A comprehensive Environmental and Social Impact Assessment (EIA / RIMA), that meets national and international standards, was undertaken in 2015 and 2016 by Golder Associates based on over 14 months of field data collection and subsequent interpretation.</li> <li>The EIA/RIMA was submitted to State Government Agency (FEPAM) in October 7th, 2016. Aguiá produced an updated version of the EIA / RIMA in September 1st, 2017, which is currently under FEPAM analysis.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Bulk density	<ul style="list-style-type: none"> <li>• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>• During the first drilling campaign in 2011, the specific gravity of 48 core samples were measured by SGS Geosol using a standard weight in water and weight in air methodology.</li> <li>• Uncut core segments of approximately 15 to 20 centimeter lengths were wrapped in PVC film and submerged in water. Aguia took over this testing with all subsequent drilling following the same procedures used by SGS Geosol. To date, 4,216 specific gravity measurements have been determined for Três Estradas.</li> <li>• Density values were estimated on block model by ordinary kriging interpolation for each mineralization domain separately.</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

<p>Classification</p>	<ul style="list-style-type: none"> <li>• The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>• Whether appropriate account has been taken of all relevant factors. i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.</li> <li>• Whether the result appropriately reflects the Competent Person(s)' view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>• The resource classification involved a two-stage process.</li> <li>• Stage 1: Relevant mathematical parameters were saved in the block model and the blocks. These variables are: Interpolation pass; Distance of the closest sample from the block; Average distance of samples used in estimating any; Number of drill holes used for estimating any; The kriging variance of grade estimation.</li> <li>• Stage 2: The above variables were used as supporting mathematical variables for finalization of the resource classification process. At this stage, the resource blocks</li> <li>• were coded manually.</li> <li>• The two-stage process of classifying resources follows a 'best practices' approach allowing the QP to ensure that unreasonable conditions of: 1) measured blocks and inferred category blocks occurring side-by-side and 2) the measured and indicated blocks are not dominated by blocks with low sample support.</li> </ul> <div data-bbox="913 762 2072 1423"> <p><b>Example of Stage 2 Resource Coding</b></p> <p><b>BLOCK : CLASS</b></p> <p>0.100 &lt;= [yellow] &lt; 1.100</p> <p>1.100 &lt;= [blue] &lt; 2.100</p> <p>2.100 &lt;= [purple] &lt; 3.100</p> <p>Original</p> <p>Final</p> </div>
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Criteria	JORC Code Explanation	Commentary																																																																																																																																																																
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	<p>* Mineral resources are not mineral reserves and do not have demonstrated economic viability. All numbers have been rounded to reflect relative accuracy of the estimates. Mineral resources are reported within a conceptual pit shell at a cut-off grade of 3% P<sub>2</sub>O<sub>5</sub>.</p>																																																																																																																																																																	
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No additional audits were performed.</li> </ul>																																																																																																																																																																



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Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>The Geology QP is not aware of or perceives any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors having any material impact on the resource estimates other than what has already been discussed in this report.</li> <li>The accuracy of resource and reserve estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time this report was prepared, the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available subsequent to the date of the estimates may necessitate revision. These revisions may be material. There is no guarantee that all or any part of the estimated resources or reserves will be recoverable.</li> </ul>
	<ul style="list-style-type: none"> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</li> </ul>	<ul style="list-style-type: none"> <li>No production data comparison was performed.</li> </ul>

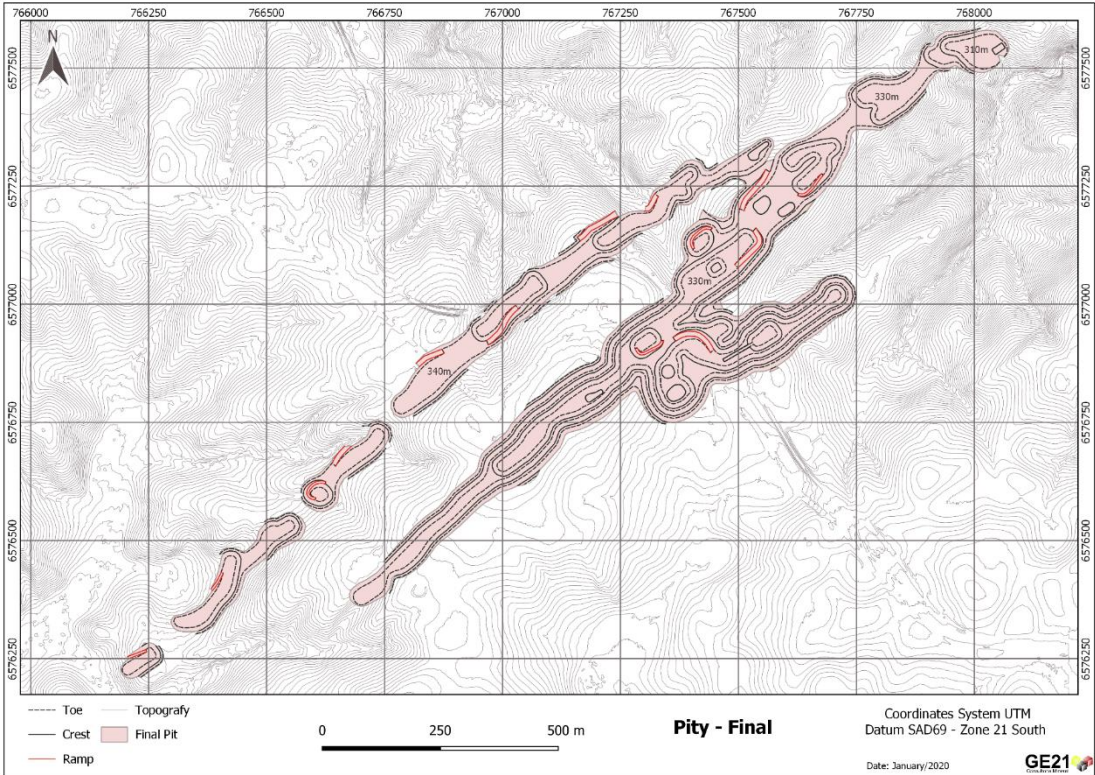
**TRES ESTRADAS PROJÉT – AGUIA RESOURCES – RESERVES UPDATE****Section 4 Estimation and Reporting of Ore Reserves**

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul style="list-style-type: none"> <li>GE21 received from Aguia Resources the Resource database certified by the Millcreek Mining Group. GE21 performed the import and validated the database information. For this Scoping Study, GE21 is not responsible for the estimation and certification of the Mineral Resource.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Persons, Competent Persons, Porfirio Cabaleiro Rodriguez, and Bernardo Horta Cerqueira Viana undertaken a site visit on December 2019, during three days, when was possible to check fields works, and local infrastructure</li> </ul>

Criteria	JORC Code explanation	Commentary
	is the case.	
Study status	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul style="list-style-type: none"> <li>A scoping study comprising mining studies, pit optimisation, fleet sizing and mining Capex and Opex was developed, considering AACE Class 5 cost level</li> <li>The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality</li> </ul>	<ul style="list-style-type: none"> <li>3% P<sub>2</sub>O<sub>5</sub> based on BFS report: Três Estradas Phosphate Project, Rio Grande do Sul, Brazil</li> </ul>

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Mining factors or assumptions	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>A conventional oThe choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding</li> </ul>	<ul style="list-style-type: none"> <li>GE21 assumed the following parameters for Pit optimization</li> </ul> <table border="1"> <thead> <tr> <th colspan="2">Item</th> <th>Unit</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Economic Parameters</td> <td rowspan="2">Sell Price</td> <td>Exchange rate (Australian Dollar)</td> <td>2.85</td> </tr> <tr> <td>AUD \$/t com P2O5 carb</td> <td>72.0</td> </tr> <tr> <td>AUD \$/t com P2O5 Anf</td> <td>43.2</td> </tr> <tr> <td rowspan="3">Resources</td> <td rowspan="3">Class</td> <td>Measured</td> <td></td> </tr> <tr> <td>Indicated</td> <td></td> </tr> <tr> <td>Inferred</td> <td></td> </tr> <tr> <td rowspan="2">ROM</td> <td>Density</td> <td>g/cm<sup>3</sup></td> <td>model</td> </tr> <tr> <td>Grade</td> <td>%</td> <td>model</td> </tr> <tr> <td rowspan="2">Mining</td> <td>Recovery</td> <td>%</td> <td>98</td> </tr> <tr> <td>Dilution</td> <td></td> <td>2</td> </tr> <tr> <td rowspan="6">Physical</td> <td rowspan="3">Block Model</td> <td>X</td> <td>m</td> </tr> <tr> <td>Y</td> <td>6</td> </tr> <tr> <td>Z</td> <td>10</td> </tr> <tr> <td>Slope Angle</td> <td>Degree</td> <td>°</td> <td>34</td> </tr> <tr> <td>Mass Recovery</td> <td></td> <td>%</td> <td>95</td> </tr> <tr> <td>Cut-off Grade</td> <td>Grade</td> <td>Unit</td> <td>Value</td> </tr> <tr> <td rowspan="4">Costs</td> <td>P2O5</td> <td>%</td> <td>3</td> </tr> <tr> <td>Ore</td> <td>AUD \$/t mov.</td> <td>2.32</td> </tr> <tr> <td>Waste</td> <td></td> <td>2.32</td> </tr> <tr> <td>Process</td> <td>AUD \$/t.fed</td> <td>4.81</td> </tr> <tr> <td></td> <td>Selling CostG&amp;A</td> <td>AUD\$/t DANF</td> <td>3.34</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The ore will be mined at a conventional open pit operation, with excavators with a bucket capacity of 2.0 m3 and trucks with a volume capacity of 10m3.</li> <li>A Geotechnical study recommended the following geometry for final slopes angles</li> </ul>	Item		Unit	Value	Economic Parameters	Sell Price	Exchange rate (Australian Dollar)	2.85	AUD \$/t com P2O5 carb	72.0	AUD \$/t com P2O5 Anf	43.2	Resources	Class	Measured		Indicated		Inferred		ROM	Density	g/cm <sup>3</sup>	model	Grade	%	model	Mining	Recovery	%	98	Dilution		2	Physical	Block Model	X	m	Y	6	Z	10	Slope Angle	Degree	°	34	Mass Recovery		%	95	Cut-off Grade	Grade	Unit	Value	Costs	P2O5	%	3	Ore	AUD \$/t mov.	2.32	Waste		2.32	Process	AUD \$/t.fed	4.81		Selling CostG&A	AUD\$/t DANF	3.34
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	<p>geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</p> <ul style="list-style-type: none"> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of</li> </ul>	<table border="1" style="margin-bottom: 20px;"> <thead> <tr> <th>Lithotype</th> <th>Face angle (°)</th> <th>Bench width (m)</th> <th>Bench height (m)</th> <th>Inter-ramp general slope (°)</th> </tr> </thead> <tbody> <tr> <td>Soil/Saprolite</td> <td>45</td> <td>7.2</td> <td>15</td> <td>34</td> </tr> <tr> <td>Others</td> <td>75</td> <td>13.5</td> <td>30</td> <td>55</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The following below the operational design parameters.</li> </ul> <table border="1" style="margin-bottom: 20px;"> <thead> <tr> <th><i>Description</i></th> <th><i>Units</i></th> <th><i>Value</i></th> </tr> </thead> <tbody> <tr> <td><i>Two Lane Ramp Width</i></td> <td><i>m</i></td> <td><i>10</i></td> </tr> <tr> <td><i>Ramp Grade</i></td> <td><i>%</i></td> <td><i>10</i></td> </tr> <tr> <td><i>Bench Face Angle</i></td> <td><i>Degrees</i></td> <td><i>45</i></td> </tr> <tr> <td><i>Pit Slope</i></td> <td><i>Degrees</i></td> <td><i>34</i></td> </tr> <tr> <td><i>Final Wall Bench Height</i></td> <td><i>m</i></td> <td><i>10</i></td> </tr> <tr> <td><i>Berm Width</i></td> <td><i>m</i></td> <td><i>5</i></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The final pit design is presented below</li> </ul>	Lithotype	Face angle (°)	Bench width (m)	Bench height (m)	Inter-ramp general slope (°)	Soil/Saprolite	45	7.2	15	34	Others	75	13.5	30	55	<i>Description</i>	<i>Units</i>	<i>Value</i>	<i>Two Lane Ramp Width</i>	<i>m</i>	<i>10</i>	<i>Ramp Grade</i>	<i>%</i>	<i>10</i>	<i>Bench Face Angle</i>	<i>Degrees</i>	<i>45</i>	<i>Pit Slope</i>	<i>Degrees</i>	<i>34</i>	<i>Final Wall Bench Height</i>	<i>m</i>	<i>10</i>	<i>Berm Width</i>	<i>m</i>	<i>5</i>
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	<p>the selected mining methods.</p>	
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>ROM will be transported by 10m3 trucks from the mine to the stockpile area. The ROM will be reclaimed from the stockpile with a front-end loader and a truck to feed the processing plant.</li> <li>Considering the production of a DANF product during the Project Phase 1 the facility will consist of simple processing plant with the following flow:</li> <li>The transported material is dumped into a vibrating feeder with capacity of 120 tph</li> </ul>

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INDEPENDENT TECHNICAL REPORT ON EXPLORATION AND MINERAL  
RESOURCE ESTIMATE

TRÊS ESTRADAS PHOSPHATE PROJECT – AGUIA RESOURCES LTD.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>• The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>• Any assumptions or allowances made for deleterious elements.</li> <li>• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> </ul>	<ul style="list-style-type: none"> <li>• Crushing circuit – Consisting of a primary impact crusher, hopper, and conveyance to mills</li> <li>• Milling circuit – Consisting of 4 hammer mills in parallel, hoppers and conveyance to the warehouse</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	
Environmental	<ul style="list-style-type: none"> <li>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps</li> </ul>	<ul style="list-style-type: none"> <li>A comprehensive Environmental and Social Impact Assessment (EIA/RIMA), that meets national and international standards, was undertaken in 2015 and 2016 by Golder Associates based on over 14 months of field data collection and subsequent interpretation. The EIA/RIMA was submitted to State Government Agency (FEPAM) in October/2016. Aguia produced an updated version of the EIA / RIMA in September/2017. FEPAM requested additional information regarding the EIA/RIMA in October/2018, April/2019 and July/2019, which were respectively answered by Aguia in December/2018, May/2019 and August/2019. The Public consultation for the Três Estradas Phosphate Project held in Lavras do Sul in March 20th ,2019. The EIA/RIMA was approved with the Preliminary License (LP) grating by FEPAM in October 15th, 2019.</li> <li>Currently Aguia is developing works aiming to obtain the Installation Permit (LI), which provides the necessary authorisation to initiate construction and start developing the mine site. The LI is granted by fulfillment of the LP conditions, approval of the mine development plan (PAE) by the National Mining Agency and it demonstrates economic feasibility and approval of an environmental control plan called the Basic Environmental Plan (PBA). The PBA outlines compensatory measures and pollution control plans, which have been defined in the LP.</li> </ul>



Criteria	JORC Code explanation	Commentary						
	should be reported.							
Infrastructure	<ul style="list-style-type: none"> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</li> </ul>	<ul style="list-style-type: none"> <li>The project site has good road access to within 9 km, and municipal road access to the site. It is nearby (27km) to Lavras do Sul city which will provide as well as house employees and provide basic services. The region has several other mines, and a well-established local coal industry, so equipment vendors and contractors are available to support the operations, as needed. Water will be impounded from a river at the property, and line power is available from transmission line 9 km away. A system of well-maintained roads links the mine to Porto Alegre (the capital city of the state) as well as to the markets in the north, east and west of the Rio Grande do Sul (RS) state.</li> <li>The terrain at the project site is reasonably level and has been shown by geotechnical analysis to provide competent foundations for the process plant, mine infrastructure, waste dumps, tailings storage, dykes, etc.</li> </ul>						
Costs	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> </ul>	<ul style="list-style-type: none"> <li>The ROM (Run of Mine) loaded, transported by trucks and discharged directly into the receiving hopper of ROM at an average feed rate of 120 tons per hour. A mining fleet was dimensioned to allow estimate possible mining Capex an Opex.</li> <li>In the first 3 years the mining equipments will be rental, after 3 years the equipments will own.</li> <li>CAPEX and OPEX information were estimated based on similar projects and GE21 data base.</li> <li>The table below presents the mining costs</li> </ul> <p>Summarized Project CAPEX</p> <table border="1"> <thead> <tr> <th>Item</th> <th>AUD\$(Mi)</th> </tr> </thead> <tbody> <tr> <td>Mine Equipaments (year 3)</td> <td>1.26</td> </tr> <tr> <td>Infrastructure (buildings, security facilities, power),</td> <td>3.89</td> </tr> </tbody> </table>	Item	AUD\$(Mi)	Mine Equipaments (year 3)	1.26	Infrastructure (buildings, security facilities, power),	3.89
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	<ul style="list-style-type: none"> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<table border="1" data-bbox="904 341 1883 533"> <tr> <td>Processing Plant</td> <td>1.88</td> </tr> <tr> <td>Environmental and permits</td> <td>0.26</td> </tr> <tr> <td>Others</td> <td>2.43</td> </tr> <tr> <td>Contingency(9%)</td> <td>0.85</td> </tr> <tr> <td>Total</td> <td>10.57</td> </tr> </table> <ul style="list-style-type: none"> <li>The table below presents the mining costs</li> </ul> <p>Summarized Project OPEX</p> <table border="1" data-bbox="904 708 1883 863"> <thead> <tr> <th>Item</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Mine (Loading and transportation) AUD\$/t mined</td> <td>2.32</td> </tr> <tr> <td>Plant – AUD\$/t ROM</td> <td>4.81</td> </tr> <tr> <td>Sales Costs</td> <td>3.34</td> </tr> </tbody> </table>	Processing Plant	1.88	Environmental and permits	0.26	Others	2.43	Contingency(9%)	0.85	Total	10.57	Item	Value	Mine (Loading and transportation) AUD\$/t mined	2.32	Plant – AUD\$/t ROM	4.81	Sales Costs	3.34
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Revenue factors	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net</li> </ul>	<ul style="list-style-type: none"> <li>Long term prices and exchange rate assumptions adopted in the Scoping Study for Mineable Resource are:</li> <li>Exchange rate :AUD\$1.00 =R\$ 2.85</li> <li>Process are AUD\$70/t conc 9.5%P2O5</li> </ul>																		

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	<p>smelter returns, etc.</p> <ul style="list-style-type: none"> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	
Market assessment	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> </ul>	<ul style="list-style-type: none"> <li>Phosphate is the primary nutrient for agriculture and a fundamental ingredient in many fertilizer products. Brazil has evolved into one of the world’s major exporters of food, and that position looks to strengthen given the projected increases in world population, in meat consumption by the growing middle-class, and in the use of biofuels. There is no local phosphate producer in the RS state which is currently 100% reliant on phosphate imports.</li> <li>Aguaia intends to use its logistical competitive position to capture a market share in the RS state by supplying initially 50 ktpy and reaching a production rate of approximately 300 ktpy of DANF product from year 4 to year 18 of the Três Estradas Phosphate Project – Phase I.</li> <li>Lab results confirm that the DANF product it’s suitability to meet customer’s product specifications. Currently specific agronomic trials are in course to define the agronomic efficiency regarding distinct crops and types of soil.</li> <li>The Selling prices was based on the similar projects.</li> </ul>

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<td>118.1</td> <td>118.1</td> <td>2 500</td> </tr> <tr> <td>Feed Plant (kt)</td> <td>-</td> <td>50.0</td> <td>96.0</td> <td>200.3</td> <td>303.9</td> <td>304.4</td> <td>318.7</td> <td>279.5</td> <td>302.2</td> <td>331.3</td> <td>335.6</td> <td>333.4</td> <td>333.4</td> <td>333.4</td> <td>333.4</td> <td>333.4</td> <td>313.0</td> <td>313.0</td> <td>313.0</td> <td>5 102</td> </tr> <tr> <td>Mass Recovery (%)</td> <td>-</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> <td>95.0</td> </tr> <tr> <td>P2O5 DANP @9% (kt)</td> <td>-</td> <td>47.5</td> <td>91.2</td> <td>190.3</td> <td>288.7</td> <td>289.2</td> <td>302.8</td> <td>265.5</td> <td>287.1</td> <td>314.8</td> <td>318.8</td> <td>316.7</td> <td>316.7</td> <td>316.7</td> <td>316.7</td> <td>316.7</td> <td>297.4</td> <td>297.4</td> <td>281.5</td> <td>4 855.4</td> </tr> <tr> <td>P2O5 DANP Sell Price (AUDt cone)</td> <td>-</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>72.0</td> <td>43.2</td> </tr> <tr> <td>OPEX (AUD\$ x1000)</td> <td>-</td> <td>(571.6)</td> <td>(1 237)</td> <td>(2 255)</td> <td>(3 397)</td> <td>(3 548)</td> <td>(3 678)</td> <td>(3 589)</td> <td>(3 510)</td> <td>(3 855)</td> <td>(3 831)</td> <td>(3 829)</td> <td>(3 829)</td> <td>(3 829)</td> <td>(3 829)</td> <td>(3 829)</td> <td>(3 213)</td> <td>(3 213)</td> <td>(3 151)</td> <td>(57 613)</td> </tr> <tr> <td>Mine</td> <td>-</td> <td>(227.6)</td> <td>(576)</td> <td>(877)</td> <td>(941)</td> <td>(1 089)</td> <td>(1 103)</td> <td>(1 100)</td> <td>(1 069)</td> <td>(1 074)</td> <td>(1 144)</td> <td>(1 138)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 112)</td> <td>(1 112)</td> <td>(1 050)</td> <td>(994)</td> </tr> <tr> <td>Loading and transportation - Total AUD\$x1000</td> <td>-</td> <td>(227.6)</td> <td>(532)</td> <td>(774)</td> <td>(833)</td> <td>(1 089)</td> <td>(1 103)</td> <td>(1 100)</td> <td>(1 046)</td> <td>(1 074)</td> <td>(1 144)</td> <td>(1 138)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 136)</td> <td>(1 112)</td> <td>(1 112)</td> <td>(1 050)</td> <td>(897)</td> </tr> <tr> <td>Stock Formation AUD\$</td> <td>-</td> <td>-</td> <td>(44)</td> <td>(59)</td> <td>(61)</td> <td>-</td> <td>-</td> <td>(25)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(188)</td> </tr> <tr> <td>Stock Recovery AUD\$</td> <td>-</td> <td>-</td> <td>-</td> <td>(44)</td> <td>(47)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(96)</td> </tr> <tr> <td>Process</td> <td>-</td> <td>(173)</td> <td>(332)</td> <td>(693)</td> <td>(1 416)</td> <td>(1 488)</td> <td>(1 488)</td> <td>(1 303)</td> <td>(1 448)</td> <td>(1 544)</td> <td>(1 553)</td> <td>(1 553)</td> <td>(1 553)</td> <td>(1 553)</td> <td>(1 553)</td> <td>(1 553)</td> <td>(1 459)</td> <td>(1 459)</td> <td>(1 459)</td> <td>(23 360)</td> </tr> <tr> <td>Process Cost-Phosphate Rock AUD\$x1000</td> <td>-</td> <td>(173.0)</td> <td>(332.2)</td> <td>(693.0)</td> <td>(1 416.0)</td> <td>(1 418.4)</td> <td>(1 485.2)</td> <td>(1 302.5)</td> <td>(1 408.1)</td> <td>(1 544.0)</td> <td>(1 553.7)</td> <td>(1 553.5)</td> <td>(1 553.5)</td> <td>(1 553.5)</td> <td>(1 553.5)</td> <td>(1 553.5)</td> <td>(1 458.6)</td> <td>(1 458.6)</td> <td>(1 458.6)</td> <td>(23 360)</td> </tr> <tr> <td>CSA (AUD\$ x1000)</td> <td>-</td> <td>(173)</td> <td>(328)</td> <td>(685)</td> <td>(1 409)</td> <td>(1 441)</td> <td>(1 439)</td> <td>(956)</td> <td>(1 033)</td> <td>(1 148)</td> <td>(1 140)</td> <td>(1 140)</td> <td>(1 140)</td> <td>(1 140)</td> <td>(1 140)</td> <td>(1 140)</td> <td>(642)</td> <td>(642)</td> <td>(642)</td> <td>(16 218)</td> </tr> <tr> <td>Gross Revenue (AUD\$ x1000)</td> <td>-</td> <td>3 420</td> <td>6 568</td> <td>13 699</td> <td>20 784</td> <td>20 820</td> <td>21 800</td> <td>19 119</td> <td>20 669</td> <td>22 662</td> <td>22 953</td> <td>22 802</td> <td>22 802</td> <td>22 802</td> <td>22 802</td> <td>22 802</td> <td>12 846</td> <td>12 846</td> <td>12 161</td> <td>324 356</td> </tr> <tr> <td>EBITDA (AUD\$ x1000)</td> <td>-</td> <td>2 848</td> <td>5 331</td> <td>11 444</td> <td>17 387</td> <td>17 271</td> <td>18 211</td> <td>15 760</td> <td>19 097</td> <td>18 912</td> <td>18 973</td> <td>18 973</td> <td>18 973</td> <td>18 973</td> <td>18 973</td> <td>18 973</td> <td>9 633</td> <td>9 633</td> <td>9 220</td> <td>266 743</td> </tr> <tr> <td>Depreciation (AUD\$ x1000)</td> <td>-</td> <td>(1 154)</td> <td>(1 154)</td> <td>(1 154)</td> <td>(1 393)</td> <td>(1 393)</td> <td>(1 393)</td> <td>(239)</td> <td>(239)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(108)</td> <td>(7 833)</td> </tr> <tr> <td>EBIT (AUD\$ x1000)</td> <td>-</td> <td>1 694</td> <td>4 177</td> <td>10 290</td> <td>15 994</td> <td>15 878</td> <td>17 818</td> <td>15 521</td> <td>16 919</td> <td>18 912</td> <td>18 869</td> <td>18 865</td> <td>18 865</td> <td>18 865</td> <td>18 865</td> <td>18 865</td> <td>8 525</td> <td>8 525</td> <td>8 112</td> <td>258 910</td> </tr> <tr> <td>IRPJ (15% de R\$ 240 000/ano do EBIT)</td> <td>-</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(13)</td> <td>(227)</td> </tr> <tr> <td>AIR (25% sobre R\$ 0.24 mil/ano do EBIT)</td> <td>-</td> <td>(403)</td> <td>(1 023)</td> <td>(2 551)</td> <td>(3 977)</td> <td>(3 948)</td> <td>(4 449)</td> <td>(3 859)</td> <td>(4 209)</td> <td>(4 707)</td> <td>(4 726)</td> <td>(4 695)</td> <td>(4 695)</td> <td>(4 695)</td> <td>(4 695)</td> <td>(4 695)</td> <td>(4 722)</td> <td>(2 360)</td> <td>(2 376)</td> <td>(84 349)</td> </tr> <tr> <td>CSLL (9% do EBIT)</td> <td>-</td> <td>(152)</td> <td>(376)</td> <td>(926)</td> <td>(1 439)</td> <td>(1 428)</td> <td>(1 609)</td> <td>(1 397)</td> <td>(1 523)</td> <td>(1 702)</td> <td>(1 709)</td> <td>(1 698)</td> <td>(1 698)</td> <td>(1 698)</td> <td>(1 698)</td> <td>(1 698)</td> <td>(857)</td> <td>(857)</td> <td>(820)</td> <td>(23 302)</td> </tr> <tr> <td>CFEM (2% sobre Receita Bruta)</td> <td>-</td> <td>(68)</td> <td>(131)</td> <td>(274)</td> <td>(416)</td> <td>(416)</td> <td>(436)</td> <td>(382)</td> <td>(413)</td> <td>(453)</td> <td>(456)</td> <td>(456)</td> <td>(456)</td> <td>(456)</td> <td>(456)</td> <td>(456)</td> <td>(257)</td> <td>(257)</td> <td>(243)</td> <td>(6 487)</td> </tr> <tr> <td>Free Operating Cash Flow (AUD\$ x1000)</td> <td>-</td> <td>1 058</td> <td>2 634</td> <td>6 526</td> <td>10 149</td> <td>10 071</td> <td>11 375</td> <td>9 870</td> <td>10 762</td> <td>12 037</td> <td>12 082</td> <td>12 002</td> <td>12 002</td> <td>12 003</td> <td>12 003</td> <td>12 003</td> <td>6 038</td> <td>6 079</td> <td>5 779</td> <td>164 545</td> </tr> <tr> <td>Free Operating Cash Flow (AUD\$ x1000)</td> <td>-</td> <td>1 058</td> <td>2 634</td> <td>6 526</td> <td>10 149</td> <td>10 071</td> <td>11 375</td> <td>9 870</td> <td>10 762</td> <td>12 037</td> <td>12 082</td> <td>12 002</td> <td>12 002</td> <td>12 003</td> <td>12 003</td> <td>12 003</td> <td>6 038</td> <td>6 079</td> <td>5 779</td> <td>164 545</td> </tr> <tr> <td>CAPEX (AUD\$ x1000)</td> <td>-</td> <td>(9 306)</td> <td>(40)</td> <td>-</td> <td>(1 260)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(570)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(570)</td> <td>-</td> <td>-</td> <td>(11 745)</td> </tr> <tr> <td>Mine</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(2 400)</td> </tr> <tr> <td>Plant</td> <td>(1 880)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(1 880)</td> </tr> <tr> <td>Environment</td> <td>(269)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(269)</td> </tr> <tr> <td>Infra</td> <td>(3 890)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(3 890)</td> </tr> <tr> <td>Others</td> <td>(2 430)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(2 430)</td> </tr> <tr> <td>Working Capital</td> <td>-</td> <td>(40)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(40)</td> </tr> <tr> <td>Continuity</td> <td>(846)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>(846)</td> </tr> <tr> <td>Cash Flow (AUD\$ x1000)</td> <td>(9 306)</td> <td>1 018</td> <td>2 634</td> <td>5 266</td> <td>10 149</td> <td>10 071</td> <td>11 375</td> <td>9 870</td> <td>10 762</td> <td>11 467</td> <td>12 082</td> <td>12 002</td> <td>12 003</td> <td>12 003</td> <td>12 003</td> <td>11 505</td> <td>6 038</td> <td>6 079</td> <td>5 779</td> <td>152 799</td> </tr> <tr> <td>NPV (AUD\$ x1000)</td> <td>69 355</td> <td>WACC (%) 8%</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Discounted Cash Flow																				Total	Period	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038		Mine	-	79.6	219	370	541	454	480	442	503	521	514	483	483	483	483	483	451	451	451	7 783	ROM (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	333.4	313.0	313.0	287.3	5 102	ROM Grade (%)	-	9.50	9.50	9.29	10.10	9.56	9.65	9.47	9.69	9.90	9.76	9.41	9.41	9.41	9.41	9.41	9.41	9.04	9.04	9.04	8.76	Stock Formation(Kt)	-	-	59.3	78.8	82.0	-	-	30.3	-	-	-	-	-	-	-	-	-	-	-	250.4	Stock Recovery (Kt)	-	-	-	59.3	82.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128.5	Waste(Kt)	-	20.1	63.3	90.6	155.4	148.3	161.5	162.8	170.8	198.1	178.7	149.5	149.5	149.5	149.5	149.5	118.1	118.1	118.1	2 500	Feed Plant (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	313.0	313.0	313.0	5 102	Mass Recovery (%)	-	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	P2O5 DANP @9% (kt)	-	47.5	91.2	190.3	288.7	289.2	302.8	265.5	287.1	314.8	318.8	316.7	316.7	316.7	316.7	316.7	297.4	297.4	281.5	4 855.4	P2O5 DANP Sell Price (AUDt cone)	-	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	43.2	OPEX (AUD\$ x1000)	-	(571.6)	(1 237)	(2 255)	(3 397)	(3 548)	(3 678)	(3 589)	(3 510)	(3 855)	(3 831)	(3 829)	(3 829)	(3 829)	(3 829)	(3 829)	(3 213)	(3 213)	(3 151)	(57 613)	Mine	-	(227.6)	(576)	(877)	(941)	(1 089)	(1 103)	(1 100)	(1 069)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 112)	(1 050)	(994)	Loading and transportation - Total AUD\$x1000	-	(227.6)	(532)	(774)	(833)	(1 089)	(1 103)	(1 100)	(1 046)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 112)	(1 050)	(897)	Stock Formation AUD\$	-	-	(44)	(59)	(61)	-	-	(25)	-	-	-	-	-	-	-	-	-	-	-	(188)	Stock Recovery AUD\$	-	-	-	(44)	(47)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(96)	Process	-	(173)	(332)	(693)	(1 416)	(1 488)	(1 488)	(1 303)	(1 448)	(1 544)	(1 553)	(1 553)	(1 553)	(1 553)	(1 553)	(1 553)	(1 459)	(1 459)	(1 459)	(23 360)	Process Cost-Phosphate Rock AUD\$x1000	-	(173.0)	(332.2)	(693.0)	(1 416.0)	(1 418.4)	(1 485.2)	(1 302.5)	(1 408.1)	(1 544.0)	(1 553.7)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 458.6)	(1 458.6)	(1 458.6)	(23 360)	CSA (AUD\$ x1000)	-	(173)	(328)	(685)	(1 409)	(1 441)	(1 439)	(956)	(1 033)	(1 148)	(1 140)	(1 140)	(1 140)	(1 140)	(1 140)	(1 140)	(642)	(642)	(642)	(16 218)	Gross Revenue (AUD\$ x1000)	-	3 420	6 568	13 699	20 784	20 820	21 800	19 119	20 669	22 662	22 953	22 802	22 802	22 802	22 802	22 802	12 846	12 846	12 161	324 356	EBITDA (AUD\$ x1000)	-	2 848	5 331	11 444	17 387	17 271	18 211	15 760	19 097	18 912	18 973	18 973	18 973	18 973	18 973	18 973	9 633	9 633	9 220	266 743	Depreciation (AUD\$ x1000)	-	(1 154)	(1 154)	(1 154)	(1 393)	(1 393)	(1 393)	(239)	(239)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(7 833)	EBIT (AUD\$ x1000)	-	1 694	4 177	10 290	15 994	15 878	17 818	15 521	16 919	18 912	18 869	18 865	18 865	18 865	18 865	18 865	8 525	8 525	8 112	258 910	IRPJ (15% de R\$ 240 000/ano do EBIT)	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(227)	AIR (25% sobre R\$ 0.24 mil/ano do EBIT)	-	(403)	(1 023)	(2 551)	(3 977)	(3 948)	(4 449)	(3 859)	(4 209)	(4 707)	(4 726)	(4 695)	(4 695)	(4 695)	(4 695)	(4 695)	(4 722)	(2 360)	(2 376)	(84 349)	CSLL (9% do EBIT)	-	(152)	(376)	(926)	(1 439)	(1 428)	(1 609)	(1 397)	(1 523)	(1 702)	(1 709)	(1 698)	(1 698)	(1 698)	(1 698)	(1 698)	(857)	(857)	(820)	(23 302)	CFEM (2% sobre Receita Bruta)	-	(68)	(131)	(274)	(416)	(416)	(436)	(382)	(413)	(453)	(456)	(456)	(456)	(456)	(456)	(456)	(257)	(257)	(243)	(6 487)	Free Operating Cash Flow (AUD\$ x1000)	-	1 058	2 634	6 526	10 149	10 071	11 375	9 870	10 762	12 037	12 082	12 002	12 002	12 003	12 003	12 003	6 038	6 079	5 779	164 545	Free Operating Cash Flow (AUD\$ x1000)	-	1 058	2 634	6 526	10 149	10 071	11 375	9 870	10 762	12 037	12 082	12 002	12 002	12 003	12 003	12 003	6 038	6 079	5 779	164 545	CAPEX (AUD\$ x1000)	-	(9 306)	(40)	-	(1 260)	-	-	-	-	-	(570)	-	-	-	-	-	(570)	-	-	(11 745)	Mine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2 400)	Plant	(1 880)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1 880)	Environment	(269)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(269)	Infra	(3 890)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(3 890)	Others	(2 430)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2 430)	Working Capital	-	(40)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(40)	Continuity	(846)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(846)	Cash Flow (AUD\$ x1000)	(9 306)	1 018	2 634	5 266	10 149	10 071	11 375	9 870	10 762	11 467	12 082	12 002	12 003	12 003	12 003	11 505	6 038	6 079	5 779	152 799	NPV (AUD\$ x1000)	69 355	WACC (%) 8%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Discounted Cash Flow																				Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Mine	-	79.6	219	370	541	454	480	442	503	521	514	483	483	483	483	483	451	451	451	7 783																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
ROM (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	333.4	313.0	313.0	287.3	5 102																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
ROM Grade (%)	-	9.50	9.50	9.29	10.10	9.56	9.65	9.47	9.69	9.90	9.76	9.41	9.41	9.41	9.41	9.41	9.41	9.04	9.04	9.04	8.76																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Stock Formation(Kt)	-	-	59.3	78.8	82.0	-	-	30.3	-	-	-	-	-	-	-	-	-	-	-	250.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Stock Recovery (Kt)	-	-	-	59.3	82.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Waste(Kt)	-	20.1	63.3	90.6	155.4	148.3	161.5	162.8	170.8	198.1	178.7	149.5	149.5	149.5	149.5	149.5	118.1	118.1	118.1	2 500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Feed Plant (kt)	-	50.0	96.0	200.3	303.9	304.4	318.7	279.5	302.2	331.3	335.6	333.4	333.4	333.4	333.4	333.4	313.0	313.0	313.0	5 102																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Mass Recovery (%)	-	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
P2O5 DANP @9% (kt)	-	47.5	91.2	190.3	288.7	289.2	302.8	265.5	287.1	314.8	318.8	316.7	316.7	316.7	316.7	316.7	297.4	297.4	281.5	4 855.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
P2O5 DANP Sell Price (AUDt cone)	-	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	43.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
OPEX (AUD\$ x1000)	-	(571.6)	(1 237)	(2 255)	(3 397)	(3 548)	(3 678)	(3 589)	(3 510)	(3 855)	(3 831)	(3 829)	(3 829)	(3 829)	(3 829)	(3 829)	(3 213)	(3 213)	(3 151)	(57 613)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Mine	-	(227.6)	(576)	(877)	(941)	(1 089)	(1 103)	(1 100)	(1 069)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 112)	(1 050)	(994)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Loading and transportation - Total AUD\$x1000	-	(227.6)	(532)	(774)	(833)	(1 089)	(1 103)	(1 100)	(1 046)	(1 074)	(1 144)	(1 138)	(1 136)	(1 136)	(1 136)	(1 136)	(1 112)	(1 112)	(1 050)	(897)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Stock Formation AUD\$	-	-	(44)	(59)	(61)	-	-	(25)	-	-	-	-	-	-	-	-	-	-	-	(188)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Stock Recovery AUD\$	-	-	-	(44)	(47)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(96)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Process	-	(173)	(332)	(693)	(1 416)	(1 488)	(1 488)	(1 303)	(1 448)	(1 544)	(1 553)	(1 553)	(1 553)	(1 553)	(1 553)	(1 553)	(1 459)	(1 459)	(1 459)	(23 360)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Process Cost-Phosphate Rock AUD\$x1000	-	(173.0)	(332.2)	(693.0)	(1 416.0)	(1 418.4)	(1 485.2)	(1 302.5)	(1 408.1)	(1 544.0)	(1 553.7)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 553.5)	(1 458.6)	(1 458.6)	(1 458.6)	(23 360)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CSA (AUD\$ x1000)	-	(173)	(328)	(685)	(1 409)	(1 441)	(1 439)	(956)	(1 033)	(1 148)	(1 140)	(1 140)	(1 140)	(1 140)	(1 140)	(1 140)	(642)	(642)	(642)	(16 218)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Gross Revenue (AUD\$ x1000)	-	3 420	6 568	13 699	20 784	20 820	21 800	19 119	20 669	22 662	22 953	22 802	22 802	22 802	22 802	22 802	12 846	12 846	12 161	324 356																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
EBITDA (AUD\$ x1000)	-	2 848	5 331	11 444	17 387	17 271	18 211	15 760	19 097	18 912	18 973	18 973	18 973	18 973	18 973	18 973	9 633	9 633	9 220	266 743																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Depreciation (AUD\$ x1000)	-	(1 154)	(1 154)	(1 154)	(1 393)	(1 393)	(1 393)	(239)	(239)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(108)	(7 833)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
EBIT (AUD\$ x1000)	-	1 694	4 177	10 290	15 994	15 878	17 818	15 521	16 919	18 912	18 869	18 865	18 865	18 865	18 865	18 865	8 525	8 525	8 112	258 910																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
IRPJ (15% de R\$ 240 000/ano do EBIT)	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(227)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
AIR (25% sobre R\$ 0.24 mil/ano do EBIT)	-	(403)	(1 023)	(2 551)	(3 977)	(3 948)	(4 449)	(3 859)	(4 209)	(4 707)	(4 726)	(4 695)	(4 695)	(4 695)	(4 695)	(4 695)	(4 722)	(2 360)	(2 376)	(84 349)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CSLL (9% do EBIT)	-	(152)	(376)	(926)	(1 439)	(1 428)	(1 609)	(1 397)	(1 523)	(1 702)	(1 709)	(1 698)	(1 698)	(1 698)	(1 698)	(1 698)	(857)	(857)	(820)	(23 302)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CFEM (2% sobre Receita Bruta)	-	(68)	(131)	(274)	(416)	(416)	(436)	(382)	(413)	(453)	(456)	(456)	(456)	(456)	(456)	(456)	(257)	(257)	(243)	(6 487)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Free Operating Cash Flow (AUD\$ x1000)	-	1 058	2 634	6 526	10 149	10 071	11 375	9 870	10 762	12 037	12 082	12 002	12 002	12 003	12 003	12 003	6 038	6 079	5 779	164 545																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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		<ul style="list-style-type: none"> <li>• WACC</li> <li>• Sell price</li> <li>• Mine OPEX</li> <li>• Plant OPEX.</li> <li>• The WACC, OPEX, NPV, was evaluated by varying its value from -15% to +15%. Figure below shows the sensitivity analysis developed by GE21.</li> </ul> <div data-bbox="797 571 1756 1150" data-label="Figure"> <p>The chart, titled 'Sensitivity Analysis NPV', plots NPV (US\$ x 1000) on the y-axis (ranging from 30,000 to 90,000) against percentage change on the x-axis (ranging from 85% to 115%). Five lines represent different variables: WACC (blue), Price (red), CAPEX (green), Mine OPEX (purple), and Plant OPEX (cyan). WACC and Price show the most significant impact, with WACC decreasing and Price increasing as the percentage change moves away from 100%. CAPEX, Mine OPEX, and Plant OPEX show much smaller, relatively flat impacts.</p> <table border="1"> <caption>Approximate NPV values from the Sensitivity Analysis chart</caption> <thead> <tr> <th>Variable</th> <th>85%</th> <th>90%</th> <th>95%</th> <th>100%</th> <th>105%</th> <th>110%</th> <th>115%</th> </tr> </thead> <tbody> <tr> <td>WACC</td> <td>79,000</td> <td>75,000</td> <td>71,000</td> <td>70,000</td> <td>68,000</td> <td>66,000</td> <td>63,000</td> </tr> <tr> <td>Price</td> <td>55,000</td> <td>60,000</td> <td>65,000</td> <td>70,000</td> <td>75,000</td> <td>80,000</td> <td>85,000</td> </tr> <tr> <td>CAPEX</td> <td>71,000</td> <td>70,500</td> <td>70,000</td> <td>70,000</td> <td>70,000</td> <td>69,500</td> <td>69,000</td> </tr> <tr> <td>Mine OPEX</td> <td>71,000</td> <td>70,500</td> <td>70,000</td> <td>70,000</td> <td>70,000</td> <td>69,500</td> <td>69,000</td> </tr> <tr> <td>Plant OPEX</td> <td>71,000</td> <td>70,500</td> <td>70,000</td> <td>70,000</td> <td>70,000</td> <td>69,500</td> <td>69,000</td> </tr> </tbody> </table> </div>	Variable	85%	90%	95%	100%	105%	110%	115%	WACC	79,000	75,000	71,000	70,000	68,000	66,000	63,000	Price	55,000	60,000	65,000	70,000	75,000	80,000	85,000	CAPEX	71,000	70,500	70,000	70,000	70,000	69,500	69,000	Mine OPEX	71,000	70,500	70,000	70,000	70,000	69,500	69,000	Plant OPEX	71,000	70,500	70,000	70,000	70,000	69,500	69,000
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Social	<ul style="list-style-type: none"> <li>• The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul style="list-style-type: none"> <li>• As part of the baseline work, impacts on the social-economic and cultural components were identified in the area in which the Tres Estradas Phosphate Project will be implemented. Each of these impacts have been ranked in significance and environmental plans and programs have been identified and proposed in the EIA approved by FEPAM in October 15th, 2019.</li> </ul>																																																

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Other	<ul style="list-style-type: none"> <li>• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>• Any identified material naturally occurring risks.</li> <li>• The status of material legal agreements and marketing arrangements.</li> <li>• The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within</li> </ul>	<ul style="list-style-type: none"> <li>• There are no known naturally occurring risks to which the project would be subject that have been identified. The region is seismically stable and not known to be subject to usually inclement weather. Any identified material naturally occurring risks.</li> <li>• Aguia holds 100% interest in the three mineral rights permits covering the Tres Estradas Phosphate Project.</li> <li>• Aguia has not yet begun the process of land acquisition.</li> <li>• Aguia is currently in the phase of requirement for Installation Permit (LI). According to Brazilian law the LI is granted under the fulfillment of the LP conditions, approval of the mine development plan (PAE) by the National Mining Agency and it demonstrates economic feasibility and approval of an environmental control plan called the Basic Environmental Plan (PBA).</li> </ul>

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RESOURCE ESTIMATE

TRÊS ESTRADAS PHOSPHATE PROJECT – AGUIA RESOURCES LTD.

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	the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	



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Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul style="list-style-type: none"> <li>The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.</li> </ul> <p>Mineable Resources</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="10" style="text-align: center;"><b>Block dimentions 12x6x10 (m)</b></td> </tr> <tr> <td colspan="10" style="text-align: center;"><b>Mine Recovery 98%, Dilution 2%</b></td> </tr> <tr> <td colspan="10" style="text-align: center;"><b>(Effective date 09/082017)</b></td> </tr> <tr> <td></td> <td style="text-align: center;"><b>Mt</b></td> <td style="text-align: center;"><b>P<sub>2</sub>O<sub>5</sub></b></td> <td style="text-align: center;"><b>Cao</b></td> <td style="text-align: center;"><b>Mgo</b></td> <td style="text-align: center;"><b>SiO<sub>2</sub></b></td> <td style="text-align: center;"><b>K<sub>2</sub>O</b></td> <td style="text-align: center;"><b>Fe<sub>2</sub>O<sub>3</sub></b></td> <td style="text-align: center;"><b>MnO<sub>2</sub></b></td> <td style="text-align: center;"><b>Al<sub>2</sub>O<sub>3</sub></b></td> </tr> <tr> <td style="text-align: center;">Mea</td> <td style="text-align: center;">0.7</td> <td style="text-align: center;">10.6</td> <td style="text-align: center;">18.8</td> <td style="text-align: center;">5.9</td> <td style="text-align: center;">30.9</td> <td style="text-align: center;">0.5</td> <td style="text-align: center;">19.9</td> <td style="text-align: center;">0.9</td> <td style="text-align: center;">5.1</td> </tr> <tr> <td style="text-align: center;">Ind</td> <td style="text-align: center;">4.4</td> <td style="text-align: center;">8.5</td> <td style="text-align: center;">15.5</td> <td style="text-align: center;">5.1</td> <td style="text-align: center;">33.1</td> <td style="text-align: center;">0.5</td> <td style="text-align: center;">17.9</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">6.3</td> </tr> <tr> <td style="text-align: center;">Inf</td> <td style="text-align: center;">0.04</td> <td style="text-align: center;">5.3</td> <td style="text-align: center;">20.0</td> <td style="text-align: center;">5.4</td> <td style="text-align: center;">28.9</td> <td style="text-align: center;">0.5</td> <td style="text-align: center;">12.0</td> <td style="text-align: center;">0.5</td> <td style="text-align: center;">6.6</td> </tr> <tr> <td style="text-align: center;"><b>Total ROM</b></td> <td style="text-align: center;"><b>5.1</b></td> <td style="text-align: center;"><b>8.79</b></td> <td style="text-align: center;"><b>15.94</b></td> <td style="text-align: center;"><b>5.17</b></td> <td style="text-align: center;"><b>32.77</b></td> <td style="text-align: center;"><b>0.50</b></td> <td style="text-align: center;"><b>18.15</b></td> <td style="text-align: center;"><b>0.82</b></td> <td style="text-align: center;"><b>6.17</b></td> </tr> <tr> <td style="text-align: center;"><b>Waste</b></td> <td style="text-align: center;"><b>2.5</b></td> <td colspan="7"></td> <td></td> </tr> <tr> <td style="text-align: center;">REM</td> <td style="text-align: center;"><b>0.49</b></td> <td colspan="7"></td> <td></td> </tr> </table> <p>Mineable Resources were estimated following the parameters: Sell price for DANF= AUD\$ 72.00 and for Amphibolite Phosphate Concentrated -AUD\$ 43.20</p> <p>Mining costs :AUD\$ 2.32 /t mined, processing costs: AUD\$ 4.81 /t milled and G\$A:AUD\$ 3.34 /t DANF,</p> <p>Dilution 2% and Recovery 98%</p> <p>Final slope angle : 34°</p>	<b>Block dimentions 12x6x10 (m)</b>										<b>Mine Recovery 98%, Dilution 2%</b>										<b>(Effective date 09/082017)</b>											<b>Mt</b>	<b>P<sub>2</sub>O<sub>5</sub></b>	<b>Cao</b>	<b>Mgo</b>	<b>SiO<sub>2</sub></b>	<b>K<sub>2</sub>O</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>MnO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	Mea	0.7	10.6	18.8	5.9	30.9	0.5	19.9	0.9	5.1	Ind	4.4	8.5	15.5	5.1	33.1	0.5	17.9	0.8	6.3	Inf	0.04	5.3	20.0	5.4	28.9	0.5	12.0	0.5	6.6	<b>Total ROM</b>	<b>5.1</b>	<b>8.79</b>	<b>15.94</b>	<b>5.17</b>	<b>32.77</b>	<b>0.50</b>	<b>18.15</b>	<b>0.82</b>	<b>6.17</b>	<b>Waste</b>	<b>2.5</b>									REM	<b>0.49</b>								
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Criteria	JORC Code explanation	Commentary
		The Competent Person for the estimate is Guilherme Gomides Ferreira, BSc. (MEng), MAIG, an employee of GE21
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<p>The Scoping Study have been independently reviewed by</p> <ul style="list-style-type: none"> <li>Porfírio Cabaleiro Rodriguez – Mining Engineer MAIG of GE21 Mining Consulting and</li> <li>Bernardo H. C. Viana – Geologist MAIG of GE21 Mining Consulting</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy</li> </ul>	<ul style="list-style-type: none"> <li>The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realized.</li> </ul>

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	<p>and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</p> <ul style="list-style-type: none"> <li>• The statement should specify whether it relates to global or local</li> </ul>	

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	<p>estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p> <ul style="list-style-type: none"> <li>• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>• It is recognised that this may not be possible or appropriate in all</li> </ul>	

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	circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	