

Memorandum - Executive Summary

Três Estradas Phosphate Project, Rio Grande do Sul, Brazil

PREPARED FOR:

Agua Resources Ltd.

PREPARED By:

Mr. Steven B. Kerr, C.P.G., Principal - Geology, Millcreek Mining Group
Mr. Alister D. Horn, MMSA-QP, Principal - Mining, Millcreek Mining Group
Mr. Rainer Stephenson, MMSA-QP, Senior Process Specialist, Millcreek Mining Group

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1 SUMMARY

Agua Resources, Ltd, (Agua) contracted Millcreek Mining Group (Millcreek) to prepare a Technical Report that is compliant with Canadian National Instrument 43-101 (NI 43-101) for a Bankable Feasibility Study (BFS) of the Três Estradas Phosphate Project (Três Estradas Project). The Três Estradas Phosphate Project is located 320 kilometers (km) southwest of Porto Alegre, the capital city of Rio Grande do Sul State in southern Brazil (see Figure 1)

Agua is an exploration and development company focused on Brazilian phosphate projects to supply the Brazilian agriculture sector. Agua is listed on the Australian Stock Exchange (ASX) under the symbol AGR and earlier this year the company was listed on the TSX Venture Exchange (TSX-V) under the symbol AGRL. The company's corporate offices are located in Sydney, Australia and Belo Horizonte, Brazil. The company currently controls over 1,110 km² of land in the states of Rio Grande do Sul and Paraíba containing phosphate mineralization through exploration permits it has acquired from the Brazilian National Department of Mineral Production¹ (DNPM). The company seeks to develop its holdings of phosphate deposits into viable mining operations providing phosphate to Brazil's agriculture industry.

The Project will have three phases:

- **Phase 1 (Saprolite):** Open pit mining of 1.3 million tonnes per year (Mtpy) (run-of-mine, or ROM) of saprolitic ore, to the processing plant, which will produce an average of 307,000 tpy of phosphate concentrate (phosrock);
- **Phase 2 (Carbonatite):** Expansion of the mine and processing plant to process 3.3 Mtpy (ROM) of lower grade Carbonatite ore, to maintain the production of 300,000tpy of phosphate concentrate. Also produces 2.8 Mtpy of agricultural limetone ('aglime'). 1Mtpy 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.

¹Brazil has recently enacted legislation that will replace the DNPM with the Brazilian Regulatory Mining Agency. Further details are provided in Appendix A (legal title opinion provided by Azevedo Sette Advogados).

2 LOCATION AND TENURE

The Três Estradas Phosphate Project is located in the municipality of Lavras do Sul, approximately 320 kilometers (km) southwest of Porto Alegre, the capital city of Rio Grande do Sul State in southern Brazil and 1,790km south of Brasilia (Figure 1). By road the project area is located approximately 40km west-southwest of Lavras do Sul in a region characterized as low, gently sloping hills and intervening valleys with a mix of Pampas grass lands, shrubs, and small to medium height trees.

Mineral tenure for the Três Estradas Project is through three mineral rights, 100% held by Aguia covering a total area of 2075.34 ha.



LEGEND

- Três Estradas Phosphate Project
- States
- Cities/Towns

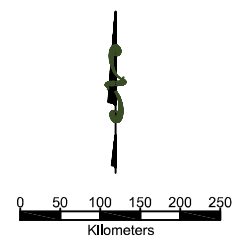


FIGURE 1.1

General Location Map

3 GEOLOGY

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 granulite complex is bounded to the northeast by the Ibaré Lineament, to the west by Phanerozoic cover, and to the south by Neoproterozoic Brazilian 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 2.5km 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 as secondary mineralization in the overlying saprolite.

3.1 MINERAL RESOURCES

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.

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-carbonatite and amphibolite ores.

Millcreek considers the phosphate mineralization at the Três Estradas phosphate deposit to be amenable to extraction using conventional open-pit mining and minerals processing methods. Millcreek has used a Lerchs-Grossman optimizing algorithm to produce an economic pit shell for Três Estradas that capture the resources estimated in the block model with reasonable prospects for economic extraction (but are not necessarily

reserves). Optimization parameters are derived from previous geologic studies and preliminary economic assessments of Três Estradas.

Table 1 Summary of Mineral Resource Estimate

Resource Classification	Domain	Volume (m ³ X 1000)	Tonnage (T X 1000)	Density (T/m ³)	P ₂ O ₅ %	CaO%	P ₂ O ₅ as Apatite (%)	CaO as Calcite (%)
Total Measured Resources		12,975	36,196	2.82	4.01	33.59	9.50	59.95
Total Indicated Resources		17,671	47,014	2.74	4.18	31.72	9.91	56.63
Total Measured + Indicated Resources		30,646	83,210	2.77	4.11	32.53	9.73	58.07
Total Inferred Resources		7,605	21,845	2.88	3.67	33.62	8.69	60.01

* 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% P₂O₅.

The Audited Mineral Resource identifies 83.21Mt of Measured and Indicated material with an average grade of 4.11% P₂O₅ using a minimum cut-off of 3.0% P₂O₅. The estimate also identifies 21.85Mt of Inferred material with an average grade of 3.67% P₂O₅. By classification, 79% of the resources contained within the optimized pit shell are Measured and Indicated with the remaining 21% of the resource classified as Inferred resource.

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.

4 MINERAL RESERVES

Mine planning, cost estimation and economic analysis has indicated that a significant portion of the resource may be reasonably considered to be feasible for economic recoverability.

Total estimated Proven and Probable reserves for the Três Estradas Phosphate Project assuming, considering a saleable product 'reference point', are summarized in Table 2, below. Reserves and head grade are reported on a mill-feed (post mining) basis, and are inclusive of ore losses and dilution.

Table 2 Proven and Probable Reserves (tonnes)

Classification	Reserves (Sap.)	Reserves (Cbt. + Amp.)	Reserves (Total)	Head Grade (%P₂O₅)
Proven	844,302	27,023,619	27,867,921	3.92
Probable	4,352,915	11,334,168	15,687,083	5.01
Prove. + Prob.	5,197,217	38,357,787	43,555,004	4.31

5 MINING

Appropriate mining areas were defined using economic optimization of a 3D block model and took into account the need to optimize project value by considering haulage of ore and waste to the plant and final dumps (respectively), as well as scheduling of stripping / mining operations and quality considerations.

Early economic analyses indicated optimal production levels and (life-of-mine or LOM) (considering market constraints and strategy), as well as an approach that derived most value from the characteristics of the ore types, as follows:

- Phase 1 (Saprolite): Take advantage of the high-head grade, low strip ratio, and relatively low processing costs to produce a high-value phosrock concentrate;
- Phase 2 (Carbonatite): As saprolite is depleted, the plant is expanded to handle the Carbonatite ore types, as well as produce an aglime by-product;
- Phase 3 (Aglime): Remaining stockpile of stored aglime is reclaimed and depleted.

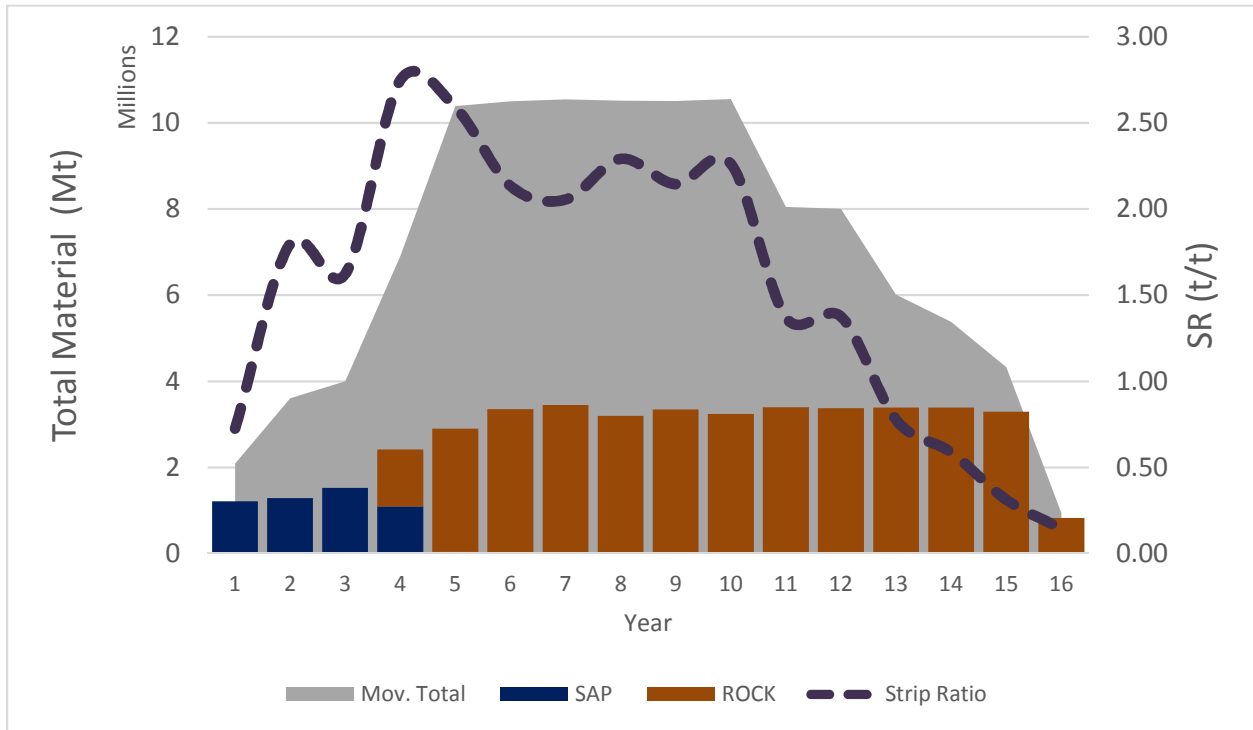
Mine operations for the Três Estradas Phosphate Project are planned as a conventional open-pit, truck and shovel mining methods for the phosphate ores and waste material. Waste and ore will be drilled and blasted before loading and haulage.

Pit designs were based on geotechnical and hydrogeologic studies and recommendations, taking into account the mining equipment and method. Waste is dumped in two dumps, located on the low-wall and high-wall sides of the ultimate pit, with sediment protection dykes.

Over the LOM, the pit is advanced according to the three phases described above, and the need to maximize the delivery of ore to the plant commensurate with the phase, to reduce truck haulage of ore and waste to the plant and dumps, respectively; and to minimize the need for stockpiling and rehandle. The steeply dipping nature of the deposit, its size, and the over-riding value of the overlying saprolite ore, leads to a rapidly increasing strip ratio (SR) that peaks in Year 5 (at 2.8 tonnes waste: 1 tonne ore, or '2.8'), before decreasing as the pit is completed (averaging 1.6 over the LOM). However, this study has confirmed that this approach is economically optimal.

Mine schedule quantities and SR are summarized in Figure 2.

Figure 2 Mine Schedule – Quantities



Contractors will be used to provide equipment labor during Phase 1 (Saprolite), while employees will be used for the remainder of the LOM once the saprolite is depleted. Primary mining equipment will be leased-to-purchase to minimize up-front capital expenses. Proposed mining equipment and fleet sizes includes the following:

Table 3 Mining Equipment

Type	Purpose	Equivalent Model	Size	Productivity (Avg.)	Quantity (Max.)
Hydraulic Excavator	Waste / Ore, Sap. phase	CAT 374F	4.4m ³ bucket	750 t/hr	1
Front End Loader	Waste / Ore, Carb. phase	CAT 992K	12.2m ³ bucket	1092 t/hr	2
Transport Truck	Waste / Ore, Sap. phase	Scania G440	Max Cap. 26mt	122 t/hr	6
End Dump Truck	Waste / Ore, Carb. phase	CAT 775G	65mt	180 t/hr	9
Support Equipment					
Water Truck	Waste / Ore. LOM	CAT 775 Chassis	75,000 liters	N/A	1
Grader	Waste / Ore. LOM	CAT 14M	14' (4.3m) blade	N/A	1
Track Dozer	Waste / Ore. LOM	CAT D8	231 kW	N/A	1
Wheeled Dozer	Waste / Ore. LOM	CAT 824K	264 kW	N/A	1
Large Blast Hole Drill	Waste / Ore. LOM	AtlasCopco - FlexiROC D60	354kW	1500 t/hr	2

6 METALLURGICAL TESTING

Metallurgical and process testing began in 2012 with a bench-top study that covered mineralogical composition, particle size distribution and liberation by size fraction. Potential grade-recovery projections were extrapolated, and the study also looked into the applicability of magnetic separation. This led to further work in 2014 which covered comminution and the first specific (bench-scale) flotation test work, resulting in a conclusion (among others) that the recovery of P₂O₅ through flotation might be commercially viable, and that column flotation should be considered. This was followed by additional test work (HDA, 2015), again at a bench-scale, that confirmed the commercial potential for phosphate recovery through flotation, and provided better understanding of the nature of P₂O₅ mineral extraction by size fraction, and in slimes.

It was at this point of the study that the Eriez Flotation Division (Eriez) was engaged. Eriez has a proven record of designing and implementing column flotation applications at igneous phosphate projects around the world, including in Brazil, and it was determined that they would be well-positioned to develop the understanding the metallurgical nature of the Três Estradas ore to a point suitable for a feasibility-level study.

Eriez began their engagement with a program in 2016 that produced concentrates from various ore types at a commercially viable level of performance, using column flotation. Eriez was able to identify effective optimization of the process, and concluded that effective flotation grade – recovery performance could be reasonably expected, and that it was a significant improvement over historical (i.e., non-optimized) projections.

Metallurgical and process testing has culminated in Eriez's recent pilot-plant testing for flotation (2017), backed-up with a recent comminution study (Metso, 2017), as well as testing for alternate reagents. A multi-month study, using bulk samples and performed at Eriez's pilot-plant facilities in Pennsylvania, USA, has confirmed the earlier bench-scale work, as well as further improvements in the process design to improve grade - recovery projections. The test work was structured to focus specifically on each of the major ore types.

Finally, a program was undertaken by Eriez in late 2017 to identify alternate 'collector' reagents for both saprolite and carbonatite floatation, once it was discovered that the previously assumed collector could be in short supply, and at higher cost than anticipated. Alternate collectors were proposed that, while not reaching the originally projected performance, were found to be significantly cheaper, leading to an overall improvement in unit operating costs.

The current findings and conclusions from the most recent pilot-plant program and collector reagents optimization test work are as follows:

- In saprolite ore, the global phosphate recovery of 81.4% is achievable at a concentrate grade of 32.7% P₂O₅;
- In carbonatite ore, the global phosphate recovery of 75.3% is achievable at a concentrate grade of 30.1% P₂O₅;

In addition to the 2017 pilot plant testing by Eriez, a test program was undertaken in order to determine the solids-liquid separation (SLS) characterization as well as geotechnical and rheological properties of the concentrates and tails from both saprolite and carbonatite. The formed the basis of further thickening and filtration testing and performance prediction, to help size equipment.

7 RECOVERING METHODS AND PROCESSING PLANT DESIGN

The processing facilities for the Três Estradas Phosphate Project are designed to operate in three phases:

7.1 PHASE 1 – SAPROLITE

The first phase comprises the facilities to treat the saprolite ore (higher grade, and naturally finer and softer ore when compared to the carbonatite ore). The concentration plant will produce approximately 300 ktpy (dry-basis) of phosphate (P₂O₅) concentrate from a feed rate of approximately 1.3Mtpy.

During this phase the facility will consist of the following major processing circuits:

-
- Primary crushing circuit – Consisting of a Primary roll crusher mobile system, apron feeders, and conveyance to stockpile
 - Stockpile and Reclaim system – Reclamation by a front-end loader to grinding circuit.
 - Grinding Circuit – Open circuit utilizing a Rod Mill; discharge to pump box and transfer to conditioning tank.
 - Phosphate Processing - Column Flotation Circuit consisting of a rougher and cleaner cells, magnetic separation utilizing a HIMS.
 - Concentrate Thickening and Dewatering – Concentrate thickener and pressure filtrations to dewater concentrate.
 - Concentrate drying – Fluid bed dryer with dust collection and transfer to truck loadout.
 - Tailings Thickening and Tailings Collection Dam – Tailing thickener clarified water to return to process with underflow transfer to Tailings Dam storage.

7.2 PHASE 2 - CARBONATITE

The transition from first to second phase will consist of the installation of new primary crushing circuit, new mills, new flotation columns and the aglime dewatering facilities. The phosrock production will remain constant (300 ktpy) and a portion of the flotation tailings will be dewatered (through thickening and filtering) and sold as aglime (1 Mtpy). However, due to the lower grade of the carbonatite ore, the feed rate will be significantly higher, at approximately 3.3 Mtpy. The process equipment of the saprolite phase (except the primary crushing) will be re-used in the expansion of the plant to treat the carbonatite phase.

- Primary Crushing Circuit – Due to the harder ore characteristics of the carbonatite mineral, a new primary crushing circuit will be constructed utilizing a primary jaw crusher and secondary cone crushing circuit prior to feeding material to the grinding circuit.
- Stockpile and Reclaim system – Reclamation via vibratory feeders to grinding circuit.
- Grinding Circuit – Modified to two-stage open grinding circuit utilizing a rod mill, hydrocyclone, and ball mill. Discharge from the rod mill will be pumped to the hydroclones, while the fines will bypass the ball mill circuit with the coarse fraction being fed to the ball mill. The combined discharge of the bypassed fines and ball mill will discharge to pump box for transfer to conditioning tank.
- Phosphate Processing – Modified column flotation circuit consisting of a rougher and the addition of two new cleaner cells for a total of three cleaner cells in the circuit, Magnetic Separation utilizing a (high intensity magnetic separation) HIMS.
- Concentrate Thickening and Dewatering – Concentrate thickener and pressure filtrations to dewater concentrate; concentrate clarified water returned to the process.

-
- Concentrate drying – Fluid bed dryer with dust collection and transfer to truck loadout.
 - Tailings thickening and Tailings Collection dam – Tailing thickener clarified water to return to process with underflow transfer to aglime conditioning tank. aglime can be transferred to the tailings storage dam or a pressure filtration system to dewater prior to aglime delivery for sale. 1Mtpa of aglime will be sold directly, while the remaining is stored.

7.3 PHASE 3 - AGLIME

After cessation of mining operations, the third phase will be to reclaim and deplete the remaining tailings from the tailings storage dam facility, dewater them, and to continue to sell them as an unprocessed aglime product. Operation will consist of reclaiming the tails as a slurry, and then dewatering it in the existing aglime filtering installation, at an annual production of 1Mtpy.

8 MARKET STUDIES

8.1 PHOSPHATE ROCK

For its proposed phosrock products, Aguia utilized market research data from three firms; Agroconsult Consultoria on the phosrock market and; Lobo Engenharia and EY (Ernest & Young) Advisory Services on the Calcite market. These firms are local Brazilian companies specializing in fertilizers and agricultural products.

Rio Grande do Sul State currently imports 100% of their needs for rock phosphate (or 'phosrock', the basis of phosphoric fertilizers) approximately 550,000tpy. It is proposed that Três Estradas sell their entire production of phosrock domestically through existing local transportation and distribution systems as a substitute for imported phosrock. There is a robust demand for domestically produced phosrock and fertilizer products forecast for southern Brazil, and there are two ports at which domestic phosrock production must be competitive; the Rio Grande Port Hub, and the Paranagua Port Hub.

Netback pricing analysis suggests that the Três Estradas Phosphate Project has a competitive advantage, due to logistics, of USD 18.50/t when selling to the Rio Grande Hub, and intends to displace approximately 300Ktpy of the total demand of 528Ktpy at Rio Grande Port Hub, with its own production.

Agroconsult has provided price projections for phosrock (free-on-board, or 'FOB', Morocco) varying from USD \$97/tonne phosrock concentrate in 2018, to USD \$133/tonne phosrock concentrate for 2027. This results in a realized mine-gate price for Três Estradas ranging from US\$115.50/t to US\$151.50/t of P₂O₅ concentrate.

8.2 AGRICULTURAL LIMESTONE (AGLIME)

For the calcite by-product, Aguia utilized market research data from EY (formerly Ernst and Young) and Lobo Engenharia to develop its aglime marketing strategy. It was found that of the various uses of calcite, agricultural lime offered the best option considering price, quality and market position, even though it was constrained in the region to 1Mtpy, and stockpiling of the annual excess of approximately 1.8Mtpy would be required.

In general, the quality aspects related to aglime are measured through an index known as TNP - "Total Neutralization Power", which is obtained through the NP (Neutralization Power) multiplied by the RE (Reactivity) given by the limestone grain size.

With a TNP of 84.7% (Lobo Engenharia, 2017), Aguia calcite is classified as well above the market requirements without any purification circuit requirements. The end product includes a small amount of phosphate not recovered by the process which could be used for soil fertilization

As a new entrant to the market the Três Estradas Phosphate Project strategy will be to displace aglime supplied to Rio Grande do Sul from Paraná State, currently estimated at 200,000 tonnes per year and supply an additional 800,000 tonnes per year by displacing other local competitors.

In order to take 800,000 tonnes of market share from local competitors, Aguia plans to undercut the current market with an aglime price FOB of BRL 100 per tonne (USD 29 per tonne), and emphasize the benefit of the extra Phosphate content.

9 ENVIRONMENTAL AND PERMITTING

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. This information has been incorporated in this review.

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 7th, 2016.

As a result of later changes in the BFS, mainly related to lay-out of the mine and facilities, mass / water balance optimization and phasing the project according to saprolite / carbonatite ore and aglime phases, Aguia produced an updated version of the EIA / RIMA in September 1st, 2017, which is currently under FEPAM analysis.

During the final phase of the BFS, additional changes were made to the project mainly related to optimization of the project lay-out, reducing the impacted area. A further update will be required to reflect these recent changes in the project.

Prior to the start of a construction and commissioning phase, the following steps are necessary in accordance with Brazilian law:

- Public Hearings with local communities;
- FEPAM analysis and clarifications;
- Preliminary License (LP) issued by FEPAM;
- Basic Environmental Plan (PBA) and LP conditions addressed by the Project;
- FEPAM analysis and approval;
- Installation License (LI) issued by FEPAM.

10 COST ESTIMATE

As with the operations, schedules of operating and capital expenditures ('opex' and 'capex', respectively) have been estimated for both Phase 1 (Saprolite) and Phase 2 (Carbonatite) for all project operations, with appropriate application of taxes and duties.

Capital and operating costs for the project have been generally completed according to an internationally recognized cost estimation classification system, as proposed by the American Association of Cost Engineers (AACE). The majority of costs have been estimated to a standard appropriate for post-feasibility study budgeting ('Class 3'), while some costs of Phase 2 have been estimated to a level appropriate for a feasibility study ('Class 4'). These classifications meet, and in many some cases exceed, the basic level required for the definition of economic mineral reserves. An exchange rate of BRL 3.45 : USD 1.00 for the US Dollar (USD) to the Brazil Real (BRL) was assumed; costs are reported on a constant USD basis, as of December 2017.

10.1 CAPITAL COSTS

The capital costs estimate includes all the direct and indirect costs, local taxes and duties, and appropriate contingencies for the facilities required to bring the Project into production, as defined by a feasibility level engineering study and cover the following major cost centers:

- Mine (mine preparation, equipment and support facilities);
- Waste dumps;

-
- Processing plant (from primary crusher up to product load out and tailings disposal at tailings dam, fresh water intake, internal accesses, electrical system and external roads refurbishing);
 - Transmission line;
 - Tailings and water dams.

Direct costs for equipment were estimated from budgetary quotes from equipment vendors, while others were derived for quantities “take off” approach based on analysis of plans and designs for the processing plant and related infrastructure, completed by ECM. Indirect costs were generally estimated by applying experience-based factors commensurate with the mining industry in Brazil.

Initial and sustaining capital costs, by phase, are summarized in Tables 4 and 5, respectively (note that capital for Phase 3 has been accounted for as sustaining capital):

Table 4 Initial Capital Cost Summary

Area	Sub-Area	Phase 1 (Saprolite) (million USD)	Phase 2 (Carbonatite) (million USD)
Mining	Mine	-	3.5
	Waste Dump	2.8	-
Processing Plant	General - Access Roads and Earthworks	4.8	2.7
	Process Plant	28.2	40.4
	Administrative / Operational Buildings	2.7	0.7
	Utilities	10.2	2.9
	Electrical System	11.6	14.2
Dam	Aglime Dam	2.7	3.7
	Water Dam	4.2	-
Total - Direct Costs		67.3	68.0
Indirect Costs		8.3	5.4
Contingency		8.3	7.3
TOTAL PROJECT COSTS		83.9	80.8
Recoverable Taxes		(3.3)	(3.5)
TOTAL COSTS (Net of Recoverable taxes)		80.6	77.3

Table 5 Sustaining Capital Cost Summary

Year	Description	sCapex (million USD)
5	South Waste Dump. Necessary to minimize waste transportation cost	6.2
6	Mine Fleet - 30% down payment for a new Truck CAT 775 (increasing numbers of truck to 9 units)	0.3
	Pit Drainage pipeline, supporting the mining activities	0.8
9	Tailings pipeline – Increase tailings pipeline in length, discharging downstream	0.5
10	South Tailings Dam - Final heightening	3.2
13	Mine Fleet - 30% down payment for a new Truck CAT 992K (fleet renewing)	0.7
15	Phase 3 - Aglime Dragging structure	1.1
16 – 20	Mine and Phosrock Plant Closure	5.0
36 – 40	Aglime Closure	4.4
TOTAL PROJECT COSTS		21.1
Recoverable Taxes		0.5
TOTAL COSTS (Net of Recoverable Taxes)		20.6

10.2 OPERATING COSTS

Operating costs 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 annual total operating cost for Três Estradas Phosphate Project is estimated to be:

- Phase 1 (Saprolite): The average annual cost (Years 1 to 3) to produce 300 ktpy of phosrock is USD 15.8 million, or USD 51.30/tonne of phosphate concentrate;
- Phase 2 (Carbonatite): The average annual cost (Years 5 to 15) to produce 300 ktpy of phosrock and 1 Mtpy of aglime is USD 38.6 million, or USD 77.21/tonne of phosphate concentrate and USD 5.26/tonne of aglime;
- Phase 3 (Aglime): The average annual cost (Years 17 to 35) to produce 1 Mtpy of aglime is USD 1.8 million, or USD 1.81/tonne.

Table 6 Operating Costs – Três Estradas Phosphate Project

Area	Sub-Area	Phase 1 Average (y1- y3) (million USD/year)	Phase 2 Average (y5- y15) (million USD/year)	Phase 3 Average (y17- y36) (million USD/year)
Mining	Labor	1.2	1.6	0.0
	Diesel	2.6	5.6	0.0
	Lubricants	0.4	0.8	0.0
	Blasting	0.1	2.1	0.0
	Tires	0.4	0.9	0.0
	Repair Parts	0.4	1.0	0.0
	Wear Parts	0.1	0.2	0.0
	Drainage	0.0	0.3	0.0
	Outsourced Services	1.3	1.0	0.0
	Leasing	0.0	0.8	0.0
Total Cost - Mine		6.5	14.3	0.0
Process Plant	Labor	2.1	2.1	0.0
	Power	2.9	7.3	0.0
	Fuel and additives	0.3	0.3	0.0
	Reagents	2.3	10.3	0.0
	Consumables	0.2	2.1	0.0
	Parts and Maintenance Material	0.8	1.5	0.0
Total Cost - Process		8.7	23.7	0.0
G&A		0.6	0.6	0.0
Aglime Storage Reclaiming	Dredging and Filtration	0.0	0.0	1.2
	G&A	0.0	0.0	0.6
Total Cost - Aglime Storage Reclaiming		0.0	0.0	1.8
TOTAL OPERATIONAL COSTS		15.8	38.6	1.8
Taxes Recovery		(1.1)	(3.2)	(0.0)
TOTAL COSTS (Net of Recoverable Taxes)		14.7	35.4	1.8

11 ECONOMIC ANALYSIS

In summary, the economic analysis follows a discounted cash flow (DCF) model. This was performed by considering the detailed mining, processing and facilities CapEx and OpEx schedules, and applying them against net revenues (after deductions such as royalties, expenses and other deductions). After applying taxes, depreciation and amortization, the discounted cash flow (DCF) was generated, from which various valuation metrics could be derived including Net Present Value (NPV), Internal Rate of Return (IRR) and payback period.

Costs are as reported above. Revenues were generated by applying the price forecasts generated by industry experts. Proper application of taxes and duties in Brazil is relatively complex, and an expert in Brazilian taxes, L&M Advisory, was used to ensure that tax treatment was properly modelled.

The pre- and post-tax results of the economic model are summarized in Table 7.

Table 7 Financial Results Summary

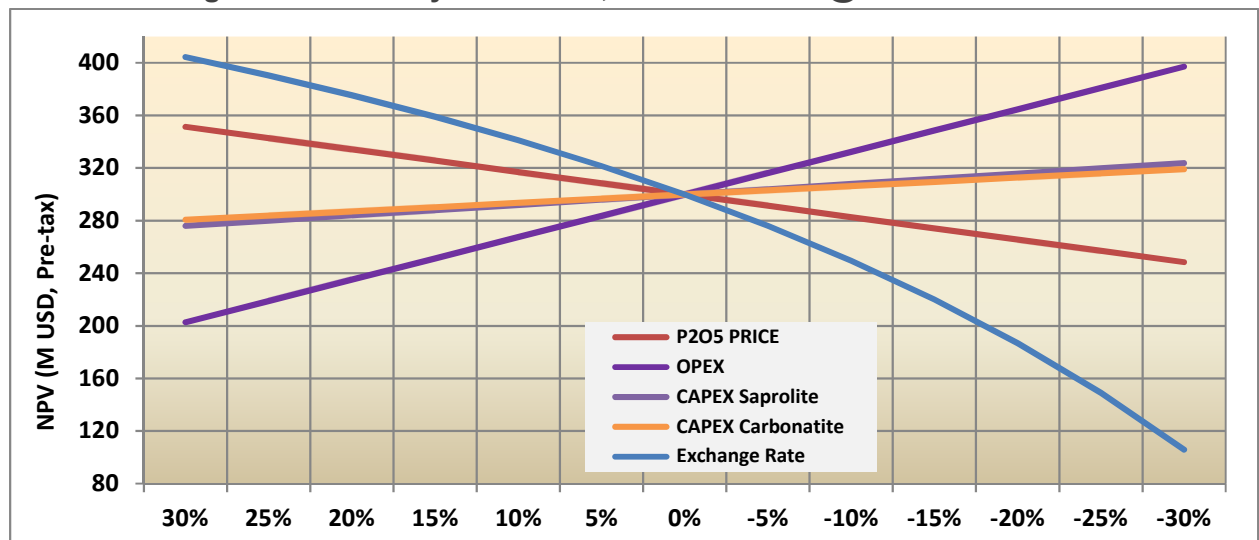
Financial Analysis	Unit	Pre-Tax ⁽²⁾	Post-Tax
NPV@5%	(USD Million)	300	212
NPV@7.5%	"	186	129
NPV@10%	"	116	78
IRR	(%)	20.7%	18.3%
Total Cash Flow	(USD Million)	1,041	849
Payback ⁽¹⁾	(Years)	5.9	6.2
EBITDA Years 1 to 3.5 (Phase 1 - Sapolite)	(USD Million)	28	
EBITDA Years 3.6 to 16 (Phase 2 - Carbonatite)	"	37	
EBITDA Years 17 to 36 (Phase 3 - Aglime)	"	26	
<i>(1) Undiscounted, after start-up;</i>			
<i>(2) Before direct taxes;</i>			

Sensitivity analyses were performed on a variety of independent factors, including:

- P₂O₅ concentrate price: ±30%
- Operating costs: ±30%
- iCapEx Sapolite: ±30%
- iCapEx Carbonatite: ±30%
- Exchange Rate: ±30%

The NPV, on a pre-tax basis, was found to be most sensitive to exchange rate, followed by P₂O₅ concentrate pricing.

Figure 3 Sensitivity for Pre-tax, Unlevered NPV@5%



12 PROJECT IMPLEMENTATION SCHEDULE

The key activities of the schedule for the 1st Phase of Três Estradas Phosphate Project are summarized at the table below. The production will start at the beginning of Month #19.

Table 8 Construction Schedule for Initial Investment

Main activities	Start	End
Detailed Engineering	Month #1	Month # 7
Preparation of Procurement Packages	Month #1	Month # 4
Contracting	Month # 3	Month # 7
Implementation License (LI)		end of Month # 4
Construction - civil and mechanical assembly	Month # 5	Month # 16
Commissioning & Start up	Month # 10	Month # 18
First commercial product		end of Month # 18

13 CONCLUSIONS

The following conclusions can be made, based on the current BFS level of work:

- The pit contains 83.21MT of Measured plus Indicated resources with an average grade of 4.11% P_2O_5 using a minimum cut-off of 3.0% P_2O_5 .
- Of the Measured plus Indicated resources, Total Proven and Probable Mineral Reserves are reported at 43.6Mt, at a head-grade of 4.31% P_2O_5 (this includes 5.2Mt of the higher-value saprolite ore, at a head-grade of 8.50% P_2O_5).
- In saprolite, tests results projects that a global phosphate recovery of 81.4 % can be expected at a concentrate grade of 32.7% P_2O_5 ;
- In carbonatite, tests results projects that a global phosphate recovery of 75.3% can be expected at a concentrate grade of 30.1% P_2O_5 ;
- Mine planning, detailed cost estimation and economic analysis has demonstrated the economic feasibility of a portion of the resource.
- There is demand in the region for both phosrock and calcite at the quality and cost that Três Estradas can produce.

The Três Estradas Phosphate Project is technically and economically feasible. The mining and processing concepts applied represent conventional technologies that have been used successfully in international phosphate mining operations for several decades. The deposit's resources are sufficient to provide an economically viable open pit mining project under the circumstances described in this report.

APPENDIX A – JORC TABLE 1

TRÊS ESTRADAS PHOSPHATE PROJECT - JORC TABLE 1

SECTION 1: SAMPLING TECHNIQUES AND DATA

Sampling Techniques	<p>Soil samples were collected every 25 meters along lines spaced 100 meters apart, for a total of 52 soil samples. All soil samples targeted the B Horizon soil profile.</p> <p>77 rock samples were collected from within the DNPM 810.090/91 area. One historical trench exists on the tenement, Agua sampled three vertical channels; in each channel, two samples were collected.</p> <p>Drilling comprised 139 core boreholes (20,509.5 meters), 487 auger boreholes (2,481.65 meters), and 297 reverse circulation boreholes (7,800 meters).</p> <p>Auger - Drilling was completed up to a depth of 15 meters within the saprolite unit.</p>
	<p>Auger - borehole collars were surveyed according to the local UTM coordinate system (SAD 69, Zone 21S) using a handheld GPS receiver before drilling started. No downhole surveys were performed. N.B. Auger data were not used for resource estimation purposes.</p> <p>Reverse Circulation Drilling - All borehole collars were surveyed according to the local UTM coordinate system (SAD 69, Zone 21S), using a differential GPS receiver before drilling started, and once drilling had been completed. No downhole surveys were performed.</p> <p>Core Drilling - All borehole collars were surveyed according to the local UTM coordinate system (SAD 69, Zone 21S), using a differential GPS receiver before drilling started, and once drilling had been completed. Beginning in the second drilling program, downhole surveys were completed using a Maxibore down-hole survey tool collecting orientation readings at 3-meter intervals.</p>
	<p>Auger - 1 meter samples collected, 2 kilograms of material collected for each field sample. Samples were taken at 1-meter intervals. These samples were analyzed for phosphorus, calcium, and aluminium content with a portable x-ray fluorescence (XRF) analyzer. If any sample yielded greater than 1.31 % phosphorus (3% P₂O₅), all samples from that auger borehole were shipped to the laboratory for assaying.</p> <p>Reverse Circulation Drilling - Every meter drilled produced two aliquots with a minimum weight of 500 grams and a maximum of 2 kilograms.</p> <p>Core Drilling - The majority of sample intervals range between 0.5 and 1.5 meters, averaging 1.0 meter and honour geological contacts. Samples consisted of half core and were collected from core cut lengthwise using a diamond saw. Three readings per meter were performed with a portable XRF device.</p> <p>Samples from the first and second exploration program were sent to the ALS laboratory in Vespiano, Brazil for preparation. Prepared samples were sent to Lima, Peru or Vancouver, Canada for assaying. Samples from the third, fourth, and fifth exploration programs were prepared and analyzed at SGS Geosol laboratories in Vespasiano, Brazil</p>
	<p>Auger - tipper scarifier motorized augers were used to drill the auger boreholes.</p>
Drilling Techniques	<p>Reverse Circulation – Drilling utilized a face sampling Hard Formation Bit with Tungsten buttons and a diameter of 140 mm. No downhole surveys were completed.</p>
	<p>Core Drilling - Drilling utilized HQ equipment for weathered material and NQ for fresh rock. Down hole surveys were performed on 96 core boreholes Downhole surveys were performed on 3-meter intervals using a Maxibore down-hole tool on the majority boreholes completed during the second through fifth drilling programs. No core orientation has been carried.</p>

SECTION 1: SAMPLING TECHNIQUES AND DATA

Drill Sample Recovery	Auger - Auger recovery was not monitored.
	Reverse Circulation Drilling – recovery was monitored by sample weight. The minimum recovery was 85 percent.
	Core Drilling - Recovery by sample and by drill run was recorded; core recovery exceeded 90 percent in 90 percent of all core borehole samples.
Logging	Reverse Circulation Drilling – Logging includes description of lithology and weathering.
	Core Drilling - Detailed geological logs in appropriate logging form were completed. All core has been photographed dry before sampling.
	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation and core).
Sub-Sampling Techniques and Sample Preparation	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation and core).
	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation and core).
	All of the relevant intersections were logged.
Sub-Sampling Techniques and Sample Preparation	Core was sawn in half, with one half sent for assaying and one half being retained for reference. Friable core was split down the centerline using a spatula or similar tool, with half being retained and half sent for assaying.
	Auger - One meter auger samples were placed on a plastic sheet; large pieces were broken down manually. The sample was then homogenized by shaking the sheet with a rolling motion.
	Reverse Circulation Drilling - Dry and moist samples were split using a riffle splitter; wet samples were dried prior to homogenization and sampling.
	All samples were dried, crushed, and s milled to 75 percent passing 80 mesh.
	The sample preparation techniques meet industry standards and are considered appropriate for the mineralization being investigated.
	Industry standard procedures are employed, including ensuring non-core samples are adequately homogenized before. Archive samples are collected.
	No field duplicate samples or second half sampling was done. The target mineralization is quite homogeneous.
Auger, reverse circulation and core sample sizes are adequate for the target mineralization sampled.	

SECTION 1: SAMPLING TECHNIQUES AND DATA

<p>Quality of Assay Data and Laboratory tests</p>	<p>For the first two drilling programs, sample preparation was completed at ALS Vespasiano's laboratory in Brazil using standard crushing and pulverization techniques; sample analysis was carried out by ALS Peru S.A. in Lima or ALS Minerals in North Vancouver, Canada.</p> <p>The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements (P₂O₅, Al₂O₃, CaO, Fe₂O₃, K₂O, MgO, MnO₂, SiO₂, and TiO₂ (Method code XRF12pt/XRF24).</p> <p>Samples were also analyzed for a suite of 31 elements using an aqua regia digestion and inductively coupled plasma - mass spectrometry (Method code ME-MS81).</p> <p>For the subsequent three drilling programs sample preparation and analysis was completed at SGS Geosol laboratory in Vespasiano, Brazil using standard crushing and pulverization techniques.</p> <p>The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements (P₂O₅, Al₂O₃, CaO, Fe₂O₃, K₂O, MgO, MnO, SiO₂, and TiO₂, - Method code XRF79C). They were also analysed for loss on ignition for calcination (method code PHY01E).</p> <p>Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of nine elements.</p> <p>The preparation and analytical procedures are appropriate for the type of mineralization sampled and are reliable to deliver the total content of the analyzed compounds.</p>
	<p>During the first and second drilling programs, control samples were inserted approximately every 12 samples; analyses of replicate pulp assays of mineralized rock were also completed. In addition, umpire laboratory testing was performed on approximately 5% of the samples.</p> <p>At ALS Minerals, North Vancouver, Canada, second pulp splits were analyzed for a suite of 31 elements including rare earth and trace elements, by inductively coupled plasma mass spectrometry (Method code ME-MS81).</p> <p>Ten blank samples were sent for preparation to ALS laboratory in Vespasiano, Brazil and for analysis to ALS Minerals in Lima, Peru.</p> <p>Aguia used two certified phosphate reference materials (standards) sourced from Geostats Pty Ltd. (Geostats) in Perth, Australia.</p> <p>Umpire check assays were conducted by SGS Geosol in Belo Horizonte, MG, Brazil using XRF spectroscopy (Method codes XRF79C and PHY01E).</p> <p>Additionally, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratory used.</p> <p>During the third, fourth, and fifth drilling programs, Aguia used two certified standard reference materials (standards), supplied by the Instituto de Tecnologia Austust Kekulé (ITAK). ITAK 911 is a high grade standard, while ITAK 910 is a mid-grade standard. The standards were prepared by ITAK for Aguia from mineralized material sourced from Aguia's Três Estradas project. The standards were certified using a standard round-robin testing protocol. The control samples are considered appropriate to the grade and style of mineralization being tested.</p> <p>In addition, fine and coarse blank samples were prepared from barren quartz veins.</p> <p>One company supplied control sample and a pulp duplicate were included in each batch of 48 samples. One batch of 48 samples was sent monthly for umpire laboratory testing.</p> <p>Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of elements (method code XRF12pt/XRF24).</p> <p>In addition, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratories used for analysis.</p>

Quality of Assay Data and Laboratory Tests	During a site visit on March 17 to 19, 2016, Millcreek personnel performed a detail audit of 13 core holes, reviewing measurements and descriptions of original logs to the core. A second audit was completed by Millcreek on March 8 and 9, 2017.
Verification of Sampling and Assaying	No twin boreholes were completed.
	All core was logged by Aguia geologists; data were entered digitally into a comprehensive database program. Electronic data were verified by Millcreek.
	Assay data were not adjusted.
	All borehole collars were surveyed according to the local UTM coordinate system (South American Datum 1969 – SAD69, Zone 21S), using differential GPS equipment before drilling started, and once drilling had been completed.
Location of Data Points	UTM system (Zone 21S), South American Datum 1969.
	A topographic survey of the project area was completed using differential GPS technology in March 2012. An expanded detailed topographic survey using Lidar technology including a new set of orthorectified images was carried out in December 2016 by Serviços Aéreos Industriais.
	The topographic survey generated contour lines at 1-meter intervals for the expanded project area. were obtained in 1:2000 scale and the adopted flight level returned orthophotographic images at 1:5000 scale
	On the north tenement (DNPM#810.090/1991), reverse circulation drilling was completed on sections spaced 50 meters apart and core drilling has an approximate spacing of 50 meters. On the south tenement (DNPM#810.325/2012), reverse circulation drilling has a spacing of 200 X 50 meters, such that there are two holes on the outer bounds of each section. Core holes on the south tenement have an approximate spacing of 125 meters. There is no drilling on DNPM#810.998/2011.
Data Spacing and Distribution	The boreholes are spaced sufficiently close to interpret the boundaries of the phosphate mineralization with a confidence sufficient to establish continuity and support classification for Measured, Indicated and Inferred categories.
	Assay data were composited to one meter length prior to resource estimation.
	The sampling patterns used did not introduce an apparent sampling bias.
Orientation of Data in Relation to Geologic Structure	The sampling patterns used did not introduce an apparent sampling bias.
	Chain of custody of all sample material was maintained by Aguia. Samples were stored in a secured facility in Lavras do Sul until dispatch to the preparation laboratory by commercial carrier.
Sample Security	Millcreek audited the project in early 2016 and again in early 2017 and concluded that exploration work completed by Aguia used procedures consistent with generally accepted industry best practices. The audit found no issues with the project data.
Audits or Reviews	

SECTION 2: REPORTING OF EXPLORATION RESULTS

<p>Mineral Tenement and Land Tenure Status</p>	<p>On July 1, 2011, CBC and Agua Metais Ltda., a subsidiary of Agua Resources, Ltd. in Brazil, executed an option agreement providing the irrevocable purchase option of mineral rights #810.090/1991 and #810.325/2012 by Agua Metais (or its affiliate or subsidiaries). On May 30, 2012, Agua Metais exercised the purchase option concerning the mineral rights of permit #810.090/1991 by means of its affiliate, Agua Fertilizantes S/A (Agua Fertilizantes). On July 20, 2012, CBC filed a request before the DNPM applying for the transfer of this mineral right to Agua Fertilizantes. On May 16, 2013, Agua Metais exercised the purchase option concerning mineral rights of permit #810.325/2012 by means of its affiliate Agua Fertilizantes. On April 07, 2014, CBC filed a request before the DNPM applying for the transfer of the mineral right #810.325/2012 to Agua Fertilizantes.</p> <p>The permit to be transferred from CBC (#810.325/2012) to Agua Fertilizantes is currently operating under permit extension. Falcon timely requested for an extension of the permit 810.988/2011 which is under DNPM's analysis.</p> <p>The transfer of the mineral rights 810.090/1991 from CBC to Águia Fertilizantes was approved by DNPM on November 30th, 2017 and registered by DNPM on December, 07th, 2017). The transfer requests of the mineral rights #810.325/2012 and 810.988/2011 are under DNPM's analysis. As per the Brazilian mining legislation, in order to be considered lawful and to also have legal effectiveness, the DNPM will analyze technical and legal aspects in order to approve or oppose the transfer. The assignor shall continue to be liable for any rights or covenant regarding the mining title up to the regular register of the full assignment.</p> <p>As stated in the legal title opinions provided by Azevedo Sette Advogados, Falcon and CBC (sole titleholders at the time of the opinion) were in compliance with the mining regulation related to the mineral rights, which includes meeting the requirements of the DNPM rules, the payment of the annual fee per hectare, or any other applicable fees. Agua is understood to have been in compliance since one of the titles was recently transferred, or since the transfer has been in review (see above).</p>
<p>Exploration Done by Other Parties</p>	<p>Phosphate rich rocks at Três Estradas were discovered during a gold exploration program under a joint venture agreement between Companhia Brasileira do Cobre and Santa Elina in 2007/2008. Exploration activities comprised an integrated geochemical/geological/geophysical and drilling program. The gold results were disappointing, causing Santa Elina to withdraw from the joint venture; however, P₂O₅ values in excess of 6% were noted in assays of soils and drill core.</p>

Geology	The Três Estradas phosphate project is a carbonatite complex containing apatite as the phosphate bearing mineral in both meta-carbonatite and meta-amphibolite. The carbonatite complex strikes northeast and form a tightly folded sequence with limbs dipping steeply from 70° to vertical (90°). Rocks in the area have been affected by Neo-Proterozoic shearing and metamorphism. The carbonatite and its host rocks are part of the Santa Maria Chico Granulite Complex, within the Taquarembó Domain of the Achaean to Proterozoic Sul-rio-grandense Shield.
Drill Hole Information	Mineral resources are informed from 139 core holes (20,509.5m) and 244 RC holes (7,800m), completed in five exploration programs conducted in 2011, 2012, and 2014 through 2017. Information from auger boreholes was not considered for resource estimation. Boreholes generally were completed on NW trending sections 50 meters apart. The complete dataset was used in the estimate. The large dataset precludes listing of individual results as would be the case for limited data when reporting Exploration Results.
Data Aggregation Methods	No exploration data were altered. Sample intervals were length weighted. A nominal 3 percent P ₂ O ₅ lower cutoff was used. Not applicable. Not applicable.
Relationship Between Mineralization Widths and Intercept Lengths	Reverse circulation drilling was designed to intercept the flat lying upper oxide mineralization, and was occasionally terminated once fresh rock was intercepted at depth. Core drilling was designed to intersect the full width of the target apatite mineralization at a high angle. Reverse circulation drilling was typically oriented perpendicular to the sub-horizontal oxide layer, and therefore downhole lengths generally approximate true widths. Core drilling was performed at an acute angle to the steeply to vertically dipping carbonatite bodies, hence downhole widths were greater than true widths. For boreholes drilled with a dip of 60 degrees, true mineralization widths were generally in the order of 40 to 60 percent of downhole intersection lengths. Down hole lengths were reported. Relationships between true lengths and true thickness are shown in cross sections within the report.
Diagrams	Borehole collar map and representative sections included in Appendix B.
Balanced Reporting	All relevant drilling information was incorporated in the preparation of the mineral resource estimate.
Other Substantive Exploration Data	None
Further Work	The latest drilling program completed in June 2017, has been successful in delineating the majority of inferred resources reported in the June 24, 2016 Mineral Resource Estimate to Measured and Indicated Resources. The drilling program has also identified a new zone of mineralization along the southeast side of the Três Estradas Deposit. Drilling has delineated sufficient resources to support the Feasibility Study.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Database Integrity	<p>The database was provided to Millcreek in a digital format.</p> <p>Millcreek conducted a series of routine verifications to ensure the reliability of the electronic data provided by Aguia.</p> <p>Rare and minor input errors were detected in the Aguia database. These errors are considered not material.</p>												
Site Visits	<p>A site visit was undertaken by Mr. Steven B. Kerr and Mr. Alister D. Horn on March 16 to 18, 2016. Both gentlemen are principal consultants with Millcreek Mining Group and are appropriate independent Competent Persons for the purpose of JORC. A second site visit was completed by Mr. Steven B. Kerr on March 8 and 9, 2017.</p> <p>Millcreek was given full access to the project site, relevant data, and Aguia's field offices in Lavras do Sul. Millcreek was afforded full access to Aguia personnel and had in-depth conversations and meetings relating to past exploration work, procedures followed in data acquisition, and future goals in project development.</p>												
Geologic Interpretation	<p>Following our audit Millcreek has determined Aguia's geological and mineralization model used for the mineral resource estimation is adequate to support geological modelling and evaluation and classification of mineral resources pursuant to the JORC 2012 Code.</p> <p>Aguia used a lithological-assay based approach to define the boundaries of the phosphate (apatite) mineralization and the following criteria: The outer mineralized envelopes were modeled into wireframe solids using a 3.00% P₂O₅ cut-off grade.</p> <p>Three weathering zones (saprolite, weathered, and fresh rock) defined by two weathering surfaces have been modelled according to core logging data.</p> <p>Maximum length of internal dilution within a mineralized interval is 4.0 meters. There are eight intervals (1.7% of internal dilution intervals) that are longer than 4 meters.</p>												
Dimensions	<p>The minimum and maximum extents of the mineral resource are given below:</p> <table border="1" data-bbox="646 1079 1052 1268"> <thead> <tr> <th></th> <th>Minimum*</th> <th>Maximum*</th> </tr> </thead> <tbody> <tr> <td>Easting</td> <td>766,350</td> <td>769,110</td> </tr> <tr> <td>Northing</td> <td>6,575,650</td> <td>6,576,820</td> </tr> <tr> <td>Elevation</td> <td>-100</td> <td>400</td> </tr> </tbody> </table> <p>*SAD 69 Zone 21S</p>		Minimum*	Maximum*	Easting	766,350	769,110	Northing	6,575,650	6,576,820	Elevation	-100	400
	Minimum*	Maximum*											
Easting	766,350	769,110											
Northing	6,575,650	6,576,820											
Elevation	-100	400											
Estimation and Modelling Techniques	<p>Five estimation domains were modelled, defined by rock type and weathering: Two in carbonatite, one in amphibolite, and two in the saprolite rock. Aguia used Geovia's GEMS software to model geology and estimate grades into a 3D block model, constrained by mineralization wireframes.</p> <p>Aguia composited all assay intervals to a length of 1.0 meter. Ninety-one percent (91%) of all mineralized samples have a sample length less than or equal to 1.0m and approximately 76% of the samples are 1.0m in length. Aguia has not employed any grade capping to limit the influence of high-grade outliers. Rather a high-grade limit was applied to reduce the influence of the high-grade values. 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% P₂O₅ was selected as the high-grade limit. Therefore, in the grade estimation process of P₂O₅, when the composite grade reaches 9% or more the size of search ellipsoids reduces to half of its original size.</p> <p>Variography was undertaken on 1-meter composites for P₂O₅, CaO, Fe₂O₃, MgO and SiO₂ in the meta-carbonatite and amphibolite domains. See report for table of results. Millcreek considers that Aguia's calculation parameters, orientation, and fitted variogram models are appropriate and reasonable given the available data and geological interpretation.</p>												

	<p>P₂O₅, CaO, Fe₂O₃, SiO₂, Al₂O₃, MgO and specific gravity (S.G.) were estimated into the block model using ordinary kriging for all mineral domains. For all elements, three estimations passes were used with progressively relaxed search ellipsoids and data requirements. The estimation ellipse ranges and orientations are based on the variogram model for P₂O₅ in the meta-carbonatite.</p> <p>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.</p> <p>Millcreek's audit of the methodology and parameters considered by Aguia found that there is minimal sensitivity to changes in estimation parameters. The audit and validation process consisted of the following steps:</p> <p>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.</p> <p>Statistical Validation: Comparison of general statistics and histograms of the block model are compared to composited data.</p> <p>Spatial Validation (Swath Plots): The block model was evaluated using a series of swath plots comparing grade variations of ordinary kriging to the original composites. Swath plots were evaluated in east-west, north-south, and vertical directions.</p>																																				
Moisture	All tonnage estimates in the model have been presented on a dry basis.																																				
Cut-Off Parameters	The mineral resources are reported within a conceptual pit shell at a cut-off grade of 3.00% of P ₂ O ₅ which takes into account extraction scenarios and processing recovery.																																				
Mining Factors and Assumptions	<p>The following assumptions were considered for Conceptual Open Pit Optimization to assist with the preparation of the mineral resource statement:</p> <table border="1" data-bbox="477 1024 1373 1682"> <thead> <tr> <th>Parameters</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Mining Recovery/Mining Dilution</td> <td>100 / 0</td> </tr> <tr> <td>Process Recovery P₂O₅ Sapolite</td> <td>87%</td> </tr> <tr> <td>Process Recovery P₂O₅ Fresh</td> <td>80%</td> </tr> <tr> <td>Process Recovery Calcite as Aglime</td> <td>100%</td> </tr> <tr> <td>Concentrate Grade Sapolite</td> <td>35.0%</td> </tr> <tr> <td>Process Recovery Sapolite</td> <td>32.0%</td> </tr> <tr> <td>Overall Pit Slope Angle Sapolite/Fresh Rock</td> <td>34/51 & 55 Degrees</td> </tr> <tr> <td>Mining Cost (US\$/tonne Mined)</td> <td>1.32</td> </tr> <tr> <td>Process Cost (US\$/tonne ROM)</td> <td>4.06</td> </tr> <tr> <td>G&A (US\$/tonne of ROM)</td> <td>0.79</td> </tr> <tr> <td>Aglime Production Cost (US\$/tonne of concentrate)</td> <td>\$4.00</td> </tr> <tr> <td>Selling Price (US\$/tonne of concentrate at 30.2% P₂O₅)</td> <td>\$215</td> </tr> <tr> <td>Selling Price of Aglime (US\$/tonne)</td> <td>\$47</td> </tr> <tr> <td>Royalties – Gross</td> <td>2%</td> </tr> <tr> <td>CFEM Tax – Gross</td> <td>2%</td> </tr> <tr> <td>Marketing Costs – Gross</td> <td>2%</td> </tr> <tr> <td>Exchange Rate (US\$ to R\$)</td> <td>3.2</td> </tr> </tbody> </table> <p>No other assumptions or predictions were required to define the portion of the resource with reasonable grounds for economic extraction.</p> <p>Details on an analytic and definitive approach to estimating reserves are included in Section 4. The assumption stated above have since been superseded or revised for the feasibility study as a result of further analysis, and are no longer necessarily current.</p>	Parameters	Value	Mining Recovery/Mining Dilution	100 / 0	Process Recovery P ₂ O ₅ Sapolite	87%	Process Recovery P ₂ O ₅ Fresh	80%	Process Recovery Calcite as Aglime	100%	Concentrate Grade Sapolite	35.0%	Process Recovery Sapolite	32.0%	Overall Pit Slope Angle Sapolite/Fresh Rock	34/51 & 55 Degrees	Mining Cost (US\$/tonne Mined)	1.32	Process Cost (US\$/tonne ROM)	4.06	G&A (US\$/tonne of ROM)	0.79	Aglime Production Cost (US\$/tonne of concentrate)	\$4.00	Selling Price (US\$/tonne of concentrate at 30.2% P ₂ O ₅)	\$215	Selling Price of Aglime (US\$/tonne)	\$47	Royalties – Gross	2%	CFEM Tax – Gross	2%	Marketing Costs – Gross	2%	Exchange Rate (US\$ to R\$)	3.2
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<p>Metallurgical Factors and Assumptions</p>	<p>Metallurgical testwork for Três Estradas has been completed on a number of samples of different mineralization types. Testwork included grinding, magnetic separation, cell flotation, and column flotation. Two main mineralization types tested were Oxide/Saprolite and Fresh Carbonatite. Column flotation results performed by Eriez yielded the best results.</p> <p>Column flotation testwork on the oxide/saprolite material demonstrated that a rougher column alone is capable of providing a concentrate grade of 31.1% P₂O₅ with a P₂O₅ recovery of 80.1%. However, it is recommended to add a cleaner stage to increase recovery of rougher flotation at a lower P₂O₅ content.</p> <p>For Fresh Carbonatite a flowsheet has been developed that includes rougher flotation followed by two stages of cleaning. The second cleaner tailing is returned to the first cleaner feed. The second cleaner overflow is final concentrate. The first cleaner underflow flows to a scavenger column cell. The scavenger overflow returns to the rougher column feed, while the scavenger underflow, along with the rougher column underflow reports to final tailings. A rougher-cleaner-cleaner configuration yields a concentrate grade of 30.25% P₂O₅ at a recovery of 84.6%.</p> <p>Testing also showed that calcite can be recovered from the Fresh Rock rougher tails following staged magnetic separation yielding 50.3% CaO (89.78% calcite) at a recovery of 71.1%.</p> <p>Details on an analytic and definitive approach to minerals processing approach and design are included in Section 4. The assumptions stated above have since been superseded or revised for the feasibility study as a result of further analysis, and are no longer necessarily current.</p>
<p>Environmental Factors and Assumptions</p>	<p>An internal Environmental Assessment study was carried out by WALM Engenharia e Tecnologia Ambiental Ltda (qualified local Brazilian consultants) to assess various aspects of environment issues which are likely to impact a proposed mining project at the Três Estradas project.</p> <p>Millcreek has not studied environmental aspects of the project at the current project stage. Millcreek does not anticipate any significant environmental issues as this project advances towards development.</p>
<p>Bulk Density</p>	<p>Specific gravity was measured by Aguia on uncoated core samples using a standard weight in water/weight in air methodology. The specific gravity database contains 4,216 measurements. Specific gravity was treated as a variable in the model.</p>
<p>Classification</p>	<p>The resource classification involved a two-stage process.</p> <p>Stage 1: Relevant mathematical parameters were saved in the block model and the blocks. These variables are:</p> <ol style="list-style-type: none"> i. Interpolation pass (<i>pass</i>); ii. Distance of the closest sample from the block center (<i>mindist</i>); iii. Average distance of samples used in estimating any block (<i>avdist</i>); iv. Number of drill holes used for estimating any block (<i>nndh</i>); v. The kriging variance of grade estimation (<i>kvar</i>). <p>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:</p> <ol style="list-style-type: none"> i. Most of Measured category blocks were supported by three or more holes and nearly 20 composites; ii. Measured category blocks have at least one drill hole within half of the variogram range (major axis); iii. Most of indicated category blocks are supported by at least two drill holes and nearly 15 composites; iv. Measured category blocks have at least one drill hole within half of the variogram range (major axis); v. Remaining blocks with a P₂O₅ grade estimation were coded as an Inferred Resource. <p>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</p>

	inferred category blocks occurring side-by-side and 2) the measured and indicated blocks are not dominated by blocks with low sample support i.e., one drill hole with less than 10 composites
Audits and Reviews	<p>Millcreek completed a detailed audit of the mineral resource model completed by Aguia and are summarized in the accompanying report. Millcreek completed the two-stage process used in resource classification and completed a three step validation of the model.</p> <p>The results show that Aguia's estimation parameters are reasonable. Millcreek concludes that the block model is unbiased and robust.</p>
Discussion of Relative Accuracy/ Confidence	<p>Millcreek is satisfied that the geological modelling adequately represents the current geological information and knowledge. The location of the samples and the assay data are sufficiently reliable to support resource evaluation.</p> <p>Mineral resources were classified as Measured, Indicated or Inferred.</p> <p>Currently 34.4% of the resources are currently classified as measured, 44.65% of the resource is classified as indicated and 21% as an inferred resource. The fifth exploration program was successful in delineating a significant majority (79%) of the resources to measured and indicated resources. Millcreek is satisfied that the resource estimation adequately represents the mineralization of Três Estradas Phosphate Project.</p>

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES

Mineral Resource estimate for conversion to Ore Reserves	<p>The mineral resource estimate, as described in Section 3, above, was used as the basis for an estimate of mineral reserves. By applying considerations for geotechnical and geohydrological analysis, mine planning, minerals processing, taxation, legal, and other modifying factors, the economically recoverable portion of the resource was identified and classified.</p> <p>The Mineral Resource estimate stated in this document is inclusive of the stated Ore Reserve</p>
Site visits	<p>A site visit was undertaken by Mr. Steven B. Kerr and Mr. Alister D. Horn on March 16 to 18, 2016. Both gentlemen are principal consultants with Millcreek Mining Group and are appropriate independent Competent Persons for the purpose of JORC. A second site visit was completed by Mr. Steven B. Kerr on March 8 and 9, 2017. Mr. Kerr's site visit is considered current with respect to an of geologic resources, while Mr. Horn's visit is considered current with respect to project development, and efforts to define mineral reserves.</p> <p>Millcreek was given full access to the project site, relevant data, and Aguia's field offices in Lavras do Sul. Millcreek was afforded full access to Aguia personnel and had in-depth conversations and meetings relating to past exploration work, procedures followed in data acquisition, and future goals in project development.</p>
Study status	Mineral reserves have been defined on the basis of a recently completed Bankable Feasibility Study (BFS) that confirmed the economic feasibility of a proposed mine plan. Cost estimates were conducted according to an established system for cost engineering classification. Requirements for the breadth and Scope of the feasibility study were as according to generally accepted standards, and covered all modifying factors known to be relevant to the project.
Cut-off parameters	The mineral resources are reported within a conceptual pit shell at a cut-off grade of 3.00% of P ₂ O ₅ which takes into account extraction scenarios and processing recovery. Mine planning was applied to that resource block.
Mining factors or assumptions	<p>Mine Planning Approach: An initial analysis of the resources 3D block model, using an optimization algorithm and reasonable inputs (derived from earlier economic studies of the project) related to costs, pricing, pit slope, recovery, economics, etc., returned a pit shell that was optimized for ore tonnage relative to strip ratio. That shell was used as the basis for detailed pit phasing and design, mine scheduling, and mine planning. An engineering study to propose a metallurgical process commensurate with the mine plan was undertaken, and the project costs and economics modelled. The pit optimization inputs were as follows:</p>

Parameters	Value
Mining Recovery/Mining Dilution	95%/5%
Process Recovery P ₂ O ₅ Sapolite	81.4%
Process Recovery P ₂ O ₅ Carbonatite	75.2%
Concentrate Grade Sapolite	32.7%
Concentrate Grade Carbonatite	30.1%
InterRamp Slope Angles Rock (by Sector)	51 and 55 degrees
InterRamp Slope Angles Weathered Material	34
Mining Cost Carbonatite (US\$/t)	1.42
Mining Cost Sapolite (US\$/t)	1.47
Mining Incremental Cost (US\$/t)	0.01
Mining Rehabilitation Cost (US\$/t)	0.17
Processing Cost Sapolite (US\$/t)	6.10
Processing Cost Carbonatite (US\$/t)	7.34
Selling Price (US\$/t) Concentrate P ₂ O ₅	146
Processing Cost (US\$/t) Aglime	0
Selling Price (US\$/t) Aglime	29
Marketing/Selling Costs (%)	2
Royalties (%)	2
Exchange Rate (US\$ to R\$)	3.45

Mining Method: The deposit is relatively small, steeply dipping, and crops to surface with the highest grade ore occurrence (the sapolite) at or near surface. This makes project amenable to conventional truck-shovel mining approaches. The steep dip and relatively small size preclude the pits from being extensively backfilled, and so waste is assumed to be hauled entirely out-of-pit for the duration of the life-of-mine.

Geotechnical Considerations: A geotechnical analysis was undertaken on 33 holes in the project area, and interramp angles as well as bench face slopes proposed, according to different regions of the proposed pit area. Interramp angles were proposed ranging from 51° – 55°, while bench face angles ranged from 70° – 75°.

Mining Losses and Dilution: Assumed as 5% each, bv volume, with a null grade for the diluent. Recovery was assumed at 95%.

Minimum Mining Widths: Bench widths and height were assumed to be 20m and 15m, respectively, while ramp widths were assumed to be 20m. Minimum pit widths were approximately 20m, at which point it was assumed that equipment productivity would be de-rated accordingly.

Mineral Reserve Basis: The optimization process returned a pit comprised entirely of Measured +Indicated, with no Inferred resources.

Infrastructure Requirements: The proposed mine plan requires the regular use and maintenance of mobile equipment, so good road access and access to nearby towns and cities, as is the case at Tres Estradas, is important. Electrical power and water will be critical for the process plant and mining operations.

<p>Metallurgical factors or assumptions</p>	<p>Metallurgical test work for Três Estradas has been completed on a number of samples of different mineralization types. Test work included grinding, magnetic separation, cell flotation, and column flotation. Two main mineralization types tested were Oxide/Saprolite and Fresh Carbonatite. Column flotation results performed by Eriez yielded the best results. The process flowsheet proposed relies on well-established proven techniques and equipment, and Eriez are understood to have extensive prior experience in column flotation of igneous phosphate ores, in Brazil. Samples were generated from an extensive bulk sampling program undertaken in 2016-17, and are believed to be representative of the deposit for thru purposes of the feasibility study.</p> <p>Column flotation test work on the oxide/saprolite material demonstrated that a rougher column alone is capable of providing a concentrate grade of 31.1% P₂O₅ with a P₂O₅ recovery of 80.1%. However, it is recommended to add a cleaner stage to increase recovery of rougher flotation at a lower P₂O₅ content. With Cleaner addition grade increases to grade to 32.7% and recovery to 81.4%.</p> <p>For Fresh Carbonatite a test work showed rougher flotation followed by three stages of cleaning was the most efficient recovery process. The rougher concentrate will flow to the cleaner 1 feed, rougher tails will report to the tailings thickener. The cleaner 1 concentrate will flow to cleaner 2 stage. The cleaner 1 tailings will follow the same path as the rougher tailings up to the tailings thickener. The cleaner 2 concentrate will flow to the cleaner 3 stage feed. The cleaner 2 tailings will be directed to the rougher feed as a circulating load. The cleaner 3 concentrate will be pumped to a high intensity magnetic separation (HIMS) stage. The cleaner 3 tailings will be directed to the cleaner 1 feed as a circulating load. A rougher-cleaner-cleaner-cleaner configuration yields a concentrate grade of 30.1% P₂O₅ at a recovery of 75.3%.</p> <p>Testing also showed that calcite can be recovered from the Fresh Rock rougher tails following staged magnetic separation yielding 50.3% CaO (89.78% calcite) at a recovery of 71.1%.</p> <p>Metallurgical and process testing has culminated in Eriez's most recent pilot-plant testing for flotation (2017), supported with a recent comminution study (Metso, 2017). A multi-month study, using bulk samples and performed at Eriez Flotation Division's pilot-plant facilities in Pennsylvania, USA, has confirmed the earlier bench-scale work as well as further improvements in the process design to improve grade - recovery projections.</p> <p>Further testing was done to identify alternate reagents, and to perform solids-liquids (SLS) characterization in order to properly select equipment.</p> <p>Conceptual operating and capital costs have been benchmarked to similar phosphate operations.</p>
<p>Environmental</p>	<p>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 7th, 2016. As a result of later changes in the BFS, Aguia produced an updated version of the EIA / RIMA in September 1st, 2017, which is currently under FEPAM analysis. During the final phase of the BFS, additional changes were made to the project; a further update will be required to reflect these recent changes in the project.</p> <p>During the project operational stage, 68 Mt or 37.8 Mm³ of waste will be generated. The project contemplates two waste piles located around the open pit. Both comprise a maximum capacity of 40.2 Mm³ and a total area of 169.7 ha.</p> <p>Two tailings dams were designed for the Três Estradas Phosphate Project. During the project operational stage, 4.0 Mt or 2.1 Mm³ of saprolite tailings will be generated based on the production plan and will be discharged to the East Tailings Dam with an estimated volume of 2.4 Mm³ For Phase 1. The tailings generated during Phase 2 (Carbonatite) is agricultural limestone. The Três Estradas Phosphate Project will not immediately be able to sell all the agricultural limestone produced, making it necessary for storage in another Dam named South Tailings Dam, totaling an estimated maximum amount of 22.0 Mt or 11.5 Mm³. After completion of the tillage, the plan is to recover the agricultural limestone from the South Tailings Dam for commercialization.</p> <p>Três Estradas Phosphate Project has carried out a locational trade-off study for the dams to choose the best location giving consideration to the environmental and social aspects. The current location is considered the best alternative.</p>

	<p>The plans and programs proposed correspond to a set of actions to prevent, mitigate, compensate and enhance the expected negative and positive impacts in the stages of construction, operation and closure of the Tres Estradas Phosphate Project. At this stage of the environmental studies, plans and programs are presented as general guidelines (objective and actions) and will be detailed in the Environmental and Social Study (EIA/RIMA). Periodic reports on the plans and programs will be submitted to the Environmental Agency.</p>
Infrastructure	<p>The project site has good road access to within 7 km, and municipal road access to the site. It is nearby (30-40km) to local towns and cities 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 a sub-station located 50 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 at the Rio Grande Port Hub.</p> <p>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.</p>
Costs	<ul style="list-style-type: none"> • Capital costs for primary equipment were derived from budgetary quotes, and were derived from experience-based factors for support equipment. • Construction materials, supplies, labor, etc., was derived from material 'take-offs'. • Operating costs were derived from industry standard databases or experience-based database from the region. • The tailings from carbonatite processing produces an aglime by-product, for which there is believed to be a market. All this aglime is eventually to be sold. • All dollars are in constant 2018 USD, using an FX of 3.45 BRL : 1 USD, based on an average of projections for 2019 – 2020 from three banks with a presence in Brazil. • All royalties due to the government as well as private parties were identified in an independent legal opinion, and accounted for in economic modelling.
Revenue factors	<p>The head grade was ultimately derived from a 3D geologic model of the deposit, by applying loss and dilution factors to grades reported in a proposed mine schedule, applied to the model. Commodity price forecasts, recommended products and market size were derived from detailed market studies that looked into mining costs, logistics, freight, taxes, etc. The project economics have been found to be sensitive to FX. As described above, this was estimated from an average of 3 forecasts for 2018-2019. Forecasts beyond that timeframe are not considered to be reliable.</p>
Market assessment	<p>Phosrock is the primary ingredient in many fertilizer products, including SSP. 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. The highly arable region of southern Brazil currently imports all phosrock for SSP production, and Aguia intends to use its logistical competitive position to displace approximately 60% of the regional 528 ktpy of imported phosrock.</p> <p>Cheap-to-produce phosrock from Morocco is the primary competitor. A market study has identified SSP producers as potential customers, and through a netback pricing approach that looks at FOB (Morocco) pricing and logistical costs to Brazil, Aguia's was found to hold a logistical price advantage of US\$18.50/t. Aguia intend to use this advantage to displace 60% of the imported phosrock market into the region.</p> <p>A projected price forecast, net-backed to FOB at the Tres Estradas mine-gate, ranges from \$115.50/t (2018) to \$151.50/t (2027).</p> <p>A series of separate studies also identified a market for calcite in the region, specifically as an agricultural lime product for which the Aguia tailings, as a by-product and with no additional processing other than dewatering, fits a relatively high-grade specification and may realize premium pricing.</p>

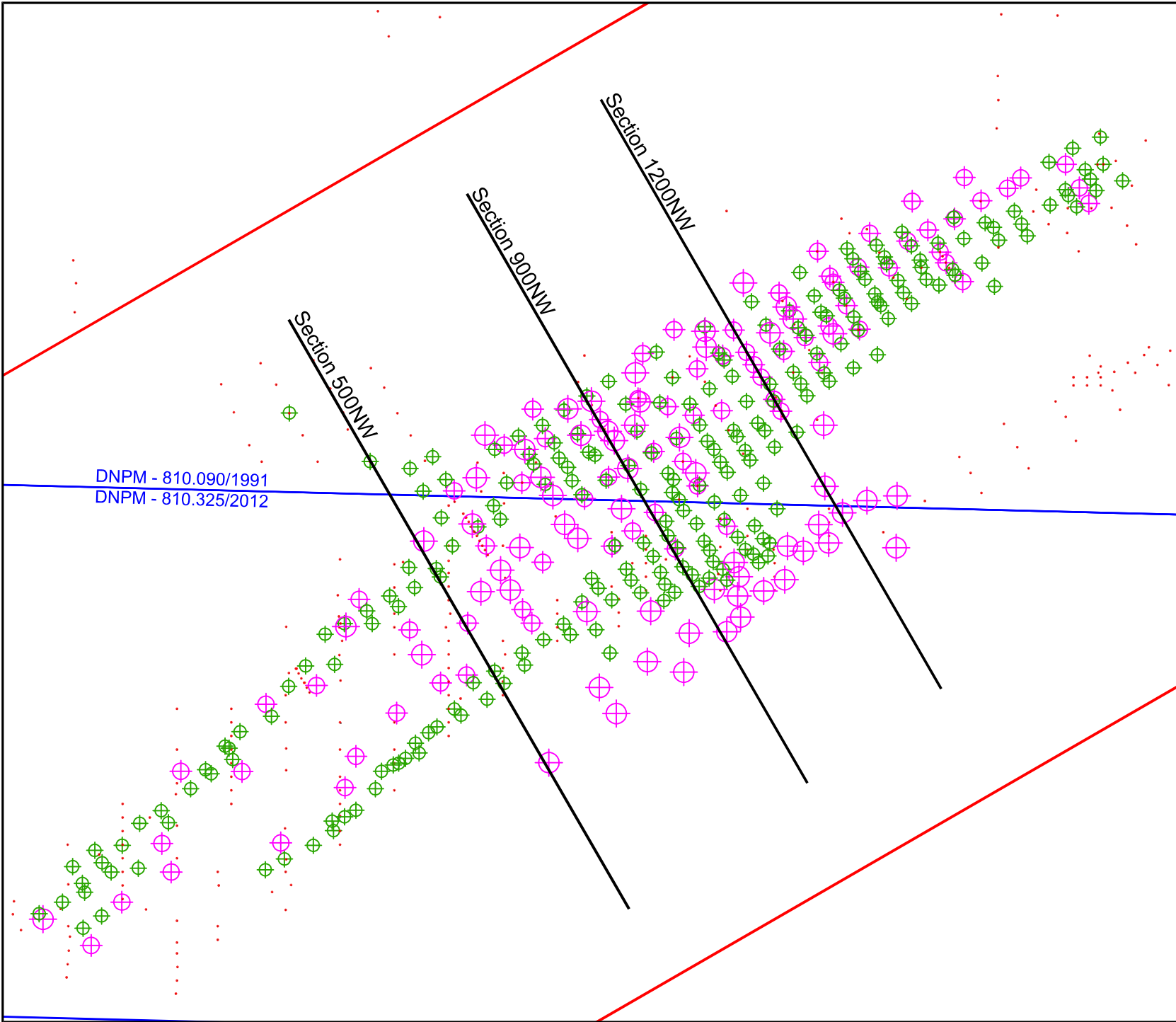
	<p>Studies and lab work have been done on both the phosrock product and calcite to confirm it's suitability to meet customer's product specifications.</p>																							
ECONOMIC	<p>An economic model of the project economics was built based on a mine schedule; direct and indirect, capital and operating cost schedules for the mine, plant and facilities; detailed assessment of applicable taxes and duties; and, pricing forecasts from market studies. By applying the direct and indirect costs against revenues and accounting for taxes, depreciation and amortization, a discounted cash flow was generated from which value metrics such as net present value (NPV) and internal rate of return (IRR) were derived.</p> <p>The evaluation base date is the end of the Year -3. All financial modeling and analysis work is based in real terms as of December 2017, using real, ungeared, discount rates and excludes any financing cost. The exchange rate adopted is BRL/USD = 3.45. A range of discount rates of 5%, 7.5% and 10% was assumed based on recent public forecasts from other junior mining companies reporting projects in well-established mining jurisdictions.</p>																							
Social	<p>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.</p>																							
Other	<p>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.</p> <p>A title opinion on the mining rights is discussed and included in the study. Aguia holds 100% interest in the three mineral rights permits covering the Três Estradas Phosphate Project area, with some of those titles currently in transfer and under review by the DNPM, the Brazilian regulatory authority. Previous titleholders were found to be in full compliance with regulations concerning their mining rights, and Aguia is understood to have been in recent compliance during the transfer. Aguia has not yet begun the process of land acquisition.</p> <p>A comprehensive Environmental and Social Impact Assessment (EIA / RIMA), that meets national and international standards was submitted to State Government Agency (FEPAM) in October 7th, 2016. Aguia has produced an updated version of the EIA / RIMA in September 1st, 2017, which is currently under FEPAM analysis. A further update will be required to reflect recent changes in the project from the current feasibility study.</p> <p>Prior to the start of a construction and commissioning phase, the following steps are necessary in accordance with Brazilian law: Public Hearings with local communities; FEPAM analysis and clarifications; Preliminary License (LP) issued by FEPAM; Basic Environmental Plan (PBA) and LP conditions addressed by the Project; FEPAM analysis and approval.</p>																							
Classification	<p>In the opinion of the Competent Person, the Tres Estradas Phosphate Project feasibility study is the final stage in a detailed and well-executed effort to define resources and mineral reserves, that has lasted several years. The project has been well studied and defined and is suitable as the basis of a mineral reserve estimate. As described in the 2012 JORC code, as well as in various other documents and guidances, the Measured and Indicated resources that are the subject of the economic mine plan have been classified as Proved and Probable Reserves, respectively.</p> <table border="1" data-bbox="386 1640 1318 1831"> <thead> <tr> <th rowspan="2">Class</th> <th colspan="3">Mineral Reserves (Mtonnes)</th> <th rowspan="2">% P₂O₅</th> </tr> <tr> <th>Saprolite Phase</th> <th>Cbt. Phase</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Proved</td> <td>0.8</td> <td>27.0</td> <td>27.9</td> <td>3.92</td> </tr> <tr> <td>Probably</td> <td>4.4</td> <td>11.3</td> <td>15.7</td> <td>5.01</td> </tr> <tr> <td>Prove + Prob</td> <td>5.2</td> <td>38.4</td> <td>43.6</td> <td>4.31</td> </tr> </tbody> </table>	Class	Mineral Reserves (Mtonnes)			% P ₂ O ₅	Saprolite Phase	Cbt. Phase	Total	Proved	0.8	27.0	27.9	3.92	Probably	4.4	11.3	15.7	5.01	Prove + Prob	5.2	38.4	43.6	4.31
Class	Mineral Reserves (Mtonnes)			% P ₂ O ₅																				
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Prove + Prob	5.2	38.4	43.6	4.31																				

	After a study of the various modifying factors that may affect the project, the Competent Person sees no justification to convert Measured Resources in Probable reserves.
Audits or reviews	There are no known audits or reviews of the current Ore Reserve Estimate, other than has been performed as part of the feasibility study reported in this document.
Discussion of relative accuracy/ confidence	<p>As stated in Section 3 above, Millcreek is satisfied that the geological modelling adequately represents the current geological information and knowledge. The location of the samples and the assay data are sufficiently reliable to support resource evaluation.</p> <p>Currently 34% of the resources are currently classified as Measured, 45% of the resource is classified as Indicated and 21% as an Inferred resource. 100% of the Measured and Indicated resource is reported as Proved or Probable mineral reserves. No Inferred resource is included in the reserve estimate.</p> <p>Cost estimates were conducted according to an established system for cost engineering classification; the International Recommended Practice No. 47R-11 - Cost Estimate Classification System - As Applied in the Mining and Ore Processing Industries, published by the American Association Cost Engineering (International) (AACEi). The capital cost estimates for the processing plant is a 'Class 3' estimate for Phase 1 (Saprolite), equivalent to the needs of a BFS-level study, or for budgetary work. The majority of the Phase 2 (Carbonatite) was developed to the Class 3 standard, while others meet a Class 4 classification (equivalent to a feasibility study).</p> <p>The Três Estradas Phosphate Project was advanced through several years of preliminary economic assessments and numerous 'stand-alone' studies before the BFS was completed. Geology and resource estimates were prepared by geologists experienced in resource estimation, geologic modelling and interpretation, and application of variographic and geostatistical techniques to improve geologic understanding and interpretation. Metallurgical testing and process design and costing was performed by experts with specific expertise and understanding of column flotation of phosphate ores in Brazil, and after extensive studies. Mine planning and costing was undertaken by experts experienced in open-pit hard-rock mining in Brazil. Market studies were performed by experienced groups with an understanding of the fertilizer markets in Brazil. Costing, economic and tax analyses were undertaken by professionals with an excellent understanding of mining costs in Brazil, and of the tax treatments that are available. Environmental and legal considerations were all provided by well-respected groups, with specific experience with the mining industry in Brazil.</p>

SECTION 5: ESTIMATION AND REPORTING OF DIAMONDS AND OTHER GEMSTONES

Not Applicable

APPENDIX B – BOREHOLE MAPS



- License Boundary
- Model Area
- ⊕ Core Drillhole
- ⊕ RC Drillhole
- Auger Drillhole
- Drillhole Trace
- Topography Contour

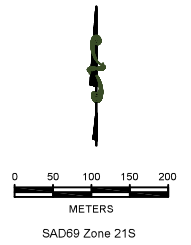
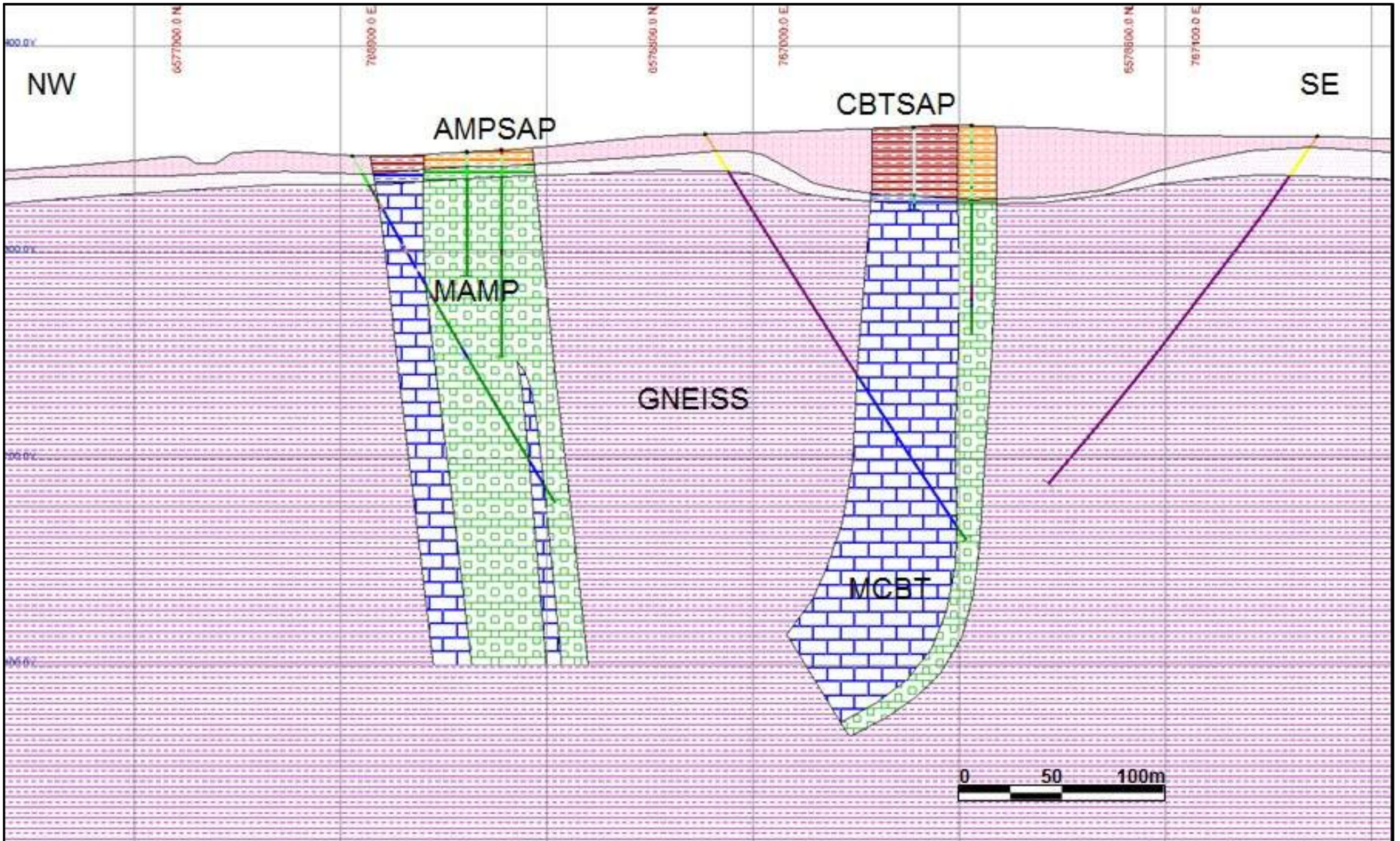





Figure B-1

Agua Resources Ltd.
Três Estradas Phosphate Project
Drill Hole Location Map



-  AMSAP - Saprolite of Amphibolite
-  CBTSAP - Saprolite of Meta-Carbonatite
-  WMCBT - Weathered Carbonatite
-  MCBT - Meta-Carbonatite

-  MAMP - Amphibolite
-  Syenite
-  Gneiss

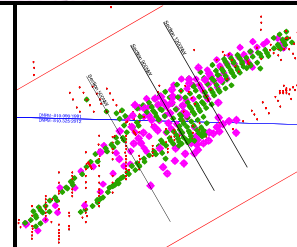


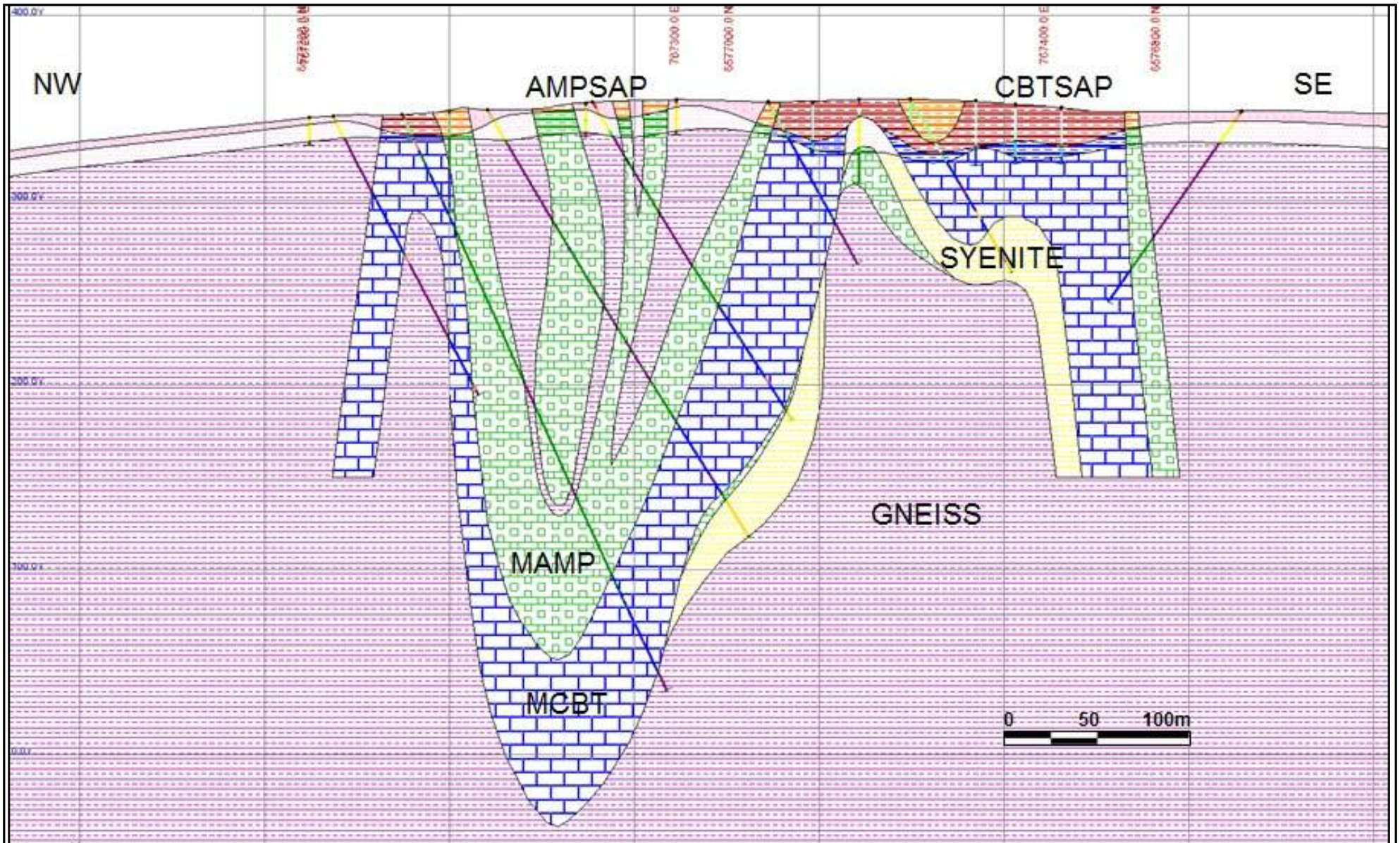









FIGURE B-2

Três Estradas Phosphate Project
 Agua Resources Ltd.
 Section 500NW

DATE: 09/08/2017
 BY: 





- | | |
|--|---|
|  AMSAP - Saprolite of Amphibolite |  MAMP - Amphibolite |
|  CBTSAP - Saprolite of Meta-Carbonatite |  Syenite |
|  WMCBT - Weathered Carbonatite |  Gneiss |
|  MCBT - Meta-Carbonatite | |

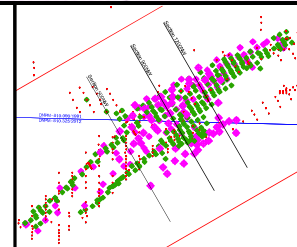


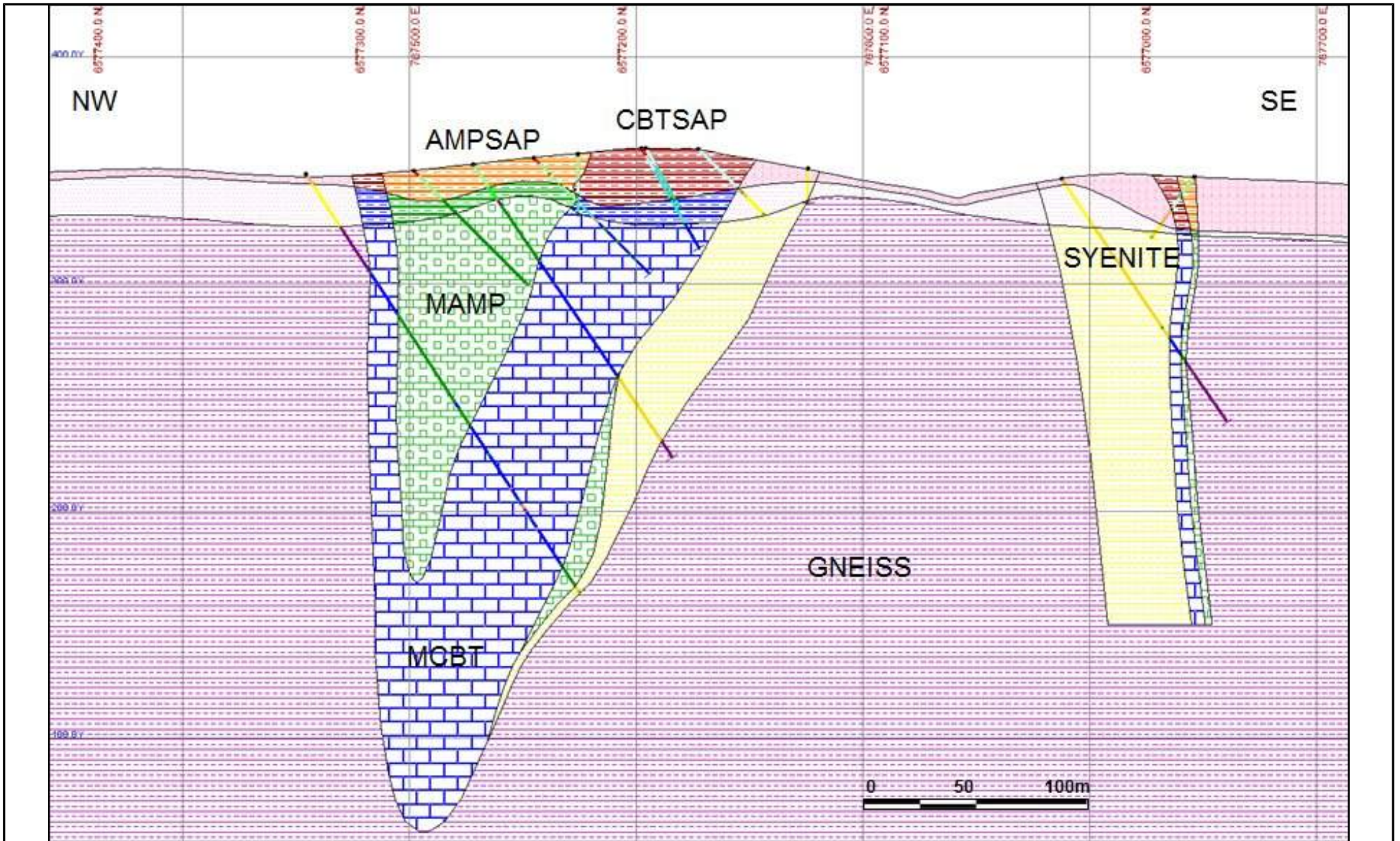
FIGURE B-3








Três Estradas Phosphate Project
 Agua Resources Ltd.
 Section 900NW

DATE: 09/08/2017

BY: 

 Millicreek Mining



- | | |
|--|---|
|  AMSAP - Saprolite of Amphibolite |  MAMP - Amphibolite |
|  CBTSAP - Saprolite of Meta-Carbonatite |  Syenite |
|  WMCBT - Weathered Carbonatite |  Gneiss |
|  MCBT - Meta-Carbonatite | |

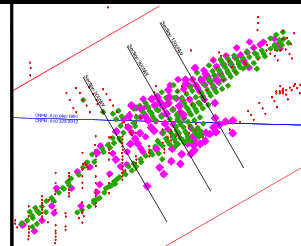


FIGURE B-4

Três Estradas Phosphate Project
 Agua Resources Ltd.
 Section 1200NW

DATE: 09/08/2017

BY: 

 Millicreek Mining