19 August 2015

POSITIVE PRELIMINARY ECONOMIC ASSESMENT DEMONSTRATES ROBUST ECONOMICS FOR TRÊS ESTRADAS

Highlights:

- **Preliminary Economic Assessment of the Três Tres Estradas Project confirms the technical and economic viability of the Três Estradas project as a low cost producer of SSP in Southern Brazil**

- **Attractive potential project returns with IRR of 25%, estimated $NPV_{5\%}$ of US$273 million (A$372 million) and payback of 3.2 years based on long term SSP price of US$280/tonne[1]**

- **Key PEA Results for Três Estradas include:**

  - **Annual Production:** **up to 500,000 tonnes SSP**
  - **Initial CAPEX Requirement:** **US$184 million (US$209M with contingencies)**
  - **OPEX:** **US$160.7/tonne SSP**
  - **Mine Life:** **15.5 years**
  - **Strip Ratio:** **2.4:1 (waste to ore) average life of mine**

- **Business may be further enhanced by production of up to 630,000 tpy of calcitic aglime as by-product.**

- **Existing infrastructure and proximity to market decrease construction costs and provide competitive selling advantage over imports.**

- **Adjacent targets at Joca Tavares have potential to extend the high-grade oxide resource production and substantially enhance the economics of the industrial project.**

- **Aguia plans to initiate the environmental base-line study and a Bankable Feasibility Study of the Três Estradas Project. Concurrently the Company will aggressively drill targets in the Rio Grande region, namely Joca Tavares and Cerro Preto.**

[1]Results reported on a pre-tax basis using a 5% pre-tax discount rate. With BRL/USD FX of 3.50 and long term SSP price of US$280/t. Other assumptions are detailed later in this release

Brazilian fertiliser developer Aguia Resources Limited (ASX: **AGR**) ("Aguia" or "Company") is pleased to announce the results of the Preliminary Economic Assessment[2] for the Company's flagship Três Estradas deposit ("TE") in Rio Grande do Sul, Brazil. The PEA results are based on the 70.1 Mt JORC compliant mineral resource (comprising 15.2 Mt Indicated and 59.2 Mt Inferred) with an average grade of 4.20% P_2O_5 previously announced on 27 April 2015. The results of the PEA suggest the potential economic and technical viability of the proposed project. This represents a major milestone for the Company to advance to the next phase of development for Tres Estradas which will involve environmental base-line studies, infill drilling, additional metallurgical testing, optimization, and completion of a feasibility study.

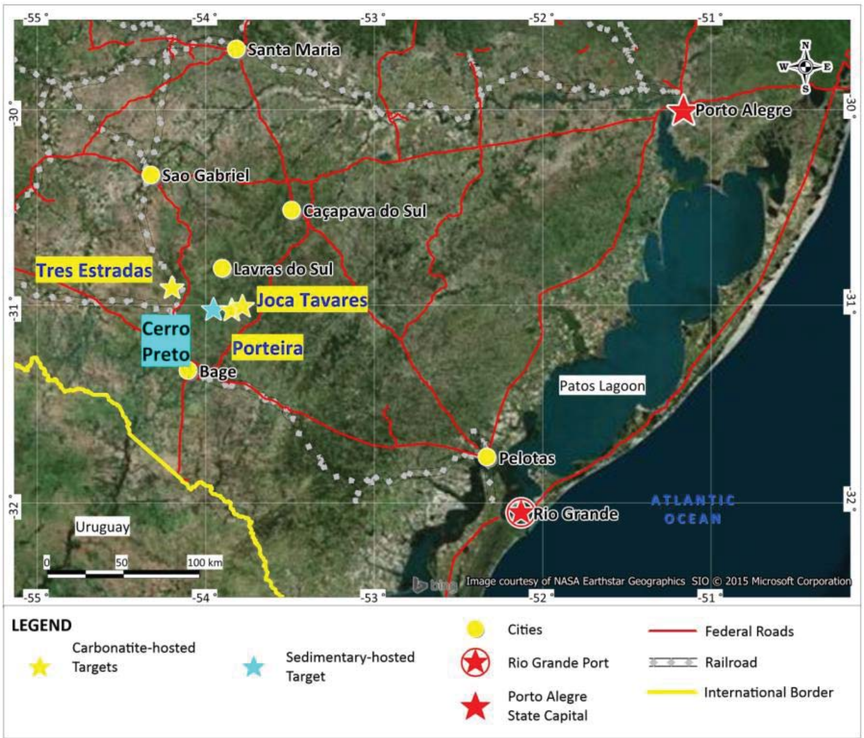
Justin Reid, Chairman and Managing Director of Aguia commented, “The completion of the PEA for TE indicates that the deposit will generate a robust economic return through the production of 500,000 tonnes of SSP per annum. The PEA results suggest that the existing apatite mineral resource can generate a pre-tax IRR of 25% and $NPV_{5\%}$ of US$273 million with payback in only 3.2 years, a great base case for initial development that is expected to be driven materially higher when results of ongoing exploration are incorporated into the business plan”.

“There are numerous opportunities to further enhance these initial financial results. We plan to initiate drilling at the nearby Joca Tavares deposit that has the potential to contribute additional high-grade oxide material which will substantially improve the Project’s economics. Otherwise we are considering options to optimize production scale and mine-life, as well as, a lower capital cost option to produce phosrock. The production of calcitic aglime will also be evaluated in detail as it has the potential to bring huge economic benefits for the project by reducing operational costs of waste management and contribute additional revenue”.

“The Company’s next step will be to proceed with environmental base-line studies and Bankable Feasibility for TE Project, while continuing to develop its other phosphate projects in the Rio Grande region”.

Project Background

Aguia’s Tres Estradas project is located in the state of Rio Grande do Sul. Southern Brazil is a major farming region which currently imports 100% of its phosrock requirements. There are currently no phosphate mines in the region and none scheduled to be built in the foreseeable future other than Aguia’s planned development of Três Estradas. Aguia’s landholding in Rio Grande do Sul currently totals about 38,289 hectares. Três Estradas is the most advanced of Aguia’s holdings in the region which also includes the carbonatite-hosted Joca Tavares and Porteira Projects, and recently discovered sedimentary Cerro Preto Project.



Summary of PEA Economics

The PEA was prepared by SRK Consulting Canada (Inc.) with contributions by Kemworks Technology Inc., other consultants and Aguia employees. For the purposes of the PEA, Aguia has forecast production of 500,000 tonnes of SSP per annum. This production will require 330,000 tonnes of phosphate concentrate grading 28% P_2O_5. There is an opportunity to produce 630,000 tonnes per year of calcitic aglime as a by-product. The study was based on the mineral resources audited by SRK and effective 27 April 2015.

The proposed project includes an open pit, truck-excavator operation. Phosphate mineralization will involve drilling and blasting, with phosphate bearing rocks and waste rock hauled to an on-site concentrator and waste dump. The phosphate rock concentrate will be produced by flotation and will be transported by truck from the mine site to the port city of Rio Grande, where it will be upgraded to a granulated SSP at a plant located in the industrial area of the port. It is anticipated that the final SSP product will be sold and distributed in the local market in southern Brazil.

The project will involve moving approximately 138 million tonnes of material, of which 40 million tonnes will be processed at the concentrator and subsequently upgraded at the SSP plant. The concentrator is planned for feed capacity of 7,500 tonnes per day with an estimated average P_2O_5 feed grade of 4.3%. Metallurgical testwork indicates an average process recovery of 67% yielding phosphate rock grading at 28% P_2O_5.

The PEA assumes a long term SSP price of US$280 per tonne as defined by respected Brazilian agribusiness specialists Agroconsult and BRL/USD foreign exchange of 3.5. Based on the current JORC compliant mineral resource (comprising 15.2 Mt Indicated and 59.2 Mt Inferred) the Três Estradas project will have a 15.5 year mine life and will require CAPEX of US$184 million to build (US$209 million including contingency). The project has a low OPEX of US$160.7 per tonne of SSP.

Based on these assumptions, the preliminary financial model indicates pre-tax $NPV_{5\%}$ of US$273 million (A$372 million) and IRR of 25%.

Future Programme and Development Potential

The Board and management are pleased with the results of the PEA and will be moving forward to an environmental baseline and Bankable Feasibility for the Três Estradas Project. As part of this program an infill drilling program at TE will be designed to convert the current Inferred mineral resources into Indicated resources for the BFS.

Whilst the current Mineral Resource for Três Estradas forms the foundation of the PEA and will be the starting point for the BFS, the Board and management are of the view that there is strong potential for the project to deliver even higher returns based on the exploration potential of Três Estradas, Joca Tavares and Porteira. As such, Aguia will continue to work on expanding its mineral resource base in the region while concurrently advancing Três Estrada towards a production decision.

Cautionary Statement: Preliminary Economic Assessment / Scoping Study

The preliminary economic assessment discussed herein is partly based on Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment based on these mineral resources will be realized. The results of the economic analyses discussed herein represent forward-looking information as defined under Australian securities law. The results depend on inputs that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. The accuracy of the results is in the range of the industry-wide commonly accepted scoping study level of accuracy.

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About Aguia:

Aguia is a fertiliser company focused on the exploration and development of phosphate and potash projects in Brazil to supply the Brazilian agriculture sector. Brazil is Latin America's biggest economy and is heavily reliant on imports of up to 50 per cent of its phosphate and 90 per cent of its potash needs. Aguia is well positioned to capitalise on the growing demand for phosphorus and potash based fertilisers in the expanding agriculture sector in Brazil and controls three large projects, located close to existing infrastructure. The Company is committed to its existing projects whilst continuing to pursue other opportunities within the fertiliser sector.

JORC Code Competent Person Statements

The information in this report that relates to a Technical Memo was prepared by SRK Consulting (Canada) Inc. and entitled Preliminary Economic Assesement of the Três Estradas Phosphate Project, Rio Grande do Sul, Brazil. This document is dated August, 19, 2015 and has been reviewed by and signed off by Dr Jean-Francois Couture, PGeo, and Mr. Brian Connolly, PEng, both of whom are full-time employees of SRK Consulting (Canada) Inc. which was retained by Aguia Resources Limited to prepare the conceptual mining study. Dr Couture supervised the SRK team and is a member of the Association of Professional Geoscientists of Ontario (APGO#0197). Mr. Connolly supervised the open pit mine planning and is registered as a professional engineer with Professional Engineers Ontario (PEO Licence # 90545203). Dr Couture and Mr. Connolly have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken in this study to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code"). Dr Couture and Mr. Connolly consent to the inclusion in this report of the matters based on the SRK study in the form and context in which it appears.

The information in this report that relates to Mineral Resources announced to the market on April 27, 2015, together with a Technical Memorandum prepared by SRK and entitled Audited Mineral Resource Statement, Três Estradas Phosphate Project, Rio Grande do Sul State, Brazil. This document has been reviewed by and signed off by Ms. Camila Passos, PGeo, Dr Oy Leuangthong, PEng, and Dr Jean-Francois Couture, PGeo. Ms. Passos is a full-time employee of SRK Consultores do Brasil Ltda, and Drs Leuangthong and Couture are full-time employees of SRK Consulting (Canada) Inc., all of whom were retained by Aguia Resources Limited to prepare the audited mineral resource statement. Dr Couture supervised the SRK team and is a member of the Association of Professional Geoscientists of Ontario (APGO#0197). Ms. Passos audited the geology model and the resource database, and is a member of the Association of Professional Geoscientists of Ontario (APGO#2431). Dr Leuangthong reviewed the geostatistics and supervised the resource audit, and is registered as a professional engineer with Professional Engineers Ontario (PEO Licence # 90563867). Ms. Passos, Dr Leuangthong and Dr Couture have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken in this study to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code"). Ms. Passos, Dr Leuangthong and Dr Couture consent to the inclusion in this report of the matters based on the SRK study in the form and context in which it appears.

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Fernando Tallarico, who is a member of the Association of Professional Geoscientists of Ontario. Dr Tallarico is a full-time employee of the company. Dr Tallarico has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the

'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Tallarico consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Memo

To:	Fernando Tallarico	**Date:**	August 19, 2015
Company:	Aguia Resources Ltd.	**From:**	Oy Leuangthong, Brian Connolly, Jean-François Couture, Maritz Rykaart, Mark Liskowich, Adrian Dance, Sam Amiralaei
Copy to:	Richard Allan	**Project #:**	3CA038.006
Subject:	Preliminary Economic Assessment for the Três Estradas Phosphate Project, Rio Grande do Sul, Brazil		

1 Introduction

The Três Estradas phosphate project is a pre-development exploration project targeting apatite mineralization associated with Proterozoic carbonatite intrusions in the municipality of Lavras do Sul, approximately 320 kilometres southwest of Porto Alegre, the capital city of Rio Grande do Sul State in southern Brazil. The project comprises two exploration licences (1,991 hectares) owned by Aguia Resources Limited (Aguia), a public company domiciled in Australia with shares traded on the Australia Securities Exchange (ASX) under the symbol AGR.

SRK Consulting (Canada) Inc. (SRK) has been assisting Aguia on the Três Estradas project since 2011 primarily in auditing mineral resource models prepared by Aguia and authoring independent technical reports. During the second quarter of 2014, SRK prepared a mining study to evaluate at a conceptual level extraction and processing options for the project. That study was based on mineral resources delineated on the northern permit only. One of the key findings of the study was that the project's potential viability would significantly benefit from additional mineral resources with similar grade and material type characteristics.

In late 2014, a drilling program targeting the southwest extensions of the apatite mineralization on the south permit was successful in more than doubling the mineral resources available for mining. This positive outcome and positive results from additional metallurgical tests prompted Aguia to request SRK to revise the conceptual mining study and prepare a preliminary economic assessment.

This memorandum describes the results of the preliminary economic assessment. A summary of key project technical parameters pursuant to the Joint Ore Reserves Committee (JORC) Code (2012) is presented in the JORC TABLE 1 (Appendix A).

The mineral resource estimate that supports the preliminary economic assessment was prepared by Aguia and was audited by SRK in April 2015 (SRK, 2015).

The following parties contributed to the preparation of the preliminary economic assessment:

- Conceptual open pit mine planning was performed under the direction of Mr. Brian Connolly, PEng (SRK)
- Metallurgical testwork was reviewed by Dr. Adrian Dance, PEng (SRK)

- Environmental and permitting assessment was performed by Mr. Mark Liskowich, PGeo (SRK)
- Conceptual design of waste management system was performed under the direction of Dr. Maritz Rykaart, PEng (SRK)
- Supporting cost estimates for processing facilities and process plant operation were provided by KEMWorks Technology Inc.
- Infrastructure, owner costs, and general and administration (G&A) cost estimates were prepared by Mr. Brian Connolly PEng (SRK) with assistance from Mr. Richard Allan PEng (independent consultant)
- The financial analysis was performed by Mr. Brian Connolly, PEng (SRK) with assistance from Mr. Goran Andric, PEng (SRK), and Mr. Richard Allan PEng (independent consultant)
- Responsibility for the geological and mineral resource aspects was taken by Dr. Jean-François Couture, PGeo (SRK)

The contributors to this preliminary economic assessment are all independent Competent Persons pursuant to the JORC Code.

SRK cautions that the preliminary economic assessment discussed herein is partly based on Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment based on these mineral resources will be realized. The results of the economic analyses discussed herein represent forward-looking information as defined under Australian securities law. The results depend on inputs that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. The accuracy of the results is in the range of the industry-wide commonly accepted scoping study level of accuracy.

The conceptual designs and the preliminary economic assessment discussed herein are supported by separate reports authored by SRK and listed the references, including:

- A memo containing an audited mineral resource statement prepared by SRK (SRK, 2015a)
- A memo summarising the metallurgical test work completed by SGS Minerals Services (SRK, 2015b)
- A memo summarizing the conceptual designs of the water and waste management systems (SRK, 2015c)

For this preliminary economic assessment SRK relied on market studies (phosrock, calcite and SSP products) provided by Agroconsult Consultoria e Projectos from São Paulo, Brazil.

2 Preliminary Economic Assessment Highlights

The proposed conceptual mining project evaluated in this preliminary economic assessment is an open pit, truck and excavator operation. Phosphate mineralization extraction will involve drilling and blasting, with phosphate bearing rock and waste rock hauled to an on-site concentrator and waste dump, respectively. The produced phosphate rock concentrate will be transported by truck from the Três Estradas site to the port city of Rio Grande. It is planned that the concentrate will be upgraded to granulated single superphosphate (SSP) at a plant located in Rio Grande. It is anticipated that the final SSP product will be sold and distributed to a local market within southern Brazil.

The project will involve moving approximately 138 million tonnes of material, of which 40 million tonnes will be processed at the concentrator and subsequently at the SSP plant. The concentrator is planned for a feed capacity of 7,500 tonnes per day with an estimated average phosphorus pentoxide (P_2O_5) feed grade of 4.3 percent. Based on current metallurgical testwork, SRK assumed an average P_2O_5 process recovery of 67 percent yielding phosphate rock concentrate grading at 28 percent P_2O_5. The conversion of phosrock to SSP is assumed at an average ratio of 1.55. The planned capacity of the SSP plant is 500 kilo tonnes per year. The overall mine life is 15.5 years.

3 Mineral Resources and Mineral Reserves

Table 1 shows the audited Três Estradas Mineral Resource Statement effective April 25, 2015. The conceptual mine design is based on the stated mineral resources. There are currently no mineral reserves for the Três Estradas project.

Table 1: Audited Mineral Resource Statement*, Três Estradas Phosphate Project, Rio Grande do Sul State, Brazil, SRK Consulting (Canada) Inc., April 25, 2015

Lithotype	Tonnage	P_2O_5	CaO	MgO	Fe_2O_3	SiO_2	Al_2O_3	P_2O_5AP‡	RCP†
	T x 1000	%	%	%	%	%	%	%	%
Indicated Mineral Resources									
Saprolite									
SAMM (amphibolite)	415	6.30	11.44	6.64	17.12	36.87	7.36	6.27	1.97
SCBT (carbonatite)	2,017	10.74	18.06	4.79	18.99	28.88	5.11	10.69	1.94
Weathered									
WCBT (carbonatite)	1,713	4.99	34.26	6.34	9.54	13.85	2.21	4.99	7.58
Fresh Rock									
MCBT (carbonatite)	11,055	3.94	33.94	7.77	8.35	12.26	2.09	3.94	8.84
Total Indicated Resources	**15,200**	**5.02**	**31.25**	**7.18**	**10.14**	**15.32**	**2.65**	**5.02**	**7.59**
Inferred Mineral Resources									
Saprolite									
SAMM (amphibolite)	302	5.35	11.14	6.88	16.91	38.34	8.09	5.33	2.32
SCBT (carbonatite)	1,205	12.03	18.10	4.04	20.69	27.92	4.96	11.96	1.72
Weathered									
WCBT (carbonatite)	866	4.40	35.79	6.41	8.50	12.11	2.01	4.40	8.82
Fresh Rock									
MCBT (carbonatite)	52,489	3.78	35.35	7.69	7.81	10.55	1.82	3.78	9.49
Total Inferred Resources	**54,862**	**3.98**	**34.84**	**7.59**	**8.15**	**11.11**	**1.92**	**3.97**	**9.27**

* Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimates. The mineral resources are reported within a conceptual pit shell at a cut-off grade of 3.00 percent of P_2O_5 for saprolite, weathered and fresh rock mineralization. Optimization parameters include selling price of US$330.00 per tonne of SSP, a metallurgic recovery of 65 and 80 percent of P_2O_5 in fresh and oxide rock, 100 percent for mining recovery, 0 percent dilution, and overall pit slopes of 38 and 60 degrees for saprolite and fresh rock, respectively.

† CaO/ P_2O_5 ratio

‡ P_2O_5 contained in apatite

4 Metallurgical Testwork

A series of metallurgical testwork programs have been completed on representative mineralization from the Três Estradas deposit. The test programs involved hardness testing, flotation, and magnetic separation to demonstrate the potential of producing a saleable phosrock concentrate. The main P_2O_5 bearing mineral in both lithologies is apatite with a much higher P_2O_5 content in the oxide/saprolite compared with the fresh carbonatite.

The results confirm that a process flowsheet can be developed using conventional unit operations. It is the intention of Aguia to convert the phosrock concentrate into granulated SSP. To date, limited SSP conversion testwork has been conducted on phosrock samples from Três Estradas material.

4.1 Testwork Programs

Three testwork programs have been conducted: two by the University of São Paulo, Brazil in 2012 and 2014 and one recently in 2015 by SGS Mineral Services in Lakefield, Ontario, Canada. In almost all cases, samples of fresh carbonatite and oxide/saprolite carbonatite were tested. Two samples of weathered material tested in 2012 showing comparable results to fresh carbonatite. For the present study, the metallurgical performance of the minor, weathered lithology is assumed to match fresh.

Fresh carbonatite is the lithology is of interest as it represents approximately 74 percent of the mineral resources. Testwork assumed that oxide/saprolite would be processed separately from fresh material, but the option of blending oxide with fresh material should be considered to regulate the phosrock concentrate grade and impurities.

Both of the main lithological groups showed high slimes production during crushing and grinding. The oxide material generated 48 percent -20 micrometre particles that need to be removed prior to flotation. The slimes were of comparable grade to the head grade of oxide and fresh material samples and consequently, represent a significant loss of apatite.

The focus of the SGS Canada testwork program was to determine if P_2O_5 could be recovered from the slimes portion of both oxide and fresh material. Test results showed the lower grade fresh slimes had poor flotation upgrading and achieved a limited recovery to a low P_2O_5 grade concentrate. The oxide slimes achieved a 25 percent recovery to a 30 percent grade phosrock concentrate.

The fresh phosrock concentrate grade was around 28 percent P_2O_5 with low impurity levels for an overall recovery of 65 percent. Oxide concentrate contains a higher iron content (~8 percent Fe_2O_3) than that generated from fresh material. It may be possible to reduce the Fe_2O_3 content with magnetic separation, but this was not tested in the testwork program. With the inclusion of separate slimes flotation, overall oxide recovery of P_2O_5 was 80 percent to a 25 percent P_2O_5 grade concentrate. (This grade increased to 30 percent P_2O_5 if the recovery was lowered to 75 percent.)

Column flotation was investigated but did not show any improvement in the P_2O_5 recovery as fine apatite losses were not observed in the conventional cell testwork. Column flotation remains an opportunity and is included in the process flowsheet for the cleaning stages of flotation.

As the fresh carbonatite rock is rich in calcite, the flotation tailings were tested to determine if a saleable calcite product could be produced. Approximately 24% of the fresh feed material reports to the rougher tailings with a calcite concentration of up to 48%. Magnetic separation was employed to reduce the iron content as all other parameters are within specification for an agricultural product widely used within Brazil. SRK considers calcite production as a secondary stream to be a viable and attractive opportunity. Further study into the production, handling, and marketing of this material is recommended.

4.2 Expected Flowsheet

Figure 1 shows a possible flowsheet for processing fresh or oxide material to phosrock concentrate. The flowsheet includes the following process:

- Crushing of all feed material
- Screening/attrition scrubbing of liberated fines prior to grinding
- Desliming of -20 micrometre fines with two stages of cycloning
- Grinding of the screen undersize
- Cyclone underflow (coarse) + grinding product report to flotation conditioning
- Rougher and scavenger flotation followed by multiple stages of cleaner (column) flotation
- Thickening and filtering of the P_2O_5 concentrate

If slimes flotation is considered:

- Cyclone overflow (fines) to flotation conditioning
- Rougher and two stages of cleaner flotation
- Slimes phosrock concentrate separately handled

Following the thickening and filtering of the final phosrock concentrate (blended by lithology and/or coarse vs. slimes), the product will be transported from site by truck to the SSP plant at the port of Rio Grande.

Differences between oxide and fresh material processing include the target flotation feed size after grinding as well as the option of magnetic separation to reduce the iron content of the oxide final concentrate. Slimes processing may be considered for a separate oxide feed due to the high losses to -20 micrometre particles after grinding.

The option of blending oxide with fresh material to augment the P_2O_5 grade and lower the iron content of the phosrock concentrate should be considered.

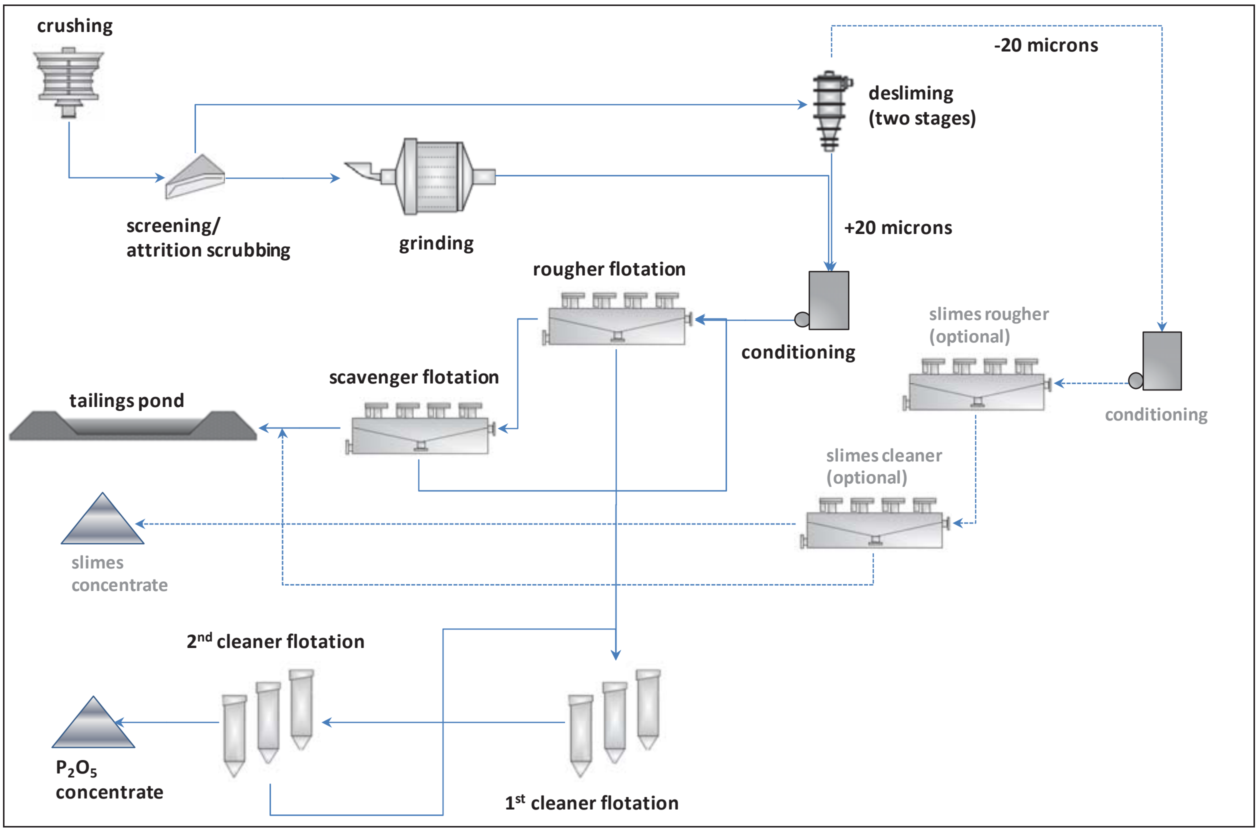


Figure 1: Conceptual Três Estradas Process Flowsheet for Phosrock Production

4.3 Predicted Metallurgy

All testwork to date has been done separately for fresh and oxide carbonatite samples. Therefore, the performance of a blended feed would need to be estimated.

Fresh carbonatite is expected to achieve 65 percent recovery to a 28 percent P_2O_5 concentrate from deslimed material alone. Fresh slimes losses are expected to be 22 percent of the feed and phosrock will contain low impurity levels that should not affect the phosrock saleability.

Oxide carbonatite is expected to recover some apatite from the significant production of -20 micrometre slimes (at 48 percent of the feed). The combined oxide deslimed + slimes-only recovery is 80 percent to a 25 percent P_2O_5 concentrate. (A 30 percent P_2O_5 concentrate is also possible at 75 percent recovery). The phosrock concentrate from oxide material contains a higher level of iron at around 8 percent Fe_2O_3 that was not rejected by magnetic separation after grinding. Additional testing is required to confirm if magnetic separation can reduce the iron content of the concentrate without significant P_2O_5 losses.

4.4 Conversion to SSP

To date, only limited SSP conversion testwork has been conducted on Três Estradas concentrate samples. CELQA Análises Técnicas Ltda. of Sorocaba, Brazil completed tests on two oxide and one fresh material sample of (less than 100 grams each). All samples were greater than 31 percent P_2O_5 and tested at acid-rock ratios of 0.6 for 15 days at 110 degrees Celsius.

Brazilian SSP specifications are 17 percent available P_2O_5 or better which may require a phosrock grade greater than 28 percent P_2O_5 as well as being ground to 95 percent finer than 75 micrometre. In addition, specifications are 14 percent to 15 percent water soluble P_2O_5, which may be affected by the high iron content of the oxide concentrate.

To date, SSP conversion testing has not been conducted on representative samples of concentrate. For the conceptual designs discussed herein, an acid-rock ratio of 0.71 is assumed for fresh material for the successful conversion to a saleable SSP product.

The option of blending oxide and fresh carbonatite for the plant feed should be considered to improve the quality of the phosrock concentrate for SSP conversion.

5 Mining Study

Key features of the proposed Três Estradas mine:

- An open pit containing a total of 138 million tonnes of material, including approximately 14 million tonnes of Indicated mineral resources, 26 million tonnes of Inferred mineral resources and 98 million tonnes of waste rock.
- An on-site processing plant planned to produce phosphate concentrate is designed with a 7,500 tonnes per day capacity and is located 600 metres southeast of the pit. The production schedule is based on a P_2O_5 process recovery of 77 percent for saprolite mineralization and 65 percent for fresh rock mineralization yielding a concentrate grading of 28 percent P_2O_5.
- The proposed tailings management facility (TMF) is located about 3.2 kilometres southwest of the proposed plant site. Approximately 41 million tonnes of low solid content (~30 percent) tailings will be hydraulically deposited at this site. It is anticipated that about 1.04 million tonnes of tailings will be produced during the first year of the mine operation. An earth-fill starter dam will be constructed from saprolite borrowed from nearby sources (i.e., within 5 kilometres) to retain the mentioned quantity of first year tailings. Thereafter, the tailings dam will be raised in stages throughout the life of the dam using saprolite fill material. The dam design is a downstream lined homogenous earth-fill dam with chimney and blanked drains to manage pore water pressure dissipation. Production of a calcite product could reduce the tailings volume by up to 24% should it be implemented.
- A water reservoir dam that is a 16 metres high (el. 253 metres), 640 metres long earth-fill structure with upstream and downstream slopes of 2H:1V and 2.5H:1V, respectively. The dam has a crest of 9 metres and will be about 82 metres wide at its widest point along its base. The dam will be constructed as a homogenous compacted saprolite structure using strict specifications. A local borrow source (i.e., within 5 kilometres) is assumed to be available.

- The existing public road traverses the footprint of the proposed open pit. A bypass road will be constructed (Figure 2) to reroute the road around the pit and the mine facilities. The length of the bypass road is 13.3 kilometres and is assumed to not be paved.
- Approximately 7 kilometres of the existing public road that connects the project site to Highway BR-473 will be upgraded to a gravel surfaced type road.
- Power to the site will be obtained from the Brazilian grid at the town of Bagé, which lies approximately 50 kilometres south of the project site. A 69-kilovolt powerline to the site is planned.
- An SSP plant with a capacity of 500 kilo tonnes per annum SSP is planned. It will be located at an industrial site near the port of Rio Grande, approximately 320 kilometres from the Tres Estradas site. A specific location has not been selected but suitable locations are available. Feedstock for the SSP plant includes phosphate concentrate, trucked from the site, and sulphuric acid. It is planned that imported acid will be utilized and no acid production facility is planned.

Figure 2 shows an overview of the proposed mine site and infrastructure.

A pit optimization analysis was conducted utilizing a SSP price of US$280 per tonne and other technical and economic parameters. A series of nested pits shells were generated by factoring revenue and the results were analyzed on an incremental and present value basis. The pit shell generated with a revenue equivalent to that obtained with a price of approximately US$230 per tonne of SSP was selected to guide the ultimate pit layout.

The ultimate pit and waste dump layout is shown in Figure 3. The main pit is 1,900 metres long by 500 metres wide by 210 metres deep. Inter-ramp slopes range from an average of 34 degrees in saprolite and weathered rock, to 51 degrees in fresh rock. The design includes a drainage berm located at the contact between weathered and fresh rock, haulage ramps suitable for highway-type haul trucks commonly used in Brazilian mines, and a geotechnical berm where no ramps are planned.

Contained quantities in the ultimate pit are summarized in Table 2. Note that 66 percent of the phosphate mineralization within the ultimate pit comprises Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment based on these mineral resources will be realized.

Table 2: Ultimate Pit Quantities

	Quantity Mt	Grade % P_20_5
Indicated Mineral Resources	13.8	5.0%
Inferred Mineral Resources	26.5	4.2%
Waste	97.6	
Total Quantity	**137.9**	

All mineral resource blocks within the ultimate pit limits are of higher grade than the marginal economic cut-off grade, which is estimated at about 1.1% P_20_5 based on technical and economic parameters in this study. It is estimated that 5 percent dilution and 5 percent mining loss will be incurred in mining to the ultimate pit limits, and these modifying factors have been incorporated in the quantity and grade estimates in the life of mine production schedule shown in Table 3.

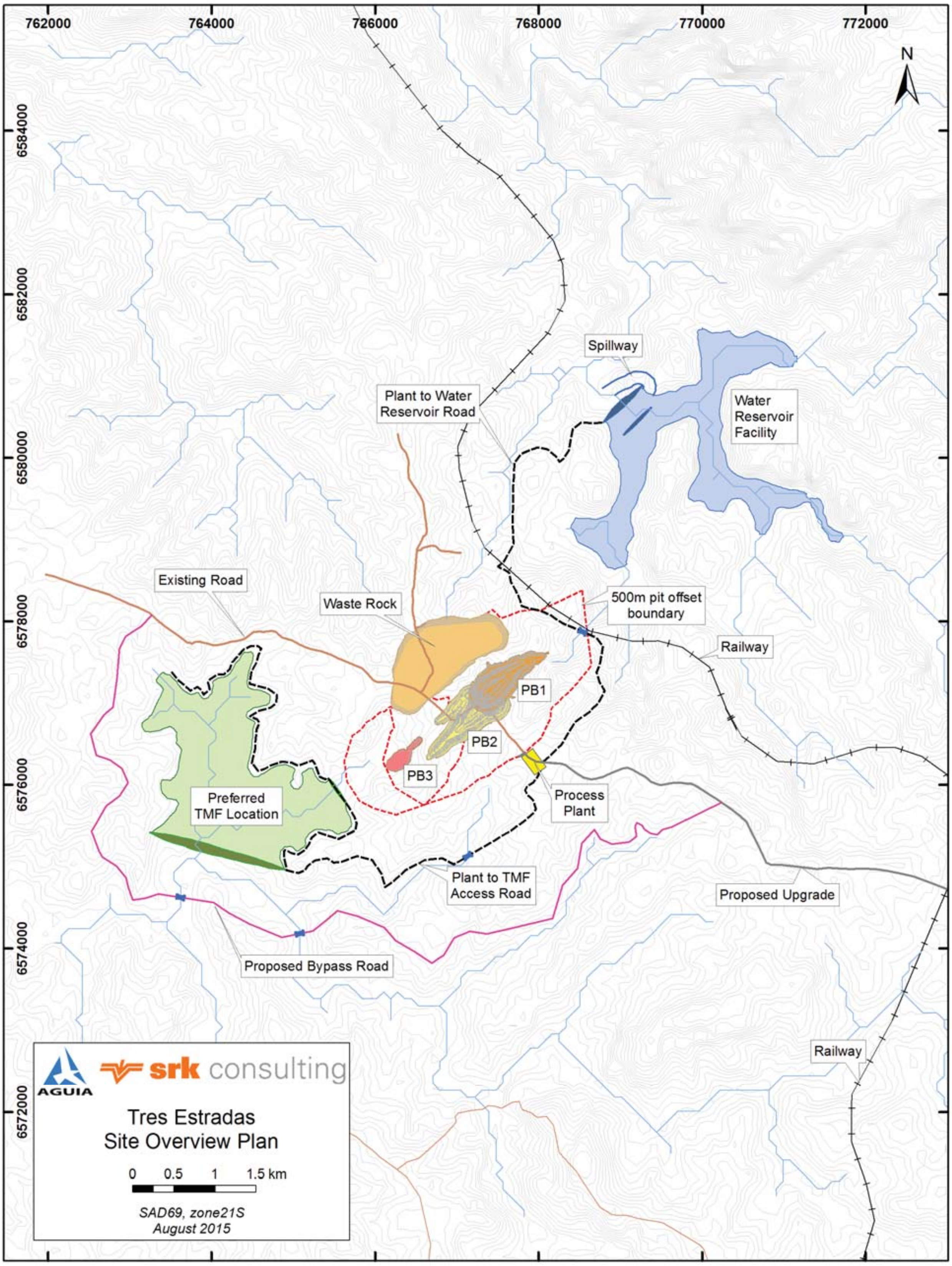


Figure 2: Três Estradas Site Overview

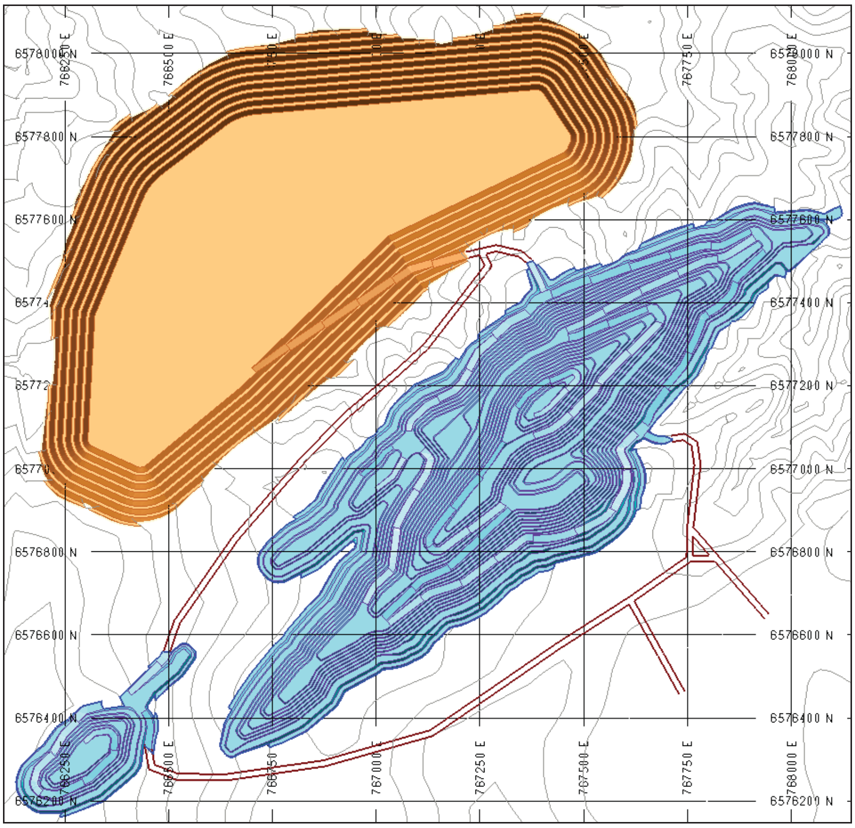


Figure 3: Ultimate Pit and Waste Dump Layout

Highlights of the production schedule include:

- Minimal pre-production stripping is required since mineralization is exposed on surface.
- Mining grade declines over the mine life. High grade mineralization is located near surface in the saprolite and weathered rock. Fresh rock mineralization grades decline with depth.
- To facilitate production scheduling, the large north pit is subdivided into two pits that are mined in phases. Including the small southwest pit three phases are mined in total.
- Mining begins in saprolite rock in the northeast phase pit. Phase pit mining is sequenced to provide a mix of higher grade saprolite and lower grade fresh rock to the plant when possible. A high grade saprolite stockpile is also established in Year 1 and is rehandled to the plant in Year 6 when pit saprolite mining is finished.
- The objective of the pit sequencing and stockpiling is to provide 2.7 million tonnes per annum concentrator feed with a head grade of about 4.8 percent P_2O_5 for as long as possible, since this feed and grade meets both the concentrator and SSP plant capacity constraints.
- The mine life of 15.5 years is based on the quantities contained in the ultimate pit and the concentrator and SSP plant capacity assumptions.
- Total mining rates peak in Year 4 at 12.4 million tonnes per annum of material movement (35,000 tonnes per day). It is proposed that small highway-type haulage trucks (common at Brazil mines) be utilized at Três Estradas. The haulage fleet peaks at 23 units in Year 5.
- Concentrator feed capacity of about 2.7 million tonnes per annum (7,500 tonnes per day) is achieved from Years 3 to 15.
- SSP plant capacity of 500 kilo tonnes per annum of SSP is achieved from Years 1 to Year 5 before SSP production begins to decline due to declining concentrator head grades and reduced concentrate production.

Table 3: Life of Mine Production Schedule

Description	Units	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Total
ROM Mined	Mt	1.7	2.2	2.7	2.7	2.7	2.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.0	40.3
Portion from Indicated Resources	%	59%	63%	51%	30%	42%	61%	48%	36%	26%	28%	22%	19%	8%	7%	29%	35%	34%
ROM P_2O_5 Grade	%	9.3%	5.9%	4.9%	4.8%	4.8%	4.1%	3.9%	3.9%	3.8%	3.8%	3.8%	3.7%	3.5%	3.5%	3.3%	3.4%	4.3%
ROM Saprolite	Mt	1.4	0.5	0.4	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
ROM Weathered	Mt	0.3	1.1	0.2	0.2	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.6
ROM Fresh	Mt	0.0	0.6	2.1	2.1	1.8	2.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.5	1.0	34.2
Waste Mined	Mt	4.3	8.2	9.7	9.7	9.7	8.4	7.6	6.9	6.1	5.5	5.3	5.1	3.8	3.1	3.1	1.2	97.6
Total Mined	Mt	5.9	10.4	12.4	12.5	12.4	10.9	10.3	9.7	8.8	8.2	8.1	7.9	6.5	5.8	5.8	2.2	137.9
Stockpile Rehandling	Mt	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Material Movement	Mt	5.9	10.4	12.4	12.5	12.4	11.1	10.3	9.7	8.8	8.2	8.1	7.9	6.5	5.8	5.8	2.2	138.1
Strip Ratio	#	2.6	3.7	3.5	3.5	3.5	3.4	2.8	2.5	2.2	2.0	2.0	1.9	1.4	1.1	1.1	1.2	2.4
Stockpile Inventory, year end	Mt	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plant Feed (Pit to plant)	Mt	1.4	2.2	2.7	2.7	2.7	2.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.0	40.0
Plant Feed (Stockpile to plant)	Mt	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Plant Feed	**Mt**	**1.4**	**2.2**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**1.0**	**40.3**
Daily Plant Feed	tpd	3,869	6,095	7,495	7,527	7,518	7,519	7,509	7,498	7,505	7,504	7,496	7,521	7,512	7,499	7,504	5,442	7,116
Portion from Indicated Resources	%	57%	63%	51%	30%	42%	62%	48%	36%	26%	28%	22%	19%	8%	7%	29%	35%	34.2%
Plant Feed P_2O_5 Grade	%	9.0%	5.9%	4.9%	4.8%	4.8%	4.7%	3.9%	3.9%	3.8%	3.8%	3.8%	3.7%	3.5%	3.5%	3.3%	3.4%	4.3%
CaO Grade	%	18.7%	30.8%	32.0%	31.8%	30.4%	28.7%	31.9%	33.0%	33.3%	32.7%	32.7%	32.5%	32.2%	32.6%	31.3%	37.1%	31.5%
MgO Grade	%	4.5%	5.3%	5.9%	6.2%	6.7%	7.5%	8.1%	7.9%	7.6%	7.6%	7.9%	7.7%	8.0%	7.6%	7.3%	4.9%	7.1%
Fe2O3 Grade	%	18.0%	11.1%	9.3%	9.0%	9.3%	9.7%	7.9%	7.6%	7.7%	7.9%	8.2%	7.9%	7.6%	7.6%	8.4%	6.0%	8.8%
SiO2 Grade	%	25.7%	14.5%	12.8%	13.2%	14.7%	15.5%	11.8%	9.9%	9.3%	10.0%	9.6%	10.4%	10.5%	9.9%	11.9%	11.3%	12.2%
Al2O3 Grade	%	4.9%	2.5%	2.2%	2.3%	2.4%	2.6%	1.8%	1.5%	1.5%	1.7%	1.6%	1.9%	1.8%	1.7%	2.2%	1.9%	2.1%
P_2O_5 Ap Grade	%	9.0%	5.9%	4.8%	4.8%	4.8%	4.7%	3.9%	3.9%	3.8%	3.8%	3.8%	3.7%	3.5%	3.5%	3.3%	3.4%	4.3%
P_2O_5 Recovery	%	75%	69%	69%	69%	69%	69%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	67%
Concentrate Tonnage	kt	344	328	327	328	329	315	248	246	243	239	242	233	223	220	213	79	4157
Concentrate P_2O_5 Grade	%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
SSP Conversion Factor	#	1.46	1.52	1.53	1.53	1.52	1.53	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.55
SSP Production Tonnage	kt	501	500	501	500	501	483	391	389	385	378	383	369	353	348	337	124	6443

6 Capital and Operating Costs

Table 4 shows a summary of the life of mine estimated project capital costs. Table 5 shows a summary of life of mine estimated project operating costs. The cost summaries reflect an exchange rate 3.5 Real/USD, assuming that the Brazilian currency components of supporting cost estimates consist of labor, fuel and electricity costs, and some of the mobile equipment costs.

Table 4: Estimated Life of Mine Project Capital Costs

Description	Initial Capital Costs (US$M)	Sustaining Capital Costs (US$M)	Total Estimated LoM Capital Costs (US$M)
Mine equipment	7.7	28.9	36.7
Process - Concentrator	77.7	2.1	79.8
Process - SSP plant	66.3	2.1	68.3
TMF	5.6	8.9	14.5
Water reservoir	7.9		7.9
Access road upgrade & bypass	1.1		1.1
Site facilities	5.8		5.8
Power line & substation	5.3		5.3
Owner costs	6.8		6.8
Total, before contingency	**184.2**	**42.0**	**226.2**
Total contingency	25.1	4.8	29.9
Total Capital Costs	**209.4**	**46.8**	**256.1**

Table 5: Estimated Life of Mine Project Operating Costs

Description	Unit	Unit Costs (US$)	Estimated LoM Operating Costs (US$M)
On-site operating costs			
Mining	US$ / t moved	1.76	243.0
Processing (concentrator) (fresh/oxide)	US$ / t feed	5.94/11.31	258.1
TMF & water supply	US$ / t feed	0.16	6.6
Mine site G&A	US$M / year	3.9	60.3
Total On-Site Operating Costs			**568.0**
Concentrate haulage to Rio Grande	US$ / t concentrate	14.57	65.8
SSP acid handling	US$ / t SSP	6.39	41.1
SSP plant operating costs (fresh/oxide)	US$ / t SSP	52.51/48.40	332.8
SSP plant G&A	US$M / year	1.1	16.5
Total Operating Cost			**1,024.2**
CFEM Tax (gov't royalty)	% of on-site costs*	2	11.4
Total Operating Cost after CFEM	US$ / t SSP	160.73	**1,035.6**

* considering on-site costs as the internal transfer price from mine site to SSP plant

7 Project Economics and Sensitivity

The proposed Tres Estradas project has been evaluated using a discounted cash flow approach. The cash flow analysis has been prepared on a constant 2015 US dollar basis. No inflation, or escalation of revenue or costs, have been incorporated.

7.1 Assumptions

Table 6 shows the key assumptions used in the economic analysis.

Table 6: Economic Analysis Assumptions

Parameters	Value
SSP selling price, US$/t	280
Process recovery, % P_2O_5 average	67%
Concentrate grade, % P_2O_5	28%
Concentrate moisture, %	8%
SSP production ratio, SSP/con average	1.55
Mining cost, US$/t moved average	1.76
Concentrator cost including TMF, US$/t feed average	6.58
G&A, US$M/year average	5.0
Concentrate transport, US$/t (wet)	14.57
SSP acid handling, US$/t SSP product	6.39
SSP plant operation, US$/t SSP product	51.65
Exchange rate (R$ per US$)	3.5

Aguia management provided SRK with guidance on Brazil taxation. Brazilian taxes incorporated in the economic analysis include:

- CFEM tax at 2 percent of concentrate revenue. On site operating costs serve as a measure of concentrate revenue, assuming that concentrate is internally transferred from mine site to SSP plant at cost.
- Deductions to determine income subject to income tax:
  - Depreciation, calculated on a straight line basis for the following classes of assets, assuming accelerated depreciation for fertilizer projects is applicable:
    - Mine equipment – depreciated over two years at 50 percent per year
    - Plant equipment – depreciated over five years at 20 percent per year
    - Other capital assets – depreciated over seven years at 14.3 percent per year
  - Sunk exploration costs, estimated at US$5.8M, carried forward and claimed to a maximum of 30 percent of income subject to tax prior to this deduction;
- Income tax at 15 percent on first R$240,000 taxable income and at 25 percent for the remainder of taxable income.
- CSLL social contribution tax at 9 percent of taxable income.

The economic analysis excludes the following items:

- Working capital.
- Various Brazil taxes on goods and services. Brazil’s tax structure is complex and applicable taxes have not been fully defined for the preliminary economic assessment.
- Private royalties. The project is currently subject to a 2 percent private royalty similar to the CFEM tax. SRK understands that it is Aguia’s intention to buy out this royalty prior to project development.

- Costs for exploration, field investigations, laboratory testwork, and technical and environmental studies that are required prior to project development.

7.2 Economic Analysis Results

A summary of the project potential cash flow is provided in Table 7. The present value of the net cash flow (PVNCF) at the start of project development based on 5 percent, 7.5 percent, and 10 percent discount rates, and the internal rate of return (IRR) of the net cash flow are also given. Payback periods estimates shown in Table 7 represent the time after the start of production that is required to pay back the initial investment on an undiscounted basis. All dollars are in US currency.

Table 7: Summary of Cash Flow Model (all dollars are in US currency)

Item	Total	Units	Payback Period (yrs)	PVNCF 5% ($M)	PVNCF 7.5% ($M)	PVNCF 10% ($M)
SSP Production	6,433	kt				
SSP Price	280	US$/t				
Gross Revenue	1,804	US$M				
Operating Costs						
Total operating cost	-1,024	US$M				
CFEM royalty	-11	US$M				
Total operating cost after CFEM	-1,036	US$M				
Capital Costs						
Total initial capital	-209	US$M				
Total sustaining capex	-47	US$M				
Total capital costs	-256	US$M				
Reclamation & Closure						
Total reclamation and closure	-19	US$M				
Project Net Cash Flow, Pre-Tax	493	US$M	3.2	273	202	148
IRR	**24.7%**					
Income tax and CSLL tax	-173	US$M				
Project Net Cash Flow, Post-Tax	**321**	US$M	3.9	167	117	79
IRR	**18.7%**					

The project is forecast to have the potential to generate US$493 million of pre-tax net cash flow or US$321 million post-tax net cash flow, based on an SSP selling price of US$280 per tonne. The present value of the pre-tax net cash flow with a 5.0 percent discount rate ($PVNCF_{5.0\%}$) is estimated at US$273 million and the post-tax $PVNCF_{5.0\%}$ is estimated at US$167 million. Internal rates of return (IRR) are respectively 24.7 percent pre-tax and 18.7 percent post-tax.

7.3 Sensitivity Analysis

SRK analyzed the sensitivity of the base case economic results to variations in the SSP selling price, process recovery, capital costs, operating costs, and exchange rate.

The project economics sensitivity to the SSP price is summarized in Table 8. Price sensitivity is shown for increments of US$20/tonne of SSP.

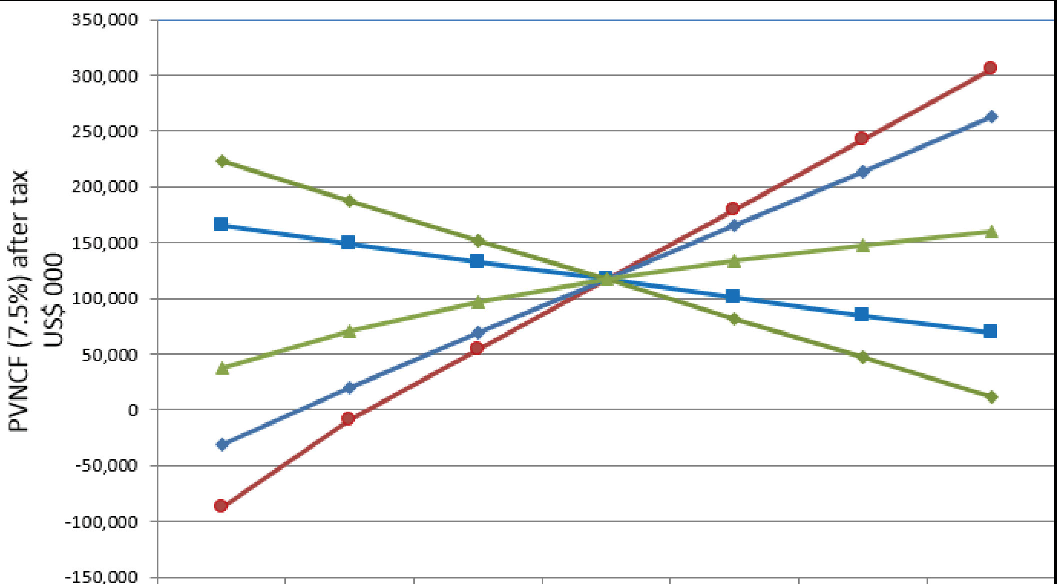
Table 8: Project Economics Sensitivity to SSP Price (all dollars are in US currency)

SSP Price	US$/t	$220	$240	$260	$280	$300	$320	$340
Project NCF Pre-Tax								
NCF pre-tax	$M	107	235	364	**493**	622	751	880
PVNCF 5%	$M	25	107	190	**273**	356	438	521
PVNCF 7.5%	$M	-2	66	134	**202**	270	338	406
PVNCF 10%	$M	-21	35	92	**148**	204	261	317
IRR	%	7.3%	13.9%	19.6%	**24.7%**	29.4%	33.9%	38.2%
Payback	years	7.1	4.9	3.8	**3.2**	2.7	2.4	2.1
Project NCF Post-Tax								
NCF post-tax	$M	65	151	236	**321**	406	491	576
PVNCF 5%	$M	2	58	112	**167**	222	276	331
PVNCF 7.5%	$M	-18	27	72	**117**	162	207	251
PVNCF 10%	$M	-34	4	41	**79**	116	153	190
IRR	%	5.3%	10.5%	14.8%	**18.7%**	22.2%	25.6%	28.8%
Payback	years	7.5	5.3	4.5	**3.9**	3.4	3.1	2.8

The sensitivity of the project key economic indicators of $PVNCF_{7.5\%}$ and IRR to variations in revenue, process recovery, capital costs, operating costs and exchange rate is shown in Figure 4 and Figure 5. All sensitivity analyses are based on a one-at-a-time basis, wherein only one factor is varied and all other factors are kept at base case values. SRK analyzed the sensitivity in each of the five factors within a range of ±30 percent from the base case value in increments of 10 percent.

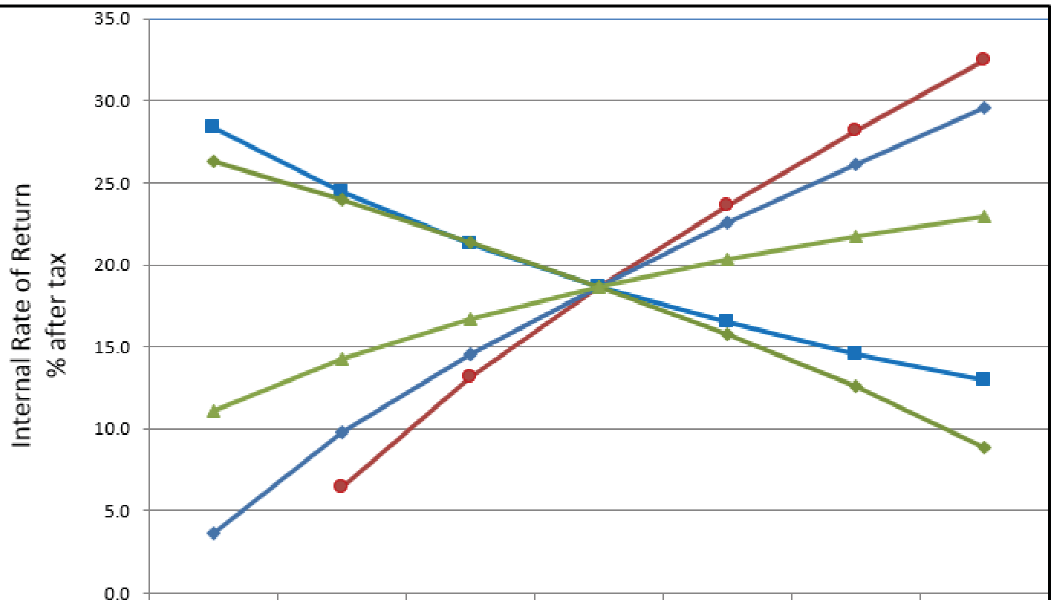
A review of Figure 4 and Figure 5 shows that the economic indicators are most sensitivity to revenue assumptions (i.e., SSP price), as is typical of mining projects, followed by process recovery. The economic indicators are more sensitive to operating costs than to capital costs. This is attributed to the fact that projected LOM operating costs are 3.8 times the projected LOM capital costs. The project is least sensitive to the Real:USD exchange rate since only a portion of the underlying capital and operating cost estimate detail is in Brazilian currency.

The potential impact of the current 2 percent private royalty on project economics was also analyzed. The analysis showed that if this royalty was incorporated in the cash flow forecast the pre-tax rate of return would be reduced by 0.4 percent.



	70%	80%	90%	100%	110%	120%	130%
Revenue	-87,355	-8,602	54,342	117,047	179,752	242,457	305,162
Process Recovery	-30,754	20,144	68,595	117,047	165,498	213,949	262,334
Capital costs	165,142	149,110	133,078	117,047	101,015	84,983	68,952
Operating costs	222,457	187,320	152,183	117,047	81,910	46,773	11,598
FX (Reals/USD)	37,040	70,376	96,304	117,047	134,018	148,161	160,127

Figure 4: Sensitivity of Present Value of Net Cash Flow at 7.5 Percent Discount



	70%	80%	90%	100%	110%	120%	130%
Revenue		6.5	13.2	18.7	23.6	28.1	32.4
Process Recovery	3.7	9.8	14.5	18.7	22.5	26.1	29.5
Capital costs	28.3	24.4	21.3	18.7	16.5	14.6	12.9
Operating costs	26.3	23.9	21.4	18.7	15.8	12.6	8.9
FX (Reals/USD)	11.1	14.3	16.7	18.7	20.3	21.7	22.9

Figure 5: Sensitivity of Project Internal Rate of Return

8 Environment and Social

8.1 Environmental Setting

The environmental licensing process in Brazil is essentially a three-phase process consisting of a Preliminary Licence, an Installation Licence, and an Operation Licence. In certain instances, additional permitting may be required if the proposed project is within a border zone or an environmental conservation unit, both of which are essentially an area defined as being environmentally sensitive.

An Environmental Impact Assessment as well as a restoration plan must be completed as part of the Preliminary Licence phase of the project. The issuance of a Preliminary Licence indicates that the proposed project is deemed environmentally acceptable. These licenses are typically issued with conditions that must be followed during the operation of the mine.

Following the Preliminary Licence phase the project must obtain an Installation Licence. Issuance of an Installation Licence is required prior to any construction activities. It is also necessary to submit an Environmental Control Plan as part of the Installation Licence application. An Installation Licence is also required prior to being granted a mining concession.

Once the regulatory authorities are satisfied that the construction of the facilities followed the Environmental Control Plan and met all the conditions contained in the Installation Licence, an Operation Licence can be granted. The Operation Licence authorizes the operator to mine, process, and sell their commodity.

8.2 Environmental Considerations

Activities to date have been carried out on valid exploration claims with all activities being completed in compliance with a valid exploration licence. It is SRK's understanding that a final exploration report has been submitted to the department of Mines and Energy and the National Department of Mineral Production for their review and approval. Following approval of this report, an application for a mining concession will be submitted within the regulated timeframe.

In accordance with Brazilian environmental legislation, an Environmental Impact Assessment for the proposed project will be required as part of the Preliminary Licence application.

A preliminary social and environmental assessment for the project has been completed and it did not identify any potential environmental impacts that cannot be mitigated through the implementation of good engineering practices, which would be expected to be outlined within the proposed project's Environmental Control Plan.

There is no evidence of any significant/controversial environmental or social concerns associated with the proposed project, as it is currently defined, that would complicate or delay advancing the project through the required licensing process within the expected schedule once the process has been initiated.

9 Risks and Opportunities

Certain aspects of the proposed Três Estradas project present risks and opportunities beyond aspects of the project discussed thus far. While no detailed study has been completed on either risks or opportunities, the following section discusses some of them.

9.1 Risks

The following potential risks have been identified:

- Geology and Mineral Resources:
  - According to Aguia, the water supply, especially during the summer months, is carefully managed by the local water utility company as supply is low and demand, especially due to local rice farming and urban demand, is high. While Aguia retained Walm Engenharia, a local consulting company, to provide an initial hydrological assessment for the project, there is no certainty that the high demand for water during mining operations can be met easily or cost effectively.
  - The phosphate-bearing rocks of the Três Estradas project form a rather thin, steeply dipping tabular body. In this geometry, the ratio of waste to mineralized rock is high. Coupled with the currently low recovery rates, this geometry may influence the project's economics negatively.
- Metallurgy:
  - Very limited SSP conversion testwork has been conducted to show adequate available P_2O_5 and water solubility can be achieved. Also, the conversion of <28 percent P_2O_5 phosrock to marketable SSP has not been shown.
  - While the samples tested from each lithology were very consistent in their mineralogy, the flotation performance was found to be sensitive to reagent levels and conditioning; careful plant control will be required to maintain P_2O_5 recoveries. Further test work will be required.
- Mining:
  - Stockpiling large quantities of saprolite mineralization may present operational challenges due to difficulty operating haul trucks on partially compacted saprolite.
- Waste Management:
  - Although the tailing stream contains high calcium and is low in iron and other metals, additional tailings geochemical characterization should be completed to confirm if additional environmental controls are required.
  - Physical and rheological testing has not been carried out on the tailings. Once this information becomes available, the feasibility of cyclone raise should be determined. Cyclone raises would decrease the capital cost of the tailings dam.
  - No geotechnical or hydrogeological investigations have been carried out at the TMF, the water reservoir site, and the roads. Therefore, at the time of writing, it cannot be confirmed whether the allowances for foundation integrity or seepage control are adequate.
  - No borrow source investigations has been carried out to confirm the availability of suitable construction materials within the assumed haul distances. Should the assumptions prove invalid, this would result in an increased capex and sustaining capital.
  - No hydrological studies have been undertaken to confirm that the sizing of the water reservoir is adequate, or that the freeboard and spillway allowances are appropriate for the TMF and the water reservoir. Changes could result in an increased capex.
  - The inclusion of a geotextile as a filter between the internal drain and the dam shell material may have to be revisited to avoid risks of blinding. Importing of suitable filter materials may result in increased capex.
- Environmental:
  - Proper attention needs to be provided through the environmental assessment and development of the environmental impact statement which is completed during the Preliminary Licence phase of the project. Failure to do so may result with extended delays in obtaining environmental approvals.
  - As with all proposed mining projects, all eventual environmental objections from the local communities have to be managed carefully, as open pit mining operations especially have a significant spatial footprint. If operations are not managed in a responsible manner, favorable local support may cease, with the potential to influence day to day operations negatively.

9.2 Opportunities

- Aguia owns other phosphate exploration licences in the vicinity of the Três Estradas project. The limited exploration work completed on those properties has identified exploration targets with the potential to define additional mineral resources. Any additional mineral resources defined on those nearby properties have the potential to provide additional saprolite or fresh rock feed to the project with the potential to improve the production schedule and or to extend the life of the project.

- Leasing of imported mining equipment may present an opportunity to reduce capital costs and improve project economics.

- For processing, there is an opportunity to generate more consistent phosrock concentrate by blending the oxide and fresh lithologies in specific proportions. This will minimize the loss to slimes from the oxide material, improve the phosrock P_2O_5 grade, and avoid high iron content ahead of the SSP conversion. In addition, the application of column flotation equipment may offer improved apatite upgrading of the fresh slimes.

- The present study considers hauling phosrock concentrate to the proposed SSP plant by road. Additional trade off studies should be conducted to examine if a rail haulage option can be more favourable.

- The present study is based on producing an SSP final product. Another production option warranting future study is to produce a phosrock concentrate final product for sale to current SSP producers in Brazil. This option would reduce project capital costs since an SSP plant is not required.

- Market studies suggest that there is a local market for calcite products and metallurgical test results suggest that a saleable calcite product can be produced from the tailings of the phosrock concentrator. Production of a calcite product presents an opportunity to increase revenue and reduce tailings disposal volumes with the potential to improve project economics.

- The tailings volumetric calculation assumes a dry density of 1.25 tonnes per cubic metre. It is conceivable that the thickened tailings may have a slightly higher density. Should this be confirmed, it is conceivable that the overall tailings impoundment could be lowered, resulting in reduced capex and sustaining capital costs.

- Finally, Aguia should explore the possibility for local taxation and development incentives to support production of a local supply of fertilizers products.

Overall, SRK believes that the proposed Três Estradas project shows reasonably robust potential economic returns. Furthermore, well-established infrastructure, services and supply, including labour; located in close proximity to the project area presents an opportunity to reduce the development and operating cost of a mine operation.

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APPENDIX A

JORC Table 1

Table 1: Section 1 Sampling Techniques Data

Criteria	Commentary
Sampling technique	Soil samples were collected every 25 metres along lines spaced 100 metres apart, for a total of 52 soil samples. 77 rock samples were collected from within the DNPM 810.090/91 area. One historical trench exists on the tenement, Aguia sampled three vertical channels; in each channel, two samples were collected. Drilling comprised 60 core boreholes (8,606.80 metres), 136 auger boreholes (770 metres), and 154 reverse circulation boreholes (10,697 metres). Auger - Drilling was completed up to a depth of 15 metres within the saprolite unit.
	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 down-hole surveys were performed. N.B. Auger data were not used for mineral resource estimation purposes. 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 down-hole surveys were performed. 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. Down-hole surveys were completed for the second exploration program using a Maxibore down-hole survey tool.
	Auger - 1-metre samples collected, 2 kilograms of material collected for each field sample. Samples were taken at 1-metre 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 percent phosphorus (3 percent P_2O_5), all samples from that auger borehole were shipped to the laboratory for assaying. Reverse Circulation Drilling - Every metre drilled produced two aliquots with a minimum weight of 500 grams and a maximum of 2 kilograms. Core Drilling - The majority of sample intervals range between 0.5 and 1.5 metres, averaging 1.0 metre and honour geological contacts. Samples consisted of half core and were collected from core cut lengthwise using a diamond saw. Three readings per metre were performed with a portable XRF device. 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 exploration program were prepared and analyzed at SGS Geosol laboratories in Vespasiano, Brazil.

Table 1: Section 1 Sampling Techniques Data Continued

Criteria	Commentary
Drilling techniques	Auger - Tipper scarifier motorized augers were used to drill the auger boreholes. Reverse Circulation – Drilling utilized a face sampling hard formation bit with tungsten buttons and a diameter of 5 ½ inches. No down-hole surveys were completed. Core Drilling - Drilling utilized HQ equipment for weathered material and NQ for fresh rock. Down-hole surveys were not performed on 19 core boreholes completed during the first drilling program. Down-hole surveys were performed on 3-metre intervals using a Maxibore down-hole tool on all boreholes completed during the second and third drilling program. No core orientation has been carried out.
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.
	Auger - Sample material was homogenized before collecting a 2-kilogram sample; large competent material was broken up prior to homogenization. Reverse Circulation Drilling - Dry samples were collected via a cyclone and riffle splitter, ensuring homogenization and representative sampling. Wet samples were dried, homogenized, and sampled by hand. Core Drilling - Due to the coherent nature of the fresh rock and homogenous nature of the mineralization, sample recovery was very good. In saprolite, recovery was maximized by using short drill runs and best drilling practices.
	There is no detectable relationship between sample recovery and grade in all samples collected (auger, reverse circulation, and core).
Logging	Auger - Data were not considered for mineral resource estimation. Reverse Circulation Drilling - Drilling chips were logged to record geological information; this information was considered for resource estimation. Core Drilling - Detailed geological logs in appropriate logging form were completed, and assay data were considered for resource estimation.
	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.
	All of the relevant intersections were logged.

Table 1: Section 1 Sampling Techniques Data Continued

Criteria	Commentary
Sub-sampling techniques and sample preparation	Core was sawn in half, with one half sent for assaying and one half retained for reference. Friable core was split down the centerline using a spatula or similar tool, with half retained and half sent for assaying.
	Auger - One-metre 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.
Quality of assay data and laboratory tests	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. The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements: P_2O_5, Al_2O_3, CaO, Fe_2O_3, K_2O, MgO, MnO_2, SiO_2, and TiO_2 (method code XRF12pt/XRF24). 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). For the third drilling program sample preparation and analysis was completed at SGS Geosol laboratory in Vespasiano, Brazil using standard crushing and pulverization techniques. The prepared pulps were fused with lithium metaborate and analyzed by XRF spectroscopy for major oxide elements: P_2O_5, Al_2O_3, CaO, Fe_2O_3, K_2O, MgO, MnO, SiO_2, and TiO_2 (method code XRF79C). They were also analysed for loss on ignition for calcination (method code PHY01E). Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of nine elements. 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.
	Not applicable.

Table 1: Section 1 Sampling Techniques Data Continued

Criteria	Commentary
Quality of assay data and laboratory tests	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 percent of the samples. 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 spectroscopy (method code ME-MS81). Ten blank samples were sent for preparation to ALS laboratory in Vespasiano, Brazil and for analysis to ALS Minerals in Lima, Peru. Aguia used two certified phosphate reference materials (standards) sourced from Geostats Pty Ltd. (Geostats) in Perth, Australia. Umpire check assays were conducted by SGS Geosol in Belo Horizonte, MG, Brazil using XRF spectroscopy (method codes XRF79C and PHY01E). Additionally, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratory used. During the third drilling program, 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. In addition, fine and coarse blank were prepared from barren quartz veins. 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. Umpire testing was performed at ALS Chemex laboratory in Lima, Peru, where samples were analyzed for a suite of elements (method code XRF12pt/XRF24). In addition, Aguia relied on the analytical quality control measured implemented by the ISO accredited laboratories used for analysis.
Verification of sampling and assaying	During a site visit on April 24 to 26, 2012, SRK personnel relogged seven core boreholes. During an additional site visit, on November 25 to November 27, 2014, SRK relogged three core boreholes.
	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 SRK.
	Assay data were not adjusted.
Location of data points	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 was completed.
	UTM system (Zone 21S), South American Datum 1969.
	A topographic survey of the project area was completed using differential GPS technology. The survey comprised 35.35 line kilometres, consisting of survey lines spaced 25 metres apart, and control lines spaced 100 metres apart. The topographic survey generated contour lines at 1-metre intervals in the meta-carbonatite area. Contour lines at 5-metre intervals were obtained for the remaining area using shuttle radar topography mission (SRTM) and orthorectified Geoeye images with 0.5 metre resolution.

Table 1: Section 1 Sampling Techniques Data Continued

Criteria	Commentary
Data spacing and distribution	Reverse circulation drilling was completed on sections spaced 50 metres apart. Core boreholes were drilled on sections, spaced 100 metres apart in the north tenement (DNPM#810.090/1991) and spaced 200 metres apart in the south tenement (DNPM#810.325/2012).
	The boreholes are spaced sufficiently close to interpret the boundaries of the phosphate mineralization with a confidence sufficient to establish continuity at support classification at an Indicated and Inferred category.
	Assay data were composited to 1-metre length prior to resource estimation.
Orientation of data in relation to geological structure	The sampling patterns used did not introduce an apparent sampling bias.
	The sampling patterns used did not introduce an apparent sampling bias.
Sample security	Chain of custody of all sample material was maintained by Aguia. Samples were stored in secured areas on site until dispatch to the preparation laboratory by freight express.
Audits or reviews	SRK audited the project in early 2013 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.

Table 1: Section 2 Reporting of Exploration Results

Criteria	Commentary (SRK Report)
Mineral tenement and land tenure status	Permit 810.090/91, irrevocable right to 100 percent under an exercised option agreement with Companhia Brasiliera do Cobre (CBC). On July 1, 2011, CBC and Aguia Metais Ltda., a subsidiary of Aguia in Brazil, executed an option agreement providing the irrevocable purchase option of these mineral rights by Aguia Metais (or its affiliate or subsidiaries). On May 30, 2012, Aguia Metais exercised the purchase option concerning these mineral rights by means of its affiliate Aguia Fertilizantes S/A (Aguia Fertilizantes). On July 10, 2012, CBC and Aguia Fertilizantes executed an irrevocable agreement providing the assignment of these mineral rights to Aguia Fertilizantes. On July 20, 2012, CBC filed a request before the DNPM applying for the transfer of these mineral rights to Aguia Fertilizantes. The second two-year term expired on August 16, 2012, with the Final Exploration Report now under review by the government, approval of which will allow the company a further year (from the date of approval) to submit an Economic Exploitation Plan. Permit 810.325/12, irrevocable right to 100 percent under an exercised option agreement with Companhia Brasiliera de Cobre. Granted on April 29, 2013, the initial three-year term expires on April 29, 2016.
Exploration done by other parties	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, P_2O_5 values in excess of 6 percent were noted in assays of soils and drill core.
Geology	Três Estradas phosphate project is a carbonatite complex containing apatite as the phosphate bearing mineral. The carbonatite strikes northeast and dips steeply to subvertically to the southwest. 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 60 core boreholes (8,606.80 metres) and 154 reverse circulation boreholes (3,304 metres), completed in 2011, 2012, 2014, and 2015. Information from auger boreholes was not considered for the mineral resource estimation. Boreholes generally were completed on sections 50 metres apart. Borehole spacing along section is typically 50 metres. The complete data set was used in the mineral resource estimation. The large data set 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_2O_5 lower cut-off grade was used. High grade outliers were not capped prior to block grade estimation.
	Not applicable.
	Not applicable.

Table 1: Section 2 Reporting of Exploration Results Continued

Criteria	Commentary (SRK Report)
Relationship between mineralisation 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 down-hole lengths generally approximate true widths. Core drilling was performed at an acute angle to the steeply to vertically dipping carbonatite bodies, hence down-hole 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 down-hole 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	Future drilling will aim at infilling the deposit to improve the confidence in the geological and geostatistical continuity of the mineralization. Step-out drilling will also test the lateral continuity of the apatite mineralization to the south.
	See map in Appendix B.

Table 1: Section 3 Estimation and Reporting of Mineral Resources

<table>
<tr><th>Criteria</th><th>Commentary (SRK Report)</th></tr>
<tr><td>Database integrity</td><td>The database was provided to SRK in digital form.

SRK conducted a series of routine verifications to ensure the reliability of the electronic data provided by Aguia.

Rare and minor input errors were detected in the Aguia database. These errors are considered not material.</td></tr>
<tr><td>Site visits</td><td>Site visits were undertaken by Dr. Weiershäuser (SRK Toronto) on April 24 to 26, 2012 and on October 17, 2012, an appropriate independent Competent Person for the purpose of JORC.

An additional SRK site visit was undertaken by Camila Passos (SRK Brazil) on November 25 to 27, 2014, an appropriate independent Competent Person for the purpose of JORC.

SRK was given full access to relevant data and conducted interviews of Aguia personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store, and analyze historical and current exploration data.</td></tr>
<tr><td>Geological interpretation</td><td>SRK is confident that 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.

Aguia used a lithological-assay based approach to define the boundaries of the phosphate mineralization and the following criteria: minimum average grade of composite interval (hanging wall to footwall contact) is 3.0 percent P_2O_5 for saprolite and fresh rock.

Three weathering zones (saprolite, weathered, and fresh rock) defined by two weathering surfaces modelled according to core logging data.

Maximum length of internal dilution within a mineralized interval is 4.0 metres. There are eight intervals (1.7 percent of internal dilution intervals) that are longer than 4 metres.</td></tr>
<tr><td>Dimensions</td><td>The minimum and maximum extents of the mineral resource are given below:

<table><tr><th></th><th>Min*</th><th>Max*</th></tr><tr><td>X</td><td>766,125</td><td>768,210</td></tr><tr><td>Y</td><td>6,576,130</td><td>6,577,675</td></tr><tr><td>Z</td><td>-10</td><td>370</td></tr></table>* SAD 69 Zone 21S</td></tr>
</table>

Table 1: Section 3 Estimation and Reporting of Mineral Resources Continued

Criteria	Commentary (SRK Report)
Estimation and modelling techniques	Four estimation domains were modelled, defined by rock type and weathering: two in the carbonatite rock 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. Aguia composited all assay intervals to a length of 1.0 metre. No capping was used. Variography was undertaken on 1-metre composites for P_2O_5, CaO, Fe_2O_3, and MgO in the meta-carbonatite domain. See report for table of results. SRK considers that Aguia's calculation parameters, orientation, and fitted variogram models are appropriate and reasonable given the available data and geological interpretation. P_2O_5, CaO, Fe_2O_3, SiO_2, Al_2O_3, and MgO were estimated into the block model using ordinary kriging within the fresh and weathered metacarbonatite, and using inverse distance to a power of two within saprolite rock. 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 P_2O_5 in the meta-carbonatite. The block size of 25 metres (along strike) by 5 metres (perpendicular to strike) by 10 metres (vertical) was used and it was appropriate for the density of data and the search radii used to interpolate grades into the model. An SRK audit of the methodology and parameters considered by Aguia found that there is minimal sensitivity to changes in estimation parameters. In particular, SRK investigated the impact of capping the data and found that grade capping is immaterial to the overall average grade. SRK performed a visual validation of the block model by comparing block and borehole grades on a section by section basis. The resultant block estimates appear to be reasonable given the informing composite grades and estimation parameters.
Moisture	Tonnages are estimated 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 percent of P_2O_5 that takes into account extraction scenarios and processing recovery.
Mining factors or assumptions	The following assumptions were considered for conceptual open pit optimization to assist with the preparation of the Mineral Resource Statement: (see table below)

Parameters	Value
Mining recovery / mining dilution (%)	100 / 0
Process recovery for fresh / oxide (%)	65 / 80
Overall pit slope angle soil-saprolite / fresh rock (°)	35 / 50
Mining cost (US$/tonne mined)	2.00
Plant cost (US$ per tonne of feed)	4.00
G&A (US$ per tonne of feed)	2.00
Process cost (US$ per tonne of feed) – plant + G&A	6.00
Cost of transportation (US$ per tonne of concentrate)	16.00
Moisture ROM / concentrate (%)	6 / 10
Concentrate to SSP conversion factor	1.65
SSP plant cost (US$ per tonne of SSP)	78.60
SSP selling price (US$ per tonne of SSP)	330
Revenue factor	1

Table 1: Section 3 Estimation and Reporting of Mineral Resources Continued

Criteria	Commentary (SRK Report)
Metallurgical factors or assumptions	Metallurgical testwork has been completed on a number of samples of the two main mineralization types: fresh carbonatite and oxide/saprolite. Testwork included grinding, magnetic separation, and froth flotation of deslimed feed to recover a P_2O_5 concentrate. Due to excessive fines generation during crushing/grinding, slimes were separately tested to determine if a saleable concentrate could be produced. P_2O_5 recovery for fresh is estimated to be 65 percent to a 28 percent grade concentrate from deslimed feed alone. For the higher grade oxide material, a combined deslimed + slimes recovery of 80 percent is expected to a 25 percent P_2O_5 concentrate. Phosphate concentrate (phosrock) will be shipped from the mine site to the port in Rio Grande for acidulation and granulation to single superphosphate (SSP), a more valuable product. Phosphate concentrate has not been tested for solubility and conversion to SSP, with acid consumption estimated from concentrate quality. Fe_2O_3 content in the phosphate-bearing rock will be managed with the inclusion of magnetic separation in the process flowsheet. Blending fresh with oxide phosrock concentrate to manage elevated Fe_2O_3 levels might be the preferred option. Process plant operating and capital costs have been estimated for both the phosrock concentrator and SSP production plant based on similar phosphate operations as well as first principles with consideration of acidulation/granulation being done at Rio Grande.
Environmental factors or assumptions	An internal environmental assessment was carried out by WALM Engenharia e Tecnologia Ambiental Ltda (qualified local Brazilian consultants) to assess various aspects of environment issues that are likely to impact the proposed mine at Três Estradas. SRK has not studied the environmental aspects of the project at the current project stage. SRK anticipates there are unlikely to be any foreseeable environmental issues should mining operations occur.
Bulk density	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 2,800 measurements. Aguia calculated and assigned weighted averages of specific gravity to each of the four mineralized domains relevant to resource estimation. Measurements were performed on core samples air-dried between extraction and measurement. Core is considered representative of the rock hosting the mineralization.
Classification	Indicated: Blocks estimated in the first two estimation passes (within the variogram range) and based on composites from a minimum of two boreholes. Inferred: All blocks not classified as Indicated in the first two estimation passes and all blocks estimated in the third estimation run. The quantity and grade estimates meet certain economic thresholds. The mineral resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recoveries. Block model quantities and grade estimates for the Três Estradas phosphate project were classified according to the JORC Code by Ms. Camila Passos, PGeo (APGO#2431) and Dr. Oy Leuangthong, PEng (PEO#90563867), appropriate independent Competent Persons for the purpose of JORC.

Table 1: Section 3 Estimation and Reporting of Mineral Resources Continued

Criteria	Commentary (SRK Report)
Audits or reviews	SRK audited the mineral resource model constructed by Aguia in 2013 and 2015. The results of those audits were summarized in memoranda dated February 19, 2013 and April 25, 2015. SRK was able to reproduce the Aguia estimates using the same estimation parameters. The robustness of the Aguia block models was also tested by varying certain estimation parameters and comparing estimates for the main carbonatite resource domain. The results show that Aguia's estimation parameters are reasonable. SRK concludes that the resultant block models are unbiased, robust, and generally insensitive to the parameters varied by SRK.
Discussion of relative accuracy/ confidence	SRK is satisfied that the geological modelling honours the current geological information and knowledge. The location of the samples and the assay data are sufficiently reliable to support mineral resource evaluation. Mineral resources were classified as Indicated or Inferred. No block is classified in the Measured category for three reasons. First, approximately one-quarter of the database consists of reverse circulation boreholes, data from which are of inferior quality to data from core boreholes. Second, modelled weathering surfaces are based on a limited number of core boreholes, and the surfaces are closely linked to the definition of the four main resource domains. Finally, the search criteria for the estimation passes are based on the variograms for P_2O_5, that SRK found challenging to reproduce, although, they are comparable to other similar deposits. While individually these deficiencies are not significant, taken together SRK believes that they undermine the confidence required to support a Measured classification.

Table 1: Section 4 Estimation and Reporting of Ore Reserves

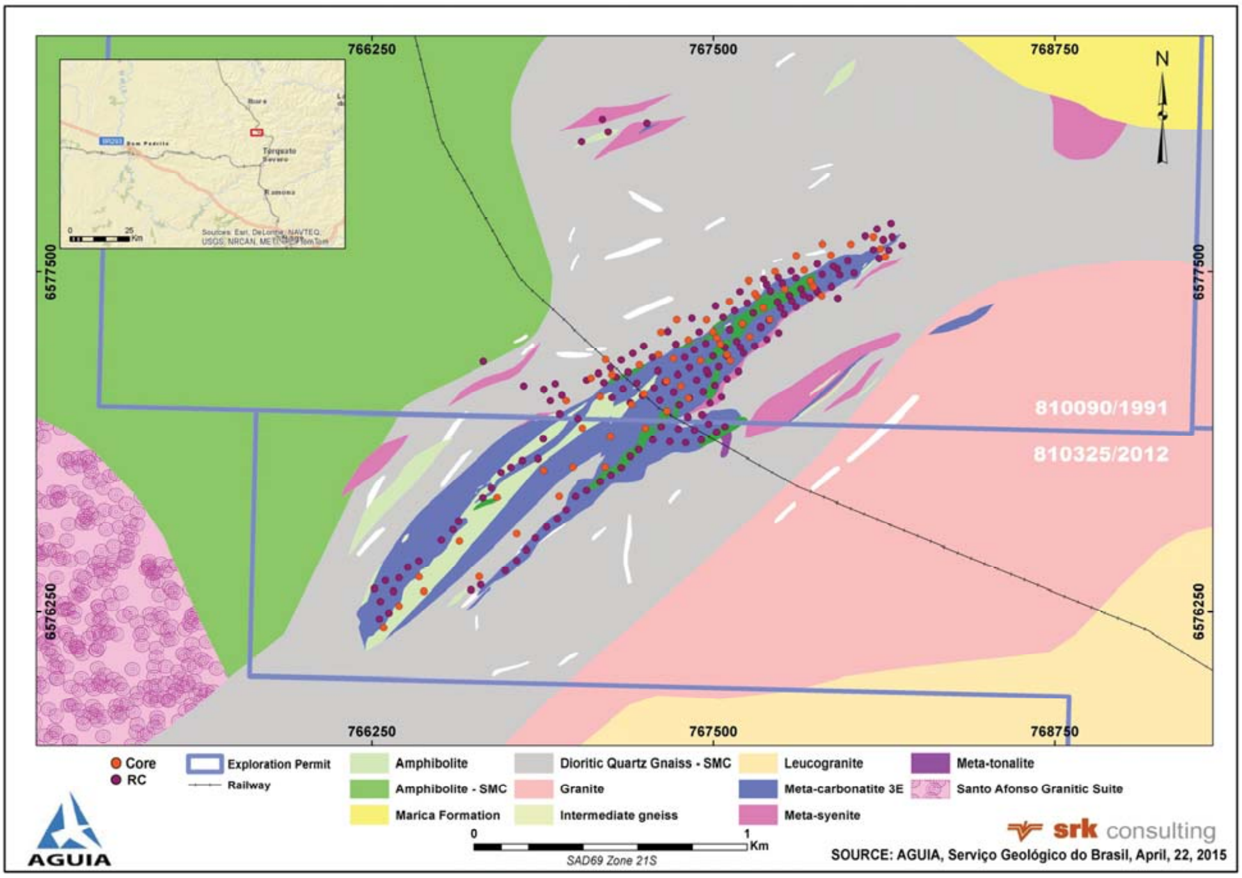
Not applicable – no reserves are reported.

Table 1: Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Not applicable – no diamonds or other gemstones are reported.

APPENDIX B

Borehole Collar Map and Sections



Drilling on the Três Estradas Phosphate Project