28 February 2013

RESOURCE TONNAGE INCREASE OF 34% AT TRÊS ESTRADAS PHOSPHATE PROJECT

SIGNIFICANT POTENTIAL TO EXPAND ALONG STRIKE

Summary

- Total JORC compliant Indicated and Inferred resource increased to 28.5Mt grading 4.3% $P_2O_5^1$ including a higher grade oxide zone from surface of 1.6Mt @ 10.5% P_2O_5
- 78% of the higher grade oxide resource has been upgraded from the Inferred to Indicated category
- Beneficiation test work demonstrates the potential for the oxide and primary zones to produce a commercial concentrate with grades up to 36% and 32% P₂O₅ respectively supporting future project development opportunities including early start up
- Overall grade and preliminary metallurgical results are similar to carbonatite hosted opencut operating mines in Brazil and globally that are presently mined to depths of 220 metres (Siilinjärvi, Finland) and 375 metres (Cajati, Brazil)
- The Mineral Resource estimate only covers 45% or 1.2km of the more than 2.6 km of mineralised strike at Três Estradas
- The Company holds an extensive land position in the region and believes Rio Grande do Sul has the potential to host a major new phosphate province in close proximity to infrastructure, primary agriculture customers and fertiliser blenders

Emerging fertiliser development company Aguia Resources Limited (ASX: **AGR**) ("Aguia" or "Company") is pleased to announce an upgrade of its JORC compliant Mineral Resource estimate from the Três Estradas ("TE") phosphate project in southern Brazil.

The Company commissioned leading independent global consulting company SRK Consulting to prepare the JORC Mineral Resource Statement upgrade. The mineral resources are reported within a conceptual pit shell at a cut-off grade of $3.0\% P_2O_5$. The summary report including competent person's statement is attached to this release.

SRK prepared an initial JORC compliant Mineral Resource Statement in June 2012 from 19 diamond core and 25 auger holes. From July 2012 to October 2012, Aguia drilled an additional 21 diamond core holes and 105 reverse circulation holes which form the basis for the reported resource upgrade.

Aguia's Managing Director, Simon Taylor, said: "Since the initial JORC compliant resource in June 2012 the Company has made excellent progress in increasing the overall resource tonnage and upgrading the resource category at TE. We are particularly pleased to report that 78% of the higher grade oxide zone that extends from surface has been upgraded to an Indicated category. First pass beneficiation test work from the higher grade oxide zone has already confirmed commercial concentrate grades up to $36\% P_2O_5$ supporting future project development opportunities including early start up."

¹ SRK Consulting: cut-off grade of 3.0% P₂O₅

Aguia's Brazilian based Technical Director, Dr Fernando Tallarico, added: "The resource is open to the southwest along the boundary to our pending application that contains an additional 1.4 kilometres of outcropping carbonatite host rocks and thus there is significant potential to upgrade the size of the resource. We believe that the TE project has the potential to develop into a robust operation.

The TE project represents a significant new phosphate discovery with characteristics similar to existing producers in Brazil. Importantly, the grade and mineralogy is similar to that of other operating mines globally including Yara's Siilinjärvi mine in Finland and Vale's Cajati mine in Brazil, both of which produce a high quality concentrate from phosphate within carbonatite host rocks.

Name of Deposit	Location	Tonnage (Mt)	Head Grade	Recovery	Concentration Grade	Stage
Siilinjärvi (Yara)	Finland	465	4.0%	84%	35%	Production
Cajati (Vale)	Brazil	85	5.5%	78%	36%	Production
Três Estradas (Aguia)	Brazil	29 ²	4.3%	76%	32% ³	Exploration / Development
Notes 1. JSA Consultoria e Assess	oria Técnica, Com	ipany data	3. Based on pre	liminary beneficiation te	st work, optimisation	

Table 1: Comparative Phosphate (P₂O₅) Deposits Within Carbonitite Hosted Rocks¹

2. Inferred resource calculated from 45% of potential target length

test work underway



Figure 1: Location of Rio Grande Phosphate Projects, SE Brazil

Near Term Focus

The Company will continue its efforts to commercialise its flagship TE phosphate project through resource expansion, scoping of the high grade oxide zone and further beneficiation optimisation test work.

In addition, the Company continues to advance its other phosphate discoveries and prospects in the region to the drill stage and believes Rio Grande do Sul has the potential to host a major new phosphate province in close proximity to infrastructure, primary agriculture customers and fertiliser blenders.

- ENDS -

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Figure 2: Três Estradas Project In-Pit Inferred Resource Outline and Untested Extension Zones

About the Rio Grande Phosphate Projects

Aguia has a large landholding in the area that includes an exclusive option to acquire 100 per cent of the Três Estradas and Joca Tavares carbonatite style phosphate projects from Companhia Brasileira do Cobre ("CBC") and an additional 13 projects that it has acquired in its own right.

The projects are located in the state of Rio Grande do Sul - the southernmost Brazilian state adjacent to the border with Uruguay. The region has well developed infrastructure with excellent roads, rail, power, port and services.

The three southern States of Rio Grande do Sul, Santa Catarina and Paraná currently consume over 1 million tonnes $P_2O_5^2$ or almost 30% of Brazilian consumption, however there are currently no active phosphate mines in the region.

The Três Estradas, Joca Tavares and other Aguia projects will be logistically advantaged to supply the region compared with phosphate mined in Minas Gerais and Goias and imports.

Brazil is heavily reliant on imports for approximately 50 per cent of its phosphate needs.

Some of the projects are located within the Brazilian border control zone (150 kilometres from the international border) restricting foreign ownership of the tenements to 49%. The Company will be required to enter into a joint venture with a Brazilian owned company to develop the tenements. Accordingly Aguia has set up a company called Aguia Fertilizers, in which Aguia Resources owns 49%, and Brazilian interests 51%, and which incorporates shareholder agreements channelling all economic benefits back to Aguia Resources. This arrangement is not expected to materially alter the Company's potential economic return on the funds invested as part of the exploration program.

² Data Source: ANDA, 2011 consumption data

About Aguia

Aguia is an emerging fertiliser development company focusing on phosphate and potash projects in Brazil. 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 four 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 Três Estradas Phosphate Project has a current JORC compliant inferred mineral resource of 28.49Mt @ 4.25% P_2O_5 (total initial contained phosphate of 1.21Mt P_2O_5).

The information in this report that relates to 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 Aguia Resources Limited. Dr Tallarico has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code"). Dr Tallarico consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.



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Memo

То:	Fernando Tallarico	Date:	February 19, 2013
Company:	Aguia Resources Limited	From:	O. Leuangthong, C. Passos, L. Weiershäuser, and J.F. Couture
Copy to:	T. Bonas and G. Coutinho	Project #:	3CA038.001
Subject:	Mineral Resource Statement, Três Estra Brazil	adas Phosphate	Project, Rio Grande do Sul State,

Aguia Resources Limited (Aguia) commissioned SRK Consulting (Canada) Inc. (SRK Toronto) and SRK Consultores do Brasil Ltda. (SRK Brazil) to audit an updated mineral resource model prepared by Aguia for the Três Estradas phosphate project located in Rio Grande do Sul State, Brazil. The Três Estradas project is a phosphate deposit located in the Sul-rio-grandense Shield in south Rio Grande do Sul State. This memorandum summarizes the work completed by SRK Toronto and SRK Brazil to prepare an audited Mineral Resource Statement, which represents the second mineral resource evaluation prepared for this project.

SRK prepared an initial Mineral Resource Statement for the Três Estradas phosphate project in June 2012 in compliance with the *Australasian Code for Reporting Mineral resources and Ore Reserves* (2004), published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia (the JORC Code). The mineral resource model considered 19 core boreholes and 25 auger holes. The Mineral Resource Statement was disclosed by Aguia in a news release dated June 15, 2012.

From February 2012 to October 2012, Aguia has drilled an additional 21 core boreholes, 105 reverse circulation boreholes, and 135 auger holes. Aguia chose to estimate the mineral resources using only core and reverse circulation borehole data.

SRK audited the methodology used by Aguia to prepare the GEMS block model that was provided to SRK on January 15, 2013. After review, SRK classified the block model to delineate regular resource categories in accordance with the JORC Code. SRK considers that the Três Estradas phosphate deposit is amenable for open pit extraction. To assist with the preparation of the audited Mineral Resource Statement and the selection of an appropriate reporting assumptions, SRK used a pit optimizer to identify which portions of the block model can be reasonably expected to be extracted from an open pit. After review, SRK considers that it is appropriate to report open pit mineral resources at a cut-off grade of 3.0 percent P_2O_5 . The audited Mineral Resource Statement prepared by SRK is presented in Table 1. Mineral resources are not mineral reserves and do not have a demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves.

	Tonnage	P_2O_5	CaO	MgO	Fe ₂ O ₃	SiO ₂	AI_2O_3	RCP [†]	$P_2O_5AP^{\ddagger}$	
Lithotype	T x 1000	(%)	(%)	(%)	(%)	(%)	(%)		(%)	
Indicated Mineral Resources										
Saprolite										
SAMM (amphibolite)	123	5.29	10.85	6.90	15.84	39.88	8.49	2.14	5.29	
SCBT (carbonatite)	1,156	11.32	20.08	3.74	19.98	25.60	4.92	2.17	11.23	
Weathered										
WCBT (carbonatite)	1,168	5.85	34.85	5.49	10.46	13.16	2.10	6.99	5.85	
Fresh Rock										
MCBT (carbonatite)	7,143	3.78	35.36	7.20	7.93	10.74	1.90	9.54	3.78	
Total Indicated	9,590	4.96	33.15	6.57	9.79	13.19	2.37	8.24	4.95	
	h	nferred	Mineral	Resou	rces					
Saprolite										
SAMM (amphibolite)	74	5.69	11.55	6.70	16.74	38.70	8.47	2.19	5.66	
SCBT (carbonatite)	296	10.82	17.57	3.92	19.56	28.82	5.78	1.86	10.74	
Weathered										
WCBT (carbonatite)	247	4.80	36.77	5.98	8.86	10.76	1.87	8.49	4.80	
Fresh Rock										
MCBT (carbonatite)	18,280	3.75	35.65	7.38	7.70	10.09	1.79	9.66	3.75	
Total Inferred	18,897	3.88	35.28	7.31	7.93	10.50	1.88	9.49	3.88	

Table 1: Audited Mineral Resource Statement*, Três Estradas Phosphate Poject, Rio Grande do Sul State, Brazil, SRK Consulting (Canada) Inc., February 19, 2013

* Mineral resources are not mineral reserves and do not have 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 P₂O₅ for saprolite, w eathered and fresh rock mineralization. Optimization parameters include selling price of US\$200.00 per tonne of concentrate at 32 percent of P2O₅, a metallurgic recovery of 70 percent of P₂O₅, 100 percent for mining recovery and 0 percent dilution and overall pit slopes of 38 and 60 degrees

[†] CaO/ P₂O₅ Ratio

^{\ddagger} P₂O₅ contained in apatite

SRK is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that may materially affect the mineral resources. The audited Mineral Resource Statement was prepared by Ms. Camila Passos, Dr. Oy Leuangthong, and Dr. Jean-Francois Couture, all of whom are Competent Persons pursuant to the JORC Code and independent from Aguia.

The mineral resource audit process was a collaborative effort between SRK staff from the Belo Horizonte and Toronto offices. A new site visit was conducted on October 16 and 17, 2012 by Dr. Lars Weiershäuser, PGeo (APGO#1504), from the Toronto office and Ms. Camila Passos (CREA 5061868179/D) from the Belo Horizonte office.

The data review, geological modelling, estimation sensitivity analyses, and resource classification was performed by Ms. Passos, under the supervision of Dr. Oy Leuangthong, PEng (PEO#90563867), a Principal Consultant (Geostatistics) from the Toronto office. Geostatistical review was performed by Dr. Leuangthong.

Pit optimization review was conducted by Mr. Goran Andric, PEng, a mining engineer in the Toronto office. The overall audit was reviewed by Dr. Jean-Francois Couture, PGeo (APGO#0196), a Corporate Consultant (Geology) from the Toronto office.

1.0 Introduction

The database used to evaluate the mineral resources includes 40 core boreholes (5,334 metres) and 105 reverse circulation (2,151 metres). Aguia core drilling utilized HQ equipment for weathered material and NQ for unweathered rock.

All borehole collars were surveyed according to UTM coordinates (SAD69 datum, Zone 21S). Downhole surveys were not executed for the first 19 core boreholes. For most of the recent core boreholes, downhole surveys were completed at 3-metre intervals using a Maxibore downhole survey tool. Core recovery exceeds 90 percent in 97 percent of all core boreholes samples.

Based on a site visit completed on October 16 and 17, 2012, SRK believes that drilling, logging, core handling, core storage, and analytical quality control protocols used by Aguia meet generally accepted industry best practices. As a result, SRK considers that the exploration data collected by Aguia are of sufficient quality to support mineral resource evaluation and classification pursuant to the JORC Code.

2.0 Geological Interpretation and Modelling

Phosphate mineralization at the Três Estradas project occurs mainly as apatite in fresh carbonatite rock and in saprolitic rock of carbonatitic and amphibolitic origin. Saprolitic mineralization directly overlies the fresh rock. The carbonatite intrusion is hosted within a sinistral shear zone striking northeast-southwest. It extends approximately 2.5 kilometres, of which 1.2 kilometres are inside Aguia's lease. The apatite mineralization was tested from surface to a depth of approximately 400 metres. Its true thickness reaches up to 250 metres.

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 P₂O₅ 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 mineralized interval is 4.0 metres. There are three intervals (0.9 percent of internal dilution intervals) that are longer than 4 metres.

Using this approach, Aguia modelled the carbonatite and the amphibolite zones on vertical sections at 50 metre intervals (see Figure 1) and horizontal sections at 10 metre intervals. They linked the horizontal sections using tielines.

Upon receipt of the geological model, SRK verified the geological wireframes against borehole data. At the same time, SRK verified that stated model parameters such as maximum waste inclusion in the wireframes were adhered to.

There are some cases where Aguia considered meta-amphibolite (MAMP) as mineralization, and other instances where it is considered as waste. Preliminary metallurgical testing show that it is difficult to beneficiate meta-amphibolite rock and these intervals should not be considered inside the apatite mineralization wireframes. SRK is of the opinion that this difference is immaterial and that the wireframes are generally well-constructed and are adequate to separate the apatite mineralization from the surrounding waste rock.



Figure 1: Três Estradas Wireframe Solids

2.1 Specific Gravity

Specific gravity was measured by Aguia using a standard weight in water/weight in air methodology on core from complete sample intervals. The specific gravity database contains 1,798 measurements for ore and waste material.

Table 2 shows a comparison of the length weighted and unweighted average of specific gravity for each rock type.

Rock Type	Description	Rock Code	No. Samples	SRK Length- weighted Specific Gravity	Aguia Specific Gravity
CBTSAP	Saprolitic carbonatite	110	39	1.44	1.50
AMPSAP	Saprolitic amphibolite	210	44	1.77	1.92
WMCBT	Weathered carbonatite	120	67	2.72	2.71
MCBT	Meta-carbonatite	100	562	2.89	2.89
WSAP	Saprolitic waste	3	64	2.37	1.92
WWEATH	Weathered waste	2	59	2.74	2.62
WROCK	Rock waste	1	963	2.86	2.86
Total			1,798		

Table 2: Specific Gravity	for A	II Material f	from Três	Estradas I	Denosit
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SRK observes that differences in the weighted and unweighted average are higher than 5 percent for the saprolitic amphibolite (AMPSAP) and saprolitic waste (WSAP). Additional specific gravity measurements be obtained in the saprolitic amphibolite rock type to confirm what average value should be used. SRK reviewed the Aguia specific gravity database and confirms that the average specific gravity used is generally appropriate to convert volumes into tonnages for this deposit.

3.0 Mineral Resource Audit

SRK audited the mineral resource model prepared by Aguia through audits of statistical and geostatistical data, block model checks, and a review of classification parameters.

3.1 Resource Database

The borehole database considered for mineral resource estimation consists of 40 core boreholes and 105 reverse circulation boreholes. Table 3 provides a summary of available boreholes.

Table 3: Summary of Available Data for Três Estradas

	Count	Length (metres)	Assay Intervals
Core boreholes	40	5,333.90	4,470
Reverse circulation boreholes	105	2,151.00	2,151
Total	145	7,484.90	6,621

3.2 Compositing, Statistics and Capping

All assay intervals within the resource wireframes were composited to a length of 1.0 metre. Figure 2 shows the cumulative frequency distribution of sample length. Approximately 85 percent of all sample mineralized intervals in the Três Estradas deposit are 1.0 metre or less.



Figure 2: Sample Length Distribution

SRK notes that Aguia did not cap any assays or composites to limit the influence of high grade outliers. SRK checked the probability plots for six elements: P_2O_5 , CaO, MgO, Fe₂O₃, SiO₂, and Al₂O₃. This was calculated and analysed on a by-rock type basis.

SRK also analysed the sensitivity of the mean grade of each of these elements to possible capping values. The impact of not capping was assessed by SRK and is discussed in Section 3.6.

SRK audited assay and composite data through a comparison of assays and composite statistics for data generated independently by Aguia and SRK. No differences were found between the two data sets. Summary assay statistics are provided in Table 4. Composite statistics are provided in Table 5.

Based on the assay and composite database checks, SRK concludes that the data are reasonable and appropriate for use in the estimation of mineral resources.

Table 4: Summary Assay Statistics for Três Estradas Project (length weighted)

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Lithotype	Rockcode	Stats	P ₂ O ₅ (%)	CaO (%)	SiO₂ (%)	MgO (%)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)
AMPSAP		Mean	5.80	11.08	39.24	6.34	8.19	16.61
		Std. Dev	3.10	5.26	8.16	3.16	2.81	3.88
	210	Min	0.24	0.33	11.55	0.18	0.47	1.36
		Max	18.15	40.10	96.00	13.95	14.50	29.60
		Count			190			
		Mean	11.51	19.60	26.25	3.79	4.98	20.06
		Std. Dev	5.46	8.86	10.09	3.22	2.54	6.92
CBTSAP	110	Min	0.45	2.00	2.42	0.15	0.47	2.21
		Max	36.90	49.30	92.20	15.50	17.00	49.32
AMPSAP CBTSAP MCBT		Count			506			
		Mean	4.09	35.71	10.97	6.86	1.90	8.18
		Std. Dev	1.93	7.38	7.43	2.79	1.73	3.26
MCBT	100	Min	0.01	0.33	1.10	0.16	0.01	0.62
		Max	25.00	52.40	98.50	16.70	16.75	29.60
		Count			2,04	6		

Table 5: Summary Statistics for Composites (length weighted)

Lithotype	Rockcode	Stats	P ₂ O ₅ (%)	CaO (%)	SiO ₂ (%)	MgO (%)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)
		Mean	5.80	11.06	39.26	6.34	8.21	16.61
		Std. Dev	3.03	5.02	7.75	3.11	2.74	3.75
AMPSAP	210	Min	0.97	1.50	17.77	0.51	2.61	6.07
		Max	17.93	32.74	79.20	13.01	14.50	29.60
		Count			190)		
	110	Mean	11.50	19.64	26.21	3.78	4.98	20.04
		Std. Dev	5.37	8.72	9.78	3.19	2.48	6.82
CBTSAP		Min	0.45	2.00	3.35	0.18	0.63	3.74
		Max	30.12	49.30	60.40	15.50	17.00	49.32
		Count			501			
		Mean	4.09	35.63	10.95	6.85	1.90	8.17
		Std. Dev	1.89	7.02	6.72	2.68	1.56	3.12
MCBT	100	Min	0.49	4.60	1.21	1.71	0.01	1.68
		Max	25.00	49.80	79.10	15.90	14.75	29.60
		Count			2,02	3		

3.3 Variography

Aguia used GEMS mining software to model the spatial continuity of P_2O_5 , CaO, Fe₂O₃, and MgO in the metacarbonatite (MCBT) domain. Variograms for SiO₂ and Al₂O₃ oxides were not modelled. Aguia modelled the variogram using one spherical structure to MgO and two spherical structures to all other elements (Table 6).

SRK audited the Aguia variogram models by reviewing the detailed GEMS parameters used to generate the variograms, and independently calculated variograms for MCBT domain using the Geostatistical Software Library (GSLib, Deutsch and Journel, 1998).

For each of the four possible elements, SRK assessed three different spatial metrics: (1) traditional semivariogram, (2) correlogram, and (3) traditional semivariogram of normal scores of the element. For CaO, MgO, and Fe_2O_3 , Aguia's fitted model appears to fit reasonably the experimental values based on these three spatial metrics.

SRK found that inference of the P_2O_5 variogram was more challenging than the other three elements; however, the ranges fitted by Aguia appear consistent with other similar phosphate deposits. SRK considers that Aguia's calculation parameters, orientation, and fitted variogram models are appropriate and reasonable given the available data and geological interpretation.

Domain	Variable -	GEMS Rotation (ADA)			Variogram Model							
Domain		Azimuth	Dip	Plunge	Nugget*	Str. No.	Туре	CC*	Y Range	X Range	Z Range	
MCBT	P.O.%	62	0	-90	0.15	1	spherical	0.55	45	100	12.50	
	F 205 /0	62	0	-90	0.15	2	spherical	0.30	45	160	18.00	
MCBT	CaO%	62	0	-90	0.30	1	spherical	0.55	30	90	7.00	
		62	0	-90		2	spherical	0.15	30	160	17.00	
MCBT	MgO%	62	0	-90	0.10	1	spherical	0.90	73	175	13.00	
MCBT		62	0	-90	0.20	1	spherical	0.35	38	75	4.50	
	re ₂ O ₃ %	62	0	-90	0.20	2	spherical	0.45	38	120	7.50	

Table 6: Summary of Aguia Variogram Model Parameters

3.4 Block Model Parameters

A rotated homogeneous block model was generated using GEMS (Table 7). The block model coordinates are based on the local UTM grid (SAD 69 datum, Zone 21S). The block size is 25 by 5 by 10 metres. The model is rotated using GEMS convention at 50 degrees.

Table 7: Três Estradas GEMS Block Model Definition

	Block Size (metre)	Origin* (metre)	No. Blocks	Percent Model	Rotation
Х	25	766,800	125		
Υ	5	6,575,400	300	Yes	50
Ζ	10	50	10		

* (SAD69 datum)

3.5 Estimation

Aguia estimated P_2O_5 , CaO, Fe₂O₃, and MgO grade using ordinary kriging, while inverse distance to a power of two was used for SiO₂ and Al₂O₃. For all elements, three estimations passes were used with progressively relaxed search ellipsoids and data requirements (see Table 8). In all cases, the estimation ellipse ranges and orientations are based on the variogram model for P_2O_5 in the metacarbonatite. The search neighbourhood sizes for the first estimation pass is based on half the variogram range, while those for the second estimation run was adjusted to the full variogram range. The third and final estimation run searched greater than twice the variogram range with the intent to fill the mineralized wireframes. In all passes, the number of composites per hole was unconstrained.

The block model estimates were verified by Aguia using a visual comparison of block grades and composites; statistical comparisons between composites and block model distributions; and statistical comparisons between the estimates performed using ordinary kriging and nearest neighbour estimation.

Dace	No. Co	mposites	GEMS I	Rotation (ADA)	Ra	ange (metr	e)	Search
F a 33	Min	Max	Azimuth	Dip	Plunge	Х	Y	Z	type
MCBT/WC	ЪT								
1	8	15	62	0	-90	80	22.5	9	Ellipsoid
2	6	16	62	0	-90	160	45	18	Ellipsoid
3	2	16	62	0	-90	400	200	100	Ellipsoid
CBTSAP//	AMPSAP								
1	8	15	62	0	-90	80	22.5	9	Ellipsoid
2	6	24	62	0	-90	160	45	18	Ellipsoid
3	2	24	62	0	-90	400	200	100	Ellipsoid

Table 8: Summary of Estimation Parameters

3.6 SRK Audit Work

The SRK audit was conducted in three parts. First, SRK estimated MCBT using the same estimation parameters as Aguia for P_2O_5 . Results showed no difference between the SRK and Aguia estimates; SRK was able to reproduce the Aguia estimates. Secondly, SRK assessed the sensitivity of the estimates to the estimation strategy by varying some parameters to the estimation of P_2O_5 , CaO, MgO, and Fe₂O₃. Specifically, SRK assessed the impact of :

- Minimum and maximum number of composites;
- Extreme values by grade capping and also by imposing a high grade radii of influence;
- Maximum number of composites per borehole for a block estimate imposed for the first pass; and,
- A different estimation method, specifically, inverse distance to a power of two.

Details of specific parameters assessed and sensitivity results are provided in Appendix A. For CaO, MgO and Fe₂O₃, SRK also assessed the impact of the size of the search ellipsoid by customizing the search for each element. This differs from Aguia's approach, whereby the search ellipsoid was based solely on the variogram for P_2O_5 .

This parallel estimation was undertaken by SRK only for the metacarbonatite domain, as this is the largest and most informed domain. For all four elements considered within this domain, SRK observed only slight differences in the grade-tonnage curve due to varying the parameters above. Differences in tonnage at zero cut-off grade were less than 5 percent overall, suggesting that the

Aguia resource model is unbiased. Grade capping was immaterial to the overall average grade in all cases. Similarly, limiting the influence of high-grade composites showed less than 1 percent impact on the overall grade. In general, grade-tonnage comparisons show that the estimates are generally insensitive to these slight changes in estimation parameters.

SRK notes that imposing a maximum number of composites per borehole in the first pass significantly reduced the number of blocks estimated in this pass. This conforms to expectations, and suggests that a broad classification criteria of using the first pass to provide confidence in an estimate is too liberal a criteria. While there was no change in overall tonnage and immaterial impact to the average grade, SRK deems that using the first pass as the sole criteria for differentiating between classified resources is inadequate.

Based on the results of this analysis for the four elements (P_2O_5 , CaO, MgO, and Fe_2O_3) within the metacarbonatite domain, SRK concludes that there is minimal sensitivity to changes in estimation parameters. All elements performed within expectations for the various cases considered. SRK considers that Aguias's estimation parameters are reasonable for resource estimation and that the resultant block model is generally insensitive to the chosen parameters.

Finally, SRK performed a visual validation of the block model by comparing block and drill hole grades on a section by section basis. The resultant block estimates appear to be reasonable given the informing composite grades and estimation parameters.

3.7 Mineral Resource Classification

Mineral resources were classified according to the *Australasian Code for Reporting Mineral resources and Ore Reserves* (2004) by Camila Passos (CREA 5061868179/D) and Dr. Oy Leuangthong, PEng (PEO#90563867), appropriate independent Competent Persons for the purpose of the JORC Code. The mineral resources are classified primarily based on the basis of block distance from the nearest informing composites and on variography results. Classification is based on phosphate estimation data alone:

- Indicated: Blocks estimated in the first two estimation passes (within the variogram range) and based on composites from a minimum of two boreholes; and,
- Inferred: All blocks not classified as Indicated in the first two estimation passes and all blocks estimated in the third estimation run.

Block classification was manually smoothed to define regular areas of Indicated mineral resource category.

SRK concludes that the parameters used to define material classified as Indicated reflect estimates made with a moderate level of confidence, and all other material is estimated at a lower confidence level. Additional infill drilling and sampling is required to support a higher classification. It cannot be assumed that all or any part of an Inferred mineral resource will be upgraded to an Indicated or Measured mineral resource as a result of continued exploration.

4.0 Mineral Resource Statement

The JORC Code (December 2004) defines a mineral resource as:

"[A] concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories."

The "reasonable prospects for eventual economic extraction" requirement generally implies that the quantity and grade estimates meet certain economic thresholds, and that the mineral resources are reported at an appropriate cut-off grade taking into account extraction scenarios and processing recoveries. SRK considers that the phosphate mineralization of the Três Estradas project is amenable for open pit extraction.

In order to determine the quantities of material offering "reasonable prospects for eventual economic extraction" by an open pit, the Lerchs-Grossman optimizing algorithm was used to evaluate the profitability of each resource block based on its value. Optimization parameters, summarized in Table 9, were largely based on optimization parameters used in the preparation of the previous mineral resource statement and discussions between Aguia and SRK.

It should be noted that the pit optimization results are used solely for the purpose of testing the "reasonable prospects for eventual economic extraction" and do not represent an attempt to estimate mineral reserves. Mineral reserves can only be estimated with an economic study. There are no mineral reserves at the Três Estradas project. The results are used to assist with the preparation of a Mineral Resource Statement.

Parameters	Value
Mining recovery / Mining dilution (%)	100 / 0
Process recovery	70
Overall pit slope angle soil-saprolite / Fresh rock (°)	38 / 60
Mining cost (US\$/tonne)	1.70
Process cost (US\$ per tonne of ROM)	5.00
G&A (US\$ per tonne of concentrate)	1.50
Cost of transportation (US\$ per tonne of concentrate)	15.00
Selling price (US\$ per tonne of concentrate at 32%P ₂ O ₅)	200.00
Moisture ROM / Concentrate (%)	6 / 10
Exchange rate (US\$1.00 to R\$)	2.00
Revenue factor	1

Table 9: Assumptions Considered for Conceptual Open Pit Optimizatio	Table 9: Assumptions	Considered	for Conceptual	I Open Pit Optimizatio
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The conceptual pit optimization parameters were deliberately selected to yield an optimistic conceptual pit shell considered for the preparation of the mineral resource statement. SRK believe this approach is appropriate for the reporting of mineral resources.

SRK is of the opinion, however, that for an eventual economic analysis of the potential viability of an open pit mining project, these parameters will be adjusted to reflect current economic conditions and therefore the quantum of mineralized material available to eventual mining may be somewhat less than the quantum of mineral resources declared for this deposit. Resource blocks located within a conceptual pit shell are considered to have reasonable prospects for eventual economic extraction by an open pit and, therefore, can be reported as a mineral resource.

After review of optimization results, SRK considers that it is appropriate to report as a mineral resource those model blocks located within the Três Estradas property, within the conceptual pit envelope and above a cut-off grade of 3.00 percent P_2O_5 (see Figure 3).



Figure 3: Illustration of Estimated Blocks Reported within the the Tres Estradas Property and Within the Conceptual Pit.

Table	10: Audited	Mineral Res	source Sta	atement*, Agu	ia Phosphate	Project, Rio	Grande do Su
State,	Brazil, SRK	Consulting	(Canada)	Inc., Februar	y 19, 2013		

	Tonnage	P_2O_5	CaO	MgO	Fe ₂ O ₃	SiO ₂	AI_2O_3	RCP [†]	$P_2O_5AP^{\mp}$				
Lithotype	T x 1000	(%)	(%)	(%)	(%)	(%)	(%)		(%)				
Indicated Mineral Resources													
Saprolite													
SAMM (amphibolite)	123	5.29	10.85	6.90	15.84	39.88	8.49	2.14	5.29				
SCBT (carbonatite)	1,156	11.32	20.08	3.74	19.98	25.60	4.92	2.17	11.23				
Weathered													
WCBT (carbonatite)	1,168	5.85	34.85	5.49	10.46	13.16	2.10	6.99	5.85				
Fresh Rock													
MCBT (carbonatite)	7,143	3.78	35.36	7.20	7.93	10.74	1.90	9.54	3.78				
Total Indicated	9,590	4.96	33.15	6.57	9.79	13.19	2.37	8.24	4.95				
	lı lı	nferred	Mineral	Resou	rces								
Saprolite													
SAMM (amphibolite)	74	5.69	11.55	6.70	16.74	38.70	8.47	2.19	5.66				
SCBT (carbonatite)	296	10.82	17.57	3.92	19.56	28.82	5.78	1.86	10.74				
Weathered													
WCBT (carbonatite)	247	4.80	36.77	5.98	8.86	10.76	1.87	8.49	4.80				
Fresh Rock													
MCBT (carbonatite)	18,280	3.75	35.65	7.38	7.70	10.09	1.79	9.66	3.75				
Total Inferred	18,897	3.88	35.28	7.31	7.93	10.50	1.88	9.49	3.88				

^r Mineral resources are not mineral reserves and do not have 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, we athered and fresh rock mineralization. Optimization parameters include selling price of US\$200.00 per tonne of concentrate at 32 percent of P_2O_5 , a metallurgic recovery of 70 percent of P_2O_5 , 100 percent for mining recovery and 0 percent dilution and overall pit slopes of 38 and 60 degrees

[†] CaO/ P₂O₅ Ratio

 P_2O_5 contained in apatite

4.1

Table 11 shows the comparison between the June 2012 and February 2013 Mineral Resource Statements. While the additional 126 boreholes drilled in mid to late 2012 have resulted in an overall increase of 34 percent in reported tonnage, the most significant impact of this additional drilling is the upgrading of the 34 percent of the total resource from the Inferred to Indicated category.

Classification	Quantity		Grade									
Classification	('000 tonnes)	P_2O_5	CaO	MgO	Fe ₂ O ₃	SiO ₂	AI_2O_3					
		(%)	(%)	(%)	(%)	(%)	(%)					
June 2012												
Indicated	-	-	-	-	-	-	-					
Inferred	21,330	4.63	34.30	7.10	8.85	11.94	2.09					
February 2013												
Indicated	9,598	4.96	33.14	6.57	9.79	13.20	2.38					
Inferred	18,888	3.88	35.29	7.31	7.93	10.50	1.88					

 Table 11: Comparison Between June 2012 and February 2013 Mineral Resource Statements

The closer spaced boreholes drilled during that period increased the confidence in the geological interpretation and the continuity of of the phosphate mineralization and, thus, delivered a positive impact to the mineral resource evaluation.

The mineral resources of Três Estradas are highly sensitive to the selection of a reporting cut-off grade. To illustrate this sensitivity, the grade tonnage curves for each resource category is shown in Figure 4.



Figure 4: Três Estradas Grade Tonnage Curves by Resource Category: Within Pit Material and Within the Aguia Property

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APPENDIX A

Sensitivity Analysis for MCBT due to Estimation Parameters

The tables below summarize the sensitivity analyses performed by SRK for the metacarbonatite (MCBT) domain for P_2O_5 , CaO, MgO and Fe₂O₃.

Variable	Casa	Data	Max	Est	imat	ion Pass 1	Es	timati	ion Pass 2	Estimation Pass 3			
Variable	Case	Data	Per Hole	Min. I	Max.	Search Type	Min.	Max.	Search Type	Min.	Max.	Search Type	
	Base Case	Uncapped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK1	Uncapped		4	8	Elliptical	4	12	Elliptical	4	16	Elliptical	
	SRK2	Uncapped		10	15	Elliptical	5	16	Elliptical	2	20	Elliptical	
	SRK3*	Uncapped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK4	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
$P_2O_5\%$	SRK5**	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK6	Uncapped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK7**	Capped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK8**	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK9***	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK10****	Capped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	

* Influence of composites with P_2O_5 grades of 11% or higher is limited to 1/3 search ellipse

** SRK modelled variogram and SRK chosen capping values used, with search ellipse ranges reflecting the SRK variogram model *** ID2 (100/100/10)

Variable Case		Data	Max	Esti	matio	on Pass 1	Es	timat	ion Pass 2	Estimation Pass 3		
		Dala	Per Hole	Min.	Max.	. Search Type	Min.	Max.	Search Type	Min.	Max.	Search Type
	Base Case	Uncapped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK1	Uncapped		4	8	Elliptical	4	12	Elliptical	4	16	Elliptical
	SRK2	Uncapped		10	15	Elliptical	5	16	Elliptical	2	20	Elliptical
CaO%	SRK4	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK6	Uncapped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK8*	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK10**	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical

* Search (15/80/9) for 1st pass, 2x for 2nd pass

** ID2 (50/50/10)

Variable	Casa	Data	Max	Est	timat	tion Pass 1	Es	timat	ion Pass 2	Estimation Pass 3		
variable	Case		Per Hole	Min.	Max.	Search Type	Min.	Max.	Search Type	Min.	Max.	Search Type
	Base Case	Uncapped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK1	Uncapped		4	8	Elliptical	4	12	Elliptical	4	16	Elliptical
Ma 00/	SRK2ile	Uncapped		10	15	Elliptical	5	16	Elliptical	2	20	Elliptical
wg0%	SRK4	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK6	Uncapped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK8*	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical
	SRK10**	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical

* Search (40/90/6) for 1^{st} pass, 2x for 2^{nd} pass

** ID2 (50/50/10)

Variable	Case	Data	Max	ax Estimation Pass 1				timat	ion Pass 2	Estimation Pass 3			
variable			Per Hole	Min.	Max.	Search Type	Min.	Max.	Search Type	Min.	Max.	Search Type	
	Base Case	Uncapped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK1	Uncapped		4	8	Elliptical	4	12	Elliptical	4	16	Elliptical	
	SRK2	Uncapped		10	15	Elliptical	5	16	Elliptical	2	20	Elliptical	
Fe ₂ O ₃ %	SRK4	Capped		8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK6	Uncapped	7	8	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK8*	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical	
	SRK10**	Capped	10	11	15	Elliptical	6	16	Elliptical	2	16	Elliptical	

* Search (20/60/4) for 1^{st} pass, 2x for 2^{nd} pass

** ID2 (50/50/10)

The figures below illustrate the results from these sensitivities in the form of grade-tonnage curve comparisons.





Estimation Sensitivity Analysis for P_2O_5 (top) and CaO (bottom) in MCBT domain





Estimation Sensitivity Analysis for MgO (top) and Fe₂O₃ (bottom) in MCBT domain