



**NI 43.101 TECHNICAL REPORT FOR THE
JARDIM DO OURO PROJECT, PARÁ STATE, BRAZIL**

Prepared for
Serabi Mining plc.

Dated December, 9, 2010

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LIST OF ABBREVIATIONS

Abbreviation	Unit or Term
%	Percent
°	degrees of longitude, latitude, compass bearing or gradient
<	less than
>	greater than
AA	atomic absorption
m a.s.l.	Meters above sea level
Au	Gold
° C	degrees Celsius
3-D	three-dimensional
CIL	carbon-in-leach
cm	centimetre(s)
cm ³	cubic centimetre(s)
g	Grams
E	East
g/cm ³	grams per cubic centimetre
g/t	grams per tonne
GPS	global positioning system
ha	hectare(s)
in	inch(es)
kg	kilogram(s)
Koz	thousand ounces
kg/t	kilograms per tonne
km	kilometre(s)
Ktonnes	Thousand tonnes
kWh	Kilowatt hour
M	million(s)
m	metre(s)
m ³	cubic metre(s)
N	North
ppb	parts per billion
ppm	parts per million
RC	reverse circulation drilling
S	South
SG	specific gravity
T	tonne(s)
US	United States
US\$	US dollar(s)
UTM	Universal Transverse Mercator
W	West

1. SUMMARY AND CONCLUSIONS

Serabi Mineração S.A (Serabi), a 100% owned subsidiary of Serabi Mining PLC commissioned NCL Brasil Ltda (NCL) to provide an independent Qualified Person's Review and Technical Report for its Jardim do Ouro Property, which is a block of exploration properties located in the prolific gold province of Tapajós. In this property, Serabi operated a gold mine from 2004 to December 2008, known as Palito mine, which produced around 30,000 ounces/annum. Rodrigo Mello, Geologist, MAusIMM, and Eduardo Rosselot, Mining Engineer, CEngIMMM, both from NCL, served as the Qualified Persons responsible for the preparation of the Technical Report. This document follows the recommendations of the National Instrument 43-101, Standards of Disclosure for Mineral Projects and in compliance with Form 43-101F1. The purpose of it is to support the listing of Serabi into the Toronto Stock Exchange (TSX)

Serabi is a British public company, listed on the Alternative Investment Market in the United Kingdom with its registered office at 66 Lincoln's Inn Fields, London, WC2A 3LH.

NCL prepared a first public technical report for this property in September, 2008. In that report, reserves were disclosed for the first time, based on a mine plan produced by NCL and on metallurgy results routinely obtained in the processing plant. However, during 2008 an unforeseen delay in essential capital equipment severely damaged the company's ability to properly develop the mine ahead of production. Ultimately this led to the operation requiring a sustained period of mine development by late 2008. This could only be achieved with additional working capital, which was generally unavailable at the time, due to the global financial crisis which had undermined access to new capital. As a result, the decision was taken to suspend mining activities, with the mine put into care & maintenance in December, 2008. These previously declared mineral reserves are mentioned in this report for public information only, because NCL considers that additional studies are necessary to assure the feasibility of resuming the economic exploitation in the Palito Mine. Therefore, no mineral reserves, as defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), are declared in this report.

Differently than this first report, which had as main objective to demonstrate the feasibility of the known mineral resources in the Palito mine, the present report focus is toward the demonstration of the exploration potential of the Jardim do Ouro property, as a whole. The mineral resources are CIM compliant and are reported here without any deduction due to mining along the few months between the effective date of the report (31ST March, 2008) and the suspension date. Nevertheless, the production occurred is reported separately.

The Jardim do Ouro property is located in Northern Brazil, in the region called Tapajós valley, in the south-western portion of the Pará State. The Property comprises one mining concession, where the Palito mine is located, along with 3 other exploration permits and 6 exploration permit applications, as detailed in the item 4.2. The total area is 55,637 ha.

Besides Jardim do Ouro, Serabi explores two other separate project areas, in the same Tapajós province, which are not discussed in this technical report: the Modelo property, in the state of Pará, with 47,012 ha in three exploration permits and two applications; and the Pison property, in the state of Amazonas, represented by 19,561 ha in one exploration permit and one application. NCL was informed that Serabi does not currently intend to engage in significant exploration activities on these properties in the following 18 months.

Gold has been mined in the Tapajós region since the eighteen century. Gold mineralization was first recognized on the Jardim do Ouro property during the 1970's by *garimpeiros* (the name used in Brazil for artisanal miners). Modern exploration was initiated in 1995 by RTDM, a Brazilian subsidiary of Rio Tinto Plc, which conducted surface geochemical sampling, auger drilling, ground and airborne geophysics, and diamond drilling, in the Jardim do Ouro area. Serabi acquired the project in 2001 from different *garimpeiros*. Initially, Serabi re-treated the gold tailings left by the *garimpeiros*, raising enough cash to start underground mining in late 2003 and put in production a CIP plant in August 2004, with a crushing plant and a flotation circuit. The mine was in continuous underground production until December 2008, when production ceased, except for sporadic and low intensity surface mining aimed at cash raising for maintenance of the area.

Exploration activities continued over the neighbouring areas, in order to encounter additional resources which could justify further investments in the mine. The main tool was a helicopter borne aero-magnetic survey, VTEM, run in 2008, and the reprocessing of 2002 ground IP data, generating a complete dataset integration which allowed a much better understanding of the geology and the exploration potential of the area. Trenching over one of the anomalies outlined by this work revealed significant grades. A drilling program has already been prepared, depending on funding and rig availability to be started.

The gold mineralization at Palito is hosted within all three granitoids encountered in the Palito Mine environment and is intimately associated with vertical to sub-vertical quartz-chalcopyrite-pyrite veins and pyrite disseminations filling brittle extensional faults. The nature of the sulphide mineralization at the Palito deposit varies along strike and plunge extents. The deposit is a quartz-sulphide and massive sulphide vein deposit hosted within a granites and granodiorites of the Parauari Suite of intrusives.

The mineral resources evaluation was performed using a total of 99,097 m in 841 drill holes drilled between 1995 and 2008, including 94,536 m of diamond drilling in 787 drill holes, and 4,561 m of reverse circulation/RAB drilling in 54 drill holes. From those, only 1,610 m of diamond drilling were not performed by Serabi. Subsequent to the mineral resource estimation, Serabi drilled a further 10,256 m of core, 8,123 m being surface holes and 2,133 m of underground holes. This drilling was generally aimed at infill the known mineral resources or step out drilling, along the mineralized zone of the Palito mine. This additional information has not yet been incorporated into the resource block model which is reported here.

To prepare the resource estimate, NCL used the data available at March 31, 2008. Geological interpretation for twenty five mineralized structures were prepared by NCL geologists under supervision of Serabi exploration personnel, who supplied also the topographic surface, development solids and mined out limits. Interpolation of grades for gold and copper was prepared using ordinary Kriging. The results of these 3-D block models, applying a cut-off grade of 1.0 g/t Au are summarized in Table 1-1.

Since this date, limited mining has occurred. Production Q2-2008 to Q2-2010, when mining stopped, was only of 191 Ktonnes at 3.67 g/t Au, most of it being sourced by oxide sources not included in this resource table. Depletion of the resources table is estimated as 66 Ktonnes at 4.16 g/t, for 8,799 ounces of gold.

Table 1-1 – Mineral Resource Estimate Summary as at 31 March, 2008

Mineral Resource Estimate as March 31, 2008	tonnage	Gold (g/t Au)	Copper (%Cu)	Contained Gold Ounces	Contained Gold Equivalent Ounces
Measured Resources					
Palito Main Zone (PMZ)	97,448	9.51	0.26	29,793	32,045
Palito West (PW)	-	-	-	-	-
Chico da Santa (CS)	-	-	-	-	-
Ruari Ridge (RR)	-	-	-	-	-
<i>Total Measured Resources</i>	<i>97,448</i>	<i>9.51</i>	<i>0.26</i>	<i>29,793</i>	<i>32,045</i>
Indicated Resources					
Palito Main Zone (PMZ)	593,175	7.15	0.23	136,417	148,546
Palito West (PW)	46,844	13.16	0.26	19,825	20,902
Chico da Santa (CS)	78,987	5.91	0.23	15,011	16,681
Ruari Ridge (RR)	34,740	4.85	0.22	5,420	6,100
<i>Total Indicated Resources</i>	<i>753,745</i>	<i>7.29</i>	<i>0.23</i>	<i>176,673</i>	<i>192,228</i>
TOTAL Measured + Indicated	851,193	7.54	0.23	206,466	224,272
Inferred Resources					
Palito Main Zone (PMZ)	821,405	6.04	0.18	159,614	172,927
Palito West (PW)	200,256	8.22	0.23	52,934	57,140
Chico da Santa (CS)	434,664	6.01	0.23	84,036	93,100
Ruari Ridge (RR)	631,417	4.74	0.43	96,232	120,789
<i>Total Inferred Resources</i>	<i>2,087,741</i>	<i>5.85</i>	<i>0.27</i>	<i>392,817</i>	<i>443,956</i>

Obs:

- Numbers may not add up due to rounding.
- Equivalent gold is calculated using an average long-term gold price of US\$700 per ounce, a long-term copper price of US\$2.75 per pound, average metallurgical recovery of 90.3% for gold and 93.9% for copper

NCL concludes the following:

- NCL consider that the limits of the deposit are not well defined, with several zones where the limits are still open. Besides the down dip projection of all orebodies, the most important veins, the G2 and G3 at the PMZ area, are open to the North. The other orebodies are relatively insufficiently closed.
- The level of understanding of the structure, alteration and mineralization at Palito is reasonable for adequate resource evaluation; however, the relationship among them could be improved, thus improving the mine reconciliation.
- Mineralization is well defined in its lateral limits, but is open at the strike extension for most of the orebodies:
- For PMZ, the main veins (G2 & G3) are open to the north, while three of the smaller veins (Cedro, Jatobá and Munguba) are open to both ends.
- The orebodies Ruari's Ridge (Sena) and Chico da Santa are open in both directions, to the north and to south.
- None of the orebodies are closed at depth.
- The Palito laboratory gold results were accepted for the grade interpolation, after transforming any value lower than 0.70 g/t to 0.01 g/t Au. This procedure was used to eliminate the portion of the results with uncertainty greater than the acceptable. However, this procedure does not correct the fact that average grades of channel and UG drillholes, analysed by wet chemistry at the Palito Laboratory, are higher than

nearby exploration holes, analysed by Fire Assay at SGS. This is not fully understood and requires further investigation.

- NCL states that significant infrastructure is available at the Palito mine site. This infrastructure includes the Palito underground mine, ore processing facilities, tailings storage facilities, power and water supply facilities, a mine camp, access roads and an air strip. The mentioned facilities are in good state of conservation, which would allow the resumption of mining activities on a short time frame and with relatively low investments if Serabi decides to do so.
- NCL supports Serabi's decision of focusing the investments on brownfields exploration. Additional resources would improve the economics of the mine, diluting fixed costs and diminishing the risks. The exploration potential of the Jardim do Ouro property is considered high. This perception is supported by the demonstrated gold endowment of the area, the geophysical anomalies (VTEM and IP) revealed and the data integration work, which leads to the impression that other Palito mineralized systems may be discovered within distance to the mill feasible for truck transport.

NCL recommends that

- The structure affects the mineralization through slip faults which dislocate the veins laterally and possibly through the control of high grade shoots within the veins. The former is a problem for mine planning and grade control and the latter could be used for better use the deposit. Structural mapping may be useful in both situations.
- The Quality Control protocol should be modified, following the recommendations detailed in the item 14-1. Batches which failed the Quality Control acceptance threshold, either for blanks and standards, need to be repeated by the laboratory.
- Exploration program must continue to test the geophysical anomalies and determine the true potential of the area. A budget of US\$ 9.69 million is proposed to develop the exploration activities along a period of 18 months. It includes the near mine (up to three km to the existing facilities) and greenfields, if farther than this distance. Support activities and corporate expenses are also included. This recommendation is detailed in the chapter 10.

2. INTRODUCTION AND TERMS OF REFERENCE

2.1 INTRODUCTION

During September 2010, Serabi Mining PLC (Serabi) retained the services of NCL Brasil Ltda (NCL) to prepare a Technical Report (the Report) covering its Jardim do Ouro property (JDO), located in the Tapajós Region, Northern Brazil. The purpose of this report is to support the listing of Serabi on the Toronto Exchange (TSX). The JDO property could be considered a Tier 1 property, according to the definition of Corporate Finance Manual, of the TSX Venture.

JDO is a group of claims in the Tapajós valley, in the Brazilian Amazon, famous for its gold endowment. The property is formed by ten claims of different types, totalling 55,637 hectares. This report is largely based on a previous technical report produced by NCL and dated September, 2008. In that report, reserves were disclosed, based on a mine plan produced by NCL and on metallurgy results routinely obtained in the processing plant. However, during 2008 an unforeseen delay in essential capital equipment severely damaged the company's ability to properly develop the mine ahead of production. Ultimately this led to the operation requiring a sustained period of mine development by late 2008. This could only be achieved with additional working capital, which was generally unavailable at the time, due to the global financial crisis which had undermined access to new capital. As a result, the decision was taken to suspend mining activities, with the mine put into care & maintenance in December, 2008. These historical reserves are reported for public information and do not comply with the CIM definition for mineral reserves, due to the need of additional studies to assure the feasibility of economic exploitation.

The main objective of the 2008 report was to demonstrate the feasibility of the known mineral resources in the Palito mine, whilst this report focuses upon demonstrating the exploration potential of the Jardim do Ouro property, as a whole. The mineral resources are CIM compliant and are reported here without any deduction due to mining along the few months between the effective date of the report (31ST March, 2008) and the suspension date. Nevertheless, the production occurred is reported separately. A mine schedule is presented, to support the assumption that the mineral resources reported have reasonable prospects of economic extraction.

In preparing this report, NCL relied on reports, studies, maps, databases and miscellaneous technical papers listed in the References section of this report. Additional information and data for NCL's review and studies were obtained from Serabi on site.

2.2 TERMS OF REFERENCE

The scope of work of the original 2008 technical report included an initial review of the available information, assistance in respect to aspects of sample quality; interpretation (together with the Serabi's geological team) and preparation of the geological model; resource estimate; mine scheduling; and the preparation of the Report. For the present report, NCL carried out an update of the geologic knowledge, reviewed exploration results and verified the mining activities occurred since the effective date of the 2008 report, March 31st, 2008.

Rodrigo Mello, consulting geologist and geostatistician, completed the initial site visit from 3 to 7 July 2007. In this visit, besides the familiarization with the geology and site conditions, the laboratory was visited and aspects of Quality Control were discussed. Mr. Mello returned to the site in August, 2007, to start up the geological interpretation together with the site geologists. Two other geologists from NCL were also involved, visiting in the mine four times.

Their main duties were related to work with mine staff in the geological interpretation and 3D model construction, besides database reviews and checks.

Eduardo Rosselot, mining engineer and NCL's associate consultant, visited the property from September 24 to 26, 2010. The focus of the visit was to assess the production that took place at the Palito Mine after NCL's Technical report of September 2008, and to review the current status of the project. The condition of the mine infrastructure was reviewed, considering that it has been in care and maintenance for some time. Mr. Rosselot also visited the property several times in 2007 and 2008, providing consulting services.

Database validation, preparation of vertical geological interpretation solids modelling and geostatistical analysis of the drill hole data were conducted. An assessment was also made of the quality of these data relative to industry standard practices.

NCL is not an associate or affiliate neither of Serabi, nor of any associated company, or any joint-venture company. NCL's fees for this Technical Report are not dependent in whole or in part on any prior or future engagement or understanding resulting from the conclusions of this report. These fees are in accordance with standard industry fees for work of this nature, and NCL's previously provided estimates are based solely on the approximate time needed to assess the various data and reach appropriate conclusions. This report is based on information known to NCL as of May 30, 2010.

All measurement units used in this report are metric, and currency is expressed in US dollars, unless stated otherwise. The currency used in Brazil is the Real (BR).

3. RELIANCE ON OTHER EXPERTS

The results and opinions expressed in this report are based on NCL's field observations and the geological and technical data listed in the References (Section 22). While NCL has carefully reviewed all of the information provided by Serabi and believes the information to be reliable, NCL has not conducted an in-depth independent investigation to verify its accuracy and completeness.

The authors have not reviewed any legal issues regarding the land tenure, or Serabi corporate structure nor independently verified the legal status or ownership of the Property. NCL has relied upon opinion supplied by Serabi. The authors have not reviewed issues regarding Surface Rights, Road Access, Permits and the environmental status of the Property and have relied upon opinions supplied by Serabi representatives.

The item concerning metallurgical process was prepared by Serabi. NCL does not have the expertise to evaluate the accuracy of such information. However, the Palito ore has been subject to several metallurgical testwork programs from 2004 to 2007, and since a full scale metallurgical plant has been operating continuously at the Palito Mine since Q3 2004 for almost 5 years, with approximately 575,000 T of ore processed, and approximately 100 kOz of Au produced, there is plenty of hard data on the metallurgical behaviour of the project's ore.

The results and opinions expressed in this report are conditional upon the aforementioned geological, costing and legal information being current, accurate, and complete as of the date of this report, and the understanding that no information has been withheld that would affect the conclusions made herein. NCL reserves the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to NCL subsequent to the date of this report. NCL does not assume responsibility for Serabi's actions in distributing this report.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Jardim do Ouro property is located in the Tapajós Mineral Province in the south east part of the Itaituba Municipality in the west of Pará State in central north Brazil, near the eastern municipal boundary with the Novo Progresso Municipality (Figure 4-1).

The most important feature of the property is Palito Mine, which lies some 4.5km south-west of the village of Jardim do Ouro and approximately 15km via road. This village lies on the Transgarimpeira Road some 30km WSW of the town of Moares de Almeida, located on the junction of the Transgarimpeira and the BR 163 or Cuiabá – Santarém Federal Highway. Moraes de Almeida is approximately 300km south south-east by road of the municipal capital and similarly named city of Itaituba.

Figure 4-1 – Location of the Tapajós Mineral Province



4.2 PROJECT OWNERSHIP

The Jardim do Ouro property is formed by 13,950Ha of tenements granted in the Tapajós Province including 1,150Ha of mining lease. In addition, there 41,687 ha in mineral exploration licence applications or extensions, which Serabi considers as very likely to be granted. Total area considered for this property is 55,637 ha. The Figure 4-2 depicts the property in relation to the Tapajós province and the Figure 4-3 shows the distribution of the areas within the property.

The JDO property is constituted by the following areas:

- 850.175/2003, a granted mining concession published on the 23/10/2007, of 1150 hectares. This mining concession is valid until the extraction of mineral resources is complete or cessation of mining activities.

- 850.174/2005, an exploration licence extension permit published on the 8/09/2009, of 7920 hectares, valid until 8/9/2012.
- 850.643/2003, an exploration licence extension permit, published on the 8/09/2009 of 4206 hectares, valid until the 8/09/2012.
- 850.192/2002, an exploration licence permit, published on the 12/03/2008 of 673.43 hectares, valid until 12/03/2011.
- 850.386/2004, an exploration licence extension application, published on the 17/09/2004 of 8295.82 hectares, submitted on 16/07/2007, awaiting publication of extension of licence.
- 850.291/2004, an exploration licence application of 10000 hectares, submitted on the 25/06/2004, awaiting publication of grant.
- 850.496/2005, an exploration licence application of 10000 hectares, submitted on the 13/07/2005, awaiting publication of grant.
- 850.495/2005, an exploration licence application of 9992 hectares, submitted on the 13/07/2005, awaiting publication of grant.
- 850.282/2005, an exploration licence application of 1538.67 hectares, submitted on the 10/05/2005, awaiting publication of grant.
- 850.006/2010, an exploration licence application of 1860.83 hectares, submitted on the 5/02/10, awaiting publication of grant.

To retain the exploration properties, Serabi will need to pay an annual payment to the DNPM (Departamento Nacional de Produção Mineral, the Brazilian authority responsible for mining) which is presently calculated as R\$2.02 per hectare for a granted exploration licence, and R3.06 per hectare for an exploration licence extension. To maintain the mining licence, Serabi must comply with the conditions set out by the DNPM in respect to annual reporting and environmental compliances, but no taxes are owed, except those incurring over production.

The annual commitments of these licences are as follows:

Licence Number	Licence Type	Hectares	Annual Commitment Br R\$	Potential Commitment Br R\$
850.175/2003	Mining concession	1,149.59		
850.643/2003	Exploration licence	4,204.76	12,867	
850.386/2004	Exploration licence	8,293.27	25,377	
850.174/2005	Exploration licence	7,917.47	24,227	
850.192/2002	Exploration licence	673.19	2,060	
850.291/2004	Application	9,995.38		20,191
850.282/2005	Application	1538.67		12,339
850.495/2005	Application	9,987.90		20,175
850.496/2005	Application	9,995.47		20,191
850.066/2010	Application	1,860.83		3,759

DNPM legislation allows for the extension of up to 3 years for exploration properties beyond the period of validity, through the process of report presentation and application for an extension. Those exploration tenements presently granted as exploration extension licence, cannot be renewed and must either be relinquished or can be upgraded to a mining concession through submission of an application including a mineral resource statement, economic assessment and mining plan and schedule.

Mining concessions are valid until extraction of the resources or cessation of mining. The mining license is valid for an indefinite period. There are no annual fees associated with the maintenance of that license but the company is subject to paying royalties to the state on any production of minerals. The acronym for this royalty is CFEM. The CFEM rates for gold, silver and copper, the primary products of Palito, are currently 1,0%, 0,2% and 2,0%.

Under the mining law the holder of a mining license is required to hold an Operating Licence granted in this case by Secretaria de Estado de Meio Ambiente (SEMA) for the State of Para. This period of validity for such a license has a minimum of four years and a maximum of five years, after which a renewal may be requested. Serabi's current license was issued for a period of two years and expired on 12 December 2010. Serabi has made the necessary application for the license renewal, and whilst the company awaits final approval from SEMA, the current license is automatically extended.

Exploration property boundaries are located by means of geographic coordinates for each vertex, which are published in DNPM gazette and on the DNPM website. The mining concession is marked by embedded cement filled pylons, at each vertex of the concession, marked in accordance with the published vertices in the DNPM.

The following plans illustrate Serabi's mineral rights and applications in the Tapajós and the Jardim do Ouro project specifically.

Figure 4-2 – Serabi Controlled exploration and mining tenements in the Tapajós Province

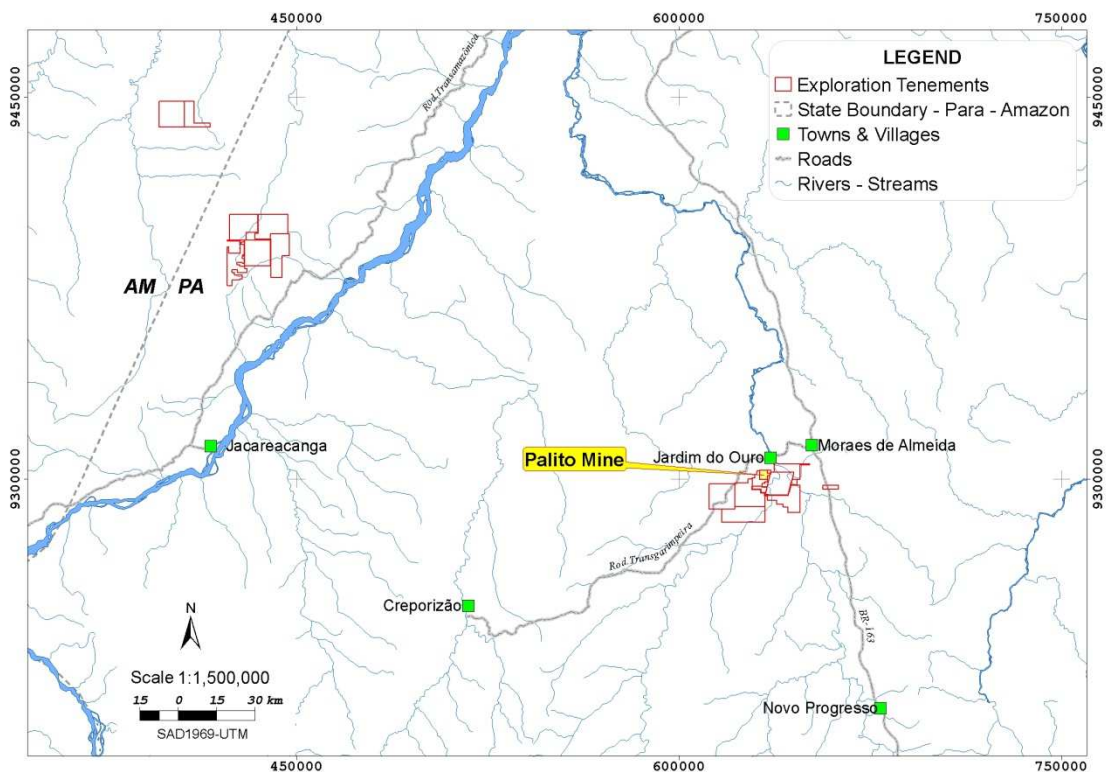
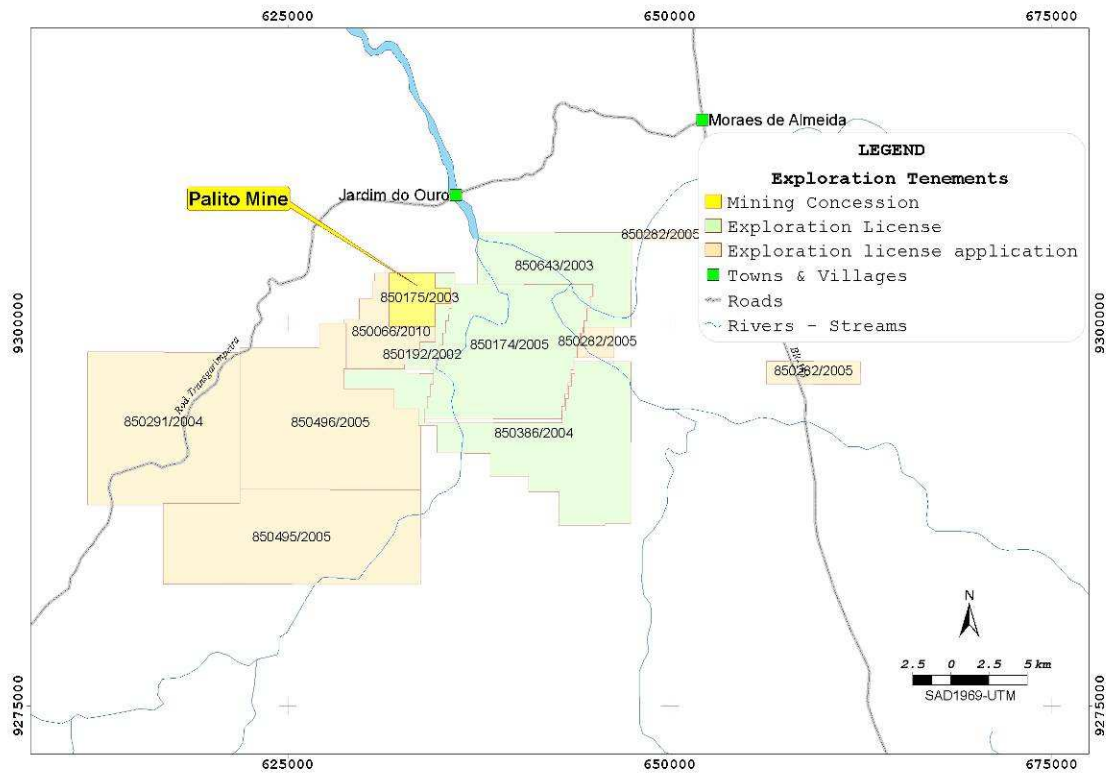


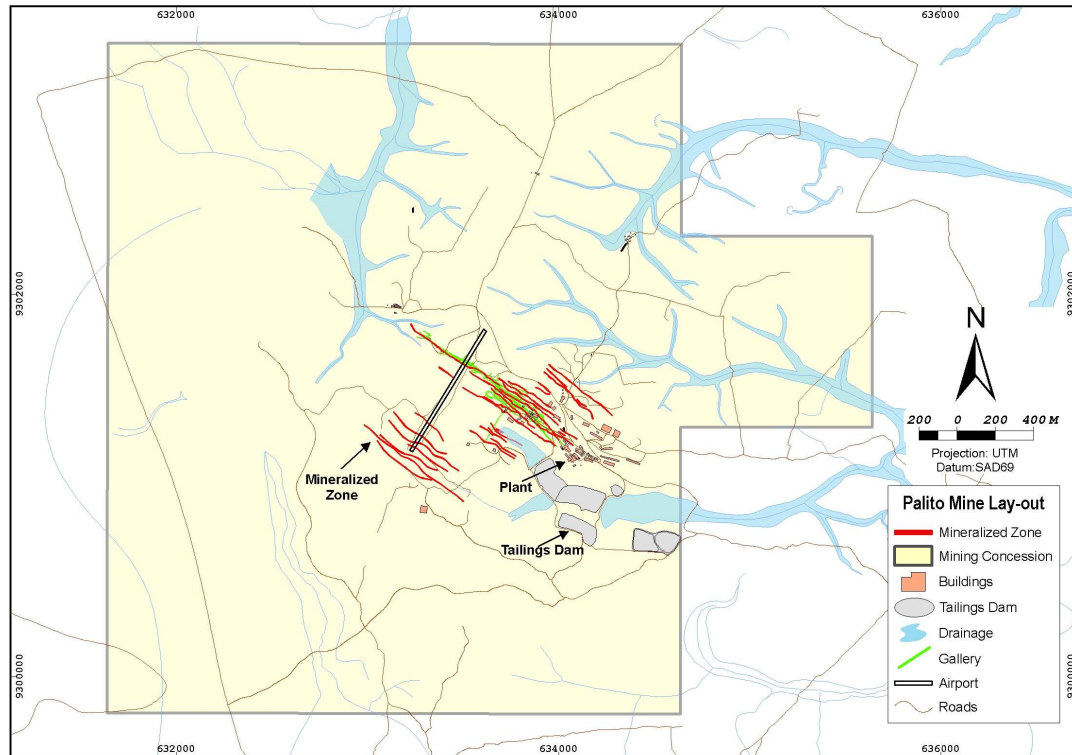
Figure 4-3 – Plan illustrating Serabi's Jardim do Ouro Project Tenements



Besides Jardim do Ouro, Serabi operates two other separate project areas, in the same Tapajós province, which are not covered in this technical report; the Modelo property, in the state of Pará, 47,012 ha in three exploration permits and two applications, and the Pison property, in the state of Amazonas, represented by 19,561 ha in one exploration permit and one application. The disposition of these properties, in relation to the Jardim do Ouro property, is depicted in the Figure 4-2.

As required by the Form 1 of the NI 43.101 (item 6-f), the mining concession is depicted along the mineralized veins and mine workings and facilities, in the Figure 4-4.

Figure 4-4 - Mine concession, known mineralized zones and Palito mine facilities



4.3 SURFACE RIGHTS

Serabi initially acquired the surface rights to the immediate Palito mine area through a purchase agreement with the existing garimpeiros entered into in 2002 and since that time has acquired from other garimpeiros and / or farmers additional parcels of land with the intention of securing the surface rights. It has also entered into agreement with other parties for access rights in return for making monthly rental payments.

In total these surface rights cover a total area of 981 Ha, out of the total Jardim do Ouro tenements. Serabi informed NCL that in the period it has operated in the Jardim do Ouro, it was never aware of another party contesting Serabi's surface rights. Under the rental agreements that Serabi has entered into it is obliged to pay a total of BrR\$270,000 per annum.

Should Serabi wish to carry out surface exploration activities in areas that are not covered by existing agreements it will be necessary for the Company to identify those parties with reasonable claims to the surface rights and negotiate purchase or rental agreements at that time. Under law in the event that the Company is unable to negotiate with an existing surface rights holder, the Company may where it holds the exploration licences, refer the matter to the DNPM and the courts who have power to intervene and establish a compensation fee appropriate to the financial value of the land to the existing surface rights holder and grant access for exploration to Serabi.

Of these surface rights 865 hectares lie within the mining licence.

4.4 ENVIRONMENTAL LIABILITIES

The Jardim do Ouro project contains significant ground disturbance within the Palito Mining lease (850.175/2003), as part of the Palito mining and processing activities. Serabi has complied and is in compliance with all environmental regulatory requirements related to the exploration and mining activities pursuant to Brazilian environmental laws, and has taken all necessary actions in order to keep the environmental licences and permits in force, valid and in good standing

Within the Jardim do Ouro project, outside of the Palito mine lease ground disturbance has been primarily by garimpo activities, restricted mainly to creeks, including shallow water filled pits and small open pits from which saprolitic materials have been hydraulically extracted and processed by gravity separation. Serabi has conducted a small program of diamond drilling outside of the mining lease in exploration lease 850.174/2005, consisting of drill pad placement and access road construction. To date this has not been remediated, as ongoing exploration in the area required the disturbed areas to remain active.

Serabi presented a closure plan to the Brazilian mining authority, as part of the plan of economic usage of the mine, required for the mining license application. In this plan, a value close to R\$ 2.5 million was estimated to cover closure costs, spread along a period of three years, after the mine exhaustion. Due to this estimate, a value of US\$ 1.05 million has been accrued in the accounting books of Serabi for this purpose. This value constitutes the present value of that estimate, sufficient for the minimum Brazilian requirements. However, Serabi informed NCL that it has plans of further investments for remediation of historical mining impacts, produced by the garimpeiros.

5. ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSABILITY AND INFRASTRUCTURE

Access to the area from Itaituba can be achieved by an unsealed road, crossing the Tapajós River at Itaituba via ferry and disembarking at the village of Mirituba, located on the southern bank of the river, opposite Itaituba. The road continues 30km south of Mirituba along the BR 230 or Transamazonica Road, where the BR 230 terminates at the BR163. The road continues a further 270km and 43 bridges south along the BR 163 to Moraes de Almeida and a further 30km WSW along the Transgarimpeira via Jardim do Ouro, located on the Jamanxim River. In Jardim do Ouro, a second ferry is required to traverse the river to the western bank. A further 2km west of the village the Palito Mine access road turns south for a further 12km before arriving at the Palito Mine site, located in the Jardim do Ouro Project Area.

Alternatively road access can be gained from Santarém to the NE or from Cuiabá to the south in Mato Grosso state via the BR 163, taking the Transgarimpeira Road at Moraes de Almeida to Jardim do Ouro and on to Palito.

Road access to the Palito Mine site can be restricted during the tropical wet season from December to May each year.

Access can also be gained by air from Itaituba or alternate airstrips (Santarem or Novo Progresso) using light aircraft. Palito and Jardim do Ouro have 800m airstrips of compacted earth which are approximately 1 hour flying time from Itaituba or 1.5 hours flying time from Santarem.

Itaituba is a well established centre with port facilities capable of handling barge transport of heavy equipment and airport facilities for large freight aircraft. The Palito Mine receives much of its supplies and dispatches its copper-gold concentrate product via barges accessed from Itaituba and trucked to site and vice versa.

Electric grid power has been brought to the mine site via a spur line from Novo Progresso. Backup power is supplied by a fleet of onsite diesel fired generators.

5.2 PHYSIOGRAPHY, CLIMATE AND VEGETATION

The Jardim do Ouro Project lies in a region termed the Tapajós valley, specifically in the region termed the Rio Novo Basin, located in the central eastern portion of the Brazilian IBGE SB.21.ZA map sheet, on the left margin of the Rio Novo, proximal to the confluence of the Rio Novo and Jamanxim rivers. These rivers in turn drain north into the Tapajós River near Itaituba and then north east into the Amazon River downstream at Santarém.

The Palito Mine lies at an elevation of 260m RL at the approximate coordinates:

Geographic: 55°47' 31.3" W, 6°18' 54.1" S

UTM : SAD 69, Zone 21S; 633617mE, 9301813 mN

Local physiography consists of a rugged topography forming hills and steep sided valleys in the immediate Palito area, and more subdued undulating hills and valleys in the surrounding project area. There are numerous creeks ("Igarapés") draining the incised topography of the

Palito area, all of which drain into the Rio Novo and Jamanxim Rivers located within a few kilometres of the site.

The majority of the immediate Jardim do Ouro Project environment is covered by tropical forest typical of the Amazon region, however north and west of the Palito mine; the forest has been felled to create pastures for the grazing of livestock along the Transgarimpeira Road.

Many of the drainages radiating away from the Palito mine site have been worked intensely in the 1980's by the *garimpeiros* resulting in manmade swamps, permanent wetlands and old forest destruction.

The local climate has two well defined seasons, the rainy season from December to May and the dry season for the remainder of the year. Regional rainfall averages around 1400mm per year although this now fluctuates greatly due to the deforestation effect of local farming.

The temperature does not vary significantly ranging between 24°C and 33°C, with an average of around 26°C. Relative humidity ranges from 70% to 80% depending on the season.

5.3 LOCAL RESOURCES

Within the boundaries of the Palito Mine lease there are no permanent inhabitants however within the greater contiguous tenement holdings in the Jardim do Ouro project there are a number of cleared grazing properties with permanent dwellings and inhabitants.

The nearest community with social services is Itaituba, which has a population of 96,282 (IBGE census of 2007), banking, postal service, health services, communications, education centres, and regular air service to other major cities, including Belém, Manaus and Cuiabá.

Labour employed by the project is preferentially sourced from the local towns and villages, within the state of Pará. Other more job specific professionals unavailable in Pará are sourced preferentially from within Brazil.

Grid electricity is sourced from the neighbouring municipality of Novo Progresso 135km away, and brought to site via a spur line.

Water is in abundance locally and is sourced from small reservoirs and dams constructed on site for industrial purposes and from water wells for potable water requirements.

Fuel and other major supplies are currently brought in via road from Itaituba and/or Cuiabá via the BR163.

6. HISTORY

The Palito deposit is located in the eastern portion of the Tapajós Mineral Province where the presence of gold has been reported as early as 1747 from the Colonial Portuguese era. Gold production in the Tapajós commenced in the mid 20th century via artisanal miners (Garimpeiros) reaching a peak in the 1970's and 1980's with estimated production of between 15 to 30 tonnes per year, from over 500,000 garimpeiros. Production has since declined. However there remain in the order of 2000 to 5000 garimpeiros producing in the order of 5 tonnes of gold per year from the region. Total historical production from the Tapajós is estimated as between 15 to 30 million ounces as reported by the CPRM. However, accurate reports do not exist.

Gold mining in the Palito area was initiated by garimpeiros during the 1970's who typically worked alluvial and colluvial gold sources up stream until they came upon the residual source. Generally, the garimpeiros worked the residual mineralised saprolite profile containing free primary and secondary gold. In circumstances where extremely high grade was encountered in fresh rock, the garimpeiros sunk shafts and mined the vein underground by gallery development. The mining method employed traditionally was by hand and hydraulic mining in the saprolite, using basic gravity separation and occasionally mercury amalgamation. In the high grade vein material extracted from fresh rock or deeper open casts, the material was crushed and then gravity separated and/or mercury amalgamated.

Modern exploration was initiated in 1994 by Rio Tinto Desenvolvidos Minerais Ltda (RTDM), a Brazilian subsidiary of Rio Tinto Plc, which conducted surface geochemical sampling, auger drilling, ground and airborne geophysics, and diamond drilling in the Palito area.

The original investors of Serabi commenced operating in Brazil in 1999, with the objective of acquiring, evaluating and mining hard rock gold deposits previously unknown or technically too difficult for the Garimpeiros to exploit.

Having evaluated several opportunities, the group acquired the Palito gold project in 2001, forming the basis for Serabi Mining. In 2002, Serabi purchased RTDM's historical Tapajós exploration database and negotiated access to RTDM's exploration drill core library, following RTDM's decision to withdraw from the Tapajós Province.

Following the acquisition of the Palito Project in 2001, Serabi commenced re-treatment of high-grade gold tailings from the abandoned garimpeiro workings via a small scale milling and CIP plant in late 2002. This plant produced around 3000 ounces of gold bullion in 2003 and provided valuable lessons for operating in the region. Underground mining commenced in late 2003, exploiting fresh rock sulphide bearing ore.

In 2004 gold bullion production ceased during a plant upgrade to process the sulphide ore won from the underground operation. The upgrade to the circuit included the installation of a crushing plant and a flotation circuit. In August 2004 bullion sales resumed and in November 2004 the first copper/gold/silver concentrate was shipped to Europe for processing at UMICORE.

In May 2005, Serabi filed for public listing on the AIM London Stock exchange where it successfully raised £6.9 million net of expenses. In 2005 the Palito operation reached a throughput rate of 150 tonnes per day (tpd) and produced 17,261oz gold equivalent.

In 2006, the Palito Gold Mine's production throughput was increased to 340 tpd and mining methodology was converted from shrinkage stoping to long hole stoping, which resulted in a production of 39,197 oz gold equivalent for the year.

In 2007 a further increase in throughput rate to 550 tpd was emplaced to counter the decrease in grade of the ROM feed caused by excessive dilution of the narrow vein ore zones from long hole stoping. The resultant production was that of 33,963 oz gold equivalent. During 2007 the mining methodology was reconfigured to minimise the dilution with long hole stoping heights. Resulting methods were adapted and a new selective mining fleet placed on order for delivery in 2008.

In 2008, the delayed arrival of the new selective mining fleet, severely impacted on development and production rates, and the mine performed well below budget during the year as a result. By midyear it was clear to re-establish Palito to budget production levels, it would be necessary to place the mine into a dedicated phase of development for a period of some 12 months. However, the implications of such a plan on cash flow along with a significant working capital requirement, at a time when the capital markets were in severe decline meant it was virtually impossible for the Company to secure the necessary funding to implement such a plan. Therefore placing the mine into expanded development at that time was not a realistic option for Serabi. In the absence of any viable alternative plan, the decision was taken to suspend underground mining by the end of 2008. Final gold production for 2008 was 19,676 oz gold equivalent.

Also in 2008, Exploration activity focussed mainly upon mine site step out drilling, however, one very positive and noteworthy activity was the flying of a 6000 hectare helicopter electromagnetic (VTEM) survey. The hosting of gold mineralisation in a sulphide host matrix, lends the mineralisation well to geophysical exploration methods. The survey rewarded the company with 18 high priority targets within a 7 kilometre radius of Palito Operation, and therefore if ever successfully proven up, a strong likelihood of incorporating such satellite deposits into the current operating infrastructure is clear to see.

The main priority of 2009 for Serabi was to stay in business, the global financial crisis and virtual cessation of access to capital markets made life very difficult for companies with limited revenue. All exploration activity was placed on hold. Following the suspension of the underground operation, a change of mine plan was submitted to the DNPM where the company obtained permission to commence gold production from some oxide ore mining, which had been successfully piloted the previous year. This small scale surface oxide ore mining was restricted largely to the top 20 metres from surface, where the mineralisation has been weathered. Beyond a depth of 20 metres the oxide mineralisation changes into a transition zone, before finally encountering the harder sulphide ore at depth. The oxide ore is very amenable to processing with Serabi's existing Carbon in Leach plant from which it is possible to produce gold in the form of bullion bars. However, in both the transition and sulphide zones the gold is associated with copper (in the oxide ore the copper has been leached away) and this material can only be treated through flotation, which produces a concentrate.

The reduction in labour costs following the suspension of underground mine production, meant the gold production from oxide mining activity began to generate meaningful though limited revenue which helped meet site costs. It should be noted that the oxide ore mined was from material outside the declared mineral resource. No official resource estimation has been ever undertaken upon this material.

In fact the company's aim has been to continue mining and processing oxide ore as long as realistically possible to generate sufficient cash flow to cover or part cover the mining and process costs at Palito and, in so doing, maintaining legal operations at site. By the year end the company produced approximately 5,000 gold ounces from oxide mining activities.

At the end of 2009 the company completed an equity financing, raising some US\$4.5 million. These funds allowed the Company to recommence the exploration activity.

7. GEOLOGICAL SETTING

The Tapajós Gold Province is located in the western portion of Pará State, central northern Brazil and covers a total exceeding 900,000 square kilometres. The Tapajós is in the southern-central portion of the Amazon Craton, generally termed the Brazilian Shield, as opposed to the northern portion of the Craton referred to as the Guyanian Shield and extends into the littoral countries of the northern South American continent.

The Brazilian Shield is nucleated on the Archaean granite-greenstone terrain of the Carajás-Imataca Province in eastern Pará State, and progressively becomes younger and shallower towards the west, grading into granite dominated then into granite-volcaniclastic terrain of Paleoproterozoic age rocks of the eastern Amazonas State. In the Jardim do Ouro region lithologies are dominated by granitoids of Paleoproterozoic age.

7.1 REGIONAL GEOLOGY

The Tapajós province represents a tectonically controlled geological evolution attributed to the Orosirian Proterozoic period, comprising four plutonic events, over a 140Ma period (Coutinho et al 2000).

In the Tapajós Province two main units form the basement, the Paleoproterozoic Cuiú-Cuiú metamorphic suite (2.0-2.4Ga) and the Jacareacanga metamorphic suite (>2.1Ga). The Jacareacanga is considered to be the older suite; however the relationship is not yet well defined.

The Jacareacanga suite is comprised of a sedimentary-volcanic sequence, deformed and metamorphosed to a regional greenschist facies, with units of sericitic and chloritic schists and rare banded iron formations.

The Cuiú-Cuiú suite, which is the basement for the Palito area, is comprised of orthogneisses of dioritic to granodioritic composition, locally mylonitized, deformed tonalitic granitoids and enclaves or rafts of amphibolites.

Both the Cuiú-Cuiú and Jacareacanga suites are intruded by monzogranites of the Paráuari suite (2000 -1900Ma), tonalites, diorites and granodiorites of the Tropas suite (1907Ma - 1898Ma) and granites and granodiorites of the Creporizão suite (1893 -1853Ma). These three intrusive suites are considered to have calc-alkaline affiliations and may be considered remnants of a magmatic back arc system interpreted for the region.

Coeval felsic and intermediate rocks; rhyolites, dacites and andesites of the Bom Jardim and Salustiano Formations (1900 – 1853Ma) and volcaniclastics of the Aruri Formation (1893 - 1853Ma) cut through all older units.

The alkaline, anorogenic, Maloquinha Granite suite (1882 - 1870Ma) intrudes throughout the Tapajós and is associated with the strong extensional episode, pre-dating the deposition of the Uatumã Volcanics (Iri Group, Aruri Formation and Salustiano Formation). The Maloquinha Granites are considered to be the deeper intrusive phase of the Uatumã Volcanics and the source of the gold mineralisation in the Tapajós.

Figure 7-1 – Regional Geology of the Tapajos Province (Source CPRM) showing Serabi tenement holding as of August 2010

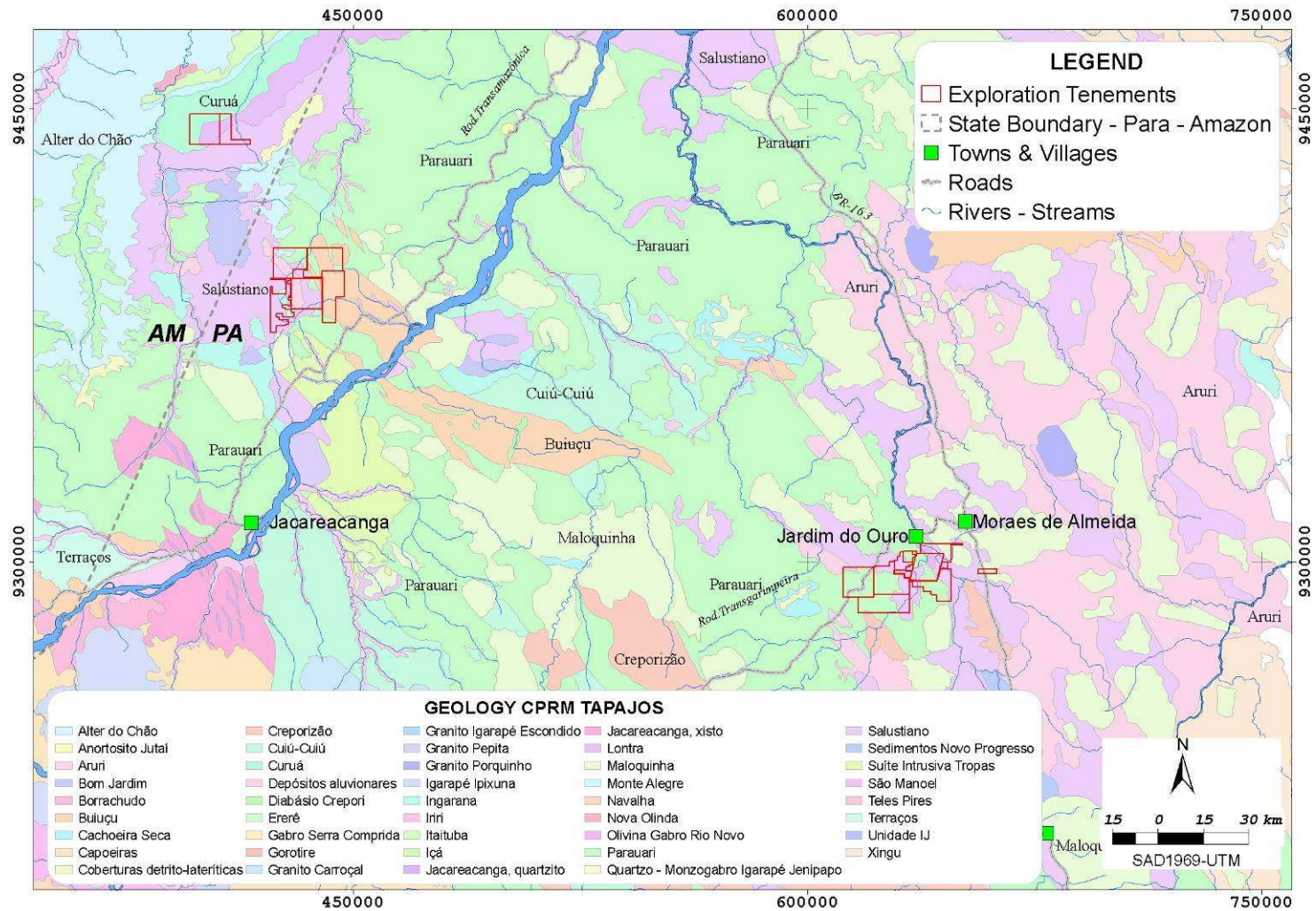
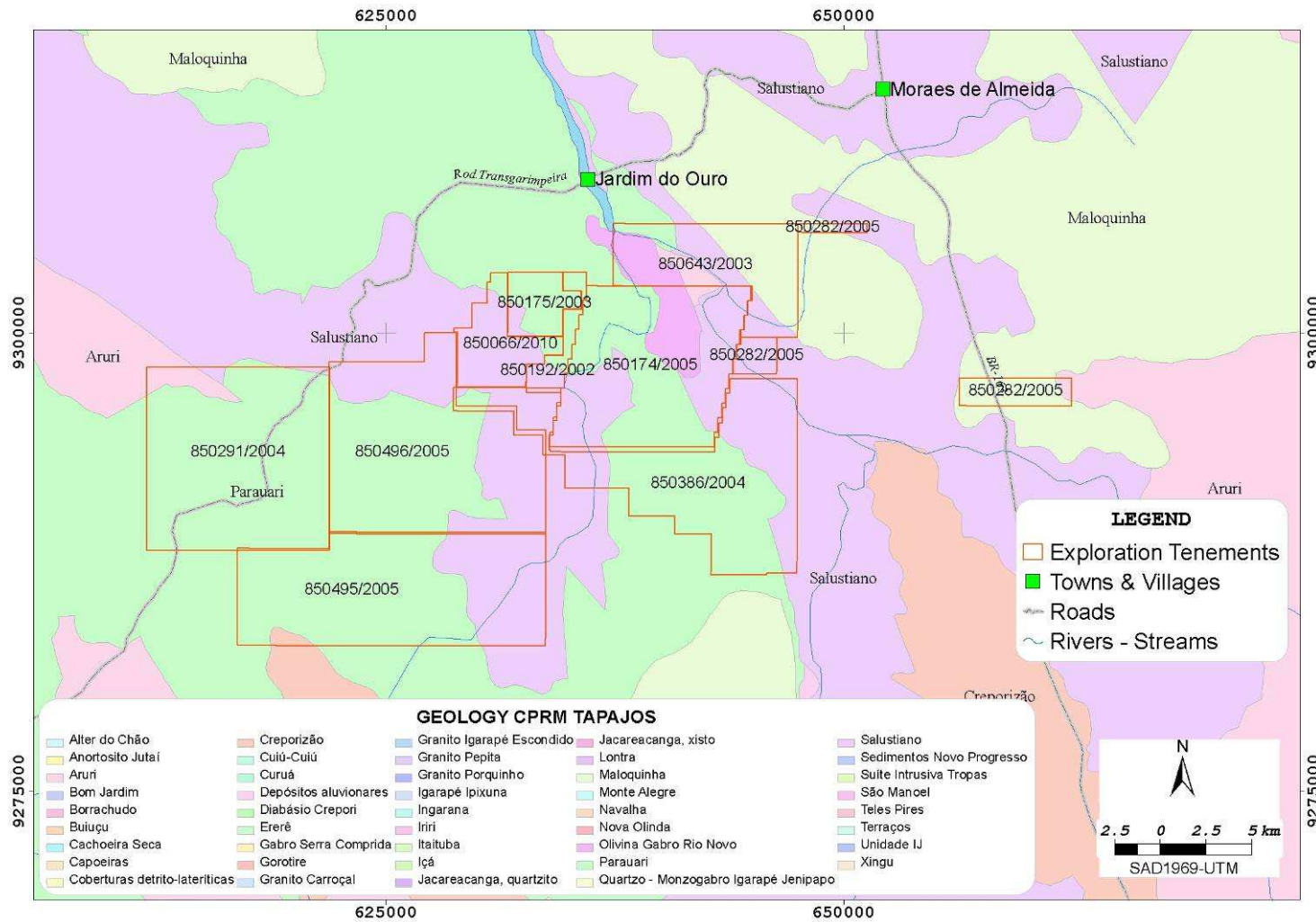


Figure 7-2 – Geology of the Jardim do Ouro Project Area (Source CPRM) showing Serabi tenement holdings.



Younger sedimentary rocks cover the Maloquinha/Uatumã suite of rocks along a NW-SE trending features in the central and western parts of the Tapajós Province.

Regional structural analysis of the Tapajós province has identified various compressive deformation regimes including ductile, brittle-ductile and brittle. The deformation is interpreted to have occurred as two separate events, the first compressive event, with peak deformation around 1.96Ma, resulting in the development of ductile and brittle-ductile deformation regimes. The second event occurring at 1.88Ma, resulted in brittle deformation. These events resulted in major north-south, north west-south east and east-west lineament sets.

The geometry of the lineament and structures are compatible with a combination of Riedel fracturing and strike slip fault systems, where the principle vector of compression is oriented in an east-west and ENE-WSW direction

Gold Mineralisation is not restricted to a particular suite, with deposits located in all suites including; Cuiú-Cuiú Suite (Cuiú-Cuiú), Paráuari Suite (Tocantinzinho, São Jorge and Palito), Tropas Suite (Ouro Roxo), Salustiano and Bom Jardim Formation (V-series deposits, Bom Jardim), Maloquinha Suite (Mamoal). Gold mineralisation associated with quartz and hydrothermal alteration assemblages is reported in all the fracture orientations of the Reidel system, and are dominated by fractures oblique to the principle strike-slip shear orientation.

7.2 LOCAL GEOLOGY

The lithology in the area is dominated by alkaline granitoids. In the immediate Palito mine area three dominant types of these rocks occur.

To the east, the Rio Novo Granite, a medium to fine grained, inequigranular quartz-plagioclase granite or syenogranite. The Rio Novo Granite is then sharply contacted against the Palito Granite on its western margin, a quartz-plagioclase granite or syenogranite of fine, inequigranular texture, differing visually from the Rio Novo in phenocryst size and density. Proximal and sub-parallel to the contact between these two granites is the Palito Central Fault Zone (PCFZ), a 70° (magnetic) trending zone of -50° NW dipping, slight offset dextral faults.

To the west, the Palito granite has a chilled contact with a biotite-hornblende-quartz-plagioclase granite, hornblende syenogranite or aegerine-riebeckite granodiorite locally termed the Fofuquinha Granodiorite.

Intruded into these alkaline granitoids are feldspar porphyrite dykes and sills of dacitic composition, which occur more prolifically proximal to the PCFZ.

Gabbroic bodies termed the Rio Novo Gabbro are evident in the local area, but are restricted to within the Fofuquinha Unit.

The mineralised structures themselves are generally represented as dark grey-green intensely sericite-silica-pyrite-chalcopyrite +/- chlorite, carbonate, pyrrhotite, sphalerite altered granite hosts, that in many circumstances are no longer recognisable as granitoid protolith. This intense hydrothermal alteration forms the lower grade mineralisation selvage and the host to the higher grade quartz-sulphide and massive sulphide zones. Alteration zones range in width from decimetre to metre wide zones. Distal from the structures and intense hydrothermalised zone, the granite hosts are intensely potassically altered, grading in to the regional scale background potassic alteration within 1 to 5m of the mineralised structure.

A description of the lithotypes encountered in the Palito Mine system is given below.

7.2.1 Rio Novo Granite

The Rio Novo Granite occurs in the eastern part of the mine and further to the east encasing the Palito Granite. It contains xenoliths of granodiorite (Fofuinha Granite), which indicates it is a later phase of the Fofuinha granite intrusive, which is confirmed by from the satellite image interpretation. This unit cuts the older Paráuari intrusive suites and is overlain by volcanics of the Iri Group.

The Rio Novo granite is porphyritic in texture, of medium grain size, varying slightly to a coarser or finer texture, and varying from a pink to a pink-orange to red or red-greenish colouration depending on the level of hydrothermal alteration. Granophyric textures are also common along with lesser developed miarolitic cavities, silicified broken and brecciated zones which are more intensely hydrothermally and propylitically altered, which gives the rock a grey to greenish coloration. This occurs specifically along the contact with the Palito Granite, in proximity to the contact with the Palito granite, the Rio Novo granite displays a strong red colouration due to potassic metasomatism.

Figure 7-3 – Novo granite in outcrop



Zones intensely broken by brittle faulting are also common in these rocks, normally with breccia associations and veins of carbonate and fluorite.

The macroscopic and petrographic characteristics of these rocks are not indicative of affinities with alkaline granites of the Maloquinha Suite, resembling more a late stage of the Parauari Suite, but this is yet to be resolved with further geochemistry.

7.2.2 Palito Granite

The Palito Granite hosts the larger proportion of mineralized structures within the Palito Mine system. In surface exposure it is of limited extent, with exposures restricted to old Garimpo workings. Derived soil horizons are a red - brown colour areno-argillaceous type.

The Palito Granite is pervasively potassic altered and presents an intense red colour. The granite is medium grained, inequigranular, with subtle, finer grained local variations in contact zones with the surrounding granites, due to the cooling effect along the edges of the intrusion. Occasionally the granite presents miarolitic cavities, crystalline quartz and poorly developed granophyric textures. In near surface exposures the granite appears strongly hydrothermalised and shows characteristics of differential weathering, reflecting features relating to phased emplacement or magmatic flow.

7.2.3 Fofuinha Granodiorite

This granodiorite occurs to the north and the northwest of the Palito Mine system and appears as a later stage intrusion into the Rio Novo Granite. Outcrop is scarce and as such the granite/granodiorite has been poorly sampled.

The Fofuinha is of medium to coarse grain size (0.5 to 1.0 mm and rarely 10 mm), is inequigranular to slightly porphyritic in texture and can present up to 15 - 35% of mafic minerals, mainly amphibole and iron oxides, especially magnetite. Its colour varies from grey to green grey and the coarse plagioclase crystals show intense zonation. A possible compositional variation from tonalite to monzodiorite has been observed macroscopically.

In some samples the granodiorite is enriched in magnetite which disappears when the rock shows evidence of the effect of potassic metasomatism, probably related to the intrusion of the Rio Novo or Palito granites.

Based on all the above aspects and macroscopic characteristics, it is possible to classify that these granitoids as members of the Paráuari Suite.

7.2.4 Rio Novo Gabbro

The Rio Novo Gabbro occurs as rounded intrusions varying from 100m to 500m in diameter. The best known occurrence defined to date lies approximately 0.5km directly west of the Palito Mine system and is clearly defined by airborne magnetics. A second possible gabbro occurrence lies approximately 1.2km north of the Palito Mine and west of the Tatu prospect. In the field it is easily identified from the occurrence of dark red clay soils.

The gabbro is affected by brittle faulting and hydrothermal alteration which also affected the surrounding granites. Local zones of brecciation and xenoliths of the Fofuinha granodiorite within the gabbro, demonstrate emplacement post dating the granodiorite.

The gabbro probably is a unit of the regionally occurring Ingarana Gabbro. This rock type is described in Project PROMIN – Tapajós CPRM (2002) as a stock forming irregularly along NW-SE trending lineaments, intruding into the Paráuari Granite Suite and overlain by the Iri Group of volcanics. The gabbro is denominated the Rio Novo olivine gabbro by the CPRM.

Regionally the Ingarana Gabbro hosts mineralized (gold and sulphide) vein systems, as seen in the Bom Jardim garimpo and along the course of the Grape Bom Jardim.

7.2.5 Sub-volcanic Dikes

Sub-volcanic rock types were recognized in the drill core as dikes cutting all lithotypes in the area. The dikes locally reach 30m width, but in general rarely exceed 1m width.

These sub-volcanic rocks are grey-pink or light brown, porphyritic, with a very fine to aphanitic matrix and granitic composition. Mirolitic cavities are common, with small concentrations of mafic minerals and sulphides.

These sub-volcanics are clearly hydrothermally altered, including potassic metasomatism, propilitization, sericitization and sulphidization.

Feldspar porphyries of dacitic and rhyodacitic composition form sub volcanic dikes, cutting through all the lithotypes encountered in the Palito area. They are of light and dark grey to pink colour with white phenocrysts of plagioclase and quartz and occasional biotite within a finer matrix of the same minerals.

These dikes are common in the PCFZ region and occur to a lesser extent away from it. They vary in width from less than a metre to up to 30m. They exhibit all the alteration suites affecting their host granites including potassic metasomatism, propilitization, sericitization and sulphidization.

8. **DEPOSIT TYPES**

Gold deposits within the Tapajós Province can be broadly classified into three main types:

1. Mesozonal deposits;
2. Epizonal intrusion centred or intrusion related and
3. Alluvial, colluvial and supergene enriched saprolitic deposits.

Primary gold deposit types occur as the first two categories of deposit type; (1) mesozonal and (2) epizonal intrusion related. Tapajós deposits are structurally controlled deposits but host rock control is important in locally providing a necessary factor in the metal precipitation process.

Primary deposit types are generally sited in fractured and sheared host environments such as:

1. quartz and quartz sulphide stock work and associated alteration hosted disseminated sulphide;
2. quartz vein,
3. quartz-sulphide veins +/- selvage alteration hosted disseminated sulphide;
4. massive sulphide veins +/- selvage alteration hosted disseminated sulphide;
5. disseminated sulphide within alteration;

Historically in the Tapajós, the third category of deposit types has produced most of the gold won in the region, with a significant contribution from the supergene enriched laterite and saprolite deposits. A large percentage of the gold contained within this category is residual in nature, but physically concentrated along stone lines or weathering fronts, liberated from auriferous veins (quartz, quartz-sulphide or sulphide) nearby and secondarily enriched by redox chemical processes as opposed to being physically transported away from the source.

The exploration potential for the Tapajos province is considered highly prospective for further discovery of primary deposits. A majority of the primary deposits known in the Tapajos are related to the quartz vein and quartz-sulphide veins. The extensive acid to intermediate volcanics intruded by coeval granitic intrusives provides the conditions for formation of mesothermal and epizonal and/or "epithermal" deposits.

The mesothermal granite-hosted systems are associated with a range of deposit types; porphyry (Coutinho et al, 1997, Jacob, 1999), orogenic lode gold (Goldfarb et al, 2001) and intrusion related gold systems (Santos et al, 2001). These granite hosted systems all share many characteristics (Lang and Baker, 2001), with distinction among the genetic models becoming difficult to strictly apply in the region.

Within the regional context of the Jardim do Ouro project, significant granite hosted deposits have recently been discovered that share geological features with the Palito deposit and the Jardim do Ouro project.

The Tocantinzinho deposit is a gold deposit with 2.1Moz in Measured and Indicated categories (M&I) and 0.4 Moz in inferred category, as published by Eldorado Gold Corp. It lies approximately 70km to the NW of Palito, is mineralised intrusive granite. The deposit is some 900m strike length and 200m wide. The granite has intruded into the TZ structure (a NW-SE trending regional supracrustal structure) which also hosts the Palito deposit. The vein arrays within the Tocantinzinho deposit are of similar architecture to that of the veins within Palito. Gold is associated with quartz veins and sulphides (pyrite and chalcopyrite). Hydrothermal alteration of the monzogranites and a series of

later stage micro granite and dacitic/rhyolitic dykes are all very similar attributes between the two deposits.

The São Jorge gold deposit (Brazilian Gold), has a NI 43.101 estimate of 0.35 Moz in M&I categories and 0.46 Moz in inferred category. It is composed of a series of vertically dipping quartz-sulphide vein sets, located approximately 45km SE of the Palito deposit, is another gold mineralised system hosted in hydrothermally altered monzogranites, contained in structurally controlled fracture vein systems, striking some 700m in a NW-SE direction, some 60m wide. This deposit again lies within the TZ structure, likewise Palito and Tocantinzinho. A drilling program is currently being developed there.

The TZ structure also hosts a number of significant prospects in addition to the 2 defined deposits. Magellan's Cuiu-Cuiu, some 150km NW of Palito is a significant mineralised system, which is currently undergoing intense drilling activity.

In the nearer district to Jardim do Ouro, but located in parallel TZ structures are a number of significant artisanal operations. Mamoa is a large area of garimpo activity approximately 20km NNW of Palito. The area is historically a large producer of saprolite hosted gold, and recent gold prices have reinvigorated the activity in the area.

To the south west (15km) of Palito the Sao Chico garimpo is currently being operated by Gold Anomaly Ltd. This small Australian listed company are presently constructing a small Gecko, high pressure jig, gravity gold plant to exploit a series of high grade quartz-sulphide veins.

Also south west (20km) of Palito, Aurora Gold Corp has recently published a 130Koz Au unclassified estimate (presumably, inferred). It refers to a gold deposit at its São Domingos project. This deposit is a series of narrow high grade veins dipping moderately to the SW and striking NW-SE. The nature of the mineralisation is considered the same as Palito deposit.

Weight of evidence suggests that Palito is not an isolated deposit, but part of a series of deposits in a significantly gold endowed district (both locally and regionally). It is therefore considered that potential for further discovery of significant primary gold deposits in the Jardim do Ouro project is favourable. The nature of the deposits in the district also provides potential for deposit styles other than high grade quartz-sulphide vein type encountered at Palito. Potential for larger intrusive-related deposits such as Tocantinzinho and São Jorge within the Jardim do Ouro project is considered a real possibility.

The information above other than that relating to Palito has been extracted from publicly available material, which NCL has not verified. NCL cautions that this information is not necessarily indicative of the mineralization that may be found at the JDO property.

9. DEPOSIT GEOLOGY AND MINERALIZATION

The mineralization control of the mineralization type found on the JDO property is related to the schematic mega-system of strike-slip faulting and riedel fracture systems of the Tapajos as described by the CPRM (2008) publication "Província Mineral do Tapajós: Geologia, Metalogenia e Mapa previsional para Ouro em SIG" (Figure 9-1). The Palito mine veins appear to relate to intersection of "Y" and "P" and/or "R" (sinistral strike-slip) faulting on 305° and 315° and/or 295° orientations respectively within "R" 070° trending structural corridors.

Mineralisation is best developed in the veins along the "Y" 305° and "P" 315° orientations, however wider zones are encountered where the "Y" and/or "P" orientation intersects with "R" 295° veins, which are mineralised to a lesser extent. It is also characteristic that the greatest densities of "Y", "P" and "R" vein intersections occur within in 070° structural corridors.

Mineralization within the Palito Mine is hosted within all three granitoids encountered in the immediate environment and is intimately associated with vertical to sub-vertical quartz-chalcopyrite-pyrite veins and pyrite disseminations filling the brittle-ductile fault sets. It is postulated that the mineralising fluids intruded into the existing structural architecture and deposited in dilational jogs within the fractured granites.

In the Jardim do Ouro project mineralisation, where encountered, occurs as a similar style of veins as the Palito mine; however the host rock varies depending on locality. Mineralisation has been encountered within the Rio Novo Gabbro, and within and along contacts with the sub-volcanic dikes in addition to the three host granites at Palito.

Bonanza gold grades are associated with massive chalcopyrite-pyrite blowouts within the quartz veins, typically on the intersection of "Y" or "P" and "R" veins. The principal vein system at Palito has a strike length in excess of 900m along broadly N306°, however this varies from N300° to N325° locally. Individual veins average widths of approximately one metre, varying between 20 cm and up to 4 m.

Secondary gold deposits are also encountered immediately above the mineralised veins, within the regolith profile. These deposits generally manifest themselves within the residual saprolite and laterite portions of the profile. These deposits are developed through the weathering process and often upgrade the primary gold grades within the narrow weathered vein through a supergene enrichment process, which also enlarges the footprint of the sulphide vein mineralisation.

The secondary deposits contain free primary gold within the oxidised sulphides in the vein material and free gold associated with the secondary iron oxides (goethite, hematite) along fractures and joint planes within the saprolite adjacent to the veins and in pisolites and lateritic cements at the paleo-surface above the vein.

The secondary deposits are generally not high tonnage deposits, as the residual saprolite profile is only around 5-8m depth, underlying up to 5m of barren transported cover. However they can be up to 10 times broader than the source mineralised vein, due to weathering dispersion of the gold

These saprolite deposits were favourably targeted by the garimpeiros as they contained enriched gold grades, manifesting as free gold, easily extracted by a gravity process.

Figure 9-1: Schematic Representation of the Mega-system of Strike-slip faulting and Riedel system of fracturing

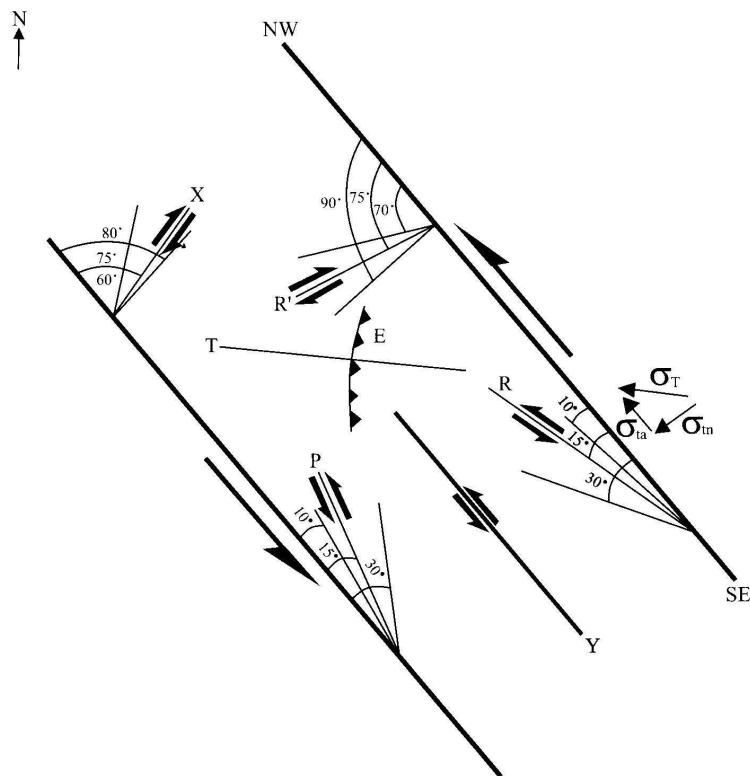


Figure 9-2– Near surface vein at the Palito deposit



Figure 9-3 – Palito Vein, typical expression



The paragenesis of the gold mineralisation occurs within pyrite and chalcopyrite associated with sphalerite, argentite and tellurobismuthinite /tetradimite and is typical of deposit types classified as “Au+Ag+Te in syenites, diorites and monzonites with fluorite”.

The principal sulphide composition occurring in the granites is pyrite (30-40%), chalcopyrite (20-25%), arsenopyrite (2-5%) and pyrrhotite (2-10%) with minor occurrences of covellite (2-3%), chalcocite (2-3%), sphalerite and bismuthinite (traces). Electrum occurs as rare inclusions in chalcopyrite and along fractures in the pyrite. Native bismuth and tellurio-bismuthinite / tetradimite also occur as inclusions in the pyrite and chalcopyrite. In the granodiorite the dominant sulphide is pyrrhotite (30-40%) with lesser pyrite and chalcopyrite compared to the granites.

The sulphides occur as segregates in the quartz veins, as disseminated within the grey hydrothermal alteration selvage or as massive sulphide veins of decimetre to metre widths. The veins are 30-35% quartz, with the sulphide making up volume, however this may vary from <10% to 90% on occasion.

The quartz veins feature occasional druses of cubiform pyrite which contain only lower gold grades.

Chalcopyrite formed after pyrite, as the chalcopyrite has enveloped pyrite and infilled and cemented fractured grains of pyrite. Gold is always associated with chalcopyrite in these instances.

Gold occurs as fine grains of 10 to 15 microns confined to the chalcopyrite and arsenopyrite. In many cases the gold grade is highest in zones of hydraulic brecciation, where the alteration zone, sulphides and vein quartz show multiple stages of reactivation.

The nature of the sulphide mineralization at the Palito deposit varies along strike and plunge extents. The deposit is a quartz-sulphide and massive sulphide vein deposit hosted within granites and granodiorites of the Parauari Suite of intrusives. The nature of the sulphides changes across the deposit from being dominantly pyrite and chalcopyrite in the granites to being dominantly pyrrhotite and pyrite with lesser chalcopyrite in the granodiorite. Within the granodiorites, the pyrrhotite-pyrite sulphides tend to be lower gold grade, due to the lesser occurrence of chalcopyrite, which hosts the gold. This is likely a result of the increased mafic content in the granodiorites affecting the paragenesis of the sulphide deposition.

The hydrothermal alteration of the host rocks is strongly alkaline and has resulted in potassification and ferruginization, which has accentuated the original alkaline character of the host rocks and also resulted in intense silicification.

Hydrothermal alteration associated with mineralisation is intense sericitization and chloritization, where intense potassic alteration has resulted in a rock where the original lithotype is no longer compositionally or texturally identifiable. The alteration zone appears as a dark grey rock formed of relict quartz crystals of 0.5mm - 1mm in a groundmass of feldspar pseudomorphs of sericite, clay minerals and rare grains of epidote and carbonate.

Quartz is the only major mineral preserved, along with rare zircon and apatite from the protolith. Feldspars are totally pseudomorphed by sericite as well as lesser muscovite and biotite. Chlorite occurs as infill of shears and veinlets and as rare aggregated crystal masses and occasionally intercalated with biotite with inclusions of zircon and apatite and prehnite.

Grey hydrothermal alteration is confined to the selvage of the brittle fractures and rarely extends more than 0.5m into the host granite. The alteration is generally always present to some degree

along the mineralised structures; however the quartz-sulphide and sulphide veins are not always present. On occasion the structure may appear as a sericite, chlorite, and ankerite vein only several centimetres wide before opening up into a traditional hydrothermal selvedge.

Distal to this selvedge of hydrothermal replacement, there is a zone of intense potassic alteration extending from 1 to 10m outwards to the background country rock potassic metasomatism. Within the granodiorites this potassic alteration is more restricted.

10. EXPLORATION

Exploration in the Jardim do Ouro Project area commenced with RTDM Exploration from 1994 to 1997. Early work focussed on testing the depth potential of the near surface garimpos in the primary sulphide zones. Six diamond drill holes were completed and the greater Palito area screened with surface geochemistry on surface soil, rock chip and rock grab samples. Preliminary geological mapping covered areas of readily accessible exposures and a broad spaced (300m line spacing) regional aeromagnetic survey was flown.

Serabi commenced exploration in 2003 with surface exploration, mapping, rock chip sampling and the initial stages of diamond drilling and shallow auger drilling. This exploration has been ongoing since 2003 and undertaken and managed by Serabi's own exploration department. At various times since 2003 Serabi has augmented exploration with various programs of third party contractor drilling, geophysics including both airborne, terrestrial and down hole electrical and/or magnetic surveys which are detailed in the following sections. In addition various complementary studies on structure, lineament analysis, satellite imagery and petrology.

Tabled below is a summary of the exploration completed to date, except drilling, whose totals are depicted in section 11.

Table 10-1 – Exploration Summary

Year	Company/Contractor	Activity
1994	RTDM	1031 spot soil samples
2003	Serabi	147m of post hole auger drilling (TRRN series holes)
2003	Fugro	Terrestrial Geophysics including ground magnetics and dipole-dipole IP
2004	Serabi	11,116.78m of shallow auger drilling (TRJD series holes)
2004	Fugro	Terrestrial geophysics including Fixed Loop electromagnetics and IP
2005	Serabi	1368.47m in underground face sampling and gallery channel sampling
2005	Serabi	18 rock chips
2006	Serabi	1,713m in underground channel sampling
2006	Serabi	3009.83m in post hole auger drilling
2006	Serabi	69 spot soil samples (35m auger drilling), 43 rock chips
2007	Serabi	590.75m in surface trenching
2007	Serabi	1513 spot soil samples (756m auger), 7 rock chips
2007	Serabi	Ground magnetic survey
2007	Fugro	Fixed loop EM and down hole EM surveys
2008	Serabi	4325.79m in underground channel and gallery sampling
2008	Serabi	836 spot soil samples
2008	Serabi	1244.6m of deep auger drilling for 1206 samples
2008	Geotech/Microsurvey	6650 line km of heliborne VTEM, magnetic and laser topography
2008	Senografia	Acquisition of SPOT 5 satellite imagery of Jardim do Ouro, Modelo and Pison project areas
2009	Serabi	413m of surface trenching
2009	Serabi	977.18m of hard rock channel sampling
2009	Serabi	835.3m of auger sampling comprising 729 samples
2009	Serabi	Data compilation and integrated dataset modelling
2010	Fugro	45 line kms of dipole-dipole IP surveying
2010	Serabi	405m of surface trenching
2010	Serabi	168m hard rock channel sampling

10.1 GEOPHYSICS

The Jardim do Ouro project is partially covered by a broad 300m line-spaced airborne magnetic and radiometric survey commissioned by RTDM as part of their Sao Jorge survey in mid 1996.

Serabi commissioned several phases of geophysical surveys during the years preceding this report and a number of reviews.

In 2002, Fugro Ground Geophysics was commissioned to undertake a ground magnetic and dipole-dipole induced polarisation survey over the immediate Palito mine area. This survey was undertaken in December 2002 and reported in early 2003. It defined numerous anomalies in the area and defined well the Palito Main Zone mineralisation and numerous other anomalies which were subsequently tested by diamond drilling in following years.

In November 2003, Fugro Ground Geophysics was commissioned to undertake a TEM fixed loop electromagnetic survey over two areas over the adjacent mineralised zones and also augment the ground magnetic coverage. This survey was undertaken in late 2003 and early 2004.

In 2006 Fugro Ground Geophysics was commissioned to undertake further TEM fixed loop electromagnetic surveys over the Chico da Santa Prospect area adjacent to Palito Mine and the southern strike extension of the Palito mineralisation. Due to equipment failure this survey was conducted over the final months of 2006 with a hiatus over the December to February 2007 period resuming in March and completed in April 2007.

In Late 2006 GeoDecon were commissioned to review the 2002 Fugro Ground Geophysics surveys utilizing Serabi's improved geological understanding of the mineralisation and structures. This report was received in February 2007.

In 2007 as part of the extended TEM electromagnetic survey, Fugro also conducted down hole electromagnetic surveys on 14 drill holes within the Palito Main Zone, Chico da Santa, Ruari's Ridge and Palito West prospects.

In April 2007, a terrestrial ground magnetic survey was undertaken in house by Serabi in the Tatu prospect area of the Jardim do Ouro project, some 2km NE of the Palito mine, targeting the magnetic/quartz vein hosted mineralisation apparent in that prospect.

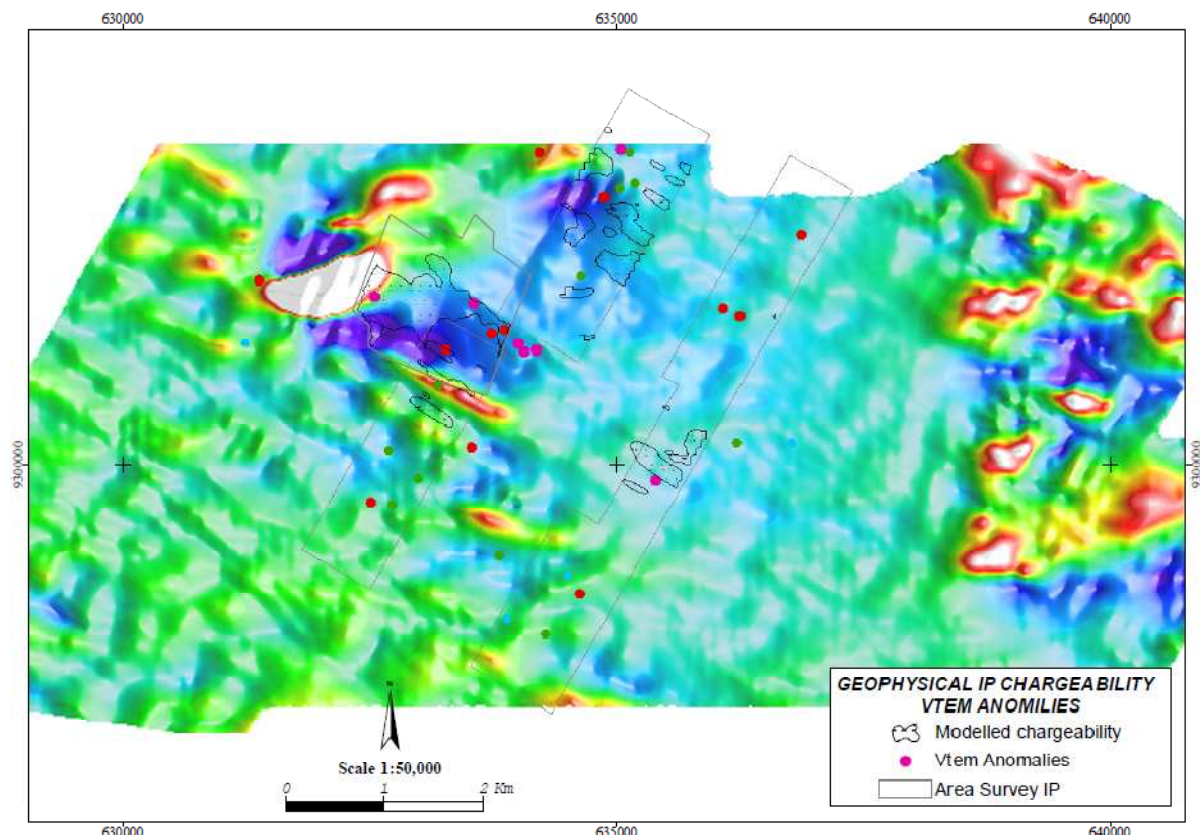
In September of 2007 Geotech/Microsurvey were commissioned to undertake a helicopter borne, Vertical Time Domain Electromagnetic Survey over the 6500Ha of the Jardim do Ouro project covering the area from Rio Novo prospect 5km SE of Palito to 1.5km NW of the Palito Mine. This survey also included specification for magnetic and laser topography. This survey was conducted at 100m line spacing on a NE/SW line direction, perpendicular to the known mineralisation trends.

In July 2008 VTEM data processing was completed and reported by David McInnes of Montana GIS, along with the reprocessing of the 2002 Fugro IP data. Significantly, the IP re-processing indicated that the main mineralised vein sets at Palito could be well constrained in the inversion modelling.

In May 2009, a complete dataset integration (incorporating all geophysical, geological, geochemical and structural datasets) was completed by Serabi. Target generation and appraisal was completed resulting in 18 integrated targets being promoted. The Figure 10-1 shows this information.

In March 2010 Fugro GeoMag geophysics contractors were commissioned to undertake a 45 line km induced polarization survey over 3 grid areas incorporating 9 of the 18 integrated targets. This data was subsequently processed and modelled by David McInnes in May 2010. This modelling defined 6 priority drill targets.

Figure 10-1: IP and VTEM interpretation geophysical map



10.2 GEOCHEMISTRY

The Jardim do Ouro project has been partially covered by a range of geochemical sampling techniques and methodologies since reporting on the project area commenced.

RTDM in the period 1994-1997 undertook various ad-hoc sampling programs, including limited stream sediment sampling, rock chip sampling from both in-situ exposures where possible and float. RTDM also conducted a number of broad regional soil traverses in the region as baseline geochemical orientations.

Since Serabi commenced exploration in 2003, they have completed systematic soil geochemistry coverage over the immediate Palito Mine environment and a number of regional soil grids using Serabi exploration crews and either manual or small motorised auger drills.

The soil geochemistry coverage has been completed on a systematic 100m X 50m grid using soil auger holes to either 2.5m or 5m depths, with sampling intervals every 2.5m. Initially the soil geochemistry was analysed at the Palito laboratory facilities using a MIBK or DIBK digest and AAS finish to a detection limit of 100ppb. Geochemical results showed the mineralised areas in the Palito mine camp were defined by a >400ppb Au in soil result.

Subsequent assessment and evaluation of the soil results in 2007, suggested that re-analysis using a 10ppb detection limit could prove useful in defining more subtle footprints of yet undiscovered mineralisation. As a result a program to resubmit all available soil sample historical sample pulps was

completed at SGS Geosol laboratories. As a result re-assessment of the soil geochemistry in the Palito Mine and Jardim do Ouro project area, did not significantly change the values for definition of the known mineralisation, however a great level of confidence was gained from the results and better definition of the mineralisation was achieved.

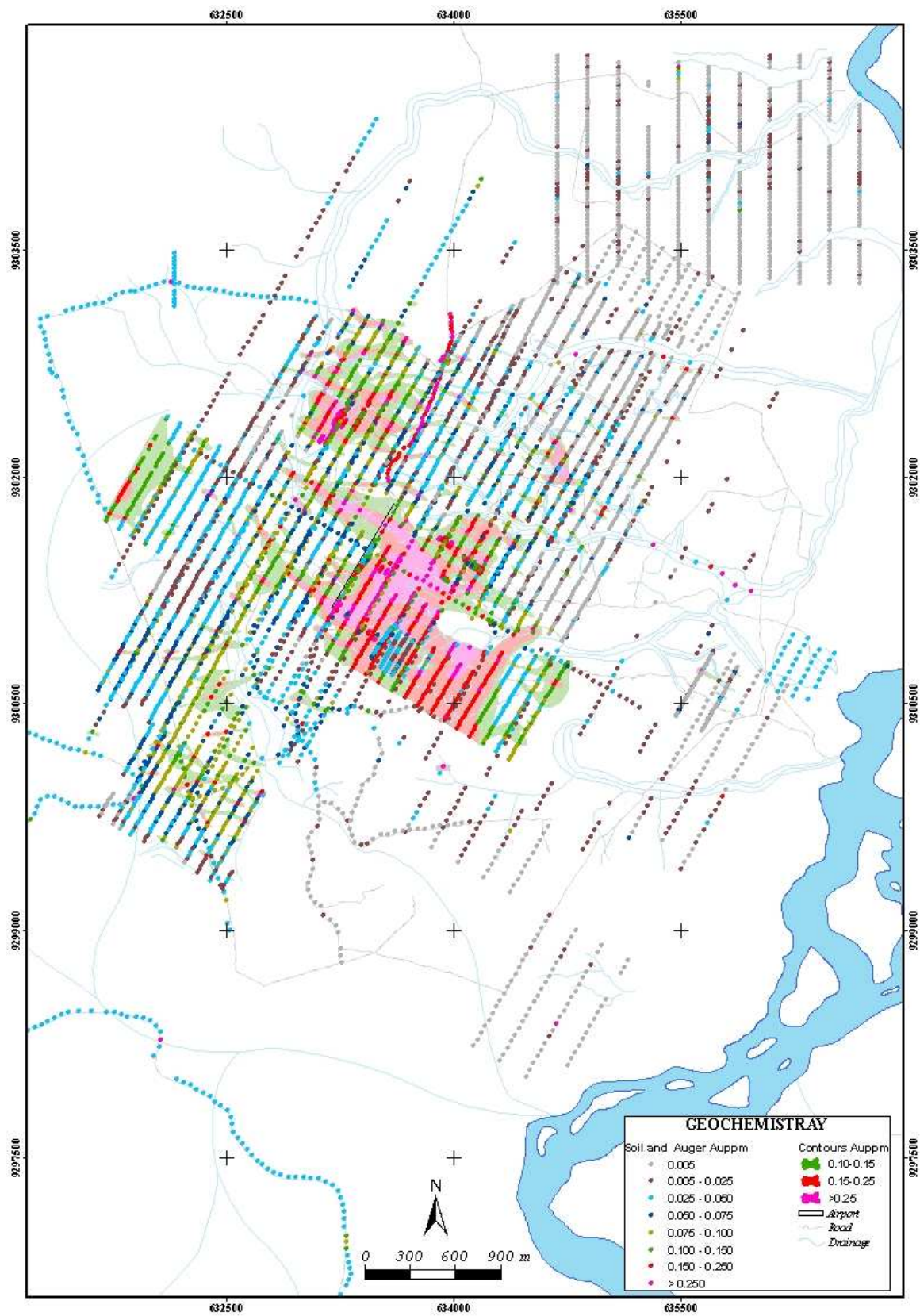
Since 2007, all soil geochemical sampling conducted away from the immediate Palito mine area has been analysed using external laboratories and a 10ppb lower detection limit.

In 2008 a small program of deeper reconnaissance auger drilling was contracted to Explorer Services of Belem, and managed by Serabi's exploration department. This program was designed to confine the saprolite mineralisation at the Bill's Pipe prospect NW of the Palito Mine.

Also in 2008 a regional stream sediment geochemistry sampling program was contracted to Explorer Services to complete coverage of the entirety of the Jardim do Ouro project. This program involved Serabi defining the sample points and Explorer Services collecting a 200gm <200# sample and a 3kg < 2mm sample which were subsequently submitted SGS Geosol of Belo Horizonte for analysis using a 10ppb detection limit.

This program defined a number of anomalous areas outside the immediate Palito mine area, defined by a greater than detection (>10ppb) analysis. To date these anomalous areas have not been followed up.

Figure 10-2: Geochemical map: gold in soil and auger



10.3 REMOTE SENSING

In 2008 Seniografia was contracted to provide Serabi with a series of Spot 5 Satellite images of the Jardim do Ouro project, along with the Modelo and Pison project areas.

Also in 2008 as part of the Geotech/Microsurvey geophysical program, Serabi acquired a laser altimetry of the survey area surrounding the Palito Mine and immediate environment.

Serabi have also used in addition publically available Landsat and SRTM terrain images for spatial and lineament analyses.

10.4 EXPLORATION STRATEGY

Serabi has been exploring the Jardim do Ouro project since 2002 and during this time has gained a robust understanding of the geology, geochemistry and geophysical signatures and controls of the mineralisation within the Palito mine and the Jardim do Ouro project area.

Serabi believes it has developed a successful guideline for the discovery of new deposits in the Jardim do Ouro area, following a tested methodology.

Exploration uses the following process

- Ground selection – NW-SE structural corridor, with NE-SW breaks
- Remote sensing and remote geophysics, VTEM, magnetic
- Ground geophysics (IP, EM) and shallow geochemical sampling and/or drilling (auger/RAB)
- Diamond drilling based on integrated models and ranking.

Specifically exploration should focus on structural corridors parallel to, or extensions of the Palito trend (310°) and specifically where the Palito Central Fault (070°) analogies exist.

Topographic highs or the flanks are considered more prospective due to silicification of the country rock making them more resistive to weathering.

IP is a viable method to delineate drill targets on a prospect scale.

Palito structural setting is not unique as lineament analysis defines several other look-alike settings in the immediate area.

The fluid source for the vein mineralization may be close, hence it is worth considering other mineralization models, such as fertile intrusions (gabbros or discrete granite intrusions).

10.5 EXPLORATION PROGRAM

This exploration strategy is to explore and build Serabi's resources to 1.5 million ounces. With an existing resource of 670,000 gold equivalent ounces in place at Palito, the discovery of just two similar sized deposits from the 18 priority targets identified in the 2008 airborne geophysical survey formed the basis of Serabi's minesite exploration strategy. The exploration activity is therefore focused upon advancing these 18 targets through extensive ground-based geophysical and geochemical programmes. The initial airborne VTEM survey identified anomalous areas of electro-

magnetic properties. Previously at Palito such anomalous zones were shown to be coincident with the existence of areas of massive sulphide mineralization, which represents some 20% of the known mineralized areas of the Palito deposit, with the remaining gold mineralization consisting of a more disseminated form located within quartz sulphide veins. Earlier success at Palito demonstrated that this type of mineralization can be successfully identified by the use of ground-based geophysics, using a technique known as Induced Polarization (“IP”). By mid 2010, a 45 line-kilometre IP survey had been completed, covering 13 of the original 18 targets, of these 13 targets, 9 targets have been advanced to drill ready status. Drilling of these nine targets is now planned to commence before the year end, through a 7500m programme.

Serabi has developed a US\$9,69 million, 18 month budget to continue exploration for the discovery of additional mineralized systems in the Jardim do Ouro project, divided into “near mine” and “regional exploration” initiatives. It includes US\$ 2 million for corporate costs. It is depicted in the Table 10-2. The technical details of this budget are seen in the Table 10-3, which is developed in Brazilian Reais. Serabi used a fixed currency rate of 1.65 R\$/US\$.

Near mine exploration program consists of approximately 7500m of diamond drilling to test integrated geophysical/geological models developed in 2008-2010.

Approximately 50 line kilometers of additional IP surveying to expand on the IP anomalies defined in 2010 and to complete coverage of those integrated targets on the eastern side of the “Rio Novo” river, along strike of the Palito mineralized system.

Geochemical and shallow surface exploration is anticipated in conjunction with the ongoing exploration consisting of grid construction, line cutting and access, surface soil, shallow auger or RAB drilling and trenching.

Regionally a program of approximately 15,000Ha of new helicopter borne VTEM/magnetic is budgeted to pursue prospective areas NE and SW of the Palito mine lease along interpreted 070 degree corridors and to the NW along strike of the Palito mineralized system.

Post the VTEM/magnetic survey, geophysical data processing and integration with existing geological datasets, a proposed 150 line km of ground geophysical surveying is budgeted to pursue new targets and define drill targets for the ongoing exploration initiatives.

Geochemical and shallow surface exploration is anticipated in conjunction with the ongoing exploration consisting of grid construction, line cutting and access, surface soil, shallow auger or RAB drilling and trenching.

Table 10-2: Serabi cash flow along 18 months: exploration and support activities

Cash Flow USD	jan/11	fev/11	mar/11	abr/11	mai/11	jun/11	jul/11	ago/11	set/11	out/11	nov/11	dez/11	jan/12	fev/12	mar/12	abr/12	mai/12	jun/12	Total	2011	2012	Total
Brazil Exploration Expenditures																						
Palito staffing	111,364	111,364	111,364	111,364	111,364	111,364	111,364	111,364	111,364	37,121	55,682	55,682	37,121	37,121	37,121	37,121	37,121	37,121	1,373,485	1,150,758	222,727	1,373,485
Near Mine Exploration	330,303	330,303	400,000	400,000	400,000	330,303	330,303	275,758	84,848	-	-	-	-	-	-	-	-	-	2,881,818	2,881,818	-	2,881,818
Regional Exploration	148,485	148,485	-	24,242	24,242	24,242	-	-	-	-	-	-	-	-	-	-	-	-	369,697	369,697	-	369,697
Land Taxes & Rents	48,234	16,667	16,667	16,667	16,667	16,667	78,273	16,667	16,667	16,667	16,667	16,667	48,234	16,667	16,667	16,667	16,667	16,667	424,741	293,174	131,568	424,741
Capital Items	204,545	34,182	16,667	12,121	9,091	15,152	7,576	16,667	-	12,121	9,091	-	-	-	-	-	-	-	337,212	337,212	-	337,212
Land Acquisitions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Brazil Direct Expl. Exp.	842,931	641,000	544,697	564,394	561,364	497,727	527,515	420,455	212,879	65,909	81,439	72,348	85,355	53,788	53,788	53,788	53,788	53,788	5,386,953	5,032,659	354,295	5,386,953
Brazil Exploration Support																						
Palito camp&consumables	101,515	95,455	101,515	95,455	101,515	95,455	101,515	95,455	101,515	37,879	37,879	35,859	37,879	35,859	37,879	37,879	37,879	37,879	1,226,263	1,001,010	225,253	1,226,263
Management	21,636	21,636	21,636	21,636	22,718	22,718	22,718	22,718	22,718	34,077	34,077	22,718	22,718	22,718	22,718	22,718	22,718	22,718	427,318	291,009	136,309	427,318
Itaituba and IT	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	12,121	218,182	145,455	72,727	218,182
Total Brazil Direct Support Exp.	135,273	129,212	135,273	129,212	136,355	130,294	136,355	130,294	136,355	72,718	84,077	82,057	72,718	70,698	72,718	72,718	72,718	72,718	1,871,763	1,437,474	434,289	1,871,763
UK Exploration Expenditures																						
Exploration Staffing	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	19,647	353,647	235,765	117,882	353,647
Travel and Sundry	2,000	-	2,000	-	2,000	-	2,000	-	2,000	-	2,000	-	2,000	-	2,000	-	2,000	-	18,000	12,000	6,000	18,000
Total UK Direct Expl. Exp.	21,647	19,647	21,647	19,647	21,647	19,647	21,647	19,647	21,647	19,647	21,647	19,647	21,647	19,647	21,647	19,647	21,647	21,647	371,647	247,765	123,882	371,647
Total Exploration	999,851	789,859	701,617	713,253	719,365	647,668	685,517	570,396	370,880	158,274	187,164	174,053	179,721	144,133	148,153	146,153	148,153	146,153	7,630,363	6,717,897	912,466	7,630,363
Corporate G&A																						
Brazil	28,909	28,909	28,909	28,909	29,991	29,991	29,991	29,991	29,991	29,991	41,350	41,350	29,991	29,991	29,991	29,991	29,991	29,991	558,227	378,282	179,945	558,227
UK	54,607	61,419	97,906	53,290	165,975	113,291	57,644	64,869	94,460	56,189	69,364	82,839	55,716	63,319	97,156	59,947	158,876	94,615	1,501,479	971,851	529,628	1,501,479
Total Corporate Costs	83,516	90,329	126,815	82,199	195,966	143,282	87,635	94,859	124,450	86,179	110,714	124,189	85,707	93,309	127,147	89,938	188,867	124,605	2,059,706	1,350,133	709,574	2,059,706
TOTAL BUDGET	1,083,367	880,188	828,432	795,452	915,331	790,950	773,152	665,255	495,331	244,454	297,877	298,242	265,427	237,442	275,300	236,091	337,020	270,759	9,690,069	8,068,030	1,622,040	9,690,069
Cash Flow BrR\$	jan/11	fev/11	mar/11	abr/11	mai/11	jun/11	jul/11	ago/11	set/11	out/11	nov/11	dez/11	jan/12	fev/12	mar/12	abr/12	mai/12	jun/12	Total	2011	2012	Total
Brazil Exploration Expenditures																						
Palito staffing	183,750	183,750	183,750	183,750	183,750	183,750	183,750	183,750	183,750	61,250	91,875	91,875	61,250	61,250	61,250	61,250	61,250	61,250	2,266,250	1,898,750	367,500	2,266,250
Near Mine Exploration	545,000	545,000	660,000	660,000	660,000	545,000	545,000	455,000	140,000	-	-	-	-	-	-	-	-	-	4,755,000	4,755,000	-	4,755,000
Regional Exploration	245,000	245,000	-	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	610,000	610,000	-	610,000
Land Taxes & Rents	79,587	27,500	27,500	27,500	27,500	27,500	129,150	27,500	27,500	27,500	27,500	27,500	79,587	27,500	27,500	27,500	27,500	27,500	700,823	483,737	217,087	700,823
Capital Items	337,500	56,400	27,500	20,000	15,000	25,000	12,500	27,500	-	20,000	15,000	-	-	-	-	-	-	-	556,400	556,400	-	556,400
Land Acquisitions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Brazil Direct Expl. Exp.	1,390,837	1,057,650	898,750	931,250	926,250	821,250	870,400	693,750	351,250	108,750	134,375	119,375	140,837	88,750	88,750	88,750	88,750	88,750	8,888,473	8,303,887	584,587	8,888,473
Brazil Exploration Support																						
Palito camp&consumables	167,500	157,500	167,500	157,500	167,500	157,500	167,500	157,500	167,500	62,500	62,500	59,167	62,500	59,167	62,500	62,500	62,500	62,500	2,023,333	1,651,667	371,667	2,023,333
Management	35,700	35,700	35,700	35,700	37,485	37,485	37,485	37,485	37,485	37,485	56,228	56,228	37,485	37,485	37,485	37,485	37,485	37,485	705,075	480,165	224,910	705,075
Itaituba and IT	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	360,000	240,000	120,000	360,000
Total Brazil Direct Support Exp.	223,200	213,200	223,200	213,200	224,985	214,985	224,985	214,985	224,985	119,985	138,728	135,394	119,985	116,652	119,985	119,985	119,985	119,985	3,088,408	2,371,832	716,577	3,088,408
UK Exploration Expenditures																						
Exploration Staffing	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	32,418	583,518	389,012	194,506	583,518
Travel and Sundry	3,300	-	3,300	-	3,300	-	3,300	-	3,300	-	3,300	-	3,300	-	3,300	-	3,300	-	29,700	19,800	9,900	29,700
Total UK Direct Expl. Exp.	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	35,718	32,418	613,218	408,812	204,406	613,218
Total Exploration	1,649,754	1,303,268	1,157,668	1,176,868	1,186,953	1,068,653	1,131,103	941,153	611,953	261,153	308,820	287,187	296,539	237,819	244,453	241,153	244,453	241,153	12,590,099	11,084,530	1,505,569	12,590,099
Corporate G&A																						
Brazil	47,700	47,700	47,700	47,700	49,485	49,485	49,485	49,485	49,485	49,485	68,228	68,228	49,485	49,485	49,485	49,485	49,485	49,485	921,075	624,165	296,910	921,075
UK	90,102	101,342	161,545	87,928	273,858	186,930	95,113	107,033	155,858	92,711	114,450	136,685	91,931	104,476	160,307	98,913	262,145	156,114	2,477,440	1,603,554	873,886	2,477,440
Total Corporate Costs	137,802	149,042	209,245	135,628	323,343	236,415	144,598	156,518	205,343	142,196	182,677	204,912	141,416	153,961	209,792	148,398	311,630	205,599	3,398,515	2,227,719	1,170,796	3,398,515
TOTAL BUDGET	1,787,556	1,452,310	1,366,912	1,312,496	1,510,296	1,305,067	1,275,700	1,097,671	817,296	403,349	491,497	492,099	437,955	391,780	454,245	389,551	556,083	446,752	15,988,615	13,312,249	2,676,365	15,988,615

Table 10-3: Exploration budget: detailed activities.

			2,011												2,012						2,011	2,012
	total USD	total BRL	Jan	Feb	Mar	Abr	Mai	Jun	Jul	Ago	Set	Out	Nov	Dez	Jan	Fev	Mar	Abr	Mai	Jun	Total	Total
Discovery Drilling T1-9 (7,500m @ 275USD/m - 450BRL/m)	1,909,091	3,150,000	405,000	405,000	405,000	405,000	405,000	405,000	405,000	315,000											3,150,000	-
Resource Def Drilling T1-9 (6,000m)		-																			-	-
Ground IP T14-18	209,091	345,000			115,000	115,000	115,000														345,000	-
Discovery Drilling T14-18 (5,000m @ 275USD/m - 450BRL/m)	1,363,636	2,250,000																			-	-
Resource Def Drilling T14-18 (4,500m)		-																			-	-
Augur Drilling & Trenching	763,636	1,260,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000										1,260,000	-
Technical Resource Report	30,303	50,000																			-	-
Total Near Mine	4,275,758	7,055,000	545,000	545,000	660,000	660,000	660,000	545,000	545,000	455,000	140,000	-	-	-	-	-	-	-	-	-	4,755,000	-
Regional																						
VTEM 15,000 Hectares (750kUSD)	742,424	1,225,000	245,000	245,000																	490,000	-
Ground IP & DHEM	627,273	1,035,000																			-	-
Geochemistry	72,727	120,000				40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Discovery Drilling (3,500m @ 275USD/m - 450BRL/m)		-																			-	-
Total Regional	1,442,424	2,380,000	245,000	245,000	-	40,000	40,000	40,000	-	-	-	-	-	-	-	-	-	-	-	-	610,000	-
Total Exploration	5,718,182	9,435,000																			5,365,000	-
Exploration Support																						
DNPM TAH - Taxes & Garimpo/Airstrip Lease	424,741	700,823	79,587	27,500	27,500	27,500	27,500	27,500	129,150	27,500	27,500	27,500	27,500	27,500	79,587	27,500	27,500	27,500	27,500	27,500	483,737	217,087
Capex	337,212	556,400	337,500	56,400	27,500	20,000	15,000	25,000	12,500	27,500	-	20,000	15,000	-	-	-	-				556,400	-
Land Acquisition (Currutela+ Raimundo's PLGs)	-	-																			-	-
Palito Staffing	1,373,485	2,266,250	183,750	183,750	183,750	183,750	183,750	183,750	183,750	183,750	183,750	61,250	91,875	91,875	61,250	61,250	61,250	61,250	61,250	61,250	1,898,750	367,500
Total Exploration Support	2,135,438	3,523,473	600,837	267,650	238,750	231,250	226,250	236,250	325,400	238,750	211,250	108,750	134,375	119,375	140,837	88,750	88,750	88,750	88,750	88,750	2,938,887	584,587
Total	7,853,620	12,958,473	1,390,837	1,057,650	898,750	931,250	926,250	821,250	870,400	693,750	351,250	108,750	134,375	119,375	140,837	88,750	88,750	88,750	88,750	88,750	8,303,887	584,587

11. DRILLING

Totals for meters drilled at Jardim do Ouro property including exploration and resource work are shown in Table 11-1, according to the database supplied by Serabi on 30 May 2010.

Table 11-1: Drilling Summary

Sample Type	Total Metres	No. of Assays	Metres Sampled	No. of Holes
Core-Surface	85744	23183	20133.63	510
Core-Underground	16487	5965	5062.65	336
Reverse Circulation	4410	4036	4260.2	74
RAB	4239	1810	4198.5	320
Auger	16353	7497	16262.11	4472
Channel Samples	15294	15111	11795.97	5724
Total	142527	57602	61713.06	11436

11.1 DIAMOND DRILLING

RTDM completed 6 diamond drill holes in late 1996 in the initial phase of drilling targeting the mineralisation associated with the Palito Main Zone and proximal prospects. This drilling totalled 1610.06m in holes FJO-01 to FJO-06. It successfully intersected the mineralisation within the Palito system. However the narrow nature of the mineralisation and the lack of a large tonnage low grade potential of the system predetermined that RTDM would not continue to develop the project. Serabi has incorporated this drilling into the database and subsequently re-logged and re-sampled the core for confirmatory analysis.

In 2003 Serabi purchased a Sondeq SS35, conventional surface diamond drill and commenced owner operator drilling using a combination of HQ and BW diameter coring equipment. In 2004 Serabi purchased a Sondeq SS61 model, surface wire line operated drill rig to augment the production of drill core. This rig was again owner operated running a combination of HQ and NQ diameter coring equipment.

In 2005 Serabi purchased two Maquesonda 1200 model wire line drill rigs which have greater depth capacity than the Sondeqs previously purchased. These rigs commenced operation in late 2005 and early 2006 respectively, operating with a combination of HQ and NQ diameter coring equipment.

In 2007 additional drilling contractors were introduced into the project to augment production from the surface drill rigs. GeoLogica Sondagens were contracted initially for a period of 3 months to complete a short term contract. Following this success, GeoLogica were contracted to undertake a 25,000m of HQ and NQ drilling using UDR200 series rigs.

In late 2007, Serabi sub-leased their two Maquesonda 1200 rigs to GeoLogica and ceased owner operation of these two rigs. Serabi continued to operate the smaller Sondeq rigs until October 2008 when the rigs were decommissioned.

In 2005 Serabi purchased three Longyear "MetreEater AQ" hydraulic-pneumatic underground drill rigs operating BQ diameter equipment. These rigs were acquired to commence underground exploration drilling post the commencement of the pilot scale mining in 2004. Since commissioning of the rigs in late 2005 they have completed in excess of 16400m of BQ core drilling.

In 2008 Serabi also purchased a JKS Bazooka man portable underground diamond drill rig to supplement the production of the Longyear AQ metre Eater rigs, however following issues with air pressure limitations underground this drill rig was never fully commissioned at Palito Mine.

Diamond drilling results are discussed extensively in the resource estimation section of this report. The resource estimation covers diamond drilling up until the cut off period of 31st March 2008. Subsequent exploration surface diamond drilling has been completed in the Palito South and in the Palito West areas. Underground diamond drill continued within the mine until suspension of mining activities in December 2008.

Surface diamond drill holes not included in the resource estimate are the holes PDD0419 to PDD0454, totalling 8158 m. Significant results from surface diamond drilling not included in the resource estimation are tabled below.

Table 11-2: Significant intercepts on surface core drillholes executed after the March 2008 resource estimate

Hole	East (m)	North (m)	RL (m)	Dip/Az	From (m)	To (m)	Interval	Au g/t	Cu %	Zone
PDD0421	10123.03	19939.56	260.61	-60/210	15.45	16.00	0.55	8.36	0.22	Jatoba
					186.00	189.87	3.87	18.85	0.31	G3
					277.35	278.53	1.18	1.92	0.83	G2
PDD0423	10291.49	21200.90	211.99	-50/210	228.43	229.50	1.07	3.22	0.00	G3
PDD0428	10202.52	20098.39	251.82	-50/210	101.28	101.89	0.61	1.64	0.10	Jatoba
PDD0432	10212.58	19938.48	267.76	-52/210	270.96	274.90	3.94	3.02	0.02	G3
					279.14	282.94	3.80	7.44	0.23	G3
PDD0436	10180	19900	270.98	-63/210	83.08	83.85	0.77	2.1	0.05	Jatoba
					292.10	293.15	1.05	5.61	0.37	G3
PDD0437	10139.94	20018.75	254.23	-70/210	31.64	32.82	1.18	3.75	0.42	Munguba
					90.07	91.02	0.95	6.23	0.01	Jatoba
PDD0444	9995.37	19599.97	210.83	-60/210	55.15	56.12	0.97	3.43	0.04	G3
					58.90	59.83	0.93	34.75	0.24	G3
PDD0447	10025.26	19659.94	218.82	-50/210	227.70	228.33	0.63	0.36	0.22	G3
PDD0448	9906.46	19867.39	212.31	-50/30	175.23	176.33	1.10	0.99	0.12	G3
					180.08	181.00	0.92	1.06	0.01	G3
PDD0450 including	10014.08	19740.98	223.5	-50/210	54.25	56.80	2.55	2.43	0.55	G3
					55.65	56.80	1.15	3.56	1.1	
PDD0452	10011.37	19525.2	202.81	-50/210	75.64	76.55	0.91	5.01	0.04	G3
PDD0424	9975.46	20289.78	218.16	-56/269	91.49	92.54	1.05	1.45	0.03	Farias
					228.44	229.51	1.07	9.33	0.50	Pipoca
PDD0426	9968.3	20250.06	220.2	-50/271	80.41	81.25	0.84	2.39	0.04	Farias
					194.85	196.49	1.64	1.91	0.19	Pipoca
PDD0431	9968.42	20250.19	220.23	-63/210	65.72	66.30	0.58	22.2	0.05	Jastes
					114.83	115.39	0.56	15.8	0.06	Verde
					140.27	142.00	1.73	6.75	0.09	Farias
					275.31	276.48	1.17	2.52	0.06	Pipoca
PDD0445	9878.43	20297.46	218.86	-65/210	22.35	23.20	0.85	52.15	0.88	Farias
					57.70	58.63	0.93	1.33	0.08	Pipoca
PDD0346Ex	9927.19	20325.64	220.02	-60/210	177.17	178.20	1.03	1.52	0.32	Pipoca
PDD0449	9900.56	20361.99	234.71	-53/210	15.62	16.28	0.66	9.51	1.74	Farias
					93.06	95.20	2.14	9.04	0.16	Pipoca
PDD0451	9934.85	20485.49	269.84	-60/210	7.00	8.80	1.80	6.01	0.07	Verde
					20.81	22.30	1.49	25.61	0.41	Farias
					98.74	99.28	0.54	2.02	0.31	Pipoca

PDD0453	9950.52	20530.01	280.83	-50/210	85.84	86.66	0.82	17.1	0.15	Pipoca
PDD0454	9934.24	20569.95	293.62	-50/210	79.50	80.45	0.95	11.46	0.11	Pipoca

Note: Assay intercepts are calculated based on a minimum grade 1g/t Au using a 0.5gm Au lower cut and a maximum internal waste interval of 1.2m

Underground diamond drilling not included in the resource estimation includes drill holes PUD297-PUD334, totalling 2133 m. Significant results from underground diamond drilling not included in the resource estimation are tabled below.

Table 11-3: Significant intercepts on surface core drillholes executed after the March 2008 resource estimate

Hole	From (m)	To (m)	Interval	Au g/t	Cu %
PUD0298	31.32	31.84	0.52	1.77	0.08
PUD0298	34.37	35.75	1.38	13.46	0.21
PUD0300	54.89	55.62	0.73	0.99	0.55
PUD0302	8.61	10.14	1.53	2.70	0.02
PUD0303	27.28	36.54	9.26	2.68	0.2
PUD0303	43.88	45.78	1.90	2.93	0.27
PUD0304	39.00	39.51	0.51	2.56	0.17
PUD0304	52.53	53.62	1.09	1.03	0.02
PUD0298	31.32	31.84	0.52	1.77	0.08
PUD0298	34.37	35.75	1.38	13.46	0.21
PUD0300	54.89	55.62	0.73	0.99	0.55
PUD0302	8.61	10.14	1.53	2.70	0.02
PUD0303	27.28	36.54	9.26	2.68	0.2
PUD0303	43.88	45.78	1.90	2.93	0.27
PUD0304	39.00	39.51	0.51	2.56	0.17
PUD0312	15.29	16.30	1.01	5.01	0.09
PUD0312	29.15	30.06	0.91	1.33	0.01
PUD0313	1.38	3.58	2.20	0.96	0.22
PUD0313	6.05	9.66	3.61	21.31	1.75
PUD0313	13.77	15.44	1.67	18.87	0.02
PUD0313	28.84	29.57	0.73	3.11	0.11
PUD0313	45.42	46.15	0.73	1.60	0.26
PUD0313	48.22	50.07	1.85	22.53	0.67
PUD0313	55.05	55.61	0.56	10.65	1.71
PUD0314	0.42	1.47	1.05	2.88	0.05
PUD0314	3.86	6.70	2.84	2.32	0.10
PUD0314	10.58	11.45	0.87	1.15	0.05
PUD0314	38.55	39.48	0.93	20.39	0.25
PUD0315	7.18	14.10	6.92	0.92	0.11
PUD0315	15.65	24.19	8.54	0.70	0.11
PUD0316	11.54	19.48	7.94	8.43	0.36
PUD0317	17.87	23.43	5.56	13.05	0.59
PUD0317	25.41	26.41	1.00	6.63	1.59
PUD0317	28.73	31.05	2.32	0.52	0.14
PUD0317	43.42	49.29	5.87	0.38	0.74
PUD0317	50.26	56.03	5.77	1.77	0.33
PUD0317	70.77	72.70	1.93	3.80	0.14
PUD0318	6.92	11.72	4.80	12.41	1.31
PUD0318	14.11	18.70	4.59	0.62	0.35

PUD0318	47.03	57.82	10.79	52.29	1.74
PUD0318	67.63	76.56	8.93	2.36	0.13
PUD0319	4.08	4.64	0.56	2.80	0.01
PUD0319	5.91	6.58	0.67	2.79	0.04
PUD0319	12.97	18.93	5.96	26.20	0.18
PUD0319	26.27	26.79	0.52	2.09	0.04
PUD0319	30.98	31.48	0.50	14.36	0.02
PUD0319	42.70	44.48	1.78	4.33	0.02
PUD0319	50.71	58.09	7.38	3.93	1.23
PUD0319	60.23	64.88	4.65	3.25	0.10
PUD0320	21.58	23.48	1.90	5.77	0.07
PUD0322	15.29	17.25	1.96	0.66	0.04
PUD0324	16.60	18.64	2.04	1.16	0.03
PUD0324	22.18	26.68	4.50	0.94	0.03
PUD0325	11.40	20.73	9.33	2.02	0.07
PUD0325	21.37	26.59	5.22	0.87	0.07
PUD0331	16.68	17.29	0.61	12.89	0.06
PUD0333	12.56	13.46	0.90	3.84	0.02

Note: Assay intercepts are calculated based on a minimum grade 1g/t Au using a 0.5gm Au lower cut and a maximum internal waste interval of 1.2m

The total table of drilling occurred after the March 2008 resource model is depicted below. The right end column discloses if the hole was intended to in-fill the model (code: infill) or to extend the known orebodies (code: step-out).

Table 11-4: Surface core drilling executed after the March 2008 resource model

Hole	Total (m)	Local_E (m)	Local_N (m)	Local_RL (m)	UTM_E (m)	UTM_N (m)	UTM_RL (m)	Target Zone	Included Mar_08 Model
PDD0438	241.4	10400	20080.17	1225.44	634131	9301586	225	Chico da Santa	Infill
PDD0430	250.05	9650.42	21489.8	1243.26	632535	9301642	243	Copper Hill South	Step-out
PDD0434	250.05	9649.81	21540.02	1247.61	632491	9301667	248	Copper Hill South	Step-out
PDD0439	184.75	9750.8	21186.85	1225.85	632848	9301578	226	Copper Hill South	Step-out
PDD0419	277.9	10330.54	21160.1	1222.22	633161	9302066	222	Palito North	Step-out
PDD0423	250	10290.62	21200.4	1211.99	633106	9302052	212	Palito North	Step-out
PDD0427	24.5	10316.59	20639.91	1314.27	633604	9301794	314	Palito North	Step-out
PDD0435	202.1	10111.63	21303.3	1208.77	632927	9301948	209	Palito North	Step-out
PDD0442	176.75	10150.09	21189.94	1202.01	633045	9301925	202	Palito North	Step-out
PDD0443	140.75	10175.12	21365.01	1207.68	632905	9302034	208	Palito North	Step-out
PDD0421	299.45	10123.03	19939.56	1260.61	634114	9301276	261	Palito South	Infill
PDD0422	275.9	10184.91	20061.24	1254.15	634039	9301391	254	Palito South	Infill
PDD0425	340.05	10185.63	20061.38	1254.12	634040	9301391	254	Palito South	Infill
PDD0428	284.25	10202.52	20098.39	1251.82	634016	9301425	252	Palito South	Infill
PDD0432	380	10212.58	19938.48	1267.76	634160	9301353	268	Palito South	Infill
PDD0433	298.6	10177.44	19899.8	1270.22	634176	9301304	270	Palito South	Step-out
PDD0436	400.7	10177.85	19900.14	1270.87	634175	9301304	271	Palito South	Step-out
PDD0437	295.5	10139.94	20018.75	1254.23	634054	9301331	254	Palito South	Infill
PDD0440	352.4	10252.01	20340.02	1277.35	633832	9301588	277	Palito South	Infill
PDD0441	326.25	10250.26	20159.91	1260.55	633987	9301497	261	Palito South	Infill
PDD0444	220.15	9995.37	19599.97	1210.83	634344	9300996	211	Palito South	Step-out
PDD0446	120	9959.58	19585.79	1206.68	634339	9300958	207	Palito South	Step-out
PDD0447	238.45	10025.26	19659.94	1218.82	634307	9301052	219	Palito South	Step-out

PDD0448	193.35	9906.46	19867.39	1212.31	634068	9301053	212	Palito South	Step-out
PDD0450	230.95	10014.08	19740.98	1223.5	634231	9301083	224	Palito South	Step-out
PDD0452	220.35	10010.66	19524.88	1202.87	634417	9300972	203	Palito South	Step-out
PDD0346 Extension	35.05	9927.19	20325.64	1220.02	633682	9301300	220	Palito West	Infill
PDD0420	107.7	9704.59	20129.77	1231.39	633740	9301009	231	Palito West	Step-out
PDD0424	256.35	9975.46	20289.78	1218.16	633737	9301324	218	Palito West	Infill
PDD0426	224.04	9968.3	20250.06	1220.2	633768	9301298	220	Palito West	Infill
PDD0429	181.8	9710.73	20450.16	1262.99	633466	9301175	263	Palito West	Step-out
PDD0431	300.3	9968.42	20250.19	1220.23	633768	9301298	220	Palito West	Infill
PDD0445	79.85	9878.43	20297.46	1218.86	633682	9301243	219	Palito West	Infill
PDD0449	120.55	9900.56	20361.99	1234.71	633637	9301295	235	Palito West	Infill
PDD0451	125	9934.85	20485.49	1269.84	633547	9301386	270	Palito West	Step-out
PDD0453	146.7	9950.52	20530.01	1280.95	633516	9301422	281	Palito West	Step-out
PDD0454	105.95	9934.24	20569.95	1293.95	633474	9301428	294	Palito West	Step-out

11.2 REVERSE CIRCULATION DRILLING

Reverse Circulation drilling has been undertaken by Serabi on two occasions. In 2006, Wilemita Ltda, was commissioned to undertake a drilling program on the Bill's Pipe, Chico da Santa and Ruari's Ridge prospects.

In 2007 GeoLogica Sondagens were contracted to undertake a program of RC drilling on the Chico da Santa prospect.

In both circumstances the use of RC was attempted to expedite the drilling programs and provide a rapid turn-around for diamond drill planning and to assess the potential of the shallower, saprolite and oxide mineralisation in the near mine environment.

Due to the shallow, limited extent of the saprolite and weather profile in the region, RC proved to be less effective than anticipated, due mainly to the depth of the regolith profile encountered and because of the hard abrasive nature of the granites, production was not significantly faster than that of diamond drilling.

In the period May to early July 2009 a small program of 393.6m of RC drilling was conducted to explore for shallow oxide mineralisation over existing identified lodes. The program was executed by Serabi's crawler underground drill rig completed a series of shallow drill holes prefixed with PRC in and around the Palito West and G3 south lodes. The rig was operated by Serabi personnel.

The results of the PRC drilling are not included in the resource estimation as they were completed post the 31st March 2008 cut-off for the estimation. Significant results from RC drilling not included in the resource estimation are tabled below.

Table 11-5: Significant intercepts on RC drillholes executed after the March 2008 resource estimate

Hole	East (m)	North (m)	RL (m)	Dip/Az	From (m)	To (m)	Interval	Au g/t	Cu %
PRC01	10078.325	20159.992	226.515	-43/51	0.00	9.60	9.60	1.38	0.02
PRC02	10075.461	20140.093	226.946	-40/58	0.00	2.40	2.40	1.08	0.09
PRC03	10063.962	20120.281	227.577	-43/31	2.40	7.20	4.80	9.68	0.01
					12.00	16.80	4.80	1.88	0.07

PRC05	10052.409	20079.813	228.248	-46/48	2.40	9.60	7.20	1.76	0.03
PRC08	9934.5984	20487.978	269.661	-50/210	9.60	12.00	2.40	0.73	0.02
PRC09	9929.9298	20488.004	269.649	-50/210	2.40	4.80	2.40	0.93	0.01
PRC10	9924.959	20487.925	269.626	-50/210	2.40	4.80	2.40	2.01	0.01
PRC11	9920.3762	20489.633	269.769	-50/210	12.00	14.40	2.40	2.21	0.02
PRC12	9920.1433	20504.746	274.739	-45/210	4.80	7.20	2.40	0.55	0.01
PRC13	9927.3288	20504.646	274.286	-45/210	9.60	12.00	2.40	1.35	0.01
PRC16	9945.03	20465.044	264.256	-42/218	12.00	16.80	4.80	13.28	0.54
PRC18	9925.053	20464.99	263.355	-47/211	2.40	7.20	4.80	1.20	0.01
PRC19	10049.907	20098.696	228.114	-62/38	0.00	2.40	2.40	0.54	0.01
PRC20	10059.951	20120.021	227.63	-60/40	4.80	7.20	2.40	0.58	0.01
					9.60	14.40	4.80	16.54	0.01
PRC21	10068.21	20135.608	227.041	-62/33	0.00	4.80	4.80	1.48	0.01
					9.60	14.40	4.80	0.62	0.03
PRC24	10049.987	20109.899	227.561	-47/33	0.00	9.60	9.60	4.19	0.01
PRC25	10055.387	20109.846	227.895	-46/35	0.00	10.80	10.80	3.40	0.03
PRC26	10060.075	20110.018	227.807	-45/30	2.40	9.60	7.20	0.91	0.01
					10.80	13.20	2.40	3.37	0.11

11.3 RAB DRILLING

RAB or Rotary Air Blast drilling was undertaken by Serabi in 2009, to test a series of soil geochemistry anomalies in the immediate Palito Mine area. This RAB drilling program was contracted to GeoLogica Sondagens of Belo Horizonte.

The use of RAB drilling was again undertaken to expedite the assessment of soil geochemistry anomalies, which previously conducted by Serabi's Exploration team using auger drilling. Ground conditions and logistical issues proved to be limiting and the RAB drilling was less effective and slower than anticipated.

It should be noted that RAB drilling was used purely as an exploration tool and no RAB results are included in the resource estimation.

11.4 TOPOGRAPHIC SURVEYS

11.4.1 Surface Surveys

Surface surveys are carried out by the Serabi survey department using total station and theodolite optical equipment.

Surface surveys include opening lines for soil and drill traverses, marking topographic reference stations, pre-location of programmed drill collars, relocation of collars and alignment of drill azimuths after drill pad or earthwork preparation, pick up of earthworks, roads and other infrastructure.

11.4.2 Underground Surveys

Underground surveys are carried out by the Serabi survey department using total station and theodolite optical equipment.

Underground survey encompasses marking up of planned developments and pick-ups of actual developments, surveying of stopes, drives, raises, winzes and ramps, location and alignment of drill holes and collars.

All active headings are surveyed at 3 day intervals. Gradient lines are extended to the active faces on developments.

Waste development is controlled by survey through the setting of direction lines and gradient using back and fore sights and a bearing.

Survey pickups are processed with the Topograph software package and exported to an Autocad package where they are appended to the archives.

11.4.3 Drill Collar & Down Hole Surveys

All drill collar positions are surveyed in using a theodolite and maintained in the Serabi database.

Drill holes are surveyed down the hole using a Reflex E-Z shot tool, which records the dip and azimuth at selected intervals down the hole, (nominally 30m intervals). These surveys are then recorded by the geology department and maintained along with all relevant surveys in the Serabi database.

11.4.4 Topography

In addition to the locally surveyed collars and topography surrounding the Palito Mine infrastructure, Geotech/Microsurvey completed a laser altimetry survey in conjunction with the airborne geophysical survey over the Jardim do Ouro project in January 2008.

This survey was completed on 100m spaced 30° angled traverses, collecting altimetry readings, of the altitude of the helicopter in relation to the ground every 0.1 seconds

These altimeter readings were then levelled, through synchronization with helicopter flight altimeter and used to create a digital elevation map of the area surveyed.

12. SAMPLING METHODS AND APPROACHES

12.1 DRILL CORE SAMPLING

Drill sampling is undertaken at the geological core logging facilities at the Palito mine site. Every drill core is cut and sampled. Sampling protocol is such that sample intervals are a minimum of 0.5m and a maximum of 1.2m, although there are a small amount of exceptions to this within the database.

Sample selection is based on geological intervals, if the interval exceeds 1.2m it is divided equally, but not less than 50cm, into sample intervals covering the zone of interest. Should a zone of interest sampled be less than 50cm, then the sample interval is extended to exceed the zone of interest, incorporating the country/gangue rock. All exploration drill core is half core sampled, with the samples placed in a plastic bag, clearly marked with the appropriate sample number and sealed. They are then placed into larger 50 litre bags, which are in turn sealed, marked and dispatched to the laboratory.

Part of the core samples, 22% of the total core samples, were analysed at the Palito laboratory. They are in majority underground core drillholes, whose necessary turn-over period is shorter than regular surface core holes. The remainder, 88% of the samples (20311 samples within a total of 26137 samples) were sent to either the ALS Chemex, with preparation at Goiás and assaying at Brisbane, in Australia, or to the SGS Geosol laboratory, with preparation at Itaituba and assaying at Belo Horizonte, Brazil. Both laboratories used standard 30g fire assay fusion and aqua regia analysis for gold and copper. Both laboratories are reputed commercial laboratories certified. Once Palito established an onsite analytical laboratory in 2005, all samples were primarily quarter cored, with quarter core samples sent to the Palito laboratory for analysis via MIBK, which was then changed to DIBK in mid 2006, for gold and aqua regia for copper analysis.

To improve turnaround times, cost saving on analysis, and provide agility to drill hole programming, only half core samples of those intervals returning anomalous gold or copper grade from the Palito mine site laboratory were dispatched to SGS Geosol for fire assay and copper analysis.

In 2007 this process of quarter and half core analysis was abandoned, due to the establishment of a core preparation facility in Itaituba by SGS Geosol, which improved turnaround time on analysis and also due to the limited capacity of the Palito laboratory to process exploration drill samples due to the increase in mine production and mill samples assuming a higher priority to those of exploration at the site laboratory.

In October 2007 under advice received from NCL Brasil, Serabi began sample preparation of half core samples at the onsite laboratory and dispatch of prepared samples to SGS Geosol for analysis. This process continued until February 2008, when again the increased production of drill samples exceeded the preparation facilities of the laboratory and all samples were again dispatched to SGS Geosol via Itaituba for analysis.

In May 2008, Alex Stewart Analytical assumed management of the Palito mine site laboratory facilities completing a re-design and updating of the laboratory facilities, aimed at enabling certified assays to be undertaken on site without the requirement to send samples offsite for regular analysis. In August 2008, Alex Stewart passed management of the laboratory back to Serabi, having completed the redesign and reappointing of laboratory facilities.

All underground BQ size drill core is whole core sampled, and has undergone the same evolution of sample analysis as the exploration core. All underground drill core is held for a period of 3-6 months post drilling and then disposed as landfill.

12.2 REVERSE CIRCULATION DRILL SAMPLING

Reverse circulation sampling was conducted on a metre by metre basis for the entire hole with the exception of the RC program completed in 2009.

All samples were passed through a Jones Rifle Splitter quartering the entire sample and repeating until a <2kg sample weight was achieved. The samples were placed in a plastic bag, clearly marked with the appropriate sample number and sealed. They were then placed into larger 50 litre bags, which were sealed, marked and dispatched to the laboratory. When the drill sample was too moistly or wet to pass through the riffle splitter, the sample was dried either by sun drying or by oven warming until sufficiently dry to pass through the splitter.

The samples were prepared and assayed by SGS Laboratories by 30g charge fire assay for gold and aqua regia for copper or via a combination of preparation and analysis at Palito Laboratory via aqua regia for gold and copper with pulps submitted to SGS for 30g fire assay gold and aqua regia analysis.

The 2009 RC program was collected on 1.2m intervals and composited to 2.4m sample intervals. The samples for this program were only prepared and analysed at the Palito laboratory.

12.3 CHANNEL SAMPLING

Channel sampling was routinely completed as grade control for the mining operation. These samples are both faces and back samples collected along the development drives and mining fronts.

The samples are collected using a similar protocol to the diamond drill sampling protocol with a minimum length of 50cm and a maximum length of 1.2m.

The channel to be sampled is marked up by the geologist or mining technician using aerosol paint. The channel is then sampled by taking a continuous line of chip samples, using a hammer or hammer and chisel, which are collected in a bucket. The chips are then transferred into a plastic bag and marked with the appropriate sample number then sealed. Generally 2-5kg of chips for the channel sample is collected. The samples are then delivered to the Palito laboratory where they are prepared and analysed for gold and copper by aqua regia.

12.4 RAB & AUGER DRILLING & SOIL SAMPLING

Serabi has completed over 4200m of RAB (Rotary Air Blast) drilling and 16,300m of soil auger drilling (both manual and motorised) in both post hole and spot auger soil sampling. RAB and auger results were not used in the resource estimation, they are considered as just an exploration tool. RAB, auger and soil sampling coverage in the Jardim do Ouro project covers the entire Palito mine system and greater region and in local grids in the Rio Novo prospect area. Samples are collected from the following intervals: 0 -0.5m depth in the spot soil samples and 0 – 2.5m and 2.5m to 5m (or bottom of hole) depth in the post hole auger drilling. The total sample is collected on a plastic sheet in the field and homogenised by manual mixing, then quartered manual by dividing the sample pile into quarters. The selected quarter is then transferred into a plastic bag marked with the appropriate sample number and sealed. Analysis for Au and Cu is then completed by Palito Laboratory with pulps sent to SGS Geosol for re-assay at 10ppb level detection limit.

13. SAMPLE PREPARATION, ANALYSIS AND SECURITY

13.1 ANALYTICAL METHODS AND QUALITY ASSURANCE

Quality assurance during the assaying process is established at the laboratory with well defined protocols for two different types of analytical methods as described below, depending on the types of samples.

13.2 DRILL CORE METHODS

Serabi utilized the analytical services of SGS Geosol for all its drill core samples. The laboratory is located at Belo Horizonte, but the sample preparation is performed at their Itaituba facilities.

13.3 METHOD OF SAMPLE PREPARATION FOR ASSAYING

When samples arrive at the SGS Geosol sample preparation facility, they are placed into trays and dried at 110° C. When dry, the entire sample, usually about 2-3 kilograms, is crushed to minus 2 mm size and a 1 kilogram sample split is taken from the crushed product by means of a Jones splitter. This split sample is then ground to a -150 mesh pulp, and a 125 grams-size homogenized fraction removed: 50 grams of which are used for the analysis and 75 grams of which are stored in a marked envelope for future reference.

Prior to sample preparation, samples which have been marked specifically because visible gold had been observed during the rough logging of the full core are handled slightly differently from the normal samples. The entire sample is crushed and ground to -150 mesh. The sample is then passed through a 150 mesh screen. The undersize, the bulk of the sample, is weighed and treated exactly as a normal sample, with 125 grams extracted, 50 grams of which go for fire assay and 75 grams are stored for future use. The oversize is then collected, weighed, pulverized, and treated as a separate sample. Both analyses are reported separately but the laboratory calculates a weighted average of the two results in its final report. This reported single value is ascribed to the sample interval.

13.4 METHOD OF GOLD ANALYSIS BY FIRE ASSAY/AA FINISH

- (a) 50 grams of the pulverized sample is weighed into a crucible which contains a combination of fluxes such as lead oxide, sodium carbonate, borax, silica flour, baking flour or potassium nitrate. After the sample and fluxes have been mixed thoroughly, a silver inquant and a thin layer of borax is added on top.
- (b) The sample is placed into a fire assay furnace at 2000° F for one hour. At this stage, lead oxide is reduced to elemental lead and slowly sinks down to the bottom of the fusion pot or crucible collecting the gold and silver along its way to the bottom of the melt.
- (c) After one hour of fusion, the crucible is removed from the furnace and its contents poured into a conical cast iron mould. Elemental lead, which contains the precious metals, sinks to the bottom of the mould and any unwanted materials, the glassy slag, floats to the top. When cooled, the cone is removed from the mould and by hammering the glass is eliminated and a "lead button" formed.
- (d) The lead button is then put onto a preheated cupel made of bone ash and reintroduced into a furnace for a second stage of separation at 1650° F. The lead button becomes liquefied and reacts with and is absorbed by the cupel. The gold and silver which have higher melting points remain on top of the cupel.

- (e) After 45 minutes of cupellation, the spent cupel is then taken out of the furnace and cooled. The doré bead which contains the precious metals is then transferred into a test tube and dissolved in hot Aqua Regia solution heated by a hot water bath.
- (f) The amount of gold in solution is determined with an Atomic Absorption spectrometer (AA). The gold value, in parts-per-billion, or grams-per-tonne, is calculated by comparison with a set of known gold standards.

13.5 CHANNEL SAMPLES ASSAYING

The channel samples are assayed at the Palito laboratory where they are prepared, as detailed in the item 13.3 and analyzed for gold and copper by aqua regia (DIBK).

With the objective of checking the results of the Palito lab, a group of channel sub-samples was chosen by NCL and sent to the SGS laboratory, in Belo Horizonte. The criteria adopted was to select the samples contained in the ore body models, in the vicinity of in situ resources, thus not considering the samples located in waste zones nor near the mined out areas. For the proposed list of samples, 99 sub-samples were taken from coarse rejects and 1075 sub-samples were collected from pulp rejects. The former is intended to check the sample preparation, and the latter to check the analytical accuracy and precision of the Palito Lab, as compared to a “true” value, as it is here considered the SGS labs results, for practical purposes.

The conclusions of such study are that the Palito lab Au results presented poor repeatability and a moderate bias when compared with SGS results. However, most of the problems are related to results below 0.7 g/t Au. This seems to be related to a detection limit of the Palito Lab higher than expected. If we consider values above this threshold, the repeatability improves significantly, reaching the generally accepted limits of variance (90% of the samples with HARD<20%). Most of the bias also is eliminated using this procedure. For resource estimation, it was decided to transform the grades of the Palito lab, reducing any grade below 0.7 g/t to 0.01 g/t. Although conservative, this procedure has little impact on the average grade of the ore (2% reduction in the grade of the dataset analyzed) and is effective in the improvement of the quality of the information. This procedure also showed improved quality of the coarse rejects results.

But for copper, the Palito lab shows results so different than SGS’ results that it is recommended not to use the copper results of the Palito Lab until the procedures used for this metal are reviewed and new tests ensure a better repeatability of results, comparing with a commercial laboratory.

These recommendations were accepted by Serabi and adopted: the gold values obtained from the Palito Lab and below 0.7 g/t were transformed to 0.01 g/t, and the copper values from the same lab were deleted from the database used for the present resource evaluation. These measures affect only the channel samples, which have limited sphere of influence, being as they are located within excavations.

14. DATA VERIFICATION

14.1 QUALITY CONTROL MEASURES AND RESULTS

A wide range of standards has been purchased from Rocklabs (NZ), for inclusion into all batches dispatched for analysis at both SGS Geosol and Palito labs. Blanks are inserted at the start of each batch of samples submitted for analysis and a standard and blank are then alternated every 10 samples, giving approximately 10% of samples submitted as quality control/quality assurance. Historically standards were inserted for each 20/30 samples submitted to the labs, but this regime was changed in mid 2007 for tighter control.

Blanks are sourced from a granite outcrop on site and are submitted routinely with each batch.

In addition to standards submitted by Serabi to the labs, the labs report on their own internal standards and blanks. Lab reports also contain duplicates, repeats and lab check results.

The current range of standards used by Serabi is tabled below;

Table 14-1 – List of reference standards

Standard Code (Rocklabs Certificated)	Expected Value (ppm Au)
OxA59	0.08
SE29	0.60
SF23	0.83
SG14	0.99
SJ10	2.64
SJ22	2.60
SJ32	2.64
SL34	5.89
SN16	8.37
SN26	8.54
SP17	18.13
SP27	18.1

14.1.1 SGS Standards Performance

The SGS laboratory results for standards are generally within an acceptable difference with the certified grade. Results of the vast majority are within 2 standard deviations from the expected mean, if considering the population of results from the round robin test realized by Rocklabs.

Figure 14-1) demonstrates the SGS analysis of the SE29 – 0.60ppm Rocklabs standard reporting a calculated mean of 0.58ppm.

Figure 14-1: Performance of SGS Laboratory using Rocklabs SE29 – 0.60ppm standard.

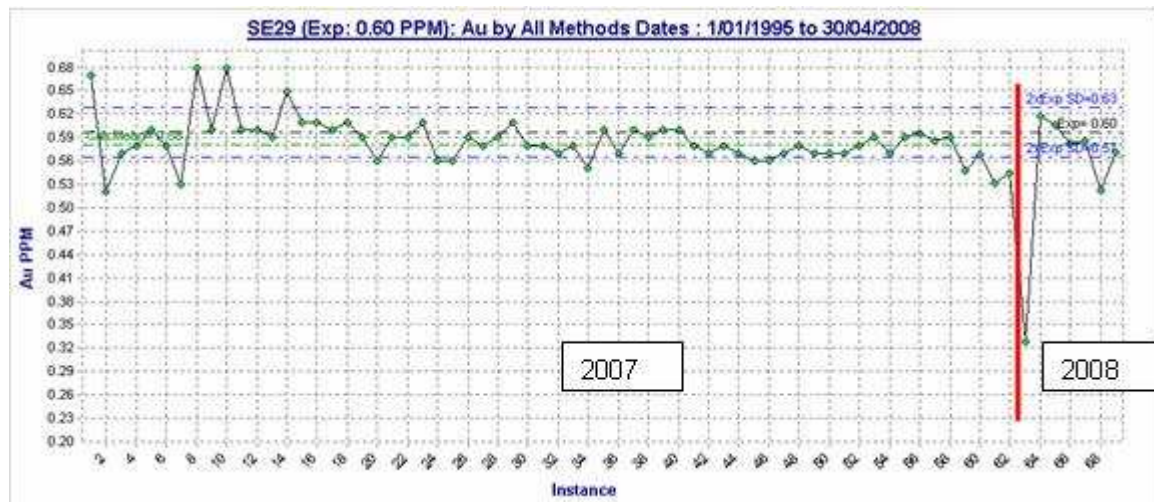
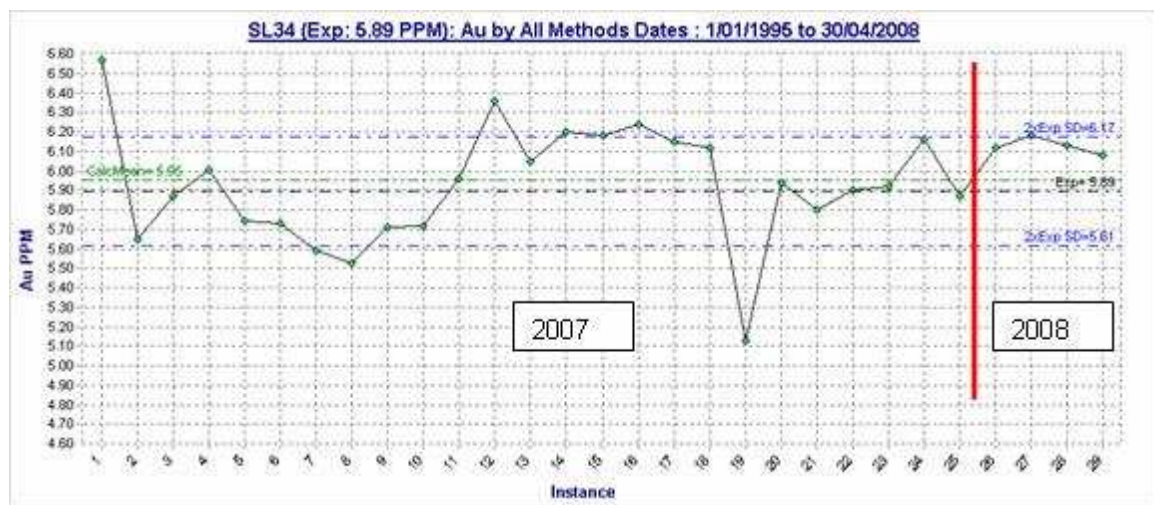


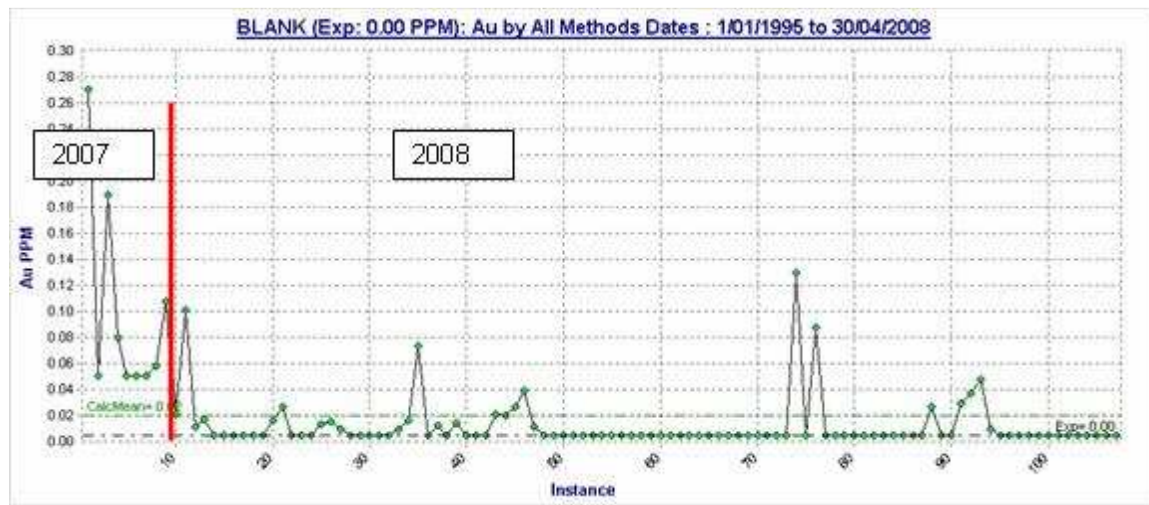
Figure 14-2 demonstrates the SGS analysis of the SL34 – 5.89ppm Rocklabs standard reporting a calculated mean of 5.96ppm. Most data plotted on the graph is within 2 standard deviations from the mean.

Figure 14-2 – Performance of SGS Laboratory using Rocklabs SL34- 5.89ppm standard.



The reporting of blanks sourced from local granite reflects a calculated mean of 20ppb, with a majority of the blanks reporting lesser than detect limit of 10ppb (Figure 14-2).

Figure 14-3 – Graph of blanks (granite outcrop) submitted for contamination detection.



15. ADJACENT PROPERTIES

No data from adjacent properties were used for the definition of the mineral resources at the Palito area.

16. MINERAL PROCESSING AND METALLURGICAL TESTING

The Palito ore has been subject to several metallurgical testwork programs from 2004 to 2007, and since a full scale metallurgical plant has been operating continuously at the Palito Mine since Q3 2004 for almost 5 years, with approximately 575,000 T of ore processed, and approximately 100 kOz of Au produced, there is plenty of hard data on the metallurgical behaviour of the project's ore.

16.1 METALLURGICAL TESTS

Metallurgical tests were carried out by AMMTEC Australia on behalf of Serabi Mining in April 2004 and August 2005.

Knelson Research and Technology Centre, Canada, conducted a gravity recoverable gold test on a sample of mill feed ore in November 2007.

Comminution Testing

In August 2005 a Bond Mill Work Index test was conducted on a sample of Serabi Ore. Results from this test are shown in Table 16-1.

Table 16-1 – Comminution Test Results, Aug 2005

Sample Identity	Micrometers		Grp (g/rev)	Test Aperture Pi (µm)	Bond Ball Mill Work Index (kWh/t)
	F _{K80}	P _{K80}			
Serabi Ore	2406	79.6	1.095	106	17.0

Flotation and Cyanidation Testing

In April 2004, testwork was performed on three samples of Serabi Mine Ore. The samples were labelled AmVeio 1, AmVeio 2, and AmVeio Oziel.

Testwork on these samples included three approaches to flotation, namely bulk sulphide flotation, selective copper flotation followed by bulk sulphide flotation, and straight selective copper flotation. Cyanide leach testwork, including ammoniacal cyanidation, was conducted on the flotation tailings from the selective copper flotation tests.

The head assays from the three samples are shown in Table 16-2.

Table 16-2 – Head Assay Results of Serabi Mine Ore Samples, Apr 2004

Sample Identity	Au (g/t)	Cu (%)	Ag (g/t)	Fe (%)	S (%)
AmVeio 1	34.9	0.30	8	12.7	12.6
AmVeio 2	76.0	0.85	17	13.0	14.3
AmVeio Oziel	74.5	1.11	27	11.7	11.3

Results of the flotation testing are shown in Table 16-3.

Table 16-3 – Flotation Test Results, Apr 2004

Test No	Ore Type	Float Type	Grind P ₈₀ (um)	Conc. Grade		Conc. Recovery		Float Tail	
				Cu (%)	Au (g/t)	Cu (%)	Au (%)	Cu (ppm)	Au (g/t)
GS0108	Am – 01	Bulk Sulphide	75	1.20	106	97.0	83.2	137	7.93
GS0109	Am – 02	Bulk Sulphide	75	2.56	208	98.5	92.4	172	7.70
GS0110	Am-Oziel	Bulk Sulphide	75	4.41	233	96.3	87.8	570	10.9
GS0111	Am – 01	Select Cu + Bulk	53	1.30	103	96.4	85.1	163	6.10
GS0112	Am – 02	Select Cu + Bulk	53	2.97	208	98.5	92.6	182	6.70
GS0113	Am-Oziel	Select Cu + Bulk	53	4.66	266	95.4	93.3	707	5.96
GS0114	Am – 01	Selective Cu	75	14.2	1119	93.3	67.5	211	32.5
GS0115	Am – 02	Selective Cu	75	17.1	1202	96.4	70.9	299	23.2
GS0116	Am-Oziel	Selective Cu	75	19.4	1168	87.6	78.0	1390	16.7

Bulk sulphide flotation showed good gold and excellent copper recoveries for all three samples. However, concentrate grades produced were low due to large amounts of pyrite that floated into the concentrate.

Differential flotation showed that copper can be successfully floated from pyrite but that the bulk sulphide flotation, although increasing the gold recovery, decreased the concentrate grade significantly.

Selective copper flotation showed high copper recoveries with an average of 92.4%. Sample Oziel had the lowest recovery of 87.6%. A possible explanation for this lower recovery is that the sample contained oxide copper minerals. Gold recovery averaged 72.1%. Flotation tailings grades showed that there was a significant amount of gold remaining.

A cyanide leach was conducted on the flotation tailings from the selective copper flotation tests GS0114 to GS0116.

The results of these leach tests are shown in Table 16-4.

Table 16-4 – Flotation Tails Leaching Test Results, Apr 2004

Ore	Calc'd Head (Float Tail)		Test No.	Lime (60% CaO) (kg/t)	NaCN Added (kg/t)	NaCN Used (kg/t)	Leach Residue (24 hr) Au (g/t)	Copper Extr'n (%) @ 48hrs	Gold Extr'n (%) @ 48hrs
	Au (g/t)	Cu (ppm)							
Am-01	11.50	257	GS0117	1.00	1.50	0.39	4.42	45.23	61.56
Am-02	22.63	360	GS0118	1.00	1.50	0.46	5.93	37.52	73.80
Am-Oziel	14.66	1740	GS0119	1.00	2.86	2.51	4.51	72.93	69.23

Gold extraction was 68.2% on average over the three samples. Cyanide consumption was low for samples 01 and 02, but considerably higher for sample Oziel. Copper extraction was also considerably higher for sample Oziel, indicating more cyanide soluble copper, likely as copper oxides.

Sample Am-02 of flotation tailings was reground from a P₈₀ of 75µm to a P₈₀ of 51µm determine the effect of grind on leach recovery.

The results are of this test are shown in Table 16-5.

Table 16-5 –Reground Flotation Tails Leaching Test Results, Apr 04

Ore	Calc'd Head (Float Tail)		Test No.	Grind P80 (µm)	Lime (60% CaO) (kg/t)	NaCN Added (kg/t)	NaCN Used (kg/t)	Leach Residue (24 hr) Au (g/t)	Copper Extr'n (%) @ 48hrs	Gold Extr'n (%) @ 48hrs
	Au (g/t)	Cu (ppm)								
Am-02	21.60	338	GS0129	51	1.00	1.50	0.47	4.66	46.09	78.22
Am-02	22.63	360	GS0118	75	1.00	1.50	0.46	5.93	36.54	73.54

Gold extraction was 4.7% higher and copper extraction was 9.6% higher when the material was ground to a P₈₀ of 51µm. Cyanide consumption was similar.

Sample Am-Oziel of flotation tailings was tested with an ammoniacal cyanide leach.

The results of this test are shown in Table 16-6.

Table 16-6 – Flotation Tails Ammonical Cyanide Leaching Test Results, Apr 2004

Ore	Calc'd Head (Float Tail)		Test No.	Lime (60% CaO) (kg/t)	NH ₃ Added (kg/t)	NaCN Added (kg/t)	NaCN Used (kg/t)	Leach Residue (24 hr) Au (g/t)	Copper Extr'n (%) @ 48hrs	Gold Extr'n (%) @ 48hrs
	Au (g/t)	Cu (ppm)								
Am-Oziel	15.44	1373	MH3808	1.00	2.05	1.49	1.45	3.95	44.00	74.41
Am-Oziel	14.66	1740	GS0119	1.00	-	2.86	2.51	4.51	72.93	69.23

Copper extraction was the most significant difference seen in this test. The ammoniacal leach extracted 44.0% of the copper compared with 72.9% extraction by straight cyanide leaching. Gold extraction was 5.2% higher and cyanide consumption considerably lower with ammoniacal cyanide leaching.

In August 2005 testwork was performed on a sample of Serabi Ore. Testwork included differential flotation to produce a copper concentrate and pyrite concentrate, cyanidation of these concentrates, and a diagnostic analysis of the flotation tail.

The head assay of the sample ore was 249g/t Au, 3.65% Cu, 61g/t Ag, 17.2% Fe, and 16.2% S.

Results from the differential flotation test are shown in Table 16-7.

Table 16-7 – Differential Flotation Test Results, Aug 2005

Float Test	Reagent Additions				Copper Concentrate				Pyrite Concentrate			
	Lime (g/t)	A3894 (g/t)	CuSO ₄ (g/t)	PAX (g/t)	Gold		Copper		Gold		Copper	
					g/t	%Dist'n	%	%Dist'n	g/t	%Dist'n	%	%Dist'n
GS1519	450	20	50	25	1129	75.7	20.0	96.4	121	10.5	0.39	2.46

The flotation testwork indicated that the recovery of copper was high at 96.4% when producing a concentrate grading 20% copper. Gold recovery associated with copper concentration 75.7%.

The bulk sulphide flotation conducted after selective copper flotation showed that a further 10.5% of the gold could be recovered into concentrates.

An intensive cyanidation test was completed on each concentrate to investigate the possibility of leaching concentrate product.

Results from the concentrate cyanidation tests are shown in Table 16-8.

Table 16-8 – Flotation Concentrate Cyanidation Test Results, Aug 2005

Test No	Concentrate Stream	Calculated Feed		Cyanide		Extraction (48 Hours)		Residue Au (g/t)
		Gold (g/t)	Copper (%)	Added (kg/t)	Used (kg/t)	Gold (%)	Copper (%)	
GS 1567	Copper Conc.	621	20.9	19.4	19.3	0.19	5.01	620
GS 1568	Pyrite Conc.	119	0.38	2.58	1.86	85.9	15.1	16.7

Cyanidation of the copper concentrate showed high cyanide consumption and poor gold extraction of only 0.19%. The consumption of cyanide in this test was equal to the addition, indicating that leaching of copper was not completed and cyanide consumption could be significantly higher.

Cyanidation of the pyrite concentrate showed that 85.9% of the contained gold could be extracted.

A diagnostic leach test was conducted on the flotation tailings, containing 18.95g/t, or 13.8% of the total gold. This test showed that 64.5% of the contained gold was recoverable by cyanidation. A further 12.3% of the gold is aqua regia soluble and 23.2% of the gold is contained in silicates.

Gravity Recoverable Gold Testing

In November 2007, a 30kg sample of mill feed ore was submitted to Knelson Research and Technology Centre, Canada, for testing of gravity recoverable gold.

The head assay of the sample was 5.0g/t Au.

The results of the gravity recoverable gold test are shown in Table 16-9.

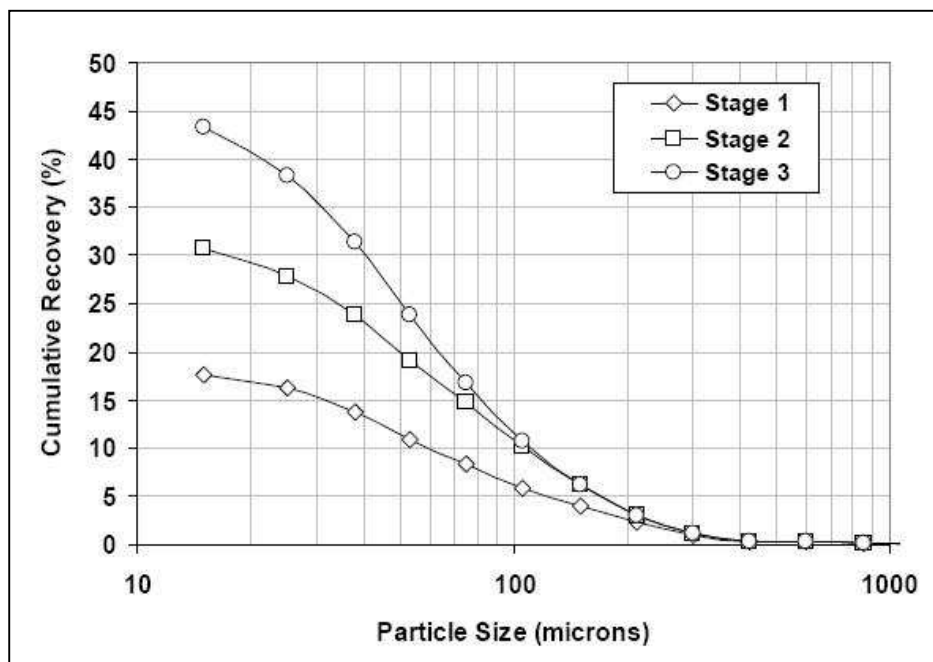
Table 16-9: Gravity Recoverable Gold Test Results, Nov 2007

Grind Size P80	Product	Mass		Assay Au (g/t)	Distribution (%)
		(g)	(%)		
780um	Stage 1 Conc.	91.2	0.5	197	17.6
	Sampled Tails	308	1.5	4.2	1.3
232um (41.8% <75um)	Stage 2 Conc.	94.3	0.5	140	13.0
	Sampled Tails	309	1.5	3.5	1.1
97um	Stage 3 Conc.	88.2	0.4	146	12.6
	Sampled Tails	19307	95.6	2.9	54.4
	Totals (Head)	20198	100	5.0	100
	Knelson Conc.	274	1.4	161	43.3

The overall recovery after three stages of grinding was 43.3%, produced in a concentrate mass of 1.4%. The calculated head grade of the sample was 5.0g/t Au with a final gravity tail grade of 2.9g/t Au.

A plot of cumulative gold recovery for each stage versus particle size is shown in Figure 16-1.

Figure 16-1 – Cumulative Au Recovery vs. Particle Size, Nov 2007



Although very encouraging results were achieved by this testwork, gravity recovery has not been introduced into the circuit at this time, as the effect on flotation concentrate gold grades, and in turn concentrate sales, has not yet been ascertained.

The relative size distribution of the gravity recoverable gold was analysed and compared with a Gold Grain Size Classification Scale based on project P420B by AMIRA Australia.

The P20, P50 and P80 values of the concentrate were 32, 59 and 127 microns, respectively. Based on these values, the grain size of the gravity recoverable gold is classified between fine and moderate.

16.2 PROCESS PLANT HISTORY

Processing of Palito Main Zone sulphide ore commenced in September 2004.

The plant consisted of a tertiary crushing circuit; hammer mills feeding a milling circuit comprised of 2 ball mills operating in closed circuit, one ball mill with a nominal capacity of 5.5tph and the other with a nominal capacity of 2.5tph; single rougher cell flotation; and a CIP circuit.

In June 2005 a mill feed conveyor was commissioned and the hammer mill fed system was stopped. As a result of more controlled mill feeding, throughput was increased from 5.4tph to 7.6tph in line with the nominal capacities of each mill.

In July 2005 the flotation circuit was upgraded to include scavenging and cleaning cells. This led to an increase in the flotation concentrate grade from an average grade of 19.3% Cu to an average grade of 28.1% Cu.

In October 2005 another ball mill with a nominal capacity of 5.5tph was commissioned. The small 2.5tph capacity ball mill was stopped. This smaller mill was driven on tyres which in turn were powered by a diesel motor and therefore carried a very high operating cost in relation to its capacity. Processing continued with the two larger capacity mills at an average rate of 11.3tph.

In January 2006 a second tertiary crusher was installed in the crushing circuit. Average crusher throughput increased from 12.5tph to 23.1tph.

In February 2006 a third ball mill with a nominal capacity of 5.5tph was commissioned. The three ball mills were run in closed circuit together. Average mill throughput increased from 11.3tph to 15.5tph.

In December 2006 a fourth ball mill with a nominal capacity of 12.4tph was commissioned. Average mill throughput increased from 15.5tph to 21.0tph. Due to power constraints this mill could be run in closed circuit with only two of the other mills. The operating strategy became to keep one mill as a reserve and to bring it online at times of maintenance on the other mills. This led to a significant increase in the total mill utilisation rate.

In 2008, the upgrade of the CIP circuit was completed. This upgrade was designed to increase the total residence time of the circuit from 13 hours to 20 hours and is expected to lead to an increase of about 2% in total gold recovery. However, the mine was put into Care & Maintenance before the CIP plant was fully tested, therefore it is not guaranteed that this recovery would be obtained.

16.3 PROCESS DESCRIPTION

Crushing

Stockpiled ROM ore is fed to the crushing circuit at an average rate of 23.1tph using a front end wheel loader. The ore is fed to a jaw crusher using a vibratory grizzly where it is crushed to a nominal size of 60mm. A conveyor transports the primary crushed ore to a double deck vibrating

screen with a top deck screen size of 30mm and a bottom deck screen size of 10mm. The +30mm material reports to the secondary crusher, which is set to produce a product of less than 16mm. The -30mm+10mm material reports to two tertiary crushers operating in parallel. These crushers are set to produce a product of less than 10mm. A conveyor transports the secondary and tertiary crushed material back to the primary conveyor for re-screening. The less than 10mm product produced by the crushing circuit is transported via a stacker conveyor to crushed ore stockpiles.

Due to the high variability of the Palito ROM ore, material from each front and stope in the mine is crushed separately on a batch basis and stockpiled individually. The crushed ore product from each batch is sampled as it falls onto the product conveyor. After analysis of each sample, the separate stockpiles are blended using a front end wheel loader in such a way as to produce a consistent mill feed blend. The ore is blended as it is loaded into trucks, which in turn transport the blended ore to a mill feed stockpile.

Milling

The blended crushed ore is fed, using a front end wheel loader or by truck direct tip, into a mill feed silo. A conveyor removes ore from the base of the silo and transports it to a distributor at an average rate of 21.0tph. The distributor splits the feed proportionally to three operating mills. The Palito milling circuit contains four mills of which three are operated at any one time and one is kept as a reserve to be brought on-line when maintenance is required on one of the other mills. Mills 1, 2 and 3 have a nominal capacity of 5.5tph each and Mill 4 has a nominal capacity of 12.4tph.

The three operating mills are run in parallel. The mill discharge material is pumped to a nest of three 150mm cyclones. Cyclone underflow material is split proportionally and returned to the mills. Cyclone overflow material, with an 80% passing size of 106 μ m and a pulp density of 45% solids, is fed to a trash screen and then pumped to the flotation circuit.

Flotation

The flotation circuit consists of two conditioning tanks, with a total capacity of 7.2m³, followed by rougher, scavenger, and cleaner cells. A thionocarbamate collector for selective copper flotation is added to the conditioner tank feed. Lime is added within the grinding circuit to increase the pH of the pulp to between 10 and 11. MIBC frother is added to the feed of the first cell.

The flotation cells consist of three duplex cells, each with a capacity of 3.2m³ and two product launders. The product from the first launder of the rougher cell is regarded as the rougher concentrate stream, whilst the product from the second launder is regarded as a scavenger stream and reports to a recycle hopper and pump. Rougher tails are refloated in the scavenger cell with products from both scavenger launders reporting to the recycle hopper and pump. Rougher flotation concentrate flows to the cleaner cell. Total cleaner cell volume is only 1.6m³ as only the first part of the duplex cell is operated. The cleaner concentrate product flows to a final concentrate holding container and the cleaner tails report to the recycle hopper and pump. The recycle pump returns all recycle streams back to the conditioner tank feed. Scavenger tails are pumped to the CIP circuit.

Concentrate from the holding container is pumped, using a diaphragm pump, to two Netzche filter presses, each with a capacity of 300kg/hr. The pressed concentrate falls via a chute into poly weave bags, which are each filled to 1 metric tonne wet weight. Typical moisture content of the

concentrate is 7%. The bagged concentrate is shipped as 20 tonne lots to Umicore, Belgium for refining.

CIP

The CIP circuit consists of five mechanically agitated leach tanks, each with a capacity of 74m³, and six mechanically agitated adsorption tanks, each with a capacity of 24m³. Total residence time of the circuit is 13 hours. Cyanide and oxygen are added to the first leach tank. Oxygen is produced by a BOC gases designed PSA plant. Air is added to the remaining four leach tanks to maintain the dissolved oxygen content of the pulp.

Carbon is retained in adsorption tanks 1-6 by the use of intertank screens. Loaded carbon from adsorption tank 1 is removed every 12 hours and transferred to elution for removal of gold. After elution the barren carbon is returned to adsorption tank 6 and the carbon is advanced counter-currently to the pulp with the use of airlifts.

The CIP circuit has been upgraded to increase the total residence time from 13 hours to 20 hours. Two leach tanks, each with a capacity of 185m³, and one adsorption tank, with a capacity of 74m³, have been constructed. The current 74m³ leach tanks have been converted to adsorption tanks and the smaller 24m³ tanks decommissioned. The final circuit layout now consists of two 185m³ leach tanks and six 74m³ adsorption tanks. This upgrade is expected to increase total gold recovery by about 2%. Whilst completed by 2008, it has not operated for sufficient time or throughput to ascertain whether this increase in recovery has been achieved on a sustainable basis.

Elution and Gold Refining

Loaded carbon is passed over a screen and washed free of pulp with the pulp being returned to adsorption tank 1. The washed carbon is transferred to an elution column, with a nominal capacity of 500kg.

Elution is carried out by the Zadra process. Strip solution containing 1% caustic and 0.15% cyanide is heated to 100°C and pumped through the elution column, stripping the gold from the carbon. The pregnant solution then passes through an electrowinning cell where the gold precipitates onto steel wool cathodes. The barren solution from the electrowinning cell returns to a holding tank where it is recirculated back through the process until elution is complete. Each elution cycle is typically 8 hours.

The barren carbon is removed from the elution column and washed with a dilute hydrochloric acid solution. After acid washing the carbon is rinsed with water a number of times and returned to the adsorption circuit.

Periodically, during each month, the steel wool cathodes are removed from the electrowinning cell for gold refining. Gold and silver contained on the cathodes are solubilised using aqua regia. The gold bearing solution is removed from the cathode sludge and sodium bisulphate is added to precipitate the gold. The gold precipitate is removed and sodium chloride added to the remaining solution to precipitate silver. The gold precipitate is smelted separately to the silver to produce gold bars grading 99% Au.

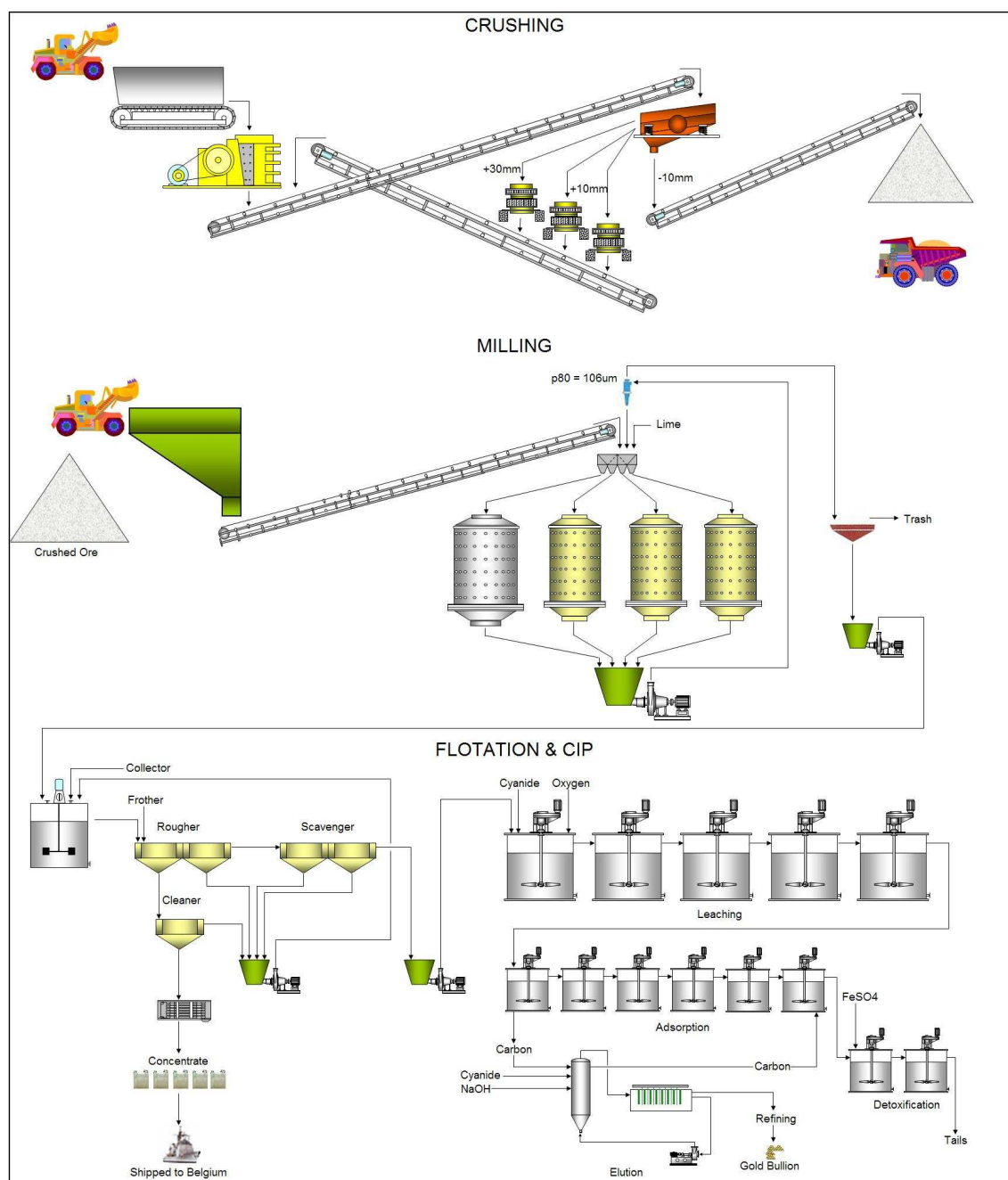
Tailings Management

The tailings from the CIP circuit flow to two detoxification tanks, each with a capacity of 42m^3 . Ferrous sulphate is added to the feed of the first tank for neutralisation of cyanide. The tailings from the detoxification tanks are pumped to and deposited in a tailings storage dam situated 1.5km from the process plant.

16.4 PROCESS FLOWSHEET

A flow diagram of the process is shown in Figure 16-2.

Figure 16-2 – Process Plant Flow Diagram



16.5 PRODUCTION DATA

Historical production data is shown in Table 16-10.

Table 16-10 – Historical Production Data

Quarter	Tonnes Milled	Head Grade		Plant Total		
		Au (g/t)	Cu (%)	Recovery	Production	
				Au (%)	Au (oz)	Cu (t)
2005 – Q1	8,222	9.33	0.3	84.2	2,077	22.4
2005 – Q2	14,006	8.63	0.33	88.2	3,427	38.2
2005 – Q3	14,315	12.06	0.68	90.2	5,005	81.0
2005 – Q4	21,415	7.65	0.42	91.8	4,837	74.7
2006 – Q1	25,514	9.31	0.47	91.9	7,017	98.0
2006 – Q2	29,851	9.73	0.43	91.3	8,527	107.1
2006 – Q3	29,462	9.2	0.51	91.4	7,974	139.2
2006 – Q4	32,760	9.37	0.73	91.0	8,980	224.6
2007 – Q1	42,705	6.52	0.31	89.8	8,044	125.6
2007 – Q2	45,245	5.95	0.3	91.1	7,888	127.0
2007 – Q3	45,054	5.36	0.23	90.0	7,021	96.2
2007 – Q4	40,481	5.06	0.29	89.9	5,989	110.4
2008 – Q1	34,040	4.52	0.31	89.0	4,217	85.8
2008 – Q2	36,745	5.1	0.26	89.0	4,963	78.9
2008 – Q3	37,704	4.69	0.26	87.4	4,658	81.1
2008 – Q4	29,174	3.92	0.27	89.4	3,165	66.8
2009 – Q1	17,863	4.03	-	90.5	2,134	-
2009 – Q2	19,151	3.24	-	89.3	1,748	-
2009 – Q3	17,470	2.23	-	89.9	1,018	-
2009 – Q4	15,073	1.26	-	78.7	548	-
2010 – Q1	13,291	1.73	-	85.3	786	-
2010 – Q2	4,803	1.82	-	89.8	265	-

Mining occurred since the effective date of the mineral resource statement present in this report, March, 31, 2008, can be detailed in the table below:

Table 16-11: Production since the effective date of the Mineral Resource Table

2008	tons	grade Au g/t	oz Au
oxides, not considered in the resources Mar/2008	21,000	5.96	4,024
sulphides from the resources at Mar/2008	65,781	4.16	8,799
sulphides added by exploration	16,445	4.75	2,512
total Q2-Q4 2008	103,226	4.62	15,335
2009	tons	grade Au g/t	oz Au
oxides, not considered in the resources Mar/2008	69,557	2.76	6,173
2010	tons	grade Au g/t	oz Au
oxides, not considered in the resources Mar/2008	18,094	1.75	1,020
Total mined since Q2-2008	tons	grade Au g/t	oz Au
	190,877	3.67	22,528

17. MINERAL RESOURCES/RESERVES

17.1 MINERAL RESOURCES

17.1.1 General Considerations

In March, 2008, NCL prepared a resource estimate for the Palito gold deposit, using 3D modelling and geostatistics. This model has not been updated, although additional drilling was available and limited mining has occurred. The additional drilling information can be obtained in the chapter 10 and the resource depletion information can be verified in the chapter 16. Both sources of change in the mineral resources are relatively of low impact, therefore this resource estimate can be considered as representative of the updated mineral resources of the Jardim do Ouro property.

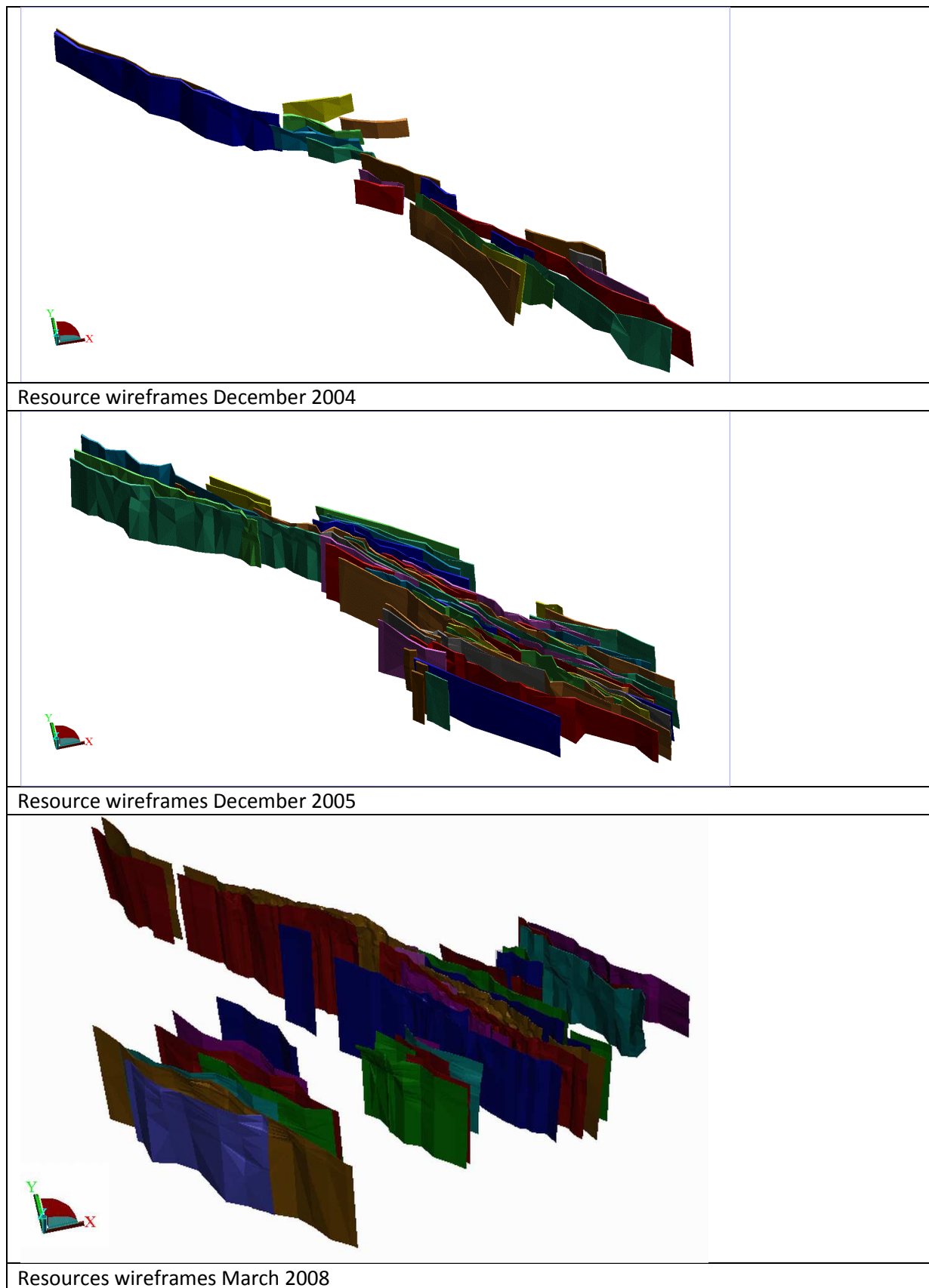
In this chapter, the resource evaluation performed in March, 2008 is reported. Only a single ore type was considered in this evaluation, the fresh rock ore formed by hydrothermally altered granite, termed “veins”, amenable to the CIP process. Four different deposits were evaluated separately, Palito Main Zone (PMZ), Chico da Santa, Palito West and Ruari Ridge. The list of the veins comprising each Block Model is detailed in Table 17-1.

Table 17-1 – Veins constituting each block model

VEIN NUMBER	VEIN NAME	BLOCK MODEL
100	G1	PMZ
200	G2	
300	G3	
400	CL	
310	CEDRO	
320	JATOBA	
330	MUNGUBA	
800	295	
600	GUARUBA	CHICO DA SANTA
610	ANGELIM	
620	MOGNO	
630	UXI	
640	IPE	
700	PIPOCA	PALITO WEST
710	FARIAS	
720	VERDE	
730	JASTES	
740	RODRIGUES	
750	MEIRELLES	
500	BARRICHELLO	RUARI
510	FITTIPALDI	
520	MASSA	
530	PIQUET	
540	PIZZONIA	
550	SENNA	
560	ZONTA	

Mineral resources reported herein were estimated and classified according to the Australian JORC Code, which are equivalent to those of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM).

Figure 17-1 – Evolution of the orebody modelling for the Palito deposit



17.1.2 Software Used

The modelling and Geostatistical analysis of these deposits were made using three different software packages: Gemcom (modelling, kriging and block model construction), Excel (exploratory data analysis, model validation) and GSLIB (variography and exploratory data analysis). The reserve estimation and developing and production schedules were also performed using Gemcom and spreadsheets.

17.1.3 Data Base

The data was provided by Serabi in MS-Access (channel and drillhole data) and DXF format (topography, excavation and mined out areas). They were validated using the standard tools from Gemcom. A few problems were detected and reported to Serabi, being promptly corrected. The methodology used by Serabi for data entry and validation was checked and found to be robust.

The basic stats of the database received for resource evaluation are as shown in Table 17-2.

Table 17-2 – Drilling database basic stats

Sample Type	Nr of samples	Metres drilled	Nr of Holes
Channel	9947	8776	4167
Diamond Drilling	26303	94536	787
RAB	593	626	6
Reverse Circulation	3839	3935	48
Auger	795	1707	49
Total	41477	109580	5057

17.1.4 Specific Gravity

Serabi provided a database with 1048 measurements of specific gravity, mainly composed of hydrothermally altered granite, which is the typical ore from the mine. Only fresh rock samples were evaluated. The method used is the accepted method for these measurements, considering the observed lack of porosity and voids of the ore and waste granite. After extracting one spurious value the simple average of 2.675 g/cm³ was calculated. This average remained the same, even after trimming the 10% tails. This value was used for both, ore and waste.

For competent, non-porous rocks the following simple buoyancy method was used:

- Allow the sample to dry, at ambient temperature.
- Weigh the sample to determine the dry mass (M_s).
- Place the specimen in a basket and weigh it, suspended from a balance, in water. Subtract the weight of the basket in water, to determine the weight of the sample in water (M_s in water).

The Dry Bulk Density (P_d) is calculated as the mass of sample in air divided by the difference between the mass of the sample in air and the mass of the sample in water. Hence:

$$\rho_d = \frac{M_s}{M_s - M_{s \text{ in water}}}$$

17.1.5 Selection of Representative Samples

Given the difficulty in creating a solid enclosing all the representative samples, vertical sections were used for constructing the solids, however this resulted in samples further away from the section position not being correctly captured. For this reason, the samples representative of these solids were selected individually. Each interval selected was assigned a Lithological code, as previously detailed in Table 17-1. In several places, sub economical intervals were selected based on the geology, in order to maintain the continuity of the vein.

17.1.6 Exploratory Data Analysis (EDA)

Using these lithological codes NCL summarized statistics for gold and copper on the raw data samples for each lithological unit as shown in Table 17-3.

Table 17-3 – Exploratory Data analysis for samples within the veins

	Palito Main Zone	Chico da Santa	Palito West	Ruari Ridge
Au				
Nr of Samples	4138	151	126	210
Minimum (g/t Au)	0	0.01	0.01	0.01
Maximum (g/t Au)	718.00	66.69	181.00	68.11
Average (g/t Au)	11.93	5.39	10.02	3.08
Standard Deviation	39.20	11.11	26.33	8.73
Coefficient of Variation	3.29	2.06	2.63	2.84
Cu				
Nr of Samples	4,140	152	127	210
Minimum (% Cu)	0	0	0	0
Maximum (% Cu)	21.10	4.70	4.50	2.80
Average (% Cu)	0.16	0.30	0.19	0.12
Standard Deviation	0.85	0.74	0.51	0.34
Coefficient of Variation	5.25	2.48	2.76	2.93

17.1.7 Compositing

After statistical analysis of the length of the original samples, 0.7 m was chosen as the length for compositing the samples in order to have all values at a similar support. The reason is that the mode of the distribution of lengths is very close to this number, therefore preserving the detail obtained in the sampling, while still having a good agreement between the basic statistics of the samples and composites. No top cut was done before compositing, only after it. Composites with length less than 0.15m (20 % of the chosen composite length) were discarded, representing less than 2 % of loss of the samples, in terms of length sampled.

Table 17-4 – Exploratory Data analysis for composites

	Palito Main Zone	Chico da Santa	Palito West	Ruari Ridge	Total
Au					
Nr of Samples	6,591	220	156	291	7258
Minimum (g/t Au)	0.00	0.00	0.00	0.00	0.01
Maximum (g/t Au)	700.00	66.69	181.00	68.11	68.11
Average (g/t Au)	12.05	4.73	8.55	3.40	3.40
Standard Deviation	35.60	9.19	23.75	8.67	8.66
Coefficient of Variation	2.96	1.94	2.78	2.55	2.54
Cu					
Nr of Samples	2,350	195	137	208	292
Minimum (% Cu)	0.00	0.00	0.00	0.00	1
Maximum (% Cu)	21.10	4.70	4.50	2.80	2.80
Average (% Cu)	0.39	0.26	0.20	0.11	0.08
Standard Deviation	1.27	0.61	0.51	0.30	0.26
Coefficient of Variation	3.26	2.37	2.50	2.65	3.19

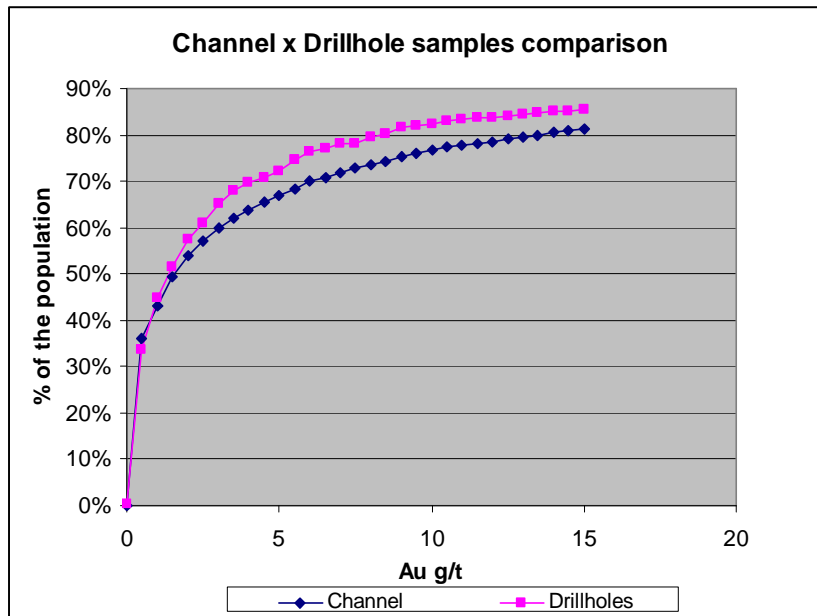
17.1.8 Sample Types Comparison

Channel samples were compared to the drillhole samples in order to investigate for possible biases. A group of samples was selected using the region around the excavations in the PMZ area (veins G1, G2 and G3), where both types of samples are similarly distributed. The mean grades of Au and Cu for the two types are depicted below, and the Figure 17.2 is the accumulated histogram used to better compare the two populations.

Table 17-5 – Sample Types Comparison

	Mean Grade		Number of composites
	Au g/t	Cu %	
Channel	13.32	0.53	4405
Drillholes	8.67	0.46	556

Figure 17-2 – Comparison between Channels and Drillholes from PMZ



To identify if a possible sampling or assaying error exists, an extensive test was planned, as explained on Section 13.5. The conclusion of this test is that the results over 0.7 g/t are adequate, with good repeatability and no bias. As a conservative measure, all channel gold values below 0.7 g/t were reduced to 0.01 g/t. The copper values from the Serabi lab were deleted from the dataset used.

After considering this information, NCL alerted Serabi about the risk involved in the evaluation using channel sample assays. However, Serabi showed plant results with better reconciliation with the channel samples than with the drillhole samples. A possible explanation is the observed presence of isolated higher grade ore shoots, which have higher probability of being captured and sampled by the channel samples, than drill holes alone, which would result in a higher global grade.

Considering this hypothesis, the test done demonstrating the lack of bias, and also the reconciliation figures, NCL decided to use the channel samples in the resource evaluation. The risk is restricted to the areas in the vicinity of the excavations.

17.1.9 3D Models

Four types of solids were used in the construction of the block model:

1. Orebodies: strictly speaking, interpretation of zones representing the material with reasonable prospects of being mineralized
2. 3D excavations: Surveyed tunnels and mined out zones
3. 2D excavations: mined out zones where no survey was available. The 2D lines were put in 3D and extruded, to form a solid whose intersection with the orebodies mark the mined out zones in these
4. Topographic surface based on survey data.

To draw the solids containing the mineralization, the geology and the grade were used, as observed in the drillholes and excavations. The thickest interval was used, comparing the thickness indicated by either the granite hydrothermally altered (acronym: ZAH) or the gold mineralization, as defined

by gold grades above 0.7 g/t. The other factor taken into account in the selection of the intervals was the minimum true thickness of 0.7 m.

The interpretation and modelling of the four main orebodies was a result of teamwork between Serabi and NCL geologists. The other solids or strings used, regarding, excavations and mined out outlines were made available by Serabi in Gemcom format.

17.1.10 Block Model Parameters

The block size used was 5 x 5 x 3 m, based on discussions with Eduardo Rosselot, the consulting mining engineer assisting Serabi in the underground mining planning. It is recognized that a larger block would allow less conditional bias. However, a block of this size would be inadequate for mine planning. For global estimates, it is expected that no significant problem would occur using a block size in the order of one tenth of the drill density, but for grade control, it is recommended that a larger block should be used.

Since the models were produced in local coordinates, where the orebodies were aligned with the South-North axis, no rotation was necessary for all models.

Below, in Table 17-6, are the specific parameters for each block model, in the Gemcom convention (Minimum X and Y, Maximum Z):

Table 17-6 – Block model parameters

Palito Main Zone (PMZ)	Origin	Block Size (m)	NR BLOCKS
X	9950	5	80
Y	19900	5	300
Z	1335	3	130
Chico da Santa (CS)	Origin	Block Size (m)	NR BLOCKS
X	10190	5	50
Y	19800	5	100
Z	1335	3	130
Palito West (PW)	Origin	Block Size (m)	NR BLOCKS
X	9800	5	30
Y	20150	5	60
Z	1335	3	130
Ruari Ridge (RR)	Origin	Block Size (m)	NR BLOCKS
X	9430	5	76
Y	20250	5	146
Z	1335	3	130

17.1.11 Population Analysis

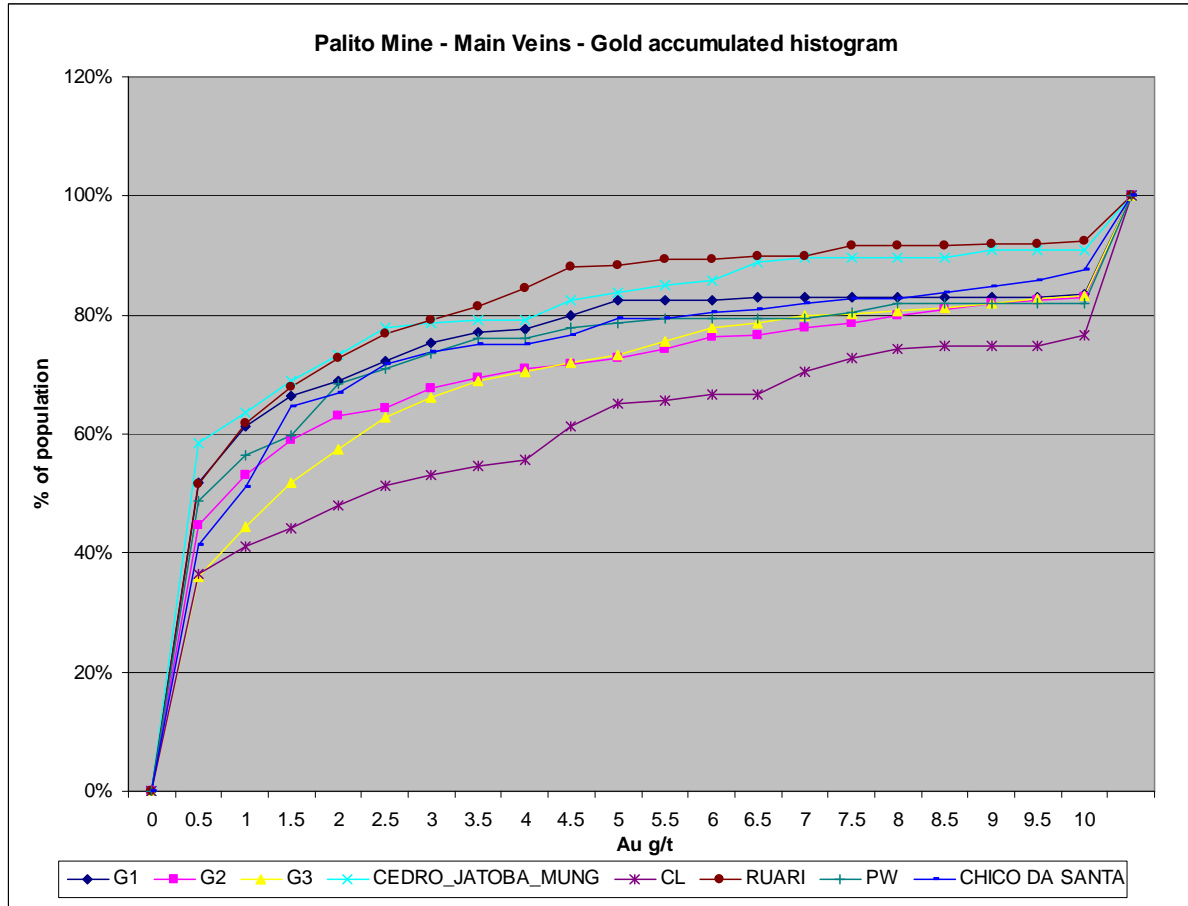
Using the composites for each vein, similarities between them were sought in order to improve the variography and kriging. If two veins were found to be similar in terms of geology, mean, variance and shape of the accumulated histogram (showing thus a similar behaviour in all ranges of the population), they were grouped and treated as a single population. Figure 17-3 shows the main veins histograms for gold. The main conclusion is that the most important veins, G2 and G3 have basically the same statistical behaviour, allowing them to be treated together, for variography purposes.

Other conclusions of this study:

- Chico da Santa and Palito West have similar behaviour, constituting a single population
- The smaller veins of the PMZ area, G1, Cedro, Munguba, Jatobá, could be grouped together, representing a lower grade population, as well as the RR vein.

- The Compressor Load vein (CL) is a completely different vein, with grades significantly higher. Veins of this type may be an interesting exploration target.

Figure 17-3 – Accumulated histograms – Au



17.1.12 Variography

Three different types of software were used to carry out the variogram analysis, GSLIB, MS-Excel and Gemcom. For anisotropy analysis, the GSLIB Varmap program was used to generate a cloud of points that was analyzed in Gemcom, interpreting it in a 3D environment. An Ellipse was adjusted around the points after filtering the ones showing lower variance. However, a better result was obtained through calculating the variogram at intervals of 10° increment in the dip, adjusting the strike to the general attitude of the veins.

Standard semi-variogram was also tested, but the correlogram showed better structure in most situations. Therefore, only correlograms were used for modelling. To establish the nugget effect, down-the-hole correlograms were used.

Only the population G2-G3 had enough number of pairs in order to safely establish a variogram model. The other areas produced variograms too noisy, even when grouping several veins as allowed by the population analysis. The G2-G3 variogram parameters (nugget, variogram model, sill and range) were adopted for the other veins, but rotating to adjust to each individual vein attitude, as listed in the Table 17-7.

Table 17-7 – Variogram parameters for gold & copper. All veins

GOLD VARIOGRAM MODEL				
	Gamma (h)	X (m)	Y (m)	Z (m)
Nugget	0.3			
First structure	0.4	34	23	4
Second structure	0.3	41	37	13
Third structure				
Search Ratio		20	10	10

COPPER VARIOGRAM MODEL				
	Gamma (h)	X (m)	Y (m)	Z (m)
Nugget	0.2			
First structure	0.68	10	5	3
Second structure	0.12	70	20	10
Third structure				
Search Ratio		20	10	10

ROTATIONS			
	Principal Azimuth	Principal Dip	Intermediate Azimuth
PMZ	189	-50	9
CS	188	-50	8
PW	180	-50	0
RR	180	-50	0

Variograms are shown in the Figure 17-4. The figure presents the three variograms, the first in the direction with best continuity, and the third to the poorest. All variograms were calculated with a lag separation of 10 m, and using a tolerance on azimuth and dip of 30°. All models are spherical. Search ratios normally are equivalent to 80% of the range of the variogram.

Variogram - 1st Direction

Variogram - 2nd Direction

Variogram - 3rd Direction

Experimental and model variograms

PROJECT : Palito
 UNIT : G2 & G3
 VARIABLE : Comp0.7M AU

N°Structures

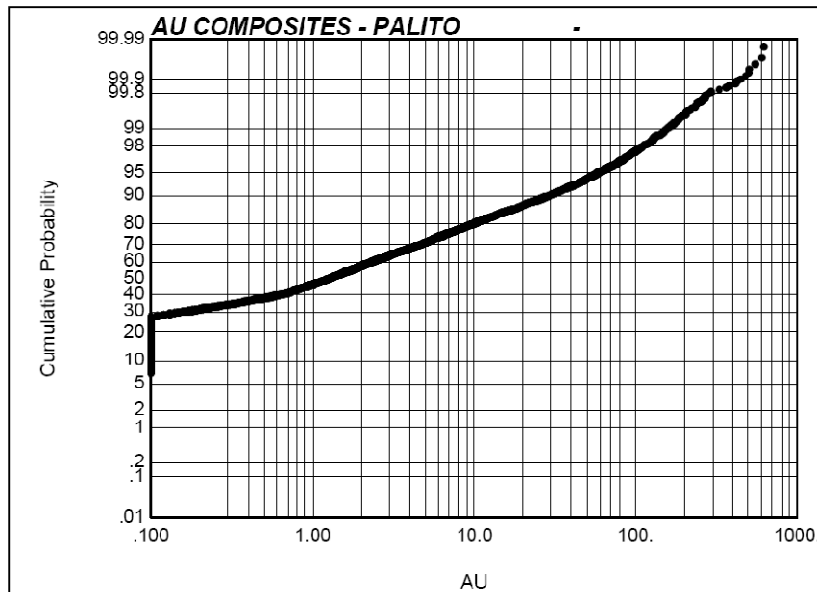
MODEL		Type
C0 - NUGGET	0.30	
C1 - 1st Structure	0.40	1
C2 - 2nd Structure	0.30	1
C3 - 3rd Structure	0.00	1
A1 - 1st Range	X	34
A2 - 2nd Range	X	41
A3 - 3rd Range	X	0
A1 - 1st Range	Y	23
A2 - 2nd Range	Y	37
A3 - 3rd Range	Y	0
A1 - 1st Range	Z	4
A2 - 2nd Range	Z	13
A3 - 3rd Range	Z	0

Search ranges (90% of Variance)

Direction	Search range (m)	Azimuth	Dip
Direction 1	20	189	-50
Direction 2	10	9	-40
Direction 3	10	99	0

Figure 17-5 corresponds to the probability plot for gold used to define the threshold to cap the outliers of the population. The objective is to limit the influence of very high values on the interpolation of grades. If the high values stay in the expected position (a straight line in the high end of the probability graph) they may be considered part of the population and used in the estimate. Otherwise, they may be capped, to have their value reduced to a selected threshold. A common threshold is the one where 99% of the samples have grade less than that, but it depends on many other factors, like the adherence of the kriging values to the moving average, the geology of the vein, etc. For the Palito samples, a natural threshold would be around 300 g/t, where a kink in the probability curve can be observed. To be conservative, NCL used 200 g/t as a limit. Therefore, the samples above this value (0.7% of the samples) had their value reduced to 200 g/t.

Figure 17-5 – Probability plot - Gold



17.1.14 Kriging Strategy

Initially, the stationarity of the deposit was investigated through a moving window technique. The conclusion is that the deposits are non-stationary i.e. the average and variance change according to the position in the deposit, therefore simple kriging cannot be used. It was decided to use ordinary kriging instead.

The kriging strategy was common to all veins, only with the attitude of the search ellipsoid changes, as listed by vein in the previous items. To avoid repetition, only the PMZ parameters are detailed in Table 17-8 below.

The objective was to have a good first pass, where the measured and most of the indicated resources occur, and to extrapolate the dimensions of the search variogram to interpolate the grade of the inferred blocks.

Table 17-8 – Kriging strategy for PMZ

	All Veins		
	Pass 1	Pass 2	Pass 3
X	20	60	75
Y	10	40	50
Z	10	40	50
Search type	octant	octant	octant
Min Nr octants	4	4	1
Max per octant	8	8	8
Min N Comp.	6	6	2
Max N Comp	64	64	64
Nr of discretizations	2x2x2	2x2x2	2x2x2

17.1.15 Block Model Construction

Besides the modelled veins, the excavations were also modelled (drifts and stopes). The sequence of block model construction in the Gemcom software is the following:

1. Modelling and kriging of the mineralized veins
2. Add the modelled excavations (3D representations)
3. Add the extruded 2D excavations. This step was necessary in some veins in cases where the excavation had not been surveyed.
4. Extract the blocks eventually above the topographic surface.
5. Classification of the resources by categories

It was used a GEMCOM percent format, where the blocks contain a parameter representing the percentage of the block within a certain vein. Each vein was interpolated using samples with the same Rock Code.

17.1.16 Mineral Resource Classification

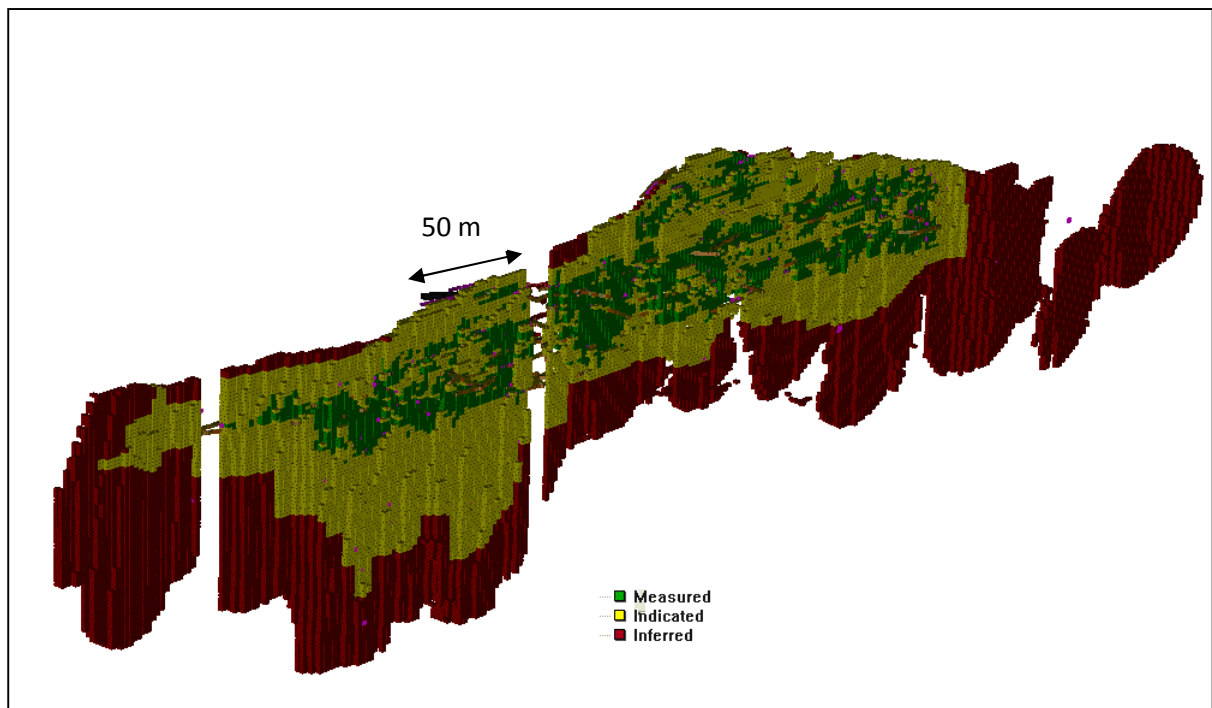
The classification methodology was based on discussions between NCL and the exploration team. The criteria established were as follows:

- **Measured Resources:** Measured resources are the portions of the orebody that are well sampled by channel samples (spacing 3-5 m) and close to mined areas. For practical purposes, an outline was designed around mined drifts and stopes, and expanding it by 20 m, which is a distance the team considers that a well defined vein can be extrapolated with confidence. Any indicated block contained in that outline is transformed to measured.
- **Indicated resources:** As detailed in the Pass 2 of the Table 17-8, blocks which have at least two mineralized intercepts in the defined neighbourhood. The adopted neighbourhood is an ellipsoid measuring 60 m down the plunge and 40 m in the two other directions, which is seen as an adequate given the continuity of the mineralization. The vein code of these intercepts must be same as the block being classified, and the intercepts must be from different octants (required four octants minimum). NCL interpreted the results and where necessary, changed the category of portions of the block model at the geologist's judgment. The idea was to allow a more critical review of the block model, increasing or decreasing the confidence in zones where other geological factors surmount the amount of drilling in order to estimate confidence. Isolated blocks of indicated category were reclassified as inferred, and isolated blocks within major indicated blocks were turned to indicated.
- **Inferred resource:** As in the third pass, in the Table 17-8, the search range has a limited enlargement (75 m down the plunge and 50 m in the other two directions), but for this category, a single drillhole is enough for the definition of inferred resources.

The **measured resources** were defined only for PMZ. Only the veins G1, G2 and G3 had enough excavations in order to define measured resources.

An example of the distribution of the classified blocks in relation to the mineralized intercepts is shown in Figure 17-6.

Figure 17-6 – 3D View of the G3 vein, with block model, classified. View to NW



Important note: Resources were considered only if the grade of the block is above 1.0 g/t Au. This marginal cut off was defined using only mine and processing cost (US\$ 34/ton), gold price of US\$ 1200 / oz and metallurgical recovery of 93%.

Part of the veins, in zones with lower grade, would not be considered mineral resources, since the possibility of being economical is minimal

17.1.17 Model Validation

To verify the results of the estimates, a set of checks were made on the model for each area:

- Visual validation of grades and classification. Comparison with the previous sections and tabulations was extensively used.
- Comparison between the moving window average grade of composites and kriged values (Figures 36 to 39, in the Appendix). Since the orebodies are flat aligned with the Y axis, inspection along the northing and elevation are enough to check adherence of block grades to sample grades.
- Comparison between the kriging results and the declustered mean

In all tests the models were considered consistent and robust.

Figure 17-7 – PMZ and CS Model Validation plots

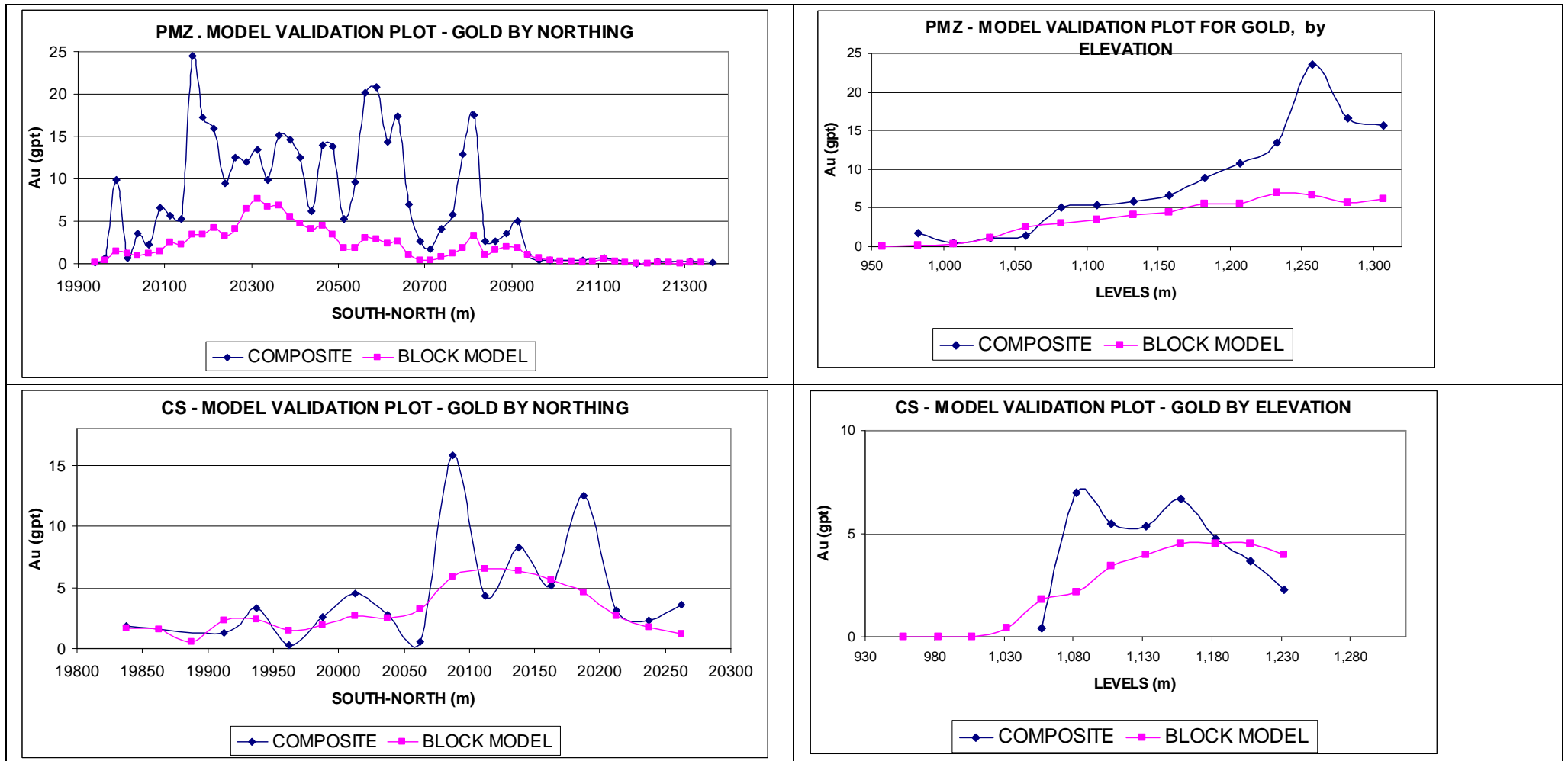
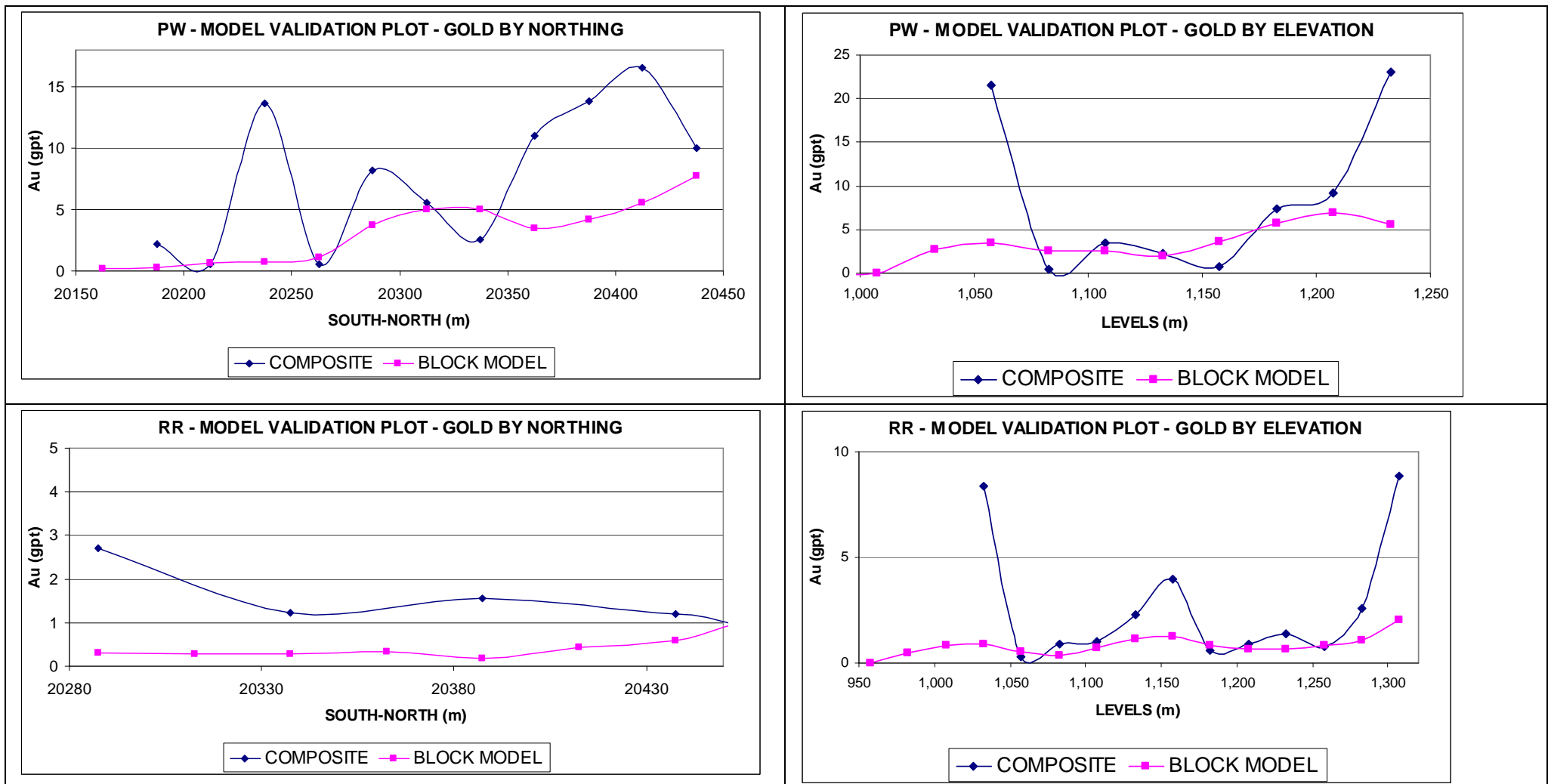


Figure 17-8 – PW and RR Model Validation plots



17.1.18 Results

Table 17-9 summarizes the mineral resources estimated for 1.0 g/t Au cut-off for each area (see the item 17.1.16 for explanation about the choice of this cut-off). Figure 17-9 and Figure 17-10 show the grade/tonnage curve for multiple cut-offs.

Table 17-9 – Mineral Resources Estimate

Mineral Resource Estimate as March 31, 2008	tonnage	Gold (g/t Au)	Copper (%Cu)	Contained Gold Ounces	Equivalent Ounces
Measured Resources					
Palito Main Zone (PMZ)	97,448	9.51	0.26	29,793	32,045
Pali West (PW)	-	-	-	-	-
Chico da Santa (CS)	-	-	-	-	-
Ruari Ridge (RR)	-	-	-	-	-
Total Measured Resources	97,448	9.51	0.26	29,793	32,045
Indicated Resources					
Palito Main Zone (PMZ)	593,175	7.15	0.23	136,417	148,546
Pali West (PW)	46,844	13.16	0.26	19,825	20,902
Chico da Santa (CS)	78,987	5.91	0.23	15,011	16,681
Ruari Ridge (RR)	34,740	4.85	0.22	5,420	6,100
Total Indicated Resources	753,745	7.29	0.23	176,673	192,228
TOTAL Measured + Indicated	851,193	7.54	0.23	206,466	224,272
Inferred Resources					
Palito Main Zone (PMZ)	821,405	6.04	0.18	159,614	172,927
Pali West (PW)	200,256	8.22	0.23	52,934	57,140
Chico da Santa (CS)	434,664	6.01	0.23	84,036	93,100
Ruari Ridge (RR)	631,417	4.74	0.43	96,232	120,789
Total Inferred Resources	2,087,741	5.85	0.27	392,817	443,956

Mineral resources are reported at a cut-off grade of 1.0 g/t

Numbers may not add up due to rounding.

Equivalent gold is calculated using an average long-term gold price of US\$700 per ounce, a long-term copper price of US\$2.75 per pound, average metallurgical recovery of 90.3% for gold and 93.9% for copper

Figure 17-9 – Measured & Indicated - Grade tonnage curves

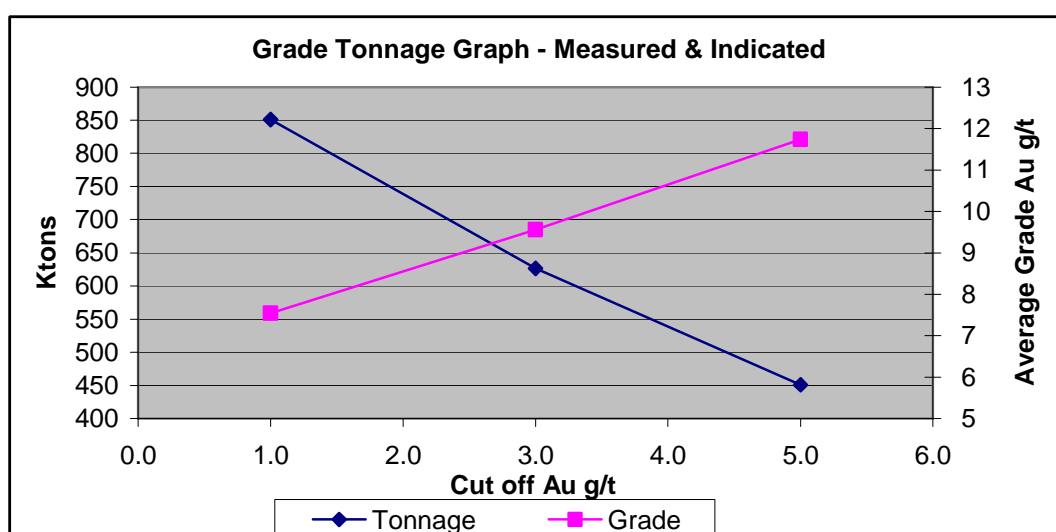
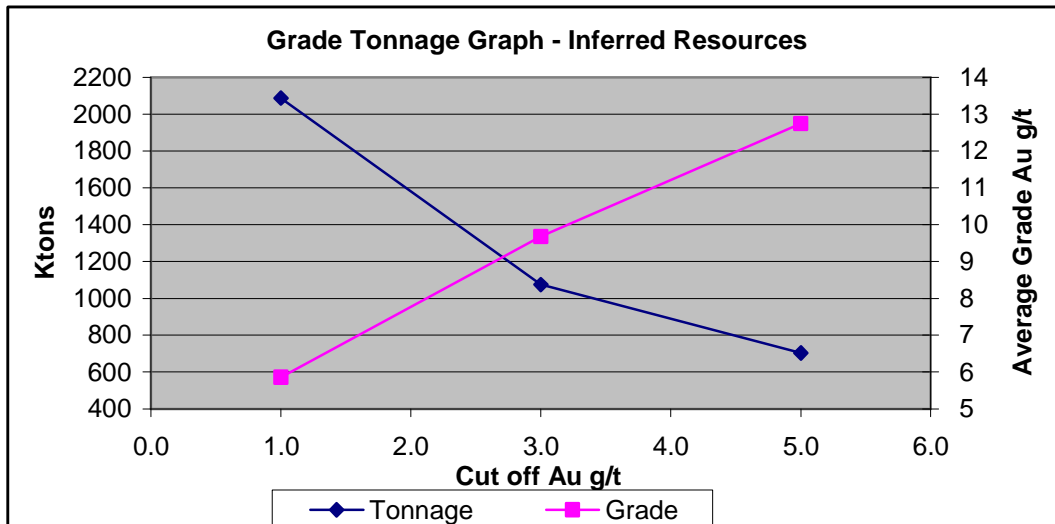


Figure 17-10 – Inferred resources - Grade Tonnage Curves



17.1.19 Conclusion and Recommendations

A mineral resource estimate for the areas Palito Main Zone, Chico da Santa, Palito West and Ruari Ridge has been completed (twenty five different mineralized structures). Each vein has been interpreted and builds a 3D representation. The samples contained within those hard boundaries were selected and ordinary kriging was used to interpolate a block model grades. The models for the different areas were validated by the NCL and Serabi staff, who concluded that the models are consistent with the available geological data.

The comparison with the estimate as at January 31 2006 (Hellman & Schofield) shows lower tonnage and lower grade. The reasons for the difference are interpreted as due to a more conservative approach on the interpretation of the solids and in the choice of the search neighbourhood, as compared with the previous H&S interpretation. Also, contributed to the difference the mining activities, new additional geological data made available by the development and exploration in 2006 to June 2008. Also, contributed to the difference the mining activities since the previous evaluation, new additional geological data made available by the development and exploration from 2006 to June 2008.

Possibly a more refined geostatistical study would probably enhance mine reconciliation and risk analysis. Tools that should be tested are ones like multiple indicator kriging (investigating different pulses of mineralization) and mathematical tools giving more rigorous approach for resources classification. Suggestions to obtain a better classification of resources are to use conditional simulation or error measurement based on kriging variance. Complete surveying of the excavations would also enhance the determination of measured resources. The question of using the channel samples, as discussed in the Section 17.1.8, should also be reviewed, because the proper understanding of the differences in grade between channel and drillhole samples should decrease the risk of lack of precision in the resource estimation.

17.2 MINERAL RESERVES

No mineral reserves are reported presently for the Jardim do Ouro property.

18. OTHER RELEVANT DATA AND INFORMATION

18.1 INFRASTRUCTURE

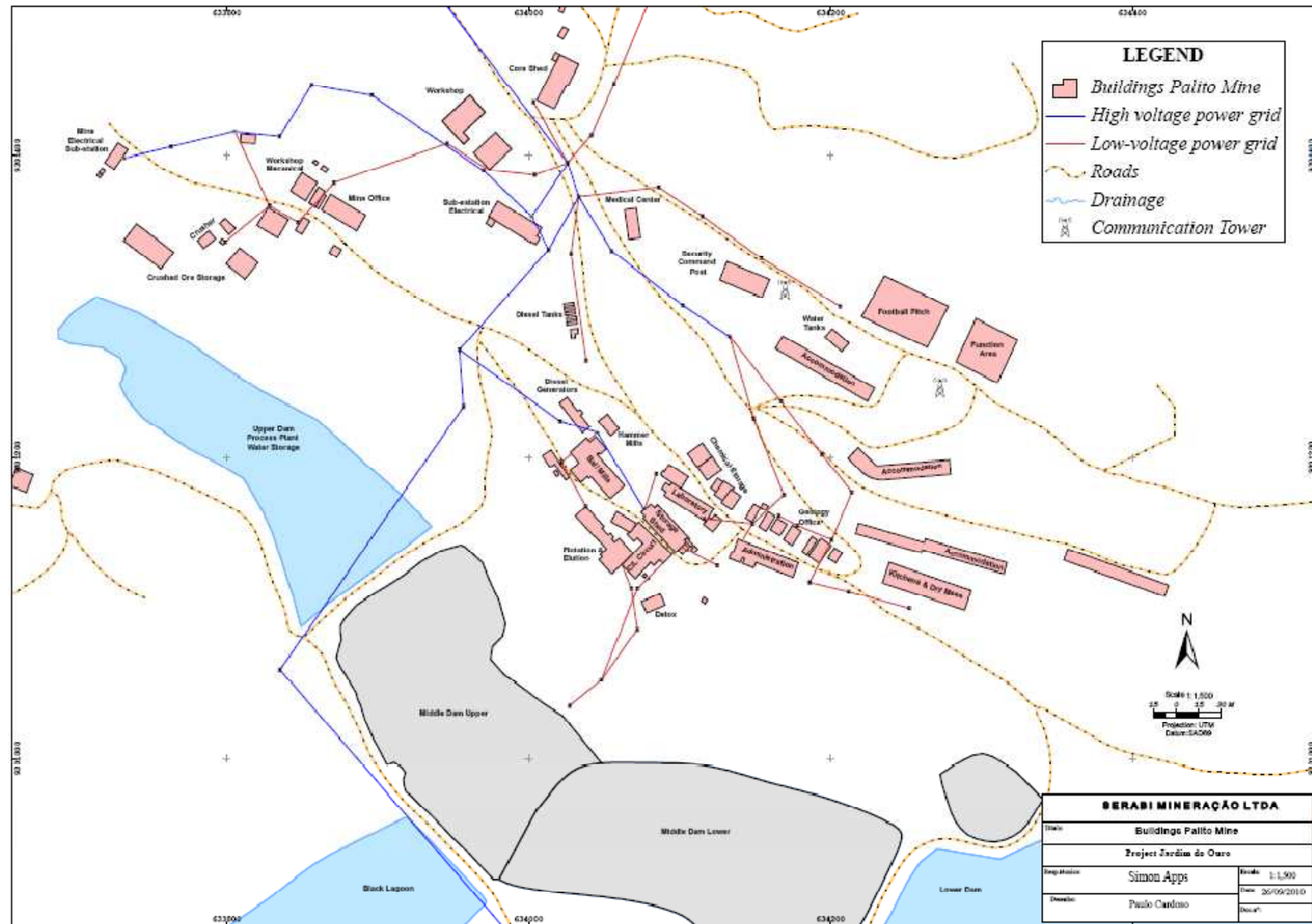
18.1.1 Introduction

Although Serabi's current strategy is to focus on the exploration of the Jardim do Ouro Project, the company has a recent history of operating activities in the Palito Mine area for almost 5 years (Q4 2004 to Q2 2010), and has developed significant infrastructure that could be used in the future implementation of the project. This infrastructure includes:

- Underground Mine at the Palito Main Zone
- Ore Processing Facilities
- Tailings Storage Facilities
- Power Supply
- Water Supply
- Mine Camp (accommodation, offices, workshops and warehouses)
- Access Roads and Air Strip

Figure 18-1 shows a general layout of the site infrastructure

Figure 18-1 – General Site layout - Infrastructure



18.1.2 Palito Underground Mine

Underground mining at the Palito mine began in 2004 with production at a rate of 150 tpd, increasing gradually to approximately 600 tpd in year 2008. Total mine production during this period was approximately 460,000 tonnes.

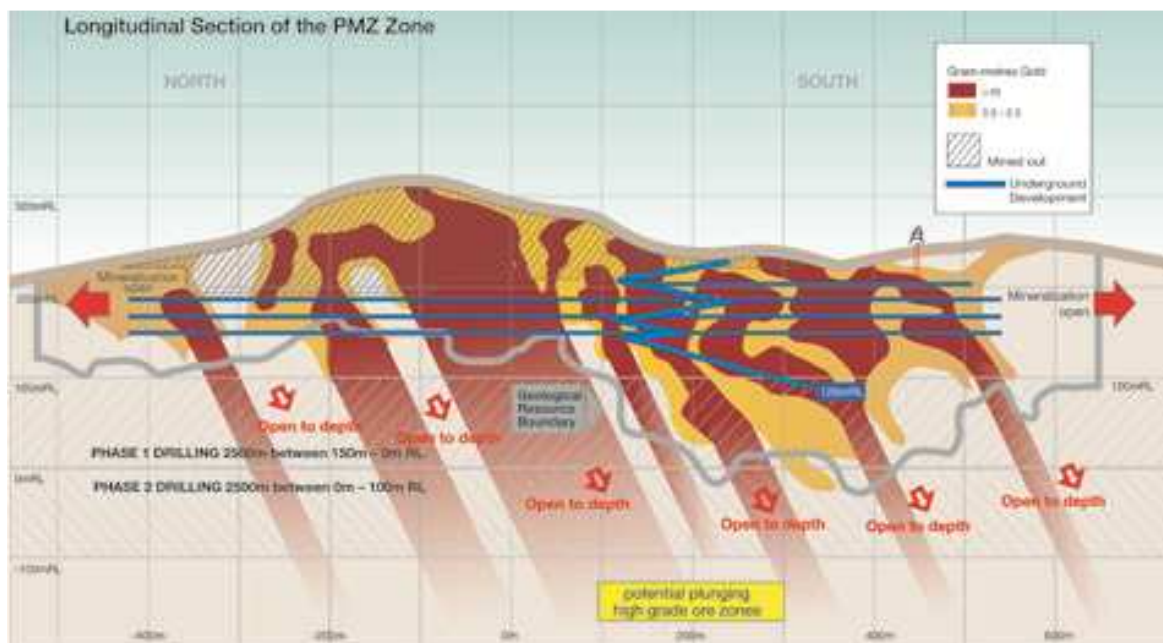
Following a successful period of selective mining using a shrinkage stopeing method, in an effort to increase production, a more mechanised bulk mining method (long hole open stoping method) was introduced. However, levels of dilution were higher than expected, giving rise to lower than planned head grades. Efforts were made in 2007 to manage dilution and plans established to put in place a more selective mining method albeit still mechanised. New equipment was ordered but was some 6-12 months late in being delivered and commissioned. Essential mine development was consequently delayed, hence when the equipment arrived in mid-2008, the company found it impossible to recapture this lost development fast enough and with the markets in rapid decline and little access to additional working capital. The results of a strategic review were announced in September 2008 which led to underground mining operations being suspended at the end of 2008 and the underground mine being placed on care and maintenance.

The Palito underground mine consists of an access ramp located at the footwall of the mineralized structures, providing access to the veins on 12 m vertical intervals. The ramp portal is located at elevation 235 masl, and the total ramp development is of 1000 m of ramp, accessing up to level 114m. The mine is currently flooded up to level 178m.

After the mine was placed in care and maintenance, most of the underground mobile equipment fleet, and part of the stationary mine equipment were sold. The cost and time frame to re-habilitate the Palito underground mine is currently unknown.

Figure 18-2 shows a long section of the Palito Mine.

Figure 18-2 – Palito Mine Long Section



18.1.3 Ore Processing Facilities

As stated in Chapter 16, the project has a fully implemented process plant that operated continuously producing copper–gold concentrate and bullion for almost five years, from September 2004 until mid 2010. During this period of time, the plant was fed with 550,000 tonnes of ore, of which 85% came from the underground mine at the Palito Main Zone area. The rest came from low scale near surface open pit mining.

The plant has a capacity to process between 600 and 700 tpd of sulphide ore. The process flowsheet consists of a crushing circuit, a milling circuit, and a flotation circuit followed by concentrate filtration and storage facilities. The flotation tailings are fed to a cyanide agitation leaching CIP plant, followed by elution and gold refinement circuits, to produce bullion.

The tailings from the CIP circuit flow to detoxification tanks for neutralisation of cyanide, and are eventually pumped to a tailings storage dam situated 1.5km from the process plant.

By the end of 2008, a circuit to process oxidized ore from the near surface open pit mining was implemented. This circuit consists of feeding the ore directly to two dedicated Hammer mills that discharge to the main ball mills, from where the ore bypasses the flotation circuit, to go directly to the CIP, elution and gold refinement circuits to produce bullion.

The first phase of the Palito plant was built in 2004 using mainly second hand equipment, and was gradually expanded to reach the current configuration. Currently Serabi is preparing the plant to go on a care and maintenance mode, in order to preserve it in good condition in case they decide to re-start it in the future.

18.1.4 Tailings Disposal Facilities

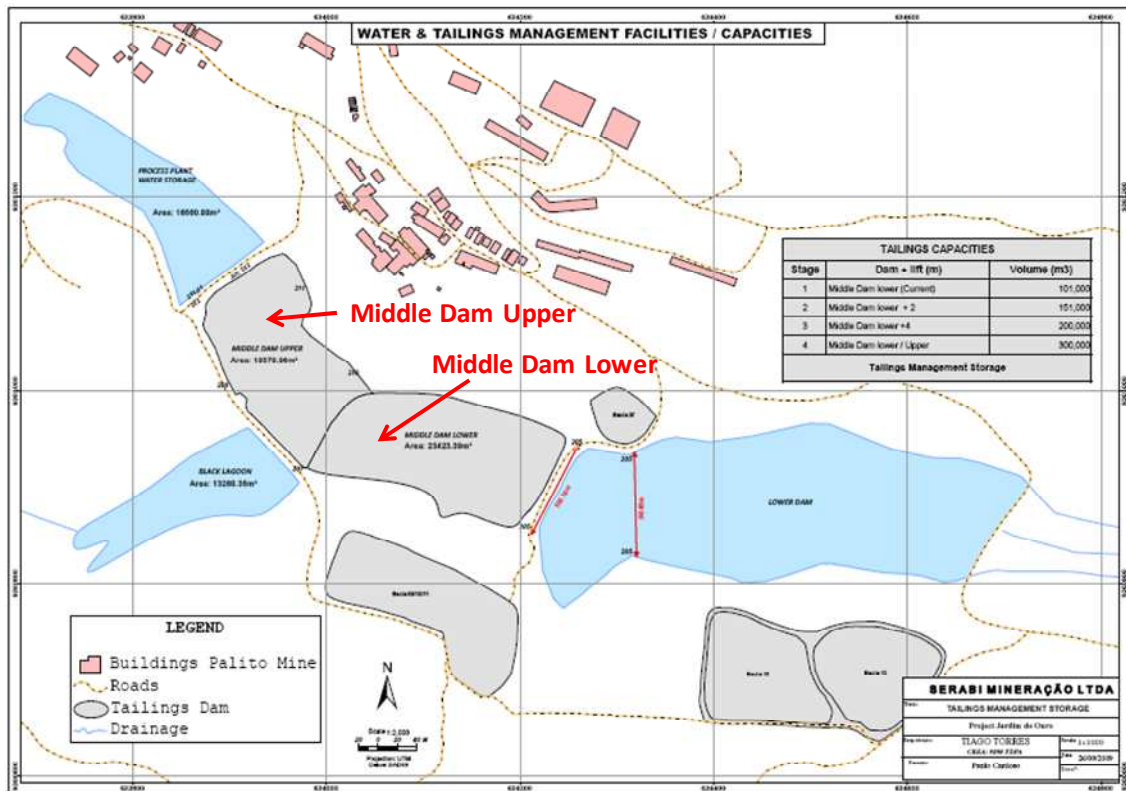
The final section of the process facility consists of two detoxification tanks for neutralisation of cyanide, from where the tailings are pumped to and deposited in a tailings storage facility situated 1.5km from the process plant.

The tailings storage facilities currently consist of two contiguous dams named Middle Dam Lower and Middle Dam Upper, which according to Serabi's management, after a 4 m raise of the wall could have a spare capacity of 300,000 m³. This capacity is enough to store between 450,000 T and 500,000 T of tailings. According to Serabi's management, the current operating permits allow the company to raise the dams beyond 4 m.

As the current tailings storage facility sits on top of a very prospective geophysical anomaly, and the site has not been subject of condemnation drilling, in 2007, Serabi retained Golder's Associates Brazil to conduct a survey of alternative sites to re-locate the tailings dam. Other alternative sites were identified, but no further engineering or design work was completed.

The location of the current tailings storage facilities is shown in Figure 18-3.

Figure 18-3 – Existing Tailings Storage Facilities



18.1.5 Power Supply

Power is fed to the project through a 34.5 kV power line constructed by the local electric company CELPA in 2006. The line is 30 km long, connecting with the village of Moraes de Almeida. Originally the line was fed with a diesel power plant located in the village of Novo Progresso, and in 2009 it was connected to the hydro generated northern Brazil power grid.

When the Palito Mine was operating at full capacity, the total installed capacity was 1,300 kW, and the contracted power demand with CELPA was 1,600 kW. After the closure of the underground mine and the processing facilities, the contract with CELPA was reduced to 680 kW on November 2009. According to Serabi's management the contracted demand can be easily increased again to the original amount if required.

The project also has a backup diesel generating facility to secure the power supply if there is a power cut on the CELPA grid. This generating facility consists of four diesel generators with a capacity of 340 kW each, and a total capacity of 1,360 kW. Apart from the above main generating facility there are two spare ancillary diesel generators with a total capacity of 760 kW.

18.1.6 Water Supply

The project has a water supply system consisting of a dam that contains water from the following sources:

- Mine water that is pumped from the underground working ends
- Recycled process water, after neutralization and decantation.

- Rain water

The total water consumption during the period of normal operation of the mine was in the range between 40 m³/h and 50 m³/h, including the process plant and the mine.

Water is an abundant resource in the area, and the current water supply system is not a limiting factor for future re-start of the Palito operation or even possible expansions of the processing facilities or the mine throughput.

Fresh drinkable water for use in the camp is supplied by conventional water wells. The total fresh water consumption when the mine was operating at full capacity was approximately 60m³/day.

18.1.7 Camp

Serabi has established a full mining camp at the Palito Mine. The camp consists of accommodation for the personnel, offices, warehouses, maintenance facilities, and a wide variety of services that make the camp self sufficient in many aspects.

The accommodation facilities consist of four units that can host up to 250 people. Serabi Mineracao also provides a daily bus service for employees and contractors living in Jardim do Ouro.

There are mine offices that are basic but in sound condition. Workshops and warehouses are adequately sized and are in good order.

Fuel is stored on site in storage tanks with an approximate capacity of 90,000 L of diesel. All the fuel storage tanks are located in a contained fuel storage area. There is an explosives storage facility located away from the main offices that is currently in care and maintenance.

There is a well equipped Chemical laboratory on site, currently being used

The site is self sufficient for most of the required services. The mine has access to radio telephones (two lines), high speed broadband satellite internet within a secure domain, two telephone land lines and radio communications. Serabi has the facilities to provide catering services for all the personnel.

Serabi has implemented a clinic and hospital at the Palito mine.

Serabi contracts its own security service. There is a guard house at the entrance to the mine.

18.1.8 Access Roads and Air Strip

The mine is accessed by unsealed road from the nearest town and delays can be expected during the wet season. An airstrip, suitable for light planes, was implemented in 2006, and is currently fully operative. Serabi Mineracao owns bulldozers, front end loaders and trucks which are used for site construction, road building and road maintenance.

18.2 OPERATING PERMIT

The mine has valid operating permits that allow both exploration and operating activities to take place. The key permit in place is the Operating license – Protocol # 2711/2008 issued by Secretaria de Estado de Qualidade Ambiental (SEMA), renewable annually, expiry 12/12/10. Serabi has made the necessary application for the license renewal.

The license allows the extraction and processing of gold and associated minerals in the mine license area of 1712 hectares up to a maximum rate of 700 tonnes per day.

Other valid permits include:

1. Cadastro Ambiental Rural (proof of land ownership and use for industrial purposes) – Protocol # 12787/2010 – issued by SEMA
2. Outorga (license to extract water for industrial use) valid until 12/01/2013 and issued by SEMA - #193/2010
3. Anexo - Outorga (license to extract water for domestic use) valid until 12/01/2013 and issued by SEMA
4. License to Procure, Store, Use Explosives at site - # 1871 issued by Ministry of Defence valid until 30/10/2011

18.3 PREVIOUSLY DECLARED MINERAL RESERVES

There is a past JORC compliant mineral reserves statement prepared by NCL in March 2008, based on the Measured and Indicated resources declared at that time. **However, considering the fact that the mine is in care and maintenance since Q4 of 2008, and there is no certainty that re-opening the mine is economically viable at this point in time, the mentioned March 2008 mineral reserves statement is currently not considered valid, and no reserves are quoted in this technical report.**

The mineral reserves estimated and stated in March 2008, and not declared today were at 732 thousand tonnes at 7.34 g/t gold and 0.22 % copper, containing 173 thousand ounces of gold and 188 thousand ounces of equivalent gold. Equivalent gold is calculated using an average long-term gold price of US\$700 per ounce, a long-term copper price of US\$2.75 per pound, average metallurgical recovery of 90.3% for gold and 93.9% for copper. From the total declared contained equivalent gold, 9.5% corresponded to proved reserves in Palito Main Zone and 90.5% to probable reserves.

A summary of the 2008 JORC compliant reserves statement by category and by mineralized structure is included in table 18.1 only as a reference of a past estimate, and NCL clearly states that it is not valid at the time of writing this report.

Table 18-1 – Mineral Reserve Summary as at March 31, 2008

Ore Source	tonnage	Gold (g/t Au)	Copper (%Cu)	Contained Gold Ounces	Contained Gold Equivalent Ounces
Proved Reserves					
Palito Main Zone (PMZ)	56,464	9.06	0.29	16,456	17,910
Palito West (PW)	-	-	-	-	-
Chico da Santa (CS)	-	-	-	-	-
Ruari Ridge (RR)	-	-	-	-	-
<i>Total Proved Reserves</i>	<i>56,464</i>	<i>9.06</i>	<i>0.29</i>	<i>16,456</i>	<i>17,910</i>
Probable Reserves					
Palito Main Zone (PMZ)	547,535	6.92	0.22	121,904	132,614
Palito West (PW)	54,642	10.85	0.20	19,063	20,063
Chico da Santa (CS)	55,485	6.52	0.23	11,639	12,786
Ruari Ridge (RR)	18,365	6.39	0.24	3,773	4,166
<i>Total Probable Reserves</i>	<i>676,028</i>	<i>7.19</i>	<i>0.22</i>	<i>156,379</i>	<i>169,628</i>
TOTAL Proved + Probable	732,492	7.34	0.22	172,836	187,538

Note: The above summary of the March 31, 2008 Mineral Reserves Statement is included only as a reference, and NCL clearly states that it is not valid at the time of writing this report.

All the backup and details of the March 2008 Mineral Reserves Calculation are available in the report “Mineral Resource and Mineral Reserve Estimate For the Palito Mine, Pará State, Brazil, As at 31 March, 2008”, prepared by NCL Brazil, which is available in Serabi’s Web Site (www.serabimining.com).

19. INTERPRETATION AND CONCLUSIONS

NCL concludes the following:

- NCL consider that the limits of the deposit are not well defined, with several zones where the limits are still open. Besides the down dip projection of all orebodies, the most important veins, the G2 and G3 at the PMZ area, are open to the North. The other orebodies are relatively insufficiently closed.
- The level of understanding of the structure, alteration and mineralization at Palito is reasonable for adequate resource evaluation; however, the relationship among them could be improved, thus improving the mine reconciliation.
- Mineralization is well defined in its lateral limits, but is open at the strike extension for most of the orebodies:
- For PMZ, the main veins (G2 & G3) are open to the north, while three of the smaller veins (Cedro, Jatobá and Munguba) are open to both ends.
- The orebodies Ruari Ridge and Chico da Santa are open in both directions, to the north and to south.
- None of the orebodies are closed at depth.
- The Palito laboratory gold results were accepted for the grade interpolation, after transforming any value lower than 0.70 g/t to 0.01 g/t Au. This procedure was used to eliminate the portion of the results with uncertainty greater than the acceptable. However, this procedure does not correct the fact that average grades of channel and UG drillholes, analysed by wet chemistry at the Palito Laboratory, are higher than nearby exploration holes, analysed by Fire Assay at SGS. This is not fully understood and requires further investigation.
- NCL states that significant infrastructure is available at the Palito mine site. This infrastructure includes the Palito underground mine, ore processing facilities, tailings storage facilities, power and water supply facilities, a mine camp, access roads and an air strip. The mentioned facilities are in good state of conservation, which would allow the resumption of mining activities on a short time frame and with relatively low investments if Serabi decides to do so.
- NCL supports Serabi's decision of focusing the investments on brownfields exploration. Additional resources would improve the economics of the mine, diluting fixed costs and diminishing the risks. The exploration potential of the Jardim do Ouro property is considered high. This perception is supported by the demonstrated gold endowment of the area, the geophysical anomalies (VTEM and IP) revealed and the data integration work, which leads to the impression that other Palito mineralized systems may be discovered within distance to the mill feasible for truck transport.

20. RECOMMENDATIONS

NCL recommends that

- The structure affects the mineralization through slip faults which dislocate the veins laterally and possibly through the control of high grade shoots within the veins. The former is a problem for mine planning and grade control and the latter could be used for better use the deposit. Structural mapping may be useful in both situations.
- The Quality Control protocol should be modified, following the recommendations detailed in the item 14-1. Batches which failed the Quality Control acceptance threshold, either for blanks and standards, need to be repeated by the laboratory.
- Exploration program must continue to test the geophysical anomalies and determine the true potential of the area. As detailed in the chapter 10, a budget of US\$ 9.69 million is proposed to develop the exploration activities along a period of 18 months. It includes the near mine (up to three km to the existing facilities) and greenfields, if farther than this distance. Support activities and corporate expenses are also included.

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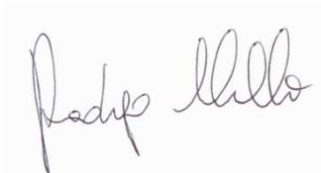
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CERTIFICATE OF RODRIGO MELLO

As the author of a portion of this report on Palito Mine, pertaining to Serabi Mining, I, Rodrigo Mello, MAusIMM, do hereby certify that:

1. I carried out this assignment as a consultant for the firm NCL Brasil Ltda:
Alameda da Serra, 500, Vale do Sereno.
Nova Lima, MG - Brazil
Tel.: 5531-31946931
2. This certificate applies to the technical report entitled "NI 43.101 Technical Report for the Jardim do Ouro Project, Pará state, Brazil" dated December, 9th, 2010.
3. I hold the following academic qualifications:
 - a. B.Sc. (Geology) Minas Gerais University 1985
 - b. Specialization (Computing) Goiás Catholic University 1999
4. I am a member of the Australasian Institute of Mining and Metallurgy (membership number and I am a registered Geologist with the Regional Council of Engineering, Minas Gerais (membership number 40/462-D).
5. I have worked as a geologist and project manager in the minerals industry for 25 years.
6. I am familiar with NI 43-101 and, by reason of education, experience and professional registration; I fulfil the requirements of a Qualified Person as defined in NI 43-101. I have significant work experience related to the geological environment observed in the Jardim do Ouro property.
7. I am responsible for the preparation of Sections 1 to 15, 17, and 19 to 21 of this report.
8. I visited the Palito Mine on two occasions during the course of this work. These were: during the period of July 2007, 2nd to 6th, August 2007, 6th to 12th.
9. I am not aware of any material fact, or change in reported information, in connection with the subject properties, not reported or considered by me, the omission of which makes this report misleading.
10. I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services.
11. I have read NI 43-101 and, the Technical Report and I hereby certify that the Technical Report has been prepared in accordance with NI 43-101 and meets the form requirements of Form 43-101 F1.

Nova Lima, Brazil, December, 9th, 2010



Rodrigo de Brito Mello
Geologist, MAusIMM

CERTIFICATE OF EDUARDO ROSSELOT

As the author of a portion of this report on Palito Mine, pertaining to Serabi Mining, I Eduardo Rosselot, CEng MIMMM, do hereby certify that:

1. I am an independent consultant and carried out this assignment as an associate consultant for the firm NCL Ingeniería y Construcción Ltda:
General del Canto 235, Providencia, Santiago, Chile
Tel: 56 6510800
2. This certificate applies to the technical report entitled "NI 43.101 Technical Report for the Jardim do Ouro Project, Pará state, Brazil" dated December, 9th, 2010.
3. I am a practicing mining engineer, a Chartered Engineer and a member of The Institute of Materials, Minerals and Mining (CEng MIMMM, Membership Nº448843). I am a professional member of Colegio de Ingenieros de Chile (Membership Nº24213)
4. I am a graduate of the Universidad de Chile and hold a Mining Engineer Degree.
5. I have practiced my profession continuously since 1988.
6. As a result of my experience and qualifications, I am a Qualified Person" as defined in the National Instrument 43-101 Standards of Disclosure for Mineral Projects.
7. I have personally visited the Palito property during September 2010, during the course of this work. Previously I have performed consulting services for Serabi Mining Plc, and have visited the Palito property several times during years 2007 and 2008.
8. I am responsible for the preparation of Sections 16 and 18 of this report.
9. I don't have any material interest in Serabi or in the mineral properties considered in this report. NCL is remunerated for this report by way of a professional fee determined according to a standard schedule of rates which is not contingent on the outcome of this report.
10. I have read National Instrument 43-101 and Form 43-101F1 and this report has been prepared in compliance with the Instrument and Form.
11. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Santiago, Chile, December , 9th, 2010



Eduardo Rosselot
Mining Engineer, CEng MIMMM

Annex I
Legal Opinion in regards to the mining properties of Serabi



Rio de Janeiro, November 30th, 2010.

At.:Mike Hodgson

Serabi Mining plc
30-32 Ludgate Hill
London
EC4M 7DR
0207 246 6830

CC: Rodrigo Melo e Carlos Guzman

NCL Ingeniería y Construcción S.A
Alameda da Serra 500, Sala 315, Vale do Sereno
Nova Lima, Minas Gerais

Ref.: Title Legal Opinion on Tapajós Properties

Dear Sirs,

This legal opinion has the mission to release a short summary of Brazilian mine legal system and our opinion regarding Serabi Mineração S.A. ("Company") and its mineral rights described on Schedule 1 related to Tapajós Properties.

I. BRAZILIAN MINE LEGAL SYSTEM

1. Overview

The government agency responsible for mining administration and mineral production data is Brazil's Departamento Nacional de Produção Mineral (**DNPM**) or National Department of Mineral Production.

The exploration and exploitation of mineral resources in Brazil is defined and regulated by the 1967 Mining Code (Executive Law No. 227 of 28 February 1967). Mining activity in Brazil requires the grant of concessions from the DNPM who are responsible for enforcing the Mining Code and its complementary legal provisions. Tenure in Brazil essentially consists of exploration applications, exploration licenses and mining concessions.

The process of acquiring title to a mineral property in Brazil is a phased procedure involving progressive categories of title as exploration and development work advances. Tenure is secure as long as the title holder meets clearly defined obligations over time, but the process of acquiring title can be lengthy. Typically the area covered by concessions varies from 10,000 ha in extent for the Amazon region and 2,000 ha for the rest of the country, but may be smaller in area depending on the region where the concession is situated and according to the mineral substance that is being researched.

2. Exploration applications

Initially, an application must be filed for an exploration license. The application must meet certain regulatory requirements, including submission of a location map and exploration plan. The application must also be prepared under the responsibility of an authorized professional such as a geologist or mining engineer. A 60 day period after filing is provided for the applicant to supply any further information that may be required. Exploration licenses are issued by the DNPM provided the applicant has met all the requirements and the area of interest is not already covered by a pre-existing application or exploration license as described as follows.

2.1. Priority Rights

The applicant of a mineral exploration license, whose application is related to an area considered as free, shall be granted the priority in obtaining the respective title. Therefore, the first application presented to the DNPM for a certain area shall constitute, in general, a priority right. The area will be considered as free when:

- (i) the area is not bound to any other exploration license, license registration, mining concession, mine manifest, aerial geological recognizance permission, or any extraction registration by the federal, state and municipal agencies of the direct administration or by independent governmental agencies;
- (ii) the area is not the object of a previous application for an exploration license, or in cases where there is a previous application, such previous application is subject to prompt dismissal;
- (iii) the area is not the object of a previous license registration request, or if tied to a license, the registration of such license will be requested within 30 days of its issuance date;
- (iv) the area is not the object of a previous extraction registration request filed by any federal, state and municipal agencies of the direct administration or by independent agencies;
- (v) the area is not tied to a request for renewal of an exploration license, presented in time and pending approval;
- (vi) the area is not tied to an exploration license with a final report presented in time and pending approval; and
- (vii) the area is not bound to an exploration license with a final report approved and the legal right to request the mining concession still in force.

In the event of partial interference in the area requested and provided that exploration in the remaining area will be justified and considered as technically and economically feasible by the DNPM, the applicant shall be previously consulted to determine if said applicant would be interested in readjusting the application for the remaining area. If the request was dismissed due to the unavailability of the requested area, the applicant shall not be entitled to any claim.

3. Exploration licenses

Exploration licenses are granted for a maximum period of three years, which may be extended for an additional two to three year period, upon presentation of technical justification. They are also subject to a nominal annual charge of R\$2.02 per hectare during the original period and R\$3.06 during the extension period. Exploration must begin within 60 days following the granting of the license, and must not be suspended for more than three consecutive months or 120 non-consecutive days. Exploration must be carried out in accordance with the submitted exploration plan.

In order to renew the license, the DNPM shall take into consideration the development of the work performed. The request for renewal of the license must be presented 60 days prior to the expiration date of the original license or the previous renewed license. As to the renewal request, a report must be presented of the work already carried out, indicating the results achieved, as well as

reasons justifying continued work. The renewal of the license does not depend on the publication of a new license, but only on the publication of the decision to renew.

Upon completion of exploration work, the holder of the exploration license must produce a “Final Exploration Report” and a “Mining Plan” (in essence, the two reports may be regarded as a feasibility study). Such report must be prepared under technical responsibility of a legally qualified professional and must also contain:

- (i) information on the area, means of access and communication;
- (ii) plan of the geological survey;
- (iii) description of the main aspects of the deposit;
- (iv) quality of the mineral substance and definition of the deposit;
- (v) genesis of the deposit, as well as its qualification and comparison to similar deposits;
- (vi) report of the industrialization assays;
- (vii) demonstration of the economic feasibility of the deposit; and
- (viii) necessary information for the calculation of the reserve, such as the density, area, volume and content.

The final exploration report must be presented independent from the results of the work and shall conclude for the feasibility or non-feasibility of the exploitation development, or for the non-existence of the deposit. The holder of an exploration license who does not present a final report within the date established by the regulations will be fined. Nevertheless, the exemption from presentation of the report is permitted in certain cases of license relinquishment by the titleholder. The DNPM must confirm the relinquishment, provided it happened in one of the two following instances:

- (i) at any time, if the titleholder has not been successful at entering the area, despite all the efforts made, including judicial means; or
- (ii) before one-third (1/3) of the term of duration of the exploration license has passed.

3.1. Size of Area

The exploration licenses are limited to the following maximum areas:

- (i) 2,000 hectares for deposits of metalliferous mineral substances, mineral fertilizers, coal, diamond, bituminous and pyrobituminous rocks, turf and salt-gem;
- (ii) 50 hectares for deposits of sands, gravels and grits for the immediate use in the construction industry; rocks and mineral substances for paving blocks, curbstones, gutters, posts and the like; clay used to manufacture ceramics; rocks, stamped for immediate use in construction industry and limestone used as soil corrective element in agriculture; mineral waters, bottled and drinking waters; sands for industrial use; feldspar; gems (except diamonds); ornamental stones and micas;
- (iii) 1,000 hectares for deposits of mineral external rocks and other substances not indicated in items (i) and (ii) above;
- (iv) 10,000 hectares for deposits of minerals indicated in item (i) above for areas located in the *Amazônia Legal*; and
- (v) 5 (five) hectares for deposits of mineral substances for the immediate use in the construction industry, which extraction will be carried out by the federal, state and municipal agencies of the direct administration or by independent agencies.

3.2. Obligations

The titleholder of an exploration license shall be obliged to:

- (i) perform work only within the area specified in the authorization;
- (ii) respect the rights of third parties, indemnifying them for damage and losses caused;
- (iii) communicate to the DNPM the discovery of a mineral substance not included in the authorization;
- (iv) remove the substances extracted from the area object of the license for analysis and industrial experiments only with prior authorization of the DNPM (Utilization Bill) and in accordance with the applicable environmental legislation;
- (v) start the work within 60 days of the date of the publication of the license in the Official Gazette of the Federal Executive or as from the judicial ingress in the area to be explored;
- (vi) not interrupt the work without justification for more than three consecutive months or for more than 120 non-consecutive days;
- (vii) compensate the surface owner or possessor for the occupation of the land and for damage or loss caused by the work; and
- (viii) present a final prospecting report.

Besides the fee to be paid for obtaining the mineral exploration license, the titleholder must also pay to the DNPM an annual fee per each hectare. The fee is established at progressive values, considering the substance, place and size of the area, among other conditions.

3.3. Rights

The titleholder of an exploration license may execute the respective work and necessary auxiliary services, as well as work on land of private or public domain included in the area indicated on the exploration title. The titleholder shall be assured the right of free passage on the private property, including the soil and subsoil in the title area, as well as in neighboring areas, for performance of the respective work.

The titleholder of a set of exploration licenses for the same mineral substance in neighboring or close areas shall be entitled and authorized to present a single research plan and final report, involving and covering the whole set.

3.4. Transferability

The mineral exploration license is a title that can be assigned, totally or partially, to anyone who is in condition to execute the work under such license in accordance with the applicable legislation. The transfer of the license must be communicated to the DNPM for approval and registration. It will only be legally valid after such procedure is complete.

3.5. Sanctions

Failure to comply with the obligations derived from exploration licenses, depending on the seriousness of the infraction, shall result in the following sanctions imposed by the DNPM: warning, fine or forfeiture.

3.6. Utilization Bill

It is possible to extract mineral substances before the mining concession is granted, by means of a Utilization Bill. Extraction may only occur if the interested party has obtained a proper environmental license, and has entered into an agreement with the surface owner as to the extraction work.

4. Mining concessions

Mining concessions are only granted to corporations. Normally such corporations have a period of one year, following the DNPM's approval of the "Final Exploration Report", within which to present a "Mining Plan" (or feasibility study), and to apply for a mining concession. After the mining ordinance is published in the official gazette, the corporation has 90 days to request possession of the mineral deposit to be mined and six months to start the preparatory work outlined in the "Mining Plan". This term can be extended for a further six months, once or more, provided there are acceptable reasons (such as market restrictions, acts of God etc) that justify such extension.

Once mining has started it may not be interrupted for any period longer than six consecutive months unless the corporation has approval for a suspension of activities from the DNPM, which when granted provides for ongoing security of tenure. No fees are levied on the holder of a mining concession. Mining concessions are not limited in time and remain valid until depletion of the mineral deposit. Once a mining concession is granted, a mining company is required to obtain an environmental license. The environmental license is renewed annually subject to compliance with the environmental legislation.

4.1. Requirements

The mining concession shall only be granted when:

- (i) the area has already been prospected and mining is considered technically and economically feasible by the DNPM;
- (ii) the respective final prospecting report has already been presented and approved by the DNPM;
- (iii) the mining area to be exploited has been considered technically and economically feasible by the DNPM and adequate for the extraction and processing of the deposits, duly observing the limits of the area indicated in the exploration license; and
- (iv) the competent environmental agency has issued the corresponding environmental license.

4.2. Size of Area

The applicant must specify the size of the area required for mining within the area granted for exploration. The DNPM has the unconditional authority and power to establish the size of the mining area.

4.3. Transferability

The mining concessions are personal titles. They can be assigned, totally or partially, and are granted by the Executive Secretary to the Ministry of Mines and Energy to companies that wish to operate in mineral business activities.

4.4. Rights

The holder of a mining concession:

- (i) has the exclusive right to execute the mining work for the mineral substances specified and indicated in the concession title and within the authorized area. However, if another substance is found in the authorized area, the titleholder may request an addendum to the concession, so that the new substance is also included in the concession;
- (ii) has the right to temporarily suspend mining work;

- (iii) may obtain easements on the property where the mine is located, as well as on bordering and neighboring properties, with prior indemnification;
- (iv) may divide the concession into 2 or more distinct concessions, provided that it is not harmful to the development of the deposit.

4.5. Obligations

The titleholder of the mining concession has the following obligations:

- (i) to start the mining work as per the development plan, within six months from the date of the publication of the concession in the Official Gazette of the Republic;
- (ii) to execute the work in accordance with the development plan approved by the DNPM;
- (iii) to extract solely the substances indicated in the concession;
- (iv) to communicate to the DNPM the discovery of a mineral substance not included in the concession title;
- (v) to carry out the work in accordance with regulatory norms;
- (vi) to offer the management of the work to a duly qualified technician;
- (vii) not to make it difficult nor impossible to use and exploit the deposit in the future;
- (viii) to be responsible for the damage and loss caused to third parties, resulting from the mining work;
- (ix) to promote and improve safe and healthy lodgings at the location;
- (x) to avoid deviation of water and to drain the amount that can cause harm and loss to neighbors;
- (xi) to avoid air or water pollution resulting from the mining work;
- (xii) to protect and preserve the water sources, as well as to use them according to the technical instructions and requirements when dealing with mineral water deposits;
- (xiii) to observe and comply with all the provisions of the inspection entities;
- (xiv) not to interrupt the mineral activities without notice to the DNPM;
- (xv) to keep the mine in good condition when temporarily suspending the mining work; and
- (xvi) to restore the areas degraded by the mining work.
- (xvii) advise of the discovery of radioactive minerals.

4.6. Sanctions

Failure to comply with requirements may result in warning, fines or forfeiture being imposed by the DNPM. Forfeiture must be precedent by an administrative proceeding. A request for reconsideration can be made to the Executive Secretary to the Ministry of Mines and Energy against the decisions of the Ministry of Mines and Energy or to the courts.

4.7. Security of Tenure

After the completion of prospecting work in accordance with the legal provisions and after the approval of the final report by the DNPM, the titleholder shall have the exclusive right to request a mining concession for the area. In this case, the concession can only be refused if the mining work is considered harmful to the public or compromises interests that are more relevant than industrial exploitation.

After the filing of the application for the mining concession and after the approval of the mine's development plan by the DNPM, the mining concession cannot be refused by the Government. Once the mining concession has been granted and all the legal requirements and provisions duly observed, the concession cannot be cancelled.

5. Environmental considerations

Article 225 of the Brazilian Constitution stipulates that mining operators must reclaim areas that they have environmentally degraded. In Brazil, the environmental legislation that is applied to mining is basically consolidated in the following environmental requirements: an environmental impact study (EIA), environmental licensing (LA) and a plan for recovery of degraded areas (PRAD). An EIA applies to mining projects for any mineral; an LA is mandatory for the installation, expansion and operation of any mining activity; and a PRAD requires suitable technical plan to rehabilitate the soil and other aspects of the environment that might be degraded by a mining operation.

Companies which carry on activities considered as potentially polluting or utilizing natural resources, such as mining, shall be registered with Brazilian Environmental and Renewable Natural Resources Institute - IBAMA.

6. Rent, Compensation and Participation

6.1. Exploration Phase

The holder of an exploration license must pay the surface owner or the squatter of the area object of the exploration license, rent for occupation of the land and compensation for any damage and loss caused or that may be caused as a result of the exploration work.

The payment cannot exceed the maximum net income from the area occupied for exploration. Compensation for damage caused cannot exceed the assessed value of the property actually occupied. However, in the event the damages caused by the exploration activities should turn the land impracticable for agricultural or breeding activities, compensation may reach the assessed value of the property.

6.2. Mining Phase

With regard to the concession and licensing regimes, the landowner is assured the right to participate in the results of the mining work. The value of such participation has been set at 50% on the total amount due and payable to the states, municipalities and the Federal District, as royalties for the exploitation of the mineral resources. Therefore, the value is calculated on the net income from the sale of the mineral product obtained after the last stage of processing and before its industrialization. Payment to the surface owner of the percentage in the mining results must be done on a monthly basis pledged separately from the property. The surface owner, however, may waive such participation, as well as assign or pledge the right of receiving installments in the future.

6.3. Royalties (Financial Compensation for the Exploitation of Mineral Resources)

The Federal Constitution has established that the states, municipalities, Federal District and the bodies of the direct administration of the Union (DNPM and IBAMA) are entitled to a percentage of the results of exploitation of mineral resources, or, alternatively, to receive royalties ("financial compensation") for said exploitation.

In light of the above, financial compensation has been created, and deemed to be a public price payable by the titleholders of mining concessions for the exploitation of mineral resources. Said compensation has been set at a maximum of 3% on the net income from the sale proceeds of the mineral product obtained after the last stage of processing and before its industrialization.

When assessing the net sales, the following deductions are permitted:

- Tax on Financial Transactions – IOF is payable on gold as a financial asset;
- Tax on Distribution of Goods and Services – ICMS;
- Social Security Financing Contribution - COFINS, and contribution to the Profit Participation Program – PIS, assessed on income ensuing from sales of the mineral output; and
- insurance and freight charges.

The following different participation percentages have been established for the mineral substances:

- (i) aluminum, manganese, salt-gem and potassium ores - 3%;
- (ii) iron, fertilizers, coal and other mineral substances - 2%;
- (iii) precious colored stones and gems that can be polished, carbonized stones and precious metals - 0.2%; and
- (iv) gold - 1%, garimpeiros are exempted.

Financial compensation is distributed as follows:

- 23% to the states (or the Federal District) where mining activities are performed;
- 65% to the municipality where mining activities are performed;
- 12% to DNPM, which shall give 2% of its share to IBAMA.

SCHEDULE 1

Title	DNPM Process no.	Name of Mine	Substance
Mining Concession no. 312/2007	850.175/2003	Garimpo do Palito (Jardim do Ouro)	Gold; Copper Ore; Silver Ore
Exploration Permit no. 1183/2005	850.643/2003		Gold
Exploration Permit no. 5258/2005	850.174/2005		Gold
Exploration Permit no. 951/2008	850.192/2002		Gold
Exploration Permit no. 8397/2004	850.386/2004		Gold
Application for Exploration Permit	850.282/2005		Gold
Application for Exploration Permit	850.495/2005		Gold
Application for Exploration Permit	850.496/2005		Gold
Application for Exploration Permit	850.291/2004		Gold
Application for Exploration Permit	850.066/2010		Gold

TO WHOM IT MAY CONCERN

STATEMENT

This is to attest that **SERABI MINERAÇÃO S.A.**, a company incorporated under the laws of Brazil, registered with the Federal Taxpayer's Roll under no. 04.207.303/0001-30, is as of this date the current holder of 1 (one) Mining Concession, 4 (four) Exploration Licenses and 5 (five) applications for Exploration Licenses, for the exploration and exploitation of gold in the State of Pará, as evidenced by the attached extract of the records of National Department of Mineral Production – DNPM offices, which shows the respective administrative procedures number.

The information set out below provides an accurate statement as to the status of Tapajós Properties.

Rio de Janeiro, November 30th, 2010.



Luis Mauricio Ferraiuoli de Azevedo
Brazilian Bar Association. OAB/RJ nº .80412-RJ
Partner



Ianê Pitrowsky da Rocha
Brazilian Bar Association. OAB/RJ nº 126.000
Associated