Quarterly Report

PANORAMIC RESOURCES LTD

vision
commitment
results

28 January 2014 **ASX: PAN**

Quarterly Report for the period ending 31 December 2013

Significant Points

GROUP

- Safety – **Lost Time Injury Frequency Rate (LTIFR) down to 3.29** at quarter end, one Lost Time Injury reported
- Group Nickel Production – **5,399t Ni**
- FY2014 production guidance – **increased guidance of 21-21,500t contained nickel maintained**
- Costs – Group payable cash costs down again to A$5.28/lb (inclusive of royalties), **US$4.90/lb**
- Liquid Assets – **$54 million** at quarter end

NICKEL

Savannah

- Production – **2,009t Ni in concentrate**
- Costs – payable cash costs A$6.26/lb Ni (inclusive of royalties)
- **Exploration – next phase of drilling above and below the 900 Fault fast-tracked and now underway**
- Resources and Reserves – transitioned to *2012 JORC Code*

Lanfranchi

- Production – **3,390t Ni in ore, third consecutive quarterly production record**
- Costs – **payable cash costs A$4.63/lb Ni (inclusive of royalties) down 19% on higher nickel grade**
- Exploration – drilling commenced late in quarter on new drill targets east of Deacon
- Resources and Reserves – transitioned to *2012 JORC Code*

GOLD

Gidgee

- Bankable Feasibility Study ongoing
- BFS Resources – transitioned to *2012 JORC Code*

Mt Henry (PAN 70%)

- Bankable Feasibility Study ongoing
- Resources – transitioned to *2012 JORC Code*

PGM

- continued to seek a partner for our PGM business

CORPORATE

- Further cost savings and productivity initiatives introduced across the business
- **Two Tranche Placement and Share Purchase Plan completed raising ~$16 million**

Managing Director's Commentary

- **Safety and Environment** – one Lost Time Injury recorded at Savannah, **LTIFR down to 3.29**.
- **Liquid Assets** – **cash and receivables totalled $54 million at quarter end, up $9 million from 30 September**. The Nickel Division generated a $5 million operating margin (after Perth Office costs). Included in the cash balance was $15.1 million in new equity (before costs) received via the November 2013 two Tranche Placement.
- **Nickel Division**

  Production – Group nickel in concentrate/ore was 5,399t, close to the all-time quarterly record. Contained nickel production at Savannah was slightly above budget with a reduction in ore mined being offset by the higher nickel head grade.

  At Lanfranchi, a **new quarterly nickel production record** was achieved, the third quarterly record in a row. Based on the continuing strong performance at both operations, **the Nickel Division FY2014 production guidance was increased in November 2013 to 21-21,500t of contained nickel in concentrate/ore.**

  Costs – the average Group payable unit cash cost dropped 7% quarter-on-quarter to A$5.28/lb, primarily due to lower aggregate Group site costs and the higher mined nickel grade at Lanfranchi.
- **Gold Division**

  Strategy – the strategy with the gold assets remains to finish both Bankable Feasibility Studies (BFS) and review the economics of both projects with particular focus on capex and opex assumptions, development and operating risks, funding options and the US$ gold price and US$/A$ exchange rate outlook.

  Gidgee – the scope of the Gidgee Project BFS has been expanded to include additional development scenarios to optimise Project economics. These scenarios include the addition of free milling ore to produce gold doré from the satellite Gidgee Resources and/or production of gold doré from the downstream processing of Wilsons concentrate on site via bio-heap leaching. The desktop study and evaluation of these scenarios are due for completion in the June 2014 quarter.

  Mt Henry – work is progressing and the target for the completion of the Mt Henry BFS has been extended to the June 2014 quarter.
- **PGM Division** – limited work was undertaken on our PGM assets during the quarter. The strategy remains to find a strategic partner for these assets.
- **Exploration** – **the Group's FY2014 exploration program is being aggressively fast-tracked to add mine life at both nickel operations:**
  - *Savannah* – targets identified for the next drill program in 2014 to test the extent of mineralisation above and below the 900 Fault. **The first drill program testing above the 900 Fault is now underway**.
  - *Lanfranchi* – exploration to target known and potential new mineralisation and to test high priority EM targets continues**.**
- **Corporate** – the priority continues to make sustainable cost savings and productivity improvements. Initiatives include:
  - Building a Sustainable Business – GPR Delher continues to assist us to improve our business systems and procedures. Their involvement is having a positive impact at both nickel operations and the Perth Office.
  - Major Contracts/Suppliers – all supply contracts and input costs are being reviewed and assistance to reduce costs has been forthcoming from some of our major suppliers.
  - Corporate costs – we continue to implement ways to reduce the cost of managing the business.

  Partnerships – we are continuing to investigate potential partnership opportunities, in both our PGM and gold divisions.

  New Equity – to help fund the fast track exploration programs at Savannah and Lanfranchi, new equity was raised via a two Tranche Placement ($15.1 million before costs) and a Share Purchase Plan ($0.8 million).

  Hedging – the Company purchased 600t of US$ Ni Put options to protect operating margins for the second half of FY2014.

Group Summary

The Panoramic Group A$ cash margin, on a payable nickel basis, is shown in Figure 1 which records the Panoramic Group payable nickel unit cash costs on a quarterly basis from the December 2011 quarter, together with the Group net realised A$ average quarterly nickel price (after hedging and quotational period pricing adjustments).

Figure 1 – Cash Margin & Payable Costs

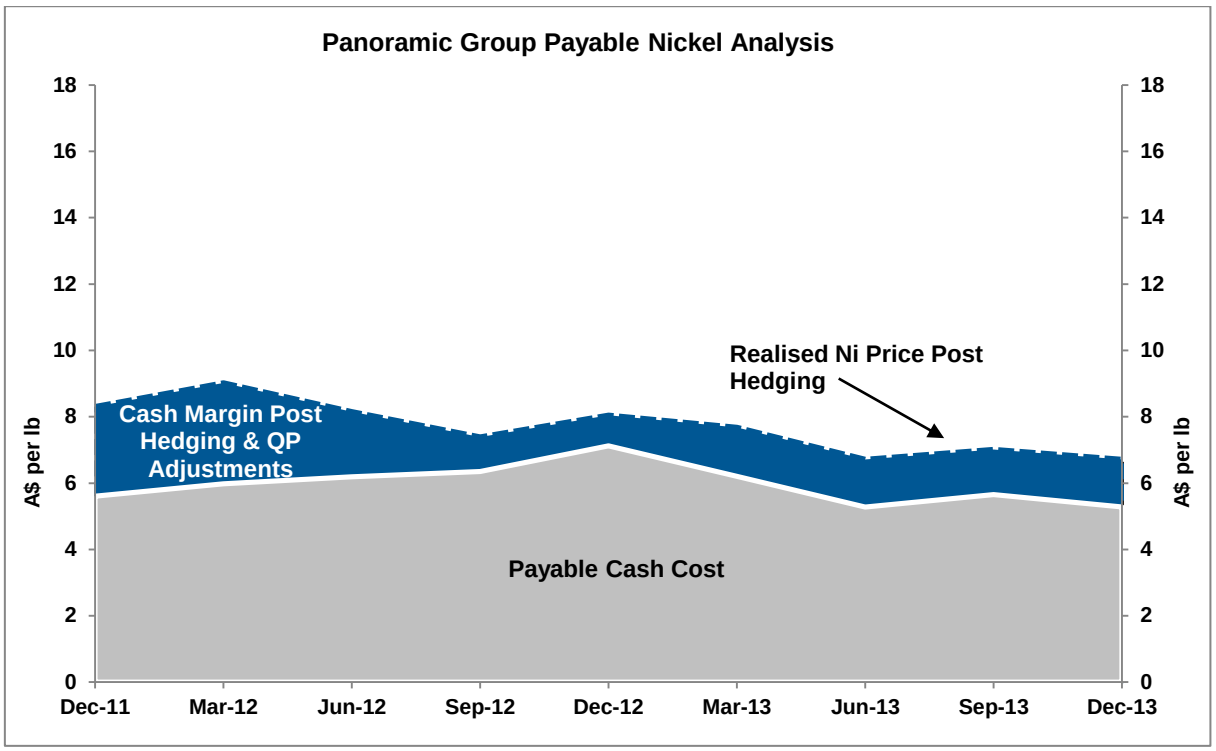


Table 1 – Group Nickel Production & Unit Costs

	Units	Savannah 3mths ending 31 Dec 2013	Lanfranchi 3mths ending 31 Dec 2013	Total Group 3mths ending 31 Dec 2013	Total Group Previous Qtr Sep 2013
Ore Mined	dmt	179,875	104,272	284,147	325,255
Average Mined Nickel Grade	%	1.32	3.25	2.03	1.75
Nickel in Ore Mined	dmt	2,377	3,390	5,767	5,696
Nickel in Concentrate/Ore	tonnes	2,009	3,390	5,399	5,404
Copper in Concentrate/Ore	tonnes	1,186	291	1,477	1,610
Cobalt in Concentrate/Ore	tonnes	105	-	105	104
Costs Per Pound Payable Nickel					
Mining	A$ per lb	3.71	2.90	3.22	3.46
Milling	A$ per lb	1.82	-	0.73	0.70
Administration	A$ per lb	1.63	0.50	0.95	0.99
Payable Operating Cash Costs (Mine Gate)	**A$ per lb**	**7.16**	**3.40**	**4.90**	**5.15**
Haulage	A$ per lb	0.34	0.21	0.26	0.30
Port Charges/Shipping	A$ per lb	0.33	-	0.13	0.11
Ore Treatment	A$ per lb	-	0.95	0.58	0.75
Net By-product Credits	A$ per lb	(2.00)	(0.20)	(0.92)	(1.03)
Royalties	A$ per lb	0.43	0.27	0.33	0.37
Total Payable Operating Cash Costs[a]	**A$ per lb**	**6.26**	**4.63**	**5.28**	**5.65**
Total Payable Operating Cash Costs [b]	***US$ per lb***	***5.81***	***4.30***	***4.90***	***5.18***

(a) Group capital development cash cost for the quarter was A$0.38/lb. This cost is not included in Table 1. Capital development costs represent capitalised mining cash costs for deposits in production. These costs do not include pre-production costs for deposits being developed for future mining.

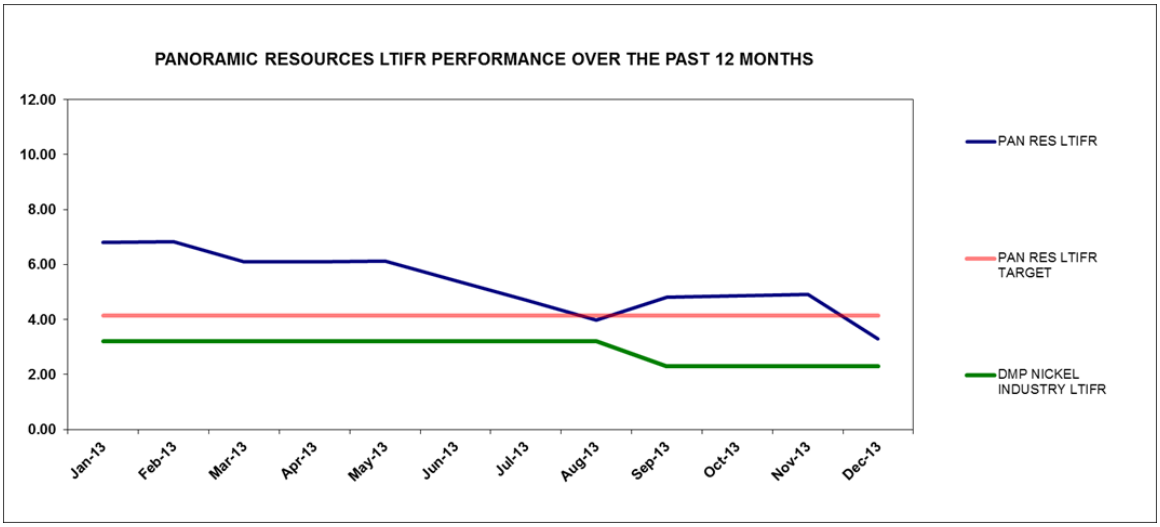
(b) Average December 2013 quarter RBA US$/A$ settlement rate of US$0.9279 (Average September 2013 quarter exchange rate was US$0.9165).

Safety

There was one Lost Time Injury (LTI) during the quarter, a knee injury to a surface loader operator at Savannah. The "Back to Basics" safety focus continued with reviews of safe work procedures, incident investigation and hazard identification training, presentations on vehicle interactions and a high headings audit. A key aim of the "Back to Basic" approach is to raise employee awareness of hazards and risks to encourage proactive safety behaviours. This resulted in an increase in the reporting and rectification of hazards at Lanfranchi and Savannah.

The 12 month moving average Group LTI Frequency Rate (LTIFR) decreased over the quarter to 3.29. Figure 2 shows the Group LTIFR, which has fallen below the Group Target of 4.14, and the recently published 2011/12 WA Nickel Industry Average LTIFR of 2.30 from the WA Department of Mines and Petroleum (DMP).

Figure 2 – Group Safety Statistics (12 month rolling average)



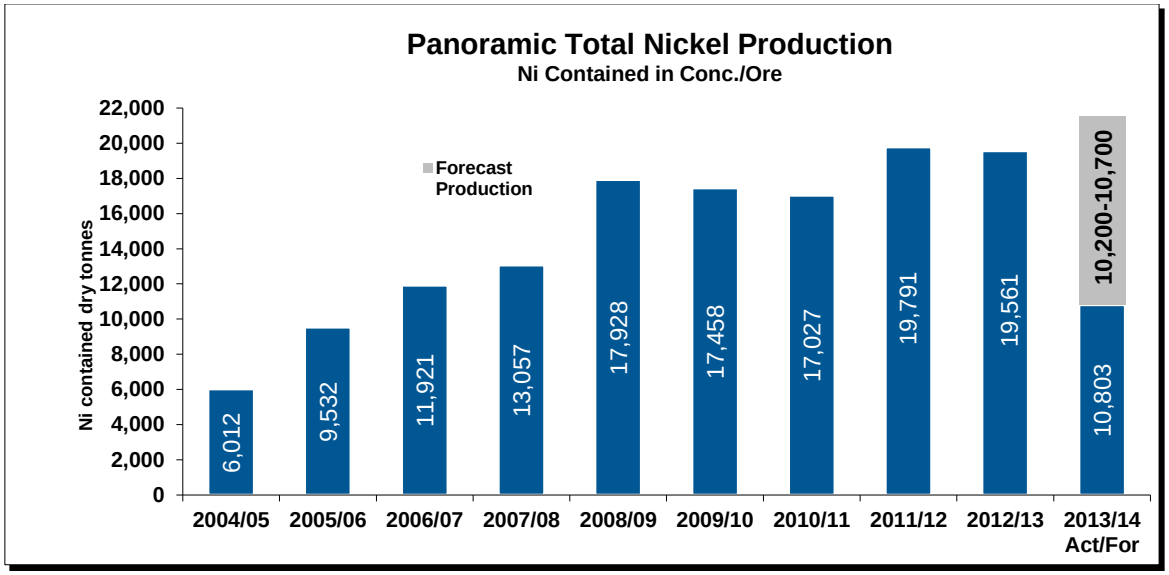
Environment

There were no significant environmental incidents recorded and the operations operated within all statutory regulations and licence conditions.

Nickel Division Production – Actual & Forecast

The Nickel Division produced 5,399 tonnes Ni contained in concentrate/ore, which was marginally below the previous quarter. As announced in November 2013, the FY2014 Group nickel production guidance has been increased to 21-21,500t Ni contained, which would be a new annual production record (*refer Figure 3*).

Figure 3 – Actual and Forecast Nickel Production



Nickel – Savannah Project

General

The Savannah Project produced 2,009t Ni, 1,186t Cu and 105t Co contained in concentrate. Ore tonnes milled was down 7% on the record September 2013 quarter, while the average nickel grade milled of 1.32% was up 4%, quarter-on-quarter. Mill recovery was temporarily down on budget due to a combination of paste-fill dilution in ore and higher copper grades in December.

Savannah commenced owner-operator shotcreting activities following the purchase of an agitator truck (*Photo 1*) and a spray rig in December. Further improvements in productivity, production efficiencies and mining costs are expected as a result of this significant operational change.

Three concentrate shipments with a combined 2,005 tonnes of contained nickel were exported to China. As at 31 December 2013, there was a significant inventory of concentrate at Wyndham containing 506 tonnes of nickel waiting to be shipped.

Table 2 – Savannah Project Operating Statistics

Area	Details	Units	3 mths ending 31 Dec 2013	3 mths ending 30 Sep 2013	2013/14 YTD	2012/13 Full Year
Mining	Ore mined	dmt	**179,875**	191,284	371,159	689,551
	Ni grade	%	**1.32**	1.27	1.28	1.29
	Ni metal contained	dmt	**2,377**	2,429	4,806	8,873
	Cu grade	%	**0.70**	0.72	0.71	0.67
	Co grade	%	**0.06**	0.06	0.06	0.06
Milling	Ore milled	dmt	**179,127**	193,121	372,248	686,739
	Ni grade	%	**1.32**	1.27	1.28	1.29
	Cu grade	%	**0.70**	0.72	0.71	0.67
	Co grade	%	**0.06**	0.06	0.06	0.06
	Ni Recovery	%	**85.0**	87.4	86.9	87.1
	Cu Recovery	%	**94.6**	95.9	95.3	96.0
	Co Recovery	%	**89.7**	89.7	89.7	89.9
Concentrate Production	Concentrate	dmt	**28,110**	29,171	57,281	100,615
	Ni grade	%	**7.15**	7.34	7.25	7.66
	Ni metal contained	dmt	**2,009**	2,142	4,151	7,703
	Cu grade	%	**4.22**	4.55	4.39	4.42
	Cu metal contained	dmt	**1,186**	1,329	2,515	4,443
	Co grade	%	**0.37**	0.36	0.36	0.38
	Co metal contained	dmt	**105**	104	209	382
Concentrate Shipments	Concentrate	dmt	**27,739**	29,426	57,165	94,680
	Ni grade	%	**7.23**	7.39	7.31	7.56
	Ni metal contained	dmt	**2,005**	2,173	4,178	7,158
	Cu grade	%	**3.95**	4.51	4.24	4.32
	Cu metal contained	dmt	**1,097**	1,328	2,425	3,989
	Co grade	%	**0.38**	0.35	0.37	0.38
	Co metal contained	dmt	**107**	104	211	360

Capital Projects

Tailings Storage Facility Wall Lift (Stage 2) – statutory approval was received in November 2012 for a 6m lift on the wall of the existing tailings storage facility (TSF). This approval included the construction of an Eastern Saddle to the TSF, which was completed in mid-October. Tailings pipeline work on the TSF perimeter was also completed.

Costs

Total site costs of $24.2 million, including operating and capital, were up marginally on the previous quarter ($23.7 million) while lower nickel production resulted in a 12% increase in the average payable unit cash cost (including royalties) to A$6.26/lb.

Figure 4 – Savannah Total Site Costs

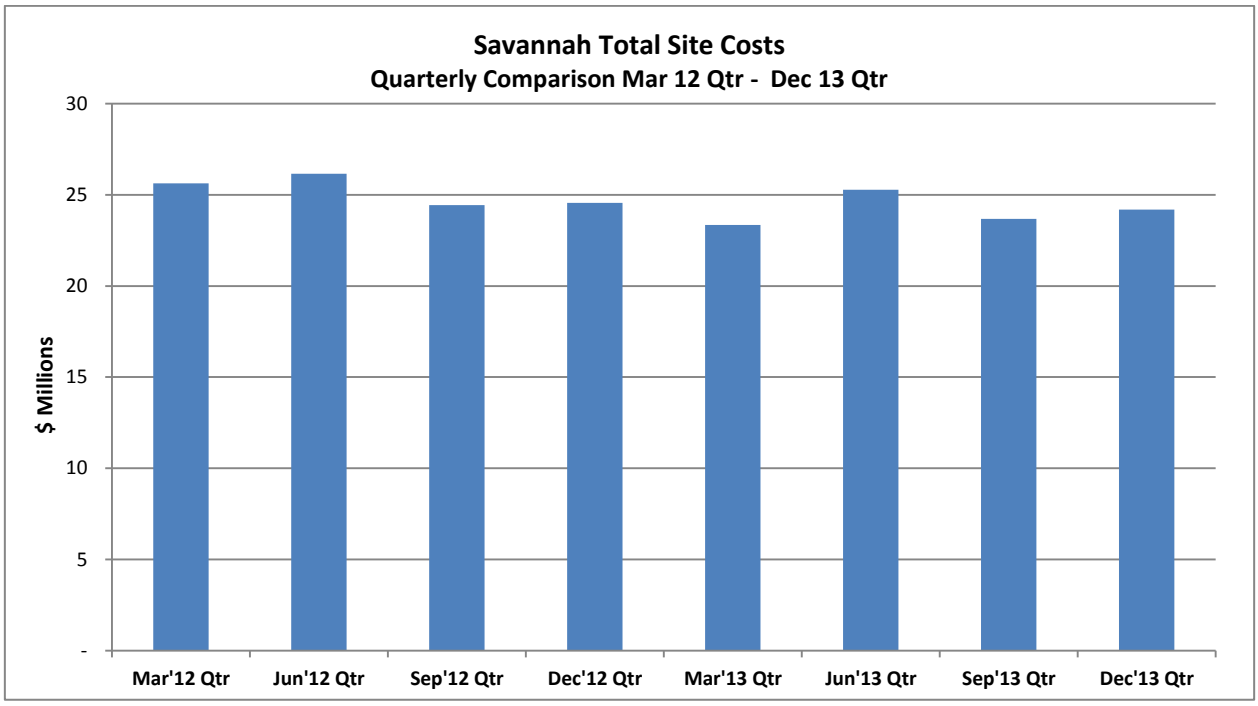


Photo 1 – Shotcreting Agitator Truck

Nickel – Lanfranchi Project

General

The Lanfranchi Project produced 104,272 tonnes of ore at 3.25% Ni for 3,390 tonnes Ni contained, **up again on the previous quarter and the third consecutive quarterly production record**. Ore production was impacted by issues with the paste plant, which necessitated a change in the mining schedule to mine more ore from the high grade Lanfranchi orebody to supplement the lower production from Deacon due to a lack of paste-fill. The paste plant was fully operational late in the quarter and mining from Deacon has recommenced. Importantly, FY2014 forecast production is unchanged.

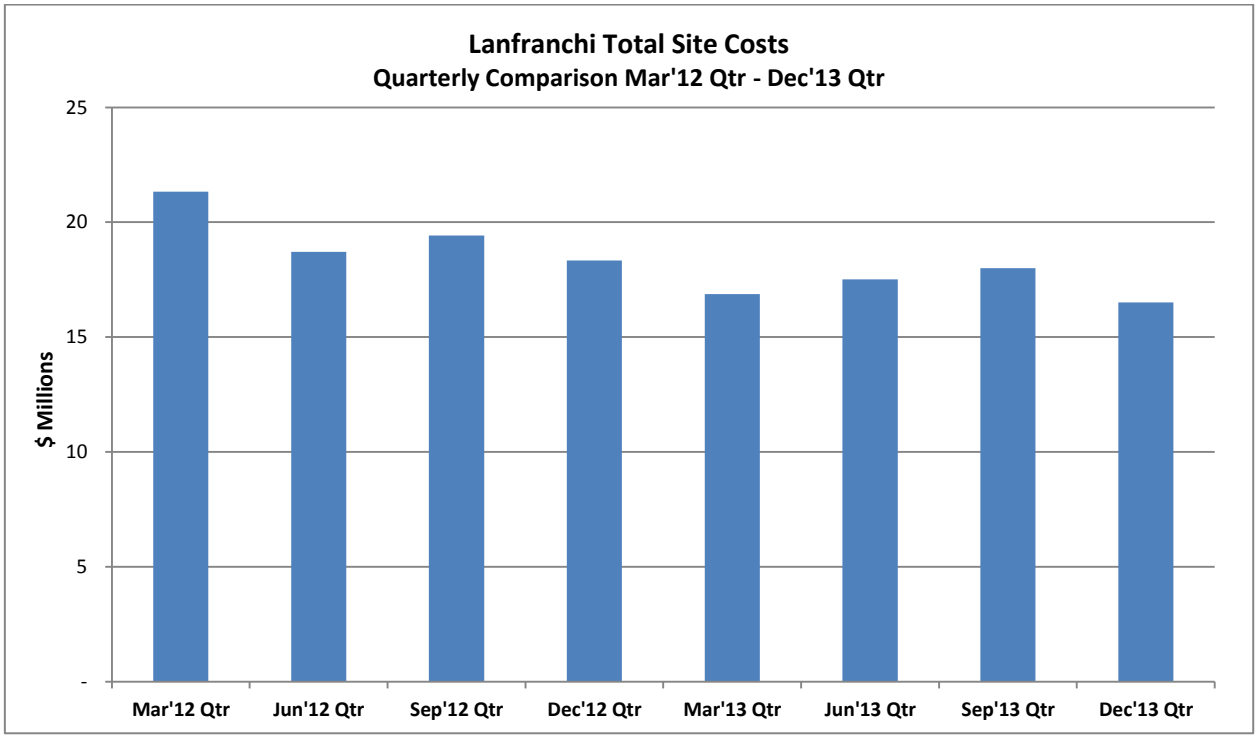
Table 3 – Lanfranchi Project Operating Statistics

Area	Details	Units	3mths ending 31 Dec 2013	3mths ending 30 Sep 2013	2013/14 YTD	2012/13 Full Year
Mining	Ore mined	dmt	**104,272**	133,971	238,243	520,523
	Ni grade	%	**3.25**	2.43	2.79	2.28
	Ni metal contained	dmt	**3,390**	3,262	6,652	11,858
	Cu grade	%	**0.28**	0.21	0.24	0.20
Ore Delivered	Ore delivered	dmt	**102,119**	136,589	238,708	518,662
	Ni grade	%	**3.17**	2.43	2.75	2.28
	Ni metal contained	dmt	**3,237**	3,325	6,562	11,801
	Cu grade	%	**0.28**	0.21	0.24	0.20

Costs

Total site costs of $16.5 million, including operating and capital, were 8% down on the previous quarter ($18.0 million). This excellent result together with the record nickel production, **lowered the average unit payable cash cost by 19% to A$4.63/lb**.

Figure 5 – Lanfranchi Total Site Costs



Nickel – Copernicus Joint Venture (Panoramic ~78%)

Copernicus Open Pit

No activity. The Copernicus Project remains on care and maintenance pending recovery in the A$ nickel price.

Base Metal Exploration

FY2014 Exploration Programs

The principal aim of the Group's FY2014 exploration programs is to **add mine life at both nickel operations**. A number of targets are to be tested and a minimum of $6 million (excluding rents and rates of $1.5 million) is to be spent on exploration programs in FY2014, with the majority of work on near mine nickel exploration. A significant portion of the funds received from the Capital Raising in November and December 2013 is earmarked to be spent on these exploration programs.

Savannah & East Kimberley Regional

Savannah

Since the completion of the drill program below the 900 Fault in early 2013, no exploration drilling has been undertaken. The Company has finalised the design for a new drill platform for the next round of drilling below the 900 Fault in 2014. The new platform will enable the Inferred Resource identified below the 900 Fault to be upgraded to an Indicated Resource category. Development of the new drill platform is scheduled to commence in the March 2014 quarter.

The Company has also completed a detailed structural analysis of the mine environment and in particular on the impact the 500 and 900 Fault structures have on the Savannah orebody. Two structural scenarios have been identified for the continuation of the orebody above and below the 900 Fault structure. Underground drilling has already commenced to test each scenario. Once completed, it is intended to follow-up the underground drilling with several surface holes to facilitate deep electromagnetic (EM) coverage of the target area. Pleasingly, a 2014 Western Australian Government co-funding drilling grant has been awarded to Savannah to assist in funding this surface drilling.

East Kimberley JV (EKJV) (Panoramic ~69% or 80%)

No field activities were undertaken on the East Kimberley JV. The Company's interest in the JV has increased to ~69% with Thundelarra Limited electing not to contribute its share of expenditure incurred by the JV for the period October 2012 to September 2013.

Lanfranchi

During the remainder of FY2014, the following areas are to be explored at Lanfranchi:

- up and down-plunge of the new Jury-Metcalfe Resource;
- down-plunge of the Lanfranchi orebody, where the potential for high nickel grades is very promising;
- down-plunge of Deacon, targeting the strong electromagnetic (EM) plate identified from previous drilling;
- East of Deacon, targeting what is potentially a new channel of mineralisation; and
- Tramways Overturned Dome, targeting this prospective area with seismic and EM surveys.

Schmitz/Jury-Metcalfe

Extensional resource drilling from the 4510 drill drive targeting the Schmitz/Jury-Metcalfe area was temporarily suspended in October 2013. A total of 2,863m had been drilled prior to the drill rig being re-located to continue testing the conceptual "East Deacon" channel target. Assay results for the holes completed from the 4510 drill drive included thin weak mineralisation intersected in most holes. The **standout result was 6.26m @ 1.61% Ni in SMT287** located below and slightly south-west of the Jury-Metcalfe orebody. Further testing about the SMT287 intersection is scheduled for 2014.

Potential new Mineralised Channel east of Deacon

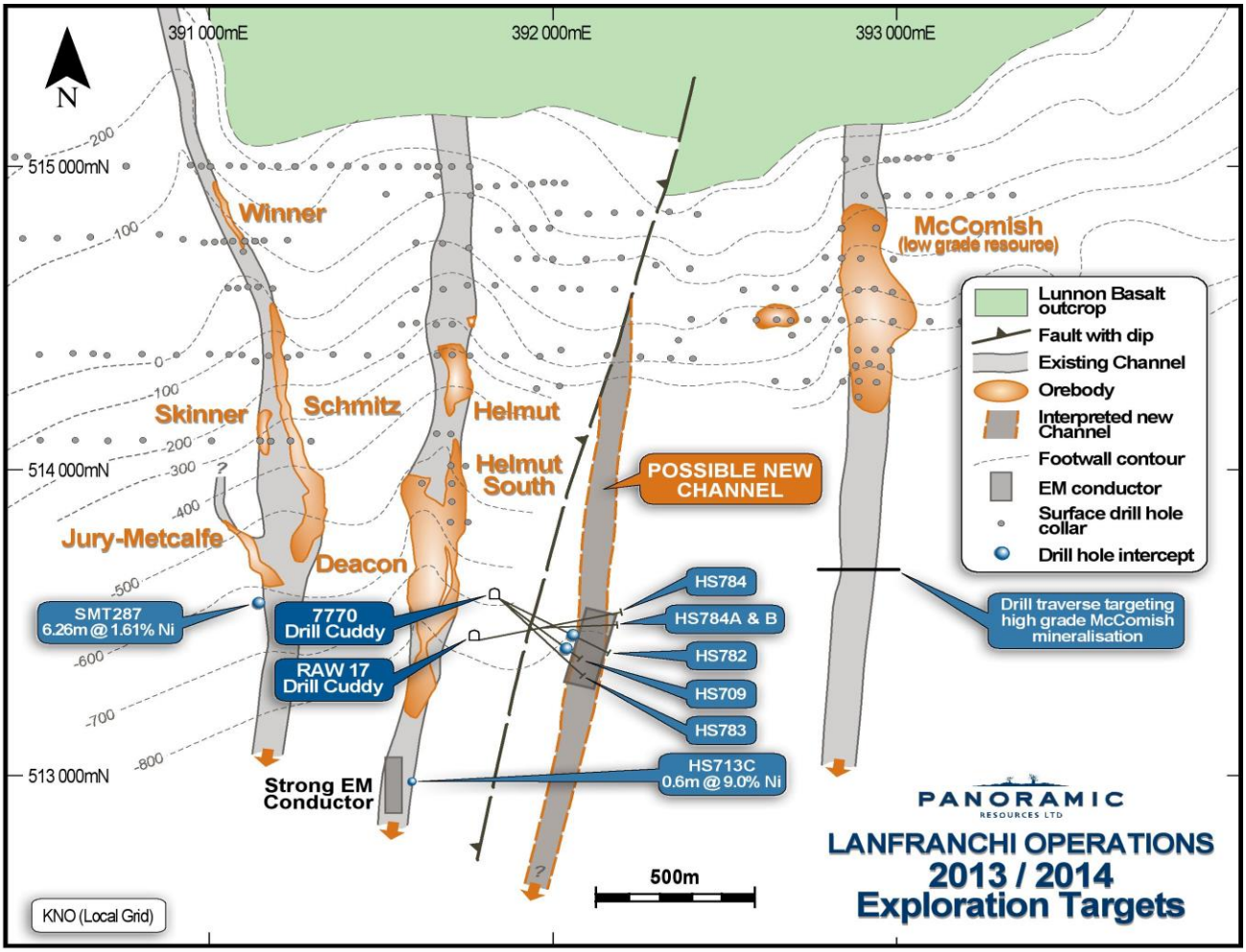
Three drill holes targeting the conceptual "East Deacon" channel target were completed during the quarter. The first drill hole, HS783, was completed to a depth of 516m, with no significant mineralisation intersected.

Drill holes HS784 and 784A were completed to a depth of 534m and 543m respectively from a drill position near the base of the Deacon decline (*refer Figure 6*). Drill hole HS784B was in progress when drilling was suspended for the Christmas break. Drill hole HS784 intersected 2.4m @ 1.12% Ni from 494m, with assay results for HS784A yet to be received. Based on the position of the footwall basalt-ultramafic contact intersected in the five drill holes completed into the "East Deacon" channel target area (HS709, 782, 783, 784 and 784A) a significant "channel" feature is not evident although the composition of the ultramafic host rocks is encouraging. Additionally, no conductive sediments have been intersected in the area that could explain the strong EM responses identified in HS709 and HS782.

As at the date of this report, drill hole HS784B has been completed and will be followed up with down-hole EM before deciding on the next round of exploration activity on the East Deacon channel target area.

Assay results for the Lanfranchi extensional and exploration drilling completed during the quarter are shown in Appendix 1.

Figure 6 – Plan View showing potential new channel feature located to the east of Deacon



Cowan Nickel Project, WA (Panoramic holds 100% nickel rights)

No activity was undertaken. There remain a further 17 drill targets to be tested in 2014.

Drake Resources Exploration Alliance - Scandinavia

Panoramic and Drake Resources Limited ("Drake") have an alliance to identify, explore and develop base and precious metal opportunities across Scandinavia. Three base metal JV Projects are currently active in Norway at Løkken, Sulitjelma and Hersjo Nordgruva.

Norway (Løkken, Sulitjelma and Hersjo joint ventures)

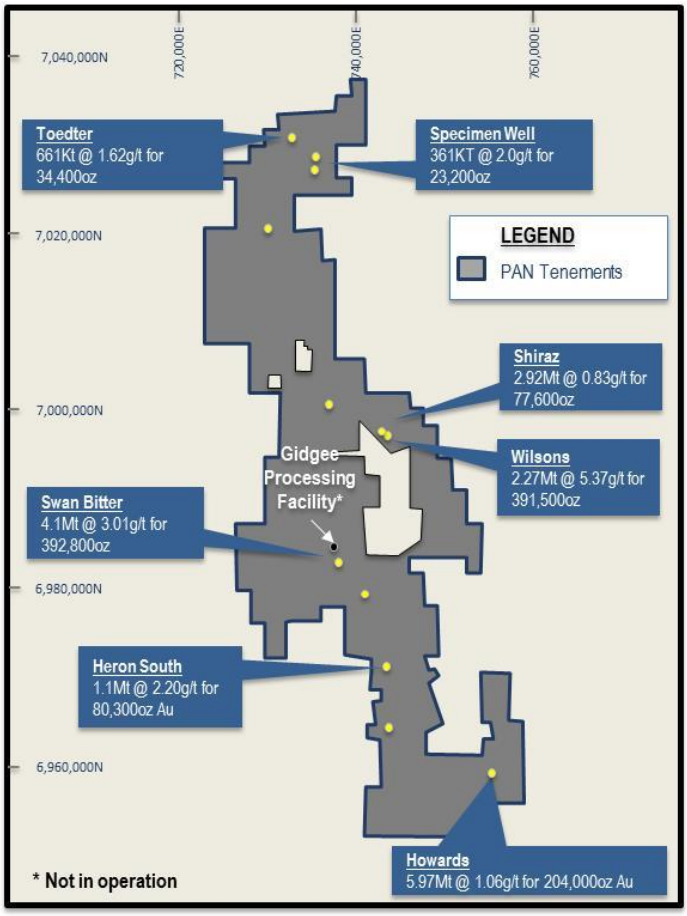
Several high priority drill targets have been identified on the Hersjo and Løkken joint ventures. Anomalous base metal assay results have been returned for drill hole NKSDD001 which was completed at the Nordgruva project during the September 2013 quarter. The objective of NKSDD001 was to investigate one of five exceptional EM conductors identified from an airborne electromagnetic (VTEM) survey flown in 2012 and followed up with ground EM. The anomalous assay results occur over a downhole interval of 28 metres (384 to 412 metres down hole) which coincides with the upper of two significant, strong off-hole EM conductors identified close to the hole at 400m and 450m. Follow-up drilling to test the off-hole conductors is planned for early 2014. Further details on the Nordgruva (NKSDD001) drill program can be found in the 3 January 2014 Drake ASX announcement.

Gold – Gidgee Project

Background

The Gidgee Gold Project is located 640km NE of Perth and 130km SW of Wiluna and covers approximately 1,200km^2 of the Gum Creek greenstone belt. The Company is currently conducting a Bankable Feasibility Study (BFS) at Gidgee based on the Mineral Resources shown in Figure 7. Recent studies have concentrated on the development, mining and treatment of the Wilsons orebody only ("Wilsons Only" option).

Figure 7 – Gidgee Tenement area highlighting the Mineral Resources subject to the BFS



Bankable Feasibility Study (BFS)

Feasibility studies on the "Wilsons Only" option to make a saleable gold concentrate continued, including the finalisation of the metallurgical flowsheet for a conceptual treatment plant.

As a Base Case, the treating of Wilsons ore would require three stage crushing and grinding (to 75um), flotation to make a concentrate, magnetic separation circuit to remove a significant amount of pyrrhotite from the concentrate, then thickening, filtering and bagging of the concentrate for transportation and processing off-site.

The aim of the "Wilsons Only" option is to utilise as much of the existing Gidgee plant as possible in order to reduce the upfront capital expenditure.

Mining studies also continued on the design of a small starter open pit for Wilsons, including determining the best location for a portal to commence access to the underground mine, surface layouts to quantify the required infrastructure and detailed estimates on associated costs.

An underground mining schedule was developed in conjunction with geotechnical advice about the size of development openings, the stability of open stopes and requirements for pillars and backfill to support the mine workings. It was shown that the underground mine could produce at a rate above 300ktpa and when combined with the open pit resource inventory, could sustain continuous milling of ore at a rate of 360Ktpa.

The desktop study and evaluation of this and other scenarios is due for completion in the June 2014 quarter.

Gold – Mt Henry Joint Venture (Panoramic 70%, Matsa 30%)

Panoramic is undertaking a Bankable Feasibility Study (BFS) on the Mt Henry Gold Project. The Mt Henry Project tenements cover 135km^2 and are located south of Norseman in Western Australia.

Bankable Feasibility Study (BFS)

Work has continued to advance the studies required for completion of the economic evaluation of the Project and to ensure that necessary statutory approvals can be obtained in a timely manner.

- *Environmental Baseline Studies* – studies completed included the study of local flora, terrestrial and aquatic fauna, the first phase of waste rock geochemistry and soil characterisation, a second phase of geotechnical evaluation of the potential tailings storage area and a drilling program to confirm the hydrogeological setting of the potential open pit excavations. These studies and information will form the basis of a Mining Proposal application to allow the Mt Henry and Selene open pits to be developed. Remaining studies to finalised in 2014 are the full evaluation on the effects of pit lake formations at mine closure and final waste dump designs to minimise the effects of any potentially acid forming (PAF) material generated during open pit mining.
- *Metallurgical testwork* – flotation testwork commenced in the quarter. Studies so far indicate there is a good recovery of gold bearing sulphides to a concentrate. However, additional work is required to improve recoveries to +90% and to reduce mass pull. This work will involve testing various reagent conditions and optimising grind size. The recovery of a magnetite by-product is also being evaluation in conjunction with studies to understand the optimal conditions to maximise gold recovery.
- *Site planning* – site layout planning of waste dumps, haul roads and surface water drainage continue to be evaluated and refined. This is an area where operating costs could be significantly reduced from optimising haulage profiles.

The Mt Henry Joint Venture is now targeting the completion of the Mt Henry BFS in the June 2014 quarter.

Mt Henry Regional Exploration JV (Panoramic 70%, Matsa 30%)

When the Company acquired a 70% interest in the Mt Henry Gold Project, Panoramic and Matsa Resources Limited ("Matsa") formed a separate regional exploration Joint Venture to conduct greenfields exploration on other leases located within the Mt Henry tenement area. Several targets were tested during the September quarter with assay results for some programs received in the December quarter.

- *Abbotshall South* – twelve reverse circulation (RC) holes for 1,185m were completed in the September 2013 quarter at Abbotshall South targeting a dilational zone within a mapped geochemical anomaly. The holes intersected large zones of silicification and disseminated arsenopyrite mineralisation. Results received during the December 2013 quarter show anomalous results explaining the target concept. No follow-up work is planned at this stage.
- *Lake Kirk* – two RC holes were drilled in the September 2013 quarter testing an induced polarisation (IP) target in proximity to the historic Lake Kirk diggings. The drill program intersected disseminated arsenopyrite which was interpreted to be the source of the IP anomaly. Only trace gold results were received for this program and no follow-up work is planned at this stage.
- *Mt Thirsty* – Follow up drilling at Mt Thirsty is planned for the March 2014 quarter now that all regulatory approvals are in place. The drilling will target an EM anomaly which is coincident with nickel and platinum group element (PGE) soil anomalism. It also coincides with a magnetic high which is interpreted to represent the basal mafic-ultramafic lithologies of the Mt Thirsty Sill.

Gold – WA Exploration Projects (ex-Magma)

On 19 April 2013, the Company farmed out the Lake Grace and Griffins Find exploration projects to Auzex Exploration Limited ("Auzex"). The Lake Grace and Griffins Find projects were acquired as part of the takeover of Magma Metals Limited. The tenement package is situated in the south west of Western Australia, around the regional community of Lake Grace, to the south of Auzex's existing Tampia Gold Project.

On 30 December 2013, Auzex formally advised Panoramic of its intention to withdraw from the Lake Grace Joint Venture effective 30 January 2014. Auzex cited difficulty in attracting investment in the current economic climate and a change of strategic priorities as the main reasons for the decision to withdraw. Panoramic is assessing its options for the Lake Grace tenements.

PGM – Thunder Bay North Project

The Thunder Bay North ("TBN") Project is located near Thunder Bay in northwest Ontario, Canada. The advanced exploration project claims cover an aggregate area of 40,816 hectares (*refer Figure 8*). The TBN Project Resource contains **10.4Mt at 1.13g/t Pt and 1.07g/t Pd for ~0.4Moz Pt and ~0.4Moz Pd** (*refer Appendix 2*) with exploration potential at depth and along strike. Since the Company acquired the project, work has primarily focused on optimising the process flowsheet. Limited regional field work was undertaken during the quarter.

Figure 8 – Thunder Bay North Project: Plan View of Mineral Resource Area

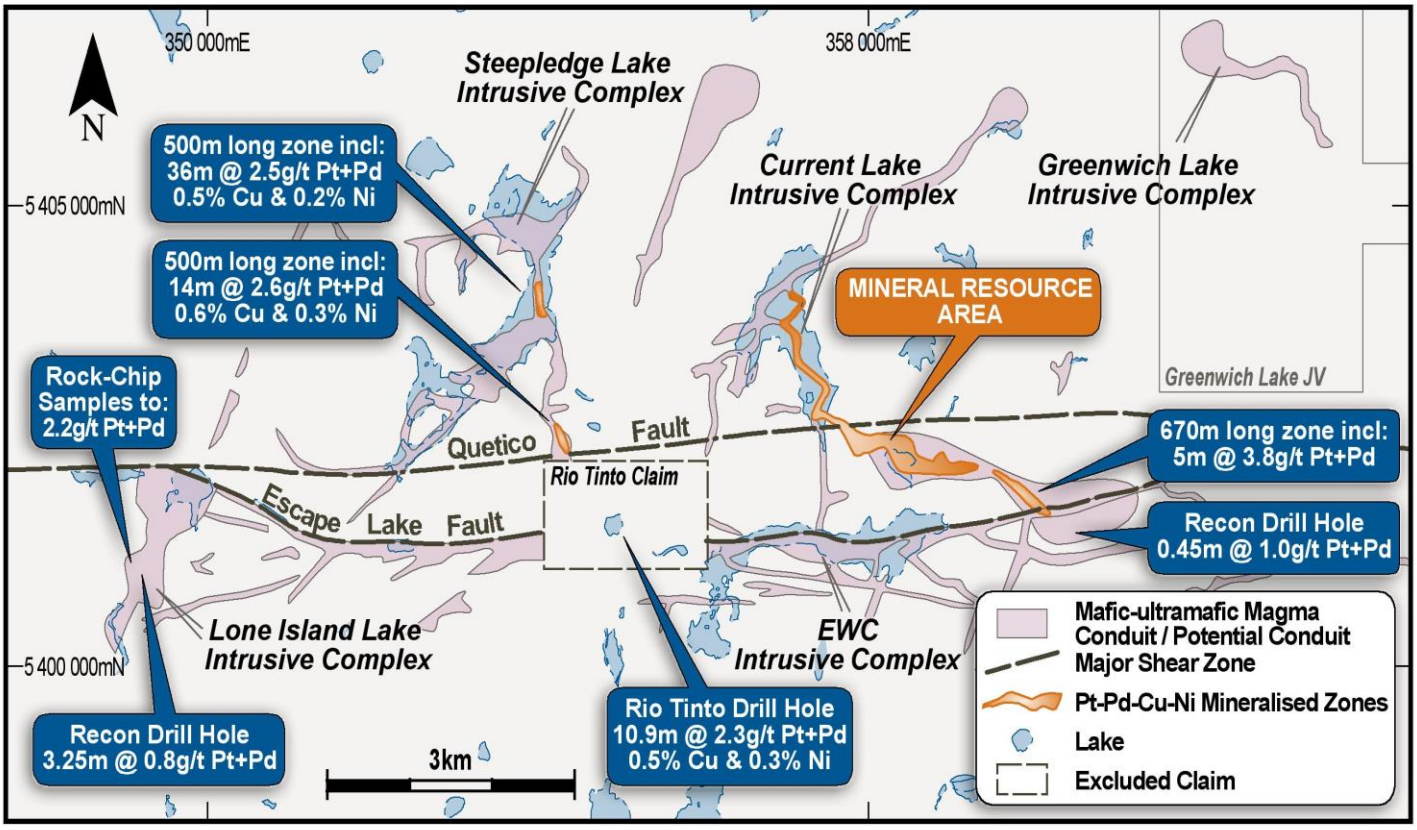
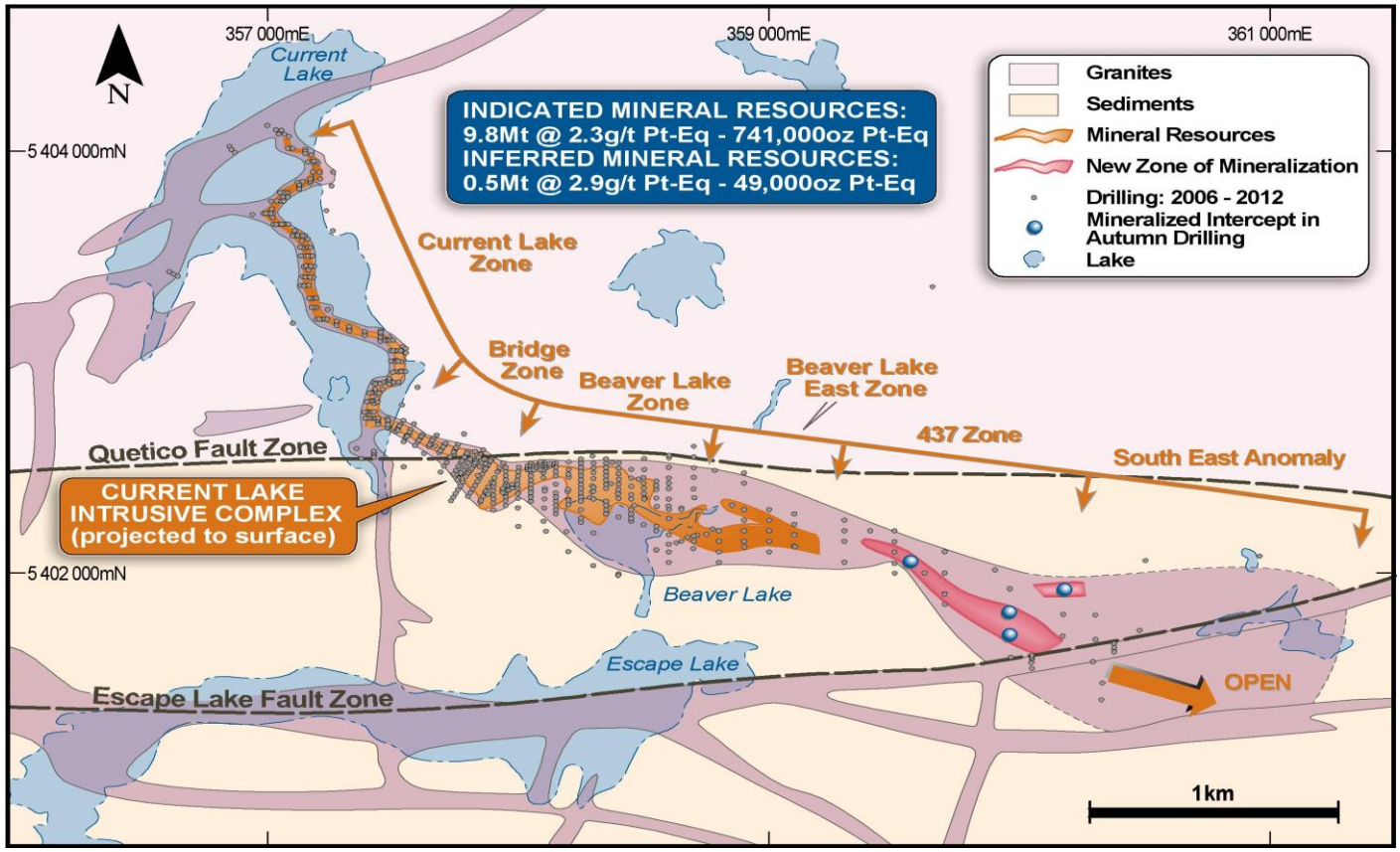


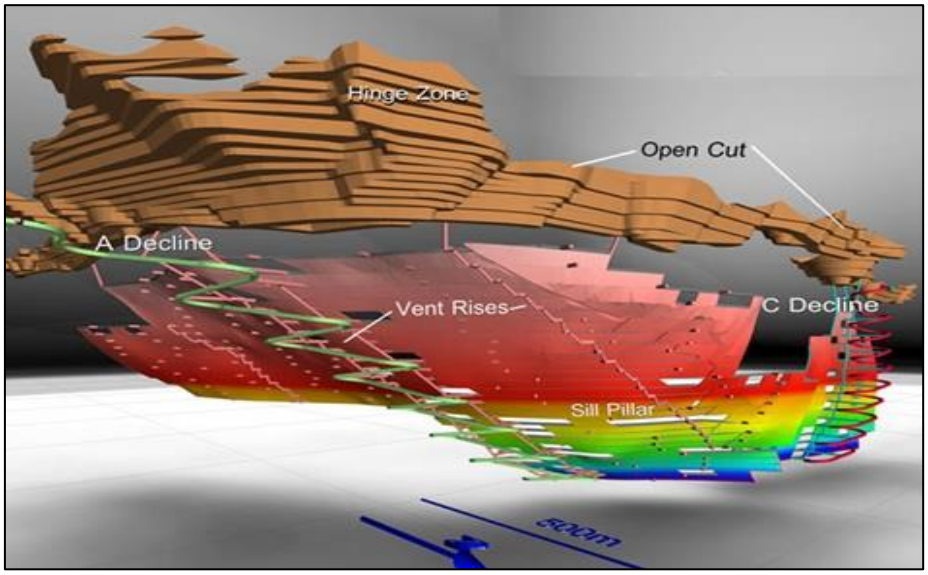
Figure 9 – Thunder Bay North: Plan View of Current Lake Intrusive Complex



PGM – Panton Project

Panton is located 60km south of the Savannah Nickel Project in the East Kimberley region of Western Australia. **Panton is a significant PGM Resource containing ~1.0Moz Pt at 2.2g/t and ~1.1Moz Pd at 2.4g/t** (*refer Appendix 2*) with exploration potential at depth and along strike.

Figure 10 – Panton Project – Proposed Mine Development



Panoramic considers the Panton Project to be a quality PGM development asset which fits within the Company's commodity diversification and growth strategy. In March 2012, the previous owner announced the results of a review of the 2003 Bankable Feasibility Study Review (2012 BFS Review). Panoramic is assessing the 2012 BFS Review to:

- better understand the geology;
- review the proposed flowsheet;
- determine if additional mining and processing trials need to be undertaken; and
- identify and qualify the possible synergies with our Savannah operations, 60km to the north.

The Company believes that it can add significant value to the Panton Project through the optimisation of mining and processing options and identifying synergies with the Savannah Project ie. power, processing, logistics and personnel.

No field activities were undertaken on the Panton Project during the quarter.

Group Resources & Reserves Tables

On 13 September 2013, the Company released the Group's Resource and Reserve Tables as at 30 June 2013 in accordance with the 2004 Edition of the JORC Code ("2004 JORC Code"). Key points were:

- Gold Division Resources – 2.52Moz contained Au, up 450,000oz Au on 2012, a 22% increase;
- PGM Division Resources – 2.8Moz contained Pt and Pd (1.4Moz Pt and 1.4Moz Pd);
- Nickel Division Resources – 186,800t contained Ni, 38,400t contained Cu and 3,200t contained Co; and
- Nickel Division Reserves – 64,100t contained Ni, 22,500t contained Cu and 1,900t contained Co.

In accordance with the transition to the new 2012 Edition of the JORC Code ("*2012 JORC Code*") from 1 December 2013, the Panoramic Group Resource and Reserve Tables shown in Appendix 2 separates the Resources and Reserves into two categories, being those that are 2012 JORC Code compliant and those which remain 2004 JORC Code compliant. In effect, where no new work or material change has occurred to the Resource and Reserve position of a project since 30 June 2012, that specific project's Resources and Reserves remain listed as compliant under the 2004 JORC Code. For Resources and Reserves disclosed in Appendix 2 that are 2012 JORC Code compliant, all required supporting documentation to the tables is presented in Appendix 3.

Upon undertaking the transition to the 2012 JORC Code, the Panoramic Group's Gold Division Resources have been revised from **2.52Moz** (as reported above) to **2.48Moz**.

Corporate

Liquid Assets & Debt

Cash on hand at the end of the quarter was $34 million plus receivables of $20 million, **for a total of $54 million in current liquid assets**. The operations, inclusive of Perth Office costs, **generated a $5 million operating margin in the quarter** before net working capital movements. Included in the cash balance was $15.1 million in new equity (before costs) received via the two Tranche Placement arranged in November 2013. Significant expenditure outside normal operating and sustaining capital included:

- $1.7 million – BFS drilling and other studies at the Gidgee Gold Project
- $0.7 million – BFS drilling and other studies at the Mt Henry Gold Project
- $0.7 million – regional field work in the Thunder Bay area and other Thunder Bay North Project commitment costs
- $0.6 million – Savannah Tailings Storage Facility (TSF) dam wall lift
- $0.6 million – mid-life rebuilds of underground mobile equipment
- $0.5 million – Savannah second-hand shotcreting equipment

At 31 December 2013, Savannah had 506t Ni contained in stockpiled concentrate (valued at ~$5 million) which was recognised as inventory and valued at net realisable value (NRV). The sales revenue on this concentrate, which has since been shipped, will be booked in the March 2014 quarter.

Group finance leases on mobile equipment at 31 December 2013 totalled $8.7 million.

Two Tranche Placement and Share Purchase Plan

On 4 November 2013, the Company announced a new Capital Raising initiative. The Capital Raising consisted of a two Tranche Placement ("Placement") to new and existing institutions and other sophisticated investors and a Share Purchase Plan ("SPP") to eligible shareholders. The Placement and SPP were both priced at $0.27 per share and raised ~$16 million before costs.

The funds raised are to be used:

- to accelerate the Company's exploration activities and for production efficiencies at each nickel operation;
- for gold and PGM project studies; and
- for general working capital purposes.

The Company would like to thank the new and existing institutional shareholders who participated in the Placement and those eligible shareholders that took up the SPP for their support.

Cost Savings and Productivity Initiatives

To ensure that the nickel business remains competitive in times of weaker commodity prices, the Company has introduced various initiatives in order to achieve sustainable cost reductions and productivity improvements across both operations. The Company has also made significant changes in the Perth office especially in relation to staffing levels to reduce the corporate overhead.

GPR Delher has assisted Savannah to undertake a comprehensive review of operational practices, identifying areas for improvement and has supported the implementation of certain changes that have led to improved productivity and lower costs. GPR Delher personnel are now at Lanfranchi undertaking a similar program.

Hedging

The Company took advantage of an increase in the nickel price in late December and purchased 600t of nickel put options for delivery January 2014 to June 2014.

At the current spot US$ nickel price and based on forecast production (on a payable nickel basis), the Company is approximately 9% hedged (comprising all nickel puts) for the remainder of FY2014.

Table 4 - Group Hedge Book – A$ Mark-to-Market Valuation as at 31 December 2013

Commodity	Mark-to-Market 31 Dec 2013
Bought US$ Nickel Put Options	$0.3 million
Bought A$ Diesel Call Options	-
Sold A$ Diesel Put Options	$0.1 million
Bought US$ Currency Put Options	-
Sold US$ Currency Call Options	($0.2 million)
Total Mark-to-Market	**$0.2 million**

Table 5 – Group Hedge Book – Delivery Profile as at 31 December 2013

Commodity	Quantity 31 Dec 2013	Average Price/Rate 31 Dec 2013
Nickel **-** **Bought Nickel Put Options** (delivery to Jan 2014-Jun 2014)	600t	US$13,750/t **US$6.24/lb**
Diesel **-** **Bought A$ Diesel Call Options** (delivery Jan 2014-Jun 2014)	400,000litres/mth	A$0.88/litre
Sold A$ Diesel Put Options (delivery Jan 2014-Jun 2014)	200,000litres/mth	A$0.65/litre
USA FX **-** **Bought US$ Put Options** (delivery Jan 2014-Jun 2014)	US$24 million	US$0.9550 FX
Sold US$ Call Options (delivery Jan 2014-Jun 2014)	US24 million	US$0.84875 FX

About the Company

Panoramic Resources Limited (ASX Code PAN, ABN 47 095 792 288) is an established Western Australian mining company operating two 100% owned underground nickel sulphide mines, the Savannah Project in East Kimberley, and the Lanfranchi Project near Kambalda, Western Australia. On a Group basis, Panoramic produced **19,561t of contained nickel in FY2013** and is forecasting to produce between **21,000 and 21,500t of contained nickel in FY2014.** Panoramic is an S&P/ASX 300 Index Company with a solid balance sheet, no bank debt and a growing nickel, gold and PGM resource base, employing more than 400 people (including contractors).

In early 2011, Panoramic acquired the Gidgee Gold Project, located near Wiluna, Western Australia. Panoramic subsequently acquired the high-grade Wilsons Project located within the Gidgee tenement package as well as a 70% interest in the Mt Henry Gold Project. Panoramic released a Scoping Study in August 2012 on the recommencement of gold production from Gidgee and released a positive Scoping Study on the Mt Henry Project in December 2012. Technical studies for the Mt Henry Bankable Feasibility Study have commenced.

The Company has expanded into Platinum Group Metals (PGM) with the purchase of the Panton PGM Project located approximately 60km south of the Savannah Project in the East Kimberley and the Thunder Bay North PGM Project in Northern Ontario, Canada.

The Company's vision is to broaden its exploration and production base, with the aim of becoming a major, diversified mining company in the S&P/ASX 100 Index.

For further information contact:

Peter Harold, Managing Director

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The information in this release that relates to Exploration Results is based on information reviewed by John Hicks. Mr Hicks is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and is a full-time employee of Panoramic Resources Limited. Mr Hicks has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which each person is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hicks consents to the inclusion in the release of the matters based on the information in the form and context in which it appears.

Additional Competent Persons disclosures are given in Appendix 2.

Appendix 1 – Drilling Assay Results

Lanfranchi Mine – Table 1, Section 1 on Underground Diamond Drilling

Hole	East	North	RL	Dip	Azimuth	From	To	Nickel Intercept	Cu (ppm)	Co (ppm)
HS783	391822.1	513578.9	-775.2	-18.3	131.2	362.00	363.00	1.00m @ 1.04%	500	320
HS783A	391822.1	513578.9	-775.2	-18.5	129.6					
HS784	391777.3	513462.2	-821.9	-8.7	92.8					
HS784A	391777.3	513462.2	-821.9	-12.1	93.6					
SMT287	391200.9	513669.3	-445.3	-46.3	227.5	216.74	223.00	6.26m @ 1.61%	1430	410
SMT288	391201.3	513669.2	-445.5	-54.2	217.5					
SMT289	391201.8	513669.0	-445.6	-58.1	204.8					
SMT295	391174.3	513851.3	-449.7	-74.3	252.0					
SMT296	391173.9	513851.5	-449.7	-60.0	262.1					
SMT297	391173.8	513851.6	-449.3	-51.2	265.8					
SMT312	391174.0	513850.9	-448.0	0.2	247.5					
SMT313	391173.9	513851.1	-448.0	0.1	253.0					
SMT314	391173.4	513851.7	-447.7	0.1	259.9	94.80 135.44	97.20 137.91	2.40m @ 1.16% 2.47m @ 1.31%	780 730	250 250
SMT315	391173.6	513851.5	-448.0	0.0	265.0	98.06	100.00	1.94m @ 1.26%	1040	470
SMT318	391173.4	513851.5	-447.6	7.4	264.0					
SMT319	391173.4	513851.7	-447.7	7.1	269.4					
SMT327	391200.2	513700.6	-445.1	-33.7	77.7					
SMT328	391200.0	513700.6	-444.9	-28.2	79.6	0.37	3.58	3.21m @ 2.28%	1570	410
SMT329	391200.0	513700.5	-444.8	-23.6	80.1	184.39 188.12	186.52 189.69	2.13m @ 1.45% 1.57m @ 2.34%	880 1610	280 490
SMT333	391201.0	513669.0	-445.0	-43.5	245.9					
SMT334	391201.1	513668.7	-445.0	-43.0	238.4	185.76	186.93	1.17m @ 1.57%	1030	400
SMT335	391201.6	513667.1	-445.6	-45.2	222.4					

Notes:

- *Intervals are down-hole lengths, not true-width*
- *Parameters: 1.0% Ni lower-cut off, maximum internal waste 1.0m, minimum intercept 1.0m*

JORC 2012 – Table 1, Section 2 to Accompany Drilling conducted in Reporting Period

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• Panoramic Resources Ltd's Lanfranchi Nickel Operation (LNM) is an operating mine secured by a contiguous block of 35 Mineral Leases, 1 mining Lease and 1 Prospecting Licence, covering the Tramways Dome 40km south of Kambalda in WA. All tenure is current and in good standing. Panoramic has the right to explore for and mine all commodities within the tenements other than gold. • The Lanfranchi Nickel Operation is an operating mine with all statutory approvals and licences in place to operate. The mine operates under an off-take agreement to mine and deliver nickel ore to BHP-Billiton Nickel West Kambalda concentrator.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Lanfranchi Nickel Project and tenements were purchased by Panoramic in 2004 from WMC Resources Ltd. WMC had explored the region and held the Lanfranchi Tramways tenements since 1967. They commenced mining at Lanfranchi in 1976.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Lanfranchi Nickel Operation mine nickel ores from several "classic' Kambalda style, komatiite hosted, nickel sulphide deposits about the Tramways Dome.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Panoramic routinely drill surface or underground exploration holes about the Tramways Dome in search of nickel sulphide mineralisation. Details of the LNM exploration holes mentioned in this accompanying document can be found in Appendix 1. • Although documented herein the results are not considered material to the ongoing future of the mine or its current Resource Reserve position.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Weighted averages were calculated using the Intercept Calculator within the DBMS DataShed. Parameters used were 1.0% lower cut-off, minimum reporting length of 1m, maximum internal waste of one consecutive metre.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• All LNM exploration drilling is conducted and reported on, according to the KNO local grid system. Where the geometry of the mineralisation is known the estimated true width of mineralisation will be reported. Where the mineralisation geometry is not sufficiently known the down-hole intersection length of mineralisation is reported, and clearly stated to be the case.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Based on the low material nature of the LNM exploration results being reported on, the diagram in the body of the accompanying report is considered sufficiently appropriate.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration	• Based on the very low material nature of the LNM exploration results being reported on in the accompany document, the report is considered to be sufficiently balanced.

Criteria	JORC Code explanation	Commentary
	Results.	
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• No other exploration data is considered material to this report at this stage.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Routine exploration drilling is ongoing at LNM. The results reported herein will have no material effect on the planned exploration programs currently underway at LNM.

Appendix 2 – 2013 Resources and Reserves Tables

Nickel Resources and Reserves

Resource	Equity (%)	Metal	Date of Resource	JORC Compliance	Measured		Indicated		Inferred		Total		Metal Tonnes
					Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	Tonnes	Ni (%)	
Savannah Project	100												
		Nickel	Jul-13	2012	2,175,000	1.52	1,508,000	1.54	-	-	3,684,000	1.53	56,400
		Copper				0.80		1.04		-		0.90	33,200
		Cobalt				0.08		0.07		-		0.08	2,900
Copernicus	~78												
		Nickel	Jul-10	2004	307,000	1.08	316,000	1.38	18,000	1.01	641,000	1.23	7,900
		Copper				0.66		0.99		0.70		0.82	5,300
		Cobalt				0.04		0.05		0.03		0.04	300
Lanfranchi Project	100	Nickel											
Cruikshank			Apr-11	2004	-	-	2,018,000	1.42	611,000	0.79	2,629,000	1.28	33,600
Deacon			Jul-13	2012	918,000	2.64	229,000	2.60	105,000	1.66	1,252,000	2.55	32,000
Gigantus			Jul-07	2004	-	-	-	-	652,000	1.63	652,000	1.63	10,600
Helmut South			Jul-12	2012	28,000	3.00	-	-	-	-	28,000	3.00	900
Helmut South Ext			Jun-13	2012	17,000	3.66	124,000	3.20	4,000	2.24	145,000	3.23	4,700
John			Jul-07	2004	-	-	-	-	291,000	1.42	291,000	1.42	4,100
Lanfranchi			Jul-13	2012	71,000	5.32	86,000	4.50	63,000	4.03	220,000	4.63	10,200
Martin			Feb-12	2012	-	-	47,000	3.58	7,000	4.16	54,000	3.66	2,000
McComish			Jul-07	2004	-	-	-	-	992,000	1.49	992,000	1.49	14,800
Metcalfe			Jul-13	2012	-	-	237000	2.1	86,000	1.75	323,000	2.01	6,500
Schmitz			Jul-13	2012	11,000	6.51	38,000	3.39	20,000	3.50	69,000	3.93	2,700
Winner			Jul-11	2004	-	-	14,000	4.40	-	-	14,000	4.40	600
Total (Equity)		**Nickel**											**186,800**
		Copper											**38,400**
		Cobalt											**3,200**

Reserve	Equity (%)	Metal	Date of Reserve	JORC Compliance	Proven		Probable		Total		Metal Tonnes
					Tonnes	(%)	Tonnes	(%)	Tonnes	(%)	
Savannah Project											
Upper Zone	100	Nickel	Jul-13	2012	-	-	650,000	1.23	650,000	1.23	8,000
		Copper				-		0.57		0.57	3,700
		Cobalt				-		0.07		0.07	500
Lower Zone	100	Nickel	Jul-13	2012	-	-	2,041,000	1.32	2,041,000	1.32	26,900
		Copper				-		0.83		0.83	16,900
		Cobalt				-		0.06		0.06	1,300
Copernicus O/Pit	~78	Nickel	Jul-13	2004	-	-	288,000	1.03	288,000	1.03	3,000
		Copper				-		0.63		0.63	1,800
		Cobalt				-		0.04		0.04	100
Lanfranchi Project	100										
Deacon			Jul-13	2012	-	-	967,000	2.02	967,000	2.02	19,500
Lanfranchi			Jul-13	2012	-	-	73,000	4.61	73,000	4.61	3,400
Helmut Sth Ext			Jul-13	2012	-	-	158,000	2.13	158,000	2.13	3,400
Total (Equity)		**Nickel**									**64,100**
		Copper									**22,500**
		Cobalt									**1,900**

Savannah Project (including Copernicus)

All Savannah Project Resources and Reserves, with the exception of Copernicus have been transitioned to JORC Code 2012 compliance (*refer to the relevant JORC 2012 compliance tables in Appendix 3*). The Copernicus Project Resources and Reserves remain JORC 2004 compliant and are based on a cut-off grade at 0.50% Ni.

Lanfranchi Project

All Lanfranchi Project Resources and Reserves have been transitioned to JORC Code 2012 compliance (*refer to the relevant JORC 2012 compliance tables in Appendix 3*).

Competent Persons Disclosures:

The information in this report that relates to Mineral Resources (excluding the Copernicus Project) is based on information compiled by or reviewed by Paul Hetherington (MAusIMM) for the Savannah Project Resource and Bradley Robinson (MAusIMM) for the Lanfranchi Project Resources. The aforementioned are full-time employees of Panoramic Resources Limited. The aforementioned have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). The aforementioned consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this release that relates to Mineral Resources for the Copernicus Project is based on information compiled by or reviewed by Paul Hetherington (MAusIMM). The aforementioned is a full-time employee of Panoramic Resources Limited. The aforementioned has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). The aforementioned consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

Information in this release relating to Ore Reserves (excluding the Copernicus Project) has been completed by or reviewed by Lilong Chen (MAusIMM) for both the Savannah Project and Lanfranchi Project. The aforementioned is a full-time employee of Panoramic Resources Limited. The aforementioned has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. The aforementioned consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

Information in this release relating to Ore Reserves for the Copernicus Project has been completed by or reviewed by Jonathon Bayley (MAusIMM). The aforementioned has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the JORC Code. The aforementioned consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

Gold Resources

Resource	Equity (%)	Metal	Date of Resource	JORC Compliance	Measured		Indicated		Inferred		Total		Metal (Au oz)
					Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	
Gidgee Project	100	Gold											
Swan OC			Jun-12	2004	-	-	3,399,000	2.40	327,000	3.51	3,726,000	2.49	298,600
Heron South			Oct-12	2004	-	-	1,000,000	2.31	136,000	1.41	1,136,000	2.20	80,300
Howards			Jul-13	2012	-	-	5,255,000	1.07	716,000	1.01	5,971,000	1.06	204,000
Specimen Well			Jun-12	2004	-	-	289,000	2.06	72,000	1.79	361,000	2.00	23,200
Toedter			Jun-12	2004	-	-	-	-	661,000	1.62	661,000	1.62	34,400
Eagles Peak			Mar-06	2004	-	-	13,000	3.46	-	-	13,000	3.46	1,400
Orion			Mar-06	2004	-	-	22,000	3.04	-	-	22,000	3.04	2,200
Deep South			Mar-06	2004	-	-	20,000	3.02	-	-	20,000	3.02	1,900
Shiraz			Jul-13	2012	-	-	2,476,000	0.84	440,000	0.76	2,916,000	0.83	77,600
Swan UG			Jun-12	2004	-	-	207,000	8.71	125,000	9.02	332,000	8.83	94,200
Swift UG			Jun-12	2004	-	-	-	-	72,000	9.23	72,000	9.23	21,400
Omega UG			Mar-06	2004	-	-	31,000	9.20	-	-	31,000	9.20	9,200
Kingfisher UG			Mar-06	2004	-	-	390,000	6.80	-	-	390,000	6.80	85,300
Wilsons UG			Jul-13	2012	-	-	2,131,000	5.33	136,000	5.97	2,267,000	5.37	391,500
Mt Henry Project	70	Gold											
Selene			Jul-13	2012	-	-	11,491,000	1.17	3,466,000	0.93	14,957,000	1.11	535,900
Mt Henry			Jul-13	2012	-	-	10,487,000	1.27	4,435,000	1.14	14,922,000	1.23	590,800
North Scotia			Jul-13	2012	-	-	250,000	3.11	97,000	1.95	347,000	2.79	31,100
Total (Equity)		**Gold**			**-**	**-**	**37,461,000**	**1.67**	**10,683,000**	**1.37**	**48,144,000**	**1.60**	**2,483,100**

Gidgee Project

On the Gidgee Project, Howards, Shiraz and Wilsons Resources have been transitioned to JORC Code 2012 compliance (*refer to the relevant JORC 2012 compliance tables in Appendix 3*). All other Resources remain JORC 2004 compliant. Individual Project Resources and Reserves are stated on an equity basis.

Information in relation to 2004 JORC compliant Resources:

Swan OC Resource cut-off grade is 0.7 g/t • Eagles Peak Resource cut-off grade is 1.2 g/t • Orion Resource cut-off grade is 1.3 g/t • Deep South Resource cut-off grade is 1.2 g/t • Swan UG Resource cut-off grade is 4.0 g/t for Indicated resources and 5.0 g/t for Inferred resources • Swift UG Resource cut-off grade is 5.0 g/t • Omega UG Resource cut-off grade is 3.0 g/t • Kingfisher UG Resource cut-off grade is 3.0 g/t • Heron South Resource cut-off grade is 0.5 g/t • Specimen Well Resource cut-off grade is 0.5 g/t • Toedter Resource cut-off grade is 0.5 g/t.

Competent Persons Disclosures:

The information in this release that relates to the Swan OC, Eagles Peak, Orion, Deep South, Swan UG, Swift UG, Omega, and Kingfisher Mineral Resources is based on information compiled by or reviewed by Dr Spero Carras (FAusIMM). Dr Carras is the Executive Director of Carras Mining Pty Ltd and was acting as a consultant to Legend Mining Ltd in 2006 and Panoramic Resources Limited in 2012. Dr Carras has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the JORC Code. Dr Carras consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

The information in this release that relates to the Heron South, Howards, Shiraz, Specimen Well, Toedter and Wilsons Mineral Resources is based on information compiled by or reviewed by Andrew Bewsher (AIG) and Ben Pollard (AIG & MAusIMM). The aforementioned are full time employees of BM Geological Services and have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Editions of the JORC Code. The aforementioned all consent to the inclusion in the release of the matters based on this information in the form and context in which it appears.

Mt Henry Project (Panoramic 70%)

All Mt Henry Project Resources have been transitioned to JORC Code 2012 compliance (*refer to the relevant JORC 2012 compliance tables in Appendix 3*). All Mt Henry Project Resources are stated on an equity basis.

The information in this report that relates to the Mt Henry Project Mineral Resources is based on information compiled by or reviewed by Andrew Bewsher (MAusIMM). Andrew Bewsher is a full time employee of BM Geological Services and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in

the 2012 Edition of the JORC Code. Andrew Bewsher consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

PGM Resources

Thunder Bay North

Resource	Equity (%)	Date of Resource	JORC Compliance	Tonnage	Grade									Metal (oz))	
					Pt (g/t)	Pd (g/t)	Rh (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	Ni (%)	Co (%)	Pt-Eq (g/t)	Pt	Pd
Open Pit	100	Jan-11	2004												
Indicated				8,460,000	1.04	0.98	0.04	0.07	1.50	0.25	0.18	0.014	2.13	283,000	267,000
Inferred				53,000	0.96	0.89	0.04	0.07	1.60	0.22	0.18	0.014	2.00	2,000	2,000
Underground	100	Feb-12	2004												
Indicated				1,369,000	1.65	1.54	0.08	0.11	2.60	0.43	0.24	0.016	3.67	73,000	68,000
Inferred				472,000	1.32	1.25	0.06	0.09	2.10	0.36	0.19	0.011	2.97	20,000	19,000
Total (Equity)				**10,354,000**										**377,000**	**355,000**

Open Pit Resource

The effective date of this estimate is 11 January 2011, which represents the cut-off date for the most recent scientific and technical information used in the report. The Mineral Resource categories under the JORC Code (2004) are the same as the equivalent categories under the CIM Definition Standards for Mineral Resources and Mineral Reserves (2010). The portion of the Mineral Resource underlying Current Lake is assumed to be accessible and that necessary permission and permitting will be acquired. All figures have been rounded; summations within the tables may not agree due to rounding.

The open pit Mineral Resource is reported at a cut-off grade of 0.59 g/t Pt-Eq within a Lerchs-Grossman resource pit shell optimized on Pt-Eq. The strip ratio (waste:ore) of this pit is 9.5:1. The contained metal figures shown are in situ. No assurance can be given that the estimated quantities will be produced. The platinum-equivalency formula is based on assumed metal prices and overall recoveries. The Pt-Eq formula is: Pt-Eq g/t = Pt g/t + Pd g/t x 0.3204 + Au g/t x 0.6379 + Ag g/t x 0.0062 + Cu g/t x 0.00011 + Total Ni g/t x 0.000195 + Total Co g/t x 0.000124 + Rh g/t x 2.1816. The conversion factor shown in the formula for each metal represents the conversion from each metal to platinum on a recovered value basis. The assumed metal prices used in the Pt-Eq formula are: Pt US$1,595/oz, Pd US$512/oz, Au US$1,015/oz, Ag US$15.74/oz, Cu US$2.20/lb, Ni US$7.71/lb, Co US$7.71/lb and Rh US$3,479/oz. The assumed combined flotation and PlatsolTM process recoveries used in the Pt-Eq formula are: Pt 76%, Pd 75%, Au 76%, Ag 55%, Cu 86%, Ni 44%, Co 28% and Rh 76%. The assumed refinery payables are: Pt 98%, Pd 98%, Au 97%, Ag 85%, Cu 100%, Ni 100%, Co 100% and Rh 98%.

The updated Resources do not include drilling conducted since 31 May 2010. The information in this release that relates to Mineral Resources compiled by AMEC Americas Limited was prepared by Greg Kulla P.Geo (APOG #1752, APEGBC #23492) and David Thomas, P.Geo, MAusIMM

(APEGBC #149114, MAusIMM #225250), both full time employees of AMEC Americas Limited. The aforementioned have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities undertaken to qualify as Competent Persons as defined in the 2004 Edition of the JORC Code and independent qualified persons as this term is defined in Canadian National Instrument 43-101.

Underground Resource

The internal Underground Mineral Resource estimate for the East Beaver Lake extension was made by ordinary kriging methods using the same technical and financial parameters as those used by AMEC Americas Limited for the Underground Mineral Resource estimate reported by Magma Metals limited ("Magma") on 6 September 2010. The Underground Mineral Resource is reported at a cut-off grade of 1.94g/t Pt-Eq. The contained metal figures shown are in situ. The platinum equivalency formula is based on assumed metal prices and recoveries and therefore represents Pt-Eq metal in situ. The Pt-Eq formula is: Pt-Eq g/t = Pt g/t + Pd g/t x 0.2721 + Au g/t x 0.3968 + Ag g/t x 0.0084 + Cu g/t x 0.000118 + Sulphide Ni g/t x 0.000433 + Sulphide Co g/t x 0.000428 + Rh g/t x 2.7211. The assumed metal prices used in the Pt-Eq formula are: Pt US$1,470/oz, Pd US$400/oz, Rh US$4,000/oz, Au US$875/oz, Ag US$14.30/oz, Cu US$2.10/lb, Ni US$7.30/lb and Co US$13.00/lb. The assumed process recoveries used in the Pt-Eq formula are: Pt 75%, Pd 75%, Rh 75%, Au 50%, Ag 50%, Cu 90%, and Ni and Co in sulphide 90%. The assumed smelter recoveries used in the Pt-Eq formula are Pt 85%, Pd 85%, Rh 85%, Au 85%, Ag 85%, Cu 85%, Ni 90% and Co 50%. To account for a portion of the Ni and Co occurring as silicate minerals, Ni and Co in sulphide were estimated by linear regression of MgO to total Ni and total Co respectively. The regression formula for Ni in sulphide (NiSx) is: NiSx = Ni - (MgO% x 60.35 - 551.43). The regression formula for Co in sulphide (CoSx) is: CoSx = Co - (MgO% x 4.45 - 9.25). All figures have been rounded. Summations within the tables may not agree due to rounding. Magma undertook quality assurance and quality control studies on the mineral resource data and concluded that the collar, assay and lithology data are adequate to support resource estimation.

The Mineral Resource categories under JORC are the same as the equivalent categories under CIM Definition Standards (2005). The Mineral Resource has been estimated in conformity with both generally accepted CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice" (2003) guidelines and the 2004 Edition of the JORC Code. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

The information in this release that relates to Mineral Resources compiled internally was prepared by Guoliang Leon Ma P.Geo and Allan MacTavish P.Geo, both full time employees of Panoramic PGMs (Canada) Limited, a wholly owned subsidiary of Panoramic Resources Limited. Both the aforementioned have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities undertaken to qualify as Competent Persons as defined in the 2004 Edition of the JORC Code and qualified persons as this term is defined in Canadian National Instrument 43-101. The aforementioned all consent to the inclusion in the release of the matters based on this information in the form and context in which it appears.

Panton

Resource	Equity (%)	Date of Resource	JORC Compliance	Tonnage	Grade					Metal (oz)	
					Pt (g/t)	Pd (g/t)	Au (g/t)	Cu (%)	Ni (%)	Pt	Pd
Top Reef	100	Mar-12	2004								
Measured				4,400,000	2.46	2.83	0.42	0.28	0.08	348,000	400,000
Indicated				4,130,000	2.73	3.21	0.38	0.31	0.09	363,000	426,000
Inferred				1,560,000	2.10	2.35	0.38	0.36	0.13	105,000	118,000
Middle Reef	100	Mar-12	2004								
Measured				2,130,000	1.36	1.09	0.10	0.18	0.03	93,000	75,000
Indicated				1,500,000	1.56	1.28	0.10	0.19	0.04	75,000	62,000
Inferred				600,000	1.22	1.07	0.01	0.19	0.05	24,000	21,000
Total (Equity)				**14,320,000**	**2.19**	**2.39**	**0.31**	**0.27**	**0.08**	**984,000**	**1,081,000**

The information is in this release that relates to the Panton Project Mineral Resource is based on a resources estimate compiled by Ted Copeland who is a Director of Cube Consulting Pty Ltd. and is a Member of the Australian Institute of Mining and Metallurgy. Ted Copeland has more than 10 years' experience which is relevant to the style of mineralisation and type of deposit under consideration and in the activity which he is undertaking and qualifies as a Competent Person as defined in the 2004 Edition of the JORC Code. Ted Copeland consents to the inclusion in the release of the matters based on the information in the form and context in which they appear.

Appendix 3 – JORC Code 2012 Edition - Compliance Tables

All following tables are in JORC Code 2012 Edition format

Nickel

Lanfranchi

Lanfranchi – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• All sampling for resource estimation purposes at Lanfranchi Nickel Mine (LNM) is based on diamond drill core. Sample selection is based on geological core logging. Individual samples typically vary between 0.2m and 1.2m in length.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Diamond drilling at LNM is typically NQ2 or LTK60 size. Occasionally BQ and HQ core size holes have been drilled.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• All recovered diamond core is metre marked by on site geologists; any core loss is determined and recorded as part of the geological logging process. Core recovery is typically 100 percent. • No relationship exists between core recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All core is geologically and geotechnically logged to a standard appropriate for mineral resource estimation purposes. Core is logged from start to end of hole without gaps. Core photography is not undertaken. Drillholes are logged using Excel templates that are code restricted to ensure that only approved data can be entered. The Excel templates are then uploaded to the Lanfranchi SQL Server drillhole database via Datashed.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of	• All diamond core is cut using a clipper brick saw and half core sampled for assay. Quarter core samples are sent as part of the LNM QAQC process for check assaying. Sample intervals typically vary between 0.2m and 1.2m and are positioned as to not cross geological boundaries.

Criteria	JORC Code explanation	Commentary
	the material being sampled.	
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• All LNM drillhole samples are analysed by Kalassay Group's Kalgoorlie laboratory. The Laboratory process for LNM samples involves: Crush sample to <3mm, pulverise to 90% passing 75um (lab blanks introduced and pulverised at this point). From the pulverised sample, a 0.2g assay aliquot is taken and weighed then digested by 4-Acid digest and analysed by ICP-OES instrument. Laboratory QA/QC is performed on standards, blanks and duplicates. The LNM policy is to scrutinize the results for QA/QC standards and blanks when assay jobs are reported and to request re-runs if result are ± 1SD from the expected value.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No other geophysical or analytical tools have been used to estimate grade.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Certified Reference Material (QAQC) samples are routinely inserted during all sampling at LNM. In addition samples are routinely sent for check analysis at a different Laboratory. The QAQC results indicate that the diamond core assays being used for resource estimation at LNM are a fair representation of the material that has been sampled.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Significant intersections are calculated by mine geologists and verified/reported on a monthly basis by the Geology Manager.
	• The use of twinned holes.	• Twinning of drillholes is not performed at LNM
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Assay data are imported directly from the Kalassay assay files and QA/QC validated via Datashed to the LNM SQL drillhole database.
	• Discuss any adjustment to assay data.	• No adjustment to assay data is made.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• Drillhole collars are accurately surveyed for X,Y,Z and azimuth & Dip by site Surveyors using "Total Station" control. Older holes may/may not have collar azimuth/dip measurements. Downhole surveys are generally conducted using single shot or reflex multishot tools at 15m, 30m and every 30m thereafter.
	• Specification of the grid system used.	• The LNM drillhole database contains both MGA94 and local mine grid (KNO) coordinates. All site geological and mine planning work is performed in the local KNO grid system. • Conversion from KNO grid to MGA GDA94 Zone 51 is based on a two point transformation: 389084.61E, 513790.88N = 389351.47E, 6513980.38N 389044.77E, 513543.54N = 389313.70E, 6513732.77N
	• Quality and adequacy of topographic control.	
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• LNM resource estimation drill holes are typically drilled on a regular grid spacing that varies according to the size and consistency of the resource being drilled. Due to the consistent grade and low Coefficient of Variation of nickel mineralisation generally, resource definition drilling at LNM is more for volume estimation purposes than grade estimation.
	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• Data spacing is deemed to be sufficient for Mineral Resource estimation and reporting.
	• Whether sample compositing has been applied.	• No sample compositing is undertaken; all core samples are logged and analysed in full.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• Underground drill sites are not always ideally positioned for resource definition drilling however no sampling orientation bias is evident. The Ni grade is typically very consistent within individual resource domains and
	• If the relationship between the drilling orientation and the	

Criteria	JORC Code explanation	Commentary
	orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	therefore drill orientation is not a determinant for reliable grade estimation
Sample security	• The measures taken to ensure sample security.	• All diamond core samples are taken directly from site to Kalassay for analysis via a local courier service. Sample security is considered adequate.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All LNM Mineral Resource estimates are audited by independent consultants BM Geological Services. Minor adjustments to model dimensions, geostatistical analysis and application of top-cuts (where required) and adjustments to search parameters have been made on occasions following this audit process.

Lanfranchi – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• All LNM drillhole and resource samples are logged and recorded using MS Excel templates that are code restricted to ensure that only approved data can be entered. The Excel templates are uploaded to the LNM SQL drillhole database via Datashed software, this also ensures only approved data can be entered into the database. Once Laboratory assays files have been scrutinized and finalized for QAQC they are imported directly into database to ensure there are no transcription errors.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The competent person is a site based Panoramic employee on a rostered, FIFO arrangement • BM Geological Service personnel have visited LNM on numerous occasions.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is a high level of confidence in the geological interpretation of all LNM resources due to; the extensive operating experience, and the readily recognizable, strongly contrasting mineralised and un-mineralised lithologies. Composites are individually selected for each drillhole based on logging and cut-off grade boundaries rather than using an intercept method. This method ensures where drillholes skim in and out of mineralisation along a resource edge the mineralised grades for the hole are used in the estimation process even though due to the complexity of the wireframe interpretation they may fall just outside the wireframe shape. The standard composite length is 1m. Wireframes are based on drillhole intercepts, survey pick-ups, face mapping and sludge sampling where available. Although rock chip, grab and sludge hole data is also available, they are not used in the estimation process to ensure clustering of lower quality does not bias the estimation process, as such only diamond drilling samples are used for estimation. Wireframes are used to constrain the estimation process to ensure rigid geological boundaries are adhered to. All wireframes are constructed to a 1.0% Ni cut-off grade

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Dimensions</td><td>• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</td><td>
<table>
<tr><th rowspan="2">Resource</th><th rowspan="2">Length</th><th rowspan="2">Width</th><th colspan="2">Depth below surface (limit)</th></tr>
<tr><th>Upper</th><th>Lower</th></tr>
<tr><td>Deacon</td><td>915</td><td>115</td><td>850</td><td>1315</td></tr>
<tr><td>Helmut South Extension</td><td>185</td><td>40</td><td>935</td><td>1160</td></tr>
<tr><td>Lanfranchi</td><td>185</td><td>80</td><td>630</td><td>820</td></tr>
<tr><td>Metcalfe</td><td>285</td><td>40</td><td>810</td><td>935</td></tr>
<tr><td>Martin</td><td>160</td><td>40</td><td>275</td><td>440</td></tr>
</table>
</td></tr>
<tr><td>Estimation and modelling techniques</td><td>• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
• The assumptions made regarding recovery of by-products.
• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
• Any assumptions behind modelling of selective mining units.
• Any assumptions about correlation between variables.
• Description of how the geological interpretation was used to control the resource estimates.
• Discussion of basis for using or not using grade cutting or capping.
• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</td><td>• The computer software package "Surpac" was used for all resource models. All resource models have been estimated using ID2 methodology for simplicity and the amount of data available. Previous models run between 2007 and 2010 had run ID2 and OK models in parallel. This approach produced very similar estimates that were, typically within ±4% on tonnes, ±0.3% in grade and <5% difference on a contained nickel basis. Confidence in the modelling process is also high due to good reconciliation with production data over many years, especially within the Deacon resource. Block model parent cell sizes are matched to drillhole spacing for each resource model with search ellipses aligned parallel to mineralisation trends. Estimated elements in all resource models are as follows: Ni, As, Cu, Co, Fe, MgO, S. Domaining within the model is based upon primary lithology types and separate estimation passes are conducted to ensure both composites and search ellipses are realistic for each rock type. In the case of the Helmut South Extension (HSE) resource, geostatistical analysis of the ore population identified two distinct sample populations. Due to the complexity of the two populations within the main ore shape, they were unable to be domained separately. In this case a top-cut was applied to ensure that overestimation of the resource did not occur. The top-cut was established following an audit of the HSE resource model by BM Geological Services. Minimal stoping has been completed in the HSE resource to adequately study the estimation versus actual data. No other top-cuts were applied across the other resource models. Validation of the resource estimate was completed by onscreen visual validation of block grades vs. drillhole assays in sectional view and via Swanson plots of composites grades vs. block grades. In the case of the Deacon resource, the model composites and block model reports were compared in 100m increments along strike with very good correlation between "data in" and "data out".</td></tr>
<tr><td>Moisture</td><td>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td><td>• Tonnages are estimated on a dry basis.</td></tr>
<tr><td>Cut-off parameters</td><td>• The basis of the adopted cut-off grade(s) or quality parameters applied.</td><td>• All LNM resource models are modelled to a nominal cut-off grade of 1% Ni. In some cases, minor internal dilution was included in the intercept to avoid over-complication of the wireframe shape.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining</td><td>• No minimum mining width assumptions are made during the resource wireframing or estimation process. Mining parameters, including minimum mining width assumptions are applied during the conversion to Ore Reserves. Internal dilution is included during the resource estimation process when it is obvious selective mining is not a realistic option.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	assumptions made.	
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical factors or assumptions are made during the resource estimation process. These matters are addressed during conversion to Ore Reserve.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No environmental factors or assumptions are made during the resource estimation process.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• For all LNM resources a nickel vs. SG correlation plot is generated using all available SG data. All samples without an SG measurement are assigned a calculated SG value based on the regression analysis. During the estimation process, actual SG measurements were given priority over calculated values. LNM has an extensive SG database, generated over many years of operating experience. Determinations have typically been performed using the water immersion technique. The technique is adequate due to low core porosity, fresh rock underground environment of the LNM operation.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• Classification of the LNM resource models are based primarily on drill density in conjunction with increased confidence from existing ore development. Significant ore development has been completed within the Deacon resource which enables a Measured category to be applied to parts of this resource.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• In March 2013 BM Geological Services (BMGS). Conducted an independent review of all LNM resource estimates. The review covered the building and interpolation of grades in the relevant block models and their representation of grades based on the composite files. Overall BMGS concluded the resource models grades compared favourably with drill hole composite grades. Concern was expressed however about the representivity of the Helmut South Extension (HSE) resource estimation, and the potential for overcalling of grades within the BM. To alleviate this issue, top-cuts were applied by BMGS and the model re-run.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	• A high level of confidence exists for all LNM resource estimates. The estimates are based on many years of operating experience. Mine production is currently derived from 3 of the 6 underground resources with good reconciled agreement between Resource/Reserve grades and mine production. • All estimates are global estimates of tonnes and grade. • **Deacon** – In production with good reconciled agreement between Resource/Reserve grades and mine production.

Criteria	JORC Code explanation	Commentary
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• **Helmut South Extension** - Estimated grades generally reflect composite grades, grade trends are under reported within the Swanson plot due to the application of Ni top-cuts. 2013 production numbers will assist in reconciling performance of the block model against composites. • **Lanfranchi** - In production with good agreement between Resource/Reserve grade and mine production. • **Martin** - estimated grades closely reflect grades within the Swanson plot, ore too thin for proper analysis of composites in cross section. • **Metcalfe** - Estimated grades generally reflect composite grades, grade trends appear consistent with composites in cross section. • **Schmitz** - In production with good reconciled agreement between Resource/Reserve grade and mine production.

Lanfranchi – Table 1, Section 4 - Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• All resources used in the calculation of ore reserves are classified as either Indicated or Measured. • Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. • Measured Resources are classified as Proven Mining Reserves once the access drives are fully developed. • Mineral resources are inclusive of the Ore Reserves.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The competent person is a full time employee of the company and makes regular site visits to LNM.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Mining operations have continued since Panoramic acquired the Lanfranchi project from WMC Resources Limited in 2004. • Annual resource updates and economic assessment of the measured and indicated resources is completed using actual costs, operating parameters and modifying factors. • An annual update of Ore Reserves is completed on this basis.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• An initial cut-off grade of 1% Ni is used. • Economic analysis is carried out for each planned stope, and only stopes with a positive return are included in the Ore Reserves.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade	• The Deacon and HSE Ore has been extracted by sub-level stoping due to favourable geometry and the availability of paste backfill. • Narrow high grade ore zones are mined using air-leg mining methods. • The hanging wall rocks are ultramafic and very weak, therefore all open stopes are extensively cable-bolted, all ore development is shotcreted and all stopes are filled with cemented paste fill (average cement content 2.6%). Regular inspections are made by appropriately qualified geotechnical staff. A seismic monitoring system is in place and routinely checked. • Stress models are regularly updated and results used in determining stable stope sizes.

Criteria	JORC Code explanation	Commentary
	control and pre-production drilling.	• Ore development is under geological control and is routinely mapped and sampled. • Blast hole drilling is designed to minimise over break of the ore body and is set out by survey control.
	• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	
	• The mining dilution factors used.	• Mining dilution is 10% at zero grade and is applied to all stopes and ore development drives.
	• The mining recovery factors used.	• 95% metal recovery is assigned to all open stopes.
	• Any minimum mining widths used.	• Minimum stoping width is 3.0m. • Minimum air-leg stope width is 1.8m.
	• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	• No Inferred resources are included in the Ore Reserves.
	• The infrastructure requirements of the selected mining methods.	• The paste fill plant is designed to produce suitable quality and quantities of paste to match the underground production rate.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	• LNM ore is a sulphide and suitable for processing via flotation to make a concentrate. As such the ore is processed under an Ore Tolling and Concentrate Purchase Agreement (OTCPA) with BHP Billiton Nickel West (BHP). The Kambalda Concentrator is located about 40 kilometres to the north-west of LNM by road. The offtake agreement with BHP is until 2019. Recovery is determined by BHP and is related to the averaged grade delivered on the monthly basis. The ore from LNM has been processed by previous mine operators at the Kambalda Concentrator since the 1970s.
	• Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	
	• Any assumptions or allowances made for deleterious elements.	• There are insignificant amounts of deleterious elements in the current resources.
	• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• LNM operates under the conditions set out by an environmental license to operate. • There are no outstanding current environmental approvals requiring supporting environmental studies. • Waste rock is inert basalt and classified as NAF. • Waste is placed on approved surface waste dumps, with some amounts placed underground when possible.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• LNM mine is an operating mine, and has substantial mine infrastructure in place, including a paste fill plant, major electrical and pumping networks, administration facilities and a 150 persons accommodation village.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study.	• Most capital costs are related to the renewal of existing mining equipment and are based on quotes from equipment suppliers.
	• The methodology used to estimate operating costs.	• The forecast of operating costs is based on the detailed operating history from the last 12 months. • Processing costs are based on the OTCPA with BHP.
	• Allowances made for the content of deleterious elements.	
	• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	• Metal prices and Exchange rate are the median values predicted by a number of market analysts.
	• The source of exchange rates used in the study.	• All costs are in Australian dollars;

Criteria	JORC Code explanation	Commentary
	• Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The forecast of transportation costs is based on detailed transportation costings from the last 12 months. • Payability and penalties for delivering off-spec ore are defined in the OTCPA. Based on operating history and the extremely low-levels of deleterious elements any occurrence of such penalties is considered highly unlikely. • WA government royalties are included in cost estimates.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The head-grade is based on the mine plan and the geological model (with suitable modifying factors applied) • Revenue is calculated using the median prices for nickel and copper, and the exchange rate of $US/AUD predicted by a number of market analysts
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The OTCPA to purchase the ore is in place until 2019.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• As an operating mine internal cash flow estimates and impairment models apply an implied 8% real discount rate for NPV analysis and only economically viable ores are considered for mining. LNM has no external debt. • Sensitivity analysis of key financial and physical parameters is undertaken as part of the Ore Reserve process
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• Licence to operate from WA State Government. • Pre native title mining tenements for current Reserves. • Good relationships with local community and strong cooperation with neighbouring mining operations.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• No significant unresolved material matters relating to either naturally occurring risks, third party agreements or governmental/statutory approvals, currently exist. • Third party off-take agreement in place with BHP
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The classification adopted is based on the level of confidence as set out in the JORC 2012 guidelines • Proven Ore Reserves are based on Measured Resources subject to economic viability. Probable Ore Reserves are based on Indicated Resources subject to economic viability. • The LNM Ore Reserve reflects the view of the competent person(s). • No inferred resources are used for Ore Reserve estimation.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• Site generated reserves and resources and economic evaluation data is routinely reviewed by Panoramic's in-

Criteria	JORC Code explanation	Commentary
		house technical mining team.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The relative accuracy of the resource and reserve estimates are considered robust as they has been compiled as per the guidelines of the 2012 JORC Code, and knowledge gained from extensive operational history at the mine, including good production reconciliation history. There is extensive data available due to the requirements of the OTCPA under which all ore is required to be weighed, and 25% of the ore is processed in a separate sampling circuit, including crushing and assaying. • All currently reported reserve calculations are considered representative on a global scale. • Mine to mill reconciliation records throughout the life of the Lanfranchi Project provide confidence in the accuracy of the resource and reserve estimates.

Savannah

Savannah – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled by diamond drilling techniques. Over 1500 holes have been drilled for a total in excess of 220,000m. The majority of holes were drilled from underground drill platforms. • The drillhole spacing is a nominal 25x25m grid spacing over the extent of the mineralisation. • All drillhole collars were surveyed using Leica Total Station survey equipment by a registered surveyor. Downhole surveys were typically performed every 30 metres using either "Reflex EZ Shot" or "Flexit Smart Tools". • All diamond core was geologically logged with samples (typically between 0.2 metre to 1 metre long) defined by geological contacts. Analytical samples included a mix of full and sawn half core samples. Sample preparation included pulverising to 90% passing 75 µm followed by total 4 acid digest and analysis by ICP OES.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• A mix of LTK60 and NQ2 sized diamond drilling has been used to obtain >90% of the data used in the estimate. Some RC drilling has been used historically for the upper part of the resource.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred	• Diamond core recoveries are logged and recorded in the database. Overall recoveries are >99% and there are no apparent core loss issues or significant sample recovery problems. • Depths checked against core blocks, regular rod counts, driller breaks checked by fitting core together. • No relationship exists between sample recovery and grade

Criteria	JORC Code explanation	Commentary
	due to preferential loss/gain of fine/coarse material.	
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	• All holes have been geologically logged in full. Geotechnical logging was carried out on all diamond drillholes for recovery and RQD. Number of defects (per interval) and roughness was carried out around the ore zones. Structure type, alpha angle, infill, texture and healing is stored in the structure table of the database.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Logging of diamond core RC samples recorded lithology, colour, mineralisation, structural (DDH only) and other features. Core was photographed wet.
	• The total length and percentage of the relevant intersections logged.	• All drillholes were logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Analytical core samples included a mix of full and sawn half core samples.
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• All samples from core
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• All core sampling and sample preparation followed industry best practice.
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• QC involved the addition of Savannah derived CRM assay standards, blanks, and duplicates. At least one form of QC was inserted in most sample batches.
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	• Original versus duplicate assay results have always shown strong correlation due to massive sulphide rich nature of the orebody.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Sample sizes are considered appropriate to represent the Savannah style of mineralisation.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• The Savannah Mine standard analytical technique is a 3-acid digest with an AAS finish. The method best approaches total dissolution for most minerals. Exploration samples sent off-site are analysed using a 4-acid digest with either ICP OES or AAS finish (AAS for ore grade samples).
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No other analytical tools or techniques are employed.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The onsite laboratory carries out sizing checks, uses internal standards, duplicates, replicates, blanks and repeats. A selection of roughly 10% of pulps was sent to external laboratories for repeat analysis and sizing checks. No bias has been identified.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Drilling and sampling procedures at SNM have been inspected by many stakeholders since the project began.
	• The use of twinned holes.	• Throughout the life of the mine, there have been several instances where holes have been twinned, confirming intersections and continuity.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Holes are logged into Excel templates on laptops, data is then entered into MS Access database with user data entry front end built in. Data is ultimately transferred to SQL server from Perth office. Data periodically validated by site personnel.
	• Discuss any adjustment to assay data.	• No adjustments have been made to assay data.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All diamond drillhole collars were surveyed using Leica Total Station survey equipment by a registered surveyor. "Reflex EZ Shot" or "Flexit Smart Tool" was used for downhole surveys at approximately every 30m. Visual inspection in a 3D graphics environment using Surpac software failed to identify any obvious errors regarding the spatial position of drillhole collars or downhole surveys
	• Specification of the grid system used.	• The mine grid is a truncated 4 digit (MGA94) grid system. • Conversion from local grid to MGA GDA94 Zone 52 is calculated by applying truncated factor to local coords:

Criteria	JORC Code explanation	Commentary
		E: +390000, N: +8080000N
	• Quality and adequacy of topographic control.	• Topographic control is of a high quality and is adequate for the resource estimation process
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• Nominal drillhole spacing of 25m (easting) by 25m (RL) • The mineralized domains delineated by the drill spacing show enough continuity to support the classification applied under the 2012 JORC Code. • • No sample compositing has been undertaken.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Drillhole orientation was largely perpendicular to the orebody with the exception of the western extent where drill platform positions allowed only for oblique intersections. • No orientation sampling bias has been identified.
Sample security	• The measures taken to ensure sample security.	• Samples transported to onsite lab by Panoramic staff. Samples sent off site are road freighted (Nexus transport) and tracked using spreadsheets onsite.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits/reviews of the sampling techniques have been undertaken in recent time. The procedures used are considered to be industry standard. Mine to mill reconciliation records throughout the life of the Savannah Project provide confidence in the sampling procedures.

Savannah – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• An Excel logging template with lookup tables and fixed formatting is used for logging and data collection. • Data validation checks are performed every time a drillhole is entered to the database using a checklist.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The competent person is a site based, full time employee of the Company.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The confidence of the geological interpretation is high which has been confirmed by mapping and 9 years of operational experience. • No other interpretations have been considered as the current model is demonstrably robust. • Geological controls were used to create the domains, namely, lithology, massive sulphide content, major structures • One of the main domains is affected by 2 major cross-cutting mafic dykes, the geometry and thickness of which are well understood.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The resource is 350m along strike (east), varies in thickness from 1 to 50m and averages 8m thick, from the surface to 900m depth.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such	• Ordinary Kriging was employed using Surpac™ software to estimate Ni, Co, Cu and Density into a 3D block model. Top cut analysis was undertaken for each domain using grade histograms, no extreme values were detected and therefore no top cuts applied. Variography was calculated for the domain with the largest sample population and the resultant variogram models were adapted for the remaining domains. • Check estimates by Panoramic staff using Inverse Distance squared method has yielded similar results. The estimate has been updated periodically since mining

Criteria	JORC Code explanation	Commentary
	data.	began in 2004, differences in tonnage for each successive update have been accounted for by new drilling, depletion for mining, and new resource areas. Grade correlation between updated estimates has always remained high.
	• The assumptions made regarding recovery of by-products.	• By-product credits for Copper and Cobalt form part of the off-take agreement between Panoramic and Jinchuan.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• No deleterious elements have been modelled in the resource estimate; the Savannah orebody has low MgO and negligible Arsenic levels.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• All block estimates were based on interpolation into 4m N x 20m E x 10m RL parent cells, sub celling to 0.5m N x 2.5m E x 1.25m RL. Block discretisation points were set to 2(Y) x 5(X) x 4(Z) points. The block dimensions are over half the average drill spacing of 25m. A search radius of 150m was used with a minimum of 8 samples and a maximum of 50 samples for all domains.
	• Any assumptions behind modelling of selective mining units.	• No selective mining units were assumed in the estimate.
	• Any assumptions about correlation between variables.	• Nickel and cobalt show a very strong correlation. Nickel and copper are much more variable.
	• Description of how the geological interpretation was used to control the resource estimates.	• The geological interpretation was used to derive the domains using massive sulphide content, lithology and structural boundaries. These were wireframed and used as hard boundaries to flag sample data for estimation.
	• Discussion of basis for using or not using grade cutting or capping.	• Statistical analysis of the grade populations indicated no extreme values and a low coefficient of variation.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation included comparing the raw data statistics to block estimates, volumes of wireframes to block model volumes, drillholes and block model value plots were produced for a visual check of the grades. Good reconciliation data exists between mined and milled figures.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages estimated on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• 0.5%Ni was used as a cut-off when defining the mineralised wireframes. Generally, this is the grade boundary between strongly disseminated sulphides and the ultramafic footwall unit.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Mining at Savannah has been ongoing since 2004. Underground, sub-level open stoping is used effectively to extract the ore. No further assumptions were made on mining factors. Mining factors are applied during Ore Reserve conversion.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Savannah ore has been successfully treated through a 1MTPA SAG mill and flotation circuit since commissioning in 2004. The metallurgical nature of the mineral resource in this estimate has not changed. Metallurgical factors are addressed in Ore Reserve conversion.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider	• Savannah Nickel Mines operate under the conditions set out by an environmental license to operate.

Criteria	JORC Code explanation	Commentary
	the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density determinations are routinely performed. Most determinations involved calculating the core volume and weighing the core in air. Regular checks using the water immersion technique were also carried out. A regression analysis of measured density versus nickel is used to populate missing density values. • Voids within the mineralized zones are non-existent • The search parameters for density were the same as nickel for all domains. Waste material was assigned a value of 2.88, determined from the regression formula.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification adopted is based on the level of confidence as set out in the JORC 2012 guidelines. • Measured Resources are defined by areas supported by strong drilling and confined up and down dip by mine development such that confidence in lode volume and continuity and grade is very high. Indicated Resources are defined by areas where geological confidence is high and drilling support is strong (equal to or less than 25m x 25m grid spacing). • The estimate appropriately reflects the view of the competent person.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The resource estimate has been peer reviewed on site and by Panoramic's corporate technical team.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The relative accuracy of the resource estimate is considered robust as it has been compiled as per the guidelines of the 2012 JORC Code, and knowledge gained from extensive operational history of the mine. • The statement relates to global estimates of tonnes and grade. • Mine to mill reconciliation records throughout the life of the Savannah Project provide confidence in the accuracy of the resource estimate.

Savannah – Table 1, Section 4 - Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• All resources used in the calculation of ore reserves are classified as either Indicated or Measured. • Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. • Measured Resources are classified as Proven Mining Reserves once the access drives are fully developed. • Mineral resources are inclusive of the Ore Reserves..
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The competent person is a full time employee of the company and has been worked on SNM for seven years.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Underground Mining commenced in January 2005. Following exploration and infill drilling activity, annual resource updates and economic assessment of the measured and indicated resources is completed using actual costs, operating parameters and modifying factors. • An annual update of Ore Reserves is completed on this basis.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade used for inclusion in the Reserve is 1.0% Ni equivalent based on economic assessment and current operating and market parameters.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	• The Savannah ore has been extracted by sublevel stoping due to favourable geometry and the availability of paste backfill. • The sublevel interval is restricted to 25m due to the variable nature of the orebody boundaries. • Stress models are regularly updated and results used in determining stable stope sizes. • Ore development is under geological control and is routinely mapped and sampled. • Blast hole drilling is designed to minimise over break of the ore body and is set out by survey control. • Mining dilution at zero grade is applied to the stopes and the ore development. • Minimum mining width of underground development is 4.8m. • Minimum stoping width is 3.0m • No Inferred resources are included within either the Reserve or the mine plan.

Type	Dilution	Mining Recovery
Development	5%	95%
Upper Level above 1820		
-primary stopes	10%	95%
-secondary stopes	15%	95%
-Sill pillar stopes	20%	95%
Lower Level below		
-primary stopes	10%	90%
-secondary stopes	15%	90%
-Sill pillar stopes	20%	70 to 90%

Criteria	JORC Code explanation	Commentary
	• The infrastructure requirements of the selected mining methods.	• The paste fill plant is designed to produce suitable quality and quantities of paste to match the underground production rate.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	• SNM ore is a sulphide and suitable for processing via flotation to make a concentrate. It produces a bulk Ni/Cu/Co concentrate grading between 7-8 % Ni. The concentrate is transported to Wyndham, and then shipped to Jinchuan's smelter/refinery in the Gansu province, northwest China. Savannah ore has been successfully treated through a 1MTPA SAG mill and flotation circuit since commissioning in 2004.
	• Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	• The metallurgical nature of the mineral resource in this estimate has not changed. Metallurgical Recoveries used for Ore Reserve estimations are 86% for Nickel, 95% for Cu and 88% for Co.
	• Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• There are insignificant amounts of deleterious elements in the current resources.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Savannah Nickel Mines operate under the conditions set out by an environmental license to operate. There are no outstanding current environmental approvals requiring supporting environmental studies. • Waste rock is gabbro and is classified as NAF. • Waste is placed on approved surface waste dumps, with some amounts are placed when possible. • Tailings from the concentrator are either stored in a purpose built tailings storage facility (TSF) or used in the paste fill plant.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Savannah mine has substantial infrastructure in place including a paste fill plant, major electrical and pumping networks, a 1MTPA throughput plant, TSF, a fully equipped laboratory, extensive workshops, administration facilities and a 215 persons accommodation village.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study.	• Most capital costs are related to the renewal of existing mining equipment and are based on quotes from equipment suppliers.
	• The methodology used to estimate operating costs.	• The forecast of operating costs is based on the detailed operating history from the last 12 months.
	• Allowances made for the content of deleterious elements.	
	• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	• Metal Prices and Exchange rate are the median values predicted by a number of market analysts.
	• The source of exchange rates used in the study.	• All costs are in Australian dollars
	• Derivation of transportation charges.	• The forecast of transportation costs is based on detailed transportation costings from the last 12 months.
	• The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	• Payability and penalties for delivering off-spec ore are defined in the agreement with Jinchuan. Based on operating history and the extremely low-levels of deleterious elements any occurrence of such penalties is considered highly unlikely.
	• The allowances made for royalties payable, both Government and private.	• Royalties to the WA government and Traditional Owners are included in cost estimates.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	• The head-grade is based on the mine plan and the geological model (with suitable modifying factors applied)

Criteria	JORC Code explanation	Commentary
	• The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• Revenue is calculated by using the median prices of the Ni, Cu and Co, and the exchange rate of $US/AUD predicted by a number of market analysts
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The Concentrate is contracted for sale to the Jinchuan Group of China until April 2020. The Savannah concentrate will continue to be shipped from Wyndham to Jinchuan's smelter/refinery in the Gansu province, northwest China.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• As an operating mine, internal cash flow estimates and impairment models apply an implied 8% real discount rate for NPV analysis and only economically viable ores are considered for mining. • Sensitivity analysis of key financial and physical parameters is applied to future development project considerations and mine.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Savannah mine is fully permitted and a major contributor to the local and regional economy. It has no external social or community pressures that impact on its operation or which could potentially jeopardise its continuous operation.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• No significant unresolved material matters relating to naturally occurring risks, third party agreements or governmental/statutory approvals currently exist.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The classification adopted is based on the level of confidence as set out in the JORC 2012 guidelines • Proven Ore reserves are based on Measured Resources subject to economic viability. • Probable Ore Reserves are based on Indicated Resources subject to the economic viability. • The estimate appropriately reflects the view of the competent person. • No inferred material is included in the reserve estimations.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• Site generated reserves and the parent data and economic evaluation data is routinely reviewed by the Savannah technical team.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include	• The relative accuracy of the resource and reserve estimates are considered robust as they have been compiled as per the guidelines of the 2012 JORC Code, along with knowledge gained from extensive operational history of the mine, including good production reconciliation history. • All currently reported reserve calculations are considered representative on a global scale.

Criteria	JORC Code explanation	Commentary
	assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Mine to mill reconciliation records throughout the life of the Savannah Project provide confidence in the accuracy of the resource and reserve estimates.

Gold

Gidgee – Howards

Gidgee - Howards – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The Howards deposit has been extensively sampled using Reverse Circulation (RC) and Diamond drilling (DD) techniques. The Howards (Gidgee Gold Project) resource database subset contains 237 RC & DD holes for a total of 19,730m. Of this total 75 RC & DD holes totalling 11,086m were drilled by Panoramic as part of a Project feasibility study. In addition the database contains 329 historical RAB holes (totalling 3,173m which have not been used for resource estimation. • The drill spacing is typically 20m * 30m and 40m * 40m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or manual riffle splitters. • Diamond holes were either NQ2 or HQ size and were sampled by cutting the core in half to honour geologically logged intervals between 30cm and 1m in length. • All (7,056) recent Panoramic resource assay samples were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. Of the 5,261 historical RC & DD gold assays in the Howards database, 3,108 (59%) have an un-known technique. 2,565 of these assays are described as "unknown digest, AAS finish" and are believed to be Fire Assay results. In addition, results for 6,423 (52% of the entire analytical database) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods use to evaluate the deposit are RC and DD drilling. The RC drilling was typically completed utilising a 5 ¼ inch hammer. Face sampling RC hammers were used by Panoramic. The DD drilling was either NQ/NQ2 (47.6mm /50mm) or HQ (63.5mm) diameter core. • HQ size core was typically used for geotechnical holes cored from surface by Panoramic.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• RC sample recovery was monitored by Panoramic by recording visual estimates of the sampling bags. Typical recoveries for RC were greater than 90%. • Core recovery is noted during the drilling and geological logging processes as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on lengths of angle iron to enable accurate geological logging and estimation of core recovery. Recovery was typically 100%. • No apparent relationships were noted between sample recovery and grade.

Criteria	JORC Code explanation	Commentary
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All drill holes in the Howards resource database have been geologically logged. • Both chip and core samples in recent Panoramic drill holes have been logged using geological legends at detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, mineralisation and structural features where noted in drill core. • All mineralised intersections and associated samples have been logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• All diamond core was half core sampled using an electric diamond core saw. • All RC samples were collected in 1m intervals through the drill rig cyclone system and reduced to a ~3kg assay sample by either automated on-board cone splitters or manually by riffle splitting. • The sample preparation process for all samples submitted for analysis followed industry standards, including oven drying for a minimum of 8 hours, crushing and pulverising to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. In addition ALS Laboratories in Perth conducted their own internal QAQC system. • The sample sizes used are industry accepted standards used extensively throughout the goldfields and are appropriate to the style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge). Where other element determinations were made it was generally by 4 acid digest and either ICP OES or AAS technique. • No other geophysical or analytical tools have been used to estimate grade. • QAQC has been routinely completed during all sampling. The QAQC results indicate the assays being used for resource estimation are a fair representation of the material being sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for core samples. The CRM quartz wash blank was also inserted at the beginning of each core assay batch and where possible immediately prior to the mineralised intervals. • Quarter core field duplicates were submitted at a rate of 1 in 20 samples. For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at the rate of 1 in 20 samples for both RC and DD drilling.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes.	• The deposit is continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike provide strong confidence in the verification of the grade and style of deposit. • No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. The drilling confirmed expected geological and mineralogical interpretations.

Criteria	JORC Code explanation	Commentary
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in logging code protected excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data except for replacing negative (below detection reported results) with half detection limit numerical values.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down-hole surveys were routinely performed every 30m using a range of single shot, electronic multi-shot and north seeking gyro tools. Panoramic validated all down hole survey data to correct anomalous readings due to magnetic interference. Recent gyroscopic surveys undertaken by Panoramic confirmed the reliability of earlier single and multi-shot readings.
	• Specification of the grid system used.	• The grid system used in the resource estimate is MGA_GDA94 Zone 50. All historic drilling positions were originally located on the Howards truncated AMG grid system that was constructed by Dalrymple in 1989. Panoramic has adopted MGA94 as the survey system for the Howards Project. The Howards database contains both sets of coordinates, but for the purpose of this estimate the MGA94 grid coordinates have been used. • Conversion from local grid to AMG AGD84 Zone 50 is calculated by applying truncated factor to local coords: E: +700000, N: +6900000
	• Quality and adequacy of topographic control.	• The Howards topographic layer was created by Panoramic using a 2006 Landgate aerial survey and modified by DGPS pickups of historical and current drill-hole collars.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• The drilling density is on a nominal 20m by 30m and then 40m by 40m spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of the deposit being estimated. • Outside of the mineralised zones and through RC pre-collars, 3 metre composite spear samples were collected and submitted for assay. If any of these returned anomalous gold values (> 0.2g/t) then the original 1 metre (~3kg) cone split drill-rig samples were submitted from the respective composites. All cored intervals selected for analysis were cut and sampled accordingly and sent directly to the laboratory. No core sample compositing was undertaken.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible.
	• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

Gidgee - Howards – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL database, with a DataShed frontend, for validation and storage. • Geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • A subset of the SQL database, restricting the data to the Howard's Resource area, was exported into MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drill program and were integral in the development of mineralisation interpretations used in the Ordinary Kriged model.
	• If no site visits have been undertaken indicate why this is the case.	• Site visits were not required as the documented procedures on the recent drilling were deemed appropriate for the style of deposit and the work was undertaken to industry accepted standards.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is a high degree of confidence in the geological interpretation of the Howards deposit. The deposit is confined to a basalt hosted shear, which has good continuity at a 0.3g/t cut off. The uncut coefficient of variation (COV) of the dataset was 4.31, however this was heavily skewed by the 6 extreme values. By top-cutting the dataset a reduction of 1.39 to the COV was realized, which suggests the domains are acceptable.
	• Nature of the data used and of any assumptions made.	• The data used for the resource estimate was from RC and diamond drilling. Raw assays, typically 1m were composited to 2m to provide equal sample weights and reduce grade variance.
	• The effect, if any, of alternative interpretations on Mineral Resource estimation.	• Two separate interpretations were undertaken which were used for two differing estimation techniques. An interpretation of 0.3g/t continuity was created for the OK estimate with a slightly broader approach at 0.2g/t (including larger zones of internal dilution) for the MIK estimate.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• The geological and mineralisation models are based on detailed geological logging which confirms the concentration of Au mineralisation within a broad basalt hosted shear zone. • With 14 diamond holes in the deposit, combined with detailed geological logs on all other hole types, it is thought that there is sufficient detail to support the geological model (framework).
	• The factors affecting continuity both of grade and geology.	• The geological and grade continuity is typical of most gold deposits where the continuity at a lower grade cut-off is far greater than the higher grade thresholds. There is a presence of localised higher grade zones within the mineralised domains. The continuity of these high grade zones vary from good continuity in the heart of the deposit and dissipate on the margins of the deposit.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Howards mineralised domain is approximately 780m long and has a down dip extent of 200m and is open at depth. The deposit consists of a main lode that varies between 2m and 30m thick with numerous parallel & sub-parallel lodes at various stages along the length of the

Criteria	JORC Code explanation	Commentary
		deposit.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	• Grade estimation of Howards deposit was completed using two separate methods; (1) Ordinary kriging (OK) in Surpac software and (2) Multiple Indicator Kriging (MIK) using GS3 software. Variogram analysis and modelling for the OK estimate was completed using Supervisor software. Two meter composites were generated from the drillhole database and then tagged to mineralised wireframes generated at a 0.3g/t gold grade cut-off. The wireframe modelling conditions included, a minimum downhole width of 2 meters of mineralisation and internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.3 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was permissible (typically used trouser legs on the fringes of the main lode). • The data was reviewed through disintegration analysis and reviewing the raw statistics to determine whether applying a top-cut was necessary. It was decided a top-cut was required to reduce the high CV and limit the effect of these higher grades on the estimate. Only the OK estimate was run using a top-cut, with a top-cut of 10g/t being applied (removing the top 6 outliers from the dataset). The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with a range of maximum continuity along the main axis of 32m. Separate variograms were also generated for the MIK estimate, based on the different ranked grade thresholds; metal variograms were also generated.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the Howards deposit was completed in 2012. This was completed by BMGS on behalf of Panoramic Resources and was not classed as being JORC 2012 compliant. The 2012 estimate was created using a slightly higher cut-off envelope at 0.4g/t Au and is not therefore directly comparable with the 2013 estimates. Comparisons were made between two recent estimates using different estimation methods. The comparisons demonstrate that the metal accumulation between models is generally comparable with a slight fall in the MIK estimate. This is most likely a result of the broader domain boundaries used in the MIK estimate. The two new estimates are comparable at a 0.6 & 0.7g/t Au cut off.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products. Recent metallurgical test work had been performed as part of a feasibility study of the greater Gidgee gold project being undertaken by Panoramic. No recovery issues have been identified.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• A review of deleterious elements or other non-grade variables was undertaken. Out of the available 12,271 raw samples 9,833 had been analysed for Copper (Cu). A correlation study was undertaken to determine if there was any correlation between analysed elements, there appeared to be no relationship between Cu and Au. Given that 80% of the dataset has Cu values, it was decided to estimate Cu. The Cu was only estimated in the OK model using id2 estimation methods with similar search criteria as used for the Au.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with subcelling to 5m Y 5m X and 1.25m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the

Criteria	JORC Code explanation	Commentary
		variography with a cascading five pass estimation used to populate cells. The first estimation pass utilized a minimum of 12 and maximum of 32 samples, using a major distant search of 35m without octant constraints. The search criteria were then changed for the remaining estimation passes.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width, assuming an open pit mining operation using 120 tonne excavators.
	• Any assumptions about correlation between variables.	• No correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The geology of the deposit is classified as an Archean orogenic shear hosted deposit. The mineralisation is hosted within a sheared basalt unit.
	• Discussion of basis for using or not using grade cutting or capping.	
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by onscreen visual validation of block grades vs. drill hole assays in sectional view. Line graphs were also generated to show comparison between composite input grades and block output grades over 50m intervals in the northing direction and 20m intervals in the easting direction throughout the entire deposit to ensure the composite data was accurately reflected in the model. The OK model was also compared to the MIK estimate to ensure the estimates were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.3g/t. This value was determined by visual assessment of grade continuity. The mineralised envelope adopted for the MIK estimate was slightly broader with a continuity of 0.2g/t Au.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Howards deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, utilising excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximate 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical assumptions have been made in respect to the generation of the estimate however recent metallurgical test work had been performed as part of a feasibility study of the greater Gidgee gold project being undertaken by Panoramic. This work has shown that recoveries greater than 90% Au can be achieved using conventional CIL extraction methods.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and	• The current data available doesn't suggest there are any high-level environmental risks with mined waste by-products. If mining were to commence all statutory requirements would be implemented to comply with waste by-product management.

Criteria	JORC Code explanation	Commentary
	processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Six hundred and fifty nine density determinations were calculated for Howards, based on 5 diamond holes drilled as part of the greater Gidgee Gold Project feasibility study. The determination methodology was by water immersion technique. • The host rock type for mineralisation and surrounding mafic material is non-porous and void space porosity is not considered to be of relevance to the measurements. • Given the localized spatial distribution of the density measurements, average densities were assigned to the various domains within both models (OK & MIK). The values applied were: Oxide - 2.0, Transitional - 2.4 and Fresh - 2.8.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the OK resource has been weighted by strong geological continuity within the Indicated resource (>80% of the resource) with weaker continuity observed in the Inferred resource (<20% of the resource). The classification of the MIK estimate is heavily influenced by the search parameters applied. A proportion of the northern extent of Howards is densely drilled 5m*10m spaced RC (at the surface expression). The structural understanding of the Howards deposit is enhanced by the 14 diamond drill holes within the deposit. • The remainder of the deposit is drilled at 20m*20m, cascading to 20m*40m spaced drilling. The gold mineralisation is highly continuous over a 780m strike length and is structurally (shear controlled) bounded. The bulk of the resource has been classified as Indicated (>80%) with the remaining amount (<20%) inferred and unclassified. • The Mineral Resource estimate reflects the competent person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No audits or reviews of the Mineral Resource estimate have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012. • The resource estimate relates to a global estimate of tonnes and grade. • No mining currently exists at Howards, therefore there is no production data available for comparison.

Gidgee – Shiraz

Shiraz – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit has been extensively sampled using Reverse Circulation (RC) drilling techniques. The Shiraz (Gidgee Gold Project) resource database subset contains 142 RC & 2 diamond (DD) drill holes for a total of 12,656m. Of this total, 20 RC holes totalling 2,614 were drilled by Panoramic in 2013 as part of a Gidgee Project feasibility study. In addition the database contains 196 historical RAB holes (totalling 5,676m which have not been used for resource estimation. • The drill spacing is typically 20m * 20m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or by manual riffle splitting. • Only two historical diamond holes have been drilled at Shiraz. The core size of both holes is unknown. • All (1,670) recent Panoramic resource assay samples were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. Of the 5,871 historical RC & DD gold assays in the Shiraz database, 3,566 (61%) have an un-known technique. In addition, results for 1,836 (24% of the entire analytical database) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling method used to evaluate the deposit is predominantly RC. The historic RC drilling was typically completed using 5 ¼ inch hammers. Face sampling, 5 ¼ inch RC hammers were used by Panoramic.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• RC sample recoveries were monitored by Panoramic by recording visual estimates of the sampling bags. Typical recoveries for RC were greater than 90%. • • No apparent relationships were noted between sample recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All drill holes in the Shiraz resource database have been geologically logged. • RC samples in recent Panoramic drill holes have been logged using geological legends in sufficient detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, and mineralisation. • All mineralised intersections and associated samples have been logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• For the two historical diamond holes no sampling information is recorded • All RC samples were collected in 1m intervals through the drill rig cyclone system and reduced to a ~3kg assay sample by either automated on-board cone splitters or manually by riffle splitting. • The sample preparation process for all samples submitted for analysis followed industry standards, including oven drying for a minimum of 8 hours, crushing and pulverizing to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. In addition ALS Laboratories in Perth conducted their own internal QAQC

Criteria	JORC Code explanation	Commentary
		system.
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	• All Panoramic sampling was conducted according to accepted industry practices.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• The sample sizes used are industry accepted standards used extensively throughout the goldfields and are appropriate to the style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• The analytical technique used is Fire Assay (30g charge). Where other element determinations were made it was generally by 4 acid digest and either ICP OES or AAS technique.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No other geophysical or analytical tools have been used to estimate grade.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• QAQC has been routinely completed during all sampling. The QAQC results indicate the assays being used for resource estimation are a fair representation of the material being sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples. A CRM quartz wash blank was also inserted at the beginning of each RC assay batch and where possible immediately prior to the mineralised intervals. • For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at the rate of 1 in 20 samples.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• The deposit is continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike give strong confidence in the verification of the grade and style of deposit.
	• The use of twinned holes.	• No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. The drilling confirmed expected geological and mineralogical interpretations.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in logging code protected excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data except for replacing negative (below detection reported results) with half detection limit numerical values.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down-hole surveys were routinely performed every 30m using a range of single shot, electronic multi-shot and north seeking gyro tools. Panoramic validated all down hole survey data to correct anomalous readings due to magnetic interference. Recent gyroscopic surveys undertaken by Panoramic confirmed the reliability of earlier single and multi-shot readings.
	• Specification of the grid system used.	• All recent planned drill hole locations were positioned by hand-held global positioning satellite (GPS) in MGA GDA94 zone 50 and subsequently set-out and picked up by differential GPS. A total of 41 historical drill holes located on a former Shiraz grid were also picked up by Panoramic in MGA. All recorded Shiraz drill positions have been converted to the "Mt Townsend" local grid by Panoramic. The database contains both MGA and local coordinates, but for the purpose of this estimate the local

Criteria	JORC Code explanation	Commentary
		grid coordinates have been used. • Conversion from Mt Townsend grid to MGA GDA94 Zone 50 is based on a two point transformation: 10000E, 7080N = 744294.62E, 6996202.93N 10000E, 8560N = 743940.53E, 6997640.12N • Conversion from Shiraz grid to MGA GDA94 Zone 50 is based on a two point transformation: 50000E, 50707N = 743469.32E, 6997462.19N 50000E, 49293N = 744679.63E, 6996730.39N
	• Quality and adequacy of topographic control.	• The Shiraz topographic layer was created by Panoramic using a 2006 Landgate aerial survey and modified by DGPS pickups of historical and current drill-hole collars as well as two control tie lines set out across the project area.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• The drilling density is on a nominal 20m by 20m grid spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of the deposit being estimated. • Outside of the mineralised zones and through RC pre-collars, 3 metre composite spear samples were collected and submitted for assay. If any of these returned anomalous gold values (> 0.2g/t) then the original 1 metre (~3kg) cone split drill-rig samples were submitted from the respective composites.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

Shiraz – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Data Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL database, with a DataShed front-end, for validation and storage. • All geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • A subset of the SQL database, restricting the data to the Shiraz Resource area, was exported into MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drill program and was integral in the development of the Shiraz geological/mineralisation model.
	• If no site visits have been undertaken indicate why this is the case.	• Site visits were not required as the documented procedures employed by Panoramic were deemed appropriate for the style of deposit and the work was

Criteria	JORC Code explanation	Commentary
		undertaken to industry accepted standards.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is a high degree of confidence in the geological interpretation of the Shiraz deposit. Shiraz is classified as an Archean orogenic shear hosted deposit. The mineralisation is typically associated with the presence of arsenopyrite, pyrrhotite and trace pyrite.
	• Nature of the data used and of any assumptions made.	• The data used for the resource estimate was from RC and diamond drilling. Raw assays typically 1m in length were composited to 2m to provide equal sample weights and reduce grade variance.
	• The effect, if any, of alternative interpretations on Mineral Resource estimation.	• Two resource estimates were performed. The first was performed using ordinary kriging within a grade envelope interpretation of 0.4g/t Au, whilst allowing for internal dilution of up to 3metres. A second broader interpretation was undertaken for a comparable MIK estimate. The MIK estimate ensured a broader continuity at a lower grade cut-off of 0.2g/t Au.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• The geological and mineralisation models are based on detailed geological logging which restricts the concentration of Au mineralisation to an altered sequence within the Shiraz Dolerite. The altered sequence is characterized by 5-25% veining, and the presence of associated blue quartz and arsenopyrite, pyrrhotite and trace pyrite mineralisation.
	• The factors affecting continuity both of grade and geology.	• The geological and grade continuity is typical of most gold deposits where the continuity at a lower grade cut-off is far greater than the higher grade thresholds. There is a presence of localised higher grade zones within the mineralised domain. The continuity of these high grade zones vary from good continuity in the heart of the deposit and dissipate on the margins of the deposit.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Shiraz mineralized domain is approximately 700m long and has a down dip extent of 150m in the southern end of the deposit and is open at depth. The deposit consists of a main lode that varies between 2m and 25m thick with numerous parallel & sub-parallel lodes at various stages along the length of the deposit.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	• Grade estimation of Shiraz deposit was completed using two separate methods: (1) Ordinary Kriging (OK) in Surpac software and (2) Multiple Indicator Kriging (MIK) using GS3 software. Variogram analysis and modelling for the OK estimate was completed using Supervisor software. Two meter composites were generated from the drillhole database and then tagged according mineralized wireframes generated at a 0.4g/t gold grade cut-off. The wireframe modelling conditions included, a minimum down-hole mineralisation width of 2 meters, internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.4 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was permissible (typically used trouser legs on the fringes of the main lode).
		• The data was review through disintegration analysis and reviewing the raw statistics to determine whether applying a top-cut was necessary. It was decided a top-cut was unwarranted, therefore all estimates were run as Uncut. The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with range of maximum continuity along the main axis of 26m. Separate variograms were also generated for the MIK estimate, based on the different ranked grade thresholds; metal variograms were also generated.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such	• A previous estimate of the Shiraz deposit was completed in 2000 by Abelle Mining. The historical estimate appears to have been constructed at a much higher

Criteria	JORC Code explanation	Commentary
	data.	grade cut-off and is non-comparable with either of the two BMGS estimates. Therefore comparisons can only be made between the two recent estimates. The comparison demonstrates that the metal accumulation between models is generally comparable with a slight fall in the MIK estimate. This is most likely a result of the broader domain boundaries used in the MIK estimate.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products. However it is understood that there is a refractory component, as mineralisation is associated with a sulphide assemblage including arsenopyrite.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• A review of deleterious elements or other non-grade variables was undertaken. Out of the available 8,644 samples 5,329 had been analysed for arsenic (As). It was established that an arsenic-gold correlation was present and with the As refractory component being responsible for expected lower recoveries using traditional CIL processing methods and given that almost 60% of the dataset was assayed for As, As was then estimated. The arsenic was estimated using id2 estimation methods, with similar search criteria used for the Au estimation. The blocks which did not estimate a value were then allocated the block mean grade by domain (Ore- 2815ppm and Waste- 823ppm). Given that the majority of the available As data was evenly spread in the southern extent of the deposit the arsenic estimate itself is considered representative. The northern extent of the deposit was not assayed for arsenic and this proportion of the estimate is considered inaccurate.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with subcelling to 2.5m Y 2.5m X and 1.25m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the variography with a cascading five pass estimation used to populate cells. The first estimation pass utilized a minimum of 12 and maximum of 32 samples without octant constraints. The search criteria were then changed for the remaining estimation passes. The MIK model was constructed using a block size of 20m Y 20m X and 10m Z.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width assuming an open pit mining operation using excavators of approximately 120 tonnes.
	• Any assumptions about correlation between variables.	• Although a semi correlation between As and Au exist at Shiraz, no correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The geology of the deposit is classified as an Archean orogenic shear hosted deposit. The mineralisation is confined to an altered sequence of the Shiraz Dolerite. The alteration sequence is characterized by 5-25% veining, and the presence of associated blue quartz and arsenopyrite, pyrrhotite and trace pyrite mineralisation.
	• Discussion of basis for using or not using grade cutting or capping.	
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by onscreen visual validation of block grades vs. drill hole assays in sectional view. Line graphs were also generated to show comparison between composite input grades and block output grades over 25m intervals (in both northing and easting directions) through the entire deposit to ensure the composite data was accurately

Criteria	JORC Code explanation	Commentary
		reflected in the model. The OK model was also compared to the MIK estimate to ensure the estimates were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.4g/t. This value was determined by visual assessment of grade continuity. The mineralised envelope adopted for the MIK estimate was slightly broader with a continuity of 0.2g/t Au.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Shiraz deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods using excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximately 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical assumptions have been made in respect to the generation of the estimate. This will be undertaken in the advent that the resource is converted to an Ore Reserve. Metallurgical testwork is currently being undertaken by Panoramic as part of the broader Gidgee Gold Project feasibility study.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The potential environmental implication of mining Shiraz relates to the presence of elevated arsenic levels. This issue will need to be considered in any future mining proposal.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• No Bulk density (BD) determinations have been completed on the Shiraz Project, however determinations were performed on the nearby Wilsons Project, which is hosted in the same stratigraphic dolerite sequence. The densities applied to the Shiraz Deposit are based the Wilsons density data. The assigned density values are; Oxide - 2.0g/cm^3, Transitional - 2.4 g/cm^3 and Fresh - 2.8 g/cm^3.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	• The classification of the OK resource has been weighted by strong geological continuity within the Indicated resource area (>80% of the resource), with weaker continuity observed in the Inferred resource area (<20% of the resource). The classification of the MIK estimate is heavily influenced by the search parameters applied. • Two diamond drill holes are present at Shiraz; located at the northern and southern limits of the deposit. The

Criteria	JORC Code explanation	Commentary
		southern extent of the deposit has a higher drill density spacing of 20x10m compared with the northern extent which is less densely drilled at 40x20m. • The gold mineralisation is highly continuous over a 750m strike length within an altered sequence of the Shiraz Dolerite. The bulk of the resource has been classified as Indicated, including the less densely drilled northern extent of the deposit (although intuitively the northern extent is of lower confidence).
	• Whether the result appropriately reflects the Competent Person's view of the deposit.	• The Mineral Resource estimate reflects the competent person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No audits or reviews of the Mineral Resource estimate have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012.
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	• The resource estimate relates to a global estimate of tonnes and grade.
	• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• A small shallow oxide pit is present at Shiraz and is approximately 100m in strike and 30m in vertical depth. Detailed reconciliation data specific to Shiraz pit is unavailable and no mine specific comparisons have been undertaken. The pit volume has been excluded from the Shiraz Mineral Resource estimate.

Gidgee – Wilsons

Wilsons – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled using Reverse Circulation (RC), Aircore (AC) and Diamond drilling (DD) techniques. A total of 213 RC holes for a total of 19,400m, 4 AC holes for 195m and 162 diamond holes for 53,328m. • The drill spacing was nominally 40m * 40m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down using a (cone and riffle splitter) to approximately 3kg sample sizes. • Diamond holes were typically NQ in diameter and were sampled by cutting the core in half over geologically logged intervals that typically ranged between 30cm and 1.2m. • All samples were submitted to ALS Wangara for analysis by Fire Assay. Field and laboratory duplicates and analytical standards were routinely inserted to quantify QAQC performance.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are RC drilling and DD drilling. The RC drilling was completed utilizing a 5 ¼ inch face sampling hammer. • The Diamond drilling was typically NQ2 (50mm) diameter core • All Panoramic core was oriented where possible using "Ori-Mark" system.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• RC sample recoveries were monitored by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were >90% • Core recovery is noted during drilling process and geological logging process as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. • No apparent relationships were noted in relation to sample recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All drill holes were geologically logged. • Both chip and core samples have been logged in sufficient detail using Panoramic's lithological codes to support geological confidence in Mineral Resource Estimates. • Logging detailed lithology, alteration, mineralisation, weathering, oxidation, veining and structural features if available.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• All diamond core was half core sampled using an electric diamond core saw. The minimum sample length was 0.3m. • All RC samples were collected in 1m intervals through drill rig cyclone system and then split via (riffle and cone splitters) to produce a ~3kg assay sample. • Sample preparation process for all samples submitted followed industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverizing the sample to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. • The sample sizes used are those typically used throughout the goldfields and are considered appropriate to this style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge) • All analytical data generated by direct laboratory assaying. No field estimation devises were employed. • QAQC has been routinely completed during all sampling. The QAQC results indicate that the assays being used in the estimate are a fair representation of the material that has been sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for diamond core samples. The CRM quartz wash blank was also inserted at the beginning of each diamond core assay batch and where possible immediately prior to the mineralised intervals.

Criteria	JORC Code explanation	Commentary
		• Quarter core field duplicates were submitted at a rate of 1 in 20 samples. For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at a rate of 1 in 20 samples for both RC and DD drilling.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• The deposit is very continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike give strong confidence in the verification of the grade and style of deposit.
	• The use of twinned holes.	• No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. Virtually all drilling confirmed expected geological and mineralogical interpretations.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data except for replacing negatives with half detection limit numerical values.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down hole surveys were routinely performed every 30m using a range of electronic multi-shot (EMS) tool. Gyroscopic surveys were completed as verification on the EMS surveys on all Panoramic drill holes or 95% of the total drilling. The gyroscopic data confirmed the reliability of the EMS surveys.
	• Specification of the grid system used.	• The grid system used in the resource estimate is a local grid system which is rotated 13.5 degrees to the west of MGA_GDA94 Zone 50. • Conversion from local grid to MGA GDA94 Zone 50 is based on a two point transformation: 10000E, 7080N = 744294.62E, 6996202.93N 10000E, 8560N = 743940.53E, 6997640.12N
	• Quality and adequacy of topographic control.	• A Wilsons surface topography DTM was acquired with the purchase of the Project from Apex. The origin of the DTM is unclear, but accurately surveyed drill hole collar RLs agree closely with the DTM.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• The drilling density is on a nominal 40m by 40m spacing through the majority of the deposit. This spacing is sufficient to give strong geological and mineralogical confidence in the style of the deposit being estimated.
	• Whether sample compositing has been applied.	• Sample compositing to 1m intervals has been completed to try and represent selective mining units that would be typical in an underground environment.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible.
	• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All sampling techniques were by accepted industry standards. No audits or reviews have been undertaken.

Wilsons – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Data is collected in excel templates and imported into Panoramic's SQL database using Datashed import and validation software to ensure appropriate values are being imported into correct fields. All geological and assay information is printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation is completed internally in SQL by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The author has visited the site previously, though not specifically for this round of work. Panoramic staff managed the 2013 drilling programme and were integral in the development of the geological model and mineralisation interpretations.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is high confidence in the geological understanding of the deposit. There is a strong relationship between grade and logged alteration. The gold mineralisation is of a consistent grade and 1m composites of the mineralised zone indicate a very good, low coefficient of variation of < 1.1.
	• Nature of the data used and of any assumptions made.	• The data used for the resource estimate was from RC and diamond drilling. Raw assays were composited to 1m to provide equal sample weights. Short composites were normalized to 1m via accumulation with grade value.
	• The effect, if any, of alternative interpretations on Mineral Resource estimation.	• No alternative interpretations were considered.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• The geological controls relate strongly with the mineralisation interpretation. The deposit is essentially strata hosted within a shear zone (Wilsons shear) adjacent to the contact with a dolerite sill (Wilsons Dolerite).
	• The factors affecting continuity both of grade and geology.	• Geological and grade continuity is strong within the Wilsons shear.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The greater Wilsons mineralisation is approximately 0.6km long and has a down dip extent of >700m (open at depth). The deposit consists of a main lode containing three distinct shoots (Wilsons 1, 2 & 3) that vary between 1m and 12m thick. Wilsons 1 contains several footwall lodes.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	• Grade estimation of the Wilsons deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modelling was completed using supervisor software. 1m composites were generated from the drill hole database and then tagged according to mineralized wireframes generated at a 1g/t lower gold grade for low grade domains and 2g/t gold grade for high grade domains. The wireframe modelling conditions included, minimum down hole width of 1 meters of mineralisation, internal dilution of up to 2m down hole could be included if the entire intercept graded above 1 or 2g/t respectively. If dilution was greater than 2m then separate lodes were generated. • The coded composites were reviewed in supervisor; top cut analysis was completed using disintegration analysis and use of coefficient of variation. Domain grades were top cut. The cut dataset was then log transformed to review variograms and generate variomodels. Variomodels generated confirmed geological continuity. The variomodel had a moderate nugget with range of

Criteria	JORC Code explanation	Commentary
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	maximum continuity along main axis of 234m. • A previous estimate of the Wilsons deposit was completed in 2008. This was used as a guide and comparative tool for validation purposes with the current estimate. • No assumptions have been made about gold grade recovery or the recovery of related by-products. • Other elements including S and As have been estimated where data was present. Only recent 2013 drilling has results relating to these elements and as such the estimates of the elements are considered to be of low confidence. • The block model was constructed with a parent cell size of 20m Y 5m X and 5m Z with sub-celling to 5m Y 1.25m X and 1.25m Z. All estimation is completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 40m. The size of the search ellipse was based on the variography with 2 estimation passes used to populate cells. The first estimation pass utilised a minimum of 4 samples and maximum of 16 samples with 4 octants of the ellipse requiring data to allow estimation. • The composites were generated at 1m down hole and the ore wireframes were maintained at a minimum width of 1m down hole to try and represent a minimum selectable size assuming narrow vein underground mining operations. • No correlations between grade variables have been assumed. • The geology of the deposit consists of a sheared mafic metasedimentary unit adjacent to a dolerite sill. The mineralisation interpretation is consistent with a shear zone in the metasedimentary unit. • Top cut analysis was completed using disintegration analysis and use of coefficient of variation. Estimates were generated using cut and uncut grades to demonstrate the influence of outliers. • Validation of the resource estimate was completed by visual validation of block grades versus drill hole assays in sectional view on computer. Line graphs were generated to show comparison between composite input grades and output block grades over 20m RL intervals through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were reasonable.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involves drying the sample for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modelled on a gold lower grade cut-off of 1g/t and 2g/t. These values were determined by visual assessment of grade continuity in Surpac.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Wilsons resource has been modelled under the assumption that it will be mined by narrow vein underground methods. This would typically involve some configuration of open stoping to extract down to 1 or 1.5m wide mineralisation. Mineralisation wireframes were constructed based on minimum thickness of 1m downhole intercepts to resolve smallest possible mining selectivity.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Assumptions based on typical metallurgical recoveries for a deposit such as Wilsons have not been made in respect to the generation of this Mineral Resource estimate. • Metallurgical assumptions (based on test-work results) will be applied during the mine planning and conversion of resource to ore reserve stage of the Project BFS.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No material environmental concerns have been identified. Wilsons is located on a brownfields site with existing environmental disturbance.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density (BD) determinations have been completed on core samples by Archimedes water immersion method to determine BD of in-situ material. A total of 3,553 BD determinations are recorded in the Wilsons database, 1,140 historic and 2,413 by Panoramic. • The host rock type for mineralisation and surrounding mafic material is non-porous and void-space porosity is not considered to be of relevance to the measurements. • An average BD for each of the main lithological rock types was calculated using the recorded measurements. The assay table in the database was tagged with the actual BD or the average value based on rock type grouped averages. The density value was then extracted with the gold grade in the 2m composite file and composited based on the underlying rock type. The densities were then estimated using the Variogram models and search parameters for the gold waste domains. Average fresh rock density was calculated as 2.92g/cm³, oxide and transitional materials were assigned values of 2.00g/cm³ and 2.30g/cm³ respectively.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the resource has been based on strong geological confidence with 40m*40m spaced RC and diamond drilling. Gold mineralisation is highly continuous over its strike length and is effectively strata bound. • It is the author's opinion that all appropriate data and factors have been addressed and taken into account for this estimate. • The mineral resource reflects the competent person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• This work has been peer reviewed by BMGS personnel other than the author.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012

Criteria	JORC Code explanation	Commentary
	relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The resource estimate relates to a global estimate of tonnes and grade. • Good correlation exists between the estimated resources constrained within the historical Wilsons 1, 2 & 3 open pits and production data for the same volume.

Mt Henry – Mt Henry

Mt Henry – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit has been extensively sampled using Reverse Circulation (RC) and Diamond drilling (DD) techniques. The Mt Henry (MH) resource database subset contains 688 RC & DD holes for a total of 55,428m. Of this total 44 RC & DD holes totalling 6,522m were drill in 2013 by Panoramic as part of a Project feasibility study. In addition the database contains 221 RAB & Aircore holes (totalling 2,607m) which have not been used for resource estimation. • The grid drill spacing is typically 25m * 25m over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting then down using either on-board rig or manual riffle splitters to produce an assay sample of ~3kg size. • Diamond holes are typically NQ2 (NQ for some historical holes) & occasionally HQ size and were sampled by cutting the core in half or quarter for the HQ core over geologically logged intervals between 20cm and 1m in length. • All (2,793) recent Panoramic resource assay samples were submitted to SGS Laboratories in Perth for gold analysis by FA50 (Fire Assay) technique. Of the 36,028 historical RC & DD gold assays in the database, 841 (2.3%) have an unrecorded technique or are by a technique other than Fire Assay. In addition results for 2,744 (7.1%) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are predominantly RC and DD drilling. The RC drilling was typically completed using 5 ¼ inch hammers and recently 5 ¼ inch face sampling hammers. • The DD drilling was typically NQ (47.6mm), and more recently NQ2 (50mm) and HQ (63.5mm) diameter core • HQ size core was typically drilled as geotechnical holes from surface by Panoramic.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• RC sample recoveries were monitored by Panoramic by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were greater than 90%. • Core recovery is noted during drilling and geological logging processes as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. Core recovery is typically 100 percent. • No apparent relationships were noted in relation to sample recovery and grade.

Criteria	JORC Code explanation	Commentary
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All drill holes in the MH resource database subset have been geologically logged. • Both chip and core samples in recent Panoramic drill holes have been logged using geological legends at detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, mineralisation and structural features where noted in drill core. • All mineralised drill intersections and associated samples have been logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Both historical NQ and recent NQ2 core was typically sawn in half and half core sampled. Recent HQ geotechnical core was quarter core sampled where mineralised. Core sample lengths typically varied between 0.2 and 1.0 metre. • The standard RC sample length is 1 metre with samples collected directly from the rig cyclone system. The individual 1m RC samples are then reduced to a 3-5kg assay sample by either automated on-board rig splitters or manually by riffle splitting. • The sample preparation process for all samples submitted for analysis follow accepted industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverising to 85% passing 75 microns. • Quality control procedures have included the insertion of standards, blanks and duplicates to monitor the sampling and analytical process. • The sample sizes used are accepted industry standard sizes used extensively throughout the goldfields and are appropriate for the style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The standard analytical technique used is Fire Assay, mostly by AAS finished. Of the 38,821 RC & DD Au assays in the MH resource database subset, 841 historical assays (2.2%) do not have a recorded technique or are by technique other than Fire Assay. Where non gold analyses exist they are either by AAS or ICP OES determination. • No other geophysical or analytical tools have been used to estimate grade. • QAQC has been completed routinely during all sampling throughout the life of the Project; though less so historically than more recently. The QAQC results indicate that the RC and DD assays being used for resource estimation are a fair representation of the material that has been sampled.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes.	• The deposit is very continuous in terms of mineralisation and grade intercepts. The continuity and consistency of the grade intercepts in section and along strike provides strong confidence in the verification of the grade and style of deposit. The similarity and consistency of intersections reported by past Project owners over many years is further verification of the reliability of the data. • No recent twin holes were completed. Historical twin holes verified mineralisation continuity. In-fill verification holes were completed by Panoramic to test both geological and mineralisation continuity on selected sections. In each instance the expected geological and

Criteria	JORC Code explanation	Commentary
		mineralogical interpretation was confirmed and no major discrepancies were identified.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in logging code protected MS Excel templates on laptops and then imported into the Project SQL database for validation. Sections were then generated and visual validation completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All recent drill collars and where possible historical drill collars have been accurately located by differential GPS. A range of down-hole survey instruments, including single shot, electronic multi-shot and gyroscopic tools have been used. Gyroscopic surveys undertaken by Panoramic and previous companies demonstrate that holes do not deviate significantly from design.
	• Specification of the grid system used.	• The MH drill hole database contains local, AMG and MGA coordinates. The resource has been estimated in local grid which is rotated +1.079 degrees from MGA GDA94 zone 51. • Conversion from local grid to AMG AGD84 zone 51 is based on a two point transformation: 5000E, 14000N = 385844.34E, 6421899.31N 5000E, 6400N = 385701.32E, 6414302.52N
	• Quality and adequacy of topographic control.	• Fugro 2.5m topographic contour data was the primary topographical control. In places this was modified by differential GPS height data.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• The drilling density is on a nominal 25m by 25m spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of deposit being estimated.
	• Whether sample compositing has been applied.	• As a general rule sample compositing has not be used. Sample compositing of RC precollars outside the main mineralised zone was undertaken at times.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Virtually all drilling has been completed perpendicular to the main strike of the deposit geometry and angled to best intercept the west dipping mineralisation. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Little is known about the sample security practices adopted by previous companies. Panoramic samples were freighted in sealed bulka-bags direct from site to the SGS Laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

Mt Henry – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL Server database, with a DataShed frontend, for validation and storage. • Geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • For resource estimation a subset of the SQL database,

Criteria	JORC Code explanation	Commentary
		restricting the data to the Mt Henry Resource area was exported into an MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drilling program and were integral in the development of the geological and mineralisation models. • Site visits were not required as the documented procedures on the recent drilling were deemed appropriate for the style of deposit and the historical drilling had been previously covered in a report released under JORC 2004 guidelines.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is high confidence in the geological understanding of the deposit. There is a strong relationship between grade and a particular stratigraphical unit. The gold mineralisation is of a consistent grade and 2m composites generated of the mineralised zone showed a very good coefficient of variation (<1.5 using a 0.4g/t grade shell envelope) • The data used for the resource estimate was from RC and diamond drilling. Raw assays, typically representing a 1m sample length, were composited to 2m to provide equal sample weights and reduce grade variance. • Three separate mineralised envelopes were considered; grade shells at 0.4, 0.6 and 1.0g/t Au were developed and respective estimates run for each grade shell. It was established through validation of the models that the 0.4g/t Au model was the most representative of grade expected in the mining environment. . • There is a strong geological control to the mineralisation interpretation. The deposit is essentially strata hosted within a sheared Banded Iron Formation (BIF). The shear is essentially contiguous along the upper contact of the BIF and an overlying mafic unit. There is some interpreted supergene mineralisation in the northern extents of the deposit that is controlled by weathering horizons and typically cross cuts stratigraphy at shallow levels. • The geological and grade continuity is strata controlled, there are series of late pegmatites that cross cut mineralisation and lithology. These pegmatites are generally unmineralised and have been modelled into the resource as background 0.1g/t gold grade.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Mt Henry mineralised domain is approximately 2km long and has a down dip extent of 280m and is open at depth. The deposit consists of a main lode that varies between 3m and 40m thick with numerous parallel lodes at various stages along the length of the deposit.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	• Grade estimation of Mt Henry deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modelling was completed using Supervisor software. Two metre composites were generated from the drill hole database and then tagged according to mineralised wireframes generated at a 0.4g/t lower gold grade. The wireframe modelling conditions included a minimum downhole mineralisation width of 2m; internal dilution of up to 3m could be included if the entire intercept graded above 0.4 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was supported by nearby holes. The coded composites were reviewed in Supervisor; top cut analysis was completed using disintegration analysis and the impacts the cuts made to the coefficient of variation. One outlying grade at 1810g/t was cut to 100g/t. The cut dataset was then normal

Criteria	JORC Code explanation	Commentary
		scores transformed to generate variogram models. Variogram models generated confirmed geological stratigraphy as the key controlling factor on mineralisation. The variogram models had moderate to low nuggets with a range of maximum continuity along main axis of 73m.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the Mt Henry deposit was completed in 2009. This was used as a guide and comparative tools for validation purposes with the current estimate.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• A review of deleterious elements or other non-grade variables was undertaken. It was decided that there was insufficient data on other elements to reliably estimate their distribution. Regression analysis conducted between Au, and Fe, Cu, S and As found no correlation.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The block model was constructed with a parent cell size of 20m Y, 10m X, and 10m Z with subcelling to 10m Y, 2.5m X, and 2.5m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 25m sections for the southern section of the deposit with the northern extents stepping down to 20m sections. Drill spacing across sections is typically 20m. The size of the initial search ellipse was based on the variography with a cascading four pass estimation used to populate cells. The first estimation pass used a minimum of 12 and maximum of 32 samples with no octants constraints of the ellipse preventing estimation. The search criteria were then changed for the remaining estimation passes.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole in order to represent a likely minimum mining width, assuming open pit mining operations using 120 tonne excavators.
	• Any assumptions about correlation between variables.	• No correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The geology of the deposit is similar in many respects to the nearby Selene Deposit. Mineralisation is confined to a series of shears within the silicate facies, Banded Iron Formation (Noganyer Formation). The footwall to the BIF is a metamorphic sedimentary schist unit and the hanging wall is defined by mafic flows and dykes of the Woolyeener Formation. The vast majority of the mineralisation is confined to a single shear running contiguously along the upper contact of the BIF Noganyer Formation and the overlying Woolyeener Formation. The mineralisation interpretation is consistent with the shape and continuity of this BIF unit contact zone.
	• Discussion of basis for using or not using grade cutting or capping.	
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by onscreen visual validation of block grades vs. drill hole assays in sectional view. Line graphs were also generated to show comparison between composite input grades and output block grades over 50m intervals on Northing spacings and 10m bench heights in elevation, through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modelled on a gold lower grade cut-off of 0.4g/t Au. This value was determined by visual assessment of grade continuity in Surpac. Models were also generated at 0.6 g/t and 1.0g/t Au cut-off grades for comparison.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Mt Henry deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, using excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and use of 120 tonne excavators with a bucket of approximately 2m width. Mineralisation wireframes were constructed based on minimum thickness of 2m downhole in order to replicate the smallest possible mining selectivity.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical assumptions have been made in respect to the generation of the estimate however recent metallurgical test work had been performed as part of a feasibility study of the greater Mt Henry gold project being undertaken by Panoramic. This work has shown that recoveries greater than 90% Au can be achieved using conventional CIL extraction methods.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The current data available doesn't suggest there are any high-level environmental risks with mined waste by-products. If mining were to commence all statutory requirements would be implemented to comply with waste by-product management.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• A total of 2,501 bulk density (BD) determinations are recorded in the Mt Henry resource database subset. Panoramic completed most of these with measurements on 2,104 whole core samples by Archimedes water immersion method. There are a small number of historical measurements by pycnometer (7HENC115 & 7HENC116 for 54 samples) and down hole geophysical tool (NHC127, NHD120 and NHD121 for 343 one metre intervals). This data was used to generate a default SG for all lithological types. The default was then assigned to unmeasured intervals, and the density was estimated. • The host rock type for mineralisation and surrounding mafic material is non-porous and void space porosity is not considered to be of relevance to the measurements. • BD estimation for the resource was generated by grouping the 2501 recorded measurements by rock type to provide an average SG for each of the main lithological rock types. The assay table in the database was tagged with the actual BD or an average value based on rock type grouped average. The BD value was then extracted with the Au grade in the 2m composite file. The densities were estimated using the Variogram models and search parameters for the various domains.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade	• The classification of the resource has been based on the Competent Person's strong confidence in the geological model; weighted by the strong geological confidence with 25*25m spaced RC and diamond drilling and 20m*20m

Criteria	JORC Code explanation	Commentary
	estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	spaced drilling through northern extents of deposit and the demonstrable consistency and continuity of the mineralisation (gold mineralisation is highly continuous over a 2.0km strike length and is strata bound). • The mineral resource reflects the competent person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Apart from BMGS's own internal audit process no audits or reviews of the Mineral Resource estimate have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012. • The resource estimate relates to a global estimate of tonnes and grade. • No reliable production data exists for the small open pit operated within the confines of the Mt Henry resource by Australis Mining in the 1980s to compare with this resource estimate.

Mt Henry – North Scotia

North Scotia – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit has been extensively sampled using Reverse Circulation (RC) and Diamond drilling (DD) techniques. The North Scotia (NS) database resource subset contains 193 RC & DD holes for a total of 13,573m. Of this total 16 RC & DD holes totalling 933.5m were drill in 2013 by Panoramic as part of a Mt Henry Project feasibility study. In addition the database contains 155 Aircore (totalling 2,915m) which have not been used for resource estimation. • The drill spacing is typically 20m *20m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down using either on-board rig or manual riffle splitters to produce an assay sample of~3kg. • Diamond holes were typically NQ2 & occasionally HQ in size and were sampled by cutting the core in half or quarter for the HQ core over geologically logged intervals between 20cm and 1m in length. • All (579) recent Panoramic resource assay samples were submitted to SGS Laboratories in Perth for gold analysis by FA50 (Fire Assay) technique. Of the 11,753 historical RC & DD gold assays in the database, 1,430 (12.2%) have an unrecorded technique or are by a technique other than Fire Assay. In addition results for 1,353 (11.0%) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are predominantly RC and DD drilling. The RC drilling was typically completed using a 5 ¼ inch hammer and recently 5 ¼ inch face sampling hammers. • The DD drilling was typically NQ (47.6mm), and more recently NQ2 (50mm) and HQ (63.5mm) diameter core • HQ size core was typically drilled as geotechnical holes

Criteria	JORC Code explanation	Commentary
		from surface by Panoramic.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples.	• RC sample recoveries were monitored by Panoramic by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were greater than 90%. • Core recovery is noted during drilling and geological logging processes as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. Core recovery is typically 100 percent.
	• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• No apparent relationships were noted in relation to sample recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• All drill holes in the NS resource database have been geologically logged. • Both chip and core samples in recent Panoramic drill holes have been logged using geological legends at detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, mineralisation and structural features where noted in drill core.
	• The total length and percentage of the relevant intersections logged.	• All mineralised drill intersections and associated samples have been logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Both historical NQ and recent NQ2 core was typically sawn and half core sampled. Recent HQ geotechnical core was quarter core sampled where mineralized. Core sample lengths typically varied between 0.2 and 1.0 metre.
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• The standard RC sample length is 1 metre with samples collected directly from the rig cyclone system. The individual 1m RC samples are then reduced to a 3-5kg assay sample by either automated on-board rig splitters or manually by riffle splitting.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• The sample preparation process for all samples submitted for analysis follow accepted industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverising to 85% passing 75 microns.
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	• Quality control procedures have included the insertion of standards, blanks and duplicates to monitor the sampling and analytical process.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• The sample sizes used are industry standard sizes used extensively throughout the goldfields and are appropriate for the style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• The standard analytical technique used is Fire Assay, mostly by AAS finish. Of the 12,332 RC & DD Au assays in the NS resource database 1,430 historical assays (11.6%) do not have a recorded technique or are by technique other than Fire Assay. Where non gold analyses exist they are either by AAS or ICP OES determination.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No other geophysical or analytical tools have been used to estimate grade.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• QAQC has been completed routinely during all sampling throughout the life of the Project; though less so historically than more recently. The QAQC results indicate that the RC and DD assays being used for

Criteria	JORC Code explanation	Commentary
		resource estimation are a fair representation of the material that has been sampled.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• The North Scotia deposit is a classic "Norseman style quartz vein" type. Gold mineralisation is nuggetty within the veins with coarse visible gold not uncommon.
	• The use of twinned holes.	• No recent twin holes were completed. In-fill verification holes were completed by Panoramic to test both geological and mineralisation continuity on selected sections. In most instances the expected geological and mineralogical interpretation was confirmed and no major discrepancies were identified.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in logging code protected MS Excel templates on laptops and then imported into the Project SQL database for validation. Sections were then generated and visual validation completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All recent drill collars and where possible historical drill collars have been accurately located by differential GPS. A range of down-hole survey instruments, including single shot, electronic multi-shot and gyroscopic tools have been used. Gyroscopic surveys undertaken by Panoramic and previous companies demonstrate that holes do not deviate significantly from design.
	• Specification of the grid system used.	• The NS drill hole database subset contains local, AMG and MGA coordinates. The resource has been estimated in local grid which is rotated +1.079 degrees from MGA_GDA94 zone 51. • Conversion from local grid to AMG AGD84 zone 51 is based on a two point transformation: 5000E, 14000N = 385844.34E, 6421899.31N 5000E, 6400N = 385701.32E, 6414302.52N
	• Quality and adequacy of topographic control.	• Fugro 2.5m topographic contour data was the primary topographical control. In places this was modified by differential GPS height data.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• The drilling density is on a nominal 20m by 20m spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of deposit being estimated.
	• Whether sample compositing has been applied.	• As a general rule sample compositing has not be used. Sample compositing of RC precollars outside the main mineralized zone was undertaken at times.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Virtually all drilling has been completed perpendicular to the main strike of the deposit geometry and angled to best intercept the west dipping mineralized vein system. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Little is known about the sample security practices adopted by previous companies. Panoramic samples were freighted in sealed bulka-bags direct from site to the SGS Laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

North Scotia – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL Server database, with a DataShed frontend, for validation and storage. • All geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • For resource estimation a subset of the SQL database, restricting the data to the North Scotia Resource area was exported into MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drilling program. The new interpretation was constructed by using the original Cube 2009 wireframes and adjusting the shapes based on the new drill results.
	• If no site visits have been undertaken indicate why this is the case.	• Site visits were not required as the documented procedures on the recent drilling were deemed appropriate for the style of deposit and the historical drilling had been previously covered in a report released under JORC 2004 guidelines.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is moderate confidence in the deposit. The deposit is a structurally controlled auriferous quartz vein system. The deposit has a high grade nuggetty nature; the nuggetty gold mineralisation is disseminated throughout one to five metre wide laminated quartz veins that dip around 70° towards the west. Minor pyrite and galena is also present in the veins.
	• Nature of the data used and of any assumptions made.	• The data used for the resource estimate was from RC and diamond drilling. Raw assays were composited to 2m to provide equal sample weights and reduce grade variance.
	• The effect, if any, of alternative interpretations on Mineral Resource estimation.	• No alternative interpretations were considered.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• The geological logging was used to generate the interpretation. Vein/mineralisation wireframes were allowed to pass through sub-mineralised drill hole zones where the Quartz veining was logged but returned little to barren grades. It is believed this method is acceptable, as long as the block data is reflective of the raw data on a localised scale.
	• The factors affecting continuity both of grade and geology.	• The mineralisation is vein hosted, typically around 2 to 5metre wide zones, continuity along strike appears to be reasonable and there appears to be some slight dilational jogs, which is observed within the geology of the historical Scotia pit (commentary provided by Panoramic Geologist).
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The North Scotia mineralized domain is approximately 450m long and has a down dip of extent of 110m and is open at depth. The deposit consists of multiple NNE trending quartz lodes that vary between 1m and 5m in true thickness with numerous thinner parallel lodes at various stages along the length of the deposit.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining,	• Grade estimation of North Scotia deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modelling was completed using

Criteria	JORC Code explanation	Commentary
	interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	supervisor software. Two meter composites were generated from the drill hole database and then tagged according to mineralized wireframes generated at a 0.8g/t gold grade. The wireframe modelling conditions included, a minimum downhole width of 2 meters of mineralisation, internal dilution of up to 2m downhole could be included if the entire intercept graded above 0.8 g/t. If dilution was greater than 2m then separate lodes were generated. • The coded composites were reviewed in Supervisor; top-cut analysis was completed using disintegration analysis and the use of coefficient of variation statistics. Top-cuts were applied on a domain basis with a maximum top-cut of 30g/t on FW1 lode and 7g/t & 4g/t on the HW1 and HW2 lodes respectively (remaining lodes were left un-cut). The cut dataset was then transformed by normal scores to review variograms and generate variogram models. The variogram models had high to low nuggets and varied for each domain, with a range of maximum continuity along the main axis varying for each domain between 20 to 40m.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the North Scotia deposit was completed in 2009. This was used as a guide and comparative tools for validation purposes with the current estimate.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• Only gold was estimated; no other elements were estimated. Insufficient multi-element data was available and was deemed to be of no relevance and to have a spatial distribution too sparse for adequate estimation.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The block model was constructed with a parent cell size of 10m Y, 5m X, and 10m Z with subcelling to 2.5m Y, 1.25m X, and 1.25m Z. All estimations were completed at the parent cell resolution. Data spacing is typically on 20 x 20m spacings for the majority of the deposit. The size of the search ellipse was based on the variography with two estimation passes used to populate all cells. The first estimation pass used a minimum of 3, and maximum of 15 samples, with an ellipsoid based approach. Two separate estimation methods were employed, an Ordinary Kriged and Inverse Distance ^2 (ID2) was also performed on the top-cut dataset.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to try and represent a minimum selectable size assuming open pit mining operations using 120 tonne excavators.
	• Any assumptions about correlation between variables.	• No correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The geology of the deposit consists of Archaean mafics of the Woolyeenyer formation (predominately Mafic Basalt/Dolerite), with late stage cross-cutting pegmatite dykes and a very shallow weathering profile of Quaternary saprolite clays. There is no evidence of supergene mineralisation at North Scotia. All mineralisation is associated with the primary quartz vein system.
	• Discussion of basis for using or not using grade cutting or capping.	• Top-cut analysis was completed using disintegration analysis and use of coefficient of variation statistics. Fourteen outlying grades were cut which differed on a domain basis (FW1- number of samples top-cut 3, top-cut applied 30g/t; HW1- number of samples top-cut and top-cut applied was 7; HW2- number of samples top-cut and top-cut applied was 4). Only cut estimates were provided.

Criteria	JORC Code explanation	Commentary
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by visual validation of block grades vs. drill hole assays in sectional view on computer. Given the thin nature of the deposit a volume check was performed to ensure the block volume was reflective of the 3dm volume. With a volume variance less that 1%, the coding in the model was deemed acceptable. Validation comparisons were made by comparing the mean composite grades to the block estimate grades on a domain basis. This was to ensure the estimate was reflective of the data used to generate it.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modelled on a gold grade cut-off of 0.8g/t. The cut-off selection was left unchanged from that used in the 2009 resource.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The North Scotia deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, using excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and use of 120 tonne excavators with a bucket width of approximately 2m. Mineralisation wireframes were constructed based on minimum downhole intercept thickness of 2m in order to replicate the smallest possible mining selectivity.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical assumptions have been made in respect to the generation of the estimate. • The understanding is that the anticipated recovery from metallurgical test work completed by Panoramic as part of a broader Mt Henry Gold Project feasibility study is in the order of 95% recovery using a conventional CIL process.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• If mining were to commence appropriate measures would be implemented to ensure correct containment of waste by-products.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density (BD) determinations have been completed on 279 core samples by Archimedes water immersion method to determine BD of insitu material. The measurements were performed on whole core samples by Panoramic from recently drilled diamond holes (SCO* series holes). A small number of historical pycnometer measurements (7SSC* series for 58 samples) also exist. • Both the waste and host rock type for mineralisation is typically non-porous and void space porosity is not considered to be of relevance to the measurements. • Default densities were assigned to the model based on the specific gravities used in the previous models. The

Criteria	JORC Code explanation	Commentary
		default values were verified by the recent BD work. The densities applied were Alluvium 1.8 g/cm³, Qtz Reef 2.65 g/cm³, Pegmatite 2.7g/cm³, Oxide Mafic 1.8 g/cm³, Transitional Mafic 2.1 g/cm³ and Fresh Mafic 3 g/cm³.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the resource has been based on strong geological confidence with 20*20m spaced RC and diamond drilling. The gold mineralisation is moderately continuous over a 450m strike length and is laminated vein hosted. The classification was applied to the model using the estimation pass and a string constraint applied to limit the potential overcall in classification down dip. • The mineral resource reflects the competent person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Apart from BMGS's own internal audit process no audits or reviews of the Mineral Resource estimate have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012 • The resource estimate relates to a global estimate of tonnes and grade. • No mining data is available for comparison.

Mt Henry – Selene

Selene – Table 1, Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit has been extensively sampled using Reverse Circulation (RC) and Diamond drilling (DD) techniques. The Selene (Mt Henry Project) resource database subset contains 284 RC & DD holes for a total of 25,830m. Of this total 14 RC & DD holes totalling 2,005m were drill in 2013 by Panoramic as part of a Project feasibility study. In addition the database contains 10 RAB & Aircore holes (totalling 133m) which have not been used for resource estimation. • The drill grid spacing is typically 40m * 40m over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down using either on-board rig or manual riffle splitters to produce an assay sample of ~3kg size. • Diamond holes were typically NQ2 (NQ for some historical holes) & occasionally HQ size and were sampled by cutting the core in half or quarter for the HQ core over geologically logged intervals between 20cm and 1m in length. • All (847) recent Panoramic resource assay samples were submitted to SGS Laboratories in Perth for gold analysis by FA50 (Fire Assay) technique. Of the 15,528 historical RC & DD gold assays in the database, 457 (2.9%) have an un-recorded technique or are by a technique other

Criteria	JORC Code explanation	Commentary
		than Fire Assay. In addition data on 1,059 (6.5%) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are predominantly RC and DD drilling. The RC drilling was typically completed using 5 ¼ inch hammers and recently 5 ¼ inch face sampling hammers. • The DD drilling was typically NQ (47.6mm), and more recently NQ2 (50mm) and HQ (63.5mm) diameter core • HQ size core was typically drilled as geotechnical holes from surface by Panoramic.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples.	• RC sample recoveries were monitored by Panoramic by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were greater than 90%. • Core recovery is noted during drilling process and geological logging process as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. Core recovery is typically 100 percent.
	• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• No apparent relationships were noted in relation to sample recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• All drill holes in the Selene resource database have been geologically logged. • Both chip and core samples in recent Panoramic drill holes have been logged using geological legends at detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, mineralisation and structural features where noted in drill core.
	• The total length and percentage of the relevant intersections logged.	• All mineralised drill intersections and associated samples have been logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Both historical NQ and recent NQ2 core was typically sawn in half and half core sampled. Recent HQ geotechnical core was quarter core sampled where mineralised. Core sample lengths typically varied between 0.2 and 1.0 metre.
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• The standard RC sample length is 1 metre with samples collected directly from the rig cyclone system. The individual 1m RC samples are then reduced to a 3-5kg assay sample by either automated on-board rig splitters or manually by riffle splitting.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• The sample preparation process for all samples submitted for analysis follow accepted industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverising to 85% passing 75 microns.
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	• Quality control procedures have included the insertion of standards, blanks and duplicates to monitor the sampling and analytical process.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• The sample sizes used are accepted industry standard sizes used extensively throughout the goldfields and are appropriate for the style of deposit.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• The standard analytical technique used is Fire Assay, mostly by AAS finished. Of the 16,886 RC & DD Au assays in the Selene resource database, 457 historical assays (2.7%) do not have a recorded technique or are by technique other than Fire Assay. Where non gold analyses exist they are either by AAS or ICP OES determination.

Criteria	JORC Code explanation	Commentary
	• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No other geophysical or analytical tools have been used to estimate grade.
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• QAQC has been completed routinely during the life of the Project; though less so historically than more recently. The QAQC results indicate that the RC and DD assays being used for resource estimation are an accurate representation of the sampled material.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• The deposit is very continuous in terms of mineralisation and grade intercepts. The continuity and consistency of the grade intercepts in section and along strike provides strong confidence in the verification of the grade and style of deposit. The similarity and consistency of intersections reported by past Project owners over many years is further verification of the reliability of the data.
	• The use of twinned holes.	• No recent twin holes were completed. Historical twin holes verified mineralisation continuity. In-fill verification holes were completed by Panoramic to test both geological and mineralisation continuity on selected sections. In each instance the expected geological and mineralogical interpretation was confirmed and no major discrepancies were identified.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Logging was completed in logging code protected excel templates on laptops and then imported into the Project SQL database for validation. Sections were then generated and visual validation completed to ensure integrity of the data.
	• Discuss any adjustment to assay data.	• No adjustments were made to assay data.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All recent drill collars and where possible historical drill collars have been accurately located by differential GPS. A range of down-hole survey instruments, including single shot, electronic multi-shot and gyroscopic tools have been used. Gyroscopic surveys undertaken by Panoramic and previous companies demonstrate that holes do not deviate significantly from design.
	• Specification of the grid system used.	• The Selene drill hole database contains local, AMG and MGA coordinates. The resource has been estimated in local grid which is rotated +1.25 degrees from MGA GDA94 zone 51. • Conversion from local grid to AMG AGD84 zone 51 is based on a two point transformation: 4400E, 6000N = 385096.84E, 6413919.03N 4400E, 2000N = 385009.80E, 6409920.95N
	• Quality and adequacy of topographic control.	• Fugro 2.5m topographic contour data was the primary topographical control. In places this was modified by differential GPS height data.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• The drilling density is on a nominal 40m by 40m spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of deposit being estimated.
	• Whether sample compositing has been applied.	• As a general rule sample compositing has not be used. Sample compositing of RC precollars outside the main mineralised zone was undertaken at times.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Virtually all drilling has been completed perpendicular to the main strike of the deposit geometry and angled to best intercept the west dipping mineralisation. • No sampling bias is apparent from the direction of drilling.

Criteria	JORC Code explanation	Commentary
Sample security	• The measures taken to ensure sample security.	• Little is known about the sample security practices adopted by previous companies. Panoramic samples were freighted in sealed bulka-bags direct from site to the SGS Laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

Selene – Table 1, Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	• Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL Server database, with a DataShed frontend, for validation and storage. • Geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format.
	• Data validation procedures used.	• Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • For resource estimation a subset of the SQL database, restricting the data to the Selene Resource area was exported into an MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drilling program and were integral in the development of the geological and mineralisation models.
	• If no site visits have been undertaken indicate why this is the case.	• Site visits were not required as the documented procedures on the recent drilling were deemed appropriate for the style of deposit and the historical drilling had been previously covered in a report released under JORC 2004 guidelines.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• There is high confidence in the geological understanding of the deposit. There is a strong relationship between grade and a particular stratigraphical unit. The gold mineralisation is of a consistent grade and 2m composites generated of the mineralised zone showed an extremely good coefficient of variation (< 1.1), such coefficients are rarely encountered with gold deposits.
	• Nature of the data used and of any assumptions made.	• The data used for the resource estimate was from RC and diamond drilling. Raw assays, typically representing a 1m sample length, were composited to 2m to provide equal sample weights and reduce grade variance.
	• The effect, if any, of alternative interpretations on Mineral Resource estimation.	• Three separate mineralised envelopes were considered; grade shells at 0.4, 0.6 and 1.0g/t Au were developed and respective estimates run for each grade shell. It was established through validation of the models that the 0.4g/t Au model was the most representative of grade expected in the mining environment.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• There is a strong geological control to the mineralisation interpretation. The deposit is essentially strata hosted within a sheared Banded Iron Formation. There is some interpreted supergene mineralisation in the northern extents of the deposit that is controlled by weathering horizons and typically cross cuts stratigraphy at shallow levels.
	• The factors affecting continuity both of grade and geology.	• The geological and grade continuity is strata controlled, with a series of late pegmatites that cross cut mineralisation and lithology. These pegmatites are generally unmineralised and have been modelled into the resource as background 0.1g/t gold grade.

Criteria	JORC Code explanation	Commentary
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Selene mineralised domain is approximately 1.3km long, has a down dip of extent of up to 440m and is open at depth. The deposit consists of a main lode that varies between 3m and 25m thick with numerous parallel lodes at various stages along the length of the deposit.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	• Grade estimation of Selene deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modelling was completed using Supervisor software. Two metre composites were generated from the drill hole database and then tagged according to mineralised wireframes generated at a 0.4g/t lower Au grade. The wireframe modelling conditions included a minimum downhole mineralisation width of 2m; an internal dilution of up to 3m could be included if the entire intercept graded above 0.4 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was supported by nearby drilling. The coded composites were reviewed in Supervisor, top cut analysis was completed using disintegration analysis and the impact cuts made to the coefficient of variation. Seven outlying grades ranging from 11.79 to 21.56g/t were cut to 11g/t. The cut dataset was then transformed by normal scores to review variograms and generate variomodels. Variomodels generated confirmed geological stratigraphy as the key controlling factor on mineralisation. The variomodels had moderate to low nuggets with a range of maximum continuity along the main axis of 70m.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the Selene deposit was completed in 2008. This was used as a guide and comparative tools for validation purposes with the current estimate.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• It was established that there was insufficient multiple element data to enable adequate estimation of deleterious elements or other non-grading variables.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The block model was constructed with a parent cell size of 20m Y, 10m X, and 10m Z, with subcelling to 5m Y, 2.5m X, and 2.5m Z. All estimations were completed at the parent cell resolution. A very regular pattern of holes cover the Selene Deposit. Drill data is typically on sections 40m apart on northings, with holes as little as 10m apart on eastings. The size of the search ellipse was based on the variography with five estimation passes used to populate cells. The first estimation pass used a minimum of 12, and maximum of 32 samples, with no octant constraints of the ellipse requiring data to allow estimation.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole in order to represent a likely minimum mining width, assuming an open pit mining operations using 120 tonne excavators.
	• Any assumptions about correlation between variables.	• No correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The Selene Deposit is similar in many respects to the nearby Mt Henry Deposit. Mineralisation is confined to a series of shears within the silicate facies, Banded Iron Formation (Noganyer Formation). The footwall to the BIF is a metamorphic sedimentary schist unit and the hanging wall is defined by mafic flows and dykes of the Woolyeener Formation. The mineralisation interpretation is consistent with the shape and continuity of the BIF unit.

Criteria	JORC Code explanation	Commentary
	• Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by visual validation of block grades vs. drill hole assays in sectional view on computer. Line graphs were also generated to show comparison between composite input grades and block output grades over 80m intervals – Northings, and 40m internals –Eastings, throughout the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modelled on a gold lower grade cut-off of 0.4g/t. This value was determined by visual assessment of grade continuity in Surpac. Models were also generated at 0.6 g/t and 1.0g/t Au cut-off grades for comparison.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Selene deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, utilising excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and use of 120 tonne excavators with a bucket width of approximately 2m. Mineralisation wireframes were constructed based on minimum thickness of 2m downhole in order to replicate the smallest possible mining selectivity.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• No metallurgical assumptions have been made in respect to the generation of the estimate however recent metallurgical test work had been performed as part of a feasibility study of the greater Mt Henry gold project being undertaken by Panoramic. This work has shown that recoveries greater than 90% Au can be achieved using conventional CIL extraction methods.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• The current data available doesn't suggest there are any high-level environmental risks with mined waste by-products. If mining were to commence all statutory requirements would be implemented to comply with waste by-product management.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	• A total of 1087 bulk density (BD) determinations are recorded in the Selene resource database subset. Panoramic completed most of these with measurements on 727 core samples by Archimedes water immersion method. There are a number of historical measurements by pycnometer (7SEL* series for 181 samples) and down hole geophysical tool (NLC151D & NLC158 for 179 one metre intervals). • The host rock type for mineralisation and surrounding mafic material is non-porous and void space porosity is not considered to be of relevance to the measurements.

Criteria	JORC Code explanation	Commentary
	• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• The estimate of BD through the resource was generated by grouping the 1087recorded measurements by rock type to provide an average SG for each of the main lithological rock types. The assay table in the database was tagged with the actual BD or an average value based on rock type grouped averages. The density value was then extracted with the gold grade in the 2m composite file. The BD was then estimated using the same Variogram models and search parameters for the various domains.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	• The classification of the resource has been based on the Competent Person's strong confidence in the geological model; derived largely from the high density of drilling (40*10m spaced RC and selective diamond drilling in the central extent of the deposit); and the demonstrable consistency and continuity of the mineralisation (gold mineralisation is highly continuous over a 1.3km strike length and is strata bound). • A large weighting of the classification related to the estimation pass, string constraints were also used to override the estimation pass allocation and reflect the competent person's view where necessary.
	• Whether the result appropriately reflects the Competent Person's view of the deposit.	• The mineral resource reflects the competent person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Apart from BMGS's own internal audit process no audits or reviews of the Mineral Resource estimate have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	• The resource classification is based on standard practices and guidelines as prescribed in JORC 2012.
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	• The resource estimate relates to a global estimate of tonnes and grade.
	• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• No mining currently exists at Selene therefore there is no production data available for comparison.