

3 December 2013

# **Strong PGEs in Cu-Ni intersection**

Highlights:

- Strong PGEs in Cu-Ni intersection in GRC283
- FLTEM Survey to commence in coming days to test strong conductor near Cu-Ni-PGE mineralisation

As announced on 27 November 2013, Gateway Mining Limited ('Gateway' or 'the Company') recently completed a Reverse Circulation (RC) drilling program. The drilling occurred at Gateway's flagship project in Gidgee, WA, which is located in the Archaean Yilgarn Craton on the Gum Creek Greenstone Belt.

During the program, nine holes were drilled on the tenement M57/633, which is subject to a joint venture agreement with Panoramic Resources Ltd (see Gateway announcement on 12 August 2013). The focus of the drilling was to develop further understanding of and test for extensions to The Cup VMS copper system, however **GRC283**, which is approximately 200m south of The Cup, unexpectedly intersected Cu-Ni sulphides in ultramafic host rock. This represents a new style of mineralisation for The Cup area.

## Strong Platinum Group Elements (PGEs) in Cu-Ni intersection

In light of the strong Cu-Ni massive sulphide mineralisation intersected in GRC283, pulps were sent for assaying in platinum and palladium to test for a potential Ni-Cu-PGE style of mineralisation. In what is a very encouraging sign, the intersection returned 4m @ 0.32g/t Pt & 0.55g/t Pd, making the full result for the intersection:

GRC283: 4m @ 1.03% Cu, 0.44% Ni, 0.32g/t Pt & 0.55g/t Pd from 137m

Most Ni-Cu-PGE mineralisation in the Yilgarn is komatiitic 'Kambalda type' mineralisation, however the intersection in GRC283 is much more **supportive of an intrusive related Ni-Cu-PGE style of mineralisation.** 

This intersection occurred in rocks of ultramafic geochemical composition with significant massive sulphide content. This is the first time ultramafic rocks have been intersected in The Cup area (previously it was thought the stratigraphic sequence was dominantly felsic to intermediate volcaniclastic).





Magnetic Survey of southern portion of tenement package



Magmatic sulphide deposits often occur in clusters and many deposits contain multiple mineralised zones. Intrusions of mafic-ultramafic composition are known to assimilate country rock with magma as it is emplaced. The country rock can be an important source of sulphur and driver of the mineralising process. The fact that **this magmatic sulphide occurrence lies within sulphur enriched VMS copper horizons and footwall alteration zones** provides further encouragement that perhaps larger magmatic sulphide accumulations might occur as a result.

While exploration on the prospect is still at a very early stage, the results to date are extremely encouraging, and planned geophysical work coupled with further drilling will provide a much better understanding of the area & mineralisation.

## FLTEM Survey to test strong conductor near Cu-Ni-PGE mineralisation

The MLTEM survey completed in August / September 2013 located a new conductor beneath The Cup horizon and extending further to the south (ie extending away from The Cup VMS copper mineralisation). The conductor has strong conductivity of ~2500S and is **characteristic of massive sulphides**. This conductor appears unrelated to The Cup, hence why it was not of immediate interest for Gateway's first drilling on the joint venture tenement. In light of the potential Ni-Cu-PGE intrusive style of mineralisation, however, this conductor takes on new significance.

The intersection in GRC283 lies proximal to but *above* this new conductor. Further work is required to understand the geometry and nature of the mineralisation.

A **fixed loop survey is expected to commence in the coming days**, which will give a better definition of the conductor. The survey will test between the 6968000N line south to the 6967400N line. Preliminary analysis suggests it is approximately 800m in length and lies approximately 180m beneath the surface. The Company will next provide an update once results are received from the FLTEM survey.

### **About Gateway Mining Limited**

Gateway holds approximately 150sqkm of tenements over the Gum Creek Greenstone Belt in the Yilgarn Craton, Gidgee WA (600km NE of Perth). The tenements have all the hallmarks of a significant new VMS province, along with existing gold mineralisation throughout the project. The Company is well funded and plans to focus exploration efforts on The Cup and nearby surrounding areas for the immediate future. Gateway also has in place an experienced management and technical team.



#### Table 1 – Section 1: Sampling Techniques and Data as required by the 2012 JORC Code

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.	Sampling was carried out utilising RC percussion drilling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Drillhole locations are surveyed via handheld GPS. Downhole surveying was carried out using an eastman camera in stainless steel rods.
	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.	RC samples are composited at 5m intervals to produce 3kg of sample. 1m samples are taken within zones of interest via a cone splitter generating 3kg samples, if unexpected zone of interest is drilled 3kg of sample for each 1m downhole interval is taken via scoop sample. The Cu-Ni-PGE interval discussed in the report above was not expected and was sampled via scoop sample.
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).	Gateway RC drilling and Panoramic Aircore drilling are currently being utilised for exploration evaluation of the prospect.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	RC recoveries are logged visually as a percentage.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Every effort was made to ensure minimal delivery of wet sample. Wet sample was delivered directly from the cyclone into plastic bags where a spear sample could be taken. The cyclone and splitter were regularly cleaned.
	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.	Recoveries have generally been very good and a relationship between recovery and grade has not been established. A considerable population of wet samples within mineralised zones would be required to establish this relationship.
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.	RC drilling has been logged to a level of detail to support mineral resource estimation, mining studies and metallurgical studies.



	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging records: lithology, weathering, colour, mineralogy, structure (foliation).
	The total length and percentage of the relevant intersections logged.	All drillholes are fully logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	5m composite samples are scoop sampled wet or dry. 1m samples are split with a cone splitter when dry, and spear sampled when wet. Minor 1m sampling was conducted using a scoop in dry sample.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All samples were submitted to Australian Laboratory Services in Perth. Sample preparation follows industry best practice, the whole 3kg sample is dried crushed and pulverised to 85% passing 75 micron to produce a homogeneous representative sub-sample for analysis.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Certified reference materials and/or in house laboratory controls, blanks and replicates are analysed with each batch of samples. These quality control results are reported along with sample values. The company also sends certified reference materials sourced from Geostats Pty Ltd at a nominal 1/50 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.	Field duplicates of 1m samples are generated from a cone splitter as nominated within mineralised zones.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to give an accurate indication of mineralisation of this nature.
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.	Three main analytical techniques are used. 1) For gold only 30g fire assay - total recovery and AAS analysis. 2) PGE elements 30g fire assay – total recovery and ICP analysis. 3) Other elements 0.25g four acid digestion – near full recovery and ICP-MS analysis.
	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	N/A
	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.	Internal certified reference materials and field duplicates sent for analysis were returned within acceptable limits of accuracy.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel.	Both the Exploration Manager and Head Geologist have verified significant intersections
	The use of twinned holes.	No twinned hole have been drilled to date.
	Documentation of primary data data entry procedures data	Primary data was entered into a standard Excel



	verification, data storage (physical and electronic) protocols.	template, loaded and stored in a MS Access relational database, further data validation in Micromine software and visually validated using Micromine plot generations.
	Discuss any adjustment to assay data.	No adjustments have been 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 were located by handheld GPS. Expected accuracy is +/-5m for easting and northing and 10m for elevation coordinates.
	Specification of the grid system used.	AGD84 (AMG), zone50.
	Quality and adequacy of topographic control.	500mRL is applied at The Cup where there is very flat terrain and GPS accuracy is too inaccurate, +/-10m.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	N/A as only one hole reported
	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.	N/A - Neither a Mineral Resource or an Ore Reserve estimation has been applied.
	Whether sample compositing has been applied.	No compositing has been applied.

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.	Current interpretation of geological structure supports orientation of drilling and sampling as highly favourable and almost oblique to geological structures.
	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 bias is known.

Sample security	The measures taken to ensure sample security.	Sample chain of custody goes from Gateway
1 5	1 5	Mining to trusted subcontracting companies
		including JPS contracting to Nexus Sadleir
		Transport who deliver samples to Australian
		Laboratory Services.

Audits or reviews	The results of any audits or reviews of sampling techniques	No audits or reviews have been carried out to
	and data.	date.



## Table 1 – Section 2: Reporting of Exploration Results as required by the 2012 JORC Code

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.	Tenement M57/633. This is subject to a Joint Venture with Panoramic Resources Ltd (refer Gateway announcement 12 August 2013 for details).
	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.	Tenement is in good standing

E	A during the design of an end of the design	Cald and first discoursed in the district in 1020
Exploration done by	Acknowleagment and appraisal of exploration by other	Gold was first discovered in the district in1926
other parties	parties.	and base metal exploration was first carried out in
		the 1970's by CRA. At The Cup prospect, gold
		was explored for by Arimco from 1983 and by
		Abelle from 1999 with little attention given to
		base metals. Base metal VMS mineralisation was
		discovered by Gateway Mining in 2006 close to
		the tenement boundary of E57/417. Panoramic
		Resources acquired a package of Gidgee
		tenements in 2011 when it purchased the Gidgee
		Gold Project. One of these tenements included the
		Joint Venture tenement M57/633

Geology	Deposit type, geological setting and style of mineralisation.	The Cup prospect is part of the Gidgee Project
		situated within the Gum Creek Greenstone Belt of
		the Yilgarn Craton and locally includes basalts,
		felsic volcaniclastics, mafic-ultramafic intrusives
		and the Montague Granodiorite intrusion. Known
		mineralisation styles within the tenement package
		include gold only mineralisation, VMS Cu-Zn-Ag
		and more recently intrusive related Cu-Ni-PGE
		mineralisation has been intersected. Historic
		mining of approximately 100,000oz gold has been
		mined from the Airport Trend along the western
		flank of the Montague Granodiorite. VMS activity
		is wide spread through the tenement package with
		up to 30km of prospective strike extent.
		Exploration for VMS mineralisation has been the
		focus of the company since 2006 with the
		discovery of The Cup prospect for which a recent
		joint venture agreement was made for an adjoining
		tenement with Panoramic Resources and has
		facilitated renewed exploration endeavour. During
		recent exploration at The Cup, intrusion related
		Cu-Ni-PGE mineralisation was intersected for
		which evaluation is in early stages.



Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Refer to tables below.
	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.	Only one hole drilled at The Cup prospect is thought to be material to the Ni-Cu-PGE style of mineralisation that this announcement refers to. It is very early in exploration and no other holes intersect the relevant host rock lithology. Initial indications from geophysical surveys carried out indicate that prospective unit is yet to be tested

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.	All reported assays have been length weighted. No top-cuts have been applied.
	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.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A, no metal equivalent is reported.

Relationship between	These relationships are particularly important in the reporting	Down hole length, true width not known.
mineralisation widths and	of Exploration Results.	
intercept lengths		
	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').	

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.	Refer to announcement on 29 November 2013 where result was initially reported and body of this announcement.
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Balanced ReportingWhere 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 Results.	Only one hole has been drilled into this prospect. The prospect is in very early stage of exploration.
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Other substantive	Other exploration data, if meaningful and material, should be	Refer to body of announcement.
exploration data	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.	
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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.	Refer to body of announcement.
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#### Full details of hole:

Hole	Zone	Total Depth	North	East	RL	Dip	Azim
GRC283	Cu-Ni-PGE near The Cup	223	6967797	747883	500	-60	90

#### **Drill Result**

Hole	From (m)	To (m)	Width	Cu	Ni	Co	Ag	Au	Pt	Pd
GRC283	137	141	4m	1.03%	0.44%	0.04%	4.64g/t	0.17g/t	0.32g/t	0.55g/t

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Scott Jarvis, the Head Geologist at Gateway Mining, a member of the Australian Institute of Geoscientists. Mr Scott Jarvis has a minimum of 5 years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Scott Jarvis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.