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#### **ASX/Media Announcement**

# **Exploration Update**

- Anomalous copper gold and lead zinc geochemistry over a strike length of 1.2 kilometres at the new Dingo Dam Prospect
- Follow-up gossan rock chips returned up to 1.10% Cu and 3.67g/t Au

**Pioneer Resources Limited** ("Pioneer" or the "Company" (ASX: PIO)) is pleased to provide an update to the market following the interpretation of soil geochemistry results and field reconnaissance at its **100% Juglah Dome Project**, located 57km SE of Kalgoorlie. The program resulted in the identification of a new polymetallic anomaly, which will be referred to as **the Dingo Dam Prospect**.

## **DINGO DAM PROSPECT**

Results from a 612 (plus 40 QC) soil and rock chip sample geochemistry program have returned very anomalous copper-gold-silver and lead-zinc zones representing a possible volcanic-associated sulphide setting. The anomalies occur over a strike length exceeding 1.2 kilometres.

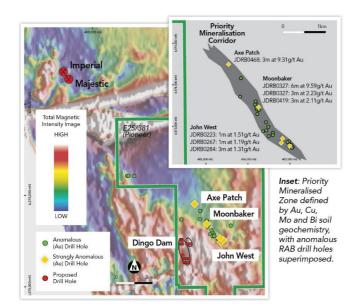
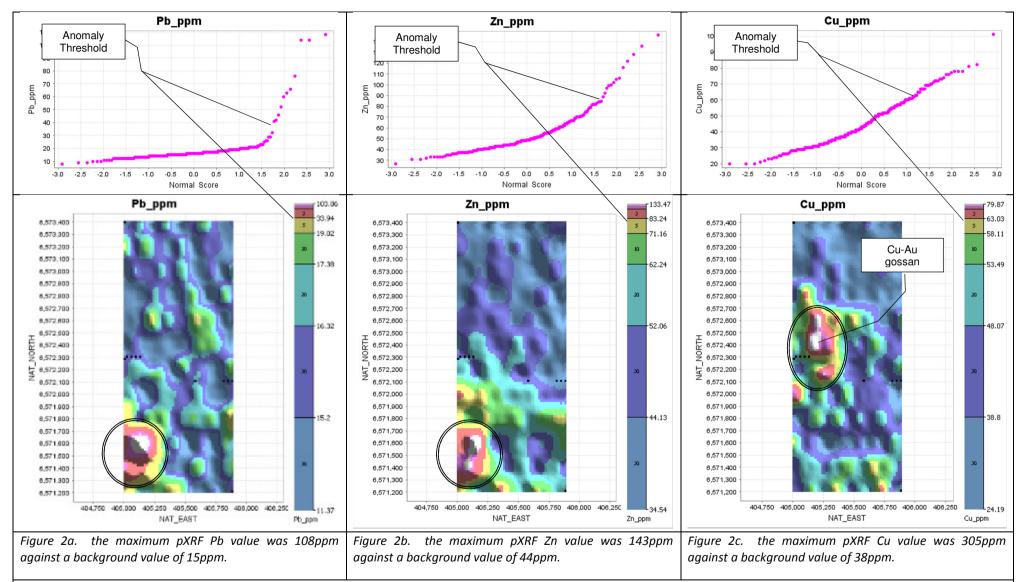


Figure 1: Location of the new Dingo Dam copper-gold and lead-zinc anomaly, in relation to earlier Pioneer RAB drilling Intersections<sup>1</sup>.

The Majestic and Imperial deposits, owned by Silver Lake Resources Limited, are also gold with copper systems.

Two rock chip samples taken from a gossan located within the northern Dingo Dam area returned strongly anomalous copper values to 1.10% Cu and gold to 3.67g/t Au, with elevated silver.

Table 1.							
Strongly Anomalous Copper and Gold Values from Gossan Samples							
	North East Au Cu Ag Co As						
	m	m	g/t	%	g/t	ppm	%
ARC96422	6572405	404765	1.35	0.95	3.90	568	1.29
ARC96423	6572406	404767	3.67	1.10	16.70	470	0.83



Figures 2a and 2b show the locations of the coincident lead (Pb) and zinc (Zn) anomalies, and Figure 2c shows the location of a copper-gold anomaly. The location of the copper (Cu) – gold (Au) gossan (see Table 1) is shown on Figure 2c.

# **DINGO DAM GEOCHEMISTRY**

Initial pXRF analysis of the Dingo Dam soil samples identified elevated base-metal (Pb-Zn-Cu) values. A subset of the Dingo Dam samples were subsequently analysed by ACME laboratory (Vancouver) using an aqua regia digest and ICP-ES determination to verify the elevated pXRF base-metal values and provide gold and pathfinder elements not readily detectable in soils by pXRF.

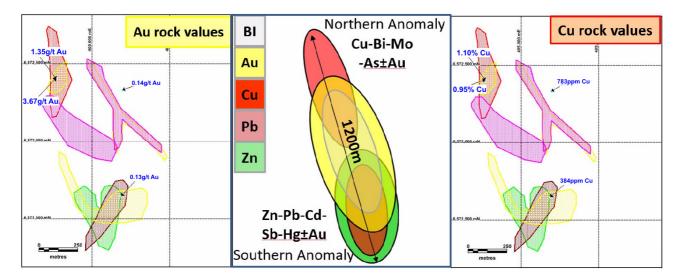


Figure 3 Geochemistry Vector: The Dingo Dam geochemical anomaly exhibits a zoned, polymetallic response.

In detail, interpreted results show a zoned base-metal and gold anomaly extending for over 1.2km with a central bismuth (Bi) core surrounded by anomalous Au, a northerly Cu zone with associated molybdenum (Mo) and a southern Pb-Zn zone with associated cadmium, antimony, and mercury as show in Figure 3.

This zonation pattern is typical of a volcanic-associated sulphide setting in a "mesothermal" regional metamorphic terrain.

Soil geochemistry at the **Juglah Dome Project** was initiated during 2012, and subsequent RAB drilling returned impressive gold results from the Moonbaker, Axe Patch and John West Prospects, as shown on Figure 1.

Pioneer's tenement neighbour to the north is Silver Lake Resources Limited (ASX: SLR), which holds the Majestic (141,600oz) and Imperial (71,100oz) gold deposits² located approximately 11km northwest of the Dingo Dam Prospect. Both the Majestic and Imperial deposits have records of copper being associated with the gold mineralisation. Juglah Dome prospects may exhibit a number of geological characteristics, including multi-element soil geochemistry signatures, host rock and structural domain that are analogous with the Majestic and/or Imperial Deposits.

## **OUTLOOK**

A program of work ("POW") application has been lodged with the Department of Mines and Petroleum for a program of regolith drilling to confirm sub-surface anomalism, determine rock types and analyse for mineral-alteration patterns common with volcanic-associated sulphide metal deposits.

The Company is putting together drilling programs at its Acra (gold), Golden Ridge (nickel) and now Juglah Dome Projects. Statutory approvals should be received during August, allowing drilling to commence by September 2014.

## **Notes**

- 1. refer to earlier Pioneer announcements to ASX where these results were reported under the JORC 2004 guidelines, including 20 July 2012 and 5 October 2012. The Company it is not aware of any new information or data that materially affects the information included in these announcements.
- 2. From the Silver Lake Resources Limited Web Site under Projects\Resources and Reserves referenced 14/7/2014:

Deposit	Tonnes	Grade	Oz
	t	g/t	
Majestic	2,119,100	2.1	141,600
Imperial	272,000	8.1	71,100

Note: Appropriate rounding applied

Yours faithfully

**Managing Director** 

Mr David Crook

Pioneer Resources Limited

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APPENDIX 1. Soil Sampling Information, Result Summary and Competent Person

	Table 1 Soil Sample Location Summary										
Line	North	East Range		Length	Number	Std			nber Range		
	(m)	From (m)		To (m)	(m)	(n)	(n)	(n)			
1	6571200	405000	-	405880	880	23	0	0	PRL139800	-	PRL139822
2	6571400	405000	-	405880	880	23	1	1	PRL139823	-	PRL139847
3	6571600	405000	-	405880	880	23	1	1	PRL139848	-	PRL139872
4	6571800	405000	-	405880	880	23	0	1	PRL139873	-	PRL139896
5	6572000	405000	-	405880	880	23	1	0	PRL139897	-	PRL139920
6	6572200	405000	-	405880	880	23	1	1	PRL139921	-	PRL139945
7	6572400	405000	-	405880	880	23	1	1	PRL139946	-	PRL139970
8	6572600	405000	-	405880	880	23	0	1	PRL139971	-	PRL139994
9	6572800	405000	-	405880	880	23	1	0	PRL139995	-	PRL140018
10	6573000	405000	-	405880	880	23	1	1	PRL140019	-	PRL140043
11	6573200	405000	-	405880	880	23	1	1	PRL140044	-	PRL140068
12	6573400	405000	-	405880	880	23	0	1	PRL140069	-	PRL140092
13	6570000	404700	-	405900	1200	31	1	1	PRL145425	-	PRL145457
14	6570200	404560	-	405880	1320	34	1	2	PRL145458	-	PRL145494
15	6570400	404560	-	405880	1320	33	1	2	PRL145495	-	PRL145530
16	6570600	404560	-	405880	1320	33	2	2	PRL145531	-	PRL145567
17	6570800	404560	-	405880	1320	34	1	1	PRL145568	-	PRL145603
18	6571000	404560	-	405880	1320	34	1	1	PRL145604	-	PRL145639
19	6571200	404560	-	404960	400	11	0	0	PRL145640	-	PRL145650
20	6571400	404560	-	404960	400	11	0	1	PRL145651	-	PRL145662
21	6571600	404560	-	404960	400	11	1	0	PRL145663	-	PRL145674
22	6571800	404560	-	404960	400	11	0	0	PRL145675	-	PRL145685
23	6572000	404560	-	404960	400	11	0	1	PRL145686	-	PRL145697
24	6572200	404560	-	404960	400	11	1	0	PRL145698	-	PRL145709
25	6572400	404560	-	404960	400	11	0	0	PRL145710	-	PRL145720
26	6573400	404560	-	404960	400	11	0	0	PRL145740	-	PRL145750
27	6573200	404560	-	404960	400	11	0	1	PRL145751	-	PRL145762
28	6573000	404560	-	404960	400	11	1	0	PRL145763	-	PRL145774
29	6572800	404560	-	404960	400	11	0	0	PRL145775	-	PRL145785
30	6572600	404560	-	404960	400	11	0	1	PRL145786	-	PRL145797

Samples taken on a regular 200x40m grid.

Table 2 Key Anomalous Soil Sample Results by pXRF							
Sample ID	Cu	Pb	Zn	Ni	As	Au*	
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppb)	
Lead-Zinc Anomaly (assays by pXRF)							
PRL139843	43	52	100	63	14		
PRL139844	58	29	128	64	6		
PRL139845	50	41	105	45	8		
PRL139846	55	66	122	54	8		
PRL139847	33	60	106	55	4		
PRL139848	65	42	116	80	1		
PRL139849	50	63	89	67	2		
PRL139850	38	104	97	56	9		
PRL139851	46	108	136	66	10		
PRL139852	51	104	146	52	8		
PRL139853	31	76	92	61	25		
PRL145651	33	49	110	60	2		
PRL145652	23	31	92	61	4		
PRL145672	35	26	90	53	9		
PRL145673	31	44	117	39	11		
PRL145674	47	45	143	72	6		
PRL145675	35	15	82	67	4		
PRL145676	30	22	79	63	4.6		
PRL145677	33	35	93	70	1	61	
PRL145678	32	22	69	69	3.8		
Copper Anoi	Copper Anomaly (Assays by pXRF)						
PRL145715	143	19	60	72	9	23.2	
PRL145716	305	14	54	63	19	28.5	
PRL145717	96	17	55	67	9.9		
PRL145744	39	13	45	69	4.2		
PRL145745	181	17	31	72	2.2		
PRL145746	69	16	42	67	3.8		

<sup>\*</sup> Au determined by aqua regia digest, ICP emission spectrometer finish.

#### **Competent Person**

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr David Crook. Mr Crook is a full time employee of Pioneer Resources Limited and a member of The Australasian Institute of Mining and Metallurgy (member 105893). Mr Crook has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Additional information in respect of soil geochemical data and interpretations was provided by Dr Nigel Brand. Mr Crook and Dr Brand consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

#### **Caution Regarding Forward Looking Information**

This document may contain forward looking statements concerning the projects owned by the Company. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the Company's beliefs, opinions and estimates of the Company as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.

### Glossary:

"g/t" means grams per tonne (used for precious metals) and is equivalent to ppm.

"ppm" means 1 part per million by weight.

"pXRF" means portable XRF. Pioneer owns an Olympus Delta analyser which was used for the reported work.

"RAB" means rotary air blast, a cost-effective drilling technique used to test the regolith (near surface unconsolidated and weathered rock) for plumes of trace-level gold that may have dispersed from a nearby primary source of gold. In this type of work gold values above 0.2g/t are considered anomalous and above 1g/t, very anomalous.

"RC" means reverse circulation, a drilling technique that is used to return uncontaminated pulverised rock samples through a central tube inside the drill pipes. RC samples can be used in industry-standard Mineral Resource estimates.

"N", "S", "E", or "W" refer to the compass orientations north, south, east or west respectively.

# **APPENDIX 2**

# JORC Code, 2012 Edition – Table 1 report

# **Section 1 - Sampling Techniques and Data**

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

Acra Project, Kalpini South Prospect.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut Faces, 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.</li> </ul>	<ul> <li>Soil samples: a 100g sample of -250 micron soil taken from approximately 20cm below surface.</li> <li>Samples are collected into a paper (manilla) geochemistry sample packet.</li> </ul>
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>pXRF is calibrated daily</li> <li>ORERES soil standards are used at the rate of 3 per hundred</li> <li>Duplicate samples are taken at the rate of 3 per hundred</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	A 100g sample of -250 micron screened soil was taken for analysis.
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).	N/A - soil sampling.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	N/A - soil sampling.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Dry soils sampled. Sieves are cleaned between 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.	N/A - soil sampling.
Logging	Whether core and chip samples have been geologically and geotechnically logged	N/A - soil sampling.

Criteria	JORC Code explanation	Commentary
	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, Face, etc) photography.	Qualitative regolith logs are recorded.
	The total length and percentage of the relevant intersections logged.	The entire length of the drill holes were logged.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	The sample collection method has been scientifically demonstrated to be fit for purpose.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul> <li>N/A – no field subsampling. QA/QC process includes duplicate samples to assess whether sampling and subsampling is biased.</li> <li>The conclusion is that the technique is "fit for purpose".</li> </ul>
	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.	<ul> <li>A technique induction is undertaken for samplers before the commencement of sampling programs. Periodic monitoring of sampling occurs.</li> <li>Duplicate samples (3%) are assessed.</li> </ul>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Studies by Pioneer have shown that a 100g sample of sieved -250 microns soil produces repeatable results bearing in mind the purpose of the result.</li> </ul>
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.	<ul> <li>No further sample preparation for soil samples.</li> <li>Initial analysis is through-the-packet using an Olympus Delta pXRF analyser.</li> <li>pXRF results are uncertified for precision and accuracy, however standards and duplicates provide understanding of the results generated.</li> <li>Selected pXRF samples that are considered anomalous may be assayed by a commercial certified laboratory.</li> <li>Subsequent analysis of selected soil samples is of a 0.5g subsample with an aqua regia digest, ICP-ES finish for a suite of 30 elements. ACME Analytical Laboratories Ltd, Vancouver Group 1D package.</li> <li>Rock chips analysis by Intertek Genalysis Perth. Following crushing and mixing in a 'Mixermill':         <ul> <li>Au by 50g fire assay, AA finish</li> <li>Other elements by 4 acid digest OE finish</li> </ul> </li> <li>Results are considered "fit for purpose".</li> </ul>
	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.	<ul> <li>Pioneer owns an Olympus Delta handheld pXRF instrument.</li> <li>Sampling time is 30 seconds.</li> <li>Mode is "soil mode"</li> <li>Calibrations run daily.</li> </ul>

Criteria	JORC Code explanation	Commentary
	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.	<ul> <li>Standard Reference Material is included at a rate of 3 per 100 samples.</li> <li>Duplicate field samples are included at a rate of 3 per 100 samples.</li> <li>Laboratory quality control samples are also monitored.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul> <li>Undertaken by an independant qualified geochemical consultant, Dr N Brand.</li> <li>N/A Soil sampling</li> </ul>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <li>Pioneer has a digital SQL drilling database where information is stored.</li> <li>The Company uses a range of consultants to load and validate data, and appraise quality control samples.</li> </ul>
	Discuss any adjustment to assay data.	Pioneer has not adjusted any 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.	Sample sites are recorded using a hand-held GPS with an accuracy of +-5 metres.
	Specification of the grid system used.	MGA94 (Zone 51)
	Quality and adequacy of topographic control.	N/A - soil sampling.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Samples were from a nominal 200x40m grid.
	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 - soil sampling.
	Whether sample compositing has been applied.	• No.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	N/A - soil sampling.
Sample security	The measures taken to ensure sample security.	Pioneer uses commercial couriers for transporting samples to the laboratory, and has its own lock-up facility for storing samples after analysis.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Sampling techniques follow a written standard operating procedure developed by Pioneer's consultant geochemist.</li> <li>The assay data and quality control samples, and the ACME Laboratory, are</li> </ul>

Criteria	JORC Code explanation	Commentary
		periodically audited by Pioneer's consultant geochemist.

# Section 2 - Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

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	<ul> <li>The samples were taken from within tenement E25/381 which is a granted Exploration Licence.</li> <li>The tenement is pegged in the name of Western Copper Pty Ltd, which is a wholly-owned subsidiary of Pioneer Resources Limited.</li> <li>The tenement is located approximately 57km SE of Kalgoorlie WA.</li> <li>Western Copper Pty Ltd is the registrable holder of the tenement and holds a 100% unencumbered interest in all minerals within the tenement.</li> <li>The Central East Goldfields People have a registered Native Title Claim which covers the tenement. This Claim remains unresolved.</li> </ul>
	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.	At the time of this Statement E25/381 is in Good Standing. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to Pioneer's operations within the tenement.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	This report does refers to a Mineral Resource Statement by Silver Lake Resources Limited ("SLR"). The reference is to information published on the KGM website, and was referenced on 12 July 2014
Geology	Deposit type, geological setting and style of mineralisation.	Not known
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, including 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 plus hole length.</li> <li>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.</li> </ul>	Refer to Appendix 1 of this announcement.
Data aggregation	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off	Assays are of individual samples.

Criteria	JORC Code explanation	Commentary
methods	<ul> <li>grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No metal equivalent values have been used.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	N/A Soil samples
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 maps in this report.
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 Results.	Comprehensive reporting of soil sampling has been provided in Appendix 1 and Appendix 2 of this announcement.
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.	All meaningful and material exploration data has been reported.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Fences of RAB drill holes, on a nominal 200x40m m grid are planned.