PRESS RELEASE

23 JULY 2014

ANNUAL UPDATE OF MINERAL RESOURCE AND ORE RESERVE ESTIMATES

The Directors of Metals X Limited ("Metals X") have pleasure in announcing the results of our latest Mineral Resource and Ore Reserve statements as at 30th June 2014.

Metals X is a diversified miner with interests across several commodities and a large number of individual mineral deposits. In executive summary form, the Consolidated Total Mineral Resource Estimates for the Group are summarized by Project below:

TOTAL MINERAL RESOURCE ESTIMATES

Consolidated Summary as at 30 June 2014

Gold Division	'000 tonnes	Grade	'000 oz Gold
CMGP	62,941	2.48g/t Au	5,020
Meekatharra*	67,500	1.70 g/t Au	3,610
HGO	13,308	2.88g/t Au	1,231
SKO	50,378	1.98 g/t Au	3,214
Tin Division (50% Metals X)	**'000 tonnes**	**Grade**	**Tonnes Metal**
Renison	11,111	1.58% Sn	175,000 Sn
	10,011	0.34 % Cu	34,000 Cu
Mt Bischoff	1,667	0.54% Sn	9,000 Sn
Rentails	21,192	0.45% Sn	95,000 Sn
		0.21 % Cu	45,000 Cu
Tennant Creek IOCG	**'000 tonnes**	**Grade**	**Tonnes Metal**
Rover 1	6,814	1.73 g/t Au	381,000 oz Gold
		1.20 % Cu	112,000 Cu
		0.14% Bi	9,000 Bi
		0.06% Co	4,000 Co
Explorer 108	11,868	3.24% Zn	384,000 Zn
		2.00 Pb	237,000 Pb
		11.14 g/t Ag	4.2 Million Oz Silver
Nickel Division	**'000 tonnes**	**Grade**	**Tonnes Metal**
Wingellina/Claude Hills	216,500	0.98% Ni	2,067,000 Ni
		0.07% Co	161,000 Co
		47.3% Fe_2O_3	98,900,000 Fe_2O_3

* Please see Note on Meekatharra Mineral Resource Estimates overleaf.

METALS X LIMITED

Metals X Limited is a diversified group exploring and developing metals and minerals in Australia. It is Australia's largest tin producer and a top 10 gold producer. Metals X holds a pipeline of assets from exploration to production, including two gold development projects and the world-class Wingellina Nickel Project.

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Similarly, the Consolidated Total Ore Reserve Estimates for the Group are summarized by Project below:

TOTAL ORE RESERVE ESTIMATES

Consolidated Summary as at 30 June 2014

Gold Division	'000 tonnes	Grade	'000 oz Gold
CMGP	15,458	2.36 g/t Au	1,174
HGO	4,538	3.67 g/t Au	535
SKO#	960	0.76 g/t Au	23
Tin Division (50% Metals X)	**'000 tonnes**	**Grade**	**Tonnes Metal**
Renison	5,911	1.37% Sn	81, 000 Sn
	5,763	0.29% Cu	17,000 Cu
Rentails	20,351	0.45% Sn	91,000 Sn
		0.21 % Cu	43,000 Cu
Nickel Division	**'000 tonnes**	**Grade**	**Tonnes Metal**
Wingellina/Claude Hills	167,500	0.98% Ni	1,645,000 Ni
		0.08% Co	128,000 Co
		47.3% Fe_2O_3	79,300,000 Fe_2O_3

\# The Ore Reserve estimate at SKO excludes HBJ as works on this estimate are incomplete.

The following sections of this announcement provide the detail as required under JORC 2012 for the release of these estimates under JORC 2012 and its incorporation in the ASX listing rules.

ENQUIRIES

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NOTE ON MEEKATHARRA MINERAL RESOURCE ESTIMATES

The acquisition of Meekatharra was completed on 27th June 2014. Mineral Resources Estimates were released by the previous owner under JORC 2004. Metals X has not has sufficient time to complete a full review or estimate of these Mineral Resources Estimates, however, they are material and it would be misleading for Metals X not to provide some guidance on them as they form a significant part of the CMGP. Metals X has reviewed these in this context and has no reason to believe they will not be quotable under JORC 2012 in the fullness of time, but does conclude it is not in a position to quote them under JORC 2012 at this time. Hence, Metals X provides in Appendix 5 these estimates a previously announced by Reed Resources Limited.

GOLD DIVISION

INTRODUCTION

Metals X has three key projects within its gold division:

1. The Central Murchison Gold Project.
2. The Higginsville Gold Project.
3. The South Kalgoorlie Gold Project.

Each key project is made up of a number of different ore bodies and ore systems, which aggregate to make the project. Each Project area is defined in detail and has its annual statement prepared under JORC 2012. For some of the new acquisitions, mineral resources and ore reserves for some of the new acquisitions have been left out of the JORC 2012 due to timing. In these instances, reference is made to the publicly stated estimates made under JORC 2004 for completeness and materiality of disclosure.

THE CENTRAL MURCHISON GOLD PROJECT

The CMGP is divided into three project areas, Big Bell, Cuddingwarra and Day Dawn (figure 1). In the last 12 months, work has been focused on developing and expanding open pit resources within the Day Dawn region to support the recommencement of mining at the historical Golden Crown and Great Fingall undergrounds.

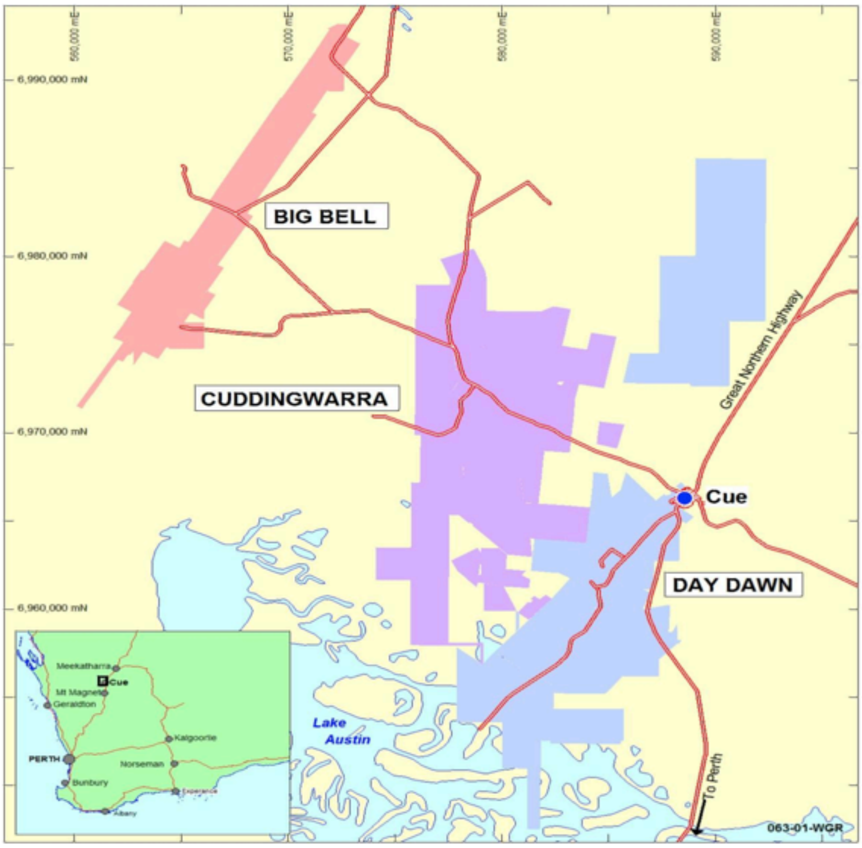


Figure 1: Location of the Central Murchison Gold Project.

CMGP GEOLOGY

REGIONAL GEOLOGY

The CMGP is located in the Achaean Murchison Province, a granite-greenstone terrane in the northwest of the Yilgarn Craton. Greenstone belts trending north-northeast are separated by granite-gneiss domes, with smaller granite plutons also present within or on the margins of the belts.

The greenstone belts comprise tholeiitic and high-Mg basalts, komatiites and other ultramafic volcanics, mafic and ultramafic intrusives (dolerites, gabbros, dunites), felsic and intermediate volcanics and metasediments including banded iron formations.

A definitive stratigraphic succession per se cannot be established for the greenstone belts as outcrop mapping and geochronological studies have shown inconsistencies in previous stratigraphic schemes (e.g. Watkins and Hickman, 1990).

BIG BELL PROJECT AREA

The project area is located at the southern end of a narrow northeast-trending greenstone belt, (informally referred to as the Big Bell Greenstone Belt), which adjoins the larger Meekatharra - Mount Magnet Greenstone Belt. The belt has a strike length of 33 km and a width of 1.5 km at Big Bell, and is bounded to the east and west by granite intrusions. To the north of Big Bell, the Big Bell Greenstone Belt widens, whereas to the south the sequence thins to less than 200 m (approximately 7 km south of the mine).

The Big Bell Greenstone Belt is comprised of variably altered and intensely sheared, north-northeast-trending amphibolites and felsic schists. The muscovite and biotite-altered rocks hosting gold mineralisation at Big Bell are informally referred to as the Big Bell Mine Sequence.

The Mine Sequence includes biotite and quartzo-feldspathic schists (BISH and INSH), altered amphibolite (AMPH) and sheared porphyry dyke (PORP) within the central domain of the Big Bell greenstone belt. The main host for gold mineralisation at Big Bell is altered K-feldspar-rich (KPSH) and muscovite-rich (ALSH) quartzo-feldspathic schists. Mineralisation at Big Bell is hosted in the shear zone (Mine Sequence) and is associated with the post-peak metamorphic retrograde assemblages (Smith, 1998). Stibnite, native antimony and trace arsenopyrite are disseminated through the K-feldspar-rich lode schist.

Along strike to the south of Big Bell, the lithological host of the mineralisation is variable, although still restricted to the altered biotite or quartzo-feldspathic schist. At Little Bell and Big Bell South better gold mineralisation is found on the hangingwall (BISH) and to a lesser degree the footwall (KPSH) contacts of the mineralisation observed at Big Bell. Moving south, the biotite (+ cordierite) schist (BISH) is the dominant host at Shocker and 1,600 N with lower, more dispersed grade within the ALSH. Fender is the southernmost deposit and the entire mine sequence narrows significantly such that, although only approximately 13 metres wide, the mineralised lithologies includes ALSH, BISH and INSH. The Fender mineralisation is bound on the footwall by KPSH and hangingwall by garnet-rich schist (GASH).

Most studies indicate gold exists in two forms, silicate and sulphide hosted. However, a metallurgical report by AMTEL suggests the principle gold mineral is native gold (88 wt% Au) and accounts for 73 to 79% of the gold in the mill feed.

CUDDINGWARRA PROJECT AREA

The Cuddingwarra Project area is located approximately 10 km west-northwest of Cue, Western Australia and covers an area of approximately 140 km^2. The project lies within the Meekatharra-Wydgee Greenstone Belt, in the north-eastern Murchison Province of the Archaean Yilgarn Craton.

The principal structures in the project area are north and north-northeast trending major faults and shear zones. A major shear zone (Cuddingwarra Shear Zone is located along the eastern margin of the tenement group, which juxtaposes the greenstone sequences with the eastern sedimentary package.

The Cuddingwarra Project area encloses three lithological sequences;

- A high-Mg basalt and basalt sequence in the west.
- Intercalated komatiites and high-Mg basalts, with minor tholeiitic basalts and dolerite units in the centre of the project area, which are punctuated by numerous early granodioritic intrusives and quartz-feldspar porphyries.
- A sequence of sediments and volcaniclastics in the east.

Numerous gold deposits occur within the Cuddingwarra Project area, the majority of which are hosted within the central mafic-ultramafic ± felsic porphyry sequence.

Mineralisation is controlled by competency contrasts across, and flexures along, layer-parallel D2 shear zones and are maximised when transected by corridors of northeast striking D3 faults and fractures.

A significant degree of supergene remobilisation of gold has occurred within the deep and intense weathering profile, and is an important mechanism controlling economic concentrations of gold. Gold grades are quite variable above the base of oxidation, with horizontal near surface and base of oxidation dispersion zones common above primary mineralisation and there has been localised remobilisation of gold into ferruginous clays and pisolitic laterite above the base of oxidation, with coarser gold being associated with quartz and much finer grained gold occurring within the clay-rich materials.

DAY DAWN PROJECT AREA

The Day Dawn project tenements cover a section of the Meekatharra-Wydgee Greenstone Belt extending approximately 35 km southwest from Cue. The strike of this belt changes, from north-northeast to north, just to the south of Mount Fingall (approximately 13 km southwest of Cue), due to drag on the Cuddingwarra Shear Zone (CSZ). The main penetrative structural fabrics in the area are prominent D4 north to north-northeast trending shear zones and faults. The principal shear C-fabrics are orientated north-northeast, are sub-vertical, and contain visibly orientated stretching lineations.

The lithological units of the greenstone belt within the project area are correlated with the Gabanintha Formation. The 3 km thick sequence consists of predominantly extrusive basic volcanics and their intrusive counterparts, which may be divided into three broad groups; Hangingwall Basalts (HWB); Great Fingall Dolerite (GFD) and Footwall Basalts (FWB).

The GFD is a large (up to 600 m thick), differentiated tholeiitic sill that strikes north-northeast and dips 60-70° west-northwest. It extends over a strike length of at least 16 km, from Cue in the north (where it is terminated against the Cue Gabbro and a post-folding granodiorite) to the Cuddingwarra Shear Zone in the vicinity of Lake Austin in the south. It plays a significant role as a major lithological control on gold mineralisation, the GFD has been well delineated and studied, both on surface and in underground workings and can be subdivided into five major units. The central granophyric units are deformed in a brittle manner and make for a better host for gold mineralisation.

The Footwall Basalts (FWB) consists of a highly contorted succession of intercalated basalts, high-Mg basalts, dolerites and ultramafics, with felsic volcanics and metasedimentary lithological units (mainly siltstones) to the east. Although subordinate to the GFD, the Footwall Basalts host significant gold mineralisation, such as the 100 koz deposit at Try Again.

The Hanging-wall Basalts (HWB) consist of a monotonous succession of basalts, pillow lavas, amygdaloidal basalts, agglomerate and graphitic interflow sediments well exposed as a line of low hills to the west of the Great Fingall Dolerite. A number of dolerite dykes and sills, two of which have been mapped, have intruded the Hanging-wall Basalts. The base of this group, in contact with the hanging-wall of the GFD, is marked by a distinct shale horizon that displays strong evidence of faulting and shearing.

A suite of younger dolerite dykes, up to 30 m thick, occur in the GFD (Hicks, 1990). These dykes are fine-grained with chilled margins. They pre-date, but are oriented sub-parallel to, the major quartz reefs (strike north-northwest to north, dip steeply west).

RESOURCE TO RESERVE METHODOLOGY

DATABASE

Data used in resource estimations is currently stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required.

The database contains data from a range of drilling techniques and sampling methodologies. These include, but are not exclusive to:

- Diamond drilling [including Geotechnical, structural and specific gravity data]
- Reverse Circulation drilling;
- Percussion drilling;
- Aircore drilling;
- Face Chip data;
- Sludge drilling.

By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size. This preserves the integrity of the master database and provides a snapshot of the database at the time of resource modelling and interpretation.

RESOURCE MODELLING & ESTIMATION TECHNIQUES

Three dimensional block models are used for resource estimation at the CMGP. All modeling and estimation work undertaken by MLX is carried out in three-dimensions using Surpac Vision Software.

Drill hole data to be used in the estimation is first validated before interpretation of the ore body is undertaken in sectional and / or plan view to form outline strings which form the basis of the three dimensional ore body wire-frame. Wire framing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three-dimensional representation of the mineralised body.

Drill hole intercepts within the mineralised body are defined, these intercepts are then used to flag the appropriate sections of the drill-hole database tables for compositing purposes. Drill holes assays are subsequently composited to allow for grade estimation. Generally only AC, RC, diamond drilling data (as well as face sampling data for underground mines) is used to inform a resource model. Open hole sludge and RAB drilling techniques are rarely included due to their perceived potential for contamination during sample collection. However, in the absence of other information sludge and RAB hole data is used to guide the interpreted form of the ore body but not to inform the ore body grade.

Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variograph analysis of individual domains is completed to assist with deriving appropriate search parameters. In the case of smaller populations, variography provides only partial guidance as to appropriate estimation parameters. This is then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.

An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model are variable and dependent on ore body geometry, minimum mining units, and levels of informing data available.

Grade estimation is undertaken within the empty block model, utilising the created wireframes as hard boundaries. Search parameters, deemed appropriate from statistical studies and geological interpretations, are utilised when informing the model via interpolation of created down-hole composite files. Generally speaking, the Ordinary Kriged estimation method is considered standard for all MLX work, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used.

The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines, using a combination of various estimation derived parameters and geological / mining knowledge. Subsequent to this classification the resource model is then passed onto Mine Planning for review and determination of reserves.

MINERAL RESOURCE TO RESERVE CONVERSION

Current MLX practice is to undertake detailed feasibility assessment in line with realised and budgeted costs, including detailed mine design and application of appropriate dilution assumptions prior to reclassifying any resource or part thereof as reserve.

The 30th June 2014 Ore Reserves of 15.5 Mt at 2.36 g/t for 1,174 koz are based upon MLX figures of a predicted long-term average gold price of A$1,500 per ounce, and a US$:AUD$ exchange rate of 1:1. The total Mineral Resource at 30th June 2014 is 62.9 Mt at 2.48 g/t containing 5.0 Moz. Ore Reserves have been calculated from the total available Mineral Resource by applying mine design factors, mining recovery and making an allowance for mining dilution in those areas reviewed during the year.

On 27th June 2014, Metals X completed the acquisition of the Meekatharra Gold operations previously operated by Reed Resources Ltd. Reed is a publicly listed company trading on the ASX (RDR) and published its Mineral Resource and Ore Reserves statements in its annual report and other announcements during its ownership under JORC 2004. In the short time since acquisition Metals X has not has sufficient time to complete a full review or estimate of these Mineral Resources or Ore Reserve estimates, however, they are material and it would be misleading for Metals X not to provide some guidance on them as they form a significant part of the Central Murchison Gold Project. Metals X has reviewed these in this context and has no reason to believe they will not be quotable under JORC 2012 in the fullness of time, but does conclude it is not in a position to quote them under JORC 2012 at this time. Hence, Metals X provides in Appendix 5 these estimates a previously announced by Reed.

The Central Murchison Gold Project (CMGP) 2014 Consolidated Mineral Resource and Ore Reserves statements are current as of June 30, 2014 are summarised:

CMGP – TOTAL MINERAL RESOURCE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade (g/t)	koz Metal Au
Measured	110	1.39	5
Indicated	41,361	2.54	3375
Inferred	21,470	2.38	1,640
Total	**62,941**	**2.48**	**5,020**

CMGP – TOTAL ORE RESERVE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade (g/t)	koz Metal Au
Proven	0	0.00	0
Probable	15,458	2.36	1,174
Total	**15,458**	**2.36**	**1,174**

COMPETENT PERSON'S STATEMENTS

The Mineral Resource Estimate was prepared Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style. The Ore Reserve estimate was prepared under the direction of Mr. Paul Hucker B.Eng. (Hons.) MAusIMM. Both are deemed competent persons in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves. All competent persons are senior executives of Metals X and may be entitled to participate in short-term and long term incentive plans of the Company.

The following tables summarise the Mineral Resource inventory and Ore Reserves by prospect.

Central Murchison Gold Project Resource Statement 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**
BIG BELL												
1600N / Shocker	-	-	-	3,440,988	1.67	184,892	1,236,672	1.61	63,824	4,677,660	1.65	248,716
1600N / Shocker U/g	-	-	-	64,238	1.71	3,528	1,189,207	2.79	106,672	1,253,445	2.73	110,200
700 / 1100	-	-	-	780,032	1.49	37,422	419,344	1.17	15,783	1,199,376	1.38	53,205
Big Bell	-	-	-	20,090,743	2.82	1,820,095	8,636,707	2.69	747,755	28,727,450	2.78	2,567,849
Big Bell South	-	-	-	2,824,082	1.62	147,195	1,722,851	1.65	91,317	4,546,933	1.63	238,513
Big Bell South U/g	-	-	-	65,871	2.86	6,048	1,452,891	2.37	110,893	1,518,762	2.39	116,942
Fender	-	-	-	1,006,144	2.42	78,407	25,285	2.01	1,631	1,031,429	2.41	80,037
Fender U/g	-	-	-	271,348	2.82	24,602	178,320	2.92	16,724	449,668	2.86	41,325
Indicator	-	-	-	201,861	1.69	10,968	43,980	0.84	1,188	245,841	1.54	12,156
Sub-Total	**-**	**-**	**-**	**28,745,307**	**2.50**	**2,313,156**	**14,905,257**	**2.41**	**1,155,787**	**43,650,564**	**2.47**	**3,468,943**
CUDDINGWARRA												
Black Swan	-	-	-	260,087	2.31	19,350	5,154	1.65	273	265,241	2.30	19,623
Black Swan South	-	-	-	315,029	3.77	38,184	1,856,848	3.82	228,050	2,171,877	3.81	266,234
Chieftain	-	-	-	181,475	1.40	8,168	-	-	-	181,475	1.40	8,168
City of Chester	-	-	-	415,508	1.98	26,451	81,289	1.76	4,600	496,797	1.94	31,050
City of Chester NW	-	-	-	196,954	1.65	10,448	13,370	1.18	507	210,324	1.62	10,955
Coventry North	-	-	-	-	-	-	204,396	1.34	8,806	204,396	1.34	8,806
Emily Well	-	-	-	-	-	-	346,840	1.41	15,723	346,840	1.41	15,723
Golden Gate Group	-	-	-	712,801	1.51	34,605	31,359	1.14	1,149	744,160	1.49	35,754
Jim's Find	-	-	-	262,808	1.69	14,280	37,459	1.52	1,831	300,267	1.67	16,110
Lady Rosie	-	-	-	267,916	2.10	18,089	14,689	1.13	534	282,605	2.05	18,622
Never Can Tell	-	-	-	22,772	2.70	1,977	50,290	2.24	3,622	73,062	2.38	5,599
Rheingold Group	-	-	-	260,937	3.33	27,936	1,184,970	1.86	70,862	1,445,907	2.13	98,798
South Victory	-	-	-	77,937	2.28	5,713	188,810	2.45	14,872	266,747	2.40	20,585
Sub-total	**-**	**-**	**-**	**2,974,224**	**2.15**	**205,200**	**4,015,474**	**2.72**	**350,829**	**6,989,698**	**2.47**	**556,029**

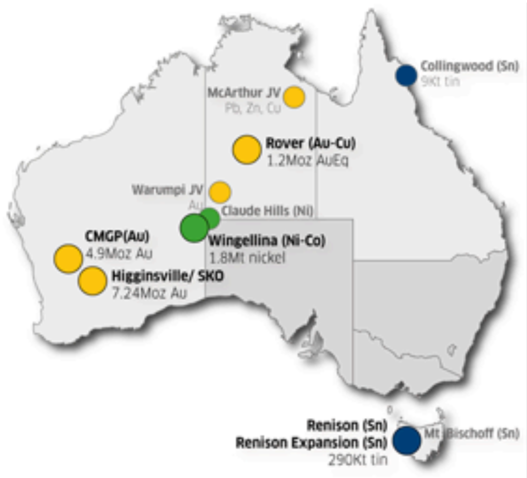
Central Murchison Gold Project Resource Statement 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**
CMGP - DAY DAWN												
3210	-	-	-	196,704	1.63	10,308	9,242	2.78	826	205,946	1.68	11,134
Brega Well	-	-	-	-	-	-	512,865	1.53	25,228	512,865	1.53	25,228
Crème d' Or Group	-	-	-	82,973	1.61	4,295	60,248	0.94	1,821	143,221	1.33	6,116
Emperor	-	-	-	-	-	-	48,847	2.78	4,366	48,847	2.78	4,366
Golden Crown	-	-	-	551,000	9.55	169,179	91,000	5.40	15,799	642,000	8.96	184,978
Great Fingall Open Pit	-	-	-	1,361,600	1.76	77,047	84,800	2.06	5,616	1,446,400	1.78	82,663
Great Fingall Deeps	-	-	-	787,702	8.84	223,842	-	-	-	787,702	8.84	223,842
Great Fingall Remnants	-	-	-	517,196	10.34	171,929	-	-	-	517,196	10.34	171,929
Kinsella - Kalahari	110,486	1.39	4,941	218,464	1.00	6,989	856,837	1.18	32,396	1,185,727	1.16	44,326
Mount Fingall	-	-	-	89,327	1.84	5,284	188,280	1.23	7,446	277,607	1.43	12,730
Race Course	-	-	-	-	-	-	216,354	1.60	11,129	216,354	1.60	11,129
Rubicon	-	-	-	142,665	2.21	10,137	-	-	-	142,665	2.21	10,137
South Fingall	-	-	-	221,556	1.84	13,107	113,555	2.17	7,922	335,111	1.95	21,029
Try Again Group	-	-	-	709,968	1.81	41,315	157,336	2.08	10,522	867,304	1.86	51,837
Trenton	-	-	-	-	-	-	97,043	1.32	4,118	97,043	1.32	4,118
Yellow Taxi Group	-	-	-	404,653	1.88	24,459	112,886	1.82	6,605	517,539	1.87	31,064
Sub-total	110,486	1.39	4,941	**5,004,131**	**4.62**	**743,286**	**1,966,938**	**1.67**	**105,920**	**7,943,587**	**3.51**	**896,626**
CMGP -STOCKPILES												
Big Bell Stockpiles	-	-	-	132,751	0.79	3,369	-	-	-	132,751	0.79	3,369
Big Bell Tails	-	-	-	3,394,000	0.70	76,384	-	-	-	3,394,000	0.70	76,384
Cuddingwarra Stockpiles	-	-	-	80,149	0.89	2,303	-	-	-	80,149	0.89	2,303
Day Dawn Stockpiles	-	-	-	432,774	0.59	8,266	-	-	-	432,774	0.59	8,266
Fingall Sands	-	-	-	317,902	0.79	8,074	-	-	-	317,902	0.79	8,074
Sub-Total	**-**	**-**	**-**	**4,357,576**	**0.70**	**98,396**	**-**	**-**	**-**	**4,357,576**	**0.70**	**98,396**
TOTAL	**110,486**	**1.39**	**4,941**	**41,360,915**	**2.54**	**3,374,641**	**21,470,024**	**2.38**	**1,640,411**	**62,941,425**	**2.48**	**5,019,993**

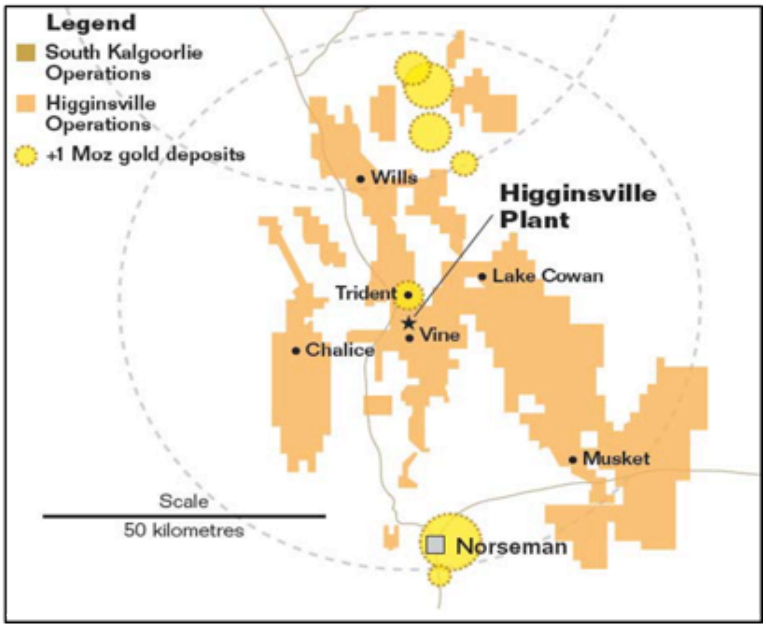
Central Murchison Gold Project Reserve Statement 30/06/2014									
Project	Proven			Probable			Total		
	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au
BIG BELL									
1600N / Shocker	-	-	-	709,732	2.09	47,629	709,732	2.09	47,629
Big Bell	-	-	-	8,010,097	2.65	682,456	8,010,097	2.65	682,456
Big Bell South	-	-	-	982,367	1.97	62,359	982,367	1.97	62,359
Fender	-	-	-	123,988	2.36	9,395	123,988	2.36	9,395
Sub-Total	**-**	**-**	**-**	**9,826,184**	**2.54**	**801,838**	**9,826,184**	**2.54**	**801,838**
CMGP - DAY DAWN									
Golden Crown	-	-	-	556,634	6.73	120,441	556,634	6.73	120,441
Great Fingall Open Pit	-	-	-	749,910	1.74	42,026	749,910	1.74	42,026
Great Fingall Deeps	-	-	-	434,601	7.77	108,568	434,601	7.77	108,568
South Fingall	-	-	-	59,647	1.70	3,260	59,647	1.70	3,260
Yellow Taxi Group	-	-	-	150,514	2.69	12,995	150,514	2.69	12,995
Sub-total	**-**	**-**	**-**	**1,951,306**	**4.58**	**287,290**	**1,951,306**	**4.58**	**287,290**
CMGP -STOCKPILES									
Big Bell Stockpiles	-	-	-	116,381	0.83	3,106	116,381	0.83	3,106
Big Bell Tails	-	-	-	3,394,000	0.70	76,384	3,394,000	0.70	76,384
Cuddingwarra Sockpile	-	-	-	51,317	0.75	1,230	51,317	0.75	1,230
Day Dawn Stockpiles	-	-	-	119,000	1.00	3,826	119,000	1.00	3,826
Sub-Total	**-**	**-**	**-**	**3,680,698**	**0.71**	**84,545**	**3,680,698**	**0.71**	**84,545**
TOTAL	**-**	**-**	**-**	**15,458,188**	**2.36**	**1,173,674**	**15,458,188**	**2.36**	**1,173,674**

Refer to Appendix 1 for JORC 2012 Table 1 details. Sections 1 -4.

HIGGINSVILLE GOLD OPERATIONS

The Higginsville Gold Operations (HGO) are located at the historic mining centre of Higginsville, 125 km south of Kalgoorlie and 55 km north of Norseman, immediately east of the Coolgardie-Esperance Highway, Lat. 31° 44' 0" E, Long. 121° 43' 18" S.





Figures: Location of Higginsville Operations.

GEOLOGY

REGIONAL GEOLOGY

The Higginsville Gold Operations are located in the Eastern Goldfields Superterrane (Cassidy et al., 2006) of the Archean Yilgarn Craton of Western Australia. The Eastern Goldfields Superterrane is comprised of metavolcanic and metasedimentary rocks, granites and granitic gneiss, and is divided into a number of terranes, namely the Kalgoorlie, Kurnalpi and Burtville Terranes. These tectono-stratigraphic terranes are defined on the basis of distinct volcanic facies, geochemistry and geochronology with the Eastern Goldfields Superterrane, and range in age from 2.81 to 2.66 Ga.

The Higginsville lease packages are located almost entirely within the well-mineralised Kalgoorlie Terrane, between the gold mining centres of Norseman and St Ives. This region is made up predominantly of younger (2.71 – 2.66 Ga) and minor older (>2.73 Ga) greenstone successions.

The structurally complex Archaean geology is rarely observed in outcrop, being obscured by well-developed ferruginous and carbonate soils, aeolian sands, tertiary palaeo-sediments and salt lake sediments. Many areas are also overprinted by deep lateritic profiles, which have resulted in extensive chemical remobilisation and deposition. The Archaean stratigraphy has a general northward trend comprising multiply deformed ultramafic – gabbro – basalt successions adjoined by sediments to the west and east. Shearing and faulted contacts are common. The units have been structurally repeated by east over west thrust faulting.

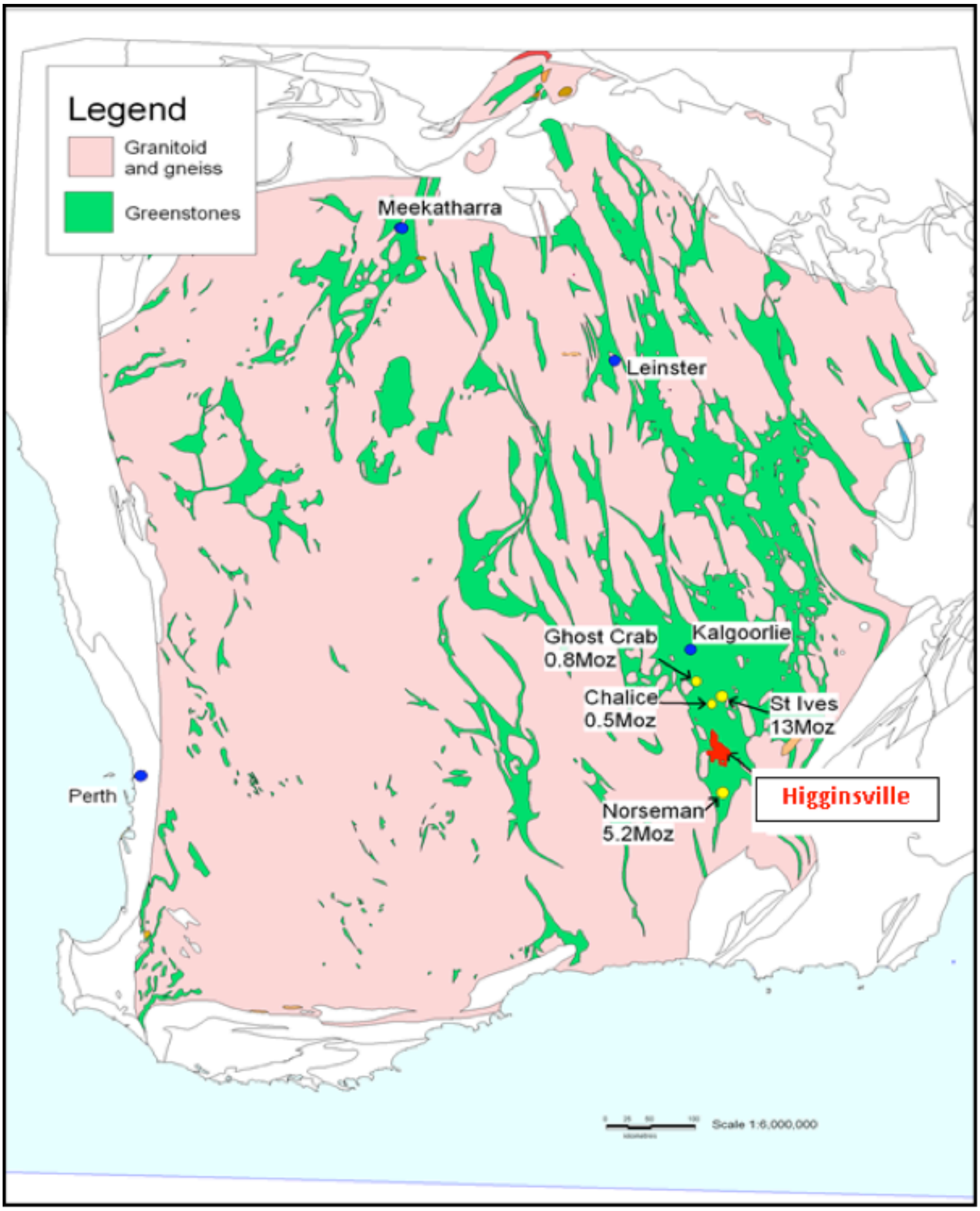


Figure: Greenstone belts within the Yilgarn Craton.

The Higginsville Operations can be sub-divided into four distinct geological domains:

- Trident line-of-lode;
- Chalice;
- Lake Cowan;
- Southern palaeochannels.

TRIDENT LINE-OF-LODE

The majority of mineralisation projects along the Trident line-of-lode are hosted within the Poseidon Gabbro and high-MgO dyke complexes in the south. The Poseidon Gabbro is a thick, weakly differentiated gabbroic sill (Newman et al, 2005), which strikes north south and dips 60° to the east, is over 500 m thick and 2.5 km long. The gabbro is broadly zoned (Zones 1 - 5), with Zone 3 considered the most favourable for mineralisation:

- Zone 1 is interpreted as an ultramafic cumulate base;
- Zone 2 is a feldspar-phyric mafic unit;
- Zone 3 is an equigranular, feldspar-quartz phyric unit.
- Zone 4 is a bladed amphibole unit; and
- Zone 5 is an equigranular, feldspar-amphibole phyric unit.

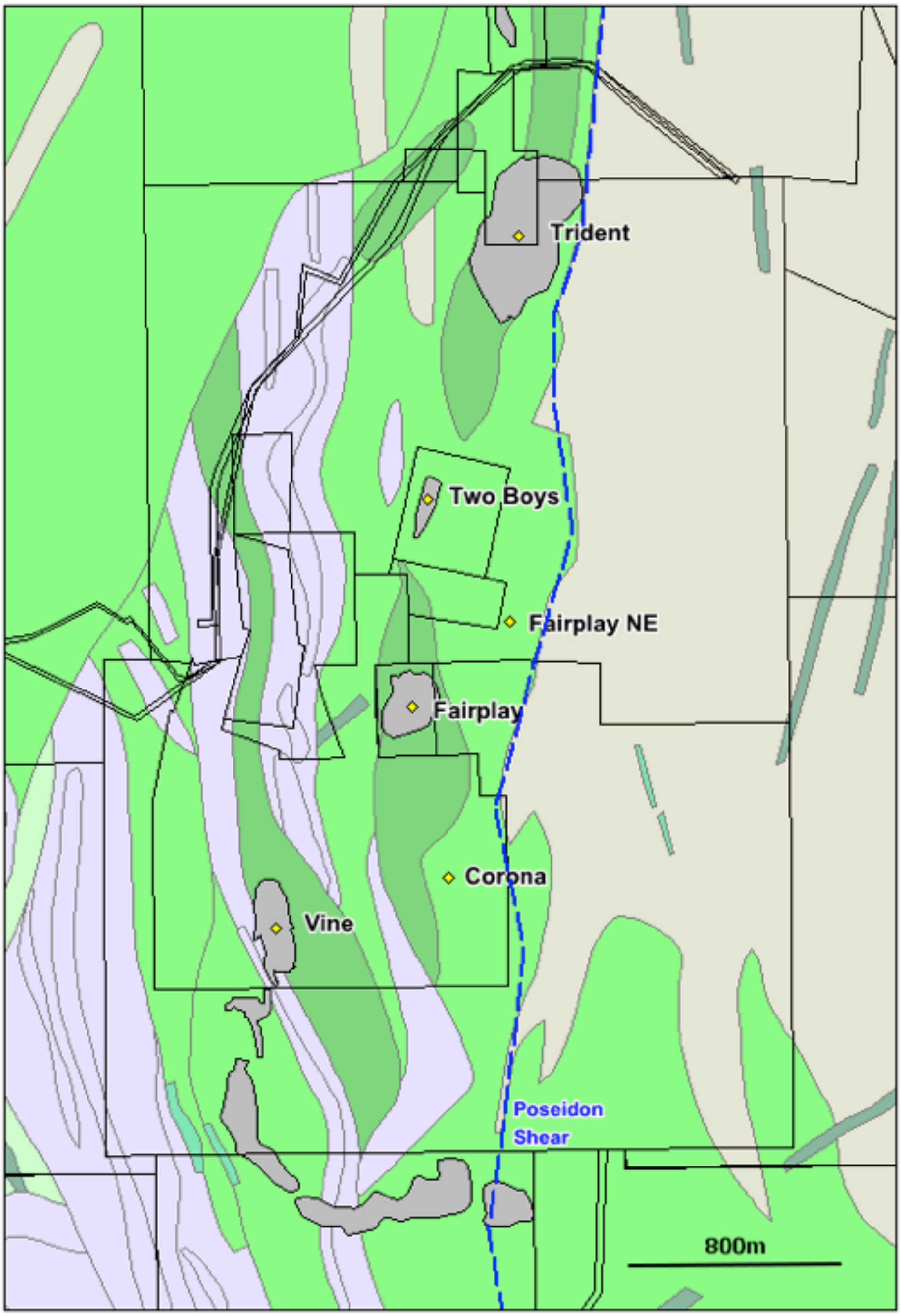


Figure: Deposits along the Trident Line-of-Lode

Faulting and shearing are important geological features in the region, with the Poseidon Thrust comprising a 5 to 10 m wide mylonite zone, which marks the contact between the eastern sedimentary packages of the Black Flag Beds and the underlying Paringa Basalt.

A number of shallow east-dipping, reverse fault zones have also been intersected in both the Trident underground mine and the Poseidon Open Pit. These structures vary in thickness between 5 and 50 m, and are generally moderately to well mineralised. Vertical to sub-vertical (steep east and steep west-dipping), north to northeast striking shear zones are evident throughout the Trident deposit, and are thought to form a primary control and fluid source for the formation of ore.

In the south deposits such as Fairplay North East and Corona are hosted by high-Mg basalts which strike North-South and dip at 50°-60° to the east. Thrust over the basalts are thick sequences of metasediments (Black Flag Beds) comprising fine grained, laminated to massive epiclastics tending to be more arenaceous and quartz rich to the east.

The mineralisation is hosted within or marginal to quartz veining and is structurally and lithologically controlled. Veins occur on and adjacent to the thrust contact and may be up to 3 m in width and lie preferentially in the basalt host. Alteration consists of silica flooding which has obscured older textures; locally intense biotite alteration within the basalts closely associated with the silicification and arsenopyrite alteration is common and locally intensified with the quartz veining and silica-biotite alteration. Laterisation and erosion have resulted in supergene enrichment within the transitional layer following downward surface water leaching of the upper saprolite.

CHALICE SHEAR HOSTED

The Chalice deposit is located within a north south trending, 2-3 km wide greenstone terrane, flanked on the west calc-alkaline granitic rocks of the Boorabin Batholith and to the east by the Pioneer Dome Batholith. The mafic-ultramafic rocks of the greenstone terranehave been described as upper greenschist to middle amphibolite facies metamorphosed high magnesium basalt, minor komatiite units and interflow clastic sedimentary rocks intruded by a complex network of multi-generational granite, pegmatite and porphyry bodies.

The dominant unit that hosts gold mineralisation is a fine grained, weak to strongly foliated amphibole-plagioclase amphibolite, with a typically lepidoblastic (mineralogically aligned and banded) texture. It is west dipping and generally steep, approximately 60°-75°. It is typically more competent than the ultramafic unit. The amphibolite is of basaltic derivation, with alteration and the metamorphic grade generally increasing markedly towards the main ore zone.

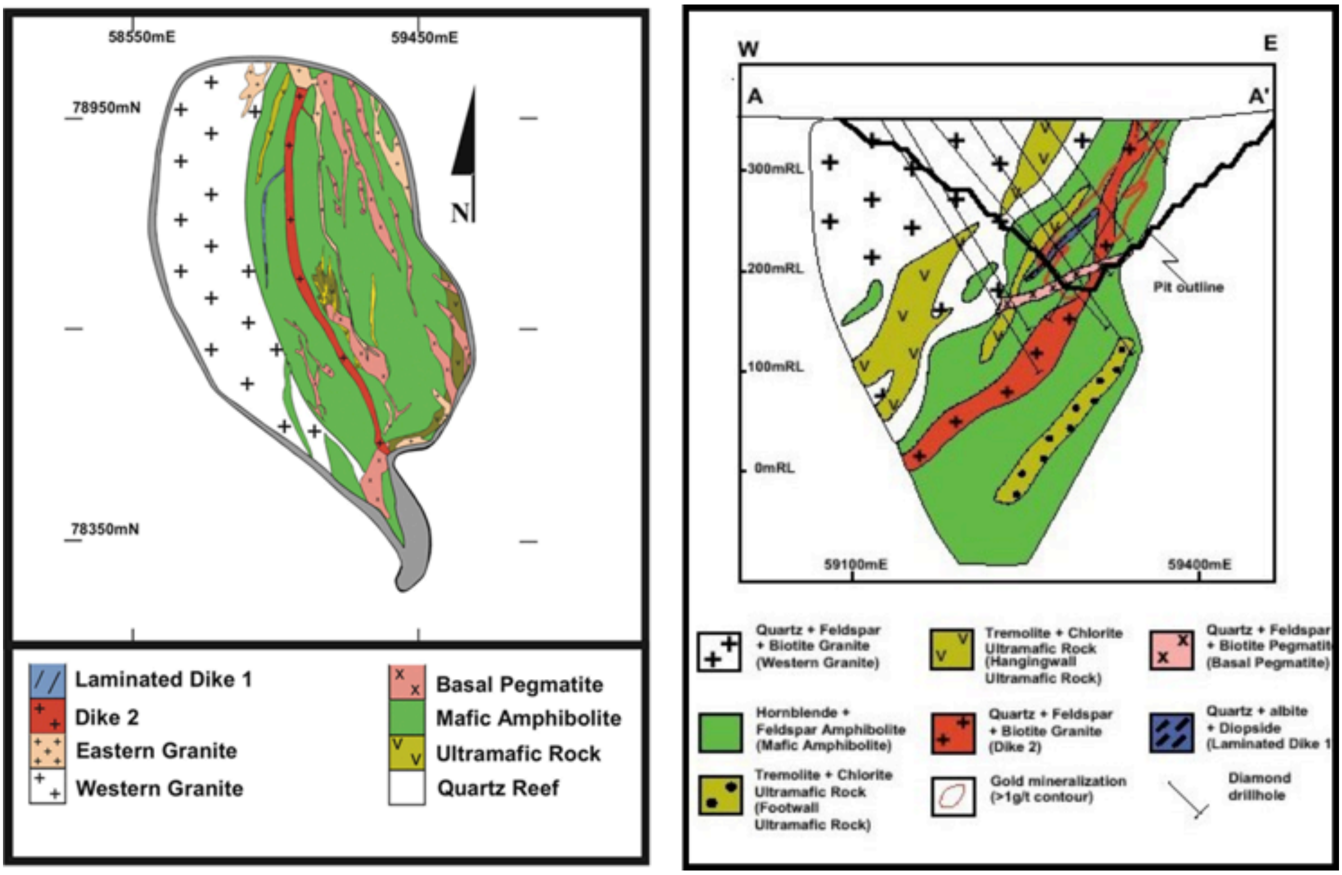


Figure: Simplified Geology of the Chalice Pit (left) ; Plan View, (right) Section view looking North

LAKE COWAN

The Lake Cowan Project is located on the northwest shore of the Lake Cowan salt pan, 19 km northeast of the historic Higginsville town site.

The area is situated near the centre of a regional anticline between the Zuleika and Lefroy faults, with the local geology of the area made more complex by the intrusion of the massive Proterozoic Binneringie dyke. The anticlinal system is in a rift-phase portion of the greenstone belt, comprising a complex succession of mafics and ultramafics, sulphidic carbonaceous shales, felsic volcanics and volcaniclastic sediments. These have been intruded by several younger felsic granitoids.

The area is interpreted to have undergone intense intraformational folding and transposition, and has a metamorphic grade estimated to be upper greenschist facies with local hornfelsing proximal to the Binneringie dyke.

The Binneringie dyke varies locally from a hornblende dominated dolerite to a feldspar dominated granodiorite, is medium to coarse grained, and is complexly interrelated to the mineralised structures in the Lake Cowan area. In a break of form for these generally east-northeast – west-southwest trending dyke systems, at Lake Cowan the Binneringie dyke follows the deep seated crustal weaknesses north and south for some distance, in the process interfering with the pre-existing mineralisation on a large scale. The majority of mineralisation at the Lake Cowan Mining Centre is hosted within an enclave of Archaean material surrounded by the Binneringie dyke.

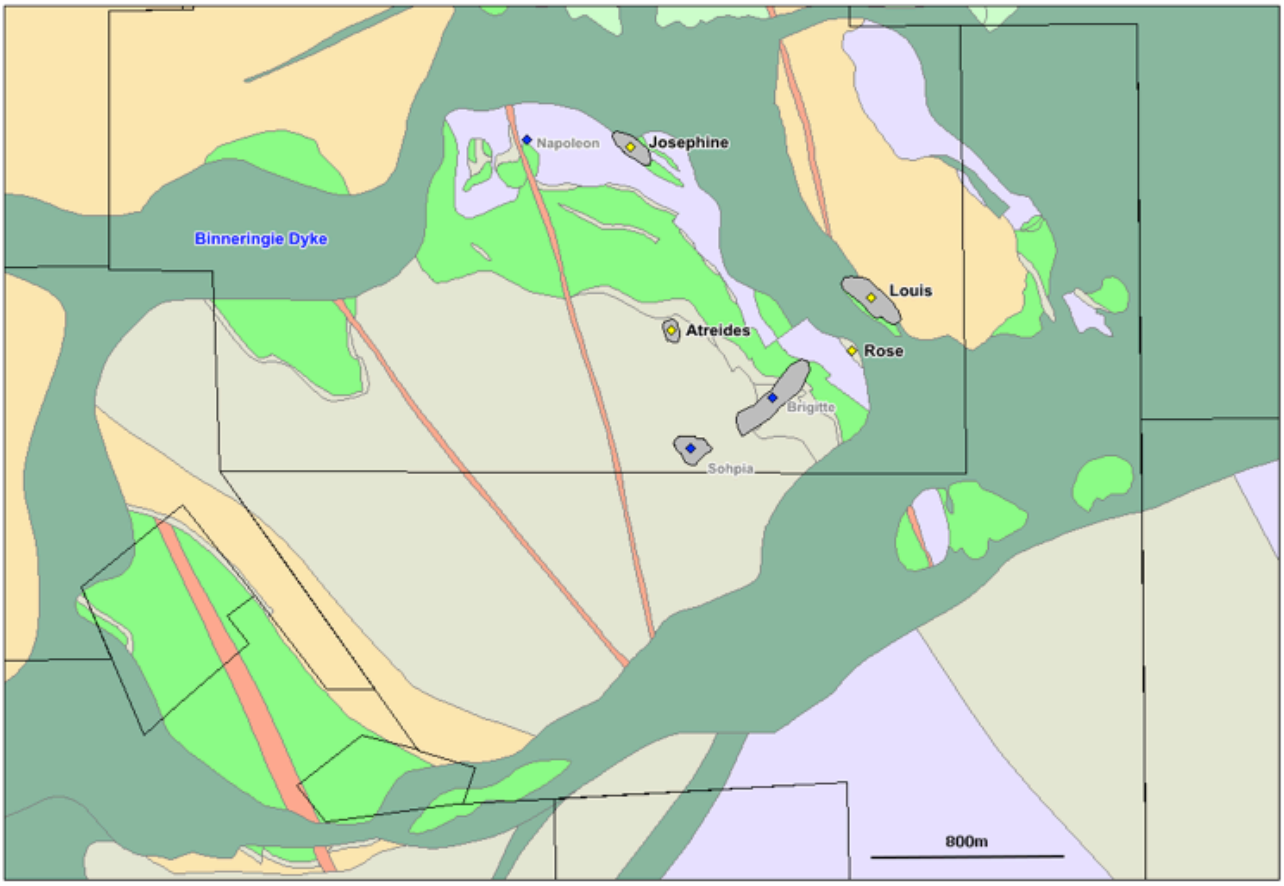


Figure: Mineral deposits within the Lake Cowan Project.

SOUTHERN PALAEOCHANNELS

Throughout the Higginsville Gold Operations, a significant proportion of gold deposits are hosted by sediments within Southern Palaeochannel networks. Mineralised zones comprise both placer gold, normally near the base of the channel-fill sequences, and chemically-precipitated secondary gold within the channel-fill materials and underlying saprolite. These gold concentrations commonly overlie, or are adjacent to, primary mineralised zones within Archaean bedrock.

Outcrop is generally poor, due to extensive ferruginisation, calcareous soils, aeolian sands and extensive areas of remnant lacustrine and fluvial sediments. The result is a complex, layered regolith, with considerable chemical re-mobilization and re-deposition (Lintern et al., 2001).

The regional palaeodrainage system has incised several fault-bounded greenstone sequences, which comprise high-Mg basalt, komatiite and minor interflow sedimentary rocks, intruded by dolerite and gabbro. The orientation of palaeochannels is largely controlled by major faults and shear-zones, that trend north-northwest, parallel to lithological contacts (Swager, 1989; Griffin, 1990).

The Cowan palaeodrainage system that includes the Challenge / Swordsman and Mitchell palaeochannels, comprises up to 100 m of Cainozoic sediment overlying Precambrian basement. Clarke (1993) divided the sedimentary sequence into the Eundynie Group, comprising a succession of Eocene sedimentary rocks, and the overlying Redmine Group, comprising Oligocene to Recent deposits.

Within oxidised basal sediments gold distribution is typically irregular and sparse. Placer gold is confined to quartzitic sand and gravel lag adjacent to a Tertiary / Archaean unconformity (autotchonous style), and is absent from clay and sand units throughout the upper part of the basal sand facies (allotchonous style). Placer gold may be preferentially concentrated according to palaeotopography where highly-elevated concentrations, commonly incorporating nugget-sized gold grains, occur at stream junctions, particularly in the upper reaches of channel systems. Elevated concentrations may also occur with particular orientations of the channel base, defined by regional bedrock structures.

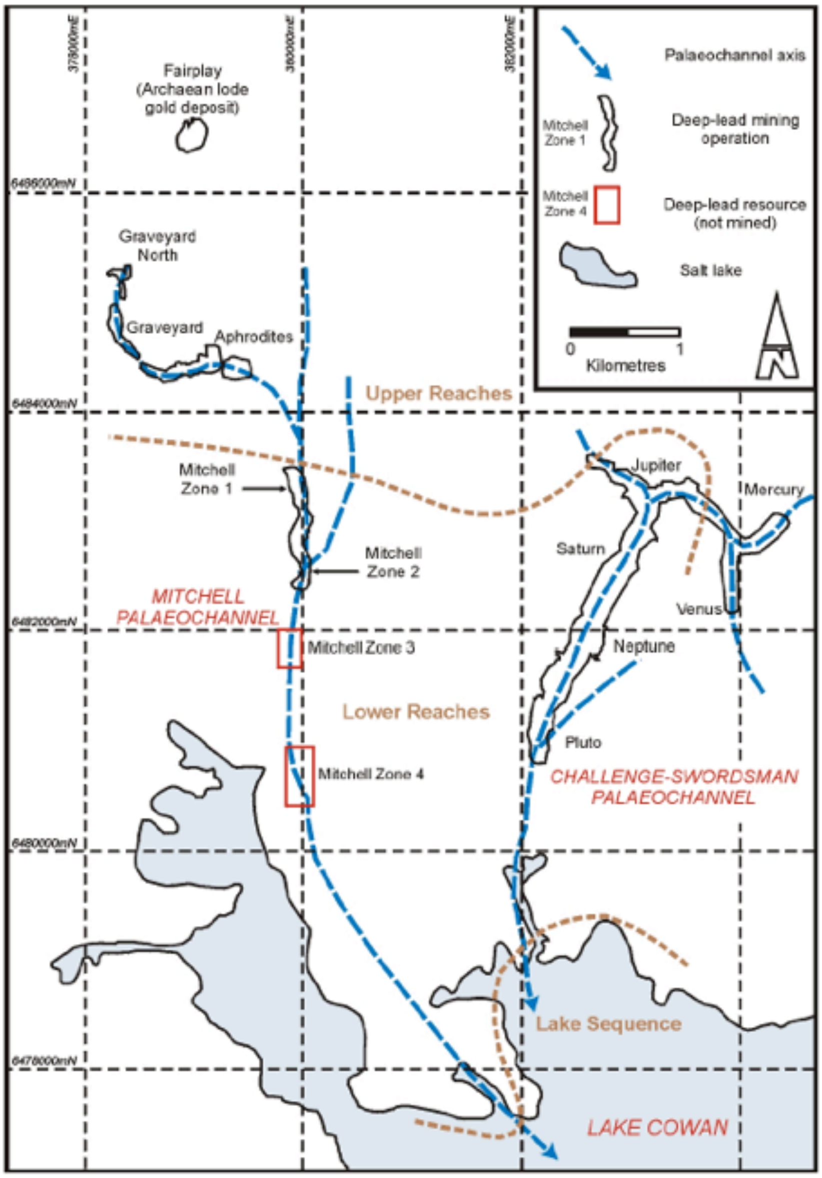


Figure: Location of the Challenge/Swordsman and Mitchell Palaeochannels.

RESOURCE TO RESERVE METHODOLOGY

DATABASE

Data used in resource estimations is currently stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required.

The database contains data from a range of drilling techniques and sampling methodologies. These include, but are not exclusive to:

- Diamond drilling (including Geotechnical, structural and specific gravity data)
- Reverse Circulation drilling;
- Percussion drilling;
- Aircore drilling;
- Face Chip data;
- Sludge drilling.

By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size. This preserves the integrity of the master database and provides a snapshot of the database at the time of resource modelling and interpretation.

RESOURCE ESTIMATION TECHNIQUES

Higginsville resources are calculated by first constructing a three dimensional solid model of the orebody, utilising all available geological information (back mapping, face sample data and drill hole logging). Interpretation is undertaken in Surpac Vision for all surface deposits and Maptek Vulcan for the Trident and Chalice underground operations.

Interpretation is undertaken in a combination of sectional and plan view in an attempt to create the most accurate approximation of mineralisation spatial distribution. Once complete, appropriate sample data points are intersected with the interpreted solids to extract assay composites.

Once the sample data has been composited, statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is completed to assist with deriving appropriate search parameters. In the case of smaller populations, variography provides only partial guidance as to appropriate estimation parameters. This is then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.

An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model are variable and dependent on ore body geometry, minimum mining units, and levels of informing data available.

Grade estimation is undertaken within the empty block model, utilising the created wireframes as hard boundaries. Search parameters, deemed appropriate from statistical studies and geological interpretations, are utilised when informing the model via interpolation of created down-hole composite files.

In general, when appropriate variography can be defined, the Ordinary Kriged method is employed for grade estimation. Within Trident however, the Athena lodes are populated using a grade assignment method, whereby development mapping and sampling is utilised to assign a grade for the lode between two development levels. Inverse distance estimates are also employed for lodes which produce poor variograms (e.g. Western Lode) and those deposits with extremely high nugget variability (e.g. Artemis).

The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines, using a combination of various estimation derived parameters and geological / mining knowledge. Subsequent to this classification the resource model is then passed onto Mine Planning for review and determination of reserves.

MINERAL RESOURCE TO RESERVE CONVERSION

Current MLX practice is to undertake detailed feasibility assessment in line with realised and budgeted costs, including detailed mine design and application of appropriate dilution assumptions prior to reclassifying any resource or part thereof as reserve.

The 30th June 2014 Ore Reserves of 4.5 Mt at 3.67 g/t for 535 koz are based upon MLX figures of a predicted long-term average gold price of A$1,400 per ounce, and a US$:AUD$ exchange rate of 1:1. The total Mineral Resource at 30th June 2014 is 13.3 Mt at 2.88 g/t containing 1.2 Moz. Ore Reserves have been calculated from the total available Mineral Resource by applying mine design factors, mining recovery and making an allowance for mining dilution in those areas reviewed during the year.

HIGGINSVILLE – TOTAL MINERAL RESOURCE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade	koz Metal
Measured	1,441	4.41	204
Indicated	8,175	2.95	777
Inferred	3,692	2.10	250
Total	**13,307**	**2.88**	**1,231**

HIGGINSVILLE – TOTAL ORE RESERVE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade	koz Metal
Proven	533	5.94	102
Probable	4,005	3.36	433
Total	**4,538**	**3.67**	**535**

COMPETENT PERSON'S STATEMENTS

The Mineral Resource Estimate was prepared Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style. The Ore Reserve estimate was prepared under the direction of Mr. Paul Hucker B.Eng. (Hons.) MAusIMM. Both are deemed competent persons in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves. All competent persons are senior executives of Metals X and may be entitled to participate in short-term and long term incentive plans of the Company.

The following tables summarise the Mineral Resource Inventory and Ore Reserves by prospect:

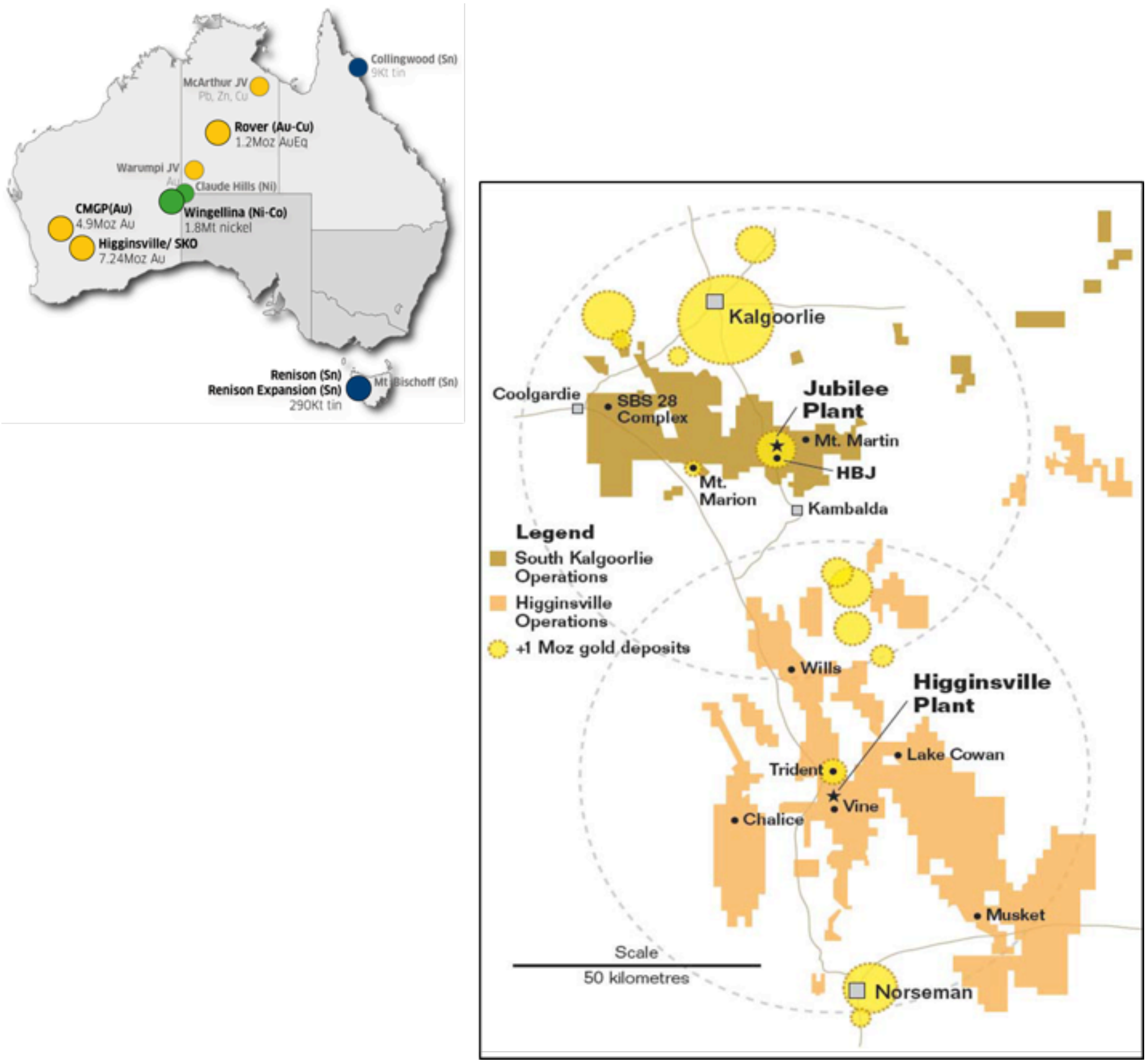
Higginsville Gold Operations Resource Statement 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**
HGO												
Trident	799,321	4.77	122,545	1,436,436	6.31	291,571	385,789	4.43	54,999	2,621,546	5.57	469,115
Chalice	426,759	4.79	65,655	574,335	3.79	69,906	155,808	4.36	21,864	1,156,902	4.23	157,425
Corona	-	-	-	16,441	39.77	21,024	5,983	8.25	1,587	22,424	31.36	22,611
Corona Shear	-	-	-	-	-	-	49,976	3.77	6,057	49,976	3.77	6,057
Fairplay	-	-	-	756,399	1.94	47,273	-	-	-	756,399	1.94	47,273
Fairplay NE	-	-	-	733,043	3.01	70,888	274,445	1.82	16,062	1,007,487	2.68	86,950
Halo	-	-	-	-	-	-	197,864	1.54	9,804	197,864	1.54	9,804
Vine	-		-	189,981	2.13	13,020	468,420	2.04	30,768	658,401	2.07	43,788
Atriedies	-	-	-	-	-	-	76,061	1.65	4,031	76,061	1.65	4,031
Josephine	-	-	-	139,188	1.76	7,898	76,481	1.34	3,289	215,669	1.61	11,188
Louis	-	-	-	1,124,088	1.66	59,993	116,493	1.37	5,131	1,240,581	1.63	65,124
Napoleon	-	-	-	-	-	-	305,506	1.73	16,944	305,506	1.73	16,944
Rose	-	-	-	-	-	-	217,135	1.18	8,261	217,135	1.18	8,261
Two Boys	-	-	-	1,567,439	1.54	77,450	363,491	1.41	16,462	1,930,930	1.51	93,912
Wills	-	-	-	123,820	2.70	10,748	72,370	1.70	3,955	196,190	2.33	14,704
Mitchell 3	-	-	-	330,000	1.80	19,098	24,000	1.40	1,080	354,000	1.77	20,178
Mitchell 4	-	-	-	214,000	2.80	19,265	11,000	3.80	1,344	225,000	2.85	20,609
Pluto	-	-	-	535,000	1.89	32,509	14,000	1.23	554	549,000	1.87	33,063
Musket	-	-	-	350,380	2.79	31,429	341,265	1.82	19,969	691,645	2.31	51,398
Mousehollow	-	-	-	-	-	-	425,600	1.60	21,893	425,600	1.60	21,893
Pioneer	-	-	-	84,150	1.65	4,464	110,150	1.63	5,772	194,300	1.64	10,237
ROM Stocks	12,722	4.78	1,956	-	-	-	-	-	-	12,722	4.78	1,956
GIC	6,329	39.14	7,964	-	-	-	-	-	-	6,329	39.14	7,964
Satellite Stockpiles	195,832	1.01	6,341	-	-	-	-	-	-	195,832	1.01	6,341
TOTAL	**1,440,963**	**4.41**	**204,461**	**8,174,700**	**2.95**	**776,537**	**3,691,836**	**2.10**	**249,826**	**13,307,499**	**2.88**	**1,230,824**

Higginsville Gold Operations Reserve Statement 30/06/2014									
Project	Proven			Probable			Total		
	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au
HGO									
Trident	278,309	6.28	56,215	1,306,904	5.30	222,545	1,585,213	5.47	278,759
Chalice	235,887	4.72	35,783	214,619	3.86	26,667	450,506	4.31	62,450
Corona	-	-	-	65,976	10.83	22,963	65,976	10.83	22,963
Fairplay	-	-	-	160,072	6.67	34,329	160,072	6.67	34,329
Fairplay NE	-	-	-	256,118	1.79	14,764	256,118	1.79	14,764
Josephine	-	-	-	23,455	1.49	1,123	23,455	1.49	1,123
Louis	-	-	-	378,280	1.99	24,214	378,280	1.99	24,214
Wills	-	-	-	70,181	3.06	6,911	70,181	3.06	6,911
Mitchell 3	-	-	-	807,223	1.54	40,056	807,223	1.54	40,056
Pluto	-	-	-	273,568	1.52	13,345	273,568	1.52	13,345
Musket	-	-	-	176,786	2.86	16,282	176,786	2.86	16,282
Pioneer	-	-	-	76,124	1.41	3,451	76,124	1.41	3,451
ROM Stocks	12,722	4.78	1,956	-	-	-	12,722	4.78	1,956
GIC	6,329	39.14	7,964	-	-	-	6,329	39.14	7,964
Satellite Stockpiles	-	-	-	195,832	1.01	6,341	195,832	1.01	6,341
TOTAL	**533,247**	**5.94**	**101,918**	**4,005,138**	**3.36**	**432,990**	**4,538,385**	**3.67**	**534,908**

Refer to Appendix 1 for JORC 2012 Table 1 details. Sections 1 -4.

SOUTH KALGOORLIE OPERATIONS

Metals X's granted South Kalgoorlie tenements and freehold titles cover approximately 187,841 ha (1,878 km^2), and are located between Coolgardie, 15 km south of Kalgoorlie and 10 km north of Kambalda. These tenements lie in the Coolgardie and East Coolgardie Mineral Fields, in the Shire of Coolgardie and City of Kalgoorlie-Boulder (local government authorities) of Western Australia, centred at 30°45'S latitude and 121°28'E longitude.



Figures: Location of South Kalgoorlie Operations

GEOLOGY

The South Kalgoorlie Operations are located in the Eastern Goldfields Superterrane (Cassidy et al., 2006) of the Archean Yilgarn Craton. The SKO tenement package falls largely within the Kalgoorlie and Kurnalpi Terranes, which in turn are further subdivided into several structurally bound domains, which preserve distinct volcanism. The interconnected fault systems that bounds the terranes and domains form an anatomising network.

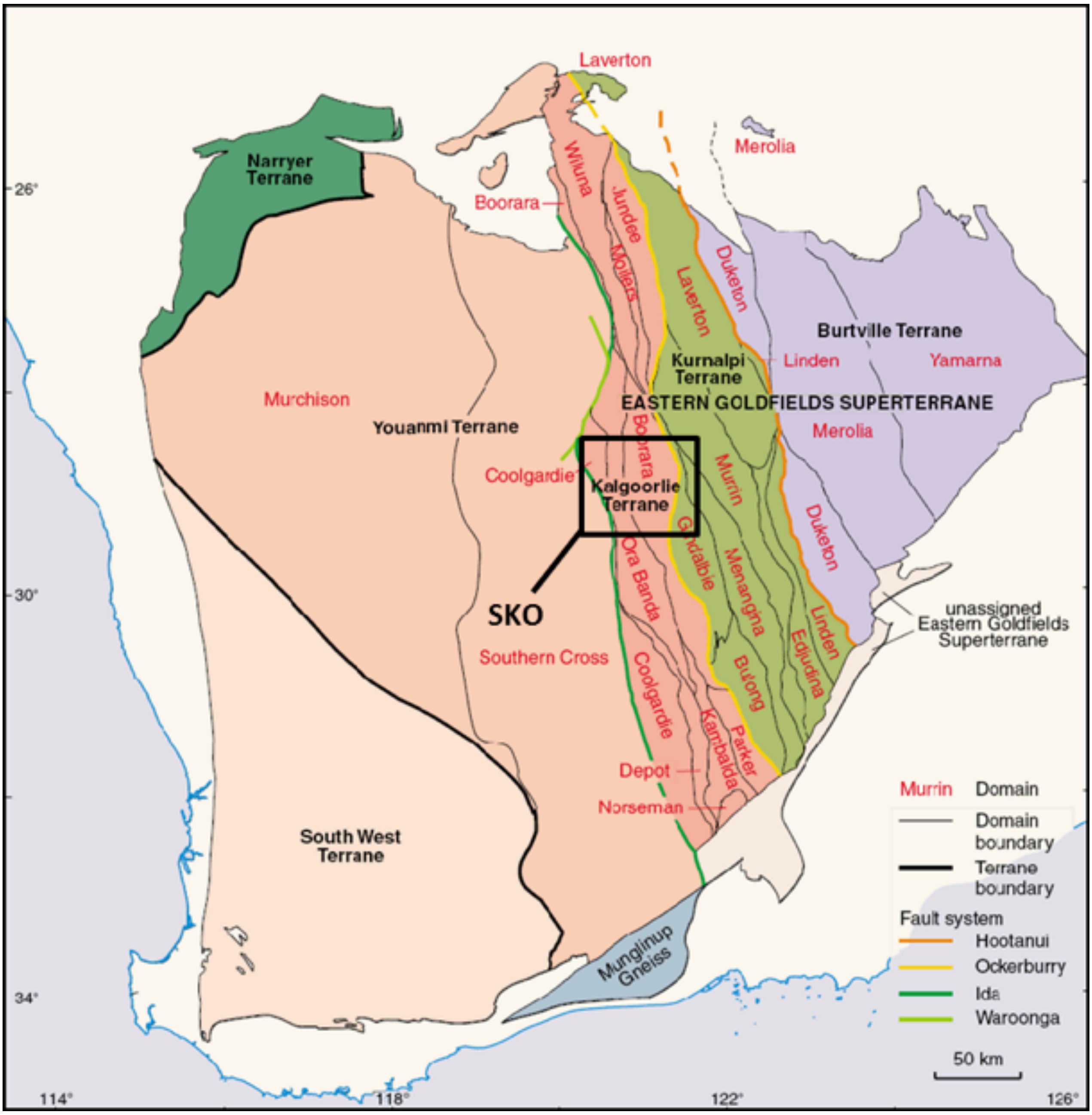


Figure: Tectonic sub-division of the Yilgarn Cr

Stratigraphy for the Ora Banda and Kalgoorlie Domains is relatively well-known and comprises (from stratigraphically lowest) a lower basalt unit, komatiitic to high-magnesian basaltic rocks, an upper basalt unit and overlying felsic volcanic-sedimentary units. Conglomeratic and sandstone units unconformably overlie the upper felsic units adjacent to major shear zones. Layered mafic sills occur within various stratigraphic units and cross-cutting Proterozoic dykes also occur throughout the region. Metamorphic grade ranges from upper greenschist to upper amphibolite facies.

The deformation history of the area is generally divided into four main phases, comprising north-directed thrusting with recumbent folding and stratigraphic repetition in D1. The second deformation (D2) resulted in north-northwest trending folds which are reflected in the dominant north-northwest trending fabric of the greenstone belts. Shortening continued during D3 with strike slip movement along northwest to north-northwest trending shear zones and D4 brittle faulting.

In the Eastern Goldfields Superterrane of the Archean Yilgarn Craton, gold deposits are generally classified as orogenic gold deposits (Groves et al, 1998) and are hosted in a variety of mafic, ultramafic, felsic and sedimentary rocks and porphyry intrusions. The deposits form at a variety of crustal levels and display a strong structural control at a variety of scales. The nature of the local-scale structural control varies from deposit to deposit along with a variety of ore and alteration mineralogy. In general, gold is associated with sulphides, quartz-carbonate veins and potassic wall rock hydrothermal alteration.

On a regional scale, structure is the single most important factor controlling ore deposit distribution and the geometry of ore shoots, which are generally adjacent to trans-craton deformation zones. On the mining scale gold mineralisation tends to be situated in shorter strike-length, geometrically-related, smaller scale structures reflecting later movement on these trans-craton deformation zones. Different mineralisation styles reflect strength contrasts between different adjacent rock types which in turn affect variations in orientation of resultant host structure in regional stress fields. Accordingly individual mines may be dominated by a single deposit style or several different mineralisation styles depending upon scale of controlling structures, homogeneity and thickness of host rocks.

Mineralisation is common in shear zones along lithological contacts. Discordant veins may be grossly stratabound and restricted to specific lithologies. Deposits may run the complete spectrum from ductile to brittle fault and fracture zones though most gold-hosting structures show features of brittle-ductile transition. While all Archean lithologies in Yilgarn greenstone belts may be mineralised, mafic volcanics and internal granitoids are the most productive hosts in areas of significant gold production. Rocks with high iron contents or high Fe/Fe+Mg ratios and/or banded iron formations are often important hosts in comparison to other Archean greenstone belts. Ore mineralogy tends to be fairly simple with a prevalence of native gold or gold sited within pyrite ± pyrrhotite ± arsenopyrite structures.

Major mineralisation centres within South Kalgoorlie include:

- Boulder Lefroy Shear Zone - inclusive of Hampton Boulder Jubilee and Mount Martin;
- Mount Marion;
- Shirl - Barbara - Surprise (SBS)

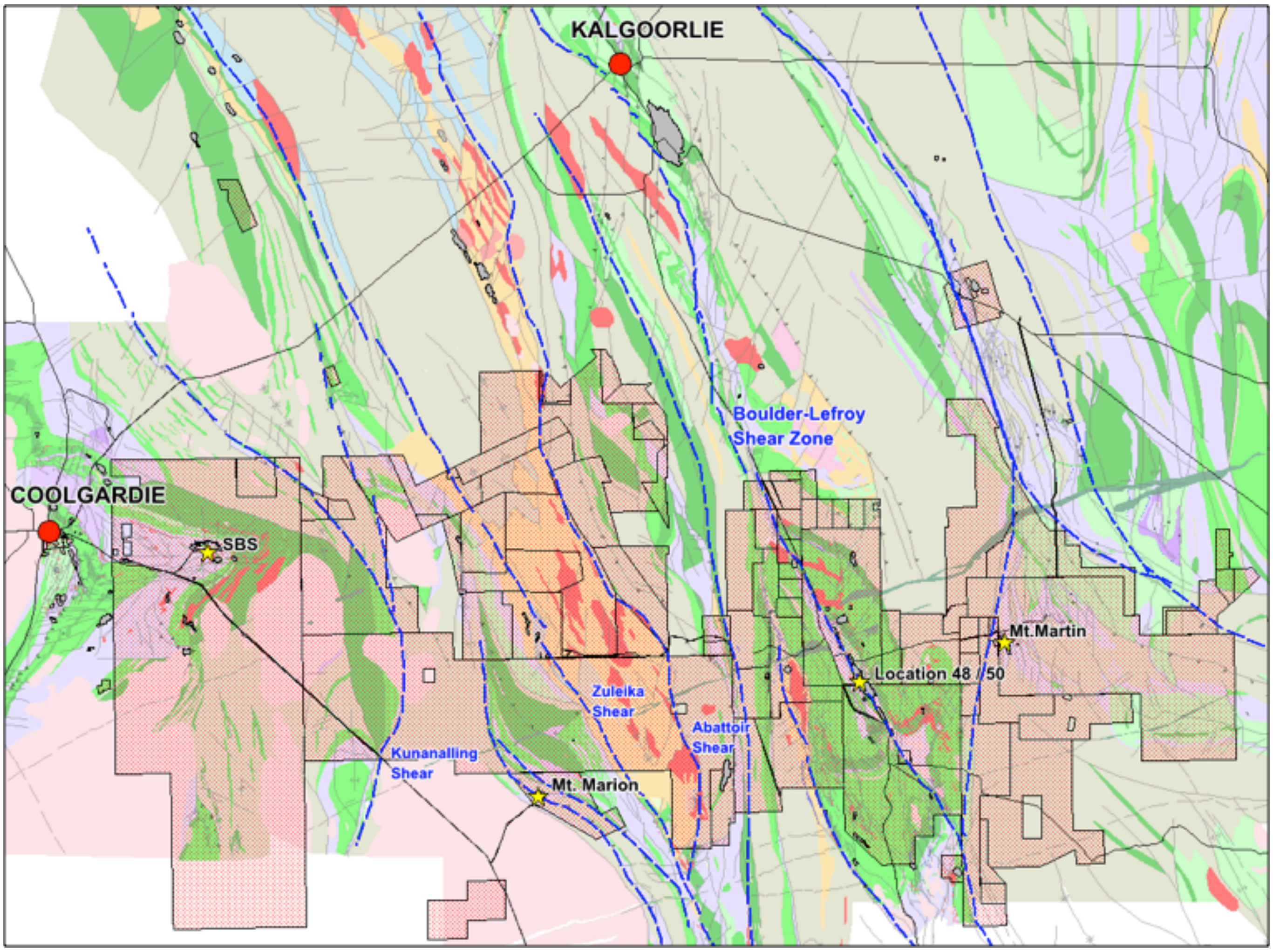


Figure: Major mineralisation centres of the South Kalgoorlie Operations in relation to the regional geology.

BOULDER - LEFROY SHEAR ZONE

The Boulder Lefroy Shear Zone (BLSZ) is a major controlling structure for gold mineralisation within the South Kalgoorlie Operations, including the Celebration, Mutooroo, Hampton - Boulder - Jubilee and Golden Hope open pit and underground mines.

Mineralisation projects located along the BLSZ are generally hosted within a steeply-dipping, north-northwest-striking package of mafic, ultramafic and sedimentary rocks and schists that have been intruded by felsic to intermediate porphyries. The area is extensively deformed with numerous north-striking shear zones and boudinage of the porphyry intrusions.

Within Hampton - Boulder - Jubilee, gold mineralisation is structurally controlled and occurs throughout the mafic schists and particularly within the more competent porphyries. Mineralisation is focussed along lithological contacts, within stockwork and tensional vein arrays and within shear zones. The main ore zone has a length in excess of 1.9 km and an average width of 40 m in the Jubilee workings but is generally narrower to the north in the Hampton-Boulder workings. Mineralisation is associated with an alteration assemblage of potassium-feldspar, biotite, chlorite, carbonate, silica, pyrite and veins of quartz, carbonate and pyrite.

MOUNT MARION

Mount Marion sits within a northwest flexure of the north- northwest trending Karramindie Shear Zone to the northeast of the Depot Granodiorite. The orebody is hosted by a sequence of intercalated meta-komatiites and meta-sediments that have been metamorphosed to amphibolite facies.

The Ghost Crab / Mount Marion orebody was first discovered by Newcrest Mining in 1995. Targeted as a potential site for mineralisation because of the presence of a northwest / north-northwest flexure of the Karramindie Shear Zone and its proximity to the Depot Granodiorite. Initial soil auger sampling identified a broad anomaly and a series of RAB/AC holes followed. The program located mineralisation within the shear zone, where a competency contrast between altered garnet biotite schist (lode gneiss) and encompassing komatiite flows (ultramafic) provided an optimal site for gold mineralisation. Gold was recognised throughout the lode gneiss and 2-5 m of hangingwall ultramafic, and was found to be associated with silica-cummingtonite-plagioclase alteration with minor pyrrhotite, carbonate and chlorite.

The lode gneiss strikes northwest and dips at approximately 65° northeast. The overall strike length ranges up to 400 m with thicknesses from 1 to 25 m. The lense generally plunges to the northwest at approximately 45°, with the mineralisation intersected in deep drilling to 950 m below surface, a down-plunge length of 1,400 m. The total pre-mining resource of the Mount Marion lodes stands at approximately 1.2 Moz, making Mount Marion one of the largest orebodies in the Coolgardie Domain.

SHIRL – BARBARA – SURPRISE

The Shirl – Barbara – Surprise project is located on the fold hinge of the Tindal's Anticline. Regional geology consists of three facies; basalt in the core, komatiite sequence hosting the named deposits, and amphibolite / meta- high-Mg basalt above. Frequent narrow felsic porphyries intrude these and rare mafic intrusives (e.g. Shirl Gabbro, Barbara Pyroxenite) also occur.

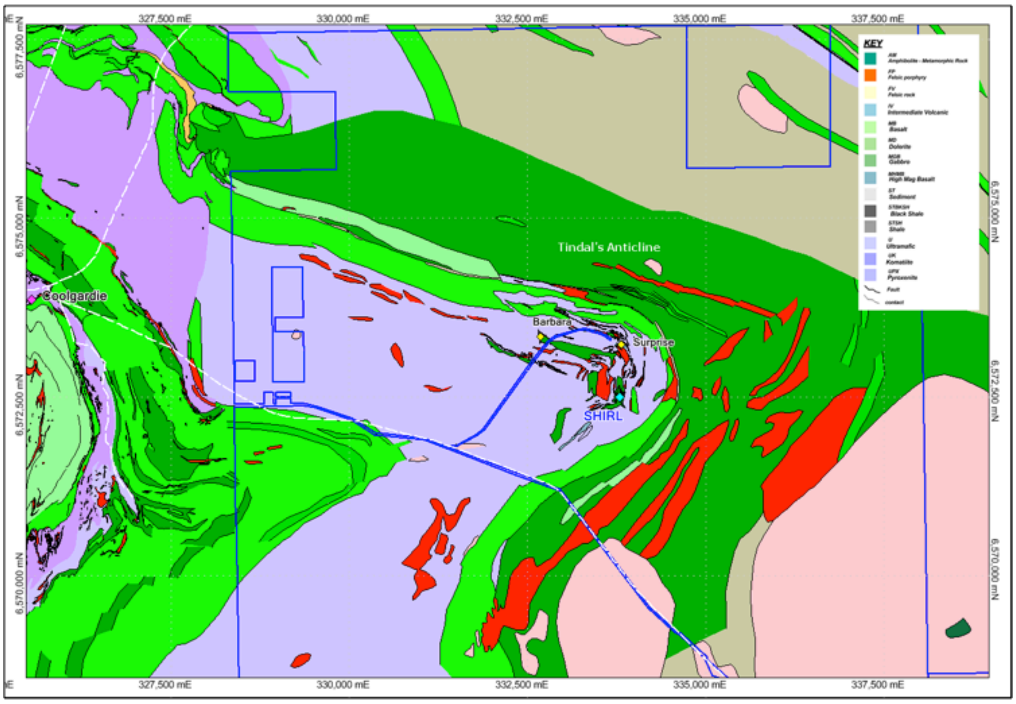


Figure: Regional Geology of the Coolgardie Terrane, in particular the Tindal's Anticline.

RESOURCE TO RESERVE METHODOLOGY

DATABASE

The current databases comprise a mixture of historic data derived from continued exploration activities undertaken by numerous property owners dating back to the 1970s, and more recent data from exploration campaigns managed by SKO.

Data used in resource estimations is currently stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required.

The database contains data from a range of drilling techniques and sampling methodologies. These include, but are not exclusive to:

- Diamond drilling (including Geotechnical, structural and specific gravity data)
- Reverse Circulation drilling;
- Percussion drilling;
- Aircore drilling;
- Face Chip data;
- Sludge drilling.

By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size. This preserves the integrity of the master database and provides a snapshot of the database at the time of resource modelling and interpretation.

Historical datasets are interrogated for validation issues such as; erroneous collar co-ordinates, suspect downhole surveys etc. via the 3D visualisation and sectional review of the dataset. It is considered that the validation process and resulting corrections to the database are to a standard which allows the data to be used in the Mineral Resource estimation process.

RESOURCE ESTIMATION TECHNIQUES

South Kalgoorlie resources are calculated by first constructing a three dimensional solid model of the orebody, utilising all available geological information (back mapping, face sample data and drillhole logging). Interpretation has been undertaken in a variety of industry standard software packages including Surpac Vision, Datamine and Maptek Vulcan.

Interpretation is undertaken in a combination of sectional and plan view in an attempt to create the most accurate approximation of mineralisation spatial distribution. Once complete, appropriate sample data points are intersected with the interpreted solids to extract assay composites.

Once the sample data has been composited, statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is completed to assist with deriving appropriate search parameters. In the case of smaller populations, variography provides only partial guidance as to appropriate estimation parameters. This is then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.

An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model are variable and dependent on ore body geometry, minimum mining units, and levels of informing data available.

Grade estimation is undertaken within the empty block model, utilising the created wireframes as hard boundaries. Search parameters, deemed appropriate from statistical studies and geological interpretations, are utilised when informing the model via interpolation of created down-hole composite files. Generally speaking, the Ordinary Kriged estimation method is considered standard for all MLX work, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used.

The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines, using a combination of various estimation derived parameters and geological / mining knowledge. Subsequent to this classification the resource model is then passed onto Mine Planning for review and determination of reserves.

Where applicable generated mineral resources are validated against historical reconciliation data, to ensure the model is representative of production.

MINERAL RESOURCE TO RESERVE CONVERSION

Current MLX practice is to undertake detailed feasibility assessment in line with realised and budgeted costs, including detailed mine design and application of appropriate dilution assumptions prior to reclassifying any resource or part thereof as reserve.

All South Kalgoorlie Reserves are currently held in stockpiles, which are a product of past mining. The 30th June 2014 Ore Reserves of 966 kt at 0.83 g/t for 26 koz are based upon MLX figures of a predicted long-term average gold price of A$1,400 per ounce, and a US$:AUD$ exchange rate of 1:1. The total Mineral Resource at 30th June 2014 is 50.4 Mt at 1.98 g/t containing 3.2 Moz. Ore Reserves have been calculated from the total available Mineral Resource by applying mine design factors, mining recovery and making an allowance for mining dilution in those areas reviewed during the year.

Metals X has commenced the evaluation of a number of open pit and underground mining opportunities within the South Kalgoorlie package and expects to markedly increase the reserve base for the project by the end of financial year 2015.

SOUTH KALGOORLIE – TOTAL MINERAL RESOURCE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade (g/t)	koz Metal Au
Measured	2,349	1.75	132
Indicated	31,462	1.97	1,989
Inferred	16,557	2.05	1,093
Total	**50,368**	**1.98**	**3,214**

SOUTH KALGOORLIE – TOTAL MINERAL RESERVE ESTIMATE (CONSOLIDATED)

JORC Category	kt	Grade (g/t)	koz Metal Au
Proven	900	0.77	22
Probable	60	0.6	1
Total	**996**	**0.76**	**23**

COMPETENT PERSON'S STATEMENTS

The Mineral Resource Estimate was prepared Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style. The Ore Reserve estimate was prepared under the direction of Mr. Paul Hucker B.Eng. (Hons.) MAusIMM. Both are deemed competent persons in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves. All competent persons are senior executives of Metals X and may be entitled to participate in short-term and long term incentive plans of the Company.

The following tables summarise the Mineral Resource Inventory and Ore Reserves by prospect:

South Kalgoorlie Gold Operations Resource Statement 30/06/2014												
Project	Measured			Indicated			Inferred			Total		
	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au	Tonnes	Grade	Ounces Au
SKO												
HBJ	279,738	2.66	23,920	13,113,136	1.57	662,033	1,178,490	1.25	47,240	14,571,364	1.57	733,194
Pematty	-	-	-	672,000	2.69	58,118	2,113,000	2.30	156,249	2,785,000	2.39	214,368
Celebration	-	-	-	356,000	3.14	35,939	144,000	2.30	10,648	500,000	2.90	46,588
Lanarkshire Basalt	-	-	-	108,000	3.40	11,806	21,000	2.70	1,823	129,000	3.29	13,629
Lanarkshire Porphyry	-	-	-	1,621,000	1.10	57,328	1,442,000	1.00	46,361	3,063,000	1.05	103,689
TNT (Pernatty North)	-	-	-	343,000	1.71	18,857	216,000	1.80	12,500	559,000	1.74	31,358
Peaceful Chief	-	-	-	64,000	2.05	4,218	353,000	1.80	20,429	417,000	1.84	24,647
Mt Goddard + North	-	-	-	497,000	1.37	21,891	160,000	1.30	6,687	657,000	1.35	28,578
Dawns Hope	-	-	-	944,000	2.20	66,771	737,000	1.80	42,651	1,681,000	2.02	109,422
Incl. Shaft Lanc. Lass	-	-	-	503,360	2.29	37,011	410,043	2.19	28,858	913,403	2.24	65,869
White Hope / Hansel M	-	-	-	-	-	-	1,179,000	2.30	87,183	1,179,000	2.30	87,183
Shirl OP	-	-	-	153,000	3.00	14,757	35,000	2.20	2,476	188,000	2.85	17,233
Shirl UG	-	-	-	598,000	3.23	62,100	131,000	2.30	9,687	729,000	3.06	71,787
Barbara	-	-	-	111,000	2.80	9,992	117,000	2.50	9,404	228,000	2.65	19,397
Surprise	-	-	-	1,002,000	2.34	75,383	860,000	2.33	64,424	1,862,000	2.34	139,807
28 Pit	-	-	-	321,000	2.70	27,865	302,000	1.90	18,448	623,000	2.31	46,313
Tuscany	-	-	-	103,000	2.10	6,954	18,000	1.60	926	121,000	2.03	7,880
Bakers Flat	-	-	-	213,000	2.30	15,751	267,000	2.50	21,461	480,000	2.41	37,211
Tripod	-	-	-	-	-	-	116,000	1.60	5,967	116,000	1.60	5,967
Noble 6	-	-	-	-	-	-	109,000	3.70	12,966	109,000	3.70	12,966
Mt Martin	-	-	-	5,132,000	1.83	301,945	3,360,000	1.73	186,886	8,492,000	1.79	488,831
Swift	-	-	-	177,000	1.50	8,536	36,000	1.30	1,505	213,000	1.47	10,041
Adelaide	-	-	-	2,000	8.82	567	15,000	3.60	1,736	17,000	4.21	2,303
Mt Marion	252,000	4.90	39,700	1,501,000	3.60	173,730	2,433,000	2.90	226,846	4,186,000	3.27	440,275

South Kalgoorlie Gold Operations Resource Statement 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**
Marion West	-	-	-	1,090,000	3.66	128,262	356,000	4.00	45,783	1,446,000	3.74	174,045
Trojan	665,000	2.00	42,760	788,000	2.13	53,963	-	-	-	1,453,000	2.07	96,724
Penfold	-	-	-	-	-	-	-	-	-	-	-	-
Freddo	-	-	-	313,203	1.91	19,233	18,617	1.93	1,155	331,820	1.91	20,388
Rose Hill	-	-	-	443,753	2.74	39,092	26,984	5.98	5,188	470,737	2.93	44,280
Greater Jezebel Area	-	-	-	559,000	2.10	37,742	-	-	-	559,000	2.10	37,742
Scrubby Tank	20,000	1.80	1,157	194,000	1.60	9,980	351,000	1.30	14,670	565,000	1.42	25,807
Mungari	-	-	-	-	-	-	-	-	-	-	-	-
Golden Ridge	-	-	-	479,767	1.82	28,073	51,711	1.71	2,843	531,478	1.81	30,916
Stockpiles	1,132,537	0.68	24,799	60,000	0.60	1,157	-	-	-	1,192,537	0.68	25,957
TOTAL	**2,349,275**	**1.75**	**132,337**	**31,462,219**	**1.97**	**1,989,057**	**16,556,845**	**2.05**	**1,093,001**	**50,368,340**	**1.98**	**3,214,394**

South Kalgoorlie Gold Operations Reserve Statement 30/06/2014									
Project	**Proven**			**Probable**			**Inferred**		
	Tonnes	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**	**Tonnes**	**Grade**	**Ounces Au**
Stockpiles	899,504	0.77	22,188	60,000	0.60	1,157	959,504	0.76	23,346
TOTAL	**899,504**	**0.77**	**22,188**	**60,000**	**0.60**	**1,157**	**959,504**	**0.76**	**23,346**

Refer to Appendix 1 for JORC 2012 Table 1 details. Sections 1 -4.

THE TENNANT CREEK POLYMETALLIC DEPOSITS

Metals X holds a considerable land position in the Tennant Creek and has been exploring for Tennant Creek Style IOCG ("Iron Oxide Copper Gold") Deposits in the region.

The Rover 1 deposit is a significant iron oxide-associated Au-Cu-Bi (+Co) deposit located 70 km southwest of Tennant Creek in the Northern Territory of Australia. The Rover 1 deposit was initially discovered in the 1970's by Peko Wallsend (Peko) as part of the company's regional exploration campaign in the Tennant Creek area.

Rover 1 is one of a number of such systems in the Rover field, which is thought to be analogous to the nearby prolific Tennant Creek goldfield (a recorded yield in excess of 156 t Au and 345,000 t Cu - Skirrow and Walshe, 2002, figure 1).

Major mineralisation centres within the Tennant Creek Project include Rover 1 and Explorer 108.

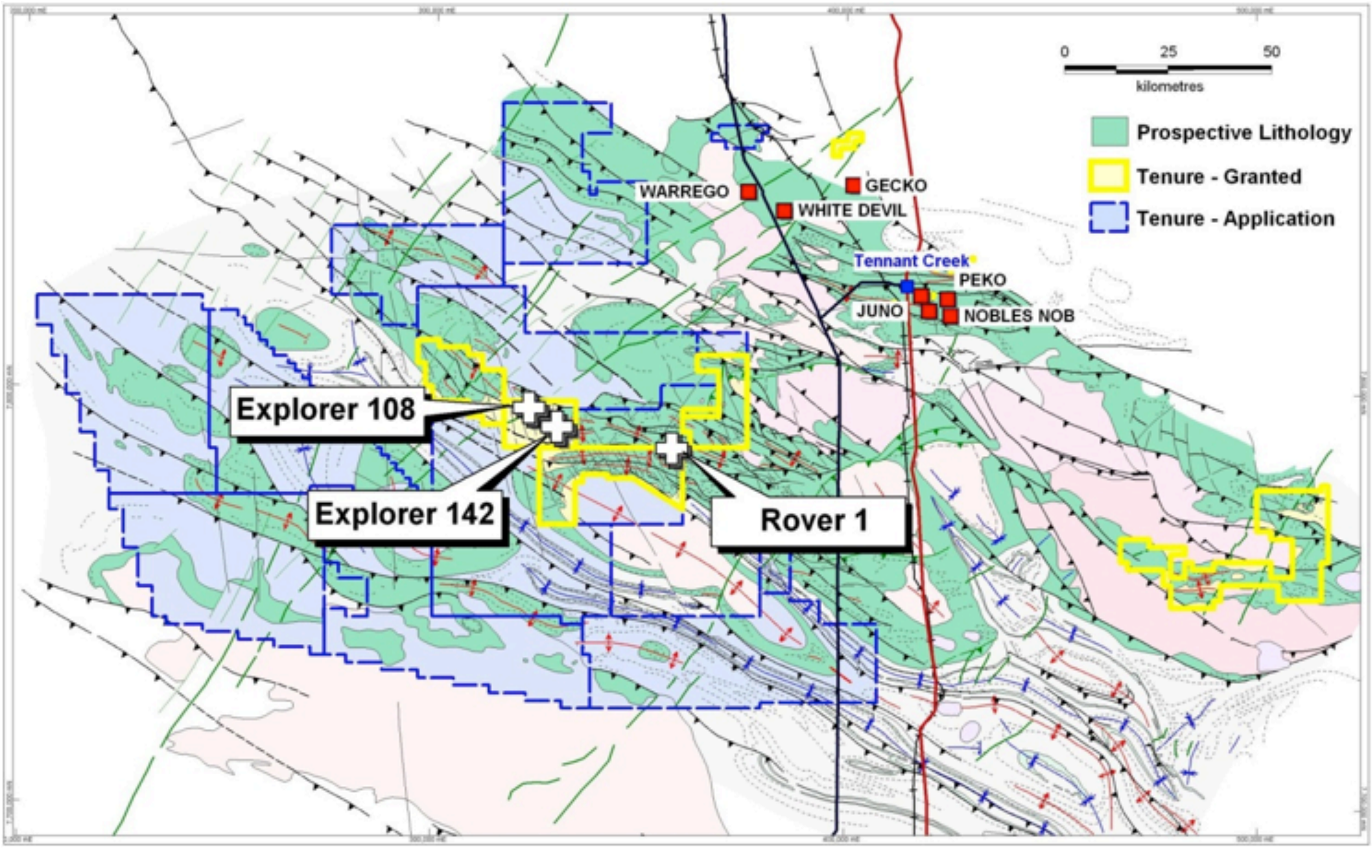


Figure: Tennant Creek Project – Mining Tenure

GEOLOGY

REGIONAL GEOLOGY

The Rover area is dominated by spinifex vegetation and sandy cover with very little outcrop; the stratigraphic succession at Rover 1 has been developed in conjunction with the stratigraphy established for the Tennant Creek Inlier. The Tennant Creek area lies in a window of the unconformably overlying, much younger Cambrian Wiso Basin Sediments. In the Rover region the Warramunga Formation is hidden under a thick cover of these Phanerozoic sediments, complicating the interpretation of the structure and stratigraphy of the Palaeoproterozoic geology.

The Palaeoproterozoic Warramunga Formation which hosts the ironstones consists of turbiditic greywackes, shales, siltstones of felsic volcaniclastic origin, and several argillaceous banded iron-formations. The Tennant Creek Event, probably part of the Barramundi Orogeny resulted in approximately easterly orientated fold axes, open to close folding with a well-developed, axial-planar, slaty cleavage, metamorphosed to Lower Greenschist Facies. Syn to post-tectonic magmatism with respect to the Tennant Creek event is assigned to the Tennant Creek Supersuite (e.g. Tennant Creek Granite and Mumbilla Granodiorite).

The Warramunga Formation is unconformably overlain by the Flynn Sub-group which has a lower unit of siltstones and shales interbedded with acid volcanics, ignimbrites and tuffs. The Flynn sub-group is unconformably overlain by the Tomkinson Creek Beds.

The Warrego Granite is an undeformed, U-anomalous granite which has resulted in contact metamorphism of the Warrego Deposit and White Devil Deposits about 1,660 Ma.

ROVER 1

The Rover 1 deposit occurs in a low relief area covered by extensive deep soil cover. Approximately 110 metres of flat-lying Cambrian sediments of the Wiso Basin unconformably overly the Proterozoic rocks of the Warramunga Group which hosts the deposit in the Rover 1 area. Consequently the deposit does not crop out. Initial correlation with the Tennant Creek area suggests that the deposit is hosted within the Warramunga Group.

The Rover 1 deposit is situated within a sedimentary package consisting of haematite rich sediments (grading from banded to massive haematitic shales through to laminated banded iron formations), cherty siltstones and chert. The iron rich shales which host the Rover 1 deposit are tentatively correlated with the Black Eye Member of the Carraman Formation. The sediment package has been metamorphosed to Lower Greenschist Facies.

Modelling of S0 data, from orientated drill core by WGR suggests that both the Jupiter Zone and Western Zone are situated within antiformal hinge zones of local parasitic folds. Interpreted late stage east-west compression has resulted in moderate easterly plunges in the Western Zone, while further east at Jupiter, the plunge appears to be moderate to the west as outlined by the high grade Jupiter domains. A steep axial-planar cleavage has been identified locally in parasitic folds and is interpreted to represent the larger regional fold axis.

Slickensides on bedding planes indicate bedding plane slip. Often two or three different directions are present as separate layers in chlorite rich zones indicating a complex history of movement. Bedding plane slip was probably extensive during the D1 folding episode as the east-west folds were developed. The highly contorted banded iron formations, shales, finely banded siltstones and sandstones suggest that competency contrast of these units with the more massive sandstones and greywackes of the turbidites has had an influence upon the geometry of the regional and parasitic folds, further complicating the interpretation of stratigraphy and geometry.

Numerous anastomosing shears, steeply dipping and with a general east-west strike sub-parallel to bedding, are present throughout the prospect. As these shears often crosscut the ironstones and mineralisation they are interpreted as post mineralisation and possibly the last structural event related to base metal mineralisation. The highly variable thickness of these shear zones suggest they are multiple planes. They are common around the margins of the magnetite ironstones bodies. These structures are denoted by highly polished surfaces of blackish green very fine grain recrystallised chlorite-quartz. Some overprinting of the chlorite-quartz shears by later sericite-quartz development indicates a possible later ductile retrograde phase along these shear planes.

Many of the ductile shear zones have been reactivated. This is indicated by the development of unconsolidated rock flour and fault gouge incorporating fragments of the earlier chlorite / sericite shears and extensive jointing of the earlier shear fabric. Late cross-faults striking north-northwest to north-northeast are probable as there are discrepancies in the general east-west strike continuity of the geology. This is most obvious with the dislocation of the magnetite bodies in plane and section view. Flexures or faulting may have been responsible for the offsets.

Multiple hydrothermal alteration zones of magnetite-quartz-haematite-chlorite bodies and associated chlorite alteration which host the Cu-Au-Bi-Co mineralisation occur within a sub-vertical structural corridor, approximately 200 metres wide, trending east-west in excess of 600 m. Chlorite alteration associated with the development of the ironstones overprints the regional Lower Greenschist chlorite in this corridor. Locally it varies from narrow, extremely intense zones to wider zones of moderate alteration. The width of the chlorite zones does not necessarily reflect the width of the ironstone bodies or the expected width along-strike or up-dip. Intense chlorite margins to the magnetite bodies vary in width from 30c m to twenty metres.

The early pyrite ± chlorite assemblage is considered as the first phase of the Cu-Au-Bi-Co-S precipitation. This initial assemblage often results in thin veins, bands and zones to a few metres thick of fine grain disseminated and massive sub-euhedral to euhedral pyrite. This pyrite assemblage event crosses early contorted quartz veins, magnetite-quartz ironstones and magnetite veins. These zones are often below detection limits for Au-Cu-Bi-Co. The main precipitation of the Cu-Bi-Au-Co sulphides occurred after this event.

ROVER 1 MINERALISATION

GOLD

Gold mineralisation generally occurs in 3 distinct settings: Massive magnetite, Siltstone breccias and stringer zones. Gradational variations between these styles and the host rocks results in the boundaries of the mineralised zones generally being soft boundaries. The dominant gold structures are associated with massive magnetite and stringer zone and northern ironstone.

Copper

Copper mineralisation occurs in several distinct settings. The hosts in order of decreasing chalcopyrite content are;

- Massive magnetite domains in the ironstone complexes;
- Massive magnetite veins in magnetite stringer vein zones;
- Magnetite-quartz ironstones, massive pyrite ± (chlorite), siliceous jasperoidal alteration zones and quartz veins in most lithologies.

Chalcopyrite also occurs in micro-fractures along the boundaries of chlorite-magnetite-pyrite-quartz veins, chlorite-pyrite veins and generally any assemblage that can be fractured or sheared to create dilation at any scale.

BISMUTH

Bismuthinite is often an accessory to copper or gold mineralisation adjacent to and across the transitional zone from the copper (massive magnetite ironstone) mineralisation to gold-copper mineralisation (magnetite-chlorite stringer / massive magnetite transition) to gold only mineralisation (quartz- magnetite-chlorite-pyrite stringer zones in sediments).

Bismuthinite has been seen reaching 1 or 2 percent associated with massive pyrite zones featuring low copper and insignificant gold. Bismuthinite commonly occurs within chlorite selvages associated with chalcopyrite and / or gold in stringer zones, and with chalcopyrite in more massive pyrite chlorite zones. It has been identified as occurring in poorly defined veins with disseminated gold, interstitial in magnetite with chalcopyrite and gold, and in fine fractures in pyrite and quartz and in chlorite veins. It is commonly seen in core with gold and copper in high-grade intersections as veins and blebs and is identified by its soft polished surface and bright silver-grey colour and silver-grey streak. Specular haematite is sometimes confused with bismuthinite but it has a red brown streak and glittery reflection due to the multiple crystal faces when cut.

COBALT

Cobalt is a significant economic element at Rover 1. Elevated values are often independent of elevated copper or gold. However, no cobalt minerals have been identified in thin section as yet. Two different forms of pyrite have been observed in the deposit, an early very fine-grain pyrite usually associated with massive pyrite-chlorite alteration zones, and a later more euhedral coarser grain pyrite associated with later chalcopyrite and gold mineralisation. Cobalt and arsenic can be accommodated in pyrite and it is suspected that cobalt was precipitated either by solutions reacting with rims of earlier pyrite, or in solid solution with the formation of the later pyrite with the introduction of the base metals. Further research is needed to establish the distribution and mineralogy of cobalt.

METAL ZONATION

The overall zonation of mineralisation in the Rover 1 deposit is very similar to deposits in the Tennant Creek Field (e.g. Warrego). Copper in the form of chalcopyrite occurs around the upper margins of the quartz-magnetite ironstones and in the silicified BIF or haematitic shales that often form an alteration transition to the adjacent chlorite alteration envelope.

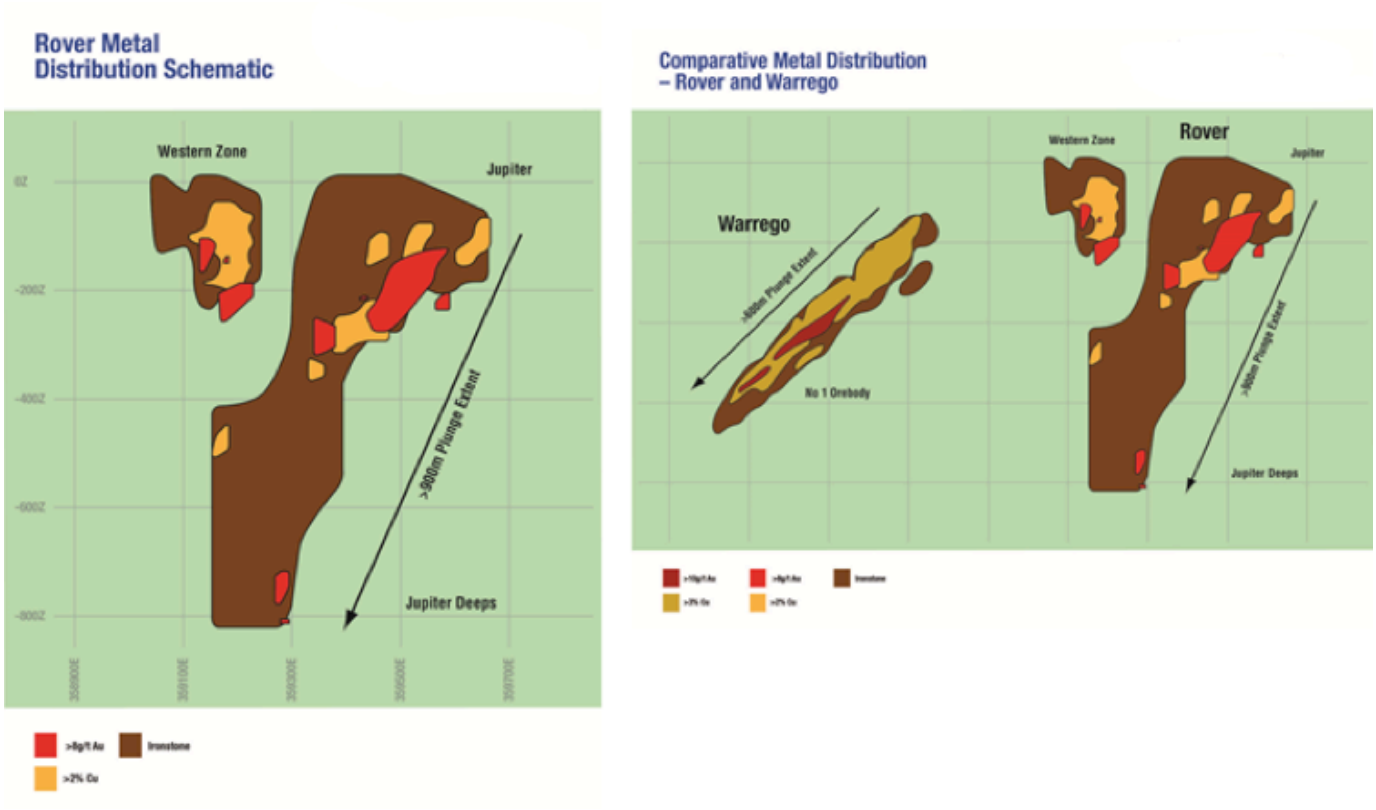
Economic levels of copper are dominantly contained in the lower massive magnetite portion or in massive magnetite “veins” identified in the magnetite-quartz zones. Copper and cobalt have a close relationship in the ironstones. However, cobalt grades can be significantly elevated without copper in the sediments, usually related to high pyrite content.

Gold content increases where the content of the early magnetite veining and chlorite alteration decreases and there is an increase in early haematite dusted quartz veins, indurated sediments and fine chlorite veining related to the mineralisation phase. The transition from massive magnetite-copper mineralisation to magnetite-quartz-chlorite stringer gold mineralisation is also the zone of increased bismuthinite mineralisation. Bismuth generally follows the gold content with a ratio of Bi : Au of 1 : 10 for the magnetite stringer zone, 1 : 1 for the massive magnetite ironstone and 10 : 1 for the magnetite-quartz ironstone.

Where the magnetite, and magnetite quartz ironstones and magnetite quartz chlorite stringer zones and sediments have been overprinted by intense pyrite chlorite alteration, mineralisation zoning patterns are often locally more complex.

At prospect scale, the broad metal zoning is defined with copper dominant in the ironstones and economically concentrated in the lower massive magnetite zones along-strike. Gold values are generally anomalous in the ironstones, elevated to significant economic values when with copper. Below the ironstones in the sediments gold reaches economic concentrations with extremely high-grade intersections greater than 100 g/t common for 1 m intervals in the magnetite quartz chlorite stringer zones and indurated chlorite magnetite quartz stockwork / breccia zones. Gold values decrease with depth as the development of these zones decrease.

The preferential gold-bearing structural features have continuity along-strike and down-dip within the indurated and variably chloritised finer grain sediments. These structures appear to be a combination of quartz-magnetite-chlorite veined stockworks, shear-controlled quartz-magnetite-chlorite filled breccias, and quartz-magnetite-chlorite veined stringer zones, all with modest pyrite and chalcopyrite content. The preferential hosts for the gold mineralisation are a combination of indurated variably chloritic sediments, variably silicified with multiple quartz vein episodes and magnetite-chlorite veins. The preferred deformation type of these host formations is ductile indicated by the presence of schistose chlorite lamellae, veins and micro-shearing.



Figures: (LHS) Generalised distribution of high-grade gold and copper- Rover 1. (RHS) Comparison of the high-grade gold and copper distribution and system scale between Warrego and Rover 1.

EXPLORER 108

The Explorer 108 deposit is hosted by a sequence of moderately to strongly folded felsic to intermediate volcanics and interlayered clastic sediments.

Two main horizons of clastic sediments can be recognised in the mine stratigraphy. These are informally referred to as the Lower and Upper Clastic Unit and mainly comprise sandy siltstones with a weak to moderate, planar bedding fabric. Separating these clastic units is a 100-150 m thick felsic volcanic unit which lacks any primary bedding.

Dolomite units are common near the base of the upper clastic unit. They often show a spatial correlation with Pb-Zn mineralisation. Although it is considered most likely that the main stage of dolomite formation was related to a hydrothermal event that post-dated digenesis, it is possible that this alteration was largely stratabound to a sedimentary unit that may have included some dolomite.

The deposit stratigraphy is folded about northeast trending upright folds. Unaltered volcanics and clastic sediments generally only show a very weak S2 fabric but a pervasive S2 fabric is locally developed in high-strain zones that coincide with the sheared-out limbs of F2 folds. A strong S2 fabric is also characteristic for areas of Pb-Zn mineralisation.

The main mineralised zone at Explorer 108 is associated with dolomite units located near the contact of the upper clastic unit with underlying felsic volcanics. The dolomite body defines a broad zone grading 1-5% combined Pb and Zn. Higher grades are generally associated with zones of more intensely altered chlorite-rich and moderately haematite-rich dolomite. Mineralisation consists of irregular, generally narrow, domains or veins of semi-massive sulphides (sphalerite and galena).

At the lower contact of the dolomite and underlying felsic volcanics, an enriched zone of cumulate Pb-Zn occurs, with combined values exceeding 7%. The lode is up to 20-30 m thick and appears to have an overall easterly dip in the core of the D1 anticline. The zone is relatively dolomite-poor. It is chlorite-rich and contains a strong S2 fabric with occasional light-coloured and boudinaged silica-dolomite domains.

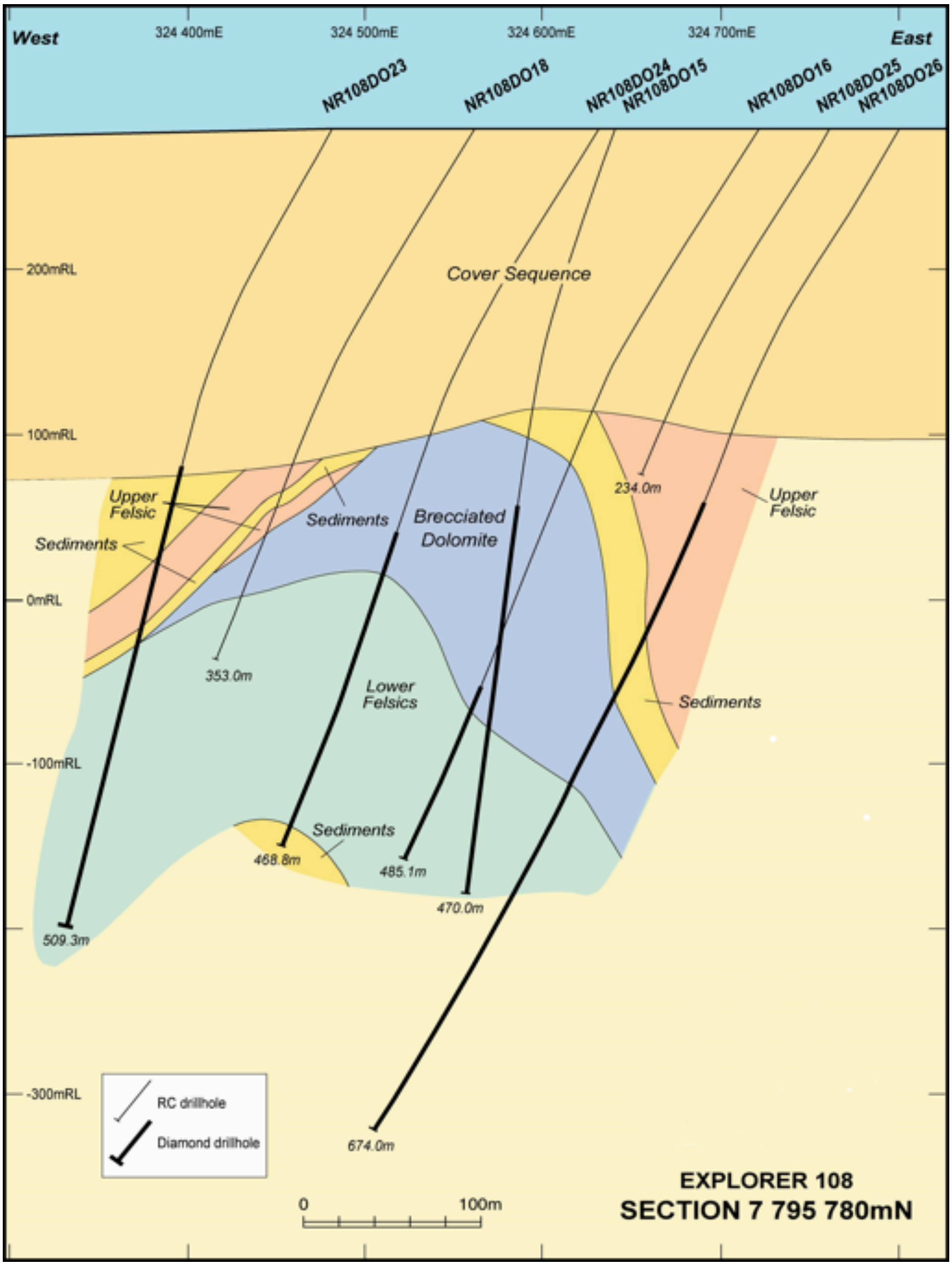


Figure: Explorer 108 Local Geology

RESOURCE TO RESERVE METHODOLOGY

DATABASE

Data used in resource estimations is currently stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains drilling (including geotechnical and specific gravity data), and associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of resource modelling and interpretation and preserve the integrity of the master database.

RESOURCE ESTIMATION TECHNIQUES

Three dimensional block models are used for resource estimation at Tennant Creek Project. All modelling and estimation work undertaken by MLX is carried out in three dimensions using Surpac Vision.

After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body.

From here drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation.

Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Although, in the case of many smaller populations, variography will only provide partial guidance as to appropriate estimation parameters, which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.

An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, and levels of informing data available.

Grade estimation is then undertaken within the empty model using the created wireframes as constraints, the created downhole composite files as informing data, and the search parameters deemed appropriate from statistical studies and geological interpretation. Generally speaking the ordinary kriging estimation method is considered as standard for all MLX work, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used.

The resource is then classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. Subsequent to this classification the resource model is then passed onto Mine Planning for review and determination of reserves.

BULK DENSITY

Subsequent to grade estimation, density estimation is also undertaken utilising available bulk density data in much the same way as the grade estimate is undertaken.

The specific gravity of the mineralisation at Tennant Creek is variable. Bulk density sampling is undertaken via assessments of drill core, grab samples and fresh RC chips where appropriate, and are reviewed constantly. Where no drill core or other direct measurements are available, bulk density factors have been assumed based on similarities to other zones of mineralisation.

MINERAL RESOURCE TO RESERVE CONVERSION

Current MLX practice is to undertake detailed feasibility assessment in line with realised and budgeted costs, including detailed mine design and application of appropriate dilution assumptions prior to reclassifying any resource or part thereof as reserve.

There are currently no Ore Reserves at Tennant Creek. Evaluation work currently uses a gold price of A$1,500/oz and a copper price of $7,000/t. This price has been determined by corporate management and is considered a realistic forecast of expected gold price over the budget period. This price is used to determine the economic viability of individual reserve blocks and the average breakeven grade. An AUD to USD exchange rate of 1 : 1 has been adopted.

Competent Person's Statements

The Mineral Resource Estimate was prepared Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style.

The following tables summarise the Mineral Resource Inventory by prospect:

TENNANT CREEK – TOTAL MINERAL RESOURCE ESTIMATE (CONSOLIDATED)

JORC Category	Gold			Silver			Copper			Bismuth			Cobalt			Lead			Zinc		
	kt	Grade (g/t)	koz	kt	Grade (g/t)	koz	kt	Grade	kt	kt	Grade	kt	kt	Grade	kt	kt	Grade	kt	kt	Grade	kt
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	2,741	2.42	213	11,179	11.38	4,091	8,430	0.70%	59	2,741	0.18%	5	2,741	0.04%	1	8,438	2.05%	173	8,434	3.41%	288
Inferred	4,249	1.23	168	7,503	2.55	614	4,249	1.23%	52	4,073	0.11%	4	4,073	0.08%	3	3,606	1.78%	64	3,430	2.81%	96
Total	**6,990**	**1.69**	**381**	**18,682**	**7.83**	**4,706**	**12,679**	**0.88%**	**112**	**6,814**	**0.14%**	**9**	**6,814**	**0.06%**	**4**	**12,044**	**1.97%**	**237**	**11,868**	**3.24%**	**385**

Summary Tennant Creek Project resource position at end of FY2014.

Tennant Creek
Mineral Resource Statement
30/06/2014

Project	Gold			Silver			Copper			Bismuth			Cobalt			Lead			Zinc		
	kt	Grade (g/t)	koz	kt	Grade (g/t)	koz	kt	Grade (%)	kt	kt	Grade (%)	kt	kt	Grade (%)	kt	kt	Grade (%)	kt	kt	Grade (%)	kt
Measured																					
Rover Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explorer 108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explorer 142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated																					
Rover Project	2,741	2.42	213	2,741	2.33	205	2,741	1.42	39	2,741	0.18	4.9	2,741	0.04	1.1	-	-	-	-	-	-
Explorer 108	-	-	-	8,438	14.32	3,886	5,689	0.36	20	-	-	-	-	-	-	8,438	2.05	173	8,439	3.41	288
Explorer 143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred																					
Rover Project	4,073	1.27	166	4,073	1.90	249	4,073	1.06	43	4,073	0.11	4	4,073	0.08	3	-	-	-	-	-	-
Explorer 108	-	-	-	3,430	3.32	366	-	-	-	-	-	-	-	-	-	3,430	1.88	64	3,430	2.81	96.4
Explorer 143	176	0.21	1.2	-	-	-	177	5.21	9.2	-	-	-	-	-	-	176	-	-	-	-	-
Total																					
Rover Project	6,814	1.73	380	6,814	2.07	454	6,814	1.20	82	6,814	0.14	9.4	6,814	0.06	4.4	-	-	-	-	-	-
Explorer 108	-	-	-	11,868	11.14	4,252	5,689	0.36	20.4	-	-	-	-	-	-	11,868	2.00	237	11,868	3.24	385
Explorer 143	176	0.21	1.2	-	-	-	176	5.21	9.2	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total	**6,990**	**1.69**	**381**	**18,682**	**7.83**	**4,706**	**12,679**	**0.88**	**112**	**6,814**	**0.14**	**9.4**	**6,814**	**0.06**	**4.4**	**12,044**	**1.97**	**237**	**11,868**	**3.24**	**385**

Refer to Appendix 2 for JORC 2012 Table 1 details. Sections 1 -4.

TIN DIVISION

EXECUTIVE SUMMARY

The Metals X Limited 2014 Tin Division Mineral Resource and Ore Reserves statement is current as of June 30, 2014 in accordance with the Joint Ore Reserve Committee (JORC – 2012) guidelines and assesses tin and copper mineralisation contained within the Renison and Mount Bischoff tenements in Tasmania.

The Tasmanian Tin project is focused around two mineral fields. The Renison Mineral Field and the Mount Bischoff Mineral Field. Renison is one of the world's largest operating underground tin mines and Australia's largest primary tin producer. It is located at Renison Bell in western Tasmania, at longitude 145°26'E and latitude 41°48'S (Queenstown SK 55-5, 1 : 250,000 sheet). Mount Bischoff is located two kilometres west of Waratah, and eighty kilometres north of BMTJV's Renison mine. The Mount Bischoff tin mine was discovered by James 'Philosopher' Smith in 1871 and was famous due to its richness and ease of mining.

Renison is a currently producing mine, Mount Bischoff is on a mining hiatus, and Rentails is undergoing feasibility analysis.

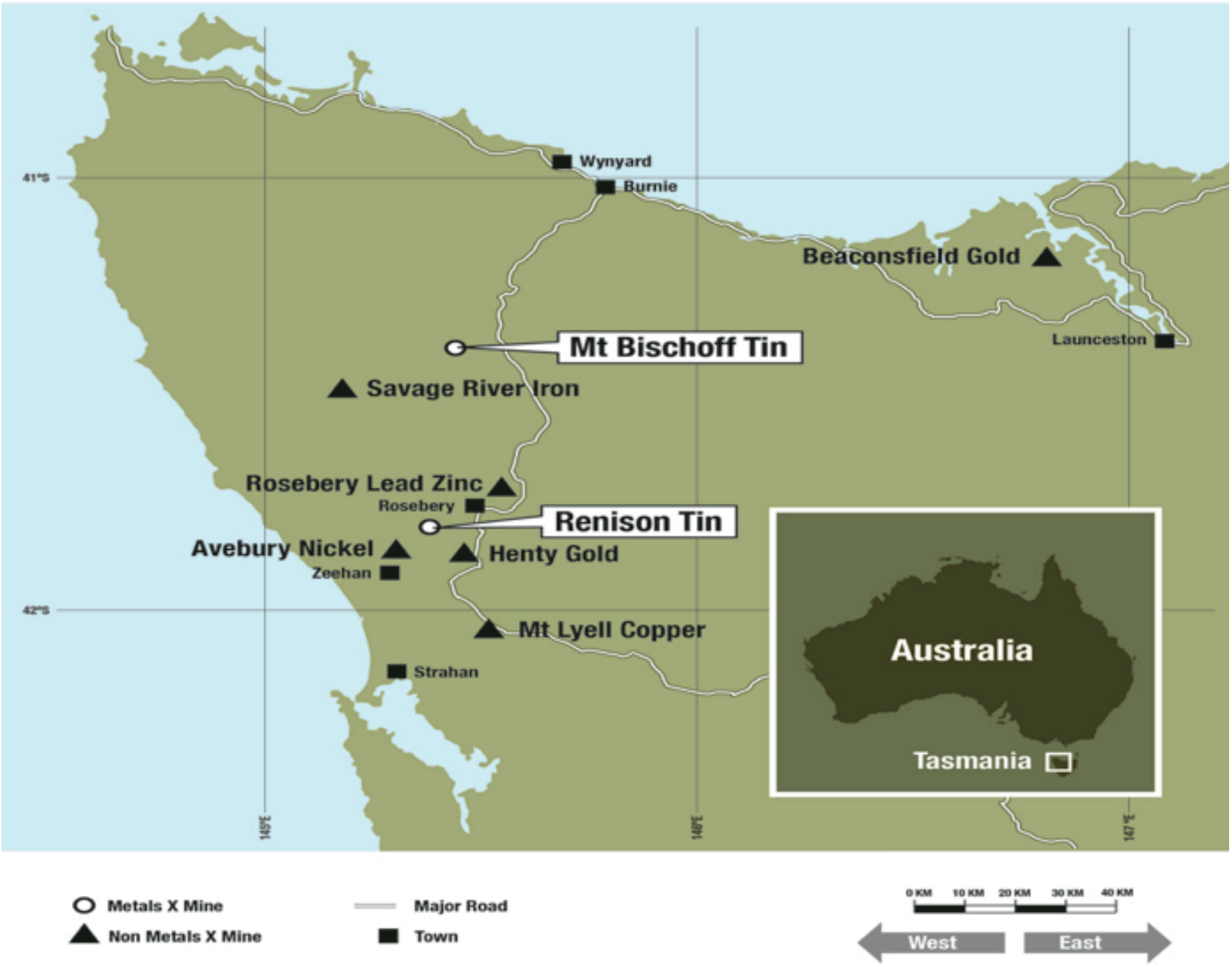


Figure: Location of Renison and Mount Bischoff projects

RENISON GEOLOGICAL BACKGROUND

Renison represents the largest of three major skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Renison Mine area is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks.

At Renison there are three shallow-dipping dolomite horizons which host replacement mineralisation. The dolomite horizons are located within the sub-aerial to shallow marine Neoproterozoic Success Creek Group and the shallow marine Early Cambrian Crimson Creek Formation. The Renison Mine Sequence straddles the contact between the sedimentary Success Creek Group and the overlying volcano-sedimentary Crimson Creek Formation.

Forceful emplacement of an asymmetrical granite ridge associated with the Devonian Pine Hill Granite (355 ± 4 Ma) resulted in complex brittle (+/-ductile) deformation of the host rocks. The Federal-Bassett Fault, a northwest-southeast striking normal fault dipping circa 70° - 80° to the northeast, is through to have provided the major focus for ascending hydrothermal fluids that resulted in the deposition of tin-rich carbonate replacement and vein style mineralisation. The Federal-Bassett Fault is the dominant structure in the mine and occurs above a local high point in the upper surface of the Pine Hill Granite, close to the steeply dipping north-eastern margin of the granite.

The Pine Hill Granite, which outcrops two kilometres to the southeast at Pine Hill, has been located by drilling beneath the deposit at a depth of approximately 1,000 metres below surface. The granite is postulated to be the source of the tin - bearing fluids which led to the formation of the deposit. The Federal-Bassett Fault and associated major fault structures are interpreted to have acted as the major pathways for the introduction of the mineralising fluids. Extensive normal faulting, and possibly some minor folding (flexing), appears to have accompanied the intrusion of the granite. Four main phases of deformation have been recognised with mineralisation occurring during each of the phases. Tin-rich mineralisation is considered to be a product of the initial two phases.

Four main styles of tin mineralisation occur at the Renison Mine. These are Skarn, Fault, Fracture and Stratafault. All styles contain tin as cassiterite within pyrrhotite mineralisation (+/- stannite).

SKARN MINERALISATION

Historically the most economically significant ore type was formed by the replacement of dolomite horizons by massive to semi - massive pyrrhotite. Other minerals include pyrite, minor arsenopyrite and base metal sulphides plus gangue minerals of talc, siderite, calcite and quartz. The sulphide content of the Skarn mineralisation is seen to decrease with depth and talc content increases (e.g. Rendeep, Area 4).

FAULT MINERALISATION

Currently fault mineralisation is a key focus of production at Renison and occurs where the Federal-Bassett Fault and second-order faults are wide enough to be significantly mineralised in their own right. Fault mineralisation contains less pyrrhotite than Skarn mineralisation, with significant proportions of quartz. Base metal sulphides (including copper >1.0%), arsenopyrite, bismuth as well as fluorite and tourmaline are all present in higher proportions than in the Skarn mineralisation.

FRACTURE MINERALISATION

The least common ore type, fracture mineralisation consists of quartz-pyrrhotite veins and disseminated pyrrhotite within the normally non-mineralised clastic Mine Sequence. Mineralisation occurs in fractures and breccias typically with elevated levels of arsenopyrite, bismuth and tourmaline.

STRATAFAULT

Stratafault zones consist of a combination of skarn, fault and fracture mineralisation. Stratafault ore zones develop in areas of complex faulting where two or more sub-parallel faults are sufficiently close to allow the intermediate Mine Sequence units, both dolomitic and non-dolomitic, to have been mineralised. In some areas the dolomite horizons are large enough to be considered as Skarn orebodies in their own right. The metallurgical characteristics of the stratafault orebodies are intermediate between fault and Skarn ores. This mineralisation style predominates in the Rendeep area.

The mineralised dolomite horizons of the Renison Mine Sequence are sub-divided by faulting and zones of barren dolomite into separate resource blocks. Internal folding, faulting and zones of barren dolomite and barren massive sulphide further complicate each resource block. The Skarn zones steepen and typically thin towards the Federal-Bassett Fault, resulting in steeply-dipping resource blocks which are more amenable to benching methods of mining rather than the traditional cut and fill method.

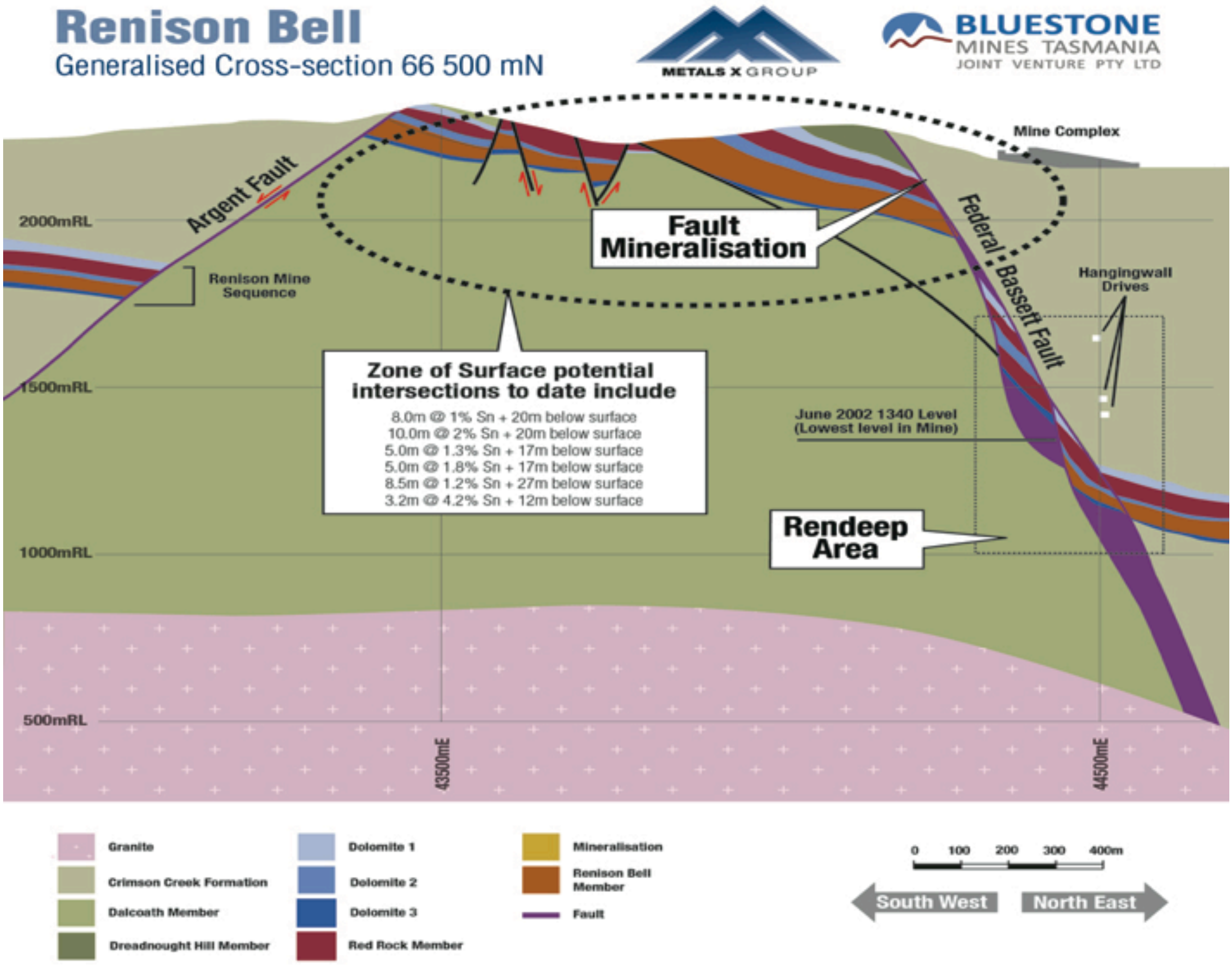


Figure: Generalised cross-section of the Renison Mine Sequence.

RENTAILS GEOLOGICAL BACKGROUND

This resource is comprised of the virtually homogenous product of processing of Renison Bell ore (plus a minor component of Mount Bischoff ore) and is contained within above ground tailings storage facilities. For details regarding the parent material refer to the geological outlines for the Renison and Mount Bischoff deposits provided.

MOUNT BISCHOFF GEOLOGICAL BACKGROUND

As with Renison Bell, Mount Bischoff is one of the three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Mount Bischoff Mine is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. Mount Bischoff was the world's largest tin mine from 1875 to 1905, producing over 2,000 tonnes of tin metal a year. From 1905 production declined until eventual closure in 1947.

At Mount Bischoff shallow-dipping dolomite horizons host replacement mineralisation. Forceful emplacement of a granite ridge and associated porphyry intrusions (349M a – Groves et. al. 1972) associated with the Devonian Meredith Granite resulted in complex brittle / ductile deformation of the host rocks. The Giblin, Queen and other faults as well as porphyritic intrusions subsequently provided the major foci for ascending hydrothermal fluids that resulted in tin-rich sulphide replacement of the dolomite, and fault / vein styles of mineralisation. Both mineralisation styles contain tin as cassiterite within sulphide mineralisation.

Cassiterite is associated with the pyrrhotite, pyrite, arsenopyrite, chalcopyrite, sphalerite and stannite with accompanying talc, phlogopite, quartz, fluorite and Fe-Mn-Mg carbonates. It has been noted that pyrite, sphalerite, galena and jamesonite increase, and pyrrhotite decreases towards the southern boundary of the mine. Cassiterite is also found adjacent to the sulphide zones.

The porphyry intrusives are highly altered, contain topaz, and also play host to tin mineralisation suggesting that tin mineralisation is likely to postdate the intrusions. It would seem likely that the fluids being associated with the later stages of the granite intrusion have used the porphyries as a conduit. Fluids from the granite have reacted with the dolomite and have deposited tin as cassiterite.

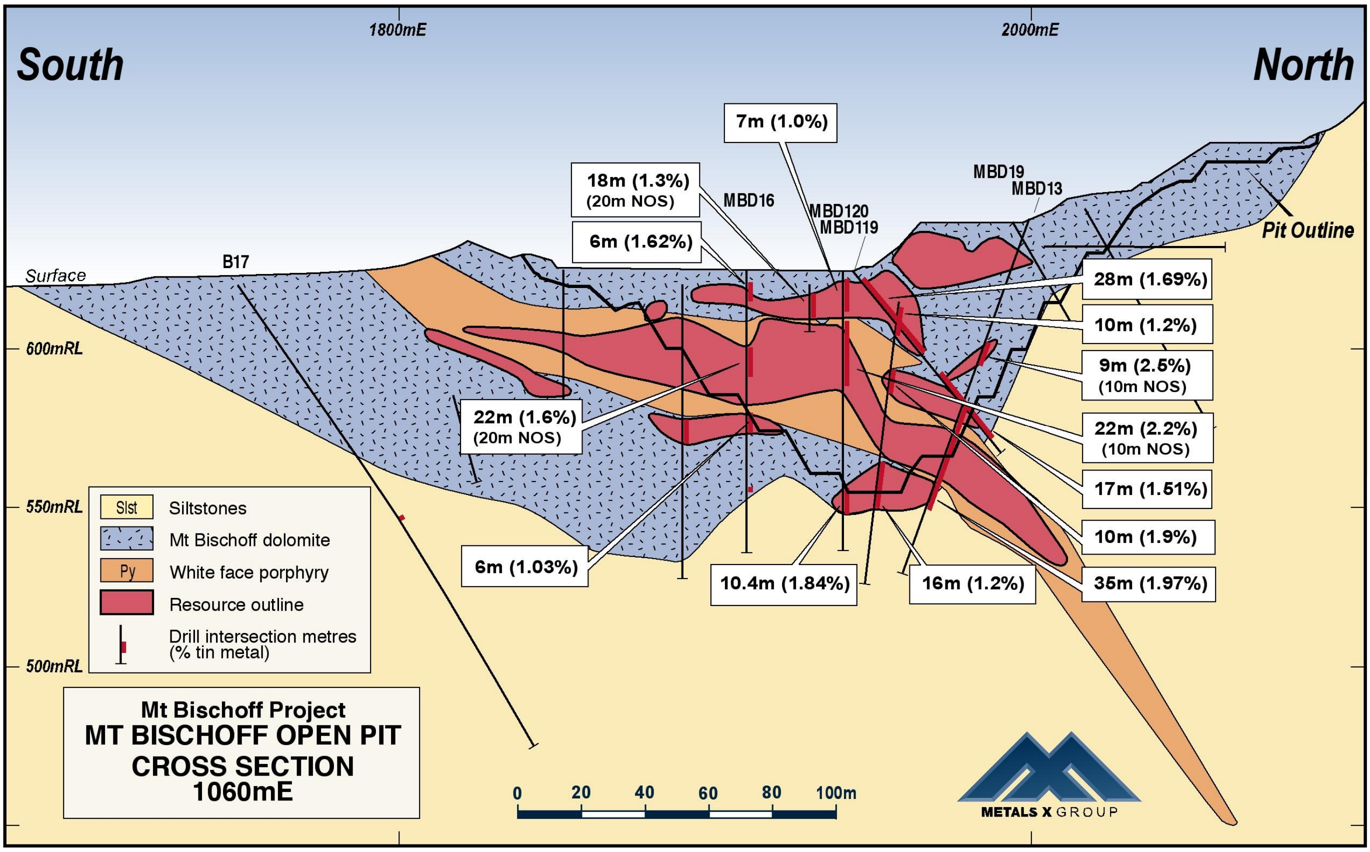


Figure: Mount Bischoff schematic cross-section 1,060 mE.

GEOLOGICAL INTERPRETATION/ ESTIMATION TECHNIQUES

RENISON

Renison resources are calculated by first constructing a three dimensional solid model (3DM) of the orebody (in Surpac Vision for Metals X generated resources – Datamine for legacy resources), utilising all available geological information (backs mapping, face sample data, sludge drilling and diamond drilling). Interpretation is undertaken in a combination of sectional and plan view in an attempt to create the most accurate approximation of mineralisation spatial distribution. Once complete, available sample data (aside from sludge drilling) is intersected with the solids to extract assay composites. From this point ordinary kriging or inverse distance weighting estimation techniques are used to fill a block model using estimation parameters guided by geological understanding and geostatistical review of the constituent data.

The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines, using a combination of various estimation derived parameters and geological / mining knowledge. Subsequent to this classification the resource model is then passed onto Mine Planning for review and determination of reserves.

MOUNT BISCHOFF

Mount Bischoff resources as with Renison resources, were calculated by first constructing a three dimensional solid model (3DM) of the orebody in Surpac Vision utilising all available geological information (RC drilling, diamond drilling and blast-hole drilling). Interpretation was undertaken in sectional view. Once complete, available drilling was intersected with the solids to extract assay composites. From this point inverse distance weighting estimation techniques were used to fill a block model using estimation parameters guided by geological understanding and geostatistical review of the constituent data.

The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines, using a combination of various estimation derived parameters and geological / mining knowledge.

RENTAILS

The Rentails resource was constructed along similar lines to Mount Bischoff resources in areas where drill coverage was available. It was calculated by first constructing a three dimensional solid model (3DM) of the individual dams in Surpac Vision utilising construction records and design documents. Once complete, available drilling was intersected with the solids to extract assay composites. From this point inverse distance weighting estimation techniques were used to fill a block model using estimation parameters guided by understanding of the depositional regime. In areas below drilling coverage estimation was guided by historical milling records, and in areas above the 2008 dam surface, estimates reflect the actual deposition to Dam C since the restart of operations.

DATABASE

Data used in resource estimations is currently stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required.

The database contains data from a range of drilling techniques and sampling methodologies. These include, but are not exclusive to:

- Diamond drilling [including Geotechnical, structural and specific gravity data]
- Reverse Circulation drilling;
- Percussion drilling;
- Face Chip data;
- Sludge drilling.

By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size. This preserves the integrity of the master database and provides a snapshot of the database at the time of resource modelling and interpretation.

The Tin Division 2014 Consolidated Mineral Resource and Ore Reserves statements are current as of June 30, 2014 are summarised:

TIN DIVISION - TOTAL MINERAL RESOURCE ESTIMATE (CONSOLIDATED)

JORC Category	Tin			Copper		
	kt	Grade Sn	kt Sn Metal	kt	Grade Cu	kt Cu Metal
Measured	21,788	0.50%	108	21,675	0.22%	48
Indicated	8,594	1.42%	122	7,038	0.35%	25
Inferred	3,589	1.36%	49	2,491	0.24%	6
Total	**33,970**	**0.82%**	**279**	**31,203**	**0.25%**	**79**

RESOURCE TO RESERVE CONVERSION

Current MLX practice is to undertake detailed feasibility assessment in line with realised and budgeted costs, including detailed mine design and application of appropriate dilution assumptions prior to reclassifying any resource or part thereof as reserve.

The FY2014 Ore Reserves of 26,262 Mt at an average grade of 066% Sn are based on a tin price of US$23,000/t and a USD to AUD exchange rate of 1.0 : 0.9 for the budgeting period. The total Mineral Resource at 30th June 2014 is 33.950 Mt at an average grade of 0.82% Sn. Ore Reserves have been calculated from the total available Mineral Resource by applying mine design factors, mining recovery and making an allowance for mining dilution in those areas reviewed during the year.

TIN DIVISION - TOTAL ORE RESERVE ESTIMATE (CONSOLIDATED)

JORC Category	Tin			Copper		
	kt	Grade Sn	kt Sn Metal	kt	Grade Cu	kt Cu Metal
Proven	666	1.60%	11	666	0.04%	0
Probable	25,597	0.63%	162	25,449	0.23%	57
Total	**26,262**	**0.66%**	**172**	**26,114**	**0.22%**	**58**

COMPETENT PERSON'S STATEMENTS

The Mineral Resource Estimate was prepared Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style. The Ore Reserve estimate was prepared under the direction of Mr. Michael Poepjes B.Eng. (Mining), M. AusIMM. Both are deemed competent persons in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves. All competent persons are senior executives of Metals X and may be entitled to participate in short-term and long term incentive plans of the Company.

The following tables summarise the Mineral Resource inventory and Ore Reserves by prospect.

Tin Division Tin Resource Statement 30/06/2014												
Project	Measured			Indicated			Inferred			Total		
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Sn Metal
Renison Mines												
Clarke	-	0.00%	-	48,932	1.29%	631	16,212	1.26%	204	65,144	1.28%	835
Dalcoath	-	0.00%	-	39,110	0.98%	384	8,500	0.76%	64	47,610	0.94%	448
Eldon	-	0.00%	-	13,400	0.88%	118	59,700	2.70%	1,613	73,100	2.37%	1,731
Howard	-	0.00%	-	34,354	1.71%	587	-	0.00%	-	34,354	1.71%	587
Melba	-	0.00%	-	21,256	1.41%	300	4,078	1.62%	66	25,334	1.44%	366
North Flinders	-	0.00%	-	12,231	1.17%	143	10,828	1.34%	145	23,059	1.25%	288
South Renison	260,056	2.83%	7,366	4,118,216	1.61%	66,461	1,285,982	1.83%	23,475	5,664,254	1.72%	97,301
North Renison	214,976	1.87%	4,020	2,768,591	1.48%	40,975	1,134,131	1.39%	15,764	4,117,698	1.48%	60,760
North Stebbins		0.00%	-	124,250	1.43%	1,777	-	0.00%	-	124,250	1.43%	1,777
Sligo	-	0.00%	-	153,871	1.02%	1,569	-	0.00%	-	153,871	1.02%	1,569
Renison Stockpiles												
Renison	6,276	1.58%	99	-	-	-	-	-	-	6,276	1.58%	99
Fine Ore Bins	1,000	1.48%	15	-	-	-	-	-	-	1,000	1.48%	15
Tin In Circuit	443	2.51%	11	-	-	-	-	-	-	443	2.51%	11
Renison Prospects												
Argents	1,900	2.08%	40	-	0.00%	-	26,000	1.67%	434	27,900	1.70%	474
Colebrook	63,600	1.41%	897	-	0.00%	-	-	0.00%	-	63,600	1.41%	897
Envelope	14,267	2.00%	285	48,900	1.57%	768	-	0.00%	-	63,167	1.67%	1,053
Envelope Hangingwall	-	0.00%	-	-	0.00%	-	160,000	1.25%	2,000	160,000	1.25%	2,000
Godkin	-	0.00%	-	-	0.00%	-	85,400	0.81%	692	85,400	0.81%	692
Manna	-	0.00%	-	14,355	1.33%	191	-	0.00%	-	14,355	1.33%	191
Montana North	-	0.00%	-	5,000	1.20%	60	-	0.00%	-	5,000	1.20%	60
Myrtle	-	0.00%	-	-	0.00%	-	25,300	0.83%	210	25,300	0.83%	210
Nevada	-	0.00%	-	-	0.00%	-	60,300	1.02%	615	60,300	1.02%	615
Penzance	-	0.00%	-	109,400	1.15%	1,258	-	0.00%	-	109,400	1.15%	1,258

Tin Division Tin Resource Statement 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Sn Metal**	**Tonnes**	**Grade**	**Sn Metal**	**Tonnes**	**Grade**	**Sn Metal**	**Tonnes**	**Grade**	**Sn Metal**
Pieman	-	0.00%	-	10,800	1.70%	184	-	0.00%	-	10,800	1.70%	184
Pieman West	-	0.00%	-	-	0.00%	-	3,200	3.75%	120	3,200	3.75%	120
Polaris	13,000	2.04%	265	5,600	1.52%	85	-	0.00%	-	18,600	1.88%	350
Sassafras	-	0.00%	-	-	0.00%	-	10,000	0.70%	70	10,000	0.70%	70
Tyndall	20,000	0.80%	160	97,800	1.11%	1,086	-	0.00%	-	117,800	1.06%	1,246
Renison Sub-total	**595,518**	**2.21%**	**13,158**	**7,626,066**	**1.53%**	**116,576**	**2,889,631**	**1.57%**	**45,473**	**11,111,215**	**1.58%**	**175,207**
Mt Bischoff												
Bischoff Pit	-	0.00%	-	959,463	0.59%	5,626	699,186	0.47%	3,300	1,658,649	0.54%	8,926
North Face	-	0.00%	-	4,063	0.86%	35	-	0.00%	-	4,063	0.86%	35
Slaughter Yard	-	0.00%	-	4,040	0.50%	20	-	0.00%	-	4,040	0.50%	20
Mt Bischoff Sub-total	-	0.00%	-	967,566	0.59%	5,681	699,186	0.47%	3,300	1,666,752	0.54%	8,981
Rentails												
Dam A	2,678,375	0.46%	12,321	-	0.00%	-	-	0.00%	-	2,678,375	0.46%	12,321
Dam B	2,780,103	0.45%	12,492	-	0.00%	-	-	0.00%	-	2,780,103	0.45%	12,492
Dam C	15,733,691	0.45%	69,885	-	0.00%	-	-	0.00%	-	15,733,691	0.44%	69,885
Rentails Sub-total	**21,192,169**	**0.45%**	**94,698**	**-**	**0.00%**	**-**	**-**	**0.00%**	**-**	**21,192,169**	**0.45%**	**94,698**
Grand Total	**21,787,686**	**0.50%**	**107,855**	**8,593,632**	**1.42%**	**122,257**	**3,588,817**	**1.36%**	**48,772**	**33,970,135**	**0.82%**	**278,885**

Tin Division Copper Resource Statement * 30/06/2014												
Project	**Measured**			**Indicated**			**Inferred**			**Total**		
	Tonnes	**Grade**	**Cu Metal**	**Tonnes**	**Grade**	**Cu Metal**	**Tonnes**	**Grade**	**Cu Metal**	**Tonnes**	**Grade**	**Cu Metal**
Renison Mines												
Howard	-	-	-				34,354	0.08%	27	34,354	0.08%	27
Melba	-	-	-				25,334	0.08%	20	25,334	0.08%	20
North Flinders	-	-	-	12,231	0.11%	13	10,828	0.13%	14	23,059	0.12%	28
South Renison	260,056	1.04%	2,698	4,118,216	0.44%	18,235	1,285,982	0.34%	4,344	5,664,254	0.45%	25,277
North Renison	214,976	0.18%	387	2,768,591	0.23%	6,368	1,134,131	0.13%	1,474	4,117,698	0.20%	8,229
North Stebbins		0.00%	-	124,250	0.18%	224	-	0.00%	-	124,250	0.18%	224
Renison Stockpiles												
Renison	6,276	0.24%	15	-	-	-	-	-	-	6,276	0.24%	15
Fine Ore Bins	1,000	0.42%	4	-	-	-	-	-	-	1,000	0.42%	4
Tin In Circuit	443	0.34%	2	-	-	-	-	-	-	443	0.34%	2
Renison Prospects												
Manna	-	-	-	14,355	0.14%	20	-	-	-	14,355	0.14%	20
Renison Sub-total	**482,751**	**0.64%**	**3,106**	**7,037,643**	**0.35%**	**24,860**	**2,490,629**	**0.24%**	**5,880**	**10,011,023**	**0.34%**	**33,846**
Rentails												
Dam A	2,678,375	0.17%	4,548	-	-	-	-	-	-	2,678,375	0.17%	4,548
Dam B	2,780,103	0.16%	4,430	-	-	-	-	-	-	2,780,103	0.16%	4,430
Dam C	15,733,691	0.23%	36,092	-	-	-	-	-	-	15,733,691	0.23%	36,092
Rentails Sub-total	**21,192,169**	**0.21%**	**45,070**	**-**	**-**	**-**	**-**	**-**	**-**	**21,192,169**	**0.21%**	**45,070**
Grand Total	**21,674,919**	**0.22%**	**48,175**	**7,037,643**	**0.35%**	**24,860**	**2,490,629**	**0.24%**	**5,880**	**31,203,191**	**0.25%**	**78,916**

* Note, the Copper Resource is contained within the Tin Resource.

Tin Division
Reserve Statement
30/06/2014

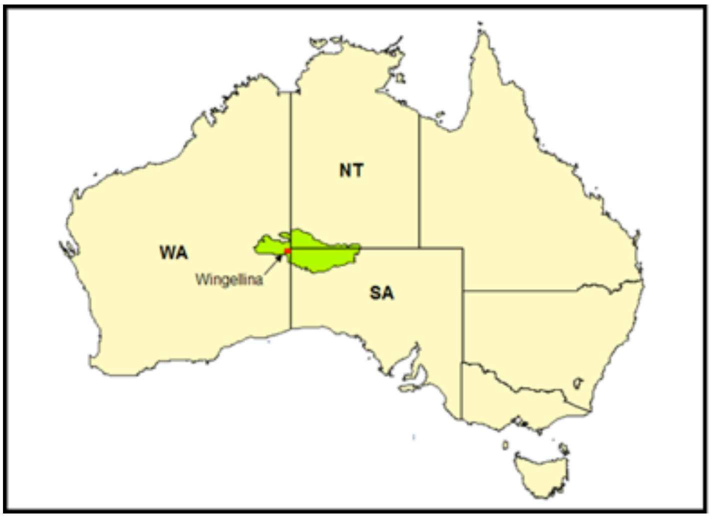
Project	Proven						Probable						Total					
	Tin			Copper			Tin			Copper			Tin			Copper		
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
Renison Mines																		
Dalcoath	-	0.00%	-	-	0.00%	-	33,496	0.93%	312	-	0.00%	-	33,496	0.93%	312	-	0.00%	-
North Flinders	-	0.00%	-	-	0.00%	-	89,762	1.29%	1,158	89,762	0.27%	242	89,762	1.29%	1,158	89,762	0.27%	242
South Renison	390,363	1.88%	7,339	390,363	0.65%		3,246,890	1.42%	46,106	3,246,890	0.34%	11,039	3,637,253	1.47%	53,445	3,637,253	0.30%	11,039
North Renison	267,458	1.20%	3,209	267,458	0.09%	241	1,760,964	1.22%	21,484	1,760,964	0.14%	2,465	2,028,422	1.22%	24,693	2,028,422	0.13%	2,706
Silgo	-	0.00%	-	-	0.00%	-	114,349	1.04%	1,189	-	0.00%	-	114,349	1.04%	1,189	-	0.00%	-
Renison Stockpiles																		
Renison	6,276	1.58%	99	6,276	0.24%	15	-	0.00%	-	-	0.00%	-	6,276	1.58%	99	6,276	0.24%	15
Fine Ore Bins	1,000	1.48%	15	1,000	0.42%	4	-	0.00%	-	-	0.00%	-	1,000	1.48%	15	1,000	0.42%	4
Tin In Circuit	443	2.51%	11	443	0.34%	2	-	0.00%	-	-	0.00%	-	443	2.51%	11	443	0.34%	2
Renison Sub-total	**665,540**	**1.60%**	**10,673**	665,540	0.04%	261	5,245,461	1.34%	70,248	5,097,616	0.27%	13,747	**5,911,001**	**1.37%**	**80,922**	**5,763,156**	**0.24%**	14,009
Rentails																		
Dam A	-	0.00%	-	-	0.00%	-	2,479,372	0.46%	11,304	2,479,372	0.17%	4,170	2,479,372	0.46%	11,304	2,479,372	0.17%	4,170
Dam B	-	0.00%	-	-	0.00%	-	2,644,992	0.45%	11,906	2,644,992	0.16%	4,174	2,644,992	0.45%	11,906	2,644,992	0.16%	4,174
Dam C	-	0.00%	-	-	0.00%	-	15,226,714	0.45%	68,131	15,226,714	0.23%	35,304	15,226,714	0.45%	68,131	15,226,714	0.23%	35,304
Rentails Sub-total	-	**0.00%**	-	-	0.00%	-	20,351,077	0.45%	91,341	20,351,077	0.21%	43,648	**20,351,077**	**0.45%**	**91,341**	**20,351,077**	**0.21%**	**43,648**
Grand Total	**665,540**	**1.60%**	**10,673**	**665,540**	**0.04%**	**261**	**25,596,538**	**0.63%**	**161,590**	**25,448,693**	**0.23%**	**57,395**	**26,262,078**	**0.66%**	**172,263**	**26,114,233**	**0.22%**	**57,656**

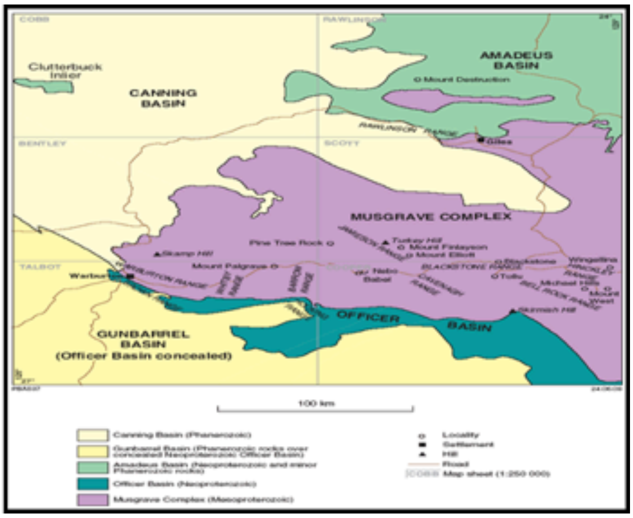
Refer to Appendix 3 for JORC 2012 Table 1 details. Sections 1 -4.

NICKEL DIVISION

EXECUTIVE SUMMARY

The Central Musgrave Project is located along the Gunbarrel Highway immediately to the southwest of Surveyor Generals' Corner, the junction between Western Australia, Northern Territory and South Australia. The area can be accessed from Warburton or Giles, both of which lie on the Great Central Road which connects Laverton in Western Australia to Ayers Rock in the Northern Territory. Alternatively, access can be gained from the east via the Giles - Mulga Park Road in South Australia. Travel within the project area is via unsealed roads and bush tracks.





The project encompasses part of the basal gneiss of the Musgrave Complex, and layered mafic intrusions of the Giles Complex in the West Musgrave region. The Project consists of the tenements set out in the schedule below covering 3,066 square kilometres.

WINGELLINA PROSPECT (LIMONITE)

The Wingellina nickeliferous limonites occur in deeply and intensley weathered layered (ultrabasic) intrusives of the Giles Complex in what was considered to be a tropical environment. The Giles Complex is a series of ultrabasic igneous rocks intruded into the gneissic basement rocks of the Musgrave region, and consists of numerous separate intrusions of layered basic and ultrabasic lithologies. The Wingellina deposits lie within the Wingellina Hills, a northwest-trending basic-ultrabasic set of ridges and valleys containing gabbros, pyroxenites and dunites.

The Wingellina Nickel Deposit is classified as a nickeliferous and cobaltiferous limonite resource with high iron (as hydrated oxides) and low magnesium oxide. Higher grades of cobalt are associated with manganese-rich pods and layers that occur in the upper parts of the mineralised profiles. The weathering of the feldspathic components of the intervening gabbro and minor pyroxenite units are major contributors to the relatively high aluminium composition of the mineralisation.

The nickel mineralisation was produced by deep weathering, facilitated by shearing, of olivine-rich ultrabasic units in the Wingellina Hills near the northern contact of the Hinckley Range gabbro. Olivine crystals within the ultrabasic units originally contained background values of about 0.15% Ni to 0.3% Ni. The almost complete removal of MgO and SiO_2 by downward-percolating ground waters during weathering resulted in extreme volume reductions and consequent significant upgrading of Fe_2O_3, Al_2O_3 and the metal elements Ni and Co in the weathered profile. The ultrabasic units are deeply weathered into asymmetric trough-like shapes that are up to 250 metres deep in places. The geologic contacts between the completely weathered ultrabasic units and the intervening gabbroidal units are transitional.

The intensity of weathering falls off with depth, and the removal of soluble components becomes less complete. This leads to the development of more saprolitic ores toward the base of the deposit, which contain smectitic clays, serpentine, kaolin and magnesite.

The lateritic nickel deposits have an aggregate strike length (northwesterly) of about 8.5 kilometres, and an average width of about 1 kilometre. They cover a combined area of about 1,700 hectares. An approximate width for individual oxidised ultrabasic units is about 80 metres, and their surface expressions in the form of surficial haematitic accretions and associated magnesite nodules can be traced over strike distances of several kilometres.

The limonite deposits at Wingellina are characterised by a paucity of barren secondary silica veining, which is a feature of other laterite deposits and gives rise to their beneficiation potential (Cawse, Mount Margaret and Ravensthorpe). Test-work on a variety of Wingellina ores both historically and more recently demonstrated a lack of potential for its beneficiation by screening and other gravity separation techniques.

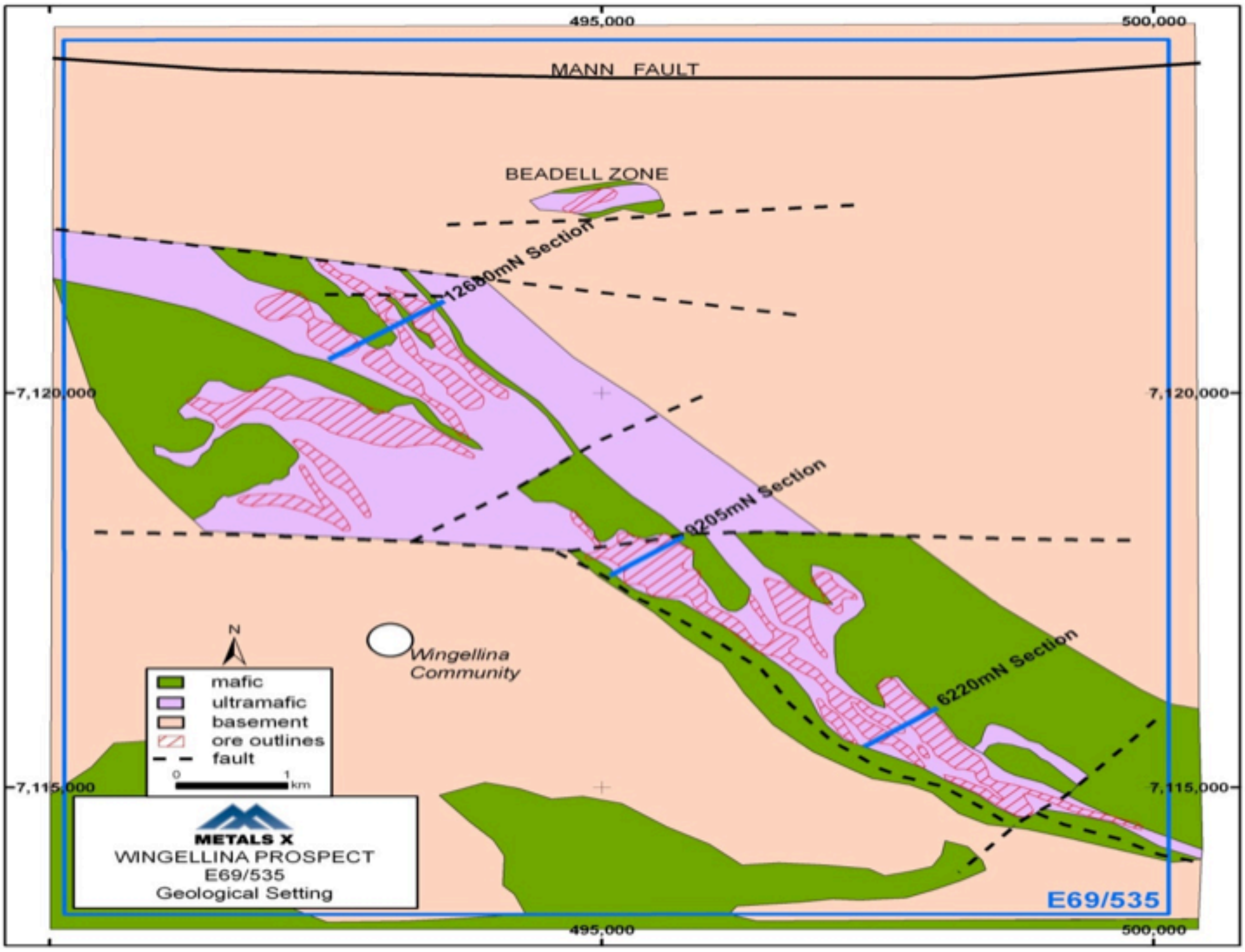
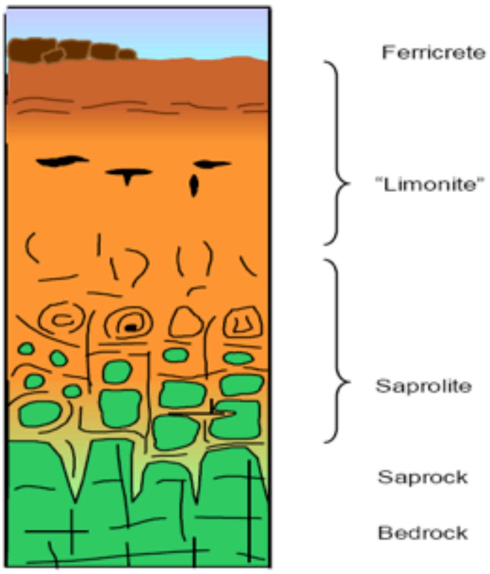


Figure: Plan showing the extents of limonite mineralisation at Wingellina



Fe	MgO	Ni	Co
>50%	<0.5%	<0.6%	<0.1%
40-50%	0.5-5%	0.8-1.5%	0.1-0.2%
10-25%	15-35%	1.5-3%	0.02-0.1%
5%	35-45%	0.3%	0.01%

Figure: Schematic laterite profile developed on ultrabasic rock in a tropical climate (Fe-oxide dominant limonite zone), showing indicative chemical composition in weight percent.

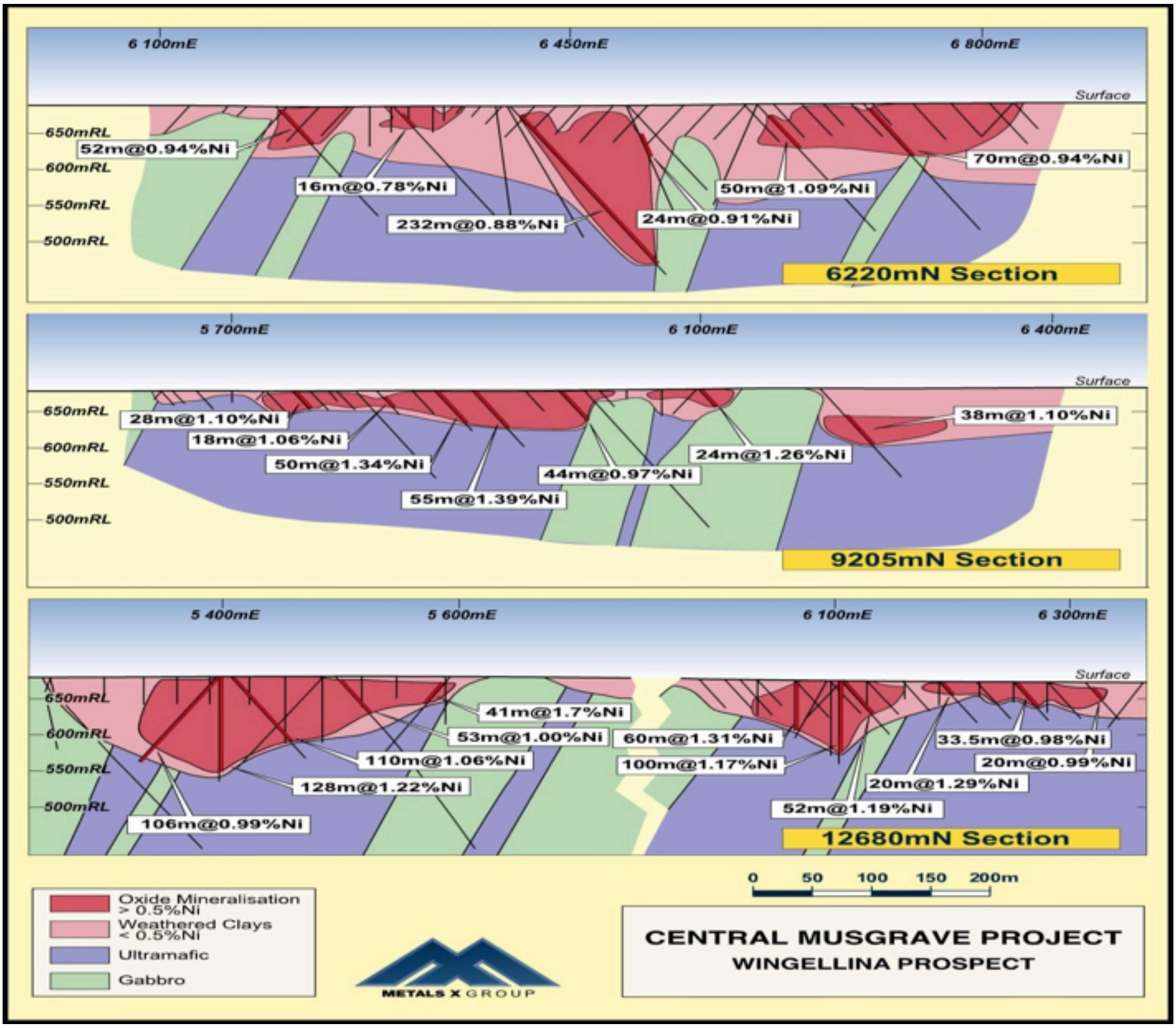


Figure: Typical Schematic cross-section of Wingellina

CLAUDE HILLS PROSPECT (LIMONITE)

The Claude Hills nickeliferous limonite deposits occur in deeply weathered ultrabasic members of the Giles Complex, which has intruded gneisses of the Musgrave Block. Claude Hills consists of a sequence of intrusive pyroxenites, lesser dunites and minor gabbros, striking east-northeast and facing upward to the south. The sequence is different from that seen at Wingellina, and the Claude Hills belt is now thought to be a separate intrusion. It contains a larger proportion of pyroxenite, and a smaller percentage of gabbroic rocks. The parent rocks to the Claude Hills limonite are much lower in aluminium than the Wingellina belt, and the resultant nickel-bearing laterites are commensurately lower in Al_2O_3. The lateritic profile contains a high proportion of ferruginous silcrete layers. This chemistry presents opportunity whereby the coarse, blocky silcrete could be separated and the remaining limonitic material upgraded.

MINING TENURE

The Western Australian mining titles (Hinckley Range) sit within an aboriginal reserve leased for 99 years to the Ngaanyatjarra Land Council and on granted native title land which is managed for and on behalf of the traditional owners by the Ngaanyatjarra Council. The Western Australian Titles cover the Wingellina Prospect. The South Australian titles (Austral Nickel) are located on Aboriginal freehold land and agreements for exploration access are made with the representative body the APY (Anangu Pitjantjatjara Yankunytjatjara). The South Australian titles cover the Claude Hills Prospect.

A feasibility study completed in September 2008 recommended the development of the Wingellina ore body and associated processing and infrastructure facilities, with a positive NPV(8) of approximately A$3.4 billion over the projected forty-year life of the operation. The proposed processing facility is designed to treat approximately four million tonnes of ore per annum producing a mixed nickel and cobalt intermediate hydroxide product for shipping and sale to external customers. Capital cost estimates to construct the project were A$2.5 billion.

RESOURCE ESTIMATION TECHNIQUES

The Wingellina Resource was calculated by first constructing a three dimensional solid model (3DM) of the orebody (utilising Vulcan mine planning software for the current estimate), utilising all available geological information (mapping, drilling etc.). Interpretation was undertaken in sectional view in an attempt to create the most accurate approximation of mineralisation spatial distribution. Once complete, available drilling was intersected with the mineralisation solids to extract assay composites. From this point the ordinary kriging estimation techniques was used to fill a block model using estimation parameters guided by geological understanding and geostatistical review of the component data.

The Claude Hills Resource was calculated by first constructing a three dimensional solid model (3DM) of the orebody (utilising Surpac Vision mine planning software for the current estimate), utilising all available geological information (mapping, drilling etc.). Interpretation was undertaken in sectional view in an attempt to create the most accurate approximation of mineralisation spatial distribution. Once complete, available drilling was intersected with the mineralisation solids to extract assay composites. From this point the inverse distance to the power of two estimation technique was used to fill a block model using estimation parameters guided by geological understanding and geostatistical review of the component data.

MINERAL RESOURCE EVALUATION – HISTORY & PROCESSES

Historical Mineral Resource estimates have been calculated utilising a variety of methods;

- In 1967 INCO determined a mining Resource estimate for Wingellina of 60.3 million short tons (54.7 million tonnes) grading 1.32% Ni, 0.10% Co and 40% Fe based on a cut-off grade of 1% Ni, a mine stripping ratio of 3:1 and a dry ton factor of 32 cubic feet per short ton (dry bulk density equivalent of 1.0 tonne per cubic metre).
- In 2001 Peebles, using all of INCO's historic drilling data for Wingellina, estimated initial unconstrained Inferred oxide resources for the project of about 200 million tonnes grading 1.0% Ni and 0.065% Co. The estimate used a 0.5% Ni cut-off grade and a nominal dry bulk density estimate of 1.25 tonnes per cubic metre. However, later in 2002 it was noted by Acclaim that the 2001 Mineral Resources estimate included tonnages that were within Aboriginal Heritage Exclusion Zones.
- In January 2002 following Acclaim's first drill program at Wingellina, and using a nominal bulk density factor of 1.5 tonnes per cubic meter, Geostat Services calculated a global Mineral Resource estimate of 141 Mt at 0.99% Ni and 0.069% Co (at a lower limit cut-off grade of 0.5% Ni). The Mineral Resource was classified as Indicated.
- In July 2002 the geological model was significantly revised by Acclaim following the completion of a geological base map compiled from drill hole geological information (both newly compiled from INCO's logs and newly acquired by Acclaim's drilling), geophysical interpretation and limited traverse mapping, which enhanced understanding of the geological lateral and depth constraints, and other factors determining the limits to mineralisation. The new geological model resulted in a significant increase in the number and complexity of sectional mineralisation outlines during interpretation. Outlines were initially interpreted on paper sections and later digitised in Micromine. The outlines were then wireframed in Micromine. The validated wireframes, along with drillhole data, were sent to Geostat Services, for geostatistical analysis of Ni, Co and Fe distributions and block modelling. An unsupported nominal dry bulk density factor of 1.5 tonnes per cubic metre was again applied for the derivation of the Mineral Resource (July 2002).
- In November 2005 Metex reinterpreted the sectional resource, to confirm the previous interpretation. The sectional model was wire-framed in Vulcan, with ordinary kriging used to estimate grade. A cut-of grade of 0.5% Ni and a global density of 1.5 tonnes/m^3 was used to allow comparison with the Acclaim calculations. Only nickel was estimated in this preliminary work, with a Mineral Resource of 217 million tonnes at 0.91% Ni estimated, 66% of which was considered Measured and Indicated.

- In March 2006 DataGeo Geological Consultants (DataGeo) was contracted to undertake an updated resource estimate for Metal Exploration for the Wingellina deposit. A sectional mineralisation interpretation was created by Metals Exploration geologists, based on the geological interpretation of the mineralised zones. A 0.5% Ni envelope was applied to constrain the Mineral Resource estimate. The sections were solid modelled in Vulcan, with grade estimated utilising ordinary kriging for Ni, Co and Fe_2O_3. This model was subsequently updated in March 2007 and then again in April 2008 as new data was acquired. The April 2008 resource is the current resource.

MINERAL RESOURCE TO ORE RESERVE METHODOLOGY

DATABASE

With the change to Metals X ownership a switch to a Microsoft Access database system was made. This included the importation of all historical data into the Access system. This has progressed to data currently being stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".

As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains drilling data and associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of resource modelling and interpretation and preserve the integrity of the master database.

ESTIMATION TECHNIQUES

All modelling and estimation work commissioned by Metals X is carried out in three dimensions, with the most recent model being produced in Vulcan mining software for Wingellina and Surpac Vision mining software for Claude Hills.

After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body.

From here drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation.

Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters.

An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, and levels of informing data available.

Grade estimation is then undertaken within the empty model using the created wireframes as constraints, the created downhole composite files as informing data, and the search parameters deemed appropriate from statistical studies and geological interpretation. The ordinary kriging estimation method is considered standard for all Metals X work at Wingellina. The lower level of informing data available means that inverse distance weighting techniques are considered appropriate for Claude Hills.

The resource is subsequently classified in line with JORC 2012 guidelines utilising a combination of various estimation derived parameters and geological knowledge.

MINERAL RESOURCE TO ORE RESERVE CONVERSION

The Wingellina reserve was generated via subjecting the resource block model to Whittle optimisation analysis using mining and processing cost parameters, and revenue factors as defined by the Phase 1 Feasibility Study. The factors applied are summarised in the table below:

Wingellina Nickel and Cobalt Project Summary Whittle Four-X Input Parameters			
Item		**Unit**	**Value**
Mill throughput		Mtpa	4.0
Discount rate		%	8
Commodity prices	Ni Co	US$/t US$/t	20,000 45,000
		183,197	0.98
Foreign exchange rate		US$/A$	85
Royalty		%	2.5
Processing cost (including administration)		$/t milled	83.30
Average mining cost		$/t mined	3.67
Processing recovery	Ni Co	% %	91.2 86.5
Refining cost		$/lb	1.40
Mining dilution added		%	-
Mining recovery		%	97
Overall pit wall slope angle (inclusive of a ramp system)		degrees	40

Using these parameters and only considering Measured and Indicated resource blocks, maximum undiscounted cash-flow was generated in the pit shell defining 165.1 Mt at 0.97% Ni, and 0.076% Co (99% of the available Measured and Indicated resource). Detailed pit design and scheduling was undertaken for the first twenty years of pit life (approximately half of the reserve). Given the size and regularity of the orebody it was deemed appropriate to take the full pit optimisation shell volume as the reserve since no appreciable loss of ore due to further detailed pit design is expected, and the project is insensitive to increased waste mining volumes (direct mining costs equate to less than 5% of the site operating cost).

This design work was carried-out by Coffey Mining Consultants using Whittle 4X and Vulcan software. A mining schedule was developed to suit the available ore tonnage, selected mining equipment and processing route considered most optimal by the Phase 1 Feasibility Study.

NICKEL DIVISION – TOTAL MINERAL RESOURCE ESTIMATE

JORC Category	Nickel			Cobalt			Fe_2O_3		
	kt	Grade	kt	kt	Grade	kt	kt	Grade	kt
Wingellina Project									
Measured	68,847	1.00	688	68,847	0.08	54	68,847	48.71	33,535
Indicated	98,623	0.97	957	98,623	0.08	74	98,623	46.39	45,751
Inferred	15,727	0.97	153	15,727	0.07	11	15,727	42.73	6,720
Sub-total	**183,197**	**0.98**	**1,798**	**183,197**	**0.08**	**139**	**183,197**	**46.95**	**86,007**
Claude Hills Prospect									
Measured	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-
Inferred	33,277	0.81	270	33,277	0.07	23	33,277	38.73	12,889
Sub-total	**33,277**	**0.81**	**270**	**33,277**	**0.07**	**23**	**33,277**	**38.73**	**12,889**
Total	**216,474**	**0.95**	**2,067**	**216,474**	**0.07**	**161**	**216,474**	**45.68**	**98,896**

NICKEL DIVISION – TOTAL RESERVE ESTIMATE

JORC Category	Nickel			Cobalt			Fe_2O_3		
	kt	Grade	kt	kt	Grade	kt	kt	Grade	kt
Wingellina Project									
Proved	-	-	-	-	-	-	-	-	-
Probable	167,470	0.98	1,645	167,470	0.08	128	167,470	47.34	79,287
Total	**167,470**	**0.98**	**1,645**	**167,470**	**0.08**	**128**	**167,470**	**47.34**	**79,287**

Refer to Appendix 4 for JORC 2012 Table 1 details. Sections 1 -4.

COMPETENT PERSON'S STATEMENT

The Mineral Resource Estimate was prepared by DataGeo Pty. Ltd. and Metals X staff geologists under the direction of Mr Jake Russell B.Sc. (Hons), who is a Member of the Australian Institute of Geoscientists. Mr. Russell is deemed a competent person in the estimation, assessment and evaluation of Mineral Resources of this style. The Ore Reserve estimate was prepared under the direction of Mr. Michael Poepjes B.Eng. (Mining), M. AusIMM. Both are deemed competent persons in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves.

APPENDIX 1 – JORC 2012 TABLE 1 – GOLD DIVISION
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.	**HGO** • Diamond Drilling The bulk of the data used in resource calculations at Trident has been gathered from diamond core. Four types of diamond core sample have been historically collected. The predominant sample method is half-core NQ2 diamond with half-core LTK60 diamond, Whole core LTK48 diamond and whole core BQ also used. This core is logged and sampled to geologically relevant intervals. The bulk of the data used in resource calculations at Chalice has been gathered from diamond core. The predominant drilling and sample type is half core NQ2 diamond. Occasionally whole core has been sampled to streamline the core handling process. Historically half and whole core LTK60 and half core HQ diamond have been used. This core is logged and sampled to geologically relevant intervals. • Face Sampling Each development face / round is chip sampled at both Trident and Chalice. One or two channels are taken per face perpendicular to the mineralisation. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.) with an effort made to ensure each 3 kg sample is representative of the interval being extracted. Samples are taken in a range from 0.1 m up to 1.2 m in waste / mullock. All exposures within the orebody are sampled. • Sludge Drilling Sludge drilling at Chalice and Trident is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm or 89mm hole diameter. Samples are taken twice per drill steel (1.9m steel, 0.8m sample). Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. • RC Drilling For Fairplay, Vine, Lake Cowan, Two Boys, Mousehollow, Pioneer and Eundynie the bulk of the data used in the resource estimate is sourced from RC drilling. Minor RC drilling is also utilised at Trident, Musket, Chalice and the Palaeochannels (Wills, Pluto, Mitchell 3 & 4). Drill cuttings are extracted from the RC return via cyclone. The underflow from each 1 m interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Samples to wet to be split through the riffle splitter are taken as grabs and are recorded as such.
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). • Method of recording and assessing core and chip sample recoveries and results assessed.	
Drill sample recovery	• 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.	

Criteria	JORC Code Explanation	Commentary
		• RAB / Air Core Drilling Drill cuttings are extracted from the RAB and Aircore return via cyclone. 4m Composite samples are obtained by spear sampling from the individual 1m drill return piles; the residue material is retained on the ground near the hole. In the Palaeochannels 1m samples are riffle split for analysis. There is no RAB or Aircore drilling used in the estimation of Trident, Chalice, Corona, Fairplay, Vine, Lake Cowan and Two Boys. **SKO** SKO is a long-term producing operation with a long history of drilling and sampling to support exploration and resource development. • Sampling Techniques Chips from the RC drilling face-sampling hammer are collected for assaying. Sample return lines are cleaned with compressed air each metre and the cyclone sample collector is cleaned following each rod. Samples are riffle split through a three-tier splitter with a split ~3kg sample (generally at 1m intervals) pulverised to produce a 30g charge analysed via fire assay. Diamond drill-core is geologically logged and then sampled according to geology (minimum sample length of 0.4 m to maximum sample length of 1.5 m) – where consistent geology is sampled, a 1m length is used for sampling the core. The core is sawn half-core with one half sent off for analysis. Samples have been collected from numerous other styles of drilling at SKO, including but not limited to RAB, aircore, blast-hole, sludge drilling and face samples. • Drilling Techniques Historical data includes DD, RC, RAB and aircore holes drilled between 1984 and 2010. Not all the historical drilling programmes at SKO are documented and many historical holes are assigned a drill type of 'unknown'. Over 4,000 km of drilling has been completed on the tenure. Drilling by the most recent previous owners (Alacer Gold Corporation) has predominantly been RC, with minor DD and aircore drilling. RC drilling is used predominantly for defining and testing for near-surface mineralisation and utilises a face sampling hammer with the sample being collected on the inside of the drill-tube. RC drillholes utilise downhole single shot camera. Drillhole collars were surveyed by onsite mine surveyors. Diamond drilling is used for either testing / targeting deeper mineralised systems or to define the orientation of the host geology. Many of these holes had RC pre-collars generally to a depth of between 60 – 120 m, followed by a diamond tail. The majority of these holes have been drilled at NQ2 size with minor HQ sized core. All diamond holes were surveyed during drilling with down hole single shot cameras, and then at end of hole using a Gyro Inclinometer at 5 or 10 m intervals. Drillhole collars were surveyed by onsite mine surveyors.

Criteria	JORC Code Explanation	Commentary
		• Sample Recovery Sample recovery is generally good, and there is no indication that sampling presents a material risk for the quality of the evaluation of any deposit at SKO. **CMGP** • Diamond Drilling A significant portion of the data used in resource calculations at the CMGP has been gathered from diamond core. Multiple sizes have been used historically. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. • Face Sampling At each of the major past underground producers at the CMGP, each development face / round is horizontally chip sampled. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled. • Sludge Drilling Sludge drilling at the CMGP was performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. Sludge drilling is not used to inform resource models. • RC Drilling RC drilling has been utilised at the CMGP. Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal. • RAB / Aircore Drilling Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop. RAB holes not included in the resource estimate. • Blast Hole Drilling Cuttings sampled via splitter tray per individual drill rod. Blast holes not included in the resource estimate. • All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.

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	• Metals X / Alacer / Avoca surface drill-holes are all orientated and have been logged in detail for geology, veining, alteration, mineralisation and orientated structure. Metals X / Alacer / Avoca underground drill-holes are logged in detail for geology, veining, alteration, mineralisation and structure. Core has been logged in enough detail to allow for the relevant mineral resource estimation techniques to be employed. • Surface core is photographed both wet and dry and underground core is photographed wet. All photos are stored on the companies servers, with the photographs from each hole contained within separate folders. • Development faces are mapped geologically. • RC, RAB and AirCore chips are geologically logged. • Sludge drilling is logged for lithology, mineralisation and vein percentage. • Logging is quantitative in nature. • All holes are logged completely, all faces are mapped completely.
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.	**HGO** • NQ2 and LTK60 diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. LTK48 and BQ are whole core sampled. Sludge samples are dried then riffle split. • The un-sampled half of diamond core is retained for check sampling if required. • For the onsite Intertek facility the entire dried sample is jaw crushed (JC2500 or Boyd Crusher) to a nominal 85% passing 2 mm with crushing equipment cleaned between samples. An analytical sub-sample of approximately 500-750 g is split out from the crushed sample using a riffle splitter, with the coarse residue being retained for any verification analysis. Sample preparation techniques are appropriate for the type of analytical process. • Where Fire assay has been used the entire half core sample (3-3.5 kg) is crushed and pulverised (single stage mix and grind using LM5 mills) to a target of 85-90% passing 75µm in size. A 200g sub-sample is then separated out for analysis • Core and underground face samples are taken to geologically relevant boundaries to ensure each sample is representative of a geological domain. Sludge samples are taken to nominal sample lengths. • The sample size is considered appropriate for the grain size of the material being sampled. • For RC, RAB and Aircore chips regular field duplicates are collected and analysed for significant variance to primary results. • RAB and Aircore sub-samples are collected through spear sampling.

Criteria	JORC Code Explanation	Commentary
		SKO • NQ2 and HQ diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. Smaller sized core (LTK48 and BQ) are whole core sampled. The un-sampled half of diamond core is retained for check sampling if required. SKO staff collect the sample in pre-numbered calico sample bags which are then submitted to the laboratory for analysis. Delivery of the sample is by an SKO staff member and as such. • RC samples are collected at 1m intervals with the samples being riffle split through a three-tier splitter. The samples are collected by the RC drill crews in pre-numbered calico sample bags which are then collected by SKO staff for submission. Delivery of the sample to the laboratory is by an SKO staff member. • Upon delivery to the laboratory, the sample numbers are checked by the SKO staff member against the sample submission sheet. Sample numbers are recorded and tracked by the laboratory using electronic coding. • Sample preparation techniques are considered appropriate for the style of mineralisation being tested for – this technique is industry standard across the Eastern Goldfields. **CMGP** • Blast holes -Sampled via splitter tray per individual drill rods. • RAB / AC chips - Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop. • RC - Three tier riffle splitter (approximately 5kg sample). Samples generally dry. • Face Chips - Nominally chipped horizontally across the face from left to right, sub-set via geological features as appropriate. • Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate. Grade control holes may be whole-cored to streamline the core handling process if required. • Chips / core chips undergo total preparation. • Samples undergo fine pulverisation of the entire sample by an LM5 type mill to achieve a 75µ product prior to splitting. • QA/QC is currently ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. A significant portion of the historical informing data has been processed by in-house laboratories. • The sample size is considered appropriate for the grain size of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required. • For RC chips regular field duplicates are collected and analysed for significant variance to primary results.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • At the Intertek on-site facility, analysis is performed using a 500g PAL method. The accurately weighed sub-sample is further processed utilising a PAL1000B to grind the sample to a nominal 90% passing 75µm particle size, whilst simultaneously extracting any cyanide amenable gold liberated into a Leachwell liquor. The resulting liquor is then analysed for gold content by organic extraction with flame AAS finish, with an overall method detection limit of 0.01ppm Au content in the original sample. This method is appropriate for the type and magnitude of mineralisation at Higginsville. • Quality control procedures include the use of standards, blanks and duplicates. Standards and duplicates are used to test both the accuracy and precision of the analytical process, while blanks are employed to test for contamination during the sample preparation stage. The analyses have confirmed the analytical process employed at Higginsville is adequately precise and accurate for use as part of the mineral resource estimation. **SKO** • Only nationally accredited laboratories are used for the analysis of the samples collected at SKO. • The laboratory dry and if necessary (if the sample is >3kg) riffle split the sample, which is then jaw crushed and pulverised (the entire 3kg sample) in a ring mill to a nominal 90% passing 75 microns. All recent RC and Diamond core samples are analysed via Fire Assay, which involves a 30g charge (sub-sampled after the pulverisation) of the analytical pulp being fused at 1050°C for 45 minutes with litharge. The resultant metal pill is digested in aqua regia and the gold content determined by atomic adsorption spectrometry – detection limit is 0.01 ppm Au. • Quality Assurance and Quality Control (QA/QC) samples are routinely submitted by SKO staff and comprise standards, blanks, assay pills, field duplicates, lab duplicates and repeat analyses. The results for these QA/QC samples are routinely analysed by Senior Geologists with any discrepancies dealt with in conjunction with the laboratory prior to the analytical data being imported into the database. • There is limited information available on historic QA/QC procedures. SKO has generally accepted the available data at face value and carry out data validation procedures as each deposit is re-evaluated. • The analytical techniques used are considered appropriate for the style of mineralisation being tested for – this technique is industry standard across the Eastern Goldfields. • Ongoing production data generally confirms the validity of prior sampling and assaying of the mined deposits to within acceptable limits of accuracy.

Criteria	JORC Code Explanation	Commentary

		CMGP
		• Recent drilling was analysed by fire assay as outlined below;
		  • A 50g sample undergoes fire assay lead collection followed by flame atomic adsorption spectrometry.
		  • The laboratory includes a minimum of 1 project standard with every 22 samples analysed.
		  • Quality control is ensured via the use of standards, blanks and duplicates.
		• No significant QA/QC issues have arisen in recent drilling results.
		• Historical drilling has used a combination of Fire Assay, Aqua Regia and PAL analysis.
		• These assay methodologies are appropriate for the resource in question.

Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• No independent or alternative verifications are available. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. Drillhole data is also routinely confirmed by development assay data in the operating environment. • Primary data is collected on paper or on tough book using a standard excel template. The information is imported into a SQL database server and verified. • All data used in the calculation of resources and reserves are compiled in databases (underground and open pit) which are overseen and validated by senior geologists. • No adjustments have been made to 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. • Specification of the grid system used. • Quality and adequacy of topographic control.	**HGO** • Collar coordinates for surface drill-holes were generally determined by GPS, with underground drill-holes generally determined by survey pick-up. Downhole survey measurements for most surface diamond holes were by Gyro-compass at 5m intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. Downhole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras. Routine survey pick-ups of underground and surface holes where they intersected development indicates (apart from some minor discrepancies with pre-Avoca drilling) a survey accuracy of less than 5m. • All drilling and resource estimation is undertaken in local mine grid at the various projects. • Topographic control is generated from Differential GPS. This methodology is adequate for the resource in question.

Criteria	JORC Code Explanation	Commentary
		SKO • Collar coordinates for surface RC and diamond drill-holes were generally determined by either RTK-GPS or a total station survey instrument. Underground drill-hole locations (Mount Marion and HBJ) were all surveyed using a Leica reflectorless total station. • Recent surface diamond holes were surveyed during drilling with down-hole single shot cameras and then at the end of the hole by Gyro-Inclinometer at 5 or 10mm intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. RC drill-holes utilised down-hole single shot camera surveys spaced every 15 to 30m down-hole. • Down-hole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras. • The orientation and size of the project determines if the resource estimate is undertaken in local or MGA 94 grid. Each project has a robust conversion between local, magnetic and an MGA grid which is managed by the SKO survey department. • Topographic control is generated from RTK GPS. This methodology is adequate for the resources in question. **CMGP** • All data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, deeper holes with a Gyro tool if required, the majority with single / multishot cameras. • All drilling and resource estimation is undertaken in local mine grid at the various sites. • Topographic control is generated from a combination of remote sensing methods and ground-based surveys. This methodology is adequate for the resource in question.
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.	**HGO** • Drilling in the underground environment at Chalice and Trident is nominally carried-out on 20m x 30m spacing for resource definition and in filled to a 10m x 15m spacing with grade control drilling. At trident the drill spacing below the 500RL widens to an average of 40m x 80m. At Chalice below the 880RL the typical drill spacing 60m x 60m. Mining has shown that this data spacing is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Drilling at the Lake Cowan region is on a 20m x 10m spacing. Historical mining has shown this to be an appropriate spacing for the style of mineralisation and the classifications applied. • Compositing is carried out based upon the modal sample length of each project.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: Drill spacing ranges from 10m x 5m grade control drilling to 100m x 100m at deeper levels of the resource. The majority of the Indicated Resource is estimated using a maximum drill spacing of 40m x 40m. The resource has been classified based on drill density with mining of the 2.2km long HBJ Open-Pit confirming that the data spacing is adequate for the resource classifications applied. Mount Martin: Drill spacing ranges from 10m x 5m grade control drilling to 60m x 60m for the Inferred areas of the resource. The drill spacing for the majority of the Indicated Resource is 20m x 20m. The resource has been classified primarily on drill density and the confidence in the geological/grade continuity – the data spacing and distribution is deemed adequate for the estimation techniques and classifications applied. Pernatty: Drill spacing for the reported resource is no greater than 60m x 60m with the majority of the Indicated resource based on a maximum spacing of 40m x 40m. The geological interpretation of the area is well understood, and is supported by the knowledge from open pit and underground operations. However given the mineralisation is controlled by shear zones the mineralisation continuity is considered to be less understood. The resource is classified on a combination of drill density and the number of samples used to estimate the resource blocks. Mount Marion: Drill-spacing ranges from 20m x 20m to no greater than 60m x 60m for the reported resource Given that the geological and mineralisation understanding is well established via mining operations, this drill-spacing is considered adequate for the classifications applied to the resource. Compositing is carried out based upon the modal sample length of each project. **CMGP** • Data spacing is variable dependent upon the individual orebody under consideration. A lengthy history of mining has shown that this approach is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. Compositing is carried out based upon the modal sample length of each individual domain.

Criteria	JORC Code Explanation	Commentary
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.	• Drilling intersections are nominally designed to be normal to the orebody as far as underground infrastructure constraints / topography allows. • Development sampling is nominally undertaken normal to the various orebodies. • Where drilling angles are sub optimal the number of samples per drill hole used in the estimation has been limited to reduce any potential bias. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• The core is transported to the core storage facility by either drilling company personnel or geological staff. Once at the facility the samples are kept in a secure location while logging and sampling is being conducted. The storage facility is enclosed by a fence which is locked at night or when the geology staff are absent. The samples are transported to the onsite Intertek facility by geological staff.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	**HGO** A review of the grade control practices on site has been undertaken by an external consultant. No formal external audit or review has been performed on the resource estimate. Internal reviews are performed as a matter of course. **SKO** No formal external audit or review has been performed on the sampling techniques and data. Internal reviews are performed as a matter of course. **CMGP** Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

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, 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.	**HGO** • State Royalty of 2.5% of revenue applies to all tenements. • The Trident Resource is located within mining leases M15/0642, M15/0351 and M15/0348. M15/0351 and M15/0642 also incur the Morgan Stanley royalty of 4% of revenue after 100,000oz of production and the Morgan Stanley price participation royalty at 10% of incremental revenue for gold prices above AUD$600/oz. M15/0642 is also subject to the Mitchell Royalty at AUD$32/oz. • The Chalice Resource is located on mining lease M15/0786. There are no additional royalties. • Lake Cowan is located on mining lease M15/1132. Lake Cowan is subject to an additional royalty (Brocks Creek) of $1/tonne of ore. **SKO** • State Royalty of 2.5% of revenue applies to all tenements, although does not apply to the 16 freehold titles (which host the majority of SKO's Resource inventory). There are a number of minor agreements attached to a select number of tenements and locations with many of these royalty agreements associated with tenements with no current Resources and/or Reserves. • Private royalty agreements are in place that relate to production from HBJ open-pit at $10/oz. In addition, a royalty is payable in the form of 1.75% of the total gold ounces produced from the following resources: Shirl Underground, Golden Hope, Bellevue, HBJ Open-pit, Mount Martin open-pit, Mount Martin Stockpiles and any reclaimed tailings. • SKO consists of 141 tenements including 16 freehold titles, 6 exploration licenses, 47 mining leases, 12 miscellaneous licenses and 60 prospecting licenses, all held directly by the Company. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation. **CMGP** • The CMGP comprises 9 granted exploration leases, 14 granted miscellaneous leases, 48 granted mining leases and 38 granted prospecting leases. • Native title interests are recorded against several CMGP tenements. • The CMGP tenements are held by the Big Bell Gold Operations (BBGO) of which Metals X has 100% ownership. • Several third party royalties exist across various tenements at CMGP, over and above the state government royalty. • BBGO operates in accordance with all environmental conditions set down as conditions for grant of the leases. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation.

Criteria	JORC Code Explanation	Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The Higginsville region has an exploration and production history in excess of 30 years. • The SKO tenements have an exploration and production history in excess of 40 years. • Metals X / Alacer work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	**HGO** • Trident is hosted primarily within a thick, weakly differentiated gabbro with subordinate mafic and ultramafic lithologies and comprises a series of north-northeast trending, shallowly north-plunging mineralised zones. The deposit comprises two main mineralisation styles; large wallrock-hosted ore-zones comprising sigmoidal quartz tensional vein arrays and associated metasomatic wall rock alteration hosted exclusively within the gabbro; and thin, lode-style, nuggety laminated quartz veins that formed primarily at sheared lithological contacts between the various mafic and ultramafic lithologies. • Chalice geology is characterised by NNW-striking and W-dipping intercalated mafic and ultramafic volcanic rocks that are metamorphosed to mid-amphibolite facies. This sequence is bounded to the west and east by thick granitic bodies of the Boorabin Batholith and Pioneer Dome Batholith respectively. The dominant unit that hosts gold mineralisation is a fine grained, weakly to strongly foliated amphibole-plagioclase amphibolite. Two major, and one minor, ultramafic units occur as discontinuous members throughout the deposit. Four generations of granitic dike intrude the lithostratigraphic sequence. The mineralisation is characterised by strong diopside-hornblende-albite alteration with associated pyrite / pyrrhotite sulphides. Mineralisation occurs with highly foliated and folded host rock with width varying up to 50m. • Lake Cowan mineralisation can be separated into two types. Structurally controlled primary mineralisation in ultramafics, basalts and felsics host (e.g. Louis, Josephine and Napoleon), and saprolite / palaeochannel hosted supergene hydromorphic deposits, including Sophia, Brigitte and Atreides.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: The HBJ lodes form part of a gold mineralised system along the Boulder-Lefroy shear zone that is over 5km long and includes the Celebration, Mutoroo, HBJ and Golden Hope open-pit and underground mines. The lodes are hosted within a steeply-dipping, north-northwest striking package of mafic, ultramafic and sedimentary rocks and schists that have been intruded by felsic to intermediate porphyries. Gold mineralisation is structurally controlled and is focused along lithological contacts, within stockwork and tensional vein arrays and within shear zones. The main mineralised zone has a length in excess of 1.9 km and an average width of 40 m in the Jubilee workings but is generally narrower to the north in the Hampton-Boulder workings. Mount Marion: The Mount Marion deposit is located on the eastern side of the Coolgardie Domain within a flexure in the Karramindie Shear Zone. It is hosted within a sub-vertical sequence of meta-komatiites intercalated with metasediments that have been metamorphosed to amphibolite facies. Gold mineralisation occurs in a footwall and hangingwall lode, each ranging in thickness from 2 to 15m. The mineralisation plunges steeply to the west and is open at depth. Mount Martin: The Mount Martin Tribute Area, is located within a regional scale north-northwest trending Archaen Greenstone Belt. Within the Mount Martin – Carnilya area, the greenstone belt comprises a mixed sequence of ultramafic (predominantly komatiitic) and fine-grained, variably sulphidic sedimentary lithologies with subsidiary mafic units. Known gold and nickel mineralisation at the Mount Martin Mine is associated with a series of stacked, westerly dipping, sulphide and quartz-carbonate bearing lodes which are mainly hosted within intensely deformed and altered chloritic schists sandwiched between talc-carbonate ultramafic lithologies. Pernatty: The Pernatty deposit is hosted within a granophyric phase of a gabbro and is controlled by a structurally complex interaction of a number of major shear zones. Shearing has altered the original granophyric quartz dolerite to a biotite-carbonate-plagioclase-pyrite schist. The sequence has also been intruded by mafic and felsic porphyritic dykes, which are also mineralised.

Criteria	JORC Code Explanation	Commentary
		CMGP • The CMGP is located in the Achaean Murchison Province, a granite-greenstone terrane in the northwest of the Yilgarn Craton. Greenstone belts trending north-northeast are separated by granite-gneiss domes, with smaller granite plutons also present within or on the margins of the belts. • Mineralisation at Big Bell is hosted in the shear zone (Mine Sequence) and is associated with the post-peak metamorphic retrograde assemblages. Stibnite, native antimony and trace arsenopyrite are disseminated through the K-feldspar-rich lode schist. These are intergrown with pyrite and pyrrhotite and chalcopyrite. Mineralisation outside the typical Big Bell host rocks (KPSH), for example 1,600N and Shocker, also display a very strong W-As-Sb geochemical halo. • Numerous gold deposits occur within the Cuddingwarra Project area, the majority of which are hosted within the central mafic-ultramafic ± felsic porphyry sequence. Within this broad framework, mineralisation is shown to be spatially controlled by competency contrasts across, and flexures along, layer-parallel D2 shear zones, and is maximised when transected by corridors of northeast striking D3 faults and fractures. • The Great Fingall Dolerite hosts the majority gold mineralisation within the portion of the greenstone belt proximal to Cue (The Day Dawn Project Area). Unit AGF3 is the most brittle of all the five units and this characteristic is responsible for its role as the most favourable lithological host to gold mineralisation in the Greenstone Belt.
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.	• Tables containing drillhole collar, downhole survey and intersection data are included in the body of the announcement.
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.	• All results presented are length weighted. • No high-grade cuts are used. • Reported results contain no more than two contiguous metres of internal dilution below 1g/t. • Results are reported above a variety of gram / metre cut-offs dependent upon the nature of the hole. These are cut-offs are clearly stated in the relevant tables. • No metal equivalent values are stated.

Criteria	JORC Code Explanation	Commentary
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').	• Unless indicated to the contrary, all results reported are true width. • Given restricted access in the underground environment the majority of drillhole intersections are not normal to the orebody.
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.	• Appropriate diagrams are provided in the body of the release.
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.	• Appropriate balance in exploration results reporting is provided.
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.	• There is no other substantive exploration data associated with this release.
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.	• Ongoing surface and underground exploration activities will be undertaken to support continuing mining activities at Metals X Gold Operations.

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.	• The database used for the estimation was extracted from the Metals X's DataShed database management system stored on a secure SQL server. • As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database.
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.	• Mr. Russell visits Metals X Gold Operations regularly.
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.	**HGO** • Current and historical mining activities across the Higginsville region provide significant confidence in the geological interpretation of all projects. • No alternative interpretations are currently considered viable. • In all cases the local lithological and structural geology has been used to inform the interpretive process. All available information from drilling, underground mapping and pit mapping has been considered during interpretation. • The Trident, Corona, Fairplay, Vine and Two boys deposits are all hosted within a suite of east over west thrust repeated mafic, ultramafic and sedimentary rocks. In all cases the most favourable host is of mafic composition, generally gabbro and to a lesser extent basalt. Together the deposits form what is locally referred to as the Higginsville Line of Lode, a 5km long, north-northeast striking mineralised corridor of historic and current mining operations. Steep west and shallow east have been identified as the most favourable structural orientations for mineralisation. • At Chalice, multiple generations of unmineralised felsic intrusive cross cut the host amphibolite and influence both the volume and the grade, through contact remobilisation, of the mineralisation. The Resource Estimate is sensitive to the volume of unmineralised felsics within the mineralised horizon. • At both Chalice and Lake Cowan there is a lack of consistent visual proxies for mineralisation, making accurate ore delineation difficult. • High-grade zones within the palaeochannels are the result of a more preferential depositional environment due to changes in strike of the palaeochannel.

Criteria	JORC Code Explanation	Commentary
		SKO HBJ: The mineralisation has been modelled focussing on the structural (shear zone) and lithological (porphyry mainly) controls. The large scale (1.9km long and ~40m wide) provides significant confidence in the geological and grade continuity within the deposit. The interpretation has used predominantly RC drilling with some DD used for the deeper parts of the resource. There is an alternative interpretation that could be applied to this deposit, which focuses on defining and sub-domaining higher grade mineralisation that is evident at lithological contacts. Mount Marion: The lithological and structural model for the Mount Marion deposit is well understood as it is supported by the knowledge gained from open-pit and underground operations. The mineralisation is hosted along a dilational flexure within the lode gneiss with clearly defined contact mineralisation with the surrounding ultramafic lithologies. The lithological model is used as the basis for the mineralisation interpretation and has been derived from predominantly RC and Diamond drill-holes. The confidence of the geological controls on mineralisation is consistent with the resource classification applied to the deposit. No alternative interpretations have been devised for this deposit. Mount Martin: Gold mineralisation at Mount Martin is associated with chlorite schists (shear zones) hosted within talc-carbonate ultramafic lithologies. Within these controlling shear zones are a series of stacked, westerly-dipping, sulphide and quartz carbonate bearing lodes which host the majority of the gold mineralisation. The geological and mineralisation interpretation used in this resource is consistent with that mined historically in the open pit. Although other interpretations have been proposed they tend to be variations on the steep westerly-dipping lodes theme adopted for this resource and as such would not represent a significant change in the contained metal. Pernatty: Mineralisation at Pernatty is controlled by a complex arrangement of very well-defined shear zones with the highest grade mineralisation associated with structural intersections and flexures along the three main shears. Given the consistency in orientation of the three main controlling shears, the confidence in the geological and mineralisation interpretation is deemed adequate.

Criteria	JORC Code Explanation	Commentary
		CMGP Mining has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects. No alternative interpretations are currently considered viable. Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. The structural regime is the dominant control on geological and grade continuity at the CMGP. Lithological factors such as rheology contrast are secondary controls on grade distribution.
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.	**HGO** • The Trident mineral resource extends over 680m in strike length, 350m in lateral extent and 940m in depth. • Chalice mineralisation has been defined over a strike length of 700m, a lateral extent of 200m and a depth of 650m. • The Lake Cowan resource has been defined over a strike length of >1.5Km, a lateral extent of >500m and to a depth of >150m. • **SKO** • The HBJ deposit extends over 5km of strike (includes the Golden Hope and Mutooroo lodes) and up to 650m below surface with the individual lodes being up to 40m wide. • Mount Marion mineralisation extends to just under 1km in strike length, 800m in depth with the lodes varying in width from 3 – 15m. The mineralisation is steeply plunging resulting in a very small surface expression of the lodes. • The Mount Martin deposit has a strike length of 1km, a vertical extent of 350m, with the individual, shallow west-southwesterly dipping lodes varying between 2 – 10m true thickness. These lodes make up a mineralised package of ~300m true thickness (hangingwall to footwall). • The Pernatty desposit has a strike extent of 500m, 400m dip extent and up to 300m in lateral extent. The individual lodes are of varying orientations and are generally between 2 – 15m wide. **CMGP** • Individual deposit scales vary across the CMGP. • The Big Bell Trend is mineralised a strike length of >3,900m, a lateral extent of up +50m and a depth of over 1,500m. • Great Fingall is mineralised a strike length of >500m, a lateral extent of >600m and a depth of over 800m. • Black Swan South is mineralised a strike length of >1,700m, a lateral extent of up +75m and a depth of over 300m.

Criteria	JORC Code Explanation	Commentary
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 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.	• **HGO** • For Trident, Chalice, Two Boys, Vine and Lake Cowan the modelling and estimation work was undertaken by Alacer Gold and carried out in Vulcan 3D mining software. • For Alacer Gold estimates the drill hole data to be used in the process is first validated. The initial interpretation is then completed on 1:250 scale hardcopy cross sections, long sections and level plans, this interpretation is then validated by either the senior geologists or the Chief Geologist before then being digitised into the Vulcan 3D modelling package. The digitised polygons form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc, this is carried out using Supervisor. Top cut analysis was carried out by assessing normal and log-histograms for extreme values and using a combination of mean variance plots and population disintegration techniques. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. In all cases knowledge of the geology was used to guide the analysis of the variogram fans in determining the orientation of maximum continuity. • An empty block model is then created for the area of interest; with each ore wireframe used to assign block domain codes which match the flag used for the composites. This model contains attributes set at background values for gold as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. At Trident a grade assignment method has been employed for the Athena orebody. This uses face sampling/mapping on each level to identify runs of vein with similar width and grade profiles. For each run, the length of the run and average vein width is calculated as well as a width weighted average vein grade. Two or more grade runs are then joined up across levels to form a grade block, a long section is used to validate the plunge of each grade block against the diamond drilling. The length and width of each run is used to calculate a length weighted average grade and an average vein width for the block. A wireframe for each grade block is created at the specified average vein width for the block. This wireframe is then assigned the previously calculated block grade using a post process script. • No by-products or deleterious elements are estimated. • No assumptions have been made about the correlation between variables.

Criteria	JORC Code Explanation	Commentary
		• The estimation is validated using the following: a visual interrogation, a comparison of the mean composite grade to the mean block grade for each domain, a comparison of the wireframe volume to the block volume for each domain, Grade trend plots (moving window statistics), comparison to the previous resource estimate. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • Production reconciliation data is regularly used to check the performance of the estimate and to adjust parameters is necessary. • Good reconciliation between mine claimed figures and milled figures is routinely achieved.
		SKO • The HBJ mineral resource estimate was undertaken in December 2011 by Widenbar and Associates Pty Ltd. The grade interpolation method used was Ordinary Kriging (OK) in the Datamine ESTIMA process – a method that is appropriate for the style of mineralisation being estimated. A simple unfolding process has been applied to the data and model blocks in order to simplify the setup of search ellipses and allow searches to follow the varying dip and strike of the various domains. • Geological, mining as-built and mineralisation domains and a valid drillhole database were supplied by SKO personnel. The geological and mineralisation domains were used to control the interpolation as hard boundaries (mineralisation domains) and for the application of bulk density data (geological boundaries). • The Mineral Resource estimates for Mount Marion, Mount Martin and Pernatty were undertaken by Alacer Gold in September 2011. The geological and mineralisation wireframes as well as the grade interpolation was undertaken in Vulcan 8.04 3-D modelling software with statistical analysis undertaken using Snowden Supervisor software. The interpolation method used was Ordinary Kriging (OK) – a method that is appropriate for the styles of mineralisation being estimated. • Statistical analysis was undertaken to determine the composite length (1m) and for the application of top-cuts. • The search ellipses applied were based on a combination of drillhole spacing and variographic analysis. Various minimum and maximum samples were used in the first search with a maximum of four samples per drill-hole allowed. Several passes were used each with increasing search ellipse sizes, all the blocks in the mineralised domains were informed in the first pass. • The block model was depleted using surfaces / domains generated by the SKO Survey. • Validation of the models was completed by visual inspection, statistical comparisons and comparison with reconciliation data, with the final model achieving a satisfactory validation. • No deleterious elements were estimated as they are considered not material.

Criteria	JORC Code Explanation	Commentary
		CMGP • All modelling and estimation work undertaken by Metals X is carried out in three dimensions via Surpac Vision. • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. • An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • This approach has proven to be applicable to Metals X's gold assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output. • Good reconciliation between mine claimed figures and milled figures was routinely achieved during past production history.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnage estimates are dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The cut off grades used for the reporting of the Mineral Resources have been selected based on the style of mineralisation, depth from surface of the mineralisation and the most probable extraction technique.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** The principle extraction method at both Trident and Chalice is sub-level open stoping. For the narrow vein systems at Trident bench stoping is employed. **SKO** The Pernatty, Mount Martin and upper portions of the HBJ deposits are assumed to be amenable to open pit mining processes. A minimum mining width of 2.5m (horizontal) is applied to the lodes. The lower parts of the HBJ deposit was assumed to be mineable via bulk underground mining techniques such as sub-level or block caving. The Mount Marion deposit is assumed to be amenable to underground mining via open stoping means which is consistent with the mining practices adopted for the Mount Marion deposit. **CMGP** Not considered for Mineral Resource. Applied during the Reserve generation process.
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.	**HGO** Metallurgical test work is carried out on a project by project basis. The Higginsville plant is approximately 5.5 years old and routinely averages over 96% recovery when being fed with Trident and Chalice material. No other project is currently being mined / processed. **SKO** The majority of the SKO resource base comprises deposits that have some level of mining history and hence established metallurgical properties. **CMGP** Not considered for Mineral Resource. Applied during the Reserve generation 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.	**HGO** • Tailings are discharged to the nearby tailings storage facility and also used to form cemented backfill for underground operations. • Process water is pumped 30 km from the Chalice open pit to the Aphrodites pit from which it is stored prior to pumping to the process mill • Potable water is pumped from the Coolgardie–Norseman water pipe line and is provided by the state water provider. • Water used in the Trident mine for mining operations is recycled from underground and stored in the nearby Poseidon North Pit before being returned for underground use. • Water used in the Chalice mine for mining operations is pumped from the remaining water left in the base of the Chalice open pit. **SKO** The significant operational history at SKO has allowed for a consistent set of environmental assumptions to be applied to the mineral resource deposits in the region. **CMGP** BBGO operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • For both Trident and Chalice bulk densities were assessed via test work and assigned to the model. Samples were selected to cover the full range of lithology types and ore types across the deposit. Individual unbroken half core samples of approximately 30cm length were randomly selected from within specified metre intervals. Samples were sent to the Genalysis Laboratory in Kalgoorlie, where mass and volumes (by water immersion) were measured and bulk density calculated. • Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation / lithologies or from historic production records. **SKO** • For the HBJ, Mount Marion, Pernatty and Mount Martin deposits, density values were based on historic mining reconciliations combined with bulk density check test work. • Bulk densities were assigned based on the host rock, mineralisation style and oxidation state, all of which were coded into the block models. **CMGP** • Bulk density of the mineralisation at the CMGP is variable and is for the most part lithology rather than mineralisation dependent. Bulk density sampling is undertaken via assessments of drill core and grab samples. • A significant past mining history has validated the assumptions made surrounding bulk density at the CMGP.
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.	• Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, input data and geological / mining knowledge. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Resource estimates are peer reviewed by the site technical team. • No external reviews have been undertaken.
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.	• All currently reported resources estimates are considered robust, and representative on both a global and local scale. • A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimates.

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.	• At all projects, all Resources that have been converted to Reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some are classified as Probable Reserve based on whether they are capitally or fully developed.
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.	• Mr Buckingham visits the Higginsville operations on a regular basis and is actively involved in budgets / forecasts and physical mining processes at both the operating mines.
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	**HGO** • Mining is in progress at both Chalice and Trident. • The Chalice underground mine has been in operation since 2011, with historical open pit and underground workings having been established in the 1990's by Resolute Mining. The mining methodology, design layouts, production performance, mining modifying factors and cost profiles used in the 2014 Mineral Reserve are therefore reflective of this history. • The Trident Underground mine began production in late 2008. The mining methodology, design layouts, production performance, mining modifying factors and cost profiles used in the 2014 Mineral Reserve are therefore reflective of this history. • Underground mining costs have been derived from the current Australian Contract Mining (ACM) rates. • The Lake Cowan Mining Centre (including Louis Pit) was mined in the 2000's by Harmony Gold. The Reserve for Louis involves depth and width extension of the current Pit. • 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. **SKO** • Economic assessment of the stockpiles is undertaken regularly using actual costs of processing inclusive of administration at SKO. **CMGP** • A comprehensive Definitive Feasibility Study utilising a combination of internal and external expertise has been undertaken to allow the conversion of Mineral Resources to Ore Reserves.

Criteria	JORC Code Explanation	Commentary
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• Underground Mines - Cut off grades were determined for the various mining methods and various mining sections in the mine. The COG's have been applied to both development and stope production from their respective areas. • Open Pit Mines - The pit rim cut off grade (COG) was determined as part of the Reserve estimation. The pit rim COG determines which material will be processed by equating the operating cost of processing and selling to the value of the mining block in terms of recovered metal and the expected selling price. The COG is then used to determine whether or not a mining block should be delivered to the treatment plant for processing or taken to the waste dump as waste.
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 infrastructure requirements of the selected mining methods.	• Ore Reserves have been undertaken on a 'bottom up' process – with the physicals reflecting mine designs rather than Resource conversion factors or Whittle optimisations. **HGO** • Mining methodologies for underground Reserves centre on long hole open stoping. However, there are areas which are designed as narrow vein up hole or flat bench stoping. All methods described in the Reserve have either been trialled successfully and/or implemented historically. The stope design parameters take into account the different mining shapes and are based on specific geology and geotechnical domains associated with those areas. Stope shapes, level layouts and extraction sequences are designed cognisant of local and regional ground conditions. Where deteriorating ground conditions are expected or where significant fault planes run adjacent to mineralisation, stope shapes are altered to encompass these conditions and sequenced early to ensure recovery is possible. • Dilution factors vary pending the orebody style and host rock conditions as well as from mining sequence and development layouts. • Each mining method applied has a minimum width, which corresponds to sub level distances, blast hole drill accuracy constraints, nature of the mineralisation and/or fleet flexibility. • With the implementation of paste filling at Trident and the utilisation of remote loaders with telecabins, a 100% mining recovery factor is applied to the stope physicals. • No Inferred resources are included with the Reserve Statement. • Both underground mines are established production centres and have been in operation for several years. Mining methodologies forecasted in the Reserve are those currently being utilised. • Conventional open pit mining methodologies and sequencing have been applied to open pits. • A 6% dilution factor has been applied to Louis Reserve. • Louis has a 95% mining recovery factor. • Wall angles used in the Louis Pit are reflective of the historical parameters used. • Lake Cowan has pre-existing haulage routes and site earthworks. Re-establishment of the haulage route into Higginsville has been costed as is included within the economic analysis. **SKO** • As all SKO reserves are stockpile no mining factors or assumptions are applied during assessment of their viability.

Criteria	JORC Code Explanation	Commentary
		CMGP • Pit and underground reserves have all been subject to detailed mine design. • Stockpile resources have been converted to reserves by application of appropriate modifying factors. • Feasibility Evaluations have incorporated dewatering requirements. • Open Pit geotechnical parameters have been supplied by Geotechnical Consultant following site inspection. • Open Pits have been designed to ensure a minimum 25m bench width. • Inferred Mineral Resources have been treated as waste in each assessment. • The construction of a 1.5Mtpa Process Plant at Big Bell as detailed in the DFS has been assumed.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • 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. • 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?	**HGO** • Gold extraction is achieved using staged crushing, ball milling with gravity concentration and Carbon in Leach. The Higginsville plant has operated since 2008 and historical recoveries on Trident ore average 97% and Chalice 95%. • Treatment of ore is via conventional gravity recovery / intensive cyanidation and CIL is applied as industry standard technology. • Host mineralisation has been consistent within the Trident and Chalice orebodies, and historical high gold extractions achieved at full commercial production rates. Additional testwork is instigated where notable changes to geology and mineralogy are identified. Small scale batch leach tests on primary Louis ore have indicated lower recoveries (80%) associated with finer gold and sulphide mineralisation. • There have been no major examples of deleterious elements affecting gold extraction levels or bullion quality. Some minor variations in sulphide mineralogy have had short term impacts on reagent consumptions. • No bulk sample testing is required whilst geology/mineralogy is consistent based on treatment plant performance. **SKO** • All SKO stockpiles have a significant processing history and metallurgical performance is well understood. • A long history of processing through the existing facility demonstrates the appropriateness of the process to the styles of mineralisation considered. • No deleterious elements are considered, as a long history of processing has shown this to be not a material concern.

Criteria	JORC Code Explanation	Commentary
		CMGP • The industry standard CIL process will be used treat CMGP ore. This has a demonstrated applicability to the styles of mineralisation present at the CMGP. • The CIL process is well proven. • Significant metallurgical test-work has been undertaken as part of the DFS. A significant past production history exists to validate the test-work results. • No significant deleterious elements are known. As such there is no allowance for deleterious elements in the process. • Metallurgical recoveries on the various ore and grades were considered as part of the cut-off grade analysis.
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.	**HGO** • The Higginsville mine operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs. • Waste is generally stored underground in mined out stopes. When underground stopes are not available, waste is placed on approved surface waste dumps or capping material for historical tailings dams. • Waste rock created from the Open Pit operation at Louis is planned for storage alongside the pit crest and is formed up against an existing waste landform. The planned location sits underneath a tested regional dyke (no mineralisation). **SKO** • SKO operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs. **CMGP** • A Clearing Permit covering all reserves and associated infrastructure has been approved. • Department of Water Licence to Take Water approvals are in place to allow dewatering of all mines within reserve estimate. • DEC Works Approval has been granted for Dewatering activities. • Hydrogeology, Waste and Soil characterisation studies have been undertaken. • Yet to submit application for Mining Proposal for Waste Dumps or Tails Storage Facility.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • Both the Trident and Chalice mines are currently active and have substantial infrastructure in place including a large amount of underground infrastructure, major electrical, ventilation and pumping networks. The main Higginsville location has an operating CIL plant a fully equipped laboratory, extensive workshop, administration facilities and a 350 person single person quarters nearby. • Infrastructure required for Louis Pit production (workshops, gen sets, offices) will be sourced from South Kalgoorlie Operations. These units have been used historically in satellite pits for SKO. **SKO** • SKO has an operating CIL plant, along with extensive maintenance and administration facilities. • Power and water supplies are in place. • Labour and accommodation is sourced from the nearby city of Kalgoorlie – Boulder. **CMGP** • Sufficient space is availability on existing granted tenements to allow mining and associated infrastructure to extract reserves. • Power will be supplied by diesel or gas generation onsite.

Criteria	JORC Code Explanation	Commentary
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • 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.	**HGO** *Underground Mines* • Capital Development costs are derived from the current contractor cost model (ACM). CAPEX Infrastructure costs have been sourced either from specific quotes or historical invoices. • Operating costs are derived primarily from the current contractor cost profile (ACM). In areas where works are outside of ACM's scope, alterative contractor costs have been sourced. • Chalice Mine haulage (25km) is operated by Breakaway with current contract rates included within the Reserve model. *Open Pit Mine* • CAPEX has been sourced from a specific quote (Dec 2013). • Operating costs associated with the pit operation are based on schedule of rates from various Kalgoorlie based contractors. These costs are in line with previous pit operations in both SKO and HGO. *Surface and Plant* • The HGO Plant costs are derived from historical cost profiles, with updates from recent consumable negotiations. • Fuel and potable water rates are reflective of current market conditions. • Site Administration and Manning costs are reflective of current conditions. *Royalties* • All private and state royalties have been incorporated into the Reserve cost model.
		SKO • Processing costs are based on actual cost profiles, as are administrative costs. • Both state government and private royalties are incorporated into costings as appropriate. **CMGP** • Capital Costs were estimated as part of the DFS. • Operating Costs were estimated as part of the DFS. • WA State Government 2.5% applies. • $5 per oz produced Royalty applies to Great Fingall Deeps.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • Trident Mine Revenue is based on the long term forecast of A$ 1,452/oz. • The Chalice and Louis mines are analysed at a A$1,400/oz price due to their shorter life. • No allowance is made for silver by-products. **SKO** • For SKO, revenue is based upon a A$1,400/oz forecast which is consistent with current market pricing and industry short term forecasts. • No co-product revenue is considered in evaluations. **CMGP** • Reserves are based upon a AUD$1500 per fine gold oz revenue assumption. • Costs for bullion transport and refining in Perth. No allowances for additional costs or penalties and no allowance for silver revenue.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Detailed economic studies of the gold market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning decisions. • There remains strong demand and no apparent risk to the long term demand for the gold.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	**HGO** • The Higginsville NPV assumes a 10% discount rate with no inflation. Mining costs derived from contract rates, Paste Plant costs as per cubes required at a historical A$/m^3, G&A costs on a cost per tonne basis and processing cost based on actual cost profiles. **SKO** • The SKO NPV assumes a 10% discount rate with no inflation, G&A costs on a cost per tonne basis and processing costs based on upon actual cost profiles. **CMGP** • For the CMGP, which is yet to be funded, an 8% real discount rate is applied to NPV analysis. • Sensitivity analysis of key financial and physical parameters is applied to future development project considerations and mine.

Criteria	JORC Code Explanation	Commentary
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	**HGO** • HGO is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies. **SKO** • SKO mine is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies. **CMGP** • The CMGP is yet to start and will require environmental and other regulatory permitting.
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.	• HGO is an active mining project. • SKO is an active mining project. • No operational or marketing contracts have been awarded for the CMGP. However, the DFS assumptions are based upon common WA operational experience giving confidence in their validity. Statutory approvals and licence applications are either in place or substantially prepared and no delays or hindrances to project development are anticipated.
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 basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works. • Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to. • The result appropriately reflects the Competent Person's view of the deposit.
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 Metals X Corporate technical team. • Further, external consultants (experts in their field of speciality) regularly visit Metals X Gold Divisions sites to audit designs and processes. The recommendations from these reports are represented in the Reserves.

Criteria	JORC Code Explanation	Commentary
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.	**HGO** • Trident and Chalice Reserves are reflective of current operating practices and mine planning processes. All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at Trident and Chalice. A comprehensive production history confirms the validity of the Trident and Chalice reserve. • Reserve calculations for the Louis Open Pit are cognisant of the historical geological, geotechnical and mining data (Harmony Gold 2000's). Confidence in the Reserve is further achieved with the validation of historical production data and observation of structural orientations on the existing pit walls. **SKO** • All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at SKO. **CMGP** • The ore reserve has been completed to a DFS standard and benchmarked against local site historical production and experience hence confidence in the estimate is high.

APPENDIX 2 – JORC 2012 TABLE 1 – TENNANT CREEK IOCG ORE BODIES
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.	• Diamond Drilling All data used in resource calculations at the Tennant Creek Project has been gathered from diamond core. Multiple sizes have been used historically. This core is geologically logged and subsequently halved for sampling. • All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.
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). • Method of recording and assessing core and chip sample recoveries and results assessed.	
Drill sample recovery	• 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.	
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	• Diamond core is logged geologically and geotechnically. • Logging is quantitative in nature. • All holes are logged completely.

Criteria	JORC Code Explanation	Commentary
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.	• Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate. • Core undergoes total preparation. • The sample preparation process consists of: » Crushing using a vibrating jaw crusher to achieve a maximum sample size of 4mm. » The sample is then weighed, and if the sample weight is greater than 3.2kg, the sample is split into two using a Jones-type Riffle splitter. » The crushed sample is then pulverised in a Labtech LM5 Ring Mill for 6 minutes. For samples weighing greater than 3.2kg the first portion is removed and second portion is homogenised in the same machine. Once complete the first portion is put back in the LM5 and both portions are homogenised. » From the pulverised sample, approximately 200g is taken as a master sample which stays in Alice Springs, while a second sample of approximately 150g taken and sent to for assaying. These samples are collected via a scoop inserted to the bottom of the bowl. The remaining sample is transferred to a calico bag for storage. » For every 20th sample, an approximately 25g sample is screened to 75 microns to check that homogenising has achieved 80% passing 75 microns. • QA/QC is ensured during sampling via the use of sample ledgers, blanks, standards and repeats. • QA/QC is ensured during the assays process via the use of blanks, standards and repeats at a NATA / ISO accredited laboratory. • The sample sizes are considered appropriate to the grainsize of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required.
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.	• Analysis of drill core for Au, Ag, Bi, Co and Cu was carried out in Perth in the following manner; » Gold (Au-AA25 scheme – lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 30g charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead. » The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrix-matched standards. » Samples returning assay values in excess of 100g/t Au were repeated using the Au-AA26 method. » Silver, bismuth, cobalt and copper (ME-OG62) - A prepared sample is digested using a 4 acid digest. » The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry. • No significant QA/QC issues have arisen in recent drilling results. • These assay methodologies are appropriate for the resource in question.

Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process. • Virtual twinned holes have been drilled in several instances with no significant issues highlighted. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources are compiled in databases which are overseen and validated by senior geologists. • No primary assays data is modified in any way.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, deeper holes with a Gyro tool if required. • All drilling and resource estimation is undertaken in MGA grid. • Topographic control is generated from a combination of remote sensing methods and ground-based surveys. This methodology is adequate for the resource in question.
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.	• Data spacing is variable dependent upon the individual orebody under consideration. This approach is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Compositing is carried out based upon the modal sample length of each individual domain.
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.	• Drilling intersections are nominally designed to be normal to the orebody as far topography / economics allows. • Development sampling is nominally undertaken normal to the various orebodies. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• Samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

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, 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.	• The Tennant Creek Project comprises 5 granted exploration leases. • Native title interests are recorded against the Tennant Creek tenements. • The Tennant Creek tenements are held by Castile with is 100% Metals X owned. • Several third party royalties exist across various tenements at Tennant Creek, over and above the Northern Territory government royalty. • Castile operates in accordance with all environmental conditions set down as conditions for grant of the leases. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The Tennant Creek area has an exploration and production history in excess of 100 years. The Rover area in particular has an intensive exploration history stretching from the 1970's. • On balance, Castile work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Tennant Creek Project is located in the 1860-1850Ma Warramunga Province is approximately centred on the township of Tennant Creek, and contains the Palaeoproterozoic Warramunga Formation. This is a weakly metamorphosed turbiditic succession of partly tuffaceous sandstones and siltstones which includes argillaceous banded ironstones locally referred to as 'haematite shale'. • Copper in the form of chalcopyrite occurs around the upper margins of the quartz magnetite ironstones and in the silicified BIF or haematitic shales that often form an alteration transition to the adjacent chlorite alteration envelope. Although copper levels in the upper quartz magnetite portion of the ironstones is usually very low, pervasive sub-economic copper levels can persist throughout this zone. Economic levels of copper are dominantly contained in the lower massive magnetite portion or in massive magnetite "veins" identified in the magnetite quartz zones. The massive magnetite zones grade laterally and at depth into magnetite chlorite stringer zones. Gold content increases where the content of magnetite veining and chlorite alteration decreases and there is an increase in early haematite dusted quartz veins and indurated sediments and fine chlorite veining related to the mineralisation phase. The transition from massive magnetite copper mineralisation to magnetite quartz chlorite stringer gold mineralisation is also the zone of increased bismuthinite mineralisation. • Lead and zinc mineralisation at Explorer 108 is associated with a brecciated dolomitised sediment unit, consisting of irregular, generally narrow, domains or veins of semi-massive sulphides (sphalerite and galena). A basal "high-grade" zone is present at the contact of the dolomite and lower felsic units.

Criteria	JORC Code Explanation	Commentary
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.

Criteria	JORC Code Explanation	Commentary
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').	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.
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.	• Exploration and mine planning assessment continues to take place at the Tennant Creek Project.

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.	• Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard". • As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), face chip and sludge drilling data and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
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.	• Mr Russell visits site on an "as required" basis.

Criteria	JORC Code Explanation	Commentary
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.	• Mining of similar deposits in the region provides confidence in the current geological interpretation. • No alternative interpretations are currently considered viable. • Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • The structural regime and the presence of intrusive source bodies are the dominant controls on geological and grade continuity at the Tennant Creek Project.
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.	• Individual deposit scales vary across the Tennant Creek Project. • The Rover 1 deposit is mineralised a strike length of >540m, a lateral extent of up +70m and a depth of over 650m. • The Rover 1 deposit is mineralised a strike length of >400m, with a thickness of up to 60m. • The Explorer 142 deposit is mineralised a strike length of >200m, with a thickness of up to 8m.

Criteria	JORC Code Explanation	Commentary
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 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.	• All modelling and estimation work undertaken by Metals X is carried out in three dimensions via Surpac Vision. • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. • An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • This approach has proven to be applicable to Metals X's gold assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output. • Good reconciliation between mine claimed figures and milled figures was routinely achieved during past production history.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnage estimates are dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The Rover 1 reporting cut-off grade is 2.5g/t Au. • The Explorer 108 reporting cut-off grade is 2.5% Pb + Zn. • The Explorer 142 reporting cut-off grade is 2.5g% Cu.

Criteria	JORC Code Explanation	Commentary
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.	• Not considered for Mineral Resource. Applied during the Reserve generation process.
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.	• Not considered for Mineral Resource. Applied during the Reserve generation 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.	• Castile operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.
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 of the mineralisation at the Tennant Creek Project is variable and is for the both lithology and alteration / mineralisation dependent. • For modern drilling, field technicians perform density test-work on core samples on a campaign basis every three months. All density measurements have been determined using the simple water immersion technique. The samples from all holes were well below the base of oxidation and were in generally competent, non-porous rock.
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.	• Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Resource estimates are peer reviewed by the site technical team as well as Metals X's Corporate technical team.

Criteria	JORC Code Explanation	Commentary
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.	• All currently reported resources estimates are considered robust, and representative on both a global and local scale. • No production data exists to compare the resource estimate against.

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.	• No reserve has been stated for the Tennant Creek Project.
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 reserve has been stated for the Tennant Creek Project.
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	• No reserve has been stated for the Tennant Creek Project.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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 infrastructure requirements of the selected mining methods.	• No reserve has been stated for the Tennant Creek Project.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • 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. • 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?	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • 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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• No reserve has been stated for the Tennant Creek Project.
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 reserve has been stated for the Tennant Creek Project.

Criteria	JORC Code Explanation	Commentary
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).	• No reserve has been stated for the Tennant Creek Project.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No reserve has been stated for the Tennant Creek Project.
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.	• No reserve has been stated for the Tennant Creek Project.

APPENDIX 3 – JORC 2012 TABLE 1 – TIN DIVISION
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.	• Diamond Drilling The bulk of the data used in resource calculations at Renison has been gathered from diamond core. Three sizes have been used historically NQ2 (45.1mm nominal core diameter), LTK60 (45.2mm nominal core diameter) and LTK48 (36.1mm nominal core diameter), with NQ2 currently in use. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required. NQ and HQ core sizes have been recorded as being used at Mount Bischoff. This core is geologically logged and subsequently halved for sampling. There is no diamond drilling for the Rentails Project. • Face Sampling Each development face / round is horizontally chip sampled at Renison. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). Samples are taken in a range from 0.3m up to 1.2m in waste / mullock. All exposures within the orebody are sampled. A similar process would have been followed for historical Mount Bischoff face sampling. There is no face sampling for the Rentails Project. • Sludge Drilling Sludge drilling at Renison is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. There is no sludge drilling for the Mount Bischoff Project. There is no sludge drilling for the Rentails Project. • RC Drilling RC drilling has been utilised at Mount Bischoff. Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal. There is no RC drilling for the Renison Project. There is no RC drilling for the Rentails Project.
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).	
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.	

Criteria	JORC Code Explanation	Commentary
		• Percussion Drilling This drilling method was used for the Rentails project and uses a rotary tubular drilling cutter which was driven percussively into the tailings. The head of the cutting tube consisted of a 50mm diameter hard tipped cutting head inside which were fitted 4 spring steel fingers which allowed the core sample to enter and then prevented it from falling out as the drill tube was withdrawn from the drill hole. There is no percussion drilling for the Renison Project. There is no percussion drilling for the Mount Bischoff Project. • All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.
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	• Diamond core is logged geologically and geotechnically. • RC chips are logged geologically. • Development faces are mapped geologically. • Logging is quantitative in nature. • All holes are logged completely, all faces are mapped completely.
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.	• Drill core is halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required • Samples are dried at 90°C, then crushed to <3mm. Samples are then riffle split to obtain a sub-sample of approximately 100g which is then pulverized to 90% passing 75um. 2g of the pulp sample is then weighed with 12g of reagents including a binding agent, the weighed sample is then pulverized again for one minute. The sample is then compressed into a pressed powder tablet for introduction to the XRF. This preparation has been proven to be appropriate for the style of mineralisation being considered. • QA/QC is ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. • The sample size is considered appropriate for the grain size of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required. • For RC chips regular field duplicates are collected and analysed for significant variance to primary results.
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.	• Assaying is undertaken via the pressed powder XRF technique. Sn, As and Cu have a detection limit 0.01%, Fe and S detection limits are 0.1%. These assay methodologies are appropriate for the resource in question. • All assay data has built in quality control checks. Each XRF batch of twenty consists of one blank, one internal standard, one duplicate and a replicate, anomalies are re-assayed to ensure quality control. • Specific gravity / density values for individual areas are routinely sampled during all diamond drilling where material is competent enough to do so.

Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. Drillhole data is also routinely confirmed by development assay data in the operating environment. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources and reserves are compiled in databases (underground and open pit) which are overseen and validated by senior geologists. • No primary assays data is modified in any way.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, currently with a GyroSmart tool in the underground environment at Renison, and a multishot camera for the typically short surface diamond holes. • All drilling and resource estimation is undertaken in local mine grid at the various sites. • Topographic control is generated from remote sensing methods in general, with ground based surveys undertaken where additional detail is required. This methodology is adequate for the resource in question.
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.	• Drilling in the underground environment at Renison is nominally carried-out on 40m x 40m spacing in the south of the mine and 25m, x 25m spacing in the north of the mine prior to mining occurring. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands. • Drilling at Mount Bischoff is variably spaced. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands. • Drilling at Rentails is usually carried out on a 100m centres. This is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands. • Compositing is carried out based upon the modal sample length of each individual domain.
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.	• Drilling intersections are nominally designed to be normal to the orebody as far as underground infrastructure constraints / topography allows. • Development sampling is nominally undertaken normal to the various orebodies. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• At Renison, Mount Bischoff and Rentails samples are delivered directly to the on-site laboratory by the geotechnical crew where they are taken into custody by the independent laboratory contractor.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

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, 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.	• All Tasmania resources are hosted within 12M1995 and 12M2006. Both tenements are standard Tasmanian mining leases. • No native title interests are recorded against the Tasmanian tenements. Native title interests are recorded against the Queensland tenements. • Tasmanian tenements are held by the Bluestone Mines Tasmania Joint Venture of which Metals X has 50% ownership. • No royalties above legislated state royalties apply for the Tasmanian tenements. • Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the mining leases. • There are no known issues regarding security of tenure.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The Renison and Mount Bischoff areas have an exploration and production history in excess of 100 years. • Bluestone Mines Tasmania Joint Venture work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• Renison is one of the world's largest operating underground tin mines and Australia's largest primary tin producer. Renison is the largest of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Renison Mine area is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Renison there are three shallow-dipping dolomite horizons which host replacement mineralisation. • Mount Bischoff is the second of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Mount Bischoff Mine area is situated within the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Mount Bischoff folded and faulted shallow-dipping dolomite horizons host replacement mineralisation with fluid interpreted to be sourced from the forceful emplacement of a granite ridge and associated porphyry intrusions associated with the Devonian Meredith Granite, which resulted in the complex brittle / ductile deformation of the host rocks. Lithologies outside the current mining area are almost exclusively metamorphosed siltstones. Major porphyry dykes and faults such as the Giblin and Queen provided the major focus for ascending hydrothermal fluids from a buried ridge of the Meredith Granite. Mineralisation has resulted in tin-rich sulphide replacement in the dolomite lodes, greisen and sulphide lodes in the porphyry and fault / vein lodes in the major faults. All lodes contain tin as cassiterite within sulphide mineralisation with some coarse cassiterite as veins throughout the lodes. • The Rentails resource is contained within three Tailing Storage Facilities (TSF's) that have been built up from the processing of tin ore at the Renison Bell mine over the period 1968 to 2013.

Criteria	JORC Code Explanation	Commentary
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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').	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.

Criteria	JORC Code Explanation	Commentary
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.	• Exploration assessment and normal mine extensional drilling continues to take place at Renison. • Exploration assessment continues to progress at Mount Bischoff. • Project assessment continues to progress at Rentails.

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.	• Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard". • As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), face chip and sludge drilling data and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
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.	• Mr Russell visits the active sites on a regular basis.
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.	• Mining has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects. • No alternative interpretations are currently considered viable. • Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • The architecture of the Renison horst / graben system is the dominant control on geological and grade continuity. • Similarly at Mount Bischoff the extent of intrusive felsic dykes in proximity to carbonate horixons control the continuity of grade within the system. • The depositional history of Rentails is well documented.

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.	• Renison has currently been mined over a strike length of >1,950m, a lateral extent of >1,250m and a depth of over 1,100m. • Mount Bischoff mineralisation has currently been defined over a strike length of >600m, a lateral extent of >250m and a depth of >250m. • Rentails is deposited in three adjacent TSFs which have and aggregate length of approximately 1.8km and a width at the widest point of circa 1km. Maximum depth is in excess of 20m.
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 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.	• All modelling and estimation work undertaken by Bluestone is carried out in three dimensions via Surpac Vision. • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. • An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation. It is assumed that by-products correlate well with tin. There are no assumptions made about the recovery of by-products. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • This approach has proven to be applicable to Metals X's tin assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output. • Good reconciliation between mine claimed figures and milled figures is routinely achieved.

Criteria	JORC Code Explanation	Commentary
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnage estimates are dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The resource reporting cut-off grade is 0.7% Sn at Renison. • The resource reporting cut-off grade is 0.5% Sn at Mount Bischoff. • There is no lower reporting cut-off grade for Rentails
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.	• Not considered for Mineral Resource. Applied during the Reserve generation process.
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.	• Not considered for Mineral Resource. Applied during the Reserve generation 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.	• Both Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the respective mining leases.
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 of the mineralisation at Renison and Mount Bischoff is variable. Bulk density sampling is undertaken via assessments of drill core (BMTJV practice is to undertake bulk density determinations on a representative selection of drill core sent for assay), and are reviewed constantly (BMTJV practice is to collect check SG samples as a regular part of the mining cycle). Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation. • Given the volume of the TSF's are known, and the tonnage of tailings material deposited into the dams was recorded, the insitu bulk density of the Rentails resource has been back-calculated.

Criteria	JORC Code Explanation	Commentary
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.	• Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Resource estimates are peer reviewed by the site technical team as well as Metals X'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.	• All currently reported resources estimates are considered robust, and representative on both a global and local scale. • A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimate for Renison and Mount Bischoff. • A detailed set of production records provides confidence in the accuracy of the estimate for Rentails.

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.	• At all projects, all resources that have been converted to reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some is classified as Probable Reserve based on whether is capitally or fully developed.
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.	• Mr Michael Poepjes visits the Tasmanian operations on a regular basis and is actively involved in physical mining process and evaluations.
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 is in progress at Renison and has occurred for nearly 50 years. 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. With regard to the Rentails Mineral Resource and Ore Reserve, the proposed Rentails Tailings Re-treatment Project has been subject to a Definitive Feasibility Study to validate the operating parameters applied. Increases in both the Mineral Resource and Ore Reserve for Renison are a direct reflection of total tailings output to the tailings dam from the operating Renison tin concentrator plant. • No reserve is stated for Mount Bischoff.

Criteria	JORC Code Explanation	Commentary
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade used for inclusion in the Renison Reserve is 0.8% Sn based on economic assessment and current operating and market parameters. No consideration is given to copper co-product revenue in the economic assessment as the mining and recovery of the material is ad hoc and occurs as a consequence of mining the tin. • There is no lower cut-off for reporting of the Rentails Reserve as the entire resource will be mined as far as physical constraints allow. • No reserve is stated for Mount Bischoff.
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 infrastructure requirements of the selected mining methods.	• The Renison mine predominantly applies an up-hole benching with in some cases post fill and cemented aggregate fill to fill voids. The mining method has been successfully applied over the past decade with small tweaks and geotechnical considerations progressively applied. • Mining dilution for the Mining Reserve is generally 25% at zero grade. • A minimum mining width of underground development is 3.5m and for underground stoping a minimum width of 1.5m and resource models are diluted to these limits before dilution applied. • A mining recovery 80% of the material developed and/or stoped is applied. • No Inferred resources are included within either the Reserve or the mine plan. • Rentails resources have been converted to reserve via a DFS study. • Rentails will be mined via a combination of dredging and monitoring. • Mining dilution at Rentails is minimal. • Mining recovery at Rentails will exceed 95%. • No Inferred resources are included within either the Rentails Reserve or the mine plan. • No reserve is stated for Mount Bischoff.

Criteria	JORC Code Explanation	Commentary
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • 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. • 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?	• The Renison mine produces a tin concentrate of grade varying between 50- 60 % Sn with internal process designed to reduce penalty metals such as iron, sulphur, tungsten and copper. • The metallurgical process is complex and applies several stages of gravity-type concentration as well as sulphide and oxide flotation, regrinding and acid leach methods. The method is proved and has successfully operated for over 45 years. • The metallurgical recovery as estimated based on regression analysis of grade recovery curves from the actual processing of ores in the plant. • Metallurgical recoveries on the various ore and grades were considered as part of the cut-off grade analysis. • The process proposed by Rentails project is to regrind the ores to a finer grind, the pre-concentration using sulphide and oxide flotation, and high-g-force gravity separation to produce a low-grade concentrate which is planned to be processed using an Ausmelt process to fume the tin to a high grade concentrate tap out a copper matte. • No reserve is stated for Mount Bischoff.
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.	• Waste is generally stored underground in old mine voids. Smaller amounts are placed on approved dumps. • The Renison mine operates under and in compliance with a number of operating permits, which cover its environmental impacts and outputs. • No reserve is stated for Mount Bischoff.
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 Renison mine is currently active and has substantial in place infrastructure in place including a large amount of mine infrastructure, major electrical and pumping networks, and underground primary crusher and automated shaft hoist system, a 650,000tpa tin concentrator plant, a fully equipped laboratory, extensive workshop, administration facilities and a 100 person single person quarters nearby. • The Rentails Project will be integrated with the Renison Project. There is sufficient land set aside for the Rentails expansion and future infrastructure requirements including tailings storage. • No reserve is stated for Mount Bischoff.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • 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.	• Mining costs for the Renison mine are based on Actual Mining Contractor Costs and actual realised costs and future budget estimates for all other functions at the existing mine. • Costs for the Rentails Project have been defined through a Definitive Feasibility Study. • No reserve is stated for Mount Bischoff

Criteria	JORC Code Explanation	Commentary
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.	• For the Renison Mine, revenue is based upon existing smelter contract costs and a base international tin price of A$25,000. No co-product revenue is considered in Mining Reserve or cut-off grade estimation. • For the Rentails Project, similar industry based smelter contracts is considered. Credits for sale of a high-grade copper matte product are considered and applied as a co-product revenue in the estimation of operating costs. • No reserve is stated for Mount Bischoff.
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.	• Detailed economic studies of the tin market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning decisions. • There remains strong demand and no apparent risk to the long term demand for the tin products and/or copper products generated from the project.
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. The mine is operated in a JV and carries no external debt forces. • For the Rentails Project, which is yet to be funded, an 8% real discount rate is applied to NPV analysis. • Sensitivity analysis of key financial and physical parameters is applied to future development project considerations and mine. • No reserve is stated for Mount Bischoff.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Renison mine is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation. • The Rentails Project is yet to start and will require environmental and other regulatory permitting. • The Mount Bischoff Project is currently closed and the site is under care and maintenance whilst addition drilling and economic evaluation or remaining resources is considered.
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.	• Renison is an active mining project.

Criteria	JORC Code Explanation	Commentary
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 basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works. • Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to. • The result appropriately reflects the Competent Person's view of the deposit.
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 Metals X Corporate technical team. Resources and Reserves have in the past been subjected to external expert reviews, which have ratified them with no issues. There is no regular external consultant review process in place.
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.	• All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at Renison. A comprehensive production history confirms the validity of the Rentails reserve. • No reserve is stated for Mount Bischoff.

APPENDIX 4 – JORC 2012 TABLE 1 – NICKEL DIVISION
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.	• Diamond Drilling A small portion of the data used in resource calculations at the Central Musgrave Project (CMP) has been gathered from diamond core. This core is geologically logged prior to sampling. • RC Drilling RC drilling has been utilised extensively at the CMP. Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal. • Historial A variety of drilling methods were employed by INCO, including churn drilling (102 holes) DDH (19 holes) RAB Drilling (2,643 holes) Vacuum (77 holes) Becker Drilling (102 holes).
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). • Method of recording and assessing core and chip sample recoveries and results assessed.	• Sample recovery from early drilling by INCO is not known. Sample recovery from RC drilling carried out from RC drilling after 2001 was generally very good, except where the drill encountered strong water flow from the hole.
Drill sample recovery	• 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 geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.
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	• Diamond core is logged geologically and geotechnically. • RC hole chips are logged geologically. • Logging is quantitative in nature. • All holes are logged completely.

Criteria	JORC Code Explanation	Commentary
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.	• A sample of each 5ft of drilling from INCO drilling were quartered and forwarded for assay, either to AMDEL in Adelaide, or to INCO's in-house laboratory at Blackstone. • Samples of RC drilling taken prior to 2006 were composited on 3 or 4m basis, and the composite assayed. A 1m riffle-split sample was also taken for each metre drilled, and was submitted for analysis if the composite assayed >0.4%Ni. • Sub sampling for the 2006 and later RC drilling were riffle split each 2m sample drilled. • Chips / core chips undergo total preparation. • QA/QC is currently ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. A portion of the historical informing data has been processed by in-house laboratories. • The sample size is considered appropriate for the grain size of the material being sampled. • The un-sampled half of diamond core is retained for check sampling if required. • For RC chips regular field duplicates are collected and analysed for significant variance to primary results.
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.	• Samples of INCO's drilling were dried and assayed by AAS either at AMDEL in Adelaide, or at INCO's in-house laboratory at Blackstone. The digest method was not specified. Samples were assayed for Ni, Co and Fe. Analytical quality control was maintained by the by the insertion of standard samples and re-analysis of duplicates at separate laboratories at a frequency of two check analyses for every twenty samples. • Composite samples of RC drilling completed in 2001 were submitted to AMDEL, dried and pulverised, and assayed for Ni, Co, Ag, As, Bi, Cu, Cr, Fe, Mg, Mn, Pb, S, Sb, Ti, V, Zr, Ca and Al by HF-multi-acid digest / ICP-OES. The 1m riffle-splits for any composite sample assaying >0.4%Ni were retrieved, and re-assayed using the same method. • Composite samples from 2002-2004 were assayed for Al, Ca, Cr, Fe, Mg, Mn, Ni, Si, Ti by borate fusion ICP-OES, and for Ag, As, Bi, Co, Cu, Ni, Pb, S, Sb, V, Zr by HF-multi-acid digest / ICP-OES. • During 2005 two-metre composite riffle-split (or spear-sampled for wet samples) samples were sent to SGS Laboratories in Perth. Each 2m composite sample was dried and pulverised to a nominal 90 per cent passing 75 microns and analysed for: As, Bi, Co, Cu, Ni, Pb, S and Zn by ICP-OES. Samples returning >0.4%Ni were re-assayed for Ni, Co, Al_2O_3, CaO, K_2O, Fe_2O_3, MgO, MnO, Na_2O, SiO_2, V_2O_5, TiO_2, Cr, SO_3, Cu, Zn by fused disc XRF. • After 2005 two-metre composite riffle-split (or spear-sampled) samples were sent to SGS Laboratories in Perth. Each sample was pulverised to nominal 90 per cent passing 75 micron for analysis for assay for Ni, Co, Al2O3, SiO2, TiO2, Fe2O3, MnO, CaO, K2O, MgO, SO3, Na2O, V2O5, Cr, Cu and Zn by fused disc XRF. • Duplicate samples were taken by spearing the sample pile on the ground approximately every 20 samples, and an in-house standard was inserted into the sample run every alternate 20 samples. • No significant QA/QC issues have arisen in recent drilling results. • These assay methodologies are appropriate for the resource in question.

Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process. • Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. • Primary data is loaded into the drillhole database system and then archived for reference. • All data used in the calculation of resources and reserves are compiled in databases which are overseen and validated by senior geologists. • No primary assays data is modified in any way.
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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All hole collar locations for RC holes drilled after 2000 were surveyed by using a Real Time Kinematic GPS. This measured X, Y and Z to sub-centimetre accuracy in terms of the MGA94, Zone 52 metric grid. • Hole collars for almost all INCO drill holes were re-located, and survey in using the RTK GPS. Several INCO collars could not be located, and their MGA positions are estimated from their drilled location on the original INCO Imperial local grid. • Topographic control is generated from a combination of remote sensing methods and ground-based surveys. This methodology is adequate for the resource in question.
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.	• Drill hole spacing at CMP is generally on a 120m x 50m spacing. This has been filled-in to 60 x 50 and 30m x 25m spacing in some areas. The data spacing is sufficient for both the estimation procedure and resource classification applied. • Compositing of drill assay data to 1.5m was used in the estimate.
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.	• Drilling intersections are nominally designed to be sub-normal to the orebody. • It is not considered that drilling orientation has introduced an appreciable sampling bias.
Sample security	• The measures taken to ensure sample security.	• Samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

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, 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.	• The CMP comprises 5 granted exploration leases and 1 granted miscellaneous lease. • Native title interests are recorded against the CMP tenements. • The CMP tenements are held by the Austral Nickel Pty Ltd (South Australia) and Hinckley Range Pty Lty (Western Australia). Metals X has 100% ownership of both companies. • One third party royalty agreement applies to the tenements at CMP, over and above the state government royalty. • Hinckley Range and Austral Nickel operate in accordance with all environmental conditions set down as conditions for grant of the leases. • There are no known issues regarding security of tenure. • There are no known impediments to continued operation.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other partie	• The CMP area has an exploration history which extends to the 1960's, with significant contributors being INCO, Acclaim and Metex Nickel. • On balance, MLX work has generally confirmed the veracity of historic exploration data.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Musgrave Block is an east-west trending, structurally bounded mid-Proterozoic terrane some 130,000km^2 in area, straddling the common borders of Western Australia, South Australia and the Northern Territory. • Deep weathering of olivine-rich ultramafic units has resulted in the concentration of nickel mineralisation. The olivines in the ultramafic units have background values of about 0.15% Ni to 0.3% Ni. The almost complete removal of MgO and SiO_2 to ground waters during the weathering of olivines in the ultramafic units resulted in extreme volume reductions and consequent significant upgrading of other rock forming oxides (Fe_2O_3, Al_2O_3) and metal element concentrations in the weathered profile.
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.	• No drillhole information is being presented in this release.

Criteria	JORC Code Explanation	Commentary
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.	• No drillhole information is being presented in this release.
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').	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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.	• No drillhole information is being presented in this release.
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 drillhole information is being presented in this release.
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.	• Exploration and mine planning assessment continues to take place at the CMP.

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.	• Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard". • As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
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 site is manned continually by Senior Geological personnel. • As no material update to the resource has been undertaken since early 2008 no recent site visits by the Competent Person have been undertaken.
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.	• Confidence in the geological model used to constrain the Wingellina estimate is high, with the genetic model for lateritic nickel development well understood. Logged geology has been used to drive the mineralisation interpretation, with the base of laterite defined with drill holes, or its level on a given section interpreted from surrounding drill sections. Continuity of the interpretation across and along the Wingellina deposit is for the most part good, with intersections of hard rock in drill holes, and well mapped outcropping basement the primary causes of breaks within the mineralised horizon. • No alternative interpretations are currently considered viable. • Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • The protolithology is the dominant control on grade continuity at the CMP. Structural controls which influence depth of weathering are secondary controls on grade distribution.
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.	• Individual deposit scales vary across the CMP. • The Wingellina deposits are mineralised a strike length of >9km, a lateral extent of up to 2.5km and a depth of up to 200m.

Criteria	JORC Code Explanation	Commentary
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 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.	• All modelling and estimation work undertaken was carried out in three dimensions via either Vulcan or Surpac Vision. • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. • Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation. • Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters. • An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available. • Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products. • The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge. • This approach has proven to be applicable to Metals X's nickel assets. • Estimation results are routinely validated against primary input data, previous estimates and mining output.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnage estimates are dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The resource reporting cut-off grade is 0.5% Ni. • The reporting cut-off used was based on MLX's current interpretation of commodity markets, and to allow peer group comparison.

Criteria	JORC Code Explanation	Commentary
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.	• Not considered for Mineral Resource. Applied during the Reserve generation process.
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.	• Not considered for Mineral Resource. Applied during the Reserve generation 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.	• MLX operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.
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.	• Sampling of HQ diamond drill core was used to determine the dry density of laterite ore. Average measured dry density is 1.28t/m^3. • A total of 281 triple-tube HQ core samples were collected immediately from the core barrel and measured for bulk density on site. The core length was measured for diameter and length (square-cut ends), dried for 24 hours in a gas oven at 120°C, and weighed. • Density was calculated by dividing the weight (kg) of dry sample by the volume of the core piece.
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.	• Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge. • This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Resource estimates are peer reviewed by the site technical team as well as Metals X's Corporate technical team.

Criteria	JORC Code Explanation	Commentary
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.	• All currently reported resources estimates are considered robust, and representative on both a global and local scale.

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.	At all projects, all resources that have been converted to reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some is classified as Probable Reserve based on whether is capitally or fully developed.
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.	• Irregular site visits have been undertaken. The reserve has remained consistent since the 2008 Feasibility Study was completed.
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	• A Feasibility Study utilising a combination of internal and external expertise has been undertaken to allow the conversion of Mineral Resources to Ore Reserves.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade used for inclusion in the CMP Reserve were determined through the Feasibility Study process. • Cobalt co-product revenue is considered by the FS.

Criteria	JORC Code Explanation	Commentary
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 infrastructure requirements of the selected mining methods.	• Whittle 4D was used to formulate optimal pit shell, with subsequent designs being undertaken in Surpac. • Mining studies indicate most material will be free digging, but an allowance has been made to blast some material. • The material outcrops on surface and has an overall strip ratio of 1.1:1. Due to the shallow nature and expected ground conditions, slope angles are low. Geotechnical data has been obtained through logging. • The Mineral Resource was used to formulate the Ore Reserves. • Due to the bulk nature of the deposit, limited dilution factors have been used, combined with high recovery factors.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • 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. • 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?	• Based on this preliminary assessment, the Wingellina Deposit should be processed by a pressure acid leach flowsheet. • Pressure acid leach is a proven nickel extraction method both in Australia and globally • Extensive test-work including at pilot plant scale has been conducted on CMP material over the period 1965 to 2013.
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.	• Waste dumps were considered during the Feasibility Study. • A draft Public Environmental Notice has been completed and will be published.
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.	• Limited infrastructure is currently present. All required infrastructure was considered in the Feasibility Study. • Infrastructure is considered standard for a remote site set-up.

Criteria	JORC Code Explanation	Commentary
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • 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 Feasibility Study was completed in 2008 using both independent and internal cost estimates. These costs were updated in 2012. • Both government and private royalties are payable. All royalties were considered as part of the Feasibility Study.
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 Pre-Feasibility Study progressed utilising assumptions regarding foreign exchange rates and commodity prices presented below. These prices have been set by corporate management and are considered a realistic forecast of expected commodity prices and exchange rates over the initial period of projected operation at Wingellina. Ni = US $20,000/t Co = US $45,000/t Exchange Rate ($AUD : $US) = US $0.85 • Head grades have been defined via Whittle optimisation and subsequent scheduling.
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.	• Detailed economic studies of the nickel market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning decisions. • There remains strong demand and no apparent risk to the long term demand for the nickel generated from the project.
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.	• For the CMP, which is yet to be funded, an 8% real discount rate is applied to NPV analysis. • 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 CMP is yet to start and will require environmental and other regulatory permitting.
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.	• A Native Title agreement has been reached.

Criteria	JORC Code Explanation	Commentary
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 basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works. • Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to. • The result appropriately reflects the Competent Person's view of the deposit.
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 Metals X Corporate technical team. Resources and Reserves have in the past been subjected to external expert reviews, which have ratified them with no issues. There is no regular external consultant review process in place.
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.	• All currently reported reserve calculations are considered representative on a global scale. • Only material considered as part of the Pre-feasibility study has been included as part of the reserve statement. • Limited modifying factors have been applied due to the massive nature of the deposit and the closeness to the surface.

APPENDIX 5 – JORC 2004 – MEEKATHARRA GOLD PROJECT

Meekatharra Gold Project Resource Statement (JORC 2004) 30/06/2013 (Reed Resources)									
Project	Indicated			Inferred			Total		
	MT	Grade	k Ounces Au	MT	Grade	k Ounces Au	MT	Grade	k Ounces Au
MEEKATHARRA NORTH									
Maid Marion	0.749	1.4	34.2	0.020	1.4	0.9	0.8	1.4	35.1
Five Mile Well	0.415	2.4	31.5	0.165	1.6	8.4	0.6	2.1	39.9
Sub-total	**1.164**	**1.8**	**65.7**	**0.185**	**1.6**	**9.3**	**1.349**	**1.7**	**75.0**
PADDY'S FLAT									
Vivians-Consuls (4g/t cut)	0.276	10.40	92.3	0.330	10.2	108.2	0.6	10.3	200.5
Fatts (2g/t cut)	0.589	3.40	65.2	0.014	3.4	1.5	0.6	3.4	66.7
Mudlode (2g/t cut)	0.270	6.30	55.0	0.268	5.6	48.1	0.5	6.0	103.1
Mickey Doolan	12.040	1.00	391.4	6.883	0.9	210.0	18.9	1.0	601.4
Fenian Marmont	-	-	-	2.223	1.1	77.4	2.2	1.1	77.4
Paddy's North	6.108	1.20	238.7	0.278	1.2	11.0	6.4	1.2	249.6
Prohibition	3.949	2.70	345.5	1.457	2.3	109.3	5.4	2.6	454.8
Magazine	2.135	1.50	105.4	1.779	1.6	89.2	3.9	1.5	194.6
Sub-total	**25.367**	**1.59**	**1,293.5**	**13.232**	**1.5**	**654.6**	**39**	**1.57**	**1,948.1**
YALOGINDA									
Surprise (0.5g/t cut)	1.791	1.4	79.8	0.280	1.1	10.0	2.1	1.3	89.8
Surprise West	0.027	2.2	1.9	0.004	2.6	0.3	0.0	2.2	2.2
Surprise Supergene (0.5g/t cut)	0.168	0.7	4.0	0.014	0.8	0.4	0.2	0.8	4.4
Jess	0.077	1.7	4.2	0.217	1.5	10.6	0.3	1.6	14.8
Euro	-	-	-	2.037	1.3	84.0	2.0	1.3	84.0
Batavia	0.237	2.5	19.3	0.111	1.8	6.5	0.3	2.3	25.8
Bluebird	5.217	1.7	278.4	0.851	2.6	70.9	6.1	1.8	349.3
South Junction	1.042	1.1	37.9	1.295	1.6	65.8	2.3	1.4	103.7
GNH							-	-	-
Rhens	4.114	1.3	166.2	0.475	1.4	21.0	4.6	1.3	187.2
Whangamata	1.079	1.1	36.3	0.308	1.7	16.5	1.4	1.2	52.8
Sub-total	**13.752**	**1.4**	**628.0**	**5.592**	**1.6**	**286.0**	**19.3**	**1.5**	**914.0**
REEDY'S									
South Emu	0.441	5.1	72.7	0.144	4.6	21.5	0.6	5.0	94.2
Rand	0.642	2.4	49.4	2.149	2.7	184.2	2.8	2.6	233.6
Jack Ryan	0.341	2.9	32.0	0.655	2.3	47.6	1.0	2.5	79.6
Callisto	0.087	3.3	9.2	0.054	2.2	3.8	0.1	2.9	13.0
Tott	0.854	1.8	47.9	0.604	1.5	28.6	1.5	1.6	76.5
RL9	0.080	1.7	4.5	0.082	1.4	3.7	0.2	1.6	8.2
Phoenix	-	-	-	0.800	1.1	27.0	0.8	1.0	27.0
Washdown	-	-	-	0.700	1.5	33.0	0.7	1.5	33.0
Triton Underground	0.295	6.4	60.7	-	-	-	0.3	6.4	60.7
Boomerang Deeps				0.267	5.1	48.5	0.3	5.7	48.5
Sub-Total	**2.740**	**3.1**	**276.4**	**5.455**	**2.3**	**397.9**	**8.2**	**2.56**	**674.3**
TOTAL	**43.02**	**1.6**	**2,263.6**	**24.46**	**1.7**	**1,347.8**	**67.5**	**1.7**	**3,611.3**