NI 43-101 TECHNICAL REPORT ON THE ALLIANCE AND NEW ALLIANCE GOLD DEPOSITS BURNAKURA, WESTERN AUSTRALIA

FOR

MONUMENT MINING LIMITED

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EFFECTIVE DATE: APRIL 2ND, 2015

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List of Selected Abbreviations

A	ampere
AA	atomic absorption
A/m2	amperes per square meter
ANFO	ammonium nitrate fuel oil
Ag	silver
Au	gold
AuEq	gold equivalent grade
°C	degrees Centigrade
CCD	counter-current decantation
CIL	carbon-in-leach
CoG	cut-off grade
cm	centimeter
cm2	square centimeter
cm3	cubic centimeter
cfm	cubic feet per minute
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
g	Gram
g/L	gram per liter
g-mol	gram-mole
g/t	grams per ton
ha	hectares
HDPE	Height Density Polyethylene
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
ILS	Intermediate Leach Solution
kA	kiloamperes
kg	kilograms
km	kilometer
km2	square kilometer
kWh/t	kilowatt-hour per ton
L	liter
L/sec	liters per second
L/sec/m	liters per second per meter
LLDDP	Linear Low Density Polyethylene Plastic
LOI	Loss On Ignition
LoM	Life-of-Mine
m	meter
m2	square meter
m3	cubic meter
masl	meters above sea level
mg/L	milligrams/liter
mm	millimeter
mm2	square millimeter
mm3	cubic millimeter
MME	Mine & Mill Engineering
Moz	million troy ounces
Mt	million tonnes
MTW	measured true width
MW	million watts
m.y.	million years
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
oz	Troy Ounce
%	percent
PLC	Programmable Logic Controller
PLS	Pregnant Leach Solution
PMF	probable maximum flood
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	Reverse circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SPT	standard penetration testing

1. EXECUTIVE SUMMARY

This Summary section should be read in conjunction with the total report in order to understand all the necessary and relevant technical and commercial information. BM Geological Services Pty Ltd, Cube Consulting Pty Ltd, Terramin Geoservices and Orway Mineral Consultants (WA) Pty Ltd was engaged by Canadian based Monument Mining Limited (“Monument” or “the Company”) to prepare a Technical Report on meeting the requirements of Canadian National Instrument 43-101 (NI43-101) on the recent resource update of the Alliance and New Alliance (“ANA”) gold deposits at Burnakura, Murchison Gold Project, Western Australia.

1.1 *Property Description and Ownership*

The Murchison Gold Project, consisting of the Burnakura, Gabanintha and Tuckanarra properties, is located near Meekatharra in the Murchison Mineral Field, approximately 765 kilometers North of Perth (Figure 1). The “Burnakura Property”, consisting of a suite of exploration and mining tenements was purchased by Monument Murchison Pty Ltd (a fully owned subsidiary of Monument Mining Ltd) on February 21, 2014.

The Burnakura Property mining tenements comprise six granted mining leases; five granted prospecting licences and three granted exploration licences that cover a combined area of approximately 114 km^2. The Alliance and New Alliance prospects are located on M51/117 and M51/116 respectively.

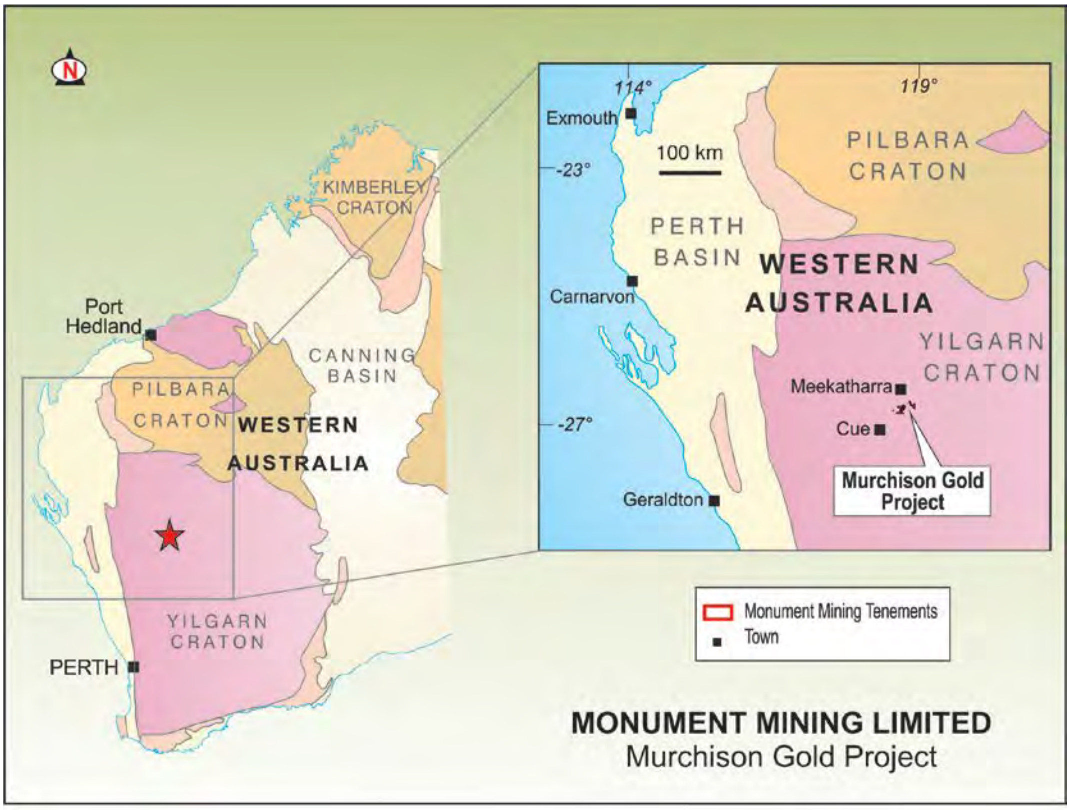

Figure 1 Locality diagram of the Murchison Gold Project

1.2 *Geology and Mineralization*

The Alliance and New Alliance open pits lie approximately 2 kilometers to the south of the North of Alliance (NOA) line of open pit and underground workings. Two tenements, M51/116 and M51/117, cover the Alliance and New Alliance deposits, which have been mined intermittently since the 1980's for shallow oxide gold mineralization to a vertical depth of 60-80 meters. Mineralization occurs within narrow, moderate to steeply dipping shear zones that extend beneath the current pit limits. Figure 2 shows a layout of the Burnakura project and the broad geological landscape.

Gold mineralization at Alliance and New Alliance occurs over a 1,150 metre strike length. The mineralization exists within several north to north-east trending, moderately east dipping (~30°) quartz zones with an average true thickness varying from 2 meters to 5 meters.

The Alliance mineralization is hosted within narrow quartz veins developed along the upper contact of a number of thin banded iron formation units with tuffs and are associated with shearing. Higher grade gold mineralization occurs within quartz veins in dilational sites that have developed along reactivated thrust faults.

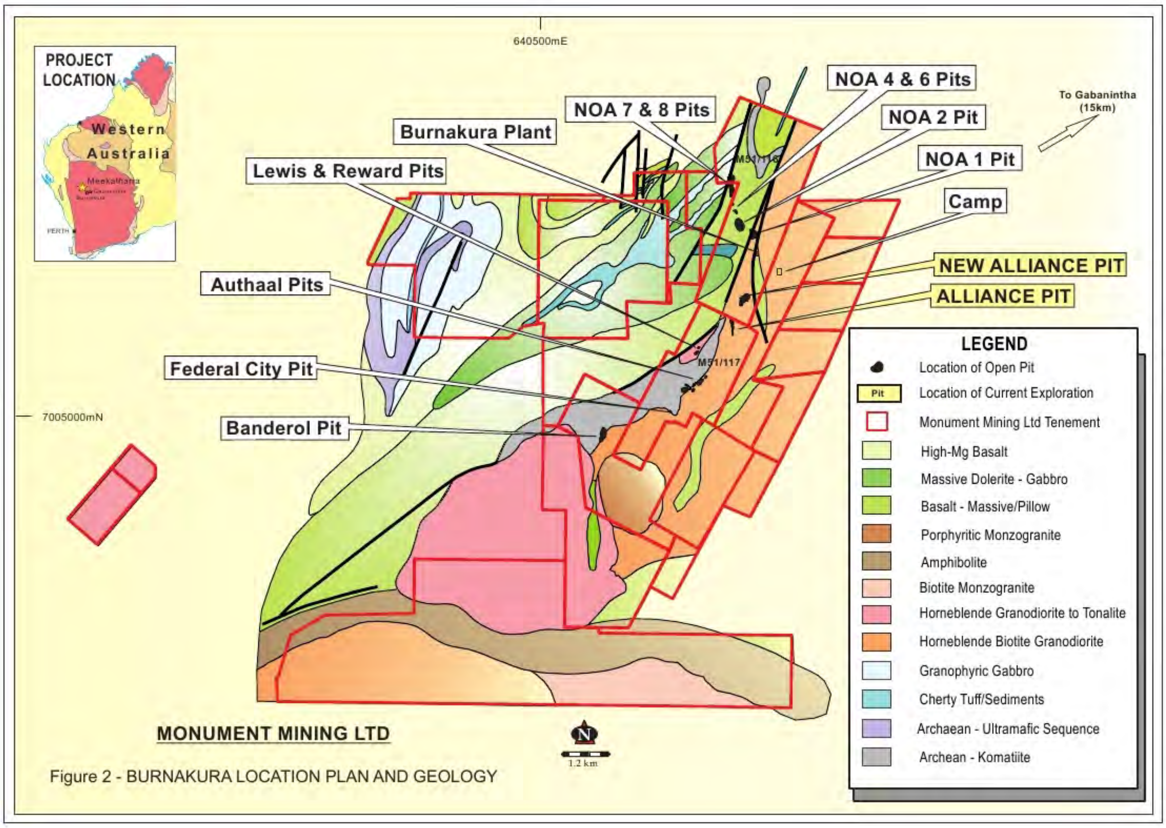

Figure 2 Locality diagram of the Alliance and New Alliance prospects at Burnakura WA

1.3 *Status of Exploration*

Monument have completed infill and extensional RC and diamond core drilling at Alliance and New Alliance during 2014 to increase the confidence of the geological model and grade continuity of the mineralization, enabling an update of the historical estimate* acquired in February 2014.

Drilling has been completed in three separate phases; Phase 1 comprised of 103 RC holes (9,346 m) and 6 diamond core holes (409 m); 17 RC holes were drilled in Phase 2 for 1,424 metres and Phase 3 comprised of 32 RC holes (2,353 m) and 1 diamond core hole (57 m).

Drill holes for all phases were designed by resource consultants Cube Consulting Pty Ltd (“Cube”) of Perth who are engaged by Monument to undertake ongoing Mineral Resource estimation for the Murchison Gold Project.

The resource drilling programs, comprising twin, infill, extensional and exploration holes was aimed at achieving the following primary objectives:

- To verify historical drilling data;
- Increasing the drill hole sampling density within the limits of the historical estimate to improve the confidence in the geological and grade resource models, and
- Test for possible extensions to gold mineralization along strike and down dip of currently defined resources.

It must be noted a qualified person has not done sufficient work to classify the historical estimates on the property as current mineral resources under NI 43-101 and Monument is not treating the historical estimate on the property as current mineral resources. The historical estimates were determined by BM Geological Services in the report Murchison Gold Project: Burnakura and Gabanintha resource inventory (December 2013). The quality of the data supporting the estimates meets industry standards. The historical estimates have been reported in line with the JORC guidelines, and resource confidence categories and the reliability of the estimate are consistent with this standard. Monument considers this historical resource estimate to be relevant to its ongoing review of the Murchison Gold Project. See Section 6.3.

It should also be noted that only Alliance-New Alliance Phase 1 drilling along with historical drilling has been relied upon for the purposes of undertaking the revised Mineral Resource Estimate that is the subject of this Technical Report. The information related to aspects of the drilling detailed below only applies to the Phase 1 drilling completed at Alliance and New Alliance.

1.4 *Mineral Resource Estimate*

Table 1 below shows a breakdown of the updated Mineral Resource estimate at a 0.5g/t Au cut-off; and Table 2 shows at a 0.5g/t Au cut-off by weathering material type:

Table 1 Mineral Resource for Alliance and New Alliance at a 0.5g/t Au cut-off

Deposit	Indicated				Inferred			
	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	2.3	0.64	2.5	50.8	2.5	0.02	1.4	0.7
New Alliance	2.3	1.24	1.2	47.6	2.7	0.08	1.5	3.7
TOTAL	2.3	1.88	1.6	98.4	2.6	0.10	1.5	4.4

*

Table 2 ANA Resource by Weathering Type; at a 0.5g/t Au cut-off

Deposit	Material Type	Indicated				Inferred			
		Density (g/cm3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	**Oxide**	2.0	0.28	2.0	18.4	-	-	-	-
	Transition	2.5	0.28	2.5	25.6	-	-	-	-
	Fresh	2.7	0.07	2.8	6.7	2.5	0.02	1.4	0.7
	Total	2.3	0.64	2.5	50.8	2.5	0.02	1.4	0.7
New Alliance	**Oxide**	2.2	0.81	1.1	29.9	2.2	0.02	0.8	0.4
	Transition	2.5	0.35	1.2	14.1	2.5	0.02	1.7	1.1
	Fresh	2.9	0.07	1.5	3.6	2.9	0.04	1.5	2.2
	Total	2.3	1.24	1.2	47.6	2.7	0.08	1.5	3.7
TOTAL		2.3	1.88	1.6	98.4	2.6	0.09	1.5	4.4

1.5 *Conclusions*

The Mineral Resource presented in the Technical Report has utilised the validated Monument drilling database, comprising a total of 46,702m of RC and DD drilling in 767 holes covering the ANA deposits. The majority of the drilling data used for the ANA mineral resource estimation is based on historical drilling which was generally orientated east-west, with an average drill spacing of 10m by 10m at Alliance and 10m by 20m at New Alliance.

Resource delineation and verification drilling completed by Monument during 2014, consisted of 103 RC holes for 9,346 metres and 6 DD holes for 409m. The Monument drilling comprises 16% of the total mineralised drill intercepts used for the mineral resource estimation.

Extensive verification of the historical and recent drilling data has been completed as the data has been loaded into a secure relational SQL Server data management system. The veracity of the drilling data and sampling procedures have been assessed by the Qualified Person and is considered to be of an acceptable standard and appropriate for the purpose of mineral resource estimation and the reporting of exploration results.

Mineralisation at ANA has a strong geological control with visual mineralisation boundaries consisting of narrow high grade quartz zones preferentially developed along the top contact of a number of thin banded iron formation ("BIF") units. Several north to north-east trending, moderately east dipping (~30°) quartz zones have been defined, that have an average true thickness varying from 2 to 5m. To effectively control the influence of the high grade gold values within and adjacent to the quartz veins, a geological interpretation and 3D model was completed to establish the underlying controls on mineralisation.

Wireframe models of the quartz veins, BIF units and geological structures were constructed based on all available drilling data as of 21st November 2014. Spatially referenced pit mapping data, surface geological mapping and close space blast hole data were used to construct a robust geological framework for determining the mineralisation extents and the grade continuity.

Ordinary Kriging was used to estimate gold values into interpreted mineralisation domains in a 3D block model using GEOVIA Surpac™. Relative variogram models and search neighbourhoods were used to interpolate the 2m composite data. A check estimate was undertaken using a non-linear recoverable resource estimator, Localised Indicator Kriging ("LIK"), which represents an alternative and less selective outcome that could be expected during mining.

The Mineral Resources have been estimated in agreement with the CIM Best Practice Guidelines (2003) and classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The ANA mineralised domains are considered by the Qualified Person to be of sufficient grade, geological continuity and defined by adequate drill density to support the classification criteria of Indicated and Inferred Mineral Resource as required for NI43-101 compliance. A range of criteria were considered when addressing the suitability of the classification boundaries including; confidence in geological, grade and volume continuity; drill data density, spacing and quality; estimation methodology; kriging quality; and reliability of supplied depletion surfaces.

2. INTRODUCTION

2.1 *Issuer*

BM Geological Services Pty Ltd (Sections 1, 2, 3, 15, 16, 18, 19, 20, 21, 22, 23, 27 and 28); Cube Consulting Pty Ltd (Sections 2.3, 6.3, 10.1, 11.1, 11.2, 11.3, 11.4, 12, 14, 24, 25, 26 and 28); Orway Mineral Consultants (WA) Pty Ltd (Sections 2.3, 13, 17 and 28) and Terramin Geoservices (2.3, 4, 5, 6, 7, 8, 9, 10.2, 11.2 and 28) was retained by Robert Baldock, President and CEO of Monument Mining Limited to prepare an Independent Technical Report on the Alliance and New Alliance Gold deposits at Burnakura, which form part of the Murchison Gold Project, Meekatharra, Western Australia.

The purpose of this report is to provide technical information supporting the update of the Mineral Resource of the Alliance and New Alliance deposits; based on drilling completed in 2014. This Technical Report conforms to the NI 43-101 Standards of Disclosure for Mineral Projects.

2.2 *Sources of Information*

This report was prepared by the following Qualified Persons (QP's):

- Darryl Mapleson, Principal Geologist, BM Geological Services; MAIG, FAusIMM.
- Mathew Wheeler, Consulting Geologist, Terramin Geoservices; MAIG.
- Adrian Shepherd, Senior Consulting Geologist, Cube Consulting; MAusIMM, CPGeo.
- Fred Kock, Principal Metallurgist, Orway Mineral Consultants; FAusIMM.

The report is based in part on Monument internal technical reports, maps, published governments reports, company letters and memoranda, and public information as listed in Section 27 "References" of this report. Sections from reports authored by other consultants may have been directly quoted or summarized in this report, and are so indicated, where appropriate.

The authors believe the basic assumptions contained in the information above a factual and accurate, and the interpretations are fair and reasonable. The authors have relied on this data and have no reason to believe any material facts have been withheld. The authors also have no reason to doubt the reliability of the information used to evaluate the mineral resources presented below.

2.3 *Scope of Personal Inspections*

Darryl Mapleson has visited the Project on two occasions. A two day site review was completed in March 2008 prior to the involvement of Monument Mining. The most recent visit was on the 1st of October 2014, whereby the ongoing RC drilling at Burnakura was inspected.

Mathew Wheeler has been engaged by Monument Mining Limited on the Burnakura Property as a geological consultant since early-June 2014. The most recent inspection of the property that is the subject of the Technical Report was between 19 and 25 November, 2014.

A site visit was conducted by Adrian Shepherd (Cube Consulting Senior Geologist) from 25-27th June 2014 to inspect and verify RC drilling in progress at the Alliance and New Alliance prospects and to assess the current sample and data collection protocols being used on site.

Fred Kock has not visited the Burnakura site to inspect the Alliance and New Alliance prospects.

2.4 *Terms of Reference and Issuer for Whom the Technical Report is Prepared*

BM Geological Services, Cube Consulting, Terramin Geoservices and Orway Mineral Consultants has prepared this technical report for the update of the Alliance-New Alliance Mineral Resource at Burnakura according to NI 43-101 and Form 43-101F1. The Qualified Persons responsible for this report are documented in Table 3. The Alliance-New Alliance at Burnakura prospects are part of the Murchison Gold Project which is 100% owned by Monument Murchison Pty Ltd, a wholly owned subsidiary of Monument Mining Limited ("Monument"). Monument is listed on the TSX-V and the Deutche Bourse under the code "MMY" and "D7Q1" respectively.

The report is for use by the general investing community. It provides an update on the status of the Alliance and New Alliance Mineral Resource and will be filed on SEDAR in accordance with the requirements of applicable securities laws in Canada.

Table 3 Qualified Persons

Name	Affiliation	Discipline	Qualifications & and Professional Registration	Site Inspection
Adrian Shepherd	Cube Consulting Pty Ltd	Resource Estimation	B.App Sc. MAusIMM, CPGeo	25-27/6/2014
Matthew Wheeler	Terramin Geoservices	Geology	BSc (Hons), MAIG	Regular Visits
Darryl Mapleson	BM Geological Services Pty Ltd	Geology	BSc (Hons), MAIG, FAusIMM	1/10/2014
Fred Kock	Orway Mineral Consultants (WA) Pty Ltd	Metallurgy	NHD, FAusIMM	Has not visited site

2.5 *Units of Measure*

Unless otherwise stated:

- All units of measurement in this technical report are metric (Table 4)
- Tonnages are reported as metric tonnes ("t")
- Precious metal values are reported in grams per tonnes ("g/t") or ("ppm")
- Ounces are measured in Troy Ounces ("oz")

Table 4 Units of measure

UNITS OF MEASURE
Linear Measure
1 inch = 2.54 cm
1 foot = 0.3048 m
1 yard = 0.9144 m
1 mile = 1.6 km
Area Measure
1 acre = 0.4047 ha
1 square mile = 640 acres = 259 ha
Weight
1 short ton (st) = 2,000 lbs = 0.9071 tonne (t)
1 lb = 0.454 kg = 14.5833 troy oz
Assay Values
1 oz per short ton = 34.2857 g/t
1 troy oz = 31.1035 g
1 part per billion = 0.0000292 oz/ton
1 part per million = 0.0292 oz/ton = 1g/t

2.6 *Coordinate system and projections*

All grid coordinates are referenced in the MGA Zone 50 (GDA94) system.

2.7 *Calendar*

Monument uses a fiscal year calendar that begins on July 1 and ends on June 30.

3. RELIANCE ON OTHER EXPERTS

BM Geological Services (BMGS) has acted to compile the various sections of this Report based on a review of reports and information supplied to it by Monument Mining. Cube Consulting (CC) have been responsible for the resource estimate, Terramin Geoservices (TG) has compiled information regarding geology and history of exploration activities. Orway Mineral Consultants (OMC) have compiled all information pertaining to the metallurgy of the Alliance and New Alliance mineralisation.

Neither BMGS, CC, TG and OMC; nor its employees have beneficial interest in Monument Mining Limited or its subsidiary Monument Murchison Pty Ltd, other than the provision of technical consulting services. BMGS, CC, TG and OMC has assumed that all of the information and technical documents reviewed and listed in Section 27 of this Report are accurate and complete in all material aspects. BMGS, CC, TG and OMC has no reason not to rely upon such information and technical documents. Assumptions, conditions, and qualifications are as set forth in the body of this report. The information and conclusions contained herein are based on the information available to BMGS at the time of preparation of this Report.

BMGS, CC, TG and OMC are not qualified to comment on issues related to legal agreements, royalties and permitting matters. The authors have reviewed the mining and exploration titles, their status and the technical data supplied by the management of Monument Mining Limited and technical information in the public domain.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 *Project Location and Area*

The Alliance and New Alliance prospects located at the Burnakura property area is centred at latitude 27° 03’ 48’’ S, longitude 118° 25’ 47’’E, located approximately 600 kilometres north northeast from Perth. The project area is situated in the Murchison Mineral Field within the Mid-West region of Western Australia. The Burnakura property as referred to in this technical report comprises a number of historical workings, non-operational open pits, closed NOA2 underground mine, mining tenements, historical gold resources, the Burnakura gold plant, mine infrastructure and accommodation village(“Burnakura Property”). The Burnakura gold operation is currently on care and maintenance with only exploration operations and environmental monitoring being undertaken. The Burnakura property granted mining tenement holding covers a combined area of approximately 113 km^2.

4.2 *Mineral Title and Rights*

4.2.1 Mineral Tenure

The Burnakura Property mining tenements were purchased by Monument Murchison Pty Ltd (a fully owned subsidiary of Monument Mining Ltd) on February 21, 2014. The Burnakura Property mining tenements and associated infrastructure was acquired from Jinka Minerals Limited, Kentor Minerals (WA) and KGL Resources Limited as part of the Murchison Gold Project acquisition (see Monument Press Release #14-2014, 25 February 2014).

As of 26 February 2015, the Burnakura Property mining tenements comprise six granted mining leases; five granted prospecting licences and three granted exploration licences that cover a combined area of approximately 114 km^2. The Alliance and New Alliance prospects are located on M51/117 and M51/116 respectively.

Mining tenements are currently held in the name of either Jinka Minerals Ltd or Kentor Minerals (WA) Pty Ltd pending transfer to Monument Murchison Pty Ltd. It is understood that Monument holds 100% beneficial mineral rights over all mining tenements. The total annual expenditure commitment for the Burnakura Property mining tenements is $619,380. The Burnakura Property mining tenement details are presented in Table 7.

Group annual reporting status (Department of Minerals and Petroleum Ref: C21/2005) was previously granted by the Geological Survey of Western Australia (GSWA) for M51/116, M51/117, M51/177, M51/178, M51/252 and M51/478 on 22 March 2005. Prospecting licences P51/2793-2797 and exploration licence E51/1063 were granted group reporting status on 16 January 2014 and 4 February 2014 respectively. Exploration licences E51/1553 and E51/1562 do not have group reporting status.

The Burnakura Property mining tenements are located on the Culculli pastoral lease (3114/455). The extreme northern portion of mining lease M51/116 is located over the Polelle pastoral lease (3114/550).The main northern access road are partially covered by miscellaneous licences L51/78 and L51/79 held by GMK Exploration Pty Ltd.

The mining tenements are covered by the Yugunga-Nya People Native Title Claim (WC1999/046). The corresponding Yugunga-Nya People and Sandfire Indigenous Land Use Agreement (ILUA) also cover this area.

4.2.2 Title Searches

The author of this section of the report has relied upon searches of the following publicly available information:

- Searches of the register of the Burnakura mining tenements maintained by the Department of Mines and Petroleum as at 26 February 2015;
- Extracts from the National Native Title Tribunal in relation to native title claims covering the Burnakura mining tenements as at 26 February 2015;
- Details of dates of the status of any objections to application of the expedited procedure under section 32 of the Native Title Act 1993 (Cth) in respect of the Burnakura mining tenements obtained from the Department of Mines and Petroleum Minerals Title Online (MTO) system as at 26 February 2015; and
- Searches of the register of Aboriginal sites maintained by the Department of Indigenous Affairs (DIA) in relation to the land the subject of the exploration licence applications as at 26 February 2015.

The results of these searches is summarized in Table 7 and the following relates to 'notes' column of Table 5.

1. The Burnakura mining tenements are wholly within land the subject of the Yugunga-Nya People Native Title Claim (WC 1999/046) registered in the Federal Court of Australia.
2. The eastern portion of exploration licence E 51/1562 is the subject of the Wutha People Native Title Claim (WC 1999/010) registered in the Federal Court of Australia. The area of this portion totals 6.59 km^2 (658.92 ha) is overlapping with the Yugunga-Naya Claim as described in (1).
3. With the exception of the eastern portion of exploration licence E 51/1562 covered by the Wutha claim as described in (2) the Burnakura mining tenements are wholly covered by the "Yugunga-Nya People and Sandfire" Indigenous Land Use Agreement (ILUA) registered with the National Native Title Tribunal (NNTT) on 21 September 2012.
4. The Burnakura Mining leases were granted prior to 1 January 1994 and the commencement of the Native Title Act 1993 (Cth). The mining leases constitute valid "past acts" (ss. 14 & 19 NTA and s.5 Titles (Validation) and Native Title (Effect of Past Acts) Act 1995 (WA)), and hence they are valid against native title. However validation of past acts does not constitute extinguishment of native title, and it is still possible for native title to exist of the mining leases.

Table 5 Burnakura Property Mining Tenement Schedule

Lease	Registered Holder	Legal Units	Legal Area	Area (km^2)*	Application Date	Grant Date	Expiry Date	Annual Expenditure Commitment (AUD)	Annual Rental (AUD)	Registered Native Title Claim	Notes
M 51/116	JINKA MINERALS LTD	ha	1000	10.00	23/12/1986	13/10/1987	12/10/2029	$100,000.00	$16,100.00	Yugunga-Nya	1,3,4,7
M 51/117	JINKA MINERALS LTD	ha	639.2	6.39	23/12/1986	29/10/1987	28/10/2029	$64,000.00	$10,304.00	Yugunga-Nya	1,3,4
M 51/177	JINKA MINERALS LTD	ha	842.2	8.42	9/10/1987	22/03/1988	29/03/2030	$84,300.00	$13,572.30	Yugunga-Nya	1,3,4,7
M 51/178	JINKA MINERALS LTD	ha	725.7	7.26	9/10/1987	22/03/1988	28/03/2030	$72,600.00	$11,688.60	Yugunga-Nya	1,3,4
M 51/252	JINKA MINERALS LTD	ha	755.1	7.55	29/04/1988	6/12/1988	15/12/2030	$75,600.00	$12,171.60	Yugunga-Nya	1,3,4
M 51/478	JINKA MINERALS LTD	ha	790	7.90	21/05/1993	10/08/1993	9/08/2035	$79,000.00	$12,719.00	Yugunga-Nya	1,3,4
P 51/2793	KENTOR MINERALS (WA)	ha	195.834	1.96	29/06/2012	7/01/2014	6/01/2018	$7,840.00	$460.60	Yugunga-Nya	1,3,6
P 51/2794	KENTOR MINERALS (WA)	ha	199.602	2.00	29/06/2012	7/01/2014	6/01/2018	$8,000.00	$470.00	Yugunga-Nya	1,3,6
P 51/2795	KENTOR MINERALS (WA)	ha	199.014	1.99	29/06/2012	7/01/2014	6/01/2018	$8,000.00	$470.00	Yugunga-Nya	1,3,6
P 51/2796	KENTOR MINERALS (WA)	ha	174.59	1.75	29/06/2012	7/01/2014	6/01/2018	$7,000.00	$411.25	Yugunga-Nya	1,3,6
P 51/2797	KENTOR MINERALS (WA)	ha	179.739	1.80	29/06/2012	7/01/2014	6/01/2018	$7,200.00	$423.00	Yugunga-Nya	1,3,6
E 51/1063	JINKA MINERALS LTD	BL.	4	10.66	22/01/2004	27/10/2009	26/10/2014	$30,000.00	$1,030.60	Yugunga-Nya	1,3,6
E 51/1553	KENTOR MINERALS (WA)	BL.	8	13.26	03/12/2012	08/07/2014	07/07/2019	$20,000.00	$976.80	Yugunga-Nya	1,3,6,7
E 51/1562	KENTOR MINERALS (WA)	BL.	13	32.46	14/02/2013	20/05/2014	19/05/2019	$20,000.00	$1,587.30	Yugunga-Nya &	1,2,6
			Total	**113.40**				**$619,380.00**	**$82,385.05**		

5. The Burnakura prospecting licences and exploration licences were granted subsequent to the enactment of the Native Title Act 1993 (Cth) via the expedited procedure and hence are subject to Native Title. The author of this section of the report has not reviewed any heritage agreements.
6. There are two sites registered in accordance with the Aboriginal Heritage Act 1972 (WA) on the Department of Indigenous affairs register with direct relation to the Alliance and New Alliance deposits at Burnakura. Site P07597 relates to Artifacts/Scatter that covers parts of M51/116 and M51/177 including the NOA1 and NOA2 open pits and waste dump and the NOA4 and NAO6 in-pit tails storage facility. Site P03587 relates to a mythological site associated with Cullculli Hill and in part covers the western boundary of exploration licence E51/1553.

4.2.3 Agreements and Royalties

A royalty agreement is in place with Barrick Gold Australia Limited (formerly Homestake Gold Australia Limited) in which a royalty is payable after the production of 300,000 ounces gold from an area that was formerly the subject of a joint venture between Metana Minerals and Homestake Gold Australia Limited. No royalties have been paid so far however, continued mining and milling at the Burnakura Property is likely to trigger the clause of a royalty payment of 1.5% on a net smelter return at up to

75,000 ounces per annum Au, and a 2.5% net smelter return for production in excess of 75,000 ounces per annum Au (Harvey et al., 2008).

Gold royalties are due to the State of WA at a rate of 2.5% of the "royalty value" of the gold metal produced after the first 2,500 ounces of gold metal produced during the financial year. ("royalty value" is the product of the total gold metal produced during the month and the average gold spot price) (Harvey et al. 2007).

Silver royalties are due to the State of WA at a rate of 2.5% of the realized value (Harvey et al., 2008).

Company tax in Australia is charged a rate of 30% of profits (Harvey et al., 2008). Payroll tax is charged by the State of Western Australia (WA) at a rate of 5.5% to companies where annual wages and salaries exceed $750,000 (Harvey et al., 2008). A diesel fuel rebate is available at $0.38 per litre for mining activities (Harvey et al., 2008).

The author of this section of the technical report has not reviewed the royalty agreements.

4.3 *Exploration and Mining Legislative Framework*

4.3.1 Mining Act

Section 9 of the West Australian Mining Act 1978 ("Mining Act") states, "Except in the case of land alienated in fee simple before the 1st January, 1899 (in which case minerals other than gold, silver and precious metals are the property of the owner), all minerals are the property of the Crown." Where the minerals are the property of the Crown, a mining title must be obtained from the Department of Mines and Petroleum (DMP) before any mining operations may be undertaken. For the purposes of the Mining Act the State of Western Australia is divided into various mineral fields, some further divided into districts. The Burnakura Property licences fall within the Murchison mineral field.

The mining tenements available under the Mining Act are as follows:

- Prospecting Licences (Sections 40-56)
- Special Prospecting Licences for Gold (Sections 56A, 70 and 85B)
- Exploration Licences (Sections 57-69E)
- Retention Licences (Sections 70A-70M)
- Mining Leases (Sections 70O-85A)
- General Purpose Leases (Sections 86-90)
- Miscellaneous Licences (Sections 91-94).

The basic provisions of each type of the Burnakura mining tenements are summarized in Table 6 and further described below:

4.3.1.1 PROSPECTING LICENCES

- The maximum area for a prospecting licence is 200 hectares.
- Prospecting licences must be marked out.
- Application is made to the Mining Registrar of the relevant Mineral Field.
- An application fee and rental is payable.
- There is no limit to the number of licences a person or company may hold, but a security (or bond) is required in respect of each licence.

- The term of a prospecting licence is 4 years, with the provision to extend for one further 4 year period.
- The holder of a prospecting licence may, in accordance with the licence conditions, extract or disturb up to 500 tonnes of material from the ground, including overburden, and the Minister may approve extraction of larger tonnages.

4.3.1.2 *EXPLORATION LICENCES*

- On 28 June 1991, a graticular boundary (or block) system was introduced for exploration licences;
- The minimum size of an exploration licence is one block, and the maximum size is 70 blocks, except in areas not designated as mineralized areas, where the maximum size is 200 blocks;
- An exploration licence is not physically marked out;
- Application is made at any Mining Registrar's Office; or lodged electronically via the Department of Mines and Petroleum, Mineral Titles Online system;

Table 6 Burnakura mining tenement fees and charges (effective 1 July 2014)

<table>
<tr><th>Type</th><th rowspan="2">Maximum Area</th><th rowspan="2">Term (years)</th><th colspan="2">Fees</th><th rowspan="2">Minimum Annual Expenditure</th></tr>
<tr><th></th><th>Application</th><th>Rent</th></tr>
<tr><td>Prospecting Licence</td><td>200 ha</td><td>4 years
Renewable for
1 period of 4 years
(for licences applied for after 10 February 2006)</td><td>$305.90</td><td>$2.35 per ha
or part thereof
Min $23.50</td><td>$40.00 per ha
Min $2,000</td></tr>
<tr><td>Exploration Licence (Graticular)</td><td>70 Blocks
200 Blocks
(outside known Mineralized areas)</td><td>5 years
May extend for 2 periods of up to 2 years and further periods of 1 year for licences applied for prior to 10 February 2006.

On or after this date term is 5 years, may extend for one period of 5 years and by a further period or periods of 2 years</td><td>$1,290.25
($322.00 if for 1 block only)</td><td>Years 1–3
$122.10 per block
($293.70 if for only 1 block)

Years 4 and 5
$189.90

Years 6 and 7
$257.65

Year 8 on $487.90</td><td>Years 1–3:
$1000 per block, with
• Minimum $10,000 for 1 block
• Minimum $15,000 for 2-5 blocks
• Minimum $20,000 for 6-20 blocks
Years 4-5:
$1500 per block, with
• Minimum $10,000 for 1 block
• Minimum $20,000 for 2-5 blocks
• Minimum $30,000 for 6-20 blocks
Years 6-7:
$2000 per block, with
• Minimum $15,000 for 1 block
• Minimum $30,000 for 2-5 blocks
• Minimum $50,000 for 6-25 blocks
Year 8 onwards:
$3000 per block, with
• Minimum $20,000 for 1 block
• Minimum $50,000 for 2-5 blocks
• Minimum $70,000 for 6-23 blocks</td></tr>
<tr><td>Mining Lease</td><td>N/A</td><td>21 years renewable</td><td>$451.10</td><td>$16.10 per ha
or part thereof</td><td>$100 per ha.
Minimum $5,000 if 5 ha. Or less otherwise $10,000</td></tr>
</table>

- An application fee and rental is payable;
- There is no limit to the number of licences a person or company may hold but a security ($5,000) is required in respect of each licence;

- The term of an exploration licence applied for after the 10 February 2006 is 5 years. The Minister may extend the term of an exploration licence if grounds for extension exist:
- By one period of five years; and
- By a further period of two years;
- For all exploration licences applied for and granted after 10 February 2006, the holder of an exploration licence is obliged to surrender 40% of the number of blocks subject to the licence within 5 years of the date of grant. The minister may defer this requirement by a period of one year if grounds for an extension exist;
- The holder of an exploration licence may, in accordance with the licence conditions, extract or disturb up to 1,000 tonnes of material from the ground, including overburden, and the Minister may approve extraction of larger tonnages;
- Exploration licences are subject to a prescribed minimum annual expenditure commitment enforced by the Department of Mines and Petroleum Western Australia (DMP). This requirement applies to granted licences only and the labour cost of the licence holders' own work on the licence (contract equivalent) may be treated as expenditure;
- The holder of an exploration licence must lodge a Form 5 Operations Report detailing the annual expenditure on a mining tenement to the Department of Mines and Petroleum.

4.3.1.3 MINING LEASES

- The maximum area for a mining lease applied for before 10 February 2006 is 1,000 hectares.
- After this date, the size applied for is to relate to an identified orebody as well as an area for infrastructure requirements.
- Mining leases must be marked out.
- Application is made to the Mining Registrar of the relevant Mineral Field.
- An application fee and rental is payable.
- Pursuant to Section 74(1)(ca) of the Mining Act 1978, an application for a mining lease shall be accompanied by a mining proposal OR a statement in accordance with Subsection (1a) and a Mineralization report that has been prepared by a Qualified Person. The statement under Subsection (1a) shall set out information regarding the mining operation likely to be carried out including:
  - When mining is likely to commence.
  - The most likely method of mining.
  - The location and area of land that is likely to be required for the operation of the plant, machinery and equipment and for the other activities associated with those mining operations.
  - There is no limit to the number of mining leases a person or company may hold.
  - The term of a mining lease is 21 years and may be renewed for further terms.
  - The lessee of a mining lease may work and mine the land, take and remove minerals and undertake all things necessary to effectually carry out mining operations in, on or under the land, subject to conditions of title.

4.3.2 Native Title Act

In 1992 the High Court of Australia determined in Mabo v Queensland (No. 2) that the common law of Australia recognised certain proprietary rights and interests of Aboriginal and Torres Strait Islander people in relation to their traditional lands and waters. In response to the Mabo decision the Native Title Act 1993 (Cth) was enacted. 'Native tile' is recognised where persons claiming to hold that title can establish they have maintained a continuous connection with the land in accordance with traditional laws and customs since settlement and where those rights have not been lawfully extinguished.

The Native Title Act 1993 (Cth) (NTA) codifies much of the common law in relation to native title. The doing of acts after 23 December 1996 that may affect native title (known as 'future acts'), including the grant of mining tenements, are validated subject to certain procedural rights afforded to persons claiming to hold native title and whose claim has passed a 'registration test' administered by the NNTT (which assesses the claim against certain baseline requirements).

4.3.3 Effect of Native Title on Mining Tenements

In Western Australia, the State processes applications for exploration licences under the 'expedited procedure' of the NTA, subject to the applicant for the exploration licences first giving the State satisfactory evidence that it has offered to enter into, or is already party to, an appropriate Aboriginal heritage agreement.

Where a mining tenement is advertised under the expedited procedure, those persons having a registered native title claim (or any persons who may become persons having a registered native title claim) may object to the application of that procedure within four months of the relevant advertisement date.

If an objection is received, the National Native Title Tribunal (NNTT) must determine whether or not the expedited procedure should apply to the relevant application for the mining tenement. In doing so, the NNTT must consider whether or not the grant of that tenement:

- is likely to interfere directly with the carrying on of the community or social activities of any holders of native title or persons having a registered native title claim.
- is likely to interfere with areas or sites of particular significance to any holders of native title or persons having a registered native title claim.
- is likely to, or will create rights whose exercise is likely to, involve major disturbance to the land the subject of the licence.

If the NNTT determines that the expedited procedure should apply to the application, the State may proceed to grant the application. If the NNTT determines that the expedited procedure should not apply to the application, the 'right to negotiate' process in the NTA will apply to the application, whereby the applicant for the tenement, any holders of native title and registered native title claim groups over the relevant land and the State are obliged to negotiate in good faith for a minimum of six months.

4.3.4 Aboriginal Heritage Act

The Aboriginal Heritage Act 1972 (WA) (AHA) and the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth) protect places and objects that are of significance to Aboriginal and Torres Strait Islander people in accordance with their traditional laws and customs (Aboriginal Sites). The AHA provides that it is an offence, for a person to damage or in any way alter an Aboriginal Site.

Compliance with the AHA is an express condition of all mining tenements in Western Australia. Accordingly, commission of an offence under the AHA may mean that the exploration licence is vulnerable to an order for forfeiture. The Department of Indigenous Affairs maintains a register of sites that have been registered under the AHA. The register does not purport to be comprehensive. Sites and objects of significance to Aboriginal persons are protected by the Act whether or not those sites are registered under the AHA. The Company may need to engage with Aboriginal persons with appropriate traditional knowledge of the land the subject of the exploration licence applications in order to ensure that any proposed works will not interfere with any Aboriginal sites that are not recorded in the register.

4.4 *Permitting and Approvals*

Mining tenements are subject to various conditions under the Mining Act 1978 (WA). These include standard conditions for the protection of the environment and conditions that relate to the protection of certain third party interests in land (particularly reserves). The Burnakura Property mining tenements are subject to compliance with these conditions.

Prior to a mining company or prospector conducting any ground disturbing activities with mechanised equipment in Western Australia, they are required by the Mining Act 1978 (sections 46, 63 and 82) to complete and submit a Programme of Work (PoW) application to the Minerals Branch of the Department of Mines and Petroleum (DMP) Environment Division. The PoW for is used to detail:

- Exploration work to be undertaken;
- Total area proposed to be disturbed (ha);
- Land tenure;
- Existing environment;
- Environmental management; and
- Rehabilitation practices to be used.

Once approved the PoW becomes a legally binding document which is often imposed as a tenement condition. Any alterations or expansion of the approved activities requires a new PoW application to be lodged and approved. Approved PoW's are valid for a period of 12 months unless an extension is granted. It is expected that rehabilitation activities under a PoW is completed within 6 months from the date of the ground disturbing activity occurring.

In addition to a number of standard environmental conditions attached to mining tenements, there are normally a number of environmental conditions attached to the approval of a PoW.

The DMP may require an Unconditional Performance Bond to be lodged as financial security for higher risk exploration programmes that involve significant ground disturbance (e.g. cut and fill activities). Generally bonding is based on a standard dollar amount per hectare of disturbance but may also involve an additional rate to account for rehabilitation costs.

The Minerals Environment Branch of the Environment Division administers aspects of the Mining Act 1978 (WA) and Mining Regulations 181 relating to the activities of the mining industry by undertaking the assessment, approval and inspection of mining and exploration projects. When exploring on Mining tenure that covers Pastoral Leases, the tenement holder is required to notify the pastoralist of the timeframe and extent of the proposed activities.

Other legislation that may be applicable to other regulation of mining activities (including exploration operations) includes:

- Aboriginal Heritage Act 1972 (WA)
- Native Title Act 1993 (Cth)
- Mines Safety and Inspection Act 1994

In addition legislation that may be applicable to the environmental regulation of mining activities (including exploration) includes:

- Environmental Protection Act 1986 (WA)
- Conservation and Land Management Act 1984 (WA)
- Wildlife Conservation Act 1950 (WA)
- Rights in Water and Irrigation Act 1914 (WA)
- Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth)
- Contaminated Site Act 2003

The author of this section of the technical report is not aware of any reasons or factors that would prevent the right or ability of the Company to conduct future exploration programs, over the areas covered by the granted mining tenements.

Mining leases M51/116 and M51/177 were subject to an ethnographic and archaeological survey conducted during 1996 (Macintyre, et al 1996). There were no ethnographic sites of Aboriginal significance located within the proposed boundaries of the NOA2, NOA4, NOA6, NOA7/8 open pits, haul roads and waste dumps. The survey identified one archaeological site, FS1 which consists of a creek line artefact scatter. The site is considered of moderate significance, and if disturbance of the site is required, permission under s.18 of the Aboriginal Heritage Act 1972-1980 (WA) must be obtained. It was concluded that the significance of this site is reduced due to disturbance caused by cyclic flooding that results in movement of the artefacts.

Eight archaeological sites and two combined ethnographic–archaeological sites had been previously identified within a 20-kilometre radius of the NOA mine workings. It was recommended that all granite domes, outcrops and breakaways be avoided unless a thorough archaeological study of such areas has been conducted (Macintyre, et al 1996). Recommended that prior to any future development outside those areas surveyed further archaeological surveys should be undertaken (Animal Plant Mineral Pty Ltd, 2013).

The author of this section of the report has not reviewed any of the Aboriginal heritage agreements that relate to the Burnakura exploration and prospecting licences.

The Aboriginal Heritage Agreements entered into with the The Yamatji Marlpa Aboriginal Corporation as agent for the Yugunga Nya Claim Group provides for:

- the expeditious grant and validity of the tenements without objections by the claimant group;
- that the grant of the tenements is not likely to interfere directly with the community life of the claimant group, is not likely to cause damage, disturbance or interference to areas or sites or particular significance to the claimant group and is not likely to involve major disturbance to any land or waters in the claim areas;
- that all work done to the tenements is in compliance with the provisions of the Aboriginal Heritage Act 1972 (WA) and the Aboriginal and Torres Strait Islander Heritage Act 1984 (Cth); and
- the requirement for the tenement holder to undertake heritage surveys for the purposes of locating Aboriginal sites and areas of significance in case of undertaking exploration activities in certain circumstances.

Key permits and licences required in order to conduct mining operations at the site are listed in Table 7.

Monument Murchison Pty Ltd has a licence to take water, granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914. The licence permits Monument Murchison to extract up to 600,000 kL per annum from M51/116, M51/117, M51/252 and M51/177.

Table 7 Key Licences and Permits required for mining operations (Harvey et al, 2008)

Licence/Permit	Licence Number	Expiry Date
Groundwater Licence E51/116 & 117	GWL 74516(II)	25/07/2025
Environmental Licence to Operate a Processing Plant	7972/1	20/09/2008
Dangerous goods storage licence (Combustible Liquids)	DGS020039	20/10/2006
Dangerous Goods Storage Licence (Poisons)	DGS020313	17/10/2006
Explosives Storage Licence	ETS000462	15/01/2007
Prescribed Premises Licence		
Works Approval Licence		

It is not clear if any extensions have been granted to the Dangerous Goods Storage licences or the Explosives Storage Licence. It should be a formality to reapply for these licences to allow mining and processing to recommence, but contingencies with respect to these aspect should be considered in advance.

4.5 *Environmental Liabilities*

In purchasing the Burnakura Property, Monument has inherited environmental liabilities associated with mining activities undertaken by previous owners. In addition current exploration activities represent disturbances that will be required to be rehabilitated in accordance with tenement conditions.

Areas of disturbance for the Burnakura mining tenements are registered with the Department of Minerals and Petroleum (DMP) (Environment Division). Details of areas of disturbances recorded on the DMP's Environmental Assessment and Regulatory System (EARS) are listed in Table 8 by tenement. The current total approved footprint for the Burnakura mining leases is 225.95 ha.

Table 8 Areas of Environmental Disturbance

Tenement	Activity	Area Approved (ha)	Area of Disturbance (ha)
M51/116	Exploration Activities	5.90	5.90
	Open Pits (NOA7/8, Alliance, New Alliance)	8.10	5.10
	Waste Dumps (NOA2, Alliance)	19.20	12.70
	Stockpiles (New Alliance)	5.90	5.90
	Mill Infrastructure & Buildings	8.50	8.50
	Pipelines	0.60	0.60
	Access Roads	5.70	5.70
	Sub-Total	**53.90**	**44.40**
M51/117	Exploration Activities	4.40	4.40
	Open Pits (Alliance, Authaal North, Lewis)	10.90	8.50
	Waste Dumps (Federal City, Authaal, Lewis/Reward))	17.70	16.10
	Tailings Storage Facility (Reward Pit)	2.00	2.00
	Haul Roads	3.00	3.00
	Stockpiles	1.65	1.65
	Laydown Areas	14.50	9.70
	Access Roads	0.60	0.60
	Sub-Total	**54.75**	**45.95**
M51/177	Exploration Activities	1.00	1.00
	Open Pits (NOA 7/8))	4.20	4.20
	Waste Dumps (NOA2, NOA 7/8)	25.40	2.00
	Haul Roads	1.55	1.55
	Laydown Areas (NOA7/8)	2.20	2.20
	Access Roads	2.10	2.10
	Sub-Total	**36.45**	**13.05**
M51/178	Exploration Activities	1.00	1.00
	Open Pits (Banderol)	5.10	0.00
	Waste Dumps (Bnderol)	12.80	5.10
	Haul Roads (Banderol)	2.55	2.55
	Laydown Areas (Banderol))	1.30	0.00
	Explosives Magazine	1.20	1.20
	Sub-Total	**23.95**	**9.85**
M51/252	Mine Camp	2.50	2.50
	Sub-Total	**2.50**	**2.50**
	TOTAL	**171.55**	**115.75**

The NOA4 and NOA6 open pits were utilised for tailings storage during previous milling operations conducted by Tectonic Resources NL. These were backfilled, capped and rehabilitated during between 2006 and 2009 previous owners (Tectonic Resources NL and ATW Gold Corp). Tectonic Resources NL was granted approval to utilise the Lewis and Reward open pits, located 3km southwest of the Burnakura gold plant, for future tailings storage. Subsequently ATW Gold Corp utilised the Leis and Reward pits to dispose of tailings from milling of the NOA2 underground mine between 2007 and 2009. Upon purchasing the Burnakura Property Kentor Gold utilised both the Reward and Lewis pits for tailings disposal during milling of material mined from the Lewis, Reward and Alliance open pit cut backs. The Reward open pit is currently estimated to be at 80% capacity while the Lewis pit no longer contains any tailings. Final storage capacity of both open pits will depend on consolidation rates of the current and future tailings. Subsequent to the completion of mining by Kentor the Lewis and Reward pits were bunded and perimeter fencing was erected around the Reward pit.

The author of this section of the report has not reviewed the environmental bonds or the areas of disturbance as quoted.

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

5.1 *Access*

Access to the Burnakura Property area is approximately 765km north northeast of Perth via the sealed Great Northern Highway and then via numerous unsealed private and shire maintained roads. Access from the north is via the Nannine-Polelle shire road that departs Great Northern Highway about 29km south of Meekatharra, then via the private haul road to the Burnakura gold processing plant, a total distance of about 26 kilometres. The haul road is in good condition and allows access in all weather conditions except for some of the very highest rainfall events.

Alternatively the project area may be accessed from the south through the Tuckanarra mining centre on the Great Northern Highway (approximately 38km north of Cue) via the Culculli or Reedy road east to the Reedy Mining Centre, then via an old haul road to the Burnakura gold plant, a total distance of about 48km.

Access by four-wheel drive vehicle within the project area is via various mine infrastructure roads, previous exploration tracks and pastoral tracks (Figure 3).

5.2 *Climate and Physiography*

The project area falls within a semi-desert Mediterranean climatic regime with mild winters and hot summers with most rain falling in the cooler months of April-September although cyclonic systems can cause heavy falls in the summer months. Rainfall is highly variable but averages between 200-250 mm per annum and a maximum mean monthly rainfall of 56 mm in February. Temperature ranges from a winter mean of 16° C to a summer mean of 38° C in the general region although summer maxima in excess of 40° C are common. Evaporation rates are high with an annual average of 3,563mm. Mining and exploration operations may be undertaken all year round however may be interrupted by heavy or prolonged rainfall.

The Burnakura Property area is located within the Murchison bioregion being characterised by low hills and mesas separated by flat colluvium and alluvial plains. Within the project area topography is gently undulating, ranging between about 500 and 520 mASL. Vegetation is typically composed of low mulga woodland (Acacia aneura) on broad flat colluvium plains and tree steppe of Eucalyptus and Triodia on sandy plains. As a result of historical mining activities some of the project area has been denuded of mulga. The principal soil type is shallow earthy loam, colluvium and alluvium sheet wash overlying red-brown hardpan (Wiluna Hardpan). Shallow stony loams occur on hills and red earth sands on sand plains.

The project lies within the upper Murchison River catchment on the eastern flank of Lake Annean. Locally the drainage trends are to the west and north into Lake Annean. The catchment area for the intermittent creek line that runs past the NOA underground mine in the northern portion of the project area is large, extending some 9.3km to the south.

High rainfall events in the catchment area that led to flooding of the unnamed ephemeral creek that flows in a northeasterly direction passing between the NOA1 and NOA2 open pits previously resulted in breaching of the pit bund walls and flooding of the pits and underground mine in 2005 (Harvey et al, 2008).

Tectonic Resources NL developed a revised surface water management scheme that addressed these issues in terms of safety for personnel in the case of flood level event similar to that experienced in the past. Contingencies implemented after the flood event included the raising of the bund wall on the perimeter of the NOA 2 pit to 2m while maintaining the bund wall of the NOA 1 pit at a height of 1m.

Harvey et al. (2008) were of the opinion that a flood event as experienced in the past would result in failure of the bund wall option to create a diversion upstream within the catchment of the creek. Discussions during a 2007 site visit revealed that the earthworks required would be minor to divert the stream into a neighbouring yet isolated catchment (Harvey et al., 2008). No declared rare flora or any scheduled fauna have been identified over the Burnakura Property area (Woolard, 2008).

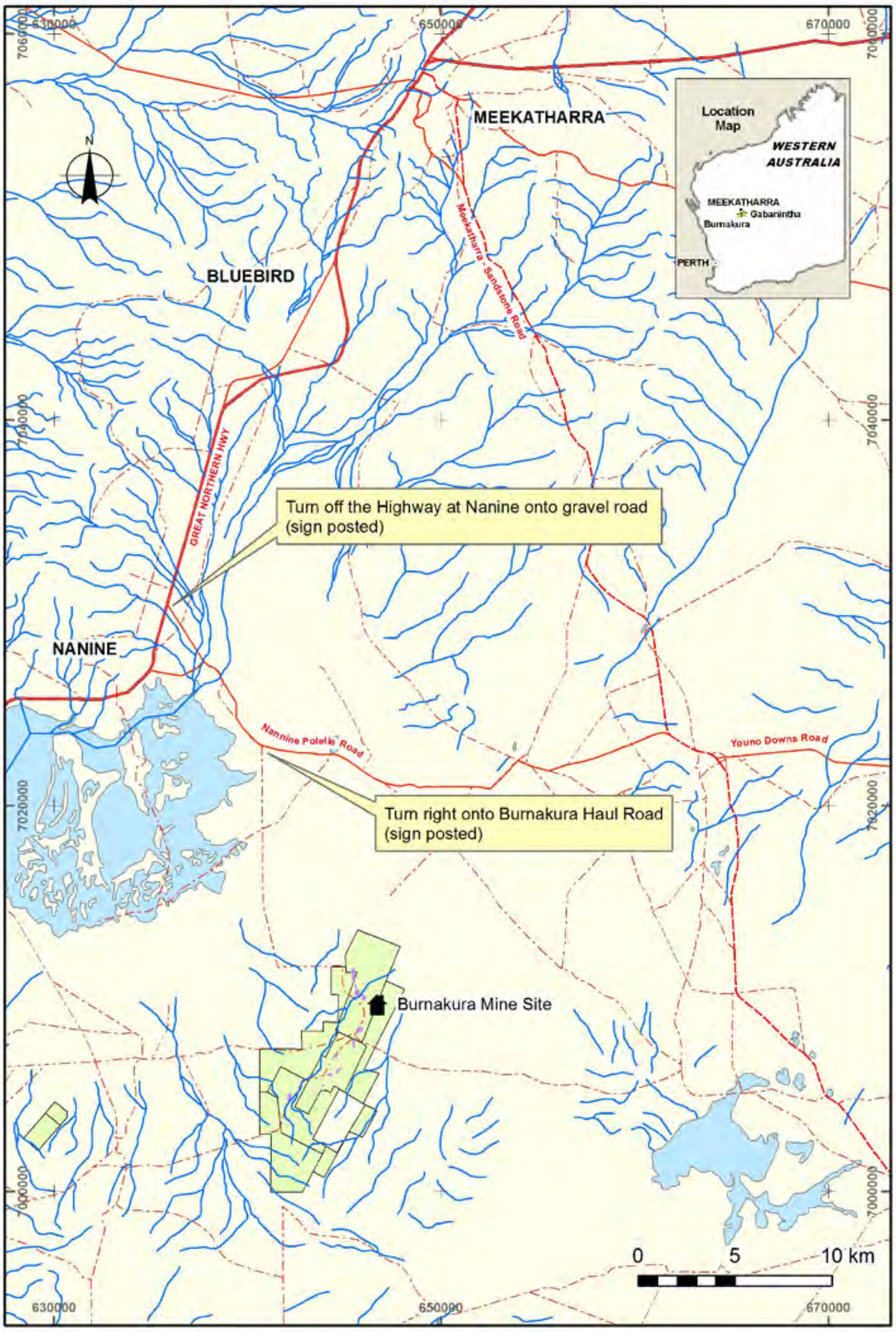

Figure 3 Burnakura Property Access

5.3 *Infrastructure and Services*

The majority of the Burnakura Property area lies within the municipal Shire of Cue (population 298; ABS 2013). The northern portion of the project (mining lease M51/116) lies within the Shire of Meekatharra (population 1,521; ABS 2013). The local economy in the region is dominated by gold, copper, nickel and iron ore mining operations and pastoral stations (cattle and sheep). Mining operations are supported by a predominantly fly-in-fly-out (FIFO) workforce.

Project infrastructure includes a 260,000 tpa CIL gold processing plant, diesel powered generators and a fuel storage facility, laboratory, workshops, administration offices, and a serviceable 118 person accommodation village. This infrastructure is currently used to support all exploration activities over the mining tenements. The majority of the Burnakura Property mine infrastructure is located on mining lease M51/116. The mine accommodation village is located on mining lease M51/252.

The project is serviced by the town of Meekatharra located approximately 55km to the north by road. Meekatharra is serviced by regular road freight and commercial passenger air services from Perth.

Groundwater up to 600,000kL per annum is authorised for abstraction under Groundwater Well Licence. Process plant water sources include the NOA1' NOA7/8 and New Alliance open pits. Potable water is obtained using a reverse osmosis plant with the source water from a bore adjacent to the accommodation village.

6. HISTORY

6.1 *Prior Ownership*

The Burnakura Property area and surrounding environs have a long gold mining history with underground operations commencing in 1897 at Alliance and Federal City areas. The first discovery of gold in the district was made to the northwest at Nannine in 1890, prompting a gold rush in the area. In 1897 gold was discovered at Monument's Gabanintha Property located 20 km to the northeast. Gold at Reedy located about 45km to the west southwest of Burnakura was discovered in 1899.

Since 1982 a total of seven mining companies have undertaken mineral exploration and gold mining operations over the Burnakura Property prior to being acquired by Monument in late-February 2014.

Metana Mineral NL originally pegged a large area of ground including part of the Burnakura Property as part of their Reedy Project. Subsequent to a merger with Gold Mines of Australia (GMA) and other entities in 1994 open pit mining and exploration of the Burnakura property continued until 1997 (Tectonic Resources NL, 2006). Metana Minerals NL ("Metana") and later Gold Mines of Australia (GMA) undertook substantial open pit mining in the period between 1989 and 1987.

Following acquisition from the GMA administrators in 1988, St Barbara Mines Ltd ("SBM") removed significant tonnage of previously stockpiled material between 2000 and 2003 that was treated at their Bluebird Mill (now Yaloginda) south of Meekatharra (Woolard, 2008). In late-August 2003 SBM entered into a joint venture with Coronet Resources Ltd whereby Coronet could earn up to 70% in the Burnakura project by spending $2M.

In July 2003 Extract Resources Ltd ("Extract") entered into a Joint Venture with St Barbara to explore and develop the NOA2 deposit, later buying St Barbara's remaining interest in the project in 2004. In the same year Extract and Tectonic Resources NL ("Tectonic") entered into a joint venture (the "Burnakura JV") whereby Tectonic subsequently acquired a 30% interest in the Burnakura mining tenements and a 50% interest in the NOA2 mine. Tectonic acted as manages of the Burnakura JV and operated the NOA2 mine between 2005 and 2007. The present Burnakura gold plant was commissioned by Tectonic in in November 2005.

ATW Gold Corp (TSX-V: ATW) acquired the Burnakura property in late December 2007 and resumed mining of the NOA2 underground mine in March 2009. The mine was subsequently placed on care and maintenance in November 2009. Jinka Minerals Ltd (acquired) the property from ATW in June 2010

Kentor Gold Ltd (Kentor) acquired the Burnakura Property subsequent to a friendly acquisition of Jinka Minerals. Kentor recommenced mining operations of the NOA2 underground and a number of historical open pits in August 2012. Kentor Gold Ltd also took up additional ground (current exploration and prospecting licences). Production ceased in late- April 2013 when the operation was placed on care and maintenance. Monument Mining Ltd acquired all of Kentor interests in the project on February 21 2014 (see Monument press release #14-2014, dated 25 February 2014).

6.2 *Production History*

According to de la Hunty (1970) the major historical production from Burnakura from 1898-1916 amounted to 42,545 tonnes for 32,231 ounces at an average grade of 26 g/t Au (Table 9). The majority of this production was from the New Alliance, Alliance and Federal City underground workings. This is supported by the figures compiled by Tectonic Resources NL (Armstrong, 2006).

Production prior to the commissioning of the Burnakura gold processing plant in 2005 from the 13 producing pits and two underground operations amounted to 1.8 Mt at 3.7 g/t Au for a total of 216,000 ounces Au (Harvey et al., 2008). All mine production prior to the commissioning of the Burnakura gold plant by Tectonic in 2005 was processed at the Reedy gold plant up to 1997 and later the Bluebird gold plant at Meekatharra

Between 1989-1997 Metana Minerals and later Gold Mines of Australia trucked ore from a total of open pits to their Reedy gold processing plant. Subsequent operators St Barbara trucked low grade material stockpiled by GMA to their Bluebird gold plant at Meekatharra (Table 10).

Table 9 Burnakura Gold production pre-2005 (Armstrong, 2006)

Area	Tonnes (t)	Grade (g/t Au)	Au Rec (oz)
1898 – 1916 (Historic)			
Alliance + New Alliance	17,600	41.2	23,000
Federal City	21,450	15.5	10,700
Subtotal	39,050	27.0	33,700
1989 -1997 (Metana/GMA)			
Alliance	20,000	3.0	1,900
New Alliance	250,000	3.5	28,100
Lewis	77,000	2.5	6,200
Authaal	71,100	5.7	13,000
Authaal North	75,800	2.9	7,100
Banderol	300,000	2.9	28,000
Federal City	30,400	1.3	1,200
NOA1 Laterite	168,250	3.0	16,050
NOA1	84,750	2.5	6,750
NOA2	218,450	3.7	25,650
NOA4 & 6	19,100	2.2	1,300
NOA 7 & 8	441,600	3.3	47,300
Sub Total	1,756,450	3.0	182,550
TOTAL	**1,795,500**	**3.7**	**216,250**

Table 10 Burnakura Gold production 2005-2013

Year	Tonnes (t)	Grade (g/t Au)	Au Rec (oz)	Company
2005	17,773	1.3	716	Tectonic
2006	132,164	6.8	28,648	Tectonic
2007	33,644	6.4	6,906	Tectonic
2008	-	-	-	
2009	85,519	5.6	14,700	ATW Gold Corp
2010				
2011				
2012				
2013				Kentor Gold

Source: DMP records

6.3 *Historical Mineral Resources*

The Burnakura Property together with the Gabanintha Property forms the Murchison Gold Project. Prior to Monument completing an update of the Alliance and New Alliance historical mineral resources on 21 January 2015 (see Monument press release #07, 18 February 2015), the Murchison Gold Project had quoted historical resources of:

- Historical indicated resources of 2.48 Mt @ 3.2 g/t Au for 254 kOz Au
- Historical inferred resources of 3.94 Mt @ 2.3g/t Au for 292 kOz Au

It must be noted a qualified person has not done sufficient work to classify the historical estimates on the property as current mineral resources under NI 43-101 and Monument is not treating the historical estimate on the property as current mineral resources. The historical estimates were determined by BM Geological Services in the report Murchison Gold Project: Burnakura and Gabanintha resource inventory (December 2013). The quality of the data supporting the estimates meets industry standards. The historical estimates have been reported in line with the JORC guidelines, and resource confidence categories and the reliability of the estimate are consistent with this standard. Monument considers the historical estimates to be relevant to its ongoing review of the Murchison Gold Project.

A breakdown of historical estimates is presented in Table 11 (see Monument press release #18-2014, dated 26 May, 2014). The historical estimates comprise remnant mineralization beneath, adjacent to and along strike from the previously mined Burnakura and Gabanintha open pits and the Burnakura NOA2 underground mine.

For the majority of the historical estimates, the mineralized wireframes were built using a 0.5 g/t Au grade envelope. The resources are estimated using either ordinary Kriging or multiple indicator Kriging and are reported above a block grade of ≥1 g/t Au.

The January 2015 update of the Alliance and New Alliance estimates converted historical indicated and inferred estimates classified in accordance with the 2004 JORC Code (Guimaraes and Miller, 2012) to indicated and inferred categories (see section 14). Comparison of the current and historical estimates at a 1.0 g/t Au cut-off, shows the 2014 drilling has resulted in a significant increase in the Indicated gold ounces by 90%, based on the closer spaced drilling confirming confidence in grade continuity. The total estimated gold ounces have increased by 15% to 83,600 gold ounces when compared to the historical estimate.

Table 11 Murchison Gold Project Historical Resources (Mapleson 2013)

Deposit	Indicated			Inferred		
	Tonnes (Mt)	Grade (g/t Au)	Gold (kOz)	Tonnes (Mt)	Grade (g/t Au)	Gold (kOz)
Burnakura Property						
NOA 1	0.10	3.0	10	0.01	1.6	0.5
NOA 2	0.64	4.8	98	0.12	6.3	24
NOA7,8	1.03	2.9	97	0.28	3.1	27
Lewis	0.13	1.9	8	0.08	1.6	4
Alliance*	0.30	2.8	27	0.26	2.7	23
New Alliance*	0.28	1.9	17	0.14	1.9	9
Authaal	-	-	-	0.44	2.0	28
Federal City	-	-	-	0.19	2.7	16
Banderol	-	-	-	0.22	1.5	11
Gabanintha Property						
Tumblegum	-	-	-	0.06	1.8	3
Canterbury	-	-	-	0.50	1.7	27
Terrells	-	-	-	0.70	1.8	41
Yagahong	-	-	-	0.05	1.5	2
Yagahong North	-	-	-	0.80	2.9	75
Golden Hope North	-	-	-	0.10	1.5	5
Total	**2.48**	**3.2**	**254**	**3.94**	**2.3**	**292**

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 *Regional Geology*

7.1.1 Geological Setting

The Burnakura Property mining tenements cover an area on the eastern margin of the Archaean Meekatharra-Wydgee greenstone belt within the northeastern Murchison Domain of the Yilgarn Craton (Van Kranendonk and Ivanic, 2009). The Murchison Domain forms part of the Youanmi Terrane. Limited geochronology shows that most greenstones and granitic rocks of the Murchison Domain were deposited or emplaced between 3.0 Ga and 2.6 Ga.

Recent re-mapping at 100,000 scale, geochemistry and geochronology undertaken as part of the Geological Survey of Western Australia’s (GSWA) regional mapping program has resulted in the development of a new lithostratigraphic scheme of the Murchison Domain. The regional geology of the Burnakura Property area within this new framework is presented in Figure 4.

The majority of greenstones within the Meekatharra-Wydgee belt have been stratigraphically placed within the Polelle Group and the Norrie Group of the Murchison Supergroup (Van Kranendonk et al., 2013). The Polelle Group conformably overlies the basal Norrie Group and contains; tholeiitic basalt, komatiitic basalt, komatiite and thin interflow felsic volcaniclastic sedimentary rocks of the basal Meekatharra Formation; andesitic to rhyolitic volcanic and volcaniclastic rocks of the conformably overlying Greensleeves Formation; and conformably overlying banded iron formation (BIF) and felsic volcaniclastic rocks of the upper Wilgie Mia Formation. The basal Norrie group comprises; a thick succession of pillowed and massive tholeiitic basalts of the Murrouli Basalt; and conformably overlying felsic volcaniclastics with interbedded BIF and felsic volcanic rocks of the Yaloginda Formation (Figure 5).

At least five deformational events are recorded in the Murchison Domain. Horizontal tectonic movement during the D1 event involved recumbent folding and thrusting as well as the intrusion of the monzogranite along the Polelle Group. The D2 phase of deformation produced tight, upright folds with east-trending fold axes. This event deformed the entire Murchison Supergroup including the pegmatite banded gneiss and the pre-D1 recrystallised monzogranite. Tectonic fabrics from this event are mostly obliterated by subsequent events.

An overprinting more intense D3 event is represented by tight isoclinal upright folds with NNE to NNW trending fold axes that developed in response to east-west compression. A strong penetrative foliation (S3) formed during D3 is well preserved and defines the dominant fabric throughout the Murchison Domain.

Development of large-scale D4 shear zones formed in response to a progressive increase in strain through the D3 event associated with an approximate E-W compression. These developed an extensive NW-SE to NE-SW trending anastomosing shear zone system with a dominant NNE trend characterised by dextral, crustal scale structures with many extending greater than 100km and up to 1km wide (Watkins and Hickman 1990). The north to NNW trending structures are typically not as extensive and accommodated variable displacement trajectories, including sinistral (Watkins and Hickman 1990).

Peak regional metamorphism was contemporaneous with D4 constrained between D3 folding and the emplacement of post folding granitoids at 2941 Ma (Watkins and Hickman 1990). The majority of D4 deformation occurred under greenschist facies conditions.

Post-folding granitoids are contemporaneous with D4 and were probably localized by these structures. The final event (D5) of east to SE trending shear zones and faults occurred in the northwestern part of the Murchison Domain.

7.1.2 Gold Mineralization

Gold mineralization within the Murchison Domain is typically related to major faults and shear zones within the greenstone belts and preferentially associated with banded iron-formation, and ultramafic and mafic rocks of the lower part of the stratigraphic succession (Watkins and Hickman 1990). The spatial association of deposits with the post-folding granite (commonly occurring within 3 km of the granite contacts), suggest a genetic relationship to granitic intrusion or may reflect structural zones which accommodated optimised fluid/magma ingress. Local controls on gold mineralization include structures, ore-fluid composition, temperature-pressure conditions, and host rock compositions. In the Alliance-New Alliance prospects, the rheological contrast between the BIF's and the tuffs has likely played an important role as an additional geological control to create a favourable environment for veining and gold mineralisation.

Most of the gold deposits are considered to be "lode-gold style" and many shears and mineralized vein systems are associated with CO2, sodium and potassium metasomatism. The mineralizing fluids have conceivably been derived by progressive metamorphic dewatering of mafic and ultramafic sequences in the supracrustal pile (e.g. Browning et al, 1987).

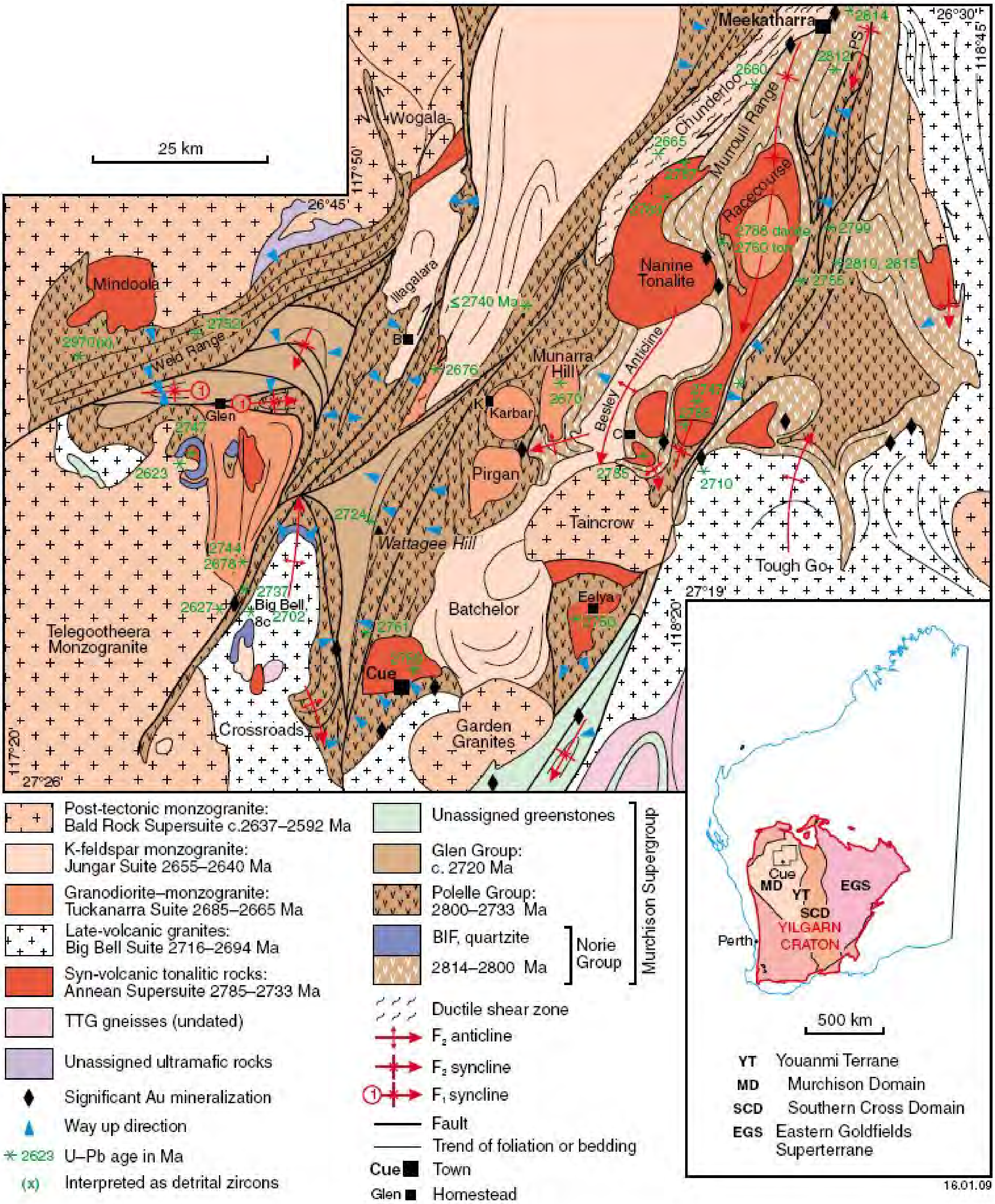

Figure 4 Burnakura Property Regional Geology (from Van Kranendonk and Ivanic, 2008)

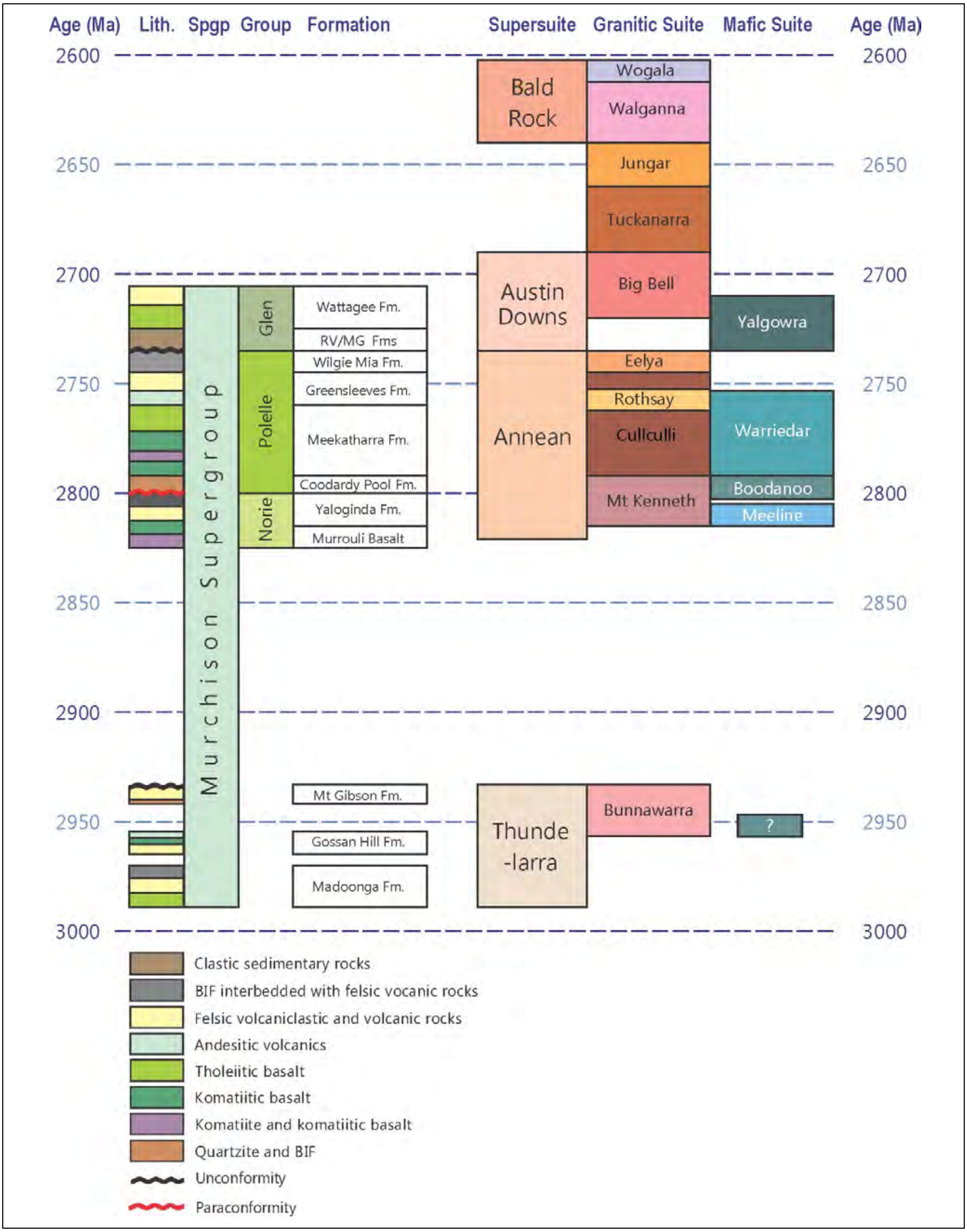

Figure 5 Stratigraphic scheme of the Murchison Domain (from Ivanic, 2014)

Known gold deposits within the Murchison Domain appear to be particularly abundant and spatially located within the Meekatharra structural zone. According to Van Kranendonk et al. (2013) recent field mapping and geochronology undertaken as part of the Geological Survey of Western Australia's Murchison regional mapping program indicates that D4 structures formed syn- or soon after emplacement of 2660 Ma granites and continued during gold Mineralization. Gold mineralization is thought to have extended for at least 30 Ma from 2,660 to 2,630 Ma during predominantly strike-slip D4 shearing. Significantly, the peak of granitic magmatism at 2,660Ma is coincident with the onset of major gold mineralization, suggesting a cogenetic relationship through magma- and heat-driven remobilisation of mineralization originally hosted by older volcanic rocks. Gold deposition has been precisely dated at 2,639±4 Ma in the South Emu deposit at the Reedy mining centre approximately 20 kilometres southwest of Burnakura.

Hallberg (1976) notes that on a gross scale, gold production virtually all occurs from deposits hosted within the two older supracrustal associations (i.e. Polelle and Norie Group of Van Kranendonk et al., 2013) particularly within para-amphibolite, ultramafic schist and banded-iron formation. Although gold production has come from many mines, only three localities have had substantial production. The largest gold producers have been Day Dawn (40,038kg Au), Big Bell (22,758 kg Au) and Meekatharra locality (29,874 kg Au). Additional information regarding the mine localities and grades can be obtained from Watkins and Hickman (1988).

7.2 *Local and Property Geology*

The majority of the Burnakura Property area covers Archaean basement rocks assigned to the 2814-2800 Ma basal Norie Group of the Murchison Supergroup covering the eastern margin of the Meekatharra-Wydgee greenstone belt. The Norrie group comprises; a thick succession of pillowed and massive tholeiitic basalts of the Murrouli Basalt; and conformably overlying felsic volcaniclastics with interbedded BIF and felsic volcanic rocks of the Yaloginda Formation.

The Burnakura gold deposits are situated along a northeast trending splay (Burnakura Shear Zone) that parallels and is linked to the north-northeast trending regional scale Mt Magnet fault. The Mt Magnet fault is the major east bounding structure to the "Meekatharra structural zone", a major regional, northeast-trending shear dominated zone, about 50 to 60 km wide, incorporating the Meekatharra area and extending through the Cue region as far south as Mount Magnet (Spaggiari, 2006). The Meekatharra structural zone is dominated by north- and northeast-trending folds and shears, including refolded folds with approximately coplanar fold axes. Many of the folds are truncated by shears or faults, and the structural zone is interpreted as a major zone of shear-related deformation.

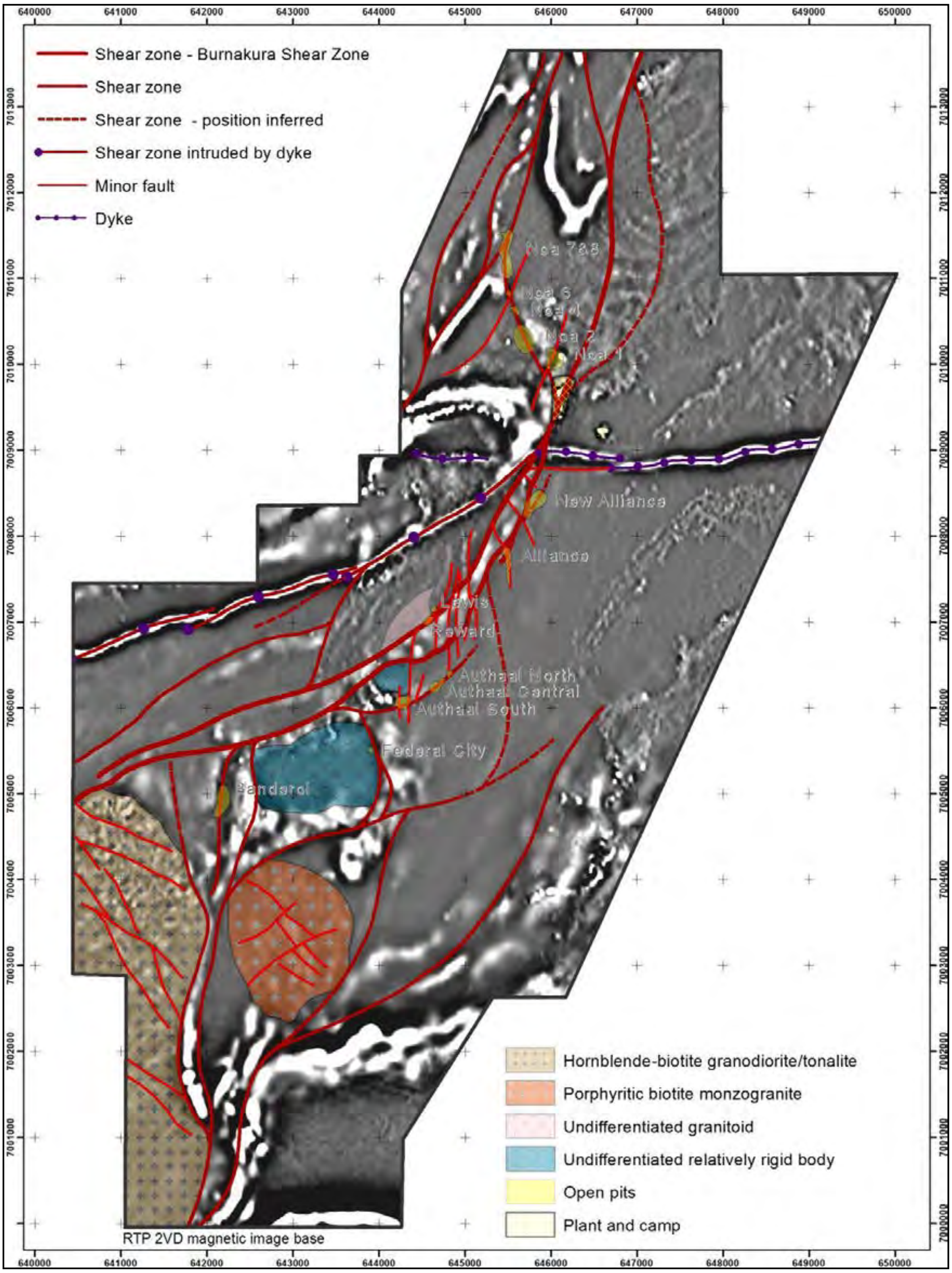

Figure 6 Simplified structural interpretation overlain on airborne magnetics showing the locations of previously mined deposits Geology (after Crowe 2012)

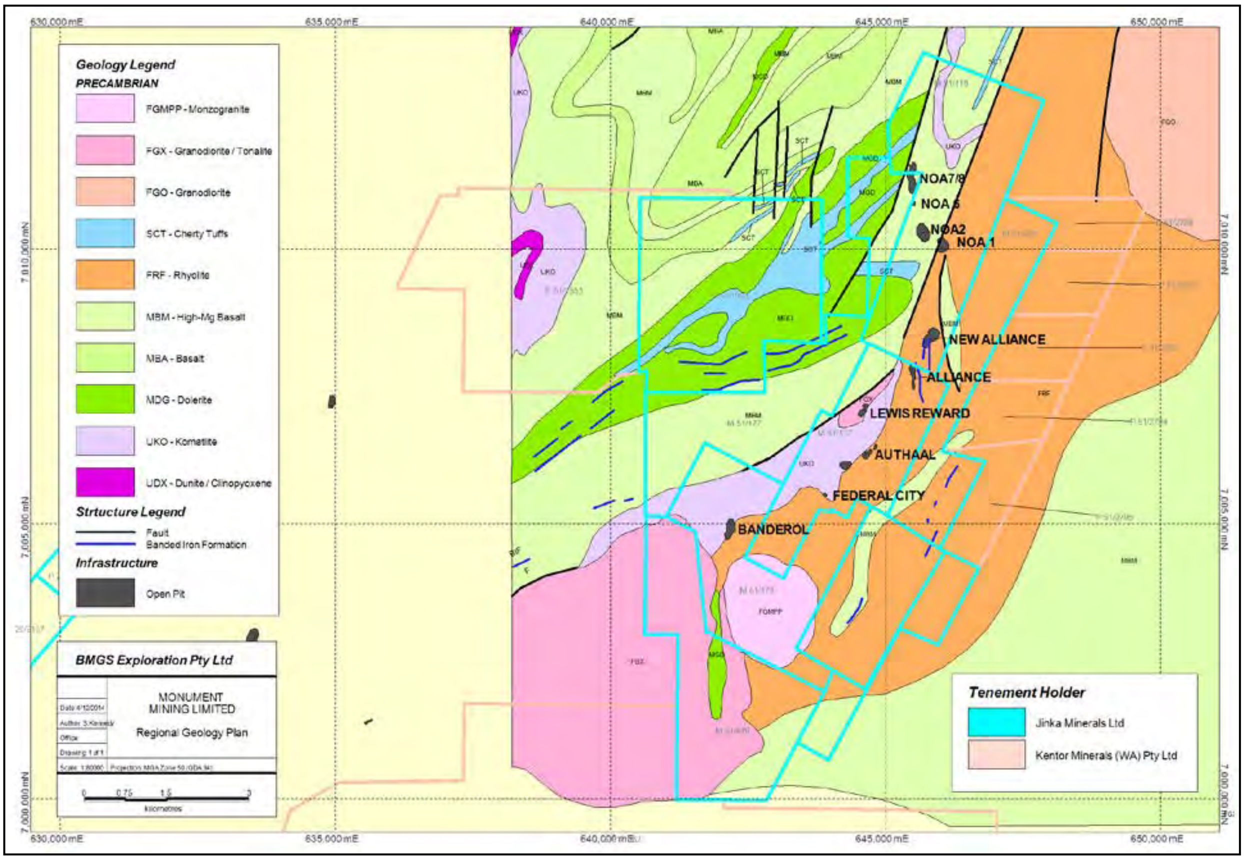

Figure 7 Local geology map at Burnakura

Burnakura Gold deposits have formed within a number of distinct lithostructural settings all of which are considered to have developed in a regional dextral deformational setting (Crowe, 2012). The structural setting of the Burnakura gold deposits is presented in Figure 6 and the basement geology is shown in Figure 7.

A regolith of extensive sheet wash cover largely obscures weathered Archaean basement rocks that host the Burnakura gold deposits. Sheet wash cover is variable in thickness over the Burnakura Property area from a few metres up to more than 20 metres. Weathering generally persists to a depth of around 40 metres (coinciding with the regional water table) although preferential oxidation along mineralized basement structures persists to far greater depths.

The geology of the individual Burnakura gold deposits is described below. The Alliance-New Alliance and Federal City deposits currently the subject of further evaluation by Monument since acquiring the Burnakura Property are discussed in more detail whilst the geology of the other deposits is summarized.

7.3 *Alliance and New Alliance Geology*

The geology within the Alliance open pit consists of a low grade meta-volcano-sedimentary succession comprising an interlayered sequence of felsic volcanics and banded iron formation (BIF). The pit is located along a moderate (~40°) east dipping, N-S trending eastern limb of a fold. The hinge zone of this fold is exposed in the north face of the pit.

Previous mapping by Marjoribanks (2004) identified three BIF horizons within the sequence with the two lower units associated with quartz veining and associated gold mineralization (Figure 8). Subsequent mapping undertaken by Crowe (2012) in the pit provides a modified geological interpretation. The main difference is that the later model interprets two BIF horizons (a lower and upper) as opposed to three proposed by Marjoribanks (2004; Figure 8a and b).

The BIF units are each around 1-3m thick and are spaced around 15-20m apart. The BIF is comprises strongly bedded hematite and chert layers. The chert layers are commonly a distinct bright-red jasperlite. The top surface of each BIF horizon is markedly planar and defined by a strong foliation. This contrasts with the lower surface of the BIF units that are typically strongly folded. Axial planes of folds flatten and rotate into parallelism with the top surface of the BIF. This is explained as the result of shearing along the top surface of each BIF. Shearing was initiated at the same time as the folding and was located along this contact by the extreme ductility contrast between the BIF and enclosing rocks.

Bedding strikes north to northeast and dips east at 25° to 50°. Bedding is folded at all scales by a set of open to moderately tight, sinistral folds that plunge NNE at around 30º. A well-developed, penetrative, axial- plane cleavage to these folds can be identified in almost all rocks in the pit. The cleavage strikes NNE and dips at 75°-80° to the ESE.

An intrusive mafic unit is present along the upper benches of the west wall. This unit is a massive red-brown-purple colored rock being oxidised. Minor steep dipping, east trending, 50-100cm thick felsic dykes intrude the felsic volcanics and BIF on the west central wall of the pit.

There are a series of steep, south dipping faults that trend E-W with local subsidiary splays trending NE-SW. The distribution and geometry of the BIF units on either side of this fault zone are consistent with a predominant normal dip-slip displacement and possibly a small component of dextral accommodation. The changing orientation of BIF A unit in the south as it transects the western pit wall suggests the anticline axis is proximal to the southern western pit wall (Figure 8b). This is also supported by the apparent increasing limb separation between BIF's A and B in the northern section of the pit indicative of a thickening hinge zone (Figure 8b).

The structural data collected by Crowe (2012) through the Alliance Pit define a coherent fold structure across the late faulting. These data are consistent with a shallow plunging north trending normal to inclined fold. The limited foliation data suggests the axial plane is near vertical and trend N-S defining a normal plunging fold. However this is inconsistent with the NE plunging fold axis which is well defined by the distribution of the BIF bedding data. A more optimal axial plane orientation maybe more inclined and trend NNE-SSW. An increasing inclination to the axial plane would enable a more N-S orientation of the surface, consistent with the inferred fold axial trace outlined in Figure 8b.

Pit mapping by Marjoribanks (2004) also indicated that the 'pit exposes the southern limb and hinge of a map scale fold. Most of the pit lies on the north-striking limb of the fold (anticline), with the northern part of the pit developed in the NW to W trending hinge of the fold'. The idea of a map-scale (or pit-scale) fold was recognised by both Metana and GMA.

Gold mineralization at Alliance is associated with north-trending, shallow east dipping (25-50°) zones of thin quartz veining. The veins are conformable with bedding, and usually occur along, or proximal to, the upper and lower contacts of the BIF units. It is postulated that the location of gold mineralization was directed by the extreme ductility contrast between the BIF units and surrounding tuffaceous sediments.

The following description of Alliance ore is provided by Majoribanks (2004), and refers to remnant quartz veining of Lode 2 observed in the southern pit wall. "The vein is composed of massive white quartz up to 1m thick. In places, the quartz is brecciated and has been re-cemented with later silica. A laminar banding defined by pale grey- dark grey quartz is also present. The upper 50-100 cm of BIF adjacent to the main vein is cut by numerous, irregular thin quartz veinlets. Abundant limonite, as blebs and zones with boxwork after pyrite, is associated with these veinlets, and indicates sulphidation of the iron formation from fluids derived from the vein fractures."

At New Alliance the NNE striking BIF horizons dip at 35-45° to the east and are hosted by felsic volcanoclastics and pillow basalts (Figures 9 and 10). The New Alliance pit is 375m long with a maximum depth of 85m at its northern end. Gold mineralization at Alliance and New Alliance has been defined over a 1,150m strike length.

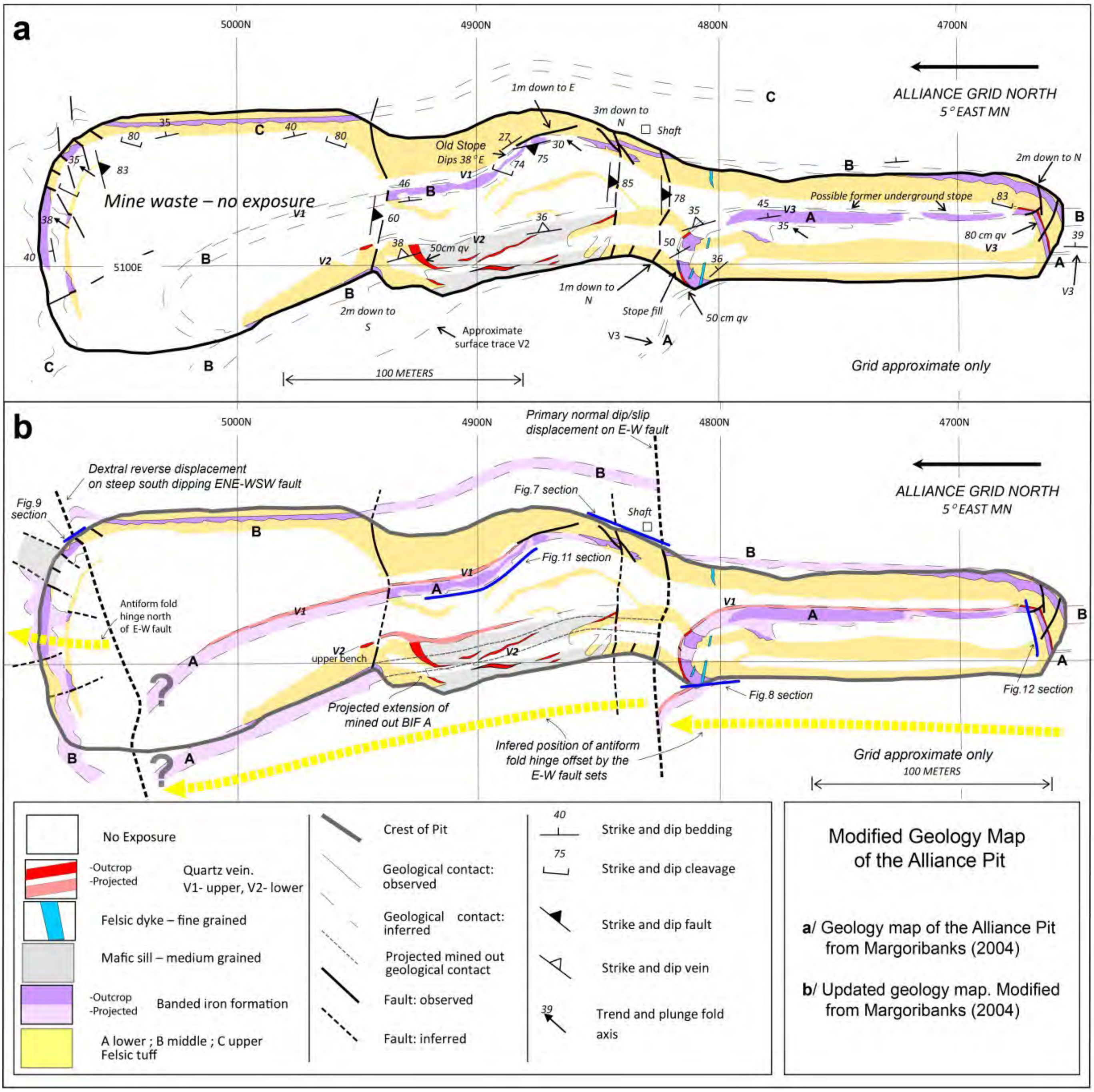

Figure 8 Geology of the Alliance Open Pit

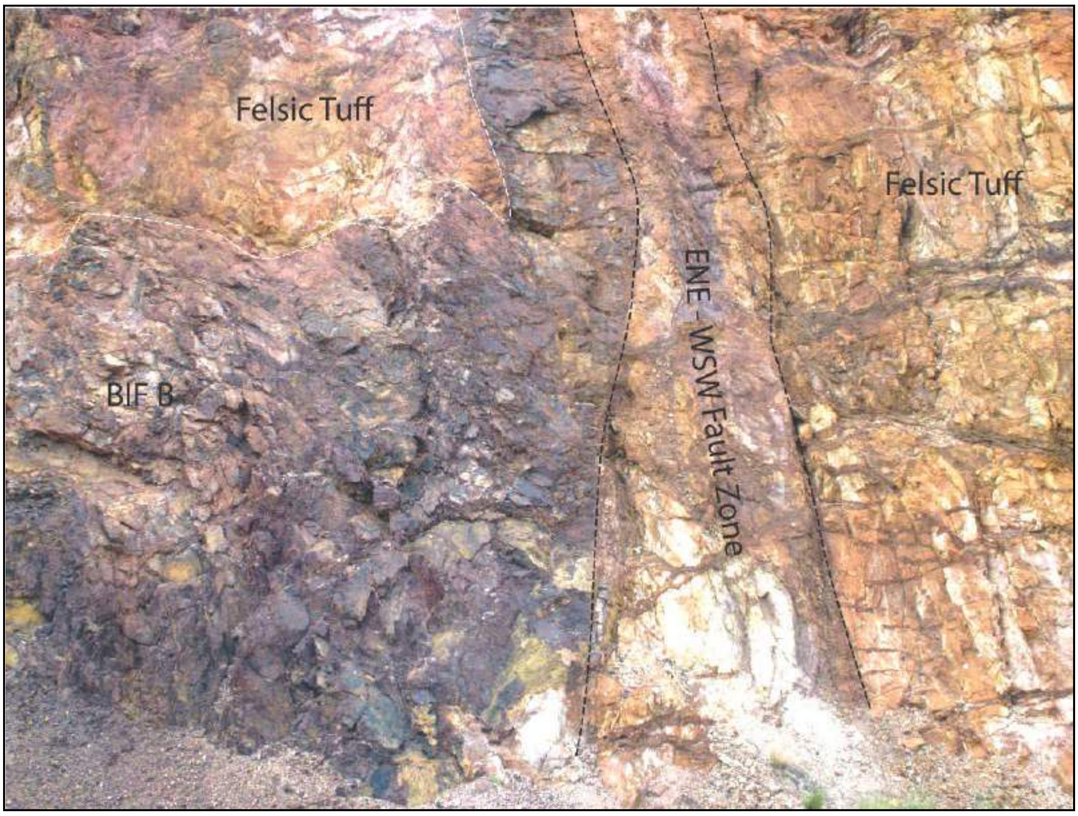

Figure 9 ENE-WSW trending dextral reverse fault truncating BIF B unit in previously mined out NE corner of Alliance pit (after Crowe 2012)

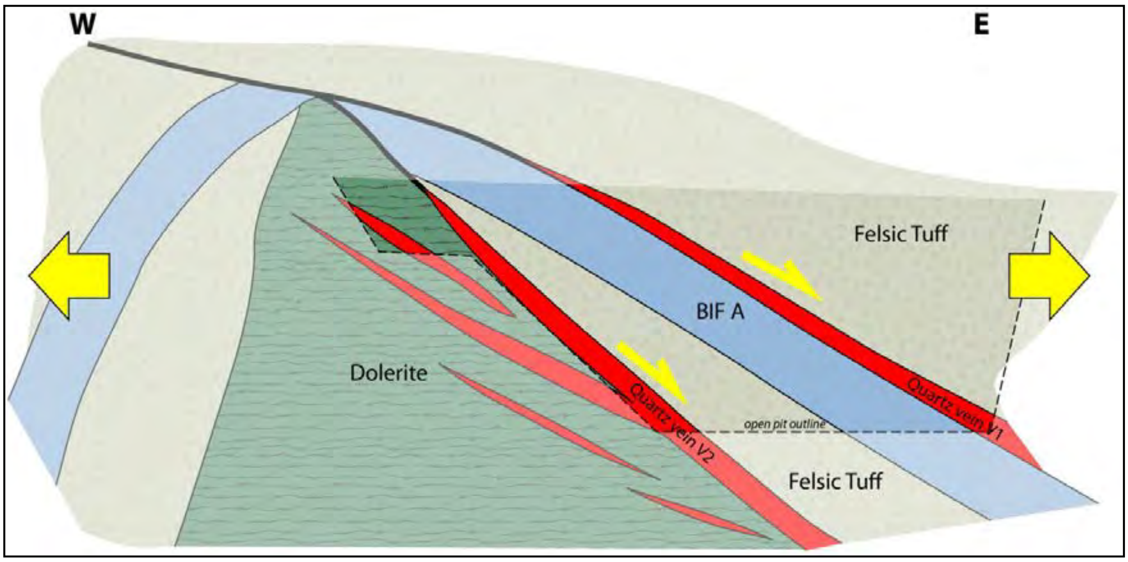

Figure 10 Schematic E-W cross section through the dolerite showing interpreted post folding relationship of the vein sets associated with extensional reactivation (after Crowe 2012).

8. DEPOSIT TYPES

Gold mineralization is associated with zones of quartz veins and associated hydrothermal alteration. The veins are up to three metres thick and typically have strong ductile shearing on their contacts. However, individual veins are variable and over short distances may thicken and thin, or split into smaller veins. Adjacent to these veins are wide zones of intense silicification and pyritisation, cut by numerous smaller stock work veinlets. The whole zone can carry significant gold values (> 1/g/t).

With falling temperature, deformation moved from the ductile to the brittle-ductile field. While smooth laminar flow along the top shear surface of the BTZ continued, lower shear surfaces in the zone, and early-formed quartz veins, were folded. The lower limbs of these folds are typically sheared out. The folds are asymmetric and plunge at low angles to the north, reflecting a continued movement vector across the zone.

The mineralization style at Burnakura is of a mesothermal type setting, which in the Yilgarn Craton of Western Australia is the result of regional-scale fluid flow, but is usually located on secondary structures that splay off the regional faults. The ore fluids are deep-seated in origin and may include metamorphic and distal magmatic fluids. Deposits form where fluids are forced into reactive host rocks.

In most cases the host rocks are more competent (i.e. brittle) than surrounding rocks and there is an additional chemical control by Fe-rich igneous or sedimentary rocks (BIF) or reduced sedimentary rocks (black shales) (Harvey *et al*., 2007).

The identified gold deposits at Burnakura can be classified into two types; namely,

- Laterite gold deposits
- Mesothermal, quartz vein, shear hosted gold deposits

8.1 *Laterite Gold Deposits*

The Archaean cratons of Western Australia have been subjected to prolonged weathering, resulting in the development of a complex regolith. In-situ weathering of basement rocks, produces a weathering profile typified from bottom to top by, saprock, saprolite, clay and/or mottled clay zones, and ferruginous duricrusts.

Laterite deposits are flat-lying zone of enrichment, contiguous with the ferruginous and mottled zones of the laterite profile, mostly at the surface or buried by shallow (<20m) sediments (Figure 11). They are commonly thin (2-10m) and characterised by ferruginous pisolitic gravels, nodules and duricrust. They are characterised by fine-grained Au of high fineness (Ag <0.5%) and some residual primary Au. Particles of coarse Au may be present as primary nuggets and inclusions in vein quartz and pisoliths, and as secondary crystals developed with Fe oxide segregations. Widespread multi-element geochemical anomalies (Au+/- As+/-Sb+/-W) in the lateritic residuum are often an important exploration vector, often being much larger (100-400 times broader) than the primary source. They are formed by dilute groundwater in the vadose zone, gold probably mobilised by organically derived ligands and precipitated by dilution, reduction by Fe2+ oxidation (Butt, 1998).

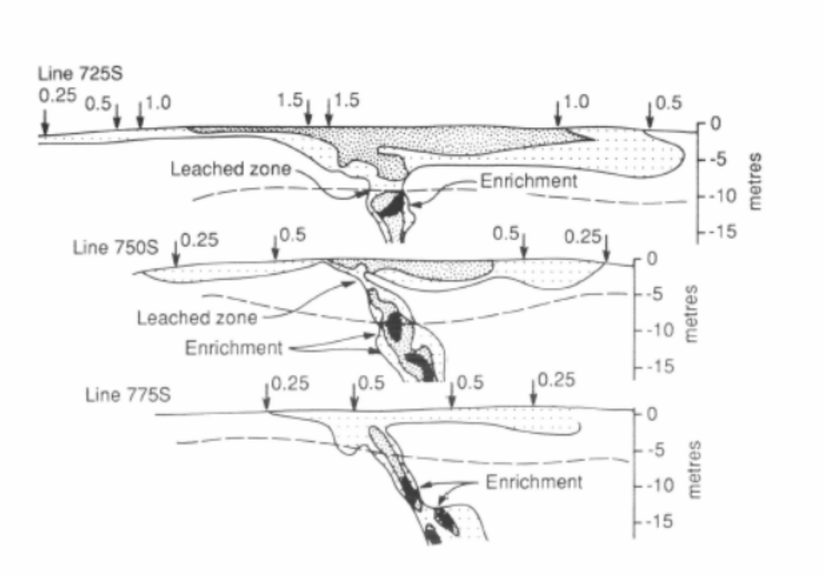

Figure 11 Lateritic gold deposit, Callion, WA (after Glasson et al. 1988)

8.2 *Mesothermal quartz-vein shear hosted*

Mesothermal (or orogenic) gold deposits, worldwide, irrespective of age, have a number of common features. They are normally formed in convergent-margin settings, under compressive or tranpressional stress regimes, from deep (metamorphic) low-salinty H_2O-CO_2+/=CH_4 ore fluid which move into zones of structural permeability within volcanic (e.g. greenstone) or sedimentary (e.g. slate) belts. In Archaean greenstone belts, there is a crustal continuum of mesothermal lode-gold deposits which formed under conditions ranging from about 180°C at 2-5 km depth to >650°C and >15 km depth (Groves, 1993). They are a coherent genetic group on the basis of i) a metal association of Au>Ag, associated with As+/-Te+/-Sb+/-W+/-B, and low Cu, Zb Zn; ii) deposition from a consistently low salinity, near neutral H_2O-CO_2+/=CH_4 ore fluid; iii) consistent wallrock alteration envelopes involving addition of CO_2, S, K and other LILE; iv) their extensive vertical extent, with only cryptic vertical alteration zonation but marked lateral alteration zonation; and v) their strong structural control (see Figure 12).

Lode gold deposits are generally high-grade, thin, vein and fault hosted. They are primarily made up of quartz veins also known as lodes or reefs, which contain either native gold or gold sulfides and tellurides. Lode-gold deposits are intimately associated with orogeny and other plate collision events within their geologic history.

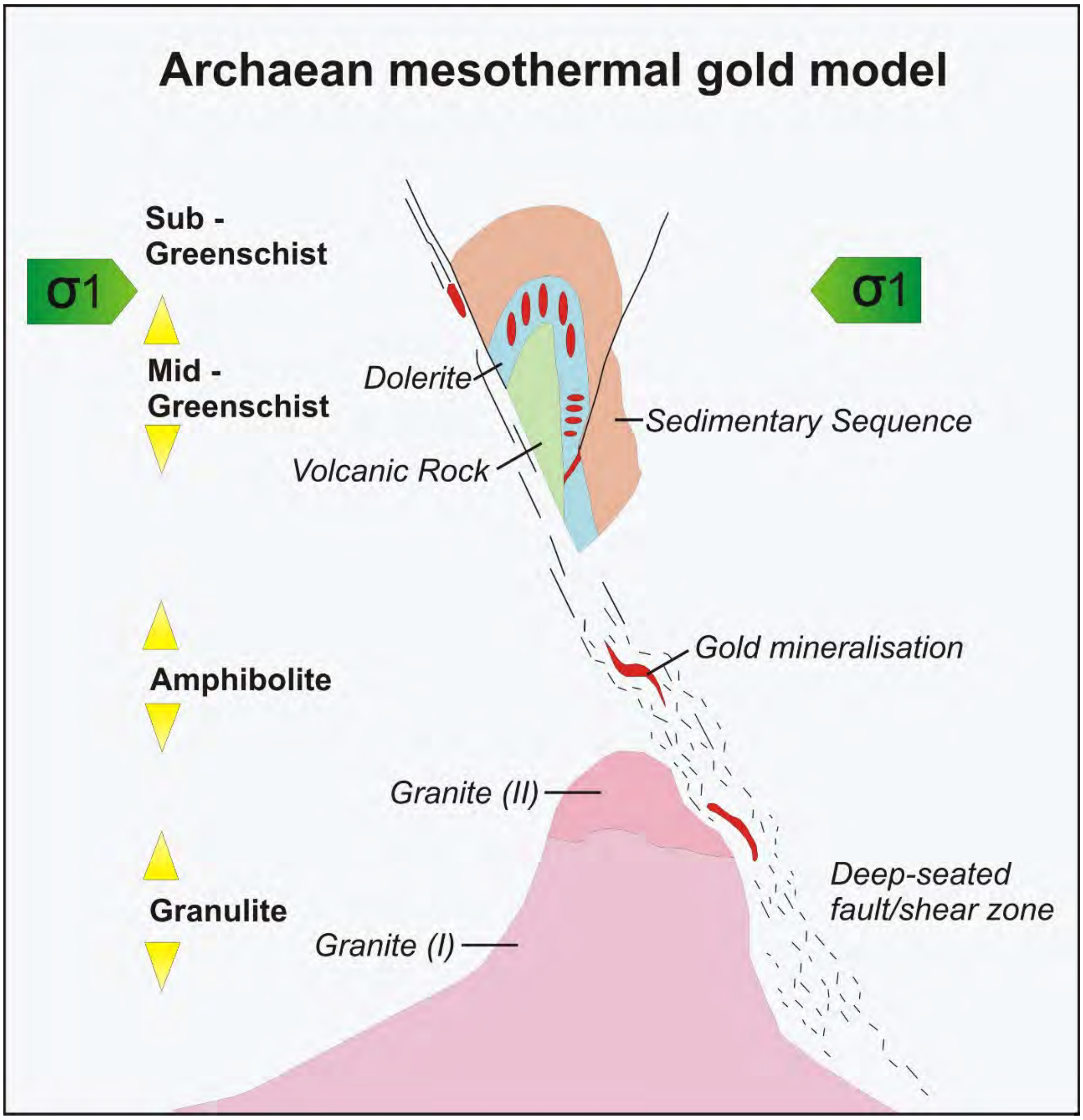

Figure 12 Archaean mesothermal gold model (modified after McCuaig 2013)

9. EXPLORATION

9.1 *AERIAL PHOTOGRAPHY*

Fugro Spatial Solutions Pty Ltd (Fugro) of Perth was commissioned to complete a fixed wing aerial photography survey. The survey was flown on 17 September 2014. The survey covered the main Burnakura mining leases (M51/116, M51/117, M51/177, M51/ 178, M51/252, M51/478) as well as the main gazetted access roads and private haul roads (L51/78, L51/79 and L51/81) a total area of 59km^2.

Prior to flying the survey Fugro established numerous ground control points for post survey orthorectification control points referenced to GDA94 (MGA Zone 50) and AHD. Ground control points comprised a metal spike with a plastic plate.

The survey and all associated data were registered with the DMP (Registration No. 70979) on the MAGIX airborne geophysical index (MAGIX ID. 4190). Ortho imagery and SGM products were delivered by Fugro in various digital file formats including ECW, MapInfo TAB, CSV. Derived datasets included digital imagery at 12 cm pixel resolution and a DEM gridded at 5m x/y. Survey specifications are provided in 12.

Table 12 Burnakura Aerial Photography Survey Specifications

Aerial Photography Survey Specifications	
Contractor:	Fugro Spatial Solutions Pty Ltd
Jon No.:	21517001
Sensor Type Name:	ADS80- 30112
Flying Height (AGL) metres:	~ 1040 -1255m
INS / IMU Used:	ADS80
Survey Area (km^2):	~52 (excluding haul roads)
Number of Runs:	21
Swath Width (metres):	~ 1560m
Flight Direction:	Various to optimize corridor capture
Side Overlap (%):	25
Output Data Format:	ECW, MapInfo TAB, CSV
Horizontal Datum:	GDA94
Vertical Datum:	AHD
Map Projection:	MGA Zone 50
Spatial Accuracy (Hz) metres:	0.22m @ 67% Nominal Accuracy
Spatial Accuracy (Vtz) metres:	0.10m @ 67% Nominal Accuracy
Surface Type:	Various
Data Tile Size (km^2):	1

9.2 *ROM STOCKPILE SAMPLING*

During August 2014 the remnant ROM stockpile fingers and dumps immediately north of the gold plant were sampled to determine the indicative grade of the material. A total of 26 samples from 10 stockpiles designated "A" to "J" were collected as detailed in Table 13.

Sampling was completed by collecting multiple grab samples at each location to produce a 15-20kg composite sample. Initial sampling preparation was completed at the mine laboratory. All composite samples were single-staged crushed to nominal -10mm using a jaw crusher. Coarse crushed material was then riffle split to produce a 2-4 kg sample for submission to the laboratory. Samples were submitted to SGS in Perth and analysed for Au by Fire Assay using the same method for the RC drill samples.

Table 13 ROM Stockpile Sampling - Assay Results

Stockpile ID	Ore Source	Ore Type	Sample ID	Weight Submitted (kg)	Au (g/t)	Au(R) (g/t)
A	Lewis	Vein	AV1	4.48	0.59	-
B	Lewis	Vein	B1V	4.55	4.83	4.95
	Lewis	Vein	B2V	3.5	23.4	24.2
C	Lewis	Vein	C1V	4.81	8.52	9.1
	Lewis	Vein	C2V	4.18	27.8	24.9
D	Lewis	Vein	D1V	4.6	34.5	30.2
	Lewis	Vein	D2V	4.77	26.9	23.8
	Lewis	Vein	D3V	4.56	9.85	10.1
E	Lewis	Wallrock	E1G	2.2	0.07	-
	Lewis	Vein	E1V	4.83	0.22	-
	Lewis	Wallrock	E2G	2.05	0.07	-
	Lewis	Vein	E2V	4.17	0.31	-
	Lewis	Wallrock	E3G	3.04	0.13	-
	Lewis	Vein	E3V	2.74	0.49	-
	Lewis	Wallrock	E4G	2.84	2.92	2.83
	Lewis	Vein	E4V	2.56	0.08	-
	Lewis	Wallrock	E5G	3.23	0.18	-
	Lewis	Vein	E5V	4.65	5.76	5.47
	Lewis	Wallrock	E6G	2.4	0.16	-
	Lewis	Vein	E6V	4.63	1.24	-
F	Lewis	Vein	F1V	3.8	2.26	-
	Lewis	Vein	F2V	3.96	2.24	-
G	NOA U/G		G1U	5.64	4.79	-
H	Lewis	Vein	H1V	3.98	13.9	12
I	NOA U/G		I1U	3.98	9.99	10.9
J	NOA U/G		J1U	3.92	6.78	7.31

Most of the stockpiles appear to be fresh rock material mined by Kentor Gold from the Lewis open pit comprising granitic wallrock with variable quartz and quartz-galena veining. Stockpiles G, I and J appear to be NOA underground ore. The highest grades were returned from stockpiles B, C and D of veined material containing galena. High grade samples of these stockpiles generally showed good assay repeatability suggesting the absence of coarse particulate gold. The largest stockpile "E" was selectively sampled for vein type and granite wallrock type material at a total of 6 locations. The vein material averaged 1.35 g/t Au whilst the wallrock granite averaged 0.58 g/t Au.

Utilising the Fugro orthorectified aerial photography image (12.5cm pixel resolution) and related 5-metre DEM grid the volumes and tonnages of each stockpile were estimated as presented in Table 14. Note that the vein gold grades are not representative for the estimated tonnages.

In addition to the ROM stockpiles a total of 9 samples of the mill scats stockpile were also collected and submitted for assaying. Sampling employed the same sampling methodology as used for the ROM stockpile sampling. Visually the scats stockpile appeared to be a combination of NOA underground and Lewis open pit ore. Results are presented in Table 15.

Table 14 ROM Stockpiles – Estimated Tonnages

ID	Av. Height (m)	AREA (m^2)	LCM (m^3)	Density*	Tonnes (t)	Sample Type	No. Samples	Av. Grade (g/t)
A	1.3	282	372	1.6	596	Vein	1	0.6
B	1.5	462	711	1.6	1137	Vein	2	14.1
C	1.8	418	732	1.6	1170	Vein	2	18.2
D	1.4	1038	1485	1.6	2375	Vein	3	23.7
E	1.7	2054	3410	1.6	5456	Mix	12	0.97
F	1.3	390	511	1.6	818	Vein	2	2.2
G	1.2	94	117	1.6	187	UG S^{2-}	1	4.8
H	1.2	65	78	1.6	125	Vein	1	13.9
I	1.3	156	201	1.6	322	UG S^{2-}	1	10.0
J	1.2	169	203	1.6	325	UG S^{2-}	1	6.8

*Note: LCM density based on assumed in-situ density of 2.6g/cm^3 and a swell factor of 80%

Table 15 Mill Scats Sampling - Assay Results

Sample ID	Weight Submitted (kg)	Au (g/t)	Au(R) (g/t)
BMS1	3.6	1.59	-
BMS2	3.6	4.14	4.38
BMS3	3.33	2	-
BMS4	3.8	1.98	2.03
BMS5	3.58	1.14	-
BMS6	4.73	1.95	-
BMS7	4.33	1.15	-
BMS8	3.56	1.7	-
BMS9	3.19	1.42	-

10. DRILLING

10.1 *Historical Drilling*

Many drilling campaigns have been executed in the area over the years, a detailed explanation of which is provided in Herrmann (2006) and Abbott (2011). Hard copy data for most of the historical drilling is no longer available for verification against the existing digital drilling database.

A breakdown of the historical drilling into five main phases by company and drilling type is shown below in Table 16, with hole locations shown in Figure 13.

Table 16 Historical Drilling Breakdown by Company, Drill Type and Year Drilled

Company	Hole Prefix	Year Drilled	Average Depth (m)	No. of Holes	Average Depth (m)	Total Drill Metres	% of Total Drill Metres
Kentor Gold	11BN	2011	81	6	81	486.3	1%
	12BNRC	2012	72	66	72	4764	13%
ATW Gold Corp	8ALC, 8NAC	2008	119	5	119	594	2%
Gold Mines of Australia (GMA)	97FCRC	1997	79	49	79	3,873	11%
	AD	1994-95	49	116	49	5,733	16%
Metana	NARC	1990-1994	57.1	136	57.1	7,764	22%
	ARC	1990-1994	26	84	26	2,201	6%
	NARD	1990-1994	79	8	79	634	2%
	ARD	1990-1994	74	11	74	818.1	2%
	D	1990-1994	90	3	90	270.0	1%
Homestake (HGAL)	FC	1987-1989	57	134	57	7690	22%
	FD	1987-1989	95	9	95	850.9	2%
TOTAL			**DDH**	**37**	**83**	**3,059**	**9%**
			RC	**621**	**53**	**32,619**	**91%**
			ALL	**658**	**68**	**35,678**	
Holes not used in the Mineral Resource							
Metana	AE, AL	1990-1994	BH	1,531	5	7970.2	na
Other	AS	unknown	RC	31	40	1,236	na
	Various	pre 2000	RAB	305	40	12,242	na

[AS1]

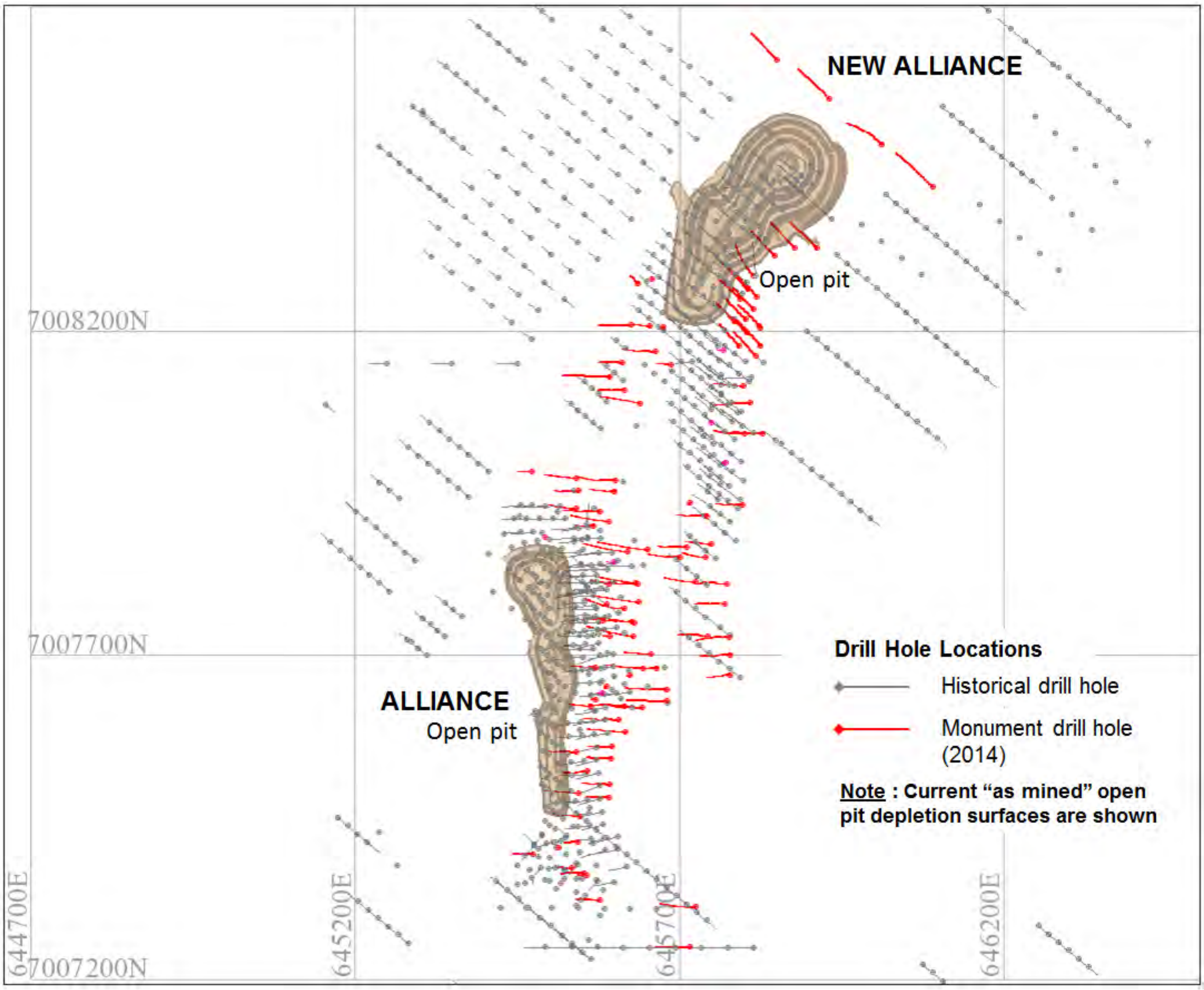

Figure 13 Historical and Current Drill Hole Location Plan with Current Open Pits

The bulk of the historical drilling data prior to Kentor was dominated by RC drilling of uncertain reliability. Typical RC drilling during the 1980's utilised cross-over sub before the use of face sampling RC hammers became common in the early 1990's. These can give less reliable samples, with greater potential for unrepresentative sample recovery, and down-hole contamination than modern, face sampling RC drilling techniques. [AS2]

Various local grids have been used for the earlier drilling (pre 2008) of the individual prospect areas and the transformation of this data into the GDA grid system to form a global drilling database has been undertaken by Kentor. [AS3]

Very little drilling (pre 2011) has comprehensive down-hole survey coverage and most holes have only assumed orientations. Although hard-copy records suggest that the limited down-hole survey records are generally from single-shot camera surveys, the supplied databases do not include fields specifying survey methods preventing detailed review of this data.

10.1.1 Homestake (1987 – 1989)

Homestake's drill programmes are dominated by RC drilling and include nine diamond holes. RC samples were collected over one metre intervals and commonly initially assayed as four or five metre spear sampled composites with mineralised composites re-assayed over 1m intervals from riffle split sub-samples.

RC holes were drilled by cross-over sub which is consistent with typical RC drilling during the 1980's before the use of face sampling RC hammers became common in the early 1990's.

Geologist's logs describe a significant proportion of Homestake's cross-over sub RC drilling as variably wet, low recovery or contaminated. The wet samples are generally from below 30m depth and are particularly common below approximately 50m. Reliability of the field sampling for this drilling is uncertain. as a result of the drilling method and sample quality.

No information is available on the methods or equipment used to establish the collar coordinates of the Homestake ("**HGAL**") drill holes.

The original FC and FD series drill logs have not been located and no information on drill conditions (wet, dry etc) or rig specification could be found in the reports available.

10.1.2 Metana (1990– 1994)

Metana's resource sampling is dominated by RC drilling with relatively few (31) diamond holes, three of which were drilled as twins to RC holes. Drilling information is available for the last 12 of the 84 holes drilled in total. A track mounted rig with a 4.5 inch face sampling hammer was used and these 12 holes were drilled to assess the economic potential of a cut back to the northern wall of the current Alliance pit. It is stated that recoveries were low although all of the drilling was dry.

It is unclear whether the remainder of Metana's RC holes were drilled by cross-over subs or face sampling hammer. However, their drill phases span the period when cross-over subs were phased out of common usage and follows on from Homestake's drilling, so it appears likely to include some holes drilled by cross-over subs.

The AE and AL series of blast holes were drilled during the mining of the Alliance open pit, but no information on drill conditions (wet, dry, etc) or rig specification is available.

For all ARC series holes, the barren hanging wall zone was sampled using 5m spear composites. Mineralised intervals in each hole were sampled every 0.5m, with all other sampling at 1m intervals. All but the spear sample composites were sub-sampled by riffle splitting on site.

No information is available on the methods or equipment used to establish the collar coordinates of the Metana drill holes.

Downhole surveys were taken by a single-shot survey camera for the ARD series only, with a minimum of 3 shots taken per hole.

Geological logging of RC holes was completed using Metana standard logging codes and the original drill logs (if any) are not available. The logging methodology employed coded lithological and mineralogical descriptions. No information on drill conditions (sample recovery and quality) or rig specification could be found in the reports available.

10.1.3 Gold Mines of Australia (1994– 1998)

The AD RC hole series was drilled in three separate phases by Glindemann & Kitching (G&K) Drilling Pty Ltd using track mounted RC rigs. On all rigs a 5.25 inch face sampling hammer was used.

Phase 1 was drilled during October – November 1994 and consisted of 47 holes (AD0101 – 148) for 2,168m. A further 49 holes (AD0149 – 196) were drilled in phase 2 of the program during January – April 1995. Total metres were 2,256m. A third phase was drilled during September 1995 which consisted of 20 holes (AD0197 – 199 and AD0203 – 219) for 1,276m. Holes AD0200-202 were not drilled as they were sited on the northern pit wall and proved inaccessible.

It was noted during these phases of drilling that water was encountered in 38 of the 116 holes drilled.

Sampling procedures for all 3 phases of the AD series program were identical. Sample bags were first numbered with hole name and sample interval. During drilling, samples were collected every metre in 30cm x 20cm calico bags from the bottom of a 3 level splitter located directly beneath the sample collection cyclone. The rest of the bulk metre sample was collected in a plastic bucket and laid out in rows of 10m length for geological logging.

One metre split samples were collected from the zone 10m above the expected mineralisation to the bottom of the hole. The remainder of the hole was sampled by collecting 4m composite samples with an aluminium pipe shaped scoop. Composite samples assaying greater than 0.2g/t Au had their original 1m split portion collected and subsequently sent off for assay.

The collar positions of all RC drill holes completed by GMA were picked up by Reedy Mine surveyors. Herrmann (2006) checked the header records on printed drillhole logs in the GMA reports and in all cases these reconciled with the collar coordinates in the database, and the accuracy of the GMA collar surveys was assumed to be better than +/- 0.2m horizontal and vertical.

For GMA's AD series of holes, 2 downhole camera survey shots were taken for holes AD0101 – 0147 (start and end of hole only). In the later part of the program (holes AD0197 – 0199 and AD0203 – 0219), a minimum of 3 shots were taken per hole. No records could be found for holes AD0148 – 0196 or for the 97FCRC series of drillholes. An examination by Herrmann (2006) of downhole surveys from the AD series holes indicates that most holes lifted and deviated slightly during drilling. For holes collared at 60°, dip deviation was of the order of 5-10°, with azimuth deflecting around 5° to the north.

Geological logging of RC holes was completed using GMA standard logging codes, however the original paper logs (if any) are not available. The logging methodology involved coded lithological and mineralogical descriptions. The summary RC drill hole logs by GMA have not recorded sample wetness, however sample dampness and intermittent water inflow has been cited as a potential source of contamination.

10.1.4 ATW Gold Corp (2008– 2009)

RC drilling was completed by Murchison Exploration & Hire Service of Perth, Australia. ATW provided all technical support for drill supervision, logging and sampling the cuttings. The drill program adopted a 1m standard sample length for all samples. Reverse circulation drill cuttings were directed from the cyclone to a splitter where the sample was reduced to a 3kg sample. Sample intervals identified as barren were composited to generally 4m intervals for assaying. Potentially mineralised samples and composite intervals returning elevated gold grades were sampled on 1m intervals.

Residue drilling cuttings were placed on the ground in rows of 20 to assist with review and geological logging. The 3kg sample bag was place on top of each pile. The geologist logged the drill cuttings while the field technician collected rock chips from each pile and placed these into chip trays. These trays remain on site and constitute a library of the drill holes.

Logging was completed using the mine grade control legend, which is compatible with the Tectonic geological legend. The major categories logged for all holes were colour, lithology, alteration, veining (type and visual percentage), structure and mineralisation (type and visual mineral percentage). Wet samples and any other remarks of interest were also recorded as required by the supervising geologist. Drilling conditions were generally kept dry by sufficient air, and hole deviation was not problematic.

Mineralised drill intersections were stored on site, with the un-mineralised samples used to back fill the holes before rehabilitation.

Two holes were drilled close to the Alliance deposit to test the sulphide bearing mineralisation beneath the shallow open pit. Drill hole 8AL001 intersected the mineralized zones at 59-60m and 69-70m while drill hole 8AL002 intersected the mineralisation at 72-73m and 79-83m. Drill hole 8NA001 was drilled at the northern end of the New Alliance pit into a zone where an interval averaging 55g/t Au over 4m at 85.1m down-hole was reported from previous historical drilling. Mineralized quartz veins were also intersected at 112-114m and 130-133m.

10.1.5 KentorGold (2011– 2012)

10.1.5.1 Reverse Circulation Drilling

All RC holes were drilled using a face sampling hammer by Foraco on an average inclination of -60°, and drill azimuths varying from 270° to 310°.

For all resource definition drilling programs, assay samples were taken in 1m intervals using a cone splitter set to about 10% of the total and collected in pre-numbered 14” by 10” calico sample bags. The residue for each 1m interval was collected in green plastic bags and stored temporarily at the drill site. A sub-sample of chips taken from each green bag was sieved, logged and put in plastic chip trays by the rig geologist. The samples in calico bags were subsequently packed into green bags, which were in turn put in plastic bulk bags for transport to ALS in Perth.

Hole collars were surveyed by RTK DGPS and downhole camera surveys were completed at 30m spacings.

Logging was completed using the standard logging codes, where the main categories logged included colour, lithology, texture, alteration, veining (type and visual percentage), structure, mineralisation (type and mineral percentage) and sample quality.

10.1.5.2 Diamond Drilling

A total of 4 HQ3 diamond core holes for geotechnical purposes and 2 PQ3 metallurgical holes were completed by Macro Drilling as part of the cut-back mining proposed by Kentor.

Two geotechnical holes 11BNGT010 and 11BNGT011 were drilled in the vicinity of the Alliance pit south-east and north walls with an orientation of -60° towards 310° AGD. A further two holes 11BNGT008 and 11BNGT009 were drilled in the vicinity of the proposed New Alliance east and west pit walls with orientations of -60° and -70° towards 270° AGD.

The metallurgical holes were drilled at the southern end of the New Alliance pit at -65° towards 310° AGD.

All diamond holes were logged, marked up for sampling, photographed, and cut as per the standard Kentor procedures which included;

- Core orientated and metre marked,
- Logging of RQD, core recovery %, breaks per metre,
- Logging of rock type, rock strength, structure, weathering, and joint defect logging,
- Marking of 1m samples constrained to logged lithological boundaries, and to a maximum of 1.2m and minimum of 0.2m in length,
- Wet core photography,
- Bulk density determinations by water immersion technique on selected 20-30cm core samples,
- Core half sawn along the orientation line, with the same side always taken for samplng, and

- Waste zones surrounding the mineralisation were sampled to at least 10m past the last observed potential mineralisation/alteration.

Half sawn core samples from the geotechnical holes were despatched to ALS for sample preparation and analysis.

The metallurgical core was boxed and despatched to ALS AMMTEC for testwork in Perth, where a sliver of core was cut by a diamond saw along the length of the core sample for assay.

10.2 *Monument Drilling (2014)*

Since acquiring the Burnakura Property in late-February 2014, Monument has completed resource definition drilling of the Alliance and New Alliance as part of its ongoing evaluation of the Murchison Gold Project. A combined total of 13,589.3 metres of reverse circulation (RC) and diamond core (DD) drilling had been completed by Monument as detailed in Table 17.

Table 17 Drilling Statistics at Alliance and New Alliance

Area	RC		DDH		Total	
	Holes	Metres	Holes	Metres	Holes	Metres
New Alliance	59	5,132	4	269.5	63	5,401.5
Alliance	93	7,991	3	196.8	96	8,187.8
Grand Total	**152**	**13,123**	**7**	**466.3**	**159**	**13,589.3**

Drilling at Alliance and New Alliance has been undertaken in a number of separate phases as detailed in Table 18.

Table 18 Drilling Details to 17 February 2015

Area	Phase	Start Date	Finish Date	Drilling Type	Hole ID	Holes	Metres	Average Depth (m)	Drilling Company
Alliance/ New Alliance	**Phase 1***	**May-2014**	**Sep-2014**	**RC**	**14MRC001 - 14MRC102**	**103**	**9,346**	**91**	**MLM Drilling**
		May-2014	**Jun-2014**	**DD**	**14MDD001 - 14MDD006**	**6**	**409.3**	**68**	**Macro Drilling**
	Phase 2	Nov-2014	Nov-2014	RC	14MRC166 - 14MRC182	17	1,424	83	MLM Drilling
	Phase 3	Dec-2014	Dec-2014	RC	14MRC194-14MRC225	32	2,353	73	MLM Drilling
		Dec-2014	Dec-2014	DD	14MDD007	1	57	57	Craton Drilling Co.

*Note: Phase 1 drilling and historical drilling used for the Mineral Resource Estimate that is the subject of this Technical Report

Drill holes for all phases were designed by resource consultants Cube Consulting Pty Ltd ("Cube") of Perth who are engaged by Monument to undertake ongoing Mineral Resource estimation for the Murchison Gold Project.

The resource drilling programs, comprising twin, infill, extensional and exploration holes was aimed at achieving the following primary objectives:

- To verify historical drilling data;

- Increasing the drill hole sampling density within the limits of the historical estimate to improve the confidence in the geological and grade resource models, and
- Test for possible extensions to gold mineralization along strike and down dip of currently defined resources.

It must be noted a qualified person has not done sufficient work to classify the historical estimates on the property as current mineral resources under NI 43-101 and Monument is not treating the historical estimate on the property as current mineral resources. The historical estimates were determined by BM Geological Services in the report Murchison Gold Project: Burnakura and Gabanintha resource inventory (December 2013). The quality of the data supporting the estimates meets industry standards. The historical estimates have been reported in line with the JORC guidelines, and resource confidence categories and the reliability of the estimate are consistent with this standard. Monument considers this historical resource estimate to be relevant to its ongoing review of the Murchison Gold Project. See Section 6.3.

It should also be noted that only Alliance-New Alliance Phase 1 drilling along with historical drilling has been relied upon for the purposes of undertaking the revised Mineral Resource Estimate that is the subject of this Technical Report. The information related to aspects of the drilling detailed below only applies to the Phase 1 drilling completed at Alliance and New Alliance.

10.2.1 Reverse Circulation Drilling

Reverse Circulation (RC) drilling was performed by MLM Drilling Pty Ltd of Perth using a Edson HDB 2000 top drive truck mounted rig employing a separate truck mounted 2-stage air compressor rated at 500 PSI : 1100 CFM (Figure 14). All holes were drilled using a 110mm diameter RC face sampling hammer with 3-metre long x 3-inch diameter standard aircore drill rods (=35mm diameter inner tube). RC holes were drilled at inclinations of between -57 degrees and vertical. Angled holes were generally drilled on azimuths directed at MGA grid east (268.5° magnetic). Angled holes drilled north of 7,008,150mN on the eastern side of the New Alliance open pit were drilled on azimuths directed at 315 degrees MGA grid (313.5° magnetic).

For the majority of drill holes the collar was cased with class-9, 120mm or 140mm diameter uPVC in order to prevent the collar collapsing prior to open hole directional surveying being completed.

10.2.1.1 SAMPLING

All RC drill cuttings were collected directly from beneath the cyclone underflow at nominal one-metre downhole intervals. All dry samples were split using a 3-tier (87.5:12.5) riffle splitter. The large off-split sample was collected into uPVC plastic bags labelled with the depth interval, cable tied and stored in ordered rows at the drill site. The small off-split was collected in calico bags and weighed using electronic scales. Calico samples were transferred to polyweave bags and securely cable tied prior to being transported to the laboratory in Perth. Where one-metre drill samples were wet or too damp to be passed through the riffle splitter the entire bulk sample collected from the cyclone was submitted to the laboratory.

All calico drill samples were labelled with a unique sample number. This unique identifier was used by the analytical laboratory to report the final assay results. Field technicians were responsible for recording all sample information and were present at the rig during the drilling of all holes. Recorded data included, date, hole number, depth interval, laboratory calico sample number and QA/QC sample details. Sample numbers were routinely checked against the drilled interval depth to ensure they corresponded with the hardcopy record. For each sample condition (dry/damp/wet) and quantitative recovery (poor/moderate/good) was recorded along with the accurate sample weight. This data was entered into excel spreadsheets and forwarded to Cube for validation prior to importing to an SQL database.

Figure 14 RC Drilling at Alliance on the eastern side of the open pit

External quality control (QC) samples of standards, blanks and duplicates splits were included with all batches of RC drill sample submitted to the laboratory. All external QC samples were numbered using the same number system adopted for the drill samples. Numbering of QC standards was sequential and contiguous with the drill samples for all batches submitted to the laboratory.

Certified Reference Materials (CRM's) were included at the rate of 1 in 20 with all samples submitted to laboratory as part of monitoring the analytical accuracy and precision. CRM's were sourced from Geostats Pty Ltd in Perth. Certificates for all CRM's used during the RC program were provided by Geostats and their details are summarized in Table 19.

Coarse blank material comprising barren quartz rich alluvial sands was sourced from a creek bed 4km south of the historic Banderol open pit. This material was used to produce calico samples weighing 2-3kg resembling the actual the drill sample laboratory off-split. The "blind" coarse blanks were aimed at monitoring carry-over (contamination) during the laboratory sample preparation stage. Coarse blanks were randomly inserted at the rate of 1 per drill hole.

Field replicate splits were routinely performed during drilling. Replicate splits were performed by passing the large green plastic bag-offsplit through the same 3-tier splitter to produce a second calico off-split that was included with samples submitted to the laboratory. Replicate splits were completed every 1 in 20 drill samples.

Subsequent to the laboratory reporting assay results for intervals returning assays >= 0.2g/t Au the large plastic off-split stored at the drill site was weighed and relocated to a central bag farm located on the top of the Alliance waste dump. These samples were later utilised as part of a re-splitting program undertaken to perform intra-laboratory/umpire check assaying of the original samples.

Table 19 Analytical Certified Reference Material Details

CRM_ID	Description	Colour	Method	Certified Value	Units	SD	Confidence Interval
G303-2	Composite gold ore	Pale yellowish brown	Fire Assay (50g)	4.15	ppm	0.17	0.024
G305-2	Composite soil /cap material ex Eastern Goldfields	Light brownish grey	Fire Assay (50g)	0.32	ppm	0.02	0.003
G305-3	Composite gold ores ex Eastern Goldfields	Pale red	Fire Assay (50g)	0.72	ppm	0.03	0.005
G308-5	Low Sulphur Mine Ores High Grade	Light Grey	Fire Assay (50g)	13.3	ppm	0.56	0.074
G311-5	Minor sulphide ore ex Eastern Goldfields	Light Grey	Fire Assay (50g)	1.32	ppm	0.06	0.01
G397-3	Laterite / Kaolin ores	Greyish orange	Fire Assay (50g)	1.72	ppm	0.11	0.016
G902-7	Oxide Material ex Eastern Goldfields	Moderate brown	Fire Assay (50g)	1.41	ppm	0.10	0.023
G903-6	Gold Ore ex Murchison Region	Light grey	Fire Assay (50g)	4.13	ppm	0.17	0.038
G904-1	High Grade composite oxide ore Leonora	Greyish orange pink	Fire Assay (50g)	12.66	ppm	0.51	0.078
G912-7	Cut Off ore low grade oxide	Pale red	Fire Assay (50g)	0.42	ppm	0.02	0.004
GLG907-1	Milled basalt	Light Olive Grey	Fire Assay (50g)	3.58	ppb	2.61	0.53

10.2.1.2 GEOLOGICAL LOGGING

Reference samples were collected from each one-metre bulk off-split. Each sample was sieved, washed and collected into standard 20 compartment plastic chip trays. Geological logging was completed using Monument project standard logging codes. Upon completion of logging all chip trays were digitally photographed prior to storage in the main field supply sea container located near the light vehicle workshop at the gold plant.

10.2.1.3 COLLAR SURVEYS

The “as drilled” co-ordinates of all drill hole collars was recorded with a hand held GPS (± 3m accuracy) upon completion of each drill hole. All co-ordinates were recorded in GDA94 UTM Easting and Northing.

ABIMS of Kalgoorlie were engaged to perform routine accurate positional survey pick-ups of drill collars. Surveying was completed using a Leica Viva GS10/GS15 roaming DGPS-RTK system utilising a local base station. All drill hole collar positions were referenced to GDA94 in the X and Y, and AHD (AusGeoid09 adjusted) in the Z. Co-ordinates are quoted as MGA Zone 50 UTM Easting and Northing. The positional accuracy of the RTK system is quoted as 0.01 m in the horizontal and 0.02 m in the vertical.

All drill collars were picked up utilising permanent survey marker 'ALL15' as the base station control. The locational details the control point used during surveying of collars is provided in Table 20.

Table 20 RTK Local Base Station Control Point Details

Control Point	GDA (MGA Zone 50)		AHD	Description
	Easting (m)	Northing (m)	Height (m)	
ALL15	645940.498	7007922.060	465.446	Iron Star Picket

This control point was previously independently verified by Glockner Engineering and Mining Services (GEMS) in late-2011 (Robertson, 2011). GEMS completed a report detailing transformation between MGA and local mine grid co-ordinates and the accuracy of local control points including ALL15.

10.2.1.4 DOWN HOLE DIRECTIONAL SURVEYS

Wireline directional surveying of RC drill holes was undertaken by ABIM Solutions of Kalgoorlie using a Liuhe manufactured north seeking gyroscopic tool ("gyro"). All holes were open hole logged with the inclination and azimuth recorded at nominal 5.0 metre downhole intervals. A latitude value of -27.04° was used to align the gyro to true (rotational) north.

Survey tool specifications are provided in Table 21.

Table 21 Gyroscopic Survey Tool Specifications

Type	North Seeking Fibre Optic Gyro
Manufacturer	Beijing Liuhe Greatness Technology Co. Ltd
Tool Dimensions	42mm O.D.
Inclination	0 – 90° ± 0.1°
Azimuth	0 – 360° ± 2.0°
Gravity high side tool face	0 – 360° ± 0.5°
North tool face	0 – 360° ± 2.0°
Measuring Time	≤ 68 seconds
Working Temperature	0 - 70°C Normal Temperature 0 - 200°C With Thermal Shield
Input Voltage	AC 90V ~ AC 264V
Load Resistance	≤ 200 Ω Wireline mode

Electronic survey data files were provided by ABIM Solutions in format in Excel format. As well as depth, inclination and azimuth survey readings the Excel files contained header information proving metadata such as Hole ID, date, instrument no. and operator. The header data also contained MGA co-ordinates independently recorded by the ABIMS operator using a hand held GPS (±3m). These co-ordinates were later used as a validation cross check against the drill hole collar DGPS-TRK pick-up during the importing of surveys into the drill hole database.

Azimuths of all raw data are referenced to true north. A grid convergence correction factor of -0.67° was applied to convert gyro true azimuth readings to MGA grid azimuth using the parameter presented

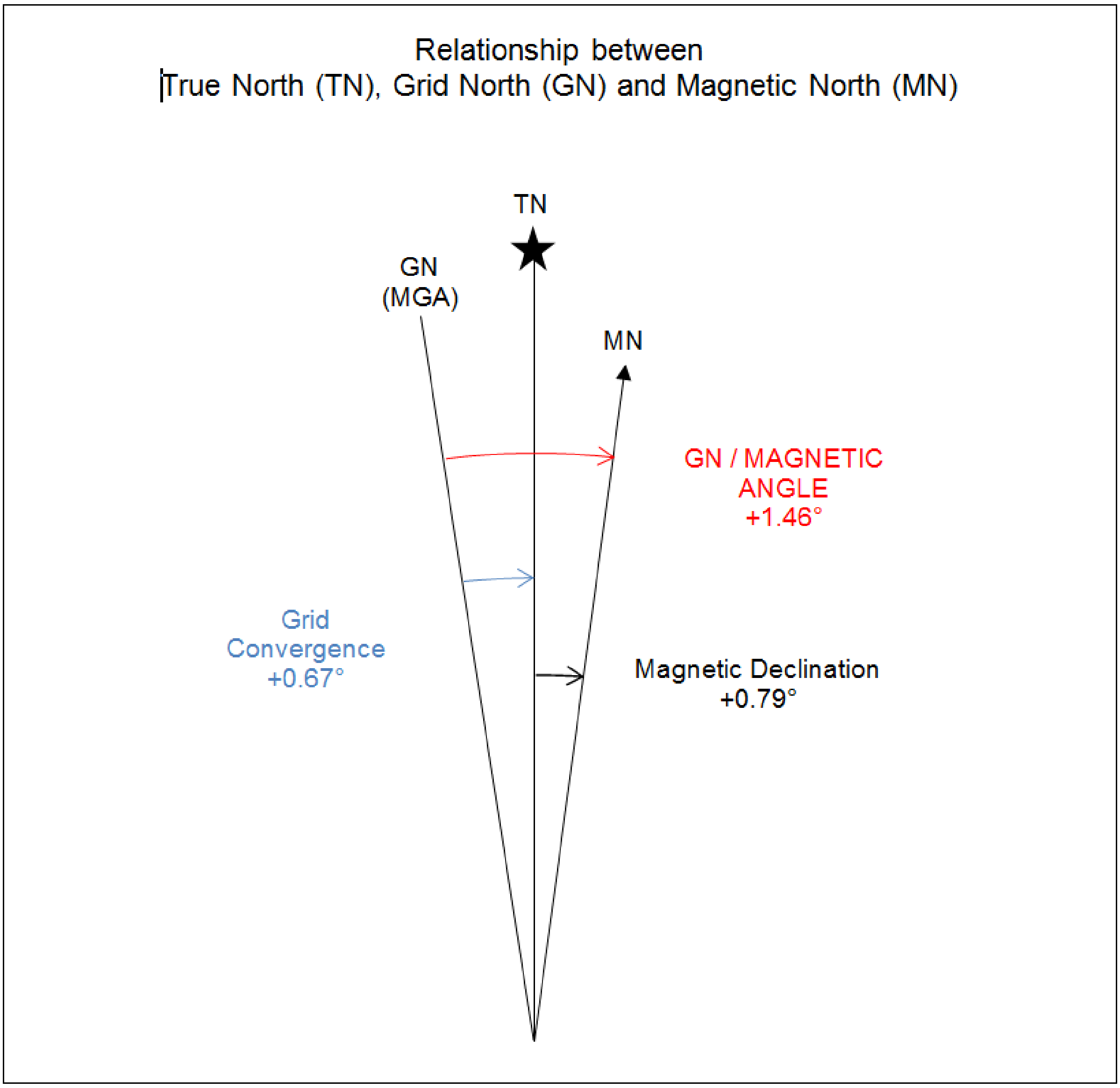

Figure 15 Relationships between grid, true and magnetic north over the Burnakura Property

in Figure 15 upon loading into the Cube maintained SQL database.

10.2.1.5 RESULTS

Overall the Phase 1 resource evaluation drilling program has largely confirmed previously documented descriptions of the geology and style of mineralization of the Alliance and New Alliance deposits and extended the zone of previously defined gold mineralization down dip to the east.

Drilling intersected a moderate east dipping sequence of predominantly fine grained felsic volcanoclastics interlayered with up to three 'conformable' sub parallel banded iron units (BIF) of variable thicknesses (1 to 10m commonly, and rarely, up to 10-20m). Holes drilled on eastern hanging wall of the southern New Alliance open intersected a relatively undeformed pillowed basalt unit, separated from the underlying felsic/BIF by a prominent east dipping shear zone. In the southern wall of the pit this shear contains a layer parallel boudinaged quartz vein in close proximity to an underlying tightly folded pink jasperlitic chert unit.

Drilling immediately east of New Alliance pit intersected a thick sequence of haematitic clays interpreted as saprolite after the mafic hanging wall unit. Further south towards the Alliance open pit the mafic unit was not intersected.

Drilling on the south western side of New Alliance intersected a south-west striking, deeply weathered talc rich ultramafic unit. The nature of the contact between the ultramafic and the felsic unit, and their stratigraphic relationship, is not known.

Weathering is intense, and may represent a stripped lateritic profile in which any upper pisolite that may have been present has been removed and is replaced by a variable thickness of transported/cemented hardpan (0 to 4m thick). A mottled zone is variably displayed in the New Alliance pit western wall and is sometimes logged in the RC chips. More commonly saprolite is present from just below the hardpan down to variable downhole depths of 60m to 70m before a gradation to saprock and finally fresh rock at depths of approximately 90m. Oxidation of sulphides is intense to near the fresh rock interface with rare thin transition zones to primary sulphides (pyrite).

Gold mineralization generally occurs at the hanging wall contact of the BIF units with overlying felsic volcanoclastic, most often associated with quartz veining and limonite-goethite. Less frequently, mineralization is located within the BIF units, or at the footwall contact with underlying felsic volcanoclastic. The gold zones are thin, commonly one to two metres and up to 7 metres, and dip moderately to the east parallel with the BIF units. Not all BIF units are mineralized. The upper and lower contacts of the BIF horizons are frequently deformed by folding and brecciation, best viewed in the open pits and diamond drill core.

In fresh rock, pyrite occurs as weak disseminations in the BIF units, within quartz veins, and less frequently disseminated in felsic volcanoclastic.

Gold grades within mineralized intervals vary widely and often occur up to 10 g/t Au or more over one metre, supported by several metres of lower grade (typically 0.3 -3 g/t Au). The maximum grade intersected was 1m at 53.2 g/t from 79m in Alliance hole 14MRC013. Significant gold intercepts for Alliance and New Alliance are presented in Table 22 and Table 23.

Water ingress during drilling was generally encountered at a depth of about 40m vertical below surface, although the true standing water level is likely to be slightly shallower than this due to the compressed air employed by the RC drilling rig. For the most part samples recovered were in a dry to damp state below 40m. Below this depth outside return water flows were variable in volume but occurred consistently in most holes.

Table 22 Alliance RC Drilling – Significant Intercepts

Hole ID	North MGA94	East MGA95	RL AHD	Depth (m)	Inc. (deg)	Azi (MGA94)	From (m)	To (m)	Int (m)	Au (g/t)
14MRC003	7007906	645592	473	95	-58	279	77	80	3	2.49
14MRC004	7007921	645577	473	94	-61	272	71	73	2	5.07
						inc.	72	73	1	7.13
14MRC005	7007859	645621	473	112	-60	276	75	77	2	1.26
							89	95	6	2.87
						inc.	93	94	1	8.87
14MRC006	7007809	645635	472	112	-59	271	102	104	2	0.98

14MRC009	7007728	645630	473	113	-58	279	84	86	2	3.70
14MRC011	7007781	645638	472	115	-59	279	93	95	2	9.20
						inc.	93	94	1	12.20
14MRC012	7007621	645563	474	66	-60	276	42	44	2	1.24
14MRC013	7007621	645616	473	91	-60	272	46	79	33	1.34
							78	81	3	19.58
						inc.	79	80	1	53.20
14MRC014	7007599	645607	473	89	-59	273	41	48	7	1.97
						inc.	44	45	1	7.03
14MRC016	7007520	645559	474	66	-59	267	38	41	3	1.62
14MRC018	7007451	645547	475	76	-62	274	10	12	2	0.53
							34	39	5	1.99
						inc.	34	35	1	5.22
14MRC019	7007403	645515	476	55	-89	312	34	36	2	0.64
							41	44	3	0.60
14MRC020	7007370	645534	476	55	-59	275	33	35	2	1.81
14MRC021	7007363	645555	476	62	-58	270	35	38	3	4.52
						inc.	35	36	1	9.09
14MRC023	7007392	645474	476	56	-59	271	23	28	5	3.09
						inc.	24	25	1	11.60
14MRC024	7007629	645681	471	125	-60	272	116	120	4	3.14
14MRC044	7007810	645592	474	100	-89	350	46	49	3	1.26
14MRC045	7007778	645588	475	100	-90	340	76	78	2	11.67
						inc.	77	78	1	20.80
14MRC046	7007752	645584	475	100	-90	210	69	71	2	0.97
14MRC048	7007652	645588	474	100	-90	169	52	54	2	5.99
14MRC053	7007811	645632	473	112	-59	278	101	103	2	3.78
14MRC054	7007751	645628	473	121	-60	272	82	84	2	1.33
14MRC056	7007952	645601	472	104	-70	273	71	74	3	0.54
							79	81	2	8.33
						inc.	79	80	1	15.90
14MRC063	7007925	645542	473	85	-59	276	60	63	3	1.20
14MRC064	7007899	645568	474	80	-69	271	61	64	3	2.00
14MRC065	7007970	645601	472	103	-59	267	84	86	2	1.16
14MRC066	7007701	645657	472	105	-69	275	40	43	3	1.05
							53	56	3	0.99
							91	93	2	4.51
						inc.	91	92	1	7.56
14MRC067	7007669	645624	473	110	-90	125	74	76	2	6.14
						inc.	74	75	1	11.50
14MRC068	7007646	645681	471	126	-60	272	91	93	2	4.66
						inc.	92	93	1	7.46
14MRC069	7007679	645666	471	115	-74	272	89	92	3	3.59
						inc.	89	90	1	7.48

14MRC070	7007679	645645	472	105	-60	275	78	80	2	1.59
14MRC071	7007681	645570	476	75	-60	273	42	44	2	9.08
						inc.	42	43	1	17.70
14MRC072	7007953	645545	472	85	-65	267	57	59	2	5.30
						inc.	57	58	1	9.60
14MRC096	7007540	645596	473	84	-63	272	39	41	2	1.23
							70	75	5	3.48
						inc.	74	75	1	6.11
14MRC097	7007500	645593	474	93	-64	271	68	70	2	0.60
14MRC099	7007411	645543	476	75	-75	272	33	38	5	0.98
						inc.	33	34	1	3.01

Notes:
Co-ordinates are MGA94 (GDA) Zone 50 South
RL is Australian Height Datum (AHD) GRS80 corrected
Intercepts Selection:
Minimum 2-metres interval using a >=0.5g/t Au outer cut-off
Maximum of 2-metres consecutive internal dilution (0.00 - 0.49 g/t Au) included within intercept
Only intercepts reporting >=0.50 g/t Au reported
True Thickness (based on Mineralization having dips of 40-50° to MGA94 east):
For holes drilled at ~60° inclination - intercepts approximates true thickness (TT);
For holes drilled at >60-75° intercepts are approx. = 1.0 - 2 x TT
For holes drilled at 90° intercepts are approx. = 2.5 x TT

Table 23 New Alliance RC Drilling – Significant Intercepts

Hole ID	North MGA94	East MGA95	RL AHD	Depth (m)	Inc. (deg)	Azi (MGA94)	From (m)	To (m)	Int (m)	Au (g/t)
14MRC002	7008088	645640	470	106	-60	282	30	32	2	0.90
14MRC026	7007700	645779	469	78	-59	272	36	39	3	3.37
						inc.	38	39	1	7.22
14MRC027	7007727	645776	469	85	-59	270	37	43	6	2.62
						inc.	37	38	1	7.50
14MRC028	7007729	645745	470	85	-61	274	18	20	2	0.95
14MRC029	7007779	645771	469	82	-60	274	52	54	2	1.06
14MRC030	7007809	645773	469	84	-59	273	57	60	3	1.34
14MRC031	7007870	645749	469	79	-60	276	40	42	2	2.51
14MRC033	7007812	645725	470	82	-59	274	25	32	7	1.08
14MRC034	7007851	645701	471	82	-59	273	10	12	2	3.61
						inc.	10	11	1	6.19
14MRC035	7007867	645712	470	79	-59	271	12	15	3	1.43
14MRC037	7007851	645742	469	73	-60	273	39	42	3	4.51
						inc.	39	40	1	12.10
14MRC051	7007932	645797	467	73	-59	273	55	59	4	0.56
14MRC052	7008041	645801	467	94	-60	270	67	70	3	1.09
14MRC057	7008274	645637	468	38	-60	311	0	4	4	1.03
14MRC058	7008279	645658	467	43	-90	65	7	11	4	2.38

							15	19	4	1.44
14MRC059	7008207	645656	469	51	-59	274	14	19	5	10.32
						inc.	15	16	1	46.90
14MRC060	7008207	645675	468	56	-89	187	37	39	2	0.65
14MRC073	7008042	645829	467	100	-60	272	78	82	4	1.85
14MRC074	7008114	645800	467	98	-60	277	64	66	2	0.57
							70	73	3	6.09
						inc.	70	72	2	8.85
14MRC075	7008162	645818	466	100	-59	318	80	84	4	1.83
						inc.	82	83	1	4.93
							88	91	3	3.47
						inc.	88	89	1	7.99
14MRC076	7008176	645793	466	99	-60	317	63	65	2	0.98
							75	77	2	0.93
14MRC077	7008285	645815	466	117	-59	316	76	80	4	0.95
14MRC078	7008266	645807	466	105	-59	316	67	69	2	0.80
14MRC079	7008253	645820	466	117	-59	319	76	81	5	0.86
						inc.	76	77	1	2.45
14MRC080	7008250	645793	466	93	-60	316	51	53	2	1.12
14MRC081	7008233	645815	466	96	-59	316	70	72	2	5.04
						inc.	70	71	1	8.57
							75	83	8	0.60
14MRC082	7008217	645803	466	98	-59	315	61	65	4	0.78
14MRC083	7008207	645824	466	102	-59	320	31	33	2	1.14
							78	82	4	3.08
						inc.	78	79	1	8.70
							85	88	3	1.83
						inc.	86	87	1	4.09
14MRC085	7008214	645785	467	84	-60	315	49	54	5	1.25
							65	70	5	1.09
14MRC086	7008197	645804	466	102	-59	318	69	71	2	1.55
							78	82	4	0.67
14MRC087	7008177	645826	466	108	-59	316	83	87	4	1.59
							92	96	4	1.66
						inc.	92	93	1	4.31
14MRC088	7008316	645848	465	107	-60	316	87	89	2	0.54
14MRC089	7008328	645879	465	111	-59	316	104	109	5	1.40
14MRC090	7008328	645913	465	113	-60	316	97	99	2	2.30
14MRC091	7008089	645810	467	100	-59	270	76	80	4	1.15

Notes:
Co-ordinates are MGA94 (GDA) Zone 50 South
RL is Australian Height Datum (AHD) GRS80 corrected
Intercepts Selection:
Minimum 2-metres interval using a >=0.5g/t Au outer cut-off
Maximum of 2-metres consecutive internal dilution (0.00 - 0.49 g/t Au) included within intercept
Only intercepts reporting >=0.50 g/t Au reported
True Thickness (based on Mineralization having dips of 40-50° to MGA94 east):

For holes drilled at ~60° inclination - intercepts approximates true thickness (TT);
For holes drilled at >60-75° intercepts are approx. = 1.0 - 2 x TT
For holes drilled at 90° intercepts are approx. = 2.5 x TT

10.2.2 Diamond Core Drilling

Between May and June 2014, Monument completed a six hole conventional wireline PQ-TT diameter (83.1mm) diamond coring program. The primary objective of the program was to obtain suitable mineralized material for initial metallurgical test work and also to verify a number of historical RC drill hole intersections.

Drilling was undertaken by Macro Drill Pty Ltd of Meekatharra using a G&K 850 top drive truck mounted rig (Figure 16). All holes were cored from surface employing a 1.5 metre PQ-TT core barrel. Core runs were generally 1.5m except when coring through mineralized zones (fractured quartz veins and wall rock), highly fractured BIF units and localised fractured or incompetent clay zones (Figure 17 and 18). Diamond coring drill hole completion details are presented in Table 24.

Table 24 Diamond Core Drilling Completion Details

Hole ID	GDA (MGA Zone 50)		AHD	Dip	Azi MGA	Final Depth	Start Date	Finish Date	Location
	North	East	Height	(deg)	(deg)	(m)			
14MDD001	7008170	645769	466.7	-80.6	281.1	85.0	29/05/14	3/06/14	New Alliance
14MDD002	7007640	645581	473.9	-80.6	282.1	62.3	4/06/14	5/06/14	Alliance
14MDD003	7007843	645601	473.3	-79.9	275.2	80.0	6/06/14	8/06/14	Alliance
14MDD004	7007881	645494	465.7	-84.9	282.2	54.5	9/06/14	11/06/14	Alliance
14MDD005	7007996	645773	467.5	-81.5	278.3	59.0	12/06/14	13/06/14	New Alliance
14MDD006	7008059	645750	468.3	-85*	271.5*	68.5	14/06/14	16/06/14	New Alliance

Figure 16 Drilling of 14MDD004 in the northern end of the Alliance pit

10.2.2.1 *GEOTECHNICAL LOGGING*

All core was orientated using Ezy-Mark™ orientation tool with orientation marks referenced to bottom-of-hole. Core orientations were generally unsuccessful on core runs through incompetent weather units and highly fractured quartz veins and BIF units. Orientations were only partially successful through most mineralized zones (fractured quartz veins ± wall rock ± clay).

Geotechnical logging of individual 1.5m core runs was performed by the author on all diamond core holes at the drill site. Geotechnical attributes including core run length, core loss, RQD and number of defects (natural breaks) was recorded for all holes. All drilling and handling breaks were marked upon transfer of the core from the splits to the core trays and excluded from geotechnical measurements. Upon completion of geotechnical logging core trays were transferred by vehicle back to the permanent core racks located behind the light vehicle workshop at the Burnakura plant.

Although it is industry practice to log fracture frequency and RQD at nominal 1-metre intervals due to the multipurpose nature (twin hole verification, geological and metallurgical) it was considered that nominal 1.5 m core run length was considered satisfactory. All geotechnical logging details were digitally captured and loaded into an SQL drill hole database maintained by Cube.

10.2.2.2 *GEOLOGICAL LOGGING*

Upon being transferred from the drill site to the core racks all the core was initially thoroughly washed to remove the surface coating of drilling mud. Drill core was marked-up with nominal one-metre intervals and all sections of core with successful orientations were marked up with a bottom-of-hole orientation line.

Geological logging was performed by the author using standard company logging codes on all RC and diamond core holes. All geotechnical logging details were digitally captured and loaded into an SQL database.

10.2.2.3 *STRUCTURAL LOGGING*

Alpha and beta readings of structural features including bedding, cleavages, schistosity, foliation, lithological contacts, quartz veins, joints and fractures was performed on the reliably orientated sections of core. Detailed geotechnical logging including recording of defect fill type, roughness, infill and width was not undertaken. All structural logging was digitally entered into excel spreadsheets and uploaded to centralised SQL database. Structural logging was completed by the author.

10.2.2.4 *CORE PHOTOGRAPHY*

Subsequent to the completion of geological and structural logging all drill core was digitally photographed both dry and wet. All digital images are stored on the local hard drives at the Burnakura village.

10.2.2.5 *DOWN HOLE DIRECTIONAL SURVEYS*

With the exception of 14MDD006 directional surveying was completed during the course of drilling by Macro Drill using a EzyAzTM magnetic multishot tool attached to the wireline. All survey shots were completed outside the core barrel at approximately 30-metre intervals. Survey tool specifications are provided in Table 25. Directional survey readings were manually recorded in hard copy and later digitially entered into a single excel file.

Subsequent to the completion of the diamond coring program all holes were then surveyed with a north seeking gyro tool as detailed in Section 14. Drill hole 14MDD006 could not be surveyed due to a collapsed collar. All downhole directional survey data was imported from raw survey files into the centralised SQL database as detailed in Section 14.

Figure 17 Hole 14MDD004 - PQ drill core inside the splits being pumped from the core tube

Figure 18 Hole 14MDD004 PQ drill core being transferred from the splits to core trays

Table 25 Electronic Multishot Survey Tool Specification

Type	EzyAz™
Manufacturer	2iC Australia Pty Ltd
Tool Dimensions	31.7mm O.D, 730mm long, 1.95kg weight
Inclination	0 – 90° ± 0.5°
Azimuth	0 – 360° ± 0.5°
Gravity Roll	0 – 360° ± 0.5°
Magnetic Roll	0 – 360° ± 0.5°
Total Magnetic Field	0 – 100,000 nT ± 100 nT
Magnetic Dip	Range ± 90° from horizontal, accuracy ± 0.5°
Working Temperature	Full accuracy 0 to +60°C
Depth Rating	4,000m vertical in fresh water

10.2.2.6 SAMPLING

Upon the completion of all logging and photographing all core trays were prepared for transport to ALS AMTEC in Perth. Sample preparation and analysis is detailed in Section 14.

10.2.2.7 RESULTS

At Alliance holes 14MDD002-14MDD004 intersected mineralization associated with the upper, middle and lower BIF horizons respectively (see Table 27). Hole 14MDD002 intersected mineralization within a massive fractured quartz lode and brecciated BIF wall rock between 42.75-44.25m, at the contact of the hangingwall felsic volcanic sequence and the "middle" BIF (see Figure 19). Assays returned 1.25m @ 17.7 g/t Au from 42.75m. The BIF wall rock was weakly mineralized grading about 1.0g/t Au.

At New Alliance 14MDD001 intersected the "middle" and "lower" BIF horizons and 14MDD005 and 14MDD006 intersected the "lower" BIF. High grade intercepts (see Table 26) were returned from the hangingwall and footwall contacts of the "middle BIF" unit. These were generally accompanied by wider zones (3-11m) of lower grade (~0.2 -3 g/t Au) mineralization within the BIF wall rock (Figure 20).

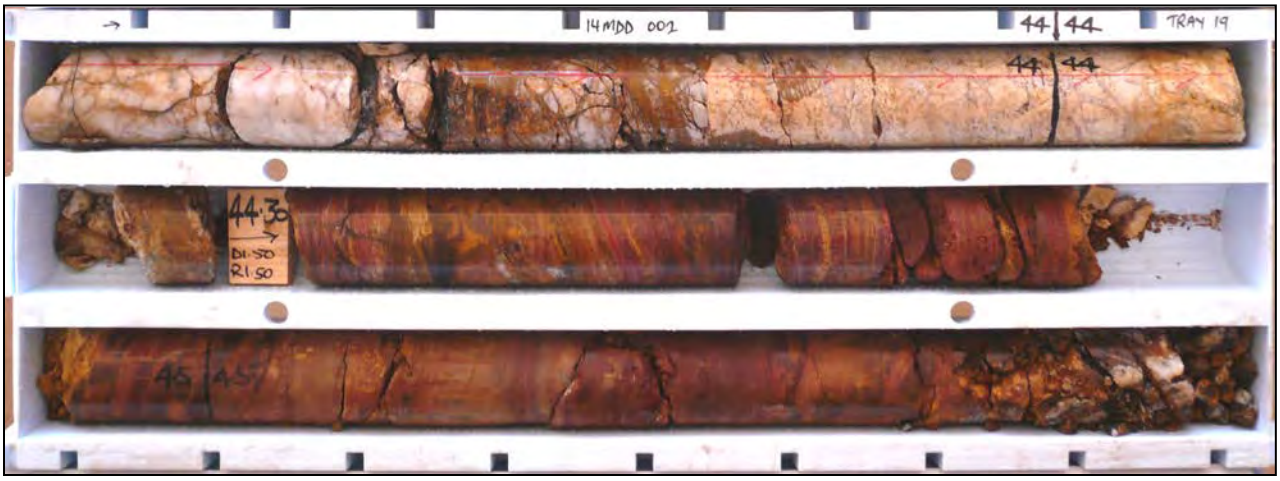

Figure 19 Hole 14MDD002 mineralized quartz lode from 43.2-44.1m (21 g/t Au) on hangingwall contact of “Middle” BIF horizon rom 44.3m onwards (Note: red orientation line referenced to bottom-of-hole).

Figure 20 Hole 14MDD001 Mineralized quartz lode from 52.1-53m (7.58g/t Au) on hangingwall contact with felsic volcanic sequence (51.5-52.1m)

Table 26 Alliance/New Alliance Diamond Core Drilling – Significant Intercepts

Area	Hole ID	From (m)	To (m)	Au (g/t)	Intercept	Zone
ALLIANCE	14MDD002	22.00	23.00	1.22	1.00m @ 1.22 g/t Au	Upper BIF
		42.75	43.00	4.45		Middle BIF (HW Contact)
		43.00	44.00	21.0		Middle BIF (HW Contact)
		44.00	45.00	1.34		Middle BIF
		45.00	46.00	1.08	3.25m @ 7.55 g/t Au	Middle BIF
	14MDD003	76.00	77.00	3.99	1.00m @ 3.99 g/t Au	Middle BIF
	14MDD004	36.00	37.00	27.0		Lower BIF
		37.00	38.00	1.15	2.00m @ 14.08 g/t Au	Lower BIF
NEW ALLIANCE	14MDD001	52.00	53.00	7.58		Middle BIF (HW Contact)
		53.00	54.00	0.32	2.00m @ 3.95 g/t Au	Middle BIF
		54.00	55.00	Core Loss		Middle BIF
		55.00	56.00	Core Loss		Middle BIF
		56.00	57.00	0.17		Middle BIF
		57.00	58.00	0.12		Middle BIF
		58.00	59.00	2.02		Middle BIF
		59.00	60.00	0.49		Middle BIF
		60.00	61.00	0.02		Middle BIF
		61.00	62.00	0.08		Middle BIF
		62.00	63.00	0.29		Middle BIF
		63.00	64.00	10.6	8.00m @ 1.72g/t Au	Middle BIF (FW Contact)
		67.00	68.00	2.81		Lower BIF (HW Contact)
		68.00	69.00	0.84		Lower BIF
		69.00	70.00	0.5	3m @ 1.38 g/t Au	Lower BIF
	14MDD005	39.00	40.00	0.7		Lower BIF (HW Contact)
		40.00	41.00	0.73	2m @ 0.72 g/t Au	Lower BIF (HW Contact)
		46.00	47.00	0.65		Lower BIF
		47.00	48.00	2.1		Lower BIF
		48.00	49.00	0.54	3 m @ 1.10 g/t Au	Lower BIF
	14MDD006	38.00	39.00	0.81		Lower BIF (HW Contact)
		39.00	40.00	0.46		Lower BIF (HW Contact)
		40.00	41.00	0.67		Lower BIF (HW Contact)
		41.00	42.00	0.49		Lower BIF
		42.00	43.00	0.46		Lower BIF
		43.00	44.00	0.47		Lower BIF
		44.00	45.00	1.83		Lower BIF
		45.00	46.00	1.91		Lower BIF
		46.00	47.00	1.47		Lower BIF
		47.50	48.00	0.81		Lower BIF
		48.00	49.00	2.13		Lower BIF
		49.00	50.00	18.2		Lower BIF
		50.00	51.00	0.61	13m @2.33 g/t Au	Lower BIF

Overall the measured core recoveries were excellent averaging 2.4% core loss for the entire 409.3m drilled. Core losses through Mineralized zones were higher with core loss averaging 17%. Core loss within Mineralized zones (>=+0.5g/t Au) were associated with fractured quartz veins and brecciated wall rock. Loss of water return during drilling corresponded with zones of core loss. Complete core loss (100%) occurred in 14MDD001 between 54-56m within a 12m long (~6m true thickness) Mineralized zone.

11. SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 *Historical*

Each of the various companies involved in the different exploration and mining phases of the Alliance Project area has made use of different laboratories for sample assays. The different methods employed in sample preparation and analyses are summarised from the various reports available and are discussed below.

[AS4]

11.1.1 Homestake (1987 – 1989)

Homestake's drilling was conducted as part of a joint venture with Metana and samples were routinely assayed at Metana's Perth laboratory. Samples were reportedly generally split to 250-300g for pulverisation and analysis with the exception of quartz rich samples identified as coming from main mineralised zones, which were entirely pulverised. Assaying was generally by aqua-regia digest with every tenth sample and samples reporting aqua-regia gold grades above approximately 1.0g/t repeated by one or more fire assays.

Homestake hard copy sampling records included QAQC information such as standards, field duplicates, blanks and repeat assays.

11.1.2 Metana (1990– 1994)

Metana's RC samples were routinely assayed by their own laboratory using comparable methods described above for Homestake's earlier drilling.

Previous reports make no mention of sample quality monitoring undertaken for these data, and no significant QAQC records were noted during the hard-copy checks.

11.1.3 Gold Mines of Australia (1994– 1998)

For the AD series of drilling, samples were assayed at GMA's laboratory in Perth. The certification and accreditation of the GMA laboratory is unknown. RC drill samples were prepared in the following manner:

- Dry at 110°C for 12 hours;
- Roll and split out a 500g sample; and
- Ring mill pulverise to approximately 95% passing 75µm.

A 25g aliquot of the pulverised sample was digested in aqua regia, the solution taken up in a ketone solvent and aspirated into a flame Atomic Absorption Spectrophotometer ("**AAS**"). The level of detection for gold by this method was 0.01g/t. Samples reporting gold grades of greater than 2.0g/t were repeated by 50g fire assaying of a second coarse reject split.

Samples from the 97FCRC series were analysed at either Genalysis or Analabs in Perth. The certification and accreditation of these Analabs facilities is unknown while the Genalysis facility was accredited with the National Association of Testing Facilities, "**NATA**", from 1991.

At both laboratories, RC samples were dried and pulverised and a 30g aliquot of pulverised sample was digested in aqua regia, the solution taken up in a ketone solvent and aspirated into a flame AAS. The level of detection for gold by this method was 0.01g/t for Genalysis and 0.02g/t for Analabs.

Coarse rejects from RC samples that returned gold values greater than 1.0g/t and all core samples were pulverised and a 50g aliquot of pulverised sample was subject to fire assay by lead collection. This was then analysed for gold by solvent extraction and flame AAS. The level of detection for gold by this method was 0.01g/t for both Analabs and Genalysis. Silver was analysed in 497 samples.

Pulps and rejects from the GMA drilling campaigns have either been destroyed or have suffered deterioration as a result of exposure to weather at on-site, unprotected storage.

The repeat analyses for both laboratories involved the fire assay, using identical methods, on a second sample from the original assay pulp. Regression analysis by Harvey (2008) demonstrated the acceptable precision.

GMA submitted a total of 86 field duplicate samples to a different laboratory than for the original sample. Regression analysis of all the duplicates showed acceptable precision with a correlation coefficient of 0.99.

11.1.4 ATW Gold Corp (2008– 2009)

ATW used Genalysis Laboratory Services of Maddington, Western Australia to assay for gold in samples generated from its RC drilling program. Upon arrival at the laboratory the samples were registered, weighted and then dried at temperature 121°C. The entire 3kg sample was then pulverized to a bulk pulp of a nominal fineness of 85% passing 75µm. A 200g sub-sample was collected into a 'Kraft' packet and a 50g split was taken for fire assay with an AAS finish. The detection limit for gold was 0.01g/t Au.

Laboratory source files available for ATW's sampling included some internal laboratory QAQC data such as repeats, blanks and standards results. ATW geotechnical personnel placed blank and high grade standards (from Gannet Holdings) samples for every 50m sampling interval. No records exist for the independent QAQC samples being submitted, although Harvey (2008) notes that initial results indicated good precision for the assays.

ATW geotechnical personnel took an additional series of duplicate samples and submitted them for assay at a nominal frequency of 1 for every 50m of sampling intervals. These samples were given different labels and sent to the same laboratory for assaying by the same analytical method. In addition, the laboratory repeated assays for 6% of samples which were randomly selected from the same available sample pulps. No records exist for the independent QAQC samples being submitted, although Harvey (2008) notes that initial results indicated good accuracy for the assays.

11.1.5 KentorGold (2011– 2012)

11.1.5.1 REVERSE CIRCULATION DRILLING

All assay samples were submitted to ALS in Perth. The samples were prepared by pulverising the entire sample to 85% passing 75µm or better for sample up to 3kg (method code PUL-21). Analysis for gold was by fire assay on a nominal 30g sample aliquot with an AAS finish and detection limit range of 0.01g/t to 100g/t Au (method code Au-AA25).

The drilling programs typically involved the use of three standards with a range of values that approximated the grade of the mineralization expected. Standards were inserted at every 50th and 100th bags of the pre-numbered calico series.

A 50g pulp blank was added at the start of each hole and numbered in sequence with the drill samples. A second full size blank (~1kg) was added within the mineralized zone of each hole at the discretion of the geologist on the drill rig to check for contamination between mineralized samples during the sample preparation stage. Blank samples were generally added at a rate of 1 in 100 samples.

Field duplicate were collected within the mineralized zone in each hole at the geologists discretion. The sample was given a number in sequence with the other drill samples and different to the primary sample.

The QAQC data was reviewed by Abbott (2011) as part of the historical estimate and consisted of:

- 999 standards samples,
- 2 blanks series with 359 samples in total, and
- 138 duplicate samples from the laboratory.

The standards samples showed generally acceptable behaviour but there were some samples with grades much lower or higher than expected. This can occur due to sample swaps, incorrect sample numbering and a lack of sampling protocol. A low bias was evident for some of the standards. The blanks showed good results with low bias. The laboratory duplicates from the laboratory showed good correlation.

Overall, Abbott concluded that the QA/QC was acceptable for the program and for the estimation and reporting of mineral resources.

11.1.5.2 DIAMOND DRILLING

No details are documented for the sample preparation and assaying of the geotechnical samples, but it is assumed that similar techniques were applied as to that used for the RC samples. For the metallurgical holes, the head grades as determined by the Burnakura testwork were used in the database and the assaying methodology is not known.

Standards were inserted every 25th sample and a blank core sample at the start of each hole but the results are not available.

11.1.5.3 HISTORICAL TWINNED HOLES ANALYSIS

Abbott (2011) identified eleven pairs of holes for twinned interval comparison comprising six GMA RC holes, four Metana RC holes and one Homestake RC hole with an average separation of 2.7m.

The twinned intervals show a tendency for the diamond holes to show lower average gold grades than the RC holes, with higher grade Metana RC holes showing the greatest discrepancy.

In addition, Abbott (2012) compared gold grades for pairs of RC and diamond core composites separated by a maximum of 3 metres in easting, northing and elevation for all available historic drilling. The nearest neighbour comparisons showed a comparable trend to the twinned interval comparisons, demonstrating a tendency for RC holes to show higher average grades compared to nearby diamond drilling.

11.2 *Monument (2014)*

11.2.1 Reverse Circulation Drill Samples

Dispatch of samples directly from Burnakura to Perth was undertaken by field staff under the supervision of the Burnakura project geologists. Prior to dispatch all samples were reconciled and laboratory sample submission sheets providing all details of samples and sample preparation and assaying instructions was completed. A hardcopy of the sample submission form was securely sealed in a plastic bag and placed in one of the polyweave sacks whilst a digital version was forwarded to the sample receipt section of the laboratory.

The polyweave sacks each containing 5 calico drill samples were secured with cable ties. The outside of each polyweave sack was clearly labelled with a permanent marker pen. Each sack was labelled with the laboratory name and address as well as the range of the sample numbers of the calico bags contained within.

All polyweave bags were stacked on standard 1m x 1m wooden pallets and then securely wrapped with plastic shrink wrap. All samples were loaded by forklift onto a flatbed truck and securely tied down. Samples were transported by road using a private contractor.

All samples were delivered to SGS mineral laboratory in Perth for routine Au analysis. Sample preparation upon receipt by SGS comprised sorting and reconciliation, weighing, oven drying to 115°C, pulverising to nominal 90% passing -75µm with an LM-5 employing a Cr-steel bowl and then rotary splitting of an approximate 200g analytical pulp. The unsplit bulk wet samples were oven dried to 105°C and riffle split down to <3.5kg prior to undergoing pulverising. Barren quartz flushes of the LM-5 pulveriser was performe at the start and end of each batch of samples.

Analysis for Au was by fire assay using a 50 gram charge. Fire assaying employed standard fusion of sample with flux and lead collector in a furnace at 1000°C, followed by cupellation. The prill was digested by aqua regia and analysed by AAS. Assay results were reported to a 0.01ppm Au lower detection level.

All coarse rejects, excess pulp and analytical pulps generated during the course of the assaying have been retained at the laboratory in Perth pending additional QA/QC analytical work. Eventually these samples will be returned for storage at Burnakura.

Assay results were digitally reported by SGS as csv file format and analysis certificates were reported electronically in PDF format. Both files were routinely sent in batches to Cube for importing into the SQL drill hole database. All external QC data was also imported into the database.

As part of its internal quality control and quality assurance (QAQC) protocols, SGS employs a routine monitoring system of analytical CRM's, blanks, replicate assays and a sample prep duplicates for all analytical batches. Each of these is completed at the rate of 1 per 50 samples. No QAQC issues were reported by SGS for any of the submitted for routine gold assaying.

SGS is NATA (National Association of Testing Authorities, Australia) accredited (Accreditation No: 1936) for the gold fire assay method employed during assaying of all samples (SGS method code FAM505). SGS also participates in worldwide bi-annual independent round robin monitoring programs performed by Geostats Pty Ltd of Perth. The round robin surveys provide a measure of the participating laboratory (about 200) to accurately analyse a pre-prepared pulp sample. The performance of SGS over the duration of the analytical program has not been reviewed. SGS has attained ISO9001 Quality Assurance accreditation.

11.2.2 Diamond Drill Core Samples

Upon the completion of all logging and photographing of the diamond drill core all core trays were prepared for transport to ALS AMMTEC in Perth. Core trays containing the "as drilled" whole PQ drill core were fitted with their manufactured plastic lids and securely fastened with clips. Core trays were then stacked onto standard 1 x 1m wooden pallets (Figure 21). Trays were secured for transit with metal strapping attached around the core tray and pallet.

All samples were loaded by forklift onto a flatbed truck and securely tied down. Samples were transported by road using a private contractor. All samples were delivered to ALS AMTEC mineral laboratory in Perth for further processing.

Upon receipt by ALS AMMTEC all core trays were laid out on racks inside the laboratory facilities. Sampling intervals were selected based on the geological logging and expected intersections of Mineralization from nearby historical drill holes. A buffer of between 0.5 – 3.3 metres was applied either side of the predicted Mineralized zone and this core was included for cutting and sampling.

Initially intervals of whole core were selected for bulk density determinations. Intervals were selected at the nominal rate of 1-in-3 metres through Mineralized zones and 1-in-5 metres through barren material. A total of 69 pieces of core were selected for bulk density measurements. This comprised 24 samples of Mineralized zones and 45 samples of barren (waste rock) material. Upon completion of the density work the pieces of core were returned to their original position in the core trays.

All core samples selected for sampling and assaying were initially proposed to be quarter sawn with a diamond blade circular saw. After completing cutting of a number of samples it was clear that the core would induce too much breakage and hence it was decided to whole crush the selected sample intervals. Core was controlled staged crushed to nominal 100% passing 25mm. Intervals were the spilt at 75:25 and the quarter fraction was submitted to the analytical section of the laboratory for further sample preparation prior to assaying. The remaining three-quarter split was retained for metallurgical testwork (Section 13).

The majority of sample intervals (n=216) were sampled at nominal 1-m intervals. Where sampling intervals encountered core loss sample interval lengths were reduced to ensure that sampling did not occur across zones of core loss.

The 25mm quarter-split fraction was further crushed to a nominal 100% passing 3.35mm. This was then spilt down to approximately 1.5-2kg and pulverised to 80% -75µ in an LM2 Cr-steel mill. Barren quartz flushes were performed between each sample.

A total of 250 samples representing 239.45 m of the total 409.3 m drilled core were submitted for gold and multi-element analysis as detailed in Table 27.

Figure 21 Diamond core trays containing whole PQ drill core stacked on wooden pallets awaiting securing with metal strapping prior to transport to ALS in Perth

Table 27 Diamond Core – ALS AMTEC Analytical Details

Element and Detection Limits	Lab Code	Method	Finish
Au (0.02 ppm)	Au Fire Assay (50g)	Fired with flux & PbO litharge in refractory crucible @ 1090 °C, cupellation by high temperature furnace @ 990°C - prill digested by aqua regia	ICP-OES
Ag (2 ppm), As (10 ppm), Cu (2 ppm)	D7 1g-200ml	3-Acid digest (HNO_3, HCl, $HClO_4$)	ICP-OES
Ag (0.3 ppm)	D10M 1.66-50ml	3-Acid digest (HNO_3, HCl, HClO4)	AAS
C-Total (0.03 %) S-Total (0.02 %)	CS 2000	Analysed by Eltra CS2000 Resistance furnace (infrared detection)	CS Analyser
C-Organic (0.03 %)	CS 2000 C org	Dilute HCl digest to remove CO_3 carbon - residue analysed Eltra CS2000 Resistance furnace (infrared detection)	CS Analyser
S-2 (0.02 %)	Sherritt/CS 2000	S^{-2} (sulphide) analysed by Sherritt or Eltra CS 2000 carbon-sulphur analyser	CS Analyser
Hg (0.1 ppm), Sb (0.1 ppm), Te (0.2 ppm)	D1 1g-100ml	Low temperature digest to collect volatiles - analysed by ICP-OES	ICP-OES

As part of its internal quality control and quality assurance (QAQC) protocols, ALS AMMTEC employs a routine monitoring system of analytical CRM's, blanks, replicate assays and a sample prep duplicates for all analytical batches. Internationally certified standards (CRM's) were inserted at the rate of 1-2 per batch of gold fire assay. Blanks for gold fire assay were inserted at a rate of 1 per fire. Repeats of gold fire assays were performed at the rate of 1 in 13 samples. No QAQC issues were reported by ALS AMMTEC for any of the submitted for routine gold fire assay.

ALS participates in worldwide bi-annual independent round robin monitoring programs performed by Geostats Pty Ltd of Perth. The round robin surveys provide a measure of the participating laboratory (about 200) to accurately analyse a pre-prepared pulp sample. The performance of ALS AMMTEC SGS over the duration of the analytical program has not been reviewed. ALS AMMTEC has attained ISO9001 Quality Assurance accreditation.

11.3 *Alliance - New Alliance QAQC Analysis*

Monument has instigated external QAQC processes to control the analytical data quality through systematic monitoring of the drilling samples accuracy and precision (i.e. repeatability). The QAQC programs employed during the drilling programs have involved the routine insertion of control samples into the sample collection stream, consisting of Certified Reference Material ("CRM"), uncertified 'blind' blank samples, and duplicate samples (Table 29). Management and assessment of the analytical control data is undertaken by both the site geologist and also by Cube to allow timely diagnostics of sample errors and identification of error sources.

In addition, the ALS, SGS analytical laboratories have their own internal quality performance processes which follow best practice guidelines required for qualification under International Organisation for Standardisation ("ISO") standards. The standard QAQC protocols for the laboratories includes the insertion of CRMs, blanks, duplicates and repeat assaying to monitor the quality of the preparation and analytical processes of the laboratory. The results of the internal laboratory quality control are reported regularly to Monument on a batch by batch basis, and are closely monitored by Monument personnel.

Cube has reviewed and independently assessed all available QAQC sample data for the RC and DD drilling completed on the Alliance-New Alliance to assess the veracity of the data for inclusion in the mineral resource estimate. This represents all the relevant validated drilling data available at the data cut-off date of 21st November 2014, and forms the basis for the estimation of the Mineral Resource at Alliance-New Alliance.

11.3.1 Accuracy and Precision Concept

All control samples were assessed on the basis of accuracy and precision. The precision of the sample results is the measure of how closely the results can be repeated (repeatability). The accuracy of sample results relates to how similar the results are to the true, certified or expected value.

Clearly, it is possible to have good accuracy without good precision, and good precision without good accuracy as shown in Figure 22. Precision is measured by the use of duplicate and replicate assays, whereas accuracy is measured through the use of reference materials.

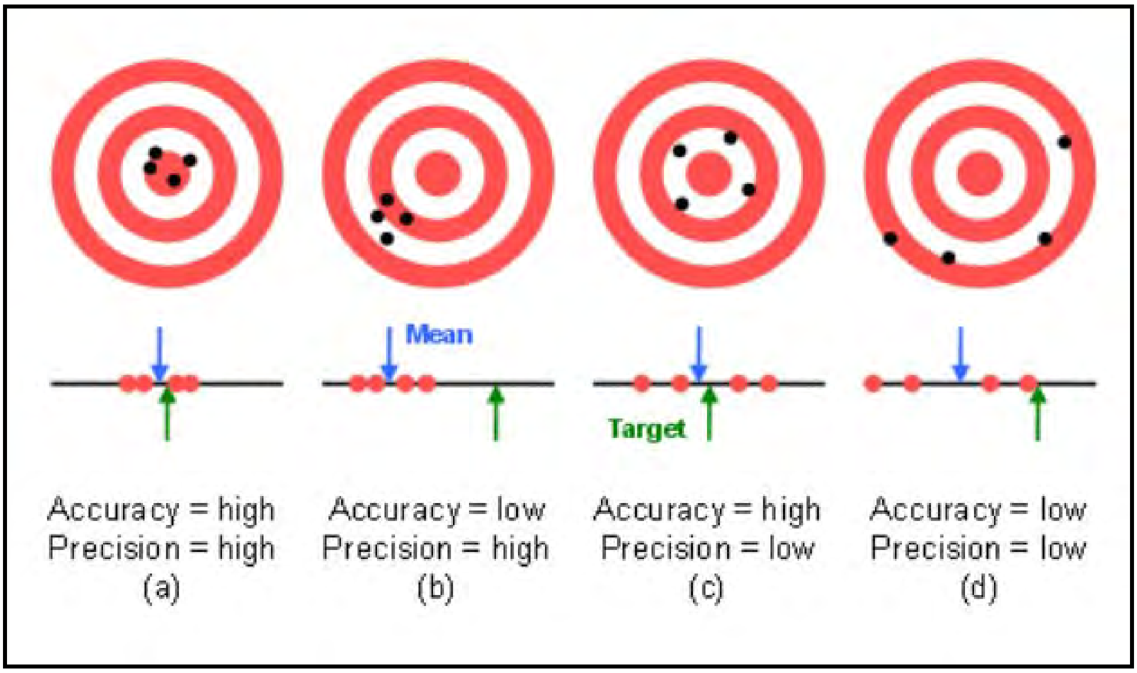

Figure 22 Accuracy and Precision Concept

11.3.2 Certified Reference Material (CRM)

The performance of the CRM sample data was assessed by plotting the replicate assay values of the CRMs against time on the control charts. Good quality analysis of the CRMs will be characterised by a random distribution of data points around the certified mean value, with 95% of the data points lying within two standard deviations of the mean (Abzalov, 2008). If more than 5% of the CRM's submitted are outside three standard deviations of the certified mean value, then corrective action should be taken. In addition, no trends or significant bias should be observed in the control charts.

Any obvious assay 'outliers' that are likely to be the result of sample mishandling or transcription errors, were removed from the dataset prior to analysis to avoid any skewing of the dataset.

In addition, the CRM data set was assessed by Cube using two statistical tests to demonstrate that the analytical accuracy and precision of the assays were comparable to the certified value of the CRM, and considered acceptable within the 95% confidence limit (Abzalov, 2008).

Accuracy Test – involved the comparison of the arithmetic mean of the replicate analysis of the CRM (m) against its certified mean (μ), and if the following condition is satisfied then the analytical results are considered acceptable with regard to accuracy:

$$|\mathrm{m} - \mu| \leq 2\sigma_L$$

here σ_L is the standard deviation of the replicate analyses of the CRM

Precision Test (*Chi Square*) – involves the comparison of the estimated standard deviation of the replicate assays against the CRM deviation, and if the following condition is satisfied then the analytical precision is considered acceptable;

$$\left(\frac{S_w}{\sigma_c}\right)^2 \leq \frac{X^2_{(n-1)0.95}}{n-1}$$

where;

- S_w is the standard deviation of the replicate analyses of the CRM
- σ_C is the certified value of the CRM standard deviation
- $X^2_{(n-1)0.95}$ is the critical value of the 0.95 quartile of the X^2 distribution at $(n-1)$ degrees of freedom
- n is the number of replicate assays of the CRM

A total of 556 CRM samples were inserted into the sample stream which comprises approximately 5% of the total drill samples (9,566) submitted by MMY for 2014. A summary of the results from the replicate CRM assays are detailed in Table 28. In general a bias of greater than 5% is considered not acceptable.

Table 28 CRM Performance Summary – Alliance-New Alliance Mineral Resource 2014

CRM	Certified Value (ppm)	No. Assays	Accuracy Test	Precision Test	% Passing 3SD	% Bias	Misclassified Samples
G303-2	4.15	37	Passed	Passed	100%	-1%	3 removed;
G305-3	0.72	84	Passed	Review	94%	-5%	6 removed; 5 reclassified added
G308-5	13.3	49	Passed	Passed	100%	2%	OK
G311-5	1.32	53	Passed	Passed	98%	-4%	4 removed; 5 reclassified added
G397-3	1.72	21	Passed	Passed	100%	1%	OK
G902-7	1.41	45	Passed	Passed	100%	2%	1 reclassified added
G903-6	4.13	53	Passed	Review	96%	4%	4 reclassified added
G904-1	12.66	40	Passed	Passed	100%	6%	2 removed
G912-7	0.42	123	Passed	Passed	98%	-2%	4 removed;4 reclassified added
GLG907-1	0.01	51	Passed	Passed	100%	-4%	OK

Two CRMs (G305-3 & G311-5) show a consistent negative bias in the replicate assays of approximately 5% which is considered borderline for acceptable accuracy (Figure 23 & Figure 24). Both CRMs are part of the batch of standards found onsite as a legacy from Kentor Gold Limited, and from the SGS replicate assays appear to be poorly characterised resulting in low accuracy and precision. The use of these particular CRMs should be discontinued and replaced with CRMs of a similar certified value.

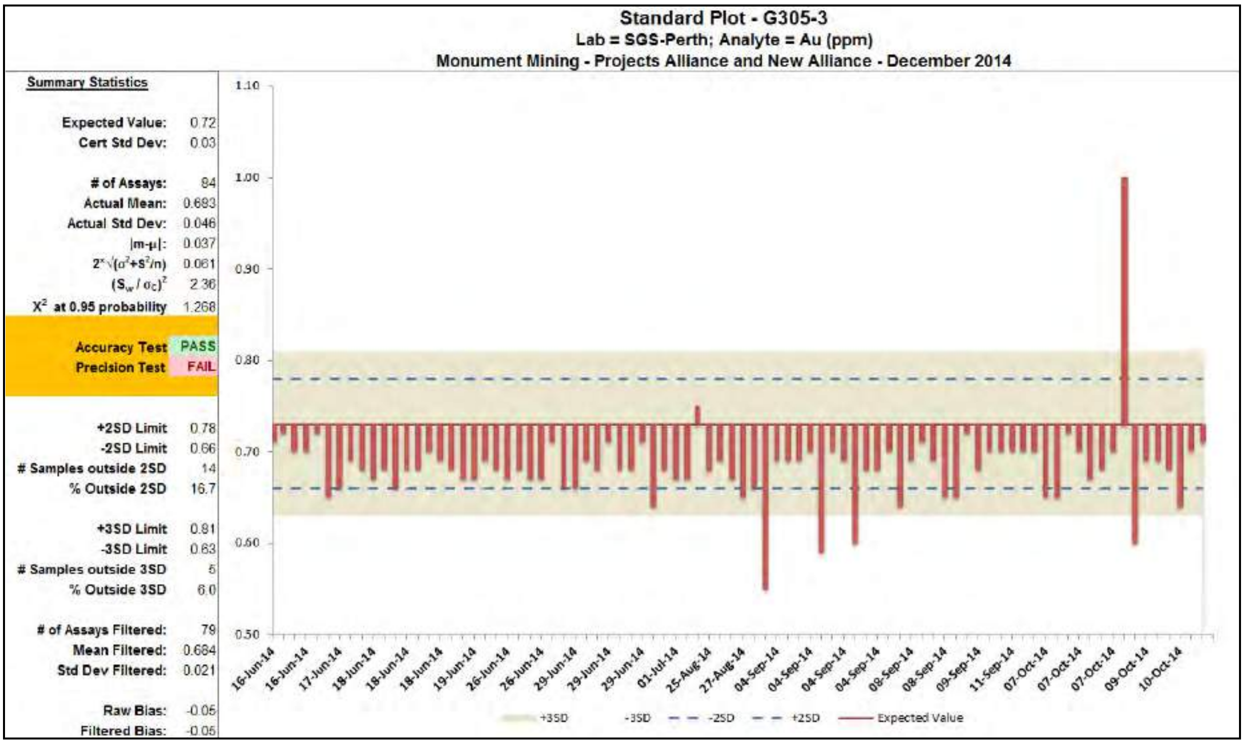

Figure 23 CRM G305-3 Control Chart – Consistent negative bias (-5%) of replicate assays

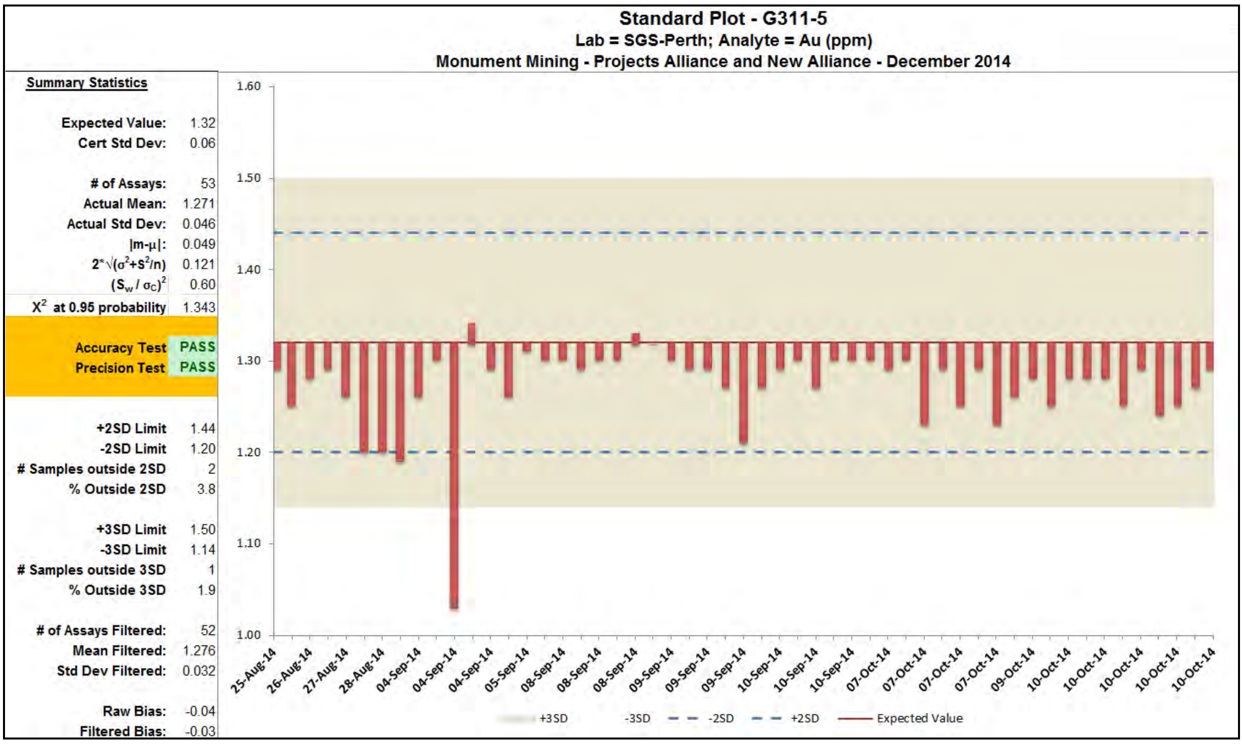

Figure 24 CRM G311-5 Control Chart – Consistent negative bias (-4%) of replicate assays

Two CRMs (G903-6 & G904-1) display a consistent positive bias in the replicate assays of approximately +5% for a particular period from 30th June to 15th August (Figure 25 & Figure 26). However this is not supported by two other CRMs (G902-7 and G912-7) used during this period. The performance of the

CRMs showing positive bias should be closely monitored to determine if the bias is a result of poorly characterised CRMs or there is an intermittent calibration issue at the SGS laboratory.

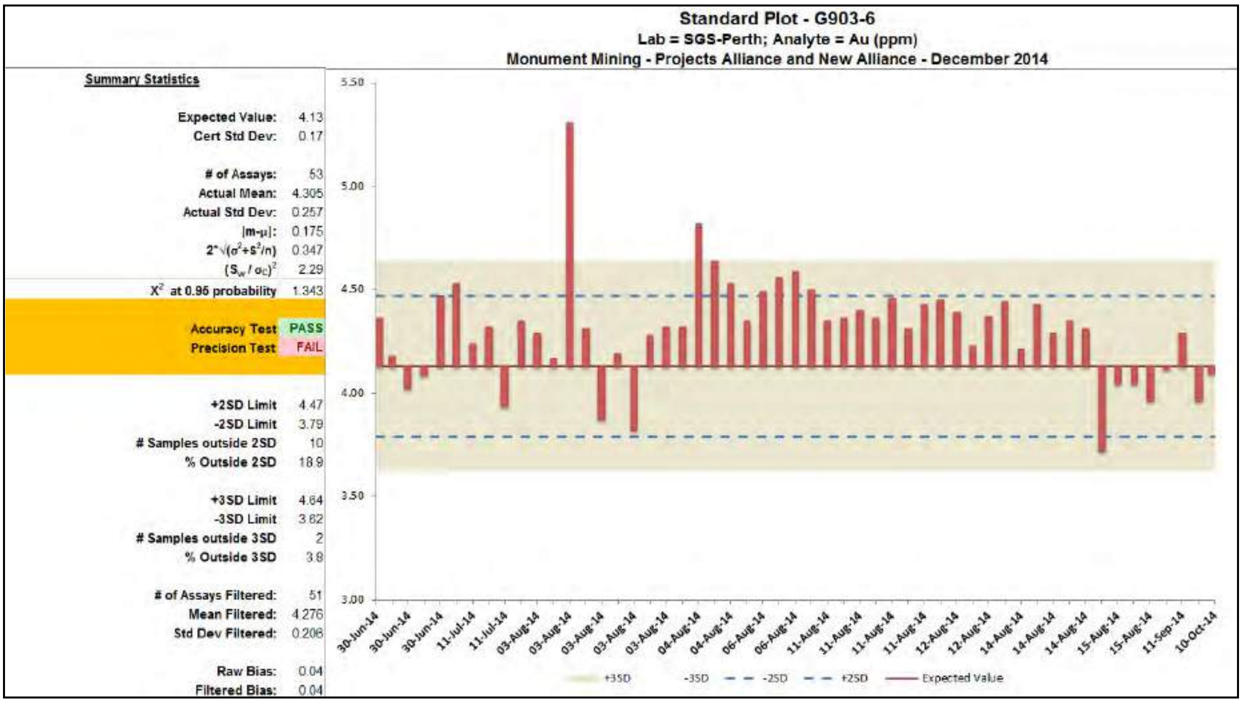

Figure 25 CRM G903-6 Control Chart – Poor repeatability and consistent positive bias (+4%) of replicate assays

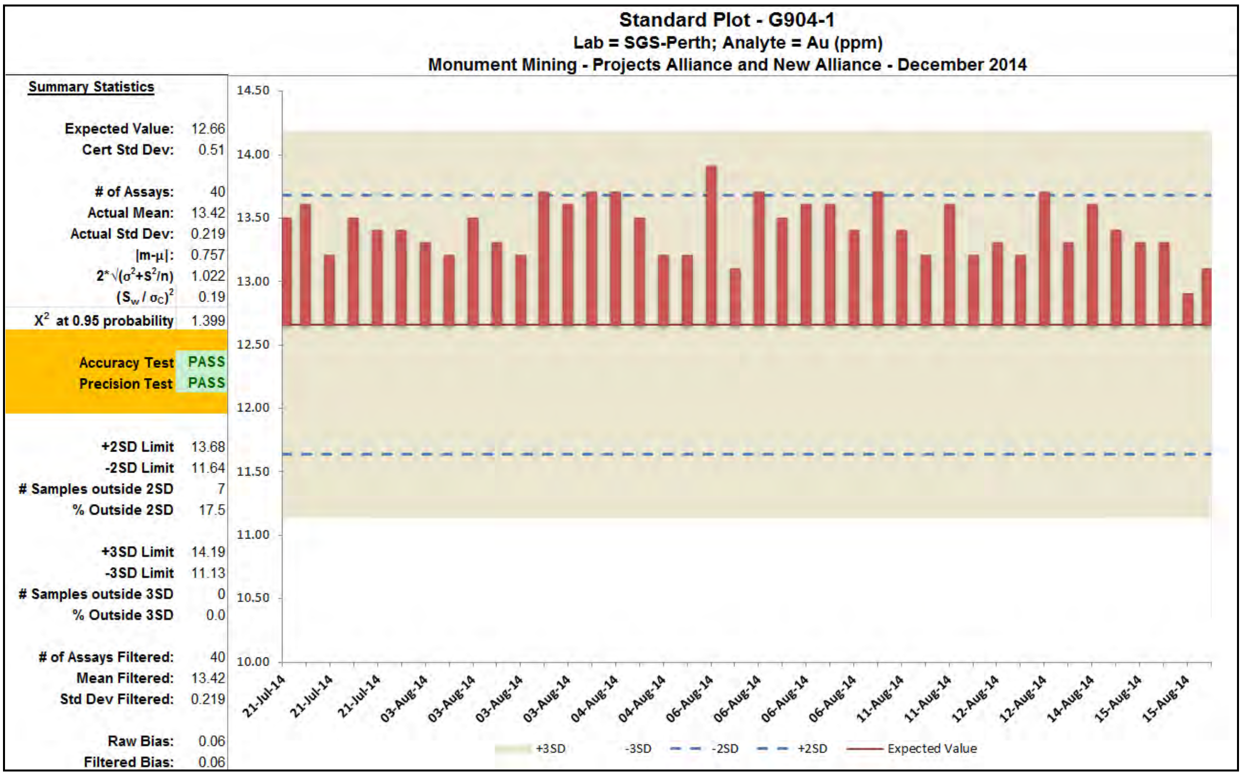

Figure 26 CRM G904-1 Control Chart – Consistent positive bias (+6%) of replicate assays

Approximately 3% of the CRM results were identified as sample mishandling or transcription errors, which have been misclassified and were excluded from the analysis as outliers. It is recommended that these samples are located and corrected in the database for future analysis, and that the sample protocols for the insertion of CRMs be more diligently applied and supervised onsite.

Given the identified precision issues, the overall accuracy and precision of the assay data relating to the CRMs is within the accepted tolerance limits, and no obvious trend or major bias is apparent within the primary assay data.

11.3.3 Blank Reference Material

Assays for the blank CRM (GLG907-1) and the 'in-house' uncertified coarse blank were assessed by graphing the actual value and the maximum accepted value, which was assigned as 0.1ppm Au. A maximum accepted value of 10 times the lower analytical detection limit has been used to remove the potential for bias, and precision issues which increase close to the assay method detection limit. Blanks should return a value less than 0.1ppm Au at least 95% of the time.

The results are summarized in Table 29 and indicate that the assay blanks data are within acceptable limits. No obvious contamination issue is apparent within the primary assay data.

A total of 98 assay blank samples were inserted into the sample stream which comprises approximately 1% of the total control samples submitted. Of these, one sample was considered to be an 'outlier' resulting from sample mishandling or transcription errors and was excluded from the analysis.

Table 29 Blank Performance Summary – Alliance-New Alliance

Laboratory	Blank Name	Sample Type	No. of Samples	% Passing	Misclassified Samples
SGS Perth	GLG907-1	Fine pulverized CRM	51	100%	1 removed
	BLANK	Coarse material	47	100%	OK
TOTAL			**98**		

11.3.4 Duplicate Samples

The results for pairs of duplicate samples (original and duplicate) are plotted as X/Y scatter plots and relative paired difference plots ("RPD"). Scatter plots allow for direct comparison of the data pairs and the assessment of general dispersion, data regression as well as the presence of any outliers. RPD plots evaluate the coefficient of variation for each pair (difference between pairs relative to the pair mean) and allow the measurement of the relative precision error between pairs based on the average coefficient of variation ("ACV").

Approximate guidelines for assessing analytical quality allow for a maximum ACV of around 40% for field duplicates in gold deposits with very coarse grained nuggetty gold and 30% for coarse to medium grained gold (Abzalov, 2008). Pulp duplicates are expected to have an ACV value in the range of 10% to 20%. The RPD plots allows for the visualization of any bias or trend between pairs.

All the statistics for duplicate paired assay data were filtered using only data above 0.1 g/t Au which was considered the threshold level for mineralized material. The application of a threshold avoids the precision data being negatively biased by values at or near the detection limit.

The results for each type of duplicate samples are summarized in Table 30 and discussed in the relevant sections below.

Overall, the precision of the duplicate samples was within acceptable limits and no obvious trend or bias was identified. A total of 725 duplicate samples were collected which represents an insertion rate of approximately 8%. Acceptable practice requires that an insertion rate for duplicate samples should be in the order of 10%, and it is recommended that the level of all duplicate sampling should be increased to this level to allow more definitive analysis of the precision data.

Table 30 Duplicate Sample Performance Summary – Alliance-New Alliance

Description	Total Samples	For Filtered Data >0.1 ppm Au					
		No. Filtered Samples	Average Relative Difference	ACV%	Assays within 10%	Assays within 20%	Assays within 50%
Field Duplicate 1 (SGS)	498	52	+2.7%	**19%**	54%	77%	92%
Mineralized Field Duplicate 2 (SGS)	96	94	-1.5%	**24%**	27%	66%	91%
Mineralized Umpire Pulp Duplicate (ALS)	131	126	-4.5%	**15%**	58%	82%	96%
Total	**725**	**272**					

11.3.5 RC Field Check Sampling Duplicates

Analysis of the RC field duplicates quantifies the total sampling error from sampling collection and preparation to the assay process.

Field duplicates were initially collected during drilling as a second sub-sample at the splitter (Field Duplicate 1) and inserted with in the sample stream. The mineralized field duplicates were later re-split from the bulk bags in the field from selected mineralized intervals and despatched to the same analytical laboratory (SGS). These duplicates were collected as mineralized intervals were poorly represented in the primary sampling program

Results for the filtered (0.1g/t Au) field duplicates indicate sample precision is to best practice for this style of Mineralization with an ACV of 19% and 24% for the primary field and re-split mineralized duplicates respectively. The acceptable levels for assessing analytical quality are an ACV of 20% for best practice, with 40% being the upper tolerance level for acceptable precision (Abzalov (2008).

A consistent negative bias of approximately -7% in grade range of 1 to 7 g/t Au exists when the duplicate sample is compared to the original sample for the re-split field duplicates (Figure 27). No bias is apparent in the primary field duplicate.

It is recommended that Monument continues to closely monitor the results of the RC field duplicates and ensures the procedure for collecting the samples is being adhered to in the field to ensure repeatable and accurate sample quality.

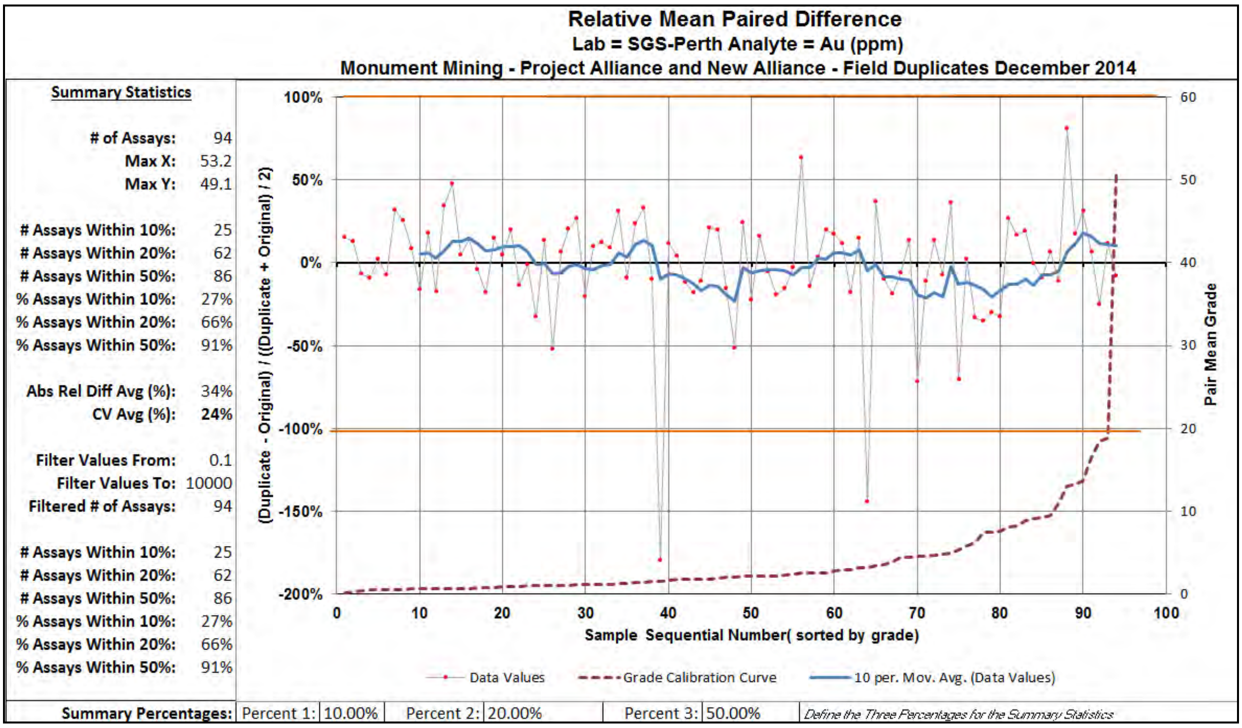

Figure 27 Mineralized Field Duplicate RMPD Plot – ~Duplicates have a -7% Relative Difference to the Original Sample in the Grade Range from 1 to 7g/t Au

11.3.6 Umpire Pulp Check Assaying Duplicates

Independent umpire laboratory analysis of mineralized drill intercepts were undertaken at the ALS laboratory as a routine check on the precision of the primary laboratory. Contiguous assay pulps were selected from mineralized drill intervals in 24 RC drill holes and included representative proportions of both high and low grade material.

Results for the filtered (0.1g/t Au) field duplicates indicate the sample precision was acceptable for this style of Mineralization with an ACV of 15% for the umpire pulp duplicate. The acceptable levels for assessing analytical quality of this type of duplicate is an ACV of 10% for best practice, with 20% being the upper tolerance limit for acceptable precision (Abzalov (2008).

A relative difference or negative bias of -12% exists in the grade range from 0.1 to 0.5g/t Au when the duplicate assays from the ALS umpire laboratory are compared against the original primary assays from SGS (Figure 28). As no CRMs were inserted into the umpire pulp duplicate batch it is difficult to ascertain at which laboratory the bias exists. It is recommended that all future umpire pulp duplicates include sufficient CRMs to enable the accuracy of the assays to be properly assessed.

The umpire check assaying were undertaken at a rate of 20% of all mineralized samples (>0.1 g/t Au) which exceeds what is considered as acceptable practice (5%). The umpire duplicate assaying will need to be maintained at the current levels for all future drilling programs to enable monitoring of any precision errors or bias at the primary assay laboratory.

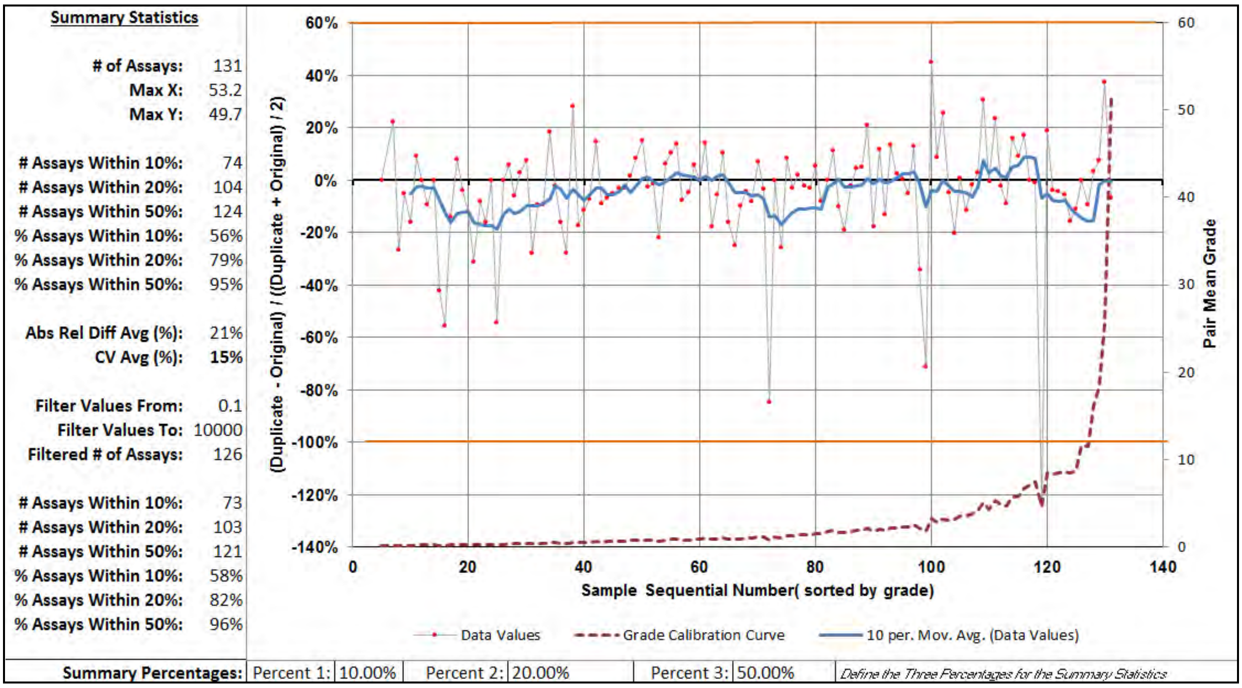

Figure 28 Mineralized Umpire Pulp Duplicates QQ Plot - Duplicates have a -12% Relative Difference to the Original Sample in the Grade Range from 0.1 to 0.5g/t Au

11.3.7 Summary

Overall, the QAQC analysis demonstrates that the analytical accuracy and precision is acceptable at a 95% confidence level. This indicates the sample data is of a high standard and appropriate for the purpose of Mineral Resource estimation. Although precision errors are evident from the CRM replicate assays, the duplicate samples show analytical precision in line with acceptable practice.

11.4 *Qualified Person's Statement*

The majority of the historical data (>90%) consists of RC drilling of uncertain reliability. There is very little information available to demonstrate the quality of this data, and although not definitive, comparison by Abbott (2012) of historical RC drilling to diamond twin holes suggest grades from the RC drilling may be biased high.

However, recent RC and diamond twin hole drilling by Monument has verified the historical drilling and confirmed the tenor and veracity of the historical drill intercepts with no overall bias apparent (see Section 28). Combining of the historical and Monument drilling datasets for mineral resource estimation is justified based on the similarity and repeatability of the paired twinned hole dataset.

All aspects of the collection, preparation and dispatch of drill samples carried out by Monument personnel and its contractors were witnessed by representatives from Cube in June 2014 and again in October, 2014.

The sample collection and preparation, analytical techniques, security and QAQC protocols implemented by Monument for the Project are consistent with standard industry practice and are suitable for the purpose of mineral resource estimation and the reporting of exploration results. The sampling procedures are adequate for and consistent with the Qualified Person's understanding of the style of gold Mineralization at Alliance-New Alliance.

12. DATA VERIFICATION

The data verification procedures applied by the qualified person have included;

- Extensive review and cross-checking of the drill hole database against historical databases;
- Cross validation of digital SGS assay certificates against database assays for all Monument drilling;
- Review of drilling, sampling, analytical and QAQC protocols utilised by Monument;
- Site visit in June 2014 to inspect the drilling programs that were in progress;
- Verification of drill hole collar locations by GPS in the field;
- Independent geological logging of mineralised RC intervals;
- Visual verification and summary logging of altered and mineralised drill-core utilised for metallurgical testwork;
- Inspection of pit wall geology in the ANA open pits;
- Independently reviewed and analysed all available QAQC sample data for the RC and DDH drilling completed by Monument at ANA (Section 11);
- Reviewed available sample quality and drilling recovery data; and
- Rigorous analysis of the twinned-hole data drilled by Monument to verify historical mineralised intersections and assess repeatability of sampling and assaying.

12.1 *Drilling Database and Data Validation*

All historical and current Monument drilling data has been validated and managed by Cube Consulting in the George7 database which is a secure relational SQL ("Structured Query Language") Server data management system.

The drill hole database tables which hold the drilling information contain in-built referential integrity, with data entered and interrogated using validation tools prior to loading into the main tables. There are a number of inbuilt validation functions within George7 including, but not limited to:

- Management of preferred assays and precedence numbering;
- Check sampling and logging overlaps, gaps, end of hole discrepancies between data tables;
- Check for unique sampling identification and identification of any duplicate samples;
- Check actual versus planned collar coordinates;
- Downhole survey checks; and
- Lookup fields and data coding management.

The current master database is based on the Kentor Gold Limited ("Kentor") database that was inherited when the Murchison Project was acquired by Monument on 25th February 2014.

The majority of the drilling data used for the ANA mineral resource estimation is based on historical drilling data (approximately 85% of the total mineralised composites). Many drilling campaigns were executed in the area over the years, a detailed explanation of which is provided in Herrmann, 2006. Hard copy data for most of the historical drilling is no longer available for verification against the existing digital drilling database. A full list of the Alliance and New Alliance drill holes, including RC and diamond core, can be found in Appendix 1.

Validation of the historical drilling has been completed extensively over the history of the project and has been documented by the following companies;

- Tectonic Resources NL - Hermann, 2006

- Ravensgate for ATW Venture Corp - Harvey, 2008
- Hellman & Schofield Pty Ltd for Kentor - Abbott, 2011
- Golder Associates Pty Ltd for Kentor – Miller, 2012

The following historical databases have been used to compile and extensively cross-check the current Monument master database:

- Coronet03.mdb - St Barbara Mines, 2003
- burnakura.mdb – ATW, January 2009
- Burnakura resource database_H&S.mdb – Hellman & Schofield for Kentor, August 2011
- KTGWA_09122013.mdb – Kentor, December 2013
- KGLDB.accdb – Kentor, November 2014

All data from the 2014 drill programs completed by Monument has been uploaded to the master database from the original digital laboratory CSV files, assay certificates and existing digital data supplied by site personnel in spreadsheets. Cube reviewed the drilling data as supplied and validated the mandatory data tables (collar, assay, survey, geology) to assess the veracity of the data.

The QAQC data is uploaded and managed in George7, where selected control assay data is charted, reported and exported to Microsoft Excel for analysis.

12.2 *Property Inspections*

The Qualified Person visited the property between the 25th and 27th June 2014 to inspect and verify RC drilling in progress at ANA and to assess the current sample and data collection protocols being used on site.

The site visit involved comprehensive data verification, inspections and reviews with site personnel of the following:

- geology of the Project areas;
- exploration model and strategy;
- current exploration data and exploration procedures;
- summary logging of selected diamond core intervals from ANA;
- drilling data;
- current in-field drilling equipment and drilling conditions;
- QAQC procedures and control data;
- sample handling and storage facilities on-site;
- pit wall geology in the ANA open pits; and
- discussions regarding future work programs for the next 12 months.

12.3 *Drill Hole Collar Location*

The Qualified Person independently surveyed the collar locations of 4 RC drill holes from the Monument 2014 drilling program using a hand held Garmin GPS60 unit (Figure 29). The UTM coordinate system was used to verify the collar locations based on the GDA94 datum in MGA Zone 50.

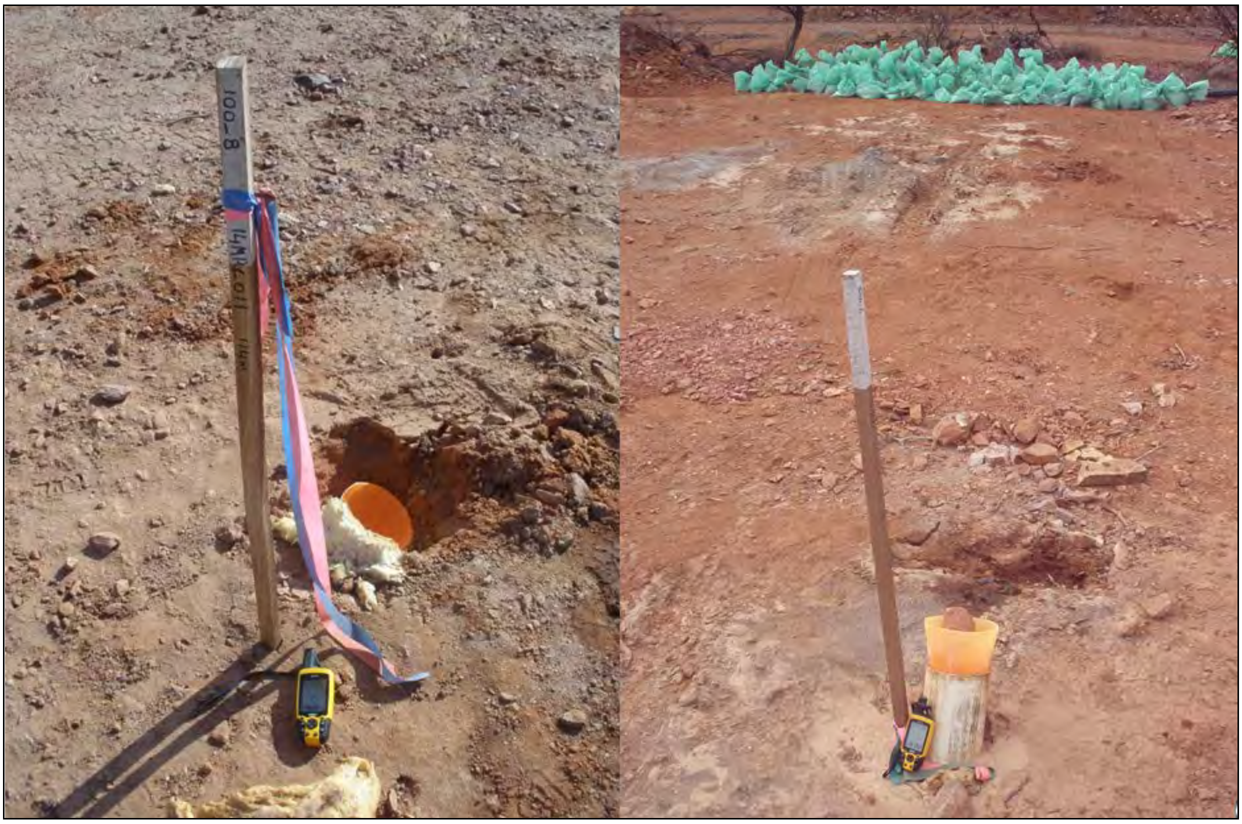

Figure 29 Independent Verification of Drill hole Collars at ANA

The positional differences in the X-Y plane between the Cube GPS and the actual DGPS surveyed database coordinates were within ±5m which is within the accuracy of the GPS unit used and verifies the drill hole collar locations.

All the ANA drill hole coordinates for the 2014 drill program have been cross-checked from the master database against the DGPS-RTK survey pick-up CSV files and the original planned drill hole coordinates to ensure the positional accuracy of the Monument drilling.

12.4 *Downhole Survey Validation*

All downhole surveys in the master database from the 2014 drilling were checked against the supplied Gyro survey logs (in Excel format) for;

- Transcription errors in depth, inclination and azimuth;
- Consistent application of magnetic declination correction factor;
- Correct conversion of drill azimuths to grid azimuth;
- Excessive deviations in dip/azimuth between readings; and
- Visual validation in 3D of surveyed drill hole traces.

Any discrepancies detected were corrected where possible by cross-checking or by consultation with Monument.

12.5 *Drilling and Sample Procedures*

During the site visit, RC drilling and sampling techniques were observed in the field for holes 14MRC040 to 042 which were completed by the current drilling contractor MLM Drilling Pty Ltd. The top drive truck mounted rig utilised 3 metre rods and 110mm diameter RC face hammer with the sample delivered into bulk bags via an on-board cyclone. Samples were manually split from the bulk bags using a 3 tier, 12 slot riffle splitter (Figure 30).

Overall the drilling and sampling was considered adequate for the purpose, with the following observations and recommendations made to Monument;

- The current rig being used is limited in its depth capacity to approximately 100m. For any drilling at depths greater than 100m, the drilling rate was generally very slow (<5m per hour) and inefficient;
- Cyclone should be cleaned regularly before the start of each hole, after water has been intersected and after each rod change if wet samples have been collected;
- For each hole, the drill rig should be lined up under the supervision of the geologist to ensure correct set-up. The azimuth/inclination should be measured using the site compass on the drill rods and mast when the rig set-up is complete and before drilling commences. This measurement should be used as the collar survey in the drilling database;
- Use a simplified sequential numbering system on pre-numbered bags to avoid sample numbering mistakes and illegible numbers. The current system using the hole number is complicated and prone to errors; and
- Each drill hole needs checked before and monitored during drilling to ensure the hole set-up will enable the target to be intersected taking into account any shifting of the hole collar due to accessibility issues and to compensate for any expected hole deviation.

Figure 30 ANA – Drilling and Sampling Protocols from Drill Rig to Sample Dispatch

12.6 *Sample Quality and Recovery*

Inspection of the drilling and sampling procedures at ANA during the site visit resulted in the following observations regarding sampling quality and recovery;

- The sample delivered was generally adequate, although recoveries tended to be variable particularly in areas where high water flow was encountered or at depths greater than 100m;
- Consistently dry samples were achieved to depths of 40-50m with the water table commonly encountered at about 45m downhole. The water table can be problematic in some holes by causing wet samples and poor recoveries;
- Consistently larger samples were obtained for the first and last sample of the 3 metre rod, with the middle sample generally in the order of 30% less by weight;
- RC sample recoveries varied between each drilled metre in the order of +/- 30%; and
- Average recovery of 90% (based on a 112.5mm hole diameter and 2.4t/m^3 average bulk density).

Bulk sample weights were measured for approximately 50% of all the mineralised and coded RC sample intervals (436 measurements) that were drilled in 2014. From this dataset, the average RC recovery was 90%, with less than 10% of the weighed samples having recoveries less than 50%. A breakdown of RC sample recoveries by domain type is shown below in Table 31.

Table 31 RC Sample Recoveries by Domain Type

Domain Type	Recovery	Average Recovery	No of Samples	% of Total
Quartz Vein	ALL	90%	111	25%
	<75%	63%	28	25%
	<50%	41%	3	3%
BIF	ALL	90%	325	75%
	<75%	74%	101	31%
	<50%	34%	38	11.7%
ALL	ALL	90%	325	-
	<75%	55%	129	30%
	<50%	34%	41	9%

In addition, the bulk bags from 5 selected mineralised holes at Alliance (14MRC004, 14MRC011, 14MRC013, 14MRC014 and 14MRC016) were inspected for sample quality and recovery. 14MRC014 has wet samples and variable recovery within the mineralised zone. RC sampling under wet conditions can lead to the loss of fines from the bulk sample and potential biasing of the resultant sample. In addition, high water inflows can also cause contamination of samples and impact on the accuracy and reliability of the mineralised intervals intersected during drilling.

Although the majority of the mineralised zones have attained dry samples (>92% of samples) and high sample recovery (90% of samples), any mineralised RC drill intercepts within zones of wet sampling are considered to have a lower degree of confidence and will need to be confirmed by additional drilling utilizing a suitable drill rig with booster/auxiliary compressors or by diamond drilling.

Three RC holes have been identified that have wet samples, reduced sample recovery and possible downhole grade smearing within the mineralised zones. The significant mineralised intervals for these holes are identified in Table 32 and were assessed as being suitable for inclusion in the Mineral Resource estimation.

Table 32 Sample Quality/Recovery for Reported Significant Mineralised Intervals

Hole ID	Drill Type	Depth From (m)	Depth To (m)	Length (m)	Au g/t	Sample Quality / Recovery
ALLIANCE						
14MDD002	PQ Core	42.75	46	3.25	7.55	Good
14MDD002	PQ Core	36	38	2	14.08	Good
14MRC005	RC	89	95	6	1.92	Dry/Good
14MRC013	RC	78	81	3	19.58	Dry/Good
14MRC014	**RC**	**41**	**48**	**7**	**1.97**	**Wet/Moderate**
14MRC023	RC	23	28	5	3.09	Dry/Good
14MRC045	RC	76	78	2	11.67	Dry/Good
14MRC059	RC	14	19	5	10.32	Dry/Good
14MRC067	RC	74	76	2	6.14	Dry/Good
14MRC069	RC	89	92	3	3.59	Dry/Good
14MRC071	RC	42	43	1	17.7	Dry/Good
14MRC072	RC	57	59	2	5.3	Damp/Good
14MRC096	RC	70	75	5	3.48	Damp/Good
NEW ALLIANCE						
14MDD001	PQ Core	63	64	1	10.6	Good
14MDD006	PQ Core	47.5	51	3.5	6.1	Good
14MRC027	**RC**	**37**	**43**	**6**	**2.62**	**Wet/Moderate**
14MRC074	RC	70	73	3	6.09	Dry/Good
14MRC075	RC	88	91	3	3.47	Dry/Good
14MRC081	RC	70	72	2	5.04	Dry/Good
14MRC083	**RC**	**78**	**80**	**2**	**5.68**	**Wet/Poor**

12.7 *Twinned Drill Holes*

A total of 10 twinned RC holes were drilled by Monument in 2014 to verify the historical drilling data, test high grade intersections and assess the grade variability. In addition, three PQ diamond holes (14MDD002, 14MDD005 and 14MDD006) drilled as the part of the metallurgical testwork program have also twinned historical drill holes. Two of the RC holes (MRC054 and MRC0084) have also twinned holes from the recent 2014 resource delineation program.

Comparison of the twinned holes was based on the midpoint of the mineralised intersections being within 5 metres slope distance of an adjoining hole. As holes were drilled in various orientations from vertical to angle, comparisons of the intersection interval were based on the calculated true width.

The location of the twinned holes selected to establish the repeatability of the intersected mineralised intervals is shown in Figure 31.

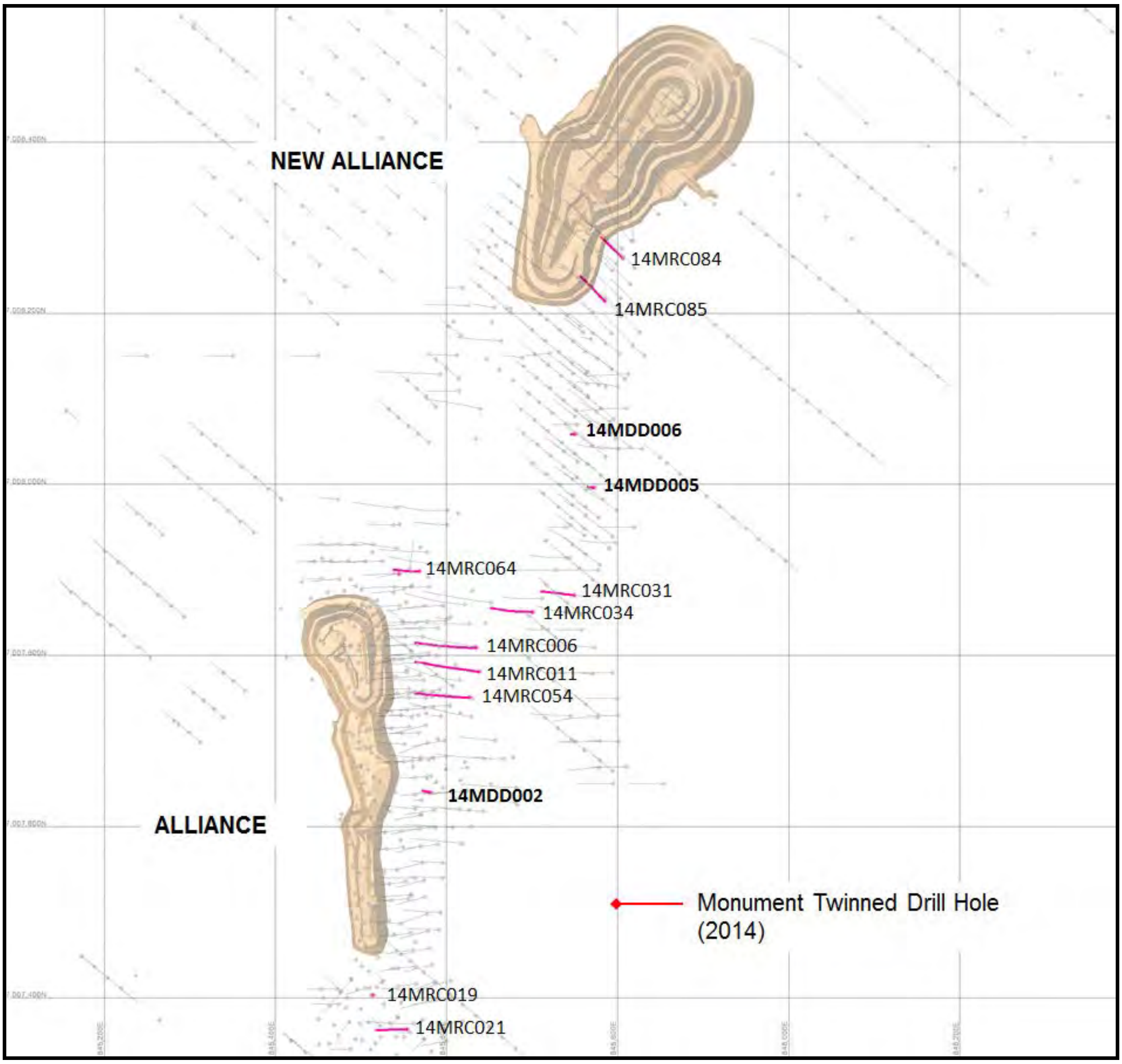

Figure 31 ANA : Twinned Drill Hole Location Plan

The repeatability (precision) of the twinned hole data was quantified by the average coefficient of variation ("ACV") of the paired data which is a universal measure of the relative precision error (Abzalov, 2008). Comparison of the twinned drill intersections for both grade and true width are summarised in Table 33.

The average ACV values for the 13 twinned holes was 65% for the gold grade and 20% for the true width. An ACV of 50-100% is considered to represent average variability for gold distributions. Statistical comparison of the means and standard deviations of the twinned intersections indicates that the paired datasets are not significantly different in terms of the grade or intersected true width.

Although there are significant variations in the relative difference of the gold grades for the paired data set, all the twin holes confirm the tenor and veracity of the original drill intercepts with no overall apparent bias. The large short-range variability in the grade of the replicated intervals reflects the narrow gold mineralisation style with large nugget effects and the differing drill hole sample volumes between RC and DDH drilling methods. Generally the DD to RC true intersected widths are in the order of 25% narrower than those from the RC drilling, but the average gold grades are comparable, as a result of the high accuracy for diamond core sampling in defining the mineralised boundaries.

Table 33 ANA – Twinned Drill Holes Mineralised Intersections

Drill hole	Drill Type	Northing	Domain No.	From (m)	To (m)	Interval (m)	True Width (m)	Rel. Diff (True Width)	Au (g/t)	Rel. Diff Au (g/t)
NEW ALLIANCE										
14MDD005	PQ	7008000	7000	39	49	10	9.6	-10%	0.51	-160%
NARC113	RC			45	56	11	10.6		4.51	
14MDD006	PQ	7008060	7000 7001	37.5	51	13.5	12.3	-10%	2.23	5%
NARC101	RC			48	63	15	13.6		2.12	
14MRC031	RC	7007875	7000	37	42	5	4.9	-14%	1.21	35%
FC581				39	45	6	5.7		0.85	
14MRC034	RC	7007850	7000	10	13	3	3	47%	2.51	6%
FC578				9	11	2	1.9		2.37	
14MRC084	RC	7008290	8000	64	67	3	2.64	28%	0.76	-5%
14MRC078				67	69	2	2.0		0.80	
14MRC085	RC	7008240	8000	49	54	5	4.9	24%	1.25	-21%
12BNRC0149A				49	53	4	3.8		1.54	
ALLIANCE										
14MDD002	PQ	7007640	4001	42.75	46	3.25	2.9	-31%	7.55	31%
AD0161	RC			51	55	4	4		5.53	
14MRC006	RC	7007815	4001	94	96	2	1.9	18%	1.50	-42%
D009	DD			70	72	2	1.6		2.29	
14MRC006	RC		5001	102	104	2	2	46%	0.98	90%
D009	DD			78.6	80	1.4	1.4		0.37	
14MRC011	RC	7007790	5001	105	107	2	1.8	42%	3.02	152%
11BNGT0010	DD			92	93.2	1.2	1.2		0.42	
14MRC019	RC	7007400	4001	41	44	3	2.7	-48%	0.6	-90%
FC627				39	44	5	4.4		1.6	
14MRC021	RC	7007365	4001	35	38	3	2.9	4%	4.52	90%
AD0146				34	37	3	2.8		1.71	
14MRC054	RC	7007755	4001	82	84	2	1.9	13%	1.33	80%
FC570				73	75	2	1.7		0.58	
14MRC054			5001	94	96	2	2	6%	0.10	-178%
14MRC046				82	84	2	1.9		1.70	
14MRC064	RC	7007900	5001	62	64	2	2	3%	2.74	-93%
FC687				57	59	2	1.9		7.45	

Table 34 compares the mineralised intersections for three diamond holes against their corresponding paired RC assay intervals, and highlights the variability in gold grade and length that can occur for the same mineralised interval.

Table 34 ANA: Comparison of Diamond Core to RC Assay Intervals

Diamond Core				RC			
From (m)	To (m)	Au_g/t	Zone	From (m)	To (m)	Au_g/t	Zone
NEW_ALLIANCE							
Hole survey : -81/278		14MDD006	DDH	Hole survey : -61/307		NARC101	RC
36	36.5	0.01		41	42	0.005	
36.5	37	0.18		42	43	0.005	
37.5	38	0.29	7000	43	44	0.005	
38	39	0.81	7000	44	45	0.1	
39	40	0.46	7000	45	46	0.03	
40	41	0.67	7000	46	47	0.1	
41	42	0.49	7000	47	48	0.05	
42	43	0.46	7000	48	49	0.58	7000
43	44	0.47	7000	49	50	0.57	7000
44	45	1.83	7000	50	51	0.63	7000
45	46	1.91	7000	51	52	0.75	7000
46	47	1.47	7000	52	53	0.69	7000
47.5	48	0.81	7000	53	54	2.94	7001
48	49	2.13	7001	54	55	1.93	7001
49	50	18.2	7001	55	56	7.78	7001
50	51	0.61	7000	56	57	1.28	7000
51	52	0.05		57	58	0.57	7000
52	53	0.03		58	59	1.01	7000
53	54	0.13		59	60	7.65	7000
54	55	0.13		60	61	4.38	7000
55	56	0.03		61	62	0.56	7000
56	57	0.05		62	63	0.41	7000
57	58	0.07		63	64	0.14	
ALLIANCE							
Hole survey : -80/281		14MDD002	DDH	Hole survey : -56/267		AD0161	RC
40	41	0.01		48	49	0.005	
41	42	0.26		49	50	0.005	
42	42.75	0.29		50	51	0.08	
42.75	43	4.45	4001	51	52	0.98	4001
43	44	21	4001	52	53	17.29	4001
44	45	1.34	4001	53	54	1.56	4001
45	46	1.08	4001	54	55	2.28	4001
46	47	0.04		55	56	0.17	
47	47.9	0.02		56	57	0.03	
Hole survey : -60/307		11BNGT0010	DDH	Hole survey : -38/281		14MRC011	RC
90	91	0.005		103	104	0.005	
91	92	0.04		104	105	0.02	
92	92.42	0.18	5001	105	106	5.78	5001
93	93.21	2.04	5001	106	107	0.25	5001
94	96	0.005		107	108	0.01	
96	97	0.01		108	109	0.01	

12.8 *Independent Geological Logging*

The RC chip trays for 6 RC holes and PQ core from 3 metallurgical holes were summary logged by the Qualified Person to verify the interpreted geology and to compare against the Monument geology logging and assay results. The objective was to understand the style and paragenesis of the mineralisation and to verify the mineralisation boundaries. Intervals logged with prospective BIF lithology that returned sub-grade assays, were also inspected to confirm that they were unmineralised and were not the result of analytical error.

The selected mineralised intervals that were logged are detailed below in Table 35.

Table 35 ANA: Independent Logging Intervals

Hole ID	Drill Type	Depth From (m)	Depth To (m)	Length (m)	Mineralised Domain No.
NEW ALLIANCE					
14MDD001	PQ Core	0	85 (EOH)	85	6000, 7000, 7001
ALLIANCE					
14MDD002	PQ Core	0	62.3 (EOH)	62.3	400, 2000, 4001
14MDD003	PQ Core	0	80 (EOH)	80	200, 400, 4001
14MDD004	PQ Core	0	54.5 (EOH)	54.5	200, 500, 5001
14MRC004	RC	60	80	20	500, 5001
14MRC005	RC	80	100	20	500, 5001
14MRC007	RC	60	100	40	500, 4001, 5001
14MRC011	RC	80	120	40	4001, 5001
14MRC013	RC	60	100	40	400, 4001
14MRC014	RC	20	60	40	200, 2000

The independent logging has verified the Monument geology logs and the assay tenor of the mineralised intercepts in the master database. In addition, the key characteristics of the mineralisation being visually identifiable, narrow quartz veined zones with ‘hard’ or sharp contacts to the host rock was confirmed (Figure 32).

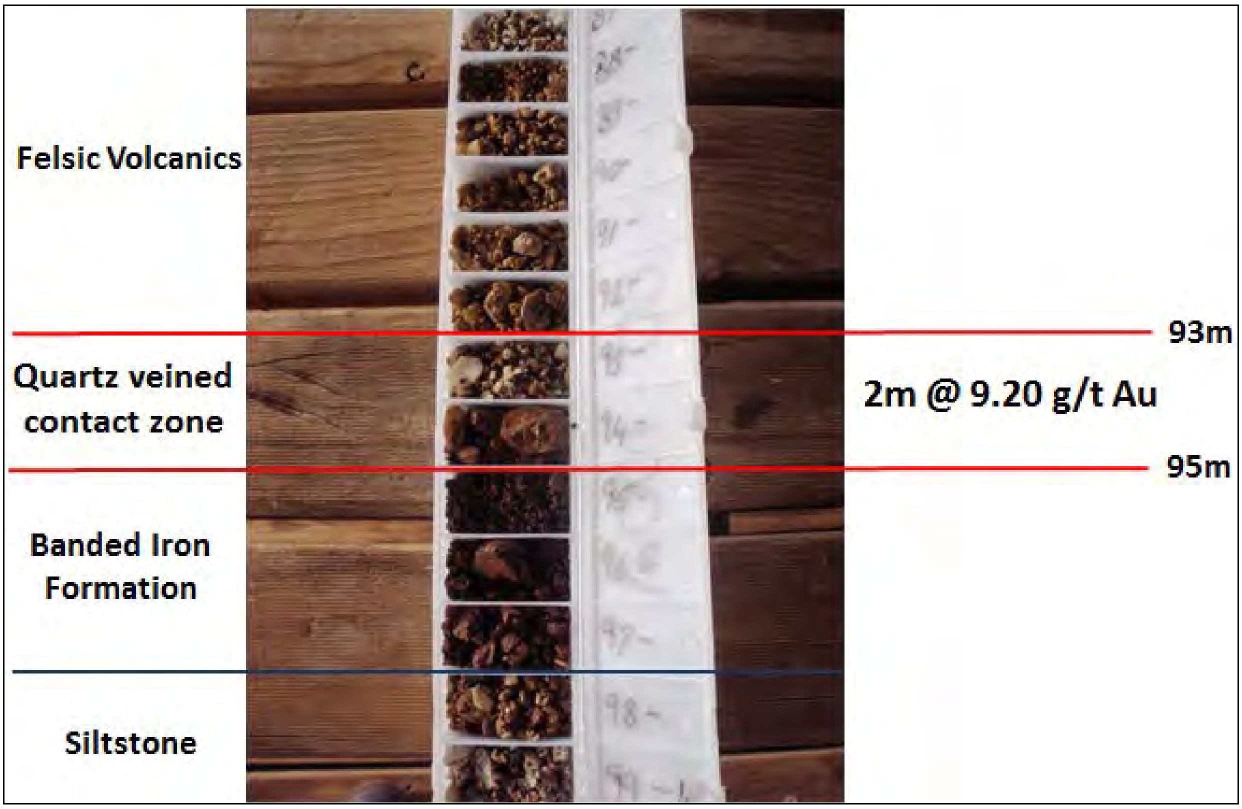

Figure 32 Independent Logging of 14MRC011 – 88m to 100m Downhole

12.9 *Qualified Persons Statement*

The Qualified Person has assessed the veracity of the drilling data for the ANA Project. All logging, sampling and data QAQC procedures implemented by Monument for the 2014 drilling were undertaken to an acceptable industry standard. The record keeping and data management was considered adequate for an advanced project.

The Qualified Person's site visit to the Project in June 2014 included a field inspection of the ANA property, which confirmed the location of drill holes, geological outcrops, and the artisanal and open pit workings.

The twinned holes drilled by Monument to verify previous drilling has confirmed the tenor and veracity of the historical drill intercepts with no overall bias apparent. Combining of the historical and Monument drilling datasets for mineral resource estimation is justified based on the similarity and repeatability of the paired twinned hole dataset.

Independent summary logging has validated the Monument geology logs, verified selected mineralised RC and PQ core intervals, and confirmed the characteristics of the narrow quartz vein hosted mineralisation.

The Qualified Person has independently reviewed all of the available quality control sample data relating to the RC and diamond core drilling completed by Monument at ANA. Overall, the quality control samples are unbiased and have an acceptable level of precision, indicating that the sample data is of an acceptable standard and appropriate for the purpose of mineral resource estimation and the reporting of exploration results.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 *Sample Selection and Composite*

Six PQ diamond holes were drilled to provide material for metallurgical testwork at Burnakura. Figure 33 indicates the approximate location of the holes. Note that 14MDD003 was drilled in the wrong location and the hole was thus excluded from the composite make-up.

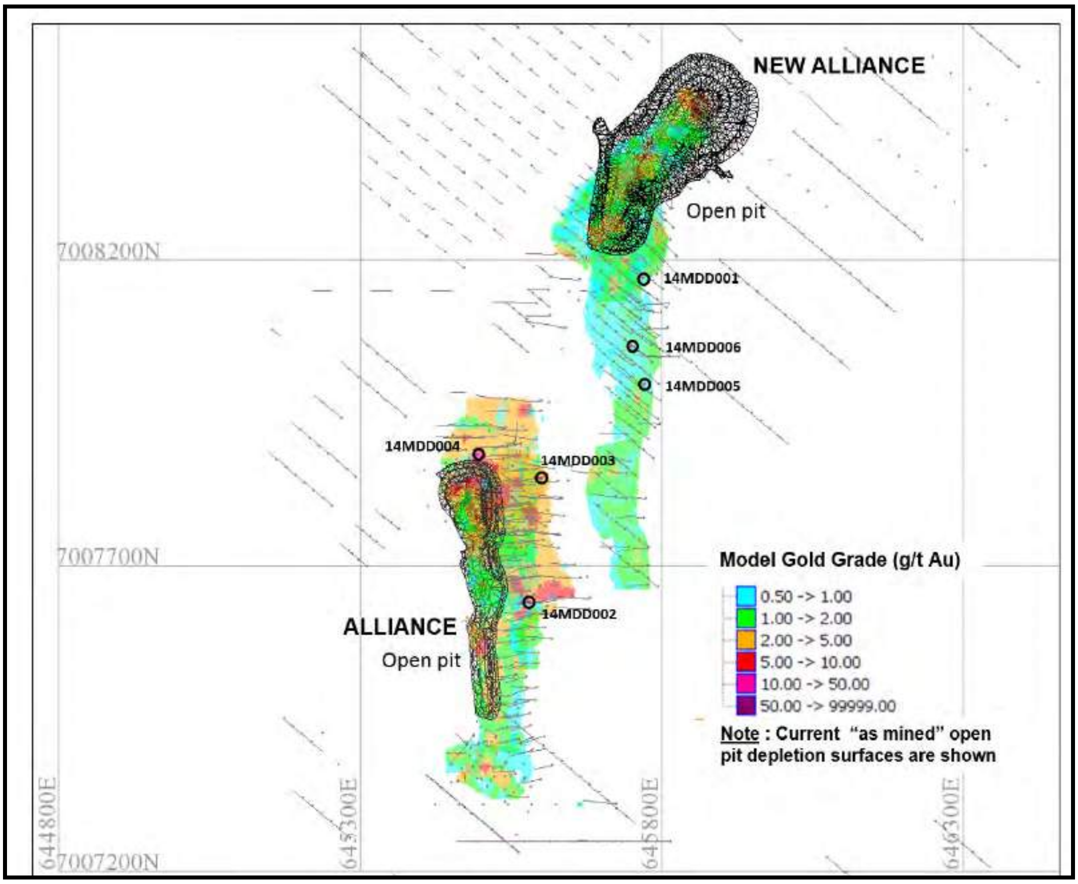

Figure 33 Drill hole location plan

The holes were assayed at 1m intervals for Au (duplicate), Ag, As, C, organic C, Cu, Hg, S, S^{2-}, Sb and Te. Based on the down-hole assay results, the composite make-up was determined (Kock, 2015). The contributions are outlined in Table 36.

Table 36 Composite Samples

Area	Hole	From (m)	To (m)	Lithology	Lithology Code
COMPOSITE 1 New Alliance High Grade Sample	14MDD001	51	54	Brecciated Quartz Vein	QZ
	14MDD001	58	64	BIF + Quartz Vein	SBIF
	14MDD006	44	51	BIF + Quartz Vein	SBIF/QZ
	Total				
COMPOSITE 2 New Alliance Low Grade Sample	14MDD001	67	70	BIF + Quartz Vein	SBIF/QZ
	14MDD005	39	41	Quartz veined Siltstone	SSL
	14MDD005	46	50	Quartz veined Siltstone	SSL
	14MDD006	38	44	BIF + Quartz Vein	SBIF/QZ
	Total				
COMPOSITE 3 Alliance Sample	14MDD002	41	46	BIF + Quartz Vein	SBIF/QZ
	14MDD004	35	39	BIF + Quartz Vein	SBIF/QZ
	Total				

Comprehensive head assays were done on the three composite samples. The composite grades differed to the expected calculated composite grades generated from 1m core interval assays. Subsequent leach tests also indicated problems with metal balances, potentially due to the “spotty” nature of the gold particles. The expected gold grades were 3.0, 0.8 and 5.9 g/t for Comp 1, 2 and 3 respectively. The average actual grades are 1.86, 0.95 and 3.63 g Au/t for the three composites.

Generally, there are no deleterious elements in high concentration that will be expected to cause problems in the extraction process. Slightly elevated Cu may increase cyanide consumptions.

The head assays are shown in Table 37.

Table 37 Composite Head Assays

Analyte	Unit	Composite 1	Composite 2	Composite 3
Au	g/t	1.73	0.95	3.75
Au	g/t	2.04	0.95	3.51
Au	g/t	1.82	-	-
Ag	g/t	2.40	0.90	0.90
Al	%	2.36	2.16	4.36
As	ppm	20	20	10
Ba	ppm	180	160	320
Be	ppm	<20	<20	<20
Bi	ppm	<25	<25	<25
C	%	<0.03	<0.03	<0.03
C_{org}	%	<0.03	<0.03	<0.03
Ca	ppm	250	250	250
Cd	ppm	<20	<20	<20
Co	ppm	<20	<20	20
Cr	ppm	<200	<200	<200
Cu	ppm	165	150	90
Fe	%	9.64	20.8	9.60
Hg	ppm	<0.1	0.20	<0.1
K	%	0.75	0.63	1.35
Li	ppm	<20	<20	<20
Mg	ppm	400	600	950
Mn	ppm	140	240	580
Mo	ppm	<20	<20	<20
Na	ppm	750	750	1150
Ni	ppm	40	60	80
P	ppm	<250	500	500
Pb	ppm	80	40	160
S	%	<0.02	<0.02	<0.02
S^{2-}	%	<0.02	<0.02	<0.02
Sb	ppm	0.50	1.10	0.80
SiO_2	%	79.4	61.8	75.0
Sr	ppm	10	10	15
Te	ppm	0.40	0.40	<0.2
Ti	ppm	1400	1200	2400
V	ppm	35	40	50
Y	ppm	<100	<100	<100
Zn	ppm	160	480	400

13.2 *Physical Ore Characterisation Testwork*

13.2.1 Apparent SG

Apparent SG determinations (wax coated and submerged in water) were done on down hole core samples. A sample was selected every 5m in waste and every 3m in the mineralized sections. Results are shown in Table 38 and Table 39.

Table 38 Apparent SG Determinations for 14MDD001, 005 and 006

Hole	From (m)	To (m)	App. SG	Hole	From (m)	To (m)	App. SG	Hole	From (m)	To (m)	App. SG
14MDD001	6.17	6.30	1.81	14MDD005	2.37	2.54	1.63	14MDD006	1.10	1.23	2.05
14MDD001	12.50	12.62	1.69	14MDD005	8.50	8.60	1.66	14MDD006	7.30	7.40	1.38
14MDD001	18.00	18.12	1.45	14MDD005	13.10	13.23	1.58	14MDD006	12.50	12.63	1.58
14MDD001	23.12	23.25	1.68	14MDD005	18.70	18.84	1.55	14MDD006	17.69	17.81	1.63
14MDD001	28.50	28.60	1.70	14MDD005	23.00	23.20	1.69	14MDD006	22.48	22.64	2.22
14MDD001	32.25	32.40	1.66	14MDD005	28.70	28.85	1.72	14MDD006	27.50	27.60	1.39
14MDD001	38.30	38.50	1.81	14MDD005	33.60	33.75	1.76	14MDD006	32.05	32.18	1.78
14MDD001	43.70	43.83	1.89	14MDD005	37.22	37.40	1.99	14MDD006	36.80	36.95	2.50
14MDD001	48.30	48.50	1.80	14MDD005	40.35	40.47	2.27	14MDD006	39.90	40.00	2.14
14MDD001	52.85	53.00	1.82	14MDD005	43.50	43.62	2.33	14MDD006	43.10	43.21	1.55
14MDD001	56.20	56.40	2.28	14MDD005	46.20	46.35	2.27	14MDD006	45.40	45.60	1.70
14MDD001	60.50	60.60	1.78	14MDD005	48.66	48.80	2.23	14MDD006	48.72	48.90	1.95
14MDD001	63.40	63.50	2.56	14MDD005	51.12	51.28	2.25	14MDD006	51.12	51.22	2.05
14MDD001	67.60	67.70	2.14	14MDD005	53.40	53.55	2.00	14MDD006	54.50	54.60	1.86
14MDD001	70.50	70.70	2.27	14MDD005	58.90	59.00	2.13	14MDD006	58.50	58.60	2.24
14MDD001	74.68	74.78	2.19	14MDD005	2.37	2.54	1.63	14MDD006	61.42	61.58	2.65
14MDD001	77.55	77.70	2.35	14MDD005	8.50	8.60	1.66	14MDD006	64.30	64.42	2.14
14MDD001	80.00	80.20	2.41					14MDD006	67.80	68.00	2.14
14MDD001	83.00	83.10	2.47					14MDD006	1.10	1.23	2.05
14MDD001	6.17	6.30	2.47								
14MDD001	12.50	12.62	1.81								
14MDD001	18.00	18.12	1.69								
Average			**2.01**				**1.94**				**1.94**

Table 39 Apparent SG Determinations for 14MDD002, 003 and 004

Hole	From (m)	To (m)	App. SG	Hole	From (m)	To (m)	App. SG	Hole	From (m)	To (m)	App. SG
14MDD002	2.10	2.20	1.85	14MDD003	2.30	2.42	**2.12**	14MDD004	2.62	2.73	**2.08**
14MDD002	7.65	7.78	2.16	14MDD003	7.00	7.11	**1.73**	14MDD004	7.71	7.82	**2.22**
14MDD002	11.60	11.70	1.40	14MDD003	125.00	12.64	**2.13**	14MDD004	12.50	12.62	**2.38**
14MDD002	16.70	16.80	1.65	14MDD003	17.10	17.22	**2.12**	14MDD004	17.00	17.14	**2.38**
14MDD002	19.10	19.20	1.71	14MDD003	22.83	23.00	**2.24**	14MDD004	22.50	.22.60	**2.21**
14MDD002	23.80	23.92	2.18	14MDD003	27.14	27.28	**2.25**	14MDD004	27.09	27.22	**2.35**
14MDD002	27.00	27.18	1.88	14MDD003	32.00	32.17	**2.29**	14MDD004	32.05	32.16	**2.30**
14MDD002	33.56	33.70	1.85	14MDD003	37.17	37.55	**2.35**	14MDD004	37.50	37.61	**1.92**
14MDD002	38.30	38.43	1.84	14MDD003	41.00	41.18	**2.46**	14MDD004	40.40	40.50	**1.54**
14MDD002	43.20	43.32	2.45	14MDD003	44.00	44.19	**1.63**	14MDD004	43.60	43.70	**2.75**
14MDD002	46.50	46.67	2.24	14MDD003	47.10	47.20	**2.61**	14MDD004	46.10	46.20	**2.47**
14MDD002	51.11	51.23	1.69	14MDD003	52.60	52.71	**2.15**	14MDD004	49.88	50.00	**2.46**
14MDD002	57.80	57.90	2.06	14MDD003	57.21	57.34	**2.13**	14MDD004	53.00	53.14	**2.03**
14MDD002	61.50	61.60	2.29	14MDD003	62.74	62.84	**2.42**	14MDD004	2.62	2.73	**2.08**
14MDD002	2.10	2.20	1.85	14MDD003	67.71	67.81	**2.18**	14MDD004	7.71	7.82	**2.22**
14MDD002	7.65	7.78	2.16	14MDD003	72.19	72.32	**2.38**	14MDD004	12.50	12.62	**2.38**
				14MDD003	78.10	78.30	**2.52**	14MDD004	17.00	17.14	**2.38**
				14MDD003	2.30	2.42	**2.12**	14MDD004	22.50	.22.60	**2.21**
				14MDD003	7.00	7.11	**1.73**				
Average			**1.95**				**2.22**				**2.24**

13.2.2 Crusher Work Index

CWi measurements were done on specimens from PQ Holes 14MDD001, 002, 005 and 006. The material is generally very soft and friable, with results summarized Table 40.

Table 40 Crusher Work Indices

Hole ID	Work Index (kWh/t)	SG
Average	3.0	2.95
Minimum	1.2	2.85
Maximum	16.1	3.07
Std Deviation	2.8	0.09

13.2.3 Uniaxial Compressive Strength

Samples were selected for UCS determination in both the mineralized and non-mineralized sections. Results indicate the material is quite soft and are shown in Table 41.

Table 41 UCS Results

Hole ID	Interval	Failure At : (kN)	Failure Mode:	U.C.S. : (MPa)	Mineralized / Waste
14MDD001	77.20-77.45m	223.9	Shear	41.7	Mineralized
14MDD002	7.32-7.57m	78.3	Shear	14.4	Waste
14MDD002	23.54-23.78m	33.2	Shear	6.1	Mineralized
14MDD002	44.30-44.60m	230.6	Shear	42.8	Mineralized
14MDD002	61.57-61.87m	189.7	Shear	35.4	Waste
14MDD003	22.13-22.56m	146.1	Shear	27.1	Waste
14MDD003	45.00-45.23m	Core Broken While Sawing			Mineralized
14MDD003	72.53-72.80m	284.3	Shear	52.9	Waste
14MDD003	78.30-78.50m	225.0	Shear	41.8	Mineralized
14MDD004	40.50-40.90m	13.0	Shear	2.5	Mineralized
14MDD005	48.2-48.5m	98.5	Shear	18.3	Mineralized
14MDD005	58.30-58.58m	23.1	Shear	4.3	Waste
14MDD006	67.44-67.80m	38.2	Shear	7.1	Mineralized
Average				**24.5**	
Minimum				**2.5**	
Maximum				**52.9**	

13.2.4 Comminution Testwork

Comminution testwork was done on all three Composite samples. The results indicate that the ore will require reasonably low energy input for coarse breakage, but will require average energy for fine grinding. The results are summarized in Table 42. Note that the BWi testwork was done at a closing screen size of 125µm.

Table 42 Comminution Testwork Summary

Comminution Parameter	Units	Comp 1	Comp 2	Comp 3
CWi	kWh/t	1.2 – 16.1		1.2 – 4.8
UCS	MPa	4.3 – 41.7		2.5 – 52.9
Ai		0.306	0.284	0.170
RWi	kWh/t	14.5	16.4	14.4
BWi	kWh/t	17.7	16.9	16.6
SG		2.66	2.75	2.61
Axb		86.8	69.0	94.4

13.2.5 Gold Deportment

Assay by size testwork was done on the -25mm crushed ore to get an indication of where the gold is located. Figure 34 shows the gold distribution as a percentage of the overall content in each size fraction. It is clear that Comp 1 has a high portion of gold in the -38µm fraction, while Comp 2 and 3 have more gold in the coarse fractions.

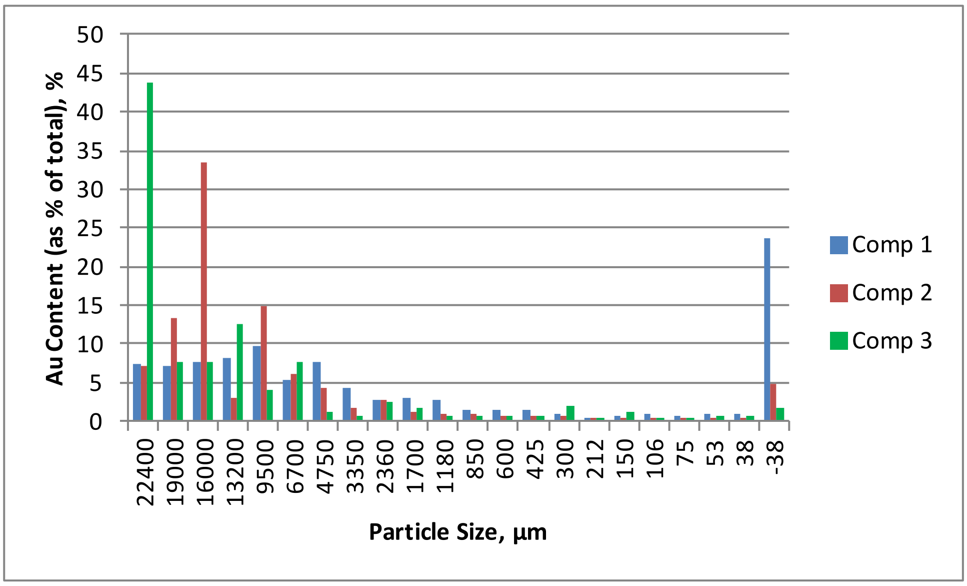

Figure 34 Coarse Crush (-25mm) Gold Distribution

13.3 *Leach Tests after Grinding*

Leach tests were done at two grind sizes for each composite sample to get a high level indication of grind sensitivity. Gravity gold was extracted via a Knelson concentrator and subjected to amalgamation to determine the gravity gold content. The leach tests were done over a 48 hour leach period with kinetic samples taken at 2, 4, 8, 24 and 48 hours. Bulk leach tests were done to generate sample to do the carbon contact testwork, viscosity determination and settling tests on. The bulk leach tests were 9kg batches and were done at a grind size of 80% passing 75µm for Comp 1 and 3, and 150µm for Comp 2.

The reproducibility of the leach results was not great, with Comp 1 achieving a 2.5% decrease in extraction. The lime consumption was comparable, but the cyanide consumption was significantly higher. This is likely due to the 9kg leach tests being done in stirred agitator vessels whereas the initial tests were bottle rolls. Due to the poor ratio of surface area vs total volume, the stirred test vessel often results in higher cyanide consumptions. As with the remaining tests, Comp 3 showed a poor metal balance due the large proportion of coarse gold. The results are summarized in Table 43.

Table 43 Bottle Roll Leach Results

Sample No.	Assay Head	Calc Head	Solids Tail Value	Gravity Recovery	Total Au Extraction (%)			Lime Cons	NaCN Cons
	Au (g/t)	Au (g/t)	Au (g/t)	%	8h	24h	48h	kg/t	kg/t
Comp 1 (75µm)	1.73/2.04/1.82	1.95	0.15	17.2	91.2	92.7	92.3	0.47	0.25
Comp 1 (150µm)	1.73/2.04/1.83	1.96	0.23	15.3	88.3	89	88.3	0.49	0.18
Comp 2 (75µm)	0.95/0.95	1.10	0.02	7.7	96.3	95	98.2	0.63	0.22
Comp 2 (150µm)	0.95/0.96	1.02	0.04	15.22	94.7	96.1	96.1	0.51	0.18
Comp 3 (75µm)	3.75/3.51	3.47	0.04	60.8	99.4	99.6	98.9	0.51	0.32
Comp 3 (150µm)	3.75/3.52	4.12	0.12	52.1	95.4	98.1	97.1	0.62	0.29
Bulk (9kg) Leach Results									
Comp 1 (75µm)	1.73/2.04/1.82	2.06	0.21	8.28	89.8	87.6	89.8	0.44	0.82
Comp 2 (150µm)	0.95/0.95	1.03	0.03	8.71	99.3	97.8	97.1	0.49	0.75
Comp 3 (75µm)	3.75/3.51	5.20	0.06	47.27	96.8	97.4	98.9	0.51	0.90

13.4 *Coarse Leach Tests*

13.4.1 Intermittent Bottle Rolls

Coarse intermittent bottle rolls (IBR) were conducted on each sample at a crush size of 12.5mm. The metal balances were extremely poor, even after sized residue assays were performed. Comp 2 and 3, which indicated a higher gold content in the coarse fraction, were the most problematic. Extraction results were relatively poor and as a result, a finer crush size was selected for the next round of coarse bottle tolls.

The second round of IBR tests was undertaken at a crush size of 100% passing 4.75mm. This crush size was recommended in consultation with Monument's heap leach consultant. The crush size is considered at the extreme of what is sustainably achievable with a conventional crushing plant, and the results can consequently be considered as a best case scenario. The finer crush size showed encouraging results. The results of the -12.5mm and the -4.75mm are presented in Table 44.

Table 44 Intermittent Bottle Roll Results

Sample No.	Assay Head	Calc Head	Solids Tail Value	Total Au Extraction (%)				Lime Cons	NaCN Cons
	Au (g/t)	Au (g/t)	Au (g/t)	2 days	4 days	8 days	10 days	kg/t	kg/t
100% Passing 12.5mm									
Comp 1	1.73/2.04/1.82	1.88	0.92	50.2	53.4	51.5	52.1	0.54	0.39
Comp 2	0.95/0.95	1.72	0.69	49.9	56.9	58.2	60.4	0.55	0.49
Comp 3	3.75/3.51	3.17	1.48	40.0	48.2	52.5	54.0	0.56	0.55
100% Passing 4.75mm									
Comp 1	1.73/2.04/1.82	1.96	0.62	61.1	64.6	66.9	68.6	0.65	0.27
Comp 2	0.95/0.95	1.12	0.13	81.8	84.4	87.6	88.6	0.69	0.38
Comp 3	3.75/3.51	3.89	1.18	51.9	58.1	68.8	70.2	0.59	0.37

13.4.2 Column Leach Conditions

Based on the positive result obtained from the IBR at -4.75mm, it was decided to do confirmatory column leach tests, but at a slightly more realistic commercial crush size of 6.3mm. Due to limited sample availability and the high grade of Comp 3, only Comps 1 and 2 were tested in the columns. Table 45 summarizes the column leach conditions.

Table 45 Column Leach Conditions

Description	Unit	Composite 1	Composite 2
PRE-LEACH AGGLOMERATIONS			
Ore sample weight :	kg	40	42.5
Crush Size (P_{100})	mm	6.3	6.3
Hydrated Lime addition :	kg/t	0.0	0.0
Cement addition :	kg/t	2.5	2.5
Curing period :	days	1	1
COLUMN LEACH TESTWORK			
Column internal diameter :	mm	140	140
Initial ore height :	mm	1896	1866
Final ore height :	mm	1879	1854
Final Slumpage :	%	1.1	0.6

The column leach results are shown in Table 46 and Figure 35. It is evident that Comp 2 aligns very well with the IBR results, but that Comp 1 is slightly lower at the coarser crush size.

Table 46 Column Leach Results

Sample No.	Assay Head	Calc Head	Solids Tail Value	Total Au Extraction (%)				Lime Add'n	NaCN Cons
	Au (g/t)	Au (g/t)	Au (g/t)	2 days	15 days	25 days	34 days	kg/t	kg/t
100% Passing 6.3mm									
Comp 1	1.73/2.04/1.82	1.98	0.72	46.3	61.1	62.7	63.5	0.22	0.60
Comp 2	0.95/0.95	1.20	0.13	58.5	86.1	88.6	89.4	0.21	0.61

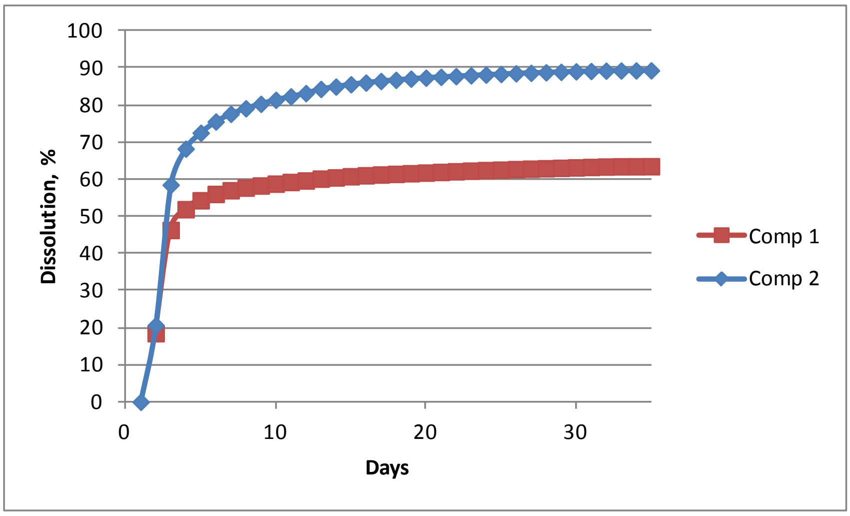

Figure 35 Column dissolution curve

Assay by size results on the column residues are shown in Figure 36. As expected, the bulk of the unrecovered gold is associated with the coarse fractions, highlighting the sensitivity to crush size of the tested material.

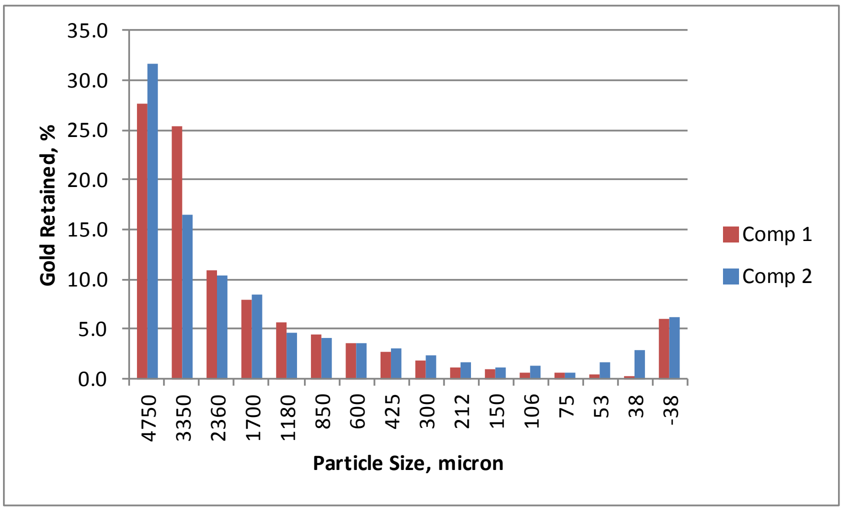

Figure 36 Assay by size of -6.3mm column residue

13.5 *Mineralogy*

Each composite sample has been separated into gravity concentrate (i.e.'Pan Con') and gravity tail (i.e. 'Tail') fractions using a Knelson concentrator and hand-panning before being submitted for mineralogy. Bulk mineralogical information of the gravity concentrates was characterised by QEMSCAN and that of the gravity tails by XRD.

13.5.1 Bulk Mineralogy

Pyrite is the dominant sulphide in the Pan Con fractions. It accounts for about 0.5 % of sample mass in Composite 1 and Composite 3, and has a P_{80} of approximately 90 µm. About 90 % is classified as 'well liberated'. Composite 2 is different. Pyrite accounts for <0.1 % of sample mass and has a P_{80} of about 50 µm. About 80 % is classified as 'well liberated'.

Fe oxides/hydroxides (goethite/limonite>hematite), quartz and micas dominate the Pan Con fractions. They, in total, contribute about 95 % of sample mass. Fe oxides/hydroxides have P_{80} of about 60 µm. They are poorly liberated and a significant amount is finely intergrown with silicates. Silicates dominate the Tails, accounting for about 80 % in Composite 1 and Composite 3, and about 60 % in Composite 2. Most of the remaining sample mass is contributed by goethite/limonite. The main silicates are quartz, micas, kaolinite and chlorite.

13.5.2 Gold Mineralization

A single polished block of each Pan Con fraction was analysed by QEMSCAN TMS (Trace Mineral Search) to search for high-density phases including gold. Unmounted material from each fraction was searched for coarse gold using a stereo microscope.

The complete residue of Composite 1 and Composite 2 were examined for coarse gold, but only a sub portion from Composite 3.

One coarse gold grain (170 x30 µm) was visually identified in Composite 1, while no gold was detected by QEMSCAN search. No coarse gold was identified in Composite 2, but two fine gold grains (<5 µm in size and encapsulated in 'Fe oxides/hydroxides + silicates' particles) were detected by QEMSCAN TMS. A large number of coarse gold grains were visually identified in Composite 3. These grains range in size from 30 µm to 400 µm; some have flaky and cylindrical shapes. QEMSCAN analysis identified only a very small amount of fine-grained gold (3-30 µm), which is locked with pyrite and Fe oxides/hydroxides.

EDS (Energy Dispersive Spectrometry) analysis shows that the composition of gold is typically 74-100 % Au and 0-26 % Ag. Values for coarse gold are based on the visual examination of loose particles and are potentially biased; values for fine gold are based on gold grains detected within a single block made from each sample with low grain/particle statistics and hence potential representivity issues.

13.6 *Miscellaneous Testwork*

13.6.1 Viscosity Testwork

Viscosity testwork was done on all three composites using the Bohlin Visco 88. The tests were done at a grind P_{80} of 75µm and at 40, 50 and 60% solids. In all cases the viscosity was low and no problems are envisaged due to viscosity.

13.6.2 Gold Adsorption Sequential Carbon Tests

Sequential batch carbon contact tests were done to determine the carbon loading capacity and indicate whether the ore contains any elements that may inhibit the gold loading onto the carbon. The Flemming constants are shown in Table 47.

Table 47 Flemming Constants

Sample	Flemming k hour $^{-1}$	Flemming n
Comp 1	76.91	1.114
Comp 2	114.54	0.872
Comp 3	141.79	0.749

The rate of gold loading onto the carbon vs time is depicted in Figure 37.

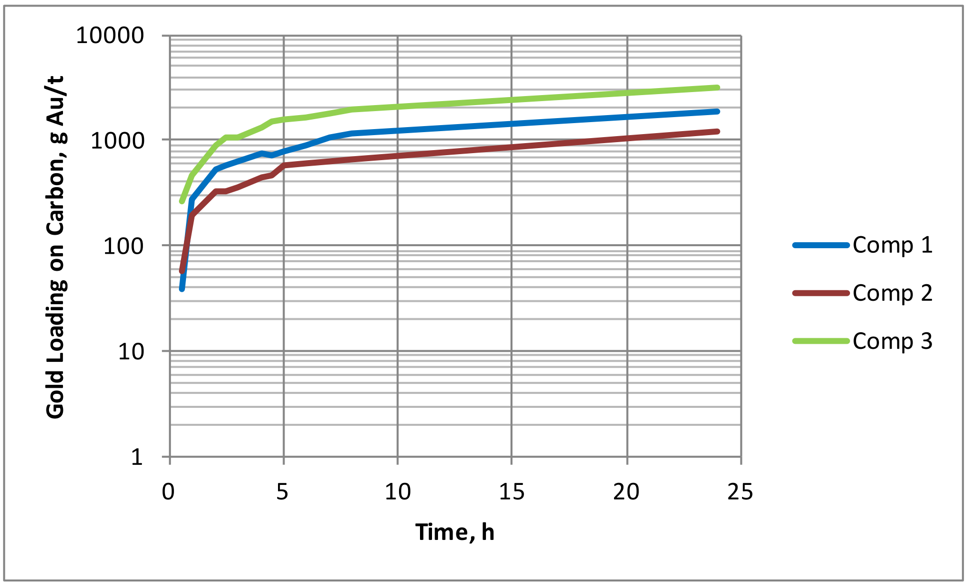

Figure 37 Gold Loading onto Carbon

To get an indication on why there is such a difference between the various samples, an ICP scan was done on the loaded carbon for Comp 1 and Comp 3. The "normal" inorganic elements were loaded to similar levels, with the only difference being the silver loadings, which were significantly higher on Comp 1. Selected ICP data is shown in Table 48.

Table 48 Carbon ICP Analysis

Element	Comp 1	Comp 3
Ag (ppm)	1395	535
Al (ppm)	600	600
Cu (ppm)	35	50
Fe (ppm)	1650	1675

13.6.3 Acid Mine Drainage Results

An assessment of the potential for sulphide oxidation, leading to acid generation including specific AMD chemical analyses (pH, Total Sulphur, Nett Acid Producing Potential (NAPP), Nett Acid Generation (NAG), Acid Neutralising Capacity (ANC)), was undertaken on the tailings samples. Table 49 confirms that no problems with acid generation are expected.

Table 49 Acid Mine Drainage Results

Sample (Leach Residue)	S (%)	ANC (kg H_2SO_4/t)	NAG (kg H_2SO_4/t)	TAPP (kg H_2SO_4/t)	NAPP (kg H_2SO_4/t)	pH	Conductivity (mS/cm)
Comp 1	<0.02	2.00	-2.00	<1	-1	6.58	0.040
Comp 2	<0.02	2.00	-3.00	<1	-1	7.42	0.036
Comp 3	<0.02	3.00	-3.00	<1	-2	7.85	0.030

13.6.4 Thickening Test Results

Dynamic thickening testwork was undertaken by Outotec in their standard 99mm test thickener. Note the requirement for a coagulant (at fairly high dosing rates) in all cases. Based on the testwork outcomes, the Outotec thickener parameters are summarized in Table 50.

Table 50 Outotec Testwork - Thickener Recommendation

Process Stream	Unit	Comp 1	Comp 2	Comp 3
Solids Loading	$t/m^2.h$	1.50	1.50	1.50
Feed Density	% Solids (w/w)	15	15	15
pH		10.5	10.5	10.5
Coagulant Dosage	g/t	600	300	100
Flocculent Dosage	g/t	40	20	20
Underflow Density	% Solids (w/w)	55 - 58	62 - 65	55.5 – 58.5
Overflow Clarity	Mg/L	<100	<100	160

14. RESOURCE ESTIMATES

The Alliance-New Alliance (“ANA”) deposit which forms part of the Burnakura tenement area, has been the focus of resource delineation and verification drilling in 2014 and has resulted in an upgrade of the historical estimate completed by Golders (Nov 2013) to an Indicated and Inferred Mineral Resource.

During 2014, Monument completed a program of resource delineation drilling to infill, extend and verify the historical estimates at ANA. It is the additional data gathered during the 2014 drill programs that has formed the basis for this December 2014 Mineral Resource estimate (“MRE”) update, undertaken by Cube, of the ANA deposits.

It must be noted a qualified person has not done sufficient work to classify the historical estimates on the property as current mineral resources under NI 43-101 and Monument is not treating the historical estimate on the property as current mineral resources. The historical estimates were determined by BM Geological Services in the report Murchison Gold Project: Burnakura and Gabanintha resource inventory (December 2013). The quality of the data supporting the estimates meets industry standards. The historical estimates have been reported in line with the JORC guidelines, and resource confidence categories and the reliability of the estimate are consistent with this standard. Monument considers this historical resource estimate to be relevant to its ongoing review of the Murchison Gold Project. See Section 6.3.

14.1 *Project Drillhole Database*

The Mineral Resource model completed by Cube has utilised the validated Monument Murchison relational drilling database, comprising a total of 46,702m of RC and DDH drilling in 767 holes for the ANA deposits. Drilling was generally orientated east-west, with an average drill spacing of 10m by 10m at Alliance and 10m by 20m at New Alliance. All historical and current Monument drilling data has been validated and managed by Cube Consulting in a secure relational SQL ("Structured Query Language") server database system and is detailed in Table 51.

All grid coordinates are referenced in the MGA Zone 50 (GDA94) system.

A Microsoft Access database export (*murchison_20141121.mdb*) from the master Murchison drill hole database was used for the Mineralization interpretation and resource estimation which reflects all the available and reliable assay data as of the 21st November 2014.

Table 51 Alliance – New Alliance Drill hole Breakdown

Company	Drill Type	Drill Code	Number of Holes	Total Drill (m)	Average Depth (m)	Year Drilled
Monument (MMY)	Diamond Core	DDH	6	408.6	68	2014
	Reverse Circulation	RC	103	9,379	91	2014
Kentor Gold	Diamond Core	DDH	6	486.3	81	2011
	Reverse Circulation	RC	66	4,764	72	2012
ATW Gold Corp	Reverse Circulation	RC	5	594	119	2008
Various	Diamond Core	DDH	20	1,755	88	1989 to 1991
	Reverse Circulation	RC	561	29,315	52	1989 to 1997
	Rotary Air Blast	RAB	305	12,242	40	Pre 2000
Metana Resource	Blast Holes	BH	1,531	7,970.2	5	1991
TOTAL			2,603	66,914.3	564	

The structure of the database extract used for the resource estimation is summarized below in Table 52.

Table 52 Drill Hole Database Summary – (All drill types for Alliance-New Alliance only)

Table	Field	Description
Collar 2,603 records	hole_id	Hole Id
	max_depth	Total Hole Depth
	X	Grid Collar Easting (GDA94)
	Y	Grid Collar Northing (GDA94)
	Z	Grid Collar Elevation RL
	hole_type	Type of drilling
	prospect	Prospect Name
	res_flag	Flag for drill holes used in the estimation
Survey 4,866 records	hole_id	Hole Id
	depth	Downhole Depth of Survey
	dip	Dip of Hole trace
	Grid azimuth	Grid Azimuth of Hole Trace (GDA94)
Assay 40,144 records	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	sample_id	Sample Number
	cube_au	Au grade (ppm)
	zonecode	Mineralized Domain Identification Code
Assay_QC 1,280 records	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	sample_id	Sample Number
	Au_ppm	Au grade (ppm)
	AssayType	Control Sample Type
Lithology 11,477 records	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	sample_id	Lithology Code
	lith1_code	Lithology Code
	lith_comments	Lithology Description
Weathering 2,279 records	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To

	weath	Weathering Code (MMY)
	Weath_cube	Standardised Weathering Code (Cube)
Veining **2,470 records**	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	vein1_code	Vein Type Code
	vein1_style	Vein Style Code
	vein1_pct	Visual Logged Vein %
Density **245 records**	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	density	Measured Density (Archimedes)
	YearID	Year of Measurement
Zonecode **1,579 records**	hole_id	Hole Id
	depth_from	Interval Depth From
	depth_to	Interval Depth To
	zonecode	Mineralized Domain Identification Code

Routine validation of the database prior to coding and compositing has included the following checks for;

- overlapping and missing intervals,
- duplicate sample intervals,
- downhole survey variation within expected limits,
- minimum and maximum assay values within expected range,
- depths, azimuths, dips and collar co-ordinates for data consistency.
- replace all negative values, representing below detection assay results (-0.01, -0.005) with half the detection limit (0.005).

Further measures that were taken to verify the data are detailed in Section 12.

A hole flag field '*res_flag*' was added to the collar table in the database to denote holes that were used or excluded from the Mineral Resource estimation based on the numerical flags as shown in Table 53. Only DD and RC drilling data was used for the resource estimate, with all RAB and BH data excluded.

Table 53 Resource Database Hole Flag

Code (res_flag1)	Description	Resource Status
1	Resource hole	Included

The final validated database was considered acceptable for the purposes of Mineral Resource estimation.

14.2 *Geology and Mineralization Modelling*

Gold mineralization at ANA is currently delineated over a 1150 metre strike length, with several north to north-east trending, moderately east dipping (~30°) quartz zones being defined, that have an average true thickness varying from 2 metres to 5 metres. Pit mapping at Alliance indicates the mineralization is predominantly hosted within narrow quartz veins (“QTZ”) preferentially developed along the top contact of a number of thin banded iron formation (“BIF”) units. Localisation of the quartz vein along the top surface of the BIF is associated with shearing along a high-competency-contrast contact.

The thin quartz vein sets have a late to post folding relative timing of emplacement with the dolerite representing, like the BIF, a rheologically stronger unit along which strain has partitioned. Optimal dilatational sites have developed along reactivated thrust faults for the emplacement of the narrow massive quartz veins which host the higher grade gold mineralization.

Previous approaches to defining the mineralization volumes have been mainly based on an arbitrary low threshold grade cut-off which does not adequately reflect the likely outcomes from selective mining of narrow high grade quartz veins.

Mineralization at Alliance–New Alliance has a strong geological control with visual “hard” mineralization boundaries and a distinctive bi-modal grade distribution resulting from narrow high grade quartz zones within lower grade altered BIF halos. To effectively control the influence of the nuggetty narrow high grade gold values within and adjacent to the quartz veins, geological domain types based on logged lithologies were interpreted as outlined below;

- High grade narrow quartz veins straddling the BIF contacts,
- Low grade BIF lithological domains, and
- Major faults

All available pit mapping and regional interpreted geology was draped onto the topography DTM and geo-referenced as an underlay to the interpretation of all geological and mineralization domains. The geological data sources and resultant geo-referenced surfaces are listed in Table 54.

Table 54 Geological Interpretation Files

File Name	Prospect	Description	Source
cube_alliance_pit_geology1.dtm	Alliance	Digitised Geology of the Alliance Pit	Crowe, Sept 2012 & Marjoribanks, 2004
cube_alliance_pit_geol1.rgf	Alliance	Draped Geological Map of the Alliance Pit	Crowe, Sept 2012 & Marjoribanks, 2004
cube_fault_blocks_20141202.dtm	Alliance	Fault solid model	Cube 2014
cube_struct_trends_20140321.dtm	Alliance - New Alliance	Interpreted Structural Trends	Cube 2014
hallberg_geol_25431ne_GDA.rgf	Burnakura	Regional geology 1:25,000	Hallberg 1:25,000 Geological map series CullCulli 2543-1, 1990
north_sheet_geol_interp1.rgf	Burnakura	Regional geology 1:10,000	North Sheet 1:10,000 by Taylor, ATW Dec 2008

The modified geology map of the Alliance Pit which was based on additional pit mapping by Crowe (2012), forms the basis of the geological modelling providing a framework for interpretation of the main BIF and quartz vein units and their structural relationships with the identified faulting (Figure 38). The resultant geological framework has then been extrapolated outside of the Alliance pit to the south and also to New Alliance to the north.

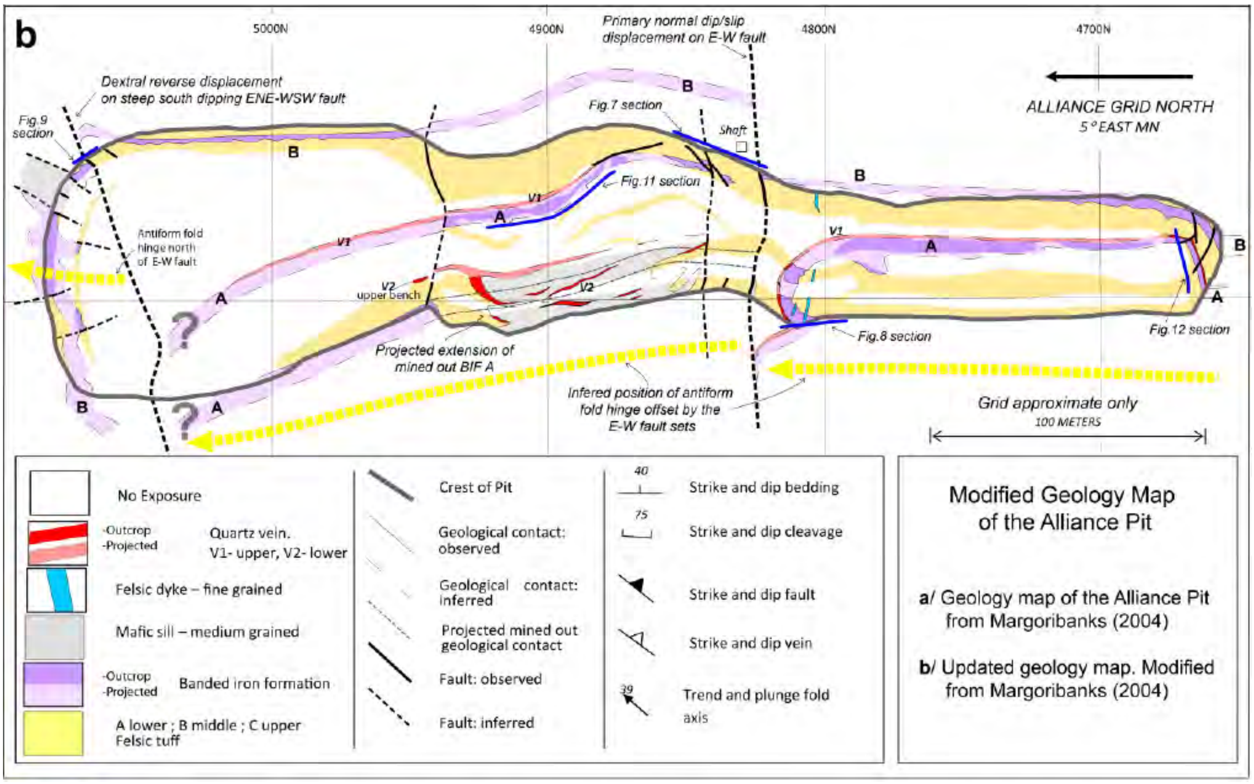

Figure 38 Geological Map of the Alliance Pit (Crowe, 2012)

Geology and mineralization domains were interpreted on 139 vertical sections orientated west-east (GDA94 grid) along the 1150m strike length of the combined Alliance – New Alliance deposit. Although the historical drilling orientation for New Alliance was NW-SE and the drill spacing on 20m sections, the interpretation was continued from Alliance through New Alliance on 10m west – east sections spacing for consistency reasons.

Three dimensional models of all geological and mineralization domains were constructed by digitising interpreted boundaries snapped to the drill hole data in cross-section using GEOVIA Surpac^{TM}. Resultant polygons were triangulated from section to section to create a 3D solid object.

14.2.1 Banded Iron Formation Domains (BIF)

The modified geological interpretation by Crowe (2012) established that two main BIF horizons occur within the sequence at Alliance. Both units, the upper BIF B and lower BIF A were wire-framed using the draped pit mapping and logged lithology from drilling to produce BIF marker units to guide the mineralization and grade continuity. The same principle was applied to New Alliance, where a nominal lower threshold grade cut-off (~0.2g/t Au) and logged lithology from drill logs were used to define the BIF dominated zones

A total of 11 BIF units were modelled which are tabulated below in Table 55 and their distribution across the deposit in Figure 39. The main BIF A unit corresponds to Domain 400 and BIF B to Domain 200.

Table 55 Alliance – New Alliance BIF Domains

File Name	Prospect	Domain No.	Description
mz_alliance_solids_au20141203.dtm	Alliance	2000	BIF A domain - low grade diffuse Mineralization
mz_newalliance_au20141205.dtm	New Alliance	5000	Basal minor BIF domain
		6000	BIF Domain below Main Zone
		7000	Main BIF Zone
		8000	Upper BIF Zone - above main 7000 domain
		9000	BIF Domain above 8000 - high grade "blow-out" zone in the pit, has been mined
		10000	Uppermost minor BIF domain
geo_sbif_20141202.dtm	Alliance	100	Uppermost BIF band - faulted southern end of New Alliance Domain 7000
		200	Main BIF marker unit - upper BIF B (Crowe, Sept 2012)
		400	Main BIF marker unit - lower BIF A (Crowe, Sept 2012)
		500	Narrow quartz vein/BIF unit (V2 unit) beneath main Domain 400 (BIF A)

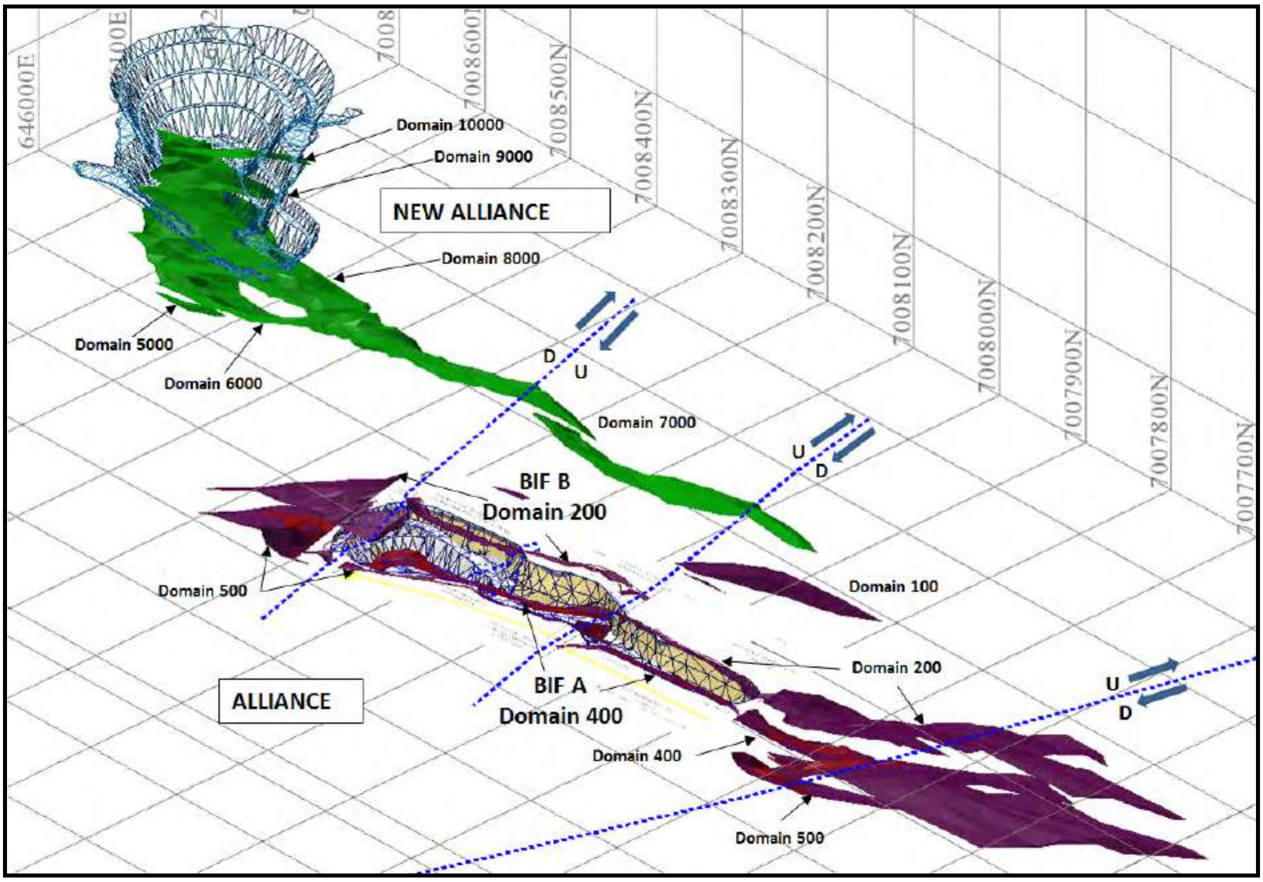

Figure 39 Alliance-New Alliance - Modelled BIF Domains and Faults

14.2.2 Quartz Vein Domains (QTZ)

Gold mineralization in the Alliance Pit is primarily associated with quartz vein, in the order of 1m to 3m thick, which broadly parallels the east dipping stratigraphy. In particular the veining is associated with the upper contact of the BIF. The upper layers of the BIF near the contact with the massive quartz vein are locally fractured and veined with thin quartz and associated sulphide (Marjoribanks, 2004). Three quartz veins, or close spaced zones of veining were mapped by Marjoribanks, an uppermost Vein 1 (V1), Vein 2 (V2) and the lowermost Vein 3 (V3).

The current geological interpretation has modelled a single main quartz vein/BIF association (Domain 4001, V1 and V3) which has been fault repeated along the extent of the pit. Another separate set (Domain 5001, V2) was associated with the dolerite along the central western side of the pit. The veins sets modelled correlate to those interpreted by Marjoribanks and are detailed in Table 56 and shown in Figures 41 and 42.

The quartz vein domains were wire-framed using the logged drill hole lithology and quartz vein percentage, utilising the modelled BIF units and the pit mapping as the primary indicator of the continuity direction. A nominal 1 g/t Au grade threshold was also used to encapsulate high grade zones on the margins of veins or where historical logging data was not available. A minimum 2m downhole interval width criterion was also used to ensure that a realistic mining width was modelled. In localized areas, sub-grade or barren logged quartz veins were incorporated into the domain to ensure continuity of the interpreted quartz vein domain.

A total of 3 high grade quartz vein domains were modelled, two veins at Alliance and one vein at New Alliance as tabulated below in and their distribution across both deposits in Figure 40. The modelled quartz veins within the Alliance pit are shown in Figure 41. A representative cross-section from each of the Alliance and New Alliance deposits displaying the both the Quartz Vein and BIF domains with annotated significant intersections results from the Monument drilling are shown in Figure 42 and Figure 43.

Table 56 Alliance – New Alliance Quartz Vein Domains

File Name	Prospect	Domain No.	Description
mz_alliance_solids_au20141203.dtm	Alliance	4001	Main high grade Quartz Vein (V1) zone (on BIF A hanging wall contact)
		5001	High grade Quartz Vein (V2) beneath main 400 BIF domain at upper dolerite contact
mz_newalliance_au20141205.dtm	New Alliance	7001	Main high grade Quartz Vein within 7000 BIF domain

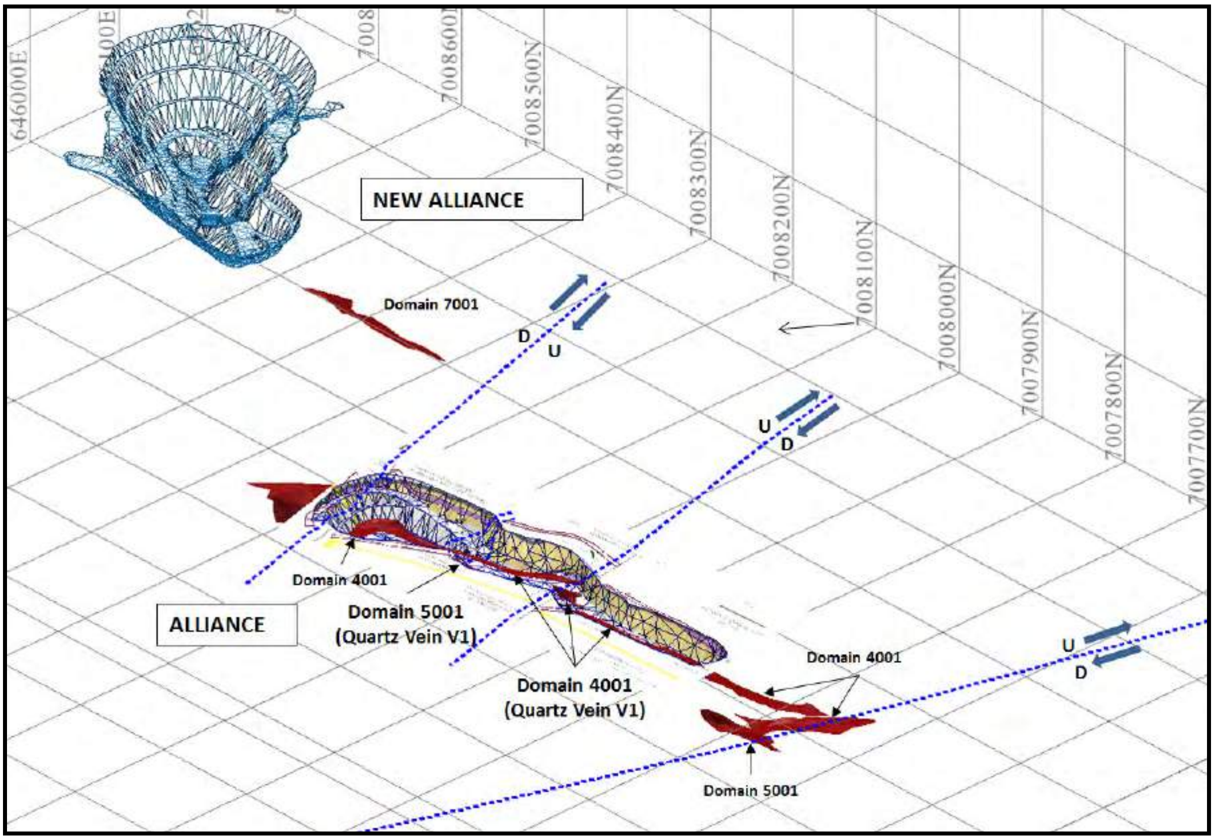

Figure 40 Alliance-New Alliance – Modelled Quartz Vein Domains and Faults

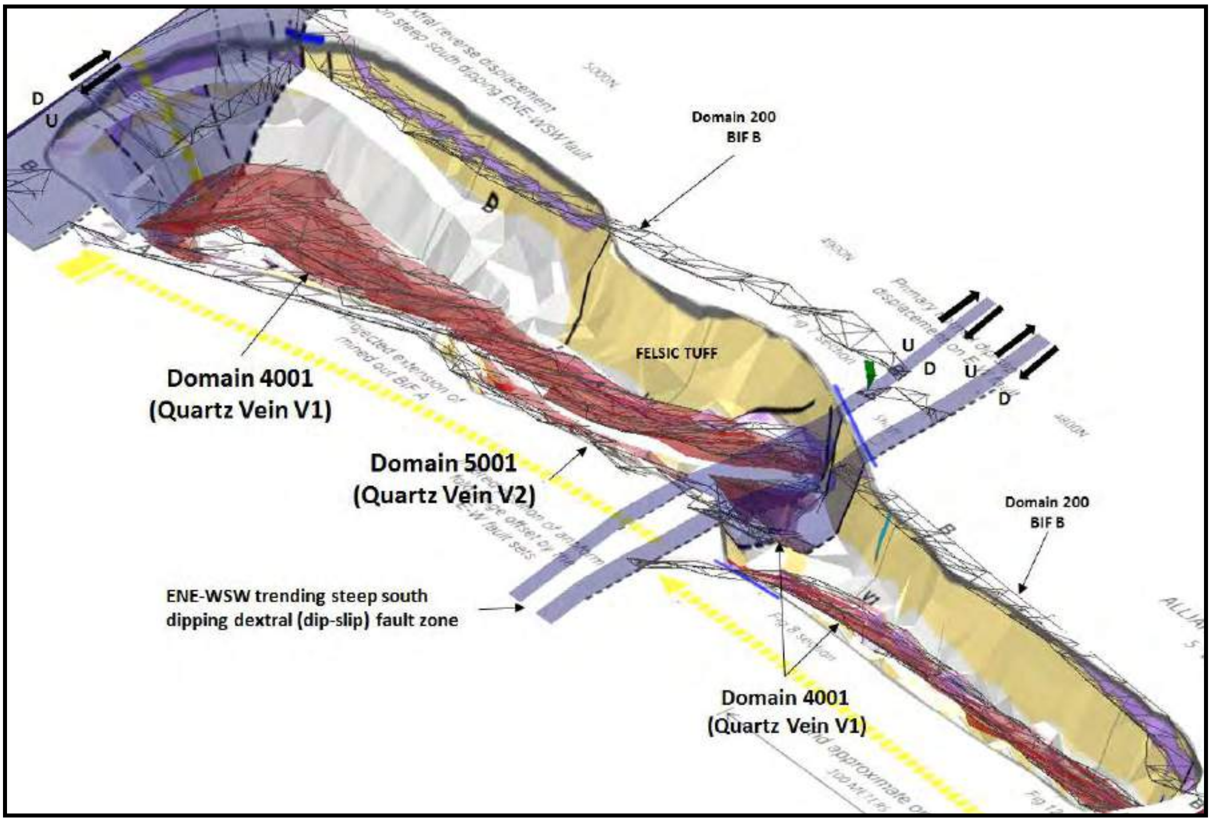

Figure 41 Alliance Pit - Modelled Quartz Vein Domains and Faults

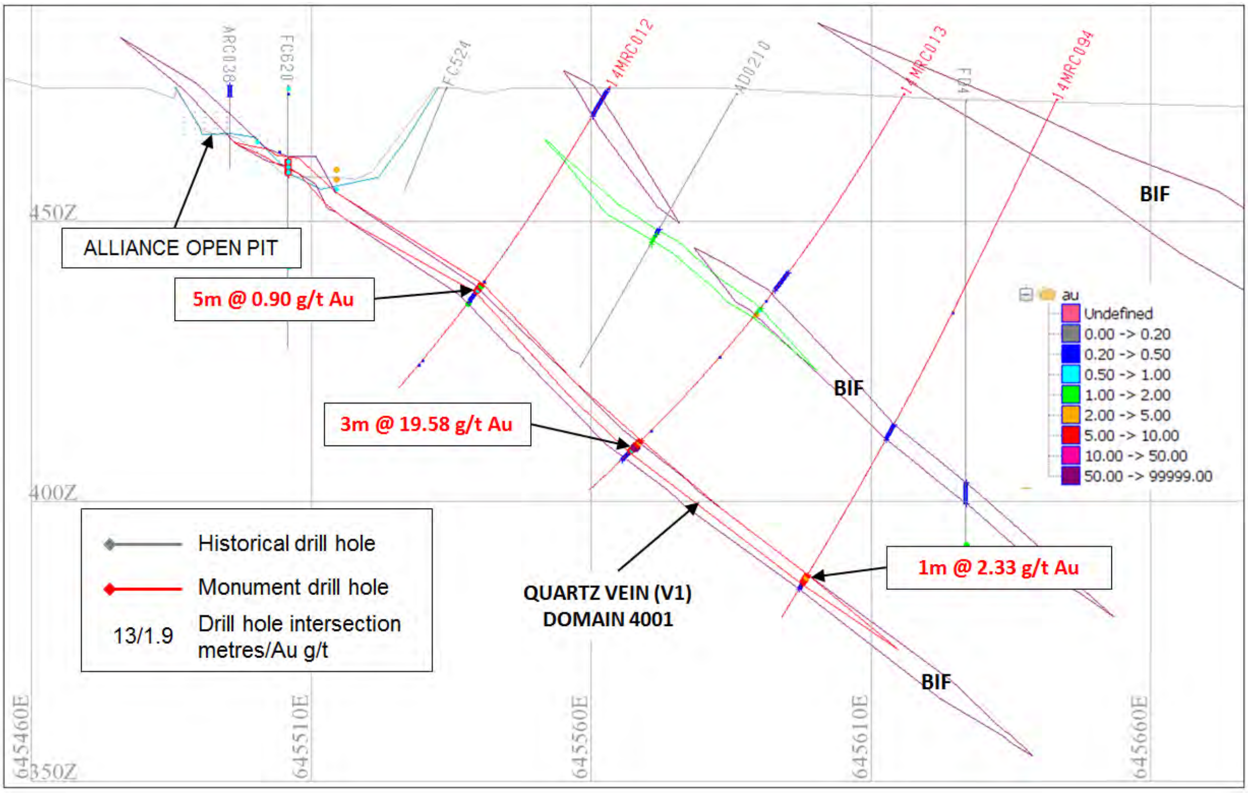

Figure 42 Alliance – Cross-section 7007620mN showing Quartz Vein and BIF domains

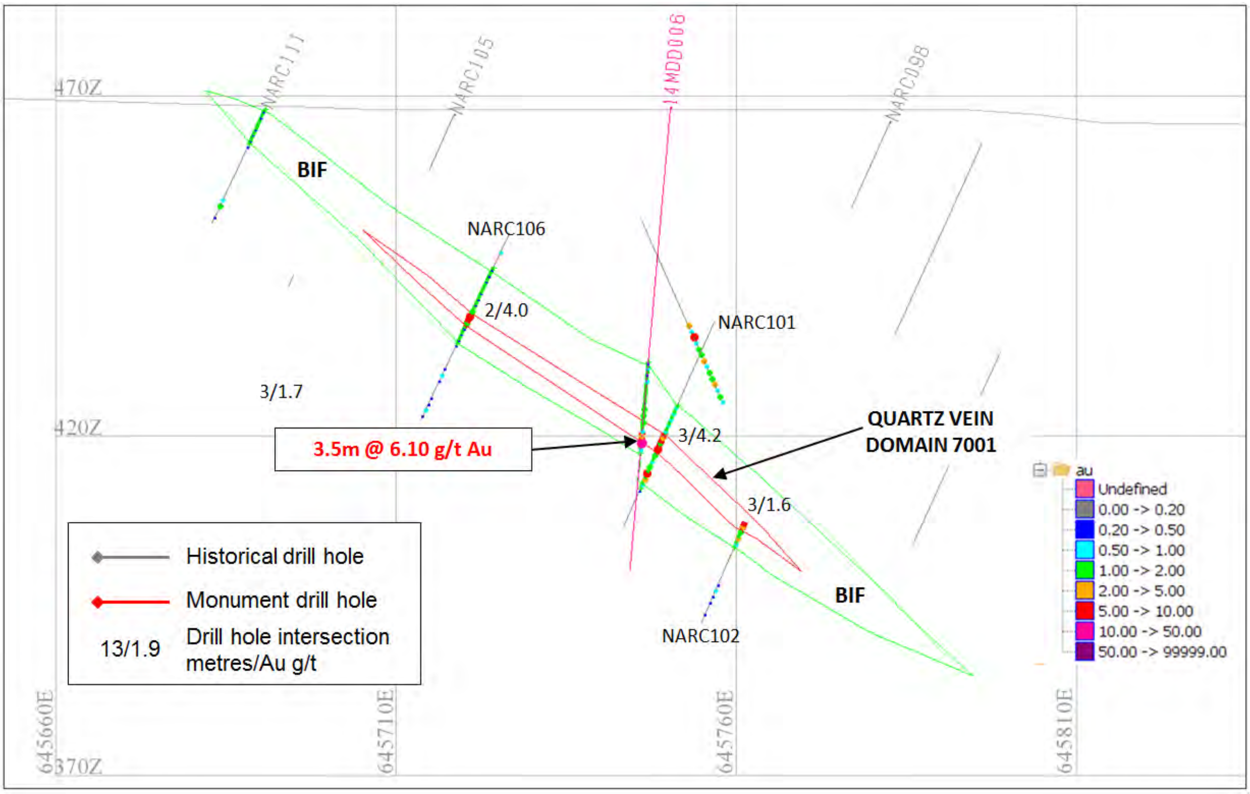

Figure 43 New Alliance – Cross-section 7008060mN showing Quartz Vein and BIF domains

14.2.3 Structural Offsets

The structural framework was established from the mapped faults identified in the Alliance pit mapping (Crowe, 2012) and supported by the 1:10,000 and 1:25,000 interpreted regional geology by Hallberg. Major structural breaks were identified where significant changes in the mineralized trend or dip occurred when the geological and mineralization domains were interpreted. The resultant wireframes and solid fault models formed the basis for the interpretation of the major structural dislocations and changes in the mineralized trends.

There are a series of late steep, south dipping brittle faults that cross-cut, truncate and significantly displace the Alliance line of mineralization with an approximate east-west trend (Marjoribanks, 2004). The distribution and geometry of the BIF units on either side of this fault zone are consistent with a predominant normal dip-slip displacement and a component of dextral accommodation (Crowe, 2012). The late stage quartz filled faults displaces the BIF units, folds and the mineralized quartz veins by up to 50m laterally in the centre of the Alliance pit (see Figures 40 and 41).

14.2.4 Weathering Domains

The Alliance mineralization is strongly weathered. Most of the historical drill logs do not define weathering, but Golders states that from the AD-series of historical holes drilled by Metana in 1994-95, only four holes intersected fresh rock at depths of 79 to 84 m downhole, indicating the top of fresh rock surface to be approximately 70 m vertical depth.

Two weathering surfaces, defining the base of complete oxidation ("BOCO") and top of fresh ("TOFR"), were interpreted utilizing the logged regolith and weathering codes from the Monument drilling. No weathering logging exists for the historical drilling. Wireframes were "snapped" to drill hole traces on east-west cross-sections for all drill holes in the estimation area. From the Monument drilling the average vertical depth to the BOCO is approximately 45m, and the TOFR is at approximately 75m vertical depth.

The final weathering surfaces and method for block model assignment are summarized below in Table 57.

Table 57 Weathering Surfaces and Model Assignment

Domain Type	3DM file	Block Model Attribute (wx_code)
Air	Above- dtm_burnakura_110712.dtm	0
Oxide	Below - dtm_burnakura_110712.dtm, and Above - wx_boco_20130708.dtm	3
Transition	Below - geo_boco_20141201.dtm ,and Above - geo_tofr_20141201.dtm	2
Fresh	Below - geo_tofr_20141201.dtm	1

14.3 *Compositing*

In the drill hole database '*murchison_20141121.mdb*', a unique code for drill intercepts within each of the mineralised domains was added to the database table '*zonecode*'. The process of coding the database was carried out by manually identifying the appropriate down hole interval to be coded and assigning the unique code to the domain wireframe. This coded interval was used to control the compositing process whilst extracting sample and composite data combinations for statistical analysis and subsequent estimation.

The MRE utilised DC, RC and some Air Core drill holes. Historical grade control drilling data gathered during open pit mining drill and blast cycles ('Blast Holes') were excluded from the compositing process due to;

- Difficulty in sub-domaining the BIF and QTZ domains within the grade control data density;
- Lack of quality control data for the corresponding assays; and
- Unknown drilling protocols.

The mineralised domains were generally sampled on 1 metre intervals with 76% of Alliance's 3,437 mineralised samples and 97% of New Alliance's 2,290 mineralised samples having a sample length of one metre. Sample lengths across ANA varied from 0.2 to 6 metre with a mean length of 1.2 metre and 1.0 metre for Alliance and New Alliance respectively. For the combined project area, 88% of the samples have a length of 1 metre as shown in Figure 44. Drilling completed by Monument during 2014, comprises 16% of the total mineralised drill intercepts used for the mineral resource estimate.

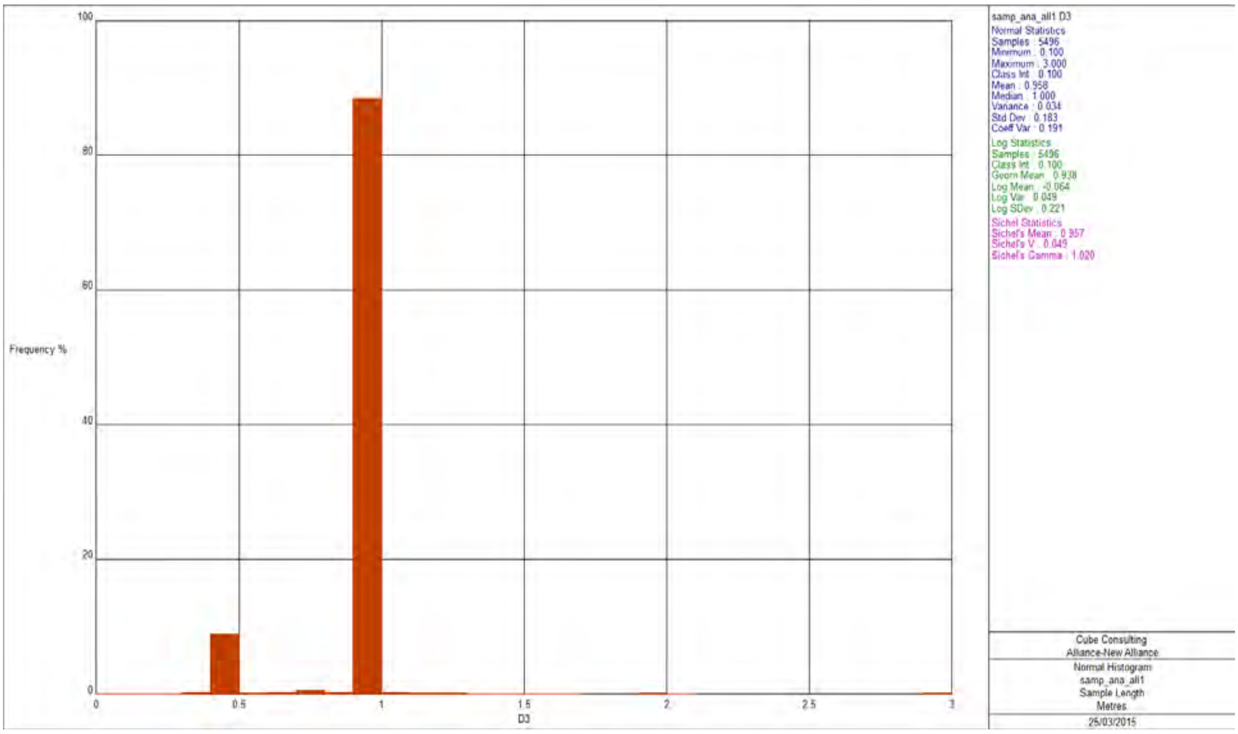

Figure 44 ANA Raw Sample Length Histogram for Mineralised Domains

Four main criteria were considered when determining the most appropriate compositing approach:

1. Sample length statistics;
2. Additivity of variables;
3. Homogeneity of composited zones; and
4. Proposed block estimate and smallest mining unit ("SMU") size.

After an examination of the above criteria, 2 metre downhole composites were deemed an appropriate composite length within the ANA mineralized domains. The downhole compositing process used a 'best fit' approach resulting in composites of slightly variable but equal length within a mineralized domain, This ensures the assay sample composite length is as close as possible to the nominated 2m composite length whilst reducing the amount of residual lengths normally created during fixed length compositing.

Gold composites were extracted from the '*Au_ppm*' field within the '*assay*' table of the '*murchison_20141121.mdb*' database. The '*zonecode*' interval table was used to ensure only mineralized coded sample intervals were composited. Using this approach a total of 1,963 two metre downhole composites were extracted from the database for Alliance and 1,261 composites for New Alliance. These composites formed the basis for the statistical and variography analysis.

The data structure for composite files used in the estimation is summarised in Table 58. The summary statistics for gold grade from the raw samples and 2m composites data for each deposit and domain are shown in Table 59 and Table 60.

Table 58 Composite File Data Fields

Field	Description
D1	Au ppm – Uncut interval composite
D2	Hole ID
D3	Interval From Depth
D4	Interval To Depth
D6	Downhole Composite Interval Length
D8	Weathering Code – 1-Fresh, 2-Trans, 3-Oxide
D10	Zonecode Number (Domain/Wireframe number)
D11	Au ppm – Cut interval composite

Table 59 Statistics for Raw Sample Data (Au g/t)

Deposit Name	Domain	Domain Type	Number	Mean (g/t Au)	Min Value (g/t Au)	Max Value (g/t Au)	Std Dev	CV
Alliance	200	BIF	1,015	0.12	0.001	3.54	0.27	2.3
	400	BIF	789	0.27	0.001	24.98	1.01	3.7
	500	BIF	301	0.33	0.005	23	1.37	4.1
	2000	QTZ	62	0.83	0.02	7.03	1.13	1.4
	4001	QTZ	848	3.27	0.001	175.25	8.45	2.6
	5001	QTZ	422	2.53	0.001	40.05	4.92	1.9
	Total		3,437	1.26	0.001	175.25	4.79	3.8
New Alliance	5000	BIF	12	0.59	0.14	1.93	0.04	0.8
	6000	BIF	232	1.13	0.005	46.9	3.41	3.0
	7000	BIF	1,272	0.98	0.005	42	1.63	1.7
	7001	QTZ	67	3.76	0.32	18.2	2.91	0.8
	8000	BIF	409	1.78	0.005	32.6	2.98	1.7
	9000	BIF	277	4.59	0.005	158	13.60	3.0
	10000	BIF	22	0.90	0.03	3.82	0.90	1.0
	Total		2,290	1.65	0.005	158	5.31	3.2
TOTAL			5,727	1.42	0.001	175.25	5.01	3.5

Table 60 Statistics for 2m Composite Data (Au g/t)

Deposit Name	Domain	Domain Type	Number	Mean (g/t Au)	Min Value (g/t Au)	Max Value (g/t Au)	Std Dev	CV
Alliance	200	BIF	686	0.10	0.001	1.79	0.20	1.9
	400	BIF	455	0.24	0.001	12.21	0.66	2.8
	500	BIF	174	0.31	0.005	9.04	0.74	2.4
	2000	QTZ	38	0.81	0.09	3.48	0.84	1.0
	4001	QTZ	391	3.10	0.001	40.35	4.63	1.5
	5001	QTZ	219	2.38	0.001	21.29	3.44	1.4
	Total		1,963	1.02	0.001	40.35	2.70	2.7
New Alliance	5000	BIF	7	0.58	0.26	1.26	0.33	0.6
	6000	BIF	134	1.11	0.01	20.65	2.22	2.0
	7000	BIF	696	0.98	0.005	21.08	1.14	1.2
	7001	QTZ	37	3.73	0.73	10.17	1.96	0.5
	8000	BIF	225	1.80	0.05	20.26	2.36	1.3
	9000	BIF	150	4.58	0.005	127.07	12.04	2.6
	10000	BIF	12	0.83	0.03	2.21	0.66	0.80
	Total		1,261	1.64	0.005	127.07	4.58	2.8
TOTAL			3,224	1.26	0.001	127.07	3.57	2.8

14.4 *Statistical Analysis*

A statistical and spatial analysis of the extracted 2m downhole composites was undertaken separately for each of the 13 mineralized domains. A key objective was to validate the overall domain controls on mineralization and to determine whether further sub-domaining was required on the basis weathering.

A further aim was to evaluate the need for special treatment of obvious statistical outliers.

The statistical analysis undertaken consisted of;

- Domain Analysis – whether the domaining approach had effectively grouped similar, (i.e. homogenous) Mineralization styles.
- Weathering Analysis – whether composites required sub-domaining based on weathering.
- High Cut Sensitivity Analysis – investigated outliers to determine whether high grade assay limits were to be applied to the composite data.

14.4.1 Domain Analysis

The gold grade populations for all Alliance and New Alliance domains were assessed to determine whether domaining had provided appropriate grouping of the mineralization populations.

The mineralization domains at Alliance and New Alliance were grouped into subdomains for statistical analysis by a combination of lithology and mineralization styles (i.e. BIF and QTZ, refer Section 14.2. Comparison of the two main mineralization types demonstrates that each of the grouped domains represent geologically and statistically distinct populations and provide a robust basis for Mineral Resource estimation (Figure 45 and 46).

The grade distribution for the BIF style mineralization group is consistently lower grade than the QTZ mineralization. The exception is domain 2000 which statistically spans both groupings is considered a mixed domain; this is likely due to its location across two faults and is also poorly defined by drilling (38 composites).

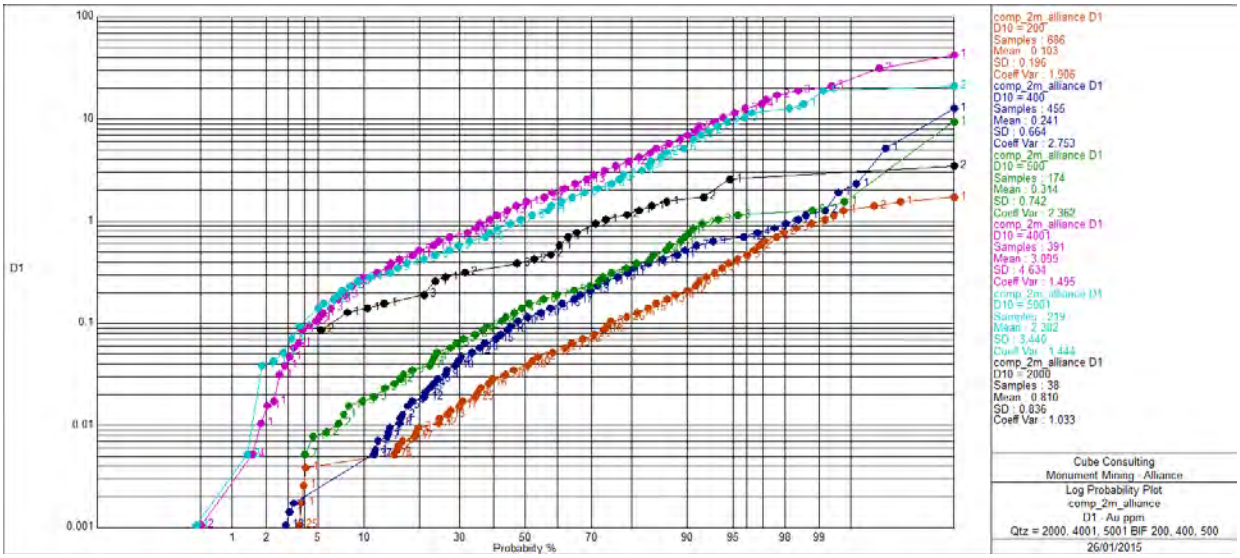

Figure 45 Alliance – Log Probability Plot by Mineralization Domain

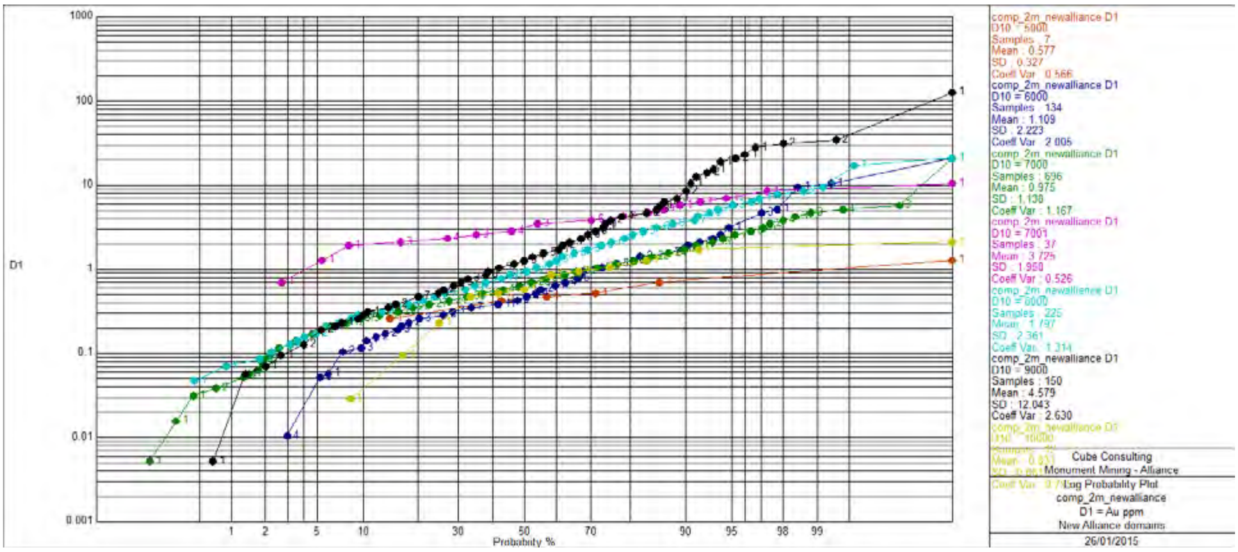

Figure 46 New Alliance – Log Probability Plot by Mineralization Domain

14.4.2 Weathering Domain Analysis

Comparison of oxide, transitional and fresh sample data for mineralized domains was completed to determine if the composites required sub-domaining based on weathering.

The statistical differences based on weathering appear consistent, particularly at Alliance, but were highly variable on a domain by domain basis. Comparison of the weathering domains on a log probability plot for each deposit are shown in Figure 47 and Figure 48. Spatial analysis indicated these weathering boundaries were gradual and, combined with the lack of fresh composites in either deposit, further sub-domaining by weathering was not undertaken. The application of weathering subdomains to individual narrow mineralisation domains would have resulted in very limited composite datasets from which to undertake meaningful variogram analysis and subsequent grade interpolation.

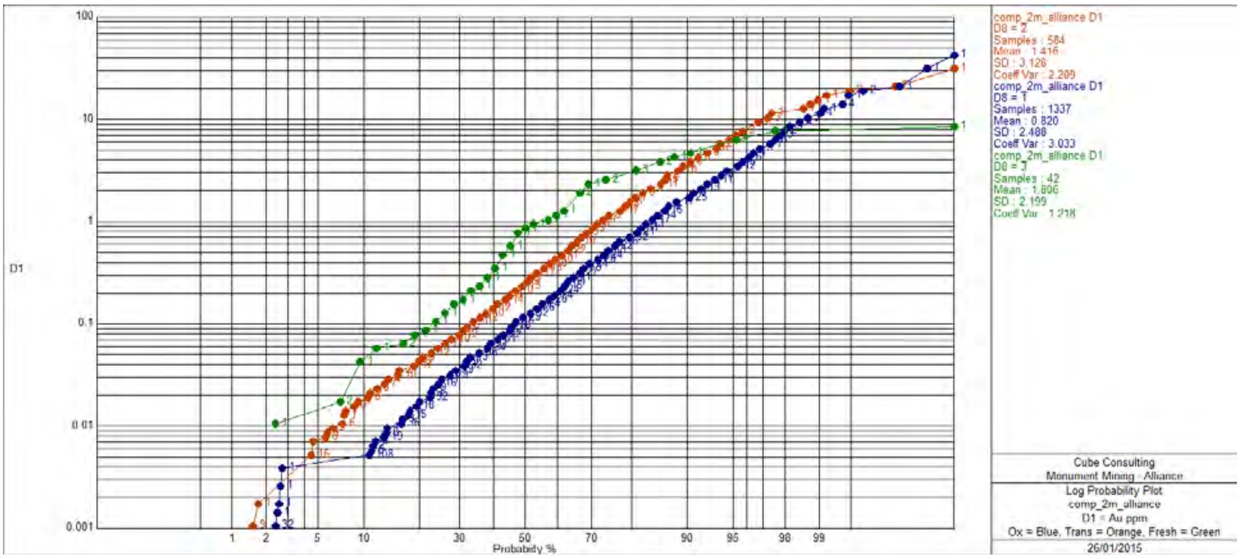

Figure 47 Alliance – Log Probability Plot by Weathering Domain

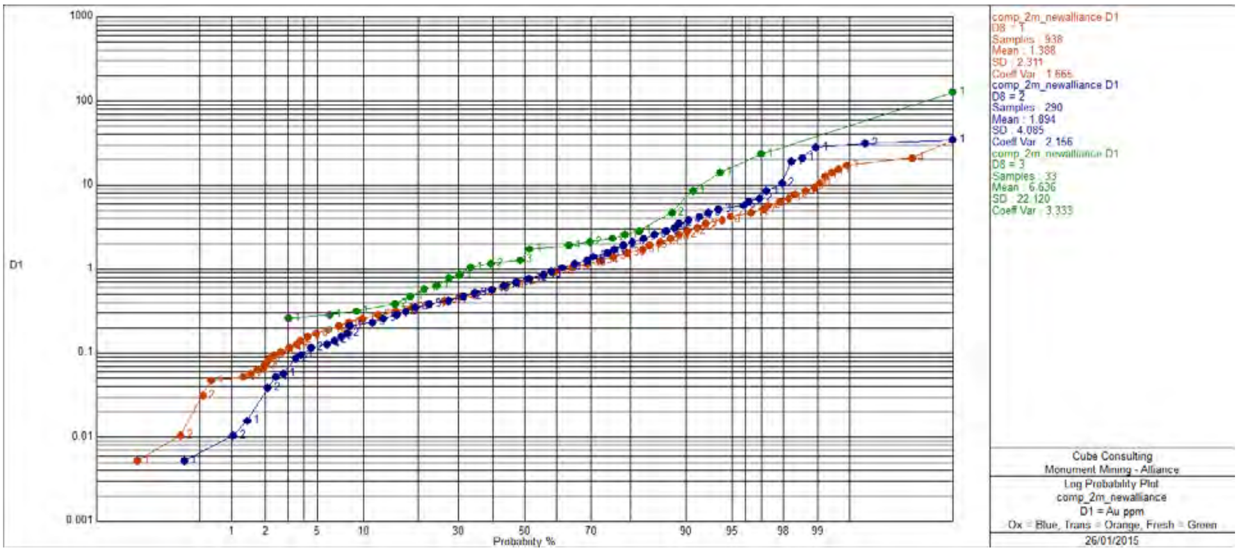

Figure 48 New Alliance – Log Probability Plot by Weathering Domain

14.4.3 Bulk Density

Bulk density values were assigned to the model based on geological and weathering subdomains. Density data was sourced from Kentor and Monument diamond core (17 metallurgical and geotechnical HQ to PQ core holes) and measured using the water immersion method (Archimedes principle).

Cube undertook a density review of the 243 bulk density measurements available from the combined Alliance and New Alliance datasets. Bulk density was reviewed for logged lithology of the bulk density samples and weathering, as defined by the interpreted weathering surfaces. For the purposes of the review, the lithologies were grouped into three main lithology types; quartz vein mineralization (‘*QV*’), banded iron formation mineralization (‘*BIF*’), and the remaining non mineralized lithologies (Waste).

Table 61 summarized the values used to assign bulk densities to the block model based on weathering state and lithology.

Table 61 Density Analysis Values Assigned to Block Model

Weathering	Lithology	No. Samples	Min.	Max.	Mean	Assigned Density
Oxidised	Quartz Vein (QV)	4	1.55	2.26	2.01	2.0
	Banded Iron (BIF)	8	1.69	2.52	2.17	2.2
	Waste	116	1.38	2.59	2.01	2.0
Transitional	Quartz Vein (QV)	8	2.23	2.62	2.49	2.5
	Banded Iron (BIF)	23	1.62	3.23	2.53	2.5
	Waste	64	1.64	2.68	2.36	2.4
Fresh	Quartz Vein (QV)	0	-	-	-	2.6
	Banded Iron (BIF)	6	2.52	3.24	2.89	2.9
	Waste	14	2.02	2.84	2.57	2.7

An arbitrary value of 2.6 t/m^3 was assigned for fresh quartz whereby no data was available and a more appropriate value of 2.7 t/m^3 for fresh "waste" was also assigned to the block model. Figure 49 below is a log probability plot summarizing the available bulk density data by lithology type.

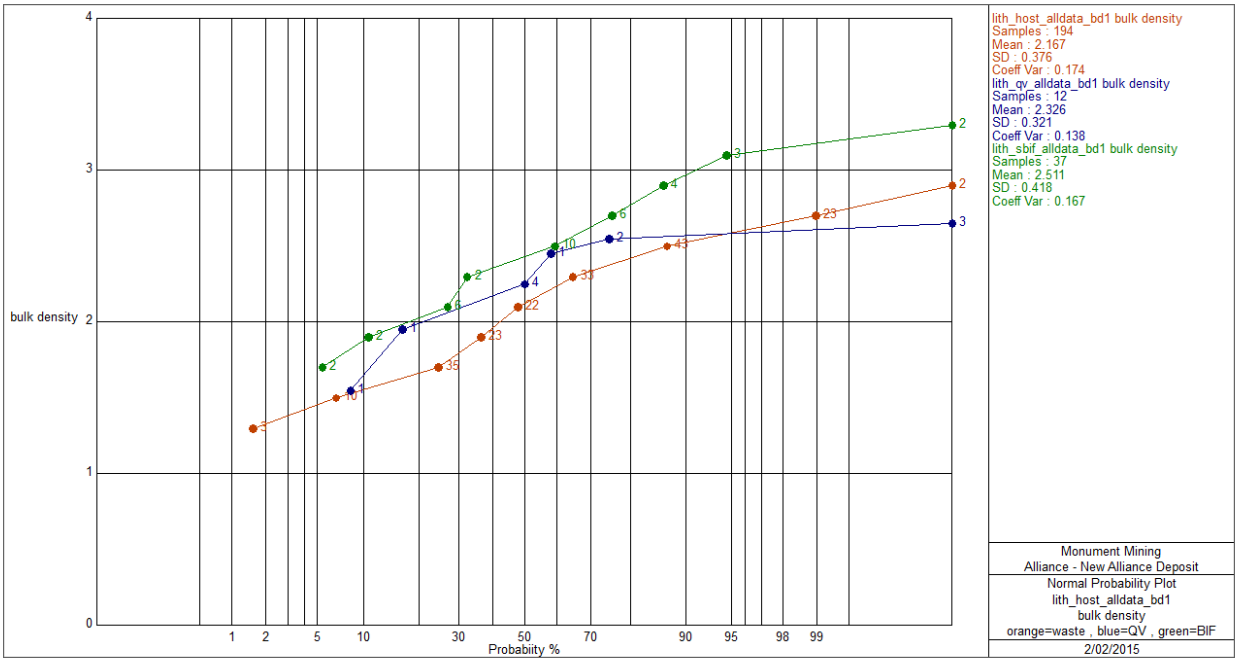

Figure 49 Log Probability Plot Alliance – New Alliance Bulk Density Data coloured by Lithology Type (orange=waste, blue=QV, green=BIF)

14.4.4 Grade Outliers and Top Cuts

Cube reviewed the statistics of the composites to check for outlier composite grades prior to estimation. The composite data was reviewed globally and for each individual domain using histograms, log-histograms, log-probability plots and high grade metal sensitivity analysis, combined with spatial inspection of the grade distribution and outlier locations.

Appropriate high-grade cuts were applied on an individual domain basis with Alliance BIF domains 400, 500 applied high grade caps at 2 g/t Au, corresponding QTZ domain 4001 high-grade capped at 25 g/t Au. New Alliance high grade caps were 10 g/t Au for domains 6000, 7000, 8000 and 20 g/t for domain 9000. High grade caps were not required for all other mineralized domains as the grade variability relative to mean was acceptable and spatial analysis of high composite gold values did not indicate they were outliers.

A summary of the descriptive statistics for all domains are summarized in Table 62. The number of composites influenced by the high grade cut is shown in parenthesis next to the top cut value. Included in the summary statistics for the top cut composites is the declustered mean based on a 15m(N) x 15m(X) x 15m(Z) cell size.

Table 62 Basic Statistics – ANA Domains (g/t Au)

Deposit Name	Domain	Domain Style	No. of Comps	Uncut Mean Grade	Au Top Cut	Cut Grade	Decl Cut Mean	Cut Au CV
Alliance	200	BIF	686	0.10	uncut	-	0.10	1.91
	400	BIF	455	0.24	2 (3)	0.21	0.23	1.34
	500	BIF	174	0.31	2 (1)	0.27	0.25	1.29
	2000	QTZ	38	0.81	uncut	-	0.86	1.03
	4001	QTZ	391	3.10	25 (3)	3.03	2.91	1.38
	5001	QTZ	219	2.38	uncut	-	2.34	1.44
New Alliance	5000	BIF	7	0.58	uncut	-	0.61	0.57
	6000	BIF	134	1.11	10 (2)	1.03	0.92	1.58
	7000	BIF	696	0.98	10 (1)	0.96	0.96	0.95
	7001	QTZ	37	3.73	uncut	-	3.98	0.53
	8000	BIF	225	1.80	10 (2)	1.72	1.68	1.10
	9000	BIF	150	4.58	20 (9)	3.45	2.44	1.50
	10000	BIF	12	0.83	uncut	-	0.57	0.79

14.5 *Variography*

Variography and evaluation of suitable estimation parameters based on the final variogram models was undertaken using ISATIS® Software.

The variogram modelling process followed by Cube involved the following steps:

- calculate and model the omnidirectional or average variograms to characterise the nugget effect;
- calculate and model the variograms for each of the domains in the direction of maximum continuity and the orthogonal direction, and
- varying lag distances in the major, semi-major and minor directions to optimise variograms for each these directions.

Directional variography was undertaken on both declustered raw and Gaussian transformed 2m downhole composite data. Given the narrow width of the mineralized domains (1 to 3 composites wide) it was decided to calculate and model the variograms in the plane of the Mineralization domain being estimated.

14.5.1 Alliance

Using the above approach, gold variograms at Alliance were modelled using the composite data from the most representative domains within the mineralized domain groupings of BIF (Domain 400) and QTZ (Domains 4001, 5001) identified during statistical analysis (refer Section 14.4.1). Raw variable composites were declustered prior to variogram modelling and also transformed into Gaussian values for investigating continuity directions.

Variography on representative BIF mineralisation (Domain 400) identified anisotropic plunge (within the mineralised plane) of 14^{o} to the north and a model comprising two spherical structures with a relative nugget of 33% and a range for the first structure of 25m with 55% of the total variance of the sample data contained within this nugget and the first range (Figure 50). The second structure range was significantly longer at 135m and contributed 45% of the total variance. This model was utilized as a proxy model for other BIF domains (200 and 500).

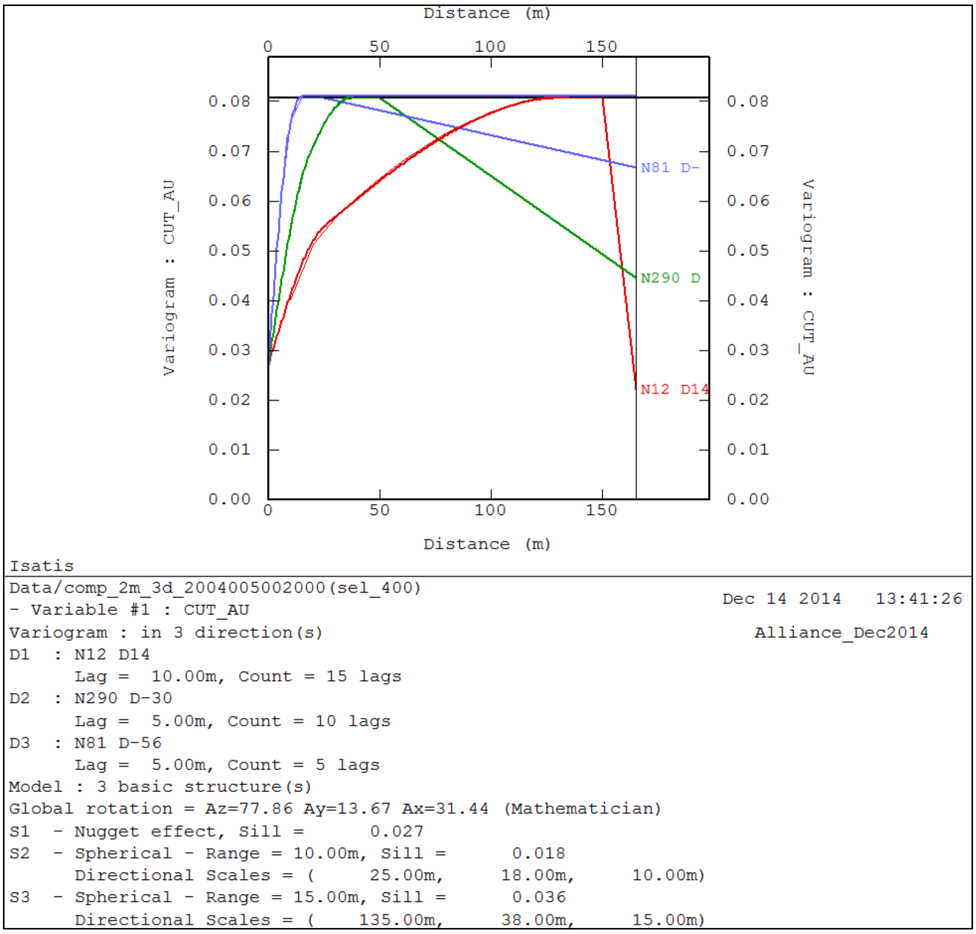

Figure 50 Alliance BIF Domain 400 – Grade Variogram

Variography on representative QTZ mineralisation (combined domains 4001+5001) identified an isotropic model comprising two spherical structures with a relative nugget of 29% and a range for the first structure of 30m, with 67% of the total variance of the sample data contained within this nugget and the first range (Figure 51). The second structure range was 70m and contributed 33% of the total variance. This model was utilized as a proxy model for the QTZ domain 2000 with orientation adjusted to reflect local wireframe orientation.

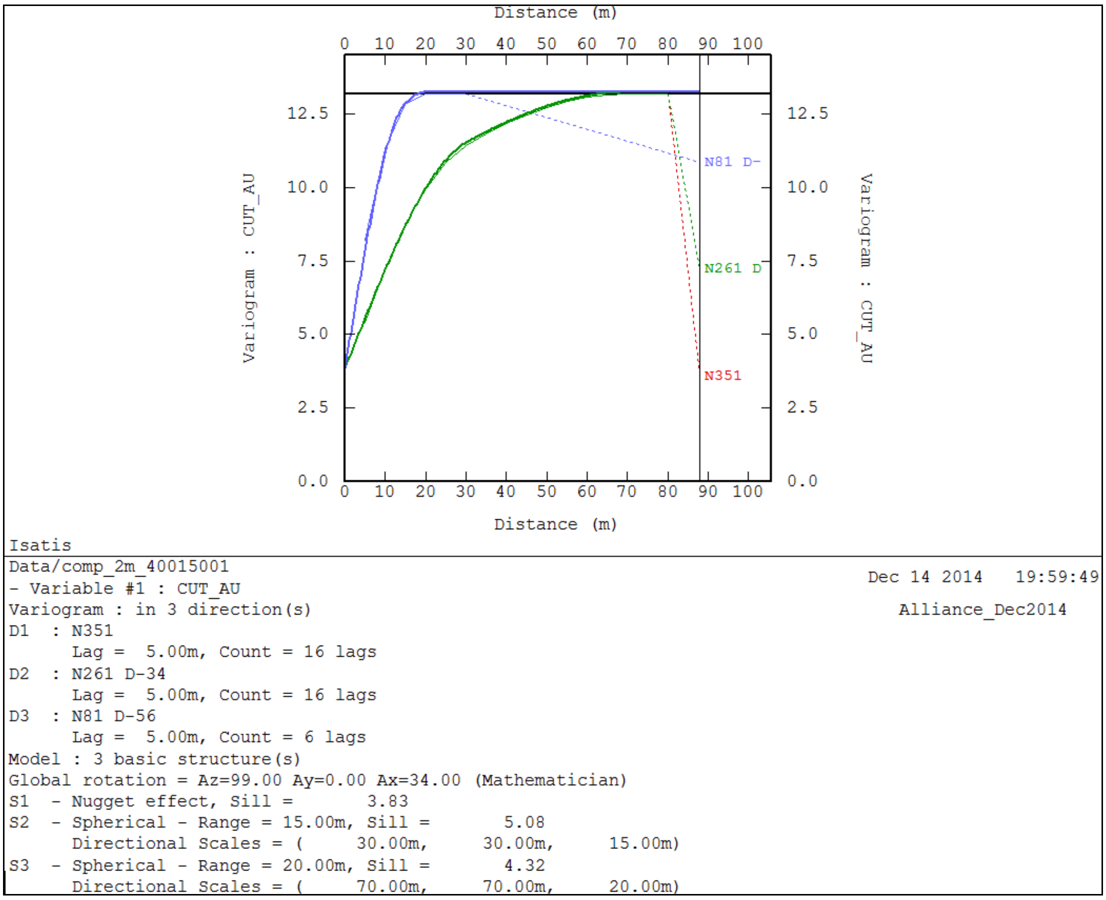

Figure 51 Alliance QTZ Domains 4001/5001 – Grade Variogram

Variography on representative QTZ mineralization (Combined domains 4001+5001) identified an isotropic model comprising two spherical structures with a relative nugget of 29% and a range for the first structure of 30m with 67% of the total variance of the sample data contained within this nugget and first range. The second structure range was 70m and contributed 33% of the total variance. This model was utilised as a proxy model for the QTZ domain 2000 with orientation adjusted to reflect local wireframe orientation.

The variogram parameters for Alliance BIF and QTZ sub-domains are summarized in Table 63.

Table 63 Alliance Variogram Models

Domain	Relative Nugget	Spherical Model 1st Structure				Spherical Model 2nd Structure				Surpac Rotation		
		Sill	Major (m)	Semi (m)	Minor (m)	Sill	Major (m)	Semi (m)	Minor (m)	Azi	Dip	Plunge
200,400, 500	0.33	0.22	25	18	10	0.44	135	38	15	12.1	-31.4	-13.7
QTZ 4001,5001	0.29	0.38	30	30	15	0.33	70	70	20	351	-34	0
QTZ 2000	0.29	0.38	30	30	15	0.33	70	70	20	0	-34	0

14.5.2 New Alliance

Gold variograms at New Alliance were modelled using the composite data from the most representative domains within the mineralized domain groupings of BIF (Domain 7000) and QTZ (Domain 7001) identified during statistical analysis (refer Section 14.4.1).

Variography on representative BIF mineralisation (Domain 7000) did not identify any anisotropic plunge (within the mineralised plane) and a model comprising two spherical structures with a relative nugget of 37% and a range for the first structure of 30m with 69% of the total variance of the sample data contained within this nugget and first range (Figure 52). The second structure range was 40m and contributed 31% of the total variance. This model was utilised as a proxy model for other BIF domains (5000, 6000, 8000, 9000 and 10000), with orientation adjusted to reflect local wireframe orientation.

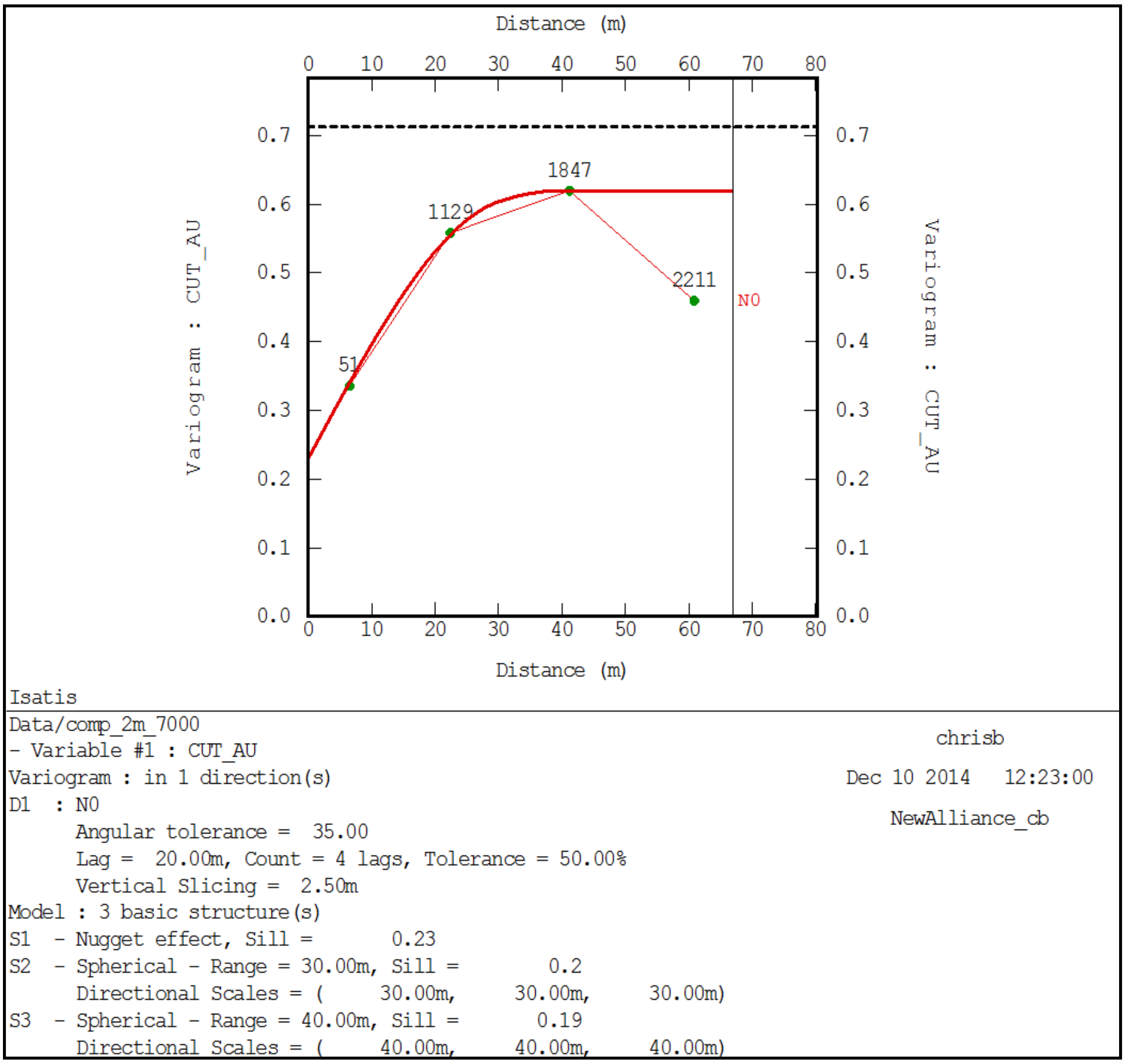

Figure 52 New Alliance BIF Domain 7000 – Grade Variogram

Variography on representative QTZ mineralisation (Domains 7001) identified an isotropic model comprising two spherical structures with a relative nugget of 28% and a range for the first structure of 4m with 60% of the total variance of the sample data contained within this nugget and first range (Figure 53). The second structure range was 35m and contributed 40% of the total variance.

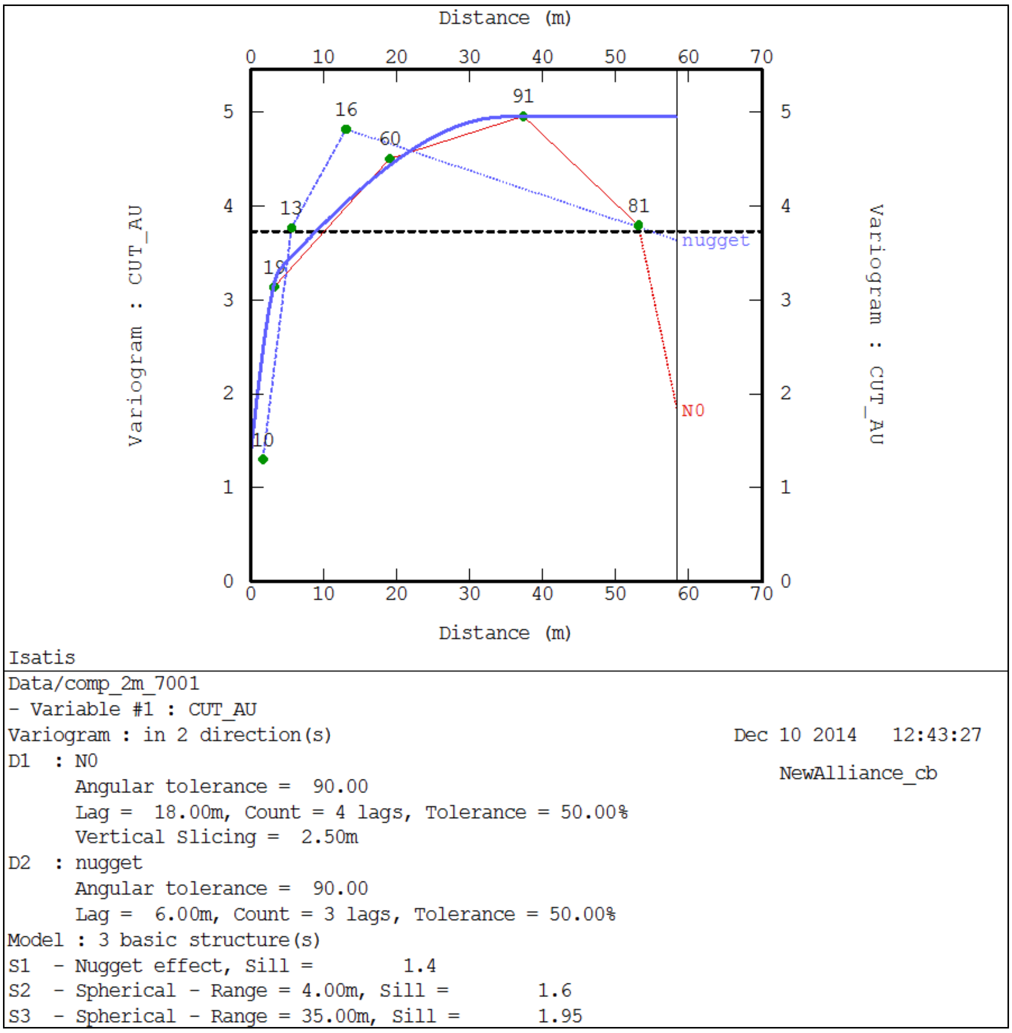

Figure 53 New Alliance QTZ Domain 7001 – Grade Variogram

The variogram parameters for New Alliance BIF and QTZ sub-domains are summarized in Table 64.

Table 64 New Alliance Variogram Models

Domain	Relative Nugget	Spherical Model 1st Structure				Spherical Model 2nd Structure				Surpac Rotation		
		Sill	Major (m)	Semi (m)	Minor (m)	Sill	Major (m)	Semi (m)	Minor (m)	Azi	Dip	Plunge
5000,6000, 7000	0.37	0.32	30	30	7.5	0.31	40	40	10	0	-30	0
8000,9000	0.37	0.32	30	30	7.5	0.31	40	40	10	10	-30	0
10000	0.37	0.32	30	30	7.5	0.31	40	40	10	330	-30	0
QTZ 7001	0.28	0.32	4	4	1	0.40	35	35	8.75	0	-30	0

14.6 *Block Model Definition*

A number of criteria including data spacing, geometry of mineralized domains and volume fill were the primary considerations taken into account when selecting an appropriate estimation block size. Data spacing within the mineralized domains was nominally on a drilling spacing of 20m x 20m increasing to 50m and 75m spacing's with depth and also in the southern extents Alliance and New Alliance.

Cube considers it good geostatistical practice to use an estimation parent cell size that approaches the data spacing where possible, whilst at the same time being mindful of potential mine design and selectivity implications. Cube reviewed the data spacing and conceptual SMU relative to the mineralized zones and defined that an estimation block size of 10m(Y) x 5m(X) x 5m(Z) would be appropriate. The estimation parent block was sub-blocked to 2.5m(Y) x 1.25m(X) x 1.25m(Z), to improve the volume representation of the block model within the narrow mineralized zones.

The definitions for the block model *'alliance_dec2014.mdl'*, inclusive of Alliance and New Alliance MRE's, is summarized in Table 65. The block model attributes and descriptions are summarized in Table 66.

Table 65 Block Model Definition – alliance_dec2014.mdl

	Minimum	Maximum	Model Extent (m)
Easting	645200	646100	900
Northing	7007105	7008705	1600
RL	0	500	500
Parent Cell X m	5	Min Sub-Cell X m	1.25
Parent Cell Y m	10	Min Sub-Cell Y m	2.5
Parent Cell Z m	5	Min Sub-Cell Z m	1.25

Table 66 Block Model Attributes - alliance_dec2014.mdl

Field Name	Description
x	X Block Centroid
y	Y Block Centroid
z	Z Block Centroid
au_ppm	Estimated by Ordinary Kriging – Au g/t Cut
density	Assigned Insitu Bulk Density
depletion_n	Depletion codes: 0=Open pit mined, 1=Insitu, 5=Backfill
est_au_avd	Estimation quality – Average distance to composites
est_au_dns	Estimation quality – Distance to nearest composite
est_au_kv	Estimation quality – Kriging Variance
est_au_ns	Estimation quality – Number of composites
geo_ox_n	Oxidation code: 0=air, 1=fresh, 2=transitional, 3=oxide
pit_code_n	Deposit, Pit : 0=outside pit, 1=Alliance pit, 2=New Alliance pit
rescat_n	Resource Category : 1=Measured, 2=Indicated, 3=Inferred 4=Unclassified
zonecode_n	Estimation domains. i.e. 200, 400, 500.

14.7 *Grade Interpolation*

Interpolation of gold values was undertaken using Ordinary Kriging ("OK"), within GEOVIA Surpac^{TM} software, for each mineralized domain using the uniquely coded 2m downhole composite data specific to that domain. All block estimates were based on grade interpolation into parent cells of 10m(Y) x 5m(X) x 5m(Z) with block discretization points at 5m(Y) x 2m(X) x 2m(Z).

14.7.1 Search Neighborhood Analysis

Cube attempted to characterize the spatial relationship of the data using variography and have sought to implement search strategies aimed at producing a robust block estimate whilst at the same time minimizing estimation error and conditional biases. Cube optimizes search neighborhoods by undertaking Kriging Neighborhood Analysis ("**KNA**"), analyzing estimation quality data such as Slope of Regression and Kriging weights for various search neighborhoods, in combination with other primary considerations such as of data spacing, geometry of mineralized domains and variogram models.

As data spacing at the Alliance deposit was consistent throughout the mineralized domains, KNA was undertaken within the same representative BIF and QTZ sub-domains utilised for variogram modelling (refer Section 14.5.1). The aim of these tests is to optimize the kriging search neighborhood and maximize the quality of the kriging when dealing with a non-exhaustive data set. A number of key criteria were captured for each selected block as follows:

- Block coordinates and dimensions;
- Estimated grade;
- Kriging variance;
- Block Dispersion variance;
- Slope of Regression of estimated blocks z*(v) and theoretical true blocks z(v) (Vann, 2003);
- A listing of the actual informing composites within the search volume of the block including coordinates, grades, distance from block and kriging weight;

- Statistics of the informing composites including number of composites, minimum, maximum, mean, standard deviation, variance and coefficient of variation.

Generally, in moderately to well-informed areas of the model, the slope of regression approached 1.0 indicating that the potential for conditional bias is minimal using the chosen search strategy. As expected, the slope of regression was often considerably lower around the periphery of the model where data spacing was sparse.

Optimized search neighborhoods were spatially validated prior to use with search and variogram ellipses overlaid with domain wireframes, composites and raw drill hole data. Optimum search distances and minimum, maximum composites as determined during KNA broadly reflected the ranges, and major/semi-major ratios, from the variogram models (refer Section 14.5)

Appropriate search estimation neighborhood parameters are summarized in (Table 67 and Table 68).

Table 67 Alliance Search Neighbourhood Parameters

Estimation Domain	Minimum number of Composites	Maximum number of composites	Surpac Azi/Plunge/Dip	Search Radius (m)	Anisotropy
200,500	6	20	12.1/-13.7/-31.4	140	2:3
400	6	20	12.1/-13.7/-31.4	140	2:4
QTZ 4001, 5001	8	20	351/0/-34	80	1:3
QTZ 2000	8	20	000/0/-34	80	1:3

Table 68 New Alliance Search Neighbourhood Parameters

Estimation Domain	Minimum number of Composites	Maximum number of composites	Surpac Azi/Plunge/Dip	Search Radius (m)	Anisotropy
5000	6	20	000/0/-30	40	1:4
6000	6	20	000/0/-30	40	1:4
7000	6	20	000/0/-30	40	1:4
QTZ - 7001	6	20	000/0/-30	35	1:4
8000	6	20	10/0/-30	40	1:4
9000	6	20	10/0/-30	40	1:4
10000	6	20	330/0/-30	40	1:4

The New Alliance search neighborhoods were initially Kriged using the above parameters, however a second pass was subsequently run, using the parameters in Table 69 to allow interpolation of blocks that did not meet the original search criteria. Given the small range of the initial search neighborhood (40m), this strategy is considered appropriate.

Table 69 New Alliance 2nd Pass - Search Neighbourhood Parameters

Estimation Domain	Minimum number of Composites	Maximum number of composites	Surpac Azi/Plunge/Dip	Search Radius (m)	Anisotropy
5000	2	20	000/0/-30	40	1:4
6000	2	20	000/0/-30	60	1:4
7000	2	20	000/0/-30	92	1:4
QTZ - 7001	2	20	000/0/-30	40	1:4
8000	2	20	10/0/-30	60	1:4
9000	2	20	10/0/-30	60	1:4
10000	1	20	330/0/-30	40	1:4

14.7.2 Unestimated Domains and Blocks

Individual blocks with insufficient data support for grade interpolation at Alliance remained unestimated within the mineralized volume. These blocks were spatially investigated and affected less than 2% of the total interpreted mineralized volumes, they were consistently groups of blocks on the farthest extents of domains 200, 400, 500 and 4001 and were assigned a value of 0.0 g/t Au prior to finalizing the model.

Within New Alliance a second search pass was run for all domains, with a slightly larger ellipse and lower minimum composite criteria. All blocks that remained unestimated after the second pass were assigned a value of 0.01 g/t Au.

All unmineralized (waste) blocks outside of the mineralization wireframes were reset to 0.0 g/t Au prior to finalizing the model.

14.8 *Model Validation*

The ANA MRE model was validated statistically and graphically for all estimated domains. Spatial validation of the block model was also undertaken, comparing the block estimate values against raw drill hole sample data and composite data on a section by section basis within GEOVIA SurpacTM software. Additionally a check estimate was undertaken using a non-linear recoverable resource estimator, namely Localised Indicator Kriging ("LIK") to provide a comparison test for the Cube domaining and interpolation approach.

In summary, statistical, graphical and spatial validations of the MRE for Alliance and New Alliance demonstrated robust model outcomes. Statistical and graphical checks are outlined below with conclusions from the check estimate further discussed in Section 14.8.1.

The statistical mean of interpolated gold grades for each of the domains is tabulated against the declustered mean composite grade in Table 70 and Table 71. Although these two parameters are not strictly comparable due to data clustering and volume influences (BIF domain 400), they do provide a useful validation tool in detecting any major biases requiring further spatial investigation, whilst providing global comparison of input composite grade and the estimated block grade.

The global comparisons for gold indicate good agreement between the composite grades and block estimates, with the exception of the BIF domain 400 at Alliance. However further graphical and spatial analysis of this domain confirmed the influence of large volumes of low grade interpolated to the south of the domain, influenced by a small number of low grade composites (data clustering and volume effect), being the reason for the global grade variations.

The New Alliance domains 8000, 9000 and 10000 which have a relative difference of >20% fall largely within the current open pit and have been depleted. The grade variations in this area are the result of clustered drilling data within the pit and grade interpolation into more sparsely drilled areas beneath the pit. All other domains generally show a relative difference of less than 15% between the composite and block grades.

Examples of visual validation of the estimated block grades to the composite grade for two type sections from Alliance and New Alliance are shown in Figure 54 and Figure 55.

Table 70 Alliance Block Model - Statistical Validation

Domain	No of Comps	Mean Comp Grade (g/t Au Cut)	Declustered Mean Comp Grade g/t Au Cut	Estimated Mean Grade (g/t Au Cut)	Relative Difference	% Contained Metal
200	686	0.10	0.10	0.11	+14%	9.8%
400	455	0.24	0.23	0.10	-56%	4.4%
500	174	0.31	0.25	0.25	0%	3.8%
QTZ 2000	38	0.81	0.86	0.94	+9%	2.0%
QTZ 4001	391	3.10	2.91	2.80	-4%	47.9%
QTZ 5001	219	2.28	2.34	2.33	0%	32.1%

Table 71 New Alliance Block Model - Statistical Validation

Domain	No of Comps	Mean Comp Grade (g/t Au Cut)	Declustered Mean Comp Grade g/t Au Cut	Estimated Mean Grade (g/t Au Cut)	Relative Difference	% Contained Metal
5000	7	0.58	0.61	0.60	-1%	0.4%
6000	134	1.11	0.93	0.96	+4%	12.4%
7000	696	0.98	0.96	1.01	+5%	58.4%
QTZ 7001	37	3.73	4.00	3.80	-4%	7.3%
8000	225	1.80	1.70	1.28	-24%	15.0%
9000	150	4.58	2.45	2.96	+21%	6.4%
10000	12	0.83	0.57	0.40	-29%	0.1%

Swath plots (grade trend profiles) showing the estimated tonnes, grade, number of composites and mean cut composite grade (tabulated by northing) were created for all domains. The limitations of this comparison should be kept in mind when drawing conclusions; however there is generally good correlation between the block estimate and declustered composite mean. As expected, the estimated grade is more smoothed compared to the often variable composite mean grades. The greatest differences occur in poorly sampled areas and where the composites display high degrees of local variation.

Validation swath plots for the Alliance QTZ domain (4001) and the corresponding BIF domain (400) is presented in Figure 56 and Figure 57. The data clustering and volume effect previously outlined as contributing to the global mean discrepancies within BIF domain 400 is apparent from 7007160mN to 7007240mN.

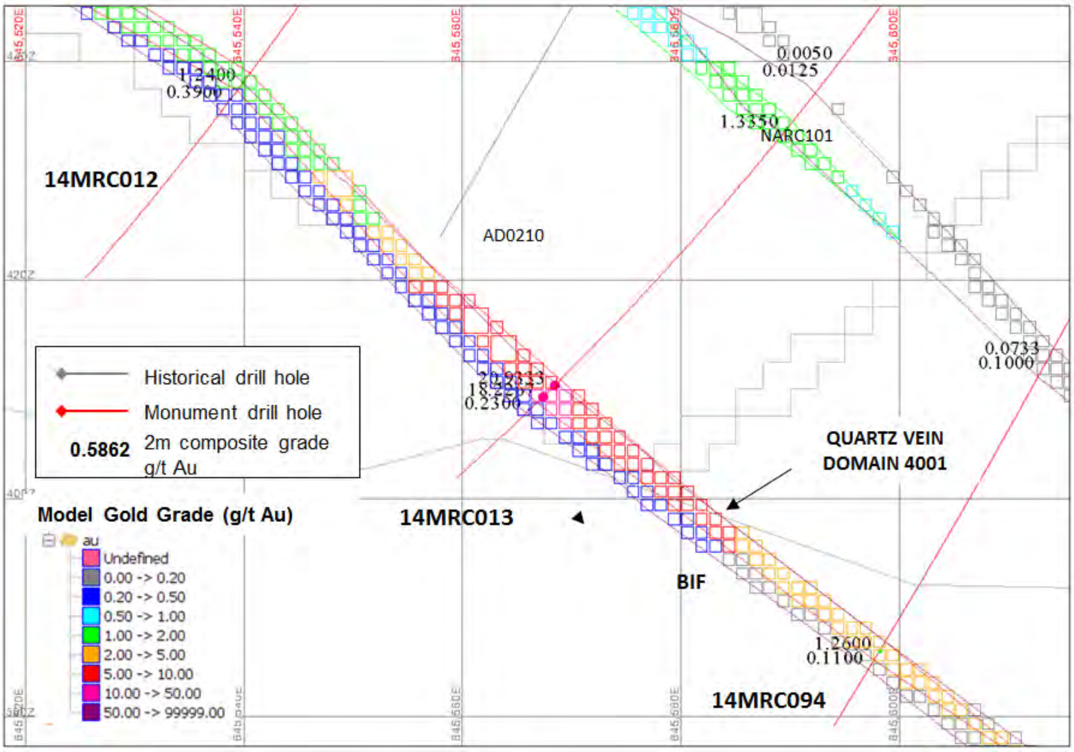

Figure 54 Alliance – Section 7007620mN, Visual Validation of Block Model to Composite Grade

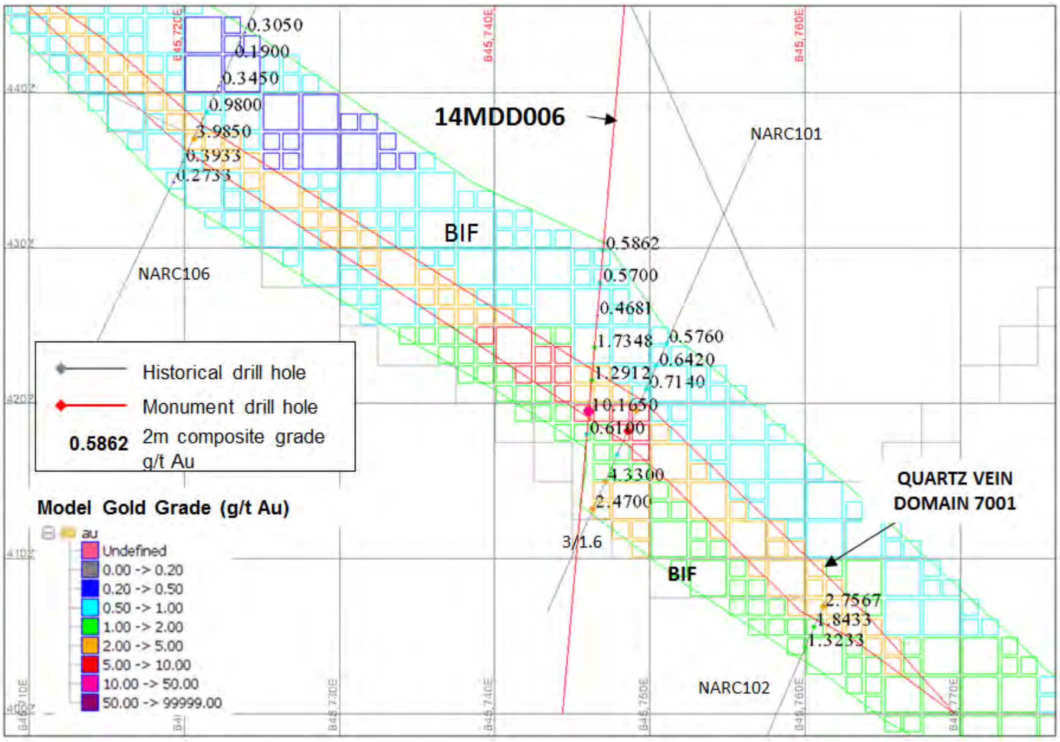

Figure 55 New Alliance – Section 7008060mN, Visual Validation of Block Model to Composite Grade

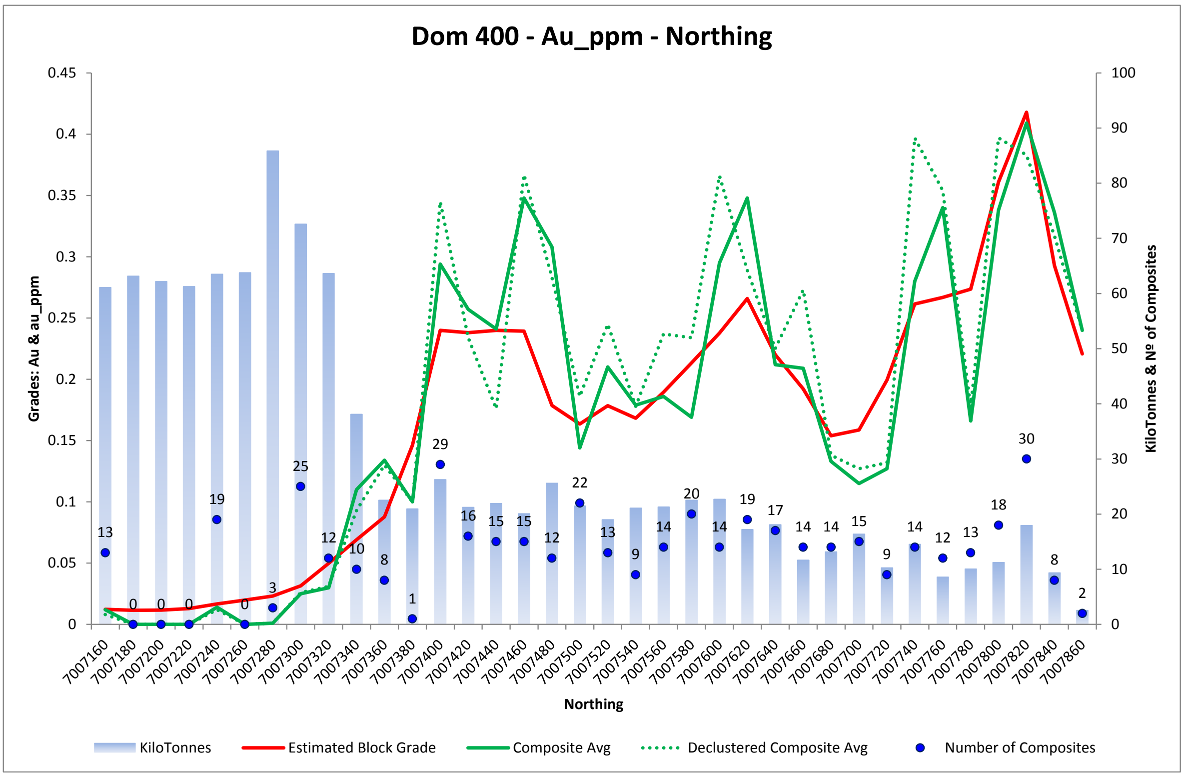

Figure 56 Swath Plot – by Northing – Alliance – QTZ Domain 400

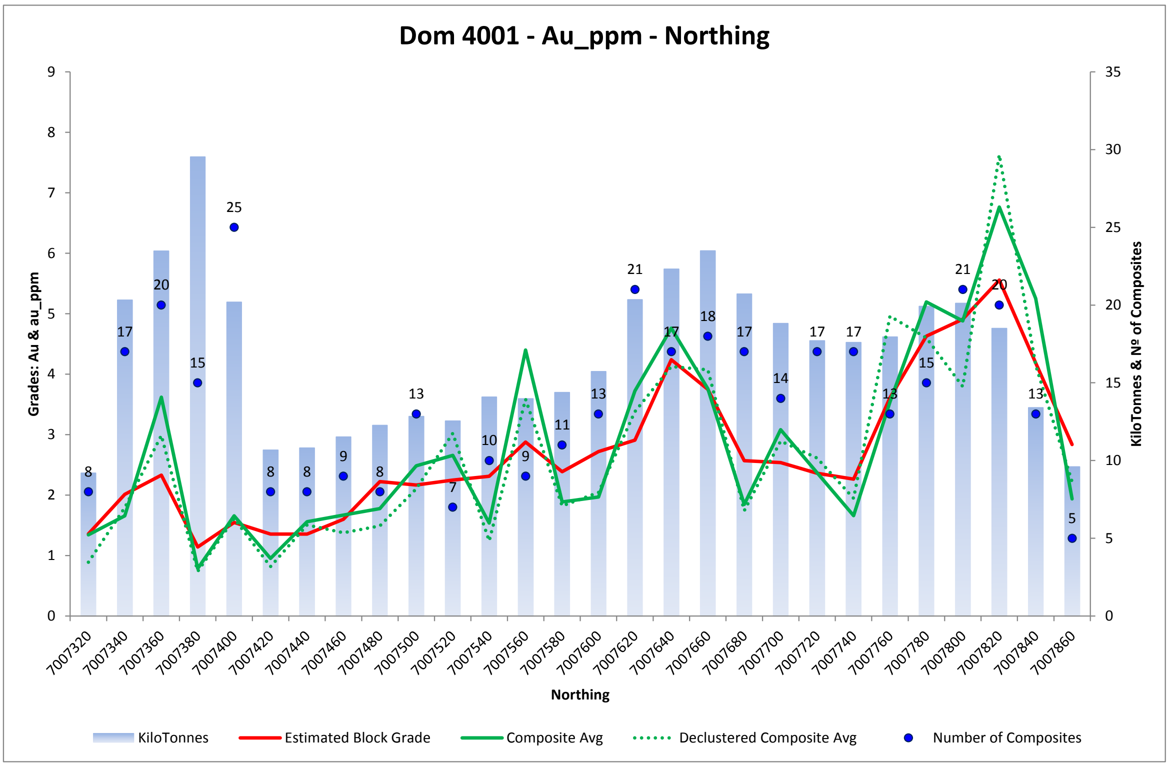

Figure 57 Swath Plot – by Northing – Alliance – BIF Domain 4001

Validation swath plots for the New Alliance largest domain (by volume) is presented in Figure 58 and Figure 59.

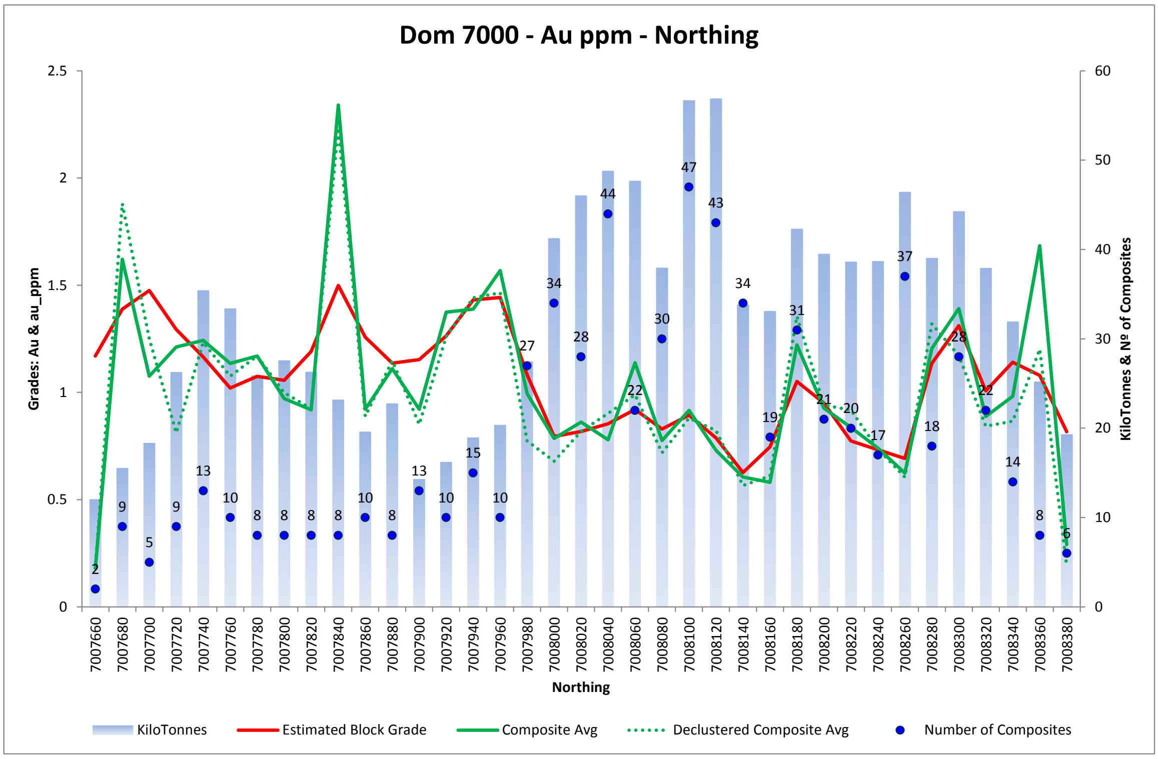

Figure 58 Swath Plot – by Northing – New Alliance – Domain 7000

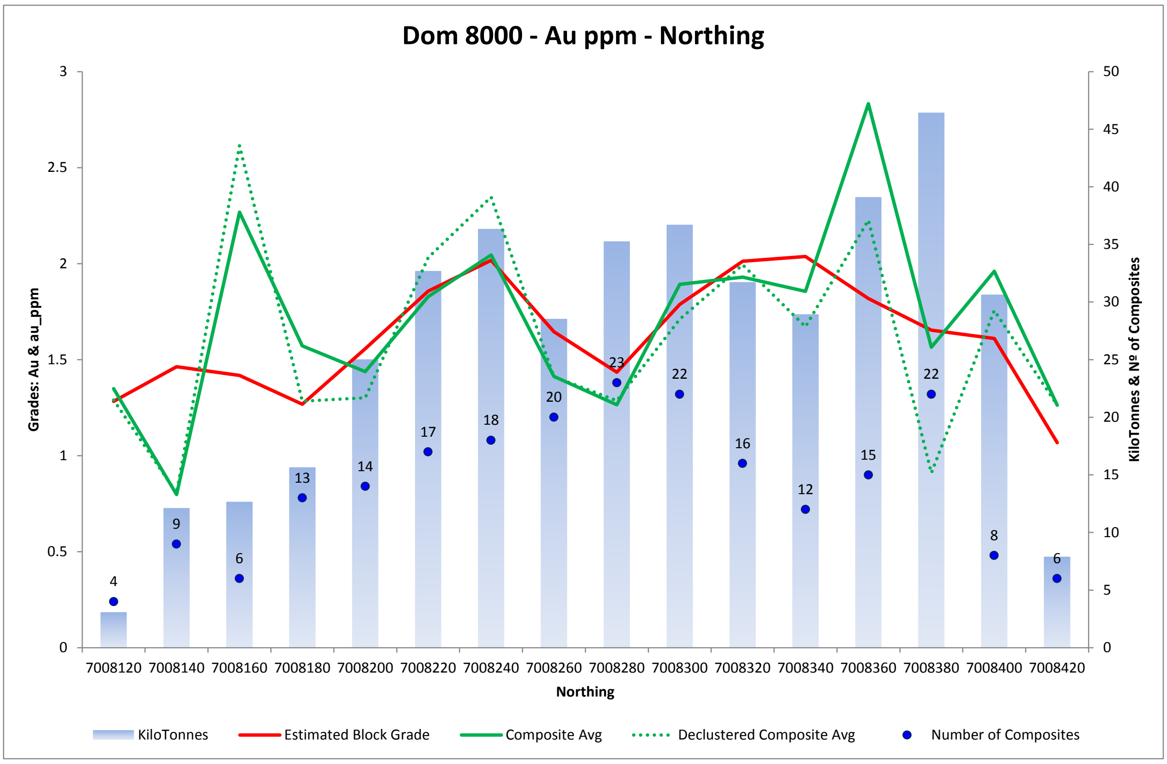

Figure 59 Swath Plot – by Northing – New Alliance – Domain 8000

14.8.1 Check Estimate – Local Indicator Kriging

A check estimate was undertaken using a non-linear recoverable resource estimator, Localised Indicator Kriging ("LIK"), based on a 5m (Y) x 2.5m (X) x 2.5m (Z) SMU size.

The QTZ and BIF domains were combined into a single mineralized domain for Alliance (Domains 400 + 4001) and New Alliance (7000+7001) for the check estimate which served a dual purpose, by using a different algorithm for interpolation as well as an alternate domaining strategy. The LIK check estimate, unlike the OK estimate, did not confine the higher grade portion of the domains on the basis of lithology, leading to a distinct difference in the grade-tonnage relationship (Figure 60 and Figure 61).

The LIK has generally predicted greater tonnage at lower grade cut-offs, relative to the hard domain OK method. The LIK also produces a higher metal estimate at lower cut-offs, partly due to the modified estimation approach and partly due to the application of fixed grade caps on the OK approach. At higher cut-off grades (i.e. at 1.5g/t Au and 2.4g/t Au), the OK model begins to exceed the LIK check model in terms of contained ounces. This to be expected as the OK approach assumes that the degree of selectivity during mining will be high, and equates approximately to the quartz vein boundaries used for modelling. The LIK method gives an alternative and less selective outcome during production. Overall the LIK approach resulted in a 7% and 17% increase in ounces for Alliance and New Alliance respectively and represents an alternative and less selective outcome that could be expected during mining.

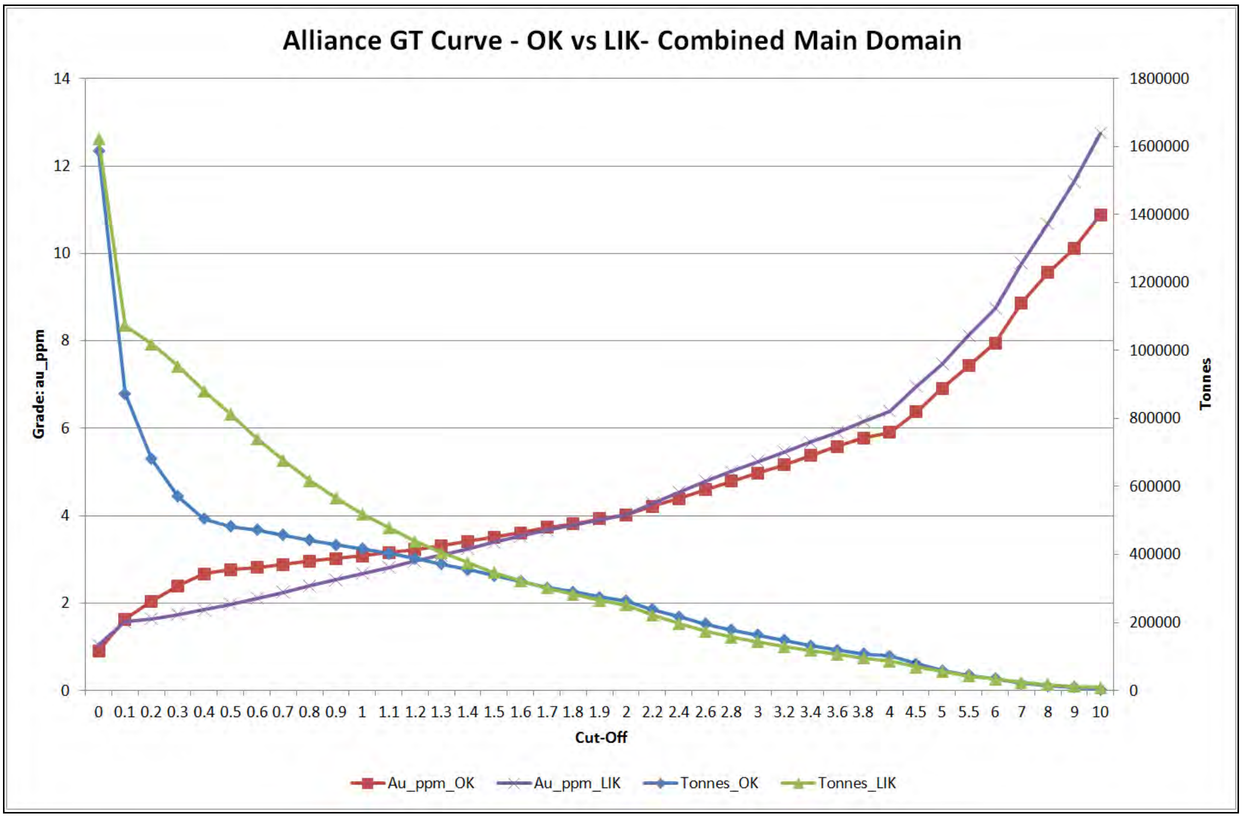

Figure 60 Grade Tonnage Curve – Alliance – OK versus LIK

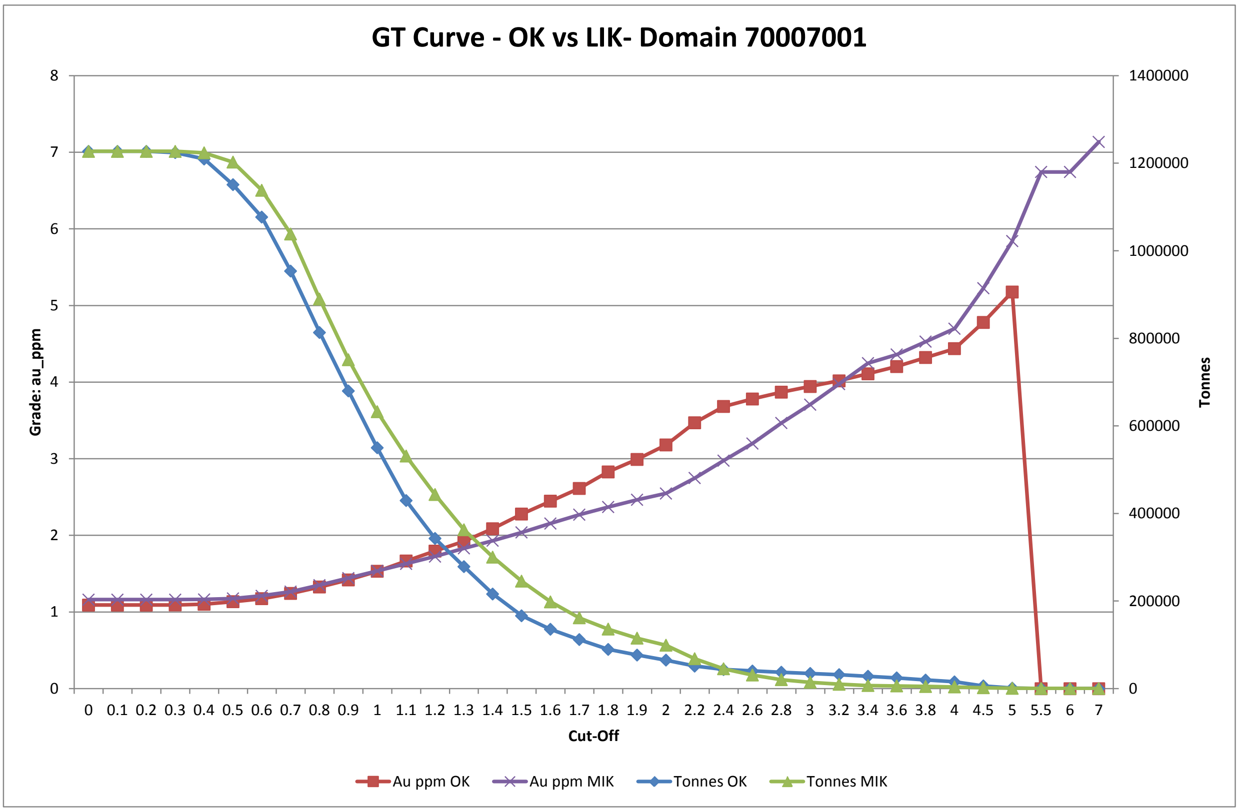

Figure 61 Grade Tonnage Curve – New Alliance – OK versus LIK

14.9 *Mining Depletion*

Depletion of the block model was undertaken using surfaces supplied by Monument and visually verified during site visits by Cube (October 2013, June 2014). Overall, the mined pits, as observed on site, were adequately represented by the supplied depletion surfaces.

However, the Alliance pit has undergone a significant cut-back (2013) on the northern wall and parts of the pit have been partially backfilled which is not been captured on the supplied depletion surface (*dtm_burnakura_110712.dtm*).

Depletion areas were coded into the block model attribute '*depletion_n'*, with areas of backfill also identified and given an appropriate density of 1.8 g/cm^3.

The ANA drillholes and supplied depletion surfaces are presented in relation to the ANA MRE in Figure 62 below.

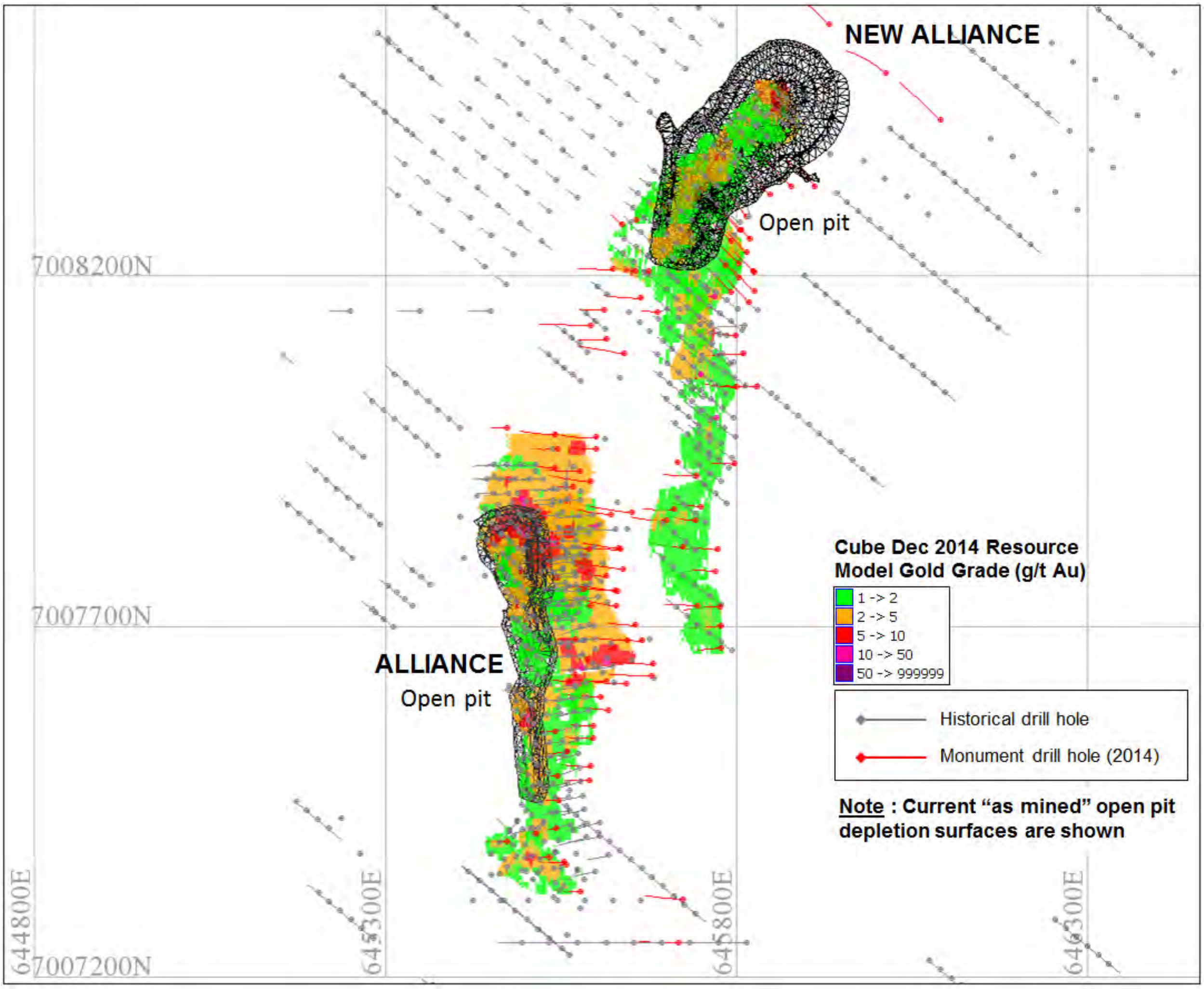

Figure 62 Alliance-New Alliance: Resource model showing blocks at 1 g/t Au cut-off and drilling location

14.10 *Mineral Resource Classification*

The ANA mineralised domains are of sufficient grade, geological continuity and drill density to support the classification criteria of Indicated and Inferred Mineral Resources as required for NI43-101 compliance. Cube assessed the confidence levels on a range of criteria when determining the appropriate classification of the ANA MRE and included;

- Geological, grade and volume continuity;
- Drill data density, spacing and quality;
- Estimation methodology;
- Kriging quality (Slope of Regression, local estimation bias); and
- Reliability of supplied depletion surfaces.

As with any non-rigidly defined classification there will always be some blocks within categories that depart from the defined criteria. It is Cube's view that the final outcome must reflect a practical combination of both geological knowledge and estimation quality parameters that may be more numerical in nature. This approach to classification aims to avoid creating a complex numerically based 'mosaic' distribution of classified blocks.

14.10.1 Geological Continuity and Mineralized Volume Models

Grade extrapolation was restricted by the mineralisation wireframes which generally extend to a maximum distance of approximately 20 metres along strike, and 25 metres down dip of the last drill hole data point. Mineralised geological domains have been interpreted from geological logging, and 3D spatially referenced pit and surface mapping were used extensively to determine the directions of geological/grade continuity and structural offsets.

Infill and verification drilling by Monument has confirmed the geological continuity of the BIF and QTZ units between historical drill holes, both down dip and along strike. The mineralised true widths intersected are not significantly different to the adjacent historical holes. Although significant variations in grade between holes reflect the large short range variability associated with the mineralisation style, the average grade continuity of the mineralisation can be reasonably assumed between drillholes.

The continuity and volume of the mineralised domains has been established by drilling to a confidence level where the grade and quantity can be reasonably assumed. The approach to defining the mineralised volume was firstly based on geological attributes, modified by applying a geological cut-off grade for the mineralised wireframe.

In general, the interpreted mineralised volumes have not been extrapolated more than the average drill hole spacing down dip or along strike which adequately constrains the mineralised volume to the expected limit of the assumed geological and grade continuity.

14.10.2 Drill Spacing and Drill Data Quality

The average drill spacing of 10m by 10m at Alliance and 10m by 20m at New Alliance is close enough to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralisation.

The sampling, assay and QA/QC procedures have been verified by Cube and are considered sufficient to form the basis of a mineral resource estimate suitable for classification under Canadian NI43-101.

The supplied drilling database represents an appropriate record of the drilling and sampling undertaken at the project. In general, drilling, surveying, sampling, analytical methods and controls are considered appropriate for the style of mineralisation under consideration.

QAQC analysis, independent data verification and verification drilling has demonstrated the Monument and historical drilling data to be unbiased and of a precision level suitable for use in mineral resource estimation.

It is reasonable to expect that further resource definition drilling within the Inferred areas could result in significant material departures both positive and negative from the current mineral resource estimate. This is reflected in the classification of the mineral resource.

14.10.3 Modelling Technique

The 3D modelling method, and the associated search and interpolation parameters used in the OK methodology is considered appropriate for estimation of the Mineral Resources at this stage of the project evaluation. Appropriate risk adjustments in the form of high grade assay cuts have been applied in some cases to limit the influence of statistical outliers and rigorous model validation has been undertaken.

14.10.4 Local Estimation Bias

The comparison of the OK estimation model with the LIK check estimation model established that the relative difference in contained metal between the two models was 12% on a global basis.

14.10.5 Conclusions

Cube has assessed the relevant criteria (Table 72) and interpreted robust and simplistic classification boundaries to capture the level of confidence in the quality, quantity and distribution of the data. The majority of the ANA Mineral Resource has been classified as Indicated (95% of total gold ounces) and the remainder as Inferred (Figure 63). This is a reflection of the data repeatability and drilling spaced closely enough for geological and grade continuity to be reasonably assumed.

The Mineral Resource represents a reliable estimate of the total contained metal but the current block estimates are unlikely to be a true reflection of the actual grade/tonnage distribution that will be achieved during selective mining and over short production periods. For this reason it should be highlighted that the estimate should not be relied on to evaluate local grades, or mining selectivity as required for detailed mine planning.

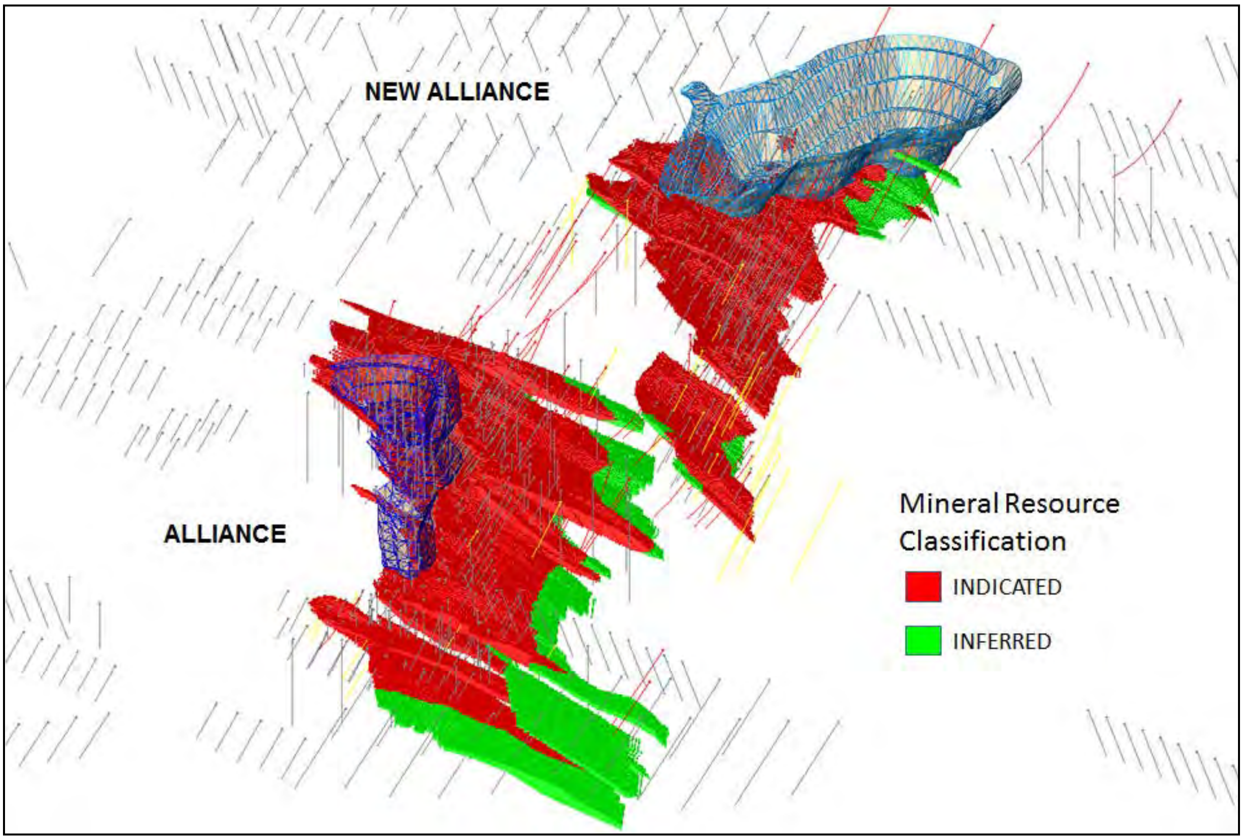

Figure 63 ANA Mineral Resource Classification

Table 72 Confidence Levels of Key Classification Criteria

Item	Discussion	Confidence Level
Drilling Techniques	Diamond and RC, no historical grade control data included. – Industry Standard approach.	Moderate-High
Logging	Standardised logging templates and coding has been applied to all geological data. Historical data is limited.	Moderate
Drill Sample Recovery and Quality	Monument RC bulk samples recoveries and quality are recorded in database. Assessed >90% recovery, some wet sampling identified. No data for historical drilling	Moderate
Sampling Techniques	Monument DDH and RC sampling procedures were assessed during site visit and considered adequate. Limited data for historical drilling.	Moderate
Assay Data Quality	QAQC analysis, independent data verification and verification drilling indicates drilling data to be unbiased and of acceptable repeatability.	Moderate
Location of Sample Points	All Monument collars located by certified surveyors using DGPS, and gyroscopic downhole surveys of most holes. Historical drilling data limited	Moderate
Data Density and Distribution	Average drill spacing of 10m by 10m at Alliance and 10m by 20m at New Alliance. Monument drilling covers full extent of identified mineralisation	High
Audits or Review	Drilling, sampling, data collection and management assessed during site visit. Included independent collar surveys and geological logging	High
Database Integrity	Data validated and managed in secure relational SQL system. Historical data comprises 85% of mineralised assays and has been extensively verified and validated by twinned drilling.	Moderate-High
Geological and Mineralisation Domain Interpretation	Mineralised volumes have been constrained by robust geological modelling of the key BIF, quartz vein units and cross-cutting structures. 3D spatially referenced pit and surface mapping were used to determine the directions of geological/grade continuity and structural offsets.	High
Estimation and Modelling Techniques	Geological constrained Ordinary Kriging is considered appropriate given the mineralisation style and grade distribution. A Local Indicator Kriging estimate was also undertaken to check for local estimation bias.	High
Grade Capping and Cut-off Grades	Top cutting applied (up to 25g/t) on an individual domain basis to control the influence of high grade outliers. Grade domaining was based on nominal geological cut-offs (0.25g/t and 1g/t Au) and reported at 0.5g/t and 1g/t Au to reflect possible Heap leach/CIL processing routes.	Moderate
Mining Factors or Assumptions	Mineralisation interpretation restricted to 110m vertical depth, a minimum 2m downhole mineralisation interval and internal dilution incorporated for grade continuity. A 5m(Y) x 2.5m(X) x 2.5m(Z) SMU size used in LIK estimate based on bulk open pit mining scenario.	Moderate
Metallurgical Factors or Assumptions	Preliminary metallurgical testwork has been completed and indicates gold is adequate recoveries for the planned processing routes.	Moderate
Tonnage Factors (Applied Densities)	Bulk density assigned on rock type based on 243 measurements from localised diamond core. Data is generally not representative of the expected variability across the differing rock types and deposit areas.	Low-Moderate

14.11 *Mineral Resource Statement*

The ANA Indicated and Inferred Mineral Resource is current as at 22nd December, 2014 and is suitable for public reporting in accordance with the National Instrument 43-101 (“**NI43-101**”) and the CIM Definition Standards (May 2014). The ANA Mineral Resource is reported at a base-case 0.5g/t gold cut-off grade within the interpreted mineralised domains to a maximum vertical depth of 110m (Table 73).

Table 73 ANA Mineral Resource by Deposit Area at a 0.5g/t Au cut-off

Deposit	Indicated				Inferred			
	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	**2.3**	**0.64**	**2.5**	**50.8**	**2.5**	**0.02**	**1.4**	**0.7**
New Alliance	**2.3**	**1.24**	**1.2**	**47.6**	**2.7**	**0.08**	**1.5**	**3.7**
TOTAL	**2.3**	**1.88**	**1.6**	**98.4**	**2.6**	**0.09**	**1.5**	**4.4**

The Mineral Resource has also been tabulated by weathered material type at 0.5g/t gold cut-off grade (Table 74), where approximately 50% of the contained Indicated gold ounces are classified as oxide material.

Table 74 ANA Resource by Weathering Type; at a 0.5g/t Au cut-off

Deposit	Material Type	Indicated				Inferred			
		Density (g/cm3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	Oxide	2.0	0.28	2.0	18.4	-	-	-	-
	Transition	2.5	0.28	2.5	25.6	-	-	-	-
	Fresh	2.7	0.07	2.8	6.7	2.5	0.02	1.4	0.7
	Total	2.3	0.64	2.5	50.8	2.5	0.02	1.4	0.7
New Alliance	Oxide	2.2	0.81	1.1	29.9	2.2	0.02	0.8	0.4
	Transition	2.5	0.35	1.2	14.1	2.5	0.02	1.7	1.1
	Fresh	2.9	0.07	1.5	3.6	2.9	0.04	1.5	2.2
	Total	2.3	1.24	1.2	47.6	2.7	0.08	1.5	3.7
TOTAL		2.3	1.88	1.6	98.4	2.6	0.09	1.5	4.4

All tonnage, grade and ounces have been rounded to reflect the relative uncertainty and the approximate quality of the estimate.

Comparison of the current Mineral Resource and the historical estimate (Guimaraes & Miller, 2013) at a 1.0g/t Au cut-off is detailed in Table 75 and Table 76. A significant increase of the Indicated gold ounces by 90% is the result of the closer spaced drilling by Monument, confirming the confidence in the geology and grade continuity. The total contained gold ounces at the 1.0g/t Au cut-off have increased by 15% to 83,600 gold ounces when compared to the historical estimate.

Table 75 ANA Mineral Resource by Deposit Area at a 1.0g/t Au cut-off

Deposit	Indicated				Inferred			
	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	**2.3**	**0.49**	**3.0**	**47.4**	**2.7**	**0.01**	**3.0**	**0.5**
New Alliance	**2.3**	**0.65**	**1.6**	**33.0**	**2.7**	**0.04**	**2.1**	**2.7**
TOTAL	**2.3**	**1.14**	**2.2**	**80.4**	**2.7**	**0.05**	**2.2**	**3.2**

Table 76 ANA Historical Estimate at a 1.0g/t Au cut-off (Guimaraes & Miller, 2012)

Deposit	Indicated				Inferred			
	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)	Density (g/cm^3)	Tonnes (Mt)	Au (g/t)	Contained Au (Koz)
Alliance	2.3	0.28	2.8	25.6	2.4	0.24	2.8	21.6
New Alliance	2.3	0.28	1.9	17.0	2.4	0.14	1.9	8.7
TOTAL	2.3	0.56	2.3	42.6	2.4	0.38	2.5	30.3

14.11.1 Reasonable Prospects for Eventual Economic Extraction

The Mineral Resource has reasonable prospects for economic extraction based on the consideration of suitable technical and economic factors which included:

- The assumed mining method is open pit, involving the cut-back of existing pit walls and deepening of the existing pits which range in vertical depth from 25m to 85m. Mining would involve drilling and blasting, utilising 2.5m mining flitches to a maximum vertical depth of 150m. An overall pit slope of 45° is assumed to be attainable;
- The proposed process route is to initiate a heap leach cutover to the existing CIP plant to allow for the processing significant quantities of low grade material;
- Column leach results from the metallurgical testwork completed by Monument (see Section 13), indicates the low grade material is amenable to heap leach with gold recoveries ranging from 63% to 89%;
- Previous mining has been completed at both project areas between 1989 and 1997, with a northern pit cut-back completed in 2013 at Alliance by the previous operators (Kentor); and
- An existing CIL plant with a capacity of 260,000 tonnes per annum including a complete heap leaching circuit is currently under care and maintenance within 2km of the Mineral Resource area.

During the geological interpretation and estimation process, the following mining criteria have been applied:

- Mineralised wireframe interpretations constrained by using a minimum downhole interval of 2m;
- Minimisation of the internal dilution in the mineralised intercepts except where it was included for grade continuity; and
- Limiting the mineralisation interpretation and grade interpolation to 110m vertical depth.

The 0.5g/t Au cut-off grade for reporting the ANA Mineral Resource has been established from several criteria which included:

- The suitability of the open pit mining grade cut-off for both oxide and fresh mineralisation for low grade heap leach material and a low tonnage CIP treatment option;
- A marginal (or break-even) cut-off grade of 0.58g/t Au was calculated for low grade heap leach material assuming a gold price of A$1,500/troy ounce, a heap leach recovery of 70% and no capital costs. Similarly a marginal cut-off grade for the CIL plant of 1.03g/t Au was calculated

based on a recovery of 92%. Mining costs were based on those assumed for typical narrow vein gold deposits in Western Australia.

- The robustness and continuity of the modelled mineralised zones is clearly evident at the base-case 0.5g/t Au cut-off grade where continuity can be reasonably assumed between drillholes and along the entire strike length of Mineral Resource. The grade and geological continuity is maintained at the higher cut-off grade of 1.0 g/t (Figure 65).
- At an analogous mining and processing scenario at the Castle Hill Gold Project near Kalgoorlie, Phoenix Gold Limited have selected a 0.4g/t Au average cut-off grade for heap leach material as a basis for their Definitive Feasibility Study (March, 2015).

There are no environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that the Qualified Person is aware of that could materially affect the Mineral Resource estimates at this stage.

The grade tonnage characteristics of the Mineral Resource are shown in Figure 64 and Table 77.

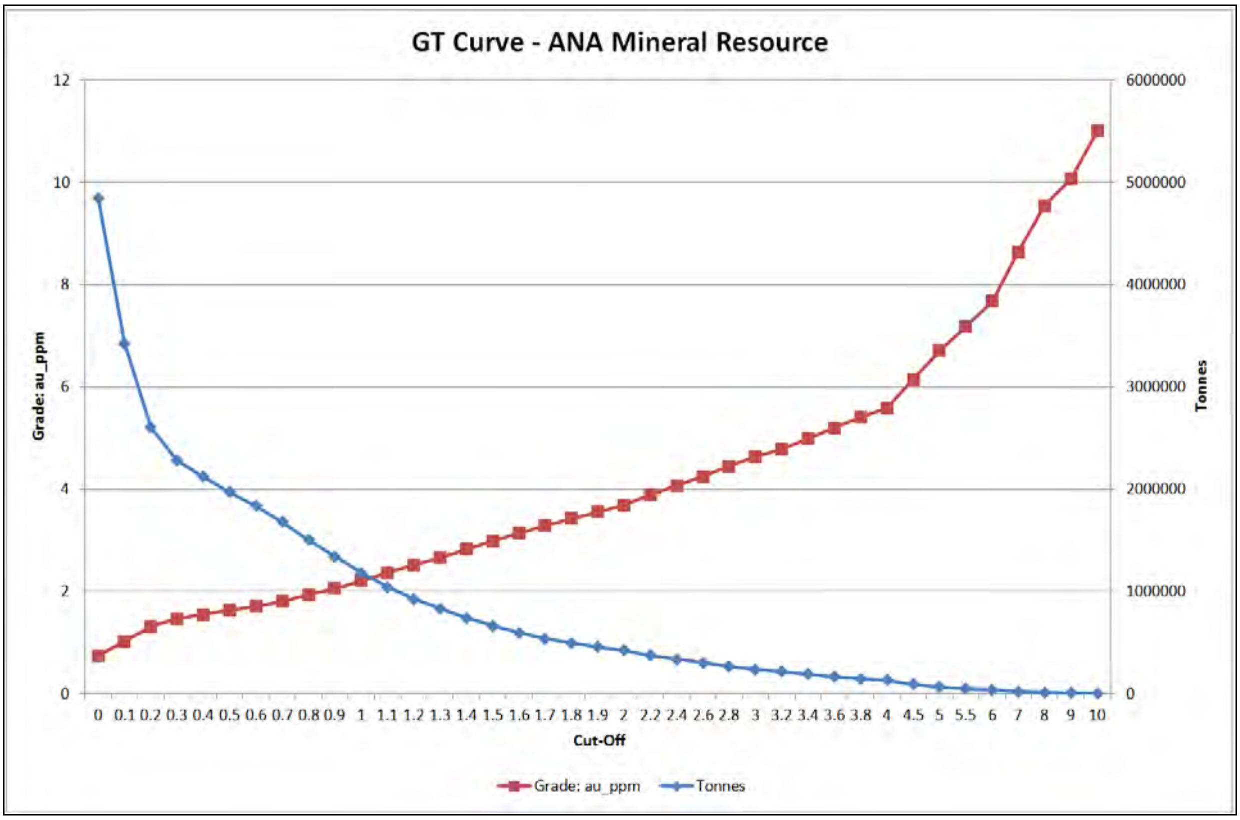

Figure 64 ANA Mineral Resource – Grade Tonnage Curve, All Depleted Mineralised Domains

Table 77 ANA Mineral Resource Sensitivity to Grade Cut-off

Grade Cut-off	Tonnes (Mt)	Au (g/t)	Au (Koz)	Contained Metal Above Cut-off Grade
0	4.85	0.7	114.9	100%
0.1	3.43	1.0	113.1	98%
0.2	2.60	1.3	109.2	95%
0.3	2.28	1.5	106.7	93%
0.4	2.12	1.5	104.9	91%
0.5	1.97	1.6	102.8	89%
0.6	1.83	1.7	100.4	87%
0.7	1.68	1.8	97.1	84%
0.8	1.50	1.9	92.9	81%
0.9	1.34	2.1	88.4	77%
1	1.18	2.2	83.6	73%
1.1	1.04	2.4	78.8	69%
1.2	0.92	2.5	74.5	65%
1.3	0.83	2.7	70.8	62%
1.4	0.74	2.8	66.7	58%
1.5	0.66	3.0	63.2	55%
1.6	0.59	3.1	59.9	52%
1.7	0.54	3.3	57.0	50%
1.8	0.50	3.4	54.5	47%
1.9	0.46	3.6	52.3	45%
2	0.42	3.7	50.2	44%
2.2	0.37	3.9	46.8	41%
2.4	0.34	4.1	44.0	38%
2.6	0.30	4.2	41.3	36%
2.8	0.27	4.4	38.3	33%
3	0.24	4.6	35.6	31%
3.2	0.22	4.8	33.4	29%
3.4	0.19	5.0	30.6	27%
3.6	0.17	5.2	28.0	24%
3.8	0.15	5.4	25.5	22%
4	0.13	5.6	23.6	21%
4.5	0.09	6.1	18.3	16%
5	0.07	6.7	14.3	12%
5.5	0.05	7.2	11.7	10%
6	0.04	7.7	9.3	8%
7	0.02	8.6	5.7	5%
8	0.01	9.5	3.5	3%
9	0.01	10.1	2.4	2%
10	0.00	11.0	0.9	1%

15. MINERAL RESERVE ESTIMATE

There is no reportable information, estimates or analyses for Mineral Reserve Estimates completed to date for the Alliance and New Alliance deposits.

16. MINING METHODS

There is no reportable information, estimates or analyses for mining methods completed to date for the Alliance and New Alliance deposits.

17. RECOVERY METHODS

Orway Mineral Consultants specifically looked at adding a third stage of crushing to the Burnakura circuit and concluded it was not possible. Subsequently, Orway looked at integrating the Indee plant with a third stage to feed the Burnakura plant. Throughput modelling was based on a feed size for tertiary crush (P_{80} 7.8mm) on assumed BWi's from the ALS Met testwork report 13845 on Kentor Fresh and Oxide samples of unknown location. Further work is required to investigate throughput rates for Alliance and New Alliance ore.

18. PROJECT INFRASTRUCTURE

There is no reportable information, estimates or analyses of project infrastructure completed to date for the Alliance and New Alliance deposits.

19. MARKET STUDIES AND CONTRACTS

There is no reportable information, estimates or analyses of market studies and contracts completed to date for the Alliance and New Alliance deposits.

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 *Pathway to Environmental Approval*

A number of environmental approvals are required for mining projects in Western Australia. A summary of required approvals and processes is provided below.

20.1.1 Mining Tenure

The primary approval for the development of a mining project in WA is the application of a mining lease. Under the Mining Act 1978 there is provision for a number of different tenements, including but not limited to, exploration, miscellaneous licences and mining and general purpose leases. Where a mining lease does not lie within a land reserve specified in Section 24 or 25 of the Mining Act tenure may be granted within 65 business days of an application.

Once tenure has been received, submission of a Mining Proposal to the Western Australian Department of Mines and Petroleum (DMP) is required before mining can occur.

All Monument Project activities are on granted mining tenure.

20.1.2 Mining Proposal

The submission of a Mining Proposal is required for the development of all mining activities in WA and must detail all matters relating to the environmental management of a proposed project. The Mining Proposal is required under the *Mining Act 1978* and is to describe the proposed activities of the project, the natural environment, existing land uses and the social environment in which the project is to be developed. The DMP acts under provisions of the *Mining Act 1978* and is the leading department involved with the administration and regulation of the mining industry in WA. Although the DMP is the primary department that grants approval of the Mining Proposal, the DMP may regularly refer a proposal to other government departments such as the Western Australian Department of Environment Regulation (DER) and the Western Australian Department of Parks and Wildlife (DPaW) for further advice.

In addition to assessment under the *Mining Act 1978*, all Mining Proposals are assessed under the *Environmental Protection Act 1986 (EP Act)* by the DMP and may be referred to the Environmental Protection Authority (EPA) if it is considered that a project is likely to trigger environmentally sensitive issues. An environmental impact assessment (EIA) under *Part IV* of the *EP Act* is performed by the EPA in addition to the DMP Mining Proposal process.

Approval of a Mining Proposal, if no additional information is required and the proposal is not referred to the EPA, is 30 business days. In the instance that further information is requested from the proponent or the proposal is referred to other government agencies the DMP periodically stops their assessment. A 20 business day standard target deadline for the provision of further information or advice to DMP is made. Once the information or advice has been received and determined to be adequate DMP resumes assessment of the Mining Proposal.

In addition to gaining written approval of a Mining Proposal from the Director of the DMP's Environment Division, other statutory approvals or licenses may be required from various government agencies before mining can commence. Key environmental and other approvals from other agencies may be obtained prior to a Mining Proposal being approved.

20.1.3 Environmental Approvals and Licences

The application for additional government environmental approvals and licenses is required to ensure a mining project is able to commence. Key licenses and approvals that are required to be obtained are discussed below. Depending on the approval type an application may be submitted prior to a Mining Proposal bring formally accepted.

20.1.3.1 Section 18 Approval – ABORIGINAL HERITAGE ACT 1972

Under Section 17 of the *Aboriginal Heritage Act 1972* (*AH Act*) impact to an Aboriginal Site is an offence. Prior to the submission of a Mining Proposal, ethnographic and archaeological surveys of potential disturbance areas should be undertaken to identify Aboriginal Sites. A desktop search of the Aboriginal Heritage Inquiry System is also required to determine the presence of known Aboriginal Sites.

An application to impact on Aboriginal Sites may be granted under Section 18 of the *AH Act* where impact is considered unavoidable. An application under Section 18 is required to be submitted to the Department of Aboriginal Affairs (DAA) for assessment. Approval under Section 18 of the *AH Act* may be granted by the Minister of Aboriginal Affairs following the DAA assessment and can take up to 3 months

20.1.3.2 *WORKS APPROVAL AND PRESCRIBED PREMISES LICENSE – PART IV ENVIRONMENTAL PROTECTION ACT 1986*

Under the provisions of *Part V* of the *EP Act*, if a Mining Proposal has prescribed activities such as a processing plant, tailings facility or other facilities with the potential to pollute the environment, then a Works Approval is required before any construction begins and a Prescribed Premises License is required before operations can start. Applications for Works Approvals and Prescribed Premises Licenses are made to DER. Applications are advertised for a 21 day comment period, with a further 21 days for appeals against issue.

20.1.3.3 *NATIVE VEGETATION CLEARING PERMIT– ENVIRONMENTAL PROTECTION ACT 1986 & MINING ACT 1978*

Activities involving clearing on mining and exploration sites require a clearing permit prior to commencement. Applications are made to DMP and may be made concurrently with or as part of a Mining Proposal. The approval of a clearing permit on average takes four (4) months if sufficient information is received with the application.

Submission of a clearing permit requires that sufficient information is available on past flora and fauna surveys undertaken in the area proposed for development. It is advised that all prior survey work is available and additional surveys, if required, are completed well before submission of approval applications. Seasonal survey work is often required to ensure all flora and fauna that may potentially occur in the proposed development area is included and will delay approval timelines if not completed well before applications are submitted.

An application for a clearing permit is required to be submitted to DMP if within an area of mineral tenure or to DER if clearing is to occur outside of mineral tenure. A clearing permit can only be applied for by an applicant who is the owner of the land, likely to become the owner of the land or where an applicant is undertaking clearing on behalf of the owner of the land and has written authority to do so.

20.1.3.4 *LICENCES TO TAKE WATER - RIGHTS IN WATER AND IRRIGATION ACT 1914*

Mining Proposals that require borefields or surface water abstraction are required to apply for Section 5C water license to take water. Department of Water (DoW) issues licenses that grant the applicants the right to take water from a specified location, with a water entitlement for a 12 month period. Conditions included in the license outline the licensee’s responsibilities in managing the water resource. Licensing is required for all artesian bores, non-artesian bores in proclaimed areas and surface water abstractions that are not considered by DoW as being riparian.

20.1.3.5 *LICENCES TO CONSTRUCT OR MODIFY A BORE - RIGHTS IN WATER AND IRRIGATION ACT 1914*

Section 26D of the *Rights in Water and Irrigation Act 1914* requires licensing of the construction and modification of bores. This includes all artesian bores and non-artesian bores in areas proclaimed under the *Rights in Water and Irrigation Act 1914*. Certain bores are exempt from licensing, such as domestic and stock water bores on pastoral leases. All groundwater abstraction bores associated with a Mining Proposal are required to be licensed by DoW. Monitoring bores may be exempt from licensing.

20.1.3.6 *PERMIT TO OBSTRUCT OR INTERFERE WITH BEDS AND BANKS - RIGHTS IN WATER AND IRRIGATION ACT 1914*

A section 17 Beds and Banks Permit under the *Rights in Water and Irrigation Act 1914* is required to obstruct, destroy or interfere with a water course or dam. The section 17 regulation aims to protect the environment and other users against detrimental interference caused by activities such as the construction of dams or reservoirs, or rail and road crossings. Applicants are required to submit an application to DoW for activities that interfere with a water course.

20.1.3.7 *DEWATERING LICENSE - ENVIRONMENTAL PROTECTION REGULATIONS 1987*

Under the *Environmental Protection Regulations 1987* (as amended), a Part V Dewatering license is required from DER prior to discharging mine-water where the total annual volume is 50,000 tonnes or more. For quantities less than this, advice is required from DoW (in consultation with DER) with regard to the possible adverse impacts on water resources and watercourses. De-watering requirements and likely impacts must be detailed in the Mining Proposal.

20.1.4 Current Permitting and Approvals

Specific approvals for the Monument Murchison Gold Project are summarized below. There are three current approved MPs/ Letters of Intent for the Project:

- *"Burnakura Operations - Mining Proposal Amendment 08-Recommencement of Mining Operations - Lewis and Reward Pit Cutbacks" dated 26 April 2012 signed by Keith Mayes and retained on Department of Mines and Petroleum file No. EARS-MP-34544 (Reg. ID 34544);*
- *"Murchison Gold Project - Burnakura Operations Alliance Pit Cutback and Waste Rock Dump Tenements M51/116 and M51/117 Mining Proposal (Revised) Revision 1" dated 7 January 2013 signed by Keith Mayes and retained on Department of Mines and Petroleum File No. EARS-MP-37506 (Reg. ID 37506); and*
- *"Letter of Intent titled "Re: Kentor Minerals (WA) Pty Ltd, Burnakura Operations Minor Infrastructure Changes Amendment Mining Proposal - M51/116, M51/117 and M51/252" dated 4 February 2013 signed by Keith Mayes and retained on Department of Mines and Petroleum File No. EARS-MP-38454 (Reg. ID 38454).*

These approvals allowed the mining of expanded Lewis, Reward and Alliance pits, subsequent increase in the footprint of Waste Rock Landforms (WRLs) at Lewis/Reward and Alliance, and deposition of tailings in both Lewis and Reward pits post mining. The Letter of Intent approved a reconfiguration of the crushing circuit and processing plant at the Burnakura Mill. Any variations to these approvals require a new MP/MP variation. Project permitting requirements and status appear in Table 78 below.

Table 78 Permitting requirements and status – Murchison Gold Project

Permitting requirement	Responsible Government Department	Assessment/ Approval Timeframe	Status
Native Vegetation Clearing Permit	Department of Mines and Petroleum – Environment Division	60 business days	Submitted 20 February 2015 – Under assessment.
Mining Proposal	Department of Mines and Petroleum – Environment Division	30 business days + any 'Stop of the Clock' from requests for further information and 20 days if referred to another Department (DoW, DER or DPaW).	Existing Mining Proposals cover parts of the Project area. A new Mining Proposal will be required to address any disturbance areas and infrastructure development that is not contained in existing Mining Proposals.
Project Management Plan	Department of Mines and Petroleum – Resources Safety Division	30 business days	In draft form awaiting finalisation of Mine Plan.
Prescribed Premises Licence	Department of Environment Regulation	Up to 60 business days	Prescribed Premises Licence L7972/2004/4 current for the Project and valid until 23 September 2018. If there is any change in category associated with changes to the Crushing Circuit throughput a licence amendment may be required. It is highly likely that a heap leach facility will require a Licence amendment.
Works Approval	Department of Environment Regulation	60 business days upon receipt of Works Approval application	Changes to a Prescribed Premises may require a Works Approval. An Application Enquiry Form will require submission to DER and if a Works Approval is required then DER will require a meeting and a scoping document to be presented prior to accepting a Works Approval application. It is highly likely that a heap leach facility will require a Works Approval.
Groundwater Abstraction Licence	Department of Water	NA	Groundwater Licence (GWL74516(11)) - approved and re-issued 15 January 2015. Valid until 15 January 2025.

20.2 *Environmental Studies*

A range of environmental studies have been completed for the Project, both recently and historically. Biological, hydrogeological and heritage studies have been undertaken at the site and geochemical characterisation of waste rock and tailings has been completed. Further detail appears below.

20.2.1 Biological Studies

Previous biological surveys conducted in the vicinity of the Leases M51/116, M51/117, M51/177 and M51/178 were reviewed. They include:

- Muir Environmental (1996). *Flora and Fauna Evaluation –NoA Group and Turn-of-the-Tide Road Deviation, Reedy Gold Mine*. Unpublished Report for Gold Mines of Australia NL.
- Mattiske (2011). *Vegetation Report and Species Listing*. Unpublished Report for Kentor Minerals Pty Ltd.
- MBS (2012). *Reconnaissance (Level 1) Flora and Fauna Survey, Murchison Gold Project, Burnakura Operations.* Unpublished Report for Kentor Gold Pty Ltd.

The most recent and comprehensive survey of the Project site was conducted by Animal Plant Mineral Pty Ltd (APM) between the 4th -6th of October 2014.

APM was engaged by Monument Murchison Pty Ltd (Monument) to provide a biological survey consisting of a Level 1 risk-based fauna survey consistent with EPA Guidance Statement 56 (EPA 2004a) and Level 1 flora assessment and vegetation survey, including a targeted search for Priority flora known to occur in the region consistent with EPA Guidance Statement 51 (EPA 2004b; APM 2014a). The survey was conducted at Burnakura in the Murchison region of Western Australia (WA) on Mining Leases M51/116, M51/117, M51/177, M51/178 and M51/252, within a defined Survey area which includes a proposed heap leach pad, Alliance pit extension, New Alliance pit extension, and Federal City pit extension (the Survey area).

For the flora and vegetation assessment, a total of 12 sample relevés and eight quadrats were used to assess and describe the flora and vegetation communities within the survey area. A total of 99 taxa (species, subspecies and varieties) from 15 families and 21 genera were recorded in the course of the survey. Nine vegetation communities were identified. No threatened flora or priority flora was found in the Survey area.

It would appear from the data collected during the survey that no threatened or priority plant species or ecological communities will be impacted by proposed developments of the Project. Additionally, the vegetation within the Survey area is common and widespread throughout the region.

The survey area covered three fauna habitat types:

- Open mulga tree/shrubland on plains;
- Drainages; and
- Alienated habitats.

Fauna habitats and the assemblages of species that occupy them are expected to be consistent with other similar habitats in the region. Overall the Survey area represents marginal value as fauna habitat mainly due to extensive cattle disturbance and previous mining activities. Based on searches of the Commonwealth Protected Matters database and Western Australian Department of Parks and Wildlife (DPaW) Threatened and Priority species searches, 22 fauna species of conservation significance have been recorded within 70 kilometres of the Survey area. These species comprise 19 birds, one reptile and two invertebrates.

The conservation significant invertebrates (Shield-backed Trapdoor Spider and Fairy Shrimp) and reptile (Good Legged Larista) are unlikely to occur in the Project area due to unsuitable habitat being available.

There is the potential for a small number of bird species of conservation significance to occur, however this likelihood is low given that there is probably better condition habitat located outside the Survey area and that they have rarely been recorded in the local area. A likelihood of occurrence analysis was conducted and revealed that only one conservation significant species (Rainbow Bee-eater) is likely to occur in the survey area. Four species were determined as having the potential to occur (Peregrine Falcon, Fork-tailed Swift, Australian Bustard and Bush Stone-curlew) whilst it is unlikely that the other remaining 17 species would occur. Any occurring birds of conservation significance will not likely be impacted due to their mobility.

It is unlikely that the habitat found in the survey area supports any non-volant species of conservation significance that have previously been recorded within 70 kilometres and therefore any clearing of native vegetation is considered unlikely to have an impact on populations of non-volant species of conservation significance.

The proposed development is not likely to be at variance with any of the ten clearing principles outlined in the Western Australian *Environmental Protection Act 1986*. Fauna, flora and vegetation issues are not a limiting factor for the Project, assuming appropriate management.

20.2.2 Water Studies

At least four reports have been prepared describing the hydrogeology of the Burnakura Mine area. These include K. H. Morgan and Associates (1993, 1996) and Rockwater (2005 & 2006). The assessments reviewed hydrogeological conditions pre-operational and during operations with a view to managing groundwater flows, including the effects of heavy rainfall events on mine dewatering, the availability of groundwater supplies for processing ore and to identify potential impacts associated with in-pit tailings storage.

These Technical reports are listed below:

- *Rockwater Pty Ltd, (2005): NOA2 Project Burnakura. Assessment of Groundwater Effects from Tailings Storage in NOA4 and NOA6 Open Pits. January 2006;*
- *Rockwater Pty Ltd, (2006): Burnakura Project Assessment of Groundwater Effects from Tailings Storage in Lewis and Reward Pits. August 2006;*
- *K. H Morgan and Associates. (1996). Hydrogeological Report prepared for GMA for the North Alliance Project. April 1996;*
- *K. H Morgan and Associates. (1993). Groundwater Exploration – Authaal North Project. Prepared for Metana Minerals NL. March 1993.*

The Project is located within the Annean – Yalgar sub-catchment of the East Murchison River Catchment, where the bulk of the water resource is potable to brackish. Total Dissolved Solids (TDS) ranges from 800 mg/L to <5,000 mg/L, is neutral to slightly alkaline and is dominated by Na and Cl ions with significant sulphate, bicarbonate and nitrate contents (Rockwater, 2005).

Water quality measured in the mine environments (North of Alliance (NoA2, NoA7, Alliance, Reward and Lewis) and from the Camp Bore record that the water is potable to brackish ranging from TDS 800mg/L to 3,800mg/L with a mean of 2,300mg/L and pH ranges between 6.6 to 9.0 indicating slightly neutral to alkaline water characteristics. The predominant ions in the groundwater are sodium and chloride with subordinate bicarbonate and sulphate. Salinity increases with depth and with exploration Static Water Levels (SWLs) in the mine environment ranging from 20 to 30m below surface (APM, 2014b).

The regional geology of the Mt Magnet-Meekatharra District is characterised by linear to acuate north-west trending greenstone belts separated by zones of granitoid rock types of Archaean age.

Surface drainage is uncoordinated and directed towards Lake Annean with discharge via the north-flowing Hope/ Yalgar River when exceptional rainfall events occur.

Groundwater originates primarily from infiltration of rainfall that occurs episodically after major rainfall events. The main areas of recharge are permeable rock outcrops in the upper reaches of drainage lines where run-off is concentrated. Some recharge may occur through the open mine voids. The main beneficial groundwater storage is within the thin alluvial and colluvial deposits with waters becoming more saline in underlying fractured rock aquifers. One main fractured rock aquifer has been identified in the Burnakura mine environment – a deep aquifer system that extends in fractured rock environments below 30 meters. The distribution of the system is variable across the NoA trend. The aquifer coincides with the intersection of a series of fracture systems and dykes associated with major area fault zones within both footwall and hanging wall units. Groundwater flow directions indicated that locally water is flowing north and ultimately into Lake Annean.

Meekatharra has a semi-arid climate with hot dry summers and mild winters. Rainfall is irregular, with the long term average to 2014 being 236.8 mm/year. There are commonly light falls between May and July, and irregular intense falls from January to April resulting from the passage of degenerating cyclones and local storms.

Water quality or volume is not a limiting factor for the Project.

20.2.3 Geochemical Characterisation

20.2.3.1 TAILINGS CHARACTERISATION

Test work to assess the potential for acid generation, through sulphide oxidization and metal leaching, was undertaken on tailings material from NOA2 (Graeme Campbell and Associates 2006 and ALS Ammtec, 2012). The studies were to assist in the development of closure strategies for tailings storages when operations ceased. The test work focused on the acid base chemistry and included calculations for Net-Acid Producing Potential (NAPP), Acid- Neutralizing Capacity (ANC) and determinations of Net Acid Generation (NAG). Tailings from past mining operations were found to have high neutralizing capacity and are Non Acid Forming (NAF).

Results also indicated while ore materials contained pyrite grains and potentially were acid forming, they were in limited volumes in specified lithologies or had high neutralizing capacity and were classified as NAF. These results were confirmed for Lewis and Reward Tailings by ALS Ammtec (2012) as part of the pit development.

Results from ALS Ammtec (2015) testing (Table 79) of tailings slurry of Alliance/New Alliance ores suggests that they are near neutral pH, are not saline and have a sulphur level of less than 0.02 percent. ANC is between two to three kilograms per tonne, NAG is negative two to negative three kilograms per tonne and NAPP is between negative one to negative two kilograms per tonne of waste rock.

Table 79 ALS Ammtec Tailings Characterisation Results for selected samples from Alliance/New Alliance

Sample	S (%)	ANC (kg H_2SO_4/t)	NAG (kg H_2SO_4/t)	TAPP (kg H_2SO_4/t)	NAPP (kg H_2SO_4/t)	pH	Cond (mS/cm)
NB1037 Resi	<0.02	2.00	-2.00	<1	-1	6.58	0.040
NB1038 Resi	<0.02	2.00	-3.00	<1	-1	7.42	0.036
NB1041 Resi	<0.02	3.00	-3.00	<1	-2	7.85	0.030

The risk of Acid Rock Drainage (ARD) development from the Lewis and Reward in-pit tailings is also considered low risk based on observations of historic tailings piles from underground mines at the New Alliance and Federal City mines having been exposed for over 80 years with no evidence of acid development.

Furthermore, no evidence of acid generation characteristics were observed in ores derived from the Burnakura Trend mines that were deposited into the Reedys No. 2 TSF or the Bluebird TSF during past treatment campaigns.

Post closure, the pits will be tight filled and capped, further minimizing any potential for ARD development.

20.2.3.2 WASTE[TS5] ROCK CHARACTERISATION

Waste rock lithologies from all the existing Waste Rock Landforms (WRLs) have been examined as broken rock. The sulphide contents in non-oxide rocks were found to be confined to specific lithologies and in these lithologies were typically less than 0.3%. Waste lithologies are largely oxide in NoA 7 and 8, Alliance, Authaal, Federal City and Banderol and predominantly oxide and transitional with limited fresh material in NoA1 and 2, New Alliance and Lewis mines.

A waste rock characterisation study was undertaken of Alliance during October 2012 by MBS Environmental (MBS, 2012). A total of 17 composite samples selected from RC drill holes within the proposed Alliance pit cutback were submitted for the study. These samples were considered representative of the primary waste lithologies within the proposed pit and ranged in depth from zero to 72 metres below ground level.

Results of the assessment indicated that waste rock generated by open pit mining at Alliance will be geochemically benign. Very low sulphur concentrations resulted in all waste types being characterised as NAF. Leachate from these materials was predicted to be circum-neutral to slightly alkaline, have very low salinity levels and contain very low concentrations of soluble metals and metalloids. The waste consisted primarily of highly stable minerals, with limited reactive sulphides. Therefore, the quality of any seepage water from this material would be unlikely to change over time (MBS, 2012).

These results are consistent with observations of historical WRLs at Alliance, which provide no evidence for generation of acidic, saline or metalliferous drainage.

20.3 *Environmental Management and Monitoring*

20.3.1 Waste Rock Management

Waste rock from the mining process must be deposited on waste rock landforms (WRLs) within a footprint approved in a current Mining Proposal. There are ten existing WRLs at the Project in various states of rehabilitation; from un-rehabilitated, to completely topsoiled, seeded and successful revegetation. A summary of all WRLs at the Project appear in Table 80.

Table 80 Monument Murchison Gold Project – Burnakura Operations Existing Waste Rock Landform Designs and Rehabilitation Status

Area	Batter Angles (°)	Height (metres)	Ground surface area (hectares)	Commenced construction	Rehabilitation		Topsoil Depth (mm)
					Earthworks Completed	Percentage Rehabilitated	
Banderol #1 West	15-18	13	7.7	1991	1997	100	200
Banderol #2 North	15-18	13	5.5	1995	-	0	-
NoA7&8	18-20	10	15.5	1997	-	30	-
New Alliance	15-17	10	13.2	1990	-	10	200
Alliance	15-17	8	13.3	1990	-	23	200
NoA1	15-17	10	12.9	1995	Unknown	100	250
NoA2	17	10	18.9	1996	-	40	-
Federal City	35 – Angle of repose	7	1	1994	-	0	-
Authaal	17 and Angle of repose 38	10	6.1	1992	-	40	Unspecified
Lewis/Reward	17-20 and Angle of Repose	8	10.6	1992	-	10	-

The approved Mining Proposal Reg. ID: 37506 has authorized (an as yet unbuilt) WRL at Alliance/New Alliance as appears in Figure 65.

The approved design is for a 9.6 hectare area between two historical WRLs (Alliance and New Alliance), approximately 300 metres northwest of the existing Alliance pit. The WRL will be approximately 340 metres by 285 metres and have a maximum height of 18 metres. The WRL will be constructed progressively over the life of mine. It is expected that the WRL will be constructed of >1,850,000 tonnes of mine waste. The initial WRL will include embankment designs with a final slop angle of 15 to 17 degrees. Waste characterisation results indicate Alliance waste will be NAF.

All WRLs have both crest and toe bunds to prevent erosion and dispersion of surface soils.

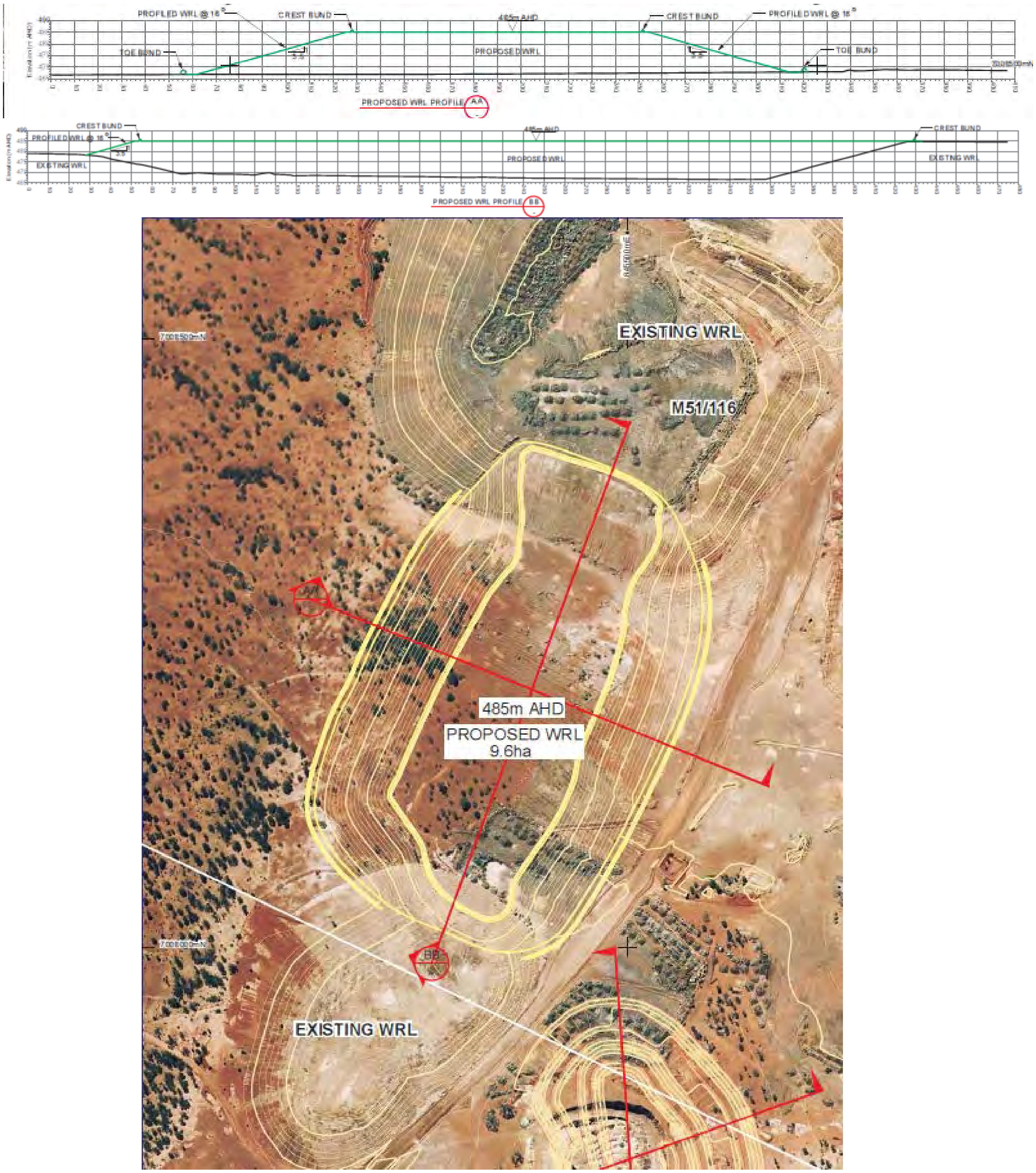

Figure 65 Alliance/ New Alliance Approved Waste Rock Landform Footprint

Any variation to the WRL or any proposal for a new WRL will require submission of a new Mining Proposal.

20.3.2 Tailings Disposal

Tailings disposal has been previously undertaken in the Lewis and Reward in-pit Tailings Storage Facilities (TSFs). The Reward in-pit TSF is full and will not be available for further deposition. The Lewis in-pit TSF will require re-establishment of tailings deposition infrastructure including the following:

- Re-placement of tailings deposition pipework from Reward to Lewis;
- Establishment of tails decant return water pontoon pump;
- Refurbishment (possibly replacement) of TSF monitoring bores.

A detailed technical report regarding the status and design of the Lewis and Reward in-pit tailings was undertaken by Knight Piesold Consulting (2011).

A resource sterilization report was presented to the Western Australian Geological Survey by previous owners Jinka Minerals Limited and accepted by the Department of Mines and Petroleum.

Advice from the Department of Mines and Petroleum indicates that a new Mining Proposal or a variation to an approved Mining Proposal will be required to re-use the Lewis in-pit TSF as its last use was as an open-cut pit. The change in land-use requires approval.

Advice from the Department of Environment Regulation indicates that an amendment to the Prescribed Premises Licence will not be required as the existing approval includes Lewis within the prescribed location pertaining to the licence.

A system of monitoring bores has been established around the Lewis and Reward TSF to monitor parameters required in the Prescribed Premises Licence. Monitoring is to be undertaken quarterly for the parameters listed below.

- pH;
- TDS (mg/L);
- WADCN (mg/L);
- As (mg/L);
- Cu (mg/L);
- Pb (mg/L);
- Mn (mg/L); and
- SWL (metres below top of bore casing).

During operations there is daily checks for fauna, inspections for blockages of spigots and to ensure the decant system is functioning as required.

20.3.3 Water Management

Surface water is managed at the Project with drainage diversion bunding to direct surface water away from operational infrastructure including mine pits, waste rock dumps and roads. Where natural drainage lines approach roads a series of culverts has been installed to prevent the natural flow of the water from being impeded and to protect the integrity of the road.

The key water source is ground water. Water abstraction is controlled under the Department of Water under the *Rights in Water and Irrigation Act 1914*. Monument Murchison has a Groundwater License which enables extraction of up to 600,000 kilolitres (kL) per annum. Water abstraction volumes are required to be recorded monthly from each abstraction point and reported annually. A standard suite of water quality monitoring data is required to be collected as a part of license conditions and the Groundwater License Operating Strategy (GLOS) (APM, 2014b) Table 81 below shows the parameters collected from locations during monitoring in 2013.

Table 81 Water quality results from water abstraction locations 2013

Parameter	Assay Results 2013					Guideline
	NoA2	NoA7	New Alliance	Camp bore	Lewis BU-27	
pH	8.2	8.6	8.5	8.1	7.9	-
TDS mg/L	1600	1600	4000	850	490	3000 (Cattle)
Na mg/L	340	370	940	180	69	-
K mg/L	18	29	25	11	16	-
Ca mg/L	67	59	110	41	42	1000
Mg mg/L	78	82	160	32	26	-
Fe (sol) mg/L	-	-	-	<0.02	-	-
Cl mg/L	570	620	1900	270	160	-
$C0_3$ mg/L	<1	8	7	<1	<1	300
HCO_3	190	190	230	200	220	-
SO_4 mg/L	250	290	480	77	2	1000
NO_3 mg/L	-	-	-	55	-	90.3
Metals						
As(Sol) mg/L	0.025	0.033	<0.02	<0.001	<0.02	0.5
PB(Sol) mg/L	<0.02	<0.02	<0.02	<0.001	<0.02	0.1
Ni(Sol) mg/L	-	-	-	<0.001	-	1.0
Cd(Sol) mg/L	-	-	-	<0.0001	-	0.01
Co(Sol) mg/L	-	-	-	-	-	1.0
Cu(Sol) mg/L	<0.005	<0.005	<0.005	<0.001	<0.005	0.4-1.0
Mn(Sol) mg/L	0.057	<0.005	<0.005	<0.001	0.065	-
Zn(Sol) mg/L	-	-	-	<0.009	-	20
WAD CN mg/L	-	-	-	-	<0.04	0.5

*Guidelines are ANZECC/ARMCANZ 2000 Australian Water Quality Guidelines for Fresh and Marine Waters, Livestock Use

Post-mining water use will continue to be recorded monthly in accordance with Groundwater Licence GWL 74516(11) and an annual Groundwater Monitoring Summary will be produced annually for the water year between 1 January and 31 December, with submission of the report to be made by 31 January the following year.

Licenced water abstraction locations as set out in the GLOS are to be monitored with a standard suite of analysis of parameters as previous monitoring events to be undertaken as seen in Table 81 above.

Monitoring is expected to continue until the Groundwater Licence expires or until relinquishment of the tenements.

20.3.4 Preliminary Heap Leach Design

A preliminary heap leach design for the Project was developed by Knight Piesold Consulting (2012[TS6]). The design allows for a 2 million tonne heap leach to be operated over 3.25 year period. Initial designs indicate a two stage heap leach facility with eight initial cells, followed by a lift and establishment of another four cells. Variable ores will be both machine stacked and direct dumped where appropriate.

The following ore types were allowed for in the preliminary design:

- Type 1 – Crushed ore, recovery 50%. To be machine stacked.
- Type 2 – Oxide ore, poor percolation, requires agglomeration. To be machine stacked.
- Type 3 – Mixed ore, good percolation. Direct dumping onto heap leach.

The heap leach pad has been designed to take into account the relevant requirements of Western Australian guidelines for heap leaching. The facility has been designed to contain internal run-off from a 24 hour, one in one hundred year average return interval storm event at the site (145 millimetres of rain over 24 hours). The sub-base permeability rate is designed to the standard of 1 x 10^{-8} metres per second. A High-Density Polyethylene liner (HDPE) with a thickness of 1.0 millimetres is to be laid over the sub-base under the heap and a 1.5mm HDPE liner laid in exposed areas. A further 300 millimetre sacrificial layer is placed on top of the HDPE liner prior to deposition of ores.

Solution collection channels and all ponds are designed to the same standard as outlined above, with the exception that the channels have an additional HDPE rub sheet of 1.5 mm thickness as a protective layer to ensure that leachate does not exit the system.

Each cell has been sized based on the maximum 60-day production rate for each ore type. Where a lower tonnage occurs, the ore will be stacked from the lower end of each cell and progressed toward the upper end of the heap leach pad. After 60 days of stacking, irrigation will commence on the stacked ore.

Type 3 ore will be truck dumped directly onto the heap leach pad, as the second lift over completed base cells (starting over the Type 1 ore cells).

Upon filling a cell with ore for the designated cycle time, a network of sprinklers will be installed on top of the heap prior to it being irrigated by cyanide solution. The cyanide solution will percolate through the heap, extracting the gold from the ore.

A pregnant liquor solution will be pumped from the pond to the plant site for processing.

20.3.4.1 HEAP LEACH PAD MONITORING

During operation the heap leach pad will be inspected daily for ingress of fauna.

Four monitoring bores (equipped with piezometers) will continuously monitor the heap leach pad for seepage during its operation. Sampling of groundwater will be undertaken with regard to Prescribed Premises Licence conditions.

20.4 Social and Community Context

The Burnakura development is located wholly in the eastern boundary of the Shire of Cue which covers an area of 13,716 km^2. Logistically Meekatharra, with its transport, travel and commercial infrastructure is closest to the Project and is the largest town in the region. It was founded in 1894 following the discovery of gold at a number of centres in the district.

Major industries in the Meekatharra Shire consist of mining and processing, pastoralism, tourism, commercial retail and light industrial maintenance and fabrication. The town is an important transport stop on the Great Northern Highway.

20.4.1 Stakeholders

Major stakeholders and recent relevant consultation regarding the Project appear in Table 82 below.

Table 82 Major stakeholders at Burnakura consulted during 2014

Date	Federal / State / Local Government Department or Company	Person/s	Comms. Method	Topics Covered	Issues Raised	Monument Response
December 2013 – February 2014	Kentor Minerals WA/ Jinka Minerals Ltd	Keith Mayes	Meetings, emails, legal documents, letters	Purchase of Burnakura Operations by Monument Murchison Pty Ltd	Jinka Minerals Ltd hold the tenement package that comprises the Burnakura Operations. Jinka is wholly owned by KMWA. Monument is purchasing the tenement package and are the beneficial owners of the tenement package held by Jinka until their transfer to Monument.	Monument require a letter of authorisation from KMWA in order to lodge environmental approvals documents, reports and seek information from regulators regarding the Burnakura Operations until the tenement transfer has occurred. Letters received.
December 2013 – February 2014	Yamatji Marlpa Aboriginal Corporation on behalf of Yugunga Nya People Claim Group	YMAC	Exchange of legal documentation	Transfer of Mining Agreements with Native Title Claimants to Monument	Mining Agreements Transferred.	Monument recognise and accept the transferred Mining Agreements with the Native Title Claimants.
August/September 2014	Department of Mines and Petroleum	Stephen Lance Daniel Endacott	Telephone, emails, letter	Annual Environmental Reporting and Mine Closure Plans	MCP submitted by KMWA in February 2013 was rejected and requires re-submission addressing areas highlighted in letter from Stephen Lance.	Monument will re-submit the MCP addressing the areas highlighted in the letter from DMP. Monument will send a letter to DMP with a proposed revised submission date. Letter sent 4th September to Daniel Endacott. Revised submission date 28th November 2014.
October 2014	Yamatji Marlpa Aboriginal Corporation on behalf of Yugunga Nya People Claim Group	David Farrell Solicitor YMAC	Telephone, email, letter	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting Yugunga Nya People to provide input into any expectations of post mining land use at the site.	David Farrell will take the letter to discuss with the Yugunga Nya People at a Working Group meeting on Tuesday and endeavour to reply before resubmission of the MCP.	Await response, address issues , negotiate and integrate if feasible.
November 2014	Department of Environment Regulation	Paul Anderson Environmental Officer - Licencing	Telephone, Email	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting DER to provide any input into Mine Closure Planning as an identified stakeholder.	The Department of Environment Regulation (DER) at this time has no issues it wishes to raise regarding closure management at the Burnakura Gold Project (L7972/2004/4). Should DER have any future concerns regarding closure management issues at the premises, DER will manage this either through the environmental licence (if still current) or a closure notice issued under the provisions of the Environmental Protection Act 1986.	Noted.
November 2014	Shire of Meekatharra	CEO Mr McClymont	Email, letter	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting Shire of Meekatharra to provide any input into Mine Closure Planning as an identified stakeholder.	This plan is a statutory requirement and are undertaking feasibility assessments with a view to potentially re-starting the mine in 2015. Monument expect post-mining land use to be pastoralism.	Await response, address issues , negotiate and integrate if feasible.
November 2014	Shire of Cue	CEO Mr McCleary	Email, letter	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting Shire of Cue to provide any input into Mine Closure Planning as an identified stakeholder.	This plan is a statutory requirement and are undertaking feasibility assessments with a view to potentially re-starting the mine in 2015. Monument expect post-mining land use to be pastoralism.	Await response, address issues , negotiate and integrate if feasible.
November 2014	Department of Water	Dion Macale Natural Resources Management Officer	Telephone, Email	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting DoW to provide any input into Mine Closure Planning as an identified stakeholder.	This plan is a statutory requirement and are undertaking feasibility assessments with a view to potentially re-starting the mine in 2015. Monument expect post-mining land use to be pastoralism.	Await response, address issues , negotiate and integrate if feasible.
November 2014	Pastoralist Cullculli and Polelle Pastoral Leases	Jim Lacy Pastoral Leasee	Letter	Monument are developing a mine closure plan as statutory requirement under the Mining Act. We are inviting Jim to provide any input into Mine Closure Planning as an identified stakeholder.	This plan is a statutory requirement and are undertaking feasibility assessments with a view to potentially re-starting the mine in 2015. Monument expect post-mining land use to be pastoralism.	Await response, address issues , negotiate and integrate if feasible.

20.4.2 Heritage

The Project is situated within the Native Title Claim area of the Yugunga Nya People. The Yugunga Nya People Claim Group are represented by the Yamatji Marlpa Aboriginal Corporation.

Detailed anthropological and archaeological surveys were undertaken in the Burnakura area prior to mining, in conjunction with a number of Aboriginal Associations. One site at NoA2 was recorded for the Burnakura tenure (MacIntyre Dobson and Associates Pty Ltd 1996). A Section 18 authorisation to develop the site was granted under the *Aboriginal Heritage Act 1972* for this site (ID. 162) which was salvaged prior to mining.

No other heritage sites are subject to disturbance under current planning. Any development proposed on undisturbed areas will require completion of archaeological and ethnographic surveys in conjunction with Traditional Owners.

20.5 *Mine Closure Planning*

Mine closure is primarily regulated under the *Mining Act 1978* and under amendment to the Act in 2010 a Mine Closure Plan is required to be submitted to the Department of Mines and Petroleum for any new or existing mining project.

All key environmental issues and workable management mechanisms relevant to mine closure have been identified throughout the course of the preparation of the following documents:

- Application ID 53535: *Monument Murchison Gold Project – Burnakura Operations Mine Closure Plan Version 2.0, December 2014*; and
- Mining Proposals Reg. ID: 37506, Reg. ID 34544 and Letter of Intent Reg. ID 38454.

The detail in the above documents outlines the mining process and identifies avenues for potential contamination of the receiving environment. Stakeholder consultation with underlying land managers and regulators has also provided input into identifying closure issues.

20.5.1 Closure Issues

Closure issues currently identified as relevant to the Project include but are not limited to:

- Safety of pit voids;
- Contaminated sites;
- Impacts on surface and ground water quality;
- Impacts from erosion;
- Derelict infrastructure;
- Stability of constructed landforms;
- Residual waste; and
- Rehabilitation failure.

These issues apply to the closure domains that have been identified by Monument. The domains within the Project area have been defined as:

1. Tailings Storage Facilities – The TSFs occur at the NoA 4 and NoA 6 on M51/116 and at Reward on M51/117. Reward in-pit TSF is essentially full. Previously tailings deposition took place at NoA4 and NoA6 former in-pit sites. They have been capped and rehabilitated. The proposed Lewis in-pit TSF on M51/117 is expected to receive tailings from forthcoming processing however at this stage remains a Mine Pit.
2. Mine Pit Voids – There is currently 11 pit voids at the Project. If operations recommence Lewis pit will be utilised as an in-pit TSF and will not remain at closure.
3. Waste Rock Landforms – WRLs will have been constructed adjacent to deposits at the Project. There is a total of ten existing WRLs.
4. Infrastructure – Infrastructure on site includes the accommodation village, offices, sewage systems, landfill, crusher and processing plant, workshops, fuel storage, and infrastructure laydown areas.
5. Run of Mine (ROM) Pad – The main ROM pad occurs at M51/116 adjacent to the processing plant. The ROM pad consists of compacted waste rock material upon which the ore from the pits is stored before crushing and shortly post crushing prior to processing.
6. Roads – haul roads and access roads. Roads are defined as any surface that has been formed and constructed using fill and compaction techniques for the purpose of vehicle movements. Exploration drill lines and exploration access tracks do not constitute roads.
7. Cleared Areas – any other cleared areas including laydown areas, soil and vegetation stockpile areas, abandonment bunds and any other miscellaneous disturbance. This domain does not cover exploration drill pads and lines that are expected to be rehabilitated in accordance with approved exploration Programmes of Work.

20.5.2 Closure Cost Estimates

The Closure Cost Estimate (CCE) presented here is based on that appearing in the *Monument Murchison Gold Project – Burnakura Operations Mine Closure Plan Version 2.0, December 2014*. Updates have included adjustments for changes in disturbance area, contingency factors and inflation.

20.5.2.1 DATA SOURCES

Several sources of information were used in determining the CCE (Table 83).

Disturbance was calculated using aerial imagery and historic disturbance records, particularly the latest record from the 2013-14 Annual Environmental Report, site inspections and comparison of aerial imagery.

Estimated costs for works, equipment and machinery used in demolition and rehabilitation are based on hourly rates as supplied by Goldfields Mining Contractors. These rates were considered conservative and expected to vary as the price of diesel fluctuates.

Table 83 Data sources for developing closure cost estimates

DATA TYPE	SOURCE	COMMENTS
MRF levy rates	Mining Rehabilitation Fund Rates	As provided on DMP online system.
CCE Rates	Goldfields Mining Contractors	Prices may fluctuate as diesel prices fluctuate.
Disturbance Areas	AER Disturbance figures 2013-14 December 2014 Disturbance mapping	Disturbance table was compiled from combination of mapping existing disturbance and ground- truthing.
Rehabilitation Areas	AER Rehabilitation figures 2013-14	The percentage of rehabilitation area relative to the presented disturbance area was derived through analysis of previous AERs (2011-12 and 2012-13).

20.5.2.2 ASSUMPTIONS

The CCE and MRF liability have been developed on the basis of numerous assumptions, including:

- MRF costs have been calculated based upon Mining Rehabilitation Fund rates, provided by DMP online systems.
- It is assumed that the maximum height of WRLs will not be increased.
- The Tailings Storage Facility assumed to be up to 5m high if capping is required.
- Exploration areas excluded.
- Rehabilitation works were based upon the disturbance areas recorded in the 2013-14 Annual Environmental Report. Where rehabilitation is listed as earthworks, this has been assumed to include the application of topsoil, sufficient to meet the requirements of rehabilitation works for the level 2 bond reduction and the reduced rate for the MRF.
- All rehabilitation works have been successful and qualify for the discounted rate.
- An allowance has been included for inflation at CPI (March 2012-September 2014 6.5%).
- A 10% contingency has been factored into the CCE.

The indicative estimate of probable closure costs has been calculated and is summarized in Table 84.

Table 84 Indicative estimate of probable closure costs

Stage	Total disturbance area (ha)	Rehabilitated area (ha)		Closure Cost Estimate ($)
		Stage 1	Stage 2	
Existing disturbance	225.95	102.5	7.7	1,903,541

The closure cost estimate will be updated on a regular basis to review costing assumptions, inflation, changes in circumstances. Monument will ensure that the full closure liability is accrued by the end of the Project’s operating life. Monument maintains thorough documentation of closure cost estimates and closure provisions in company accounting databases and reports.

Monument acknowledges that MRF levy contributions are required. Jinka, as the holder of the relevant tenements, has been accepted into the MRF system. The MRF levy liability was calculated using the project disturbance summary figures from the 2012-13 AER. For the 2014 reporting year the rehabilitation liability estimate was levy was $2,418,300 with the one percent levy totalling $24,183.

20.5.3 Closure Implementation

This section provides a summary of the closure works programs for each closure domain (previously identified and described briefly in Section 20.5.1) and is collectively known as the *closure task register*. The work program for each domain will incorporate the following aspects:

- Description of domain;
- Land-use objectives;
- Decommissioning, closure activities and timing;
- Availability and management of closure material sources;
- Contaminated site investigation and management where identified in the risk assessments.

Exploration is expected to be ongoing throughout the assessment of feasibility for the return to operations at the Project. In this respect it is not expected that full plant decommissioning at the site will take place until confirmation of plans to completely cease mining and exploration. Decommissioning will involve the dismantling and removal of all building structures, equipment and pipelines that are not required by a future land user.

Where it is stated monitoring is undertaken annually or biannually, it is undertaken until achievement of the closure objective.

All mining operations disturbance areas and domains for management of closure appear Figure 66, 67 and 68 below. The disturbances are numbered for easy reference to the tables appearing within each of the domain descriptions.

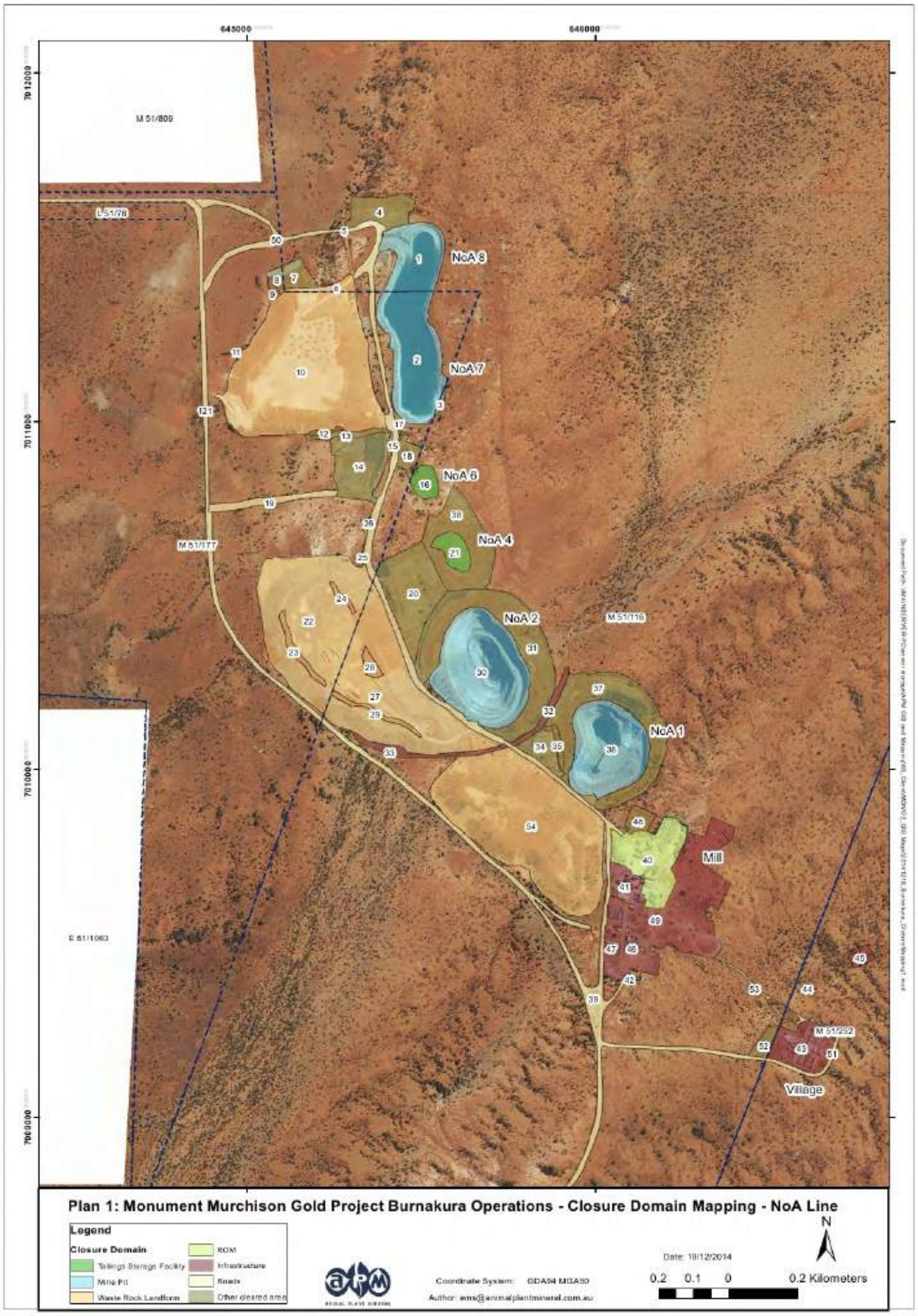

Figure 66 Monument Murchison Gold Project Burnakura Operations – Closure Domain Mapping – NoA Line

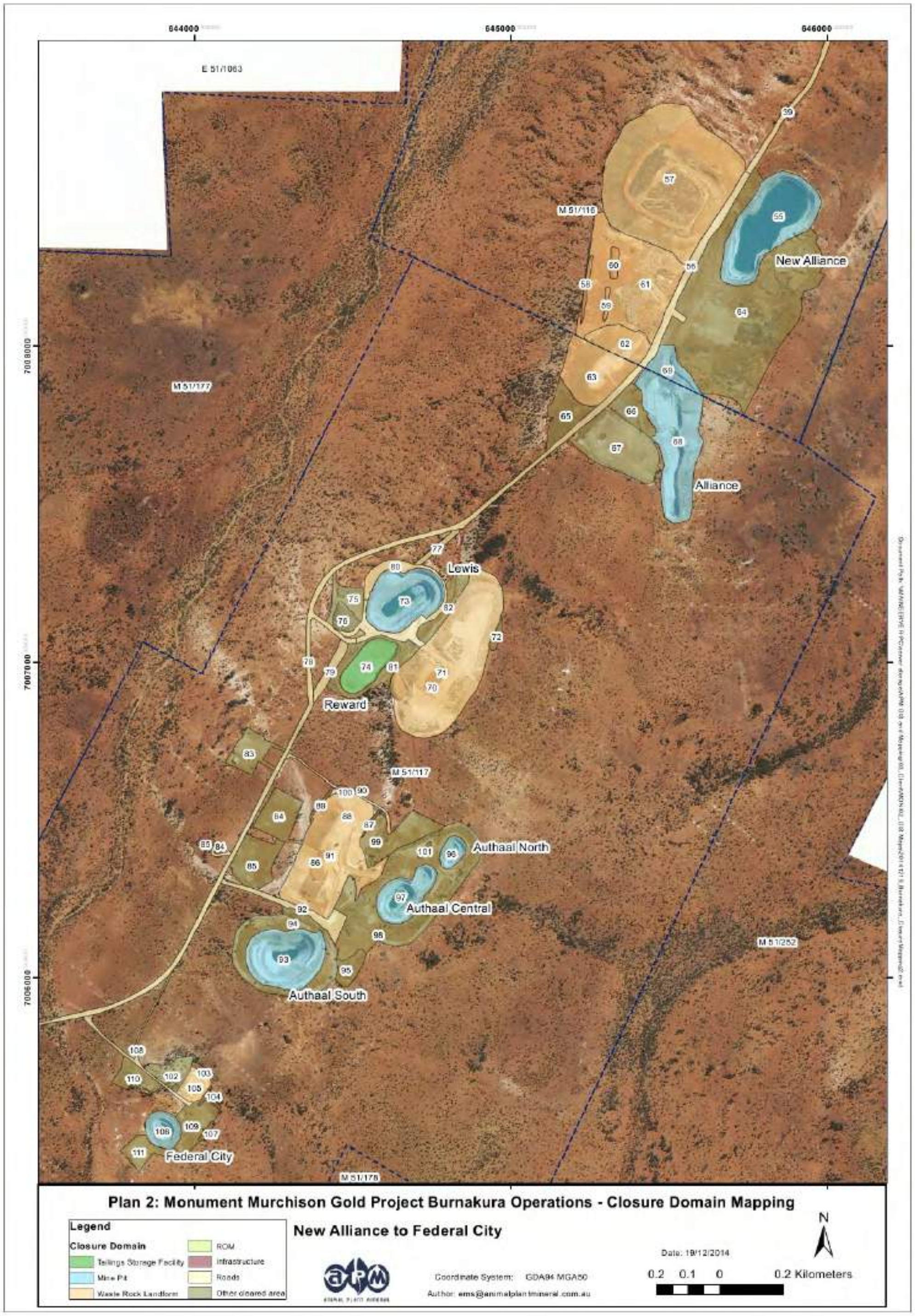

Figure 67 Monument Murchison Gold Project Burnakura Operations – Closure Domain Mapping – New Alliance to Federal City

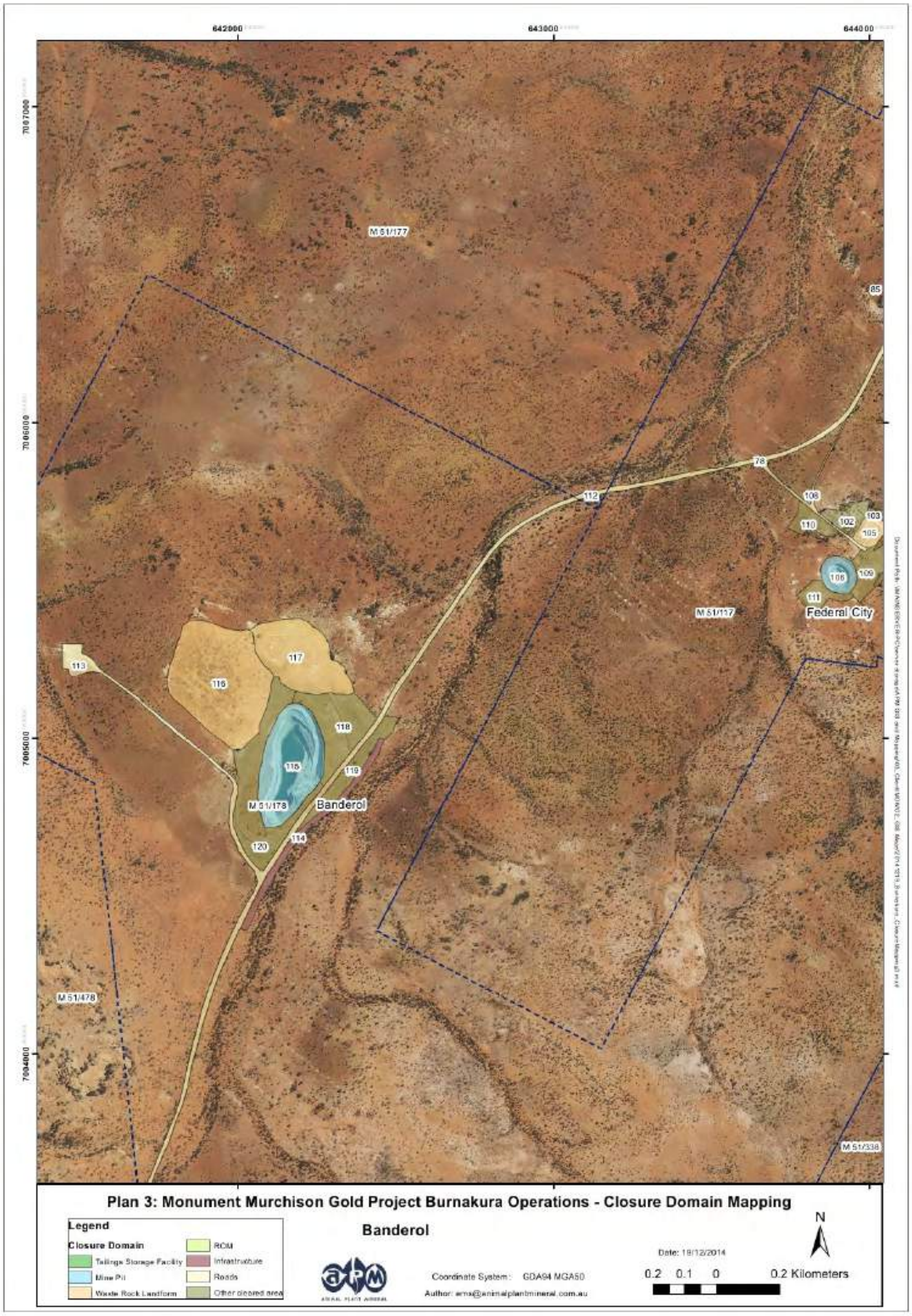

Figure 68 Monument Murchison Gold Project Burnakura Operations – Closure Domain Mapping – Banderol

20.5.4 Tailings Storage Facility

20.5.4.1 TSF DOMAIN DESCRIPTION

TSF closure domain covers three areas at the Project (Table 85) and the TSFs are in-pit designs. Two rehabilitated TSFs are located on the M51/116 tenement in the previously mined NoA 4 and NoA 6 pits. They underwent rehabilitation in 2007 and rehabilitation has progressed well, however they have not been relinquished to date.

The remaining TSF is located at the previously mined Reward pit on M51/117. During 2012-13 tailings were transferred from the Lewis in-pit TSF that had been used during previous mining campaigns. Lewis was subject to a cut-back so Reward was commissioned to contain the historic tailings and additional tailings from new processing.

It is expected that Lewis will be commissioned as the new in-pit TSF should operations restart, however until that time it shall remain as a part of the Mine Pit domain.

As such closure activities, aside from revegetation monitoring, are only related to Reward in-pit TSF at this point in time. If and when deposition occurs in Lewis in-pit TSF, closure activities will be applied to that location.

Table 85 Tailings Storage Facility Closure Domain Features

Id	Disturbance name	Closure domain	Tenement
16	NoA6 TSF	Tailings Storage Facility	M51/116
21	NoA4TSF	Tailings Storage Facility	M51/116
74	Reward in-pit TSF	Tailings Storage Facility	M51/117

20.5.4.2 FINAL LAND USE

Final land use at the TSF will be pastoralism.

20.5.4.3 DECOMMISSIONING, CLOSURE ACTIVITIES AND TIMING

The strategy proposed to decommission and close the TSF is outlined in Table 86.

Table 86 Strategy for decommissioning and closure of tailings storage facility

Requirement	Activity	Timeline
TSF review report by qualified geo-technical/ engineer	This report should review the status of the structure and its contained tailings, examine and address the implications of the physical and chemical characteristics of the materials, and present and review the results of all environmental monitoring. The rehabilitation works proposed and any on-going remedial requirements should also be addressed.	**At decommissioning and prior to rehabilitation**
Remove tailings deposition piping	Flush tailings pipeline. Remove and dispose tailings pipeline. Remove and dispose of spigots.	Upon implementation of closure
Dry tailings	Tailings to be checked periodically for moisture level. Once dry and stable, capping will be required.	Quarterly post closure
Contaminated site monitoring	**Undertake sampling of potential contaminated sites with regard to the *Contaminated Sites Act* 2003 and *Regulations 2006.*** If contaminated site occurs as defined by the *Contaminated Sites Act 2003* or Regulations *2006*, treat according to required protocols.	After tailings have dried
Capping TSF and rehabilitation earth works.	Once dry and stable, TSF will need to be capped with appropriate capping material to the extent determined in the decommissioning review report above. Earthworks will be undertaken to ensure TSF rehabilitation batters are at the angle recommended in the report above and are ripped across the contour. Topsoil will be replaced and rock mulch and vegetation debris spread over the surface. Seeding with provenance species to be undertaken.	Within 3 months of appropriate tailings moisture
Monitoring	Following capping, inspection for erosion will be undertaken annually. Revegetation monitoring will be undertaken annually for the first three years after capping and rehabilitation earth works. If required, revegetation will be undertaken to promote suitable vegetation establishment. Monitor groundwater from established monitoring bores for selected contaminants.	Annually Annually and as required As required under DER licence (quarterly) then annually

20.5.4.4 CLOSURE MATERIAL SOURCES

Closure material sources have been identified as follows in Table 87:

Table 87 TSF Closure Materials Availability

Capping Materials	Unit	Quantity	Distance to Nearest Source
Oxide clays	m^3	4,000	100m to Lewis/Rewards WRL
Fresh Rock[1]	m^3	6,000	Local stockpiles of below low grade material at Lewis/Reward WRL
Topsoil	m^3	1,300	From local topsoil supplies if available
Total	m^3	11,300	-

[1] For rock armouring if determined necessary for erosion control.

Sufficient volumes are available to undertake the capping and to provide capillary break if required. Topsoil stockpiles at Lewis/Reward will provide enough topsoil to enable replacement to a depth recommended by the TSF review report.

20.5.5 Mine Pits

20.5.5.1 MINE PIT DOMAIN DESCRIPTION

At present eleven pit voids will occur at the Project upon completion of mining (Table 88). The pits are spread across a 5 km strike line from Banderol in the south, north-east to New Alliance and then 2km on a northerly strike line from NoA1 to NoA 7 and 8.

The Mine Pit domain takes in the area of the pit void, access ramp and the area inside the safety bund.

Table 88 Mine Pit Closure Domain Disturbances

Id	Disturbance name	Closure domain	Tenement
1	NoA7&8 Pit	Mine Pit	M51/116
2	NoA7&8 Pit	Mine Pit	M51/177
3	NaA7&8 Pit	Mine Pit	M51/116
30	NoA2 Pit	Mine Pit	M51/116
36	NoA1 Pit	Mine Pit	M51/116
55	New Alliance Pit	Mine Pit	M51/116
68	Alliance Pit	Mine Pit	M51/117
69	Alliance Pit	Mine Pit	M51/116
73	Lewis Pit	Mine Pit	M51/117
93	Authaal South Pit	Mine Pit	M51/117
96	Authaal North Pit	Mine Pit	M51/117
97	Authaal Central Pit(s)	Mine Pit	M51/117
106	Federal City Pit	Mine Pit	M51/117
115	Banderol Pit	Mine Pit	M51/178

20.5.5.2 FINAL LAND USE

Final land use for mine pits will be pit lakes. It is predicted that some of the pit lakes will become sinks and some will be minor ephemeral sources at the cessation of mining. Salinity of pit water at sinks is expected to slowly increase due to evaporation. Water quality in ephemeral sources will be relatively fresh as it will comprise rainwater and run-off after rainfall from within the pit domain.

20.5.5.3 *DECOMMISSIONING, CLOSURE ACTIVITIES AND TIMING*

The strategy proposed to decommission and close the mine pit domain is outlined in Table 89.

Table 89 Strategy for decommissioning and closure of mine pits

Requirement	Activity	Timeline
Modelling	Model pit voids to determine their likely characteristics post-mining	2016
Construction of abandonment bunds	Abandonment bunds around pit voids will be designed and constructed in accordance DMP guideline *Safety bund walls around abandoned open pit mines* (DOIR 1997). This will ensure that access to the zone of instability around abandoned open pits is physically obstructed by the bund. In general, waste rock will be placed to develop the bunds with a 5 m base and up to 2 m in height with prominent signage to indicate the danger and to deter access.	Abandonment bunds are almost entirely in place at established pits. Bunds will require closing at commencement of closure.
Decommissioning	Removing all infrastructure from the mine pit. Removing residual waste for appropriate disposal in WRL or landfill. Remove any hydrocarbon waste for containment and appropriate disposal, and removal of any hydrocarbon contaminated soil to the bioremediation facility for treatment.	At cessation of mining, progressively according to mining schedule
Deter access	Removal and rehabilitation of any roads that are not required. Install signage alerting of dangerous area, no access permitted. Underground portal in NoA2 entrace to be secured with mesh, place waste rock at the mouth of the portal prior to the void filling. At final closure, the NoA2 portal will be submerged when ground waters recover.	At cessation of mining, progressively according to mining schedule
Rehabilitation	Rehabilitation of roads and other cleared areas within the mine pit domain will be undertaken as follows: • stripping any suspected contaminated soils for treatment at the bioremediation facility • Ripping of compacted areas to break up hardpans • Contouring to integrate with surrounding topography • Replacement of subsoil and topsoil • Vegetation debris spread over surface	Progressively according to mining schedule
Monitoring	Monitor water quality post mining. Monitoring of abandonment bund integrity through biannual inspections to ensure pit access is limited.	Annually Biannually

20.5.5.4 CLOSURE MATERIAL SOURCES

Oxidised waste rock will be used for constructing abandonment bunds. The waste rock will be sourced from WRLs prior to final rehabilitation of the WRLs.

Topsoil, subsoil and vegetation stockpiles, where they exist will be available for rehabilitation use on roads, laydown areas and temporary ROM pads surrounding the mine pits.

20.5.5.5 INFORMATION GAPS

Water quality parameters have been taken for open pits and will be updated as water samples are collected throughout the establishment of the new open cut pits. Upon decommissioning, pit water sampling will occur annually until pit water quality stabilises and remains within an agreed range for three consecutive sampling periods.

It is expected that the water quality information contained in Table 83 **Error! Reference source not found.** will be used to contribute to final water quality criteria. At least one further set of samples would provide further evidence of the current water quality at the sample locations. Water samples will be analysed and compared to the Department of Health (2006) *Contaminated Sites Reporting Guideline for Chemicals in Groundwater* values which can be found in Department of Environment and Conservation (2010) *Assessment levels for soil, sediment and water.*

Monitoring will cease once the results have remained steady at agreed levels for three consecutive sampling periods.

20.5.6 Waste Rock Landforms

20.5.6.1 DOMAIN DESCRIPTION

WRLs have been constructed at each of the deposits for a total of 10 WRLs with over the Project area. The Lewis and Reward WRL is the only one with an encapsulation cells integrated within its design, primarily to contain slaking materials. WRL closure domain features appear in Table 90. A number of topsoil stockpiles occur wholly within the WRL closure domain.

WRLs have been designed taking into account the results of soils and waste characterisation studies. Closure designs with batters of $\leq 20^0$ have been developed to provide stable structures with minimal erosion post rehabilitation.

Data sheets for existing WRLs are presented in the 2013-14 Annual Environmental Report. The data sheets include a visual assessment of erosion performance, wherein each of the assessed landforms is ranked on a scale from 0 - 6 or, Minimal - Severe. It is noted however that there are minor erosion ratings for all but two locations for the Project area WRLs.

The existing WRLs under rehabilitation date from 1990 (Banderol) through to 2013 (Lewis and Reward). Sufficient time has passed for vegetation to become established and self-sustaining at Banderol WRL#1 and at NoA 1 WRL. This, along with the moderate batter angles and rehabilitation methods used has contributed to significant stabilisation of the outer land surfaces. Very low erosion rates have been observed at most of the WRL's during inspections.

One location is in need of minor rilling amelioration works; NoA 7&8, while other minor rilling amelioration works were completed at Banderol WRL#2 during 2014. Monument's existing WRL rehabilitation performance against the criteria of erosion appears good.

However, erosion of post-mine land surfaces is still being considered as a key closure issue. Appropriate plans are in place to minimise erosion on all post-mine land surfaces, including; moderate batter angles for any new landforms and rehabilitation works (<18°), contour ripping, vegetation / rock mulch and toe bunds.

Rehabilitation performance has been monitored in the past using the quantitative monitoring method of Ecosystem Function Analysis (EFA) and a commitment has been made to continue this or a similar style of quantitative monitoring method including vegetation establishment assessment and erosion analysis. This will ensure that all existing landforms are reassessed for erosion according to these more objective methods in the future, as well as the 0-6 visual rating included in the AER.

Table 90 Waste Rock Landform Closure Domain Disturbances

Id	Disturbance name	Closure domain	Tenement
6	NoA7&8 WRL	Waste Rock Landform	M51/116
10	NoA7&8 WRL	Waste Rock Landform	M51/177
22	NoA2 WRL	Waste Rock Landform	M51/177
23	Topsoil stockpile	Waste Rock Landform	M51/177
24	Topsoil stockpile	Waste Rock Landform	M51/177
27	NoA2 WRL	Waste Rock Landform	M51/116
28	Topsoil stockpile	Waste Rock Landform	M51/116
29	Topsoil stockpile	Waste Rock Landform	M51/116
54	NoA1 WRL	Waste Rock Landform	M51/116
57	New Alliance WRL	Waste Rock Landform	M51/116
58	Topsoil stockpile	Waste Rock Landform	M51/116
59	Topsoil stockpile	Waste Rock Landform	M51/116
60	Topsoil stockpile	Waste Rock Landform	M51/116
61	Fill-in New Alliance	Waste Rock Landform	M51/116
62	Alliance WRL	Waste Rock Landform	M51/116
63	Alliance WRL	Waste Rock Landform	M51/117
70	Topsoil stockpile	Waste Rock Landform	M51/117
71	Lewis and Reward	Waste Rock Landform	M51/117
86	Topsoil stockpile	Waste Rock Landform	M51/117
88	Topsoil stockpile	Waste Rock Landform	M51/117
91	Authaal WRL	Waste Rock Landform	M51/117
105	Federal City WRL	Waste Rock Landform	M51/117
116	Banderol WRL #1	Waste Rock Landform	M51/178
117	Banderol WRL #2	Waste Rock Landform	M51/178

20.5.6.2 FINAL LAND USE

The final land use at the WRLs will be for a safe and stable design and eventually pastoralism.

20.5.6.3 DECOMMISSIONING, CLOSURE ACTIVITIES AND TIMING

The strategy proposed to close the WRLs domain appears as Table 91.

Table 91 Waste Rock Landform Closure Activities and Timing

Requirement	Activity	Timeline
Design	Soil characterisation and mine waste rock characterisation studies to determine properties for input into WRL design and rehabilitation. Design WRLs taking into account footprint, materials characteristics including potential for AMD and ability of soils to support revegetation and rehabilitation. Develop designs incorporating encapsulation cell if required to contain PAF material so that conditions for development of AMD are minimised or co-mingling if low risk.	Prior to submission of approvals documents
Construction of WRLs	WRLs are to be constructed with final batters of ≤18º to assist with stability during operations. Any hostile materials identified as PAF to be co-mingled with appropriate volumes of NAF or contained within designed encapsulation cell and buffered with NAF or ANC material where available. WRLs will have crest bunding to one 1 m to contain stormwater, and toe bunding to prevent sedimentation of surrounding vegetation.	Progressively according to mining schedule
Decommissioning	Remove residual waste for appropriate disposal in WRL or landfill. Sample potential contaminated sites with regard to the *Contaminated Sites Act*. 2003 and *Regulations 2006*. If contaminated site occurs as defined by the *Contaminated Sites Act 2003* or Regulations *2006*, treat according to required protocols.	At cessation of mining, progressively according to mining schedule
Rehabilitation	The slopes will be battered to $\leq 18^{o}$ and topsoils replaced to a depth of 100 mm where topsoil is available. WRLs will be ripped on the contour and mulched with rock and vegetation debris. Germination of vegetation will be monitored and where required additional seeding with provenance species will take place.	Progressively according to mining schedule
Monitoring	Monitoring of rehabilitation to be integrated into the Project's Annual Environmental Reporting including erosion and vegetation establishment.	Annually

20.5.6.4 CLOSURE MATERIAL SOURCES

Topsoil, subsoil and vegetation stockpiles where they exist, will be available for rehabilitation. Volumes of topsoil and subsoil available for rehabilitation of the WRL include the clearing footprint of the actual WRL with the addition of the topsoil and subsoil from the footprint of the mine pits (Table 92).

The topsoil volumes are not sufficient for remedial or completion works on WRLs constructed before 2000. Techniques such as mosaic rehabilitation will be adopted to achieve rehabilitation criteria. This would include mosaics of topsoiled area with appropriate seed mix as observed at Banderol WRL#1, interspersed with non-topsoiled areas seeded with species associated with granite outcropping and breakaways that appear outside of the Project area. Alternatively, inquiries will be undertaken into topsoil harvesting from areas within the Project tenements to provide additional topsoil for rehabilitation activities.

Table 92 Rehabilitation material availability

PRODUCT	LOCATION STOCKPILE CODE	VOLUME m^3	
		AVAILABLE	REQUIRED
Vegetation Mulch	Lewis Bypass AL-8	10	-
Laterite/Topsoil	Banderol BL-3	7,500	5,000
	Federal City FC-7	1,000	1,000
	Federal City T-7	500	1,000
	Authaal – AL5A	31,000	10,000
	Authaal – T6	1,000	1,000
	Lewis LS-3, 5	6,000	30,000
	New Alliance – T5	1,600	14,000
	NOA-1, WRL-T4	5,000	9,000
Hardpan	Lewis L-3,5	5,000	5,000
Oxide Material	Lewis L-3, 5	>45,000	25,000
Fresh Rock	NOA1 – NA4	>45,000	-

20.5.6.5 INFORMATION GAPS

Waste characterisation is currently being undertaken for the Alliance/New Alliance and Federal City Deposits to inform any future waste dump designs. The characterisation will provide data in order to assess any issues associated with potentially acid forming materials and acid mine drainage issues. No potentially acid forming materials and no acid or metalliferous drainage issues have identified to date at the Project.

The ongoing monitoring results at existing WRLs will help quantify the closure criteria relating to revegetation success. The results of the APM 2014 biological survey with particular reference to the Banderol#1 WRL rehabilitation vegetation composition will be applied to future WRL rehabilitation.

20.5.7 Infrastructure

The infrastructure domain includes all infrastructure on site including the accommodation village, offices, sewage systems, mill laydown, gensets and workshops, processing plant, fuel storage, drainage diversions and flood bunding. Infrastructure is concentrated adjacent to the ROM and village on M51/116 and M51/252 with some outlying infrastructure at Banderol (flood bunding) and a small dam on M51/117 (refer to Plans 1-3 above). A list of the infrastructure within the closure domain appears in Table 93.

Table 93 Infrastructure Closure Domain Disturbances

Id	Disturbance name	Closure domain	Tenement
32	NoA2 Drainage	Infrastructure	M51/116
33	NoA2 Drainage	Infrastructure	M51/116
41	Mill laydown,	Infrastructure	M51/116
42	Fuel-farm	Infrastructure	M51/116
43	Camp	Infrastructure	M51/252
44	Water treatment	Infrastructure	M51/252
45	Wastewater	Infrastructure	M51/252
46	Heavy Vehicle	Infrastructure	M51/116
47	Offices	Infrastructure	M51/116
49	Infrastructure	Infrastructure	M51/116
85	Dam	Infrastructure	M51/117
114	Flood bunding	Infrastructure	M51/178

20.5.7.1 *FINAL LAND USE*

The final land use within the infrastructure domain will be pastoralism. Consultation will be ongoing with the pastoral leasee and DMP regarding the retention of flood bunding and drainage diversions around the Banderol Pit and the NoA 1 WRL.

20.5.7.2 *DECOMMISSIONING, CLOSURE ACTIVITIES AND TIMING*

The infrastructure domain comprises a variety of different types of infrastructure and each is dealt with in Table 94 below.

Table 94 Infrastructure Decommissioning, Closure Activities and Timing

Requirement		Activity	Timeline
Decommissioning	Accommodation dongas, mess, laundry, offices, core shed	Dispose of assets through sale or demolition. Removal of concrete footings and slabs – broken up and disposed to landfill. Remove residual waste for disposal in landfill or containment for appropriate disposal off site.	Progressively commencing Year 1 post closure
	Septic system at offices	Excavate, break concrete septic system up, backfill.	Year 1 post closure
	Reverse osmosis water treatment plant and tanks	Dispose of assets through sale or demolition. Remove residual waste for disposal in landfill.	Year 1 post closure
	Fuel farm, landfill	Dispose of tanks through sale or demolition. Removal of concrete bunding – broken up and disposed to landfill.	As soon as practical post closure

Requirement		Activity	Timeline
		Ensure that any hydrocarbon or hazardous waste is disposed of in compliance with MSDS or DER requirements. Sample potential contaminated sites with regard to the *Contaminated Sites Act* 2003 and *Regulations 2006*. If contaminated site occurs as defined by the *Contaminated Sites Act 2003* or Regulations *2006*, treat according to required protocols. Backfill any excavations with subsoil or fill.	
	Pipelines	Disconnect from bores. Cut up, flatten and bury *in situ*.	Year 1 post closure
	Water treatment plant and process water tanks	Remove any external plumbing and pipelines and dispose to landfill. Removal of tanks by sale or demolition.	Year 1 post closure
	Crusher and processing plant, workshop, including LPG, sodium cyanide and sodium hydroxide storage tanks	Ensure that any hydrocarbon or hazardous waste is disposed of in compliance with MSDS or DER requirements. Dispose of assets through sale or demolition. Removal of concrete footings and slabs – broken up and disposed to landfill. Remove residual waste for disposal in landfill.	Year 1 post closure
	Bores	Bores to be either capped and secured below ground or backfilled in accordance with DoW requirements.	Prior to relinquishment
Rehabilitation		Rehabilitation of infrastructure areas after decommissioning will be undertaken as follows: • Any suspected contaminated soils for treatment at the bioremediation facility or containment prior to appropriate offsite disposal • Ripping of compacted areas to break up hardpans • Contouring to integrate with surrounding topography • Replacement of subsoil and topsoil • Vegetation debris spread over surface	Within 1 year of decommissioning
Monitoring & Maintenance		Monitoring of rehabilitation to be integrated into the Project's Environmental Management System. Assist revegetation with additional provenance species seeding if required. Weed monitoring and supplementary spraying if required.	Annually As required Annually and as required

20.5.7.3 CLOSURE MATERIAL SOURCES

Any cleared area should have a reservoir of stockpiled topsoil. Where available this will be respread back over cleared areas. Where unavailable the site will be ripped and seeded with provenance seed and monitored for revegetation establishment.

Where topsoil is essential but unavailable, Monument will seek to borrow topsoil after seeking appropriate approvals from DMP.

20.5.8 ROM Pad

The main ROM pad occurs at M51/116 adjacent to the processing plant. The ROM pads consist of compacted waste rock material upon which the ore from the pits is stored before crushing and shortly post crushing prior to processing.

The ROM pad domain feature appears below in Table 95.

Table 95 ROM Pad Closure Domain Disturbance

Id	Disturbance name	Closure domain	Tenement
40	ROM	ROM	M51/116

20.5.9 Roads

The final land use at the ROM will be for pastoralism.

20.5.10 Other Cleared Areas

The life of mine is approximately five years but may be extended if exploration and resource definition drilling results continue to be successful. Once it is established that no further exploration, mining or processing is required, the ROM pad domain will undergo decommissioning and closure (Table 96).

Table 96 ROM pad Decommissioning, Closure Activities and Timing

Requirement	Activity	Timeline
Decommissioning	Remove any remaining ore for processing Remove residual waste for disposal in landfill or containment for appropriate disposal off site. Ensure that any hydrocarbon or hazardous waste is disposed of in compliance with MSDS or DER requirements. Sample potential contaminated sites with regard to the *Contaminated Sites Act* 2003 and *Regulations 2006*. If contaminated site occurs as defined by the *Contaminated Sites Act 2003* or Regulations *2006*, treat according to required protocols.	At cessation of mining, progressively according to mining schedule after decommissioning and removal of infrastructure
Rehabilitation	Rehabilitation of ROM pad domain will be undertaken as follows: • Stripping any suspected contaminated soils for treatment at the bioremediation facility or containment prior to appropriate offsite disposal • Ripping of compacted areas to break up hardpans • Contouring to integrate with surrounding topography • Replacement of subsoil and topsoil • Vegetation debris spread over surface	Upon closure
Monitoring & Maintenance	Monitoring of rehabilitation to be integrated into the Project's Environmental Management System. Assist revegetation with additional provenance species seeding if required. Weed monitoring and supplementary spraying if required.	Annually As required Annually and as required

20.5.10.1 CLOSURE MATERIAL SOURCES

The ROM pad should not require any subsoil or fill and can be used as a source of fill for other domains if required.

20.5.11 Contaminated Sites

20.5.11.1 DOMAIN DESCRIPTION

Roads are defined as any surface that has been formed and constructed using fill and compaction techniques for the purpose of vehicle movements. Exploration drill lines and exploration access tracks do not constitute roads (Table 97).

Table 97 Roads Closure Domain Disturbances

Id	Disturbance name	Closure domain	Tenement
5	Access road	Roads	M51/116
15	Access road	Roads	M51/177
19	Access road	Roads	M51/177
39	Access roads / TSF	Roads	M51/116
50	Access road	Roads	M51/177
51	Access road	Roads	M51/252
53	Access road	Roads	M51/116
56	Access/Haul	Roads	M51/116
77	Old haul road	Roads	M51/117
78	Haul road	Roads	M51/117
79	Old haul road	Roads	M51/117
80	Access road	Roads	M51/117
84	Dam access road	Roads	M51/117
92	Haul Road	Roads	M51/117
100	Access road	Roads	M51/117
108	Access track	Roads	M51/117
112	Haul road	Roads	M51/177
113	Haul road,	Roads	M51/178
121	Haul road/Access road	Roads	M51/177

20.5.11.2 FINAL LAND USE

The final land use for the roads domain is either transfer of asset upon agreement with underlying land manager or pastoralism. Roads will only be left remaining upon agreement with underlying land managers and with the necessary approvals from regulatory authorities.

20.5.11.3 DECOMMISSIONING, CLOSURE ACTIVITIES AND TIMING

Activities to decommission and close the road domain are presented in Table 98.

Table 98 Road Decommissioning, Closure Activities and Timing

Requirement	Activity	Timeline
Decommissioning	Remove residual waste for disposal in landfill or containment for appropriate disposal off site. Remove any signage that is no longer required	At cessation of mining, progressively according to mining schedule and upon closure
Rehabilitation	Rehabilitation of the road domain will be undertaken as follows: • Stripping any suspected contaminated soils for treatment at the bioremediation facility or containment prior to appropriate offsite disposal • Ripping of compacted areas to break up hardpans • Contouring to integrate with surrounding topography • Replacement of subsoil and topsoil • Vegetation debris spread over surface	Progressively according to mining schedule
Monitoring & Maintenance	Monitoring of rehabilitation to be integrated into the Project's Environmental Management System. Assist revegetation with additional provenance species seeding if required. Weed monitoring and supplementary spraying if required.	Annually As required Annually and as required

20.5.11.4 CLOSURE MATERIAL SOURCES

Roads at the Project generally have stockpiled topsoil adjacent to them. This will be respread back over cleared areas. Where unavailable the site will be ripped and seeded with provenance seed and monitored for revegetation establishment.

20.5.12 Monitoring

A number of monitoring programs will be undertaken as part of the MCP as detailed below (Table 99). Where it is stated monitoring is undertaken annually or biannually, it is undertaken until achievement of the closure objective.

Table 99 Monitoring Activities

Domain	Activity	Location	Frequency	Reported To:
Tailings Storage Facility	Monitor for erosion	TSF	Biannually	DER, DMP
	Monitor rehabilitation status	TSF	Annually	DER, DMP
	Sample and Record water quality parameters specified in Prescribed Premises Licence (DER) and Groundwater Licence Operating Strategy, including Standing Water Levels (SWL)	TSF	As required under DER licence then annually	DER, DMP, DoW
Mine Pits	Monitor bunding and fencing while pit is not active	At all pits	Biannually	DMP
	Monitor pit for water level and quality	At all pits	Annually	DMP, DoW
Waste Rock Landforms	Monitor for erosion	All waste dumps	Annually	DER, DMP
	Inspect abandonment bunding	All waste dumps	Biannually	DER, DMP
	Monitor rehabilitation status including weed status	All waste dumps	Annually	DER, DMP
	Monitor surface drainage pathways for erosion and sedimentation	Across site where required	Annually	DMP
ROM	Monitor for dust	As required	Biannually	DER, DMP
	Monitor rehabilitation status	All ROMs	Annually	DER, DMP
Infrastructure	Monitor for dust	As required	Biannually	DER, DMP
	Monitor rehabilitation status	All former infrastructure areas	Annually	DER, DMP
Roads	Monitor for dust	As required	Biannually	DER, DMP
	Monitor rehabilitation status	Established Photopoints	Annually	DER, DMP
Cleared areas	Monitor rehabilitation status	Established Photopoints	Annually	DER, DMP

21. CAPITAL AND OPERATING COSTS

There is no reportable information, estimates or analyses for capital and operating costs completed to date for the Alliance and New Alliance deposits.

22. ECONOMIC ANALYSIS

There is no reportable information, estimates or analyses of the economics of the Alliance and New Alliance deposits.

23. ADJACENT PROPERTIES

The Burnakura Project is located within proximity to several significant gold projects within the Murchison Goldfield. This includes:

- MetalsX Ltd, Central Murchison and Meekatharra Gold Projects, 55km north to 75km south west of Burnakura
- Silver Lake Resources Ltd, Murchison Project, 55km south-south-west of Burnakura
- Ramelius Resources Ltd, Mt Magnet Operations, 125km south-south-west of Burnakura
- RNI NL, Grosvenor and Peak Hill Projects, 165km to 195km north of Burnakura

Most of the mining centres, in the district, were operated as underground mines prior to about 1950 with most modern mining (post-1980) being open pits exploiting lower-grade shallow resources (Figure 69).

23.1 *MetalsX Ltd, Central Murchison and Meekatharra Gold Projects*

Metals X Limited (ASX:MEX) own the Central Murchison (CMGP) and Meekatharra Gold (MKO) Projects located approximately 55km north to 75km south west of Burnakura. The CMGP has recorded historical production of 5.5 Moz of gold and hosts two of four plus million ounce historic mines in the region. The three key gold mining centres of the CMGP are Big Bell, Cuddingwarra and Day Dawn, south of Cue. A total Identified Mineral Resource (JORC) estimate of 4.95Moz (62.8 Mt @ 2.48 g/t Au) and Probable Reserves of 1.17Moz (15.5 Mt @ 2.36 g/t Au) (anon., 2014a) have been estimated and were part of a feasibility study completed by subsidiary Westgold Resources Ltd (acquired October 2012) in early 2013. In May 2014, Metals X acquired the Meekatharra Gold Operations of Reed Resources Limited (Reed) (anon., 2014b). The Meekatharra area of Archean age greenstone stratigraphy is host to the historical Paddy's Flat gold mining centre (historic production of 2.3 Moz), the Bluebird mining centre (historic production of 1.2 Moz) and the Reedy mining centre (historic production of 1.0 Moz). Included in the acquisition is the 2.5 Mtpa refurbished Bluebird CIP Process Plant, 200 person refurbished camp, total mineral resource inventory of 3.55 million ounces (63 Mt @ 1.75 g/t Au) and total ore reserve (when operating) of 752,000 ounces (11.1 Mt @ 2.1 g/t Au) (anon., 2014a). Reed poured first gold in January 2013 and went into administration in August 2013, after struggling with the plant's operating performance, declining gold price and increasing capital requirements. The administrator continued to operate the project until the end of 2013 after which 1.26 million tonnes at a head grade of 1.22 g/t Au was mined and 1.52 million tonnes at a head grade of 1.11 g/t was processed with a metallurgical recovery of 94.6% to produce 51,087 ounces of gold (anon., 2014b).

23.2 *Silver Lake Resources Ltd, Murchison Project*

Silver Lake Resources Ltd (ASX:SLR) Murchison project is located in the Murchison Goldfield to the south-south-west of Burnakura and cover four project areas; Tuckabianna, Comet, Moyagee and Eelya, and the Archaean Mt Magnet – Meekatharra greenstone belt. At Tuckabianna, gold Mineralization is mostly developed within brittle zones associated with well laminated Banded

Iron formation (BIF) units (anon., 2014c). Gold is also found along margins of quartz-feldspar porphyry dykes and in narrow isolated rafts of BIF within greenstone stratigraphy. These mineralized zones are interpreted as having resulted from faults which cut the stratigraphy at a low angle. Gold is generally associated with quartz-carbonate-pyrite-pyrrhotite stringers developed within these zones (anon., 2014c).

At Moyagee, mafic to ultramafic intrusive and volcanic rocks of the north-north east trending Gabanintha and Galconda Formations, which are truncated in the south by the regional Cuddingwarra Shear (anon., 2014c). The north east trending Lena Shear, which splay off the Cuddingwarra Shear, is the principal host to the known gold mineralization within the project area. Historical production across the projects is approximately 600,000 ounces of gold, with current (as at June 2014) total mineral resource inventory in excess of 1M ounces, comprising JORC 2014 compliant 9.5Mt @ 1.98 g/t Au (600,000 ounces) and JORC 2004 compliant of 4.9Mt @ 2.84 g/t Au (440,000 ounces).

23.3 *Ramelius Resources Ltd, Mt Magnet Operations*

Ramelius Resources Limited (ASX:RMS), acquired the Mt Magnet Gold Mine from Harmony Gold in July 2010 and recommenced mining in 2011. Historically Mt Magnet produced over 5.6 million ounces since gold was discovered in 1891 (anon., 2014d) and has significant potential to host new discoveries. The Hill 50 underground mine produced over 2.1Moz of gold and was the largest gold producer in the field until the mine was closed in 2007. It had been mined to 1,500m (anon., 2014d) below surface, demonstrating the depth continuity of high grade mineralized shoots within the Mt Magnet project area. Gold is primarily associated with a number of Banded Iron Formation (BIF) units that occur within a typical greenstone stratigraphy of mafic and ultramafic units. In addition, a number of felsic volcanic rocks intrude the sequence.

Mineralization tends to be concentrated in BIF units associated with cross-cutting north-east faults and also occurs when associated with felsic intrusives and structurally controlled breccia zones. Between 2011 and 2014 mining has focused on large open pit cutbacks to the Saturn and Mars pits, collectively referred to as the Galaxy mining area. During 2014, mining concentrated on the Saturn pit cutback and reported mine production for the year was 1,110,490t at 1.53 g/t Au for 54,626 oz of high-grade ore (+ 0.7 g/t Au) and 257,247 t at 0.66 g/t Au for 5,459 oz of low-grade (0.5 to 0.7 g/t Au) ore (anon, 2014e). For 2014/2015, production forecast is 78,000 ounces of gold at an all-in cost of AUD1,260 / ounce. A pipeline of small open pits and underground mines with increasing grades are being developed to feed the 1.7 mtpa Mt Magnet processing plant (anon., 2014f).

23.4 *RNL NL, Grosvenor and Peak Hill Projects*

RNI NL (ASX: RNI) is a listed exploration and mining development company, currently developing the Grosvenor (historically referred to as Fortnum) and Peak Hill Gold Deposits, located approximately 165km to 195km north of Burnakura, and which are hosted within similar aged sedimentary and volcanic rock sequences assigned to the Bryah Basin of the Capricorn Orogen. During the period 1989 to 2007, historic gold production of more than 1 million ounces of gold was recorded from the Fortnum gold deposits by owners Homestake (1989-1992), Dominion (1988-1993), Perilya (1994-2001) and Gleneagle (2006-2007) (anon., 2012). RNI have delineated

JORC2012 compliant resources of approximately 2 Moz comprising 22.774 Mt @ 1.93 g/t Au at Grosvenor in 14 deposits and JORC2004 compliant resources of 11.525 Mt @ 1.5 g/t Au at Peak Hill (Thamm, 2014).

The Fortnum gold deposit is associated with a pyritic quartz-hematite jasperoid within the upper parts of the Narracoota Volcanics, which are locally overlain by a volcaniclastic sequence and the Thaduna Greywacke. Two large structural breaks cut the sequence in the mine area. Gold Mineralization is found in four styles, namely: i) sheeted quartz-pyrite-magnetite-hematite vein sets and replacements of mafic volcanics producing jasperoid bodies, ii) quartz veins and sulphidic replacement bodies along bedding planes in sediments, iii) quartz veins and intense sericite alteration in schists in the shear zone and iv) in the laterite profile (Hill and Cranney, 1990).

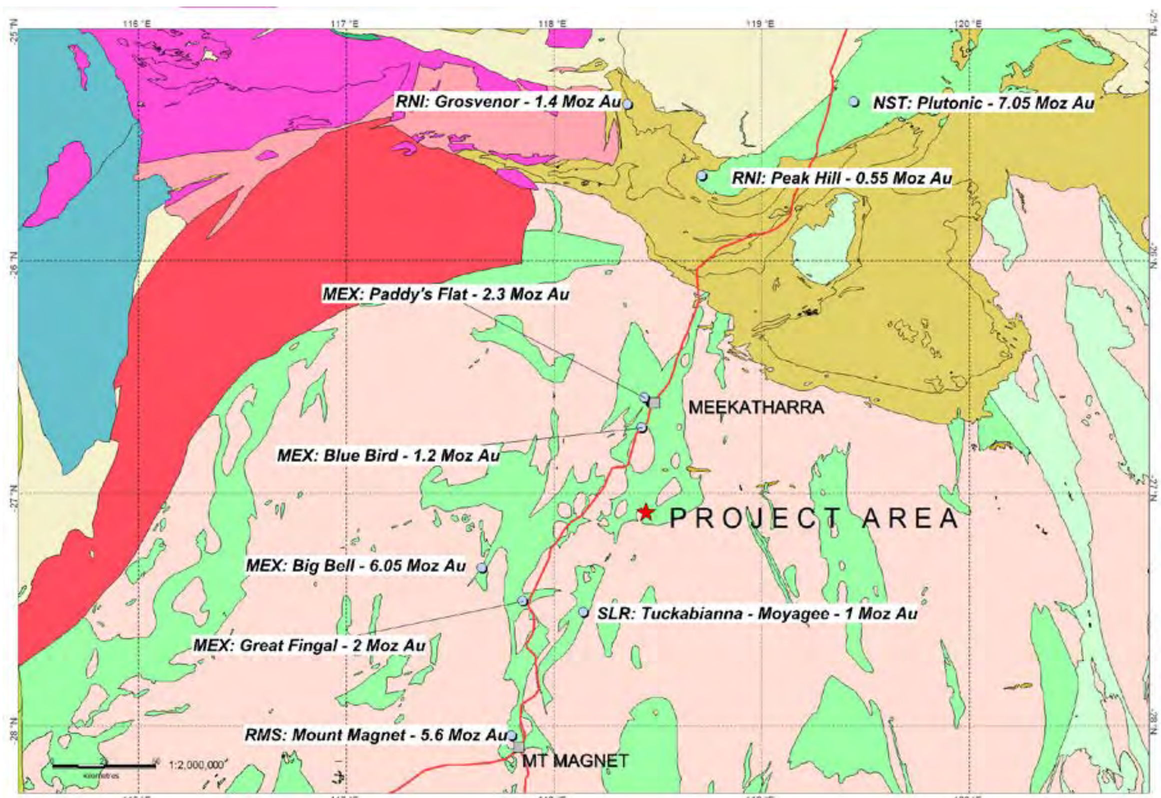

Figure 69 Regional geology showing gold inventory of major deposits in proximity to the Burnakura project area

24. OTHER RELEVANT DATA AND INFORMATION

A further 49 RC holes and 1 twin DD drill hole have been drilled by Monument since the data cut-off date of 21st November 2014 for the Mineral Resource estimate. As these holes were not incorporated into the estimate, their effect on the Mineral Resource is not known, but it is unlikely to materially change the stated Mineral Resource for ANA.

25. INTERPRETATION AND CONCLUSIONS

The Mineral Resource completed by Cube has utilised the validated Monument drilling database, comprising a total of 46,702m of RC and DD drilling in 767 holes covering the ANA deposits. The majority of the drilling data used for the ANA mineral resource estimation is based on historical drilling which was generally orientated east-west, with an average drill spacing of 10m by 10m at Alliance and 10m by 20m at New Alliance.

Resource delineation and verification drilling completed by Monument during 2014, consisted of 103 RC holes for 9,346 metres and 6 DD holes for 409m. The Monument drilling comprises 16% of the total mineralised drill intercepts used for the mineral resource estimation.

Extensive verification of the historical and recent drilling data has been completed as the data has been loaded into a secure relational SQL Server data management system. The veracity of the drilling data and sampling procedures have been assessed by the Qualified Person and is considered to be of an acceptable standard and appropriate for the purpose of mineral resource estimation and the reporting of exploration results.

Mineralisation at ANA has a strong geological control with visual mineralisation boundaries consisting of narrow high grade quartz zones preferentially developed along the top contact of a number of thin banded iron formation (“BIF”) units. Several north to north-east trending, moderately east dipping (~30°) quartz zones have been defined, that have an average true thickness varying from 2 to 5m. To effectively control the influence of the high grade gold values within and adjacent to the quartz veins, a geological interpretation and 3D model was completed to establish the underlying controls on mineralisation.

Wireframe models of the quartz veins, BIF units and geological structures were constructed based on all available drilling data as of 21st November 2014. Spatially referenced pit mapping data, surface geological mapping and close space blast hole data were used to construct a robust geological framework for determining the mineralisation extents and the grade continuity.

Ordinary Kriging was used to estimate gold values into interpreted mineralisation domains in a 3D block model using GEOVIA Surpac™. Relative variogram models and search neighbourhoods were used to interpolate the 2m composite data. A check estimate was undertaken using a non-linear recoverable resource estimator, Localised Indicator Kriging (“LIK”), which represents an alternative and less selective outcome that could be expected during mining.

The Mineral Resources have been estimated in agreement with the CIM Best Practice Guidelines and classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The ANA mineralised domains are considered by the Qualified Person to be of sufficient grade, geological continuity and defined by adequate drill density to support the classification criteria of Indicated and Inferred Mineral Resource as required for NI43-101 compliance. A range of criteria were considered when addressing the suitability of the classification boundaries including; confidence in geological, grade and volume continuity; drill data density, spacing and quality; estimation methodology; kriging quality; and reliability of supplied depletion surfaces.

Reasonable prospects for economic extraction are based on the consideration of suitable open pit parameters during all stages of the geological interpretation and estimation. These parameters include the limiting of the mineralisation and grade interpolation to those extents supported by drill data, and the continuous and robust character of the modelled mineralisation.

The Mineral Resource represents a reliable estimate of the total contained metal but the current block estimates are unlikely to be a true reflection of the actual grade/tonnage distribution that will be achieved during selective mining and over short production periods. For this reason it should be highlighted that the estimate should not be relied on to evaluate local grades, or mining selectivity as required for detailed mine planning. The definition of an Indicated and Inferred Mineral Resource at ANA does not necessarily imply that the eventual extraction of an economically viable deposit can be achieved.

The Qualified Person believes that it is important to highlight the following observations and comments in relation to the Project and ongoing implications for future mineral resource delineation and exploration work:

- Comparison of 13 twinned drill hole intersections indicates that the Monument and historical drilling datasets are not significantly different in terms of the grade or intersected true width. The Monument twinned holes confirm the tenor and veracity of the historical drill intercepts with no overall bias apparent. Combining of the historical and Monument drilling datasets for mineral resource estimation is justified based on the similarity and repeatability of the paired twinned hole dataset;
- QAQC analysis demonstrates the Monument sample data to be unbiased and has an acceptable level of precision, demonstrating the sample data to be suitable for mineral resource estimation;
- Overall the recovery and quality of the RC drill sample delivered was generally adequate, although recoveries tended to be variable particularly in areas where high water flow was encountered or depths of 100m were exceeded;
- Wet RC drilling conditions have been identified which can cause a reduction in sample quality and impact on the accuracy and reliability of some mineralised intervals intersected during drilling;
- Independent logging has confirmed the key characteristics of the mineralisation being visually identifiable, narrow quartz veined zones with ‘hard’ or sharp contacts to the host rock;
- The high nugget quartz vein mineralisation has large short scale grade variability, with implications on the continuity and extent of any high grade zones; and
- Comparison of the OK estimation model with the LIK check estimation model established that the relative difference in contained metal between the two models was 12% on a global basis.

Other than the comments and potential risks discussed above, the Qualified Person is not aware of any other factors (including environmental, permitting, legal, title, taxation, socio-economic, marketing, political) which could materially affect the Mineral Resource of the Project as presented in this report.

26. RECOMMENDATIONS

The infill and extension drilling completed by Monument at ANA has successfully upgraded the majority of the historic mineral resource estimate (Mapleson, 2013) to an Indicated Mineral Resource. Development of a robust geological framework for the underlying controls on mineralisation has resulted in increased confidence in the grade continuity.

On the basis of this technical report, a number of items are recommended below. Some of the items listed serve to highlight improvements or enhancements to current work practices and should not be considered as being specific items of work.

26.1 *Mineral Resource Development*

- Incorporate the additional 49 RC holes and 1 DD drill hole completed by Monument since the data cut-off date into an update of the Mineral Resource estimate. Modify the geological interpretation with the new data and update the mineral resource estimate to reflect all the current drilling information;

- Infill and extension drilling has confirmed the mineralisation at ANA, with the majority of the Mineral Resource classified as Indicated. Further exploratory 'step-out' drilling down-dip and along strike is warranted away from the close-spaced Indicated mineral resource areas to define additional Inferred mineral resource;

- In 2013, Kentor Gold Ltd commenced a cut-back of the northern wall at Alliance to an approximate depth of 10 vertical metres before operations were shutdown. The cut-back was picked up by the Mine Surveyor (G. Duckett) on 07/05/2013 (*AL-BASE.pdf*), but no 3D surface of the final pit void or the modified back fill areas is available. Although this area does not contain any ore blocks, the current mineral resource model has not been depleted by this cutback or the modified back-fill areas. It is imperative that a 3D surface be sourced or generated for the northern portion of the Alliance pit and the resource model be properly depleted before any mining work is commenced to adequately assess the impact on mine planning; and

- For future RC resource delineation drilling, consider sourcing a drill rig with increased air capacity and/or booster/auxiliary compressors to resolve any sample quality issues that may arise from drilling in areas where high water flow and wet drilling conditions have been identified, and to also enable drill targets at greater than 100m vertical depth to be intersected.

26.2 *Procedural and data Management*

- Compile written procedures for all functions such as drilling, downhole survey methodology, sample collection and QAQC analysis to ensure that consistent high quality work practices are maintained;

- Sample protocols for the insertion of CRMs need to be diligently applied and supervised onsite to reduce the amount of sample mishandling or transcription errors;

- Consider discontinuing the use of CRMs G903-6 and G904-1 due to the identified 5% bias. Replace the CRMs with ones of a similar value and pursue the bias issue with the CRM supplier;
- Use a simplified sequential numbering system on pre-numbered bags to avoid sample numbering mistakes and illegible numbers. The current system using the drill hole number is complicated and prone to errors;
- Introduce as routine practice, the assaying of mineralised coarse reject duplicate samples to detect any sampling bias associated with sample preparation which cannot be identified by the use of CRMs only;
- Continue to ensure RC drilling provides a dry and representative sample through the mineralised zones. Drill holes should be abandoned if the water inflow is likely to have a significant impact on the integrity of the sample, and should be completed using diamond core or re-drilled; and
- Collection of additional bulk density data that is representative of the narrow mineralised zones is required to adequately represent the expected variability across the deposit areas. Consideration should be given to the practicalities of in-pit and surface bulk density sampling.

26.3 *Prospect Exploration*

- Compile an integrated 3D dataset focussed on existing exploration prospects outside of the defined resource models that require further drill target testing;
- Review the dataset to identify priority areas for exploration and resource delineation drilling which targets near surface mineralisation amenable to shallow open pit mining; and
- Synthesize a regional to prospect scale geological and structural framework to target prospective areas for follow up exploration work and drilling.

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28. CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON AND CONSENT CERTIFICATE AND STATEMENT OF QUALIFICATIONS

Darryl Mapleson, BSc (Hons), FAusIMM, MAIG
Consultant Geologist
BM Geological Services Pty Ltd
36 Hannan Street Kalgoorlie
Western Australia 6430

I, Darryl Mapleson, as lead author of the report "NI 43-101 Technical Report on the Alliance and New Alliance Gold deposits Burnakura, Western Australia" (the "Technical Report"), prepared for Monument Mining Limited and dated April 2, 2015, do hereby certify that:

1. I am an independent Consulting Geologist and Director of BM Geological Services Pty Ltd, 36 Hannan Street, Kalgoorlie, WA 6430, Australia.
2. This certificate applies to the technical report entitled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", effective date 2/4/15 (the "Technical Report").

3. I graduated with a BSc (Hons) degree in geology from La Trobe University in 1988.

4. I am a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM No. 109016).

5. I have worked as a geologist for a total of 26 years since my graduation from university.

6. I have worked in the mining and exploration industry in various commodities including gold, nickel, PGM's and iron ore deposits. I have been involved in mines and projects throughout Australia, Asia and Africa for a range of junior to large multinational mining companies. This experience has included mineral exploration, mining geology, resource estimation and management roles.

7. As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

8. I have visited the Alliance and New Alliance deposits on two occasions, most recently on the 1st of October 2014.

9. I have performed consulting services for Monument Mining Limited during the period January 2014 to March 2015 on various Australian based gold projects.

10. I am responsible for writing sections 1, 2, 3, 15, 16, 18, 19, 20, 21, 22, 23, 27 and 28; and the overall compilation of this report.

11. I have read NI 43-101 and Form 43-101F1 (the "Form") and the Report has been prepared in compliance with the NI 43-101 and Form 43-101F1.

12. I do not have nor do I expect to receive a direct or indirect interest in Monument Mining Limited and I do not beneficially own, directly or indirectly, any securities of Monument Mining Limited; or any associate or affiliate of the company.

13. I am independent of Monument Mining Limited applying the test set out in Section 1.5 of the NI 43-101.

14. I have had no prior involvement with the property that is the subject of the Technical Report.

15. To the best of my knowledge, information and belief, as of the effective date of the Technical Report (2/4/2015), the Technical Report contains all scientific and technical information that is required to be disclosed to ensure the Technical Report is not misleading.

CONSENT

I, Darryl Brian Mapleson, FAusIMM, MAIG, Consulting Geologist, do hereby consent to the filing of the Technical Report prepared for Monument Mining Limited entitled “Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia”, effective date April 2, 2015 (the “Technical Report”), which has been prepared in support the public disclosure of technical aspects of the Murchison Gold Project, with the British Columbia Securities Commission, the Alberta Securities Commission and the Ontario Securities Commission. The format and content of the my sections of the Technical Report are intended to conform to Form 43-101F of National Instrument 43-101 of the Canadian Securities Administrators.

I further consent (a) to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication of the Technical Report by them for regulatory purposes, (b) to the publication of the Technical Report by Monument Mining Limited on its company website or otherwise, and (c) to all other uses by Monument Mining Limited of the Technical Report or excerpts thereof in connection with its business.

ORIGINAL SIGNED AND SEALED

Darryl Mapleson
BSc (Hons), FAusIMM, MAIG
Consultant Geologist
BM Geological Services Pty Ltd

Report Effective Date: 2/4/2015

Report Amended Date: 7/8/2015

Signing Date: 7/8/2015

CERTIFICATE OF QUALIFIED PERSON AND CONSENT CERTIFICATE AND STATEMENT OF QUALIFICATIONS

Adrian Shepherd, B.App.Sc., MAusIMM CP(Geo)
Senior Consultant Geologist
Cube Consulting Pty Ltd
1111 Hay Street
West Perth, Western Australia
6005

I, Adrian Shepherd, as co-author of the report "NI 43-101 Technical Report on the Alliance and New Alliance Gold deposits Burnakura, Western Australia" (the "Technical Report"), prepared for Monument Mining Limited and dated April 2, 2015, do hereby certify that:

1. I am a Senior Consultant Geologist with Cube Consulting Pty Ltd of 1111 Hay Street, West Perth, WA 6005.
2. I graduated with a Bachelor of Applied Science Degree in Applied Geology from the South Australian Institute of Technology, Australia in 1987.
3. I am a Chartered Professional geologist and a current Member of the Australian Institute of Mining and Metallurgy (AusIMM No. 211818).
4. I have worked as a geologist for more than 20 years since my graduation from University.
5. Relevant experience has been gained from working in the mining and exploration industry in various commodities including gold, VHMS base-metals, and nickel sulphide. I have been involved in mines and projects on various provinces throughout Australia and Africa, where my experience has included mineral exploration, mining geology, 3D geological modelling and resource estimation.
6. I conducted a site visit of the Alliance and New Alliance project from the 25th to 27th June 2014.
7. I have performed consulting services for Monument Mining Limited during the period January 2014 to March 2015 on various Australian based gold projects.
8. I am responsible for the preparation of Sections 2.3, 6.3, 10.1, 11.1, 11.2, 11.3, 11.4, 12, 14, 24, 25, 26 and 28 of this Technical Report, and I am independent of Monument Mining Limited in accordance with Section 1.5 of NI 43-101.
9. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "qualified person" for the purposes of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that instrument and form.
11. I do not have nor do I expect to receive a direct or indirect interest in Monument Mining Limited and I do not beneficially own, directly or indirectly, any securities of Monument Mining Limited; or any associate or affiliate of the company.
12. I have had no prior involvement with the property that is the subject of the Technical Report.
13. As of the date of this Technical Report and certificate, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible, contains

all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

CONSENT

I, Adrian Shepherd, MAusIMM, CP (Geo), Senior Consulting Geologist, do hereby consent to the filing of the Technical Report prepared for Monument Mining Limited entitled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", effective date April 2, 2015 (the "Technical Report"), which has been prepared in support the public disclosure of technical aspects of the Murchison Gold Project, with the British Columbia Securities Commission, the Alberta Securities Commission and the Ontario Securities Commission. The format and content of the my sections of the Technical Report are intended to conform to Form 43-101F of National Instrument 43-101 of the Canadian Securities Administrators.

I further consent (a) to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication of the Technical Report by them for regulatory purposes, (b) to the publication of the Technical Report by Monument Mining Limited on its company website or otherwise, and (c) to all other uses by Monument Mining Limited of the Technical Report or excerpts thereof in connection with its business.

ORIGINAL SIGNED AND SEALED

Adrian Shepherd
B.App.Sc., MAusIMM CP(Geo)
Senior Consultant Geologist
Cube Consulting Pty Ltd

Report Effective Date: 2/4/2015

Report Amended Date: 7/8/2015

Signing Date: 7/8/2015

CERTIFICATE OF QUALIFIED PERSON AND CONSENT
CERTIFICATE AND STATEMENT OF QUALIFICATIONS

Matthew Wheeler, BSc (Hons), MAIG
Principal Consultant
Terramin Geoservices
4 Henley Street
Perth, Western Australia
6152

I, MATTHEW HAYDEN WHEELER, of Perth, Western Australia, DO HEREBY CERTIFY THAT:

1. I am a Consulting Geologist with a business office at 14 Henley Street, Perth, Western Australia, 6152; and Principal Consultant of Terramin Geoservices.
2. This certificate applies to the technical report entitled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", effective date 2/4/15 (the "Technical Report")
3. I am a graduate of Applied Geology with a Bachelor of Science, Honours degree from Curtin University of Western Australia in 1994.
4. I am a member in good standing of the Australia Institute of Geoscientists, Membership No. 3408.
5. I have practiced my profession as a Professional Geologist in the minerals industry since 1994.
6. I have read the definition of "qualified person" set out in National Instrument 43-101 (the "Instrument") and certify that by reason of my education, affiliation with a professional association (as defined in the Instrument) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of the Instrument. I have more than eighteen years of experience working as a minerals geologist in the Australian mining industry. During this time I have worked on numerous projects at the exploration and evaluation stage including numerous gold projects located in Western Australia.
7. I am responsible for sections 2.3, 4, 5, 6, 7, 8, 9, 10.2, 11.2 and 28 of this report titled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", dated effective 3/4/15.
8. My most recent personal inspection of the property that is the subject of the Technical Report was between 19 and 25 November, 2014.
9. I have been engaged by Monument Ming Limited on the Burnakura Property as a geological consultant since early-June 2014. I have been paid a daily rate for my services and do not have any other interests relating to the project.
10. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I have had no prior involvement with the property that is the subject of the Technical Report.
12. I am independent of Monument Mining Limited as defined by Section 1.5 of the Instrument.

13. I have read the Instrument and Form 43-101F1 and the sections of the Technical Report for which I am responsible have been prepared by me in compliance with the Instrument and form.

CONSENT

I, Mathew Hayden Wheeler, MAIG, Consulting Geologist, do hereby consent to the filing of the Technical Report prepared for Monument Mining Limited entitled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", dated April 2, 2015 (the "Technical Report"), which has been prepared in support the public disclosure of technical aspects of the Murchison Gold Project, with the British Columbia Securities Commission, the Alberta Securities Commission and the Ontario Securities Commission. The format and content of the my sections of the Technical Report are intended to conform to Form 43-101F of National Instrument 43-101 of the Canadian Securities Administrators.

I further consent (a) to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication of the Technical Report by them for regulatory purposes, (b) to the publication of the Technical Report by Monument Mining Limited on its company website or otherwise, and (c) to all other uses by Monument Mining Limited of the Technical Report or excerpts thereof in connection with its business.

ORIGINAL SIGNED AND SEALED

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Signed: Matthew Hayden Wheeler

Report Effective Date: 2/4/2015

Report Amended Date: 7/8/2015

Signing Date: 7/8/2015

CERTIFICATE OF QUALIFIED PERSON AND CONSENT
CERTIFICATE AND STATEMENT OF QUALIFICATIONS

Fred Kock, NHD Extraction Metallurgy, FAusIMM
Principal Metallurgist
Orway Mineral Consultants (WA) Pty Ltd
1 Adelaide Terrace
East Perth, Western Australia
6004

I, Fred William Kock, as co-author of the report "NI 43-101 Technical Report on the Alliance and New Alliance Gold deposits Burnakura, Western Australia" (the "Technical Report"), prepared for Monument Mining Limited and dated April 2, 2015, do hereby certify that:

1. I am an independent Principal Metallurgist and Director of Orway Mineral Consultants (WA) Pty Ltd, 1 Adelaide Terrace, East Perth, WA 6004, Australia.

2. I graduated with a NHD in Extraction Metallurgy from the University of Johannesburg (previously Technikon Witwatersrand) in 1991.

3. I am a Fellow of the Australian Institute of Mining and Metallurgy.

4. I have worked as a metallurgist for a total of 24 years since my graduation.

5. I have worked in the mining and engineering industry in various commodities including gold, nickel and copper deposits. I have been involved in mines and projects throughout Australia, Asia, Africa and South-America for a range of junior to large multinational mining companies. This experience has included production management, testwork definition and flowsheet development, engineering, commissioning and optimisation roles.

6. As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101").

7. I have not visited the Alliance and New Alliance deposits.

8. I have performed consulting services for Monument Mining Limited during the period November 2013 to March 2015 on various Australian based gold projects.

9. I am responsible for writing Section 2.3, 13, 17 and 28 of the Technical Report.

10. I am independent of Monument Mining Limited as described in section 1.5 of NI 43-101.

11. I have read NI 43-101and Form 43-101F1 (the "Form") and the sections of the Technical Report for which I am responsible have been prepared in compliance with the NI 43-101 and the Form.

12. I do not have nor do I expect to receive a direct or indirect interest in Monument Mining Limited and I do not beneficially own, directly or indirectly, any securities of Monument Mining Limited; or any associate or affiliate of the company.

13. I have had no prior involvement with the property that is the subject of the Technical Report.

14. To the best of my knowledge, information and belief, as of the date of the Technical Report, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to ensure the Technical Report is not misleading.

15. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the company files on their websites accessible by the public, of the Technical Report.

CONSENT

I, Fred William Kock, FAusIMM, Principal Metallurgist, do hereby consent to the filing of the Technical Report prepared for Monument Mining Limited entitled "Technical Report on the Burnakura Property, Murchison Gold Project, Western Australia", dated April 2, 2015 (the "Technical Report"), which has been prepared in support the public disclosure of technical aspects of the Murchison Gold Project, with the British Columbia Securities Commission, the Alberta Securities Commission and the Ontario Securities Commission. The format and content of the my sections of the Technical Report are intended to conform to Form 43-101F of National Instrument 43-101 of the Canadian Securities Administrators.

I further consent (a) to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication of the Technical Report by them for regulatory purposes, (b) to the publication of the Technical Report by Monument Mining Limited on its company website or otherwise, and (c) to all other uses by Monument Mining Limited of the Technical Report or excerpts thereof in connection with its business.

ORIGINAL SIGNED AND SEALED

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Signed: Fred William Kock

Report Effective Date: 2/4/2015

Report Amended Date: 7/8/2015

Signing Date: 7/8/2015

Appendix 1 Alliance and New Alliance Drill Holes

Prospect	Hole ID	mN	mX	mRL	Hole Type	Max Depth	Date Drilled	Dip	Grid Azimuth
ALLIANCE	12BNRC0093	7007880.086	645539.056	473.397	RC	78	23-Feb-12	-60	270
ALLIANCE	12BNRC0094	7007880.372	645558.97	473.376	RC	42	23-Feb-12	-60	270
ALLIANCE	12BNRC0095	7007880.026	645579.046	473.017	RC	84	23-Feb-12	-60	270
ALLIANCE	12BNRC0096	7007858.119	645544.858	473.902	RC	72	22-Feb-12	-60	270
ALLIANCE	12BNRC0097	7007857.988	645575.658	473.425	RC	90	19-Feb-12	-60	270
ALLIANCE	12BNRC0098	7007858.096	645595.942	472.9	RC	96	22-Feb-12	-60	270
ALLIANCE	12BNRC0100	7007832.3	645570	474.67	RC	84	19-Feb-12	-60	270
ALLIANCE	12BNRC0101	7007832.292	645589.686	473.361	RC	90	19-Feb-12	-60	270
ALLIANCE	12BNRC0102	7007822.319	645552.563	474.51	RC	72	18-Feb-12	-60	270
ALLIANCE	12BNRC0103	7007822.363	645571.874	473.951	RC	84	18-Feb-12	-60	270
ALLIANCE	12BNRC0104	7007812.376	645550.995	474.588	RC	72	17-Feb-12	-60	270
ALLIANCE	12BNRC0105	7007812.343	645566.259	474.169	RC	78	18-Feb-12	-60	270
ALLIANCE	12BNRC0106	7007802.543	645579.178	474.125	RC	84	18-Feb-12	-60	270
ALLIANCE	12BNRC0107	7007812.17	645597.951	473.183	RC	84	09-Mar-12	-60	270
ALLIANCE	12BNRC0108	7007791.266	645566.975	474.482	RC	72	15-Feb-12	-60	270
ALLIANCE	12BNRC0109	7007780.701	645553.914	474.783	RC	72	15-Feb-12	-60	270
ALLIANCE	12BNRC0110	7007771.341	645573.04	474.905	RC	78	15-Feb-12	-60	270
ALLIANCE	12BNRC0111	7007761.277	645555.964	474.983	RC	72	15-Feb-12	-60	270
ALLIANCE	12BNRC0112	7007750.625	645556.099	475.286	RC	66	16-Feb-12	-60	270
ALLIANCE	12BNRC0113	7007750.669	645576.029	474.7	RC	78	16-Feb-12	-60	270
ALLIANCE	12BNRC0114	7007730.197	645547.357	475.503	RC	66	14-Feb-12	-60	270
ALLIANCE	12BNRC0115	7007730.065	645567.319	475.337	RC	84	14-Feb-12	-60	270
ALLIANCE	12BNRC0116	7007709.475	645547.489	475.871	RC	54	14-Feb-12	-60	270
ALLIANCE	12BNRC0117	7007709.516	645567.265	475.965	RC	66	17-Feb-12	-60	270
NEW_ALLIANCE	12BNRC0118	7008176.646	645770.739	466.089	RC	72	26-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0119	7008164.613	645786.469	465.696	RC	84	26-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0120	7008152.521	645802.32	465.544	RC	84	26-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0121	7008146.887	645776.618	465.818	RC	78	26-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0122	7008134.579	645792.902	465.748	RC	90	27-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0123	7008122.494	645808.578	465.488	RC	90	27-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0124	7008114.16	645786.543	466.642	RC	84	28-Feb-12	-60	308

NEW_ALLIANCE	12BNRC0125	7008129.529	645748.17	467.603	RC	72	27-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0126	7008117.499	645764.431	467.242	RC	84	29-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0127	7008085.229	645775.06	467.079	RC	84	29-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0129	7008053.704	645797.723	466.558	RC	90	01-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0130	7008042.96	645814.205	466.106	RC	96	01-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0131	7008079.104	645750.296	467.332	RC	66	29-Feb-12	-60	308
NEW_ALLIANCE	12BNRC0136	7008038.412	645737.547	467.658	RC	54	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0137	7008026.354	645753.136	467.343	RC	72	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0138	7008005.888	645747.186	467.486	RC	54	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0139	7007993.749	645762.731	466.768	RC	66	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0140	7007976.266	645747.339	467.546	RC	42	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0141	7007963.958	645762.917	466.82	RC	60	02-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0142	7007939.168	645794.339	466.379	RC	84	03-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0143	7007952.496	645745.198	467.267	RC	48	03-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0144	7007940.133	645760.786	466.963	RC	54	03-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0146	7007930.099	645747.252	467.272	RC	66	04-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0147	7007917.828	645763.204	467.161	RC	66	04-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0148	7007905.813	645779.094	467.044	RC	78	03-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0149A	7008217.335	645785.666	465.829	RC	66	10-Mar-12	-60	308
NEW_ALLIANCE	12BNRC0150A	7008257.892	645797.864	465.688	RC	78	09-Mar-12	-60	308
ALLIANCE	12BNRC0264	7008150	645250	463	RC	60	02-Dec-12	-60	270
ALLIANCE	12BNRC0265	7008150	645350	463	RC	65	03-Dec-12	-60	270
ALLIANCE	12BNRC0266	7008150	645450	463	RC	65	03-Dec-12	-60	270
ALLIANCE	12BNRC0268	7007930.714	645455.3	471.43	RC	60	01-Dec-12	-60	270
ALLIANCE	12BNRC0269	7007930.5	645473.82	472.08	RC	60	02-Dec-12	-60	270
ALLIANCE	12BNRC0270	7007930.091	645492.86	472.4	RC	71	03-Dec-12	-60	270
ALLIANCE	12BNRC0271	7007929.948	645515.29	472.52	RC	77	08-Dec-12	-60	270
ALLIANCE	12BNRC0272	7007910.427	645445.55	471.71	RC	40	08-Dec-12	-60	270
ALLIANCE	12BNRC0273	7007910.218	645465.08	472.26	RC	55	08-Dec-12	-60	270
ALLIANCE	12BNRC0274	7007910.291	645485.02	472.63	RC	71	08-Dec-12	-60	270
ALLIANCE	12BNRC0275	7007910.227	645504.88	472.75	RC	75	08-Dec-12	-60	270
ALLIANCE	12BNRC0276	7007910.334	645524.73	472.86	RC	80	09-Dec-12	-60	270
ALLIANCE	12BNRC0277	7007889.265	645474.805	473.191	RC	65	10-Dec-12	-60	270
ALLIANCE	12BNRC0278	7007889.805	645455.276	472.371	RC	50	11-Dec-12	-60	270
NEW_ALLIANCE	14MDD001	7008169.67	645769.05	466.653	DDH	84.3	03-Jun-14	-80.57	281.11
ALLIANCE	14MDD002	7007640.15	645581	473.945	DDH	62.3	05-Jun-14	-80.6	282.09
ALLIANCE	14MDD003	7007842.8	645600.98	473.339	DDH	80	08-Jun-14	-79.93	275.22
ALLIANCE	14MDD004	7007881.06	645494.01	465.662	DDH	54.5	11-Jun-14	-84.86	282.22

NEW_ALLIANCE	14MDD005	7007996.27	645772.57	467.464	DDH	59	13-Jun-14	-81.5	278.31
NEW_ALLIANCE	14MDD006	7008058.64	645750.33	468.289	DDH	68.5	16-Jun-14	-85	271.5
NEW_ALLIANCE	14MRC001	7008128.7	645592.55	469.702	RC	125	24-May-14	-60.68	272.59
NEW_ALLIANCE	14MRC002	7008088.27	645639.75	470.088	RC	106	26-May-14	-59.99	282.09
ALLIANCE	14MRC003	7007905.71	645592.4	473.053	RC	95	26-May-14	-57.98	278.88
ALLIANCE	14MRC004	7007920.82	645577.08	473.128	RC	94	27-May-14	-60.71	272.32
ALLIANCE	14MRC005	7007859.4	645621.32	472.516	RC	112	28-May-14	-60.07	275.56
ALLIANCE	14MRC006	7007809.17	645635.42	472.371	RC	112	29-May-14	-59.29	271.18
ALLIANCE	14MRC007	7007771.3	645615.7	473.346	RC	110	30-May-14	-60.59	271.9
ALLIANCE	14MRC008	7007749.72	645630.77	473.085	RC	121	31-May-14	-58.42	277.01
ALLIANCE	14MRC009	7007728.17	645629.52	472.853	RC	113	01-Jun-14	-58.47	278.85
ALLIANCE	14MRC010	7007862.02	645651.94	471.35	RC	123	02-Jun-14	-59.99	275.58
ALLIANCE	14MRC011	7007781	645638.4	472.497	RC	115	04-Jun-14	-59.31	279.29
ALLIANCE	14MRC012	7007620.81	645563.29	474.161	RC	66	05-Jun-14	-59.65	275.62
ALLIANCE	14MRC013	7007621.01	645615.87	472.812	RC	91	04-Jun-14	-60	272.11
ALLIANCE	14MRC014	7007599.1	645607.26	472.972	RC	89	05-Jun-14	-59.3	273.11
ALLIANCE	14MRC015	7007549.29	645542.57	474.291	RC	79	06-Jun-14	-59.13	273.32
ALLIANCE	14MRC016	7007520.05	645558.9	474.134	RC	66	06-Jun-14	-58.7	267.44
ALLIANCE	14MRC017	7007486.56	645545.47	474.721	RC	85	07-Jun-14	-57.49	275.22
ALLIANCE	14MRC018	7007450.93	645547.11	474.783	RC	76	07-Jun-14	-61.92	274.32
ALLIANCE	14MRC019	7007402.83	645514.58	475.868	RC	55	08-Jun-14	-89.23	311.88
ALLIANCE	14MRC020	7007370.37	645534.24	476.329	RC	55	08-Jun-14	-59.09	274.69
ALLIANCE	14MRC021	7007363.23	645554.56	476.309	RC	62	08-Jun-14	-58.41	269.55
ALLIANCE	14MRC022	7007320.98	645577.86	475.741	RC	62	09-Jun-14	-59.1	272.94
ALLIANCE	14MRC023	7007392.32	645474.35	475.85	RC	56	09-Jun-14	-58.75	270.84
ALLIANCE	14MRC024	7007628.77	645680.97	471.037	RC	125	11-Jun-14	-59.86	272.39
NEW_ALLIANCE	14MRC025	7007668.95	645778.72	468.766	RC	62	12-Jun-14	-59.05	267.3
NEW_ALLIANCE	14MRC026	7007700.1	645778.91	468.826	RC	78	12-Jun-14	-59.31	271.83
NEW_ALLIANCE	14MRC027	7007727.42	645776.4	468.889	RC	85	13-Jun-14	-59.49	270.44
NEW_ALLIANCE	14MRC028	7007729.28	645745.1	469.544	RC	85	13-Jun-14	-61.22	273.86
NEW_ALLIANCE	14MRC029	7007778.67	645770.53	468.845	RC	82	14-Jun-14	-59.8	274.02
NEW_ALLIANCE	14MRC030	7007809.35	645773.28	468.573	RC	84	16-Jun-14	-59.46	273.25
NEW_ALLIANCE	14MRC031	7007870.48	645749.45	468.705	RC	79	18-Jun-14	-60.48	276.27
NEW_ALLIANCE	14MRC032	7007914.41	645743.32	468.261	RC	77	18-Jun-14	-59.11	272.12
NEW_ALLIANCE	14MRC033	7007812.14	645725.39	469.815	RC	82	19-Jun-14	-58.79	273.63
NEW_ALLIANCE	14MRC034	7007851.13	645700.74	470.562	RC	82	20-Jun-14	-59.48	272.54
NEW_ALLIANCE	14MRC035	7007866.61	645711.76	469.928	RC	79	20-Jun-14	-59.01	271.38
NEW_ALLIANCE	14MRC036	7007934.15	645716.58	469.292	RC	53	21-Jun-14	-89.39	276.7

NEW_ALLIANCE	14MRC037	7007850.63	645741.79	468.899	RC	73	21-Jun-14	-59.5	273.16
NEW_ALLIANCE	14MRC038	7008209.01	645625.13	468.362	RC	101	22-Jun-14	-60	271.5
NEW_ALLIANCE	14MRC039	7008167.77	645664.11	468.753	RC	92	23-Jun-14	-59.39	273.24
NEW_ALLIANCE	14MRC040	7008421.8	646090.86	463.827	RC	124	25-Jun-14	-59.38	315.69
NEW_ALLIANCE	14MRC041	7008488.29	646013.04	464.649	RC	125	26-Jun-14	-61.23	315.22
NEW_ALLIANCE	14MRC042	7008558.32	645931.81	465.114	RC	116	27-Jun-14	-58.97	317.85
NEW_ALLIANCE	14MRC043	7008617.46	645851.15	465.212	RC	120	28-Jun-14	-60	316.5
ALLIANCE	14MRC044	7007809.6	645591.94	474.237	RC	100	30-Jun-14	-89.34	349.61
ALLIANCE	14MRC045	7007777.77	645587.98	474.81	RC	100	30-Jun-14	-89.77	340.34
ALLIANCE	14MRC046	7007751.93	645583.66	475.315	RC	100	03-Jul-14	-89.57	210.27
ALLIANCE	14MRC047	7007728.91	645593.67	474.537	RC	100	04-Jul-14	-89.16	326.36
ALLIANCE	14MRC048	7007651.98	645588.26	474.215	RC	100	04-Jul-14	-89.72	168.57
ALLIANCE	14MRC049	7007630.31	645570.8	473.946	RC	100	05-Jul-14	-89.45	270.43
ALLIANCE	14MRC050	7007580.3	645618.15	472.718	RC	100	06-Jul-14	-60.13	276.62
NEW_ALLIANCE	14MRC051	7007931.64	645796.97	467.378	RC	73	07-Jul-14	-59.14	273.09
NEW_ALLIANCE	14MRC052	7008041.23	645800.76	467.346	RC	94	07-Jul-14	-60.11	269.79
ALLIANCE	14MRC053	7007810.67	645632.1	472.633	RC	112	10-Jul-14	-59.32	278.23
ALLIANCE	14MRC054	7007750.88	645627.54	473.192	RC	121	11-Jul-14	-60.27	272.35
ALLIANCE	14MRC055	7007972.75	645542.56	472.477	RC	100	12-Jul-14	-60.79	275.29
ALLIANCE	14MRC056	7007952.49	645600.72	471.826	RC	104	13-Jul-14	-69.84	272.95
NEW_ALLIANCE	14MRC057	7008273.69	645637.09	467.552	RC	38	16-Jul-14	-59.56	310.88
NEW_ALLIANCE	14MRC058	7008279.3	645658.11	467.417	RC	43	15-Jul-14	-89.67	64.57
NEW_ALLIANCE	14MRC059	7008206.97	645655.95	468.549	RC	51	16-Jul-14	-59.2	274.07
NEW_ALLIANCE	14MRC060	7008206.54	645675.01	468.254	RC	56	16-Jul-14	-89.26	186.59
NEW_ALLIANCE	14MRC061	7008148.29	645688.46	468.342	RC	45	17-Jul-14	-59.3	275.22
ALLIANCE	14MRC062	7007982.75	645473.5	471.497	RC	85	17-Jul-14	-74.08	273.93
ALLIANCE	14MRC063	7007925.18	645542.25	473.274	RC	85	18-Jul-14	-58.8	275.98
ALLIANCE	14MRC064	7007898.57	645568.29	473.584	RC	80	19-Jul-14	-69.28	271.05
ALLIANCE	14MRC065	7007969.68	645601.47	471.539	RC	103	20-Jul-14	-58.68	267.44
ALLIANCE	14MRC066	7007700.99	645656.87	471.891	RC	105	21-Jul-14	-68.85	275.18
ALLIANCE	14MRC067	7007669.02	645623.94	472.921	RC	110	23-Jul-14	-89.87	124.91
ALLIANCE	14MRC068	7007645.89	645681.48	470.961	RC	126	24-Jul-14	-60.2	271.83
ALLIANCE	14MRC069	7007679.1	645666.16	471.401	RC	115	25-Jul-14	-74.23	272.2
ALLIANCE	14MRC070	7007679.26	645644.53	472.033	RC	105	26-Jul-14	-60.18	275.11
ALLIANCE	14MRC071	7007680.66	645570.12	476.42	RC	75	27-Jul-14	-59.81	272.83
ALLIANCE	14MRC072	7007953.05	645545.12	472.388	RC	85	27-Jul-14	-65.22	267.2
NEW_ALLIANCE	14MRC073	7008041.6	645828.93	466.753	RC	100	28-Jul-14	-59.7	271.88
NEW_ALLIANCE	14MRC074	7008114.17	645799.92	466.529	RC	98	30-Jul-14	-60.04	276.58

NEW_ALLIANCE	14MRC075	7008161.89	645817.95	466.136	RC	100	01-Aug-14	-59.21	317.93
NEW_ALLIANCE	14MRC076	7008176.17	645792.84	466.368	RC	99	02-Aug-14	-60.07	316.89
NEW_ALLIANCE	14MRC077	7008284.57	645815.46	465.871	RC	117	03-Aug-14	-59.21	315.66
NEW_ALLIANCE	14MRC078	7008265.75	645806.75	466.014	RC	105	06-Aug-14	-59.39	315.86
NEW_ALLIANCE	14MRC079	7008252.71	645819.75	465.864	RC	117	07-Aug-14	-59.01	318.94
NEW_ALLIANCE	14MRC080	7008249.67	645793.44	466.318	RC	93	07-Aug-14	-59.67	315.72
NEW_ALLIANCE	14MRC081	7008233.43	645814.8	465.946	RC	96	08-Aug-14	-59.47	316.28
NEW_ALLIANCE	14MRC082	7008217.18	645803.26	466.319	RC	98	08-Aug-14	-59.36	315.42
NEW_ALLIANCE	14MRC083	7008207.05	645824.23	465.897	RC	102	09-Aug-14	-59.07	319.85
NEW_ALLIANCE	14MRC083A	7008205	645826	465.9	RC	6	08-Aug-14	-60	319
NEW_ALLIANCE	14MRC084	7008264.53	645806	466.088	RC	70	09-Aug-14	-59.17	314.99
NEW_ALLIANCE	14MRC085	7008213.97	645785.29	466.53	RC	84	10-Aug-14	-59.68	315.45
NEW_ALLIANCE	14MRC086	7008196.57	645803.92	466.323	RC	102	11-Aug-14	-59	317.83
NEW_ALLIANCE	14MRC087	7008177.46	645825.88	466.027	RC	108	13-Aug-14	-58.94	316.38
NEW_ALLIANCE	14MRC088	7008315.81	645847.71	465.168	RC	107	13-Aug-14	-59.9	316.2
NEW_ALLIANCE	14MRC089	7008327.6	645879.13	464.968	RC	111	14-Aug-14	-59.09	315.78
NEW_ALLIANCE	14MRC090	7008327.81	645912.69	464.986	RC	113	15-Aug-14	-60.19	316.18
NEW_ALLIANCE	14MRC091	7008088.93	645810.31	466.866	RC	100	16-Aug-14	-58.84	270.14
NEW_ALLIANCE	14MRC092	7008150.99	645612.52	469.128	RC	80	16-Aug-14	-64.61	270.55
NEW_ALLIANCE	14MRC093	7008108.85	645615.21	470.015	RC	80	03-Sep-14	-58.99	269.67
ALLIANCE	14MRC094	7007618.31	645643.17	471.858	RC	105	03-Sep-14	-64.48	270.39
ALLIANCE	14MRC095	7007557.79	645596.24	473.099	RC	87	04-Sep-14	-63.91	272.15
ALLIANCE	14MRC096	7007539.67	645595.69	473.195	RC	84	04-Sep-14	-63.4	271.71
ALLIANCE	14MRC097	7007499.75	645592.66	473.635	RC	93	05-Sep-14	-64.37	271.45
ALLIANCE	14MRC098	7007479.48	645591.46	473.778	RC	84	05-Sep-14	-64.1	271.93
ALLIANCE	14MRC099	7007410.69	645543.41	475.562	RC	75	06-Sep-14	-74.64	272.32
ALLIANCE	14MRC100	7007359.59	645557.82	476.213	RC	66	07-Sep-14	-78.52	269.86
ALLIANCE	14MRC101	7007310.35	645725.42	472.125	RC	108	07-Sep-14	-59.63	272.2
ALLIANCE	14MRC102	7007248.42	645717.82	472.784	RC	108	09-Sep-14	-59.03	271.4
ALLIANCE	8ALC001	7007839.84	645577.7462	473.852	RC	90	23-Jan-08	-60	268
ALLIANCE	8ALC002	7007840.531	645598.6833	472.943	RC	96	24-Jan-08	-60	268
ALLIANCE	8ALC003	7007837.484	645627.2387	471.892	RC	106	16-Mar-08	-60	270
ALLIANCE	8ALC004	7007838.214	645645.3233	471.208	RC	132	16-Mar-08	-90	0
NEW_ALLIANCE	8NAC001	7008373.324	645934.7316	464.791	RC	170	25-Jan-08	-55	312
ALLIANCE	97FCRC1090	7007372.485	645618.819	474.06	RC	60	26-Sep-97	-60	259.49
ALLIANCE	97FCRC1091	7007349.364	645599.7079	474.66	RC	60	26-Sep-97	-60	259.49
NEW_ALLIANCE	97FCRC1092	7008363.564	645981.3872	464.36	RC	76	02-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1093	7008312.601	646043.0429	464.1	RC	85	02-Oct-97	-90	39.49

NEW_ALLIANCE	97FCRC1094	7008287.119	646073.8703	464.08	RC	70	03-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1095	7008338.082	646012.2146	464.19	RC	86	04-Oct-97	-90	39.49
ALLIANCE	97FCRC1096	7007308.679	645424.4622	475.99	RC	76	04-Oct-97	-90	0
ALLIANCE	97FCRC1097	7007308.618	645464.5276	476.16	RC	72	05-Oct-97	-90	0
ALLIANCE	97FCRC1098	7007308.556	645504.5921	475.73	RC	76	05-Oct-97	-90	0
ALLIANCE	97FCRC1099	7007308.495	645544.6576	476.13	RC	94	06-Oct-97	-90	0
ALLIANCE	97FCRC1100	7007308.434	645584.723	475.28	RC	88	06-Oct-97	-90	0
ALLIANCE	97FCRC1101	7007308.372	645624.7875	475.2	RC	82	06-Oct-97	-90	0
ALLIANCE	97FCRC1102	7007308.311	645664.853	475.12	RC	88	08-Oct-97	-90	0
ALLIANCE	97FCRC1103	7007248.475	645494.4843	476.98	RC	70	08-Oct-97	-60	270
ALLIANCE	97FCRC1104	7007248.413	645534.5488	476.57	RC	76	09-Oct-97	-60	270
ALLIANCE	97FCRC1105	7007248.352	645574.6142	476.46	RC	84	10-Oct-97	-60	270
ALLIANCE	97FCRC1106	7007248.29	645614.6787	476.49	RC	88	10-Oct-97	-60	270
ALLIANCE	97FCRC1107	7007248.229	645654.7442	476.39	RC	82	11-Oct-97	-60	270
ALLIANCE	97FCRC1108	7007248.168	645694.8097	476.23	RC	88	11-Oct-97	-60	270
ALLIANCE	97FCRC1109	7007248.106	645734.8741	475.96	RC	92	12-Oct-97	-60	270
ALLIANCE	97FCRC1110	7007248.045	645774.9396	475.64	RC	82	13-Oct-97	-60	270
ALLIANCE	97FCRC1111	7007247.983	645815.0041	475.29	RC	76	13-Oct-97	-60	270
ALLIANCE	97FCRC1112	7007168.375	645474.3282	479.07	RC	82	14-Oct-97	-60	270
ALLIANCE	97FCRC1113	7007168.314	645514.3936	478.8	RC	80	14-Oct-97	-60	270
ALLIANCE	97FCRC1114	7007168.252	645554.4591	478.67	RC	88	14-Oct-97	-60	270
ALLIANCE	97FCRC1115	7007168.191	645594.5236	478.55	RC	88	15-Oct-97	-60	270
ALLIANCE	97FCRC1116	7007168.129	645634.5891	478.34	RC	82	15-Oct-97	-60	270
ALLIANCE	97FCRC1117	7007168.068	645674.6535	478.19	RC	80	16-Oct-97	-60	270
ALLIANCE	97FCRC1118	7007168.006	645714.719	477.94	RC	82	16-Oct-97	-60	270
ALLIANCE	97FCRC1119	7007167.945	645754.7835	477.66	RC	85	02-Jan-00	-60	270
ALLIANCE	97FCRC1120	7007167.884	645794.8489	477.38	RC	95	02-Jan-00	-60	270
ALLIANCE	97FCRC1121	7007167.822	645834.9134	476.98	RC	88	18-Oct-97	-60	270
ALLIANCE	97FCRC1122	7007167.761	645874.9789	476.62	RC	76	18-Oct-97	-60	270
NEW_ALLIANCE	97FCRC1123	7008592.724	646300.5318	464.43	RC	70	19-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1124	7008516.28	646393.0149	464.41	RC	70	19-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1125	7008490.798	646423.8423	464.42	RC	76	20-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1126	7008531.068	646249.5684	464.46	RC	70	20-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1127	7008505.587	646280.3958	464.45	RC	70	20-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1128	7008480.105	646311.2241	464.43	RC	70	22-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1129	7008454.624	646342.0515	464.43	RC	82	22-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1130	7008429.143	646372.8799	464.42	RC	76	23-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1131	7008405.709	646275.6749	464.38	RC	74	23-Oct-97	-90	39.49

NEW_ALLIANCE	97FCRC1132	7008380.227	646306.5023	464.37	RC	82	22-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1133	7008354.746	646337.3306	464.38	RC	82	24-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1134	7008395.017	646163.0558	464.33	RC	76	24-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1135	7008369.535	646193.8841	464.3	RC	70	25-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1136	7008344.053	646224.7115	464.29	RC	64	25-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1137	7008318.572	646255.5399	464.28	RC	70	25-Oct-97	-90	39.49
NEW_ALLIANCE	97FCRC1138	7008293.091	646286.3672	464.27	RC	94	26-Oct-97	-90	39.49
ALLIANCE	AD0101	7007866.675	645441.5603	472.319	RC	38	11-Oct-94	-90	0
ALLIANCE	AD0102	7007873.486	645461.1063	473.089	RC	44	11-Oct-94	-90	0
ALLIANCE	AD0103	7007875.457	645480.8954	473.829	RC	48	12-Oct-94	-90	0
ALLIANCE	AD0104	7007877.299	645500.8742	474.129	RC	55	12-Oct-94	-90	0
ALLIANCE	AD0105	7007838.066	645564.8771	473.889	RC	70	19-Oct-94	-60	261
ALLIANCE	AD0106	7007796.497	645548.6015	474.759	RC	67	13-Oct-94	-59	260
ALLIANCE	AD0107	7007798.244	645568.5673	474.399	RC	72	22-Apr-95	-60	264.49
ALLIANCE	AD0108	7007800.353	645588.5635	473.789	RC	82	21-Apr-95	-60	264.49
ALLIANCE	AD0109	7007775.602	645540.4936	475.059	RC	62	13-Oct-94	-60	261
ALLIANCE	AD0110	7007776.971	645569.2602	474.789	RC	75	19-Oct-94	-59	261
ALLIANCE	AD0111	7007755.643	645542.5151	475.289	RC	55	13-Oct-94	-60	260
ALLIANCE	AD0112	7007757.595	645562.2442	475.109	RC	65	13-Oct-94	-59	260
ALLIANCE	AD0113	7007735.185	645536.3374	475.639	RC	50	14-Oct-94	-60	260
ALLIANCE	AD0114	7007736.87	645554.3964	474.909	RC	60	14-Oct-94	-60	268
ALLIANCE	AD0115	7007738.512	645574.0151	474.679	RC	70	14-Oct-94	-60	264
ALLIANCE	AD0116	7007714.889	645536.1988	475.619	RC	50	18-Oct-94	-60	261
ALLIANCE	AD0117	7007716.851	645556.3478	475.769	RC	60	18-Oct-94	-60	261
ALLIANCE	AD0118	7007694.174	645528.3611	475.329	RC	45	19-Oct-94	-60	265
ALLIANCE	AD0119	7007696.662	645551.2303	475.929	RC	55	20-Oct-94	-60	270
ALLIANCE	AD0120	7007674.852	645539.5518	475.499	RC	45	20-Oct-94	-60	266
ALLIANCE	AD0121	7007676.913	645560.1209	475.629	RC	70	20-Oct-94	-60	263
ALLIANCE	AD0122	7007655.252	645542.0237	475.259	RC	27	21-Oct-94	-60	270
ALLIANCE	AD0123	7007657.064	645561.9425	474.909	RC	37	21-Oct-94	-60	270
ALLIANCE	AD0124	7007637.295	645563.9643	474.119	RC	36	06-Nov-94	-60	270
ALLIANCE	AD0125	7007639.206	645583.9733	473.269	RC	50	06-Nov-94	-60	270
ALLIANCE	AD0126	7007595.515	645547.8084	473.559	RC	50	07-Nov-94	-60	265
ALLIANCE	AD0127	7007573.685	645529.851	473.889	RC	38	07-Nov-94	-60	265
ALLIANCE	AD0128	7007575.526	645549.6099	473.299	RC	50	07-Nov-94	-60	265
ALLIANCE	AD0129	7007533.747	645533.604	474.109	RC	36	07-Nov-94	-60	256
ALLIANCE	AD0130	7007535.939	645553.1035	473.619	RC	52	07-Nov-94	-60	260
ALLIANCE	AD0131	7007510.115	645495.6078	474.339	RC	18	07-Nov-94	-60	259

ALLIANCE	AD0132	7007513.898	645535.5857	474.299	RC	45	07-Nov-94	-60	270
ALLIANCE	AD0133	7007471.44	645511.0904	474.789	RC	20	07-Nov-94	-60	270
ALLIANCE	AD0134	7007474.2	645539.2891	474.169	RC	36	08-Nov-94	-61	263
ALLIANCE	AD0135	7007475.982	645559.0179	473.779	RC	50	08-Nov-94	-60	260
ALLIANCE	AD0136	7007456.082	645561.0395	473.829	RC	50	08-Nov-94	-60	261
ALLIANCE	AD0137	7007434.372	645543.0922	474.559	RC	38	08-Nov-94	-60	260
ALLIANCE	AD0138	7007411.991	645518.5053	475.159	RC	45	08-Nov-94	-90	0
ALLIANCE	AD0139	7007416.344	645564.8428	474.329	RC	50	08-Nov-94	-60	260
ALLIANCE	AD0140	7007375.153	645450.9159	475.439	RC	10	08-Nov-94	-60	225
ALLIANCE	AD0141	7007390.442	645463.5351	475.409	RC	22	08-Nov-94	-60	225
ALLIANCE	AD0142	7007406.001	645476.2847	475.109	RC	32	08-Nov-94	-60	218
ALLIANCE	AD0143	7007421.381	645488.844	475.259	RC	44	09-Nov-94	-60	220
ALLIANCE	AD0144	7007356.181	645473.6749	475.349	RC	20	01-Mar-95	-60	175
ALLIANCE	AD0145	7007371.46	645486.5391	475.399	RC	27	01-Mar-95	-60	220
ALLIANCE	AD0146	7007376.793	645542.8911	475.669	RC	40	09-Nov-94	-60	215
ALLIANCE	AD0147	7007351.314	645573.8995	474.809	RC	40	09-Nov-94	-60	220
ALLIANCE	AD0148	7007795.497	645538.629	474.869	RC	57	22-Jan-95	-61	252.49
ALLIANCE	AD0149	7007797.259	645558.5577	474.549	RC	69	23-Jan-95	-61	256.49
ALLIANCE	AD0150	7007758.707	645571.768	475.009	RC	72	15-Feb-95	-61	252.49
ALLIANCE	AD0151	7007739.371	645584.0594	474.489	RC	77	16-Feb-95	-60	264.49
ALLIANCE	AD0152	7007710.122	645486.9073	474.389	RC	20	23-Jan-95	-60	264.49
ALLIANCE	AD0153	7007712.001	645506.3833	474.809	RC	32	23-Jan-95	-61	258.49
ALLIANCE	AD0154	7007718.577	645576.0206	475.229	RC	72	17-Feb-95	-61	253.49
ALLIANCE	AD0155	7007691.309	645498.5656	474.619	RC	20	23-Jan-95	-60	264.49
ALLIANCE	AD0156	7007698.679	645577.8892	475.849	RC	70	18-Feb-95	-61	246.49
ALLIANCE	AD0157	7007671.137	645500.3108	474.369	RC	25	23-Jan-95	-60	264.49
ALLIANCE	AD0158	7007678.838	645579.532	475.619	RC	70	19-Feb-95	-60	264.49
ALLIANCE	AD0159	7007650.997	645502.0721	474.589	RC	22	20-Feb-95	-60	264.49
ALLIANCE	AD0160	7007659.33	645581.6951	474.349	RC	50	20-Feb-95	-60	264.49
ALLIANCE	AD0161	7007641.179	645604.1973	472.739	RC	60	21-Feb-95	-59	262.49
ALLIANCE	AD0162	7007608.729	645476.0254	473.779	RC	15	21-Feb-95	-60	264.49
ALLIANCE	AD0163	7007613.326	645570.3873	473.229	RC	60	14-Feb-95	-61	259.49
ALLIANCE	AD0164	7007592.06	645486.8969	474.049	RC	10	21-Feb-95	-60	264.49
ALLIANCE	AD0165	7007593.65	645527.9835	473.959	RC	35	21-Feb-95	-61	260.49
ALLIANCE	AD0166	7007597.316	645567.7483	473.189	RC	63	15-Feb-95	-61	259.49
ALLIANCE	AD0167	7007577.435	645569.8059	473.149	RC	60	22-Feb-95	-63	253.49
ALLIANCE	AD0168	7007557.471	645571.8324	473.089	RC	65	22-Feb-95	-60	254.49
ALLIANCE	AD0169	7007537.664	645573.5011	473.189	RC	65	23-Feb-95	-60	254.49

ALLIANCE	AD0170	7007515.908	645555.4908	473.749	RC	53	23-Feb-95	-60	264.49
ALLIANCE	AD0171	7007517.793	645575.3478	473.249	RC	65	23-Feb-95	-60	255.49
ALLIANCE	AD0172	7007497.745	645577.2312	473.439	RC	65	24-Feb-95	-58	250.49
ALLIANCE	AD0173	7007477.839	645578.2869	473.319	RC	63	24-Feb-95	-60	256.49
ALLIANCE	AD0174	7007457.696	645581.164	473.319	RC	63	24-Feb-95	-61	256.49
ALLIANCE	AD0175	7007436.587	645563.2026	474.099	RC	53	24-Feb-95	-60	264.49
ALLIANCE	AD0176	7007437.996	645583.0139	473.479	RC	62	25-Feb-95	-60	256.49
ALLIANCE	AD0177	7007410.742	645505.187	475.149	RC	43	25-Feb-95	-58	253.49
ALLIANCE	AD0178	7007417.931	645585.2502	473.849	RC	55	25-Feb-95	-59	250.49
ALLIANCE	AD0179	7007419.995	645604.8695	473.219	RC	63	26-Feb-95	-60	252.49
ALLIANCE	AD0180	7007398.268	645586.7353	473.809	RC	70	26-Feb-95	-58	254.49
ALLIANCE	AD0181	7007400.054	645605.9692	473.539	RC	80	28-Feb-95	-60	256.49
ALLIANCE	AD0182	7007810.547	645486.9038	447.979	RC	17	22-Apr-95	-60	264.49
ALLIANCE	AD0183	7007811.583	645498.0842	447.989	RC	20	22-Apr-95	-90	0
ALLIANCE	AD0184	7007791.47	645496.85	447.839	RC	17	22-Apr-95	-90	0
ALLIANCE	AD0185	7007771.765	645500.7496	447.929	RC	15	22-Apr-95	-90	0
ALLIANCE	AD0186	7007751.37	645497.6344	448.089	RC	15	22-Apr-95	-90	0
ALLIANCE	AD0187	7007388.123	645482.5483	475.469	RC	40	01-Mar-95	-90	0
ALLIANCE	AD0188	7007392.527	645526.9123	475.469	RC	48	01-Mar-95	-87	163.49
ALLIANCE	AD0189	7007394.516	645546.7994	475.209	RC	58	01-Mar-95	-87	170.49
ALLIANCE	AD0190	7007367.556	645468.9938	475.279	RC	23	01-Mar-95	-90	0
ALLIANCE	AD0191	7007369.762	645499.0544	475.569	RC	28	01-Mar-95	-90	0
ALLIANCE	AD0192	7007345.209	645450.9997	475.759	RC	15	01-Mar-95	-90	0
ALLIANCE	AD0193	7007350.013	645501.3411	475.769	RC	20	23-Apr-94	-90	0
ALLIANCE	AD0194	7007354.38	645550.3582	475.699	RC	38	23-Apr-94	-90	0
ALLIANCE	AD0195	7007333.416	645542.5371	475.799	RC	25	23-Apr-94	-90	0
ALLIANCE	AD0196	7007337.513	645582.6214	475.109	RC	53	23-Apr-94	-90	0
ALLIANCE	AD0197	7007896.109	645539.4306	473.219	RC	75	15-Sep-95	-60	265
ALLIANCE	AD0198	7007897.554	645558.677	473.209	RC	80	15-Sep-95	-60	265
ALLIANCE	AD0199	7007877.633	645550.5245	473.549	RC	75	15-Sep-95	-59	262
ALLIANCE	AD0203	7007760.101	645592.1641	474.139	RC	82	16-Sep-95	-60	265
ALLIANCE	AD0204	7007741.674	645603.565	473.619	RC	87	17-Sep-95	-59.25	266.38
ALLIANCE	AD0205	7007700.482	645598.045	474.639	RC	82	17-Sep-95	-60	260
ALLIANCE	AD0206	7007676.334	645550.0319	475.579	RC	50	18-Sep-95	-60	265
ALLIANCE	AD0207	7007677.95	645569.3826	475.659	RC	65	18-Sep-95	-59	264
ALLIANCE	AD0208	7007681.836	645598.9406	474.159	RC	80	18-Sep-95	-59	268
ALLIANCE	AD0209	7007642.542	645623.9436	471.929	RC	90	19-Sep-95	-59	261
ALLIANCE	AD0210	7007619.169	645585.9397	472.909	RC	70	19-Sep-95	-60	260

ALLIANCE	AD0211	7007599.313	645587.1015	472.749	RC	75	20-Sep-95	-60	262
ALLIANCE	AD0212	7007579.012	645589.7024	472.649	RC	72	20-Sep-95	-60	262
ALLIANCE	AD0213	7007409.581	645495.3342	475.209	RC	42	20-Sep-95	-90	0
ALLIANCE	AD0214	7007411.277	645509.9468	475.169	RC	50	21-Sep-95	-90	0
ALLIANCE	AD0215	7007371.026	645509.1483	475.509	RC	35	21-Sep-95	-90	0
ALLIANCE	AD0216	7007374.39	645571.8604	475.289	RC	70	22-Sep-95	-90	0
ALLIANCE	AD0217	7007346.558	645463.1343	475.559	RC	6	22-Sep-95	-90	0
ALLIANCE	AD0218	7007351.64	645493.7538	475.599	RC	20	22-Sep-95	-90	0
ALLIANCE	AD0219	7007354.15	645540.9896	475.619	RC	70	21-Sep-95	-90	0
ALLIANCE	ARC001	7007644.004	645499.4058	474.699	RC	10	02-Jan-00	-90	0
ALLIANCE	ARC002	7007637.994	645507.3958	474.519	RC	15	02-Jan-00	-90	0
ALLIANCE	ARC003	7007629.983	645516.3828	474.289	RC	20	02-Jan-00	-90	0
ALLIANCE	ARC004	7007684.018	645484.4649	474.469	RC	18	02-Jan-00	-90	0
ALLIANCE	ARC005	7007677.009	645491.4538	474.619	RC	22	02-Jan-00	-90	0
ALLIANCE	ARC006	7007670.999	645499.4438	474.649	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC007	7007657.981	645514.4227	474.739	RC	22	02-Jan-00	-90	0
ALLIANCE	ARC008	7007651.97	645522.4127	474.899	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC009	7007712.017	645481.5049	474.469	RC	18	02-Jan-00	-90	0
ALLIANCE	ARC010	7007698.997	645497.4836	474.789	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC011	7007685.978	645512.4625	475.039	RC	24	02-Jan-00	-90	0
ALLIANCE	ARC012	7007679.968	645520.4525	475.209	RC	28	02-Jan-00	-90	0
ALLIANCE	ARC013	7007755.034	645463.5689	474.209	RC	16	02-Jan-00	-90	0
ALLIANCE	ARC014	7007742.016	645478.5478	474.469	RC	23	02-Jan-00	-90	0
ALLIANCE	ARC015	7007735.006	645486.5364	474.659	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC016	7007727.994	645495.5248	474.879	RC	22	02-Jan-00	-90	0
ALLIANCE	ARC017	7007714.976	645510.5037	475.249	RC	28	02-Jan-00	-90	0
ALLIANCE	ARC018	7007707.967	645517.4925	474.209	RC	32	02-Jan-00	-90	0
ALLIANCE	ARC019	7007782.029	645463.6069	474.129	RC	16	02-Jan-00	-90	0
ALLIANCE	ARC020	7007775.021	645470.5957	474.299	RC	20	02-Jan-00	-90	0
ALLIANCE	ARC021	7007763.002	645485.576	474.599	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC022	7007755.993	645492.5648	474.749	RC	24	02-Jan-00	-90	0
ALLIANCE	ARC023	7007749.983	645500.5549	474.939	RC	28	02-Jan-00	-90	0
ALLIANCE	ARC024	7007823.047	645445.6681	472.269	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC025	7007814.033	645456.6533	473.759	RC	30	02-Jan-00	-90	0
ALLIANCE	ARC026	7007797.009	645475.6258	474.349	RC	20	02-Jan-00	-90	0
ALLIANCE	ARC027	7007790.999	645483.6158	474.529	RC	23	02-Jan-00	-90	0
ALLIANCE	ARC028	7007783.991	645490.6047	474.699	RC	28	02-Jan-00	-90	0
ALLIANCE	ARC029	7007840.024	645459.6894	473.669	RC	25	02-Jan-00	-90	0

ALLIANCE	ARC030	7007832.017	645465.677	473.899	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC031	7007825.007	645473.6656	473.149	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC032	7007818.998	645480.6558	474.479	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC033	7007811.988	645488.6445	474.799	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC034	7007805.978	645496.6345	474.939	RC	30	02-Jan-00	-90	0
ALLIANCE	ARC035	7007846.996	645478.6957	474.659	RC	34	02-Jan-00	-90	0
ALLIANCE	ARC036	7007840.986	645486.6857	474.749	RC	33	02-Jan-00	-90	0
ALLIANCE	ARC037	7007827.967	645501.6646	475.239	RC	35	02-Jan-00	-90	0
ALLIANCE	ARC038	7007624.014	645495.3783	474.359	RC	15	02-Jan-00	-90	0
ALLIANCE	ARC039	7007610.994	645511.357	474.179	RC	33	02-Jan-00	-90	0
ALLIANCE	ARC040	7007614.041	645477.3676	474.029	RC	10	02-Jan-00	-90	0
ALLIANCE	ARC041	7007607.031	645485.3563	474.039	RC	15	02-Jan-00	-90	0
ALLIANCE	ARC042	7007600.023	645492.3451	474.149	RC	21	02-Jan-00	-90	0
ALLIANCE	ARC043	7007594.012	645500.3351	474.079	RC	27	02-Jan-00	-90	0
ALLIANCE	ARC044	7007588.002	645508.3252	474.049	RC	33	02-Jan-00	-90	0
ALLIANCE	ARC045	7007579.034	645487.3165	474.139	RC	12	02-Jan-00	-90	0
ALLIANCE	ARC046	7007566.013	645503.2951	474.119	RC	26	02-Jan-00	-90	0
ALLIANCE	ARC047	7007560.003	645511.2852	474.129	RC	34	02-Jan-00	-90	0
ALLIANCE	ARC048	7007552.034	645490.2779	474.179	RC	12	02-Jan-00	-90	0
ALLIANCE	ARC049	7007546.024	645498.2679	474.259	RC	19	02-Jan-00	-90	0
ALLIANCE	ARC050	7007533.006	645513.2468	474.359	RC	32	02-Jan-00	-90	0
ALLIANCE	ARC051	7007528.043	645487.2446	474.409	RC	10	02-Jan-00	-90	0
ALLIANCE	ARC052	7007522.036	645493.235	474.449	RC	16	02-Jan-00	-90	0
ALLIANCE	ARC053	7007509.016	645509.2137	474.489	RC	29	02-Jan-00	-90	0
ALLIANCE	ARC054	7007502.006	645517.2024	474.639	RC	34	02-Jan-00	-90	0
ALLIANCE	ARC055	7007500.047	645488.205	474.679	RC	10	02-Jan-00	-90	0
ALLIANCE	ARC056	7007494.038	645495.1952	474.739	RC	15	02-Jan-00	-90	0
ALLIANCE	ARC057	7007487.027	645504.1837	474.749	RC	20	02-Jan-00	-90	0
ALLIANCE	ARC058	7007475.008	645519.1639	474.739	RC	31	02-Jan-00	-90	0
ALLIANCE	ARC059	7007466.039	645498.1552	474.869	RC	10	02-Jan-00	-90	0
ALLIANCE	ARC060	7007453.019	645514.1339	474.999	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC061	7007447.01	645521.1241	475.079	RC	31	02-Jan-00	-90	0
ALLIANCE	ARC062	7007444.049	645494.125	475.129	RC	11	02-Jan-00	-90	0
ALLIANCE	ARC063	7007437.04	645501.1138	475.179	RC	17	02-Jan-00	-90	0
ALLIANCE	ARC064	7007431.03	645509.1038	475.169	RC	23	02-Jan-00	-90	0
ALLIANCE	ARC065	7007418.012	645524.0827	475.249	RC	33	02-Jan-00	-90	0
ALLIANCE	ARC066	7007400.071	645484.0649	475.429	RC	25	02-Jan-00	-90	0
ALLIANCE	ARC067	7007387.051	645500.0436	475.639	RC	35	02-Jan-00	-90	0

ALLIANCE	ARC068	7007422.062	645488.0951	475.359	RC	45	02-Jan-00	-90	0
ALLIANCE	ARC069	7007354.025	645522.9927	475.129	RC	32	02-Jan-00	-90	0
ALLIANCE	ARC070	7007339.045	645510.9739	475.129	RC	15	02-Jan-00	-90	0
ALLIANCE	ARC071	7007327.985	645554.9501	475.679	RC	35	02-Jan-00	-90	0
ALLIANCE	ARC072	7007313.007	645540.9316	475.129	RC	20	02-Jan-00	-90	0
ALLIANCE	ARC073	7007856.949	645510.7037	464.389	RC	47	14-May-91	-88.5	45
ALLIANCE	ARC074	7007848.941	645517.6912	463.329	RC	47	15-May-91	-85	35
ALLIANCE	ARC075	7007838.937	645521.6763	462.269	RC	41	15-May-91	-75	45
ALLIANCE	ARC076	7007825.936	645523.6576	460.679	RC	38	14-May-91	-78	55
ALLIANCE	ARC077	7007861.979	645488.7149	466.909	RC	48	16-May-91	-73	225
ALLIANCE	ARC078	7007859.961	645501.7097	465.439	RC	50	16-May-91	-80	233
ALLIANCE	ARC079	7007857.961	645501.7068	465.379	RC	48	15-May-91	-60	231
ALLIANCE	ARC080	7007856.955	645506.7045	464.829	RC	42	16-May-91	-73	198
ALLIANCE	ARC081	7007847.946	645513.6905	463.309	RC	34	15-May-91	-76	207
ALLIANCE	ARC082	7007834.943	645517.6714	461.849	RC	30	15-May-91	-63	220
ALLIANCE	ARC083	7007822.94	645521.6538	460.269	RC	35	14-May-91	-89	180
ALLIANCE	ARC084	7007818.943	645519.6485	460.009	RC	36	14-May-91	-74	216
ALLIANCE	ARD001	7007881.875	645559.7298	473.409	RC	81	02-Jan-00	-90	342
ALLIANCE	ARD002	7007873.908	645537.7226	474.159	RC	75	02-Jan-00	-90	235
ALLIANCE	ARD003	7007861.889	645552.7029	474.029	RC	79	02-Jan-00	-90	260
ALLIANCE	ARD004	7007839.899	645548.6727	474.369	RC	71.8	02-Jan-00	-72	314
ALLIANCE	ARD005	7007805.892	645557.6231	474.539	RC	73	02-Jan-00	-60	306
ALLIANCE	ARD006	7007804.89	645559.6213	474.879	RC	72	02-Jan-00	-80	316
ALLIANCE	ARD007	7007679.878	645584.4405	475.269	RC	67.8	02-Jan-00	-90	313
ALLIANCE	ARD008	7007666.859	645599.4194	473.749	RC	75.5	02-Jan-00	-90	204
ALLIANCE	ARD009	7007653.838	645616.3979	472.509	RC	80	02-Jan-00	-90	164
ALLIANCE	ARD010	7007656.892	645577.4094	474.429	RC	60	02-Jan-00	-90	174
ALLIANCE	ARD011	7007632.85	645610.3694	472.469	RC	83	02-Jan-00	-90	187
ALLIANCE	AS001	7007982.322	645406.7997	470.129	RC	36	02-Jan-00	-60	315
ALLIANCE	AS002	7007995.061	645391.3805	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS003	7008007.801	645375.9614	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS004	7008020.55	645360.5522	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS005	7008033.289	645345.133	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS006	7008046.029	645329.7238	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS007	7008058.768	645314.3146	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS008	7007943.774	645374.9413	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS009	7007956.523	645359.5221	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS010	7007969.263	645344.113	470.129	RC	40	02-Jan-00	-60	315

ALLIANCE	AS011	7007982.002	645328.7038	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS012	7007994.742	645313.2746	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS013	7008007.481	645297.8654	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS014	7008020.23	645282.4562	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS015	7007940.804	645268.6869	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS016	7007953.544	645253.2777	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS017	7007966.283	645237.8585	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS018	7007845.127	645293.3975	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS019	7007857.877	645277.9783	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS020	7007870.616	645262.5691	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS021	7007883.355	645247.1599	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS022	7007896.085	645231.7407	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS023	7007908.834	645216.3216	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS024	7007921.573	645200.9124	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS025	7007797.342	645253.8975	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS026	7007810.091	645238.4883	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS027	7007822.821	645223.0691	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS028	7007835.56	645207.6599	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS029	7007848.299	645192.2407	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS030	7007861.039	645176.8215	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	AS031	7007873.788	645161.4124	470.129	RC	40	02-Jan-00	-60	315
ALLIANCE	D008	7007778.207	645522.3406	475.269	DDH	81	02-Jan-00	-90	0
ALLIANCE	D009	7007812.499	645573.1295	474.009	DDH	99	02-Jan-00	-90	0
ALLIANCE	D010	7007732.08	645576.2656	474.989	DDH	90	02-Jan-00	-90	0
NEW_ALLIANCE	FC500	7008506.164	645839.9574	465.129	RC	40	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC501	7008493.445	645855.3366	465.129	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC502	7008475.306	645814.5187	465.129	RC	40	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC503	7008462.587	645829.8979	465.129	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC504	7008342.303	645834.2276	465.129	RC	35	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC505	7008339.253	645727.943	465.529	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC506	7008326.534	645743.4222	465.929	RC	54	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC507	7008301.095	645774.1807	465.629	RC	35	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC508	7008275.556	645805.0389	465.629	RC	35	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC509	7008258.507	645700.1344	466.629	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC510	7008245.788	645715.5136	466.629	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC511	7008150.243	645831.1575	465.509	RC	35	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC512	7008152.323	645703.0842	467.329	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC513	7008126.784	645733.9425	466.899	RC	60	01-Jan-88	-60	309.5

NEW_ALLIANCE	FC514	7008075.907	645795.5594	466.039	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC515	7008031.239	645849.4864	465.799	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC516	7008033.319	645721.5131	467.489	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC517	7008007.88	645752.2715	466.979	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC518	7007914.315	645739.842	467.949	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC519	7007888.877	645770.7004	467.499	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC520	7007833.57	645712.0334	469.379	RC	50	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC521	7007820.85	645727.4126	469.109	RC	60	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC522	7007727.385	645714.9832	469.769	RC	40	01-Jan-88	-60	309.5
NEW_ALLIANCE	FC523	7007701.846	645745.8415	468.979	RC	60	01-Jan-88	-60	309.5
ALLIANCE	FC524	7007617.52	645534.182	474.019	RC	30	01-Jan-89	-60	315
ALLIANCE	FC525	7007588.58	645509.7857	474.339	RC	30	01-Jan-89	-60	315
ALLIANCE	FC526	7007530.833	645515.0534	474.369	RC	30	01-Jan-89	-60	315
ALLIANCE	FC527	7007475.406	645520.7542	474.819	RC	30	01-Jan-89	-60	315
ALLIANCE	FC528	7007420.268	645526.1155	475.109	RC	30	01-Jan-89	-60	315
ALLIANCE	FC529	7007367.254	645522.1815	475.639	RC	30	01-Jan-89	-60	315
ALLIANCE	FC530	7007426.025	645237.0473	473.819	RC	40	01-Jan-89	-90	0
ALLIANCE	FC531	7007374.015	645264.6089	474.079	RC	40	01-Jan-89	-90	0
ALLIANCE	FC540	7007407.71	645476.9869	475.429	RC	50	01-Jan-89	-60	315
ALLIANCE	FC541	7007705.946	645490.0748	474.659	RC	20	01-Jan-89	-90	0
ALLIANCE	FC542	7007693.107	645505.3139	474.969	RC	30	01-Jan-89	-90	0
ALLIANCE	FC543	7007768.915	645475.7462	474.169	RC	30	01-Jan-89	-90	0
ALLIANCE	FC561	7007645.858	645596.0104	473.349	RC	90	01-Jan-89	-90	0
ALLIANCE	FC562	7007669.553	645560.5804	475.609	RC	75	01-Jan-89	-90	0
ALLIANCE	FC563	7007640.168	645539.6729	474.589	RC	60	01-Jan-89	-90	0
ALLIANCE	FC564	7007696.406	645533.7032	475.769	RC	59	01-Jan-89	-90	0
ALLIANCE	FC565	7007720.584	645503.8429	474.979	RC	45	01-Jan-89	-90	0
ALLIANCE	FC566	7007666.317	645508.9554	474.849	RC	40	01-Jan-89	-90	0
ALLIANCE	FC568	7007753.064	645528.1241	475.409	RC	70	01-Jan-89	-90	0
ALLIANCE	FC569	7007702.426	645590.2312	474.929	RC	100	01-Jan-89	-90	0
ALLIANCE	FC570	7007757.864	645584.3704	474.339	RC	100	01-Jan-89	-90	0
ALLIANCE	FC571	7007783.222	645553.6719	474.729	RC	90	01-Jan-89	-90	0
ALLIANCE	FC572	7007808.79	645523.0636	475.159	RC	70	01-Jan-89	-90	0
NEW_ALLIANCE	FC573	7007714.566	645730.4623	469.359	RC	50	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC574	7007689.127	645761.2207	468.609	RC	70	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC575	7007783.682	645709.6635	469.789	RC	45	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC576	7007770.863	645725.0426	469.359	RC	55	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC577	7007758.143	645740.5218	468.939	RC	70	01-Jan-89	-60	309.5

NEW_ALLIANCE	FC578	7007846.289	645696.6542	469.679	RC	35	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC579	7007808.131	645742.8918	468.839	RC	59	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC580	7007873.942	645725.9877	468.609	RC	40	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC581	7007861.223	645741.3669	468.359	RC	51	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC582	7007848.504	645756.7461	468.099	RC	76	01-Jan-89	-60.53	308.3
NEW_ALLIANCE	FC583	7007901.596	645755.3212	467.749	RC	54	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC584	7007875.456	645786.8785	467.229	RC	85	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC585	7007973.817	645730.7275	467.709	RC	47	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC586	7007961.098	645746.1068	467.439	RC	54	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC587	7007948.379	645761.486	467.169	RC	59	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC588	7008020.6	645736.8923	467.219	RC	53	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC589	7007995.061	645767.7506	466.729	RC	77	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC590	7008096.026	645708.4039	467.469	RC	45	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC591	7008083.306	645723.8831	467.139	RC	53	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC592	7008070.487	645739.2622	466.969	RC	59	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC593	7008139.603	645718.5634	467.109	RC	47	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC594	7008114.065	645749.3217	466.579	RC	71	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC595	7008205.415	645701.6593	466.619	RC	45	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC596	7008192.696	645717.0385	466.599	RC	50	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC597	7008179.976	645732.4177	466.579	RC	58	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC598	7008271.327	645684.7553	466.629	RC	29	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC599	7008233.069	645730.9928	466.629	RC	72	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC600	7008305.29	645706.2992	466.029	RC	45	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC601	7008292.571	645721.7784	466.029	RC	53	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC602	7008279.851	645737.1576	466.029	RC	59	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC603	7008352.072	645712.564	466.029	RC	32	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC604	7008313.814	645758.8014	466.029	RC	74	01-Jan-89	-60	309.5
ALLIANCE	FC606	7007727.614	645559.3025	475.519	RC	74	01-Jan-89	-90	0
ALLIANCE	FC607	7007913.497	645454.8238	472.529	RC	70	01-Jan-89	-90	0
ALLIANCE	FC608	7007888.585	645488.0225	473.359	RC	81	01-Jan-89	-90	0
ALLIANCE	FC609	7007864.406	645519.0927	474.279	RC	95	01-Jan-89	-90	0
ALLIANCE	FC610	7007833.839	645492.1046	474.869	RC	67	01-Jan-89	-90	0
ALLIANCE	FC611	7007858.268	645461.5247	473.469	RC	95	01-Jan-89	-90	0
ALLIANCE	FC612	7007885.717	645430.2392	471.599	RC	53	01-Jan-89	-90	0
ALLIANCE	FC613	7007803.429	645468.0662	474.149	RC	70	01-Jan-89	-90	0
ALLIANCE	FC614	7007829.239	645436.1585	472.859	RC	80	01-Jan-89	-90	0
ALLIANCE	FC615	7007797.668	645412.5884	472.669	RC	80	01-Jan-89	-90	0
ALLIANCE	FC616	7007771.741	645442.6363	473.869	RC	80	01-Jan-89	-90	0

ALLIANCE	FC617	7007748.573	645472.5081	474.469	RC	47	01-Jan-89	-90	0
ALLIANCE	FC618	7007626.921	645525.6568	474.859	RC	59	01-Jan-89	-90	0
ALLIANCE	FC619	7007603.789	645523.0447	474.079	RC	59	01-Jan-89	-90	0
ALLIANCE	FC620	7007617.69	645505.8275	474.319	RC	47	01-Jan-89	-90	0
ALLIANCE	FC621	7007546.333	645527.6429	474.159	RC	59	01-Jan-89	-90	0
ALLIANCE	FC622	7007573.002	645496.6162	474.109	RC	55	01-Jan-89	-90	0
ALLIANCE	FC623	7007490.186	645532.7328	474.559	RC	77	01-Jan-89	-90	0
ALLIANCE	FC624	7007516.055	645501.3951	474.509	RC	59	01-Jan-89	-90	0
ALLIANCE	FC625	7007434.2	645537.1131	474.929	RC	65	01-Jan-89	-90	0
ALLIANCE	FC626	7007458.679	645506.1234	475.049	RC	41	01-Jan-89	-90	0
ALLIANCE	FC627	7007402.782	645511.6936	475.409	RC	53	01-Jan-89	-90	0
ALLIANCE	FC628	7007377.843	645542.2627	475.859	RC	77	01-Jan-89	-90	0
ALLIANCE	FC629	7007352.205	645573.2608	475.219	RC	59	01-Jan-89	-90	0
ALLIANCE	FC630	7007296.428	645578.3413	475.539	RC	53	01-Jan-89	-90	0
ALLIANCE	FC631	7007321.626	645547.9425	476.379	RC	35	01-Jan-89	-90	0
ALLIANCE	FC632	7007347.005	645517.1839	475.739	RC	29	01-Jan-89	-90	0
ALLIANCE	FC633	7007371.714	645486.1945	475.559	RC	35	01-Jan-89	-90	0
ALLIANCE	FC634	7007259.391	645559.8925	476.239	RC	52	01-Jan-89	-90	0
ALLIANCE	FC635	7007839.229	645548.7717	474.189	RC	77	01-Jan-89	-90	0
ALLIANCE	FC636	7007855.746	645406.5414	471.719	RC	11	01-Jan-89	-90	0
ALLIANCE	FC687	7007895.074	645544.5812	473.299	RC	87	01-Jan-89	-90	0
ALLIANCE	FC688	7007613.651	645569.9799	473.369	RC	95	01-Jan-89	-90	0
ALLIANCE	FC689	7007584.54	645546.1833	473.589	RC	77	01-Jan-89	-90	0
ALLIANCE	FC690	7007520.424	645558.3907	473.729	RC	77	01-Jan-89	-90	0
ALLIANCE	FC691	7007464.658	645563.1912	473.939	RC	83	01-Jan-89	-90	0
ALLIANCE	FC692	7007408.552	645567.8213	474.469	RC	83	01-Jan-89	-90	0
ALLIANCE	FC693	7007835.049	645520.5211	474.949	RC	59	01-Jan-89	-90	0
ALLIANCE	FC694	7007859.614	645492.4909	474.659	RC	65	01-Jan-89	-90	0
ALLIANCE	FC695	7007830.609	645464.6652	473.859	RC	47	01-Jan-89	-90	0
ALLIANCE	FC696	7007816.828	645452.508	473.539	RC	41	01-Jan-89	-90	0
NEW_ALLIANCE	FC697	7007808.131	645742.8918	468.839	RC	80	01-Jan-89	-60	309.5
NEW_ALLIANCE	FC698	7008070.487	645739.2622	466.969	RC	65	01-Jan-89	-60	129.5
NEW_ALLIANCE	FC699	7008267.032	645752.5367	466.029	RC	71	01-Jan-89	-90	0
NEW_ALLIANCE	FC700	7008279.851	645737.1576	466.029	RC	59	01-Jan-89	-90	0
NEW_ALLIANCE	FC701	7008227.749	645674.6958	466.999	RC	53	01-Jan-89	-90	0
NEW_ALLIANCE	FC702	7008147.003	645646.7872	468.039	RC	41	01-Jan-89	-90	0
NEW_ALLIANCE	FC703	7008053.438	645634.3577	468.869	RC	39	01-Jan-89	-90	0
ALLIANCE	FC704	7007966.424	645613.3489	470.589	RC	91	01-Jan-89	-90	0

ALLIANCE	FC705	7007891.677	645578.5701	472.869	RC	91	01-Jan-89	-90	0
ALLIANCE	FC706	7007848.154	645451.5423	473.279	RC	59	01-Jan-89	-90	0
NEW_ALLIANCE	FC707	7008134.184	645662.1663	467.939	RC	65	01-Jan-89	-90	0
ALLIANCE	FC758	7007920.703	645513.2931	472.739	RC	65	01-Jan-89	-90	0
ALLIANCE	FC759	7007952.872	645538.2738	471.839	RC	71	01-Jan-89	-90	0
ALLIANCE	FC760	7007926.754	645568.9913	472.739	RC	77	01-Jan-89	-90	0
ALLIANCE	FD10	7007788.732	645610.0891	473.039	DDH	99.2	02-Jan-00	-90	0
ALLIANCE	FD11	7007844.968	645604.8894	473.669	DDH	101.4	02-Jan-00	-90	0
ALLIANCE	FD12	7007875.717	645630.4879	471.179	DDH	99.2	02-Jan-00	-90	0
ALLIANCE	FD4	7007619.259	645626.8872	471.549	DDH	81.2	02-Jan-00	-90	0
ALLIANCE	FD5	7007675.376	645621.7072	472.269	DDH	81.6	02-Jan-00	-90	0
ALLIANCE	FD6	7007650.419	645651.7565	470.969	DDH	97.6	02-Jan-00	-90	0
ALLIANCE	FD7	7007625.369	645682.7854	470.029	DDH	99	02-Jan-00	-90	0
ALLIANCE	FD8	7007680.937	645677.2648	471.009	DDH	99	02-Jan-00	-90	0
ALLIANCE	FD9	7007732.874	645615.9993	473.019	DDH	92.7	02-Jan-00	-90	0
NEW_ALLIANCE	NARC001	7008426.842	645873.2595	465.319	RC	85	09-Jun-95	-60	309.49
NEW_ALLIANCE	NARC002	7008414.033	645888.7085	465.229	RC	100	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC003	7008466.917	645793.4208	465.559	RC	20	31-May-90	-60	309.49
NEW_ALLIANCE	NARC004	7008439.265	645827.2155	465.479	RC	65	08-Jun-90	-90	244.49
NEW_ALLIANCE	NARC005	7008427.196	645842.0358	465.459	RC	52	10-Jun-90	-90	39.49
NEW_ALLIANCE	NARC006	7008427.359	645904.0645	465.169	RC	99.5	24-Jun-90	-60	309.49
NEW_ALLIANCE	NARC007	7008451.208	645780.9509	465.579	RC	25	01-Jun-90	-60	309.49
NEW_ALLIANCE	NARC008	7008440.081	645794.4827	465.769	RC	35	01-Jun-90	-60	309.49
NEW_ALLIANCE	NARC009	7008425.488	645812.2089	465.509	RC	50	02-Jun-90	-60	309.49
NEW_ALLIANCE	NARC010	7008412.599	645827.6479	465.529	RC	65	02-Jun-90	-60	309.49
NEW_ALLIANCE	NARC011	7008399.058	645844.0957	465.539	RC	80	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC012	7008386.238	645859.9647	464.919	RC	90	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC013	7008429.618	645776.1514	465.579	RC	30	02-Jun-90	-60	309.49
NEW_ALLIANCE	NARC014	7008417.29	645791.1513	465.419	RC	40	02-Jun-90	-60	309.49
NEW_ALLIANCE	NARC015	7008404.42	645806.5802	465.459	RC	55	03-Jun-90	-60	309.49
NEW_ALLIANCE	NARC016	7008391.18	645822.4286	465.549	RC	87	11-Jun-90	-90	301.49
NEW_ALLIANCE	NARC017	7008451.949	645872.455	465.209	RC	65	23-Jun-90	-60	309.49
NEW_ALLIANCE	NARC018	7008420.11	645755.1819	465.539	RC	25	06-Jun-90	-60	309.49
NEW_ALLIANCE	NARC019	7008407.231	645770.5309	465.489	RC	40	07-Jun-90	-60	309.49
NEW_ALLIANCE	NARC020	7008394.241	645786.0897	465.459	RC	50	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC021	7008369.821	645803.4121	465.479	RC	75	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC022	7008411.589	645735.3336	465.519	RC	30	07-Jun-90	-60	309.49
NEW_ALLIANCE	NARC023	7008399	645750.633	465.499	RC	40	07-Jun-90	-60	309.49

NEW_ALLIANCE	NARC024	7008385.62	645766.8711	465.609	RC	55	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC025	7008372.911	645781.7605	465.639	RC	70	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC026	7008359.741	645797.459	465.439	RC	80	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC027	7008347.452	645812.6388	465.489	RC	85	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC028	7008334.712	645828.388	465.509	RC	90	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC029	7008286.938	645788.1281	465.659	RC	88	18-Jun-90	-60	309.49
NEW_ALLIANCE	NARC030	7008393.085	645726.3192	465.579	RC	35	09-Jun-90	-60	309.49
NEW_ALLIANCE	NARC031	7008380.527	645741.2687	465.639	RC	45	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC032	7008368.368	645756.2088	466.129	RC	60	12-Jun-90	-90	166.49
NEW_ALLIANCE	NARC033	7008350.531	645777.6597	465.529	RC	76	13-Jun-90	-90	186.49
NEW_ALLIANCE	NARC034	7008339.925	645790.3524	465.569	RC	70	13-Jun-90	-90	122.49
NEW_ALLIANCE	NARC035	7008380.641	645709.9947	465.699	RC	25	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC036	7008373.9	645725.8222	465.629	RC	35	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC037	7008341.982	645757.1315	465.699	RC	70	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC038	7008328.913	645772.3502	465.689	RC	80	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC039	7008317.255	645786.4112	465.669	RC	90	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC040	7008303.695	645802.5691	465.459	RC	90	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC041	7008301.505	645774.4112	465.679	RC	90	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC042	7008362.673	645824.2281	465.099	RC	90	25-Jun-90	-60	309.49
NEW_ALLIANCE	NARC043	7008349.283	645683.8953	466.019	RC	30	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC044	7008336.464	645699.3944	465.889	RC	40	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC045	7008323.544	645714.9933	465.929	RC	50	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC046	7008310.565	645730.3722	465.869	RC	60	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC047	7008297.776	645745.4213	465.929	RC	70	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC048	7008285.017	645760.8605	465.809	RC	80	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC049	7008272.157	645776.4495	465.759	RC	85	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC050	7008330.349	645675.6502	466.149	RC	35	11-Jun-90	-60	309.49
NEW_ALLIANCE	NARC051	7008317.319	645691.4589	466.239	RC	45	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC052	7008252.791	645769.2635	465.929	RC	65	14-Jun-90	-90	86.49
NEW_ALLIANCE	NARC053	7008317.753	645659.6454	466.239	RC	30	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC054	7008305.054	645675.3246	466.399	RC	40	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC055	7008292.254	645690.9437	466.479	RC	47	12-Jun-90	-60	309.49
NEW_ALLIANCE	NARC056	7008280.087	645704.584	466.429	RC	42	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC057	7008266.665	645721.9619	466.339	RC	65	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC058	7008253.896	645737.491	466.259	RC	65	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC059	7008241.376	645752.8805	466.159	RC	70	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC060	7008229.559	645766.8412	466.129	RC	75	18-Jun-90	-60	309.49
NEW_ALLIANCE	NARC061	7008297.046	645653.5674	466.459	RC	30	13-Jun-90	-60	309.49

NEW_ALLIANCE	NARC062	7008283.357	645668.9352	466.579	RC	40	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC063	7008271.056	645684.9749	466.619	RC	50	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC064	7008219.99	645746.0316	466.279	RC	55	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC065	7008201.248	645770.8906	465.939	RC	65	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC066	7008276.735	645649.5195	466.679	RC	30	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC067	7008261.807	645664.3757	466.879	RC	40	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC068	7008249.919	645678.7363	466.919	RC	50	13-Jun-90	-60	309.49
NEW_ALLIANCE	NARC069	7008235.838	645695.5033	466.729	RC	60	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC070	7008223.58	645710.2633	466.579	RC	70	18-Jun-90	-60	309.49
NEW_ALLIANCE	NARC071	7008210.52	645725.732	466.449	RC	45	18-Jun-90	-60	309.49
NEW_ALLIANCE	NARC072	7008197.791	645741.3612	466.339	RC	55	18-Jun-90	-60	309.49
NEW_ALLIANCE	NARC073	7008184.962	645756.3803	466.169	RC	65	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC074	7008252.362	645640.7568	467.059	RC	25	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC075	7008241.361	645657.4382	467.139	RC	35	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC076	7008228.841	645673.1876	467.339	RC	45	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC077	7008198.875	645709.4486	466.719	RC	65	20-Jun-90	-60	309.49
NEW_ALLIANCE	NARC078	7008167.187	645747.6269	466.379	RC	60	20-Jun-90	-60	309.49
NEW_ALLIANCE	NARC079	7008154.939	645762.4269	466.409	RC	70	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC080	7008231.639	645638.538	467.229	RC	30	10-Jun-90	-60	309.49
NEW_ALLIANCE	NARC081	7008218.95	645654.1472	467.439	RC	40	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC082	7008205.64	645669.6456	467.689	RC	50	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC083	7008201.203	645675.0583	467.779	RC	55	20-Jun-90	-78	309.49
NEW_ALLIANCE	NARC084	7008180.351	645700.5242	467.139	RC	70	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC085	7008167.472	645715.7732	466.919	RC	45	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC086	7008154.653	645731.4222	466.799	RC	55	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC087	7008142.013	645746.9116	466.599	RC	65	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC088	7008129.233	645762.5906	466.339	RC	75	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC089	7008116.514	645777.6599	466.139	RC	85	20-Jun-90	-60	309.49
NEW_ALLIANCE	NARC090	7008101.765	645764.7115	466.349	RC	57.5	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC091	7008089.106	645780.2508	466.049	RC	80	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC092	7008137.554	645690.3258	467.749	RC	20	03-Jun-90	-60	309.49
NEW_ALLIANCE	NARC093	7008124.835	645705.3551	467.429	RC	30	03-Jun-90	-60	309.49
NEW_ALLIANCE	NARC094	7008112.285	645720.8945	467.209	RC	45	04-Jun-90	-60	309.49
NEW_ALLIANCE	NARC095	7008098.915	645736.7227	466.799	RC	55	06-Jun-90	-60	309.49
NEW_ALLIANCE	NARC096	7008086.136	645752.0219	466.719	RC	65	06-Jun-90	-60	309.49
NEW_ALLIANCE	NARC097	7008073.447	645767.2812	466.399	RC	75	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC098	7008060.578	645782.6302	466.229	RC	85	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC099	7008121.435	645677.5354	467.849	RC	15	22-Jun-90	-90	351.49

NEW_ALLIANCE	NARC100	7008105.991	645696.4202	467.619	RC	25	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC101	7008045.179	645770.0208	466.599	RC	75	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC102	7008032.369	645785.7398	466.309	RC	85	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC103	7008087.487	645687.5058	468.059	RC	20	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC104	7008074.927	645703.1052	467.639	RC	30	14-Jun-90	-60	309.49
NEW_ALLIANCE	NARC105	7008061.988	645718.5441	467.329	RC	40	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC106	7008048.707	645734.8223	467.119	RC	55	15-Jun-90	-60	309.49
NEW_ALLIANCE	NARC107	7008036.189	645749.6519	466.879	RC	55	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC108	7008023.78	645764.8216	466.659	RC	65	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC109	7008010.54	645780.69	466.449	RC	75	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC110	7007997.591	645796.0889	466.339	RC	85	22-Jun-90	-60	309.49
NEW_ALLIANCE	NARC111	7008059.178	645690.7453	468.109	RC	20	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC112	7008046.519	645705.9446	467.829	RC	30	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC113	7007982.342	645783.0198	466.409	RC	65	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC114	7007969.622	645798.729	466.249	RC	75	23-Jun-90	-60	309.49
NEW_ALLIANCE	NARC115	7008024.669	645701.1247	468.019	RC	25	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC116	7008011.7	645716.6335	467.669	RC	35	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC117	7007999.31	645732.2832	467.449	RC	45	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC118	7007986.331	645747.632	467.149	RC	55	20-Jun-90	-60	309.49
NEW_ALLIANCE	NARC119	7007973.822	645762.7116	466.979	RC	60	20-Jun-90	-60	309.49
NEW_ALLIANCE	NARC120	7007960.993	645777.9507	466.719	RC	65	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC121	7007988.879	645713.292	468.009	RC	20	16-Jun-90	-60	309.49
NEW_ALLIANCE	NARC122	7007938.012	645774.9289	466.929	RC	50	17-Jun-90	-60	309.49
NEW_ALLIANCE	NARC123	7007925.433	645790.0183	466.799	RC	49	19-Jun-90	-60	309.49
NEW_ALLIANCE	NARC124	7007883.124	645716.8223	468.749	RC	25	23-Jun-90	-60	309.49
NEW_ALLIANCE	NARC125	7007797.329	645696.0753	470.159	RC	30	23-Jun-90	-60	309.49
NEW_ALLIANCE	NARC126	7007742.485	645762.9156	468.309	RC	65	24-Jun-90	-60	309.49
NEW_ALLIANCE	NARC127	7007729.816	645778.1149	468.039	RC	75	24-Jun-90	-60	309.49
NEW_ALLIANCE	NARC128	7007677.794	645779.2214	468.159	RC	50	24-Jun-90	-60	309.49
NEW_ALLIANCE	NARC129	7007665.045	645794.2406	467.979	RC	60	25-Jun-90	-60	309.49
NEW_ALLIANCE	NARC130	7008440.077	645889.0152	465.219	RC	85	21-Jun-90	-60	309.49
NEW_ALLIANCE	NARC131	7008455.846	645902.3349	465.149	RC	90	24-Jun-90	-60	309.49
NEW_ALLIANCE	NARC132	7008431.04	645845.5705	465.359	RC	81	25-Jun-90	-90	139.49
NEW_ALLIANCE	NARC133	7008416.464	645830.7527	465.409	RC	65	25-Jun-90	-60	309.49
NEW_ALLIANCE	NARC135	7008442.717	645917.2637	464.989	RC	94	28-Jun-90	-60	309.49
NEW_ALLIANCE	NARC137	7008419.343	645866.5101	465.329	RC	81	29-Jun-90	-60	309.49
NEW_ALLIANCE	NARC138	7008434.632	645879.3993	465.429	RC	85	09-Jul-90	-60	309.49
NEW_ALLIANCE	NARD134	7008421.013	645880.5699	465.229	DDH	89.2	07-Jul-90	-60	309.49

NEW_ALLIANCE	NARD136	7008103.324	645765.7635	466.429	DDH	58	08-Jul-90	-60	309.49
NEW_ALLIANCE	NARD139	7008284.176	645818.4786	466.129	DDH	89	15-Jul-90	-50	354.49
NEW_ALLIANCE	NARD140	7008424.949	645805.1095	466.129	DDH	63	17-Jul-90	-50	264.49
NEW_ALLIANCE	NARD141	7008426.258	645890.1255	462.609	DDH	95	28-Aug-90	-60	309.49
NEW_ALLIANCE	NARD142	7008413.805	645872.6012	465.429	DDH	88	22-Aug-90	-60	309.49
NEW_ALLIANCE	NARD143	7008434.216	645833.7772	465.529	DDH	80	18-Aug-90	-90	261.49
NEW_ALLIANCE	NARD144	7008391.249	645823.5285	465.739	DDH	72	31-Aug-90	-60	309.49

Appendix 2 Definitions

Mineral Resource

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase ‘reasonable prospects for eventual economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

Interpretation of the word ‘eventual’ in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage ‘eventual economic extraction’ as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.

Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions.

Measured Mineral Resource

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

Mineral Reserve

Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proven Mineral Reserves. A Probable Mineral Reserve has a lower level of confidence than a Proven Mineral Reserve.

A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

Mineral Reserves are those parts of Mineral Resources which, after the application of all mining factors, result in an estimated tonnage and grade which, in the opinion of the Qualified Person(s) making the estimates, is the basis of an economically viable project after taking account of all relevant Modifying Factors. Mineral Reserves are inclusive of diluting material that will be mined in conjunction with the Mineral Reserves and delivered to the treatment plant or equivalent facility. The term 'Mineral Reserve' need not necessarily signify that extraction facilities are in place or operative or that all governmental approvals have been received. It does signify that there are reasonable expectations of such approvals.

'Reference point' refers to the mining or process point at which the Qualified Person prepares a Mineral Reserve. For example, most metal deposits disclose mineral reserves with a "mill feed" reference point. In these cases, reserves are reported as mined ore delivered to the plant and do not include reductions attributed to anticipated plant losses. In contrast, coal reserves have traditionally been reported as tonnes of "clean coal". In this coal example, reserves are reported as a "saleable product" reference point and include reductions for plant yield (recovery). The Qualified Person must clearly state the 'reference point' used in the Mineral Reserve estimate.

Probable Mineral Reserve

A Probable Mineral Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

The Qualified Person(s) may elect, to convert Measured Mineral Resources to Probable Mineral Reserves if the confidence in the Modifying Factors is lower than that applied to a Proven Mineral Reserve. Probable Mineral Reserve estimates must be demonstrated to be economic, at the time of reporting, by at least a Pre-Feasibility Study.

Proven Mineral Reserve

A Proven Mineral Reserve is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.
Application of the Proven Mineral Reserve category implies that the Qualified Person has the highest degree of confidence in the estimate with the consequent expectation in the minds of the

readers of the report. The term should be restricted to that part of the deposit where production planning is taking place and for which any variation in the estimate would not significantly affect the potential economic viability of the deposit. Proven Mineral Reserve estimates must be demonstrated to be economic, at the time of reporting, by at least a Pre-Feasibility Study. Within the CIM Definition standards the term Proved Mineral Reserve is an equivalent term to a Proven Mineral Reserve.

Feasibility Study

A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate, at the time of reporting, that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.
The term proponent captures issuers who may finance a project without using traditional financial institutions. In these cases, the technical and economic confidence of the Feasibility Study is equivalent to that required by a financial institution.

Pre-Feasibility Study (Preliminary Feasibility Study)

The CIM Definition Standards requires the completion of a Pre-Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves.

A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.