



**Gold Bull Resources Corp.**

**Mineral Resource Estimate and NI43-101 Technical Report**

**Sandman Gold Property, Nevada, USA**



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Effective Date: January 20, 2021

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# 1. SUMMARY

## 1.1 Introduction

This report was prepared by Steven Olsen (“Consultant” or the “Author”), who has been engaged by Gold Bull Resources Corp. (Gold Bull), a company based in Vancouver, Canada and listed on the TSX Venture Exchange. The report is a summary of all the available information at the Sandman Gold Property (“Sandman” or “the Property”), which is located in Humboldt County, state of Nevada, USA (Figure 1), up to the Effective Date of the report.

This report documents the technical information compiled for the reporting of an updated Mineral Resource Estimate (“MRE”) at Sandman. The report is written in compliance with the disclosure and reporting requirements of the National Instrument 43-101.

Michael Ressel of Mine Development Associates (“MDA”) was engaged by Gold Bull to undertake a field visit and review of the Property with the assistance of management of Gold Bull in addition to a Peer Review of this report. Mr Ressel contributed information to sections 2 and 12 of this report.

## 1.2 Property Location and Ownership

Sandman is located in Townships 36 and 37 North, Ranges 35 and 36 East, Mount Diablo Meridian, Humboldt County, Nevada, USA (Figure 1). The property is situated south of the Slumbering Hills and west of the Tenmile Hills, circa 24km northwest of the town of Winnemucca, Nevada (Figure 8). The property lies 23km south of the Sleeper Mine. Sandman is accessed by driving west from the town of Winnemucca on Jungo Road for 15km, and then an additional 8km to the north on dirt roads that lie largely within the property boundaries (Figure 4).

The Sandman Property is located within Humboldt County, Nevada, and generally described as 117km<sup>2</sup> of checker-board lands consisting of Bureau of Land Management (BLM) and private ownership sections. The Property is made up of a 445 unpatented lode mining claims and approximately 6km<sup>2</sup> of private land holdings in Humboldt County, Nevada. The underlying title for the mining claims and the private land is held in the name of Sandman Resources Inc.

## 1.3 Property History

Gold mineralization was first discovered at Sandman in 1987 by Kennecott in an outcrop at North Hill. By July of 1987, Kennecott and Santa Fe formed the Sandman Joint Venture (“SMJV”) to commence the first known exploration program on the Property.

The work conducted within the joint venture through to 1994 led to the discoveries and partial definitions of the Southeast Pediment, Silica Ridge, and North Hill gold deposits, as well as the identification of the Adularia Hill, Basalt Hills, Basalt Fields, and Abel Flat exploration target areas (Figure 2).

In 1995, claims covering the mineralization at North Hill were dropped and the SMJV property was offered to interested companies. On May 20, 1996, Western States Mining (“WSMCC”) contracted an option-to-purchase agreement on the Sandman project with Kennecott and Santa Fe.

In 1997, Kennecott and Santa Fe ended their joint venture and later conveyed their individual holdings at Sandman to WSMCC subject to royalty interests.

WSMCC and NewWest Gold Corporation (“NewWest”) subsequently conducted extensive exploration of the property, including rock chip and soil sampling, geophysical surveying, trenching, drilling, and metallurgical testing. WSMCC also excavated a test pit at Southeast Pediment measuring roughly 60m long by 15m wide by 5m deep. A 1,067-ton bulk sample of relatively high-grade mineralization was mined and shipped to the Twin Creeks mine of Newmont for milling and leaching.

In 2005 NewWest acquired the property from WSMCC and employed MDA to prepare a 43-101 report.

The work undertaken by MDA culminated in a maiden NI43-101 compliant Mineral Resource estimate which covers the projects of Abel Knoll, Southeast Pediment, Silica Ridge and North Hill and reported a combined Measured and Indicated Resource of 8,033kt @ 1.17g/t gold for 271.9kcozs of gold plus an additional Inferred Resource of 1,418kt @ 0.93g/t gold for 38kcozs of gold.

In 2007 Fronteer acquired the Sandman property from NewWest Gold and then in 2008, formed a joint venture with Newmont. In 2010, the Bureau of Land Management (BLM) approved the exploration plan of operations to allow for exploration drilling activities over Sandman.

In 2011, Newmont acquired Fronteer and initiated Stage 2 studies and reporting, including drilling 364 holes within the Property. In addition, Newmont began Stage 3 initial permitting, including waste characterization, aquifer testing, water rights acquisition, and metallurgical studies.

Since 2012 the exploration activity on the Property has largely been restricted to desktop studies and technical reviews which were completed by Newmont staff and contractors.

The Property was subsequently purchased from Newmont by the current owner, Gold Bull, who formally acquired their interest in the Property on 14 December 2020.

## 1.4 Geology and Mineralization

The gold deposits at Sandman are interpreted to belong to a series of deposits that are dated to be between 14 and 17 million years old. Many of these deposits have formed on major regional faults or rift zones and are interpreted to have formed as a result of the same geological event: a hot spot that was at the time underlying south-east Oregon and is now underlying the Yellowstone Caldera in Wyoming (Figure 9).

The Sandman deposits are proximal to a large regional fault known as the Central Northern Nevada Rift (NNRC) and located some 23km south of the significant Sleeper deposit on the same interpreted major structure.

The Southeast Pediment, Silica Ridge, North Hill, and Abel Knoll Au+Ag mineralization at Sandman is all classified as low-sulfidation, quartz-adularia, epithermal deposits. The mineralization is hosted by Tertiary volcanic rocks, primarily in tuffaceous units, andesite porphyry, tuffaceous sedimentary units, and basalt. North-western Nevada contains a number of similar middle Miocene Au-Ag deposits that occur in silicic volcanic or subvolcanic rocks, including the Sleeper, Tenmile, Midas, National, and Hog Ranch deposits (Conrad et al., 1993).

In general, higher-grade gold mineralization at Sandman can be either stratigraphically controlled along contacts between basalt flows, interbedded fluvial conglomerates and tuffaceous rocks (e.g., North Hill Deposit), or structurally controlled as lens-shaped pods, with high-continuity, lower-grade disseminated gold in sediments and volcanics (e.g., Silica Ridge and SE Pediments Deposits). Quartz-adularia alteration dominates the mineralized zones, whereas propylitic, argillic, and sericitic alteration are associated with the known resource areas more distally.

Much of the property area is covered by windblown sand deposits which effectively cover the underlying prospective host rocks to the gold mineralization. Mapping, exploration drilling, and shallow auger drilling through the sand indicate that they are underlain by the hosts to the gold mineralization of Tertiary tuffaceous rocks and andesite, which in turn overlie Late Triassic to early Jurassic metasedimentary clastic and subordinate carbonate rocks (Figure 8).

## 1.5 Exploration Information and Data Verification

The drill hole database at Sandman contains a total of 265 diamond core (“Core”) holes and 1064 reverse-circulation (“RC”) drill holes. Of these, 257 Core and 660 RC holes relate specifically to the four deposits that are the subject of the reported Mineral Resource Estimate (“MRE”). Data validation steps undertaken by Gold Bull and reviewed by the author has resulted in 249 Core holes and 650 RC holes which have been validated and used as part of the reported MRE for Sandman.

### 1.5.1 Drilling Techniques

The Sandman database consists predominantly of RC holes totalling 1,064 holes. Of these 581 drill holes were drilled vertical with the remainder having an average inclination of -55 degrees, ranging between -40 and -85 degrees. RC drill hole total depths (“TD”) average 114m (376 ft.), ranging between 12.5 and 414.5m (40 to 1,360 ft.). Additionally, Newmont drilled 4 RC pre-collars at SE Pediment in 2011. Core tail TD’s range between 91 and 146m (300 to 480 ft.) and include two vertical and two with inclinations of approximately -70 degrees.

The Sandman database consists of 261 Core holes and 4 Core tails. The majority of these (225 drill holes) were completed by Newmont between 2008 and 2015 and significantly advanced the geologic understanding of the Sandman project. Of these, 45 Core holes were drilled vertical, with the remaining having an average inclination of -56 degrees (ranging between -41 and -85 degrees). Excluding Core tails, the total depths for the drill holes range

between 12 and 274m (40 to 900.3 ft.) with an average depth of 81.5m (268 ft.). 2011 SE Pediment Core tail intervals range between 67 and 22m (220 to 400 ft.) with total depths between 166 and 213m (545 to 700 ft.) and an average depth of 197.5m (648 ft.).

### **1.5.2 Sampling and Sub-sampling Techniques**

RC samples from all Sandman drill programs were collected on five-foot (1.52m) intervals on a majority of drill holes within the project.

Five Core holes were completed by WSMCC in 1996, SEP96-0001C, SEP96-0002C and SEP96-0003C at SE Pediment and SR96-0001C and SR96-0002C at Silica Ridge. Sample intervals for these holes average 2.1 ft.

NewWest completed 19 Core holes between 2006 and 2007. Excluding the non-sampled 20 ft. at collar for AK07-0028C, average sample length for Core holes from Abel Knoll, North Hill and Silica Ridge is 4.8 ft.

Fronteer completed 4 holes at Abel Knoll in 2008, AK08-0054C through AK08-0057C, with Newmont taking over the project towards the end of the program. The first 3 holes were logged by Fronteer personnel, formerly with both WSMCC and NewWest, with logging completed by Newmont personnel on the last two holes of the program. No samples were collected the first 20 to 30 ft. through alluvium in these holes. Average sample length for these holes was 4.8 ft.

Beginning in 2008, Newmont completed a total of 262 Core holes, including 4 SE Pediment Core tails, through to 2012 and an additional 3 Core holes in 2015. Sample breaks were based on lithologic, structural, alteration, mineralization and oxidation boundaries—with typical sample intervals not to exceed 5 to 6 ft. To account for previously documented “nugget-effects” present at Sandman, the majority of Newmont Core was PQ in diameter and whole sampled.

### **1.5.3 Sample Analysis Method**

The majority of all drill programs from both the RC and Core samples were analysed for gold by fire assaying (“FA”) 30-gram charges with atomic absorption spectrometry (“AA”) finish. After 2002, the analysis for almost all of the samples was conducted at American Assay Labs (AAL) based out of Reno. The use of AAL continued up until the last of the drill holes completed by Newmont in 2015.

## **1.6 Mineral Resource Estimate**

The current level of geological understanding of the gold mineralization at all four deposits (Abel Knoll, Southeast Pediment, Silica Ridge and North Hill) on the Sandman property is relatively well understood, based on a high concentration of drilling, including diamond drilling and shallow open pit exposures and follow-up technical research.

A series of mineralized domains were created at each deposit location based on a combination of features that were commonly observed and documented by numerous previous geologist who have documented the key geological features of each deposit and their relationship to the gold mineralization (MDA 2007, Anderson 2013 and Newmont Report 3A, 2012).

The cut-off grade applied to the MRE is based on estimated processing costs and gold recoveries which are commensurate with a gold price of approximately US\$1,800 per ounce (US\$1690 for fresh and US\$1814 for oxide).

Metallurgical information completed to date from Sandman indicates that different processing methods and operating costs will be required for the oxidized rock compared with the fresh unoxidized rock. A cut-off grade of 0.15g/t gold has been applied to the oxidized rock which compares with a cut-off grade for fresh unoxidized rock of 0.3g/t gold.

The following table is a summary of the reported tonnes and grade for the Sandman MRE.

**Table 1: Table of summary totals for the Sandman Inferred and Indicated Mineral Resource estimate.**

Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
<b>INDICATED</b>				
Oxide	0.15	12991	0.63	265,100
Fresh/Unoxidized	0.30	5559	0.94	167,900
<b>INFERRED</b>				
Oxide	0.15	2377	0.46	35,500
Fresh/Unoxidized	0.30	869	0.91	25,300
<b>Total Indicated</b>		<b>18550</b>	<b>0.73</b>	<b>433,000</b>
<b>Total Inferred</b>		<b>3246</b>	<b>0.58</b>	<b>60,800</b>

*Note: In accordance with NI 43-101 recommendations, gold grades for Indicated and Inferred Resources are rounded to two significant figures and the number of metric tonnes are rounded to the nearest thousand. Any discrepancies in the totals are due to rounding effects.*

### 1.6.1 Estimation Methodology

Based on the general dimensions of the interpreted mineralized domains, the general distribution of the drill hole data and the likely mining method, a parent cell block size of 30ft x 30ft x 30ft (9.1m x 9.1m x 9.1m) was chosen for all four deposit areas contributing to the MRE, with sub cells down to 10ft x 10ft x 10ft (3.3m x 3.3m x 3.3m).

Based on a review of the statistical information and review of the possible variograms for each mineralized domain, it was deduced that an interpolation method of (ID<sup>2</sup>) would be used for the block model at each Deposits area.

### 1.6.2 Classification

The determination of the Indicated category was based on all of the available information of the gold distribution within each mineralized domain for which some level of gold grade continuity could be applied. Whilst the gold mineralization at Sandman is nuggety in nature, the average grade over a distance of up to 40m in the plane of each defined Mineralised domain, for both structurally controlled and stratigraphically controlled Mineralised domains could be reasonably determined based on using an average of the surrounding drill hole information allowing for the natural local variations of higher grade and lower grade assay results.

The majority of the mineralized domains were constrained by the currently defined limits of the drill hole information, some of which were either closed out by drilling or contained lower grade assay results on the margins of the defined mineralized domain. The exception to this constraint was for the larger and more continuous structures such as at Southeast Pediment or Silica Ridge whereby the interpolation of each structures was extended to a larger distance due to the interpretation that these structures are much larger and more continuous.

For the mineralized domains that were interpreted to have a potentially larger defined extent than the current drilling has defined, a second pass was completed which extended the search ellipse out to ~120m (360ft). The Blocks which were not filled as part of pass one (Indicated), and subsequently filled as part of pass two, were classified as an Inferred Resource.

### 1.6.3 Mining and Metallurgical Methods and Parameters

The MRE within each of the four deposits were constrained within open pit designs which were used for the purpose of restricting the MRE to gold mineralization that has “reasonable prospects” for eventual economic extraction. The MRE has been reported from within these open pit constraints, and all material outside of the pit constraints has been excluded from the MRE.

Metallurgical information completed to date from Sandman indicates that different processing methods and operating costs will be required for the oxidized rock compared with the fresh unoxidized rock, also referred to as fresh rock.

Metallurgical recoveries of 80% for oxide (assuming heap leach processing at a cost of US\$7 per tonne) and 92% (assuming convention grinding and CIL processing at a cost of US\$15 per tonne) for fresh rock were utilized in the determination of cut-off grades and also used as input assumptions for the pit constraints.

The mining assumptions used for the pit constraints included an overall pit slope angle of 50 degrees, a mining cost per tonne of US\$2 and a General and Administrative (G&A) charge of US\$1 per tonne processed.

## **1.7 Conclusions and Recommendations**

The geological controls on the gold mineralization for the four deposits at Sandman, which are the subject of the updated MRE in this Technical Report, are considered to be well understood. This is largely based on the technical research and multiple high density drilling programs which have been completed by various exploration companies at Sandman since the late 1990's. The culmination of this work, and in particular the activities completed more recently by Newmont (after the previous MRE was reported in 2007) has resulted in an overall upgrade in the total combined ounces reported by approximately 60%.

In addition, there remains significant potential to further increase the size of the MRE based on testing both extensions to the known structures and also new features under post-mineral cover. The ability to locate and define further gold mineralization at Sandman could be greatly improved if the initial tests of the 3D Induced Polarisation ("IP") continue to show the ability to locate the gold mineralization based on the interpretations obtained from both the resistivity and chargeability information.

It is considered possible that the bulk of the current MRE could form part of a new open pit and heap leach mining operation. This would require minimal additional studies to make a detailed assessment with regard to this option. However, it is proposed that further exploration at this stage could add significant new gold mineralization and further improve any potential economic assessment and development plans associated with Sandman.

An initial phase of geophysics and drill testing for the purpose of extending the MRE is expected to cost approximately US\$3.1 million.

## 2. INTRODUCTION

This Technical Report was prepared by Steven Olsen (“Consultant” or the “Author”) who has been engaged by Gold Bull Resources Corp. (Gold Bull), a Company listed on the TSX Venture Exchange. This report has been prepared pursuant to the requirements of the Canadian Securities Administrators National Instrument 43-101 (NI43-101), companion policy 43-101CP and form 43-101F1.

Mr Olsen is the author for this Technical Report and responsible for all sections of the report except for certain exclusions as specified in section 3.0. Mr Michael Ressel of Mine Development Consultants in Reno, Nevada is responsible for conducting the site visit on behalf of Steven Olsen as a result of COVID-19 pandemic travel restrictions. Mr Ressel contributed information for section 2.2 and section 12 of this report; which are specific to the personal inspections that have been undertaken at the Property. Mr. Ressel is a co-author of this report and he has verified the contents of sections 2 and 12 regarding the site visit as accurate.

The effective date of this Technical Report is January 20, 2021.

### 2.1 Sources of Information

This Technical Report is based on a review of information provided by Gold Bull which has been derived from the Sandman Property in addition to public documents and literature sources cited in section 27. An extensive review of all the available information was undertaken both directly by Mr Olsen and with the additional assistance of Gold Bull staff, some of whom had previously worked at the Sandman Property when under the recent ownership of Newmont. Mr Olsen has made judgements about the general quality and reliability of the underlying data.

Key sources of information included the data extraction of all drill hole data derived from a centralised Newmont database and additional summary technical reports and internal Newmont technical reports.

Mr Ressel has conducted a site visit to the property, which complements earlier work and site visitations undertaken by MDA as part of a 2007 Technical Report on the Sandman Property.

### 2.2 Personal Inspections

Michael Ressel conducted a site visit of the Sandman property on January 12, 2021. All Deposits locations subject to the MRE at Sandman addressed by the current study were visited and field verification of historical drill hole locations was made for 36 of 38 pre-determined locations using a tablet-mounted GPS. Additional details with regard to the site visit and inspection of the drill collar locations can be found in section 12.

### 2.3 Qualified Person

Mr Steven Olsen, who is a “Qualified Person” as defined under NI43-101 is an independent contractor, with no direct association or ownership associated with either Gold Bull or the Property. Mr Olsen is a member of the AIG (membership number 7014). Mr Olsen has the required experience that is relevant to the style of mineralization and type of deposit described in the Report. Mr Olsen is responsible for all sections of this report with specific exclusions as defined in section 3.0.

Mr Michael Ressel is a “Qualified Person” as defined under NI43-101 and is an independent contractor and employee of MDA. Mr Ressel has no direct association or ownership with either Gold Bull or the Property. Mr Ressel is a member of the American Institute of Professional Geologists (AIPG #12029) and has the required experience which is relevant to the sections of this Technical Report for which he is responsible. Mr Ressel has undertaken field investigations of the Property and is specifically responsible for section 2.2 of the Technical Report.



### **3. RELIANCE ON OTHER EXPERTS**

The author is not an expert in legal matters, including the assessment of legal validity of mining claims, private lands, mineral rights and property agreements in the United States. The author did not conduct any specific investigations of the environmental, permitting or social-economic issues associated with the Sandman Property and is not an expert with respect to these issues.

The author has relied upon additional independent experts with regard to legal aspects regarding title rights, surface rights and environmental liabilities and encumbrances (Legal Due Diligence Report, 2020 (Mineral Status Report Sandman Project; Humboldt County, Nevada (dated November 15, 2020) prepared by the law firm Erwin Thompson Faillers, Reno, Nevada).

Sections 4.2, 4.3, 4.4, 4.5 and 4.6 are based on information provided by Erwin Thompson Faillers (2020) and the author offers no professional opinions regarding the information provided in section 4.0 and disclaims responsibility for the relevant section of this report to the extent permitted under the NI43-101.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Area and Location

Sandman is located in Humboldt County, Nevada, approximately 24 km by road northwest of Winnemucca, Nevada (Figure 1). The Property can be found using the geographic co-ordinate system at Latitude 41°1.9'N and Longitude 117°57'E and comprises a total of 445 unpatented mining claims for an area of approximately 2,000 ha in addition to approximately 6km<sup>2</sup> of private land parcels (Figure 2).

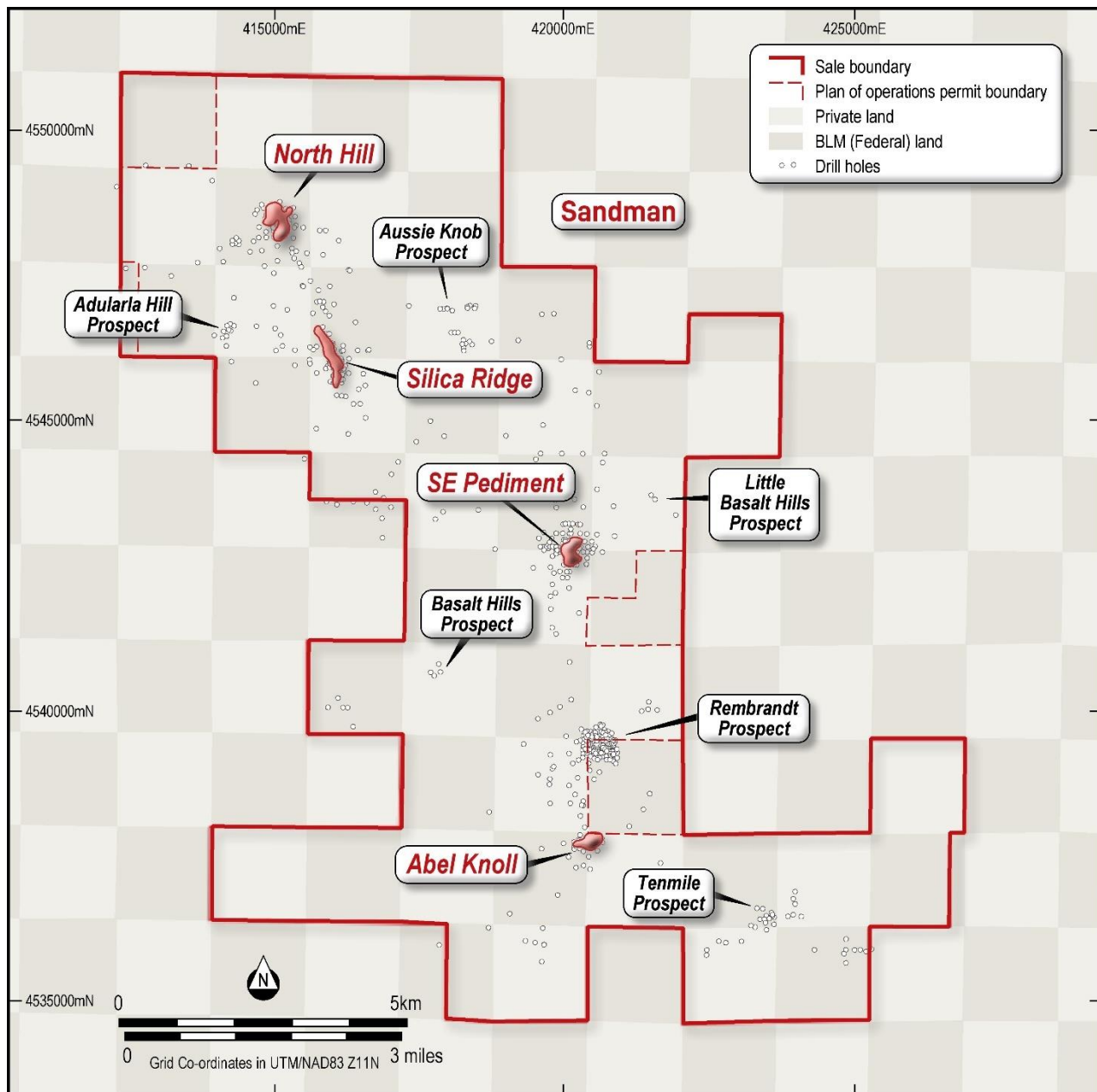
The Property is located in Townships 36 and 37 North, Ranges 35 and 36 East, Mount Diablo Meridian which is situated south of the Slumbering Hills and approximately 17 air kilometres northwest of Winnemucca, Nevada.

Gold mineralization at Sandman has been identified at the Southeast Pediment, Silica Ridge, North Hill, and Abel Knoll deposits. These deposit locations have sufficient gold mineralization for the definition of a MRE which is the subject of this Technical Report.

A number of additional prospects also exist on the Property which to date do not have any current or historical Mineral Resource estimates that have been reported or documented (Figure 2).



**Figure 1: Regional location diagram of the Sandman Property, Nevada, USA. Grid references are based on the Geographic Coordinate System.**

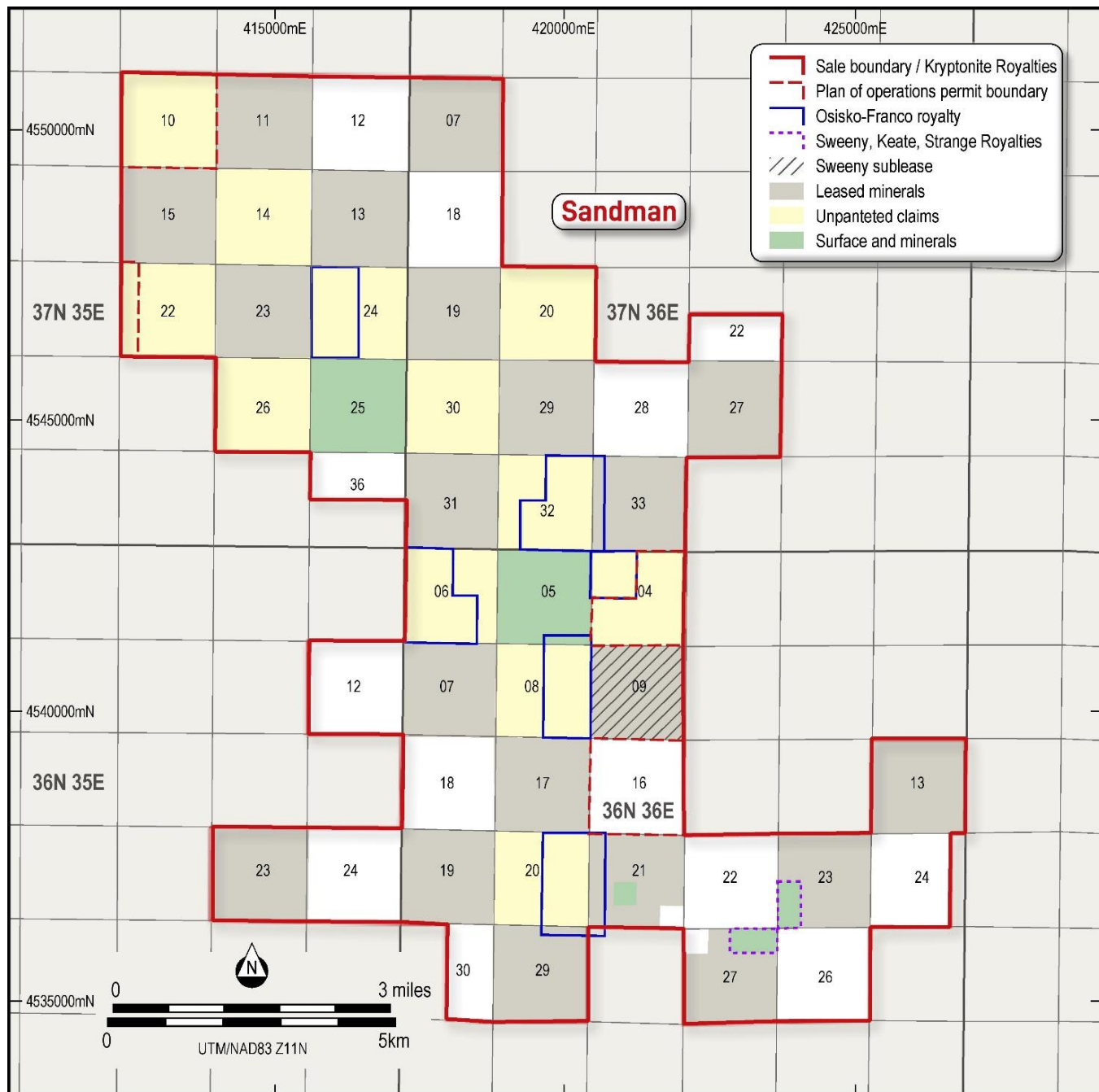


**Figure 2: Sandman Property Mining Claims and location of all major projects and drill collar locations. Grid reference in UTM/NAD83-Z11N.**

## 4.2 Nature of Title and Interest of the Property

The Sandman Property is located within Humboldt County, Nevada, and generally described as 117km<sup>2</sup> of checkerboard lands consisting of Bureau of Land Management (BLM) and private ownership sections. The Property is made up of 445 unpatented lode mining claims and approximately 6km<sup>2</sup> of private land holdings in Humboldt County, Nevada (Figure 3). The underlying title for the mining claims and the private land is held in the name of Sandman Resources Inc. Sandman Resources Inc. is a 100% owned subsidiary of Gold Bull.

Sandman Gold Property  
 Mineral Resource estimate – Technical Report



**Figure 3: Sandman Property comprised of checker-board lands consisting of BLM and private ownership sections. Sections with royalty agreements also shown, as well as the Exploration Permit Boundary outlined in the active Plan of Operations.**

### 4.3 Surface rights

The Property includes a variety of interests described as follows:

1. Fee land surface rights owned by Sandman Resources Inc. described below (the “Owned Fee Lands”).
  - (a) T37N, R35E, Section 25 APN 005-281-030, title vested in Sandman Resources Inc.
  - (b) T36N, R36E, Section 5, APN 005-361-02, title vested in Sandman Resources Inc.
  - (c) T36N, R36E, Section 21 (Lot10) APN 005-627-10, title vested in Sandman Resources Inc.
  - (d) T36N, R36E, Section 23 (W2SW4) APN 005-366-15, title vested in Sandman Resources Inc.
  - (e) T36N, R36E, Section 27 (N2NE4) APN 005-361-33, title vested in Sandman Resources Inc.
2. Mineral rights in fee lands leased or owned by Sandman Resources Inc. described below (collectively the “Mineral Rights”).

Owned Fee Land Mineral Rights

- (a) T36N, R36E, Section 23 (W2SW4), title vested in Sandman Resources Inc.
- (b) T36N, R36E, Section 27 (N2NE4), title vested in Sandman Resources Inc.

Leased Fee Land Mineral Rights

- (a) T37N, R35E, Sections 11, 13, 15, 23 and 25, New Nevada Resources, LLC, Lessor.
- (b) T37N, R36E, Sections 7, 19, 27, 29, 31 and 33, New Nevada Resources, LLC, Lessor.
- (c) T36N, R35E, Section 23, New Nevada Resources, LLC, Lessor.
- (d) T36N, R36E, Sections 5, 7, 9, 13, 17, 19, 21 (except SESE), 23 (except W2SW), 27 (except NWNW and N2NE) and 29, New Nevada Resources, LLC, Lessor.

3. Unpatented mining claims owned by Sandman Resources Inc. described in Exhibit A (collectively the “Claims”).

Operations on and the maintenance of the surface rights for the unpatented mining claims at Sandman are subject to regulation which is administered by the Bureau of Land Management (BLM).

Investigations by Erwin Thompson Faillers (2020) have identified that the Mining Claims are effective and in good standing with the BLM federal laws and regulations until September 1, 2021 and with the Office of the Humboldt County Recorder until November 1, 2021.

The privately owned parcels have surface rights to the Minerals which have their title vested in the name of Sandman Resources Inc. (Erwin Thompson Faillers, 2020).

Some sections of both the private and public lands are subject to royalties as described in section 4.4.

#### 4.4 Royalties and Property Titles

Certain portions of the Property are subject to contractual obligations and royalties which are described in Table 2.

**Table 2: Summary table of leases and royalty agreements for the Sandman Property (Erwin Thompson Faillers, 2020).**

Description	Parties (Sandman Resources Inc. is the successor of Newmont USA Limited)	Document Date	Recording Information
Royalty Reserved in Deed On fee land located in T36N R36E Section 23 and 27, in Humboldt County. \$20,000 annual advance royalty, 3% NSR, to total of \$750,000, then 1% thereafter. \$450,000 paid to date.	Newmont USA Limited, a Delaware corporation; payable to Sweeney Mining Rock & Sand, LLC	12/6/2000	Humboldt County Document 2000 5500, recorded 12/27/2000
Royalty Reserved in Deed On fee land located in T36N R36E Section 23 and 27, in Humboldt County. 2.5% NSR to total of \$1,000,000, then 1.25% NSR. Expires in 2094.	Newmont USA Limited, a Delaware corporation; payable to Keate, et, al.	11/1/1995	Humboldt County Document 1996 2452, recorded 4/10/1996
Royalty Reserved in Deed On fee land located in T36N R36E Section 23 and 27, in Humboldt County. 2.5% NSR to total of \$1,000,000, then 1.25% NSR. Expires in 2094.	Newmont USA Limited, a Delaware corporation; payable to Strange et, al	2/20/1997	Humboldt County Document 1997 3180, recorded 3/3/1997
Royalty Agreement On the Able, Nap and Sand unpatented claims (114 claims). .5674% NSR up to 200,000 oz of gold produced.	Newmont USA Limited, a Delaware corporation; payable to Franco-Nevada US Corporation	9/22/1997	Humboldt County Document 1997 9890, recorded 11/17/1997
Royalty Agreement On the Able, Nap and Sand unpatented claims (114 claims). .4362% NSR up to 200,000 oz of gold produced.	Newmont USA Limited, a Delaware corporation; payable to Osisko Mining (USA) Inc.	9/19/1997	Humboldt County Document 1997 9890, recorded 11/17/1997
Royalty Agreement On the Able, Nap and Sand unpatented claims (114 claims). 5% NSR after 300,000 oz of gold produced.	Newmont USA Limited, a Delaware corporation; payable to Osisko Mining (USA) Inc.	9/19/1997	Humboldt County Document 1997 9890, recorded 11/17/1997
Mining Lease Fee Lands T37N R35E Sections 23, 25; T36N R36E Sections 5, 17, 21 (partial). Royalty payable to the lessor is 1.5% NSR	New Nevada Resources, LLC; Newmont USA Limited, a Delaware corporation	12/3/2014	Humboldt County Document 2014-04448, recorded 12/10/2014
Mining Lease Fee Lands Partial Assignment of leased interest located in T36N R35E Section 23; T36N R36E Sections 7, 9, 13, 19, 23 partial, 27 (partial), 29; T37N R36E Sections 7, 19, 27, 29, 31, 33; T37N R35E Sections 11, 13, 15. Royalty payable to the lessor is 2.125% NSR	New Nevada Resources, LLC; Newmont USA Limited, a Delaware corporation	12/3/2014	Humboldt County Document 2014-04449, recorded 12/10/2014
Mining Sublease Agreement Fee Lands from Newmont to Sweeney Mining Rock & Sand, LLC and Steven M. Gorin T36N R36E, Section 9, in Humboldt County. Royalty payable to the sublessor is 5% NSR inclusive of royalty of 2.125% NSR payable to New Nevada Resources LLC, the lessor.	Newmont USA Limited, a Delaware corporation, sublessor; Gorin, Steven M. (50%); Sweeney Mining Rock & Sand, LLC (50%), sublessees	8/15/2016	Humboldt County Document 2016-02561, recorded 8/01/2016
Road Easement T36N R36E, Section 5 in Humboldt County.	Linda and Dean Ames; Newmont USA Limited, a Delaware corporation	9/26/2011	Humboldt County Document 2011 5657, recorded 11/02/2011
Royalty Agreement On the Sale Boundary; 0.5% NSR	Sandman Resources Inc. a Nevada corporation; payable to Kryptonite LLC	12/14/2020	Humboldt County Document 2021-02618, recorded 11 March 2021

## 4.5 Environmental Liabilities and Encumbrances

A December 29, 2020 bond Decision letter from the Nevada State Office documents that Sandman Resources Inc. has provided financial assurance for the project in the amount of \$1,347,515 to replace Newmont's bond for the Sandman Property. The December 29, 2020 letter also documents that BLM has transferred the Sandman Exploration Plan of Operations (NVN086324) from Newmont to Sandman Resources Inc.

This bond amount covers Phase 1 of the Plan of Operations, which authorizes 316.8 acres of surface disturbance on public and private lands. Newmont's annual reclamation form for 2019 showed 34.52 acres of surface disturbance on private land and 41.36 acres of surface disturbance on public lands, for a total of 75.88 acres of surface disturbance under Phase 1. Newmont did not create any additional surface disturbance during 2020.

In addition, a Surface Area Disturbance Permit was recently issued by NDEP. Sandman Resources Inc. plans to work with the Humboldt County Regional Planning Commission to transfer the Conditional Use Permit for the Sandman Property to Sandman Resources Inc.

## 4.6 Permits Required for Conducting Exploration Activities

The Humboldt River Field Office, Nevada office of United States Department of Interior, Bureau of Land Management (BLM), and the Nevada Division of Environmental Protection (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) are responsible for managing the surface and subsurface mineral rights for the Sandman area. The Property currently has in place a Plan of Operations/Permit for Reclamation Record Number N-086324/Reclamation Permit No. 0303, finalized March, 2010. The permit covers exploration activities including a) drilling reverse circulation and core holes; b) geologic and geophysical mapping; c) construction of exploration roads, drill sites, and sediment traps; d) the use of overland travel for access to Project activities; e) the construction of trenches for the collection of bulk samples; l) the installation and operation of ground water monitoring wells; and g) the maintenance of the pre-1981 roads within the Property Area and the Property Access roads. These activities have been permitted under the Plan of Operations with proposed surface disturbance of roughly 500 acres (~2 km<sup>2</sup>).

Gold Bull has agreed to provide documentation on the areas of planned exploration prior to commencing exploration in a given year, at least one month in advance with specific locations of rocks and drill sites. The BMRR will review the reclamation cost estimate annually, rather than every three years, for this Property. An annual report, due on or before April 15th of each year is also required, that documents surface disturbance locations, types of surface disturbance, and any completed concurrent reclamation.

The Plan of Operations covers the Sandman area that includes approximately 14,103 acres (57 km<sup>2</sup>) of private lands and approximately 13,485 acres (55 km<sup>2</sup>) of public (BLM) lands (Figure 2).

As of the effective date of this report, there are no identified impediments to obtaining the required approvals for the planned exploration activities at Sandman.

## 4.7 Significant Factors and Risks

The information documented in this Report for Sandman is largely defined by a historical drilling database. The database has more recently been updated and supported by a significant amount of diamond drilling by Newmont over key portions of the MRE, the results of which, in the view of the author, has significantly reduced the risk associated with the MRE.

There still remains some level of risk associated with the older RC drilling results and the inherit nuggety nature associated with the gold mineralization at Sandman. Steps have been taken associated with the interpolation and estimation parameters used for the MRE to mitigate to some level these potential risks.

Given the nature of the drill hole database, and the level of geological understanding of the gold mineralization at Sandman, the author considers that there is a high level of confidence in the overall MRE, particularly for the Indication sections of the MRE. However, there is no guarantee that further exploration will result in a larger and/or higher classification of Mineral Resource.

In the absence of a higher level of study which includes an assessment of all the required modifying factors to identify an economically viable Project at Sandman, there remains a risk that further studies will not lead to a financially viable Mining Project.

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

### 5.1 Access

The Property can be accessed by driving west from Winnemucca on Jungo Road for 15 km and a further 9 km to the north on dirt roads that lie largely within the property boundaries (Figure 3). These unimproved dirt roads would have to be upgraded for regular access during mining.

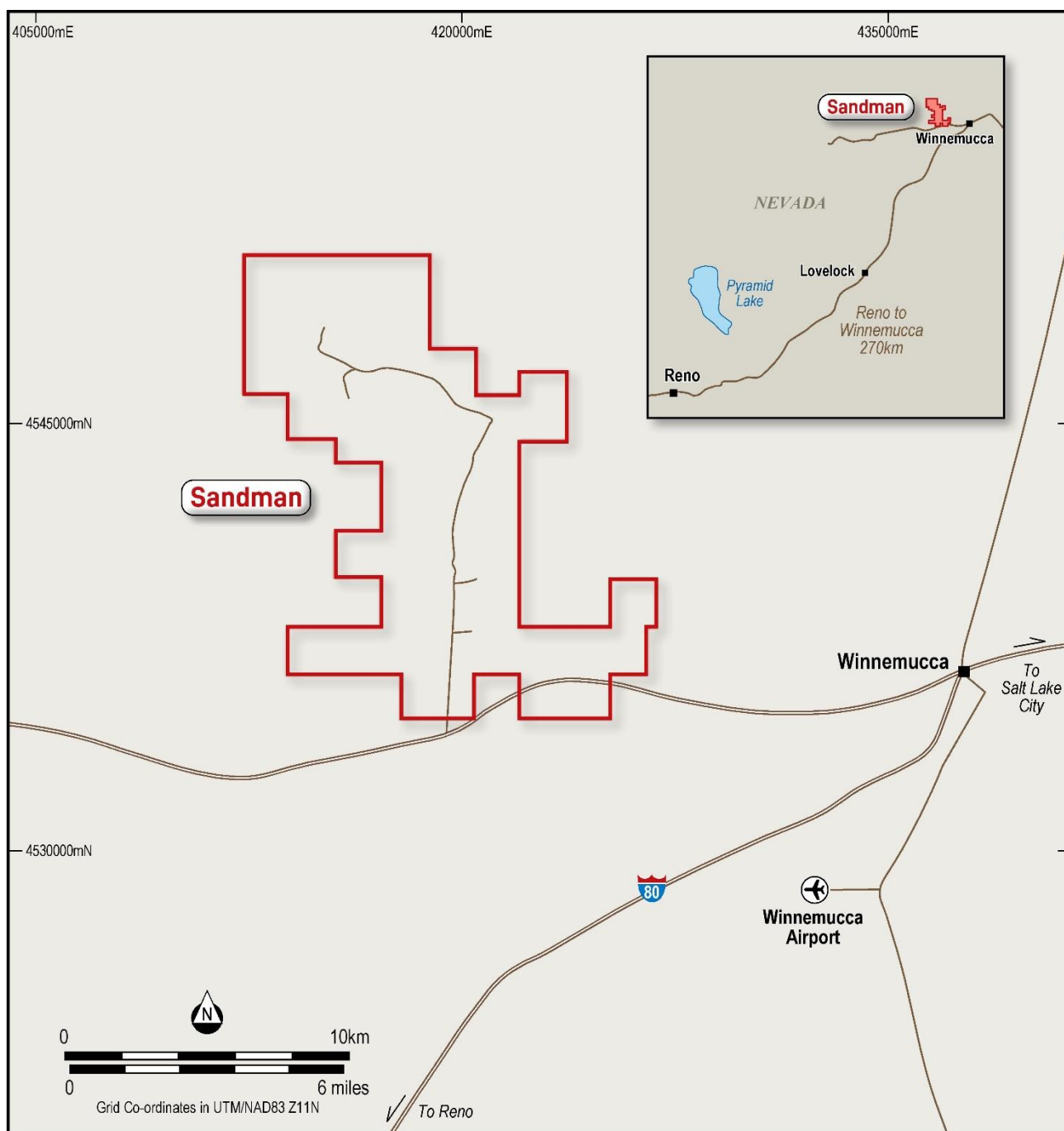


Figure 4: Map highlighting typical travel route from to the Sandman Property from the closest township of Winnemucca.



## 5.2 Physiography

The Property area sits in a zone of moderate relief west of the Tenmile Hills. The terrain ranges from flat valleys to rolling hills with an elevation range of 3,500ft to 5,000ft (915m to 1,524m). Common landscape features comprise basalt-capped hills, angle-of-repose talus slopes, and sand dunes.



**Figure 5: Typical view of the Sandman Property area with sparse vegetation typical of the Nevadan high desert country.**

## 5.3 Climate

The climate at Sandman is classified as cold semi-arid. It has long cold winters, with approximately 2ft of annual snow, and relatively short summers. Local area precipitation is six to ten inches annually with most occurring as winter snows and, to a lesser extent, summer thunder showers.

The maximum daytime summer temperatures are generally below 100° F (37.8°C) and the night-time temperatures usually exceed 40° F (4.4°C). Winter temperatures are generally from the high 50° F (10°C) to less than 0° F (-17.8°C) Fahrenheit.

There are no reported perennial water sources in the area.

Monthly climate information from the nearby township of Winnemucca is shown in Figures 6 and 7 which is located just 14km away from the Property and at a similar elevation, which is considered to closely match the weather information of Sandman.

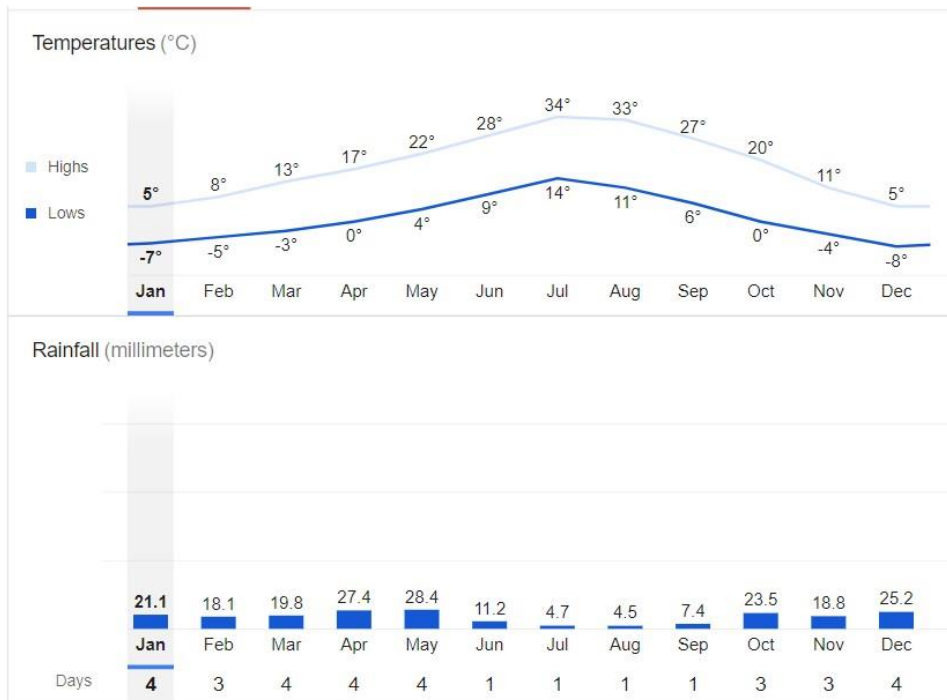


Figure 6: Winnemucca monthly temperature and climate data sourced from [www.usclimatedata.com](http://www.usclimatedata.com).

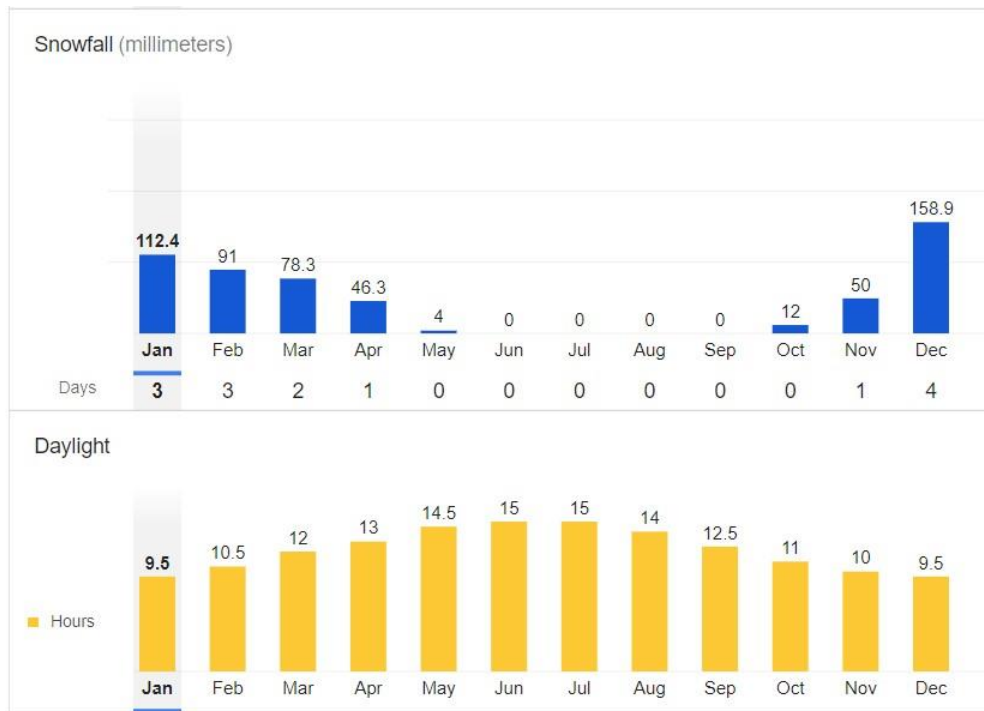


Figure 7: Winnemucca monthly snowfall and daylight hours sourced from [www.usclimatedata.com](http://www.usclimatedata.com).

## 5.4 Flora and Fauna

The aridity of the site makes the property scarce in vegetation, resulting in unstable surface soils composed of very sandy and loose materials.

Sagebrush and bunchgrasses are the most common plants. Cheat grass is very common in areas that have been burned in the past.

## **5.5 Local Resources and Infrastructure**

The city of Winnemucca is located 24 km in a south eastly direction from Sandman and is the most proximal regional center for the servicing of mining activities. Winnemucca has a population of approximately 10,000 inhabitants and is located on Interstate Highway 80. Its services mining operations at the Newmont Twin Creek open pit gold mine.

A power line traverses the Sandman area but reportedly not sufficient for mining activity (reference). A natural gas line passes south of the property limits.

The topography within the property area includes abundant flat-lying areas that are favorable for mining facilities. There are no permanent or perennial streams on the Sandman property. At the Southeast Pediment prospect, six drill holes encountered water at depths of 65 to 75 ft within a west dipping andesitic-basalt. This geological unit forms an aquifer that could potentially be used as a source of water for a mining operation (Lanier and Ashton, 2003).

## 6. HISTORY

### 6.1 Past Exploration

Gold mineralization was first discovered at Sandman in 1987 by Kennecott in an outcrop at North Hill. By July of 1987, Kennecott and Santa Fe formed the Sandman Joint Venture (“SMJV”) to commence the first known exploration program on the Property, which comprised of, detailed mapping, sampling, and three gradient-array induced polarization (“IP”)-resistivity, aeromagnetic, and gravity geophysical surveys through to 1994.

The joint venture drilled 275 reverse-circulation (“RC”) holes and three diamond-drill core (“core”) holes in this period, as well as 4,000 shallow auger holes to sample bedrock beneath the extensive sand cover. IP-resistivity surveys were also conducted as part of the joint venture in Abel Knoll, Southeast Pediment, and North Hill areas, operated by Great Basin Geophysical, Inc. and Practical Geophysics.

A series of trenching was also completed during this time period for a reported combined length of 7,200ft (2,195m). This information obtained from the trenching aided the interpretation associated with the North Hill, Silica Ridge and South East Pediment deposits, along with the identification of new targets at Adularia Hill and Abel Knoll (MDA, 2007).

Further exploration completed at Southeast Pediment (a deposit covered by post-mineral gravels) included float mapping, sampling, geophysics, and drilling programs.

In 1989, Kennecott added claims purchased from U.S. Borax to the project, which drilled 37 reverse-circulation holes of the RR series with a total of 12,570 ft on these claims in 1988.

In 1990, exploration in the project was extended by Santa Fe, and by year 1994, 64 reverse-circulation holes were drilled in DSA-series for a total of 35,880 ft. This drilling concentrated on the Southeast Pediment deposit, the Abel Knoll target area, and an area referred to by the SMJV as Basalt Fields.

The work of conducted within the joint venture to 1994 led to the discoveries and partial definitions of the Southeast Pediment, Silica Ridge, and North Hill gold deposits, as well as the identification of the Adularia Hill, Basalt Hills, Basalt Fields, and Abel Flat exploration target areas (Figure 2).

In 1995, claims covering the mineralization at North Hill were dropped and the SMJV property was offered to interested companies. On May 20, 1996, WSMCC contracted an option-to-purchase agreement on the Sandman project with Kennecott and Santa Fe.

In 1997, Kennecott and Santa Fe ended their joint venture and later conveyed their individual holdings at Sandman to Western States Mining (“WSMCC”) subject to royalty interests.

WSMCC and NewWest Gold Corporation subsequently conducted extensive exploration of the property, including rock chip and soil sampling, geophysical surveying, trenching, drilling, and metallurgical testing. WSMCC also excavated a test pit at Southeast Pediment measuring roughly 60m long by 15m wide by 5m deep. A 1,067-ton bulk sample of relatively high-grade mineralization was mined and shipped to the Twin Creeks mine of Newmont for milling and leaching.

In 2005 NewWest acquired the property from WSMCC and employed Mine Development Associates to prepare a 43-101 report.

In 2007 Fronteer acquired the Sandman property from NewWest Gold and then in 2008, formed a joint venture with Newmont. In 2010, the Bureau of Land Management (BLM) approved the exploration plan of operations to allow for exploration drilling activities over Sandman.

In 2011, Newmont acquired Fronteer and initiated Stage 2 studies and reporting, including drilling 364 holes within the Property. In addition, Newmont began Stage 3 initial permitting, including waste characterization, aquifer testing, water rights acquisition, and metallurgical studies.

Since 2012 the exploration activity on the Property has largely been restricted to desktop studies and technical reviews which were completed by Newmont staff and contractors.

The Property was subsequently purchase from Newmont by the current owner, Gold Bull, who formally acquired a 100% interest in the Property on 14 December 2020.

## 6.2 Historical Resources and Reserves Estimates

In the early 1990's to 2002, several internal companies completed the internal-use-only resource estimations for Southeast Pediment, Silica Ridge, and North Hill deposits. These estimates were not reported in accordance with NI43-101 standards and have not been reviewed in any detail by the author.

In 2005 NewWest engaged MDA to complete an NI43-101 compliant Mineral Resource estimate, which was reported on 31 May 2007. The Mineral Resource estimate completed by MDA in 2007 is latest estimate to be reported in compliance with NI43-101 standards.

Table 3 shows the historical mineral estimate as reported in the 2007 Technical Report for the Sandman Property by MDA in 2007.

**Table 3: Reported Mineral Resource estimate from the May 2007 Technical Report completed by MDA.**

Deposit	MEASURED				INDICATED				MEASURED & INDICATED			
	Tons	Grade (oz Au/ton)	Grade (g/t)	Au Ounces	Tons	Grade (oz)	Grade (g/t)	Au Ounces	Tons	Grade (oz Au/ton)	Grade (g/t)	Au Ounces
Southeast Pediment	644,000	0.07	2.40	45,300	1,300,000	0.034	1.17	44,500	1,944,000	0.046	1.58	89,800
North Hill	387,000	0.037	1.27	14,400	2,684,000	0.029	0.99	78,400	3,071,000	0.03	1.03	92,800
Silica Ridge	511,000	0.032	1.10	16,200	1,382,000	0.028	0.96	39,000	1,893,000	0.029	0.99	55,200
Able Knoll	168,000	0.037	1.27	6,200	957,000	0.029	0.99	27,900	1,125,000	0.03	1.03	34,100
<b>Totals</b>	<b>1,710,000</b>	<b>0.048</b>	<b>1.65</b>	<b>82,100</b>	<b>6,323,000</b>	<b>0.03</b>	<b>1.03</b>	<b>189,800</b>	<b>8,033,000</b>	<b>0.034</b>	<b>1.17</b>	<b>271,900</b>

Deposit	INFERRED			
	Tons	Grade (oz Au/ton)	Grade (g/t)	Au Ounces
Southeast Pediment	109,000	0.026	0.89	2,800
North Hill	294,000	0.021	0.72	6,200
Silica Ridge	518,000	0.014	0.48	7,400
Able Knoll	497,000	0.043	1.47	21,600
<b>Totals</b>	<b>1,418,000</b>	<b>0.027</b>	<b>0.93</b>	<b>38,000</b>

Subsequent work undertaken by Newmont since 2007 did include updated resource estimates and additional studies and reports for the purpose of developing a proposed mine plan for the Property. However, the work completed for Newmont was developed for internal purposes only and not updated to be in compliance with NI43-101 standards.

Some of the technical work completed by Newmont has been referenced in this Technical Report where applicable to support the updated MRE defined in this report.

## Sandman Gold Property

### Mineral Resource estimate – Technical Report

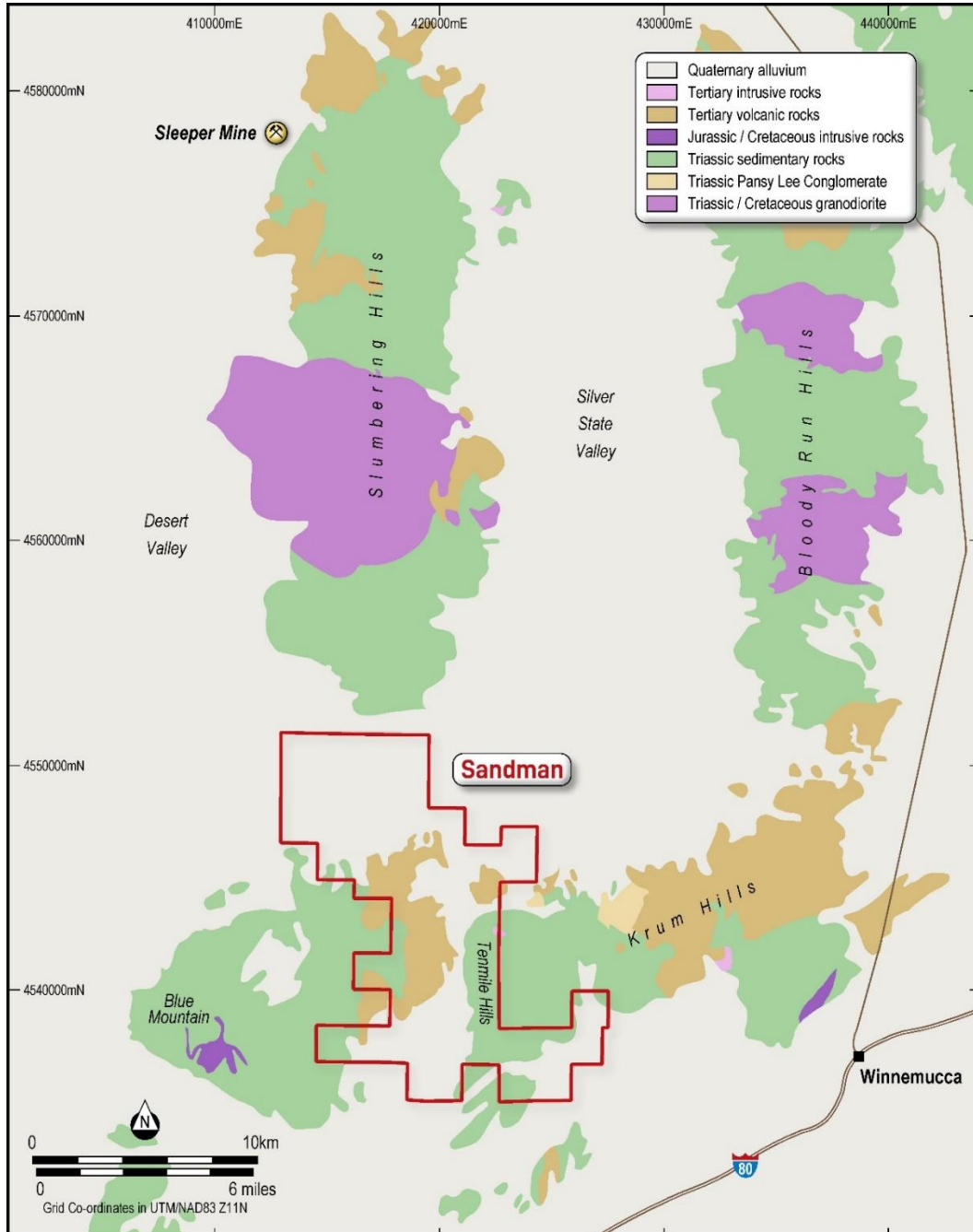
Since the previous Mineral Resource estimate completed by MDA in 2007, there has been a number of significant changes to the information available from the Deposits which make up the MRE including the addition of some 106 RC drill holes and 216 diamond holes, a more detailed review of the gold variability within each deposit, further metallurgical test work, and detailed geological technical reviews and updated interpretations.

The combined factors above have led to the most significant changes to the Mineral Resource estimate since 2007.

## 7. GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

Sandman is located within the northern Nevada Basin and Range setting with the surrounding north trending ranges hosting outcrops of Tertiary aged sedimentary and volcanic rocks in addition to some outcropping sections of Triassic and Jurassic aged basement rocks. The surrounding valleys (which occupy a larger surface area) are covered by Quaternary alluvium (Figure 8).

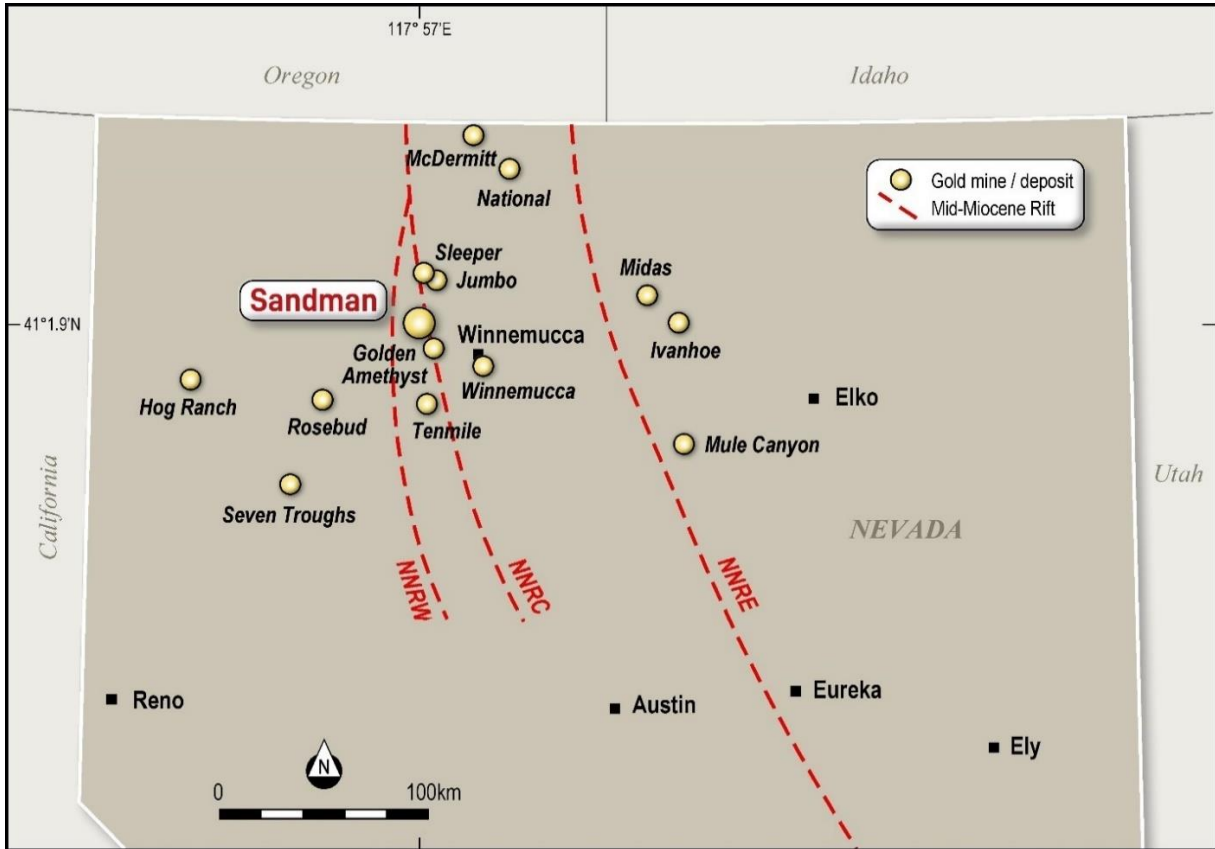


**Figure 8: Regional geological setting of the Sandman property highlighting the north-south trending basement and Tertiary aged within the northerly striking mountain ranges surrounded by Quaternary alluvium rocks in the valley floors.**

The dominant host rocks at Sandman and the immediately surrounding region are mid-Tertiary volcanoclastic sediments, rhyolitic tuffs, conglomerates, and andesite/basalt flows associated with bimodal volcanism.

The Sandman deposits belong to the basalt-rhyolite assemblage that are interpreted to have formed in a rift environment. The regional structural framework and gold mineralization at Sandman is interpreted to be associated with the central Northern Nevada Rift (“NNRC”).

Dating of the alteration associated with the gold mineralization at the nearby Tenmile deposit and other surrounding deposits yields ages between 14 and 17Ma. The spatial location of these deposits along with reported timing has provided the basis for its association with the Yellowstone Hotspot (Saunders, 2015). There are a series of epithermal gold deposits that are also attributed to the Yellowstone Hot spot that exist along strike of Sandman within the interpreted NNRC. These include the significant Sleeper gold deposit which lies approximately 23km due north of Sandman (Figure 9)



**Figure 9: The location of the Sandman project area relative to surrounding epithermal gold deposits of a similar age and interpreted genetic association (after Saunders, 2015)**

**7.1.1 Stratigraphy**

The stratigraphic rock sequence is predominantly composed of underlying basement rock sequences of metamorphosed sedimentary rocks, which are unconformably overlain by a thick sequence of Tertiary rhyolitic lithic and tuffaceous rocks (dominant host rocks to the Abel Knoll (“AK”), Southeast Pediment (“SEP”), Silica Ridge (“SR”) and North Hill (“NH”) deposits). The Tertiary volcanic rocks were subsequently intruded by andesite porphyry dikes, sills and intrusive breccias. The youngest host rocks to the gold mineralization are a series of discrete basalt flows.

Post gold mineralization, a significant portion of the Sandman area is unconformably overlain by young (Holocene age) alluvium, colluvium and eolian sand deposits.

Basement Rocks (Triassic)

**Triassic O’Neill Formation**

The oldest formation recognised at Sandman is the O’Neill Formation, which is defined as a thick sequence of monotonous interlayered olive-tan argillite and phyllite, and discontinuous beds of feldspathic and locally muscovite-bearing quartzite. This sequence grades into the overlying Raspberry Formation with the upper contact of the O’Neil formation typically defined at the top of the last prominent quartzite bed.



### **Raspberry Formation**

The Raspberry Formation is lithologically similar to the O'Neill Formation but is differentiated by the local presence of calcareous units, including limestone. This formation conformably overlies the O'Neill formation and is unconformably overlain by Tertiary volcanic rocks in the property area. This formation consists of approximately 85 to 90% muscovite phyllite and siltstone.

#### Tertiary Volcanic Rocks

### **Tertiary Volcanic Rocks**

This unit consists of felsic tuffaceous rocks, early Miocene andesite intrusions, and early Miocene basalt flows. These volcanic rocks play a major role as hosts of gold mineralization at Sandman.

The poorly exposed tuffaceous unit is lithic-rich and includes lithic fragments of presumably Tertiary rhyolite, Late Triassic phyllite, siltstone and quartzite, and chert of unknown derivation supported in a rhyolitic (quartz-bearing) tuffaceous matrix. The tuffaceous unit is the main host of gold mineralization at the SEP and SR deposits.

The early Miocene basalt flows were deposited on an erosion surface developed on the tuffaceous section and represents the youngest known host rocks at Sandman. Locally the basalt is hydrothermally altered, and the base of the basalt section is commonly a good host for gold mineralization.

Although precious-metal mineralization is equivalent in age and style to mid-Miocene Northern Nevada Rift, volcanic rocks of this age are not recognized at Sandman.

### **Intrusive Rocks**

Small granitic stocks and numerous related apophyses, dikes, and sills have been mapped at or near Sandman, referred to as Mesozoic intrusions. The Basalt Hills pluton is the only mapped stock-sized granitic intrusion that lies within the property.

Andesite porphyry is the classification given to a group of mafic intrusive rocks that are similar in appearance to a sill at SEP with prismatic hornblende phenocrysts, some of which appear diamond-shaped in cross section. Andesite intrusions, both sills and dikes, are important hosts of mineralization at NH, SEP, AK, and SR.

A large basaltic dike with associated small apophyses occurs on the western side of Little Tabletop Mountain. Because of its proximity to the younger mafic flows on Little Tabletop Mountain, it is considered related and approximately the same age as the flows.

### **Quaternary Sedimentary Rocks**

Vast unconsolidated Quaternary deposits exist at Sandman. Steeper slopes consist of alluvial pediment gravels and colluvial deposits.

Two active fields of sand dunes cross the property area with an east-northeast alignment (the prevailing winds originate from the west-southwest).

Significant alluvial deposits are associated with the Humboldt River located just south of Little Tabletop Mountain.

## **7.1.2 Structure**

There are a series of major structural trends which appear to have an important influence on the location of the gold mineralization at Sandman. Some fault orientations are also identified to have been active post mineralization and have resulted in an offset in both the stratigraphy and bedding parallel to gold mineralization.

The regional magnetic image of the Sandman area shows the dominant structural trends that exist throughout the Property area most of which are supported by the geological information identified from the drilling results and interpretations (Figure 10).

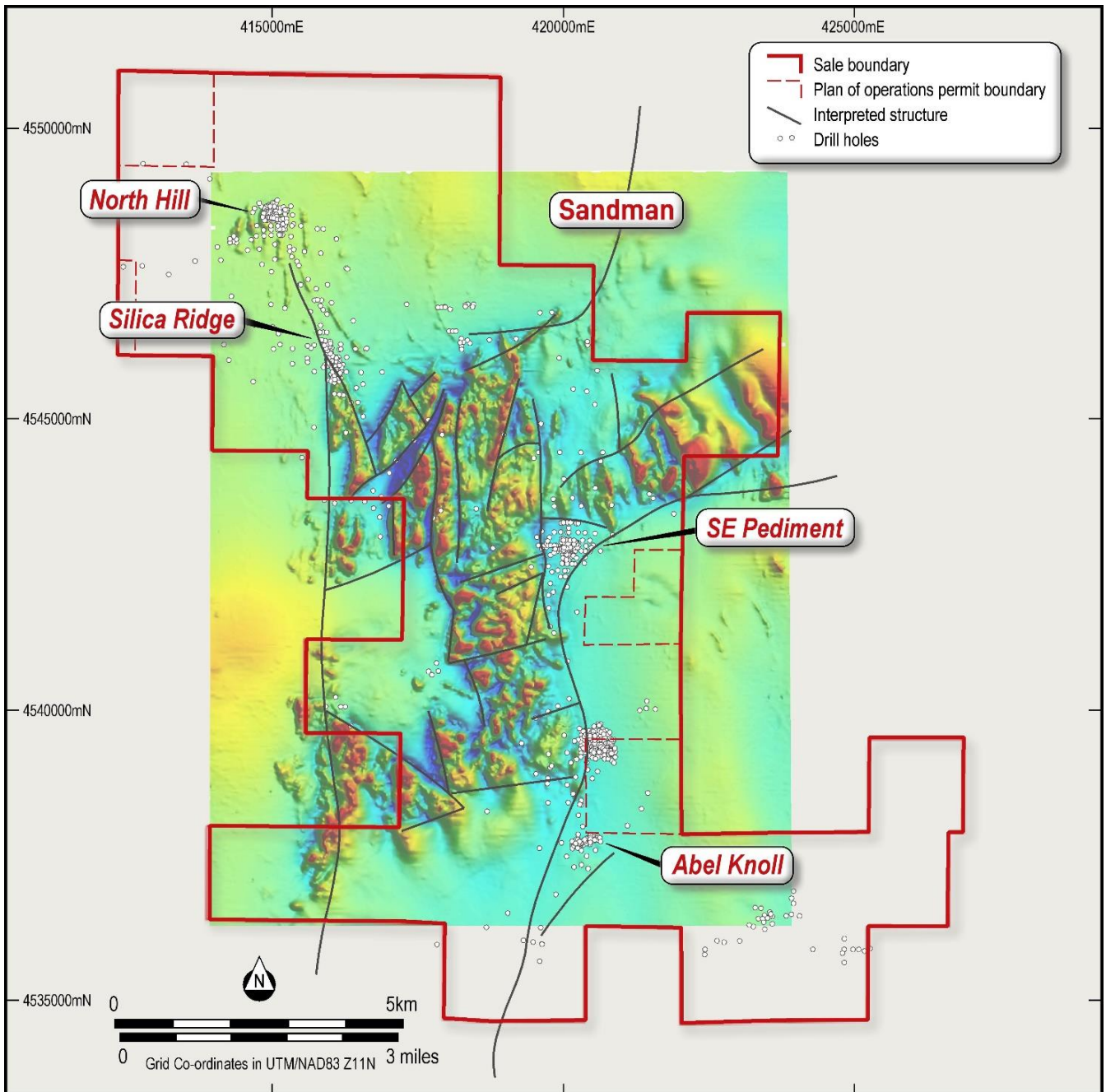
The most dominant trend appears to be a series of north-striking faults which are considered to be parallel to the major regional features of the NNRC. These faults are predominantly steep dipping normal faults which have formed as a result of extension and contribute to the pattern of horsts and grabens dominating the Basin and Range topography. The SEP deposit is dominated by a large north striking and steeply west dipping normal fault which extends throughout this deposit location and continues beyond the deposit area both to the north and south.

There are also a series of large linking faults which typically strike north-east or north-north west, and including the most significant fault hosting gold mineralization in the SR deposit. The magnetic imagery identifies the location of

this north-north-west striking fault which appears to extend well beyond the current known limits based on the drilling information to date.

There also appears to be an important influence on the gold mineralization of east to east-north-east striking faults. Gold mineralization appears to exist along this orientation at AK where it intersects north striking structures. In addition, the well mineralised and near vertical andesite dyke at SR is striking almost due east and presumably localized within an east-dipping fault from which it has intruded.

Trench mapping at the SEP deposit has also defined a near-vertical, east- to east-northeast striking joint set within tuffaceous rocks.



**Figure 10: Total Magnetic Intensity (TMI) image relative to historical drill hole locations and interpreted major structures throughout the Property area.**

## 7.2 Local Geology

### 7.2.1 Lithology

#### North Hill

Surface outcrop and subcrop at North Hill are composed of a series of basalt flows with minor interbedded tuffs and fluvial conglomerates. This location has a limited surface exposure due to wind-blown sand and extensive reclamation of historic trenches, drill sites, and roads. The basalt flow is between 20 to 50 feet thick on top of East Hill, whereas it is thicker between 70 to 200 feet on the West Hill. The basement quartzites of the Triassic O'Neill Formation are between 550 to 600 feet below the western part of the North Hill deposit.

#### Silica Ridge

The SR deposit forms a prominent ridge of silicified outcrops in the northwest corner of the Sandman property, approximately three miles NW of SEP. This silicified outcrop is superimposed also by an andesite sill. A sub-vertical east-west trending andesite or basaltic-andesite dike occupies the central part of the deposit and may be a local feeder to this basalt unit.

The basement rocks of the O'Neill and Raspberry Formations are approximately 550 feet below the surface at SR and have only been encountered in two deeper drill holes.

#### Southeast Pediment

The topographic expression of the SEP mineralized body is subdued and there is no prominent silicified outcrop like at NH and SR. Primary host rocks of the oxidized higher-grade mineralization are a series of epiclastic and pyroclastic tuffs.

The principal host rocks at SEP are from youngest to oldest:

- a) epiclastic tuffaceous mudstone, sandstone, and conglomerate;
- b) vitric, vitric lithic and welded tuffs;
- c) basalt to basaltic andesite sill, and
- d) contact with the Triassic Raspberry Formation. The tuff is commonly epiclastically reworked and appears to be distal airfall derived, deposited in a lacustrine environment on the hanging wall or west side of the main NS-striking Southeast Pediment fault.

#### Abel Knoll

Field mapping at AK has identified that this deposit is entirely covered with post mineral Quaternary alluvium. This deposit is comprised of a polyolithic diatreme breccia body composed of vesicular to aphanitic andesite, basement phyllites and quartzites, tuffaceous wall rocks, and trace Mesozoic granodiorite clasts within an ash and crystal fragment matrix.

Figures 11 and 12 show representative stratigraphic columns for the 4 major deposits at Sandman (as defined by Anderson, 2013).

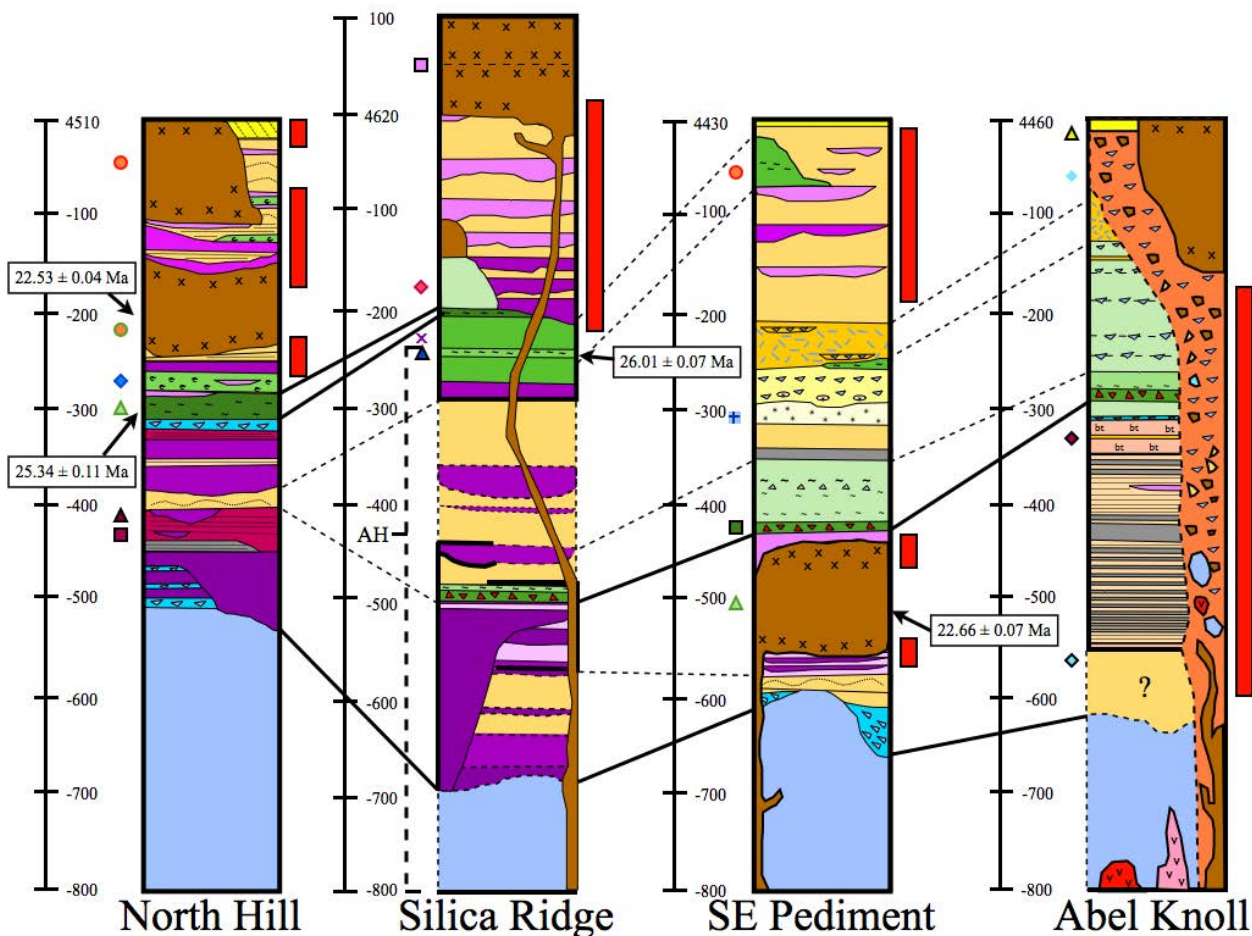


Figure 11: Stratigraphic columns for each project area at Sandman (after Anderson, 2013)

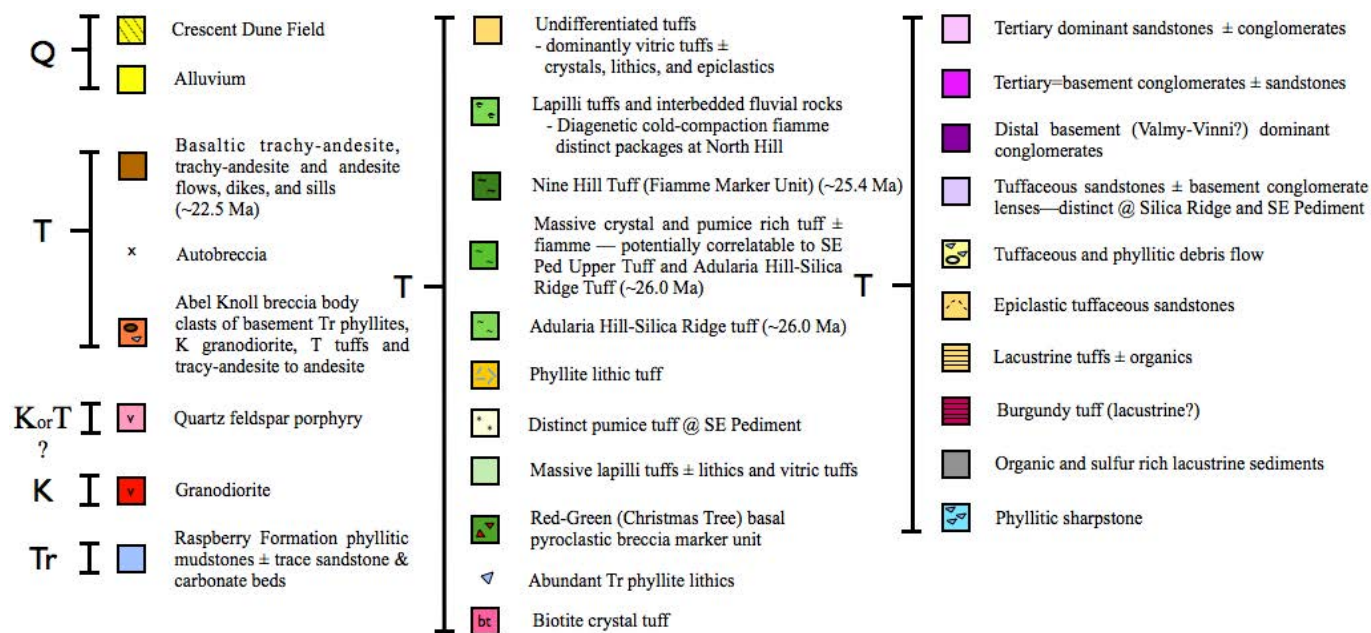


Figure 12: Legend for stratigraphic columns (after Anderson, 2013).

## **7.2.2 Structure**

### **North Hill**

The most prominent structural feature at NH is a NE structural trend between West Hill and East Hill which appears to have been a late-stage fault, resulting in an offset in both the stratigraphy and the gold mineralization.

There is also an interpreted broad south plunging N-S to NNE oriented anticline under the West Hill area. An anticline also correlated with East Hill where both the basalts and the underlying unit of tuff and conglomerate appears to be folded. These two anticlines appear to have an influence on the gold mineralization with higher gold grades identified close to the hinges of the anticlines.

### **Silica Ridge**

The gold mineralization at SR is mostly influenced by a large north-north-west striking fault dipping to the west associated with antithetic steep easterly dipping faults in the hanging wall of the Silica Ridge fault.

The major mineralised zone was displaced by at least two NE- to EW-striking normal faults, resulting in progressive down stepping to the south. The main population of outcropping quartz-adularia veins parallels this dominant north-north-west striking fault. Regionally the stratigraphy dips approximately 15 degrees towards the east-south-east.

Another important influence on the gold mineralization is a series of near vertical east-striking faults or fractures which cut through the main SR and associated structures. An intrusive andesite dyke has formed along this trend and is itself is well mineralised. Some other sections of gold mineralization are interpreted to have formed parallel to this trend and the higher-grade sections on the SR fault are interpreted to have formed close to where the east-striking faults intersect the north-north-west striking faults.

### **Southeast Pediment**

Main structural trends that play a major role in mineralization are NS- and NE- striking faults. However, the primary mineralizing structure is the NS-striking SEP fault, which dips to the west at 45-60 degrees. This fault appears to be a growth fault on the east edge of the NS-oriented Comforter Basin graben. The term Comforter Basin defines a stratigraphic sequence of Tertiary rocks deposited in an N-S graben in association with Southeast Pediment and Silica Ridge.

The quartz-adularia alteration and gold mineralization are structurally controlled and more predominant in the hanging wall than in the footwall of the fault system. The higher-grade mineralization is commonly associated with intensely fractured and brecciated zones related to post-alteration reactivation of the main fault zone.

### **Abel Knoll**

The intersection of north-striking and east-northeast striking structures at Abel Knoll played a significant role in focusing mid-Miocene mineralizing fluids. These structural intersections also appear to have controlled the emplacement of the Abel Knoll breccia body.

## **7.2.3 Alteration**

### **North Hill**

North Hill rocks are generally altered through oxidation processes after mineralisation. Also, good mineralization was observed along the zones of weak to strong quartz-adularia alteration in the structural basalts, and the unit of tuffs and conglomerates underneath the basalt flows. There is a halo of weaker quartz-adularia alteration with lower grade gold around the higher-grade zones, which transitions into bleached and clay altered basalt and tuff.

Based on logging of core and reverse circulation cuttings, gold is associated with oxidized andesite of an undefined alteration type that grades into an unoxidized, propylitic altered andesite without significant mineralization.

### **Silica Ridge**

Quartz-adularia alteration is predominant in this deposit, with weak advanced argillic and sericitic alteration. The basalt-andesite dike central to the deposit is consistently quartz-adularia altered within fault zones, and contains weak to moderate argillic alteration elsewhere.

An adularia sample collected one mile west of Silica Ridge has been radiometrically dated at 16.2 Ma using  $Ar^{40}/Ar^{39}$  (Saunders, 2008) and is coeval with epithermal deposits in the nearby Northern Nevada rift.

### **Southeast Pediment**

Alteration types at Southeast Pediment include quartz-adularia replacement and cementation, argillization, propylitization, and sericitization. Gold forming mechanism is generally associated with fault-controlled quartz–adularia flooding. Adularia is a hydrothermal potassium feldspar ( $\text{KAlSi}_3\text{O}_8$ ). It commonly forms colorless, glassy, prismatic, twinned crystals in low-temperature veins of felsic plutonic rocks and in cavities in crystalline schists.

The main quartz-adularia zones are enveloped by zones of weak to moderate argillic alteration where all lithologies are altered to clay with abundant iron oxide staining. SEM analysis of surface samples from Southeast Pediment and Silica Ridge indicate that quartz and adularia generally comprise over 75% of these samples.

Locally abundant manganese oxide is closely associated with late-stage fractures and breccias which crosscut the quartz-adularia alteration on the Southeast Pediment fault. There also appears to be a spatial association of higher-grade gold values with increased manganese oxide, although the manganese oxide is a post-mineral event associated with late-stage bleaching and removal of the quartz-adularia near fracture surfaces.

### **Abel Knoll**

Moderate to intense argillic alteration, overprinted by weak to intense quartz-adularia alteration, affects most of the Abel Knoll breccia body. Crystal fragments of the host rocks are dominantly sanidine with lesser quartz and trace biotite.

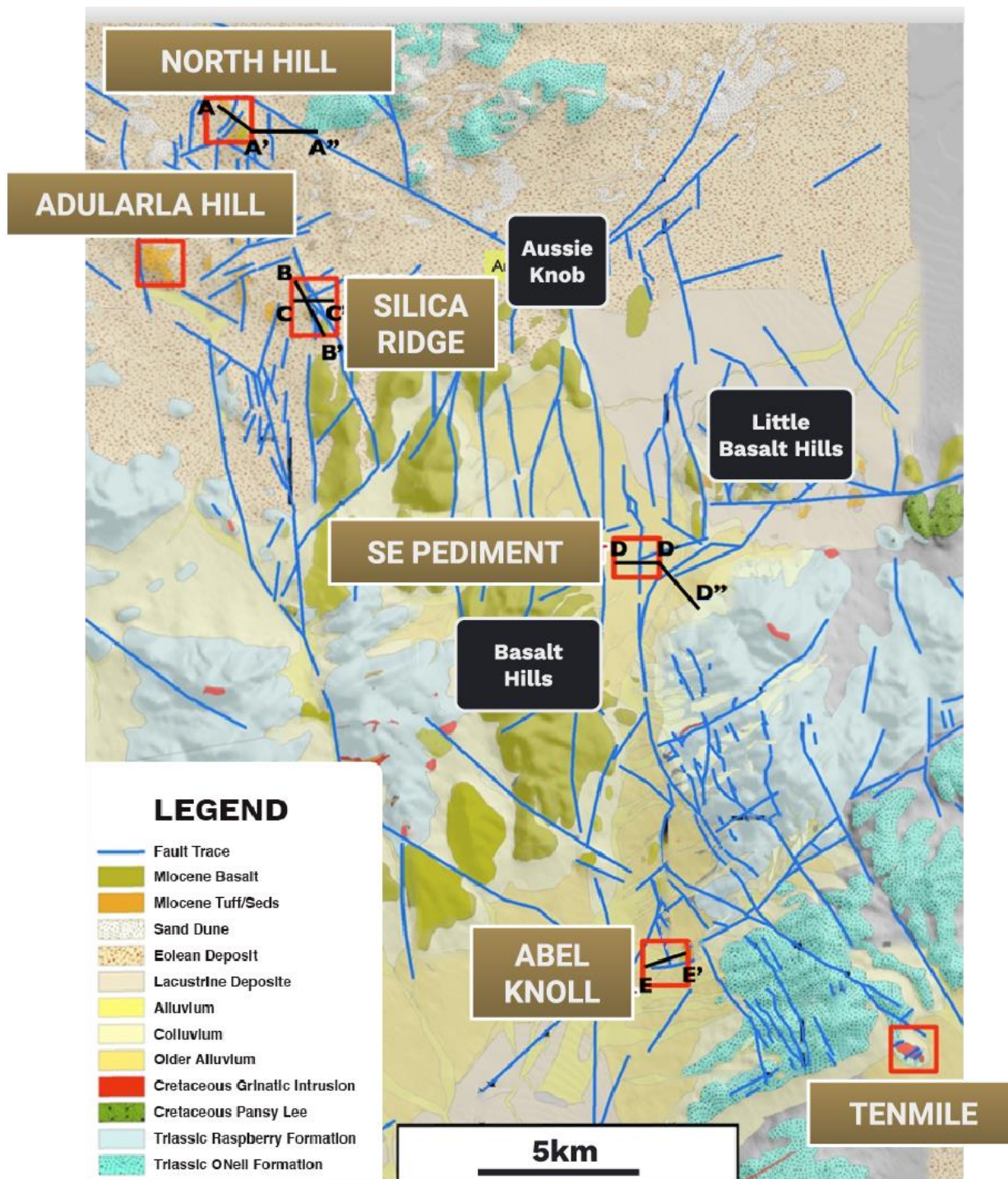


Figure 13: Local geological map of Sandman relative to the major deposits (red boxes) and surrounding additional prospects. Cross section locations are referenced in this plan (after Anderson, 2013). The Tenmile area is not part of the current Mineral Resource estimation

### 7.2.4 Gold Mineralization North Hill

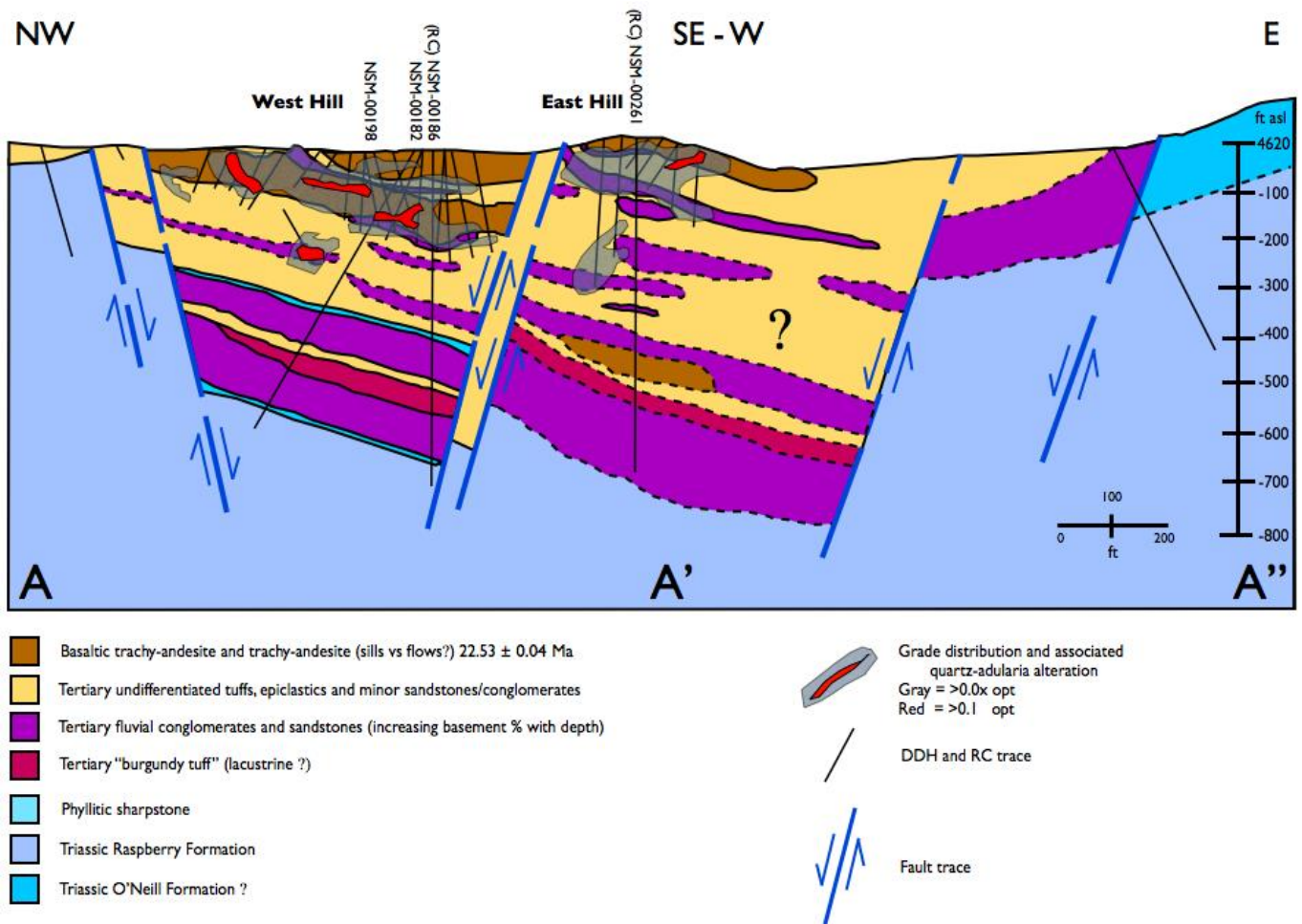
Gold mineralization is associated with both high-angle faults and the generally low-angle contacts between the various basalt flows and the interbedded fluvial conglomerates and tuffaceous rocks. Prior to the 2006 drilling program, East and West Hill mineral deposits were identified (see figure 14).

The West Hill area was a focus of drilling in 2006. This drilling expanded both gold deposits leaving a 200-foot gap between the two mineralized areas associated with the NE structural trend. The deepest significant gold mineralization at North Hill occurs at a vertical depth of 300 feet.

**Silica Ridge**

Narrow anastomosing structural zones of gold mineralization are unique to the SR deposit. The primary host units at SR are fluvial siltstone, sandstone, conglomerate, and epiclastic tuff of the Comforter Basin. Mineralization is primarily focused along the main NNE and NW fault sets over a known strike length of 850 meters.

High gold values are usually located in fault breccias, especially where coincident with conglomerate beds. Strong quartz-adularia flooding of conglomerate and sandstone matrix in ore grade samples shows fine grained subhedral and anhedral pyrite.



**Figure 14: Representative geological cross section (A-A'-A'') of the North Hill deposit (after Anderson, 2013).**

**Southeast Pediment**

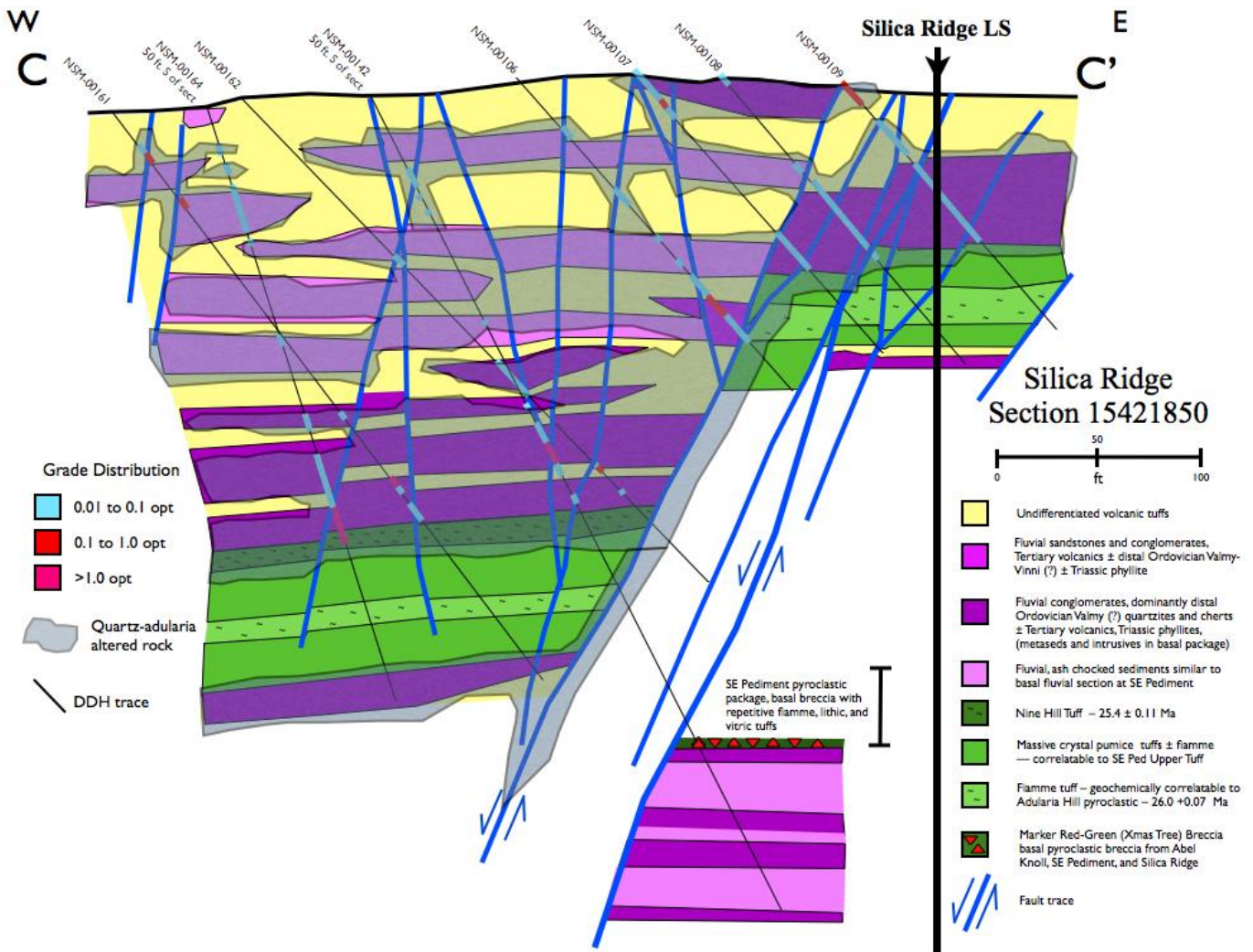
The higher-grade gold mineralization at SEP is structurally controlled within highly fractured and brecciated zones, which exhibits pre- and post-mineralization movement. Supergene enrichment may also in part responsible for this mineralization. The assessment of the degree of supergene influence is complicated by the primary mineralized fault also influencing the redox boundary.

Approximate dimensions of SEP are 305 meters in length by 30 to 60 meters in width. Mineralization occurs as finely disseminated gold or electrum in fine-grained quartz–adularia, and as rare coarse-grained visible gold grains up to 1.0 mm. Coarse gold is observed on fractures, in very narrow clear quartz veinlets, in late-stage breccia matrix, and in rare, very localized quartz banding.



**Abel Knoll**

There are two sources of gold mineralization in this deposit: (a) western area is hosted in and around a small diatreme breccia body, possibly related to mafic magmatism; and (b) an area to the east-northeast of the diatreme where mineralization appears to be related to altered andesite, and generally extends parallel to the strike of Tertiary rocks.



**Figure 15: Representative geological cross section (C-C') of the Silica Ridge deposit (after Anderson, 2013).**

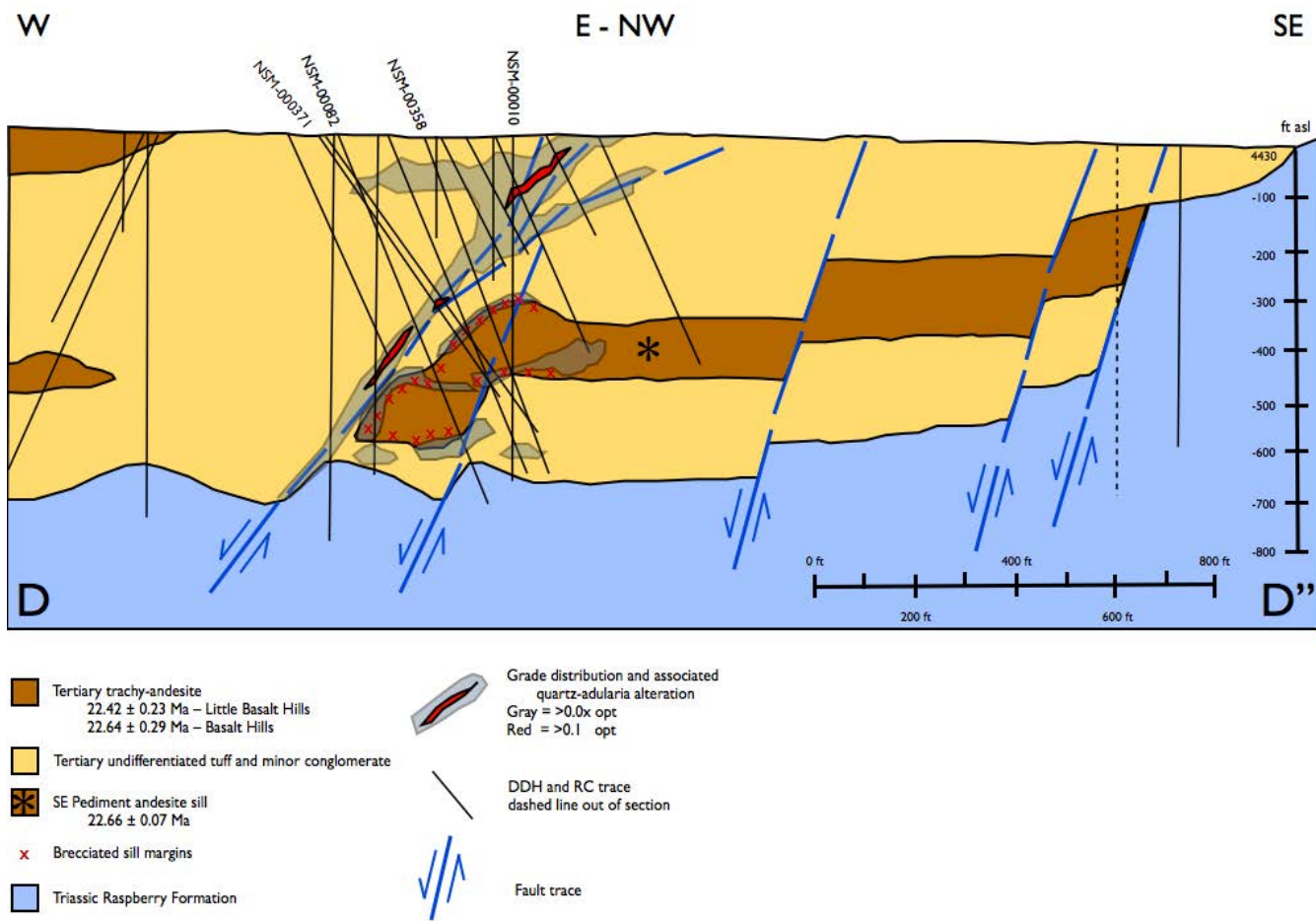


Figure 16: Representative geological cross section (D-D'') of the Southeast Pediment deposit (after Anderson, 2013).

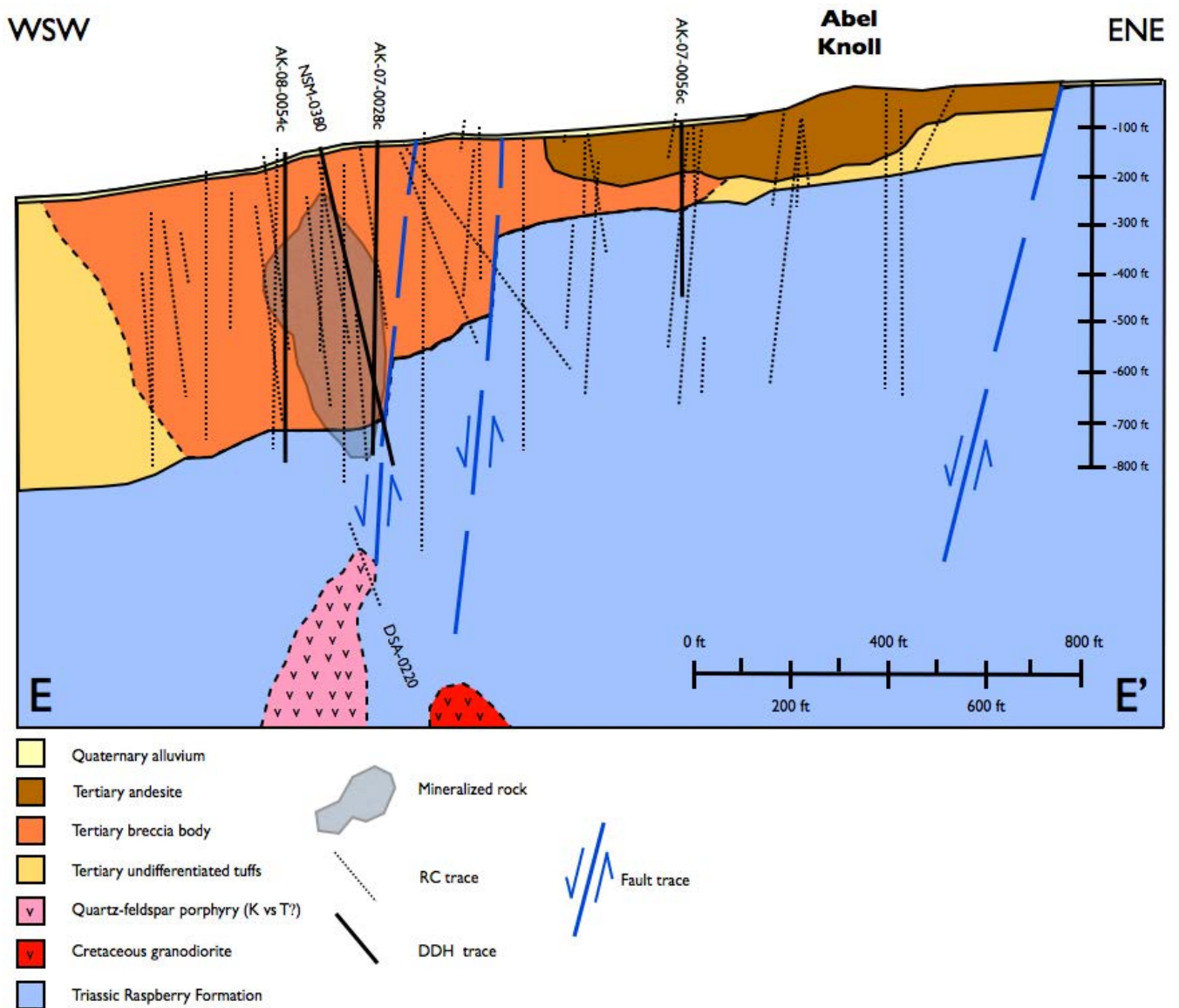
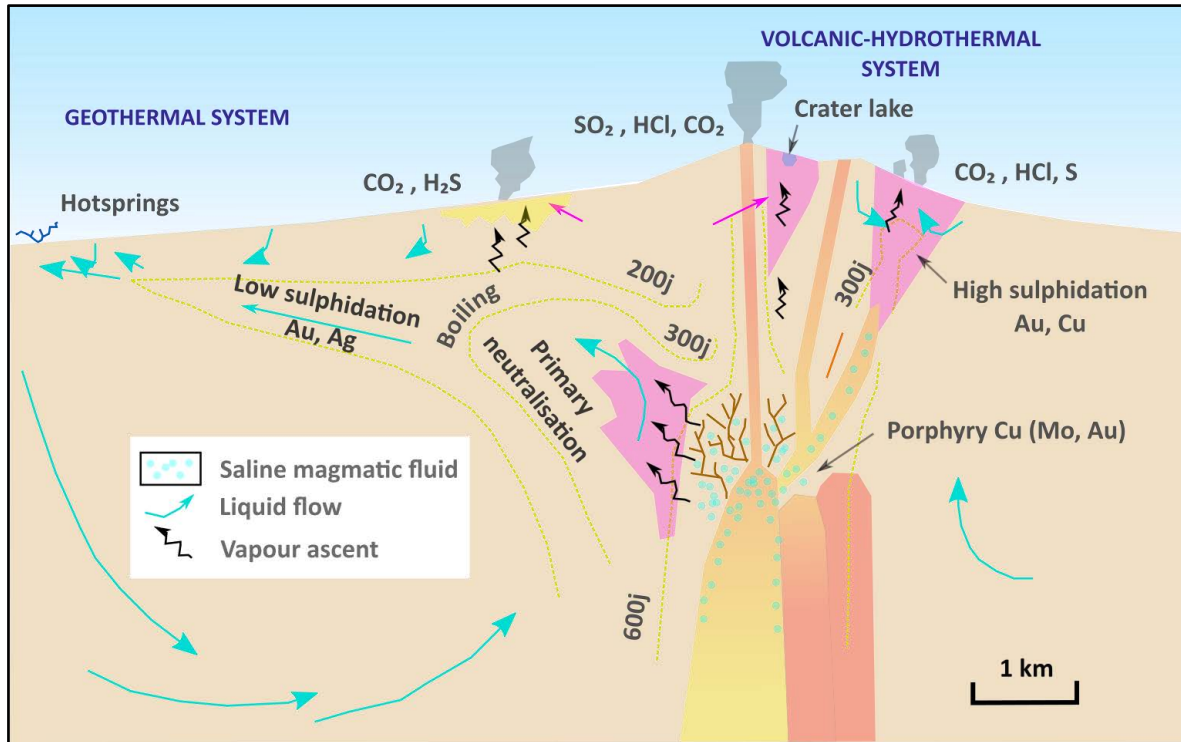


Figure 17: Representative geological cross section (E-E') of the Abel Knoll deposit (after Anderson, 2013).

## 8. DEPOSIT TYPES

The geological setting, alteration and characteristics of the gold mineralization defined at Sandman all provide strong evidence that Sandman is a low-sulfidation epithermal style of deposit that formed close to the surface.



**Figure 18: Schematic representation of the geological environment for the formation of low-sulfidation epithermal deposits. (modified from Hedenquist, et al., 2000)**

Sandman is located in north-central Nevada, which contains a number of vein-type deposits of middle Miocene age which have similar geological consistent with low sulfidation, epithermal gold-silver deposits. The epithermal deposits in north-central Nevada formed at shallow depth, and some are associated with sinter deposits which reflect hot-spring activity at the paleosurface.

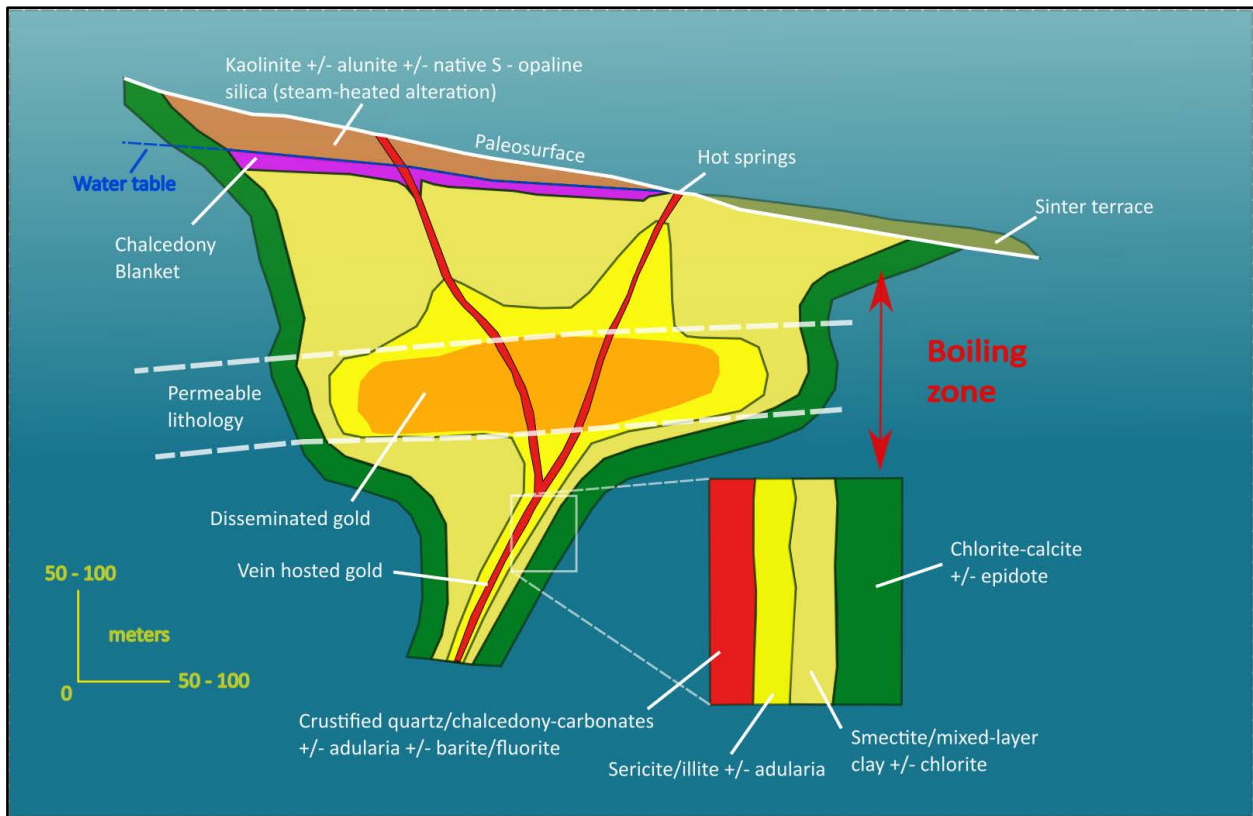
This model of emplacement and formation for shallow epithermal gold mineralization is similar to many epithermal deposits worldwide as documented by many authors (eg: White and Hedenquist, 1995; Hedenquist, et al., 2000; Sillitoe; R. H., 1993, Corbett, 2002) (Figure 19).

Key features at Sandman that support this interpretation include:

- The presence of quartz adularia veins which are commonly the host rocks to the higher-grade gold mineralization.
- Zones of advanced argillic alteration (opaline silica-quartz-kaolinite-alunite) mainly above the quartz-adularia zone, which extend along some favorable stratigraphic horizons or contacts away from the large structures.

Although the genetic model for the Sandman deposits and surrounding gold-silver deposits may be similar there are often significant variations within each deposit type due to variations in the structural framework and host rock compositions.

The presence of gold-silver hosted within a pipe-like hydrothermal breccia, structurally controlled gold mineralization associated with quartz-adularia veining and dispersed lower grade gold mineralization along stratigraphic horizons which are more favorable for fluid flow (typically horizontal orientation), all exist at least in part within the Sandman gold deposits.



**Figure 19: Schematic representation of the boiling zones within a low-sulfidation epithermal deposit of the type interpreted to be similar to how the gold-silver mineralization formed at the mid-Miocene Sandman deposits. (modified after Hedenquist et al., 2000)**

The dominant target types which exist at Sandman for future exploration are largely one of three main deposit types:

1. Extensive shallow and low-grade gold mineralization, typically forming within 100m of the paleo water-table, which has favourably extended along the more porous host rocks. This deposit type has most prominently been identified at the North Hill deposit to date,
2. Higher grade Au-Ag mineralisation in quartz-adularia veins hosted within feeder structures underneath the broader shallow stratigraphically controlled and lower-grade gold mineralization. This style is evidenced in the Silica Ridge and Southeast Pediment deposits, where potentially larger more continuous zones may exist at greater depths along the currently defined major structures.
3. Higher-grade dyke-hosted gold mineralization and/or hydrothermal breccia's, both of which appear to have a strong influence from cross-cutting structures which trend due east. This style of gold mineralization is observed at both Abel Knoll and Silica Ridge.

## 9. EXPLORATION

As of the effective date of this report, there have been no further drilling activities undertaken by Gold Bull. All of the drilling information and interpretation based on the historical drill hole database are documented in sections 6, 7, 8, 10 and 11 of this Technical Report.

Of specific relevance to the proposed future exploration activities, Gold Bull recently completed a 3D induced polarisation (IP) survey was at North Hill (announced on 28 November, 2020). This survey appears to show an association between some smaller high resistivity features and the known gold mineralization (see figure 20). Similar such 2D and 3D IP surveys have been commonly used in other recent exploration project areas in Nevada where the target type is shallow epithermal gold mineralization hosted within young felsic volcanic rocks.

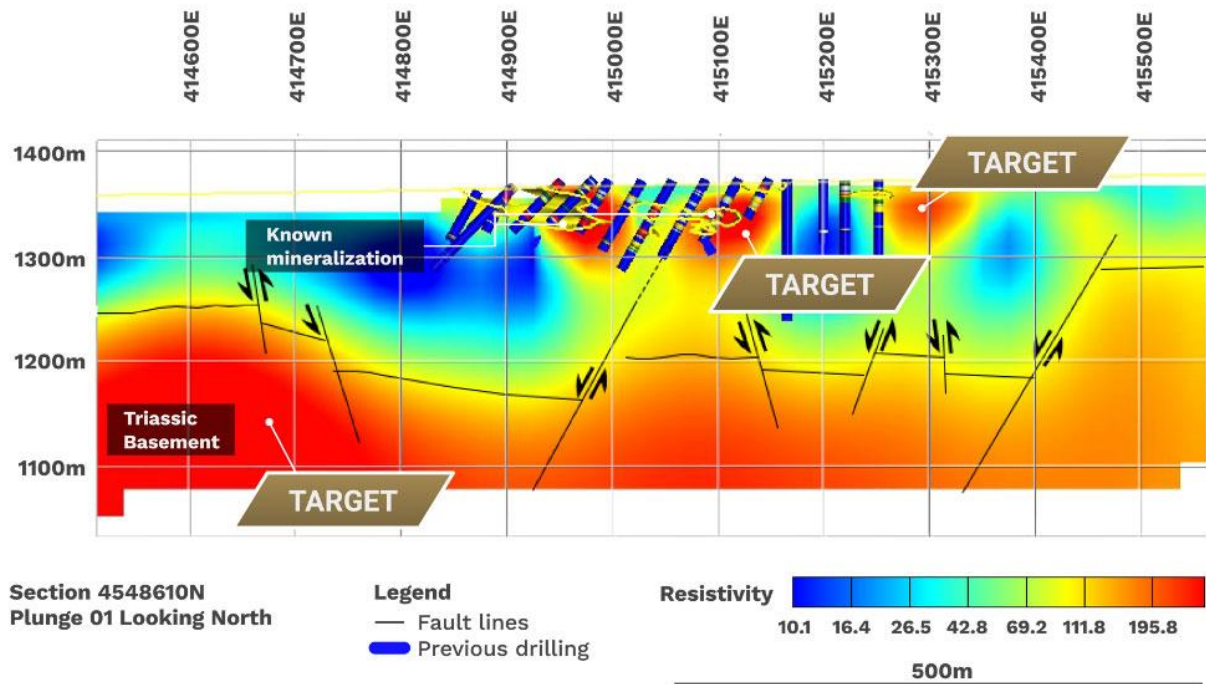


Figure 20: 3D IP resistivity section on Section line 4548610N from the North Hill deposit (Grid reference in UTM/NAD83 Z11N).

## 10. DRILLING

The Sandman drill hole database consists of records collected between 1987 and 2015 by numerous companies including Kennecott Exploration Company (“Kennecott”), U.S. Borax & Chemical Company (“USBC”), Santa Fe Pacific Mining Inc. (“Santa Fe”), Western States Minerals (“WSMCC”), NewWest Gold Corp. (“NewWest”), Fronteer Development Group (“Fronteer”) and Newmont Mining Corporation (“Newmont”). The drill hole database consists of 1,064 reverse-circulation (“RC”) holes, 261 diamond drill core (“Core”) holes, 4 Newmont RC pre-collars with core tails, and 12 USBC blast rig holes.

Table 3 below is a summary of all drill holes that have been identified, as of the date of this report, which has been consolidated for the purpose of creating a MRE for Sandman.

**Table 4: Summary drill hole information broken down by Company in sequential order for the Sandman Property.**

Company	Year From	Year To	RC Drill Holes	Diamond Drill Holes	RC Pre-collar with Dimond	Other drill types
<b>Kennecott Exploration Company.</b>	1987	1989	200	3	0	0
<b>U.S. Borax &amp; Chemical Corp.</b>	1987	1989	109	5	0	12
<b>Santa Fe Pacific Mining Inc.</b>	1990	1994	64	0	0	0
<b>Western States Minerals</b>	1996	2005	328	5	0	0
<b>NewWest Gold Corp.</b>	2006	2007	191	19	0	0
<b>Fronteer Development Group</b>	2006	2008	26	4	0	0
<b>Newmont Mining Corp.</b>	2008	2015	146	225	4	0
<b>Totals</b>	1987	2015	1064	261	4	12

### 10.1 Drilling Techniques

#### 10.1.1 RC Drilling Methods

The 2020 Sandman database consists predominantly of reverse-circulation holes totalling 1,064 holes. Of these 581 drill holes were drilled vertical with the remainder having an average inclination of -55 degrees, ranging between -40 and -85 degrees. RC drill hole total depth (“TD”) average 114m (376 ft.), ranging between 12.5 and 414.5m (40 to 1,360 ft.). Additionally, Newmont drilled 4 RC pre-collars at SE Pediment in 2011. Core tail TD’s range between 91 and 146m (300 to 480 ft.) and include two vertical and two with inclinations of approximately -70 degrees.

The following summary provides for details of the RC drilling companies, the drilling equipment and any other relevant details for the historical drilling programs.

#### **Kennecott RC:**

Kennecott contracted Eklund Drilling Company of Carlin, Nevada (“Eklund”) and Harris Exploration Drilling and Associates Inc. of Escondido, California (“Harris”) for their 1987 drilling. Drilling Services, Harris, Lang Exploratory Drilling Company of Salt Lake City, Utah (“Lang”), and Layne Christensen Company (“Layne”) (one drill hole) were Kennecott’s drilling contractors in 1988. Drilling Services and Harris were used in 1989. A single 1988 Harris drill hole is noted as having been drilled with a track rig; the type of rig used in all of the other Kennecott drilling is not known.

#### **Santa Fe RC:**

Santa Fe contracted Eklund for their 1990, 1992, and 1994 drilling programs and Becker Drilling Inc. for their 1991 drilling. Eklund used an MPD 1500 rig for the 1994 drilling. DSA-0200 through DSA-0213 were drilled with a 5 ½-in. bit, while holes DSA-0214 and DSA-0215 were drilled with a 5 3/8-in. bit.

**USBC RC:**

The only details for USBC drill holes is that RR-00003 was drilled by Boyles Brothers Drilling Company of Sparks, Nevada (“Boyles Brothers”) in 1988 using a Schram 685 rig with a 5 ¼-in. tricone rotary (“tricone”) bit.

**WSMCC RC:**

WSMCC used DeLong Construction and Drilling (“DeLong”) and Johnson Drilling (“Johnson”) in 1996. DeLong used an MPD 1500 rig for at least the first nine SR-series drill holes. A center-return hammer was used by DeLong on drill holes SEP96-0001, SEP96-0009 through SEP96-0013, and SEP96-0015; and an unspecified hammer bit was used on other drill holes completed in 1996. Johnson drilled with a track-mounted rig.

The 1997 WSMC programs were drilled by Dateline Drilling Inc. (“Dateline”) and Johnson Drilling with unknown rig types. A center-return hammer with a 4 5/8-in. bit was used on drill holes NH97-0023 through NH-0036 except for drillhole NH97-0030, which was drilled using a conventional hammer with a 4 5/8-in. bit. Based on available information, conventional hammers with bits varying in size from 4 ¾-in. to 4 ¾-in. were used in most of the remaining 1997 drill holes.

WSMC contracted Dateline Drilling for the four-hole 2000 drill program. Drill hole SEP00-0065 was drilled to 140m (340 ft.) with a 5-in. center-return hammer, to 155.5m (510 ft.) ft with a 4 ¾-in. conventional hammer, and the hole was completed to a depth of 195m (640 ft.) using a 4 ¾-in. tricone. Drill holes SEP00-0066 through -0068 were drilled to depths around 152m (500 ft.) using 5-in. conventional hammers and completed with 4 ¾-in. tricone bits.

**WSMCC and WSMCC—NewWest JV RC:**

WSMCC and NewWest contracted DeLong for their 2002 through first quarter 2007 drilling campaigns. DeLong used a Foremost Drill Systems MPD 1500 track drill with 900 CFM, 300 PSI, and maximum depth capability of 457m (1,500 ft.). The programs were drilled using 5 1/8-in. conventional hammer and tricone bits. Hammer bits were used until significant ground-water flows or broken ground conditions were encountered, after which the drilling was switched to a tricone bit. Drill holes were collared dry with no water injection; water injection was initiated immediately after the holes were successfully collared in order to conform to air-quality regulations. Gel and/or bentonite were added to the water injection when high ground-water flows were encountered near the bottom of some drill holes, as well as to mitigate some highly broken-ground conditions.

**Fronteer RC:**

Fronteer retained DeLong for the completion of their 26 RC holes drilled in 2007 and 2008. Drill logs indicate that DeLong completed these holes with the previously utilized Foremost Drill Systems MPD 1500 using 5 ½ in conventional hammer bits.

**Newmont RC:**

Newmont contracted Boart Longyear to complete all RC drilling between 2008 and 2015. Boart Longyear used a Foremost Explorer 1500 all-terrain buggy rig for Newmont RC holes, capable of 1500ft

A range of rock bit sizes were reported to be utilized as part of the Newmont RC drilling programs, including, 5 ½, 5 ¾, 5 7/8 and 6”

## 10.1.2 Diamond Drilling Methods

The 2020 Sandman database consists of 261 Core holes and 4 Core tails. The majority of these (225 drill holes) were completed by Newmont between 2008 and 2015 and significantly advanced the geologic understanding of the Sandman project. Of these, 45 Core holes were drilled vertical, with the remaining having an average inclination of -56 degrees (ranging between -41 and -85 degrees). Excluding Core tails, the total depths for the drill holes range between 12 and 274m (40 to 900.3 ft.) with an average depth of 81.5m (268 ft.). 2011 SEP Core tail intervals range between 67 and 22m (220 to 400 ft.) with total depths between 166 and 213m (545 to 700 ft.) and an average depth of 197.5m (648 ft.).

The following summary documents Diamond Drilling contractors and equipment used during each company’s drill programs.



### **Kennecott Core**

Kennecott contracted McFeron & Marcus for the three Core holes drilled in 1989 and 1990.

### **WSMCC Core**

The five WSMCC Core holes were drilled by Boyles Brothers in 1996. The rig types used and Core diameters recovered are not known.

### **NewWest Core**

In 2006, NewWest contracted Kettle Drilling, Inc. for the Phase 1 Core drilling program. Kettle used an Atlas Copco Diamec® U-6 Core rig with a maximum depth capability of 1280m (1,280 ft.) for HQ diameter Core. NewWest's Phase 2 Core-drilling program began in early 2007 and was completed by K & R Drilling using an Acker MP5C Core drill. HQ Core was recovered from the entirety of both drilling programs, with the exception of Phase 1 drillhole SEP06-98c, in which Core size was reduced to NQ diameter to attain targeted depth.

### **Fronteer Core**

A four-hole Core program was completed at Abel Knoll in 2008 by Major Drilling. Schedule C of the drilling contract within the files states that either a LF90 or LF230 Core drill rig with 30 ft. pull mast be utilized for the project. Casing was set at 6m (20 ft.) for 3 holes and 9m (30 ft.) for another. All drilled Core was HQ in diameter. Newmont took over operations for the project during the completion of the third drillhole of this program.

### **Newmont Core:**

The majority of Core holes drilled on the Sandman project has been completed by Newmont. This includes 223 Core holes completed between 2008 and 2012 and an additional 3 Core holes completed at SE Pediment in 2015. Layne was contracted for the 2008 through 2010 drill programs. Timberline Drilling was contracted for the 2011 and 2012 drill programs and also for the 3-hole program in 2015. PQ diameter Core was recovered for the majority of these drill programs, with a few holes collared or reduced to HQ diameter due to drilling conditions. Only Abel Knoll hole NSM-00380 was reduced to NQ diameter to reach targeted depth due to poor drilling conditions. The 2011 SE Pediment Core tails were completed using HQ diameter tooling.

## **10.2 Surveying**

Of the 1377 drill holes that make up the current database, 1314 drill holes have collar coordinate data while all drill holes have defined inclination and azimuth information.

Downhole survey data is reported in the Sandman database as one of four main categories, excluding 2 holes which have data of an unknown origin. The down hole survey categories are as follows:

- “Planned” (866 drill holes) where the down hole survey information is based on the planned data,
- “IDS Gyroscope” (398 drill holes) where the drill hole was surveyed by a Gyroscope at typically every 50ft down hole,
- “Reflex EZ-Shot” (12 drill holes) based on a Reflex EX-shot down hole survey data,
- “Calculated” (99) which are artificially modified down hole survey calculations based on typical dip and azimuth changes.

It was noted during the creation of the geological and mineralized domain block models, that some drill holes which only had planned down hole survey co-ordinates appear to out of position by 15ft (5m) or more relative to the surrounding drill hole information. This is interpreted to be due to the actual position of the drill hole being slightly offset from its modelled position due to a lack of down hole survey information.

If the drill hole data was considered validated, apart from the lack of down hole survey information, the drill holes were accommodated as best as possible and utilised as part of the interpretation and grade interpolation for each mineralized domain. The author considers that this situation was only occasional and has not materially impacted on the overall MRE.

The author cautions that in some sections of the block model where there are angled drill holes without adequate survey information, that there is a possibility that the specific location of the defined mineralized domains could be up to 10m away from its currently defined position.

The following summary provides for some more detail with regard to the down hole survey information which exists in the drill hole database which is grouped by Company.

#### **Kennecott**

All drill holes completed by Kennecott lack DH surveys. Vertical holes comprise 143 of these, 82 are inclined approximately -60 degrees to the east or west, while 14 are inclined -45 to the east or west.

#### **Santa Fe**

All Santa Fe drill holes lack DH surveys. Of the 64 DSA series drill holes, 25 are categorized as Calculated while the remaining are Planned. Twenty holes were drilled vertical, 37 holes were inclined to the east, 3 holes were inclined to the west, 3 holes were inclined to the northeast, and one hole was inclined to the northwest.

#### **WSMCC**

Of the 333 Western States drill holes in the database, only two (SEP02-0085 and SEP05-009) had DH surveys completed. IDS survey certificates are available within the files for both. The remaining DH surveys consist of 305 categorized as Plan, 25 categorized as Calculated and one hole having uncertainty as to whether azimuth/inclination was surveyed or calculated (SEP02-0069). 166 holes were drilled vertical, 98 were inclined easterly, 67 were inclined westerly and 3 were inclined to the north.

#### **NewWest**

Of the 210 NewWest drill holes in the database, 48 holes had DH surveys completed. 36 surveys were completed by IDS while 12 holes were surveyed by drill contractors using Reflex EZ-Shot instrumentation. Survey certificates and documentation are available for all within the files. For the remaining 162 un-surveyed drill holes, 156 are categorized as Plan DH surveys, 5 are categorized as Calculated.

#### **Fronteer**

DH surveys were completed on 9 holes drilled by Fronteer. IDS survey certificates are available within the files for these holes. The remaining DH surveys are categorized as Plan. Fronteer drilled 20 vertical holes, one hole inclined to the east, two holes inclined to the south and the remaining 7 holes inclined to the west.

#### **Newmont**

DH surveys were completed on 351 of the 375 Newmont drill holes. The original IDS survey certificates are available for all excluding 2015 SE Pediment Core holes NSM-00385, NSM-00386 and NSM-00387 along with 2013 RC hole NSM-00317. The original DH survey data for the Newmont drill holes have been checked and validated when compared against the drill hole database.

## **10.3 Drill Sample Recovery**

### **10.3.1 RC Drilling Recovery**

Available scanned paper logs from historical drilling at Sandman generally state intervals with no sample recovery; however, mention of intervals with poor recovery is sporadic and not well documented within the files. A review of sample weights from assay certificates was completed for the selected validation drill holes and others within the files to ascertain RC sample recovery.

There is no record of sample weights in assay certificates prior to 2006. A selected data set of 1,198 individual sample weights from RC drill holes within each of the 4 modelled Sandman deposits was reviewed to understand the general sample recovery issues at Sandman. Typical industry standards indicate 5 ft. RC samples be >2kg. Within the selected dataset, approximately 8.5% are less than 2kg. Only 2.3% are less than 1kg, averaging 0.7kg.

A review of other Newmont RC drill holes from 2008 through 2015 indicate similar sample size distribution. The bulk of Newmont RC drill holes were utilized in property over a broad area at the Property.

Although there potentially some portions of the drilling information which have not had adequate sample size taken, the author considers that this is a low percentage of the overall dataset and not likely to have had a material impact on the MRE.

### 10.3.2 Diamond Drilling Recovery

Scanned drill logs from Kennecott's 1989 3-hole Core program, which includes, Silica Ridge hole SMC-0001 and SE Pediment holes SMC-0002 and SMC-0003 indicate core recoveries >90% excluding alluvium at collar and a single run in SMC-0001 from 202.3 to 207.3 ft at 84% measured recovery. Core recovery is also recorded on original logs for WSMC's 1996 5-hole Core program at SE Pediment and Silica Ridge. Rotary drill methods were used to set casing and no samples were recovered. At SE Pediment, recorded Core recovery is typically >90% excluding a zone of no to poor recovery from 145 to 155 ft. For Silica Ridge Core holes, recovery is recorded as 100% for the entirety of SR96-0001C; however, drill conditions appeared difficult in SR96-0002C, with numerous intervals of no recovery or poor recovery and the drill hole was abandoned at 21m (63 ft.).

NewWest completed 19 Core holes between 2006 and 2007. This includes one hole at Able Knoll (AK07-0028C), four holes at North Hill (NH06-0106C through NH06-0109C), ten holes at SE Pediment (SEP06-0096C through SEP06-0105C) and four holes at Silica Ridge (SR06-0130C through SR06-0132C and SR07-0150C). MDA states in the 2007 Updated Technical Report that "average core recovery for the 2006 and 2007 Core drilling programs was 87.0%, including intervals within unconsolidated alluvium that experienced essentially no recovery. Core recovery within mineralized zones (> 0.010 oz Au/ton) averages 80.5% at Southeast Pediment, 82.3% at Silica Ridge, 94% at North Hill, and 95.8% at Abel Knoll"

A substantially larger dataset was available for evaluation from Newmont's NSM-series Core holes. These 229 holes account for 86% of total Core holes drilled on the project and an extensive digital database is available of these measurements.

On average, the Newmont Diamond Drilling results reported core recoveries of over 90% for 75% of the total length combined. An additional 16% recorded recoveries of between 76% and 90% with a further 3.7% reporting recoveries of between 51 to 75%. Only 1% of the diamond drill core reported recoveries of less than 1%.

## 10.4 Logging

The logging and coding schemes at Sandman have evolved and been modified through the life of the project. Each generation of RC drilling recorded downhole observations for lithology, alteration and mineralization, while Core holes also recorded detailed structural measurements. A significant advancement in understanding of the stratigraphic section came from Newmont's extensive core drilling programs 2008-2012. However, general aspects of the sequence have been understood and well documented throughout each operator's drill programs in detailed drill logs. Observations for alteration (including silica-adularia, argillic +/- propylitic), mineralization, veining, iron oxides and sulfides have been recorded in all the logging schemes. These coding schemes consist of both verbal (trace, weak, moderate, strong, etc.) and numerically coded intensity scales (0-3 and 0-5), mineral percentages, are also included in variously detailed descriptive comments.

For a consistent view of the logging information, numerous relogging programs have occurred throughout the life of the project as part of both JV activities and also as the project changed ownership over the years. Santa Fe relogged 130 of 200 Kennecott 1987-1989 RC holes during their JV and Newmont relogged 5 Santa Fe 1991 RC holes as part of project assessment work in 2000. From 2004 through 2005, NewWest relogged and/or recoded 155 of 333 1996-2004 WSMCC drill holes—153 RC holes and 2 Core holes. This recoding effort was done under the guidance of George Lanier, previously with WSMCC, and retained for all NewWest and Fronteer drill programs. This coded database was provided to Newmont in 2008 upon taking over the project.

From 2009-2010, Newmont relogged 176 historic drill holes, made up of 82 Kennecott holes, 32 Santa Fe holes, 21 WSMCC holes and 20 NewWest drill holes. Lithologic coding for the remaining Newmont Sandman database was completed predominantly by individual historic log review rather than a mass database recode as evident from observed variations in recent systematic drill log reviews. Lithologic coding was available for 95% of the drill holes within the current Sandman database.

## 11. SAMPLE PREPARATION, ANALYSIS AND SECURITY

The following description for the sample preparation, analysis and security is taken largely from the 2007 MDA Technical Report plus additional investigations and reviews of the subsequent drilling programs post 2007.

### 11.1 Sampling Techniques and Sample Preparation

#### 11.1.1 RC Drilling

RC samples from all Sandman drill programs were collected on five foot (1.52m) intervals on a majority of drill holes within the project. Exceptions include five Kennecott drill holes—SM-0172, SM-0173, SM-0194, SM-0195, SM-0196 and WSMC's drillhole K105-0003. Each of these holes were drilled outside of the four modelled deposit areas. WSMC drilled 6 RC drill holes at SE Pediment, SEP02-0084 through to SEP02-0089, in which the top portion of the hole was sampled on 10 foot intervals where no significant mineralization was thought to occur.

Information on RC sampling methods prior to 2000 is limited to WSMC's 1996 and 1997 drill programs. A total of 275 RC holes were completed in this time period: 51 holes at North Hill, 64 holes at SE Pediment, 76 holes at Silica Ridge, 12 holes at Central Zone just north of Silica Ridge, 3 holes at Adularia hill and 2 holes at Grit Hill just east of Silica Ridge. Drill cuttings were collected over five foot intervals by the drillers. Two 5lb to 10lb sample splits were collected at the drill rig; one sample submitted for assay and the other retained by WSMC as a reject sample. A rotary splitter was used for wet drilling intervals. Each assay interval was logged by a geologist, who recorded information such as rock type, alteration, and degree of sulfide oxidation.

WSMC's and NewWest's 2000 through 2007 drill programs used essentially the same drilling and sampling procedures. Drill holes were started by drilling dry with water injection initiated immediately after the hole was successfully collared in order to conform with air quality regulations. Most of the drill samples were therefore derived from wet drilling and were split using a rotary splitter. The wet-sample splitting was designed to fill 20 x 24 in. cloth bags without overflow. A backup (rig-duplicate) split was collected in 10 x 17 in. olefin bags through 2005; all later rig splits were collected in 20 x 24 in. cloth bags. The few dry samples collected were split using a Jones splitter to fill two 10 x 17-in. bags. Gel and/or bentonite were added to the water injection when high-water flows were encountered near the bottom of some holes as well as in broken ground to stabilize some holes.

Sample recovery was reported by WSMC to be generally good except for a relatively few intervals where "very-poor" or "poor recovery" was recorded in the logs. NewWest used the dry weight of the entire sample submitted to the laboratory to track sample recovery.

Newmont took over management of the project from Fronteer mid-2008 prior to fully acquiring the project in 2011. From 2008 through 2015, a total of 146 RC drill holes were completed by Newmont. Drill holes were started dry with water injection initiated immediately after the hole was collared. Typical collar casing depth was 10 ft. with 20 ft. casing utilized where necessary. Newmont Standard Operating Procedures ("SOP") state that all rod additions and bit changes were to be documented on drill dailies.

Newmont SOPs require the bit to be raised off the bottom and the hole and blown clean prior to drilling each interval; however, within good ground this occurred more typically at the end of every 20 foot. drilled interval. All holes were drilled wet with samples derived from the rotary splitter. The sample splitter was cleaned with high pressure water between samples, with particular attention given if drill discharge consisted of clay slurry. The splitter was thoroughly cleaned following the completion of each drill hole.

Samples for lab analysis were collected in fine cloth micropore bags specially designed for wet sample collection, allowing water to slowly seep while retaining sample solids. Rotation speed was adjusted to avoid ejection of particles from the sample. Effort was made to prevent overflow of sample bags to maintain representative sampling. In the event overflow occurred, it was to be documented on drill log sheets. Additionally, water flow rate and estimated sample recovery should have been documented along with sample number and interval footage. A minimum sample size of 2.5lbs (~1kg) was required for each sample interval as per the Newmont SOP. Each sample bag was clearly labelled with drill hole number, footage and sample ID. Newmont employed a bar code system with stickers firmly stapled to the sample bag tag.

### 11.1.2 Diamond Drilling

There is no documentation within the files stating Core sampling procedures prior to 2006. Three Core holes drilled by Kennecott in 1989—SMC-001 at Silica Ridge and SMC-002 and SMC-003 at SE Pediment—have average sample intervals of 5.1 ft.

Five holes were completed by WSMC in 1996, SEP96-0001C, SEP96-0002C and SEP96-0003C at SE Pediment and SR96-0001C and SR96-0002C at Silica Ridge. Sample intervals for these holes average 2.1 ft.

NewWest completed 19 Core holes between 2006 and 2007. This includes one hole at Abel Knoll (AK07-0028C), four holes at North Hill (NH06-0106C through NH06-0109C), ten holes at SE Pediment (SEP06-0096C through SEP06-0105C) and four holes drilled at Silica Ridge (SR06-0130C through SR06-0132C and SR07-0150C). Excluding the non-sampled 20 ft. at collar for AK07-0028C, average sample length for Core holes from Abel Knoll, North Hill and Silica Ridge is 4.8 ft.

MDA states in the 2007 Updated Technical Report that NewWest Core was placed in waterproof core boxes by the driller, with wood blocks marking the depths at the end of each core run. Boxes were taped shut to secure the sample during transport. Core was geologically logged and photographed at a Core logging facility in Reno. Once logged, assay intervals which ranged from 2 ft. to 6 ft. outside of zones sampled on 10 ft. intervals had sample numbers marked on the box and core using a marker and metal tags for each interval. Where appropriate, a line was made on the core for orientation during the core cutting and assaying, both of which were performed by American Assay Laboratories (“American Assay”).

Fronteer completed 4 holes at Abel Knoll in 2008—AK08-0054C through AK08-0057C—with Newmont taking over the project towards the end of the program. The first 3 holes were logged by Fronteer personnel—formerly with both WSMC and NewWest—with logging completed by Newmont personnel on the last two holes of the program. No samples were collected the first 20 to 30 ft. through alluvium in these holes. Average sample length for these holes was 4.8 ft.

Beginning in 2008, Newmont completed a total of 262 Core holes—including 4 SE Pediment Core tails—through 2012 and an additional 3 Core holes in 2015. Core was placed in waterproof wax-impregnated boxes from top to bottom, left to right. Wood blocks marking the footage depths at the end of each run—in addition to run length and measured recovery by driller—was also marked on the blocks. Core was typically gently washed to removed bentonite, excluding highly fractured or clay rich intervals. Project geologists checked rig daily to oversee progress and follow-up on drill-related issues. Once drilled, Core was stacked typically 40 boxes to a pallet, secured with double-looped rope and transported to a Core logging facility in Winnemucca.

Following detailed geologic +/- geotechnical logging, aluminium survey tags were inserted into Core boxes at sample footage breaks—stapled if Core was to be split—prior to photographing core. Sample breaks were based on lithologic, structural, alteration, mineralization and oxidation boundaries—with typical sample intervals not to exceed 5 to 6 ft. Geochemical composite intervals were based off these same breaks not to exceed 25 ft. To account for previously documented “nugget-effects” present at Sandman, the majority of Newmont Core was PQ in diameter and whole sampled at the Core shed. Samples were placed in large cloth bags labelled with Hole and Sample ID. Sample barcodes were stapled to tags on the outside of sample bags. Selective Core pucks, typically 0.4 ft in length, were collected approximately every 20 to 50 ft. to represent lithologies, alteration, mineralization and oxidation characteristics. These samples served as reference material as well as were utilized for Specific Gravity (“SG”) measurements.

For cut drill holes, saw lines were typically marked with either permanent marker or wax lumber crayons by the logging geologist. Core was then transported to Newmont’s Maggie Creek, Battle Mountain or more typically Twin Creeks Core facility for splitting. Strict procedures were adhered to regarding cleaning of core saws and sample preparation areas to avoid sample cross contamination between holes and projects. Core saws were thoroughly cleaned at the end of each shift, between holes, and between exceptionally clay-rich sample intervals. Cut holes were sawn in half, excluding 19 metallurgical holes which were ¼ split for assay. Remaining material from these holes was composited by grade and geologically logged characteristics for metallurgical analysis. Checks were made throughout sampling to ensure correct intervals were placed in corresponding cloth bags labelled with hole ID and footage. Bar code sample IDs were stapled to outside tag.

## 11.2 Analytical Procedures

For the Kennecott drill programs, drill logs indicate Bondar Clegg Inc. (“Bondar Clegg”) analyzed gold by fire assaying (“FA”) 30-gram charges with atomic absorption spectrometry (“AA”) finish for a majority of RC and Core samples. Bondar Clegg is now part of ALS Chemex (“Chemex”), which holds ISO 9002 laboratory accreditation and ISO:9001:2000 for North America. Chemex completed gold check assays on SM-0061 while Barringer Laboratories, Inc. of Sparks, Nevada (“Barringer”) completed check assays on SM-0064. Barringer also analyzed silver, arsenic and mercury. Certificates for this drillhole states silver and arsenic were analyzed via AA while mercury was analyzed by “HYG”. Barringer also completed primary analysis for holes SM-0077, SM-0078 and SM-0079. Analysis for SM-0077 included 30-gram FA with AA along with silver, thallium, tellurium and antimony by AA, while SM-0077 and SM-0079 had gold analyzed by 30-gram FA with AA finish, silver and arsenic analyzed via AA and mercury analyzed by “HYG”

Chemex analyzed samples from the Santa Fe drilling program also by traditional 30-gram FA with AA finish. Two samples triggered by over-limit were re-analyzed by 30-gram FA with gravimetric finish to determine gold values. Assay certificates indicate samples were ring crushed to approximately 150 mesh.

USBC drill samples were analyzed by 30-gram FA with AA finish. Silver was also analyzed by AA. Check assays for both gold and silver were completed by American Assay by an unknown method for holes RR-00051 through RR-00058 and RR-00060. Check assays ran on RR-00084 for the entire hole was also completed by Barringer. Analysis included gold FA and silver, arsenic and zinc analyzed by AA. For USBC Core holes, only a single assay certificate has been located for RC-00003 indicating gold analysis by screen fire methods. Gold was analyzed by FA with AA finish separately for screens at +30, -30 to +60, -60 to +80, - 8 to +100, -100 to +140 and -140 mesh with a calculated gold assay reported. Gold was also analyzed by FA with AA finish from a separate split from each sample. No additional data has been observed for sample preparation or analysis for these holes.

All 1996 WSMC RC samples and two Core holes, SR96-001C and SR96-003C, were analyzed by Barringer. Gold was assayed by 30-gram FA with AA finish. Four samples grading between 0.15 and 1.9 opt were reanalyzed by 30-gram FA with gravimetric finish. Samples submitted prior to August 12, 1996 were pulverized by a ring-and-puck pulverizer. Later samples were pulverized with a rotating-disc pulverizer as per the recommendations of Cone following a study commissioned by WSMCC. Cone analyzed 13 RC samples from SEP96-0051 by 30-gram FA with AA finish as part of this study. Cyanide soluble assays were completed by Barringer on 1996 drill samples that returned fire assay values greater than 340ppb (0.01 opt oz.). The technique involved agitating 30-gram splits for 1¼ hours in a hot cyanide solution.

Samples from the three remaining 1996 WSMC Core holes, SEP96-001C, SEP96-002C and SEP96-003C, were analyzed by Legend Laboratories of Reno, Nevada (“Legend”). Legend completed 30-gram FA with both gold and silver determined by gravimetric finish. SEP96-001C sample 82 to 84 ft. recorded the highest gold assay value within the Sandman database at 112.39 opt (3,853 ppm). Cold cyanide assays were also completed. Additional data on sample preparation and analysis has not been observed in the files.

American Assay became the primary analytical laboratory for WSMC in 1997 and has remained so throughout the Sandman project to date excluding three holes drilled in 2000 and a single NSM-series drill hole completed in 2010. American Assay obtained ISO 9002 registration in 2000. All 1997 drill samples were analyzed by 30-gram FA with AA finish. Assay samples that returned values >340ppb (0.01opt) were subsequently submitted to American Assay for AuCN, AgCN and silver analysis (D210 method) in which 0.5-gram sample was digested by aqua regia to 10ml and analyzed via AA. Additional analysis completed by American Assay included a 69-element ultra-trace geochemical suite—two acid digestion and analyzed by inductively coupled plasma (ICP) analysis and mercury analyzed by Cold Vapor AA, completed for RC drill holes NH97-0021 and NH97-0022. This geochemical analysis was for 10 ft. composited intervals.

WSMC drilled four RC holes in 2000 at SE Pediment. Samples for these drill holes were analyzed by Rocky Mountain Geochemical (Inspectorate) located in Sparks, NV. For these samples, gold was analyzed by 30-gram FA with AA finish and silver was analyzed by aqua regia digestion and AA for each sample interval. Three samples—two from SEP00-0065 and one from SEP00-0067—were later analyzed for gold by 30-gram FA with gravimetric finish. Two

samples from SEP00-0065 were sent to American Assay for check assays of gold by 30-gram FA with AA finish and silver by AA D210 method.

Holes completed by the WSMC-NewWest Joint Venture (“JV”) in 2002, 2004 and 2005 used American Assay as the primary laboratory. RC samples were analyzed for gold by 30-gram FA with AA finish. Pulps returning high values—triggered at 10ppm (0.3 opt) threshold—were re-analyzed by 30-gram FA with gravimetric finish. Samples that returned values >340ppb (0.01opt) were submitted for analysis for AuCN, AgCn and silver—methods included D210 AA previously described and D2A in which a 0.5-gram sample was dissolved in two acid solution to 15ml and analyzed by ICP. AuCN and AgCN assay was completed using two-hour cyanide shake test. Additionally, 7 RC holes—SEP02-0069, SEO02-0070, SEP02-0071, SEP02-0073, SEP02-0075, SEP02-0076 and SEP02-0081 were analyzed by screen fire for samples identified as having visible gold.

In 2006, WSMC relinquished control of the Sandman project to NewWest. American Assay was retained as the primary lab and analytical procedures remained identical to previous procedures in place—with gold analyzed by 30-gram FA with AA finish and samples greater than 10 ppm (0.3 opt) triggering re-analysis by 30-gram FA with gravimetric finish. Samples that returned values >340ppb (0.01opt) were submitted for AuCN, AgCN and D2A silver.

A number of 2006 and 2007 RC and Core were analyzed by screen fire assay, either for selected intervals instead of 30-gram FA with AA finish of in their entirety. Holes with spot screen fire in place of 30-gram FA include RC holes AK07-0031, AK07-0038, AK07-040 and Core hole AK07-0028C at Abel Knoll. Four confirmation Core holes at North Hill—NH06-0106C through NH06-0109C—have selected intervals analyzed by screen-fire assay not analyzed for by 30-gram FA. A ten-hole confirmation Core program was also completed at SE Pediment in 2006. These holes consist of SEP06-0096C through SEP06-0105C. Note many of the holes from this program have large intervals assayed by FA sampled on 10 ft. intervals. Core holes SEP06-0096C through SEP06-0098C, SEP06-0100C, and SEP06-0101C were sampled entirely by 30-gram FA with AA finish. SEP06-0099C was sampled predominantly by FA method with select intervals analyzed by screen-fire assay rather than FA while SEP06-0102C through SEP-0105C were sampled in their entirety by screen-fire methods. A three-hole confirmation Core program was also completed at Silica Ridge in 2006. SR06-0130C, SR06-0131C and SR06-0132C were assayed in their entirety by screen-fire methods. A 2007 follow-up Core hole, SR07-0105C was selectively sampled from collar to 34 ft. by screen-fire while the remainder of the hole was analyzed by 30-gram FA.

Fronteer acquired the Sandman project mid-2007, maintaining American Assay as the primary lab for programs in the second half of 2007 and 2008. All RC samples—along with core samples from AK08-0054C and AK-0055C—were analyzed by 30-gram FA with AA finish. Select AuCN, AgCN and silver were not analyzed for these holes. Core holes AK08-0056C and AK08-0057C, logged by Newmont personnel, were analyzed using screen-fire methods along with AuCN and silver using the D4A method, essentially the same analysis as the D2A method, only utilizing a four-acid digestion, analyzed by ICP. A 72-element, ultra-trace geochemical analytical suite digested by four acid and with ICP analysis was completed on AK08-00546C composited intervals of approximately 20 ft. Geochemical data is not available for the other Fronteer drill holes.

Newmont took over the project mid-2008, retaining American Assay as the primary lab with checks completed by Chemex. The majority of NSM-series Core samples were assayed for gold using screen-fire methods along with AuCN and silver using the D4A method described earlier. For the Newmont Screen FA process, the entire sample was crushed to 8-10 mesh, then a 1 Kg split was pulverized to 150 mesh. The 1 kg was then screened to get (+) and (-) 150 fractions. The (+) fraction was assayed in as many 30-gram or 15-gram assays as necessary to consume the entire fraction. Then two 30-gram assays were ran from the (-) fraction. Values reported on original certificates include (+) weight, (+) gold assay, (-) weight, (-) gold assay #1, (-) gold assay 32, and calculated Gold value. For reporting, the calculated gold formula is:

$$((+fraction * +weight)+((-value + -value)/2) * total -weight)) / total pulp weight (+weight + -weight)$$

Of the 229 Cored intervals within the NSM-series, 218 holes used this Core screen-fire suite of analysis. NSM-00121 was mistakenly submitted for the RC suite of analysis and only has traditional 30-gram FA with AA finish. NSM-00175 was analyzed by Chemex using screen fire-methods; however, AuCN and Ag analysis for this drillhole were not completed. Gold analysis for 2015 Core holes NSM-00385, NSM-00386 and NSM-00387 was by 30-gram FA with an ICP finish. Gravimetric finish for samples returning values >10ppm were completed for these three holes.

A majority of the 146 NSM-series RC holes were only analyzed for Au using 30-gram FA with AA finish

### **11.3 Sample Security**

The 2007 Technical Report by MDA states that there is no knowledge of sample handling and security procedures used in any of the drilling programs prior to 2000. Below descriptions of WSMC and NewWest sample security and chain of custody protocols are largely taken directly from MDA's report while summary of Newmont sample security and chain of custody are from Newmont internal SOP's.

#### **11.3.1 Kennecott Drill Holes**

No information is available for sample security and chain of custody during Kennecott's tenure (1987-1989).

#### **11.3.2 U.S. Borax Drill Holes**

No information is available for sample security and chain of custody during USBC tenure (1987-1989).

#### **11.3.3 Santa Fe Drill Holes**

No information is available for sample security and chain of custody during Santa Fe tenure (1990-1994).

#### **11.3.4 Western States Drill Holes**

No information is available for sample security and chain of custody during WSMC 1996 and 1997 programs.

During the 2000-2005 drill programs, RC drill samples were stored at the drill sites until they were picked up and transported to the analytical laboratory by personnel of either the analytical laboratory or WSMC. For the majority of the samples, however, the laboratory picked up the samples at the drill site, and the change in custody was documented by signature. Although the samples stored at the drill sites were not secured, drill contractor employees and/or WSMC personnel were present at the property during most daylight hours. There were no indications of any security problems during the drilling programs (Lanier, pers. comm., 2006).

#### **11.3.5 NewWest Drill Holes**

RC drill samples were stored at the drill sites until they were picked up and transported to the analytical laboratory by personnel of either the analytical laboratory or WSMC. For the majority of the samples, however, the laboratory picked up the samples at the drill site, and the change in custody was documented by signature. Although the samples stored at the drill sites were not secured, drill contractor employees and/or WSMC personnel were present at the property during most daylight hours. There were no indications of any security problems during the drilling programs (Lanier, pers. comm., 2006).

Core drilled by Kettle Drilling, Inc in 2006 was transported off site by Kettle to their office in Winnemucca. The core was then transported in pickup by NewWest staff to a logging facility in Reno. Once logged and photographed, core boxes were transported to the laboratory for cutting and assaying by NewWest staff. Core drilled by K & R Drilling in 2007 was stored on-site before being transported by pickup to the logging facility in Reno by NewWest staff.

#### **11.3.6 Fronteer Drill Holes**

Sample security and Chain of Custody protocols are believed to have remained consistent with that of the previously described WSMC and NewWest programs. This assumption is supported in that logs indicate the personnel working on the project during Fronteer's tenure (2007-2008) is nearly identical to the previous NewWest team.

#### **11.3.7 Newmont Drill Holes**

RC samples were stored at site in metal bins until drillhole completion and then typically picked up by American Assay personnel for transport to lab in Reno. Less commonly, samples were transported to a Newmont logging facility in Winnemucca by Newmont personnel and later picked up by American Assay. RC drill contractors and Newmont personnel were onsite during most daylight hours while Core drill contractors worked overlapping double shifts. There were no concerns regarding security at the site.

For Core holes, boxes were brought to Winnemucca logging facility at end of shift by drill contractors or picked up daily by Newmont personnel during frequent rig checks and inspections. The majority of drill Core was whole-Core sampled, with samples transported directly from Winnemucca to Reno by American Assay. For split core, stacked



core was securely bound on pallets and transported to one of three Newmont core facilities—typically Twin Creeks—for sample processing. Samples were then picked up at respective core facility and transported by American Assay. Signed sample submittals are available for the majority of Newmont drill holes.

## 11.4 Quality of Assay Data and Laboratory Tests

As documented by MDA in the 2007 Updated Technical Report, consistently implemented data checks and validation procedures appear to have been lacking in the various exploration programs at Sandman prior to 2004. Most drilling programs post 2004 had established QAQC procedures at least approximating current industry standards. The following information is a summary of the QAQC information that is available for the respective drilling campaigns from Sandman.

### 11.4.1 Kennecott Drill Holes

Consistent QAQC data validation procedures were absent for the majority of Kennecott’s drill programs (1987-1989). Limited check assay data against primary laboratory Bondar Clegg has been documented in the recent 2020 file review. These include check analysis on coarse reject by Chemex on SM-0061 and by Barringer on SM-0064. As part of the 2007 Sandman Updated Technical report, MDA reviewed check assays against original results for three drill holes completed by Kennecott in 1988. MDA concluded that umpire assays compared well with the original values.

**Table 5: Check analysis results and comparisons from drilling completed by Kennecott in 1988.**

Type	Assay Lab	Mean	Median	Std Dev	CV	Min	Max	No
<b>Original</b>	Bondar Clegg	0.110	0.008	0.586	5.327	0.000	3.766	41
<b>Check</b>	Chemex/Barringer	0.012	0.011	0.588	5.250	0.000	3.780	41

### 11.4.2 U.S. Borax Drill Holes

QAQC data validation procedures were limited during USBC’s drill programs (1987-1989). Check assays from 10 RC drill holes were submitted to American Assay in 1988. The drill holes checked from the U.S. Borax Drill Holes are not from within any of the Deposit locations which are the subject of the MRE in this Technical Report.

### 11.4.3 Santa Fe Drill Holes

Aside from internal check assays ran in 1992, consistent QAQC data validation procedures were absent from Santa Fe’s drill programs (1990-1994). As part of the 2007 Sandman Updated Technical report, MDA compared original assays and internal check assays performed on new pulps derived from coarse rejects. Chemex original and checks compared well in all cases.

**Table 6: Check analysis results and comparisons of drill hole information completed by Santa Fe in 1992.**

Type	Assay Lab	Mean	Median	Std Dev	CV	Min	Max	No
<b>Original</b>	Chemex	0.023	0.008	0.005	2.391	0.000	0.433	160
<b>Check</b>	Chemex	0.022	0.007	0.059	2.682	0.000	0.580	160

### 11.4.4 Western States Drill Holes

External QAQC data validation procedures were absent from early drill programs completed by WSMC. As part of the 2007 Sandman Updated Technical report, MDA compared original assays and internal checks for both Barringer and American Assay. Check analysis was performed on new pulps derived from coarse rejects in 1966, 1997 and 2002. Reviewed checks from 2004 were completed on duplicate splits from the drill rig. Original and internal checks compared well for both labs.

**Table 7: 1996 through 2004 Western States internal laboratory assay comparisons. Internal checks from 1996, 1997 and 2002 were from new pulps derived from coarse rejects. 2004 internal checks are from duplicate splits collected at the drill rig.**

Type	Assay Lab	Mean	Median	Std Dev	CV	Min	Max	No
<b>1996 Original</b>	Barringer	8.444	0.106	18.736	2.219	0.010	55.772	10
<b>1996 Check</b>	Barringer	8.784	0.093	19.319	2.199	0.011	55.553	10

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<b>1997 Original</b>	American Assay	0.021	0.003	0.082	3.905	0.000	0.729	133
<b>1997 Check</b>	American Assay	0.018	0.003	0.063	3.500	0.000	0.462	133
<b>2002 Original</b>	American Assay	0.045	0.004	0.132	2.933	0.000	0.837	53
<b>2002 Check</b>	American Assay	0.047	0.005	0.133	2.830	0.000	0.729	53
<b>2004 Original</b>	American Assay	0.002	0.000	0.004	2.000	0.000	0.016	32
<b>2004 Check</b>	American Assay	0.002	0.000	0.003	1.500	0.000	0.011	32

In 2000, WSMC performed check assays on second splits collected at the drill rig for two RC holes. MDA concluded there was insufficient data—5 checks—to derive conclusions from these results. Drillhole ID's were not mentioned in the report.

**Table 8: 2000 Western States drill holes coarse reject check assay comparisons.**

Type	Assay Lab	Mean	Median	Std Dev	CV	Min	Max	No
<b>Original</b>	Rocky Mountain	0.157	0.092	0.204	1.299	0.009	0.515	5
<b>Check</b>	American Assay	0.077	0.096	0.050	0.649	0.012	0.134	5

MDA states that WSMC sent 80 coarse rejects (representing 5.1% of drill samples) from the 2004 RC drilling program to Chemex for gold and silver check-assaying. Sample intervals sent for checks were selected to cover the range of grades encountered in the drill holes. Two to five sample rejects were sent for check assays from each of the 25 drill holes. MDA stated check analyses compared quite well with the original American Assay results.

**Table 9: 2004 Western States reject check assays.**

Specifics	Au (oz/ton)		Ag (ppm)	
	Chemex	American Assay	Chemex	American Assay
<b>Mean</b>	0.016	0.016	1.2	1.1
<b>Median</b>	0.004	0.005	0.5	0.6
<b>Std Dev</b>	0.032	0.032	1.5	1.4
<b>CV</b>	2.089	2.028	1.3	1.3
<b>Min</b>	0.000	0.000	0.0	0.0
<b>Max</b>	0.184	0.168	6.3	7.9
<b>Count</b>	80	80	80	80
<b>Correlation Coefficient</b>	0.96		0.89	

Additional data reviewed as part of this Validation Report consisted of internal reruns from 5 select WSMC drill holes. Sample interval spread and grade distribution observed suggests a somewhat systematic approach to WSMC's rerun analysis. Reruns were inserted roughly one every 10 sample—in addition to being triggered by initial assays greater than 1000ppb—in some holes; however, in others, rerun samples occur approximately every 20 samples and were not triggered by threshold. For the 21 samples compared, the majority show good agreement with minimal variation.

#### 11.4.5 NewWest Drill Holes

Lustig (2007) completed a comprehensive review of NewWest QAQC data from the 2006 through 2007 drill program. NewWest's expanded data validation efforts included the insertion of assay standards, blanks and rig field duplicates into the sample stream. A number of American Assay pulps were also sent to Chemex for check assay in 2006. The below summary is taken directly from MDA's 2007 Sandman Updated Technical Report.

**NewWest Standards:** Certified analytical standards provide a measure of the accuracy of the American Assay analytical results. Lustig found that 18% of the assays of the analytical standards submitted to American Assay with the drill samples exceeded the three standard-deviation threshold from the certified (or 'expected') results, with most of these 'failures' being higher-grade than the certified results. These findings led NewWest to request that American Assay re-assay all samples from jobs that included standards that "failed."

As part of check assaying of American Assay pulps by Chemex, discussed below, Chemex also assayed two NewWest standards two times each, for a total of four analyses. All four of the Chemex analyses of these standards returned values higher than the certified results (Lustig, 2007). These results, in combination with the Chemex check assays of original American Assay pulps, discussed below, suggest that the high failure rate of the NewWest standards is likely related to a problem with the standards, not with the original American Assay analyses.

**Internal Standards:** American Assay inserted analytical standards into the NewWest assay jobs and provided the results to NewWest. In contrast to the NewWest standard results, the American Assay standards showed no bias and a low “failure” rate.

**Blanks:** Lustig found that one blank analysis exceeded his ‘failure’ limit of five times American Assay’s analytical detection limit for gold of 3 ppb ( $5 \times 3 \text{ ppb} = 15 \text{ ppb}$ ). This ‘failure’ returned 22 ppb Au, and Lustig concluded that the samples are generally free from laboratory contamination.

**Rig Duplicates:** The NewWest rig-duplicate samples consisted of second splits from the RC rig or the remaining half core following the removal of the primary assay sample in the case of core holes. Lustig reviewed the results of 376 primary/rig-duplicate sample pairs analyzed by American Assay and concluded that the data suggest that a ‘nugget effect’ has lowered the precision of the NewWest 2006–2007 analytical results. Lustig noted that increasing the sample size could result in increased precision in future programs. He also suggested that screen-fire assaying should be considered.

**Pulp Duplicates – Primary Laboratory:** Lustig examined the results of 738 original pulp/duplicate-pulp pairs analyzed by American Assay. These pairs represent original duplicate analyses of the same pulp by the same laboratory, and therefore are a measure of analytical precision. As with the 2006–2007 rig duplicate samples discussed above, Lustig concluded that the data indicate that a nugget effect is present at Sandman.

**Pulp Duplicates – Check Laboratory:** A total of 294 check assays by Chemex on original American Assay pulps were reviewed by Lustig. The original/check pairs relate to the accuracy of the American Assay analytical results. Lustig found that the mean and median of the Chemex check assays are about 3% lower and 11% higher than the original American Assay results, respectively. With outliers removed, the Chemex mean and median are about 4% higher and 8% higher, respectively. Lustig concluded that there is no significant relative bias between the American Assay primary analyses and the Chemex check assays.

#### 11.4.6 Newmont Drill Holes

QAQC data validation procedures for Newmont drill programs (2008 through 2015) consisted of standard and blank insertion into the sample stream at American Assay in addition Split duplicates for Core intervals. Additionally, coarse rejects and/ore pulp duplicates were submitted to ALS as checks against primary laboratory American Assay. Insertion rates appear adequate, with systematic checks in place to evaluate all data in real time; however, first pass analysis of Newmont standards suggests issues associated with creation of these internal standards and sample QAQC sample labelling and/or handling issues.

Newmont internal QAQC SOP states that for RC drilling, standards were to be inserted at 100 ft. and every 200 ft. afterwards—ensuring insertion rates of 2–5% with at least one standard inserted in every lab batch of analyses. A similar insertion rate was stated for blanks, beginning at 50’ and inserted every 200 ft. thereafter. All blanks utilized on the project were coarse river gravels delivered in large bins to each site. Field duplicates were to be taken for 1–5% of RC footage sampled. Similar insertion rates for standards, blanks, and Core split duplicates—rather than rig field duplicates—were recommended for all Core drilling programs.

Newmont’s Internal Stage 3A final Report (2012) states the following regarding the evaluation of QAQC sample results. “For standards and blanks, as the electronic assay results are received from American Assay results are evaluated to determine if they are within compliance limits. Any standard lab value that fails to be within the two standard deviation limits is noted and the American Assay lab notified that they need to re-run the sample batch associated with the failed standard. Other issues concerning failed standards, such as switched or mislabeled

standards, are evaluated with an explanation of the problem and corrective action taken recorded in the spreadsheet. Blanks are checked for significant gold values which would indicate possible contamination. If a blank indicates a contamination problem, the American Assay lab is contacted and the lab batch associated with the contaminated blank is re-assayed.”

It has been observed that many of the failed standards were evaluated and determined reruns were not warranted. Failed standard pulps were often re-assayed and determined acceptable and there are comments for rejects being rerun or needing to be re-assayed. Records for Newmont QAQC maintenance and review are limited for 2011 and 2012 drill programs, while QAQC documentation of performance and review are extensive for the limited drilling that occurred in 2013, 2014 and 2015.

Although there is some risk associated with the reduced level of QAQC samples undertaken in part of the Newmont drilling programs, the author deems this risk to be low and unlikely to have had a material effect on the MRE.

## **11.5 Verification of Sampling and Assaying**

As part of the validation process for the drill hole database received from Newmont, a large number of original assay sheets were checked against the assay data in the database. This was originally completed for some selected drill holes (see section 12) and went further to check up to 20% of all drill holes that are in the Sandman drill hole database.

The author has not identified any material issues with either the quality control check assays or from a review of the original laboratory data sheets which appear to be all correctly entered into the drill hole database.

## **11.6 Audits or Reviews**

### **11.6.1 Review of Quality Control Results, Sandman Project, Nevada. Lustig, 2007.**

In May of 2007, Gary Lustig prepared the report “Review of Quality Control Results, Sandman Project, Nevada” for NewWest Gold Corporation. The report outlines the quality control program for the 2006 drill program instituted by NewWest at the Sandman project as well as results and recommendations. Results documented a slight high bias for gold analyses relative to Rocklabs certified reference materials (“CRM”) in addition to a large number of standards exceeding acceptable range. A total of 18% of the CRMS’s failed the  $3\sigma$  control limit for gold analyses completed by American Assay. External pulp duplicate check assays completed by ALS Chemex showed no relative bias in gold analyses. Rig duplicates assessed for analyses precision indicated less than ideal precision likely due to a significant contribution of coarse gold. No contamination during sample preparation was indicated in blank material analyses. In conclusion, the quality control program implemented at Sandman meet NI 43-101 requirements. Further, this study identified and rectified a number of issues that improved quality assurance of NewWest- Fronteer 2007 and 2008 drill programs. These included increasing sample size as indicated by a review of 2007 Abel Knoll assay certificates, recommended increased pulp size and the increased use of screen-fire assay analyses for the complete mineralized zone rather than just intervals above a certain cutoff.

### **11.6.2 Audit of Newmont Nevada Sandman Exploration Drilling Data; AMEC, 2011**

AMEC completed the report titled “Audit of Newmont Nevada Sandman Exploration Drilling Data” in August of 2011. This systematic review and audit of the Newmont database consisted of collar coordinates and other drill hole data for 1,173 drill holes located in the greater Sandman project area. Newmont’s data provided for audit at the time spanned 24 years—beginning in July of 1987 and going through May of 2010. AMEC selected 60 semi-random drill holes—15 drill holes from each of the four identified gold resource areas, North Hill, Silica Ridge, SE Pediment and Abel Knoll. Selection of audited drill holes was performed by dividing the drill holes into time frames and selecting approximately five percent of drill holes within each period. Assays, geological logging data, DH surveys, SG data and Core recovery were reviewed in this audit.

An incomplete assay export from Newmont’s AcQuire database was provided to AMEC initially, with gold assay results missing from 297 drill holes. This included 11 of the original 60 drill holes, or 18.33% of those selected for audit. Newmont provided additional assay data for these holes once the error was discovered, but much of the audit work had been completed by this time and assay data for these holes were not included in global consistency checks.

After converting to equivalent units and allowing for rounding error, all paper copy assay results were found to agree where drillhole and footage could be matched. The digital assay data error frequency was 5 errors per 331 samples, or 1.5%—marginally acceptable for assay data. Cyclicity analysis found a small number of occurrences and thus

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suggested that downhole contamination was not a high risk for RC drill holes. Additional revelations from this study indicated the database had AuCN entries of 0.001 opt for intervals not assayed, concluding “this is a serious error as it can lead to the unsubstantiated interpretation that the samples have no cyanide soluble gold (i.e. that the interval is refractory in a metallurgical sense) when in fact that has not been measured and may not be the case.” The recent GBRC database validation review indicates this issue was never rectified by Newmont.

Minor discrepancies were noted between geologic data entries in legacy drillhole logs and those stored within the Acquire database. Lithologic coding had been added or modified slightly by Newmont and prior operators through the life of the project, with AMEC stating “as the volume of geologic drill hole data and knowledge increases with time, the likelihood of there being a more accurate recognition of geologic features also increases.” AMEC concluded that mismatched geologic data entries were not considered to be problematic.

A review of drill holes surveys indicated no results for assay or geologic data exceeded the TD for any holes within the database and no issues were recognized in which azimuth or dip exceeded 360 or -90 degrees respectively. Two of the five vertical drill holes greater than 1,000 ft. in length within the database did not have downhole surveys, while 19 of the 74 angled holes with TD’s greater than 600 ft. did not have DH surveys. AMEC states they are “of the opinion that vertical holes greater than 1,000 feet long and angle holes greater than 600 feet long should have downhole surveys”

A review of SG density sample data determined density data used for modelling purposes was reasonable and recommended a review of any SG data where significant differences from the database averages were encountered. AMEC also states that available Core recovery data at time of audit indicated a low risk of underestimating gold grade globally; however, recommended that better core recovery measurements be completed.

## 12. DATA VERIFICATION

The Sandman database used for the MRE originated from a series of data extractions that were provided to Gold Bull from Newmont. A number of detailed reviews of this extracted data was undertaken by Gold Bull and under the guidance of the author to validate the accuracy of the data to be used for the MRE.

A detailed review of 38 selected drill holes were initially completed to ensure that there were no systematic errors associated with each generation and/company of drilling in addition to checking data from each Deposit location. The drill holes selected were also chosen on the basis that they contained assay results that were likely to have a significant impact on the MRE.

The selected drill holes were reviewed in detail for the following:

- Review of the drill hole collar locations, including potential issues associated with grid conversion, or systematic hole location issues.
- Review of all original logging data and laboratory assay sheets to ensure that the drill hole database has correctly recorded all of this information.
- Review of the QA/QC procedures and results from the QA/QC data
- Review of the final preferred gold value for Mineral Estimate against the original assay data sheets

These holes were the subject of the site visit by Mr Michael Ressel and Gold Bull Staff, who were able to identify verify evidence for approximate collar locations for 36 of the 38 drill holes with regard to their reported location. In some cases, earlier rehabilitation of the drill pad prevented the confirmation of the exact location of the drill hole collar. Based on this site visit there is no evidence to suggest that the drill hole collars are incorrectly located in the drill hole database

A further investigation of satellite imagery both current and old (prior to rehabilitation) indicated that the bulk of the Western States Minerals drill holes are correctly located and there is no discernible bias due to a grid conversion or other systematic error to suggest that they are wrongly located.

For a more comprehensive check of the drill collar locations, the bulk of the drill holes in the drill hole database have been reviewed against satellite imagery to see if they is any evidence of site disturbance to confirm that a drill hole exists where it is reported.

It is the view of the author that based on the drill holes investigated both on the ground and via satellite imagery, that the drill holes are correctly located.

To further investigate any potential issues with the assay data in the database, a up to 20% of the original assay laboratory certificates were checked against the entire Sandman database with no material issues identified. QA/QC data for these holes were also investigated, again with not material errors or issues identified.

For the various generations of drilling and subtle variations in logging codes, some rock units are classified differently. However, these variations are generally minor and do not appear to have materially impacted on the geological interpretations which are important for the definition of the defined mineralized domains at each Deposit location.

In summary, the review of selected drill holes has not identified any major issues or discrepancy between the original data and what is recorded in the drill hole database. On the basis of this review and including the further independent reviews that have been undertaken earlier by Lustig (2007) and AMEC (2011), the author is comfortable that the drill hole database is largely accurate and representative of all the drill hole data which has been used for the MRE reported in this Technical Report.

## 13. PROCESSING AND METALLURGICAL TESTING

### 13.1 Metallurgical Factors or Assumptions

Metallurgical test work has been completed over a number of stages, predominantly from the Silica Ridge and Southeast Pediment deposits. Test work completed prior to 2010 was summarised within a technical report by Olson (2010) and further summarised within internal Newmont documentation as part of their proposed development plans for Sandman (Newmont 3A Report, 2012).

The report by Olson (2010) was a summary compilation of earlier test work completed by external parties in addition to some more recent test work completed internally by Newmont.

The following summary leading to the current assumptions associated with the potential processing methods, costs and gold recoveries are largely taken from the Olson 2010 report.

Both the pre-Newmont and Newmont bottle roll test work showed the potential for average recoveries of over 80%, and in some cases over 90% for samples taken from Silica Ridge and Southeast Pediment. In addition, silver recoveries (from the Newmont test work only) identified average recoveries of over 70% based on a fine grind size bottle roll tests.

This indicates that the bulk of the gold mineralization throughout Sandman are free milling and potentially amenable to both heap leach processing and conventional crush/grind/CIL processing. In addition, Newmont tested for preg-robbing carbon and found no indication that this would be an issue.

Column leach testing undertaken by KCA in 1997 from both Silica Ridge and Southeast Pediment at various size fractions from 1 inch down to 0.25 inch all yielded results of over 75% for all size fractions and over 85% recovery the finer size fraction. Column leach test work subsequently undertaken by Newmont identified similar results for their bottle roll test work, however, their initial column leach test work, which was done at the coarser size fraction of 1.5 inches resulted in a much lower gold recovery, with an average of less than 50%.

Further test work has yet to be undertaken to understand the optimal grind size required to achieve recoveries of 80% or higher. However, given the lower recoveries reported from the column leach test work by Newmont the best estimate at this stage is that a 3-stage crushing circuit will be required to achieve the recoveries which are closer to the column leach results obtained by KCA in their 1997 test work. For the purpose of assessing an open pit constraint on the Mineral Resource estimate, a processing cost of US\$7 per tonne for 3 stage crushing plus agglomeration followed by heap leach processing was assumed to achieve an average gold recovery of 80%.

The test work reported on by Olson identified very few sulphide samples which completed as part of the pre-Newmont test work or by Newmont. The only sulphide rich material assessed by Newmont at a coarse grind size yielded a very low recovery of 15%. However, the limited sulphide rich samples from Southeast Pediment completed as part of the bottle roll tests identified recoveries averaging 80% based on a grind size of 80% passing 200 mesh.

Further test work is required to adequately determine the optimal processing circuit and resulting average gold recovery for the fresh rock gold mineralization at Sandman. At this stage it is considered likely that a conventional fine grind and CIL processing plant would achieve recoveries of over 90%. The current assumptions applied to the gold mineralization that is classified as fresh rock, or with sulphide minerals present, assumes a cost of US\$15 per tonne for a fine grind and CIL processing circuit to achieve a 92% gold recovery.

## 14. MINERAL RESOURCE ESTIMATES

The current level of geological understanding of the gold mineralization at all four projects on the Sandman property is relatively well understood, based on a high concentration of drilling, including diamond drilling and shallow open pit exposures and follow up technical Research. The information available at Sandman has provided a high level of confidence with regard to the main geological features which have influenced the location and extensions to the gold mineralization. The following descriptions provide for specific reference with regard to the geological features that have influenced the Sandman block model which was created for the purpose of defining an updated MRE up to the effective date of this report.

### 14.1 Geological Domains

#### 14.1.1 Geology 3D Model

An updated geology model was created to define the major geological units that were previously identified to have an important influence on the location and distribution of the gold mineralization. Details for these stratigraphic units have been described in section 7.2. The relationship to the geological units and the various mineralized domains are described in section 14.2 below.

The geology model was created using Leapfrog and based on a combination of the original rock codes as defined in the drill hole database and previous 3D wireframes which had been exported from a Vulcan model that was created by a Newmont geologist in 2012. The details associated with the geological model and relationship to the gold mineralization was also documented by Newmont in an internal report, extracts of which are also included in section 14.2 of this Technical Report.

#### 14.1.2 Oxidized-to-Unoxidized/Fresh Rock Model

As part of the work undertaken by Newmont in 2012, an oxidized to unoxidized (fresh rock) boundary was created in their Vulcan model for the purpose of separating the weathered material (amenable to heap leach processing) from the fresh rock material, which is considered more likely to require finer grinding and conventional cyanide leaching.

As a general observation for the Sandman region, the northern deposits of Silica Ridge and North Hills have deeper weathering profiles with minimal to no sulphide material observed over the depths considered for the MRE at these deposits. Therefore, the main consideration and relevance of defining a boundary between oxidized rock and fresh rock relates to the Abel Knoll and Southeast Pediment deposits.

The defined oxide to fresh rock boundaries were compared against the drill hole logging and assay information. The information in the database which pertains to the oxide to fresh rock boundary are as follows:

Logging information contains visually estimated records for oxidized, transition and fresh rock zones. There are many companies and geologists who have logged both the RC drilling and diamond drilling information from Sandman with minimal reference as to the basis for what criteria was used to classify each section. Therefore, the boundaries that are defined according to these visual estimates are considered to be approximate only and a guide for where the changes from oxide to fresh rock exists.

Visual estimates of sulphides were also made in the database information. This is also considered to be a guide and some locations of strong weathering appears to exist where minor sulphides have been reported.

Newmont completed a more detailed analysis in some drill holes for the sulphur content. This data is considered to provide for a more accurate representation of where the oxide to fresh rock boundary exists at both Able Knoll and Southeast Pediment. A review of this data set against the interpreted Vulcan wireframe from Newmont shows a good correlation against the drilling data for the sulphur content, and therefore the detailed weathering to fresh rock boundary created by Newmont was adopted as part of the weathering model for the updated Mineral Resource estimate.



## 14.2 Mineralized Domains

The mineralized domains were created based on a combination of features that were commonly observed and documented by geologists who have reported on the key geological features of each deposit and their relationship to the gold mineralization (MDA 2007, Anderson 2013 and Newmont 3A Report, 2012).

### 14.2.1 Abel Knoll Deposit

One of the more prominent features at the AK Deposit is the presence of significant gold mineralization associated with a diatreme breccia on the western side of the Deposit area. Immediately to the east of the diatreme breccia body there are a number of relatively flat lying trends of gold mineralization which extend in all directions broadly parallel to the relatively horizontal contact between the basement rocks and overlying Tertiary Volcanic rocks (see figure 25).

Mineralized domains were created to capture the gold mineralization which followed this interpretation, resulting in 5 overall domains, one diatreme breccia mineralized domain, two bedding parallel domains and 2 relatively isolated and bedding parallel domains with limited strike continuity.

### 14.2.2 Southeast Pediment Deposit

Gold mineralization at SEP is largely hosted in a due north striking and west dipping fault. Towards the surface the fault appears to break up along some sections into a separate hanging wall zone and footwall zone. Where the structures are close together the mineralized domain for the main structure was interpreted as one larger domain as it can be difficult and impractical to separate out the smaller sections of faulting towards the footwall or hanging wall.

In addition, there is some dispersion of gold mineralization parallel to stratigraphy to the east and west of this major fault zone close to the surface which have been defined as separate mineralized domains. At deeper levels there is an important controlling influence of the gold mineralization along the upper and lower contacts of a basalt unit which exists just above the contact with the basement rocks and on the eastern side of the main SE Pediment fault (see figure 26).

### 14.2.3 Silica Ridge Deposit

The gold mineralization at SR has some similarities to SEP with a major west dipping fault having a major influence as both a significant host to the gold mineralization and with significant dispersion on second order faults or along stratigraphic horizons away from this major fault.

The additional key feature of the gold mineralization at SR is the influence of a basalt dyke, which is significantly mineralized. This dyke is relatively narrow with a true width ranging from 10m to 30m and striking due east with a near vertical orientation. Further apparent intrusions or steep east striking gold mineralization also appear to exist subparallel to this dyke to the north, although this mineralized domain is generally poorly defined.

To the north of the dyke, the dominant west dipping SR is well defined, striking in a north-westerly direction (supported by observations in the magnetic imagery), and with associated linking smaller east dipping faults (see figure 27).

To the south of the dyke the dominant fault has not been defined by drilling, with the gold mineralization found to be associated with east dipping faults. The current interpretation is that these east dipping faults are in the hanging wall to a major west dipping fault that has yet to be tested. The magnetic images also suggest a continuation of this north-west striking fault continuing, with a possible offset towards the east (or downthrown) on the southern side of the basalt dyke.

### 14.2.4 North Hill Deposit

North Hill is dominated by shallow bedding parallel gold mineralization. The higher concentrations and more extensively defined mineralized domains are associated with either the upper or lower contact position of a basalt unit, within the broader Tertiary felsic volcanic rocks. A late staged fault striking to the north-east and dipping steeply to the north-west is interpreted to be a post mineralization fault, causing an offset to the bedding parallel gold mineralization.

At the position where the gold zones are close to the surface there is also some evidence of supergene enrichment with some flat lying gold mineralization at very high gold grades. This has been defined as a separate mineralized domain where the supergene gold mineralization is interpreted to exist.

### 14.3 Data Spacing and Distribution

The currently defined higher-grade sections of the Mineral Resource have a higher density of drill hole data, with broader drill spacing occurring away from these higher-grade centers and typically into lower grade sections of each mineralized domain. The high-grade structures at both SR and SEP have very tight drill spacing, down to 15m or in some sections. Further away for the bulk of the smaller structures and away from the higher grade sections the average drill spacing ranges from 30m to 60m for all of deposits. The outer extents are typically lower grade and often below the reported cut-off grade for the MRE in this Technical Report. In general, the drill data spacing for the bulk of the MRE provides good support for the majority of the Resource being classified in the Indicated Category. Although the tight drill spacing in some sections could also support the Measured Resource category, the natural variability of the gold mineralization prohibits any part of the MRE from being classified as Measured at this stage.

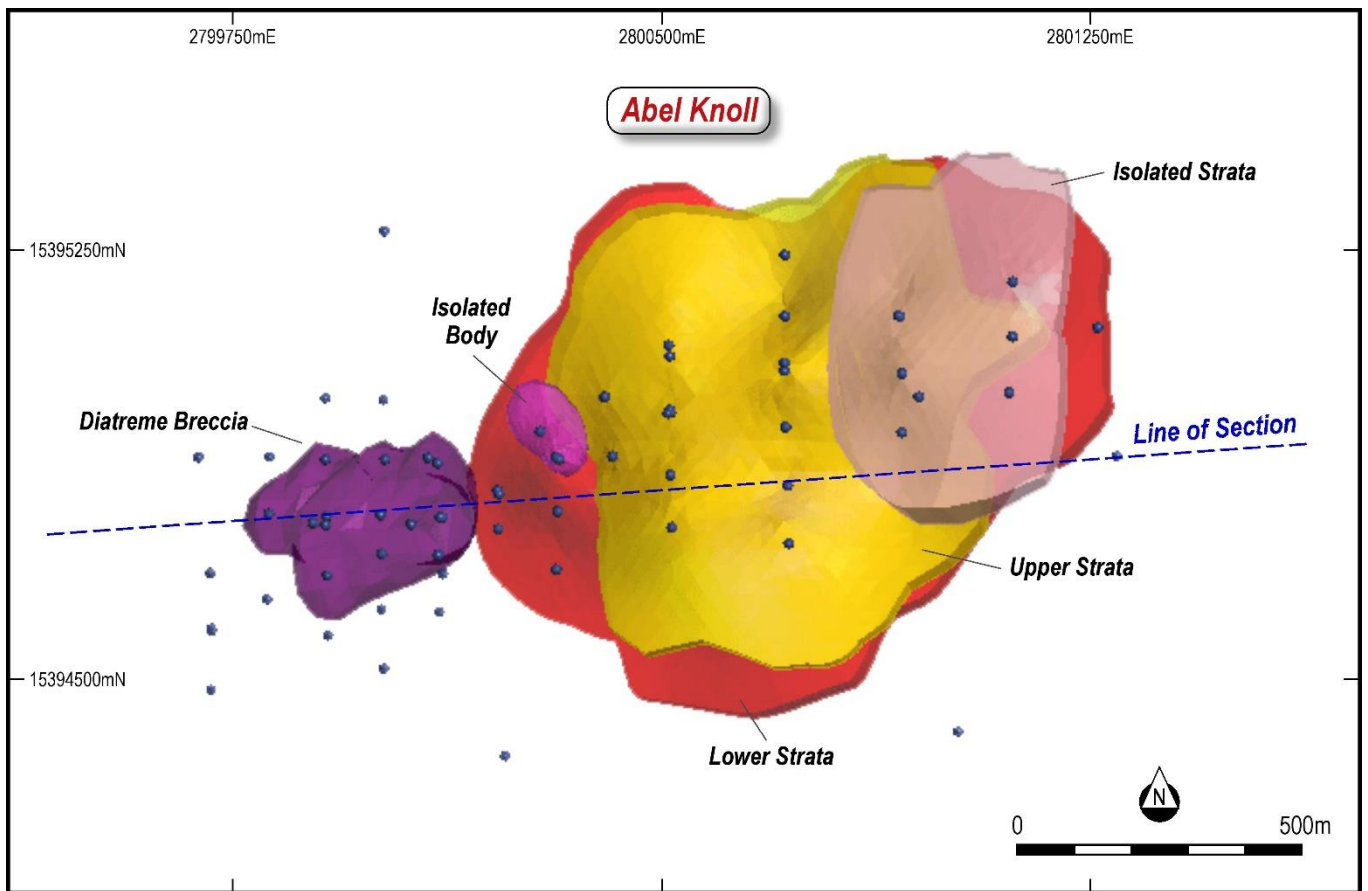


Figure 21: Plan view of the drill hole collar locations relative to the defined mineralized domains at the Abel Knoll deposit.

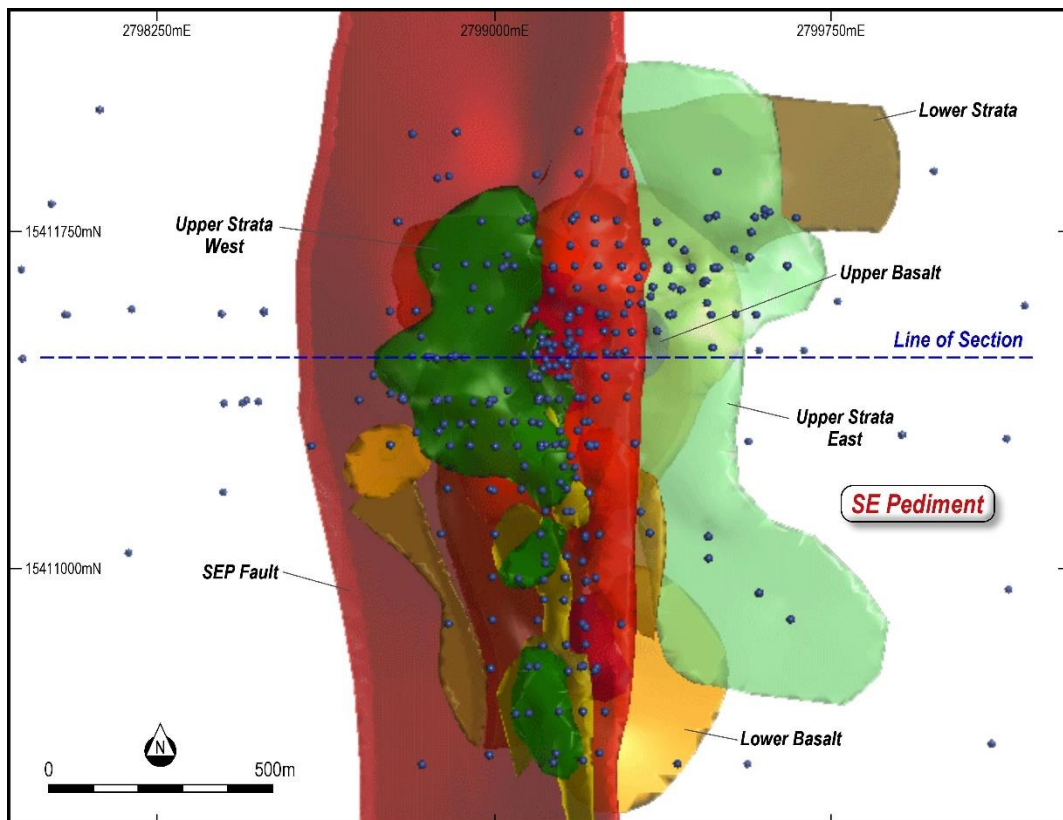


Figure 22: Plan view of the drill hole collar locations relative to the defined mineralized domains at the Southeast Pediment deposit.

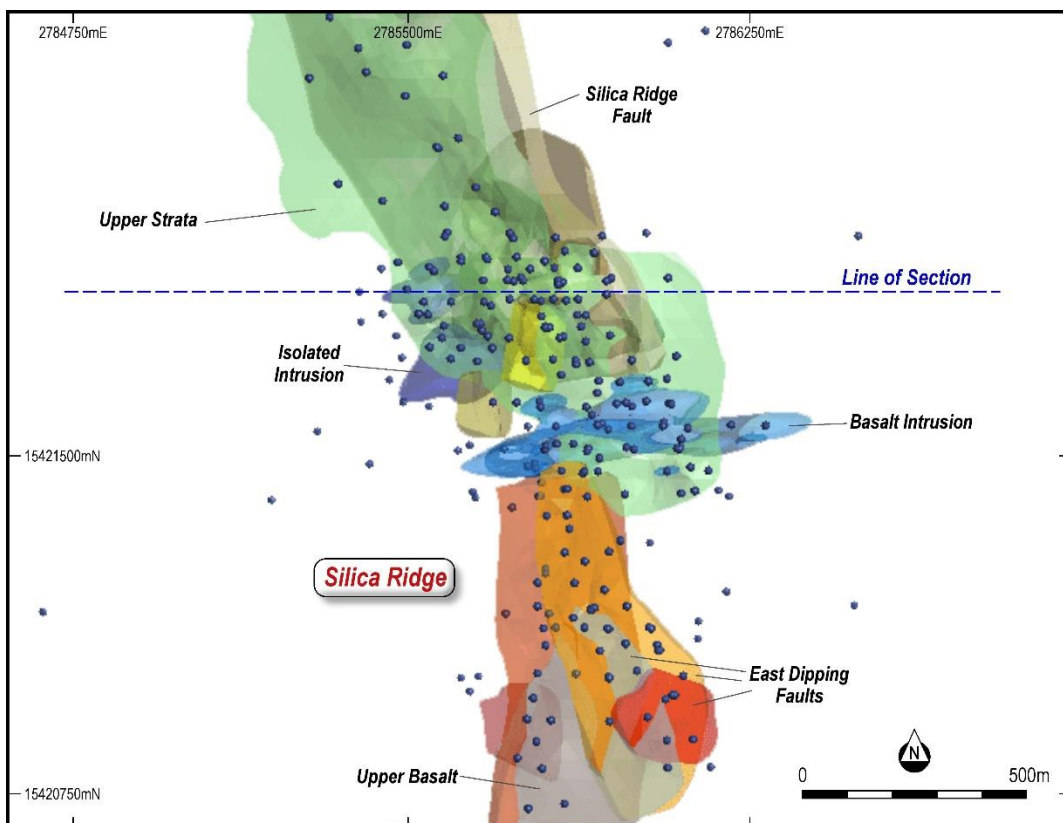
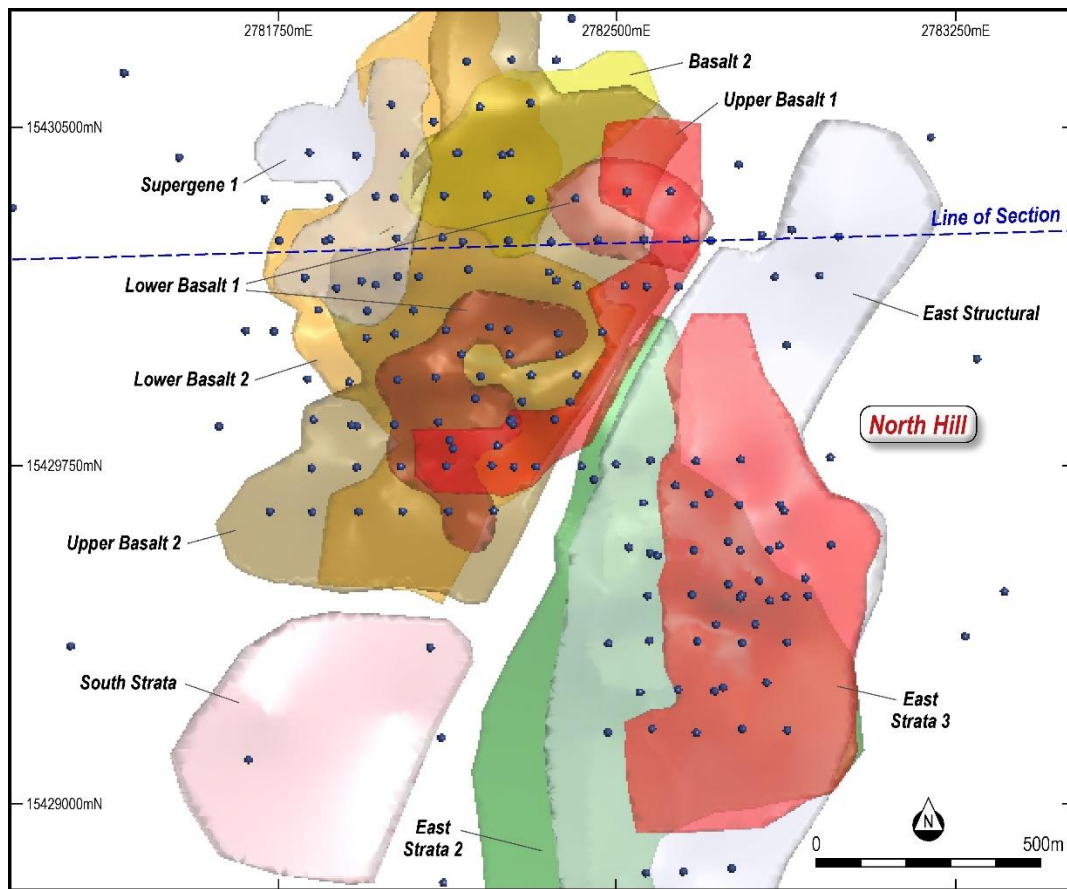


Figure 23: Plan view of the drill hole collar locations relative to the defined mineralized domains at the Silica Ridge deposit.



**Figure 24: Plan view of the drill hole collar locations relative to the defined mineralized domains at the North Hill deposit.**

#### 14.4 Orientation of Data Relative to Gold Mineralization

There are a wide range of mineralized domain orientations throughout the Sandman property, from steep east and west dipping faults to relatively flat lying bedding parallel sections in addition to steep east dipping dykes and also the vertically plunging diatreme breccia at AK. Despite this wide variety of orientations for the gold mineralization, in most cases these orientations have been understood for some time and the bulk of the drilling information, particularly from the later drilling programs by Newmont, are at an angle which is predominantly perpendicular to the defined gold mineralization. Therefore, in most cases the drilling angle is favorable for capturing representative samples across each mineralized domain. There are very few cases observed where the sampling orientation has compromised the integrity of the MRE.

#### 14.5 Database Integrity

The database for Sandman was originally extracted from the Newmont internal database system via a series of queries which was designed to extract of the information pertaining to the Property. Gold Bull has gone through an internal validation of this database broken down by each generation of drilling, and by project location.

The details of the validation process undertaken with regard to the drill data that was ultimately used for the updated Sandman MRE is largely documented in sections 10, 11 and 12.

In summary, a large number of drill hole locations were checked against satellite imagery to confirm disturbance that is commensurate with the position of an historical drill hole. In addition, a number of selected drill holes from each generation of drilling and also for each project location were chosen for a more extensive check (including on the ground field check) for their collar location, down hole survey records, original assay results and any other relevant logging information to ensure that the original data records could be confirmed from the extracted Newmont data.

Apart from a small number of drill holes where some information was either lost or appear to be mis represented in the database, over 98% of the drill holes were ultimately considered validated and included as part of the MRE (see table 9).

**Table 10: Summary of validated drill holes used within the block model for each Deposit at Sandman.**

Location	Diamond Drill Holes		RC Drill Holes	
	Holes	Validated	Holes	Validated
Abel Knoll	6	6	60	60
SE Pediment	127	124	233	231
Silica Ridge	87	86	207	204
North Hill	37	33	160	155
<b>Totals</b>	<b>257</b>	<b>249</b>	<b>660</b>	<b>650</b>

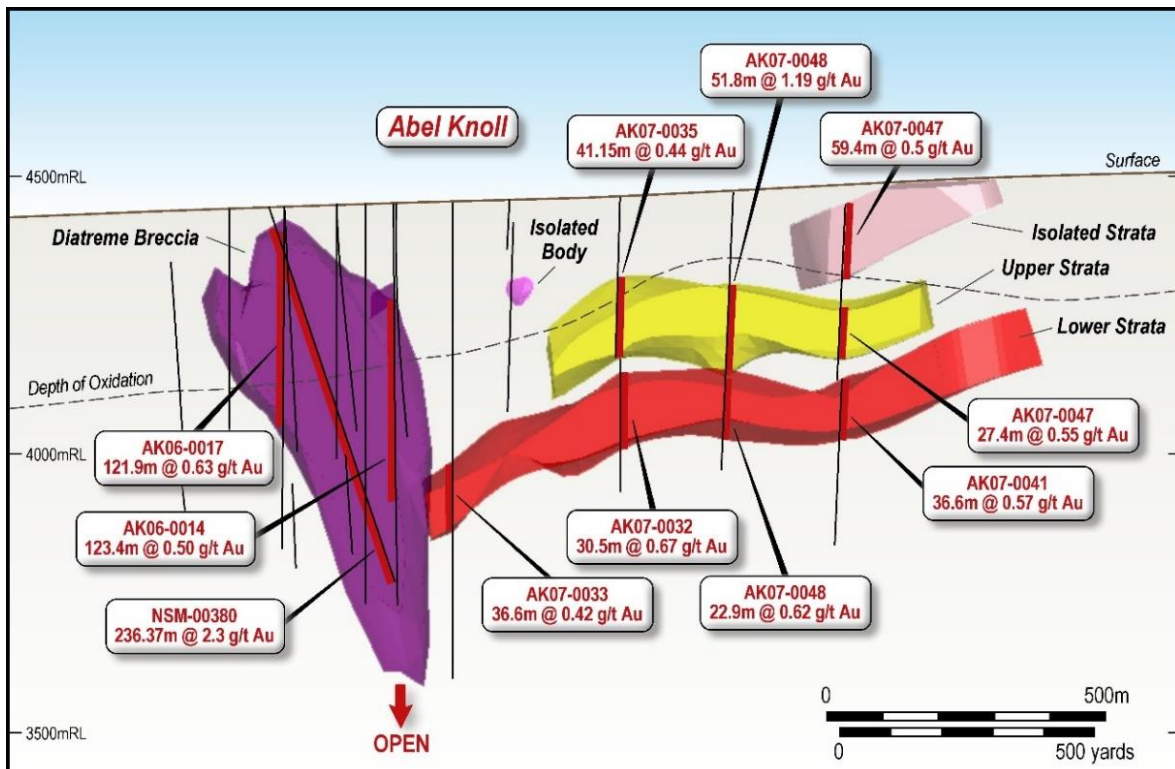
## 14.6 Dimensions

Each deposit at Sandman has varying geometry and dimensions due to their different geology. The dimensions for the mineralized domains and the gold mineralization within each mineralized domain is summarised below.

### 14.6.1 Abel Knoll Deposit

The mineralized domains at AK are of two dominant types (see figure 17). The diatreme breccia is a relatively narrow vertical plume feature, with horizontal geometries to a maximum of 90m x 60m and a currently defined over 200m vertical extent (open at depth).

The stratigraphic parallel gold mineralization is often up to 30m thick and can extend up to 300m x 200m in plan view. Figure 25 is a representative image of the mineralized domains that were created as part of the MRE for the AK deposit which has constrained the gold mineralization along trends that are consistent with the geological interpretation for the gold mineralization at this deposit.

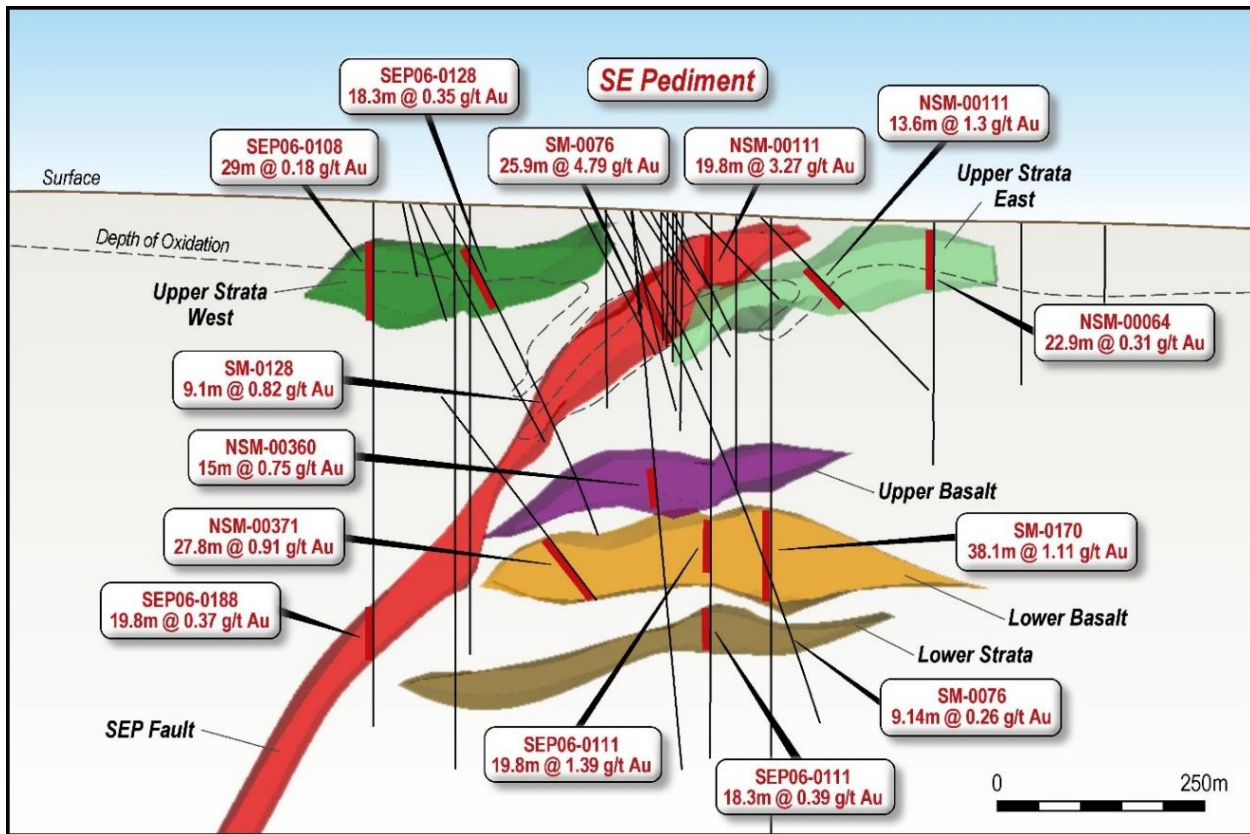


**Figure 25: Representative cross section of the defined mineralized domains from the Abel Knoll deposit (see figure 21 for the relative location of this cross section).**

**14.6.2 Southeast Pediment Deposit**

Gold mineralization at SEP (see figure 16) is dominated by a large north striking and west dipping fault which appears to break up into a number of splays at shallow levels, broadening the overall size of the gold mineralization. Gold mineralization associated with the west dipping faults can balloon out to over 30m in true width in some places and typically become poorly mineralized and narrower at depth, down to 5m or less in true width. The main SE Pediment structure has been defined to over 250m depth and remains open.

The stratigraphically controlled mineralized domains at SEP can also expand out to a true width of over 30m, but are more commonly between 10m and 20m in true width. The more continuous stratigraphically controlled domains can extend for over 300m horizontally. Figure 26 is a representative cross section of the mineralized domains at SEP which were created to constrain the gold mineralization to specific geological features that are interpreted to control the gold mineralization.



**Figure 26: Representative cross section of the defined mineralized domains from the Southeast Pediment deposit (see figure 22 for the relative location of this cross section).**

*Due to the high density of drilling data only some selected drill intersections are represented on this cross section, which typically relates to the higher-grade gold mineralization or to show assay results along the interpreted extensions to the gold mineralization.*

**14.6.3 Silica Ridge Deposit**

The gold mineralization at SR is contained within a number of controlling geological features. The dominant controlling feature is a north-north-west striking fault which dips at approximately 45 degrees to the west. Gold mineralization also occurs parallel to the stratigraphy as bedding parallel zones of gold mineralization and also within opposing east dipping faults which extend into the hanging wall of this larger fault (see figure 15). The main Silica Ridge fault is more significantly mineralised and over a broader thickness close to the surface, with true widths up to 25m in places, but with an average closer to 10m. At depth and further along strike the gold mineralization along this structure narrows down to less than 3m.

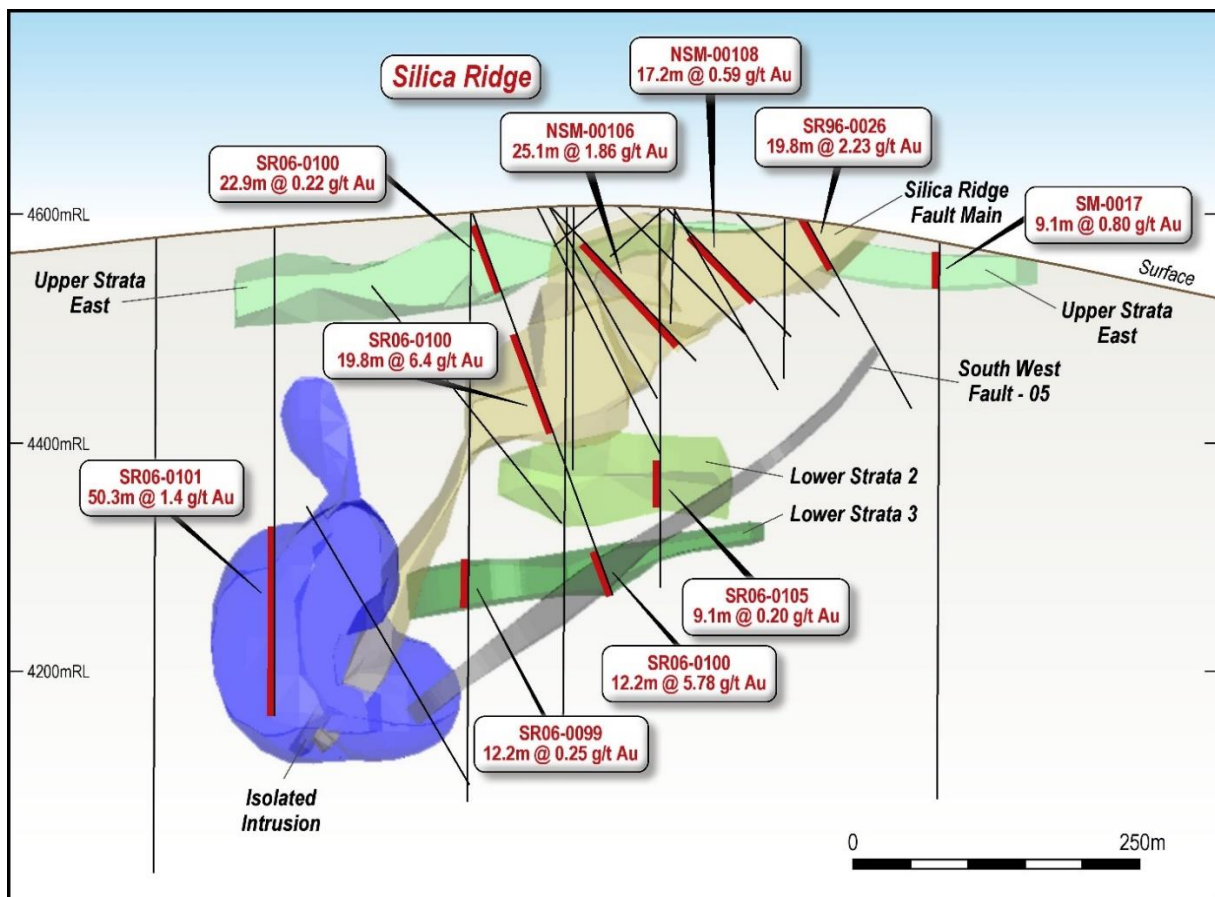
The current extents of the main gold mineralization along the Silica Ridge fault and associated bedding parallel gold mineralization extends to date for a strike length of approximately 500m. The shallow gold mineralization which follows the stratigraphy away from the main fault, extends for up to 100m away from the fault. This gold mineralization

can be broad, but typically lower in gold grade, with thicknesses of up to 40m and an average thickness of close to 15m.

Another prominent feature and significant host to the gold mineralization is an east striking and near-to-vertical andesite dyke. This dyke appears to have intruded along a fault zone with an apparent offset and differing geological exposure to the north of this dyke when compared to the south. Most of the drill intercepts which intersect the gold mineralization within this dyke are at a very poor angle to define the extents of the gold mineralization. However, the generally high concentration of drill holes has enabled a reasonable interpretation which infers an average true width of close to 30m and extending for at least 200m along strike. At depth, the dyke appears to become narrower, but both the dyke and associated gold mineralization are still open at depth.

To the south of the dyke, there is no large west-dipping fault identified yet, which is possibly offset (downthrown) on the southern side of the dyke which would place this fault further to the east of the existing drilling information. The mineralised faults which are south of the andesite dyke are a series of east dipping faults which are possibly in the hanging wall to the continuation of the Silica Ridge fault. The true widths of these east dipping faults can extend up to 20m, with averages typically 10m or less. The gold mineralization to date is defined on either one or more of these east dipping faults for up to 200m due south of the dyke and extending for up to 100m in an east-west direction or to the limits of the current drilling information.

Figure 27 is a representative cross section of highlighting the location of the main Silica Ridge fault mineralized domain and associated bedding parallel gold mineralization which surrounds this main fault to the north of the andesite dyke.



**Figure 27: Representative cross section of the defined mineralized domains from the Silica Ridge deposit (see figure 23 for the relative location of this cross section).**

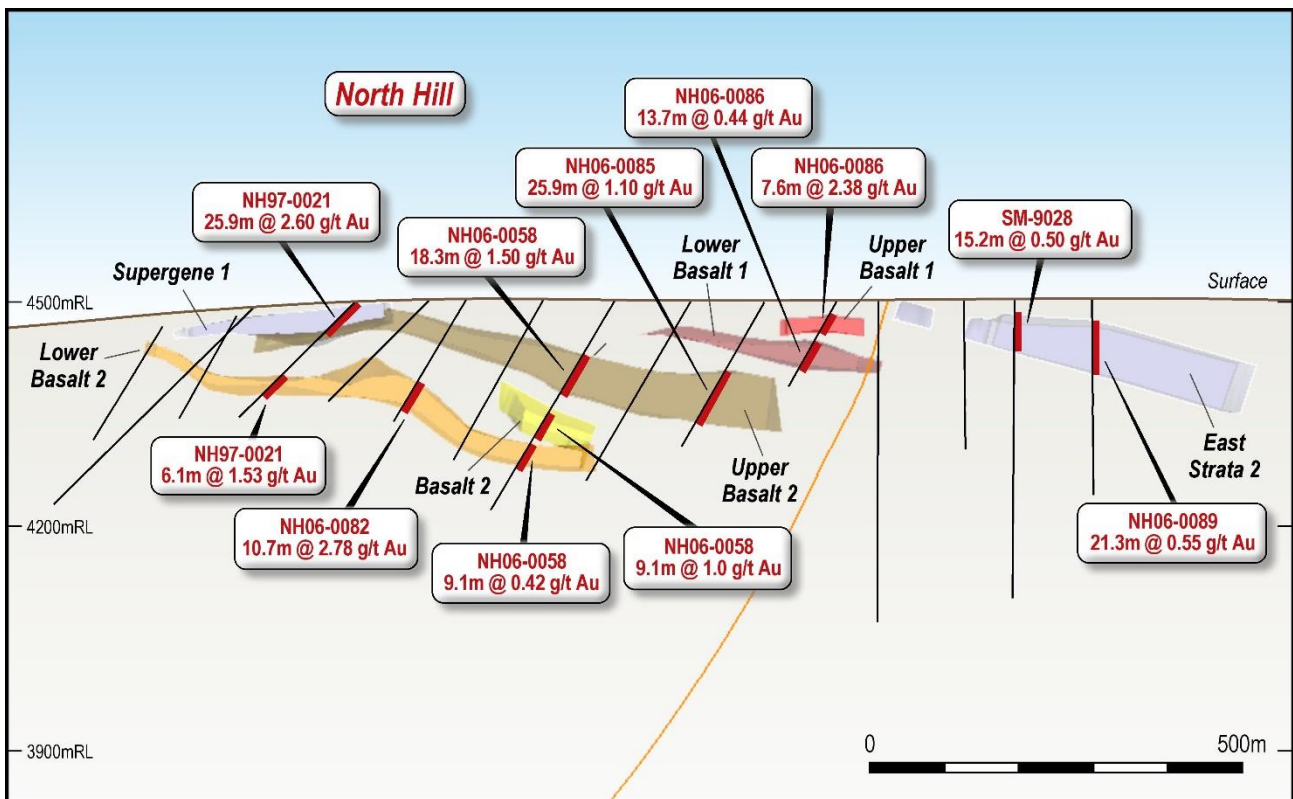
*Due to the high density of drilling data only some selected drill intersections are represented on this cross section, which typically relates to the higher-grade gold mineralization or to show assay results along the interpreted extensions to the gold mineralization.*

**14.6.4 North Hill Deposit**

The gold mineralization is dominantly controlled by bedding parallel features, particularly along the lower or upper contacts with the basaltic rocks (see figure 14). The bedding and associated gold mineralization is predominantly dipping 30 degrees to the east. True widths of the bedding parallel mineralization can extend up to 25m, but averages more typically between 8m and 12m. The largest and most continuous zone of bedding parallel gold mineralization exists at the base of a basaltic unit, extending for 400m in a northerly direction and up to 200m in an easterly direction.

Another prominent feature is a large steep fault which cuts the gold mineralization and has a north-easterly direction. At this stage this fault is interpreted to be active mostly post the gold mineralising event and has caused an offset in the gold mineralization, with little to no gold mineralization currently interpreted to exist along this fault. However, the author notes that this fault position has not yet been adequately tested for its potential to host some further gold mineralization at North Hill.

Figure 28 is a representative cross section of the defined mineralized domains which were created to constrain the interpreted gold mineralization which extent along a particular stratigraphic horizon.



**Figure 28: Representative cross section of the defined mineralized domains from the North Hill deposit (see figure 24 for the relative location of this cross section).**

*Due to the high density of drilling data only some selected drill intersections are represented on this cross section, which typically relates to the higher-grade gold mineralization or to show assay results along the interpreted extensions to the gold mineralization.*

**14.7 Mineral Continuity and Statistical Analysis**

After applying the constraints on the mineralized domains for each deposit, each individual mineralized domain was reviewed in terms of their basic statistics and also a review of their potential continuity based on their variograms where the data was sufficient to make this assessment.

**14.7.1 Statistics, Top Cut and Outlier Restriction.**

The following tables is a summary of the statistical information based on drill hole gold assay data which was composited to the average sample length of 5ft. These composite files were produced for all drilling information within each mineralized domain (excluding data outside of the mineralized domain) and ultimately used for the grade interpolation. A review of each population of data associated with each mineralized domain was conducted including



an analysis of the histograms and log probability plots. This review was completed to understand the general distribution of gold mineralization within each mineralized domain and also to determine the appropriate level to apply an upper cut to the composited data as part of the interpolation for the block model. In addition, the general distribution of higher-grade composites within each mineralized domain were viewed in 3D space to understand the possible extends of the higher-grade population of data to determine an appropriate limitation on high grade assay results to ensure that they did not influence the lower grade sections of each mineralized domain. Outlier restrictions were applied to deposits where the mineralized domains were very large and extended into positions where only lower grade gold mineralization appears to exist along its outer extents.

The following tables provide for a summary of the statistics and determined upper cuts and high-grade outlier grades that were used for each mineralized domain for the Sandman MRE.

**Table 11: Table of statistical information for mineralized domains at Abel Knoll.**

mineralized domain	Diatreme Breccia	Isolated Zone	Lower Strata	Upper Strata
<b>Count</b>	837.00	56.00	208.00	132.00
<b>Length (m)</b>	4185.45	280.28	1041.20	661.00
<b>Mean (g/t gold)</b>	7.20	0.35	3.74	3.35
<b>Standard Deviation</b>	10.52	0.93	6.28	4.04
<b>Co Variance</b>	1.46	2.61	1.68	1.20
<b>Variance</b>	110.64	0.86	39.48	16.29
<b>Minimum (g/t gold)</b>	0.05	0.05	0.05	0.05
<b>1<sup>st</sup> quartile (g/t gold)</b>	0.51	0.05	0.05	0.05
<b>2<sup>nd</sup> quartile (g/t gold)</b>	3.70	0.10	2.19	2.51
<b>3<sup>rd</sup> quartile (g/t gold)</b>	11.01	0.12	4.79	4.70
<b>Maximum (g/t gold)</b>	148.70	4.70	41.01	32.57
<b>Upper Cut (g/t gold)</b>	40.00	none	22.00	15.00
<b>Upper Cut Percentile</b>	99.20%	NA	98.00%	99.20%

**Table 12: Table of statistical information for mineralized domains at Southeast Pediment.**

mineralized domain	Fault FW	Fault FW2	Fault HW	Upper T_West
<b>Count</b>	2986.00	133.00	191.00	681.00
<b>Length (m)</b>	15509.84	698.25	1003.81	3487.94
<b>Mean (g/t gold)</b>	3.28	0.31	0.34	0.33
<b>Standard Deviation</b>	44.56	0.61	0.66	0.50
<b>Co Variance</b>	13.58	1.95	1.94	1.52
<b>Variance</b>	1985.93	0.37	0.44	0.25
<b>Minimum (g/t gold)</b>	0.00	0.00	0.02	0.00
<b>1st quartile (g/t gold)</b>	0.21	0.13	0.12	0.12
<b>2nd quartile (g/t gold)</b>	0.40	0.22	0.20	0.22
<b>3rd quartile (g/t gold)</b>	0.81	0.36	0.30	0.36
<b>Maximum (g/t gold)</b>	1621.29	7.10	6.00	5.75
<b>Upper Cut (g/t gold)</b>	25.00	1.50	5.00	4.00
<b>Upper Cut Percentile</b>	99.00	99.30	99.50	99.50
<b>Outlier Restriction (g/t gold)</b>	5.500	none	none	none
<b>Percentile</b>	96.000	NA	NA	NA

**Table 13: Table of statistical information for mineralized domains at Southeast Pediment - continued**

mineralized domain	Upper T_East	Upper Basalt	Lower Basalt	Lower T
Count	838.00	187.00	414.00	288.00
Length (m)	4327.43	952.98	2103.50	1473.07
Mean (g/t gold)	0.92	0.33	1.26	0.68
Standard Deviation	4.07	0.43	2.65	1.31
Co Variance	4.43	1.28	2.11	1.94
Variance	16.58	0.18	7.04	1.73
Minimum (g/t gold)	0.00	0.00	0.01	0.01
1st quartile (g/t gold)	0.11	0.11	0.21	0.14
2nd quartile (g/t gold)	0.20	0.19	0.53	0.27
3rd quartile (g/t gold)	0.39	0.36	1.47	0.63
Maximum (g/t gold)	70.76	3.25	37.58	13.33
Upper Cut (g/t gold)	25.00	2.50	20.00	10.00
Upper Cut Percentile	99.50	99.50	99.80	99.70
Outlier Restriction (g/t gold)	5	none	5.50	4.00
Percentile	96.5	NA	97.00	98.00

**Table 14: Table of statistical information for mineralized domains at Silica Ridge.**

mineralized domain	Basalt Dyke	Intrusion 2	South East F1	South F1	South F2
Count	1358.00	330.00	80.00	377.00	427.00
Length (m)	6842.48	1656.10	408.65	1949.23	2190.69
Mean (g/t gold)	0.81	0.83	1.05	0.96	1.23
Standard Deviation	2.92	2.29	3.89	2.68	8.44
Co Variance	3.62	2.75	3.70	2.80	6.84
Variance	8.54	5.24	15.11	7.16	71.23
Minimum (g/t gold)	0.00	0.01	0.02	0.00	0.00
1st quartile (g/t gold)	0.16	0.21	0.16	0.03	0.07
2nd quartile (g/t gold)	0.31	0.31	0.27	0.20	0.22
3rd quartile (g/t gold)	0.67	0.69	0.59	0.83	0.65
Maximum (g/t gold)	66.68	33.94	33.63	32.91	167.20
Upper Cut (g/t gold)	25.00	6.30	8.00	10.00	15.80
Upper Cut Percentile	99.80	99.40	98.80	99.10	98.80
Outlier Restriction (g/t gold)	6.00	5.00	2.00	5.00	5.00
Percentile	98.50	98.50	93.50	96.00	98.00

**Table 15: Table of statistical information for mineralized domains at Silica Ridge - continued**

mineralized domain	South West F3	South West F4	Upper Basalt Flow	Upper T Strata
Count	138.00	1118.00	257.00	1171.00
Length (m)	716.85	5699.13	1269.72	6008.28
Mean (g/t gold)	1.76	1.17	0.12	0.27
Standard Deviation	10.02	6.68	0.30	0.45
Co Variance	5.70	5.70	2.57	1.67
Variance	100.30	44.59	0.09	0.21
Minimum (g/t gold)	0.03	0.00	0.00	0.00
1st quartile (g/t gold)	0.10	0.12	0.02	0.07
2nd quartile (g/t gold)	0.17	0.25	0.02	0.17
3rd quartile (g/t gold)	0.29	0.52	0.08	0.30
Maximum (g/t gold)	111.22	141.85	2.88	8.13
Upper Cut (g/t gold)	30.00	45.00	2.00	4.00
Upper Cut Percentile	99.30	99.60	99.50	99.80
Outlier Restriction (g/t gold)	2.00	8.00	none	none
Percentile	95.00	98.00	NA	NA

**Table 16: Table of statistical information for mineralized domains at North Hill.**

mineralized domain	E1	E2	E3	Basalt S
Count	438.000	316.000	239.000	92.000
Length (m)	2159.781	1618.056	1209.216	466.852
Mean (g/t gold)	0.496	0.755	0.305	4.186
Standard Deviation	1.283	1.713	0.295	15.270
Co Variance	2.583	2.268	0.964	3.648
Variance	1.645	2.934	0.087	233.174
Minimum (g/t gold)	0.000	0.000	0.000	0.000
1st quartile (g/t gold)	0.160	0.192	0.140	0.176
2nd quartile (g/t gold)	0.280	0.340	0.220	0.390
3rd quartile (g/t gold)	0.490	0.742	0.356	1.130
Maximum (g/t gold)	19.940	24.980	1.690	96.839
Upper Cut (g/t gold)	4.000	6.300	1.700	25.100
Upper Cut Percentile	99.400	99.700	100.000	97.100
Outlier Restriction (g/t gold)	3.00	5.50	1.00	6.00
Percentile	99.20	98.00	96.00	92.00

**Table 17: Table of statistical information for mineralized domains at North Hill - continued**

mineralized domain	Basalt 1U	Basalt 1L	Basalt 2U	Basalt 2	Basalt 2L
Count	114.000	156.000	440.000	87.000	487.000
Length (m)	580.708	803.889	2170.300	444.067	2511.843
Mean (g/t gold)	0.539	0.556	0.496	0.916	1.230
Standard Deviation	1.056	0.768	1.279	1.840	12.015
Co Variance	1.960	1.381	2.582	2.009	9.765
Variance	1.114	0.590	1.637	3.384	144.359
Minimum (g/t gold)	0.000	0.000	0.000	0.000	0.000
1st quartile (g/t gold)	0.060	0.190	0.160	0.110	0.064
2nd quartile (g/t gold)	0.200	0.320	0.280	0.340	0.200
3rd quartile (g/t gold)	0.520	0.580	0.490	0.750	0.572
Maximum (g/t gold)	6.130	5.590	19.940	14.500	266.072
Upper Cut (g/t gold)	2.500	3.200	10.000	5.000	31.600
Upper Cut Percentile	96.400	98.800	99.000	98.900	99.800
Outlier Restriction (g/t gold)	1.20	2.10	5.00	3.20	8.50
Percentile	88.00	95.00	97.00	95.00	99.00

#### 14.7.2 Variogram Analysis.

A variogram analysis was conducted for each mineralized domain with the direction for the variograms placed within the plane of gold mineralization. In almost every case the data associated with the individual mineralized domains could not establish reliable variograms which could result in a reasonable interpolation using Ordinary Kriging.

This assessment corresponds with earlier summary reports with regard to resampling and quality control data from Sandman which have concluded that there is a significant nugget effect that exists within the Sandman gold deposits (Lustig, 2007).

Where possible some generally poor variograms could be established with the sill reached on its major direction between 100 and 120 feet (~30 to 40m). This visually corresponds with the common observation in the drilling data which shows that the higher-grade sections often do not extent much greater than 40m along strike.

## 14.8 Estimation and Modelling Techniques

### 14.8.1 Block Size

Given the generally narrow nature of the mineralised structures, there was a need to allow for a relatively small block size in order to maintain the integrity of the geological contacts and mineralized domains. This requirement for a small block size was balanced with a more statistically valid larger block size so as not to over represent the possible level of accuracy that can be applied to the smaller blocks. To manage these two competing issues, a parent block size of 30x30x30ft (~9.1x9.1x9.1m) was chosen with sub-celling down to a third in each direction, allowing for sub-celling down to 10x10x10ft (~3x3x3m).

### 14.8.2 Interpolation Method

Due to the inability to create reliable variograms and the generally nuggety nature of the gold mineralization at Sandman, the ID<sup>2</sup> interpolation method was chosen for all of the defined mineralized domains.

### 14.8.3 Estimation Parameters

As part of the variogram analysis for each mineralized domain, the dominant trend and plane of the gold mineralization was determined from the composited gold information that was restricted to within each mineralized domain respectively.

Based on the understanding of the distribution of the gold mineralization, a review of the statistics and the general geometry of each mineralized domain, the following estimation parameters were applied for the interpolation and allocation of a gold grade for the Sandman block model.

**Table 18: Estimation parameters for the Abel Knoll deposit.**

mineralized domain	Search Ellipse			Search Distance			Number of Samples	
	Dip	Azi	Pitch	Maximum	Intermediate	Minimum	Min	Max
<b>Diatreme Breccia</b>								
Pass 1 (Indicated)	77	172	72	120	60	30	4	20
Pass 2 (Inferred)	77	172	72	360	180	90	2	15
<b>Isolated Zone</b>								
Pass 1 (Indicated)	8	0	150	120	120	30	4	20
Pass 2 (Inferred)	8	0	150	360	360	60	2	15
<b>Lower Strata</b>								
Pass 1 (Indicated)	15	270	115	120	120	30	4	20
Pass 2 (Inferred)	15	270	115	360	360	90	2	15
<b>Upper Strata</b>								
Pass 1 (Indicated)	8	270	20	120	120	30	4	20
Pass 2 (Inferred)	8	270	20	240	240	60	2	15

**Table 19: Estimation parameters for the Southeast Pediment deposit.**

mineralized domain	Search Ellipse			Search Distance			Number of Samples	
	Dip	Azi	Pitch	Maximum	Intermediate	Minimum	Min	Max
<b>Fault Main</b>								
Pass 1 (Indicated)	53	270	48	120	120	30	4	20
Pass 2 (Inferred)	53	270	48	360	360	60	2	15
<b>Fault FW2</b>								
Pass 1 (Indicated)	51	270	126	120	120	30	4	20
Pass 2 (Inferred)	51	270	126	360	360	60	2	15
<b>Fault HW</b>								
Pass 1 (Indicated)	68	265	34	120	120	30	4	20
Pass 2 (Inferred)	68	265	34	240	240	60	2	15
<b>Upper Tertiary_West</b>								
Pass 1 (Indicated)	13	264	65	120	120	30	4	20
Pass 2 (Inferred)	13	264	65	240	240	60	2	15
<b>Upper Tertiary_East</b>								
Pass 1 (Indicated)	6	250	17	120	120	30	4	20
Pass 2 (Inferred)	6	250	17	240	240	60	2	15
<b>Upper Basalt</b>								
Pass 1 (Indicated)	15	272	149	120	120	30	4	20
Pass 2 (Inferred)	15	272	149	360	360	60	2	15
<b>Lower Basalt</b>								
Pass 1 (Indicated)	7	330	24	120	120	30	4	20
Pass 2 (Inferred)	7	330	24	360	360	90	2	15
<b>Lower Tertiary</b>								
Pass 1 (Indicated)	10	280	133	120	120	30	4	20
Pass 2 (Inferred)	10	280	133	240	240	60	2	15

**Table 20: Estimation parameters for the Silica Ridge deposit.**

mineralized domain	Search Ellipse			Search Distance			Number of Samples	
	Dip	Azi	Pitch	Maximum	Intermediate	Minimum	Min	Max
<b>Basalt Dyke</b>								
Pass 1 (Indicated)	82	180	81	120	120	30	4	20
Pass 2 (Inferred)	82	180	81	360	360	60	2	15
<b>South F1 (East Dip)</b>								
Pass 1 (Indicated)	52	80	152	120	120	30	4	20
Pass 2 (Inferred)	52	80	152	360	360	60	2	15
<b>South F2 (East Dip)</b>								
Pass 1 (Indicated)	56	86	137	120	120	30	4	20
Pass 2 (Inferred)	56	86	137	360	360	60	2	15
<b>SR Main</b>								
Pass 1 (Indicated)	41	248	22	120	120	30	4	20
Pass 2 (Inferred)	41	248	22	360	360	60	2	15
<b>Upper Basalt Flow</b>								
Pass 1 (Indicated)	0	0	67	120	120	30	4	20
Pass 2 (Inferred)	0	0	67	360	360	60	2	15
<b>Upper T Strata</b>								
Pass 1 (Indicated)	0	0	71	120	120	30	4	20
Pass 2 (Inferred)	0	0	71	360	360	60	2	15
<b>Generic West Dipping</b>								
Pass 1 (Indicated)	45	260	140	120	120	30	4	20
Pass 2 (Inferred)	45	260	140	360	360	60	2	15
<b>Generic East Dipping</b>								
Pass 1 (Indicated)	50	80	140	120	120	30	4	20
Pass 2 (Inferred)	50	80	140	360	360	60	2	15

**Table 21: Estimation parameters for the North Hill deposit.**

mineralized domain	Search Ellipse			Search Distance			Number of Samples	
	Dip	Azi	Pitch	Maximum	Intermediate	Minimum	Min	Max
<b>Isolated 1</b>								
Pass 1 (Indicated)	17	136	109	120	120	30	4	20
Pass 2 (Inferred)	17	136	109	360	360	60	2	15
<b>Isolated 2</b>								
Pass 1 (Indicated)	17	136	109	120	120	30	4	20
Pass 2 (Inferred)	17	136	109	360	360	60	2	15
<b>Basalt S</b>								
Pass 1 (Indicated)	0	0	111	120	120	30	4	20
Pass 2 (Inferred)	0	0	111	240	240	60	2	15
<b>Basalt 1U</b>								
Pass 1 (Indicated)	0	0	44	120	120	30	4	20
Pass 2 (Inferred)	0	0	44	240	240	60	2	15
<b>Basalt 1L</b>								
Pass 1 (Indicated)	6	180	67	120	120	30	4	20
Pass 2 (Inferred)	6	180	67	240	240	60	2	15
<b>Basalt 2U</b>								
Pass 1 (Indicated)	17	136	109	120	120	30	4	20
Pass 2 (Inferred)	17	136	109	360	360	60	2	15
<b>Basalt 2</b>								
Pass 1 (Indicated)	22	114	51	120	120	30	4	20
Pass 2 (Inferred)	22	114	51	360	360	90	2	15
<b>Basalt 2L</b>								
Pass 1 (Indicated)	9	169	153	120	120	30	4	20
Pass 2 (Inferred)	9	169	153	240	240	60	2	15
<b>Basalt E1</b>								
Pass 1 (Indicated)	16	111	121	120	120	30	4	20
Pass 2 (Inferred)	16	111	121	240	240	60	2	15
<b>Basalt E2</b>								
Pass 1 (Indicated)	8	100	160	120	120	30	4	20
Pass 2 (Inferred)	8	100	160	240	240	60	2	15
<b>Basalt E3</b>								
Pass 1 (Indicated)	20	90	65	120	120	30	4	20
Pass 2 (Inferred)	20	90	65	240	240	60	2	15

## 14.9 Moisture

The tonnes estimated for the Sandman block models were calculated on a dry basis.

## 14.10 Cut-off Parameters

The cut-off grade applied to the MRE is based on estimated processing costs and gold recoveries which are commensurate with a gold price of approximately US\$1,800 per ounce (US\$1690 for fresh and US\$1814 for oxide).

Metallurgical information completed to date from Sandman indicates that different processing methods and operating costs will be required for the oxidized rock compared with the fresh rock. A cut-off grade of 0.15g/t gold has been applied to the oxidized rock which compares with a cut-off grade for fresh/unoxidized rock of 0.3g/t gold.

### 14.11 Bulk Density

The database contains very limited specific gravity measurements prior to 2008 after which Newmont took ownership of the Property. Newmont completed extensive testing for specific gravity based on routine samples being collected from mostly PQ diamond drill core and using the water immersion method, after coating the sample with silicone, to determine the specific gravity (“SG”).

The samples taken for SG were largely focussed at the Silica Ridge and Southeast Pediment deposits, with some samples also taken North Hill and no samples taken at Abel Knoll.

The SG data was assessed for each rock type and also reviewed for general trends or changes for each rock type including the depth from surface and comparisons between oxidized and unoxidized rock.

Although it is considered likely that the weathering profile would have a material impact on the SG, this was not observed from a review of the data. In addition, the SG for each rock type did not appear to change significantly with increasing depth.

The most significant variations identified for the SG measurements were based on the major rock types. Therefore, the SG for each major rock unit was defined separately to ensure that SG values from one rock type did not get extrapolated into another rock type.

Given the very patchy spatial distribution of the SG measurements that exist in the drill hole database, it was considered more appropriate to use an average SG for each rock type.

Three major categories were defined for the determination of SG in the block model, which were for Basalt/Andesite, Tertiary aged felsic volcanics/volcanic sediments and the Triassic metasedimentary rocks.

The following table shows the basic statistical information for the SG of each major rock type derived from the Sandman drill hole database.

**Table 22: Statistics of the Specific Gravity (SG) and allocated SG values for each rock type used in the Sandman block models.**

Rock Type	Samples	Mean	Std D	Min	Max	Median	Value in Block Model
Quaternary	1	2.16					2.15
Tertiary felsic volcanics	1378	2.13	0.27	1.49	2.61	2.09	2.10
Tertiary basalt/andesite	192	2.33	0.19	1.84	2.71	2.36	2.32
Triassic metasediments	31	2.23	0.32	1.68	2.66	2.35	2.20

### 14.12 Mining Factors or Assumptions

An open pit optimisation was completed for the Sandman block model to determine which portion of the block model has “reasonable prospects” for eventual economic extraction. A number of possible open pit designs were considered at varying gold prices, ranging from US\$1,500 up to US\$2,500 ounce which identified a natural limit to portions of the MRE which were unlikely to be considered as part of a future open pit mining options and therefore were excluded from the MRE.

The open pit optimisation pit shells were based on processing gold recoveries of 80% for oxide and 92% for sulphide, processing costs of US\$7 for oxide (based on 3 stage crushing and agglomeration and heap leach processing), US\$15 per tonne for sulphide (based on fine grinding and conventional CIL processing), pit wall angles of 50 degrees, mining cost of US\$2 per tonne and an additional General and Administrative (G&A) charge of US\$1 per tonne.



### **14.13 Environmental Factors or Assumptions**

A full review of the environmental factors that may impact on the potential viability of a new mining operation at Sandman is beyond the scope of this report. The current information available and reviewed by the author indicates that there are no known environmental impediments or liabilities with regard to a potential mining operation as of the effective date of this report. Therefore, no additional environmental factors or assumptions were made in addition to the overall mining cost assumptions that were applied to the evaluation of the MRE which is the subject of this Technical Report.

### **14.14 Classification**

Although the drill spacing is less than 20m in some sections, the high variability and generally nuggety nature of the gold mineralization at Sandman has at this stage resulted in only an Inferred and Indicated classification. The 2007 MRE for Sandman previously reported just over 82koz of gold (26% of the total 2007 MRE) in the Measured category. However, since 2007 subsequent studies and additional diamond drilling by Newmont have resulted in the current understanding that the gold mineralization has a high level of variability making it unsuitable to be classified as Measured at this point in time.

Therefore, the bulk of the current MRE is classified as an Indicated Resource, with further extensions within the defined mineralized domains classified as an Inferred Resource, as defined in more detail below.

#### **14.14.1 Indicated Mineral Resource Classification**

The determination of the Indicated category was based on all of the available information of the gold distribution within each mineralized domain for which some level of gold grade continuity could be applied. Whilst the gold mineralization at Sandman is nuggety in nature, the average grade over a distance of up to 40m in the plane of each defined mineralized domain, for both structurally controlled and stratigraphically controlled mineralized domains could be reasonably determined based on using an average of the surrounding drill hole information allowing for the natural local variations of higher grade and lower grade assay results.

Given the parent block size of 9.1m x 9.1 x 9.1m and the requirement for a minimum of 4 samples for each estimated parent cell, the average grade for the Indicated portion of the MRE is considered to be estimated to a high level of confidence. Suitable factors have been applied to each mineralized domain with respect to their individual populations of gold assay information for an upper cut and also the use of a high grade outlier to ensure that the interpolation did not unreasonably extrapolated isolated high grade assay data into blocks that were more than 20m from the individual high grade assay result. This approach is considered appropriate given the observable nature and distribution of the high grade assay information identified throughout all of the mineralized domains at Sandman.

Details for the estimation parameters for the Indicated Mineral Resource are based on pass one as defined in Tables 18 to 21.

#### **14.14.2 Inferred Mineral Resource Classification**

The majority of the mineralized domains defined were constrained up to their currently defined limits of the drill hole information, some of which were either closed out by drilling or contained lower grade assay results on the margins of the defined mineralized domain. The exception to this constraint was for the larger and more continuous structures such as at Southeast Pediment or Silica Ridge whereby the interpolation of each structures was extended to a larger distance due to the interpretation that these structures are much larger and more continuous.

For the mineralized domains that were interpreted to have a potentially larger defined extent than the current drilling has defined, a second pass was completed which extended the search ellipse out to ~120m (360ft). The Mineralized Blocks which were not filled as part of pass one but were filled as pass two were classified as an Inferred Resource.

Details for the estimation parameters for the Inferred Mineral Resource are based on pass two as defined in Tables 18 to 21.

### **14.15 Discussion of Relative Accuracy/Confidence**

The geological understanding of the gold mineralization at all of the Sandman Deposits is generally well understood. The early exploration efforts up until the date of the previous Mineral Resource estimate by MDA in 2007, had already established the key geological controls on the gold mineralization. After the acquisition of the Sandman project by Newmont, technical work and drilling has refined the geological understanding, which has allowed for the

interpretation of the various mineralized domains at each deposit. There is a high level of confidence in the gold distribution which is constrained within these defined mineralized domains.

In addition, a significant portion of the gold mineralization on the dominant structures at each Deposit is drilled down to a relatively tight drill spacing in places which in most instances would allow for the definition of a Resource in the Measured category. The key issue at this point in time which is preventing a reasonable portion of the MRE to be reach the Measured category is a significant nugget effect and natural variability of the gold mineralization.

This variability was identified initially in a report by Lustig, 2007 and further confirmed from the drilling information completed by Newmont.

Despite this natural variability that can occur over a short space in most of the mineralized domains, there is a high level of confidence considered for the global Indicated Mineral Resource. This view is based on the large number of samples and generally tight drill hole spacing, which on average, is considered to have a statistically large enough population of gold assay results to have smoothed out the nugget effects (taking into account the application of an upper cut) and delivered a good approximation of the average gold grade and total gold content.

With regard to the Inferred Mineral Resource at Sandman, the general limits defined for many of the smaller mineralized domains have restricted the possible size of the Inferred Mineral Resource, largely due to the observation that the smaller structures and bedding parallel gold mineralization showing little evidence of extending beyond a strike length of 50m, or much further than the defined limits of the Indicated portions of the Mineral Resource.

The larger and more continuous structures, are interpreted to extend for significant distances, with their associated gold mineralization in places considered likely to extend further or develop into additional locations with further higher grade gold mineralization along strike or at depth. These larger structures are typically drilled on a broad drill spacing where the assay results are lower in gold grade. However, it is considered likely that further drill testing of the major gold structures will lead to the definition of further gold mineralization, particularly as the geometry and favorable sections for gold mineralization become better defined.

## 14.16 Table of Results

The following tables represent the reported tonnes and grade for the Sandman MRE in addition to further information with regard to the impact of various cut-off grades on the Block Model at each deposit.

*Note: In accordance with NI 43-101 recommendations, gold grades for Indicated and Inferred Resources are rounded to two significant figures and the number of metric tonnes are rounded to the nearest thousand. Any discrepancies in the totals are due to rounding effects.*

**Table 23: Summary totals for the Sandman Inferred and Indicated Mineral Resource estimate.**

Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
<b>INDICATED</b>				
Oxide	0.15	12,991	0.63	265,100
Fresh/Unoxidized	0.30	5,559	0.94	167,900
<b>INFERRED</b>				
Oxide	0.15	2,377	0.46	35,500
Fresh/Unoxidized	0.30	869	0.91	25,300
<b>Total Indicated</b>		<b>18,550</b>	<b>0.73</b>	<b>433,000</b>
<b>Total Inferred</b>		<b>3,246</b>	<b>0.58</b>	<b>60,800</b>

**Table 24: Summary totals for the Sandman MRE broken down by deposit.**

INDICATED - OXIDE				
Deposit	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
Southeast Pediment	0.15	1,598	0.60	30,700
North Hill	0.15	1,798	0.75	43,400
Silica Ridge	0.15	4,983	0.55	88,800
Able Knoll	0.15	46,13	0.69	102,200
<b>Totals</b>		<b>12,991</b>	<b>0.63</b>	<b>265,100</b>

INFERRED - OXIDE				
Deposit	Cutoff Grade (g/t)	Tons	Grade (g/t)	Gold (ozs)
Southeast Pediment	0.15	387	0.51	6,300
North Hill	0.15	81	0.29	800
Silica Ridge	0.15	633	0.34	6,900
Able Knoll	0.15	1,277	0.52	21,500
<b>Totals</b>		<b>2,377</b>	<b>0.46</b>	<b>35,500</b>

INDICATED - UNOXIDISED/FRESH				
Deposit	Cutoff Grade (g/t)	Tons	Grade (g/t)	Gold (ozs)
Southeast Pediment	0.30	3,320	0.95	101,700
North Hill	0.30	2,238	0.92	66,300
<b>Totals</b>		<b>5,559</b>	<b>0.94</b>	<b>167,900</b>

INFERRED - UNOXIDISED/FRESH				
Deposit	Cutoff Grade (g/t)	Tons	Grade (g/t)	Gold (ozs)
Southeast Pediment	0.30	623	0.97	19,400
North Hill	0.30	247	0.75	6,000
<b>Totals</b>		<b>869</b>	<b>0.91</b>	<b>25,300</b>

As part of a further analysis of the Sandman Block model, the impact of the cut-off grade on the estimated tonnes and grade for each category was reviewed and is shown in table 25 below.

**Table 25: Summary totals for the Sandman block model using different cut-off grades.**

INDICATED				
Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
Oxide	0.10	13,863	0.60	268,600
Oxide	0.15	12,991	0.63	265,100
Oxide	0.20	11,736	0.68	257,900
Oxide	0.25	10,029	0.76	245,600
Oxide	0.30	8,622	0.84	233,200
Oxide	0.40	6,365	1.02	208,000

INFERRED				
Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
Oxide	0.10	2,467	0.45	35,900
Oxide	0.15	2,377	0.46	35,500
Oxide	0.20	2,184	0.49	34,400
Oxide	0.25	1,811	0.54	31,700
Oxide	0.30	1,556	0.59	29,400
Oxide	0.40	1,182	0.66	25,200

INDICATED				
Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
Fresh/Unoxidized	0.25	6,090	0.88	172,600
Fresh/Unoxidized	0.30	5,559	0.94	167,900
Fresh/Unoxidized	0.35	5,014	1.01	162,300
Fresh/Unoxidized	0.40	4,519	1.08	156,300
Fresh/Unoxidized	0.50	3,640	1.23	143,600

INFERRED				
Category	Cutoff Grade (g/t)	Tons (kt)	Grade (g/t)	Gold (ozs)
Fresh/Unoxidized	0.25	946	0.85	26,000
Fresh/Unoxidized	0.30	869	0.91	25,300
Fresh/Unoxidized	0.35	795	0.96	24,500
Fresh/Unoxidized	0.40	687	1.05	23,200
Fresh/Unoxidized	0.50	530	1.23	21,000

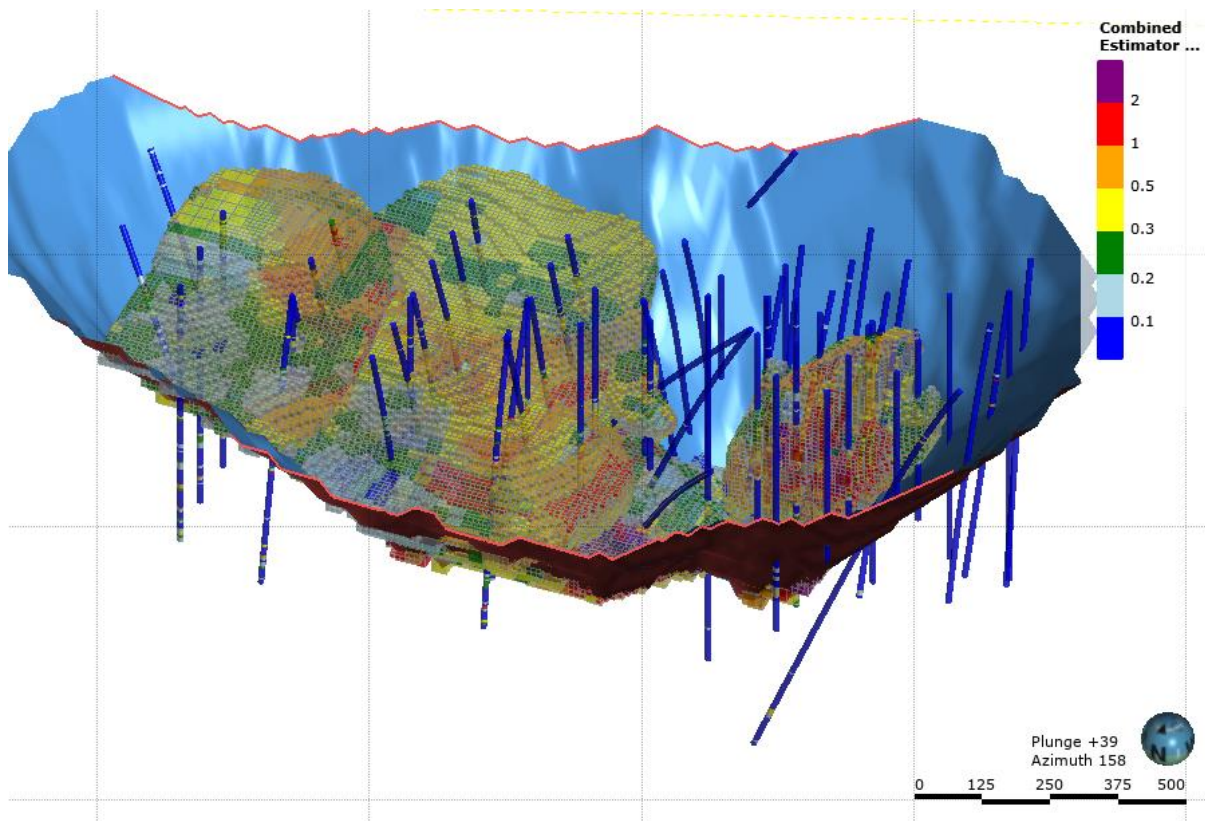
### 14.17 Audits or Reviews

The 2021 Technical Report and Mineral Resource estimate for the Sandman Gold Property has been independently peer reviewed by Michael Ressel of MDA. The review was conducted via several conference calls and screen sharing sessions to assess the estimation inputs, processes, and block model, as well as the overall information in this public report. On the basis of this review, in MDA’s opinion, the Mineral Resource estimate for the Sandman Gold Property has been prepared in accordance with NI 43-101, Standards of Disclosure for Mineral Projects.

### 14.18 Diagrams

The following figures represent a series of oblique, plan view and cross section view diagrams to show some level of detail with regard to the spatial distribution of the gold mineralization associated with block model relative to the drill-hole assay information from each of the deposits at Sandman.

The cross sections have been created at an angle which is roughly perpendicular to the dominant trend of the geological rock units and interpreted gold mineralization.



**Figure 29: Oblique view of the Abel Knoll block model looking down 39 degrees towards the southeast. The mineralized blocks are filtered to show only blocks that have been classified as Inferred and Indicated in addition to being constrained by the open pit shell.**

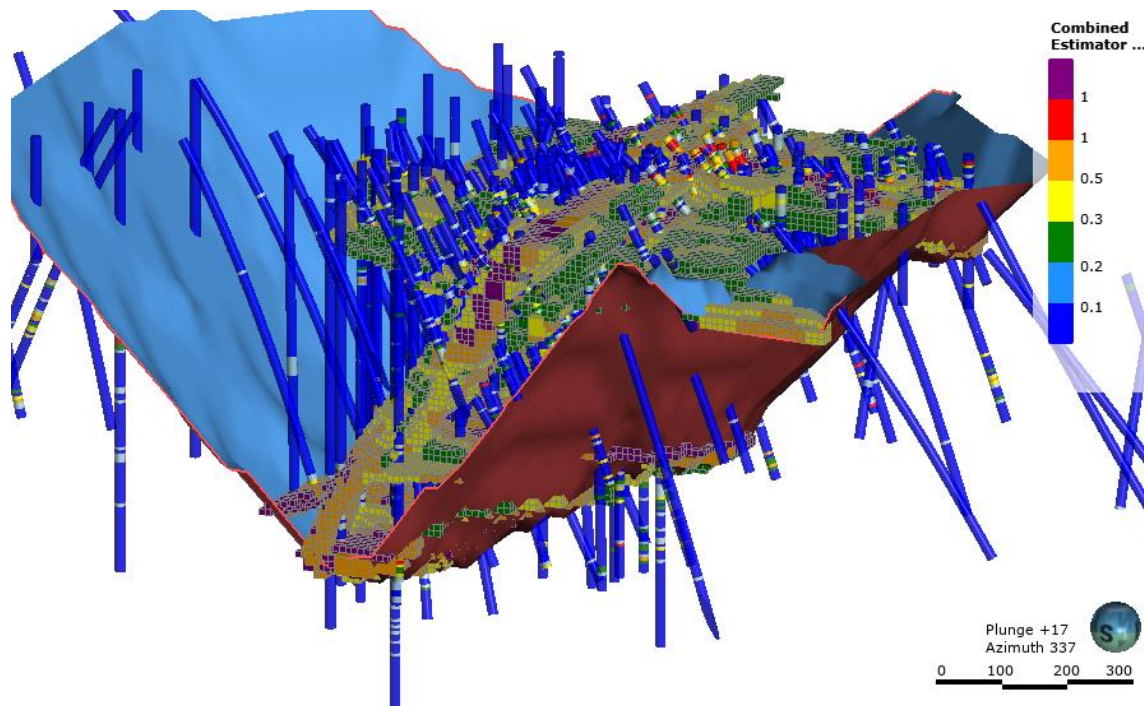


Figure 30: Oblique view of the Southeast Pediment block model looking down 17 degrees towards the northwest. The mineralized blocks are filtered to show only blocks that have been classified as Inferred and Indicated in addition to being constrained by the open pit shell.

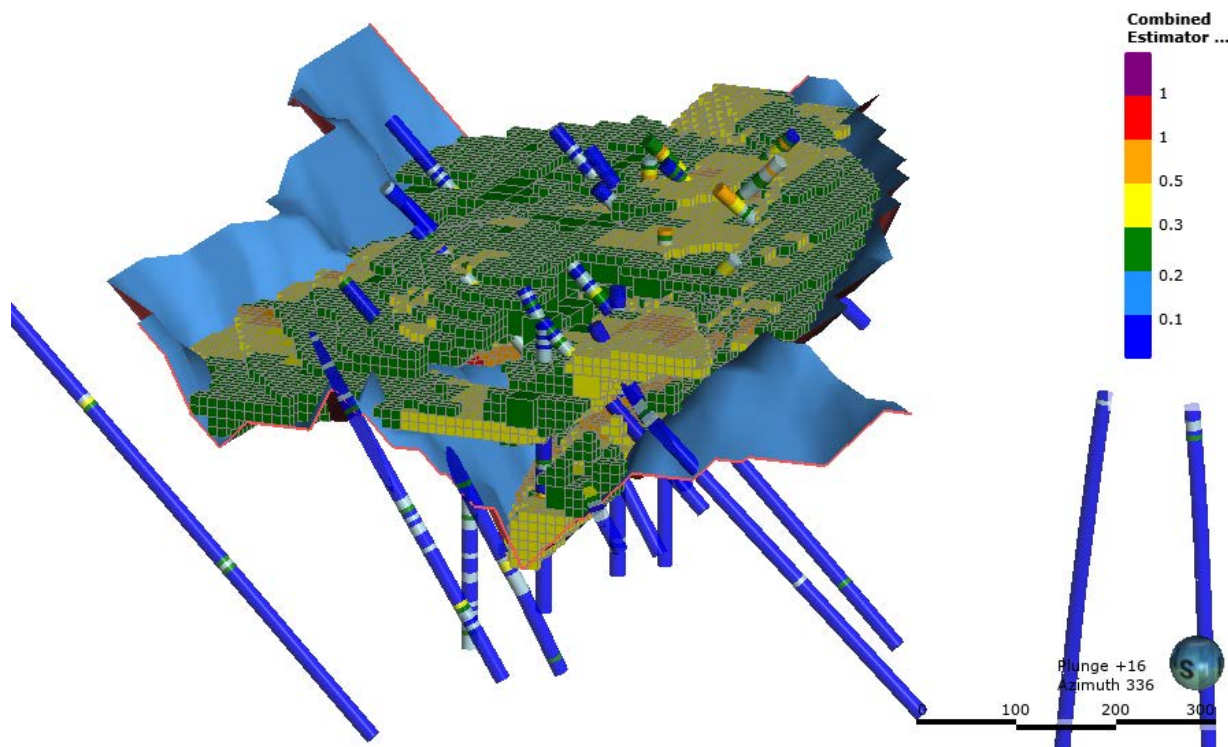


Figure 31: Oblique view of the Silica Ridge block model looking down 16 degrees towards the northwest. The mineralized blocks are filtered to show only blocks that have been classified as Inferred and Indicated in addition to being constrained by the open pit shell.

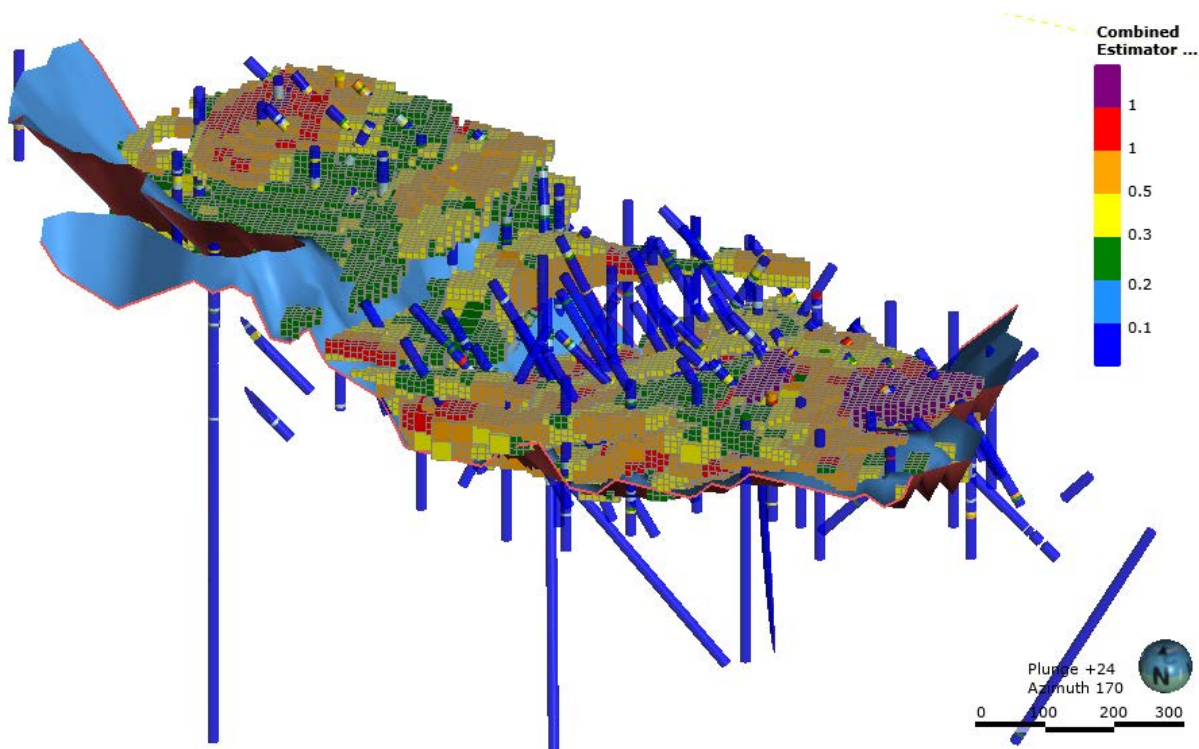


Figure 32: Oblique view of the North Hill block model looking down 24 degrees towards the south. The mineralized blocks are filtered to show only blocks that have been classified as Inferred and Indicated in addition to being constrained by the open pit shell.

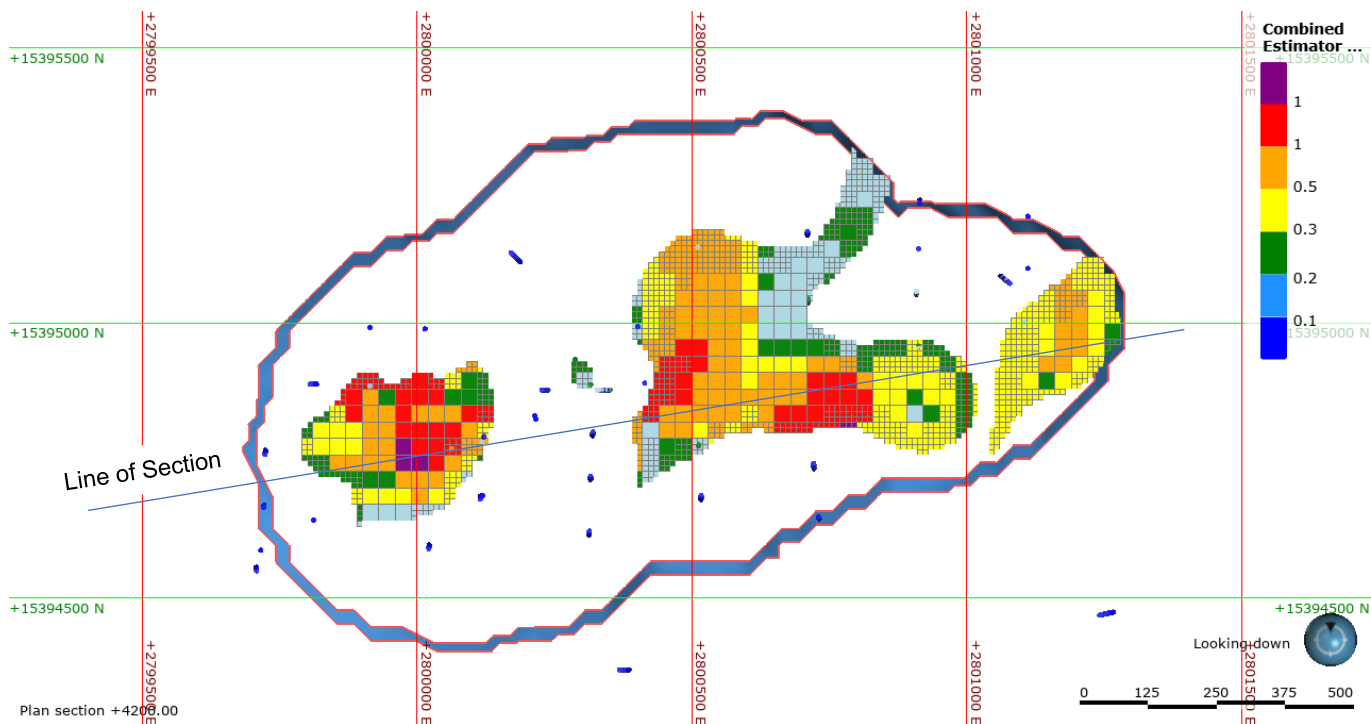


Figure 33: Plan view of the Abel Knoll block model at the 4200ft (1280m) level.

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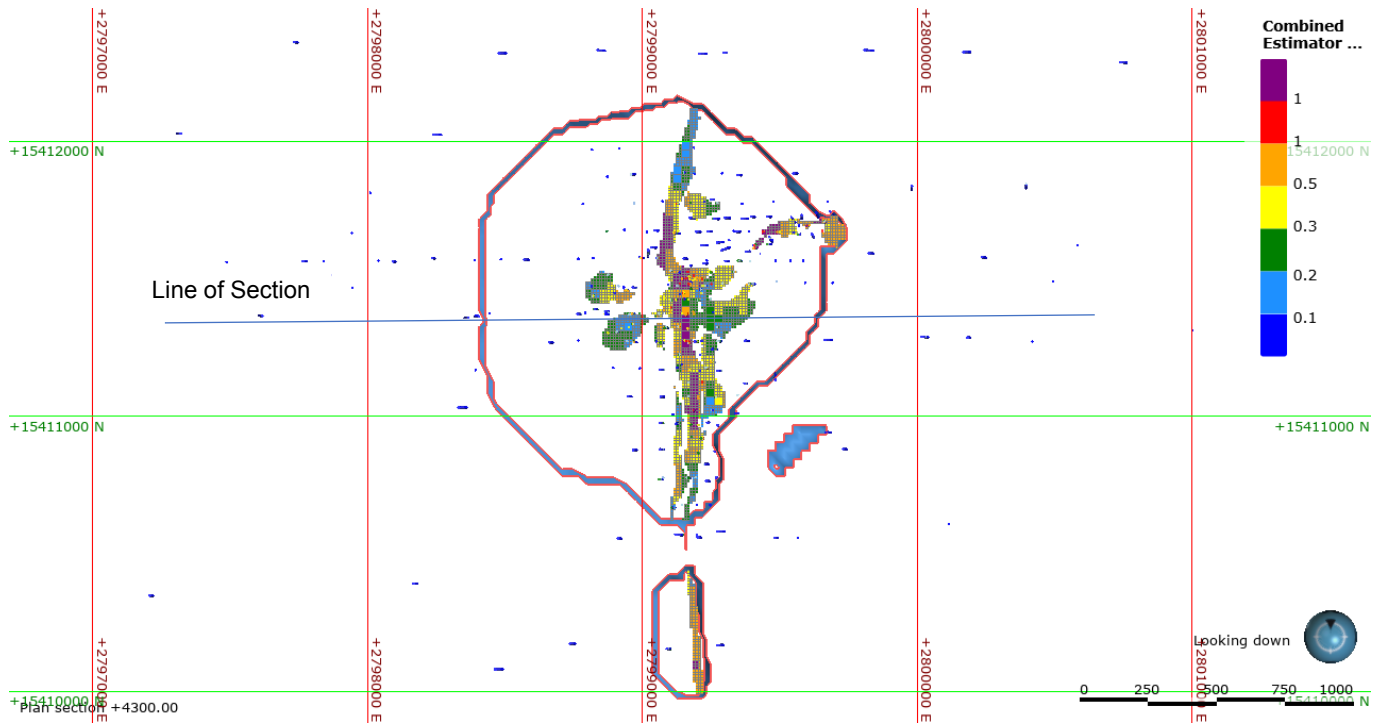


Figure 34: Plan view of the Southeast Pediment block model at the 4300ft (1310m) level.

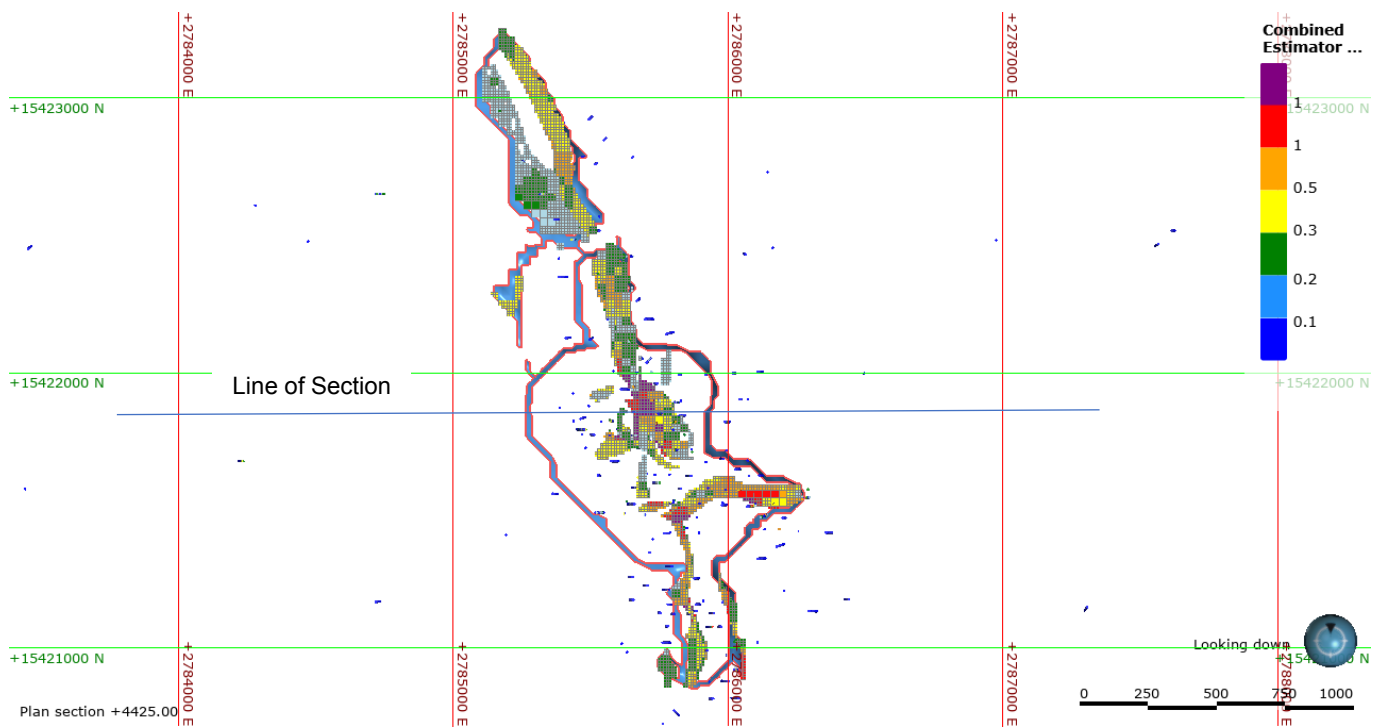


Figure 35: Plan view of the Silica Ridge block model at the 4425ft (1350m) level.



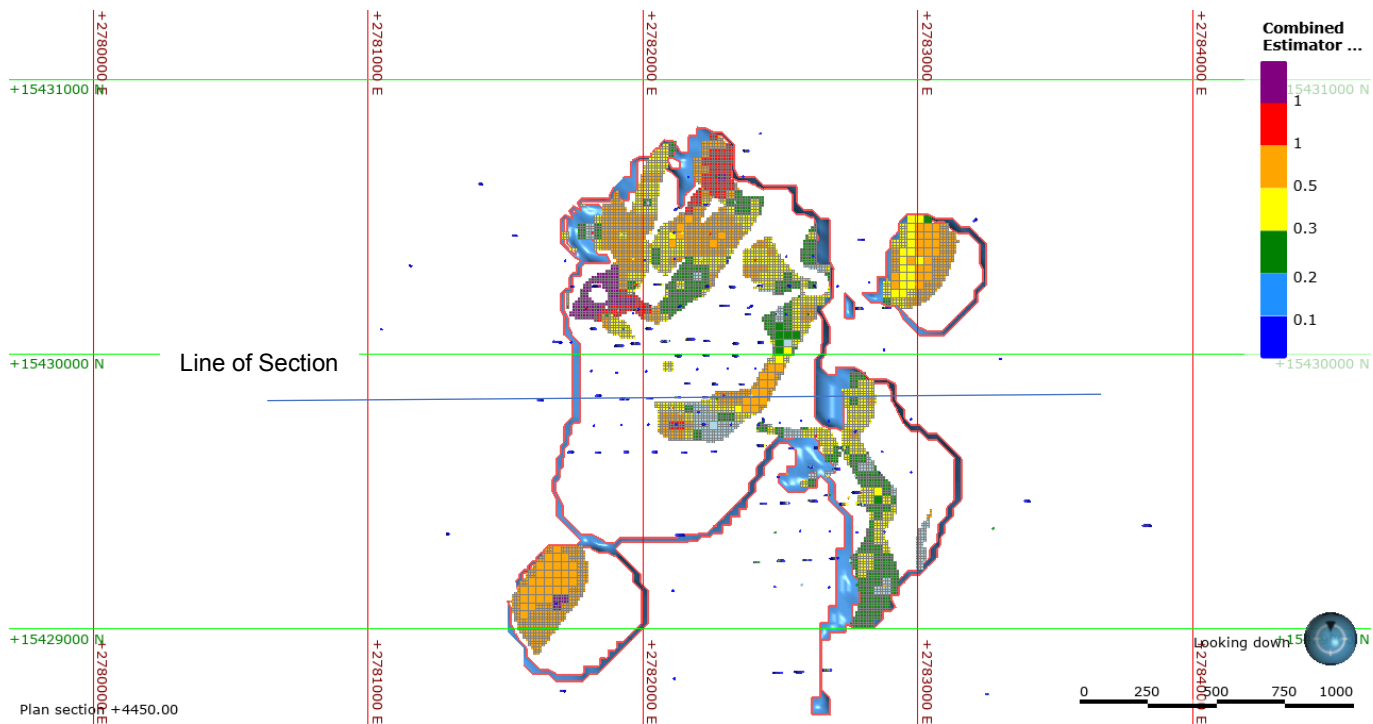


Figure 36: Plan view of the North Hill block model at the 4450ft (1356m) level.

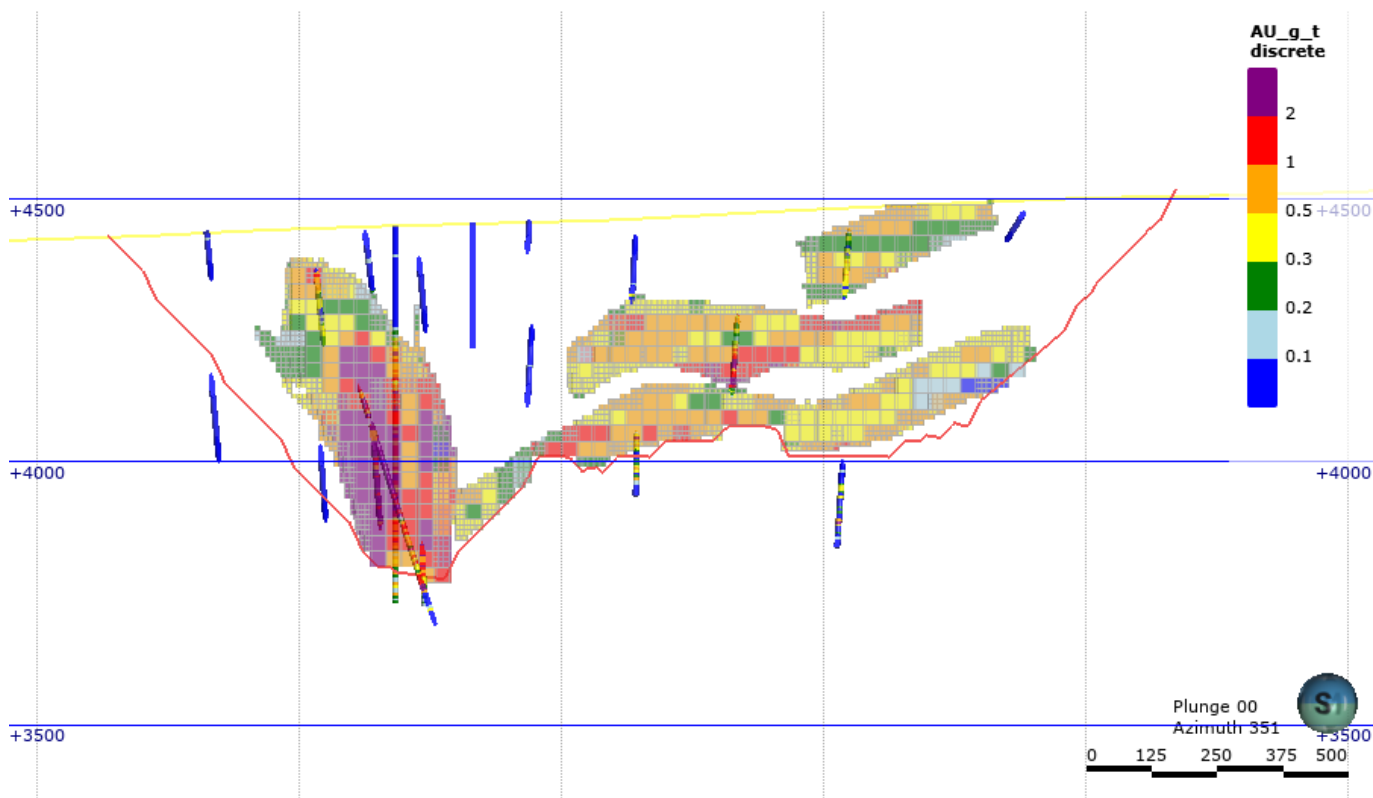
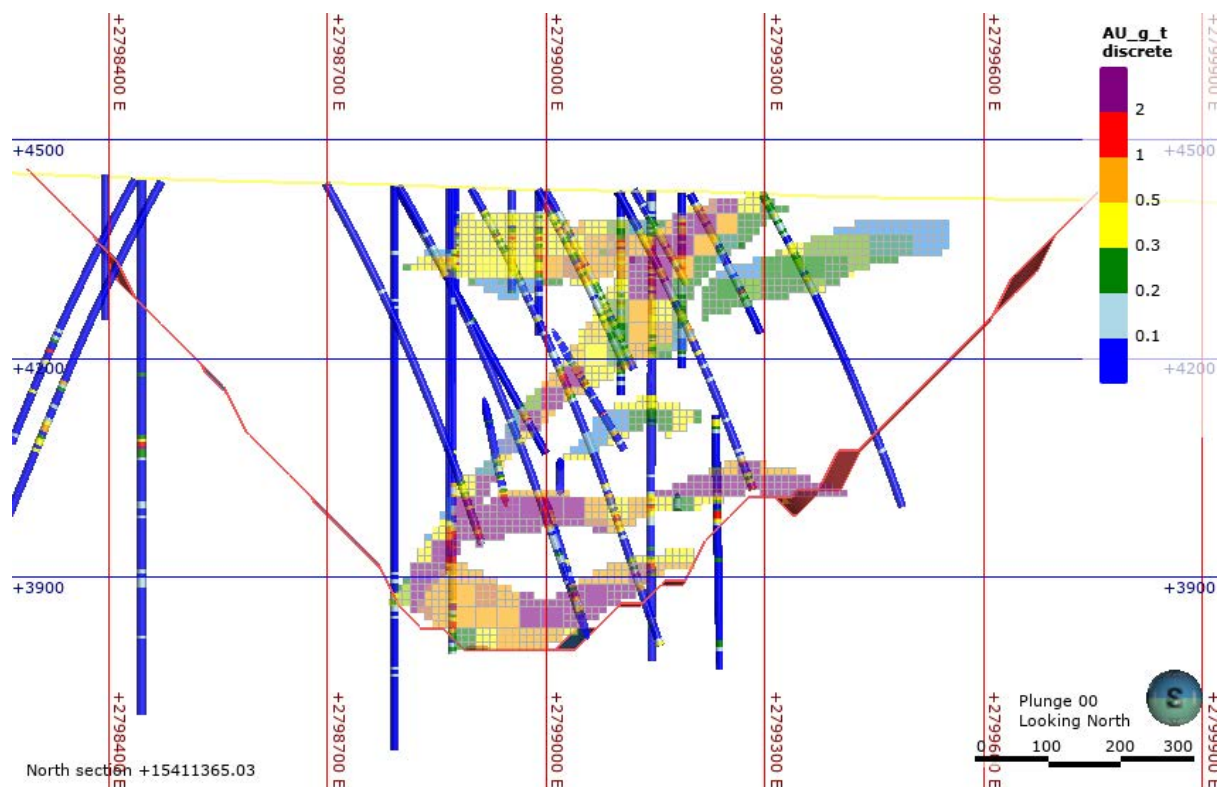
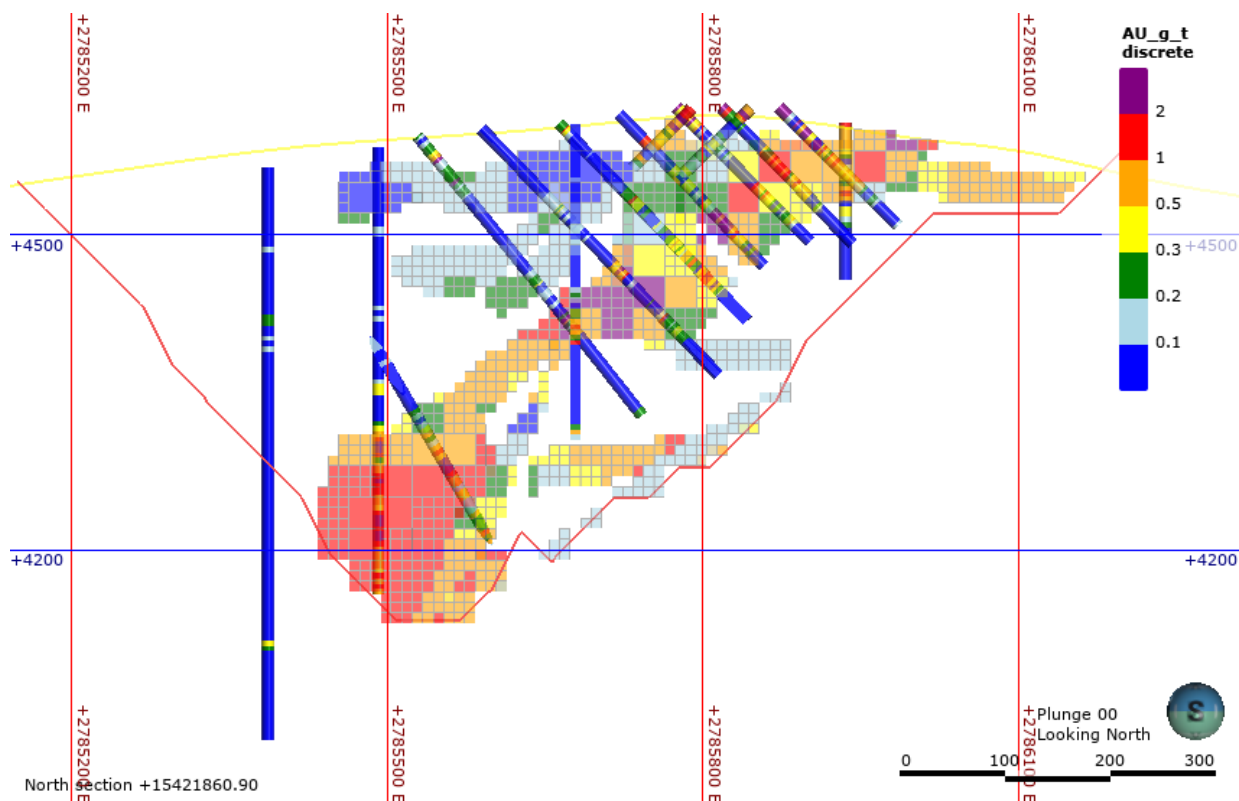


Figure 37: Cross Section (see Figure 32 for referenced location) of the Abel Knoll block model highlighting all blocks reported as Indicated and Inferred and within the defined open pit constraint.



**Figure 38: Cross Section (see Figure 33 for referenced location) of the Southeast Pediment block model highlighting all blocks reported as Indicated and Inferred and within the defined open pit constraint.**



**Figure 39: Cross Section (see Figure 34 for referenced location) of the Silica Ridge block model highlighting all blocks reported as Indicated and Inferred and within the defined open pit constraint.**

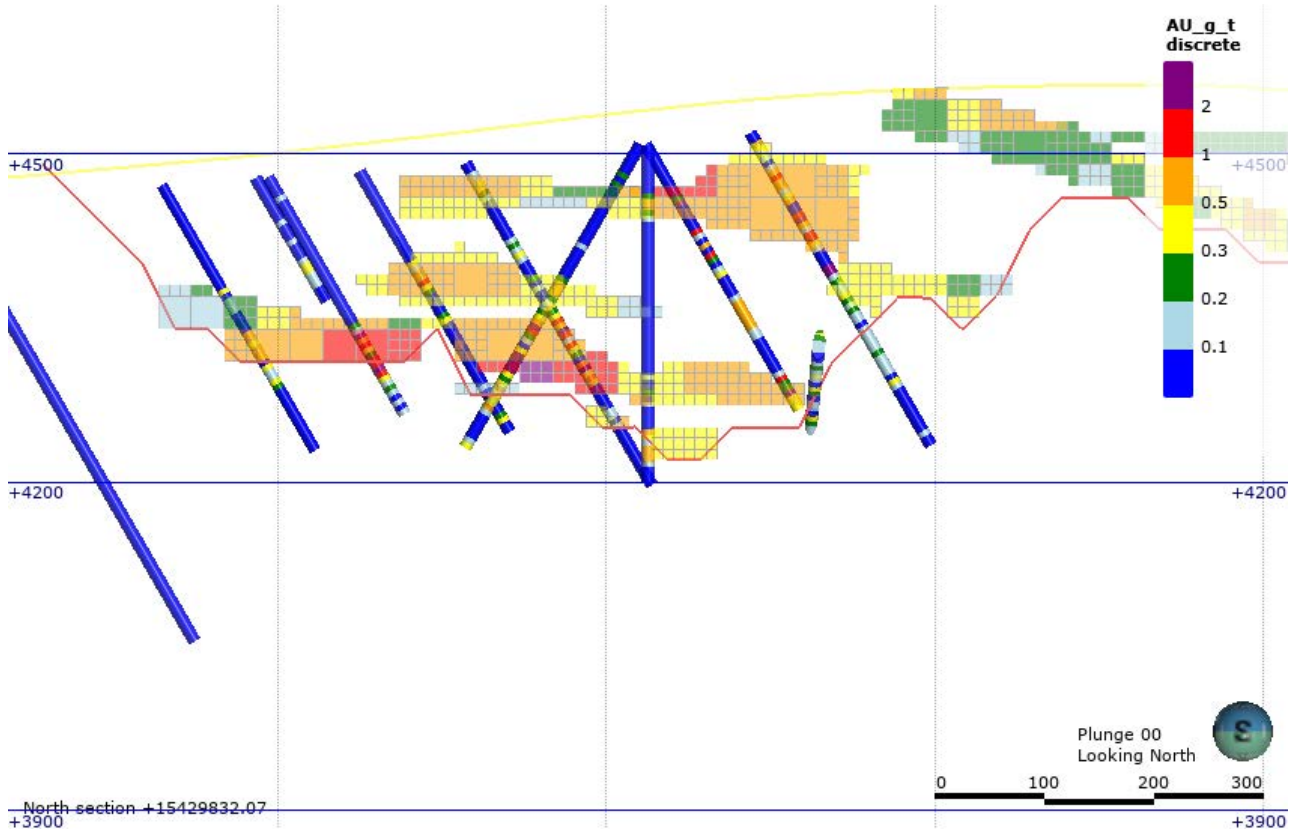


Figure 40: Cross Section (see Figure 35 for referenced location) of the North Hill block model highlighting all blocks reported as Indicated and Inferred and within the defined open pit constraint.

## 15. MINERAL RESERVE ESTIMATES

There are no current Mineral Reserve Estimates at the Property.

## 16. MINING METHODS

Not applicable to the current stage of the Property. The underlying assumption for the Mineral Resource is that it will be mined using open methods.

## 17. RECOVERY METHODS

All applicable summary information with regard to the Mineral Processing and Metallurgical assumptions and test work are documented in section 13.0.

## 18. PROJECT INFRASTRUCTURE

Not applicable to the current stage of the Property.

## 19. MARKET STUDIES AND CONTRACTS

Not applicable to the current stage of the Property.

## **20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

Not applicable to the current stage of the Property.

## **21. CAPITAL AND OPERATING COSTS**

Not applicable to the current stage of the Property.

## **22. ECONOMIC ANALYSIS**

Not applicable to the current stage of the Property.

## **23. ADJACENT PROPERTIES**

A review of the surrounding Mining Claims (see figure 40 - sourced from the Nevada Division of Minerals as of the effective date) indicate that the only currently active gold exploration effort within close proximity to Sandman is located to the north-north-west referred to as the Sleeper Property. The majority of these claims are reported under the name of Paramount Gold Nevada and Sleeper Mining Co. These claims are similarly prospective for epithermal gold mineralization.

To the west of the Property there are some claims which belong to NGP Blue Mountain LLC which is part of the Blue Mountain Geothermal Power Plant.

To the east of Sandman, there are a group of claims referred to as the Winnemucca Property, which are recorded in the name of Nevada Mine Properties Inc and AH Holdings Ltd.

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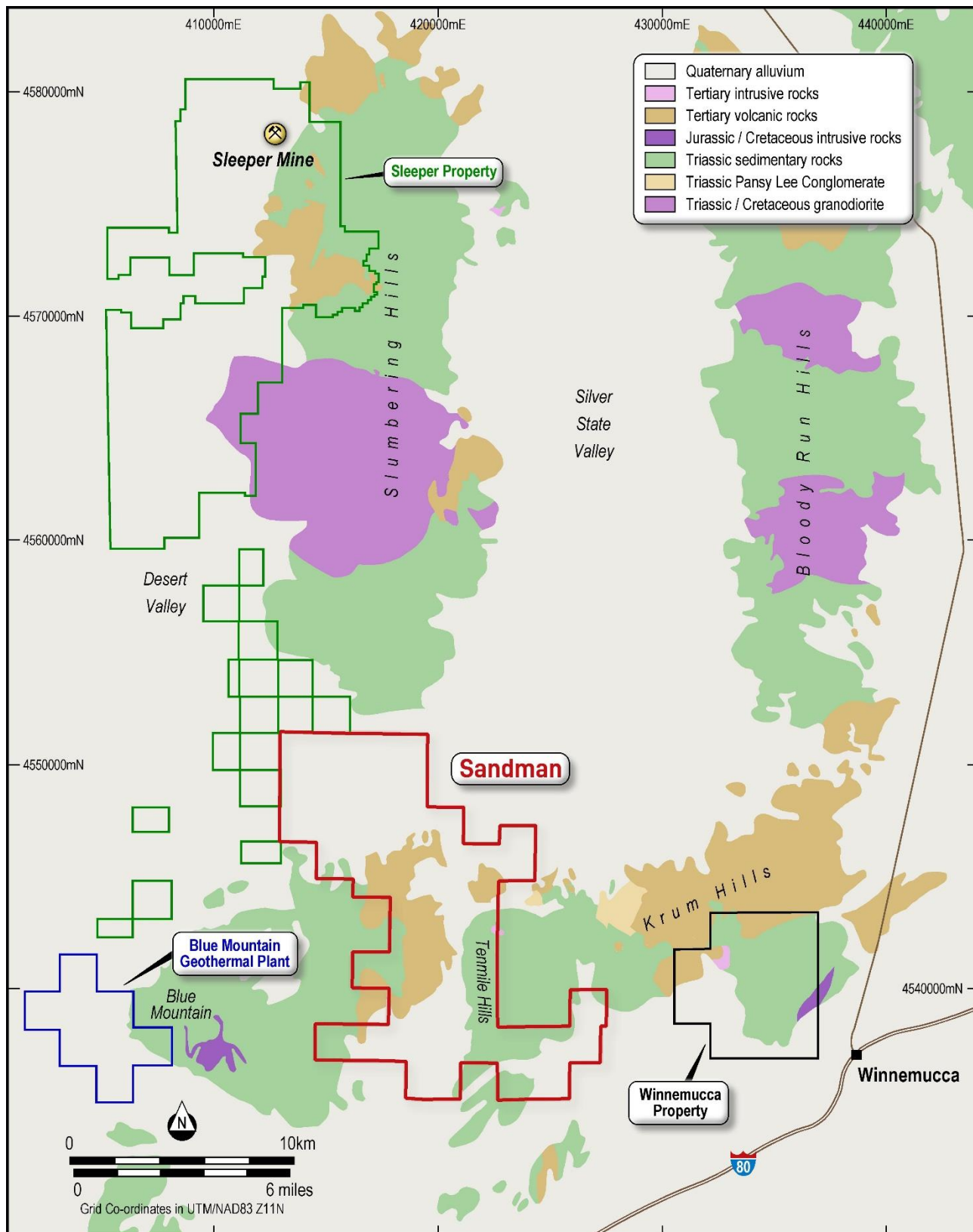


Figure 41: Plan view image of the Sandman Property area relative to adjacent Properties that have been identified from the Nevada Division of Minerals.

## **24. OTHER RELEVANT DATA AND INFORMATION**

### **24.1 Balanced Reporting**

The large drill hole database at Sandman forms the bulk of the geological information with regard to the Mineral Resource estimates.

Reporting of the database has been limited to information which is both relevant to the prospects of the Property or limited to the key highlights that relate to a specific target type or key piece of geological evidence relevant to the Property.

Whilst not all details with regard to the drill hole database and other exploration information have been documented in this report, it is considered that an unbiased and appropriate level of reporting has been summarised for a balanced and informed view with regard to the current level of understanding of the gold mineralization at Sandman.

### **24.2 Other Substantive Exploration Data**

In addition to the information provided in this report, explorers at Sandman have at various stages completed significant soil sampling and geochemical analysis in addition to a number of geophysical surveys. A detailed description and analysis of the more regional exploration information is beyond the scope and focus of this document.

A combination of the geophysics (magnetics plus other) data and satellite imagery reflect the well-established understanding with regard to the very large alteration system at Sandman. In addition, based on the most recent collation of the exploration information completed by geologists at Newmont imply that there remains numerous untested targets and anomalies throughout the Sandman Property.

## 25. INTERPRETATION AND CONCLUSIONS

The currently defined gold mineralization at Sandman is based on an extensive historical drilling database, and various technical studies undertaken by previous explorers since gold was first discovered at the Property in 1987.

The technical studies and detailed drilling information at Sandman have led to a good understanding of the geological controls on the gold mineralization. In addition, the steps undertaken to validate the drilling information have given confidence to the accuracy of the drilling data and that it reasonably represents the geology and associated gold mineralization at Sandman which underpins the MRE.

Based on the current geological understanding and relatively tight drill spacing at each of the resource areas at the Property, the bulk of the MRE has been classified in the Indicated category. It is largely the high nugget effect which has prevented any portion of the MRE from being classified in the Measured category.

Sandman is analogous to a well-established geological model for shallow low-sulfidation epithermal gold mineralization, which has some proximal examples of the same generation in the Sleeper and Midas gold mines. This geological model typically has local variations, which are mostly dependent on the nature of the host rock environment from which the epithermal deposits have formed.

To date the bulk of the drilling and exploration effort at Sandman has been focussed on the outcropping or near to surface rock units which host the gold mineralization on the Property. There remain large areas of untested ground where the favorable host rocks and controlling structures extend, well beyond the current extents of the currently defined gold mineralization and Mineral Resource estimate.

Beyond the defined extents of the current Mineral Resource there still remains significant scope for additional gold discoveries based on the potential further extensions of the shallow low-grade gold mineralization and also the possibility of vertical vein hosted high-grade gold mineralization. Both gold mineralization types have a well-established technical basis for their existence at Sandman with some direct evidence in the form of a large number of isolated but open drill intersections for both types of gold mineralization.

The authors are not aware of any significant risks or uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information as has been applied to the MRE for Sandman.



## 26. RECOMMENDATIONS

A number of options exist at the Property with regard to increasing the confidence level and/or size of the Mineral Resource. A minimal amount of drilling is potentially required to enhance the quality of the MRE in specific locations which could rapidly lead into economic studies for a new proposed gold operation at Sandman. In addition, there is considerable potential to increase the size of the MRE by exploring both the known extensions to the Mineralised structures and/or use a number of proven geophysical techniques to discover new gold mineralization which are currently hidden by the extensive shallow quaternary rocks which cover over 60% of the Property.

### 26.1 Increasing Mineral Resource Confidence

As part of a review undertaken to understand the potential open pit options at Sandman, which is part of the assessment for “reasonable prospects for economic extraction, there are some additional details which can help to guide the most likely early-stage economic studies. At each Deposit location it was identified that there is a core of relatively shallow gold mineralization which is most likely to form part of an early-stage open pit mine plan, based on the currently current understanding of the gold mineralization extents. The gold mineralization at these locations could be the focus of some further drilling and studies leading to a new proposed gold operation. In particular, the North Hill and Silica Ridge Deposits have significant shallow and relatively high-grade sections of gold mineralization which would clearly form a key part of any new proposed gold operation. These deposits are deeply weathered, with all currently defined mineralized domains classified as oxide material and although still nuggety in nature, could be still better defined to improve the confidence level of the Mineral Resource estimate.

### 26.2 Further Exploration Potential

Some of the major structures such as at Silica Ridge and at Southeast Pediment appear to continue beyond the current extents of the drilling information, based on mapping and geophysical data. These structures, particularly where they are intersected by further cross-cutting faults or breaks, could make for potential sites of gold mineralization and are worthy of drill testing.

In addition to the existing geological understanding and interpretation based on the known geology and current magnetic and other geophysical surveys, it appears that there is also a positive correlation between the chargeability and also resistivity features with the known gold mineralization at some Deposit locations. This information has been gathered from both the North Hill deposits and also recently successfully applied at other shallow epithermal gold projects in the form of a 3D Induced Polarisation (IP) survey. This exploration tool could be applied to both the extensions of the existing deposits and also to new locations which are under cover rocks and where other geological information is otherwise lacking.

It appears likely that the most efficient approach to the discovery of additional gold mineralization at Sandman would be to complete 3D IP surveys over key locations where major gold hosting structures are interpreted to exist undercover. This would then potentially lead to more specific drill targets which would reduce the overall number of drill holes required to discovery new gold mineralization.

### 26.3 Proposed Activities and Costs

It is recommended that the potential scale of both the MRE and/or future proposed mining operation at Sandman could be greatly enhanced by first increasing the size of the MRE. This is particularly relevant to locations which are shallow and/or deeply oxidized for their potential inclusion within a new open pit mining and heap leach processing operation.

The exploration program proposed here is an initial phase of drilling and discovery, leading to a better understanding of where the larger sections of gold mineralization are likely to exist at Sandman. Further expenditure commitments and drilling programs will be required on the back of any new discovery to adequately define additional Mineral Resources.

In order to focus the drilling effort into the more likely locations to host the largest gold deposits at Sandman, it is proposed to initially undertake some well-placed regional CSAMT surveys. The purpose of these surveys is to see if the major structures and geological contacts can be broadly defined based on contrasting electrical resistivity, particularly underneath the Quaternary cover sediments for which there is currently a lack of any meaningful geological information.

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A broad 3D interpretation based on the existing geological models and a new regional CSAMT survey could optimize the location of a further, more detailed 3D IP survey, which in turn is anticipated to provide for some direct drill targets relating to specific resistivity and/or chargeability features.

Follow up drill testing would most appropriately include a combination of RC drilling and diamond drilling. Due to the high cost associated with the Core drilling it is recommended that the presence of gold mineralization is initially confirmed by testing a number of target positions with RC drilling.

Table 26 below provides a summary cost estimate of the proposed exploration activities which are focussed toward finding additional gold mineralization which can add to the existing MRE at Sandman. All cost estimates provided are all in costs allowing for all consumable items, supervision and data processing.

**Table 26: Summary cost estimate for proposed exploration activities designed to discover new extensions to the gold mineralization at Sandman.**

Activity	Unit Cost	Amount	Costs
<b>CSAMT</b>	US\$3,500/km	20km	US\$70,000
<b>3D IP</b>	US\$100,000/km <sup>2</sup>	2sqkm	US\$200,000
<b>RC Drilling</b>	US\$150/m	10,000m	US\$1,500,000
<b>Diamond Core Drilling</b>	US\$500/m	1,500m	US\$750,000
<b>Studies and Reporting</b>			US\$300,00
<b>Contingency</b>		10%	US\$282,000
<b>TOTAL</b>			<b>US\$3,102,000</b>

## 27. REFERENCES

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## 28. DATE AND SIGNATURE PAGE

### 28.1 Report Name

Mineral Resource estimate and Technical Report for the Sandman Gold Property, Nevada, USA.

### 28.2 Company Name

Gold Bull Resources Corp. (Gold Bull)

### 28.3 Name of the Deposit/Property

Sandman Gold Property

### 28.4 Effective Date of the Report

January 20, 2021

### 28.5 Completion Date of the Report

March 31, 2021

### 28.6 Signature of Authors

(Signed) "Steven Richard Olsen"

Steven Richard Olsen

Date Signed: March 31, 2021

(Signed) "Michael Ressel"

Michael Ressel

Date Signed: March 31, 2021

## 29. CERTIFICATE OF QUALIFIED PERSONS

### Steven Olsen, Principal Contract Geologist

I, Steven Richard Olsen do hereby certify that I am an independent consultant geologist with an office address of 23 Cinnamon Drive, Lake Gardens Victoria, Australia.

I am the lead author of the report titled Mineral Resource estimate and Technical Report, Sandman Gold Property, Nevada USA prepared for Gold Bull Resources Corp. with an Effective Date of January 20, 2021 and completion date of 31<sup>st</sup> day of March, 2021. I take responsibility for all sections of the Technical Report subject to those issues discussed in Section 3.0, and with the exclusion of section 2.2 which references details of a site visit by the co-author of this report, Mr Michael Ressel of MDA.

I am a graduate of The University of Melbourne (Bachelors of Science (Hons) in Geology in 1992), and a graduate of Queen's University, Kingston, Ontario (Masters in Mineral Exploration) in 1997. I am a registered member in good standing of the Australian Institute of Geoscientists (membership number 7014). I have practiced my profession for a total of 28 years since my graduation and have relevant experience predominantly with regard to the exploration and definition of complex gold deposits of various types, including epithermal gold-silver deposits, nickel sulphide deposits and various copper sulphide deposits.

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 NI43-101.

I have not visited the Sandman Gold Property. I am responsible for all sections of the report other than section 2.2 and subject to the issues disclosed in section 3.0 of the report.

I had no prior involvement with the Property and I am independent of Gold Bull Resources Corp. and related companies applying all of the tests in Section 1.5 of the Companion Policy to NI43-101.

I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1;

As of the effective date of the Technical Report and the completion date of this report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31<sup>st</sup> day of March, 2021

(Signed) "Steven Richard Olsen"

Steven Richard Olsen

**Michael Ressel, Senior Geologist, MDA**

I, Michael Ressel do hereby certify that I am currently employed as a Senior Geologist by Mine Development Associates, Inc (MDA) with an office address of 210 South Rock Blvd, Reno Nevada 89502.

I am a co-author of the report titled Mineral Resource estimate and Technical Report, Sandman Gold Property, Nevada USA prepared for Gold Bull Resources Corp. with an Effective Date of January 20, 2021 and completion date of 31<sup>st</sup> day of March, 2021. I take responsibility specifically for section 2.2 of the Technical Report which references details of a site visit I completed to the Sandman Property with the assistance of geologist from Gold Bull.

I graduated with a Bachelor of Science degree in Geology from California Polytechnic University, Pomona in 1989, received a Master of Science degree in Geological Science from the Mackay School of Mines at the University of Nevada, Reno in 1996, and hold a Doctorate in Geological Science from the University of Nevada, Reno, received in 2005.

I am a Certified Professional Geologist (#12096) with the American Institute of Professional Geologists and have worked as a geologist in the mining, geological consulting, and academia for more than 32 years.

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 NI43-101.

I visited the Sandman Gold Property on the 12 January, 2021 with the assistance of experienced geologists from Gold Bull who have had a long term involvement with the Property. The site visit included surface inspections of all the Projects which form part of the Mineral Resource estimate that are the subject of this report. The site visit included a check of the reported collar positions for a total of 36 drill holes, which represented drill holes from multiple drilling Companies over different time periods and in addition to covering all four Deposit locations.

I had no prior involvement with the Property and I am independent of Gold Bull Resources Corp. and related companies applying all of the tests in Section 1.5 of the Companion Policy to NI43-101.

I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1;

As of the effective date of the Technical Report and the completion date of this report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31<sup>st</sup> day of March, 2021

(Signed) "Michael Ressel"

Michael Ressel