

### **MINE DEVELOPMENT ASSOCIATES**

MINE ENGINEERING SERVICES



# UPDATED RESOURCE ESTIMATE AND NI 43-101 TECHNICAL REPORT, EASTSIDE AND CASTLE GOLD-SILVER PROPERTY, ESMERALDA COUNTY, NEVADA



# Submitted to: \*\*EXELLEGIANT\* 1090 Hamilton Street | Vancouver, British Columbia Canada V6B 2R9

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Appendix A List of Unpatented Federal Lode Mining Claims

#### **FRONTISPIECE**

Landsat aerial view of the Eastside project drilling area, looking north, from Google Earth®.



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#### 1.0 SUMMARY (ITEM 1)

Mine Development Associates ("MDA") has prepared this Technical Report and updated resource estimate for the Eastside and Castle project, located in Esmeralda County, Nevada, at the request of Allegiant Gold Ltd. ("Allegiant"), a British Columbia corporation formerly known as Columbus (US Property Holding) Corporation ("Columbus"). Allegiant holds its 100% ownership interest in the Eastside and Castle project through its wholly owned subsidiary Columbus Gold (U.S.) Corporation, (now known as Allegiant Gold (U.S.) Ltd.) and an agreement dated January 12, 2012 with Cordilleran Exploration Company, LLC ("Cordex") of Reno, Nevada. The purpose of this report is to provide a technical summary supporting an updated estimate of gold and silver resources of the Eastside gold-silver deposit, following Allegiant's drilling conducted in 2018 and 2019. The Eastside project is focused on a low-sulfidation, mostly oxidized, epithermal gold-silver deposit dominantly hosted within Tertiary rhyolite domes and less so in andesite flows and volcaniclastic rocks.

#### 1.1 Property Description and Ownership

The Eastside and Castle property consists of 870 unpatented lode mining claims covering approximately 7,202 hectares in northern Esmeralda County, Nevada, situated in Township 2 North, Range 38½ East; Township 2 North, Range 39 East; Township 3 North, Range 39 East; Township 4 North, Range 38½ East; and Township 4 North, Range 39 East, M.D.B&M. Allegiant has represented that all of the claims are valid until August 31, 2020. The annual fees are \$153,994 per year for the current 870 claims. The surface within the Eastside property is managed by the U.S. Bureau of Land Management. There is no private surface or Nevada State land within the property.

The 870 claims in the property include: a) 35 Eastside claims leased from McIntosh Exploration LLC, b) 140 ES claims also leased from McIntosh Exploration LLC, and c) 218 ES claims, 215 DP claims, 140 PF claims, three ESW claims, 115 CBR claims, two Clutter claims and two Castle claims with title held by Allegiant Gold (U.S.) Corporation.

#### 1.2 Eastside Area Exploration and Mining History

There is no recorded mineral production from the Eastside portion of the property. Only one historical prospect adit and a few shallow prospect pits are scattered across the property. Old drill pad sites, as well as access roads to the sites, remain visible in the eastern margin of the property, but no data is available to confirm that drilling was ever conducted.

In the late 1970s a prospector working for Cordex collected several samples from the northern part of what later became the Eastside property. The assays detected measurable gold. In 1999, Mr. Larry 775-856-5700

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McIntosh collected another 184 rock-chip samples from a nearby area. Elevated gold was detected and McIntosh staked the first four Eastside claims. The property was expanded and subsequently leased to Newmont Mining and later to Cordex. Both of these companies carried out surface exploration work, but no drilling.

#### 1.3 Castle Area Exploration and Mining History

Modern exploration began in the 1970s, with a few drill holes by ASARCO and Noranda, followed in 1979 by an extensive program of shallow drilling by Houston Oil and Minerals ("HOM"). Claims centered on what later became the historical Boss mine were optioned in 1981 by Falcon Exploration ("Falcon"), who proceeded to delineate the Boss area mineralization. Homestake Mining Company ("Homestake") optioned Falcon's peripheral claims in 1987 and discovered gold mineralization under pediment cover south of Black Rock. Homestake relinquished the claims in 1987. Concurrent with the Homestake program, Falcon constructed the small, open-pit heap-leach Boss mine. During 1988 and 1989 The Boss mine produced approximately 32,000 ounces of gold from about 544,300t.

Westgold and Mintec Resources optioned the Boss area claims from Falcon in August of 1988 and undertook a surface exploration and drilling program. During this time the Berg area gold mineralization was discovered south of the Boss mine.

In 1992, Kennecott Exploration staked claims northeast of the Boss mine and drilled 65 RC holes in 1993 to 1995 to discover the Castle mineralized zone east of the Boss mine. Fischer-Watt Gold Company ("FWG") purchased the Kennecott claims in 1996 and staked additional claims around the periphery of the Kennecott block. Ground to the west and south, including the Berg and Black Rock zones, had become open and was staked by Platoro West Inc. ("Platoro") earlier in 1996.

In 1998 Cordex leased the FWG claims, conducted RC drilling and estimated historical "Geologic Resources" for the Castle, Black Rock and Berg zones that together totaled 11.2 million short tons with an average grade of 0.024oz Au/ton. At that time Cordex was a subsidiary of Rayrock Resources Inc. This historical estimate is not in accordance with NI 43-101, Allegiant is not treating these historical resources as current mineral resources, and the authors caution the reader that this estimate should not be relied upon. The authors have not done sufficient work to classify the historical resources as current mineral resources and are unaware of what work needs to be done to upgrade or verify the historical estimate as current mineral resources.

Glamis Gold acquired Rayrock Resources in 1999 and the Castle project was terminated. Later in 1999, Platoro acquired the FWG claims, thereby consolidating the property. Seabridge Resources Inc. ("Seabridge") leased the consolidated Castle area claims from Platoro in August 2000. No exploration work was conducted by Seabridge. Columbus (now Allegiant) acquired the Castle area property from Platoro and Seabridge in February 2017.

#### 1.4 Geology and Mineralization

The Eastside and Castle property is located at the eastern flank of the Monte Cristo Range in western Nevada within the Walker Lane structural belt. The Walker Lane is host to several past and presently producing epithermal gold-silver deposits of greater than one million ounces of gold.



In and adjacent to the Monte Cristo Range, volcanic and associated volcanic-sedimentary rocks of Cenozoic ages overlie Paleozoic marine chert, shale, siliceous argillite, siltstone, fine-grained quartzite, and lesser limestone. The Cenozoic rocks include (1) Oligocene and Miocene ash-flow tuffs (24 to 26.7 Ma); (2) andesite flows, tuffs, dacite flows, and intrusive rocks of the Blair Junction sequence (15.7 to 22.2 Ma); (3) fresh-water lake sediments of the McLeans unit; (4) Gilbert Andesite (15 Ma) and (5) a series of rhyolite domes, associated rhyolite tuffs, and basaltic lava flows (7.2 Ma). Of particular importance are the 7.2 Ma high-level rhyolite domes, plugs and related pyroclastic deposits which host most of the gold and silver resources at the Eastside area of the project.

At the Eastside area, two sub-parallel, north-trending zones of gold and silver mineralization have been intersected with drilling, extending over 1km in a north-south direction, 700m east-west, and 500m vertically. Both zones are dominantly hosted in rhyolite. The Eastside deposit is open to the south, west and at depth.

Gold and silver mineralization at Eastside displays many classic low-sulfidation epithermal features. The low-grade gold domain is a halo of disseminated-like mineralization largely inside and to a lesser extent adjacent to the rhyolite as large irregular shapes mimicking the rhyolite geometry. The higher-grade zones are in part parallel to, and possibly controlled by, high-angle and moderate-angle contacts between rhyolite and andesite in the east and west zones, respectively, and also likely related to contacts between successive intrusive phases of rhyolite. While internal, successive, intrusive phase-related controls to mineralization are geologically reasonable, those shapes are in some cases somewhat speculative and geologically inferred. Silver mineralization is volumetrically smaller than the gold and lies mostly within the gold domains, but silver does not correlate with gold on a sample-by-sample basis.

Gold mineralization at the Boss mine and the Berg, Black Rock and Castle zones is associated with quartz stockworks and quartz-calcite-pyrite vein zones, and quartz-adularia, illite-pyrite and quartz-alunite alteration. Mineralization is largely concealed beneath surficial deposits and is mainly hosted by andesite of the Blair Junction sequence, as well as underlying and overlying rhyolite units. In places the mineralization extends into the Paleozoic basement rocks.

#### 1.5 Quality Assurance / Quality Control ("QA/QC")

The authors believe that the Eastside area drilling, sample preparation, analytical and sample security procedures provided samples that are mostly representative of the material sampled and of sufficient quality for use in classifying resources to Inferred category. A low bias in the pre-2016 field-duplicate reverse-circulation ("RC") samples compared to the originals was found and deserves further attention. That high bias in database values is partially offset by results from certified standards that show a slight low bias in the database values.

Historical drilling information for the Castle area has not yet been compiled, evaluated and verified, and no QA/QC analysis has been conducted. MDA recommends that Allegiant compile the drilling information that may be available so that data verification and QA/QC analyses can be conducted.



#### 1.6 Metallurgical Testing and Mineral Processing

Three preliminary metallurgical studies of mineralized material from the Eastside gold-silver deposit have been conducted starting in 2014. All the tests were cyanide-leach bottle-roll tests on RC drill cuttings conducted by Kappes, Cassiday and Associates, in Reno, Nevada. This metallurgical work is not sufficient to accurately predict mill and heap-leach recoveries of gold and silver at Eastside, but the test results are sufficient to conclude that Eastside mineralization is amenable to cyanide extraction. Heap leach extractions are expected to be around 70% and 20% for gold and silver, respectively, using a three-stage crushing procedure. Milling with a fine grind is expected to result in extractions over 90% and around 50% for gold and silver, respectively.

#### 1.7 Mineral Resource Estimate

Presently the Eastside gold and silver deposit is defined to a length of over 1km with a vertical extent of 500m and a width of about 700m. The deposit is open to the south, west and at depth. A significant outcome of Allegiant's work has been the development of a good geologic model, based on 190 drill holes, which provided the basis of the current resource estimate.

The Eastside area drilling database contains 33,028 gold assays and 12,601 silver assays used for the estimation of the resources reported herein. The assigned densities range from 2.2g/cm<sup>3</sup> for volcaniclastic sedimentary rocks and steam-heated altered rhyolite, to 2.6g/cm<sup>3</sup> for undifferentiated basement Paleozoic rocks. The principal rhyolite host rock was assigned a density value of 2.35g/cm<sup>3</sup>.

The underlying Eastside area geologic model of intrusive rhyolite domes cutting a sequence of andesitic volcanic and volcaniclastic rocks provided the foundation of the resource model. The geology was modeled on east-west cross sections spaced 40m apart. Using the geologic model as a guide, gold and silver domains were interpreted based on drill-sample grades and guided by geology on the same 40m sections.

Two gold domains were defined, one greater than ~0.04g Au/t and one greater than ~0.3g Au/t. One silver domain was defined above ~3g Ag/t. The low-grade gold domain is a halo of mineralization largely inside and to a lesser extent around the rhyolite as large irregular shapes mimicking the rhyolite geometry. The higher-grade gold domain is smaller and generally forms more linear zones, but also more irregular zones parallel to rhyolite boundaries. There are indications that higher-grade domains within the rhyolite may be related to internal rhyolite intrusive contacts. While this is geologically reasonable, and in some areas the domains have been modeled that way, some of those shapes are somewhat speculative. The domains can extend outside of the rhyolite into andesite units where about 20% of the mineralized material occurs. Just under 80% of the mineralization is oxidized, though there is no relationship yet determined between oxidation and cyanide recovery. Silver mineralization is volumetrically smaller than the gold, lies mostly within the gold domains, but does not correlate well with gold on a sample-by-sample basis.

Capping for each domain was determined by first assessing the grade above which the outliers occur. Caps of 3.0g Au/t, 15.0g Au/t, 150.0g Ag/t, and 5.0g Ag/t were applied for low-grade gold, high-grade gold, outside gold, inside silver, and outside silver domains, respectively. In total, 12 samples were capped in the low-grade gold domain, 11 samples were capped in the high-grade gold domain and 15 samples in the silver domain were capped. Samples were composited to 2m lengths after capping.



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Four Eastside resource estimates were completed: polygonal, nearest neighbor, inverse distance to the third power, and kriged; the inverse distance to the third power is the reported estimate. The block model is not rotated, and the blocks are 6m north-south by 6m vertical by 6m east-west.

The authors classified the Eastside area resources giving consideration to the confidence in the underlying database, sample integrity, analytical precision/reliability, and geologic interpretations. Because of the complex geology caused by multiple rhyolite intrusions and because the factors that control the distribution of mineralization are not fully understood, all material in this estimate is classified as Inferred. The largest impediment to higher classification was the incomplete understanding of the controls on mineralization. Presently we assume that the controls are dominantly internal structures in the rhyolite, and possibly lithologic and structural controls in the andesite rocks. Table 1.1 presents the estimate of Inferred resources at Eastside.

Table 1.1 Eastside Inferred Gold Resources

Cutoff	Tonnes	Grade	Ounces	Grade	Ounces
g Au/t		g Au/t	Au	g Ag/t	Ag
0.15	57,050,000	0.54	996,000	4.3	7,838,000

These are reported at a cutoff of 0.15g Au/t which approximates anticipated economic cutoffs based on preliminary metallurgical test work and operations cost estimates for an envisioned open-pit with combined heap-leach and milling scenario. To determine the "reasonable prospects for eventual economic extraction" the authors chose to report the resource considering mining costs of \$1.35/t and G&A costs of \$0.50/t. Heap-leach and milling costs used were \$4.60/t and \$10.40/t, respectively. The price of gold and silver per ounce were \$1,550 and \$19.67, respectively. MDA ran a series of optimized pits using variable gold and silver prices, mining costs, processing costs and processing scenarios. Most scenarios showed small and consistent increases in contained mineralized material up to the highest gold and silver prices at \$2,000 and \$25.39 per ounce, respectively. However, there was a large jump in mineralized material between gold prices of \$1,500 and \$1,525 per ounce, and in mineralized material at \$1,750 per ounce. It is important to note that mineralization continues below and beyond the reporting-pit limits.

#### 1.8 **Conclusions and Recommendations**

The Eastside and Castle project deserves a long-term commitment. Justified expenditures for the first phase of exploration would be around US\$3.8 million, as shown in Table 1.2. After Phase I is completed, a decision would have to be made as to whether to proceed with a second phase of exploration with a cost likely to be well in excess of Phase I.



Table 1.2 Cost Estimate for the Recommended Program of Phase I

Category	Qty		USD	Unit C	ost
	Eastside				
Permitting			\$ 500,000		
Geochemical analyses	2,000	samples	\$ 44,000	\$ 22	/sample
Expansion drilling (RC and core)	3,000	meters	\$ 340,000	\$ 113	/m
Deep exploration drilling (core)	4,000	meters	\$ 800,000	\$ 200	/m
Exploration drilling	10,000	meters	\$ 700,000	\$ 70	/m
Exploration drilling road building			\$ 400,000		
Metallurgy			\$ 180,000		
Geophysics (Magnetics)			\$ 30,000		
Geophysics (CSAMT and/or IP)			\$ 100,000		
Reporting and geologic studies			\$ 250,000		
Contingency (rounded)	10%		\$ 330,000		
Sub-total for Eastside Area			\$ 3,674,000		
	Castle				
Data Compilation			\$ 25,000		
Geologic Mapping			\$ 10,000		
Ground magnetic survey			\$ 15,000		
CSAMT survey			\$ 25,000		
Contingency (rounded)	10%		\$ 10,000		
Sub-total for Castle Area			\$ 85,000		
Total (rounded to 100,000s)			\$ 3,800,000		



#### 2.0 INTRODUCTION AND TERMS OF REFERENCE (ITEM 2)

Mine Development Associates ("MDA") has prepared this Technical Report and updated resource estimate for the Eastside and Castle project, located in Esmeralda County, Nevada, at the request of Allegiant Gold Ltd. ("Allegiant"), a British Columbia corporation formerly known as Columbus (US Property Holding) Corporation ("Columbus"). Allegiant holds its 100% ownership interest in the Eastside and Castle project through its wholly owned subsidiary Columbus Gold (U.S.) Corporation, (now known as Allegiant Gold (U.S.) Ltd.) and an agreement dated January 12, 2012 with Cordilleran Exploration Company, LLC ("Cordex") of Reno, Nevada.

This report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on May 10, 2014. The Effective Date of the mineral resources estimate reported herein is December 30, 2019. The Effective Date of this Technical Report is December 30, 2019.

#### 2.1 Project Scope and Terms of Reference

The purpose of this report is to provide a technical summary supporting an updated estimate of gold and silver resources of the Eastside gold-silver deposit located within the Eastside and Castle property of Allegiant. This report builds on and supersedes the NI 43-101 reports of Ristorcelli (December, 2016) and Ristorcelli (2017) titled "Resource Estimate and Technical Report, Eastside Gold-Silver Project, Esmeralda County, Nevada" prepared for Allegiant with an Effective Date of July 25, 2017. The mineral resources herein were estimated and classified by Mr. Steven J. Ristorcelli, C.P.G. and Principal Geologist for MDA, and Mr. Derick L. Unger, C.P.G. and Project Geologist for MDA, according to the CIM Standards. Mr. Ristorcelli and Mr. Unger are qualified persons under NI 43-101 and has no affiliations with Allegiant, Columbus, or Cordex, except that of an independent consultant/client relationship.

The Eastside and Castle gold-silver exploration project is focused on an area of multiple, low-sulfidation, epithermal gold-silver deposits mainly within volcanic rocks. Since January 12, 2012 exploration work for the project has been conducted by Cordex on behalf of Allegiant according to the terms of a services agreement with Columbus most recently renewed January 1, 2019. The scope of this report included a review of pertinent technical reports and data provided to MDA by Allegiant relative to the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs, and metallurgical testing. The authors have relied on the data and information provided by Allegiant for the completion of this report, including the supporting data for the estimation of the mineral resources, which the authors consider appropriate and reliable.

Mr. Ristorcelli visited the Eastside project on March 16, 2016, accompanied by Michael Gustin, PhD and Senior Geologist for MDA, and again on May 5 and 6, 2016. While on site, Ristorcelli reviewed drill core, core-logging and related procedures, exploration practices, and evaluated the geology and drilling. Mr. Ristorcelli and Mr. Gustin were accompanied by Andy Wallace, Pete Chapman, Doug McGibbon, Jim Greybeck, and Kevin Marks of Cordex. In addition, Mr. Ristorcelli visited the Cordex office in Reno, Nevada on numerous dates in the last 3.5 years. Mr. Unger has not visited the project site.



The authors have relied almost entirely on data and information derived from work done by Cordex for Columbus and Allegiant. Mr. Ristorcelli has conducted site visits, and both authors have reviewed much of the available data and have made judgments about the general reliability of the underlying data. Where deemed either inadequate or unreliable, the data were either eliminated from use or procedures were modified to account for lack of confidence in that specific information. The authors have made such independent investigations as deemed necessary in the professional judgment of the authors to be able to reasonably present the conclusions discussed herein.

#### 2.2 Frequently Used Acronyms, Abbreviations, Definitions, and Units of Measure

In this report, measurements are generally reported in metric units unless specified otherwise, such as in cases where laboratory information was originally reported in Imperial units. For other data MDA has made the conversions as shown below.

Currency, units of measure, and conversion factors used in this report include:

T	•		N /			
I.	лn	ear	V	ea	SU	ıre

= 0.3937 inch 1 centimeter 1 meter = 3.2808 feet = 1.0936 yard

1 kilometer = 0.6214 mile

Area Measure

1 hectare = 2.471 acres= 0.0039 square mile

**Capacity Measure (liquid)** 

1 liter = 0.2642 US gallons

Weight

1 tonne = 1.1023 short tons = 2,205 pounds

= 2.205 pounds 1 kilogram

Currency Unless otherwise indicated, all references to dollars (\$) in this report refer to currency of the United States.

#### Frequently used acronyms and abbreviations

AA	atomic absorption spectrometry
Ag	silver
Au	gold
asl	above sea level
cm	centimeters
core	diamond core-drilling method
$^{\mathrm{o}}\mathrm{C}$	degrees centigrade
°F	degrees Fahrenheit
C	

ft foot or feet

g/t grams per tonne hectares

ha



#### Updated Resource Estimate and Technical Report, Eastside and Castle Gold-Silver Property, Nevada Allegiant Gold Ltd. Page 9

ICP inductively coupled plasma analytical method

in inch or inches K-Ar Potassium-Argon

kg kilograms km kilometers kV kilovolt liter

lb pound or pounds

μm micron m meters

Ma million years old

M.D.B&M. Mount Diablo Baseline and Meridian

mi mile or miles mm millimeters MW megawatt

NSR net smelter return

oz ounce

ppm parts per million ppb parts per billion

QA/QC quality assurance and quality control RC reverse-circulation drilling method

RQD rock-quality designation t metric tonne or tonnes ton Imperial short ton



#### 3.0 RELIANCE ON OTHER EXPERTS (ITEM 3)

The authors are not experts in legal matters, such as the assessment of the legal validity of mining claims, private lands, mineral rights, and property agreements in the United States. The authors did not conduct any investigations of the environmental, permitting, or social-economic issues associated with the Eastside project, and the authors are not experts with respect to these issues.

The authors have fully relied on Dr. Andy Wallace, former principal of Cordex, to provide complete information concerning the legal status of Allegiant and related companies, as well as current legal title, material terms of all agreements, and material environmental and permitting information that pertain to the Eastside project. A title report on certain unpatented mining claims at the Eastside property, dated February 13, 2017 by Tracy O. Guinand, Mineral Landman, was part of the information supplied by Dr. Wallace.

Section 4.0 in its entirety is based on information provided by Allegiant and Dr. Wallace, and the authors offer no professional opinions regarding the provided information.



#### 4.0 PROPERTY DESCRIPTION AND LOCATION (ITEM 4)

The authors are not experts in land, legal, environmental, and permitting matters. This section is based on information provided to MDA by Allegiant. The authors presents this information to fulfill reporting requirements of NI 43-101 and express no opinion regarding the mineral tenure, legal or environmental status of the Eastside project.

#### 4.1 Location and Access

The Eastside and Castle property is located in southwestern Nevada, USA, on the east flank of the Monte Cristo Range, 35km northwest of the town of Tonopah as shown in Figure 4.1. The center of the property is at approximately 38° 10' North Latitude and 117° 37' 16" West Longitude.

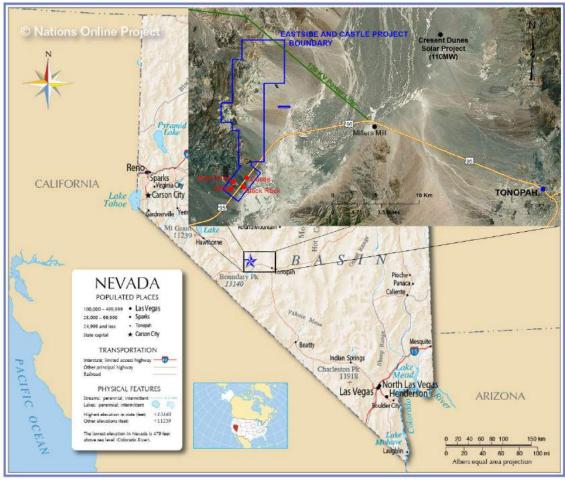


Figure 4.1 Location Map for the Eastside Project

Note: Base map from http://www.nationsonline.org, a website for world-wide maps, political, administrative and cultural information.



#### 4.2 Land Area

The Eastside and Castle property consists of 870 unpatented lode mining claims in northern Esmeralda County, Nevada (Figure 4.2) that cover approximately 7,202 hectares. These include 35 Eastside claims, 358 ES claims, 215 DP claims, 140 PF claims, three ESW claims, 115 CBR claims, two Clutter claims and two Castle claims. The claim block lies within:

- Sections 4, 5, and 9 of unsurveyed Township 3 North, Range 38½ East;
- Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, and 30 of partially Surveyed Township 3 North, Range 39 East;
- Sections 16, 21, 28, 32, and 33 of unsurveyed Township 4 North, Range 38½ East;
- Sections 3, 4, 9, 10, 15, 16, 18, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33, 34, and 35 of unsurveyed Township 4 North, Range 39 East, M.D.B&M.
- Section 4 of unsurveyed Township 2 North, Range 38½ East;
- Section 6, unsurveyed Township 2 North, Range 39 East;

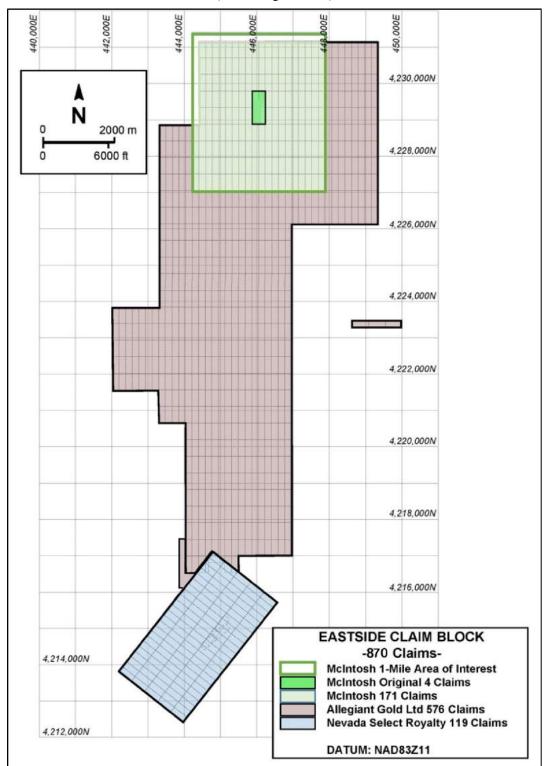
A listing of the individual claim names and their U.S Bureau of Land Management ("BLM") serial numbers is presented in Appendix A. Each claim was located using a handheld GPS and marked with four 5.08cm x 5.08cm corner posts and a 5.08cm x 5.08cm location monument (post). The claims have not been surveyed by a professional land or mineral surveyor.

The BLM administers unpatented claims on Federal lands under the Mining Law of 1872. Annual BLM Maintenance Fees for claims, payable by noon on September 1 of each year, are \$165 for each claim. Annual Esmeralda County, Nevada Affidavit of Notice of Intent to Hold fees for claims, payable by October 31, are \$12.00 for each claim plus a single \$4 filing fee. Allegiant has represented that all of the claims are valid until August 31, 2020. The annual fees are \$153,994 per year for the current 870 claims comprising the property.

Under the Mining Law of 1872 the holder (locator) of mining claims on BLM-administered land has the right to explore, develop and mine minerals on their claims without payment of royalties to the Federal Government. The holder has full surface rights to the claims, subject to applicable State and Federal environmental permit requirements. Nevada taxes on mining are calculated both against royalties paid to property owners or claim holders, and also against the net proceeds of mining. Royalties paid to property owners or claim holders are taxed at 5% with no deductions. If net proceeds of a mine in the year exceed \$4 million, the tax rate is 5% of the net proceeds. If it is less than \$4 million the tax rate is as outlined in Table 4.1, below.



Figure 4.2 Property Map for the Eastside and Castle Project (from Allegiant Gold)



Note: Castle area claims denoted by "Nevada Select Royalty" refers to the Cordex 2.0% NSR.



Net Proceeds as a % of Gross ProceedsNet Proceeds Rate of Tax %Less than 102.010 or more but less than 182.518 or more but less than 263.026 or more but less than 343.534 or more but less than 424.042 or more but less than 504.5

Table 4.1 Schedule of Nevada Net Proceeds Tax

#### 4.3 Agreements and Encumbrances Pertaining to Allegiant

#### 4.3.1 Mineral Lease Agreement between Cordex and McIntosh

50 or more

Originally the property consisted of 4 claims, Eastside 1-4, all of which had title under the name of Larry and Susan McIntosh ("McIntosh"). The agreement signed April 3, 2009 and recorded in Esmeralda County, Nevada (Document #0173631), covered the leasing for the Eastside claims from Larry and Susan McIntosh (the lessor) to Cordex. It covered the details of the lease of the claims including Cordex's obligations to keep the claims in good standing, an Advance Royalty, and a Production Royalty.

The Advance Royalty, subject to Cordex's right to terminate the agreement, required that the following amounts are paid to the Lessor as an advance royalty:

- \$5,000 paid on execution of the Agreement for year 1,
- \$10,000 for year 2 of the agreement,
- \$15,000 for year 3 of the agreement,
- \$20,000 for year 4 of the agreement,
- \$25,000 for year 5 of the agreement, and
- \$50,000 for each year thereafter.

This Advance Royalty required that for years 4 and beyond (paid on the 3rd effective anniversary date onwards, annually) the payments be adjusted for inflation or deflation as set out in the Consumer Price Index published by the U.S. Department of Labor, Bureau of Labor Statistics. All Advance Royalty payments are deductible cumulatively as a credit against the Production Royalty.

The Production Royalty owed to McIntosh under the lease agreement is a 2.0% Net Smelter Return royalty ("NSR"). Cordex has an option to permanently reduce the royalty rate to 1.0% at any time during the agreement by paying McIntosh \$1.5 million.

The Production Royalty applies to not only the original four Eastside 1-4 claims, but also all claims subsequently located by either party within an Area of Interest ("AOI"). This AOI covers any mining

5.0



claims fully or partially within a rectangle drawn from intersecting lines drawn parallel to, and one mile from, the original four Eastside 1-4 claims as shown in Figure 4.2.

The surface within the Eastside property is managed by the BLM. There is no private surface or Nevada State land within the property.

#### 4.3.2 Agreement between Allegiant and Cordex

Between January 1, 2012 and June 30, 2019 Allegiant and Cordex operated under terms of an agreement between Allegiant (formerly Columbus) and Cordex given in a document dated January 1, 2012 titled "Amended and Restated Cordex Agreement". This agreement defined the title Allegiant has over numerous properties in Nevada and services provided by Cordex for Allegiant. Under the agreement, Cordex provided services for Allegiant including: acting as an operator for Allegiant on existing properties covered by the agreement; carrying out exploration and development activities on these properties on behalf of Allegiant; designing and carrying out generative exploration activities in Nevada, and elsewhere in the U.S. where mutually agreed, on behalf of Allegiant; acting as operator for Allegiant on all new properties; and carrying out all related tasks of similar nature on new and existing properties for Columbus. Since expiration of the above agreement on June 30, 2019, the principals of Cordex, Dr. Andy Wallace and Mr. Bruce Delaney, have worked as consultants for Allegiant. Claims are to be held under Cordex's name on behalf of Allegiant until, at the election of Allegiant, they are transferred or assigned to them or their designee.

The agreement also sets out a royalty on new properties for Cordex: for new claims staked by Cordex the royalty is a 2.0% NSR; for claims or interests acquired from third parties burdened by an NSR, the Cordex royalty is the difference between 4.0% and the existing third party royalties, but not to exceed 2.0% nor be less than 1.0%; and for claims or interests burdened by a different kind of royalty payment other than an NSR the parties will mutually agree to a Cordex royalty that is not less than the monetary equivalent of a 1.0% nor more than 2.0% NSR.

As it applies to the Eastside property this means that all claims fully or partially within the AOI, whether title is held by Cordex or McIntosh, are subject to a 4.0% NSR, half of which is due to Cordex and the other half due to McIntosh. The claims outside the AOI are subject only to a 2.0% NSR due to Cordex.

#### 4.3.3 Transfer of Claims and Agreements

On April 2, 2014, a Quit Claim Deed (Document # 0191192) was recorded in Esmeralda County, Nevada. The deed transfers title of the McIntosh claims to McIntosh Exploration LLC, a Nevada limited liability company.

On November 12, 2015, a Mining Deed and Assignment With Reservation of Royalty (Document # 0195922) was recorded in Esmeralda County, Nevada. The deed transfers title of the Cordex claims to Columbus reserving, however, unto Cordex the Cordex Royalty. Additionally the deed assigns the McIntosh Cordex Mineral Lease Agreement (Document #173631) to Columbus.



On February 11, 2016, an Amended Memorandum of Mineral Lease Agreement (Document # 0197656) was recorded in Esmeralda County, Nevada. The Amended Memorandum amends the Mineral Lease Agreement (Document # 173631) to include all the claims in the McIntosh AOI.

#### 4.3.4 Castle Claims Agreements

In February of 2017, a total of 119 CBR, Castle and Cluster claims were added to the Allegiant property position when Columbus acquired the exclusive right to explore and mine these unpatented lode mining claims that are more particularly described in Appendix A hereto (the "Castle Claims"). Columbus' leasehold interest in the Castle Claims is based on an Amended and Restated Mining Lease and Agreement dated January 12, 2016 between Platoro West Incorporated, also known as Platoro West Inc. ("Platoro"), as lessor and Seabridge Gold Inc. ("Seabridge") as lessee, an Assignment and Assumption of that lease dated February 21, 2017 from Seabridge to Columbus, and an Amendment of Mining Lease dated February 21, 2017 by Platoro, as lessor, and Columbus, as lessee (as so amended, the "Castle Lease"). To obtain the leasehold rights in the Castle Claims, Seabridge was paid 1,500,000 common shares of Columbus and Platoro was paid 250,000 common shares of Columbus. Since then, the Castle Claims have been conveyed by Platoro to Nevada Select Royalty, Inc. ("Nevada Select") and the Castle Lease has been assigned by Platoro to Nevada Select, such that Nevada Select is now the lessor under the Castle Lease. As lessee under the Castle Lease, Allegiant is required, among other things, to make annual advance royalty payments to Nevada Select, and to pay Nevada Select a 2.0% NSR from the sale of any metals produced from the Castle Claims, which royalty may be reduced at any time during the term of the Castle Lease from 2.0% to 1.0% upon Allegiant's payment of \$2,500,000 to Platoro. Cordex is also entitled to a 2.0% NSR on any mineral production from the Castle Claims, in accordance with the terms of a 2017 Cordex Services Agreement between Columbus and Cordex. The term of the Castle Lease continues for so long as Allegiant continues to make certain payments to Nevada Select (unless sooner terminated as provided in the Castle Lease), but the Castle Lease cannot extend beyond August 15, 2099. Public notice of the Castle Lease and Columbus' leasehold interest in the Castle Claims is provided by a Notice of Mining Lease recorded in Esmeralda County as document number 206994.

#### 4.4 Environmental Permitting - Eastside

Federal Regulations that govern the exploration activities and surface disturbance at Eastside are BLM Surface Management Regulations 43 Code of Federal Regulations ("CFR") 3809, as amended. Activities are also regulated by Nevada Revised Statutes and Nevada Administrative Code ("NAC") 519A.

Between March 2011 and May 2015, Cordex operated under a BLM Notice of Intent ("NOI"), number N-88808. The NOI allowed up to 2.0235 hectares of disturbance. Between March 2011 and December 2013, Cordex engaged in three rounds of drilling resulting in approximately 1.80 hectares of disturbance.

In April 2014, Columbus entered into a contract with JBR Environmental Consultants, Inc., which was later purchased by Stantec Consulting Services Inc., of Reno, Nevada, to prepare an Environmental Assessment at Eastside and a new BLM Plan of Operations ("Plan") to allow construction of 180 drill pads, drill roads and staging areas. On September 9, 2014 the Nevada Division of Environmental Protection ("NDEP") approved a Class 2 Air Quality Operation Permit, Surface Area Disturbance (Permit # AP1041-3524) for the project. The NDEP's Bureau of Mining and Reclamation ("BMRR") approved the Reclamation Permit (Permit # 0373) for the project on May, 25, 2015.



On May 26, 2015 the BLM approved the Plan of Operations (Permit # N-093181) for the Eastside exploration work. The Decision Notice and Finding of No Significant Impact were based on the Environmental Assessment ("EA") prepared for the BLM covering the following activities:

- Total disturbance of 16.27 hectares;
- Construction of 180 drill pads;
- Construction of up to 1,7830.9 linear meters of temporary roads;
- Improvement and use of existing roads;
- Construction of staging areas;
- Reclamation of all project related disturbances at the end of the project life; and
- Estimated life of the project is 10 years.

The approved activities are required to comply with all applicable laws, regulations and policies. The proposed actions, including environmental protection measures, required mitigation measures, monitoring and all other stipulations defined in the EA, have been determined to not significantly affect the quality of human environment and an Environmental Impact Statement is not required.

On May 27, 2015 Columbus placed a \$177,900 cash bond (NVB001904) with the BLM. In September 2018 the bond was increased to \$185,800. The funds will be retained in a suspense account until all terms and conditions of the operation have been fulfilled or until a satisfactory replacement bond has been accepted.

All of the above permits are in full compliance as of the date of this report. All of the recommended Phase I expansion drilling proposed in Section 25.0 of this report can be done under the existing permits summarized above. Applications have not yet been made to expand the permits to accomplish the remainder of the proposed drilling.

#### 4.5 Environmental Permitting – Castle and Adularia Hill

No environmental permitting has been undertaken for the Castle portion of the property and no environmental permits are in place for exploration in the Castle portion of the property. However, the proposed Phase I exploration program in Section 25.0 of this report involves no surface disturbance and therefore requires no environmental or other permits.

In 2018, Allegiant submitted a BLM Notice of Intent ("NOI") to permit exploration drilling in the Adularia Hill portion of the property. This NOI allowed up to 2.0235 hectares of disturbance and a total of 21 holes were drilled.

#### 4.6 Environmental Liabilities

Apart from the surface disturbances permitted under the approved Plan, which will require reclamation, there are no environmental liabilities at the Eastside area of the project. In the Castle portion of the property there may be liabilities associated with the heap-leach pad of the historical Boss mine, which operated during the late 1980s.

The authors are unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.



## 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY (ITEM 5)

#### 5.1 Access to Property

Access to the Eastside portion of the project is via paved U.S. Highway 6 and 95, proceeding north on the county-maintained Gilbert – Crow Springs gravel road located 11km west of Miller's mill (Figure 4.1), for approximately 10km to the northern part of the property. Access into the property includes unmaintained unpaved roads at several points 8-12km from the highway. Cordex has built and maintains approximately 12.5km of roads within the property for year-around exploration access. The Castle portion of the property is traversed by U.S. Highway 6 and 95, as well as a network of unmaintained unpaved roads.

#### 5.2 Climate

The property is located in the Basin and Range physiographic region, characterized by linear mountain ranges separated by flat, largely arid valleys or basins. Vegetation is sparse and typical for the region with the predominant flora being shadscale and sagebrush. Summers are hot and dry with occasional thunderstorms; winters are cold with occasional snow, but little accumulation. Total precipitation averages less than 13cm per year. As a result the property is accessible year round for exploration purposes except on rare occasions in winter where snow might accumulate, or in summer if thunderstorm runoff damages access roads. Monthly climate data for Tonopah, 35km to the east, is summarized in Table 5.1.

**Table 5.1 Monthly Average Temperature and Precipitation, Tonopah, Nevada** (from Whitehead, 2015)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg Max. Temp (C)	6.8	9.4	13.2	17.4	23.1	29.0	33.1	31.8	27.0	20.2	12.1	7.2	19.2
Avg Min. Temp (C)	-7.1	-4.6	-2.2	0.8	5.7	10.6	13.8	12.8	8.7	2.9	-3.2	-7.0	2.6
Avg Total Precip (cm)	1.0	1.2	1.2	0.9	1.4	0.8	1.3	1.3	1.1	1.0	1.0	0.7	12.9
Avg Total Snowfall (cm)	7.6	7.4	5.8	2.8	1.0	0.0	0.0	0.0	0.0	0.3	3.6	4.8	33.0
Avg Snow Depth (cm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

#### 5.3 Physiography and Vegetation

The property is situated along the east flank of the Monte Cristo Range (Figure 5.1) and varies from about 1,500m to about 2,200m in elevation. Gently sloping alluvial fans and sub-horizontal pediments comprise the eastern part of the project area. Parts of the project area include rugged peaks and ridges. Vegetation consists of sparse desert brush and grasses as shown in Figure 5.1. Several locations favorable for potential heap-leach pads, potential processing plant sites and waste-rock storage facilities are present.



Figure 5.1 View of the Eastside and Castle Project Area, Looking Northwest

#### 5.4 Local Resources and Infrastructure

The nearest population center is the small, historic mining town of Tonopah, the county seat of Nye County, Nevada, which is located 35km southeast of the project area. As of the 2010 census it had a population of ~2,500. The town is served by U.S. Highway 6 and U.S. Highway 95, which connect the area to Reno and Las Vegas and serve as major commercial trucking routes. There is a general aviation facility at the Tonopah airport. The closest large commercial airports are at Las Vegas and Reno, Nevada. Tonopah has restaurants, hotels, hardware stores, fueling stations for gasoline and diesel, a rural hospital, and other amenities expected in a town of its size, in addition to what is needed to serve the highway traffic and tourists.

Readily accessible power is available from a 120kV power line that passes through the northern portion of the Eastside claim block. The now-shut down Crescent Dunes Solar Energy Project, a 110MW solar-thermal electric generating plant, the largest molten-salt power tower in the world, is located a few kilometers to the east of the property.

A shallow water well is present within the property, but it is not currently permitted for use. Water is known to be shallow in the bordering basin to the west. An abandoned 30.5cm-diameter drill hole has water standing at 7.62m down hole. The water table in the basin is also known to be quite shallow at Miller's mill to the southeast, and also at the historical Boss mine.

Skilled mining, industrial construction and engineering labor and services, as well as mining equipment and supplies, are available in the Reno-Carson City and Las Vegas areas for small- and large-scale projects.



#### 6.0 HISTORY (ITEM 6)

The Eastside and Castle project area is relatively close to the major historical gold and silver mining districts of Tonopah and Goldfield, the small, past-producing Gilbert district, and includes the past-producing Boss mine.

#### 6.1 Eastside Area History

There is only one historical prospect adit and a few shallow prospect pits scattered across the Eastside portion of the property. There is no recorded mineral production. In 1991, Canyon Resources Corp. proposed a 900m, 6 hole, reverse-circulation ("RC") drill program. Old drill pad sites, as well as access roads to the sites, remain visible in the eastern margin of the property, but no data is available to confirm that drilling was ever conducted and no data for this program, if any exists, is available to MDA.

In the late 1970s a prospector working for Cordex collected several samples from the northern part of what later became the Eastside property. The assays detected measurable gold, but the results did not meet Cordex's requirements at the time. Following up for Cordex on those samples, in 1999 Mr. Larry McIntosh collected 184 rock-chip samples from a nearby area. Elevated gold was detected and McIntosh staked the first four Eastside claims, but the grades were insufficient for a Cordex project at that time.

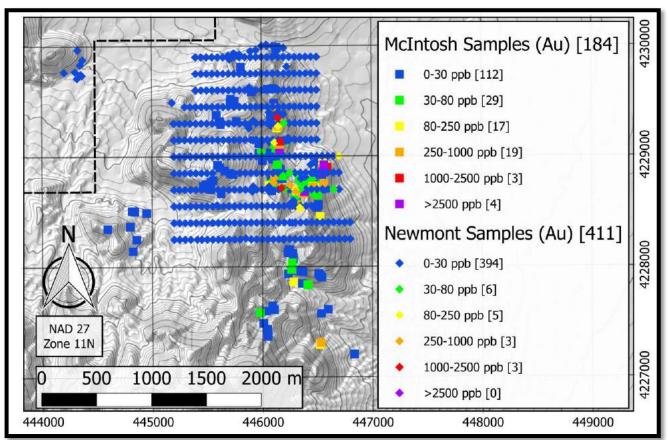
McIntosh staked an additional 31 claims at Eastside and subsequently leased the property to Newmont Mining Corporation ("Newmont"). A total of 411 rock-chip samples and 43 stream-sediment samples were collected and analyzed by Newmont, and a seven-line controlled-source, audio-frequency, magnetotelluric ("CSAMT") survey was conducted. Newmont exited the lease agreement in 2004.

The 184 surface rock chip samples collected by McIntosh in 1999 were assayed by ALS Chemex ("Chemex"). Of the 184 samples assayed, 39 samples had gold grades greater than 0.10g~Au/t, and 7 samples assayed greater than 1.00g~Au/t.

Newmont's rock-chip samples were mainly collected in a grid comprised of 12 lines. In addition, Newmont collected 43 stream-sediment samples from streambeds that are fed by the principle stream drainages in the northern portion of the property but are dry except for times of run-off from large-rainfall storms. Gold assay results for the McIntosh and Newmont surface samples are shown in Figure 6.1.



Figure 6.1 Eastside Area Surface Samples and Gold Assays 1999 – 2004 (from Whitehead, 2015)



During September of 2004, Zonge Geosciences Incorporated ("Zonge") conducted a CSAMT geophysical survey on behalf of Newmont which was comprised of seven lines, 1,600 meters in length, spaced 300m apart, and oriented east-west for a total of 11.2 line-kilometers (Figure 6.2). The CSAMT results were presented as color-shaded pseudo sections plotted at a scale of 1:10,000 (Zonge, 2004). One-dimensional inversions of Cagniard resistivity and two-dimensional inversions of the far-field data were included. In these plots, low resistivities were shown with warm colors (red, violet) and high resistivities were shown in cool colors (blue, white). The data was presented as a smooth-model inversion which shows gradational changes in resistivity, rather than abrupt changes, irrespective of the actual geologic structure.



444000 445000 446000 447000 448000

446000 447000 448000

446000 447000 448000

446000 447000 448000

Figure 6.2 Eastside Area CSAMT Lines for Newmont by Zonge, 2004 (from Whitebread, 2015)

#### 6.1.1 Columbus Surface Samples

Cordex leased the McIntosh claims at Eastside in 2009 and expanded the property. After leasing the property, Cordex collected 530 rock-chip samples from bedrock exposed within the property. These samples contained gold ranging from <0.005g Au/t to 7.95g Au/t. The gold assays defined a nearly continuous mineralized zone of northerly-trending, silicified breccia, with a strike length of more than 900m. Most of the samples from that zone exceeded 0.15g Au/t, with samples from several areas containing from 0.8 to 3.5g Au/t.

From 2010 to September 2016 Cordex collected an additional 2,580 surface-rock chip samples within the limits of the Eastside property. Results from these and previous samples have identified seven individual gold anomalous zones delineated by grades greater than 0.030g Au/t. Assays of the Cordex surface samples demonstrate a significant statistical correlation between gold and silver grades (r = 0.80). Detection limits for mercury were too high to allow meaningful correlations between mercury and either gold or silver. Other elements such as arsenic, antimony, and molybdenum are anomalous to highly anomalous in areas mineralized with gold and silver.



#### 6.1.2 Columbus Geologic Mapping

An area of  $\sim$ 5,900 hectares along the east flank of the Monte Cristo Range has been mapped by Cordex geologists at a scale of 1:6,000. This area included the entire Eastside claim group, but did not include the Castle claims, which were acquired in February 2017. More detailed mapping at a scale of 1:1,200 scale has been done in the area of the 2011 - 2016 drilling (Figure 7.2; see Section 10.0). The geological mapping delineated the stratigraphic and lithologic units summarized in Section 7.1 and defined the aerial extents of the alteration described in Section 7.2.1.

The authors have not analyzed the sampling methods, quality, and representativity of surface sampling at the Eastside portion of the property because drilling results form the basis for the mineral resource estimate described in Section 14.0.

#### 6.1.3 Columbus Eastside Drilling 2011 - 2017

Cordex began drilling in the Eastside area in 2011 and continued drilling in 2013, 2015 and 2016. A total of 37,434m were drilled in 136 holes exploration holes and one ground water test hole. This drilling is described in greater detail in Section 10.0 and formed the basis for estimation of the first Eastside mineral resources described in Section 14.8. In 2017, Cordex drilled an additional 10 RC holes for 2,938m in the "Target 5" area, about 8km south of the Eastside estimated resources. Due to the 8km distance, the Target 5 area drilling is not considered material to the Eastside estimated resources.

#### 6.1.4 Allegiant 2018 – 2019

On January 30, 2018 Columbus transferred ownership of Eastside to Allegiant Gold Ltd., a spinout of Columbus. After that date Allegiant directed and funded the exploration program at Eastside. In 2018, a total of 22 holes totaling 8,265 meters were drilled around the Eastside resource area with the goal of expanding the resource. Twenty of the holes were reverse circulation only, one hole was drilled with an RC "pre-collar" and finished with core (ES-163), and one hole was drilled entirely with core (ES-160). Results were positive and have been incorporated into the updated resource estimate of this report.

In 2019, Allegiant focused on drilling the Adularia Hill area located 2km north of the Castle Zone, well south of the Eastside resource area. The Adularia Hill drilling is discussed in Section 10.8 of this report.

#### 6.2 Castle Area History

The Castle claims, situated adjacent to the south end of the Eastside claims, have a history of exploration separate from the Eastside claims dating to the 1940s when gold was discovered by a local prospector at what later became the Boss mine (Figure 4.1 and Figure 6.3). It has been reported that dozer trenches, a 15.2m shaft, two diamond-core and eight rotary drill holes explored gold mineralization that cropped out at the Boss mine site (Seabridge, 2004). Modern exploration began in the 1970s, with a few drill holes by ASARCO and Noranda, followed in 1979 by an extensive program of shallow drill holes, mostly less than 30m deep, by Houston Oil and Minerals ("HOM"). HOM relinquished the project at the end of 1979. It is not known exactly how many or what type of holes were drilled by HOM in 1979, and MDA is not aware of any data from HOM's drilling that year.



The claims centered on the Boss mine were then acquired in 1981 by Ebco Enterprises and optioned in that year by Falcon Exploration ("Falcon"), who proceeded to further delineate and expand the Boss area mineralization. MDA has no information from Falcon's drilling and other exploration activities.

Homestake Mining Company ("Homestake") optioned Falcon's peripheral claims in 1987 and discovered gold mineralization under shallow pediment cover south of Black Rock, an outcrop adjacent to U.S. Highway 6, during their drill program. The gold mineralization near Black Rock defined by Homestake did not meet their requirements at that time and Homestake relinquished the claims in 1987.

Concurrent with the Homestake program, Falcon constructed the small, open-pit heap-leach Boss mine and, in January 1988, poured their first bar of gold doré. Falcon also began an exploration program on the peripheral claims in the spring of that year. Falcon produced approximately 32,000 ounces of gold from about 544,300 tonnes at the Boss mine before it closed in 1989 (Diner and Strachan, 1994).

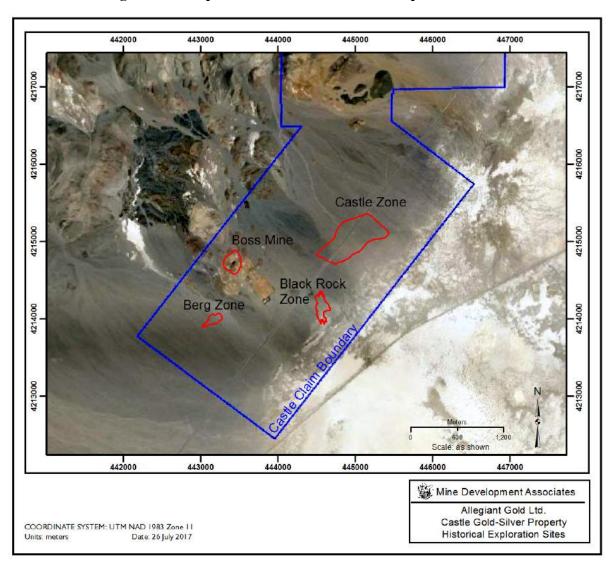


Figure 6.3 Map of Castle Area Historical Exploration Sites



Westgold and Mintec Resources optioned the Boss area claims from Falcon in August of 1988 and undertook a surface exploration and drilling program. During this time, gold mineralization was discovered by drilling under shallow cover just south of the Boss mine. It is referred to as the Berg zone (Figure 6.3). Mintec eventually relinquished their claims in the early 1990s.

In 1992, Kennecott Exploration staked a block of claims northeast of the Boss mine as part of a regional exploration program. Kennecott executed a surface exploration program with initial drilling in 1993. Kennecott eventually drilled a total of 65 RC holes totaling 8,057m, which delineated the broad "Castle" mineralized zone, about 730m wide and at least 1.3km in length, concealed under shallow pediment cover east of the Boss mine. Kennecott's final RC hole was drilled in August 1995.

Fischer-Watt Gold Company ("FWG") purchased the Kennecott claims in October 1996 and staked an additional 32 lode claims around the periphery of the Kennecott block. The surrounding ground to the west and south, including the Berg and Black Rock zones, had become open and was staked by Platoro earlier in 1996. In January 1998, the FWG claims were optioned by Zephyr Resources.

In 1998 Cordex leased the FWG claims and conducted additional exploration activities, including RC drilling. A total of 4,230m were drilled by Cordex in 30 RC holes. At that time Cordex was a subsidiary of Rayrock Resources Inc. In 1999 Glamis Gold acquired Rayrock Resources and the Castle project was terminated. Later in 1999, Platoro acquired the FWG claims, thereby consolidating the property positions under a single owner.

Seabridge leased the consolidated Castle area claims from Platoro in August, 2000. No exploration work was conducted by Seabridge. Columbus acquired the Castle area property via the December, 2016 Option Agreement with Platoro and Seabridge, and then exercised the Option in February, 2017.

Known historical drilling in the Castle claims is summarized in Section 0. Much more drilling apparently was conducted, but records have not been found.

#### **6.2.1** Castle Area Historical Resources

Cordex geologists estimated "Geologic Resources" for the Castle, Black Rock and Berg zones of gold mineralization in 1999 prior to implementation of NI 43-101. All three areas together totaled 11.2 million short tons with an average grade of 0.024oz Au/ton (Greybeck, 1999). This historical estimate (Table 6.1) was made using manual polygonal methods with sets of 1:1,200-scale cross sections. This estimate is relevant only for historical completeness and is not in accordance with the classification categories required by NI 43-101. Allegiant is not treating these historical resources as current mineral resources and the authors caution the reader that this estimate should not be relied upon. The authors have not done sufficient work to classify the historical resources as current mineral resources and cannot yet determine what work needs to be done to upgrade the historical estimate to current mineral resources.



Table 6.1 Summary of Historical "Geologic Resources", Castle Claims (from Greybeck, 1999)

	Tons	Grade (opt Au)	Grade (g/t Au)	Ounces
Castle Zone	9,051,000	0.025	0.86	229,783
Black Rock Zone	1,271,415	0.018	0.61	22,726
Berg Zone	855,346	0.024	0.82	20,664
Total	11,177,761	0.024	0.82	273,173



#### 7.0 GEOLOGIC SETTING AND MINERALIZATION (ITEM 7)

#### 7.1 Geologic Setting

#### 7.1.1 Regional Geology

The Eastside and Castle property is located at the eastern flank of the Monte Cristo Range in western Nevada near the border with California (Figure 4.1), in a structurally complex part of the Great Basin portion of the Basin and Range geomorphic province. The Basin and Range province began developing about 15 Ma as the result of crustal extension that began when the North American plate over-rode the East Pacific Rise.

The typical geomorphology of the Basin and Range province consists of north- to north-northeast-trending mountain ranges that are separated by elongate, normal fault-bounded basins filled with sediments derived from the ranges. This pattern has been modified near its western boundary by the >700 km long by >100 km wide zone of right-lateral, northwest-trending faults known as the Walker Lane structural belt and, within it, the east-northeast trending, left-lateral Mina deflection.

The Walker Lane is host to several past and presently producing epithermal gold-silver deposits of greater than one million ounces of gold, including Goldfield, Tonopah, Rawhide, Paradise Peak, Bodie, Aurora and the Comstock Lode. Both high-sulfidation and low-sulfidation styles of epithermal deposits are present and all of the deposits formed during Miocene time.

The oldest rocks present in the region are marine, shallow-water shelf rocks of the upper Proterozoic Wyman Formation and upper Proterozoic to lower Cambrian Reed Dolomite. These formations are separated by the Roberts Mountains thrust fault from overlying siliceous eugeoclinal rocks of Cambrian to Devonian ages that resemble the Ordovician Palmetto Formation. However, Stewart (1980) expressed doubt in assigning these rocks to the Palmetto Formation because of their broader range in age. The Roberts Mountains thrust and the Antler fold and thrust belt developed during the Devonian-Mississippian Antler orogeny, which can be traced from Idaho through Nevada and into southeastern California.

Another regional thrust fault, formed during the Permo-Triassic Sonoma orogeny and known as the Golconda thrust, emplaced chert and shale of the Permian Mina Formation over Palmetto-type rocks in the Eastside region. The Golconda thrust has a mapped trace broadly similar to that of the Roberts Mountains thrust, but is located slightly to the west, and both parallel the inferred western margin of the Precambrian North American continent. Elsewhere in the Monte Cristo Range area, local exposures of Mississippian and Permian rocks are present in the Golconda allochthon as well (Stewart et al., 1994), but the Golconda thrust is not exposed within the project area.

During Oligocene and Miocene time much of the region was blanketed by intermediate-composition lavas erupted from local volcanic centers and by extensive felsic ash-flow tuff units erupted from nested and overlapping calderas in central Nevada. After the onset of regional crustal extension at ~15 Ma, volcanism in the region was mainly bimodal basalt-rhyolite in nature and more restricted in aerial extent.

The Walker Lane is a complex crustal shear zone comprising mainly NW-trending, dextral strike- and oblique-slip faults that began to develop about 13 Ma to take up some of the relative motion between the



Pacific and North American tectonic plates inboard from the San Andreas Fault. Presently the Walker Lane accounts for approximately 25% of the relative motion between the Pacific and North American plates.

Regional structural and tectonic studies completed by several workers have been summarized in an unpublished company report by VonFerber (2015). Approximately 30km west of the Eastside and Castle project, a prominent zone of east-northeast-trending, left-lateral faults developed beginning at about 3 Ma, defining a major right step in the Walker Lane. This left-lateral, generally eastward-trending transfer zone is known as the Mina deflection, which is interpreted to have accommodated some of the transform movement from the San Andreas Fault system to the central Walker Lane.

An extensional fault system known as the Lone Mountain-Silver Peak detachment fault is located a short distance south and southwest of the Monte Cristo Range and projects beneath it. This fault system was active from about 12 or 13 Ma until 5 Ma, and perhaps as recently as 1.8 Ma. The combination of prolonged and repeated extensional and strike-slip faulting within the Walker Lane near the Eastside and Castle project has allowed repeated episodes of structural ground preparation that have enhanced pathways for volcanic activity and hydrothermal fluid flow in the project area.

#### 7.1.2 District Geology – Paleozoic Sedimentary Rocks

Stewart et al. (1994) described the complicated relations of the rock units in the Monte Cristo Range. The Paleozoic basement rocks exposed south and southwest of the Eastside property were assigned by Ferguson et al. (1953) to the Ordovician Palmetto Formation, which correlates with the Vinini and Valmy Formations of central and northern Nevada. In the Monte Cristo Range these rocks include radiolarian chert, graptolitic shale, siliceous argillite, siltstone, fine-grained quartzite, and lesser limestone, as well as sedimentary bedded barite deposited by submarine exhalative processes. Stewart et al. (1994) reported that these rocks range in age from late Cambrian to late Devonian, so there is some uncertainty that these rocks should be assigned to the actual Palmetto Formation.

The "Palmetto" forms low, rolling hills in the southern part of the Eastside and Castle claim block. The "Palmetto" rocks are weakly metamorphosed, folded, and faulted, and have been encountered in some of the deeper drilling at Eastside and in numerous shallow holes in the Castle area. The total thickness of the Paleozoic "Palmetto" rocks is unknown.

#### 7.1.3 District Geology – Cenozoic Volcanic Rocks

Throughout most of the Monte Cristo Range, including the area of the Eastside and Castle project, volcanic and associated volcanic-sedimentary rocks form most of the exposed outcrops. Stewart et al. (1994) divided these rocks into five major units. From older to younger, these are: (1) Oligocene and Miocene ash-flow tuffs (24 to 26.7 Ma); (2) andesite flows, tuffs, dacite flows, and intrusive rocks of the Blair Junction sequence (15.7 to 22.2 Ma); (3) fresh-water lake sediments of the McLeans unit; (4) Gilbert Andesite (15 Ma) and (5) a series of rhyolite domes, associated rhyolite tuffs, and basaltic lava flows (7.2 Ma).



#### 7.1.4 Property Geology

Mapping of the east flank of the Monte Cristo Range in and adjacent to the Eastside and Castle claim group by Cordex geologists has focused on the definition of detailed stratigraphy of the Cenozoic volcanic and sedimentary units. Of particular importance is the surface complex of late Miocene, high-level rhyolite domes, plugs and related pyroclastic deposits. Stratigraphic units within and near the property are described below from oldest to youngest, with map unit names in bold font

#### **Paleozoic Sedimentary Rocks**

Cordex did not distinguish different rock units or determine the age of the Paleozoic sedimentary rocks. Instead they are referred to as "Paleozoic sediments" undivided (Plz).

#### Cenozoic Rocks

Ash-flow Tuffs (late Oligocene): three ash-flow tuffs were identified in the area of detailed mapping by Cordex. The Tuff of Crow Springs (Tt1) and Tuff of Cedar Mountain (Tt2) are exposed in the northwest corner of the Eastside area claims. The Tuff of Crow Springs is a welded, crystal-poor, rhyolitic tuff with lithic fragments and an age date of 26.7 Ma. The Tuff of Cedar Mountain is a moderately welded, crystal-rich rhyolitic tuff with an age date of 26.7 Ma. The third unit is the Tuff of Castle Peak (Tcp). This unit is found both in the north and southern portions of the claim block. The Tuff of Castle Peak is rhyolitic, white, biotite-rich, devitrified and weakly welded (K-Ar date of 24Ma).

Blair Junction Sequence (early and middle Miocene): in the Eastside and Castle area the Blair Junction Sequence as described by Stewart et al. (1994) consists primarily of a lower subunit of andesite and dacite flows (**Tbja**). The lower andesite is a series of fine-grained, micro-porphyritic flows containing up to 10% hornblende and feldspar laths with very minor clinopyroxene. Propylitic alteration is widespread, and hornblende in outcrop is often rimmed by iron oxides. In drill cuttings, pyrite is common in unoxidized zones. Flow textures are common and include fragments of the Paleozoic sedimentary rocks. A K-Ar date of 22.2 Ma has been obtained from an andesite intrusion and possible feeder of the lower andesite (Stewart et al., 1994). South of the Eastside claims a lower lacustrine tuff unit (**Tbjat**) is off-white to tan, lightly silicified and is interbedded with flows of the lower andesite.

In the southern part of the property, just north of the Boss mine, the lower andesite Tbja is successively overlain by a middle tuff unit and an upper group of rhyodacite flow domes. Stewart et al. (1994) grouped these two units with the lower andesite of the Blair Junction Sequence. The middle tuff unit (**Tbjt**) is a bleached white to light yellow, non-welded, rhyodacite tuff made up of ejecta from the emplacement of the upper rhyodacite unit (**Tbjd**). The upper unit consists of gray to reddish-brown dacite to rhyodacite intrusions, domes, and minor flows. It is fine grained, contains less than 5% hornblende with iron oxide rims and very minor feldspar laths and quartz, and forms large cliffs with columnar jointing. The Tbjd subunit is brecciated in part and contains quartz veinlets, calcite, and/or jarosite on some fractures. The unit has a K-Ar age of 15.7 Ma (Stewart et al., 1994).



**Rhyodacite and Porphyritic Rhyodacite (Miocene)**: flows and domes of rhyodacite and porphyritic rhyodacite (**Trd**); light gray, medium-grained, contains up to 15% phenocrysts of plagioclase, biotite, quartz, and minor hornblende. It is hydrothermally altered with small veins of quartz, clay, and calcite. In most outcrops, the rhyodacite is flanked by its associated tuff (**Trdt**). The rhyodacite intrudes the lower Blair Junction Sequence and is intruded by the younger rhyolite (Tr, see below), so its age is between 22.2 and 7.2 Ma.

*Older Rhyolite (early Miocene)*: sparsely porphyritic rhyolite (**Tor**) with strong flow-banding and abundant quartz phenocrysts. The intrusive phase of this rhyolite developed large (33m+) zones of vitrophyre (**Torvit**) in contact with the associated older rhyolite tuff (**Tort**). K-Ar age dates are 19.2Ma and 18.6Ma (Stewart et al., 1994). Contains numerous barren quartz veins.

Sedimentary Rocks of McLeans (middle Miocene): includes platy lacustrine siltstone, shale, fine-grained sandstone, fresh-water limestone and minor dolomite. This unit (Tm) contains abundant interbedded diatomite, with some local plant remains and mollusks, and its thickness ranges from 0 to 30m. The McLeans unit is a useful marker horizon and separates the older Blair Junction andesite flows from the lithologically similar, but younger, flows of the Gilbert andesite (see below). In Cordex drill hole ES-020, a limestone horizon in the McLeans unit has been altered to jasperoid and contains significant gold values.

Gilbert Andesite (middle Miocene): crystal-rich andesite flows, flow breccias, and lahars or epiclastic volcanic sediments (**Tga**). Phenocrysts of plagioclase, clino- and orthopyroxene, and hornblende are euhedral to subhedral and range in size from 1 to 4mm. Columnar jointing is common and much of the unit is massive and resistant, capping many of the highest hills in the Monte Cristo Range. The flows appear to have been erupted from a vent area west of the Eastside and Castle property. K-Ar dates place the Gilbert andesite at approximately 15Ma (Stewart et al., 1994).

**Rhyolite** (late Miocene): variably flow-banded to massive, mostly aphyric and devitrified rhyolite (Tr). The rhyolite commonly occurs as flow domes, many of which are composed of multiple phases, as indicated by changes in flow banding orientations and subtle textural differences. Shown as map unit Talr where affected by steam-heated acid-leach alteration. Related near-vent tuff of apparent base surge type occurs locally with the rhyolite and is described below. In drill core, the rhyolite appears weakly granophyric-textured owing to numerous, very small, aligned, elongated inclusions that might be partially resorbed quartz crystals, quartz-filled vesicles or, less likely, compressed pumice fragments. Minor rhyolite dikes are also present. Subunits include:

*Vitrophyre (Tvit)* is present within individual rhyolite domes as bands of black, amber, or bottle-green, nearly aphyric volcanic glass up to several meters wide. It occurs along the outer margins of individual domes or intrusive pulses and at what appear to be contacts between multiple rhyolite domes or discrete zones within individual domes, indicating multiple pulses of intrusion. The published K-Ar age of 7.2Ma for the rhyolite (**Tr**) was determined on sanidine phenocrysts in vitrophyre (**Tvit**) (Stewart et al., 1994).

**Rhyolite Tuff** (*Trt*) rhyolitic tuff, tuff breccia, and tuffaceous sedimentary rocks, in part consists of base surge deposits with graded or wavy bedding. Shown as map unit **Talt** where affected by steam-heated acid-leach alteration. Bedding thickness ranges from a few centimeters to 1m thick. Resistant where locally silicified; often forms black cliffs. This map unit also includes volcanic



sandstone, siltstone, and clast-supported conglomerate, and is mainly composed of ejecta and eroded material derived locally from the Tr rhyolite. The domes are the likely source of the rhyolitic material in the tuff breccia as well. Locally, fragments of andesite or Paleozoic basement are also present.

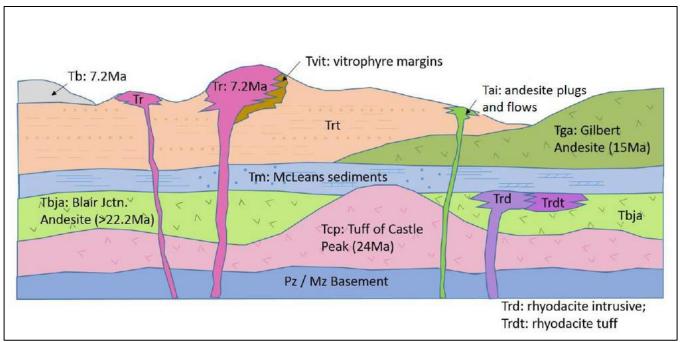
**Basalt (late Miocene)**: map unit (**Tb**) is black, vesicular basalt with small phenocrysts of olivine and plagioclase; forms scattered outcrops throughout the Eastside and Castle claim block. These rocks are petrologically similar to the large basalt flows that make up much of the western Monte Cristo Range. The basalt has been dated by K-Ar methods at 7.2Ma (Stewart et al., 1994).

**Andesite (late Miocene)**: map unit (**Tai**) is hornblende andesite comprising plugs and dikes; less than 7.2 Ma.

General stratigraphic relations of the map units described above are shown by the conceptual cross section in Figure 7.1, which refers to the east flank of the Monte Cristo Range. A geologic map of the Eastside area of drilling, and the corresponding correlation chart for the map units described above are shown in Figure 7.2 and Figure 7.3, respectively.

The intrusion and aerial distribution of the rhyolite domes were largely controlled by north- to northeast-trending faults. Detailed mapping has revealed that there are more than forty individual rhyolite domes exposed in the project area, with plan dimensions ranging from a few tens of meters to approximately 0.5km in size. Many of the domes appear to be composed of multiple phases of lithologically similar rhyolite as the result of successive pulses of magma joining to form a multi-phase, complex dome.

Figure 7.1 Stratigraphic Relations, Eastside and Castle Property, Monte Cristo Range (Looking south; from Columbus, 2016)



Note: Figure is not limited to the area of drilling; includes units such as Tuff of Castle Peak (Tcp) exposed south of the Eastside area of drilling. PZ/MZ Basement refers to pre-Cenozoic rocks, undivided.

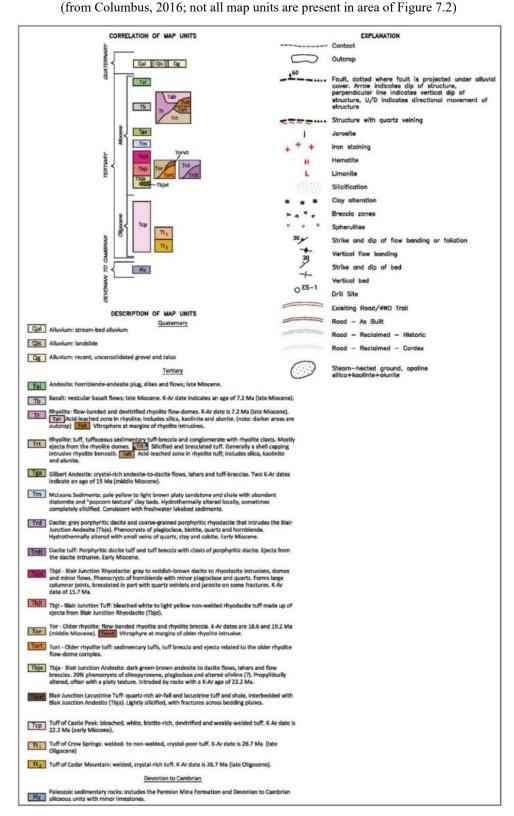


(from Columbus, 2016) COLUMBUS GOLD (U.S.) CORP. EASTSIDE PROJECT
Geology Map-Main Drill Area
showing Drill Holes

Figure 7.2 Detailed Geologic Map of the Eastside Drilling Area



Figure 7.3 Map Legend and Correlation Chart, Eastside and Castle Project Area





Richnow (1999; 2000) discussed a number of theoretical considerations related to rhyolite dome emplacement and post-emplacement features, cited or summarized numerous field studies and mapping in dome fields worldwide, and described detailed studies he had personally made of domes that are relevant to Eastside. That work provides excellent support for the pulsed intrusion concept, with multiple fracturing events. In view of the Richnow (1999; 2000) work, Allegiant interprets the domes at Eastside to be exogenous in character rather than endogenous. That is, the domes were the result of repeated outbreak of moderately viscous masses during numerous pulses of magma injection, rather than that the domes each represent a single intrusive event, with the dome inflating internally like a balloon. Some of the controls of mineralization internal to the rhyolite are speculated to result from structural and textural changes caused by the multiple intrusions.

### 7.2 Eastside Area Mineralization

The following sections are based on detailed mapping of the surface by Cordex geologists, combined with logging of drill core and RC drill chips.

#### 7.2.1 Alteration

Cordex geologists have delineated several types of alteration at the Eastside portion of the project. These can be grouped as silicification and veins, clay alteration, acid-leached alteration (steam heated), propylitic alteration, and oxidation.

**Silicification** — Wide areas of pervasive silicification are present in the rhyolite domes. It typically consists of massive chalcedonic replacement near surface, and grades downward to more crystalline, finegrained quartz replacement at depth. Locally the rhyolite tuff is also strongly silicified. Pervasive silicification of the porous rhyolite tuff is especially common in the area of gold mineralization where it forms bold outcrops, in contrast to the unaltered tuff which is more friable and recessive.

**Silica Veins** – Narrow, discontinuous veins of amorphous silica, chalcedony and fine-grained quartz are present within areas of silicification and mainly range from millimeter-wide fracture fillings to a few centimeters in width along numerous structures and extension fractures. Many drill samples contain several forms of veins in the same interval. Vein textures include jigsaw, colloform, quartz-after-calcite (fish scale), and banded or crustiform styles. A petrographic report by Albinson (undated) on a drill sample stated "An early breccia stage is cemented by very fine-grained "jigsaw" crystalline quartz. A second phase of fine-grained jigsaw quartz (that forms the matrix of later breccia) cross-cuts the early breccia. The second phase has dendritic iron oxide as well as rare cubic pyrite along discrete bands. A final stage of crystalline quartz is also present. The same sample has a multistage chalcedonic silica with framboidal iron oxide on discrete bands. This sample was from shallow in the hydrothermal system and temperatures of homogenization are <150C."

The quartz veins are locally beneath the acid-leached and clay alteration, associated with zones of silicification. At the surface, minerals associated with the siliceous veins include amorphous iron oxides, jarosite, adularia, tourmaline, fibrous cryptomelane, pyrolusite, barite, and molybdenum oxide (ilsemannite). Jarosite is also found in the silicified zones adjacent to many of the veins, giving the silicified rock a caramel brown color. Adularia is not highly abundant, but is present in banded quartz veins and possibly replacing the rhyolite groundmass.



In places the vitrophyre unit is cut or coated by gray, coarse-grained calcite veins which are associated with good gold grades and, often, with anomalously high silver grades. This is particularly common in the "West Zone" mineralized area, described below.

**Steam-heated acid-leached alteration** – Zones of acid-leached alteration have been delineated capping several rhyolite domes at Eastside. Short-wave infrared spectrometer ("SWIR") scans of samples from these areas show some are composed of mixtures of amorphous hydrous silica (opal) and kaolinite. In other samples, the groundmass of the rhyolite has been replaced by opal and alunite. In some areas leached cavities remain where spherulitic devitrification textures were present before alteration. Only the original quartz phenocrysts remain unchanged by the hydrothermal alteration process. In some samples alunite is abundant and is locally associated with kaolinite.

This style of opal-alunite-kaolinite alteration is known in many areas of the world where active geothermal systems have been studied, and in many low-sulfidation epithermal deposits. It results from the condensation of steam and oxidation of H<sub>2</sub>S in the vadose zone above boiling of deeper hydrothermal fluids. In such steam-heated zones, the steam condensate becomes acidic from the oxidation of H<sub>2</sub>S and leaches the enclosing rock, leaving open voids and depositing opal, kaolinite and alunite. Hydrothermal kaolinite may make up as much as 40% of the acid-leached zones at Eastside. Zones of this alteration mark the sites of underlying potential exploration targets.

The acid-leached cappings found on the tops of some domes indicate that the gold mineralization and silicification occurred very near the paleosurface. It also suggests that minimal erosion has occurred since the emplacement of the domes and the gold mineralization.

Clay alteration -- The SWIR was also used to study the alteration clay mineral assemblage in 40 samples of clay-rich rocks taken from surface outcrops and drill road cuts. Eighty percent of these samples contained illite and the remaining samples contained kaolinite.

**Propylitic alteration** -- Propylitic alteration within the Gilbert and Blair Junction sequence andesites forms a halo around the area of gold mineralization. This alteration includes pervasive chlorite throughout the rocks together with calcite that occurs both as fracture-filling veins and in disseminated patches or spots in the matrix, where it formed by the alteration of calcic feldspar. Clots and disseminated grains of pyrite are common, mainly in cubic form, although some pyritohedra are present. Marcasite is locally present, although not common. Propylitic alteration gives the andesite a distinct light blue/gray color.

**Oxidation** -- The most visible feature of alteration at Eastside is pervasive hematite staining of the rhyolite domes. The hematite is believed to be derived from oxidation of fine-grained disseminated pyrite that has been observed in drill samples. All the domes in the area of known gold mineralization exhibit strong hematite staining. Pinpoint- to pinhead-sized specks of red, and less frequently, black hematite in rhyolite bodies are seen near, and often within, gold mineralized zones cut by drill holes. In contrast, rhyolite domes to the north of Eastside show no hematite coloration and no quartz veining or anomalous gold. The bottom of the oxidized rock is sub-parallel to much of the mineralization.

Drilling at Eastside indicates that the pervasive hematite gives way to limonite and/or hematite+limonite mixtures at depth. Limonite staining is strongest in the vicinity of the major structures and occurs with jarosite in the areas of higher-grade gold mineralization in both rhyolite and the underlying andesite. The



limonite also appears to be related to the fine-grained disseminated pyrite found in the intrusive rhyolite at depth. The limonite is found both as fracture coatings and as limonite pseudomorphs after tiny pyrite crystals.

Oxidation at Eastside extends below the depth of most of the drill holes. The few holes that penetrated unoxidized material either encountered propylitized andesite containing pyrite near the contact with oxidized rhyolite or, less frequently, unoxidized rhyolite in deep drill holes. The rhyolite at depth also contains oxidized disseminated pyrite cubes which are generally <200µm in size. Cubes of fine-grained oxidized pyrite ("limonite dice") occur locally within the dense quartz veinlets and in some altered rhyolite.

### 7.2.2 Gold – Silver Mineralization

Two major zones of gold and silver mineralization have been intersected with drilling in the Eastside portion of the project. Overall, the mineralization is found extending over 1km in a north-south direction with a vertical extent of 500m and an east-west width of 700m. The low-grade halo is continuous for the entire length, width and depth. These are referred to as the East Zone and the West Zone as further described below, both dominantly hosted in rhyolite. The deposit is open to the south, west and at depth. The two mineralized zones merge over a block of andesite that largely separates them. In other words, the block of andesite is mantled by mineralization over a distance of around 250m.

The East Zone is at least 500m long in the north-south direction. The higher-grade zones within the East Zone are parallel to and possibly controlled by the high-angle contact between rhyolite and andesite, and contacts between successive phases of rhyolite. The East Zone is the shallower of the two zones, and there are anomalous gold grades at surface. At the most southern drilling in the East Zone, the rhyolite dome locally is well mineralized in drill hole ES-100 to as deep as 430m. The East zone remains open at depth further to the south, beneath an area of acid-leached alteration, as well as down-dip and to the west.

The West Zone extends at least 1km in the north-south direction. High-angle control is not as clear here as it is in the East Zone. Recent drilling in the West Zone shows that it is more shallowly dipping and becomes nearly flat in much of the area.

The continuity of gold and silver mineralization known from drilling in both the East and West zones is variable. Representative cross-sections showing the sectional dimensions and continuity of mineralization are shown in Figure 14.1 through Figure 14.8.

Gold mineralization at Eastside displays many classic low-sulfidation epithermal features, such as: varied silica phases that comprise the veins containing at least some of the gold and silver; pseudomorphs of silica after original crystalline bladed calcite; banded veins; colloform textures; cockade textures; and others. Visible gold has been observed in drill cuttings and core from a few holes at Eastside, as well as at the surface, but it is not commonly found. The gold seen in drill samples occurred as very fine-grained, wire and plate-shaped forms best detected under a stereo microscope. Allegiant has not studied the silver mineralogy.

Based upon the interpretations from logging cuttings and core from 136 drill holes, the fundamental control over the gold grade distribution appears to have been a series of steeply westward-dipping, sub-



parallel structures. These structures strike more or less northerly. In detail however, gold intercepts in the drill holes do not line up along simple northerly trends. Portions of the domes are characterized by more intense alteration and discrete zones that contain better gold grades. A number of shells that are more-or-less parallel to the better prepared portions of domes appear to host the better gold grades. These zones may be parallel to the margins of domes, or the margins of the individual intrusive pulses of rhyolite that in aggregate form composite domes, but that remains somewhat speculative in spite of it having been modeled as such.

Two domains of gold mineralization have been identified at Eastside and are each treated separately during estimation as described in Section 14.4 of this report. The low-grade domain consists of broader zones of anomalous mineralization that are more evenly distributed around, encompassing, and internal to the rhyolite. The higher-grade domain is composed of fairly discrete zones that contain the higher gold and silver grades. These wrap around individual domes, parallel internal rhyolite contacts, and often form parallel to rhyolite-andesite contacts. In every case, the lower-grade zones surround the higher-grade zones. In some places the gold appears to have been deposited preferentially in vitrophyre, but this is not invariably the case, possibly indicating that vitrophyre has been subjected to, or occupies, zones of better ground preparation.

Gold grades have also been found in silicified and strongly oxidized andesite along and near the contact with the intrusive rhyolite. In some cases, these grades extend farther outboard of the rhyolite, probably controlled by structural or lithologic changes. In hole ES-20, sedimentary rocks of the Macleans unit also host gold and silver values where limestone has been converted to jasperoid. Approximately 80% of the mineralization is hosted by rhyolite and associated vitrophyre. The remaining 20% is hosted by andesite.

Flow banding visible at surface and exposed in road cuts is variably developed. The banding often displays abrupt changes in strike and dip, and in some places flow banding is truncated by younger rhyolite with flow banding with markedly different orientation. In the drilling, most of the better-grade areas appear to be roughly parallel to the margins of individual rhyolite pulses within the domes.

The gold and silver mineralization largely appears to occupy certain more intensely fractured, altered, or more distinctly layered zones that resulted from a combination of: flow banding; early marginal joint development in the solidifying melt; closely-spaced cooling fractures; areas of more active fracturing and brecciation of partially crystallized rhyolite, due to subsequent intrusion pulses; and tectonic or hydrothermal re-activation of older structures. Any of these factors would increase permeability for solution access into and through the rock mass. Moreover, repeated fracturing would provide multiple depressurization events and enable boiling to occur, which is one major factor in the deposition of minerals and metals in epithermal deposits.

A representative geologic cross-section is shown in Figure 7.4.

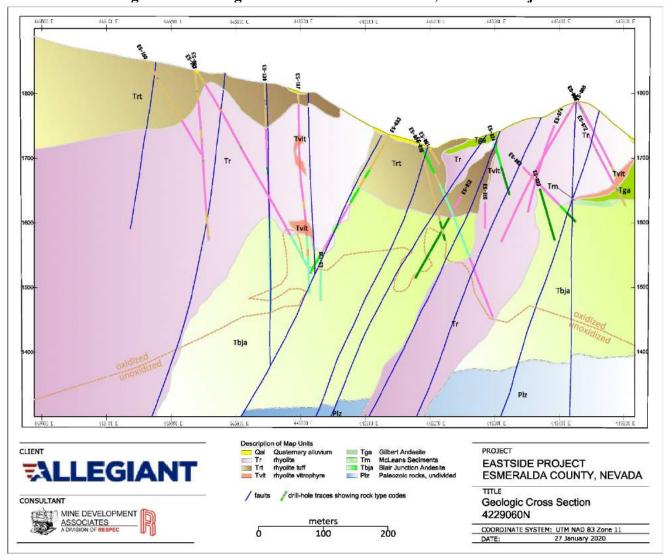


Figure 7.4 Geological Cross Section 4229060N, Eastside Project

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## 7.3 Castle Area Alteration and Mineralization

Most of the Castle claims area consists of a low-relief pediment of unconsolidated Quaternary silt, sand and gravel, except in the vicinity of the Boss mine where Miocene andesite units of the Blair Junction sequence, the Mclean sedimentary rocks and the Oligocene Tuff of Castle Peak crop out. The Tertiary volcanic rocks are underlain at shallow depths by siliceous Paleozoic sedimentary units of the Palmetto Formation. According to Diner and Strachan (1994), alteration within the Tertiary rocks is widespread, varying from mainly propylitic assemblages in the andesite units, to mixed layer clays in the rhyolitic units. These assemblages apparently surround zones of quartz-adularia alteration at the Boss mine and Berg zones, and quartz-alunite in the Black Rock zone (Diner and Strachan, 1994).

#### **7.3.1 Boss Mine**

Gold mineralization at the Boss mine is mainly hosted by andesite and an underlying unit of rhyolite tuff (Diner and Strachan, 1994) in a northeast-trending zone of quartz-adularia replacement and quartz veinlet stockworks. The andesite is now recognized as part of the Blair Junction sequence of Stewart et al. (1994). Quartz-calcite-pyrite veins and veinlets, and their oxidized equivalents, were also present in the Boss mine deposit (Diner and Strachan, 1994).

# 7.3.2 Berg Zone

The Berg zone mineralization is concealed beneath thin surficial deposits. The mineralization is mainly hosted by andesite of the Blair Junction sequence and underlying or intrusive rhyolite, and to a lesser extent in the Tuff of Castle Peak and underlying Palmetto rocks. According to Diner and Strachan (1994):

"Alteration associated with the Berg mineralization consists of quartz-adularia veinlets and groundmass flooding haloed by illite and, in the higher portions, by upward-flaring montmorillonite-calcite.... Subvertical quartz veinlets in the andesite are host to micronsized gold particles in oxides after pyrite."

## 7.3.3 Black Rock Zone

The Black Rock zone is concealed beneath as much as 30m of surficial deposits about 120m southeast of the altered and veined Black Rock outcrop of Palmetto Formation. Gold mineralization is mainly hosted by rhyolite tuff, and to a much lesser extent, in the underlying Palmetto Formation. According to Diner and Strachan (1994):

"Quartz-alunite replaces feldspars and groundmass proximal to gold mineralization, becoming kaolinite and illite-montmorillonite progressively to the east. Micron-sized gold particles are spatially associated with quartz-alunitic breccias and anomalous mercury."

#### 7.3.4 Castle Zone

Mineralization in the Castle zone is largely hosted by andesite of the Blair Junction sequence beneath as much as 100m of surficial deposits (Greybeck (1999). In places, the mineralization is found in an intrusive(?) rhyolite unit, the Tuff of Castle Peak, and the underlying Palmetto Formation. Drilling information compiled by Cordex shows that gold is associated with zones of quartz stockwork.



# 7.4 Adularia Hill

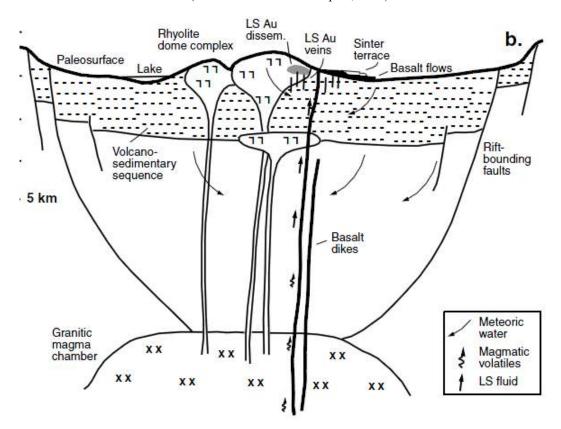
The Adularia Hill area is located about 2km north of the Castle zone. Gold mineralization at Adularia Hill is associated with quartz ± adularia stockworks and is hosted by rhyolite, andesite, tuffs, and Paleozoic basement rocks. Interpretation of the drill results at Adularia Hill is ongoing.



# 8.0 DEPOSIT TYPES (ITEM 8)

Based upon the styles of alteration, the nature of the veins, the mineralogy and the geologic setting, the gold and silver mineralization at Eastside and in the Castle area is best interpreted in the context of the volcanic-hosted, low-sulfidation type of epithermal model. Various vein textures, mineralization and alteration features at Eastside are typical of low-sulfidation epithermal deposits world-wide. Moreover, surface exposures of acid-leached zones suggest a shallow level of erosion. Figure 8.1, below, from Sillitoe and Hedenquist (2003), is a conceptual cross-section depicting a low-sulfidation epithermal system. The host-rock setting of mineralization at Eastside is somewhat more complex than the simple model shown in Figure 8.1.

Figure 8.1 Schematic Model of a Low-Sulfidation Epithermal Mineralizing System (After Sillitoe and Hedenquist, 2003)



An unpublished fluid inclusion study indicates that the temperature of formation of the quartz veins at Eastside was relatively low, at <200°C (Albinson, undated). The drill samples used in this study ranged from 87m to 213m in depth, and generally contain fine- to medium-grained jigsaw-texture quartz. The study indicates that the predominant low-temperature silica-bearing fluids had very low salinity and that the quartz veins were deposited in a shallow, low-sulfidation epithermal environment, probably within 100 meters of the paleo-water table. Various quartz textures were noted that indicate boiling of the hydrothermal solutions occurred. All of these characteristics are typical of low-sulfidation epithermal deposits.

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Many other deposits of this class occur within the Walker Lane and elsewhere in the world. Some well-known epithermal low-sulfidation gold and silver properties with geological similarities to Eastside include the Castle Mountain mine in California, as well as the Rawhide, Sleeper, Hog Ranch and Hycroft mines in Nevada.

The geologic setting of the Castle Mountain mine (Grey et al., 2016) most closely resembles the geologic setting of the Eastside area. Both are hosted by rhyolite domes, and adjacent tuffs, intruded through andesite that overlies older basement units. Styles of alteration and gold-silver mineralization are also very similar.



# 9.0 EXPLORATION (ITEM 9)

Exploration conducted for Allegiant commenced in 2018 and was focused on the Adularia Hill area. Geologic mapping was conducted and approximately 40 surface samples were collected. 21 RC holes were drilled in the Adularia Hill area in 2019. The results of this drilling are summarized in Section 10.8.



# **10.0 DRILLING (ITEM 10)**

# 10.1 Summary of Eastside Area Drilling

All of the drilling at the Eastside area of the project is attributed to Columbus prior to 2018 and afterward to Columbus' spinout Allegiant; no other drilling is known to have been done. The drilling targeting the Eastside resource area totals 44,809m in 157 holes exploration holes (ES-001 to ES-136 and ES-147 to ES-168) and one ground water test hole. Additionally, drilling at the "Target 5" area totaled 2,938m in 10 holes (ES-137 to ES-146). At Adularia Hill, 3,170m were drilled in 21 holes (ES-169 to ES-189). All drilling for the Eastside project is summarized in Table 10.1. Drilling used for the Eastside area resource update is shown in Figure 10.1 All of the RC drilling was conducted by Boart Longyear of Salt Lake City, Utah. Core drilling in 2016 and 2017 was also conducted by Boart Longyear. In 2018 and 2019, core drilling was conducted by Godbe Drilling of Montrose, Colorado. Approximately 90% of the meters drilled were using RC methods (Table 10.1). Seven holes were drilled entirely with wireline diamond-coring methods, and seven holes were started with RC drilling and completed with core drilling.

Table 10.1 Summary of 2011 – 2019 Eastside Drilling and Sampling in the Eastside Project

Resource Area					
Hole Type	Number	Meters			
Core	16	6,951			
RC	143	38,763			
Total	159	45,713			
Outside Resource Area					
Туре	Number	Meters			
RC	31	6,126			
Surface Samples	1550	1,550			
Total	1581	7,676			

Drilling commenced in 2011 and continued in 2013, 2015, 2016, 2017, 2018 and 2019 as summarized in Table 10.1. All RC drilling was done during single 12hr shifts per day. Core drilling was done in two 12hr shifts, drilling 24hrs per day.

The core was HQ size (63.5mm diameter) except where drilling conditions required the stepdown to NQ (47.6 mm diameter) size. Drilling was done using circulation of water and drilling fluids. The deepest core hole reached a maximum down-hole depth of 577.9m. Drill holes were generally set up using a Trimble sub-meter GPS for orientation. Much less often, a Brunton was used to set up foresights for drill-hole azimuths.

The RC rigs used 5.25in (13.3cm) diameter dual-wall pipe and 5.5in (14.0cm) bits with a conventional hammer and interchange. Samples were taken continuously over 5ft (1.52m) intervals and passed through a rotating wet splitter. Maximum per hole drilled depths ranged from 47.2m to 578m. Drilling was done dry for the first 15m or so, after which water was injected. Groundwater has not been encountered at Eastside, and water injection was kept to a minimum.



The core was HQ size (63.5mm diameter) except where drilling conditions required the stepdown to NQ (47.6 mm diameter) size. Drilling was done using circulation of water and drilling fluids. The deepest core hole reached a maximum down-hole depth of 577.9m. Drill holes were generally set up using a Trimble sub-meter GPS for orientation. Much less often, a Brunton was used to set up foresights for drill-hole azimuths.

Table 10.2 Summary of Eastside Drilling by Year

Table 10:2 Summary of Eastside Diffing by Tear							
Year	Туре	Holes	Meters	Drill Rig			
2011	RC	12	2,148	MPD-1500 track-mounted			
2013	RC	24	5,367	MPD-1500 track-mounted			
2015	RC	52	12,464	MPD-1500 track-mounted			
2016	RC	35	11,409	MPD-1500 track-mounted			
2016	RC + Core	7	3,053	MPD-1500; LF-90 track-mounted			
2016	Core	7	2,993	LF-90 track-mounted			
2017	RC	10	2,938	MPD-1500 track-mounted			
2018	RC + Core	22	8,265	MPD-1500 track-mounted; MaxiDrill 10			
2019	RC	21	3,170	MPD-1500 track-mounted			
Totals		190	51,807				



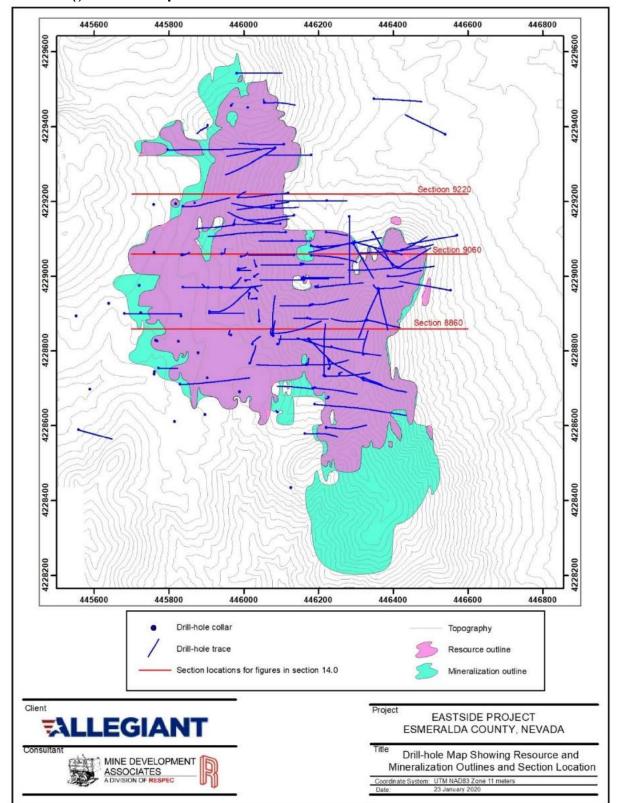


Figure 10.1 Map of Drill Holes Utilized in the Eastside Resource Estimate



# 10.2 Discussion of Eastside Area Drilling by Columbus and Allegiant

In early 2011 Cordex drilled 12 widely spaced RC holes to test beneath gold-bearing surface samples and mapped structural zones coincident with geophysical zones of high resistivity. Two drill holes failed to reach their targeted depths due to poor ground conditions. Four of the remaining 10 holes encountered gold mineralization within rhyolite and andesite, the most significant of which, ES-04, intersected 6.1m with an average grade of 5.7g Au/t. This hole may be considered the discovery hole at Eastside.

A total of 24 RC holes totalling 5,367m were drilled in two phases by Cordex during 2013. The first phase was drilled in March through September, 2013. The second phase of drilling took place in November and December, 2013

In 2015 a total of 51 RC exploration holes were drilled in June through September. Most of these were inclined drill holes. One additional hole (WW-01) was drilled from a site about 2km east of the main drilling area as a groundwater availability test. The depth of this hole was 166.1m.

A total of 49 drill holes were completed in 2016, in a mixed RC and core program between February and August. This was the first core drilling on the property. Thirty-five of these holes were reverse circulation only; 14 holes were either partially or entirely drilled as core. Seven of the core holes had "pre-collars" drilled to depths ranging from 131.1 to 182.9m by RC and then casing was set before the resumption of drilling by the core rig. Many of the drill holes were inclined.

During March of 2017, a total of 2,938m were drilled in 10 RC holes at "Target 5", an area centered about 6.4km south of the area shown in Figure 10.1. The results were generally low grade, with anomalous gold-silver mineralization encountered in all holes. Due to the distance from the estimated resources, the Target 5 drilling has no impact on the estimated resources.

In 2018, after the transfer of Eastside ownership to Allegiant, a total of 22 holes totaling 8,265 meters were drilled around the Eastside resource area with the goal of expanding the resource. Twenty of the holes were drilled with RC, one hole was drilled with an RC "pre-collar" and finished with core (ES-163) and one hole was drilled entirely with core (ES-160). Results were positive resulting in an expansion of the resource which is the subject of this report. In 2019 Allegiant focused on drilling the Adularia Hill area, discussed in Section 10.8 of this report.

#### 10.3 Geological Logging

During RC drilling, small samples of each 1.5m interval drilled were washed in water and placed in prenumbered chip trays as drilling proceeded. The chips were subsequently logged by Cordex geologists in the field office trailer with a binocular microscope. Logged data was recorded on paper forms when drilling commenced, but that practice was modified and the data was entered directly into the computer, which then feeds into a GeoSequel database manager program. Logging recorded collar and drill-hole information, lithology, alteration, mineralization, vein details and an estimate of silica content. It is acknowledged that clay content will not be accurately recorded due to washing of the cuttings. Consistency of logging was maintained through use of a logging template utilizing a list of pre-determined codes. A summary, paper log sheet and a summary graphic down-hole plot were also prepared. The chip trays were subsequently shipped to the Allegiant office in Tonopah for long-term storage.



The drillers filled out sampler logs. Data recorded on the forms include: hole name, depth, sample number, time, color, recovery, walls, wetness, hardness, and general remarks and comments.

Core logging and some of the density measurements were done by Cordex geologists at a secure logging and storage facility in Tonopah. After cleaning, the core was photographed both dry and wet. A tripod was used to produce photos at a consistent scale.

After being photographed, core recovery and rock quality designation ("RQD") measurements were made and recorded, and then the core was logged for lithology, alteration, structure, and mineralization. Graphic depictions of structures were also recorded. Logged information was recorded on paper log forms for subsequent capture into electronic spreadsheets and loading into the GeoSequel database manager.

## 10.4 Eastside Area Drill-Hole Collar Surveys

Drill-hole collar locations were surveyed during the 2011 and 2013 programs using hand-held Garmin GPS units. These instruments are typically capable of determining positions to within less than 5m of their actual location.

All holes drilled during 2015, 2016, 2017, 2018 and 2019 were surveyed at completion to sub-meter accuracy, using TerraSync<sup>TM</sup> software and a Trimble GPS data collector, with Pathfinder Office® software used to apply post-collection processing for enhanced accuracy. All previously drilled holes whose collars could still be located on the ground were also re-surveyed using the Trimble system, but six of the first 36 holes could not be re-located.

## 10.5 Eastside Area Down-Hole Surveys

Beginning in 2015, surveys to measure down-hole deviation were performed in all holes for which it was possible by independent contractor International Directional Services ("IDS"), based in Battle Mountain, Elko, or Tonopah, NV. Surveys were made to as near the end of the hole as could be reasonably and safely done. Five holes were not surveyed down hole because they were either abandoned long before reaching the target depths or had unstable or blocked portions. None of the holes in Adularia Hill were downhole surveyed.

## 10.6 Summary Statement for Eastside Area Drilling

The reader is referred to Sections 14.3, 14.4, 14.5, 14.8 and 14.9 for summaries and interpretations of all relevant drilling results. The authors believe that the drilling procedures provided samples that are representative of the material sampled and of sufficient quality for use in the resource estimations discussed in Section 14.0. The authors are unaware of any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results and the mineral resources discussed in Section 14.0.



# 10.7 Castle Claims Drilling

Records of historical drilling in the Castle claims area are incomplete as summarized in Table 10.3. Cordex geologists have partially compiled historical drill-hole information from paper maps and from GPS surveys of hole collars that were visible in 1998-1999. Cordex geologists believe that approximately 1,500 holes have been drilled within the Castle area claims, and that the majority were less than 100m in depth. A map of the presently known locations of historical drill collars is shown in Figure 10.2. The authors are not aware of information on specific methods of drilling, rig types, sampling procedures, collar surveying and down-hole surveying used during the historical drilling. The authors are not aware of the specific drilling data and relevant drilling results, and has not made interpretations from the data. MDA recommends that Allegiant complete the compilation of available drilling information and construct a drilling database for the Castle claims portion of the project. The authors have not determined if there are any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results.

Holes Meters **Holes** Meters Total Total Year Company RC RC Core Core **Holes** Meters ASARCO, 1970s Noranda Houston Oil and ? ? 1979 Minerals 1981 - 1989 Falcon ? ? Homestake ? 1987 ? Westgold-? ? 1988 - 1990 Mintec 1993 - 1995 Kennecott 8,057 8,057 65 65 1998 - 1999 Cordex 30 4.230 4.230 30 **Totals** 95 12,287 0 0 12,287 95

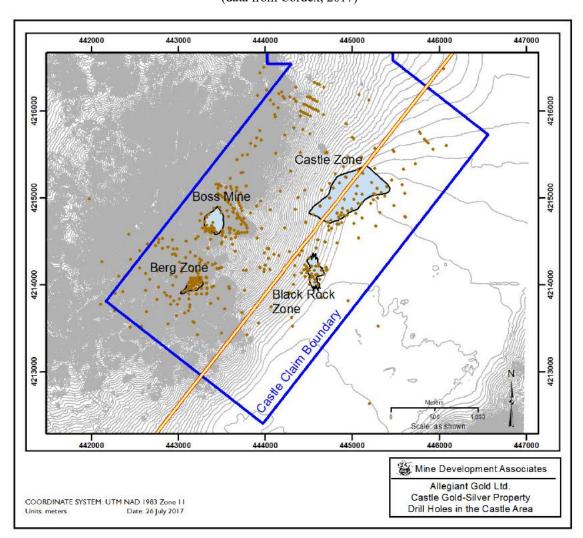
Table 10.3 Castle Claims Drilling Summary by Year

# 10.8 Adularia Hill Drilling 2019

A total of 3,170m were drilled in 21 RC holes in the Adularia Hill area in 2019. Nearly all the holes intersected hydrothermally altered rocks and intervals that contained gold in the range of 0.02g Au/t to 0.09g Au/t from top to bottom, irrespective of the lithology of the host rock. Eighteen of the 21 holes penetrated at least 1.5 meters with gold grades that exceeded 0.10g Au/t.



Figure 10.2 Castle Area Drill-Hole Location Map (data from Cordex, 2017)





## 11.0 SAMPLE PREPARATION, ANALYSIS, AND SECURITY (ITEM 11)

# 11.1 Eastside Area Sample Preparation and Analysis

# 11.1.1 Surface Rock Chip Samples

1999 – 2004: The 184 surface rock chip samples collected by McIntosh in 1999 were assayed by Chemex in Sparks, Nevada, which was, and is, independent of Allegiant. MDA has no information on the sample preparation procedures or analytical methods used. MDA also has no information on the analytical laboratory, preparation and analytical methods used for the Newmont rock and soil samples analyzed before Newmont terminated their lease in 2004. Regardless, both sets of data are considered reliable.

Cordex 2004 and 2009 – 2016: Rock chip samples collected by Cordex during this period were analyzed at American Assay Laboratories ("AAL") in Sparks, Nevada, which was, and is, independent of Allegiant, and at ALS Chemex in Sparks, Nevada (Chemex was acquired by ALS in 2000), which became ALS at the end of 2008. ALS Chemex and ALS are both referred to as "ALS" and both were, and continue to be, independent of Allegiant.

The samples collected in 2004 were analyzed at AAL. Gold was analyzed by fire-assay fusion of a 30g aliquot using atomic adsorption ("AA") finish. Silver was determined by fire-assay fusion of a 30g aliquot using a gravimetric finish. Silver, gold and 34 major, minor and trace elements were also determined by inductively-coupled, plasma atomic-emission spectrometry ("ICP") following aqua regia digestion of a 1g aliquot.

Rock-chip samples assayed at AAL during 2009 - 2016, 2018 and 2019 were analyzed by the same methods described above. In some cases, samples were also assayed for gold using an ICP finish after a 30g fire-assay fusion. In other cases, samples were also assayed for silver using an AA finish following 30g fire-assay fusion. For some samples, silver was determined by ICP following aqua regia digestion of a 1g aliquot.

Gold in rock-chip samples was also analyzed at ALS in 2009, 2014, 2015, 2016 by fire-assay fusion of 30g aliquots, followed by an AA finish. Silver, gold and 49 other major, minor and trace elements were assayed in these samples by a combination of ICP and mass spectrometry ("ICP-MS") following aqua regia digestion of 1g aliquots. For some of the samples, silver was also analyzed by 30g fire-assay fusion followed by a gravimetric finish. In a few, but not statistically significant number of cases, gold was also determined by so-called "metallic-screen" fire assays.

AAL and ALS are both accredited under ISO/IEC 17025:2005.

# 11.1.2 RC Drilling Samples

Although all the Columbus and Allegiant RC drilling was above the water table, most of the RC drilling was done with water injection and the cuttings were split by a rotating wet splitter located beneath the cyclone. A little over half of the sample was collected directly into pre-labeled 51cm by 61cm bags held in 22.7l buckets placed directly below one of the two discharges of the rotating splitter.



A small proportion of the RC drilling was done dry. Dry sample splitting was done at the rig using a Jones-type splitter with adjustable slots, prior to placing the split sample into the pre-labeled bags. Difficult drilling conditions precluded more dry drilling.

Unless the RC samples had substantial water in them, the samples were brought to the project staging area and logging trailer located within ~1km of the drill sites. There they were air-dried on racks before being placed in transportation bins provided by the analytical laboratory. If the wet RC samples were full of water and bloated, the samples were left temporarily at the drill site to drain, before being brought to the drying racks at the staging area.

All of the RC samples from 2011 through 2019 were prepared and analyzed at AAL in Sparks, Nevada. After being received at the analytical laboratory, the RC samples were oven dried at  $\sim 100^{\circ}$ C, weighed, then jaw crushed in their entirety to 6 mesh size before being roll crushed to 100% passing 10 mesh. The -10mesh material was riffle split to obtain an approximately 300g sub-sample, which was ring pulverized to 85% at less than 150 mesh size.

In 2015 through 2019 most all gold assays were fire assays with an AA finish. Prior to estimation of the 2016 resource block model, silver assays were initially done by two-acid digestion ICP with silver samples above 6.86g Ag/t checked with fire assay and a gravimetric finish. Subsequently, all drill samples lying within the gold domains and some samples extending outside the gold domains were re-assayed for silver with a lower detection limit and using four-acid digestion ICP. All post-2016 block model samples were analyzed by two-acid digestion ICP with the detection limit of 3.43g Ag/t; because these samples were so high, MDA changed them to unassayed ("-1").

## 11.1.3 Core Samples

After completion of logging, the core boxes were marked with metal tags and red felt-tip marker lines to show the beginning and ending of sample intervals. The core was marked longitudinally with a center line and perpendicular marks to show the diamond-saw operator where to cut the core. The sample intervals were then sawed in half, length-wise. Half of the sawed core was placed in sample bags that were numbered as sample cutting proceeded. The other half was returned to the core boxes and stored for future reference.

All of the 2016 and 2018 core samples were prepared and analyzed at AAL in Sparks, Nevada. Preparation procedures, including crushing and pulverizing, were the same as those used for the RC samples, but without the oven drying step. The 2016 and 2018 core samples were analyzed using the same methods described above for the 2015 and 2016 RC samples.

# 11.2 Eastside Area Sample Security

Rock-chip samples were transported by Cordex staff from the project site and delivered to either ALS or AAL in Reno and Sparks, respectively. Most of the RC drill samples were picked up at the project staging area by an AAL driver and delivery truck, and transported to the AAL facility in Sparks, Nevada. In some cases, RC samples were transported from the staging area and delivered to AAL's facility in Sparks by Cordex personnel using Cordex vehicles.



Core samples were kept at the Cordex logging and core cutting facility in Tonopah until shortly before a sample pickup by AAL. The core samples were then transported to the project staging area by Cordex personnel and placed in bins, which were then transported to the AAL facility in Sparks by an AAL driver and delivery truck. In some cases, core samples were transported from the logging and cutting area and delivered to AAL's facility in Sparks by Cordex personnel using Cordex vehicles.

## 11.3 Summary Statement on Sample Preparation, Analysis and Security

It is the authors' opinion that the sample preparation, analyses and security procedures were adequate. The authors believe that the drilling procedures provided samples that are representative of the material sampled and of sufficient quality for use in the resource estimations discussed in Section 14.0. The authors are unaware of any sampling or recovery factors that materially impact the mineral resources discussed in Section 14.0.

# 11.4 Castle Area Sample Preparation and Analysis

The authors are not aware of information on the methods and procedures of sample preparation and analysis used during the various campaigns of historical surface sampling and drilling conducted in the Castle claims. It is inferred that such records are likely to be incomplete, but Allegiant should attempt to obtain and compile any information that may be available. At this time, the authors have not evaluated whether the sample preparation, analyses and security were adequate.



# **12.0 DATA VERIFICATION (ITEM 12)**

# 12.1 Eastside Area Drilling Database Audit

MDA personnel under Ristorcelli's supervision audited the drilling database against original data separately maintained by Cordex personnel. A number of minor differences were detected in the comparison of collar coordinates, and these were resolved on a case by case basis. In many cases Cordex re-surveyed the collar coordinates using a hand-held Trimble device, and either the original values were replaced or an averaged value was used. The audit found that Cordex converted the original coordinates from the NAD27 UTM projection to NAD83 with some errors made in the conversions. MDA personnel corrected those errors.

The original down-hole survey compilation in the above database was problematic. MDA personnel went back to the original survey data and re-built the down-hole survey compilation excluding down-hole surveys extrapolated beyond the bottom of the drill hole total depths.

Assays in the MDA database were checked against certificates of assay received directly from the analytical laboratories using a sampling of 35 randomly selected certificates (approximately 10%). No discrepancies were found and no further checking was done on the assay data.

A series of tests was then run to identify improbable data values in the MDA database. Tests identified numerous data entry errors for core recovery and RQD, which were corrected by Cordex but not rechecked by MDA.

## 12.2 Eastside Area Quality Assurance/Quality Control

### 12.2.1 Eastside Surface Rock and Soil Samples

MDA has no information on Quality Assurance/Quality Control ("QA/QC") procedures that may have been used by McIntosh and Newmont for surface rock and soil samples analyzed during 1999 through 2004. Cordex did not use blanks or standards for external QA/QC control of rock-chip sample assays.

#### 12.2.2 Preliminary Eastside QA/QC Work from 2015 Drilling

Six field-duplicate samples were sent in for metallic screen analysis. In all but one case of gold and one case of silver, the metallic-screen samples obtained higher grades. Because the samples were field-duplicate samples, one should not assume that standard assaying always reports low. However, additional work on the effect of metallic-screen assaying may be warranted.

In addition, 50 pulp-duplicate samples were sent in to a second laboratory. The comparison between the two sets of data showed no material bias and not-unexpected differences between the original and second duplicate samples at around 10% for the difference from the mean of the pair (minimums) and about 20% for the difference from the smaller (maximum).



# 12.2.3 Entire Eastside Area Drill Program

In 2011 and 2013, Cordex utilized the assay laboratories' internal QA/QC standards, blanks and duplicates for monitoring drill sample assays. Cordex also took RC field (rig) duplicate samples, which were used for second-lab check samples. Cordex implemented their own external QA/QC program for monitoring drill-sample assays in 2015 and 2016 by inserting commercial standard reference materials, blanks and duplicates into the drill-sample stream prior to shipment of samples to the assay laboratory. Duplicate samples were not inserted into the sample stream for drilling done after November 2016.

Blanks inserted by Cordex consisted of oxidized landscape rock (rhyolite) crushed to 0.95cm. Standards consisted of commercial standard reference materials purchased as pulps. For RC drilling a blank or a standard was inserted at the drill rig at pre-determined random intervals that averaged every 32 samples. The same procedure and rate of insertion was used for core drilling, except the standards and blanks were inserted following core sampling at the logging facility in Tonopah. A description of the standards and blanks inserted by Cordex is summarized in Table 12.1.

Table 12.1 Summary of Cordex Drill Sample Standards and Blanks

	Pre-N	lovember 2016		
Standard Name	Source	Description	N	
OxD108	ROCKLABS	Oxide Au 0.414 g/t	48	
OxG104	ROCKLABS	Oxide Au 0.925 g/t	44	
OxC129	ROCKLABS	Oxide Au 0.205 g/t	26	
OxH122	ROCKLABS	Oxide Au 1.247 g/t	39	
OxJ120	ROCKLABS	Oxide Au 2.365 g/t	21	
SL77	ROCKLABS	Sulfide Au 5.181 g/t	16	
SL77	ROCKLABS	Ag 29.1 g/t	18	
MEG-Au.11.19	MEG	Ag 13.4 g/t	42	
MEG-Au.12.25	MEG	Ag 4.4 g/t	43	
Cordex Blank	Landscape Rock	<10 ppb Au; pale yellow rhyolite	181	
		478		
	Post-N	lovember 2016		
Standard Name	Source	Description	N	
MEG-Au.11.29	MEG	Au 3.6 g/t; Ag 13.4 g/t	16	
OxC145 Au	ROCKLABS	Oxide Au 0.212 g/t	12	
OxD108 Au	ROCKLABS	Oxide Au 0.414 g/t	32	
OxG104 Au	ROCKLABS	Oxide Au 0.925 g/t	22	
OxG124 Au	ROCKLABS	Oxide Au 0.918 g/t	8	
OxH122 Au	ROCKLABS	Oxide Au 1.247 g/t	31	
OxJ120 Au	ROCKLABS	Oxide Au 2.365 g/t	14	
SL77 Au	ROCKLABS	Sulfide Au 5.181 g/t; Ag 29.1 g/t	2	
Cordex Blank	Landscape Rock	<10 ppb Au; pale yellow rhyolite	146	



Table 12.2 summarizes all QA/QC samples from 2011 through 2019 drilling, including all internal laboratory standards, blanks and duplicates. This does not include pulp-duplicate samples assayed at a second laboratory (Section 12.2.2). Assays pulps were not sent to a secondary laboratory for check assays in 2018 or 2019.

**Table 12.2 Cordex QA/QC Samples** 

Pre-November 2016					
Group	Au	Ag			
Standards	194	103			
Blanks	181	none			
Duplicates	143	86			
All QA/QC Samples	518	189			
Post-November 2016					
Group	Au	Ag			
Standards	137	17			
Blanks	146	146			
Duplicates	0	0			

# 12.2.4 Eastside Area Drill Samples – Blanks

A total of 181 blanks were inserted into the sample stream. The average grade of the values returned from the laboratory was 0.008g Au/t, while the average of every previous sample was 0.156g Au/t. Figure 12.1 presents the results of blank-sample values compared to the previous sample, as received in the laboratory certificates. Note that one blank returned a significant value (0.488g au/t), but it did not follow a mineralized sample. That sample may represent sample mis-handling and/or mis-labeling. Note that the grade is not too different from standard OxD108, but it still remains an error. A few other blank samples demonstrate some grade being carried to sequential samples following a mineralized sample near the end of the 2016 drill program, albeit not high and typical of many projects.



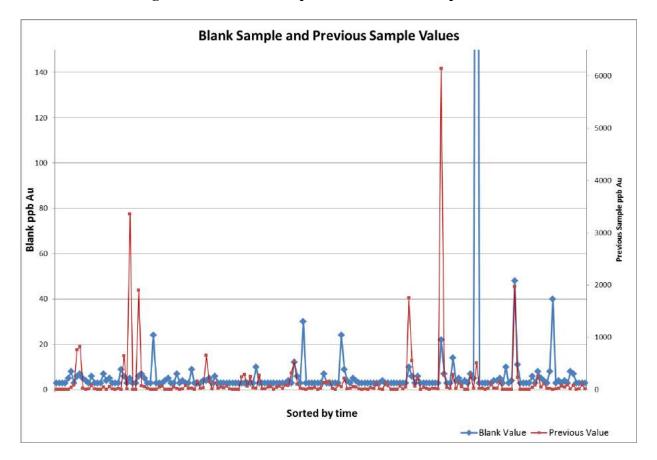


Figure 12.1 Blank-Sample and Previous-Sample Values

For all post-November 2016 drilling, there were 484 blanks inserted into the sample stream. Of those, 338 were lab blanks and 146 were coarse crushed rhyolite. None of the blanks returned gold above detection limit.

## 12.2.5 Eastside Area Drill Samples – Standards

The following results on gold assays were obtained from the inserted standards:

- OxC129: the 26 inserted sample assays averaged 4% lower than the certified standard grade (0.205g Au/t). There was one failure at less than the certified standard grade minus three standard deviations, and no failures greater than the certified standard grade plus three standard deviations.
- OxD108: the average grade for the 48 inserted samples was the same as the certified standard grade (0.414g Au/t). There were no failures below the certified standard grade minus three standard deviations and one failure greater than the certified standard grade plus three standard deviations.
- OxG104: the average grade for the 44 certified samples inserted into the sample stream was 3% lower than the certified grade (0.925g Au/t). There were three failures at less than the certified



standard grade minus three standard deviations, and one error greater than the certified standard grade plus three standard deviations.

- OxH122: the average grade for the 39 certified samples inserted was 3% lower than the certified standard grade (1.247 g Au/t). There was one failure at less than the certified standard grade minus three standard deviations, and none greater than the certified standard grade plus three standard deviations.
- OxJ120: of the 21 certified samples inserted, the average grade was 3% lower than the certified standard grade (2.365g Au/t). There were no failures at less than the certified standard grade minus three standard deviations, and none greater than the certified standard grade plus three standard deviations.
- SL77: the average for the 16 certified samples inserted was 4% lower than the certified standard grade (5.181g Au/t). There was one failure at less than the certified standard grade minus three standard deviations, and none above the certified standard grade plus three standard deviations.

The failure rate for certified gold standards is 4% when using the "industry-standard", albeit arbitrary definition for failures at greater than or less than the certified standard grade, plus or minus three standard deviations, respectively. The certified gold standard results suggest that the drilling database has assay grades that may be biased slightly low for gold.

The following results on silver assays were obtained from the inserted standards:

- MEG-Au.11.19: 42 samples were inserted. The average silver grade was 2% higher than the certified standard grade (13.4g Ag/t). There were no standard deviation data available for this standard.
- MEG-Au.12.25: 43 samples were inserted. The average grade was 3% lower than the certified standard grade (4.4g Ag/t). There were no standard deviation data available for this standard.
- SL77: 18 samples were inserted. The average grade was 1% lower than the certified standard grade (29.1g Ag/t). There were no failures.

For all post-November 2016 drilling, 369 standards were inserted into the sample stream. Of those, 232 were lab standards and 137 were submitted by Cordex personnel. There was a total of 12 different standards. Charts for each of the standards were plotted showing the grade received for the standard, the mean, two and three-standard deviations from the mean. Eleven samples "failed", of those two were clearly mislabeled, six were "failures", and six were possibly blanks. All "failures" were standards inserted by Cordex; the failure rate is high, but about half were most likely caused by mis-handling samples.

## 12.2.6 Eastside Area Drill Samples – Field Duplicates

There were 143 field-duplicate samples analyzed for gold through the end of the 2015 drilling which show a material low bias in the duplicate samples. The sample results in the database are biased high relative to the duplicates, and possibly by as much as 20%. Removing suspect duplicate samples from that data set reduces the low bias in the duplicate sample to 8%. Mr. Ristorcelli cannot state which is more correct given present information. The absolute value of the relative differences is 123% for the maximum



difference and 22% for the difference of the means. These are not unexpected differences in field duplicate samples, but the bias is important.

There were 86 field duplicates for silver and all are from drill holes prior to and including ES-039. Differences between duplicate and original silver grades are greater than for gold and the high bias for the original samples is greater. Furthermore, there are four samples with impossible differences in grade that probably result from mis-handling of data or mislabeling of samples, which are still errors, but not errors in analytical work.

No duplicate samples exist in the database for drilling done after 2006.

# 12.3 Summary Statement on Data Verification for Eastside Area Drilling

Mr. Ristorcelli believes that the drilling procedures provided samples that are mostly representative of the material sampled and of sufficient quality for use in classifying resources to Inferred category as discussed in Section 14.0. High bias in the pre-2016 duplicate RC samples, compared to the originals, is larger and not completely offset by the low bias found in inserted standards. An evaluation of the QA/QC results and some possible remediation of issues found should be done for upgrading classification to Measured or Indicated.

## 12.4 Castle Area Database Audit and Quality Assurance/Quality Control

Allegiant has not yet compiled available information from historical surface sampling and drilling in the Castle claims, and no data verification has been done. Mr. Ristorcelli recommends that such compilation be conducted so that available information can be assessed and audited for data verification in the future. The authors are unaware of QA/QC information that may be available from historical drilling campaigns in the Castle claims. The authors recommend that Allegiant obtain and compile all available QA/QC information for future evaluation.



# 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 13)

Three preliminary metallurgical studies of mineralized material from the Eastside gold-silver deposit have been conducted beginning in 2014 and continued in 2016. No testing was done after 2016. Kappes, Cassiday and Associates, in Reno, Nevada ("KCA") was contracted to perform cyanide-leach bottle-roll tests on RC drill cuttings. A total of 92 cyanide-leach bottle-roll tests were completed on 54 samples by KCA during these three preliminary studies. The duration of each of the bottle-roll tests was 96 hours and the results were compiled and evaluated in three reports by KCA as follows:

- Cordex Project, Report of Metallurgical Test Work, KCA0140067\_CDX03\_01, June, 2014 (KCA, 2014).
- Cordex Project, Bottle Roll Leach Tests on Previously Crushed Material, Report of Metallurgical Test Work, KCA0160090\_CDX04\_01, August, 2016 (KCA, 2016a).
- Cordex Project, Compilation of All Bottle Roll Leach Tests on RC Cuttings, Report of Metallurgical Test Work, KCA0160102\_CDX06\_02, September, 2016, (KCA, 2016b).

All three of the above studies were conducted and reported using Imperial units of measurement. To preserve the continuity of information, the original Imperial units are reported below.

# 13.1 2014 Cyanide-Leach Bottle-Roll Tests

The June, 2014 work was performed on 14 separate drill samples with each sample being split and tested both "as is" (drill samples as produced from the drill hole) and also after grinding to 80% passing 200 mesh ("mill grind"). A total of 28 cyanide-leach bottle-roll tests were performed. The drill samples were selected to represent different grades, different amounts of oxidation, different alteration types, and different lithologies within the deposit. These first tests indicated Eastside mineralization was amenable to extraction with cyanide, irrespective of oxidation state (i.e., oxide and sulfide leach equally well). However, gold and silver recoveries were dependent on particle size, with finer material yielding better recoveries. Gold extractions on "as is" drill cuttings ranged from 20% to 85% compared to KCA's calculated head grade. Silver extractions on "as is" material ranged from 6% to 52% and averaged 18%, compared to KCA's calculated head grades.

Gold extractions from mill grind material ranged from 85% to 97%. Silver extractions on mill grind material ranged from 27% to 71%.

## 13.2 2016 Cyanide-Leach Bottle-Roll Tests

The two sets of KCA testing done in 2016 reported on bottle-roll tests performed on assay reject material from 40 separate drill samples. These samples tended to be lower in overall grade than those tested in 2014, ranging from 0.13g Au/t to 1.9g Au/t. These samples had been lightly crushed to about 8-10 mesh, prior to assaying and the subsequent bottle-roll tests. All 40 of these samples yielded gold extractions ranging from 39% to 96%, and silver extractions ranging from 4% to 52%, compared to KCA's calculated head grades. Enough material remained to test 24 of the 40 samples at the mill grind size of 80% passing 200 mesh. The gold extractions at mill grind ranged from 71% to 99%. The silver extractions at mill grind ranged from 5% to 93%.



All of the KCA test work showed low cyanide consumptions, averaging about 0.1 to 0.15lb of cyanide consumed per ton of ore processed. Lime consumptions varied. Oxide samples consumed about 1lb per ton and sulfide samples about 2-3lb per ton. These results are preliminary and more test work is recommended.

## 13.3 Discussion of Metallurgical Testing Results

Metallurgical work to date is not sufficient to accurately predict mill and heap-leach recoveries of gold and silver at Eastside. Gold extractions in some of the KCA bottle-roll tests were still increasing at the end of 96 hours, whereas commercial heap-leach processing typically goes on for longer periods.

In addition, the KCA gold and silver recoveries summarized above were calculated based on the KCA calculated head assays. Calculated head assays were determined by assaying the amount of gold and silver recovered in the bottle-roll tests and adding it to an assay of the residue left over from leaching. Review of the testing to date shows the calculated head assays of the metallurgical samples differ from head assays determined from the original assay results of the same samples after drilling, and they also differ from the duplicate head assays determined by KCA prior to the bottle-roll leaching. The discrepancies are more pronounced in determining the head assay for silver. These issues need to be resolved with further testing, but are sufficient for determining amenability to extraction by cyanide for an Inferred resource.

Although the Eastside metallurgical test data are preliminary and limited, they can be used for a preliminary determination of the suitability of the material for cyanide extraction. Consultations with metallurgists experienced in gold and silver heap-leach and milling operations have supported MDA's choice of about 70% recovery of gold from heap leaching of Eastside materials using three-stage crushing prior to leaching. Mill recovery for gold could be over 90% (the authors used 93% in their determination of "reasonable prospects for eventual economic extraction").

Much more testing is necessary to confidently predict silver recovery. The bottle-roll tests indicate recoveries of silver will be much less than for gold, likely in the range of 15% to 22% for heap leaching with a three-stage crush, and 40% to 55% from material treated at a mill grind. The authors used 20% for heap leaching and 50% for mill recoveries in their determination of "reasonable prospects for eventual economic extraction".

Further metallurgical work is planned for material already available from 12 core holes for a series of column-leach tests at a variety of different sizes of feed.

Although the authors are not experts with respect to metallurgy, the authors have reviewed the metallurgical test studies and consulted with metallurgical experts. The authors consider the information to be appropriate for the purposes for which it has been used in this report. The data from these studies are used in this Technical Report for the purposes of deriving reasonable and appropriate cutoffs for mineral resource reporting and determination of "reasonable prospects for eventual economic extraction".



# 14.0 MINERAL RESOURCE ESTIMATES (ITEM 14)

#### 14.1 Introduction

The effective date of the Eastside area mineral resource estimate is December 30, 2019. The drilling analyses, database verification, and resource modeling were completed according to the guidelines specified by Canadian National Instrument 43-101 ("NI 43-101"). Mr. Ristorcelli and Mr. Unger classify resources in order of increasing geological and quantitative confidence into Inferred, Indicated, and Measured categories to be in compliance with the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" (2014) and therefore Canadian National Instrument 43-101. CIM mineral resource definitions are given below, with CIM's explanatory material shown in italics:

#### **Mineral Resource**

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits,



application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.

#### **Inferred Mineral Resource**

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

#### **Indicated Mineral Resource**

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-



Feasibility Study which can serve as the basis for major development decisions.

#### **Measured Mineral Resource**

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.

### **Modifying Factors**

Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

The authors report resources at cutoffs that are reasonable for deposits of this nature given anticipated mining methods and plant processing costs, while also considering economic conditions, because of the regulatory requirements that a resource exists "in such form and quantity and of such a grade or quality that it has reasonable prospects for eventual economic extraction." Although the authors are not a experts with respect to any of the following aspects of the project, Mr. Ristorcelli and Mr. Unger are not aware of any unusual environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors that may materially affect the Eastside mineral resources as of the date of this report.

#### 14.2 Eastside Area Database

The Eastside area drilling database contains 33,080 records from the 189 exploration drill holes and the water-well hole. Of these records, 33,028 have gold assays and 12,601 have silver assays with a sufficiently low detection limit to be useful (Table 14.1). Other elements were analyzed early in the exploration drilling at Eastside, but that practice was halted after drill hole ES-036. The database also contains logged lithology, sample recovery, redox, and density measurements. All of this drilling data was used in the estimate, but only the survey and analytical data were audited.



All Drill Data								
	Valid	Median	Mean	Std. Devn.	Co. of Variation	Minimum	Maximum	Units
From	33,080		156.4			0.0	586.7	m
То	33,080		157.9			0.8	587.7	m
Length	33,080		1.5			0.24	16.8	m
Au	33,028	0.023	0.122	0.686	5.6	0.002	55.6	g/t
Ag	12,601	1.30	3.73	10.53	2.8	0.05	242.00	g/t
As	2,662	65	109	141	1.3	1	1730	ppm
Cu	2,662	15	17	10	0.6	2	144	ppm
Hg	2,662	0.50	0.55	0.29	0.5	0.50	4.500	ppm
Мо	2,662	4	12	27	2.3	1	490	ppm
Pb	2,662	9	11	7	0.6	2	68	ppm
Sb	2,662	4	7	12	1.6	2	326	ppm
Zn	2,662	21	31	36	1	1	801	ppm

Table 14.1 Eastside Exploration and Resource Database: Descriptive Statistics

# 14.3 Eastside Geologic Model

The Eastside area geology was initially interpreted by Cordex on east-west cross sections spaced 40m apart. The limits of oxidized rocks were interpreted on the same cross sections. The interpretations were modified several times by both Cordex and MDA, and the final geologic and oxidation models were used as the basis for resource modeling and estimation (see Figure 7.4). The following units were defined and interpreted on the cross sections: Plz: Paleozoic rocks; Tbja: Blair Junction andesite; Tm: Mcleans sedimentary rocks; Tga: Gilbert Andesite; Trt: rhyolite tuff; Talr: acid-leached rhyolite; Trd: dacite; Tr: rhyolite; Tvit: vitrophyre; Qal: alluvium.

#### 14.4 Eastside Mineral Domains

Using the geologic model as a control, gold and silver domains were interpreted based on drill-sample grades and guided by geology on the same 40m-spaced sections. The domains were defined by subtle population breaks for gold and very strong population breaks for silver on cumulative probability plots ("CPP") of each metal. The domain geometries were guided by the geology. The majority of mineralization lies within the rhyolite, often along external and internal rhyolite margins, but there are other subtler features within the rhyolite not presently understood that likely also control mineralization.

Two gold domains were defined, one >~0.04g Au/t and one >~0.3g Au/t. One silver domain was defined at >~3g Ag/t (Figure 14.1 and Figure 14.2, respectively). The low-grade gold domain is a halo of disseminated-like mineralization largely inside and to a lesser extent around the rhyolite as large irregular shapes mimicking the rhyolite geometry. The domains can extend outside of the rhyolite into andesite units. The higher-grade gold domain is much smaller and forms more linear zones, but also parallel to rhyolite boundaries. There are indications that higher-grade domains within the rhyolite may also be

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related to internal rhyolite intrusive contacts. While this is geologically reasonable, and in some areas the domains have been modeled that way, those shapes are in some instances inferred.

Silver mineralization is volumetrically smaller than the gold and for the most part lies within the low-grade gold halo but does not necessarily correlate with the gold locally. For those samples with high-detection limit, domaining rules were necessarily different to constrain the estimate because of the analytical biases instilled in the data set with such high-detection limits. The single silver domain is bimodal, but the higher grades representing about 20% of the population appear discontinuous. This subset was treated differently during estimation rather than by explicit modeling.

Gold and silver assays from surface rock samples were used to guide the interpretation of the gold and silver domains, controlling the projection of domains to the surface. However, assays from surface rock samples were not used in the estimation of block grades in the resource block model.

The domains on 40m-spaced sections were snapped to drill holes in three-dimensional space. Those sections where then taken to plan, one for each 6m block model level.

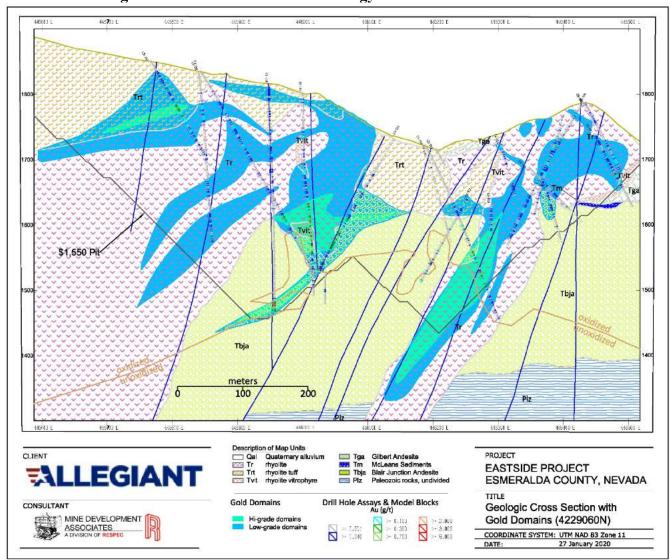


Figure 14.1 Gold Domains and Geology – Eastside Section 4229060N



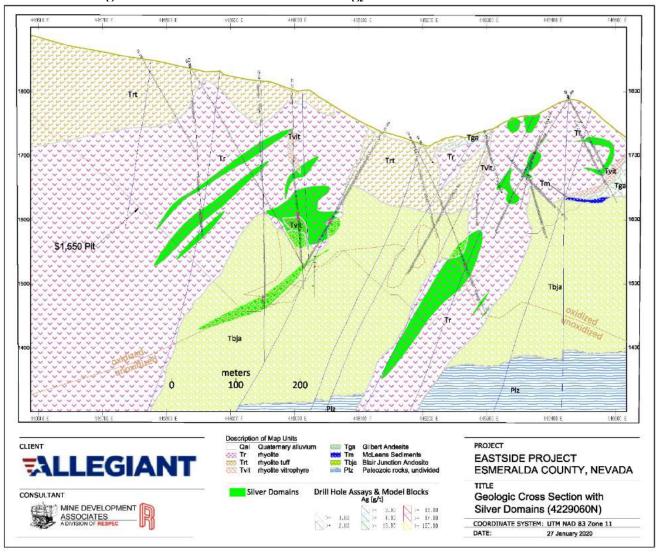


Figure 14.2 Silver Domains and Geology - Eastside Section 4229060N



#### 14.5 Eastside Area Density

Columbus measured rock densities using 150 samples of diamond drilled core. HQ-size core was used for 148 measurements and 2 measurements were made with NQ-size core. Both the immersion and volumetric methods were used. All density measurements were collected prior to 2018.

The volumetric method was used during the logging process and before core was sawed for assay. Geologists marked out roughly 15cm lengths of representative core selecting competent sections that form perfect cylinders when cut perpendicular to the long axis. After heating the sample for 30min at 93°C to dry, the dimensions of the cut ~15cm cylinders were measured with high-precision calipers, which measured to hundredths of millimeters. Diameters of core were measured three times and averaged, and then lengths were measured twice and averaged. These average values were used to calculate the volume of the sample. With a weighing scale accurate to a tenth of a gram, the sample was weighed. The sample weight was divided by the sample volume to obtain the density value.

Additional samples were measured by the immersion method. Geologists measured the density of previously cut and sampled core using the water-displacement method. A dry core sample was weighed with the same scale. The sample was then wrapped in cellophane and weighed while immersed in a 2,000ml graduated cylinder.

Table 14.2 summarizes the density measurements and the values coded to the resource block model ("Assigned density"), and descriptive statistics of the measurements by rock type.

Table 14.2 Density Measurements and Values Applied to the Eastside Area Block Model

Lithology	Plz	Tbja	Tm	Tga	Trt	Talr	Trd	Tr	Tvit	Qal	Unassigned
Assigned density	2.60	2.42	2.20	2.20	2.15	2.20	2.40	2.35	2.40	1.80	2.20
g/cm <sup>3</sup>	2.00	2.42	2.20	2.20	2.15	2.20	2.40	2.33	2.40	1.60	2.20
Difference	-0.2%	0.5%	16.4%	NA	1.2%	NA	-1.2%	-0.2%	1.3%	NA	NA
Average g/cm <sup>3</sup>	2.61	2.41	1.89	NA	2.12	NA	2.43	2.35	2.37	NA	NA
Valid samples	2	35	1	NA	17	NA	1	79	12	NA	NA
Minimum g/cm <sup>3</sup>	2.54	2.05	1.89	NA	1.87	NA	2.43	1.84	2.22	NA	NA
Maximum g/cm <sup>3</sup>	2.67	2.67	1.89	NA	2.43	NA	2.43	2.66	2.49	NA	NA
Coeff. of Var.	0.04	0.06	NA	NA	0.08	NA	NA	0.07	0.03	NA	NA

Plz: Paleozoic rocks; Tbja: Blair Junction andesite; Tm: Mcleans sedimentary rocks; Tga: Gilbert Andesite; Trt: rhyolite tuff; Talr: altered rhyolite; Trd: dacite; Tr: rhyolite; Tvit: vitorophyre; Qal: alluvium

#### 14.6 Eastside Composites

Once the gold and silver domains were defined and interpreted on the east-west cross sections, the domains were used to code drill-hole samples. Quantile plots were made of the coded assays. Outlier grades were reviewed on screen and descriptive statistics were calculated (Table 14.3). Samples were capped from within each of the two gold domains and within the silver domain, as well as for assays outside modeled mineral domains. As noted earlier, the silver domain is bimodal, but the continuity that would allow for modeling of a higher-grade domain was not evident. As a consequence, and to compensate for the



relatively high variability, the projection distance of higher grades in and outside all the domains were restricted during the estimation process.

**Table 14.3 Descriptive Statistics of Coded Samples** 

				Std.						
	Valid	Median	Mean	Devn.	Co. of Variation	Minimum	Maximum	Units		
Low-grade gold domain										
Au	9,306	0.082	0.133	0.197	1.5	0.002	7.1	g/t		
Au Capped	9,306	0.082	0.132	0.191	1.4	0.002	3.0	g/t		
	High-grade gold domain									
Au	2,222	0.503	1.086	2.432	2.2	0.008	55.6	g/t		
Au Capped	2,222	0.503	1.027	1.694	1.6	0.008	15.0	g/t		
			(	Outside of go	ld domains					
Au	21,500	0.011	0.022	0.070	3.3	0.002	5.2	g/t		
Au Capped	21,500	0.011	0.021	0.045	2.2	0.002	1.0	g/t		
				Silver do	omain					
Ag	3,956	4.750	9.552	17.263	1.8	0.100	242.0	g/t		
Ag Capped	3,956	4.750	9.403	15.714	1.7	0.100	150.0	g/t		
	Outside of silver domains									
Ag	8,625	0.700	1.080	1.866	1.7	0.050	52.1	g/t		
Ag Capped	8,625	0.700	0.968	0.964	1.0	0.050	5.0	g/t		

Capping for each domain was determined by first assessing the grade above which the outliers occur. Then those outlier grades were reviewed on screen to determine materiality, grade and proximity of the closest samples, and general location. Caps of 3.0g Au/t, 15.0g Au/t, 1.0g Au/t, 150.0g Ag/t, and 1.0g Ag/t were applied for low-grade gold, high-grade gold, outside gold, inside silver, and outside silver domains, respectively. In total, 13 samples were capped in the low-grade gold domain, nine samples were capped in the high-grade gold domain and 15 samples in the silver domain were capped. Once the capping was completed, the drill holes were down-hole composited to 3m intervals, honoring the domain boundaries. The descriptive statistics of the composite database are given in Table 14.4.



				Std.						
	Valid	Median	Mean	Devn.	Co. of Variation	Minimum	Maximum	Units		
				Low-grade go	old domain					
Au	5,011	0.093	0.133	0.150	1.1	0.004	2.8	g/t		
Au Capped	5,011	0.093	0.132	0.148	1.1	0.004	2.8	g/t		
				High-grade go	old domain					
Au	1,256	0.577	1.086	1.821	1.7	0.008	28.5	g/t		
Au Capped	1,256	0.577	1.027	1.347	1.3	0.008	13.4	g/t		
			(	Outside of go	ld domains					
Au	11,659	0.012	0.022	0.050	2.3	0.002	2.6	g/t		
Au Capped	11,659	0.012	0.021	0.036	1.7	0.002	0.9	g/t		
				Silver do	omain					
Ag	2,253	5.081	9.552	15.538	1.6	0.100	205.3	g/t		
Ag Capped	2,253	5.080	9.403	14.213	1.5	0.100	147.9	g/t		
	Outside of silver domains									
Ag	5,271	0.791	1.087	1.770	1.6	0.080	52.1	g/t		
Ag Capped	5,271	0.790	0.971	0.886	0.9	0.080	5.0	g/t		

**Table 14.4 Descriptive Statistics of Coded Composites** 

Correlograms were built for gold and for silver, and both showed good structure. Gold correlogram nuggets were 65% of the sill and total ranges were >100m. The bulk of the sills, however, were at ranges between 20m and 45m. Silver correlogram nuggets were 50% of the sill and total ranges were generally <100m. The bulk of the sills, however, were at around 40m.

#### 14.7 Estimation of Eastside Resources

Four estimates were completed: polygonal, nearest neighbor, inverse distance to the third power ("ID<sup>3</sup>"), and kriged. These estimates were run several times in order to evaluate the results and determine sensitivity to estimation parameters. The ID<sup>3</sup> estimate is the reported estimate. The block model was broken down into five estimation areas to control the orientation of the search and anisotropy in estimation (Table 14.5).

**Table 14.5 Estimation Areas** 

Area	Rotation	Dip	Plunge
Area 1	270	-65	0
Area 2	0	0	0
Area 3	270	-90	0
Area 4	90	-45	0
Area 5	270	-45	0



Two successive estimation passes were run for the low- and high-grade domains; a first long pass projecting 250m to 300m along the primary axes was used to fill in all blocks, followed by a short pass of 80m in both low- and high-grade domains. Range restrictions for the higher grades were applied (in the second and shorter estimation pass) because of the inability to determine and model continuity of those higher grades. All estimates and estimation runs were weighted anisotropically. Estimation parameters are given in Table 14.6. Assays from surface rock samples were not used in the estimation passes; only drill sample assays were used for estimation.

The block model is not rotated, and the blocks are 6m north-south by 6m vertical by 6m east-west. The dimensions were chosen to best reflect possible block sizes for open-pit mining.

#### 14.8 Eastside Area Mineral Resources

The authors classified the Eastside resources giving consideration to the confidence in the underlying database, sample integrity, analytical precision/reliability, and geologic interpretations. The work done is of sufficiently good quality to allow for higher classification. However, all material in this estimate is classified as Inferred due to the complex geology and some unexplained biases in field (rig) duplicate samples from the pre-2015 RC drilling. It is expected that a majority of these Inferred resources would be upgraded to Indicated resources with continued exploration drilling.

The largest impediment to a classification of Indicated was the subtle controls on higher-grade mineralization. Presently we assume that the controls are dominantly internal structures in the rhyolite, and possibly lithologic and structural controls in the andesite rocks. It would be possible to classify some material as Indicated where the drill spacing is relatively close to compensate for the lack of detailed understanding of controls on mineralization.



**Table 14.6 Estimation Parameters** 

Description Table 14.6 Estimation Param	Parameter
Low-grade Gold Domain	
Samples: minimum/maximum/maximum per hole	1/12/3
Rotation/Dip/Tilt (variogram and searches):	varies by estimation area
Search (m): major/semimajor/minor (vertical) Long Pass Estimation Area 1 Short Pass Estimation Area 1 Long Pass Estimation Area 2,3,4,5 Short Pass Estimation Area 2,3,4,5	300 / 300 / 75 80 / 80/ 20 250 / 250 / 62.5 80 / 80/ 20
Inverse distance power	3
High-grade restrictions (grade in g/t and distance in m) Long Pass Short Pass	none 1.0 / 60
High-grade Gold Domain	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	varies by estimation area
Search (m): major/semimajor/minor (vertical) Long Pass Short Pass	250 / 250 / 62.5 80 / 80/ 20
Inverse distance power	3
High-grade restrictions (grade in g/t and distance in m) Long Pass Short Pass	none 1.0 / 60
Outside Gold Domains	
Samples: minimum/maximum/maximum per hole	2/15/3
Rotation/Dip/Tilt (variogram and searches):	varies by estimation area
Search (m): major/semimajor/minor (vertical)	250 / 250 / 62.5
Inverse distance power	3
High-grade restrictions (grade in g/t and distance in m)	0.08 / 12
Low-grade Silver Domain	
Samples: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	varies by estimation area
Search (m): major/semimajor/minor (vertical) Long Pass Short Pass	200 / 200 / 50 80 / 80/ 20
Inverse distance power	3
High-grade restrictions (grade in g/t and distance in m) Long Pass Short Pass	none 20 / 60
Outside Gold Domains	
Samples: minimum/maximum/maximum per hole	2/15/3
Rotation/Dip/Tilt (variogram and searches):	varies by estimation area
Search (m): major/semimajor/minor (vertical) Long Pass Short Pass	wherever Au was estimated 200 / 200 / 50
Inverse distance power	3
High-grade restrictions (grade in g/t and distance in m)	2 / 30



Table 14.7 presents the estimate of all the Inferred resources at Eastside. The authors have used their judgment with respect to the technical and economic factors likely to influence the "prospects for eventual economic extraction". Those technical factors include anticipated metallurgical recoveries, current operating costs for anticipated mining and processing, and metal prices that have been seen in recent times. These mineral resources are not mineral reserves and do not have demonstrated economic viability. These are reported at a cutoff of 0.15g Au/t, calculated and supported by costs existing today for envisioned open-pit heap-leach scenarios. To determine the "reasonable prospects for eventual economic extraction" the authors ran a series of optimized pits using variable gold and silver prices, mining costs, processing costs, and anticipated metallurgical recoveries (see Section 13.0). These are reported at a cutoff of 0.15g Au/t which approximates anticipated economic cutoffs based on preliminary metallurgical test work and operations cost estimates for an envisioned open-pit with combined heap-leach and milling scenario. The authors chose to report the resource considering mining costs of \$1.35 per tonne and G&A costs of \$0.50 per tonne, respectively. Heap-leach and milling costs used were \$4.60 per tonne and \$10.40 per tonne, respectively. The price of gold and silver were \$1,550 and \$19.67 per ounce, respectively.

**Table 14.7 Eastside Inferred Gold Resources** 

Cutoff	Tonnes	Grade	Ounces	Grade	Ounces
g Au/t		g Au/t	Au	g Ag/t	Ag
0.10	84,400,000	0.41	1,104,000	3.5	9,541,000
0.11	77,600,000	0.43	1,081,000	3.7	9,141,000
0.12	71,540,000	0.46	1,059,000	3.8	8,775,000
0.13	65,970,000	0.49	1,036,000	4.0	8,422,000
0.14	61,230,000	0.52	1,016,000	4.1	8,111,000
0.15	57,050,000	0.54	996,000	4.3	7,838,000
0.16	53,210,000	0.57	977,000	4.4	7,563,000
0.17	49,820,000	0.60	959,000	4.6	7,315,000
0.18	46,870,000	0.63	943,000	4.7	7,089,000
0.19	44,450,000	0.65	928,000	4.8	6,889,000
0.20	42,320,000	0.67	915,000	4.9	6,703,000
0.25	34,960,000	0.77	863,000	5.4	6,098,000
0.30	29,970,000	0.85	819,000	5.8	5,631,000
0.35	26,410,000	0.92	782,000	6.2	5,279,000
0.40	23,520,000	0.99	747,000	6.5	4,940,000
0.50	18,740,000	1.13	678,000	7.2	4,327,000

Cross sections of the gold and silver block models are given in Figure 14.3, Figure 14.4, Figure 14.5, Figure 14.6, Figure 14.7, and Figure 14.8.



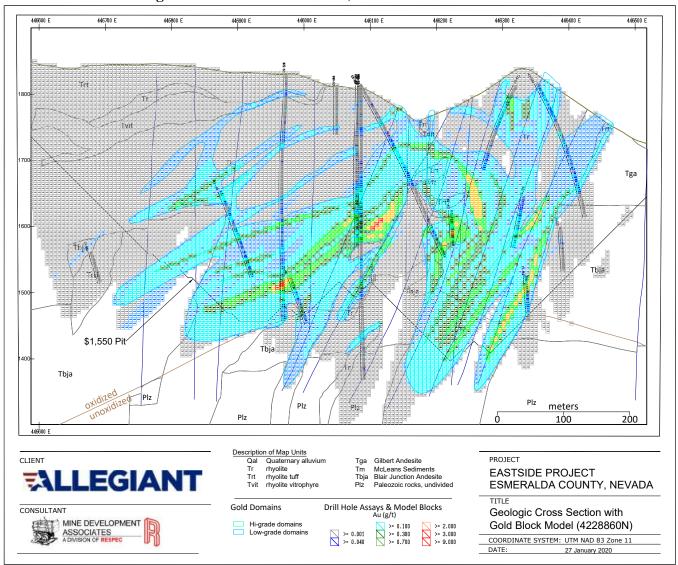


Figure 14.3 Gold Block Model, Eastside Section 4228860N



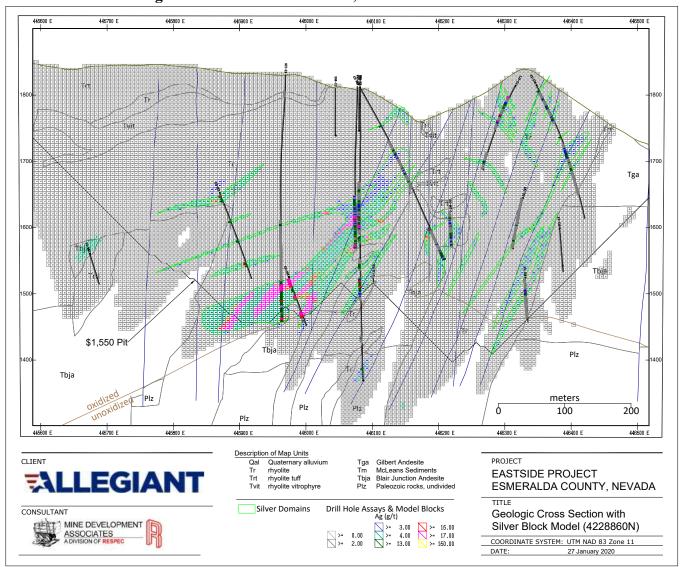


Figure 14.4 Silver Block Model, Eastside Section 4228860N



446400 E 445700 E \$1,550 Pit Tbja meters 100 200 Plz 446000 E 446100 E 446300 E 446400 E 446500 E Description of Map Units PROJECT Qal Quaternary alluvium Tr rhyolite Tga Gilbert Andesite McLeans Sediments **EASTSIDE PROJECT FALLEGIANT** rhyolite tuff Tbja Blair Junction Andesite ESMERALDA COUNTY, NEVADA Tvit rhyolite vitrophyre Plz Paleozoic rocks, undivided Drill Hole Assays & Model Blocks **Gold Domains** CONSULTANT Geologic Cross Section with MINE DEVELOPMENT
ASSOCIATES
ADIVISION OF RESPEC Hi-grade domains >= 0.100 >= 0.300 >= 0.700 >= 2.000 >= 3.000 >= 9.000 Gold Block Model (4229060N) Low-grade domains >= 0.001 >= 0.040 COORDINATE SYSTEM: UTM NAD 83 Zone 11 DATE: 27 January 2020

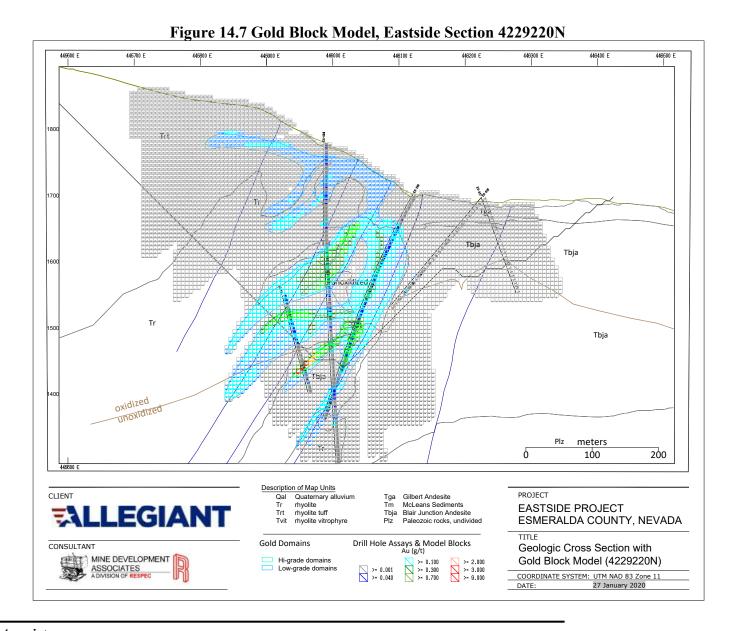
Figure 14.5 Gold Block Model, Eastside Section 4229060N



445700 E 446000 E 446100 E 446400 E 445600 E 446200 E 446500 E \$1,550 Pit Plz meters 100 200 446300 E 446500 E 446100 E Description of Map Units PROJECT Qal Quaternary alluvium Tga Gilbert Andesite rhyolite McLeans Sediments **FALLEGIANT** EASTSIDE PROJECT rhyolite tuff Tbja Blair Junction Andesite ESMERALDA COUNTY, NEVADA Tvit rhyolite vitrophyre Plz Paleozoic rocks, undivided Silver Domains Drill Hole Assays & Model Blocks Ag (g/t) CONSULTANT Geologic Cross Section with MINE DEVELOPMENT
ASSOCIATES
ADMISION OF RESPEC Silver Block Model (4229060N) COORDINATE SYSTEM: UTM NAD 83 Zone 11 27 January 2020

Figure 14.6 Silver Block Model, Eastside Section 4229060N







445700 E 446100 E 446400 E TH \$1,550 Pit  $\operatorname{\mathsf{Tr}}$ Tbja meters 200 100 Description of Map Units CLIENT PROJECT Qal Quaternary alluvium Tga Gilbert Andesite Tm McLeans Sediments EASTSIDE PROJECT **EXLLEGIANT** rhyolite tuff Tbja Blair Junction Andesite ESMERALDA COUNTY, NEVADA Tvit rhyolite vitrophyre Plz Paleozoic rocks, undivided TITLE Silver Domains Drill Hole Assays & Model Blocks CONSULTANT Geologic Cross Section with MINE DEVELOPMENT Silver Block Model (4229220N) ASSOCIATES A DIVISION OF RESPEC COORDINATE SYSTEM: UTM NAD 83 Zone 11 DATE: 27 January 2020

Figure 14.8 Silver Block Model, Eastside Section 4229220N



#### 14.9 Discussion of Eastside Area Resources

This updated resource estimate for Eastside has defined a dominantly rhyolite-hosted, epithermal, low-sulfidation, almost entirely oxidized precious-metal deposit extending greater than one kilometer in a north-south direction. The deposit as presently defined is 700m wide (east-west) and 500m in vertical extent. The deposit is open to the south, west and at depth.

The deposit shows significant vertical zonation with the better grades below about 1,700m asl. The complicated geometries are presently difficult to project and are likely due to multiple controls on mineralization. These controls are in part due to rhyolite plugs with variable and complex internal structures. Approximately 15% to 20% of the mineralized material is external to the rhyolite, depending on whether one considers tonnes, contained metal, or contained gold or silver. Just under 80% of the mineralized material is within what is modeled as oxidized rock.

A significant outcome of the work by Cordex and Allegiant has been the development of a good geologic model, which provided the basis of the current resource estimate and, just as importantly, can be used to guide future drilling at Eastside, and elsewhere in the district.

All of the Eastside resources are classified as Inferred, which is a reflection of the early stage of this project. It is expected that a majority of these Inferred resources would be upgraded to Indicated resources with continued exploration drilling. The work, sampling, data and geologic interpretations are sufficiently accurate to increase the classification to Indicated, with the exception of the silver assays obtained after November 2016, which have an insufficiently sensitive lower-detection limit.

The identification and recognition of controls of mineralization have not yet been fully determined. This is in part because the grades are low, much of the drilling is by RC methods, and the siting and type(s) of occurrence of the gold and silver are not well understood. Substantial drilling is required for verification of continuity of the highest-grade assays. On the positive side, the work done has shown a strong and very large system remaining open in three directions and with substantial potential to increase in size.

Metallurgical test work conducted to date is preliminary but is sufficiently consistent that the expectations are that the gold and silver will be recovered by cyanide leaching, though silver recoveries are very low. A relationship of recovery and geology has not yet been determined.

Many iterations were made at first defining the geology and later interpreting the gold and silver domains. Mr. Ristorcelli and Mr. Unger worked closely with the Cordex geologists while making these interpretations. The understanding of the deposit increased and maybe has become a bit conceptual in that in some areas with wider drill spacing, a little geologic license was taken to portray inferred geologic controls on mineralization.

MDA personnel ran a series of optimized pits using variable gold and silver prices, mining costs, processing costs and processing scenarios. It should be noted that most scenarios showed consistent increases in contained mineralized material up to the highest gold and silver prices used at \$2,000 and \$25.39 per ounce, respectively. There was also a moderate jump mineralized material at \$1,750 per ounce. It is important to note that mineralization continues below and beyond the reporting-pit limits.



#### 15.0 MINERAL RESERVE ESTIMATES

There are no estimated mineral reserves at this time.



#### 16.0 MINING METHODS



#### 17.0 RECOVERY METHODS



#### 18.0 PROJECT INFRASTRUCTURE



#### 19.0 MARKET STUDIES AND CONTRACTS



# 20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT



#### 21.0 ECONOMIC ANALYSIS



#### 22.0 ADJACENT PROPERTIES

No information on adjacent properties is reported.



#### 23.0 OTHER RELEVANT DATA AND INFORMATION

The authors are not aware of any other data or information relevant to the mineral resource estimate described in this report.



#### 24.0 INTERPRETATION AND CONCLUSIONS

The work done to date at the Eastside area of the project has provided reliable data on which to base resource estimates and future exploration. Mr. Ristorcelli worked with and reviewed the project data, including the Eastside drill-hole database and geologic interpretations, and visited the project site twice. Mr. Ristorcelli and Mr. Unger believe that the data provided by Columbus and Allegiant, as well as the geological interpretations Allegiant has derived from the data, are accurate and reasonably represent the geology at the Eastside project.

The mineralization at Eastside is best interpreted in the context of the volcanic-hosted, low-sulfidation type of epithermal model. Various vein textures, mineralization and alteration features at Eastside are typical of low-sulfidation epithermal gold-silver deposits world-wide. Moreover, surface exposures of acid-leached zones in proximity to the area of recent drilling suggest a shallow level of erosion. The mineralization is generally oxidized and there is an unexplained general spatial coincidence between the lower limits of gold and silver domains with the base of complete oxidation. The controls on the distribution of the higher-grade mineralization are not yet completely understood and in some cases difficult to project, but steeply-dipping structures including the margins of the rhyolite domes, and intrusive contacts within them, seem to be the most important.

The Eastside resources are classified as Inferred because there are some as-yet unexplained biases in assays of duplicate RC samples from 2015, and there are presently some speculative interpretations of the controls on mineralization. The resource model and estimate warrants a higher classification because of the effort put into exploration and modeling. Furthermore, some of the controls on mineralization are built on geologic inference. With further drilling, the majority of the Inferred gold and silver resources as modeled and estimated are expected to become classified as Indicated resources, even if found to be incorrect in detail. Drilling done since November 2016 did substantially support the 2016 global estimate orientation and geometry of modeled mineralization. However, because of the complicated geology, predicting locations of mineralization locally is difficult. More drilling is required to upgrade the classification to better than Inferred.

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 applied to the estimated mineral resources.

While there has been success in defining a substantial precious-metal deposit, what has been tested is likely only a small portion of what could exist at the Eastside and Castle project.



#### 25.0 RECOMMENDATIONS

The Eastside and Castle project is deserving of significant additional exploration and additional metallurgical testing. The recommended approach to project development for the Eastside area is two-phased. The first phase consists of sampling, geophysics and trace-element geochemistry followed up by a large exploration drill campaign. To accomplish the Phase I drilling, further regulatory permitting will be required to allow greater surface disturbance. If successful, a similarly large, if not larger, Phase II program would be required and would likely include some engineering.

#### 25.1 Eastside Area Phase I

The size of the mineralizing system at Eastside is very large. Even though a substantial resource has been defined, significantly more exploration including drilling is merited around and distal to the resource. In addition, data compilation and orientation work should begin in the Castle area. The cost estimate for Phase I for the Eastside Area is given in Table 25.1. Unit costs are derived from Allegiant's experience at Eastside. The following describes the Phase I recommended work program.

<u>Permitting</u>: Permitting is needed to expand the area of drilling, beyond that already drilled. Essentially all exploration drilling – not just expansion – is dependent upon additional permitting. Allegiant plans to begin the process to expand the area permitted for operations. Based on Allegiant's past experience at Eastside, this could take 18 months and reach \$500,000 in costs.

<u>Trace-Element Geochemistry:</u> MDA considers trace-element geochemistry a useful tool in targeting additional potential and to guide exploration internal and adjacent to the drilled area. At Eastside, the relationship between the trace elements and a known defined gold and silver deposit would be particularly useful for exploration elsewhere on the property. Already there are indications of at least antimony and possibly arsenic dispersed above and around the known mineralization, respectively. Analyzing for trace elements on alternating sections could cost about \$150,000.

Exploration and Expansion Drilling: Exploration drilling is that to be conducted (mostly) outside the existing permit area. Details of drill-hole locations will depend on access and additional surface disturbance, but up to 19,000m of RC drilling is recommended, of which 4,000m would be in an area with existing permits. In addition, core and RC pre-collared core holes (up to 7,000m) should be drilled deep into the system targeting potentially higher-grade structurally controlled zones of mineralization. Exploration RC drilling distal to the resource area is also warranted and road building is a significant cost (\$400,000) to this drilling.

Metallurgical Testing: Additional metallurgical testing should be conducted to confirm and optimize recoveries that have been proposed in this report. Those efforts should be concentrated on heap leaching, but since milling the high grades shows potentially better economic performance, some additional and more formal milling test work should be done. MDA expects these costs to be around \$150,000.

<u>Geophysics</u>: CSAMT and/or IP and magnetic surveys should be conducted over favorable bedrock areas and also over the pediment to the east. Expected cost is \$130,000.



<u>Geologic Studies and Reporting:</u> In addition to the above, general geologic studies and reporting of results from the work proposed are needed.

Table 25.1 Cost Estimate for the Phase I Eastside and Castle Recommended Program

Category	Qty		USD	Unit (	Cost
	Eastside				
Permitting			\$ 500,000		
Geochemical analyses	2,000	samples	\$ 44,000	\$ 22	/sample
Expansion drilling (RC and core)	3,000	meters	\$ 340,000	\$ 113	/m
Deep exploration drilling (core)	4,000	meters	\$ 800,000	\$ 200	/m
Exploration drilling	10,000	meters	\$ 700,000	\$ 70	/m
Exploration drilling road building			\$ 400,000		
Metallurgy			\$ 180,000		
Geophysics (Magnetics)			\$ 30,000		
Geophysics (CSAMT and/or IP)			\$ 100,000		
Reporting and geologic studies			\$ 250,000		
Contingency (rounded)	10%		\$ 330,000		
Sub-total for Eastside Area			\$ 3,674,000		
	Castle				
Data Compilation			\$ 25,000		
Geologic Mapping			\$ 10,000		
Ground magnetic survey			\$ 15,000		
CSAMT survey			\$ 25,000		
Contingency (rounded)	10%		\$ 10,000		
Sub-total for Castle Area			\$ 85,000		
Total (rounded to 100,000s)			\$ 3,800,000		

#### 25.2 Castle Area Phase I

Table 25.1 also has work recommended for the Castle area of the project. Most of that work is data compilation and background work to initiate exploration and determine the best approach. However, since a small historical resource exits, Phase II for Castle should consider updating the estimate and making it current. The following exploration activities are recommended for the Castle area of the project:

<u>Data Compilation</u>: A search for any and all historical data on the Castle area should be made. Any and all data should be digitized, validated and compiled into a digital database. It is impossible to define a cost or time needed for this task, because if no data is found, and there is some indication that this may be the case, then the cost will be close to nothing. On the other hand, if historical data are found for much of the exploration done, then the costs could be substantial. The estimated cost is \$25,000.

Geologic Mapping (focused on the Boss mine pit): Much of the Castle area is covered, but the pit and any outcrops should be mapped and incorporated into the project area mapping. MDA expects that the time needed for this would be about three weeks to produce a final map. The estimated cost is \$10,000.



<u>Geophysics</u>: A ground magnetic survey could provide valuable structural information for subsurface geology. The estimated cost is \$15,000. A CSAMT survey could also provide valuable structural information for subsurface geology. The estimated cost is \$25,000.

#### 25.3 Eastside Area Phase II

Upon success of any of the drilling proposed in Phase I, additional drilling should be conducted. MDA expects that Phase II drilling programs could be several times larger than what is proposed in Phase I.

#### 25.4 Castle Area Phase II

Drilling at Castle will be justified regardless of the outcome of the work in Phase I. However, no comprehensive drill plan can be designed prior to finding drill data, if possible, and integrating the mapping, geophysics and any other historical data that might be found. MDA assumes that any initial drill program would cost on the order of a million dollars and would be done mainly by RC drilling, but would include some core drilling.



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#### DATE AND SIGNATURE PAGE 27.0

December 30, 2019 Effective Date of report:

Completion Date of report: January 24, 2020

"Steven J. Ristorcelli, P. Geo., C.P.G."
Steven J. Ristorcelli, C.P.G. Date Signed:

January 24, 2020

Date Signed:

"Derick L. Unger, C.P.G."
Derick L. Unger, C.P.G. January 24, 2020



#### 28.0 CERTIFICATE OF QUALIFIED PERSONS

#### STEVEN J. RISTORCELLI, P. GEO.

I, Steven Ristorcelli, C. P. G., do hereby certify that I am currently employed as Principal Geologist by: Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502.

I am the author of the report entitled "Updated Resource Estimate and NI 43-101 Technical Report, Eastside and Castle Gold-Silver Project, Esmeralda County, Nevada" prepared for Allegiant Gold Ltd. with an Effective Date of December 30, 2019 and dated January 24, 2020. I take co-responsibility for all sections of the Technical Report subject to those issues discussed in Section 3.0.

I graduated with a Bachelor of Science degree in Geology from Colorado State University in 1977 and a Master of Science degree in Geology from the University of New Mexico in 1980. I am a Registered Professional Geologist in the states of California (#3964) and a Certified Professional Geologist (#10257) with the American Institute of Professional Geologists.

I have worked as a geologist continuously for over 40 years since graduation from undergraduate university. During that time I have been engaged in the exploration, definition, and modeling of dozens of epithermal gold-silver deposits in North America, Central America and South America, and have estimated the mineral resources for many such 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 fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

I visited the Eastside project on March 16, 2016, and again on May 5 and 6, 2016. I am co-responsible for all Sections of this Technical Report, subject to those issues discussed in Section 3.0.

I have had no prior involvement with the property and project, and I am independent of Allegiant Gold Ltd., Columbus (US Property Holding) Corporation and Cordilleran Exploration Company, LLC, and all their subsidiaries as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

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

Dated this 24th day of January, 2020

"Steven J. Ristorcelli"

Signature of Qualified Person Steven Ristorcelli



#### DERICK L. UNGER, C.P.G.

I, Derick Unger, C. P. G., do hereby certify that I am currently employed as Project Geologist by: Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502.

I am the author of the report entitled "Updated Resource Estimate and NI 43-101 Technical Report, Eastside and Castle Gold-Silver Project, Esmeralda County, Nevada" prepared for Allegiant Gold Ltd. with an Effective Date of December 30, 2019 and dated January 24, 2020. I take co-responsibility for all sections of the Technical Report subject to those issues discussed in Section 3.0.

I graduated with a Bachelor of Science degree in Geology from Indiana State University in 2005 and a Master of Science degree in Geology from Auburn University in 2008. I am a Certified Professional Geologist (#11927) with the American Institute of Professional Geologists.

I have worked as a geologist continuously since 2007. During that time, I have engaged in the exploration, definition, and modeling of precious and base-metal deposits in North America and have assisted with evaluations of mineral resources for many such 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 fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

I have not visited the Eastside project. I am co-responsible for all Sections of this Technical Report, subject to those issues discussed in Section 3.0.

I have had no prior involvement with the property and project, and I am independent of Allegiant Gold Ltd., Columbus (US Property Holding) Corporation and Cordilleran Exploration Company, LLC, and all their subsidiaries as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

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

Dated this 24th day of January, 2020

"Derick L. Unger"

Signature of Qualified Person

DERICK UNGER

## APPENDIX A

LISTING OF UNPATENTED FEDERAL LODE MINING CLAIMS

### 695 unpatented lode mining claims

OWNER/LESSOR: Allegiant Gold (U.S.) Corporation c/o Cordex Exploration Co. 573 East 2<sup>nd</sup> Street Reno, Nevada 89502

Claim Name	BLM Seri	al Number		County Document	Book :	#	Page #	
ES 33	NMC#	1095193	Doc#	190071	Book	322	Page	487
ES 34	NMC#	1095194	Doc#	190072	Book	322	Page	488
ES 35	NMC#	1095195	Doc#	190073	Book	322	Page	489
ES 40	NMC#	1095200	Doc#	190078	Book	322	Page	494
ES 41	NMC#	1095201	Doc#	190079	Book	322	Page	495
ES 42	NMC#	1095202	Doc#	190080	Book	322	Page	496
ES 43	NMC#	1095203	Doc#	190081	Book	322	Page	497
ES 44	NMC#	1095204	Doc#	190082	Book	322	Page	498
ES 45	NMC#	1095205	Doc#	190083	Book	322	Page	499
ES 48	NMC#	1095208	Doc#	190086	Book	322	Page	502
ES 49	NMC#	1095209	Doc#	190087	Book	322	Page	503
ES 50	NMC#	1095210	Doc#	190088	Book	322	Page	504
ES 51	NMC#	1095211	Doc#	190089	Book	322	Page	505
ES 52	NMC#	1095212	Doc#	190090	Book	322	Page	506
ES 53	NMC#	1095213	Doc#	190091	Book	322	Page	507
ES 66	NMC#	1095226	Doc#	190104	Book	322	Page	520
ES 67	NMC#	1095227	Doc#	190105	Book	322	Page	521
ES 68	NMC#	1095228	Doc#	190106	Book	322	Page	522
ES 69	NMC#	1095229	Doc#	190107	Book	322	Page	523
ES 70	NMC#	1095230	Doc#	190108	Book	322	Page	524
ES 71	NMC#	1095231	Doc#	190109	Book	322	Page	525
ES 139	NMC#	1095299	Doc#	190177	Book	322	Page	593
ES 140	NMC#	1095300	Doc#	190178	Book	322	Page	594
ES 141	NMC#	1095301	Doc#	190179	Book	322	Page	595
ES 142	NMC#	1095302	Doc#	190180	Book	322	Page	596
ES 143	NMC#	1095303	Doc#	190181	Book	322	Page	597
ES 144	NMC#	1095304	Doc#	190182	Book	322	Page	598
ES 145	NMC#	1099129	Doc#	190720	Book	324	Page	81
ES 146	NMC#	1099130	Doc#	190721	Book	324	Page	82
ES 147	NMC#	1099131	Doc#	190722	Book	324	Page	83
ES 148	NMC#	1099132	Doc#	190723	Book	324	Page	84
ES 149	NMC#	1099133	Doc#	190724	Book	324	Page	85
ES 150	NMC#	1099134	Doc#	190725	Book	324	Page	86
ES 151	NMC#	1099135	Doc#	190726	Book	324	Page	87
ES 152	NMC#	1099136	Doc#	190727	Book	324	Page	88
ES 153	NMC#	1099137	Doc#	190728	Book	324	Page	89
ES 154	NMC#	1099138	Doc#	190729	Book	324	Page	90
ES 155	NMC#	1099139	Doc#	190730	Book	324	Page	91
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ES 158	NMC#	1099142	Doc#	190733	Book	324	Page	94
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ES 160	NMC#	1099144	Doc#	190735	Book	324	Page	96
ES 161	NMC#	1099145	Doc#	190736	Book	324	Page	97
ES 162	NMC#	1099146	Doc#	190737	Book	324	Page	98
ES 163	NMC#	1099147	Doc#	190738	Book	324	Page	99
ES 164	NMC#	1099148	Doc#	190739	Book	324	Page	100
ES 165	NMC#	1099149	Doc#	190740	Book	324	Page	101
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ES 168	NMC#	1099152	Doc#	190743	Book	324	Page	104
ES 169	NMC#	1099153	Doc#	190744	Book	324	Page	105
ES 170	NMC#	1099154	Doc#	190745	Book	324	Page	106
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ES 172	NMC#	1099156	Doc#	190747	Book	324	Page	108
ES 173	NMC#	1099157	Doc#	190748	Book	324	Page	109
ES 174	NMC#	1099158	Doc#	190749	Book	324	Page	110
ES 175	NMC#	1099159	Doc#	190750	Book	324	Page	111
ES 176	NMC#	1099160	Doc#	190751	Book	324	Page	112
ES 177	NMC#	1099161	Doc#	190752	Book	324	Page	113
ES 178	NMC#	1099162	Doc#	190753	Book	324	Page	114
ES 179	NMC#	1099163	Doc#	190754	Book	324	Page	115
ES 180	NMC#	1099164	Doc#	190755	Book	324	Page	116
ES 181	NMC#	1099165	Doc#	190756	Book	324	Page	117
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ES 184	NMC#	1099168	Doc#	190759	Book	324	Page	120
ES 185	NMC#	1099169	Doc#	190760	Book	324	Page	121
ES 186	NMC#	1099170	Doc#	190761	Book	324	Page	122
ES 187	NMC#	1099171	Doc#	190762	Book	324	Page	123
ES 188	NMC#	1099172	Doc#	190763	Book	324	Page	124
ES 189	NMC#	1099173	Doc#	190764	Book	324	Page	125
ES 190	NMC#	1099174	Doc#	190765	Book	324	Page	126
ES 191	NMC#	1099175	Doc#	190766	Book	324	Page	127
ES 192	NMC#	1099176	Doc#	190767	Book	324	Page	128
ES 193	NMC#	1099177	Doc#	190768	Book	324	Page	129
ES 194	NMC#	1099178	Doc#	190769	Book	324	Page	130
ES 195	NMC#	1099179	Doc#	190770	Book	324	Page	131
ES 196	NMC#	1099180	Doc#	190771	Book	324	Page	132
ES 197	NMC#	1099181	Doc#	190772	Book	324	Page	133
ES 198	NMC#	1099182	Doc#	190773	Book	324	Page	134
ES 199	NMC#	1099183	Doc#	190774	Book	324	Page	135
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ES 202	NMC#	1099186	Doc#	190777	Book	324	Page	138
ES 203 (amd)	NMC#	1099187	Doc#	191618	Book	326	Page	90
ES 204	NMC#	1099188	Doc#	190779	Book	324	Page	140
ES 205	NMC#	1099189	Doc#	190780	Book	324	Page	141
ES 206	NMC#	1099190	Doc#	190781	Book	324	Page	142
ES 207	NMC#	1099191	Doc#	190782	Book	324	Page	143
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ES 216	NMC#	1099200	Doc#	190791	Book	324	Page	152
ES 217	NMC#	1099201	Doc#	190792	Book	324	Page	153
ES 218	NMC#	1099202	Doc#	190793	Book	324	Page	154
ES 219	NMC#	1099203	Doc#	190794	Book	324	Page	155
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ES 224	NMC#	1099208	Doc#	190799	Book	324	Page	160
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ES 226	NMC#	1099210	Doc#	190801	Book	324	Page	162
ES 227	NMC#	1099211	Doc#	190802	Book	324	Page	163
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ES 229	NMC#	1099213	Doc#	190804	Book	324	Page	165
ES 230	NMC#	1099214	Doc#	190805	Book	324	Page	166
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ES 236	NMC#	1099220	Doc#	190811	Book	324	Page	172
ES 237	NMC#	1099221	Doc#	190812	Book	324	Page	173
ES 238	NMC#	1099222	Doc#	190813	Book	324	Page	174
ES 239	NMC#	1099223	Doc#	190814	Book	324	Page	175
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ES 243	NMC#	1099227	Doc#	190818	Book	324	Page	179
ES 244	NMC#	1100604	Doc#	191066	Book	325	Page	9
ES 245	NMC#	1100605	Doc#	191067	Book	325	Page	10
ES 246	NMC#	1100606	Doc#	191068	Book	325	Page	11
ES 247	NMC#	1100607	Doc#	191069	Book	325	Page	12
ES 248	NMC#	1100608	Doc#	191070	Book	325	Page	13
ES 249	NMC#	1100609	Doc#	191071	Book	325	Page	14
ES 250	NMC#	1100610	Doc#	191072	Book	325	Page	15
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ES 252	NMC#	1100612	Doc#	191074	Book	325	Page	17
ES 253	NMC#	1100613	Doc#	191075	Book	325	Page	18
ES 256	NMC#	1100616	Doc#	191078	Book	325	Page	21
ES 257	NMC#	1100617	Doc#	191079	Book	325	Page	22
ES 258	NMC#	1100618	Doc#	191080	Book	325	Page	23
ES 259	NMC#	1100619	Doc#	191081	Book	325	Page	24
ES 260	NMC#	1100620	Doc#	191082	Book	325	Page	25
ES 261	NMC#	1100621	Doc#	191083	Book	325	Page	26
ES 262	NMC#	1100622	Doc#	191084	Book	325	Page	27
ES 263	NMC#	1100623	Doc#	191085	Book	325	Page	28
ES 264	NMC#	1100624	Doc#	191086	Book	325	Page	29
ES 265	NMC#	1100625	Doc#	191087	Book	325	Page	30
ES 266	NMC#	1100626	Doc#	191088	Book	325	Page	31
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ES 268	NMC#	1100628	Doc#	191090	Book	325	Page	33
ES 269	NMC#	1100629	Doc#	191091	Book	325	Page	34
ES 270	NMC#	1100630	Doc#	191092	Book	325	Page	35
ES 271	NMC#	1100631	Doc#	191093	Book	325	Page	36
ES 272	NMC#	1100632	Doc#	191094	Book	325	Page	37
ES 273	NMC#	1100633	Doc#	191095	Book	325	Page	38
ES 274	NMC#	1100634	Doc#	191096	Book	325	Page	39
ES 275	NMC#	1100635	Doc#	191097	Book	325	Page	40
ES 276	NMC#	1100636	Doc#	191098	Book	325	Page	41
ES 277	NMC#	1100637	Doc#	191099	Book	325	Page	42
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ES 281	NMC#	1100641	Doc#	191103	Book	325	Page	46
ES 282	NMC#	1100642	Doc#	191104	Book	325	Page	47
ES 283	NMC#	1100643	Doc#	191105	Book	325	Page	48
ES 284	NMC#	1100644	Doc#	191106	Book	325	Page	49
ES 285	NMC#	1100645	Doc#	191107	Book	325	Page	50
ES 286	NMC#	1100646	Doc#	191108	Book	325	Page	51
ES 287	NMC#	1100647	Doc#	191109	Book	325	Page	52
ES 288	NMC#	1100648	Doc#	191110	Book	325	Page	53
ES 289	NMC#	1100649	Doc#	191111	Book	325	Page	54
ES 290	NMC#	1100650	Doc#	191112	Book	325	Page	55
ES 291	NMC#	1100651	Doc#	191113	Book	325	Page	56
ES 292	NMC#	1100652	Doc#	191114	Book	325	Page	57
ES 293	NMC#	1100653	Doc#	191115	Book	325	Page	58
ES 294	NMC#	1100654	Doc#	191116	Book	325	Page	59
ES 295	NMC#	1100655	Doc#	191117	Book	325	Page	60
ES 296	NMC#	1100656	Doc#	191118	Book	325	Page	61
ES 297	NMC#	1100657	Doc#	191119	Book	325	Page	62
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ES 299	NMC#	1100659	Doc#	191121	Book	325	Page	64
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ES 306	NMC#	1100666	Doc#	191128	Book	325	Page	71
ES 307	NMC#	1100667	Doc#	191129	Book	325	Page	72
ES 308	NMC#	1100668	Doc#	191130	Book	325	Page	73
ES 309	NMC#	1100669	Doc#	191131	Book	325	Page	74
ES 310	NMC#	1100670	Doc#	191132	Book	325	Page	75
ES 311	NMC#	1100671	Doc#	191133	Book	325	Page	76
ES 312	NMC#	1100672	Doc#	191134	Book	325	Page	77
ES 313	NMC#	1100673	Doc#	191135	Book	325	Page	78
ES 314	NMC#	1100674	Doc#	191136	Book	325	Page	79
ES 315	NMC#	1100675	Doc#	191137	Book	325	Page	80
ES 316	NMC#	1100676	Doc#	191138	Book	325	Page	81
ES 317	NMC#	1100677	Doc#	191139	Book	325	Page	82
ES 318	NMC#	1100678	Doc#	191140	Book	325	Page	83
ES 319	NMC#	1100679	Doc#	191141	Book	325	Page	84
ES 320	NMC#	1100680	Doc#	191142	Book	325	Page	85
ES 321	NMC#	1100681	Doc#	191143	Book	325	Page	86
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ES 323	NMC#	1100683	Doc#	191145	Book	325	Page	88
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ES 327	NMC#	1100687	Doc#	191149	Book	325	Page	92
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ES 333	NMC#	1100693	Doc#	191157	Book	325	Page	98
ES 334	NMC#	1100694	Doc#	191158	Book	325	Page	99
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ES 341	NMC#	1102417	Doc#	191546	Book	325	Page	554
ES 342	NMC#	1102418	Doc#	191547	Book	325	Page	555
ESW 1	NMC#	1100601	Doc#	191062	Book	325	Page	6
ESW 2	NMC#	1100602	Doc#	191063	Book	325	Page	7
ESW 3	NMC#	1100603	Doc#	191064	Book	325	Page	8
DP 1	NMC#	1099228	Doc#	190820	Book	324	Page	180
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DP 46	NMC#	1101018	Doc#	191210	Book	325	Page	208
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DP 56	NMC#	1101028	Doc#	191220	Book	325	Page	218
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DP 78	NMC#	1101050	Doc#	191242	Book	325	Page	240
DP 79	NMC#	1101051	Doc#	191243	Book	325	Page	241
DP 80	NMC#	1101052	Doc#	191244	Book	325	Page	242
DP 81	NMC#	1101053	Doc#	191245	Book	325	Page	243
DP 82	NMC#	1101054	Doc#	191246	Book	325	Page	244
DP 83	NMC#	1101055	Doc#	191247	Book	325	Page	245
DP 84	NMC#	1101056	Doc#	191248	Book	325	Page	246
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DP 87	NMC#	1101059	Doc#	191251	Book	325	Page	249
DP 88	NMC#	1101060	Doc#	191252	Book	325	Page	250
DP 89	NMC#	1101061	Doc#	191253	Book	325	Page	251
DP 90	NMC#	1101062	Doc#	191254	Book	325	Page	252
DP 91	NMC#	1101063	Doc#	191255	Book	325	Page	253
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DP 98	NMC#	1101070	Doc#	191262	Book	325	Page	260
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DP 101	NMC#	1101073	Doc#	191265	Book	325	Page	263
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DP 111	NMC#	1101083	Doc#	191275	Book	325	Page	273
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DP 118	NMC#	1101090	Doc#	191282	Book	325	Page	280
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DP 121	NMC#	1101093	Doc#	191285	Book	325	Page	283
DP 122	NMC#	1101094	Doc#	191286	Book	325	Page	284
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DP 124	NMC#	1101096	Doc#	191288	Book	325	Page	286
DP 125	NMC#	1101097	Doc#	191289	Book	325	Page	287
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DP 128	NMC#	1101100	Doc#	191292	Book	325	Page	290
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DP 190	NMC#	1101162	Doc#	191354	Book	325	Page	352
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DP 211	NMC#	1139131	Doc#	206815		
DP 212	NMC#	1139132	Doc#	206816		
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DP 215						
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PF 51	NMC#	1110438	Doc#	193648		NA
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PF 106	NMC#	1110493	Doc#	193703		NA
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PF 110	NMC#	1110497	Doc#	193707		NA
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PF 113	NMC#	1110500	Doc#	193710		NA
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CBR 62	NMC#	1096631	Doc#	190300		
CBR 63	NMC#	1096632	Doc#	190301		
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CBR 91	NMC#	1096660	Doc#	190329		
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CBR 112	NMC#	1096681	Doc#	190350		
CBR 113	NMC#	1096682	Doc#	190351		
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## 175 unpatented lode mining claims

OWNER/LESSOR: McIntosh Exploration LLC

Larry L. McIntosh, Manager

1955 Stephen Ct. Gardnerville, NV 89410

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