

# MINE DEVELOPMENT ASSOCIATES

# MINE ENGINEERING SERVICES

# TECHNICAL REPORT AND RESOURCE ESTIMATE, DELAMAR GOLD – SILVER PROJECT, Owyhee County, Idaho, USA



Prepared for
Integra Resources Corp.
365 Bay Street, Suite 400
Toronto, ON, Canada M5H 2V1

Effective Date: October 1, 2017 Report Date: November 1, 2017

Michael M. Gustin, C.P.G. Steven I. Weiss, C.P.G.

775-856-5700

210 South Rock Blvd. Reno, Nevada 89502 FAX: 775-856-6053



# CONTENTS

1.0	SUM	IMARY	1
	1.1	Property Description and Ownership	1
	1.2	Exploration and Mining History	
	1.3	Modern Historical Gold and Silver Processing and Recoveries	
	1.4	Geology and Mineralization	
	1.5	Drilling, Database and Data Verification	
	1.6	Estimated Mineral Resources	
	1.7	Conclusions and Recommendations	6
2.0	INTE	RODUCTION AND TERMS OF REFERENCE	7
	2.1	Project Scope and Terms of Reference	7
	2.2	Frequently Used Acronyms, Abbreviations, Definitions, and Units of Measure	8
3.0	REL	IANCE ON OTHER EXPERTS	10
4.0	PRO	PERTY DESCRIPTION AND LOCATION	11
	4.1	Location	11
	4.2	Land Area	12
	4.3	Agreements and Encumbrances	15
	4.4	Environmental Liabilities and Permitting	16
5.0	ACC	ESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND	
	PHY	SIOGRAPHY	18
	5.1	Access to Property	18
	5.2	Physiography	18
	5.3	Climate	18
	5.4	Local Resources and Infrastructure	19
6.0	HIST	TORY	20
	6.1	Carson Mining District Discovery and Early Mining: 1863 – 1942	20
	6.2	Historical Exploration Since the 1960s	22
	6.3	Modern Historical Mining: 1977 through 1998	24
	6.4	Historical Resource and Reserve Estimations	25
7.0	GEO	LOGIC SETTING AND MINERALIZATION	28
	7.1	Regional Geologic Setting	28
	7.2	Owyhee Mountains and District Geology	29
	7.3	DeLamar Project Area Geology	30
	7.4	Mineralization	
		7.4.1 Fissure Vein Mineralization	34
		7.4.2 Bulk-Mineable Mineralization	
	7.5	DeLamar Project Mineralization	36
8.0	DEP	OSIT TYPE	41



9.0	EXPI	LORATION	43
10.0	DRIL	LING	44
	10.1	Summary	44
	10.2	Historical Drilling – DeLamar Area	46
		10.2.1 Continental 1966	
		10.2.2 Earth Resources 1969 - 1970	46
		10.2.3 Sidney Mining 1972	
		10.2.4 Earth Resources 1970? – 1983	
		10.2.5 NERCO 1985 - 1992	47
		10.2.6 Kinross 1993 - 1998	
	10.3	Drill-Hole Collar Surveys	47
	10.4	Down-Hole Surveys	
	10.5	Down-Hole Contamination	
	10.6	Summary Statement	
11.0	САМ	PLE PREPARATION, ANALYSIS, AND SECURITY	40
11.0	11.1	Sample Preparation and Security	
	11.1	Sample Analysis – Prior to Commercial Open-Pit Mining Operations	
	11.2	1 7	
	11.3	Sample Analysis – During Commercial Open-Pit Mining Operations	
		± •	
	11.5	Quality Assurance / Quality Control Programs	
	11.6	Summary Statement	31
12.0	DAT	A VERIFICATION	
	12.1	DeLamar Area Drill-Hole Data Verification	
		12.1.1 Collar and Down-Hole Survey Data	52
		12.1.2 Assay Data	
	12.2	Quality Assurance/Quality Control Programs	53
	12.3	Site Inspection	
	12.4	Independent Verification of Mineralization	
	12.5	Summary Statement	53
13.0	MINI	ERAL PROCESSING AND METALLURGICAL TESTING	54
	13.1	DeLamar Area Mill Production 1977 - 1992	
	13.2	Cyanide Heap-Leach Production 1987 - 1990	
	13.3	1970s Mineralogy from Metallurgical Studies	
	13.4	1970s Bench-Scale Testwork	
	13.5	1980s Sullivan Gulch Testing for NERCO	59
	13.6	Summary Statement	
14.0	MINI	ERAL RESOURCE ESTIMATES	<i>د</i> 1
14.0	14.1	Introduction	
	14.1	DeLamar Area Data	
	14.2		
		14.2.1 Drill-Hole Database	
		14.2.2 Topography	64



	14.2.3 Historical Underground Workings	64
	14.3 Deposit Geology Pertinent to Resource Modeling	
	14.4 Water Table and Oxidation Modeling	65
	14.5 Density Modeling	65
	14.6 Gold and Silver Modeling	
	14.6.1 Mineral Domains	66
	14.6.2 Assay Coding, Capping, and Compositing	74
	14.6.3 Block Model Coding	75
	14.6.4 Grade Interpolation	76
	14.6.1 Model Checks	77
	14.7 DeLamar Mineral Resources	77
	14.8 Discussion of Resource Modeling	86
15.0	MINERAL RESERVE ESTIMATES	88
	A D A A CENTE DD O DED THE	0.0
16.0	ADJACENT PROPERTIES	89
17.0	OTHER RELEVANT DATA AND INFORMATION	90
17.0	17.1 Geology and Mineralization	
	17.2 1980s Florida Mountain Metallurgical Testing Potentially Pertinent to DeLai	
	17.2 17003 Fromda Wountain Wetandrgical Testing Fotendary Fertilent to Debai	mai i roject)+
18.0	INTERPRETATION AND CONCLUSIONS	96
19.0	RECOMMENDATIONS	98
20.0	REFERENCES	100
21.0	DATE AND SIGNATURE PAGE	102
21.0	DATE AND SIGNATURE FAGE	103
22.0	CERTIFICATE OF QUALIFIED PERSONS	104
0	CLICITE OF VOILER INDICATION NO.	1 0 1



TABLES		
Table 1.1	DeLamar Project Gold and Silver Resources	5
Table 1.2	Summary of Resource Optimized-Pit Parameters	
Table 1.3	Summary of Estimated Costs for Recommended Exploration	6
Table 4.1	Summary of Estimated Land Holding Costs for the DeLamar Property	12
Table 4.2	Summary of Agreements and Encumbrances	
Table 6.1	DeLamar Mine Gold and Silver Production 1977 – 1992	25
Table 6.2	Historical Mineral Resource and Reserve Estimates	27
Table 7.1	Summary of Volcanic Rock Units in the Vicinity of the DeLamar Mine	31
Table 10.1	Summary of Historical Drilling, DeLamar Area	44
Table 13.1	1987 – 1990 Heap Leach Summary	56
Table 13.2	Composite Tests at Hazen, 1971	58
Table 13.3	1974 Hazen Flotation and Leach, North DeLamar Composite	58
Table 13.4	Gravity, Flotation and Cyanide Leach Tests, Sullivan Gulch Drill Samples	59
Table 14.1	Approximate Grade Ranges of Gold Domains	66
Table 14.2	Number of Gold and Silver Assay Caps by Domain	74
Table 14.3	Descriptive Statistics of Coded Gold Assays	74
Table 14.4	Descriptive Statistics of Coded Silver Assays	75
Table 14.5	Descriptive Statistics of Gold Composites	75
Table 14.6	Descriptive Statistics of Silver Composites	75
Table 14.7	Summary of DeLamar Estimation Parameters	76
Table 14.8	Summary of Pit-Optimization Parameters	78
Table 14.9	DeLamar Project Gold and Silver Resources	78
Table 14.10	DeLamar In-Pit Mineralization at Various Cutoffs	86
Table 17.1	Empire and Banner Patented Mining Claims	92
Table 17.2	NERCO Florida Mountain Column-Leach Tests	
Table 17.3	Other NERCO Florida Mountain Column-Leach Tests	95
Table 19.1	Cost Estimate for the Recommended Program	98



FIGURES		
Figure 4.1	Location Map, DeLamar Gold – Silver Project	11
Figure 4.2	Property Map for the DeLamar Project	14
Figure 5.1	Access Map for the DeLamar Project	18
Figure 6.1	Estimated Annual Production Value, Silver City (Carson) Mining District 1863-1942	2 21
Figure 6.2	Aerial View of Exploration and Mining Areas at DeLamar Since 1969	
Figure 7.1	Shade Relief Map with Regional Setting of the Owyhee Mountains	28
Figure 7.2	Geologic Map of the Central Owyhee Mountains	
Figure 7.3	Land Position Map Showing Mineralized Zones	32
Figure 7.4	Generalized Geologic Map and Cross Sections of the DeLamar area	33
Figure 7.5	Volcano-Tectonic Setting of the DeLamar area	
Figure 7.6	Veins of the Historic De Lamar Mine, Elevation 6,240 Feet	37
Figure 8.1	Schematic Model of a Low-Sulfidation Epithermal Mineralizing System	41
Figure 10.1	Map of DeLamar Historical Drill Holes	
Figure 13.1	DeLamar Mine Process Flowsheet, 1993	55
Figure 14.1	Cross Section 600 NW Showing Gold Domains for Sullivan Gulch	68
Figure 14.2	Cross Section 600 NW Showing Silver Domains for Sullivan Gulch	
Figure 14.3	Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar	
	Gold Domains	70
Figure 14.4	Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar	
_	Silver Domains	71
Figure 14.5	Cross Section 5000 NW Showing Glen Silver Gold Domains	72
Figure 14.6	Cross Section 5000 NW Showing Glen Silver Silver Domains	73
Figure 14.7	Cross Section 600 NW Showing Sullivan Gulch Block-Model Gold Grades	80
Figure 14.8	Cross Section 600 NW Showing Sullivan Gulch Block-Model Silver Grades	81
Figure 14.9	Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Block-Mo	odel
	Gold Grades	
Figure 14.10	Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Block-Mo	odel
	Silver Grades	83
Figure 14.11	Cross Section 5000 NW Showing Glen Silver Block-Model Gold Grades	84
Figure 14.12	Cross Section 5000 NW Showing Glen Silver Block-Model Silver Grades	85
Figure 17.1	Map of Empire and Banner Claims	
Figure 17.2	Aerial View of the Florida Mountain (Stone Cabin Mine) Area	94

# APPENDICES

Appendix A Listing of Unpatented and Patented Claims and Leased Land

Frontispiece: view looking northwest to the partly back-filled Sommercamp pit and Sommercamp highwall; top of the north highwall of the Glen Silver pit is barely visible to the left of the trees above the Sommercamp highwall.



# **MINE DEVELOPMENT ASSOCIATES**

# MINE ENGINEERING SERVICES

#### 1.0 SUMMARY

Mine Development Associates ("MDA") has prepared this technical report on the DeLamar gold – silver project, located in Owyhee County, Idaho, at the request of Integra Resources Corp. ("Integra"), a Canadian company formerly known as Mag Copper Ltd. Integra has entered into a purchase agreement with a subsidiary of Kinross Gold Corporation ("Kinross") to acquire 100% of Kinross' interest in the DeLamar gold – silver project. Integra is listed on the Canadian Securities Exchange (CSE: ITR) and plans to be listed on the TSX Venture Exchange.

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 amended. The DeLamar project encompasses the DeLamar mine area, which includes historical underground mines that operated in the late 1800s and early 1900s as well as late 20<sup>th</sup> century open pits and surrounding areas in the general vicinity of De Lamar Mountain. The DeLamar property position extends east to the margins of a group of mineral claims outside of the project, referred to as the Florida Mountain claims in this report, that include historical underground and open-pit mining activity.

This report has been prepared under the supervision of Michael M. Gustin, C.P.G. and Senior Geologist for MDA, and Steven I. Weiss, C.P.G. and Senior Associate Geologist for MDA. Mr. Gustin and Mr. Weiss are Qualified Persons under NI 43-101 and have no affiliation with Integra or Kinross except that of independent consultant/client relationships. Mr. Weiss visited the project site on August 1-3, 2017.

The effective date of this technical report is October 1, 2017.

## 1.1 Property Description and Ownership

The DeLamar property consists of 287 unpatented lode, placer, and millsite claims, and 13 tax parcels comprised of patented mining claims, as well as certain leasehold and easement interests, that cover approximately 2,758 hectares in southwestern Idaho, approximately 80 kilometers southwest of Boise. The property is approximately centered at 43°00′48″N, 116°47′35″W, within portions of the historical Carson (Silver City) mining district, and includes the formerly producing DeLamar mine last operated by Kinross. The total annual land-holding costs are estimated to be \$106,019. All mineral titles and permits are held by Kinross DeLamar Mining Company ("DeLamarCo"), an indirect, wholly-owned subsidiary of Kinross. Integra has entered into a Stock Purchase Agreement with Kinross to acquire DelamarCo, and thereby acquire 100% of the DeLamar project.

775-856-5700

210 South Rock Blvd. Reno, Nevada 89502 FAX: 775-856-6053



A 2.0% net smelter returns royalty ("NSR") is payable to a predecessor owner of 101 of the unpatented claims. There are also four lease agreements covering five of the patented claims that include NSR obligations of 2.5% to 5.0%. Kinross has retained a 2.5% NSR royalty that applies to those portions of the DeLamar claims that are unencumbered by the royalties outlined above. The Kinross royalty may be reduced to 1.0% upon Kinross receiving total royalty payments of CDN\$10,000,000. The property includes 396 acres leased from the State of Idaho, and this lease is subject to a 5.0% production royalty of gross receipts plus annual lease fees of \$1,396.

The DeLamar open-pit mine areas have been in closure since 2003. Even though a substantial amount of reclamation and closure work has been completed at the site, there remain ongoing water-management activities and monitoring and reporting. A reclamation bond of \$2,888,929 remains with the Idaho Department of Lands ("IDL").

Integra has also entered into a letter of intent with two arm's length companies to acquire several mineral claims at Florida Mountain, an area of mineralization proximate to the DeLamar property that has been subject to historic mining activity. For further information refer to Section 17.0.

# 1.2 Exploration and Mining History

Mining activity began in the DeLamar project area when placer gold deposits were discovered in 1863 in Jordan Creek, just upstream from what later became the town site of De Lamar. During the summer of 1863, the first silver-gold lodes were discovered in quartz veins at War Eagle Mountain, resulting in the initial settlement of Silver City. Between 1876 and 1888, significant silver-gold veins were discovered and developed in the district, including underground mines at De Lamar Mountain. The De Lamar mine is believed to have produced approximately 400,000 ounces of gold and 5.9 million ounces of silver from a minimum of about 726,000 tonnes milled from 1891 through 1913. The mines in the district were closed in 1914 and very little production took place until the 1930s, when gold and silver prices increased. Placer gold was recovered from Jordan Creek from 1934 to 1940, and in 1938 a 181 tonne-per-day flotation mill was constructed to process dumps from the De Lamar mine. The flotation mill reportedly operated until the end of 1942. The De Lamar – Silver City area, which includes other mines in the district in addition to the De Lamar mine, is believed to have produced about 1 million ounces of gold and 25 million ounces of silver from 1863 through 1942.

During the late 1960s, the district began to undergo exploration for near-surface, bulk-mineable gold-silver deposits and in 1977 a joint venture operated by Earth Resources Corporation ("Earth Resources") began production from an open-pit, milling and cyanide tank-leach operation at De Lamar Mountain, known as the DeLamar mine. In 1981, Earth Resources was acquired by the Mid Atlantic Petroleum Company ("MAPCO"), and in 1984 and 1985 the NERCO Mineral Company ("NERCO") successively acquired the MAPCO interest and the entire joint venture to operate the DeLamar mine with 100% ownership. NERCO was purchased by the Kennecott Copper Corporation ("Kennecott") in 1993. Two months later in 1993, Kennecott sold its 100% interest in the DeLamar mine and property to Kinross, and Kinross operated the mine until 1999. Mine closure activities commenced in 2003; closure and reclamation were nearly completed by 2014, including removal of the mill and other mine buildings, and drainage and cover of the tailings facility.



Production totaled 421,300 ounces of gold and about 26 million ounces of silver from start-up in 1977 through to the end of 1992. This production came from a number of pits developed in the Glen Silver, Sommercamp (including Regan), and North DeLamar areas of the DeLamar project. In 1993, the DeLamar mine was operating at a mining rate of 27,216 tonnes per day, with a milling capacity of about 3,629 tonnes per day. Commencing in 1994 and through 1998, the facilities at the DeLamar mine processed a mixture of ore from the project area and ore sourced from claims outside the DeLamar property area, including the Florida Mountain claims.

# 1.3 Modern Historical Gold and Silver Processing and Recoveries

The most relevant mineral processing and recovery information is derived from the results of the DeLamar mine operation that began in 1977. Processing was done by crushing, grinding, and tank leaching with cyanide, followed by precipitation with zinc dust and in-house smelting of the precipitate to produce silver-gold doré. Records show that from 1977 through 1992, the mill processed 11.686 million tonnes of ore with average head grades of 1.17 grams Au/tonne and 87.1 grams Ag/tonne. During this 15-year period, the mill recovered, on average, 96.2% of the contained gold and 79.5% of the contained silver. The historical mill feed during this period included oxidized, partly oxidized, and unoxidized (sulfide) materials, but MDA has not found records that quantify the tonnages and grades of the different oxidation material types processed or their respective gold and silver recoveries.

## 1.4 Geology and Mineralization

The DeLamar project is situated in the Owyhee Mountains near the east margin of the mid-Miocene Columbia River – Steens flood-basalt province and the west margin of the Snake River Plain. The Owyhee Mountains comprise a major mid-Miocene eruptive center, generally composed of mid-Miocene basalt flows and younger, mid-Miocene rhyolite flows, domes, and tuffs, developed on an eroded surface of Late Cretaceous granitic rocks.

Earth Resources and NERCO geologists defined a local volcanic stratigraphic sequence in the DeLamar area. The mine area and mineralized zones are situated within an arcuate, nearly circular array of overlapping porphyritic and banded rhyolite flows and domes that overlie cogenetic, precursor pyroclastic deposits erupted as local tuff rings. The porphyritic and banded rhyolite flows and domes were interpreted to have been emplaced along a system of ring fractures developed above a shallow magma chamber that supplied the erupted rhyolites. This magma chamber was inferred to have been intruded within a northwest flexure of regional north-northwest trending Basin and Range faults.

Gold-silver mineralization has been recognized in two types of deposits: within 1) relatively continuous, quartz-filled fissure veins that were the focus of late 19<sup>th</sup> and early 20<sup>th</sup> century underground mining, and 2) broader, bulk-mineable zones of closely-spaced quartz veinlets and quartz-cemented hydrothermal breccia veinlets that are individually continuous for only a few feet laterally and vertically, and of mainly less than 1.3 centimeters in width. This second type of mineralization was mined in the open pits of the late 20<sup>th</sup> century DeLamar operation.

The fissure veins mainly strike north to northwest and are filled with quartz accompanied by variable amounts of adularia, sericite or clay,  $\pm$  minor calcite. Much of the quartz is massive, but some has drusy or comb structure and a lamellar variety is locally abundant. Vein widths vary from a few centimeters to



several meters, but persist laterally for as much as several hundreds of meters. Principal silver and gold minerals are naumannite, aguilarite, argentite, ruby silver, native gold and electrum, native silver, cerargyrite, and acanthite. Variable amounts of pyrite and marcasite, and minor chalcopyrite, sphalerite, and galena occur in some veins.

The bulk mineable type of mineralization has been delineated in four broad, lower-grade zones, two of which overlap and are centered on fissure veins. This type of mineralization has been described as zones of closely spaced veinlets and fracture fillings in porphyritic rhyolite. Most of the veinlets are less than 5 mm in width and have short lengths that are laterally and vertically discontinuous. Small veins can form pods or irregular zones up to 1- to 2-centimeters wide that persist for several centimeters before pinching down to more restricted widths. In highly silicified zones, porphyritic rhyolite is commonly permeated by anastomosing microveinlets typically less than 0.5-millimeters wide. Vein gangue minerals consist mainly of quartz, with minor amounts of adularia. Naumannite, acanthite and acanthite-aguilarite solid solution are the principal silver minerals, with lesser amounts of argentopyrite, Se-bearing pyrargyrite, Se-bearing polybasite, cerargyrite, Se-bearing stephanite, native silver, and native gold. Minor Se-bearing billingsleyite, pyrostilpnite, and Se-bearing pearceite have also been reported. Ore minerals are generally very fine grained.

In the flow banded rhyolite, scattered zones of mineralized breccia occur most frequently near the base of the unit. These breccias consist of close-packed angular fragments of flow-banded rhyolite in a chalcedonic matrix and crosscut flow layering.

The gold and silver mineralization at the DeLamar project is best interpreted in the context of the volcanic-hosted, low-sulfidation type of epithermal model. Various vein textures, mineralization, and alteration features, and the low contents of base metals in the district, are typical of low-sulfidation epithermal deposits world-wide.

#### 1.5 Drilling, Database and Data Verification

As of the effective date of this report, MDA is aware of a total of 1,547 holes drilled in the DeLamar area for a total of 143,662 meters, including the Milestone prospect that lies about 1 kilometer northwest of the Glen Silver zone. Nearly all of this drilling was done using conventional rotary and reverse-circulation rotary ("RC") methods from 1966 to 1998. Approximately 72% of the drilling was vertical, and none of the conventional holes were angled. A total of 60 holes were drilled using diamond-core ("core") methods for a total of 4,886 meters, or 3.4% of the overall meterage drilled.

The current drill-hole database for the DeLamar area is comprised of information derived from the 1,547 historical holes that form the basis for the resource estimation presented in this report. This database was created by MDA using original DeLamar mine digital database files obtained from the current mine site. The original mine-site information was then subjected to various verification measures, the primary one consisting of auditing of the digital data by comparing the drill-hole collar coordinates, hole orientations, and analytical information in the database against historical paper records in the possession of Integra. A total of 235 drill holes, representing 15% of the total, were randomly chosen for auditing. Discrepancies between the database and paper records that are unrelated to the treatment of lower-than-detection-limit results, or unanalyzed intervals, were found in only nine of the 7,758 assay sample



intervals audited, and less than half of these discrepancies are material. The author has verified that the DeLamar data as a whole are acceptable as used in this report.

#### 1.6 Estimated Mineral Resources

The gold and silver mineral resources at DeLamar were modeled and estimated by:

- Evaluating the drill data statistically;
- Separately interpreting gold and silver mineral domains on a set of 320°-looking cross sections spaced at 30.48-meter (100-foot) intervals;
- Analyzing the modeled mineralization spatially and statistically to aid in the establishment of estimation and classification parameters; and
- Interpolating grades into a three-dimensional block model using the explicitly modeled cross-sectional gold and silver mineral domains to control the estimation.

The DeLamar project gold and silver resources are summarized in Table 1.1.

Table 1.1 DeLamar Project Gold and Silver Resources

Inferred Resources								
Tonnes	g Au/t	g Ag/t	oz Ag					
117,934,000	0.41	1,592,000	24.34	91,876,000				

- 1. Mineral Resources are comprised of all model blocks with gold-equivalent values greater than or equal to 0.30 g/t that lie within an optimized pit and below the as-mined surface.
- 2. Gold equivalent =  $g Au/t + (g Ag/t \div 85)$
- 3. Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.
- 4. The effective date of the mineral resource estimate is October 1, 2017.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The resources reflect a potential operating scenario in which the mineralization is mined by open-pit, milled, and processed in leach tanks. To properly represent reasonable prospects for eventual economic extraction under this scenario, the resources are constrained by an optimized pit and a gold-equivalent cutoff grade of 0.3 g/t. The parameters used in both the pit optimization and the derivation of the gold-equivalency factor of 85 (g AuEq/t = g Au/t + [g Ag/t  $\div$  85]) are listed in Table 1.2.



**Table 1.2 Summary of Resource Optimized-Pit Parameters** 

Pit-Optimization Parameters								
Mining	\$	2.20	\$/tonne mined					
Mill Process	\$	10.00	\$/tonne processed					
G&A	\$	4,000,000	\$/year					
Tonnes per day		13,600						
Tonnes per year		4,760,000						
G&A	\$	0.84	\$/tonne processed					
Gold Recovery		95%						
Silver Recovery		80%						
Gold Price	\$	1,300	\$/oz					
Base Silver Price	\$	18	\$/oz					

The gold-equivalent value of each model block was used solely for the purposes of applying the 0.3 g AuEq/t cutoff to in-pit blocks, and thereby define the project resources.

#### 1.7 Conclusions and Recommendations

The authors conclude that DeLamar is a project of merit that warrants significant additional investment in exploration to upgrade the estimated resources, potentially expand the resources, and test the high-grade vein potential at depth. A work program with an estimated cost of \$8,720,000 is recommended as summarized in Table 1.3. This program includes 20,000 meters of RC and core drilling, as well as significant permitting and environmental expenditures.

**Table 1.3 Summary of Estimated Costs for Recommended Exploration** 

Item	Estimated Cost
RC and Core Drilling (incl. access roads, drill pads, water, surveys)	\$3,300,000
Assaying and Geochemistry	400,000
Geology, Soil and Rock Sampling, Geophysics, DTM	195,000
Direct Salaries and Expenses (Geology team)	722,000
Land Holding Costs	330,000
Permitting and Environmental (includes ongoing water management, maintenance, safety, security and site office G&A)	2,844,000
Metallurgy	413,000
Resource Estimation & PEA	400,000
Other Administrative / Office expenses	116,000
Total	\$8,720,000

A critical part of the work program summarized above will be to undertake a number of tasks related to researching available historical records in the possession of Integra and capturing the relevant information into digital form. The goal of this work with the historical data is to improve confidence in the project database and, together with the proposed drilling, support the classifying of future mineral resources at DeLamar at levels higher than Inferred.



#### 2.0 INTRODUCTION AND TERMS OF REFERENCE

Mine Development Associates ("MDA") has prepared this technical report on the DeLamar gold – silver project, located in Owyhee County, Idaho, at the request of Integra Resources Corp. ("Integra"), a Canadian company formerly known as Mag Copper Ltd. Integra has entered into a binding stock purchase agreement dated September 18, 2017 with Kinross Gold Corporation ("Kinross") to acquire the Kinross DeLamar Mining Company ("DeLamarCo"), an indirect, wholly-owned subsidiary of Kinross, and thereby acquire 100% of the DeLamar gold – silver project. Integra is listed on the Canadian Securities Exchange (CSE: ITR) and plans to be listed on the TSX Venture Exchange. 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 amended.

# 2.1 Project Scope and Terms of Reference

The purpose of this report is to provide a technical summary of the DeLamar gold – silver project, including an estimate of the mineral resources, in support of securities regulatory reporting requirements. The DeLamar project lies within the historic Carson (Silver City) mining district of southwestern Idaho. The most recent production from the project occurred in 1977 through 1998 by open-pit mining with both milling and minor cyanide heap-leach processing of gold-silver ores. The mine was placed on care and maintenance in 1999, and later underwent mine closure by Kinross. There have been no prior NI 43-101 technical reports for the project.

In addition to the estimation of the DeLamar mineral resources, the scope of the work completed by the authors included a review of pertinent technical reports and data provided to the authors by Integra relative to the general setting, geology, project history, exploration and mining activities and results, drilling programs, methodologies, quality assurance, metallurgy, and interpretations. References are cited in the text and listed in Section 20.0.

The DeLamar property position extends east to the margins of a group of mineral claims outside of the project, referred to as the Florida Mountain claims in this report, that include historical underground and open-pit mining activity.

This report has been prepared under the supervision of Michael M. Gustin, C.P.G. and Senior Geologist for MDA, and Steven I. Weiss, C.P.G. and Senior Associate Geologist for MDA. Mr. Gustin and Mr. Weiss are Qualified Persons under NI 43-101 and have no affiliation with Integra or Kinross except that of independent consultant/client relationships. Mr. Weiss visited the project site on August 1 – 3, 2017, accompanied and assisted by Ms. Kim Richardson of Jordan Valley, Idaho. Ms. Richardson is a geologist who joined the DeLamar mine staff in 1980 and eventually held the positions of Senior Mine Geologist, Mine Superintendent and Mine General Manager before leaving the project in 1997. Mr. Weiss reviewed the property geology, exposures of mineralized rocks in still accessible open pits, and areas of historical exploration drilling peripheral to the open pits, as well as historical exploration data on file at the DeLamar mine-site office. Mr. Gustin has not visited the project site.

The authors have reviewed the available data and have made judgments as to the general reliability of this information. 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. Mr. Gustin and Mr. Weiss have made such independent investigations as deemed necessary in their professional judgment to be able to reasonably present the conclusions discussed herein.

The effective date of this technical report is October 1, 2017.

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

In this report, measurements are generally reported in metric units. Where information was originally reported in Imperial units, conversions have been made with the following conversion factors:

#### **Linear Measure**

1 centimeter = 0.3937 inch

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

1 kilogram = 2.205 pounds

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



m

# Frequently used acronyms and abbreviations

AA atomic absorption spectrometry

Ag silver Au gold

cm centimeters

core diamond core-drilling method

°C degrees centigrade CDN\$ Canadian dollars °F degrees Fahrenheit

ft foot or feet g/t grams per tonne

ha hectares

ICP inductively coupled plasma analytical method

in. inch or inches kg kilograms km kilometers liter lbs pounds micron

Ma million years old mi mile or miles mm millimeters

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

meters

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

U.S. United States of America



#### 3.0 RELIANCE ON OTHER EXPERTS

Mr. Gustin and Mr. Weiss are not experts in legal matters, such as the assessment of the validity of mining claims, mineral rights, and property agreements in the United States or elsewhere. Furthermore, the authors did not conduct any investigations of the environmental, social, or political issues associated with the DeLamar project, and are not experts with respect to these matters. The authors have therefore relied fully upon information and opinions provided by Integra and Mr. Edward Devenyns, consulting Landman for Integra, with regards to the following:

- Section 4.2, which pertains to land tenure, including a Limited Due Diligence Review of the property prepared by Perkins Coie LLP and dated August 21, 2017); and
- Section 4.3, which pertains to legal agreements and encumbrances.

The authors have relied fully upon information and opinions provided by Integra's consultant, Mr. Richard DeLong of EM Strategies, Inc., an expert in environmental and permitting matters. Section 4.4, which pertains to environmental permits and liabilities, was provided by Mr. DeLong in a project communication via email on September 25, 2017 (DeLong, 2017).

The authors have fully relied on Integra to provide complete information concerning the pertinent legal status of Integra and its affiliates, as well as current legal title, material terms of all agreements, and material environmental and permitting information that pertains to the DeLamar project.



#### 4.0 PROPERTY DESCRIPTION AND LOCATION

The authors are not experts in land, legal, environmental, and permitting matters and express no opinion regarding these topics as they pertain to the DeLamar project. Subsections 4.2 and 4.3 were prepared under the supervision of Mr. Edward Devenyns, Mineral Land Consultant for Integra. Mr. Devenyns prepared a Limited Title Report on the unpatented claims dated August 15, 2017. A Limited Due Diligence Review of the property was prepared by Perkins Coie LLP dated August 21, 2017. Mr. Richard DeLong of EM Strategies, Inc., an expert in environmental and permitting matters, prepared Section 4.4.

All mineral titles and permits are held by Kinross DeLamar Mining Company ("DeLamarCo"), an indirect, wholly-owned subsidiary of Kinross. Integra has entered into a Stock Purchase Agreement with Kinross to acquire DelamarCo, and thereby acquire 100% of the DeLamar project.

Mr. Gustin and Mr. Weiss do not know of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property, beyond what is described in this report.

#### 4.1 Location

Integra's DeLamar gold-silver project is located in southwestern Idaho in Owyhee County, 80 kilometers southwest of the city of Boise, just west of the historic mining town of Silver City (Figure 4.1). The property is centered at approximately 43°00′48″N, 116°47′35″W, within the historic Carson mining district, and includes the formerly producing DeLamar silver and gold mine which was last operated by the Kinross DeLamar Mining Company, a subsidiary of Kinross.

Figure 4.1 Location Map, DeLamar Gold – Silver Project (modified from Hill and Lindgren, 1912; red numbers refer to 1912 mining districts)



#### 4.2 Land Area

The DeLamar property consists of 287 unpatented lode, placer, and millsite claims, and 13 tax parcels comprised of patented mining claims, as well as certain leasehold and easement interests located in Owyhee County, Idaho. In total, the property covers approximately 2,758 hectares owned or controlled by Integra (Figure 4.2) and occupies portions of:

- Section 6 of Township 5 South, Range 3 West;
- Sections 1 through 12 of Township 5 South, Range 4 West; and
- Sections 14, 26, 31, 32, 33, 34 and 35 of Township 4 South, Range 4 West, Boise Base and Meridian.

A listing of the patented and unpatented claims and leasehold interests that comprise the property is provided in Appendix A. Integra represents that the list of claims and leasehold interests in Appendix A is complete to the best of its knowledge regarding the DeLamar project as of the effective date of this report.

Ownership of the unpatented mining claims is in the name of the holder (locator), subject to the paramount title of the United States of America, under the administration of the U.S. Bureau of Land Management ("BLM"). Under the Mining Law of 1872, which governs the location of unpatented mining claims on federal lands, the locator has the right to explore, develop, and mine minerals on unpatented mining claims without payments of production royalties to the U.S. government, subject to the surface management regulation of the BLM. Currently, annual claim-maintenance fees are the only federal payments related to unpatented mining claims, and these fees have been paid in full to September 1, 2018. The current annual holding costs for the DeLamar unpatented mining claims are estimated at \$52,302 (Table 4.1), including the county recording fees.

Other annual land holding costs, including county taxes for the patented claims and leased fee lands, and lease payments due to third-party claim owners, are listed in Table 4.1. The total annual land-holding costs are estimated to be \$106,019.

Table 4.1 Summary of Estimated Land Holding Costs for the DeLamar Property

Annual Fee Type	An	Amount	
Unpatented Claims BLM Maintenance Fees	\$	52,235	
Unpatented Claims County Filing Fees	\$	67	
Estimated Holding Costs for Unpatented Mining Claims	\$	52,302	
Access, Pipeline, Land Agreement Fees	\$	41,510	
Owyhee County Patented Claims Taxes	\$	5,711	
Patented Claims Agreement Fees	\$	5,100	
State Lands Lease Fees	\$	1,396	
Total Estimated Annual Holding Taxes and Fees	\$	106,019	



The reviews by Mr. Devenyns and Perkins Coie LLP have not identified any known fatal defects in the title of the claims, and the authors are not aware of any significant land use or conflicting rights, or such other factors and risks that might substantially affect title or the right to explore and mine the property, based on the information provided by Integra and Perkins Coie LLP.

DeLamarCo, which Integra is acquiring, holds the surface rights to the patented claims it owns, subject to various easements and other reservations and encumbrances. DeLamarCo has rights to use the surface of the unpatented mining claims for mining related purposes to September 1, 2018, and which it may maintain on a yearly basis beyond that by timely annual payment of claim maintenance fees and other filing requirements, and subject to the paramount title of the U.S. federal government. DeLamarCo holds surface rights to the areas it has under lease in accordance with the terms of each lease.



RESOURCE OUTLINES OWNED CLAIMS LEASED PATENTED CLAIMS Leases A-D Patented Claims LEASED STATE LANDS Unpatented Claims State Lease 8129 Section 36 lots Copyright: 2013 National Geographic Society, i-cube 2% NSR Royalty Leased Fee Land Project **DeLAMAR MINE PROJECT** RESOURCES OWYHEE COUNTY, IDAHO Title Land Position Map Mine Development Showing Resource Outline **Associates** Coordinate System: UTM NAD 83 Zone 11N / Units: meters MMM-DD-YYYY:

Figure 4.2 Property Map for the DeLamar Project



# 4.3 Agreements and Encumbrances

On September 19, 2017, Integra announced that it will acquire 100% of the DeLamar gold and silver project from a wholly-owned subsidiary of Kinross for C\$7.5 million in cash and the issuance of Integra shares that is equal to 9.9% of all of the issued and outstanding Integra shares upon closing of the transaction. In addition, Table 4.2 summarizes further the agreements and encumbrances applicable to the property. Fees other than royalties associated with these agreements are included in the land-holding costs of Table 4.1.

In terms of royalties, 101 of the 287 unpatented claims are subject to a 2.0% net smelter returns royalty ("NSR") payable to a predecessor owner. Kinross has retained a 2.5% NSR royalty that applies to those portions of the DeLamar claims that are unencumbered by existing royalties, which may be reduced to 1.0% upon Kinross receiving total royalty payments of CDN\$10,000,000. There are also four lease agreements covering five of the patented claims that require NSR payments. These lease agreements include patented claims that are located within portions of Sections 1, 2, 4 and 6 of Township 5 South, Range 4 West, Boise Base and Meridian. Figure 4.2 shows the areas subject to the royalties and lease agreements summarized in Table 4.2.

The property also includes 396 acres leased from the State of Idaho. The State lease is subject to a 5.0% production royalty of gross receipts (Table 4.2), plus annual lease fees of \$1,396 (Table 4.1).

Portions of the property are subject to a private land agreement, road access agreement, pipeline agreement, State of Idaho Easement Agreement and a BLM right-of-way agreement that include lands and certain rights within portions Sections 4, 7, 9, 18 of Township 5 South, Range 4 West, and Sections 11, 12, 13, 14, 23, 24, 25 and 26 of Township 5 South, Range 5 West.

**Table 4.2 Summary of Agreements and Encumbrances** (from Integra, 2017)

Owner	Number of Claims or Lease	Royalty
Kinross Gold	Kinross Gold tax parcels comprised of patented claims	
Predecessor Owner	101 unpatented claims	2.0% NSR
Party A	1 patented claim	5.0% NSR to \$50,000; then 2.5% NSR to a maximum of \$400,000
Party B	1 patented claim	5.0% NSR
Party C	2 patented claims	2.5% NSR
Party D	1 patented claim	2.5% NSR
State of Idaho	160.3 hectares, Mining Lease	5.0% gross

Integra has also entered into a letter of intent with two arm's length companies to acquire several mineral claims at Florida Mountain, an area of mineralization proximate to the DeLamar property that has been subject to historic mining activity. For further information refer to Section 17.0.



# 4.4 Environmental Liabilities and Permitting

The 1977 – 1998 DeLamar mine consisted of the DeLamar mine proper, which is the subject of this report, as well as the Florida Mountain mining area, most of which does not lie within the DeLamar property. The DeLamar mine facilities, specifically the historical Sommercamp and North DeLamar open pits, incorporate essentially all the historical underground mining features (adits and dumps) in the vicinity. Several features of the historical underground mining undertaken on the easternmost portion of the DeLamar project, along the fringes of the Florida Mountain claims, include collapsed adits, dumps, and collapsed structures. None of these features have water draining from them.

The DeLamar mine has been in closure since 2003. Since 2003, the following reclamation and closure activities have been conducted on the DeLamar property:

- Tailings pond de-watered and capped with clay and soil;
- Two waste piles regraded and capped with clay and soil;
- Heap-leach pad removed;
- Much of the reclaimed surface includes an engineered cover consisting of two feet (6.1 meters) of compacted clay, 10 inches (25.4 centimeters) of non-acid generating run-of-mine ("ROM") material, and 8 inches (20.3 centimeters) of suitable plant growth media;
- The DeLamar mine facilities include four primary pit areas. These are the North DeLamar, Sommercamp Regan (including South Wahl), and Glen Silver pits, which are partially backfilled and clay capped to allow for positive drainage;
- The DeLamar property includes the western and eastern margins of the Tip Top, Stone Cabin, and Blackjack open pits that are otherwise within the Florida Mountain claims. These pits have been partly back-filled;
- The DeLamar mine is in the Closure Phase with the Idaho Department of Lands ("IDL") and activities that focus on water management;
- Water management includes collection of water at four primary collection and pumping stations referred to as Meadows, SP5, Spillway, and SP1. There are also two ancillary pumping stations at Adit 16 and SP14; and
- The collection stations route water to a primary lime amendment facility and a smaller caustic-drip facility. Water passing through the lime amendment plant is routed to a storage pond and seasonally released at a nearby land application site ("LAS").

The DeLamar project holds the following primary permits: two Plans of Operation ("PoO"), one with IDL and the BLM (PoO #248), and one with IDL (PoO #936). In addition, the DeLamarCo holds a Cyanidation Permit from the Idaho Department of Environmental Quality ("IDEQ"), an Air Quality Permit from IDEQ, a Dam Safety Permit from the Idaho Department of Water Resources ("IDWR"), and a 2015 Multi-Sector General Permit ("MSGP"), Storm Water Permit, and a Ground Water Remediation Permit from the United States Environmental Protection Agency ("EPA").



Even though a substantial amount of reclamation and closure work has been completed at the site, there remain ongoing water-management activities and monitoring and reporting. The monitoring and reporting activities include: stream water quality and benthic, air quality, the LAS, and quality assurance and control. Water-management activities consist of an annual cycle of winter and spring storage and then summer and fall treatment and land application discharge.

In January of 2017, it appears that Kinross submitted to IDL a reclamation bond reduction request, prepared by SRK Consulting (US) Inc. A bond reduction of \$9,032,148, from \$11,921,077 to \$2,888,929, was requested in this document dated January 11, 2017. IDL responded in writing on April 24, 2017, indicating they had received the partial bond reduction request on March 29, 2017, and stated that they needed more time to complete the required site inspection prior to acting on the bond reduction request. On May 31, 2017, the IDWR issued a letter stating their relinquishment of any claims on the bond held by IDL. On June 19, 2017, IDL concurred with Kinross' request for a \$9,032,148 reduction in the bond.

Permits for the exploration drilling would need to be obtained from the IDL, and possibly the BLM, depending on the location and land status. Integra does not have, and cannot apply for, the permits necessary for the exploration drilling proposed in Section 19.0 until Integra is the owner of the property.



# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

The information summarized in this section is derived from publicly available sources, as cited. The authors have reviewed this information and believe this summary is materially accurate.

#### 5.1 Access to Property

The principal access is from U.S. Highway 95 and the town of Jordan Valley, Oregon, proceeding east on Yturri Blvd. from Jordan Valley for 7.6 kilometers to the Trout Creek Road (Figure 5.1). It is then another 39.4 kilometers travelling east on the gravel Trout Creek Road to reach the DeLamar mine tailings facility and nearby site office building. Travel time by automobile via this route is approximately 35 minutes. Secondary access is from the town of Murphy, Idaho and State Highway 78 (Figure 4.1 and Figure 5.1), via the Old Stage Road and the Silver City Road. Travel time by this secondary route is estimated to be about 1.5 hours.

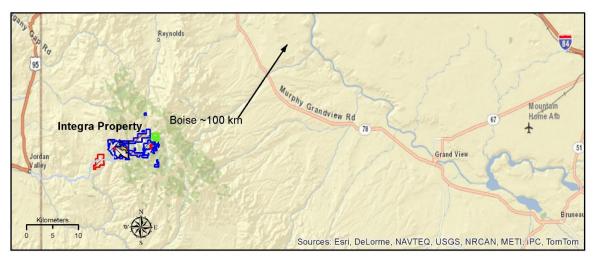


Figure 5.1 Access Map for the DeLamar Project

# 5.2 Physiography

The property is situated in rolling to mountainous terrain of the Owyhee Mountains at elevations ranging from about 1,525 meters to 2,350 meters above sea level within portions of the De Lamar, Silver City, Flint, and Cinnabar Mountain U.S.G.S. 7.5-minute topographic quadrangles. Portions of the property are forested with second- or third-growth spruce, pine, aspen, and fir. Vegetation types include Douglas fir, juniper – mountain mahogany, sagebrush, mixed shrubs, and wyethia meadow communities.

#### 5.3 Climate

The climate can be described as moderately arid in the lower elevations to mid-continental at the higher elevations, with warm summers and cold, snowy winters. MDA is unaware of published historical temperature and precipitation data for the Owyhee Mountains. According to Kinross' DeLamar mine personnel, summer maximum temperatures can reach 20°C and winter minimum temperatures can be as



low as -40°C. Precipitation at the mine site is believed to average about 50 centimeters per year, most of which occurs as winter snowfall. Snow cover at the upper elevations can be 1.0 to 2.0 meters deep. Mining operations have been demonstrated to be feasible year-round, but do require snow removal equipment to maintain road access during the winter. Road access for exploration may be limited or interrupted by snow during December through April.

#### 5.4 Local Resources and Infrastructure

A highly-trained mining and industrial workforce is available in Boise, Idaho, approximately 100 kilometers northeast of the project area. The project area is served by U.S. Interstate Highway 84 through Boise and by U.S. Highway 95 about 30 kilometers west of the site in southeastern Oregon. Mining and industrial equipment, fuel, maintenance, and engineering services and supplies are available in Boise, Idaho, as are telecommunications, a regional commercial airport, hospitals, and banking.

Housing, fuel, and schools are available in the nearby town of Jordan Valley, Oregon, which presently has a population of about 175 inhabitants. There are as many as a few dozen summer residents of the old historic mining town of Silver City, located about 8.5 kilometers east of the DeLamar mine, but few or no residents during the winter when road access is interrupted by accumulated snow.

A modern administrative office building with communications and an emergency medical clinic from the historical, late 20<sup>th</sup> century open-pit mining operation remain on site and in use. A truck shop and storage building also remain on site. The processing plant and facilities, crushing equipment, and assay laboratory have been removed from the property. Electrical power at the project site is delivered via a 69Kv from an Idaho Power Company transmission line. Although the project area is generally hilly, flat areas are present and have served in the past for siting the processing plant and tailings storage areas. Developed water wells are present for mining and process requirements.



#### 6.0 HISTORY

The information summarized in this section has been extracted and modified to a significant extent from Piper and Laney (1926), Asher (1968), Bonnichsen (1983), Thomason (1983), and unpublished company files, as well as other sources as cited. The authors have reviewed this information and believe this summary is materially accurate.

For clarity, this report will retain the term "De Lamar" to refer to the historical De Lamar underground mining operation of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and, consistent with official USGS topographic maps and place names, the historic De Lamar town site on Jordan Creek and De Lamar Mountain. According to Bonnichsen (1983), the present-day term "DeLamar" follows the usage of Earth Resources Company starting in the 1970s (see below). In this report, the term "DeLamar mine" refers to the openpit mine and processing operation at De Lamar Mountain that began in the late 1970s.

# 6.1 Carson Mining District Discovery and Early Mining: 1863 – 1942

Mining activity began in the DeLamar project area in May of 1863 when placer gold deposits were discovered in Jordan Creek, just upstream from what later became the town site of De Lamar (Wells, 1963 as cited in Asher, 1968). The placer deposits were traced up stream, beyond the DeLamar project area, and during the summer of 1863 the first silver-gold lodes were discovered in quartz veins at War Eagle Mountain. This resulted in a rush of miners to the area and the initial settlement of Silver City (Figure 5.1). Several small mines at War Eagle Mountain were quickly developed with rich, near-surface ore. By 1866, there were 12 mills in operation (Piper and Laney, 1926). Grades decreased at depth and in 1875 the Bank of California failed, resulting in a loss of financial backing, which contributed to the closure of the mines by 1876. According to Lindgren (1900), cited in Bonnichsen (1983) and Piper and Laney (1926), an estimated \$12 to \$12.5 million was produced from the War Eagle Mountain veins from 1863 through 1875, or the equivalent of 600,000 to 625,000 ounces of gold. Silver-to-gold ratios of the ores during this period were on the order of 1:1 to 1:6 according to Piper and Laney (1926).

The general area of De Lamar, Silver City and War Eagle Mountain was known as the Carson mining district. There was only minor production from sporadic activity in the district at the War Eagle Mountain mines from 1876 through 1888, and some of the mines were never reopened. However, significant silver-gold veins were discovered during this time period at De Lamar Mountain and nearby areas. Captain J.R. De Lamar founded the De Lamar Mining Company and was largely responsible for the development of important veins at the original, underground De Lamar mine, just to the south of Jordan Creek. De Lamar's name was applied to the mine, the mountain, and the small mining town that was established on Jordan Creek.

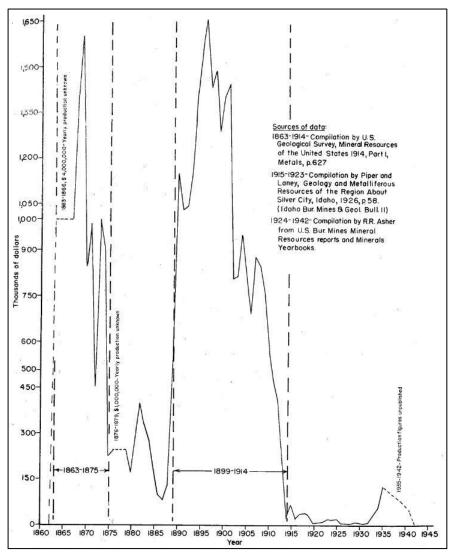
In 1889, rich ore shoots were discovered in veins at the De Lamar mine area. De Lamar sold his interest to the London-based DeLamar Mining Company, Ltd. in 1901. Declining grades and increasing costs caused the closure of the De Lamar mines by 1914. An estimated total production value of precious metals of nearly \$23 million was reported from the Carson district for the period 1889 – 1914 by Piper and Laney (1926). The De Lamar mine is believed to have produced approximately 400,000 ounces of gold and 5.9 million ounces of silver from a minimum of about 726,000 tonnes milled from 1891 through 1913, based on annual company reports (Gierzycki, 2004a).



Very little production took place in the Carson district until the 1930s, when gold and silver prices increased. Placer gold was recovered from Jordan Creek from 1934 to 1940, and in 1938 a 181 tonneper-day flotation mill was constructed to process dumps from the De Lamar mine. The flotation mill reportedly operated until the end of 1942.

A summary of estimated annual production value for the entire district, including the DeLamar project, through 1942 is shown in Figure 6.1. Altogether, the district is believed to have produced about 1 million ounces of gold and 25 million ounces of silver from 1863 through 1942 (Piper and Laney, 1926; Bergendahl, 1964). Gierzycky (2004b) estimated a total district production of 0.6 million ounces of gold and 42 million ounces of silver for this period.

Figure 6.1 Estimated Annual Production Value, Silver City (Carson) Mining District 1863-1942 (from Asher, 1968)





# 6.2 Historical Exploration Since the 1960s

It is believed that mining properties in the De Lamar project area were largely inactive from 1942 until the mid-1960s. Anecdotal information suggests that the Sidney Mining Company and the Continental Materials Corporation ("Continental") both engaged in diamond-core ("core") drilling in 1966, but MDA has information only for the Continental drilling during this time. Continental's holes were drilled to test veins down-dip from stopes of the old De Lamar mine (Porterfield, 1992).

During the late 1960s, the district began to undergo exploration for near-surface, bulk-mineable gold-silver deposits, but few records of the work are available. The Glen Silver Mining Company conducted core drilling in what later became either the Glen Silver or the Sommercamp area of the DeLamar property, but the exact locations of the drill holes are not known to MDA.

In 1969, the "Silver Group" was formed as a joint venture comprised of Earth Resources Company ("Earth Resources"), Superior Oil Company, and Canadian Superior Mining (U.S.) Ltd. The Silver Group acquired property in the De Lamar area and conducted geological mapping and sampling. Much of the early exploration work was carried out by Perry, Knox, Kaufman Inc. for Earth Resources, the operator of the project.

During 1969 and 1970, Earth Resources carried out trenching, sampling, and surface geological work, and drilled 41 conventional rotary drill holes at De Lamar Mountain. This resulted in the discovery of broad areas of near-surface silver-gold mineralization in the Sommercamp and Glen Silver zones, and what Earth Resources termed the North DeLamar zone. Following these discoveries, Earth Resources ramped up exploration and development drilling, and from 1971(?) through 1976 at least 432 holes were drilled, mainly in the North DeLamar, Glen Silver, Sommercamp - Regan, and Ohio areas (Figure 6.2). This drilling also included the first holes drilled at the nearby Sullivan Gulch and Milestone prospects.



Figure 6.2 Aerial View of Exploration and Mining Areas at DeLamar Since 1969

Note: shaded areas show Integra's DeLamar property position, September 1, 2017.

The Sidney Mining Company drilled eight core holes in the Sommercamp and North DeLamar zones in 1972. In 1974, Perry, Knox, Kaufman Inc. completed a feasibility study for the Silver Group with reserve estimates for an open-pit mining scenario at the Sommercamp and North DeLamar zones. In 1977, Earth Resources commenced operation of the DeLamar silver-gold mine with initial open-pit mining at the North DeLamar and Sommercamp zones (see Section 6.3 for a summary of the DeLamar mine production). In 1981, Earth Resources was acquired by the Mid Atlantic Petroleum Company ("MAPCO"), and Earth Resources continued to operate the DeLamar mine and exploration joint venture.

Earth Resources continued to explore the Sullivan Gulch, North DeLamar, and Glen Silver zones between 1978 and mid-1984. Fragmentary records show that at least 135 holes were drilled by Earth Resources in these areas of the property.

In September of 1984, the NERCO Minerals Company Inc. ("NERCO") purchased MAPCO's interest in the DeLamar project and became the operator of the joint venture. Less than a year later, in mid-



1985, NERCO purchased the interests of the remaining joint venture partners and thereby attained 100% ownership of the project.

During 1985 through 1992, NERCO conducted extensive exploration and development drilling, some of which was undertaken on the DeLamar project, as well as surface mapping and sampling. The drilling on the DeLamar project occurred at North DeLamar, Glen Silver, Sullivan Gulch, Town Road, and Milestone. Incomplete records indicate that a minimum of 1,498 holes were drilled by NERCO both on and off of the DeLamar project during this period.

NERCO was purchased by the Kennecott Copper Corporation ("Kennecott"), then a subsidiary of Rio Tinto – Zinc Corporation ("RTZ"), in 1993. Two months later in 1993, Kennecott sold its 100% interest in the DeLamar mine and property to Kinross.

Kinross continued exploration of the property while operating the DeLamar mine. A total of 349 exploration and development holes were drilled by Kinross in 1993 through 1997. Most of the drilling was focused in the Glen Silver and North DeLamar areas of the project, although some was undertaken outside of the project.

In addition to the surface sampling, drilling, and geological work, several campaigns of geophysical studies were performed at various times in the project history. MDA recommends that Integra compile and evaluate the geophysical data that may be available.

Kinross ceased exploration work in 1997 and mining was halted at the end of 1998 due to unfavorable metal prices. In 1999, milling ceased and Kinross placed the DeLamar mine on care and maintenance. Mine closure activities commenced in 2003. Mine closure and reclamation were nearly completed by 2014, including removal of the mill and other mine buildings, and drainage and cover of the tailings facility.

The property continued to be in closure and monitoring from 2014 to 2017.

# 6.3 Modern Historical Mining: 1977 through 1998

Earth Resources commenced open-pit operations and milling at the DeLamar mine in 1977. The mine initially operated five days per week with a target production of about 9,980 tonnes per day of ore and waste. Ore was processed by grinding in ball mills followed by tank leaching with cyanide prior to precipitation with zinc dust. By the late 1980s, NERCO was mining ore and waste that totaled 21,772 tonnes per day and the mill processing capacity was 1,996 tonnes per day. At the time of the Kinross acquisition in 1993, the DeLamar mine was operating at a mining rate of 27,216 tonnes per day and a milling capacity of about 3,629 tonnes per day (Elkins, 1993). The DeLamar mine produced 421,300 ounces of gold and about 26 million ounces of silver from start-up in 1977 through to the end of 1992 (Table 6.1). Production during this period came from a number of pits developed in the Glen Silver, Sommercamp – Regan, and North DeLamar areas.



**Table 6.1 DeLamar Mine Gold and Silver Production 1977 – 1992** (from Elkin, 1993)

Year	Ore	Ore Mill Grade			n Poured
	(short dry tons)	Gold	Silver	total troy ounces	
		(oz/ton)	(oz/ton)	Gold	Silver
1977	309,000	0.034	3.55	9,600	853,000
1978	637,000	0.031	3.78	18,100	1,872,000
1979	715,000	0.034	3.12	22,200	1,734,000
1980	780,000	0.031	2.53	22,100	1,534,000
1981	771,000	0.034	2.55	24,000	1,529,000
1982	738,000	0.036	2.77	24,300	1,589,000
1983	846,000	0.035	2.32	27,100	1,526,000
1984	784,000	0.023	2.83	15,500	1,742,000
1985	820,000	0.038	2.66	29,800	1,751,000
1986	849,000	0.035	2.52	27,700	1,713,000
1987	861,000	0.037	2.54	30,200	1,738,000
1988	830,000	0.033	2.34	32,000	1,738,000
1989	840,000	0.033	2.56	34,000	1,863,000
1990	829,000	0.037	2.04	30,400	1,374,000
1991	1,117,000	0.035	1.99	36,700	1,702,000
1992	1,156,000	0.035	2.01	37,600	1,820,000

It has been reported that 625,500 ounces of gold and 45 million ounces of silver were produced from the Glen Silver, Sommercamp – Regan, and North DeLamar areas over the entire life of mine from 1977 through 1998 (Gierzycki, 2004).

#### 6.4 Historical Resource and Reserve Estimations

The estimates described in this subsection are presented herein as an item of historical interest with respect to historical open-pit mining and exploration at DeLamar. The historical estimations presented below are considered relevant because they represent an "ore reserve" that formed the basis of the initial open-pit mining, "reserves" estimated at the time of Kinross' acquisition of the mining operations, and "resources" estimated at the time of closure of the open-pit mining operations. The classification terminology is presented as described in the original references, but it is not known if they conform to the meanings ascribed to the measured, indicated, and inferred mineral resource classifications, or proven and probable reserve classifications, by the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM Definition Standards). The authors have not done sufficient work to classify these historical estimates as current mineral resources or mineral reserves, and Integra is not treating these historical estimates as current mineral resources or mineral reserves. Accordingly, these estimates should not be relied upon. The current mineral resources for the DeLamar project are discussed in Section 14.0.



The first reported historical "ore reserve" was presented in a 1974 feasibility study prepared by the Exploration Division of Earth Resources. A total of 4.124 million tonnes of "ore reserves" with average grades of 142.29 grams Ag/tonne and 1.58 grams Au/tonne, for about 18.8 million silver ounces and 210,000 gold ounces, were estimated for the Sommercamp and North DeLamar zones as shown in Table 6.2 (Earth Resources, 1974).

At the time of the Kinross acquisition of the DeLamar operations and properties in 1993, the end-of-year 1992 reserves for the DeLamar mine area were estimated by Elkins (1993) at approximately 9.335 million tonnes with average silver and gold grades of 55.86 grams Ag/tonne and 0.72 grams Au/tonne, respectively (Table 6.2). Following the cessation of mining at the end of 1998 due to low metal prices, Kinross reported estimated resources and no reserves of 8.406 million tonnes with average silver and gold grades of 32.05 grams Ag/tonne and 1.25 grams Au/tonne, respectively (Table 6.2).

The historical resources presented in Table 6.2 are based on the drill data available at the time of the estimations; the drill data are discussed in Sections 10.0, 11.0, 12.0, and 14.2.1.



**Table 6.2 Historical Mineral Resource and Reserve Estimates** 

Year	Company	Area	Classification	Tonnes	Ag Grade	Au Grade	Ag Oz	Au Oz	Cutoff Grade
				(millions)	g/tonne	g/tonne	(millions)	(millions)	
1974	Earth Resources	Sommercamp	"ore reserves"	2.312	178.63	1.06	13.3		2.0 oz/ton Ag Eq
	Earth Resources	North Delamar	"ore reserves"	1.813	95.66	2.23	5.6		2.0 oz/ton Ag Eq
1974		total		4.124	142.16	1.58	18.8	0.21	
EOY 1992	Kinross <sup>1,2</sup>	Glen Silver	"P&P mill"	3.958	53.83	0.82	6.848	0.105	2.5 oz/ton Ag Eq
		Glen Silver	"P&P low grade"	2.186	30.17	0.51	2.121	0.036	1.8 oz/ton Ag Eq
		South Wahl	"P&P mill"	0.524	79.54	1.75	1.341	0.029	2.5 oz/ton Ag Eq
		South Wahl	"P&P low grade"	0.019	50.40	0.34	0.031		1.8 oz/ton Ag Eq
		Sommercamp/Regan	"P&P mill"	0.678	152.23	0.69	3.317	0.015	2.5 oz/ton Ag Eq
		Sommercamp/Regan	"P&P low grade"	0.318	42.17	0.38	0.432	0.004	1.8 oz/ton Ag Eq
		Stone Cabin	"P&P mill"	7.795	28.80	1.82	7.194	0.454	0.03 oz/ton Au Eq
		Stone Cabin	"P&P low grade"	4.050	15.43	0.65	2.008	0.086	0.02 oz/ton Au Eq
		Stockpile	"P&P mill"	0.422	70.97	0.65	0.963	0.009	
		Stockpile	"P&P low grade"	0.205	44.23	0.38	0.292	0.002	
		Ore Pad	"P&P mill"	0.244	67.89	0.89	0.533	0.007	
		Ore Pad	"P&P low grade"	0.780	34.63	0.48	0.869	0.012	
		total	"P&P mill"	13.620	46.29	1.41	20.196	0.619	
		total	"P&P low grade"	7.559	23.66	0.58	5.753	0.14	
	total 'P	&P mill + low grade"		21.179	38.06	1.13	25.949	0.759	
EOY 1997	Kinross <sup>3</sup>	all	"P&P"	7.688	36.04	1.23	8.907	0.304	
		all	"Possible Reserves"	0.766	28.27	1.18	0.767	0.032	
		total all	"P&P + Possible"	8.454	35.34	1.23	9.674	0.336	
EOY 1998	Kinross <sup>4</sup>	all	"Measured, Indicated and Inferred Resources"	8.406	32.05	1.25	9.547	0.372	
notes:	EOY = year ending	on December 31; "P&	P" = Proven and Pro	oable Reser	ves				
1	Elkin (1993); in plac	ce, mineable, partially	diluted, metaluurgio	al recovery	not applied				
2	Elkin (1993); price	assumed = \$360/oz of	gold and \$4.00/oz o	f silver for D	eLamar;				
	price assumed = \$3	80/oz of gold and \$4.2	20/oz of silver for Sto	ne Cabin					
3	Kinross Gold Corpo	ration Annual Report	for 1997; includes m	aterial from	claims outs	side of DeLa	mar project	area	
4	•	•							
	Kinross Gold Corporation Annual Report for 1998; includes material from claims outside of DeLamar project area								

The authors have not done sufficient work to classify the historical estimates summarized in Table 6.2 as current mineral resources or mineral reserves, and Integra is not treating these historical estimates as current mineral resources or mineral reserves. Accordingly, these estimates should not be relied upon. The current mineral resources for the DeLamar project are discussed in Section 14.0.



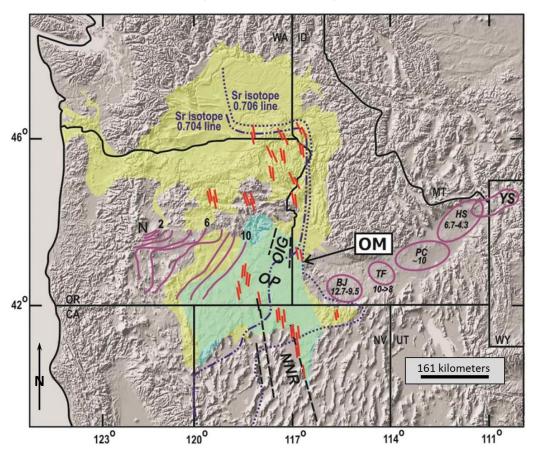
#### 7.0 GEOLOGIC SETTING AND MINERALIZATION

The information presented in this section of the report is derived from multiple sources, as cited. The authors have reviewed this information and believe this summary accurately represents the DeLamar project geology and mineralization as it is presently understood.

# 7.1 Regional Geologic Setting

The DeLamar project is situated in the Owyhee Mountains, which are located near the east margin of the mid-Miocene Columbia River – Steens flood basalt province and the west margin of the Snake River Plain (Figure 7.1). The geology of various parts of the Owyhee Mountains has been described by Lindgren and Drake (1904), Piper and Laney (1926), Asher (1968), Bennett and Galbraith (1975), Panze (1975), Ekren et al. (1981), Ekren et al. (1982), and Bonnichsen and Godchaux (2006). As summarized by Bonnichsen (1983), Halsor et al. (1988), and Mason et al. (2015), the Owyhee Mountains comprise a major mid-Miocene eruptive center, generally composed of mid-Miocene basalt flows and younger, mid-Miocene rhyolite flows, domes and tuffs, developed on an eroded surface of Late Cretaceous granitic rocks. This Miocene magmatic and volcanic activity coincided with the regional Columbia River – Steens flood basalt event at about 16.7 to ~14.5 Ma (Mason et al., 2015).

Figure 7.1 Shade Relief Map with Regional Setting of the Owyhee Mountains (from Mason et al., 2015)



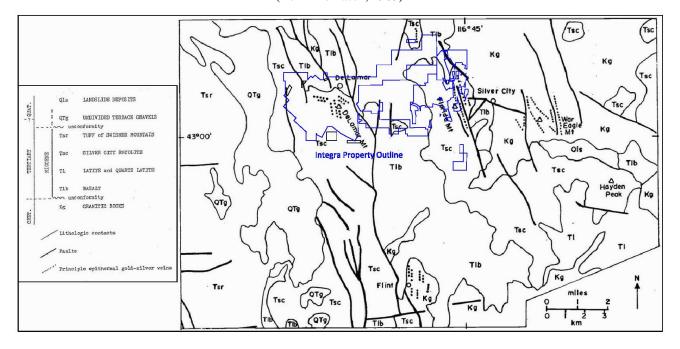


Note: OM = Owyhee Mountains; OP = Oregon Plateau; OIG = Oregon-Idaho graben; NNR = Northern Nevada Rift. Yellow shading shows the Columbia River – Steens flood basalt province; green shading indicates the Oregon Plateau underlain mainly by mid-Miocene silicic volcanic rocks. Red lines show eruptive loci and dike swarms; purple lines and ovoids are isochrons and silicic volcanic centers, respectively, with ages of silicic volcanism of the Oregon High Lava Plains and Snake River – Yellowstone provinces in Ma. Dark blue dashed and dotted lines are strontium isopleths. See Mason et al. (2015) for sources of data.

# 7.2 Owyhee Mountains and District Geology

Five informal rock-stratigraphic sequences have been defined in the central Owyhee Mountains and the De Lamar – Silver City area (Figure 7.2). From oldest to youngest these are the 1) Late Cretaceous Silver City granite; 2) mid-Miocene lower basalt; 3) mid-Miocene latite and quartz latite; 4) mid-Miocene Silver City rhyolite; and 5) mid-Miocene Swisher Mountain Tuff (formerly tuff of Swisher Mountain). The Silver City granite crops out near the crest and in the eastern part of the range (Figure 7.2), and forms the pre-volcanic basement in the area. It has been described as mainly medium- to coarse-grained biotite-muscovite granodiorite to quartz monzonite and albite granite (e.g., Bonnichsen, 1983). It is considered to represent an outlying portion of the Idaho Batholith on the basis of Late Cretaceous potassium-argon age dates, and similarities in composition, and mineralogy (Taubeneck, 1971; Panze, 1972).

Figure 7.2 Geologic Map of the Central Owyhee Mountains (from Thomason, 1983)



The Silver City granite is directly overlain by flows of the Miocene lower basalt, which have filled up to several hundreds of feet of relief on the granite. This demonstrates that the Silver City granite had been exhumed and underwent subaerial erosion by mid-Miocene time. The lower basalt is exposed in a northwest-trending band through the central part of the Owyhee Mountains (Figure 7.2) and consists of as much as 762 meters of flows of alkali-olivine to tholeitic basalt that change upward to basaltic andesite and trachyandesite (Asher, 1968; Ekren et al., 1982; Bonnichsen, 1983; Thomason, 1983). As



pointed out by Bonnichsen (1983), these basalts were erupted between 17 and 16 Ma, recalculated with modern decay constants from age dates of Panze (1975) and Armstrong (1975), and the lower part of the basalt sequence includes flows with distinctive large plagioclase phenocrysts, similar to flows of the Imnaha Basalt of the Columbia River Basalt Group.

Flows of latite and quartz latite overlie the lower basalt and in places directly overlie the Silver City granite (Thomason, 1983). The latite and quartz latite unit has a maximum thickness of about 549 meters (Panze, 1975).

The Silver City rhyolite (Asher, 1968) forms much of the central core of the Owyhee Mountains (Ekren et al., 1984) and consists of numerous individual and coalesced rhyolite flows and domes derived from local eruptive centers, as well as intercalated units of rhyolite ash-flow tuff (Panze, 1971; 1975; Thomason, 1983). Thomason (1983) estimated a composite thickness of as much as 1,500 feet for the sequence. Panze (1975) recognized a consistent succession of quartz latite, flow breccia and upper rhyolite that can be traced through the central Owyhee Mountains, and defined several vent areas and individual domes. More recent studies have shown that some of the individual quartz latite and rhyolite units consist of flow-layered, rheomorphic ash-flow tuffs of regional extent (Ekren et al., 1984).

The western and southern flanks of the Owyhee Mountains are capped by one or more cooling units of the Swisher Mountain Tuff, which overlies the Silver City rhyolite (Figure 7.2; Thomason, 1983; Ekren et al., 1984). The Swisher Mountain Tuff was emplaced at about 13.8 Ma as a regional sheet of unusually high-temperature rhyolite ash flows erupted from a vent area located near Juniper Mountain, about 64 kilometers south of De Lamar and Silver City (Ekren et al., 1984). Most of the unit is extremely densely welded and underwent post-compaction internal flowage (rheomorphic deformation), resulting brecciated vitrophyres, contorted flow laminations and internal flow brecciation. In some places, however, eutaxitic textures and preserved pumice clasts provide evidence for the original ashflow emplacement (Ekren et al., 1984).

Map patterns indicate the Owyhee Mountains have undergone incipient to minor amounts of mid-Miocene and younger regional extension. The principal faults recognized in the central Owyhee Mountains have normal displacements and primarily north-northwest orientations (Figure 7.2) approximately parallel to the Northern Nevada Rift (Figure 7.1). As stated by Bonnichsen (1983), "The attitude of the volcanic units generally ranges from subhorizontal to gently dipping, most commonly southwards. It is not clear if all the dips are due to initial deposition on uneven topography, or if some of the units have been rotated."

# 7.3 DeLamar Project Area Geology

Earth Resources and NERCO geologists defined a local volcanic stratigraphic sequence in the DeLamar area based on geologic mapping and drilling. Mapping at various times benefited from exposures in the walls of the Glen Silver, Sommercamp – Regan, and North DeLamar pits. In addition to internal company reports, the geology of the DeLamar area has been documented in studies by Thomason (1983), Halsor (1983), Halsor et al. (1988), and Cupp (1989). All of these workers were involved with the exploration and operation of the project. The most concise and complete description of the local stratigraphic units and the mine area geologic setting was given by Halsor et al. (1988) and is presented



here in Table 7.1. The Silver City granite is not exposed in the DeLamar area and has not been penetrated by drilling, although it is considered likely to underlie the Miocene rocks at depth.

Table 7.1 Summary of Volcanic Rock Units in the Vicinity of the DeLamar Mine (modified from Halsor et al., 1988)

	Unit and symbol	Thickness (ft)	Phenocryst and rock fragment data	Description	Mode of emplacement and possible source	Comments
	Millsite rhyolite (Tms)	0 to 500+	5 percent subhedral sanidine and quartz phenocrysts up to 3 mm across	Purplish red; flow breccias are common at top and base; massive to flow- banded interior with columnar joints; lithophysae are common	Lava flow(s) from north-northwest- trending dikes at Louse Mountain (sec 22, T 5 S, R 4 W)	Postmineralization only minor alteration
Silver City rhyolite	Banded rhyolite (Tbr)	0 to 300	Less than 1 percent phenocrysts of rounded sanidine and quartz	White, pink, or purplish red; strongly developed folded flow bands; commonly pervasively altered; hydrothermally brecciated and veined by quartz	Low-viscosity lava flow or possibly an ash flow, probably from a local vent	50 to 70 ft of basal vitrophyre was altered to form a clay layer that ponded hydrothermal solutions
	Porphyritic rhyolite (Tpr)	100 to 850	3 to 8 percent subhedral to euhedral quartz and sanidine phenocrysts	Buff to white; generally homogeneous and massive, seldom banded; commonly silicified with quartz veins and brecciation in altered zones	Rhyolite dome or thick lava flow lobe from a nearby buried source; it may cover its own vent	One of many rhyolite domes in the region associated with north- northwest- trending faulting
\ <u>\</u>	Tuff breccia (Ttb)	0 to 170	Angular fragments of altered Tlb and Tl up to 10 cm across in a fine, altered matrix	Green; predominantly bedded lapilli tuff; beds vary from several inches to several feet thick and are moderately sorted by size but are not graded	Near-vent outfall from phreatomagmatic explosions that probably culminated in Tpr extrusion	Unit is not laterally continuous; pervasive alteration; some fragments replaced by pyrite
	Quartz latite (Tql)	0 to 350(?)	Sparse phenocrysts of quartz, sanidine, and minor andesine and clinopyroxene less than 1 mm across	Black to greenish gray; weathers to orange or red; commonly altered to red or white; produces platy fragments and extensive talus on slopes	Lava flows mainly from Florida Mountain and Cinnabar Mountain and other sources	Unit of regional extent exposed in the Glen Silver pit and nearby in Louse Creek
	Porphyritic latite (Tl)	50 to 200	Xenocrysts and xenoliths of quartz; feldspar, granite, and basalt; 3 percent 1-mm-size quartz and feldspar phenocrysts	Dark gray to black; weathers to brownish red where massive and to various colors where platy; commonly altered to red or white; commonly has platy structure and red amygdules	Mainly vesicular lava flows from Sullivan Knob near DeLamar and Florida Mountains	Occurs above Tlb at the DeLamar silver mine; regional studies indicate Tl is intercalated within upper part of Tlb elsewhere
	Lower basalt (Tlb)	0 to 2,500+	Commonly has labradorite laths up to 1 cm long; local olivine phenocrysts	Black to gray-green; generally massive but locally scoriaceous, brecciated, palagonitic, and pillowed; commonly has poorly developed columnar jointing	Numerous lava flows; probably fissure eruptions from north- northwest- trending dikes	Flows typically are 50 to 150 ft thick and are quite continuous laterally

The mine geologists considered the units above the lower basalt to be subunits of the Silver City rhyolite. However, the quartz latite (unit Tql, Table 7.1) has been correlated with the tuff of Flint Creek, a regional, high-temperature, lava-like ash-flow tuff (Ekren et al., 1984).



Figure 7.4 shows the principal mineralized zones of the DeLamar property in relation to the DeLamar property outline, and Figure 7.4 shows the surface geology of these mineralized zones. Open-pits of the DeLamar mine were developed at the Glen Silver, Sommercamp – Regan, and North DeLamar zones. The Sullivan Gulch zone has not been mined.

Clerk

Consultant

Mine Development
Associates

Integra Property Outline

Regan

Crack

De Lamar

North
De Lamar

Ohio One

Sullivan

Gulch

Gulch

Town
Mine Development
Associates

Proped

De LamAR MINE PROJECT

OWYHEE COUNTY, IDAHO

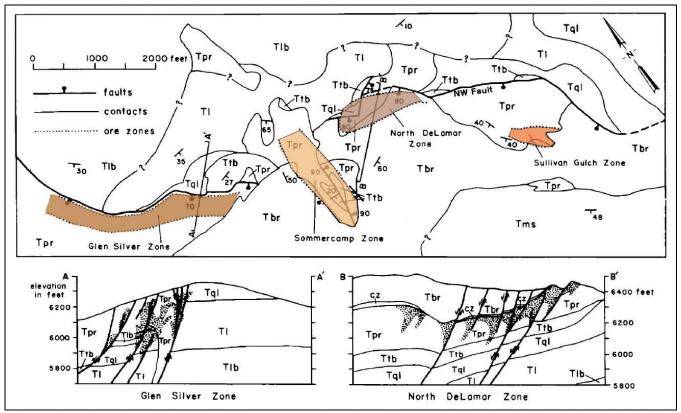
The Land Position Map
Showing Mineralized Zones

Mine Development
Associates

Figure 7.3 Land Position Map Showing Mineralized Zones



Figure 7.4 Generalized Geologic Map and Cross Sections of the DeLamar area (from Halsor et al., 1988; map units correspond to units shown in Table 7.1)



Note: The Regan area (not shown) is the northern extension of the Sommercamp zone; "cz" on cross section B-B' refers to the clay zone at the base of the banded rhyolite (Tbr). Additional faults are shown in the cross section that have been omitted from the map for clarity according to Halsor et al. (1988). All of Figure 7.4 is within the property limits as shown in Figure 7.3.

Mapping and drilling by Earth Resources and NERCO geologists has led to the interpretation that the mine area and mineralized zones are situated within an arcuate, nearly circular array of overlapping porphyritic and banded rhyolite flows and domes (units Tpr, Tbr, Tms). These flows and domes overlie cogenetic, precursor pyroclastic deposits (unit Ttb) erupted as local tuff rings (Halsor, 1983; Halsor et al., 1988). Halsor (1983) interpreted the porphyritic and banded rhyolite flows and domes to have been emplaced along a system of ring fractures developed above a shallow magma chamber that supplied the erupted rhyolites. This magma chamber was inferred to have been intruded within a northwest flexure of regional north-northwest trending Basin and Range faults (Figure 7.5).



Sommercamp South Property Outline

South Delamar South Del

Figure 7.5 Volcano-Tectonic Setting of the DeLamar area (modified from Halsor et al., 1988)

#### 7.4 Mineralization

Numerous studies of the gold and silver mineralization in the DeLamar project - Silver City area have been conducted, beginning in the late 1860s. The most definitive studies and descriptions have been those of Lindgren (1900), Piper and Laney (1926), Thomason (1983), Halsor (1983), Halsor et al. (1988), and Mosser (1992). The authors have reviewed this information and believe it reasonably describes the mineralization as presently understood.

Precious-metal mineralization has been recognized in two types of deposits: within 1) relatively continuous, quartz-filled fissure veins, and 2) broader, bulk-mineable zones of closely-spaced quartz veinlets and quartz-cemented hydrothermal breccia veinlets that are individually continuous for only a few feet laterally and vertically, and of mainly less than 1.3 centimeters in width.

### 7.4.1 Fissure Vein Mineralization

Mineralization mined from bedrock prior to 1942 was of the fissure vein deposit type. A concise summary of this type of mineralization was given by Bonnichsen (1983), as follows:

"Nearly all of the gold- and silver-bearing veins in the district strike north to northwest, following the main fault and dike trends, and are thought to be the same age....

Most of the veins are fissures filled with quartz, accompanied by variable amounts of adularia, sericite, or clay. A few have been described as silicified shear zones. The veins are narrow, in most places only a few inches to a few feet wide, but persist laterally and vertically for as much as several thousand feet. Within an individual vein, the gold and silver ore occurs in definite shoots,



generally with a moderate rake and somewhat irregular outline. The localization of ore shoots has commonly been attributed to the presence of cross-fractures, or, in one instance (Trade Dollar Mine), to the intersection of the vein with the granite-basalt contact. Some of the most productive veins in the district follow thin basaltic dikes.

All three major rock units, the Silver City granite, the lower basalt-latite unit, and the Silver City rhyolite, are cut by mineralized veins. Most of the production at War Eagle Mountain, Florida Mountain, and Flint was from veins in the granite, while at De Lamar all of the production was from the rhyolite.

Naumannite ( $Ag_2Se$ ) is the principal hypogene silver mineral and normally is accompanied by variable but subordinate amounts of aguilarite ( $Ag_4SeS$ ), argentite, and ruby silver as well as other silver-bearing sulfantimonides and sulfarsenides. Where interpreted to have been reorganized by supergene activity (Lindgren, 1900; Piper and Laney, 1926), the principal silver minerals are native silver, cerargyrite, and some secondary naumannite and acanthite. In both the hypogene and the oxidized and supergene-enriched portions of the veins, the principal gold-bearing minerals are native gold and electrum. Variable amounts of pyrite and marcasite, and minor chalcopyrite, sphalerite, and galena occur in some veins; the base metal-bearing minerals become more abundant at deeper levels.

Quartz is the principal gangue mineral. Much is massive, but some has drusy or comb structure and a lamellar variety is locally abundant. This lamellar (or cellular or pseudomorphic) variety consists of thin plates of quartz set at various angles to one another (see photographs in Lindgren, 1900; Piper and Laney, 1926). Each plate consists of numerous tiny crystals that have grown from either side of a medial plane. Lamellar quartz has been interpreted as the replacement of preexisting calcite (or perhaps barite) crystals. Adularia commonly shows crystal outlines developed as open-space fillings."

Calcite is reported to be present in only a few veins in the district, such as the Banner vein at Florida Mountain (Piper and Laney, 1926). Adularia is sparse in veins of the historic De Lamar mine, but is an abundant component of veins at district locations outside of the DeLamar project, including Florida Mountain and War Eagle Mountain (Lindgren, 1900; Piper and Laney, 1926). This mineralogical zoning is attributed to proximity to the Silver City granite (Mason et al., 2015).

Potassium-argon age dates of volcanic units cut by veins, and dates on vein adularia concentrates, indicate that vein mineralization in the Silver City district was coeval with rhyolite volcanism at about 16 to 15 Ma (e.g., Panze, 1972; 1975; Halsor et al., 1988). More recent high-precision  $Ar^{40}/Ar^{39}$  ages of adularia extracted from four samples of veins immediately outside of the project range from 15.42  $\pm 0.07$  Ma to 15.58  $\pm 0.06$  Ma (Aseto, 2012), in good agreement with the earlier studies.



#### 7.4.2 Bulk-Mineable Mineralization

Zones of bulk-mineable mineralization have been recognized in the district only since the early 1970s. Mining of this type of mineralization has only occurred in the DeLamar project area and at Florida Mountain. Accordingly, this type of mineralization is described below in Section 7.5.

### 7.5 DeLamar Project Mineralization

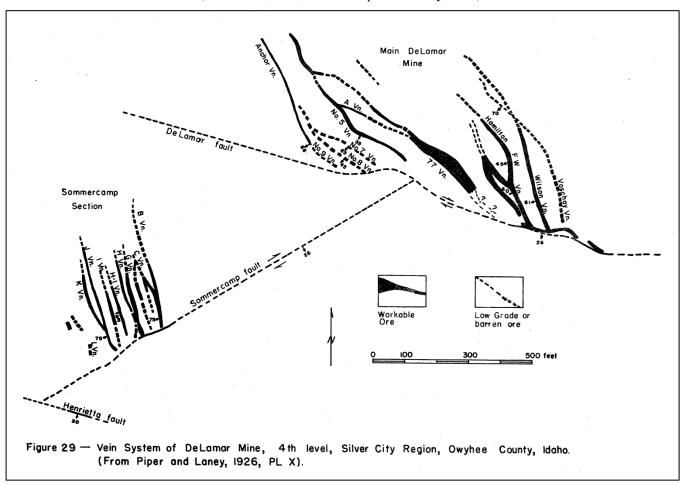
The modern DeLamar open-pit mine area encompasses the historic De Lamar mine where fissure-vein mineralization was mined from 1889 through 1913. Mineralized shoots in two sets of fissure veins were mined from what are now the Sommercamp – Regan and North DeLamar open-pit zones of Figure 7.3, which correspond to the Main De Lamar and Sommercamp veins, respectively, shown at the 4<sup>th</sup> level (elevation 1,902 meters) in Figure 7.6. Bonnichsen's (1983) summary of the DeLamar area vein mineralization is as follows:

"The main De Lamar section, at the site of the present-day North DeLamar pit...was 1,300 feet long in a northwest-southeast direction and up to about 300 feet wide, as measured on the No. 4 level (6,240 feet elevation). The section contained the Hamilton-Wilson No. 9 vein striking N. 25° W. and dipping 45°-66° W., and the 77 vein striking N. 62° W. and dipping 35° SW. These were connected by smaller veins and stringers. At lower levels the veins assumed steeper dips, 65 to 80 degrees being common. The 77 vein was the most important producer. The Sommercamp section, at the site of the present-day Sommercamp pit...was a zone about 300 feet across that contained ten interlinked veins striking N. 18° W. and dipping 65°-80° W.

These ore-bearing zones plunged 20 to 30 degrees southward. In both, the southern limit of the ore was a clay zone several feet thick with a shallow dip to the south. These clay zones were known as iron dikes to the miners and were interpreted to be the low-angle De Lamar and Sommercamp faults by Piper and Laney (1926), Asher (1968), and Panze (1975). However, the excellent exposure in the present-day open-pit mines has shown that these zones really are mainly the thick basal vitrophyric section of the banded rhyolite unit (Tbr) which has been hydrothermally altered. In the underground workings, much of the rich silver ore—the "silver talc"—was extracted where the veins abutted against the base of this clay zone. With its shallow dip, this zone formed the upper as well as the southern limit to mineralization in both sections of the mine."



Figure 7.6 Veins of the Historic De Lamar Mine, Elevation 6,240 Feet (from Asher, 1968; based on Piper and Laney, 1926)



Note: all of the area of the above figure is entirely within the property boundary shown in Figure 7.3.

An indication of the grades mined can be found in Piper and Laney (1926), where the 77 vein was reported to have been stoped from 1893 through 1908 with average grades mainly of 17.14 – 20.57 grams gold per tonne, and about 44.57 – 1,714 grams silver per tonne, over widths of 0.305 to 7.3 meters. During this period most of the production came from elevations above 1,786 meters, but some stopes were as deep as the 12<sup>th</sup> level at 1,768 meters. Although the 77 vein was found to persist to the 16<sup>th</sup> level at an elevation of 1,712 meters, the lowest elevation of workings, grades were largely subeconomic below the 10<sup>th</sup> level and only a small amount of production came from the 12<sup>th</sup> level (Piper and Laney, 1926). As pointed out by Piper and Laney (1926), there was little underground exploration, and the development that was done did not take into account the southerly plunge of mineralization.

In addition to the fissure veins, the bulk mineable type of mineralization has been delineated in four broad, lower-grade zones, two of which overlap and are centered on the Sommercamp and main De Lamar fissure veins. This type of mineralization has been described by Halsor et al. (1988) as follows:

"Low grade mineralization occurs in porphyritic rhyolite where closely spaced veinlets and fracture fillings provide bulk tonnage ore. Most of the veinlets are less than 5 mm in width and have short lengths that are laterally and vertically discontinuous....Locally, small veins can form



pods or irregular zones up to 1 to 2 cm wide that persist for several centimeters before pinching down to more restricted widths. In highly silicified zones, porphyritic rhyolite is commonly permeated by anastomosing microveinlets typically less than 0.5 mm wide. Most of the minute veining displays well-defined contacts with the enclosing rock and in some instances veins can be seen to sharply cut phenocrysts. Still, in other zones, microveinlets are less distinct and difficult to distinguish from groundmass silicification.

Networks of high-density, quartz-free fractures are the sites for supergene mineralization. Major fractures generally trend north-northwest, but less prominent intervening and crosscutting fractures are present. Major fractures commonly have steep dips and show reversals in direction of dip vertically along faces. Fracture fillings commonly consist of thin coatings of goethite and jarosite but occasionally can be filled with seams of sericite and kaolinite up to several centimeters wide. Above the clay zone, veining is characterized by narrow, chalcedony-lined fractures of irregular extent.

In the Sommercamp pit, the principal ore zone in porphyritic rhyolite occurred beneath the clay zone as a distinct shoot striking north-northwest, dipping 40° E; and plunging 9½° SE. It was 27 m thick at the south end and thickened to 90 m at the north end. The ore-waste boundary at the base of the shoot was sharp with ore-grade material (>2 oz Ag) in the shoot abruptly dropping to waste across a single 1.5-m sample interval. The base of the ore shoot was remarkably planar but dipped 40° E as mentioned above. The top of the ore shoot was undulatory and more or less defined by the base of the clay zone over the porphyritic rhyolite. Generally, major mineralized shoots in the Glen Silver, North DeLamar, and Sullivan Gulch zones all plunge 10° to 15° to the southeast. Determining the plunge in the North DeLamar pit proved difficult due to a very complex cross faulting pattern.

Ore mineralogy is reported by Thomason (1983) and Barrett (1985). Naumannite (Ag<sub>2</sub>Se) is the dominant silver mineral and acanthite  $(Ag_2S)$  and acanthite-aguilarite  $[(Ag_2S)-(Ag_4)(Se,S)_2]$  solid solution are the second most abundant. Remaining ore minerals consist of lesser amounts of  $(AgFe_2S_3)$ , Se-bearing pyrargyrite  $[Ag_3Sb(S,Se)_3]$ , Se-bearing polybasite  $[(Ag,Cu)_{16}Sb_2(S,Se)_{11}]$ , cerargyrite [AgCI], Se-bearing stephanite  $[Ag_5Sb(S,Se)_4]$ , native silver, and native gold and minor Se-bearing billingsleyite [Ag7(Sb,As)(S,Se)6], pyrostilpnite  $[Ag_3Sb(S,Se)_3]$  and Se-bearing pearceite  $[(Ag,Cu)_{16}As_2(S,Se)_{11}]$ . Ore minerals are generally very fine grained; 65 percent of the minerals average 62µ in diameter, with the remainder averaging 200\(\tau\) (Rodgers, 1980). Naumannite, the dominant silver mineral, commonly occurs as finely disseminated grains in quartz veinlets and within some fractures. It is also found as crystal aggregates growing on drusy quartz that lines vugs. Acanthite, the second most abundant silver mineral, occurs as anhedral blebs in quartz gangue and hydrothermal clays commonly associated with naumannite. It also is frequently present as a late-stage mineral coating drusy quartz in vugs.... Pyrite is the most widespread metallic mineral occurring in veins and altered country rock. Pyrite occurs along the edges of veins but also as coatings on some of the younger minerals. Polymorphic marcasite is commonly associated with pyrite, forming lath shaped crystals and anhedral aggregates surrounding pyrite. In some zones, marcasite is intimately intergrown in irregular clots with pyrite....

Vein gangue minerals consist almost entirely of quartz, with minor amounts of mosaic intergrowths of adularia. Texturally, quartz can be divided into three varieties: (1) cloudy, massive, fine-grained quartz, (2) lamellar quartz, and (3) clear, crystalline, coarse-grained



quartz.... Cloudy, fine grained quartz, including a chalcedonic variety, is the dominant type in veins and veinlets that constitute ore. This quartz is characterized by turbid anhedral grains (<0.005 mm) rich in solid inclusions.

The host rocks at DeLamar are pervasively altered. The tuff breccia is altered to an assemblage of quartz, illite, pyrite, and marcasite. The alteration of the principal host of mineralization, porphyritic rhyolite, is vertically zoned. The alteration assemblage is quartz, illite, pyrite, and marcasite and locally in the upper portions there are complex assemblages including jarosite, and mixtures of alunite, goethite, and kaolinite; hematite with kaolinite; and illite plus kaolinite (Thomason, 1983; Barrett, 1985). The latter style of alteration produces a very conspicuous glaring white rock that overlies the principal ore zones at DeLamar. The porphyritic rhyolite is overlain by a clay zone which consists of variable quantities of mixed layers of illite and montmorillonite clays with 5 to 7 vol percent euhedral pyrite in fine-grained aggregates or as crystals up to a few millimeters across. In less altered areas relic perlitic structure can be seen, demonstrating that the clay zone was a basal vitrophyre of the banded rhyolite. Above the clay zone, feldspar in the banded rhyolite is altered to kaolinite and the groundmass contains finely disseminated hematite, trace amounts of epidote, and patches of cryptocrystalline quartz. Sparse chemical data (Halsor, 1983) indicate that at least some of the DeLamar rocks were potassium metasomatized.

Scattered zones of breccia in the banded rhyolite occur most frequently near the base of the unit. These breccias crosscut flow layering, some ranging up to several meters in length by several decimeters in width. The breccias consist of close-packed angular fragments of flow-banded rhyolite in a chalcedonic matrix. The fragments show little rotation and this, together with the crosscutting nature of the breccias, suggests a hydrothermal origin and not primary features related to flow."

The above description seems to have been based on the Sommercamp and North DeLamar mineralized zones. The authors have no information to suggest that the Glen Silver and the unmined Sullivan Gulch mineralization is significantly different. However, there is no indication that major fissure-vein mineralization was mined historically or encountered in exploration drilling in the Glen Silver zone, and all of the mineralization there is thought to consist of the bulk mineable type.

Samples from three drill cores were studied with optical microscopy and x-ray powder diffraction methods at Hazen Research Inc. ("Hazen") in 1971 (Perry, 1971). In addition to identifying some of the silver minerals recognized by Thomason (1983) and Halsor (1988), the Hazen study noted that gold occurs as native gold and in electrum. The gold grains were reported to be "blebs" that "rarely exceed 5 microns in size" intergrown with quartz, and within and on naumannite (Perry, 1971). Electrum was found as silvery, nearly white blebs less than 5 microns in size "locked in cerargyrite".

All of the DeLamar area mineralization is situated stratigraphically below the Millsite rhyolite, which is reported to be little affected by hydrothermal alteration and is considered to be post-mineral in age (Thomason, 1983; Halsor et al., 1988).

A shallow, hot-spring setting has been described by Barrett (1985) for gold-silver mineralization at the Milestone prospect, about 1 kilometer northwest of the Glen Silver zone (Figure 7.3). According to Gierzycki (2004):



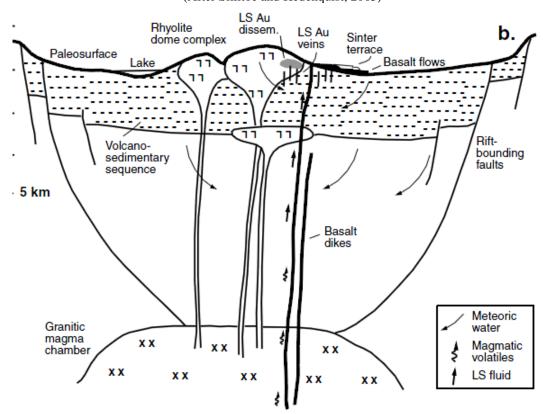
"The ore lies at the base of a basalt-rhyolite contact in hydrothermal erruption-breccia with clasts of porphyritic rhyolite within a large zone of cherty silicification. It is capped at the surface by a sinter....Major ore minerals are naumannite, Se-rich pyrargyrite and gold."



#### 8.0 DEPOSIT TYPE

Based upon the styles of alteration, the nature of the veins, the alteration and vein mineralogy, and the geologic setting, the gold and silver mineralization at the DeLamar project is best interpreted in the context of the volcanic-hosted, low-sulfidation type of epithermal model. This model has its origins in the De Lamar - Silver City district, where it was first developed by Lindgren (1900) based on his first-hand studies of the veins and altered wallrocks in the De Lamar mine. Various vein textures, mineralization, and alteration features, and the low contents of base metals in the district are typical of what are now known as low-sulfidation epithermal deposits world-wide. 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 the DeLamar project is similar to the simple model shown in Figure 8.1, with the lower basalt sequence occupying the stratigraphic position of the volcano-sedimentary rocks shown below. The Milestone portion of the district appears to be situated within and near the surficial sinter terrace in this model.

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



As documented by Lindgren (1900) and Piper and Laney (1926), many of the veins in the district contain distinctive boxwork and lamellar textures where quartz has replaced earlier crystals of calcite. These textures are now known to result from episodic boiling of the hydrothermal fluids from which the veins were deposited. Limited fluid inclusion studies of quartz from veins in the upper part of the



neighboring Florida Mountain claims by Mosser (1992) support the concept of fluid boiling and indicate fluid temperatures were in the range of 235°C to 275°C. Salinities measured by freezing point depressions were apparently in the range of 0.25 to 2.1 equivalent weight percent NaCl, with a mean of about 0.8 equivalent weight percent NaCl (Mosser, 1992). Halsor et al. (1988) reported fluid temperatures from late-stage quartz in the DeLamar mine of about 170°C to 240°C, with salinities of 2.8 to 3.8 equivalent weight percent NaCl. The temperature and salinity data, and evidence for fluid boiling are typical of the low-sulfidation epithermal class of precious-metal deposits world-wide.

Many other deposits of this class occur within the Basin and Range province of Nevada, and elsewhere in the world. Some well-known low-sulfidation epithermal gold and silver properties with geological similarities to the DeLamar property include the past-producing Castle Mountain mine in California, as well as the Rawhide, Sleeper, Midas, and Hog Ranch mines in Nevada. The Midas district includes selenium-rich veins similar to, but much richer in calcite, than the veins known in the DeLamar property. At both DeLamar and Midas, epithermal mineralization took place coeval with rhyolite volcanism, and shortly after basaltic volcanism, during middle Miocene time.

The geologic setting of the Castle Mountain mine, California (Grey et al., 2016) most closely resembles the geologic setting of the DeLamar area. Both are hosted by rhyolite domes and adjacent tuffs erupted through terrestrial volcanic sequences that overlie older basement units. Styles of alteration and gold-silver mineralization are also very similar, although silver-to-gold ratios and selenium mineral abundances at DeLamar may be higher.

The information provided above relating to the Castle Mountain and Midas mines is not necessarily indicative of the mineralization on the property that is the subject of this technical report.



## 9.0 EXPLORATION

Integra has not conducted exploration at the DeLamar project. Drilling by previous operators is described in Section 10.0.



#### 10.0 DRILLING

All of the drilling summarized in this section was completed by historical operators from the late 1960s through 1996. Integra has not conducted drilling at the DeLamar property. This section summarizes the historical drilling in the DeLamar area of the property. Historical drilling within the limited property position at Florida Mountain is not material to the resources estimated for the DeLamar area of the property, has not been examined in detail by the authors, and is therefore is not discussed in this Section.

### 10.1 Summary

Records of historical drilling are incomplete with respect to dates, drilling methods, drilling contractors, and types of drills used. As of the effective date of this report, MDA is aware of a total of 1,547 holes drilled in the DeLamar area for a total of 143,662 meters, including the Milestone prospect that lies about 1 kilometer northwest of the Glen Silver zone and is included in the current mineral resources.

Table 10.1 summarizes the DeLamar area drilling by operator and year. Nearly all of this drilling was done using conventional rotary and reverse-circulation rotary ("RC") methods. Approximately 72% of the drilling was vertical, and none of the conventional holes were angled. A total of 60 holes were drilled using diamond-core ("core") methods for a total of 4,886 meters, or 3.4% of the overall meterage drilled. The median down-hole depth of all holes is 91 meters. The aerial distribution of drill holes in the DeLamar area is shown in Figure 10.1.

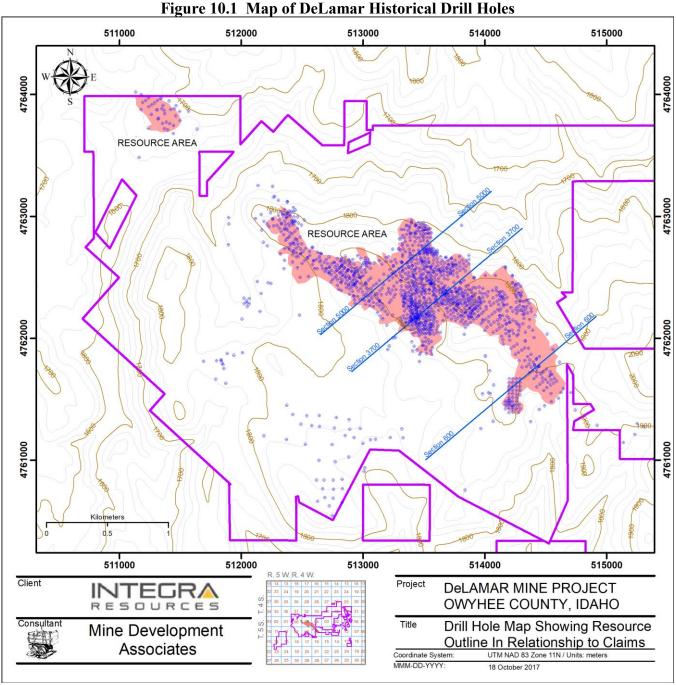
Table 10.1 Summary of Historical Drilling, DeLamar Area

Year	Company	Holes	Meters
1966	Continental Materials	5	1,409
1969 - 1983	Earth Resources	501	44,763
1972	Sidney Mining	8	653
1985 - 1992	5 - 1992 NERCO		68,611
1993 - 1998	Kinross	239	21,353
1976 - 1987*	Earth Resources and/or NERCO	39	4,033
not known	not known not known		2,839
1966 - 1998	TOTALS	1,547	143,662

*Note: Does not include drilling in the Florida Mountain portion of the property.* 

In some cases, available drilling records were not dated, but the operator was recorded and the year drilled was bracketed within a range based on in-sequence hole numbers that have dated records. For 39 holes, the operator was not recorded and the drilling year could only be bracketed to a range that overlapped both Earth Resources' and NERCO's drilling (Table 10.1). A total of 64 holes with undated records could not be bracketed to a particular year or operator. The authors believe further research of available archived reports and project files may fill in some of the gaps in dates and operators.





Note: Integra's DeLamar property limit shown with purple lines; pale orange fill shows footprint of estimated mineral resources; blue open circles with crosses are drill hole collar locations. Separate, outlying resource is the Milestone prospect. Cross section lines refer to the cross section shown in Section 14, Figures 14.1 - 14.6.



### 10.2 Historical Drilling – DeLamar Area

#### **10.2.1** Continental 1966

The earliest drilling that MDA is aware of was completed by Continental in the area of the 77 vein of the old De Lamar underground mine and now the site of the North DeLamar pit. A total of 1,409 meters were drilled in five inclined core holes, but MDA is unaware of what type of drill rig was used, core diameter(s), or the identity of the drilling contractor.

#### 10.2.2 Earth Resources 1969 - 1970

In 1969 and 1970, Earth Resources drilled 40 conventional rotary holes in the North DeLamar, Sommercamp, and Glen Silver areas. All of the holes were vertical. Harris Drilling was the contractor for most of the drilling, some of which was done with a Failing 1500 drill rig. Eklund Drilling of Elko, Nevada, drilled one of the holes using a Mayhew 2000 drill. MDA is unaware of the type(s) and size(s) of drill bits used.

### **10.2.3 Sidney Mining 1972**

Sidney Mining drilled eight core holes in the Sommercamp and North DeLamar zones in 1972. MDA is unaware of the drilling contractor, type of rig, and core diameter(s) used for this drilling.

#### 10.2.4 Earth Resources 1970? – 1983

Between as early as possibly 1970 and the end of 1983, Earth Resources drilled 501 holes. Five of these were core holes drilled in the DeLamar area in 1975 with Longyear 38 and Longyear 44 core drills operated by Longyear Drilling. Five core holes were also drilled in 1975 in the Glen Silver area by the same contractor using a Longyear 44 rig. The core diameter was HQ for all 10 core holes.

The conventional rotary holes were drilled in the DeLamar, Glen Silver, Sommercamp – Regan, Henrietta, Milestone, Ohio, Millsite, and Sullivan Gulch areas. All of these holes were vertical. Contractors at various times included: Justice Drilling using a Mayhew 1000 rig; and Eklund Drilling using G-15, Mayhew 1500, Mayhew 2000, and Gardner-Denver 1500 rigs. Harris Drilling used a Failing drill for 21 holes in 1973. Eklund also used an Ingersoll-Rand TH60 drill in 1979 and 1980. It is not known if the TH60 rig was configured for RC drilling.

There are 39 holes in MDA's drilling database that are bracketed between 1976 and 1987, overlapping NERCO's acquisition of the project in 1984, but the records do not state the operator that drilled these holes. It is not clear which holes, if any, were drilled in the latter part of 1984 after NERCO acquired the project. Most were drilled at Glen Silver and a few were drilled at the Ohio and Regan areas. Ten of these were vertical holes drilled at Sullivan Gulch with RC methods, but the remaining holes are inferred to have been conventional rotary holes.

# 10.2.5 NERCO 1985 - 1992

Available records show NERCO drilled 691 holes during 1985 through 1992. Drilling took place at various times during this period at North DeLamar, Glen Silver, Sommercamp – Regan, Sullivan Gulch, Ohio, Town Road, the tailings area, and an area known as "Heap Leach". The Sullivan Gulch holes were drilled in 1985 or later using RC methods. Twelve vertical RC holes were drilled at the Ohio area, but the rig type and contractor are not available. Six core holes were drilled in the Glen Silver area in 1986 with a Longyear 44 drill. After some point in 1987, all of NERCO's drilling was done with RC methods. Tonto Drilling used an Ingersoll-Rand TH60 RC drill for some of the drilling in 1987 and 1989. An in-house Canterra RC drill was also used in 1989. Ponderosa Drilling was the contractor for 30 core holes drilled in the Heap Leach area in 1990, but the type of drill and core diameter is not known to MDA. The NERCO Cantera RC drill was also used for 19 holes drilled in the Ohio area in 1991, and 19 RC holes drilled in the Ohio and Town Road areas in 1992.

#### 10.2.6 Kinross 1993 - 1998

Kinross drilled 55 RC holes in 1993 in the North DeLamar, Glen Silver, and Sommercamp – Regan areas. The drilling contractor was Stratagrout and a Discovery drill was used. Nearly all of these holes were inclined. In 1994 and 1995, Kinross drilled 181 RC holes, nearly all of which were inclined and located in the North DeLamar, Glen Silver, Ohio, and Sommercamp – Regan areas. AK Drilling was the contractor for 19 of these holes, and Drilling Services was the contractor for at least six of the holes, but MDA is not aware of the rig type(s) for any of this drilling. Available records indicate only one hole was drilled in 1996, and two holes are bracketed to 1995 to 1998.

### 10.3 Drill-Hole Collar Surveys

Nearly all drill-hole collar locations were surveyed in local mine-grid coordinates by one or more dedicated mine surveyors. It is authors' understanding that the mine-grid coordinate system was established in the 1970s by Earth Resources' surveyors. Mine-grid coordinate 100,000 East and 50,000 North is located at the surveyed Section corner between Sections 32 and 33 of Township 4 South, and Sections 4 and 5 of Township 5 South, on the hillside north of the De Lamar town site. The exact surveying procedures and type of equipment used to survey hole locations are not known to the authors. Surveyed hole coordinates were hand recorded in multiple copies of collar coordinate log books. The log books show that coordinates for 44 holes were "taken from maps". These are from several different areas of drilling and are mainly older holes in those areas.

### 10.4 Down-Hole Surveys

Down-hole survey records may exist for some of the core holes. MDA recommends that Integra attempt to compile such records if they can be located.

To the best of the author's knowledge, RC and conventional rotary holes were not surveyed for downhole deviations. Conventional rotary and RC drill holes can deviate significantly, in both dip and azimuth, with increasing deviations at greater depths and particularly in the case of inclined holes. It is therefore likely that deviations occurred in the historical drill holes at the DeLamar property.



#### 10.5 Down-Hole Contamination

Down-hole contamination is always a concern with holes drilled by rotary (RC or conventional) methods. Contamination occurs when material from above the bottom of the hole is incorporated with the sample being extracted from the bottom of the hole. The potential for down-hole contamination increases substantially if significant water is present during drilling, whether the water is from in-the-ground sources or injected by the drillers. Conventional rotary holes, in which the sample is returned to the surface along the space between the drill rods and the walls of the drilled hole, are particularly susceptible to down-hole contamination.

Some of the drill-hole logs selected by the authors for review were found to have notations as to the presence of water during drilling, as well as occasional comments concerning drilling difficulties and sample sizes. An internal NERCO report noted that, "Sample quality is poor with abundant assay and information gaps corresponding to zones of lost circulation/poor recovery" in some of the first 42 conventional rotary holes drilled in the Regan area (Pancoast, 1990). Beginning in 1987, an RC rig was used to drill the Regan area, but Pancoast reported that no gains in sample quality were initially obtained due to a novice driller. Sample quality reportedly improved markedly in 1989, beginning with the 54<sup>th</sup> hole drilled at Regan, when the RC driller began to use tricone bits with an "interchange skirt" in the place of down-the-hole-hammer bits. However, 22 additional holes continued to experience difficulties due to another novice driller. No other documents addressing sample quality issues were reviewed by the authors.

### 10.6 Summary Statement

There is a complete lack of down-hole deviation survey data in the project database. While this is not unusual for drilling done prior to the 1990s, the lack of deviation data contributes a level of uncertainty as to the exact locations of drill samples at depth. However, these uncertainties are mitigated to a significant extent by the vertical orientation of three-quarters of the drill holes, the generally shallow down-hole depths, and the likely open-pit nature of any potential future mining operation that is based in part on data derived from the historical holes.

Down-hole lengths of gold and silver intercepts derived from the historical holes at the DeLamar project can significantly exaggerate true mineralized thicknesses in cases where steeply-dipping holes intersect steeply-dipping mineralization, for example in portions of the Sommercamp area. This effect is entirely mitigated by the modeling techniques employed in the estimation of the current resources, however, which constrain all intercepts to lie within explicitly interpreted domains that appropriately respect the known and inferred geologic controls and mineralized thicknesses as evident from the drill data.

The overwhelming majority of sample intervals in the project database have a down-hole length of 1.524 meters (five feet). This sample length is considered appropriate for the near-surface style of mineralization at DeLamar that characterizes the current mineral resources.

A critical component of increasing the confidence in the historical drilling data, and thereby allowing for future resource classifications higher than Inferred, will be the compilation of all information from available historical records concerning sample recovery and quality, the presence or absence of water, the intersection of historical workings, the years in which the holes were drilled, and the drilling methods employed. In addition to this, confirmatory drilling is also warranted.



### 11.0 SAMPLE PREPARATION, ANALYSIS, AND SECURITY

This section summarizes all information known to the authors relating to sample preparation, analysis, and security, as well as quality assurance/quality control procedures and results, that pertain to the DeLamar project. The information has either been compiled by the authors from historical records as cited or provided by Ms. Richardson, a longtime employee at the mine. Ms. Richardson's contributions to this section are derived from personal correspondences with the authors, an internal mine memorandum by Richardson (1985), and a recent informal summary document compiled at the request of MDA.

### 11.1 Sample Preparation and Security

The authors are not aware of sample-preparation procedures or sample-security protocols employed prior to the start-up of open-pit mining operations in 1977, although further detailed reviews of historical documentation may yield such information in the future.

Elkin (1993) stated that sample preparation procedures at the mine laboratory had remained relatively constant up to the date of his ore-reserve report. Drill cuttings were split at the drill site to obtain samples weighing approximately 4.5 kilograms. When received at the mine laboratory, the samples were dried and crushed to -10 mesh. Splits of 150 milliliter volumes were then pulverized to pulps with 90% passing 100 mesh. At the date of Elkin's report, one-assay-ton (30-gram) aliquots were taken from these pulps for assaying.

### 11.2 Sample Analysis – Prior to Commercial Open-Pit Mining Operations

Prior to the opening of the mine in April 1977, all gold and silver analyses of drill-hole samples consisted of fire assays completed by commercial laboratories, primarily Union Assay Office of Salt Lake City, Utah ("Union Assay"). This includes the core holes drilled by Continental in 1966 and Sidney Mining in 1972, as well as pre-mining Earth Resources drilling. Assay certificates from other commercial laboratories reviewed by the authors from this time period include those from Rocky Mountain Geochemical Corp. of Salt Lake City, Utah ("Rocky Mountain") and Western Laboratories in Helena, Montana. Several holes were also found to have had samples analyzed by Earth Resources Naciamento Copper Mine Laboratory ("Earth Resources Lab"), which apparently was an internal laboratory in Cuba, New Mexico operated by Earth Resources. The authors know of no other details of the sample analyses performed prior to the beginning of mining operations in April, 1977.

### 11.3 Sample Analysis – During Commercial Open-Pit Mining Operations

Upon opening mining operations in April 1977, all ore-control (blast-hole) samples and the majority of samples from exploration and development drilling were assayed at the DeLamar mine laboratory. Until approximately 1988, these in-house assays were completed by atomic absorption ("AA") methods. From approximately 1988 through to the end of the open-pit mining operations, all analyses by the mine laboratory were completed using standard fire-assay methods. Records reviewed by the authors reveal that some samples during this period were analyzed by Chemex Laboratories, Inc. of Reno, Nevada, Legend Inc. of Reno, Nevada, and Western Laboratories.



Repeat fire assays by the mine laboratory of samples prior to 1988 that were originally analyzed by AA at the mine laboratory showed that the silver AA results were consistently lower than the fire assays, sometimes significantly lower; although fire-assay checks of the AA gold results were stated to have compared well. The mine laboratory staff believed that the understatement of the silver AA values was due to a relatively coarse grind in the sample preparation, which ultimately resulted in incomplete digestion of silver-bearing minerals prior to the AA analyses. Sometime in 1980, the mine instituted a much more systematic check-assay program, whereby sets of silver-mineralized samples from each mine area, as defined by mine AA analyses, as well as from certain ranges of mine benches within a mine area, were selected for checking by fire assay. The AA and fire-assay analyses were then compared by area, and a linear factor was determined that was used to mathematically increase the AA values for each area or set of benches analyzed. Factored silver values of blast-hole samples were used by the mining operation to determine waste from ore. Silver AA adjustment factors were also determined for each developmental drilling area until 1985, when it appears that factoring of the silver AA values ended.

The systematic fire-assay check program was continuously monitored, with changes to the silver adjustment factors occurring frequently. Documents reviewed by the authors indicate that the factor was subject to modification as frequently as once monthly for each active mining or developmental drilling area.

Ms. Richardson stated that the factoring of the blast-hole silver AA analyses worked well, as evidenced by the reported close agreement between mined grades determined by blast-hole data and head grades determined at the mill.

No further details of the sample analyses completed during open-pit mining operations are known to the authors.

### 11.4 Sample Security

The authors are unaware of any specific sample-security protocols undertaken during the various drilling programs at the DeLamar project. However, approximately 75% of the drill data in the project database is derived from drilling undertaken after the open-pit mining operations had initiated. It is very likely that all of the drilling and sampling completed during the mining operations was undertaken in areas of controlled access.

### 11.5 Quality Assurance / Quality Control Programs

According to the 1974 historical feasibility study (Earth Resources Company, 1974), the Union Assay results obtained prior to the initiation of open-pit mining were checked by sending composites of Union Assay pulps, splits of drill core, and Union Assay coarse rejects to the following laboratories: Southwestern Assayers and Chemists in Tucson, Arizona; Skyline Laboratories in Denver, Colorado; Western Laboratories in Helena, Montana; Hazen Research in Golden, Colorado; and Earth Resources' laboratory in Cuba, New Mexico. The various check samples were analyzed by either fire assay or atomic-absorption methods. An evaluation of the check assaying program led to the conclusion that, "Some variation does exist between the different firms, and since all are generally quite reliable, it is really impossible to determine which one is the best; fortunately, the variations are within reason and



appear to fall within a normal and acceptable range of difference." The various check-assay results from this program are presented in the feasibility report and should be compiled into digital form, verified using historical documentation of the check analyses if such documentation can be found, and independently evaluated.

The Elkin (1993) report and Ms. Richardson indicated that repeat (check) assays were routinely run at the mine laboratory, and some of these check-assaying procedures were discussed in the previous subsection. Elkin reported that all samples with silver values in excess of 10 ounces per ton (343 grams per tonne) or gold values greater than 0.1 opt (3.43 grams per tonne) were resubmitted to the mine laboratory for check assaying. The assay pulp and a separate split from every fourteenth sample were also resubmitted to the mine laboratory on a routine basis. Elkin also stated that duplicate samples were not being sent to outside laboratories at the time of his report. The authors have not found detailed documentation of these check analyses, and therefore could not independently evaluate the results.

### 11.6 Summary Statement

None of the analytical laboratories mentioned in this section were certified, as the formal certification process used today had not yet been implemented. The authors are not familiar with Western Laboratories or the Earth Resources Company internal laboratory, and the laboratories of Hazen Research and Southwestern Assayers and Chemists were not commonly used for routine assaying by the mining industry. However, historical documents reviewed by the authors indicate that Union Assay and, to a lesser extent, Rocky Mountain were the primary commercial laboratories used by all operators prior to Kinross, and these were independent commercial laboratories that were widely recognized and used by the mining industry at that time.

Documentation of the methods and procedures used for historical sample preparation, analyses, and sample security, as well as for quality assurance/quality control procedures and results, is incomplete and in many cases not available. It is important to note, however, that the historical sample data were used to develop and operate a successful commercial mining operation that produced more than 400,000 ounces of gold and 26 million ounces of silver. The authors are therefore satisfied that the analytical data are adequate to support the current resources, interpretations, conclusions, and recommendations summarized in this report.



#### 12.0 DATA VERIFICATION

### 12.1 DeLamar Area Drill-Hole Data Verification

The current drill-hole database for the DeLamar area, which forms the basis for the resource estimation presented in this report, was created by MDA using original DeLamar mine digital database files obtained from the current mine site. This original mine-site drill-hole information was then subjected to various verification measures, the primary one consisting of auditing of the digital data by comparing the drill-hole collar coordinates, hole orientations, and analytical information in the database against historical paper records in the possession of Integra.

The database is comprised of information derived from 1,547 holes drilled in the DeLamar area. A total of 235 (15%) were randomly chosen for auditing, and the results of the audit are summarized below.

### 12.1.1 Collar and Down-Hole Survey Data

Drill-hole collar location information was found in the historical documentation for 157 of the 235 holes selected for auditing. The locations of two holes were found to have substantially different locations in the project database compared to the paper records; it remains unclear as to which of the two sources is more accurate. A third hole had an 18-meter difference in elevation with the paper records, but the database elevation matches the project topography and is therefore deemed to be more accurate. All other location discrepancies are due to the rounding of surveyed locations to the nearest foot (0.3048 meters) or the truncation of surveyed decimals upon entry into the mine-site database, perhaps reflecting the perceived accuracy of the original location data.

There were no down-hole deviation data in the original mine-site database files. Ms. Richardson stated that no down-hole surveys were completed on conventional rotary or RC holes, which dominate the DeLamar area database. Six of the audited holes are core holes, but no deviation data were found in the paper records for these holes. Azimuth and dip records of the hole collars do exist, however, and no discrepancies were found between the historical paper records and the database.

### 12.1.2 Assay Data

Paper records, including copies of original assay certificates, handwritten mine-lab assay sheets, and, to a lesser extent, handwritten assay values included on geologic logs, were used to audit the database assay values. Such records were found for 154 of the 235 holes selected to be audited, and this lead to the checking of 9% of all sampled and assayed intervals in the drill-hole database.

Discrepancies between the database and paper records that are unrelated to the treatment of lower-thandetection-limit results, or unanalyzed intervals, were found in only nine of the 7,758 sample intervals audited, and less than half of these discrepancies are material.

As part of the auditing process, analytical data from a total of 195 sample intervals were found that were not included in the original database; these data were added to the current project database.



### 12.2 Quality Assurance/Quality Control Programs

Approximately one-quarter of the 1,547 exploration and development holes in the DeLamar area were drilled prior to the initiation of open-pit mining and the use of the mine-site analytical laboratory. During this time, quality assurance/quality control ("QA/QC) procedures were employed to monitor Union Assay's analytical results, but these QA/QC data, which exist in paper form, need to be compiled digitally and then evaluated independently. The results of the mine laboratory were also monitored by resubmitting samples to the mine laboratory for check assaying, but no documentation of these check analyses has been found to date. There is no indication that check assaying of the mine laboratory by external laboratories was undertaken.

### 12.3 Site Inspection

Mr. Weiss visited the project site for three days, on August 1-3, 2017, accompanied and assisted by Ms. Kim Richardson of Jordan Valley, Idaho. Ms. Richardson is a geologist who joined the DeLamar mine staff in 1980 and eventually held the positions of Senior Mine Geologist, Mine Superintendent, and Mine General Manager before leaving the project in 1997. Mr. Weiss reviewed the property geology, exposures of mineralized rocks within and near the still accessible open pits, and areas of historical exploration drilling peripheral to the open pits. Historical exploration data on file at the DeLamar mine-site office was reviewed, including geologic maps and cross sections from various areas, mainly dating to the late 1980s.

Mr. Weiss attempted to verify historical drill-hole collar locations peripheral to the open pits. Nearly all historical drill sites external to the pits and waste dumps have undergone reclamation since closure activities began in 2003. Seven drill collars were found in the Sullivan Gulch and Ohio areas. Metal tags marked with the hole numbers were found at a few of the collars, but none of these were legible. Nevertheless, the eight collar locations were recorded with a hand-held Garmin GPS-62 receiver in UTM WGS84 projection in case that the holes can be identified in the future.

### 12.4 Independent Verification of Mineralization

No samples were collected from the DeLamar project for verification purposes by the authors. Gold and silver production from the historical underground mines and more recent open-pit operations is publicly documented and, in the authors' opinion, independent sampling for the purposes of verifying the DeLamar mineralization is unnecessary.

### 12.5 Summary Statement

MDA experienced no limitations with respect to its data verification activities related to the DeLamar project. In consideration of the information summarized in this and other sections of this report, the authors have verified that the DeLamar project data are acceptable as used in this report, most significantly to support the estimation of Inferred mineral resources. This conclusion is further supported by the fact that: (i) no significant issues were identified by the auditing of the drill-hole data; and (ii) the historical drilling data formed the basis of a commercial mine that operated successfully over an extended time period.

Page 54

#### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Integra has not conducted metallurgical or mineral processing studies at the DeLamar project. Records of historical metallurgical testing are incomplete and have not yet been fully compiled and evaluated. Nevertheless, the authors believe the information presented below is a reasonable summary of historical mineral processing, metal recoveries, and metallurgical testing as presently understood.

Nearly all of the historical metallurgical tests and processing data summarized below were originally reported in Imperial units, but in some cases metric weights were reported, mixed with Imperial distance and concentration units. Use of the original reported units is retained in parts of this section for historical clarity and to avoid awkwardness; the reader is referred to Section 2.2 for the appropriate conversion factors.

#### 13.1 DeLamar Area Mill Production 1977 - 1992

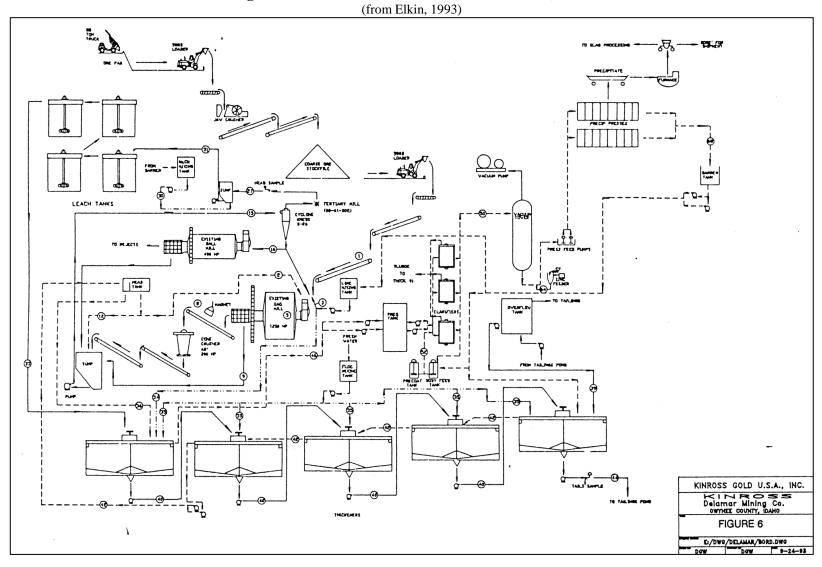
The most useful information with respect to mineral processing of DeLamar area gold-silver mineralization by milling and subsequent cyanide leaching is derived from mill production records from the historical open-pit mining operations from 1977 through to the end of 1992. All ore during this time period was mined from the DeLamar area and was processed by crushing, grinding, and cyanide leaching, followed by precipitation with zinc dust and in-house smelting of the precipitate to produce silver-gold doré. Elkin (1993) estimated the doré to contain 89% silver and 2% gold. A processing flow sheet dated September 24, 1993 is presented in Figure 13.1. After leaching, the solids were concentrated in a series of five thickening tanks and then pumped to a tailings impoundment. During mine closure the tailings were partially dewatered and capped with layers of clay and soil as part of the mine reclamation program.

The DeLamar area produced 421,300 ounces of gold and about 26 million ounces of silver from 1977 through 1992 from 11.686 million tonnes of ore processed with average mill head grades of 1.17 grams Au/tonne and 87.1 grams Ag/tonne (Elkin, 1993). The data from Elkin (1993) presented in Table 6.1 demonstrate mill recoveries during the first 15 years of mine operation averaged 96.2% for gold and 79.5% for silver. It should be noted that Elkin (1993) surmised that, "Based on historical records and laboratory testing, the metallurgical recovery of gold is projected to be about 94 percent and 77 percent for silver."

The authors believe that the historical mill feed processed from 1977 through 1992, as summarized above, included oxidized, partly oxidized, and unoxidized (sulfide) materials. MDA has not found records that quantify the tonnages and grades of the different oxidation material types processed or their respective gold and silver recoveries. Such records should continue to be sought, as they could be pertinent to future potential processing of materials that are likely to be less oxidized on average than the ores processed historically.



Figure 13.1 DeLamar Mine Process Flowsheet, 1993





### 13.2 Cyanide Heap-Leach Production 1987 - 1990

NERCO constructed a cyanide heap-leach pad, which was in operation for the last quarter of 1987 until the final quarter of 1990, using low-grade run-of-mine material dumped by truck and ripped to provide permeability. The material size was reported to be approximately 70% at >20 centimeters (>8 inch).

The heap-leach production and recovery from this pad are summarized in Table 13.1. The pad and stacked material became unstable and began to collapse in mid-1990. Quarterly production records indicate no material was placed on the heap after the second quarter of 1990. In early 1991, the entire heap was removed and placed into the tailings facility. Some of the stacked material may not have reached the optimum duration under leach, and therefore the overall calculated recovery in Table 13.1 may be understated by an unknown quantity.

Table 13.1 1987 – 1990 Heap Leach Summary (mine records from Integra, 2017))

Heap Leach Q4 1987 - Q4 1990							
Total Stacked (tonnes)	Total Stacked (tonnes) 2,344,037						
Contained Ounces Stack	Contained Ounces Stacked						
Recovered Ounces	Recovered Ounces						
Heap Leach Recovery	8%	41%					

Factors such as fragment size, heap permeability, climate, and the degree of oxidation of the leached material are likely to have contributed to the overall metal recoveries. MDA has no information from which to attempt to quantify the possible effect of these factors.

### 13.3 1970s Mineralogy from Metallurgical Studies

As reported by Perry (1971), Hazen Research Inc. ("Hazen") in Golden, Colorado undertook a detailed petrographic and mineralogical study of four sections of drill core from the DeLamar area in 1971. The host rock was described as highly altered porphyritic rhyolite, initially altered to sericite and kaolinite and then silicified and cut by numerous quartz veinlets. Naumannite (Ag<sub>2</sub>Se) was identified as the chief primary silver-bearing phase, accounting for 75-78% of the total silver present. Argentite (Ag<sub>2</sub>S) was the other primary silver mineral, accounting for 15-20% of the total silver. Minor gold was found in quartz gangue and as intergrowths in naumannite. The core samples were reported to be at least partly oxidized to a depth of 51.8 meters. Secondary silver minerals in the oxidized portions of core included the silver halide cerargyrite (AgCl), native silver, and argentojarosite, but these minerals together account for only a small fraction of the total silver in the samples. Approximately 65% of the naumannite and argentite was reportedly less than 62 microns in diameter; the coarser grains were typically found within quartz veinlets. Sulfide and native metal phases identified in the heavy media concentrates included:



<u>Pyrite</u>: present as disseminated grains in the altered volcanic rocks and within quartz veins where it was coarser grained and occurred as malnikovite, a fine-grained black pyrite phase initially deposited as a colloidal pyrite gel. Minor marcasite was present as encrustations on malnikovite and as scattered crystals in quartz veinlets. Only rarely were silver minerals directly associated with, or intergrown, with pyrite and marcasite.

<u>Argentite</u>: as coarse grains and tabular masses up to 2 millimeters in diameter along fractures and veinlets, and more commonly as extremely fine sized anhedral grains disseminated within quartz gangue.

<u>Naumannite</u>: as fine-grained, generally anhedral grains disseminated in quartz and along fractures. Less commonly it forms crystals and crystal aggregates on top of quartz crystals lining vugs at the center of veinlets.

<u>Cerargyrite</u>: as thin coatings and sheets along fractures, and as globular or spherical grains that have replaced naumannite in open vugs. It also rarely occurs as clear yellow to chartreuse dodecahedral crystals in quartz vugs.

<u>Native gold</u>: in trace amounts as small anhedral blebs in quartz or in naumannite. The gold blebs rarely exceed a few microns in size.

Electrum: as pale yellow, 5 micron or smaller blebs within cerargyrite after naumannite.

<u>Native silver</u>: as a secondary mineral occurring as tabular sheets and masses along fractures and veinlets; grains rarely exceed 2 millimeters in diameter.

<u>Chalcopyrite</u>: present in trace amounts, rarely associated with pyrite and more commonly as euhedral blebs within partly replaced naumannite.

Traces of galena were noted, occurring as small isolated euhedral grains, and the lead selenide clausthalite (PbSe) was suspected to be present. Very minor native selenium was identified by X-ray powder diffraction and was interpreted as a byproduct of naumannite alteration during the oxidation process. Other oxidation products including jarosite, argentojarosite, psilomelane, geothite, and lepidocrocite were identified.

### 13.4 1970s Bench-Scale Testwork

Hazen also carried out initial metallurgical studies of three composites from drill core partly used in Hazen's 1971 mineralogy studies, as reported by Miyoshi et al. (1971). The composites consisted of a total of 324 samples. Composite A was comprised of material from drill holes one and two, and assayed 266.1 grams Ag/tonne and 1.03 grams Au/tonne. Composite B was comprised solely from drill hole three, and assayed 220.1 grams Ag/tonne and 0.69 grams Au/tonne. Composite C was comprised of material from drill holes one, two and three, and assayed 218.1 grams Ag/tonne and 0.69 grams Au/tonne. The material consisted of highly altered porphyritic rhyolite that has been kaolinized and sericitized and then intensely silicified. Quartz was the major gangue mineral, accompanied by only minor amounts of feldspar, kaolinite, and sericite. Samples were crushed to minus ½ inch, then



individually blended and split, with half going to storage. The other half was crushed to minus six mesh, assayed, and then composited. Metallurgical tests included flotation, cyanidation, and a salt roast followed by acid-brine leach. Silver phases were mainly naumannite, followed by argentite and argentojarosite, cerargyrite, and a trace of native silver as electrum. A trace of native gold was also observed in the samples. The remaining part of the gold was postulated to be in electrum, and in solid solution within naumannite (Miyoshi et al., 1971).

A 12-cycle locked-batch flotation test on minus 100 mesh material using three cleaner stages produced a concentrate containing 10.42 kilograms grading Ag/tonne and 15.09 grams Au/tonne. Cyanidation was tested with a grind to minus 48 mesh and a 72-hour agitated leach time. Flotation and cyanidation results are shown in Table 13.2.

**Table 13.2 Composite Tests at Hazen, 1971** (from Miyoshi et al., 1971 as compiled by Integra, 2017)

Process	% Extraction		
	Au	Ag	
Flotation Rougher Float	44.4	84.0	
Cyanidation	75.0	96.0	

In 1974, Earth Resources commissioned Hazen to conduct a program of metallurgical testwork to bring the DeLamar project through to a feasibility decision. The material for this testwork was based on available drill core from the Sommercamp area. Hazen conducted mineralogical studies, milling-bond index, specific gravity and bulk density measurements, flotation with deslime tests and screen analysis, and cyanide-leach tests at various levels of grind, as well as filtration and thickening tests at various flocculent levels, and carbon-in-pulp and zinc-precipitation tests. The results of this work have not been found in the available records.

Earth Resources also commissioned Hazen to perform mineralogical studies on conventional-rotary drill cuttings from the North DeLamar zone (Miyoshi, 1974), to determine similarities and differences to the Sommercamp mineralization reported by Perry (1971). Composite sample HRI 6233 was prepared from 41 intervals of conventional-rotary drill cuttings from eight North DeLamar drill holes and ground to 100% at minus 100 mesh, for both flotation and cyanidation tests.

Three cleaning stages of the rougher flotation produced a concentrate containing 1.91 kilograms Ag/tonne and 56.2 grams Au/tonne. A portion was leached for 48 hours under vigorous aeration conditions. Reported cyanide consumption under these conditions was 9.2 pounds per ton of material. The results are summarized in Table 13.3.

Table 13.3 1974 Hazen Flotation and Leach, North DeLamar Composite

(from Miyoshi, 1974; compiled by Integra, 2017)

Process	% Extraction		
	Au	Ag	
Flotation Rougher Float	78.9	87.2	
Cyanidation	>88.8	88.4	



### 13.5 1980s Sullivan Gulch Testing for NERCO

Metallurgical investigations were undertaken by Hazen on drill samples from Sullivan Gulch to evaluate the amenability of the mineralization to gravity, agitation cyanide leaching, flotation, and peroxidation plus cyanide leaching as reported in Rak et al. (1989). Four separate samples totaling 100 kilograms of 5/8-inch size were received from the DeLamar mine. Each sample was riffle blended and 22.7 kilograms were split off and reserved. The remainder was stage-crushed to 95% minus 10 mesh, blended again and split into 1.0 kilogram and 2.0 kilogram test charges. Two 2.0 kilogram charges for each of the four samples were re-blended and assayed, with average gold and silver grades of 1.06 grams Au/tonne and 72.0 grams Ag/tonne. The material was described as consisting of 10% sulfide with pyrite being the dominant phase, with lesser marcasite and arsenopyrite. Gold was observed in two forms: free native gold/electrum (55% Au, 45% Ag) from 50 to 100 microns in size and coarse grains up to 150 microns within pyrite. Other minerals recognized in the gravity concentrate include chalcopyrite, pyrrhotite, zircon, anatase, and magnetite. Silver occurred chiefly as electrum and argentite in mostly liberated form in the size range 50 to 150 microns. Cyanide-insoluble silver occurred as inclusions in pyrite and sulfosalts. Hazen found that gold and silver extractions in excess of 90% could be achieved on the unoxidized samples from Sullivan Gulch using a combination of gravity separation, followed by additional grinding and a second stage of flotation followed by agitation cyanide-leach on the gravity tails (Rak et al., 1989). Single-stage gravity, flotation, and agitated cyanide leaching resulted in significantly lower gold and silver extractions as shown in Table 13.4.

Table 13.4 Gravity, Flotation and Cyanide Leach Tests, Sullivan Gulch Drill Samples

(from Rak et al., 1989; compiled by Integra)

Test No.	Process Type	Grind Size (mesh)	Wt % of Sample	Extraction		Final Tail Assay	
				Au %	Ag %	Au oz/ton	Ag oz/ton
T-2GF	Gravity	57% - 200	5.54	48.2	47.4		
T-2GF	Flotation	57% - 200	10.15	35.3	49		
T-2GF	Cyanide Leach	57% - 200	84.31	8.2	3.3	0.003	0.01
T-3GF	Gravity	57% - 200	6.72	70.6	68		
T-3GF	Flotation	57% - 200	14.92	23.5	31.8		
T-3GF	Cyanide Leach	57% - 200		20.2	23.1		
T-3GF	Regind + Float	90% - 200		93.9	99.8	0.005	0.01
T-3GF	Regrind + Leach	90% - 200		90.6	91.1	0.007	0.24
T-4GF	Gravity	57% - 200	1.71	29.5	21.9		
T-4GF	Flotation	57% - 200	9.28	53.3	74.1	0.01	0.12
T-4GF	Gravity/Float/Leach	57% - 200?		65	91.8		
T-4GF	Gravity/Float/Pressure Leach			81.4	43.5		

In their initial leach tests on the Sullivan Gulch mineralized material, Rak et. al. (1989) noted that approximately 50% of the gold and silver was recovered at a sodium-cyanide concentration of 1.0 grams/liter. Lower recoveries of around 20% gold and silver were obtained with a cyanide concentration of 0.5 grams/liter. Leaching time was an important factor: increasing the leaching time from 48 to 96 hours increased gold and silver dissolution to 65.6% and 62.4%, respectively. Rak et al.



(1989) also concluded from their initial tests that increasing the grind from 57.6% minus 200 mesh to 90% minus 200 mesh did not significantly improve recoveries or leach times. Separately, an experiment was conducted to evaluate pressure oxidation pre-treatment of ground material, followed by cyanidation. The highest gold and silver dissolutions in this test were 87.5% of the gold and 79.8% of the silver.

### 13.6 Summary Statement

The information presented above represents a summary of pertinent historical mineral processing, metal recoveries, and metallurgical testing known to the authors. However, additional records of metallurgical testing may exist in the historical documents in the possession of Integra, and attempts should be made to find, compile, and evaluate any such additional information.

Documentation of the metallurgical testing reviewed to date is not sufficient to allow for an assessment of the representativity of the samples used in the testwork.

Based on presently available information, the authors are not aware of any processing factors or deleterious elements that could have a significant effect on the potential economic extraction of the DeLamar mineralization by milling and tank leaching.



#### 14.0 MINERAL RESOURCE ESTIMATES

#### 14.1 Introduction

The mineral resource estimation for the DeLamar project was completed in accordance to the guidelines of Canadian National Instrument 43-101 ("NI 43-101"). The modeling and estimation of the mineral resources were completed in August and September 2017 under the supervision of Michael M. Gustin, a qualified person with respect to mineral resource estimations under NI 43-101. The effective date of the resource estimate is September 30, 2017. Mr. Gustin is independent of Integra and Kinross by the definitions and criteria set forth in NI 43-101; there is no affiliation between Mr. Gustin and Integra or Kinross except that of independent consultant/client relationships.

The DeLamar resources are classified in order of increasing geological and quantitative confidence into Inferred, Indicated, and Measured categories in accordance with the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" (2014) and therefore NI 43-101. CIM mineral resource definitions are given below, with CIM's explanatory text 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.

### 14.2 DeLamar Area Data

The DeLamar gold resources were estimated using data generated by the various historical operators discussed in Section 10.0. These data, which are primarily derived from conventional rotary, RC, and diamond-core drill holes, as well as current topography, as-mined topography, interpretations of high-grade vein zones, and three-dimensional linework of historical underground workings (not including stopes), were provided to MDA by Integra.

#### 14.2.1 Drill-Hole Database

The project database uses the original DeLamar mine grid, a local grid system developed in the early 1970s and used throughout the life of the mine. All original historical drill data are located in this local coordinate system, which is in Imperial units (feet).

As discussed in Section 11.0, the exploration and development drill-hole samples were variably analyzed by fire assay and AA methods. For a period of time, the mine-lab silver AA values were factored, as discussed in Section 11.0. In building the original DeLamar area database that supported the mining operation, the goal was to include all analyses for each sample interval. The database also included a final value for gold and silver, used in all mine-site resource and reserve estimations, which prioritized fire assays from any source (mine or outside labs) over AA analyses or, in the case of silver over a certain time period, factored AA analyses.

MDA constructed a new DeLamar area database based on historical mine-site database files. The mine-site's 'final' gold and silver values were used in the estimation of the DeLamar resources.

### 14.2.2 Topography

Integra provided MDA with two digital topographic surfaces of the DeLamar area, a current surface and an 'as-mined' surface. The current surface reflects post-mining reclamation, including re-contouring of waste dumps, and the partial backfilling of the open pits. The as-mined surface is an attempt to account for the full extents of original open pits prior to backfilling and reclamation. Integra used available historical paper topographic lines showing the open pits late in the mine life, as well as blast-hole elevations late in the mine life, to create the as-mined surfaces. The authors have reviewed the back-up data and believe the as-mined surface is reasonable, but the modeling of this surface will likely be refined as more data are reviewed, and these refinements could result in some increases in the mined volumes.

### 14.2.3 Historical Underground Workings

Using historical records reviewed by the authors, Integra created three-dimensional digital linework that represents historical drifts, crosscuts, and developmental workings that MDA imported into GEOVIA Surpac<sup>TM</sup> ("Surpac") mining software for use in the resource modeling. The historical underground workings lie almost entirely inside of the North DeLamar and Sommercamp open pits.

Drifts along the mined vein structures and related mine-level-to-mine-level developmental winzes were useful in the modeling of the unmined gold and silver resources lying below the workings, as they provided indications of the strike and dip of the mined mineralized structures.

### 14.3 Deposit Geology Pertinent to Resource Modeling

In the better documented North DeLamar and Sommercamp portions of the DeLamar area, gold and silver mineralization predominantly occurs below a clay zone at the base of a flow-banded rhyolite (Tbr), with the porphyritic rhyolite (Tpr) being an important host unit. The clay zone may be a product of hydrothermal alteration of a basal vitrophyre in the banded rhyolite unit or a manifestation of a



generally southwest-dipping low-angle structure, or a combination of the two. Regardless of genesis, this relationship between the shallowly dipping clay zone and the bulk of the gold and silver mineralization is clearly consistent with the drill data and, where present, this contact zone was used extensively in the resource modeling. Below the clay zone, the orientations of historical developmental workings, as represented by Integra's underground model, were very helpful in defining geometries of higher-grade mineralization, at least in areas proximal to the workings.

In the Glen Silver and Sullivan Gulch areas, which lie to the northwest of Sommercamp – Regan and southeast of North DeLamar, respectively, there are no historical workings of significance and little geological documentation other than down-hole lithologic logging, which is often inconsistent.

MDA reviewed the silver results carefully to discern the presence (or absence) of potential supergeneenriched zones, which would be important to the resource modeling. Only a few limited areas were found that might suggest supergene enrichment, but the evidence was not conclusive. A number of historical reports state that secondary enrichment of silver, although not significant, probably occurred on a limited scale, although the evidence cited is restricted to the presence of cerargyrite.

### 14.4 Water Table and Oxidation Modeling

The 1974 historical feasibility study, which focused on the Sommercamp and North DeLamar areas, stated that surface oxidation generally does not extend deeper than about 55 meters from the surface, except along fault zones (Earth Resources Company, 1974). The water table was stated in the 1974 study to lie considerably deeper that the level of oxidation, at an elevation of approximately 1,845 meters. These statements presumably applied only to the two deposit areas that were the subject of the feasibility study. A later mine document reported a water table depth of 1,810 meters at the north end of the Sommercamp - Regan zone, which at the time was included what was referred to as South Wahl (Pancoast, 1990).

No oxidation or water data were provided in the mine-site digital database, so no oxidation modeling has been done.

### 14.5 Density Modeling

During the authors' review of available historical records, a number of references to density values were found, including a number of density studies that are comprised of limited numbers of determinations. These datasets are generally partially documented at best. The exact methodologies used are often unclear, although references indicate that determinations were done by a variety of methods, including water displacement, water immersion, volume/weight, and nuclear methods. The authors do not have sufficient information regarding methodologies and the nature of the samples tested to confidently evaluate these historical density measurements.

Historical resource and reserve estimations most commonly used a global tonnage factor (mineralized and unmineralized rock) of 13.5, which is used in the current resource estimation. A tonnage factor of 17 is used herein for backfill and dump material.



#### 14.6 **Gold and Silver Modeling**

#### 14.6.1 Mineral Domains

A mineral domain encompasses a volume that ideally is characterized by a single, natural, grade population of a metal that occurs within a specific geologic environment. In order to define the mineral domains at DeLamar, the natural gold and silver populations were first identified on populationdistribution graphs that plot the gold-grade and silver-grade distributions of all of the project drill-hole assays. This analysis led to the identification of lower-grade and higher-grade populations for both gold Ideally, each of these populations can then be correlated with specific geologic characteristics that are captured in the project database, which can be used in conjunction with the grade populations to interpret the bounds of each of the gold and silver mineral domains. The approximate grade ranges of the lower- (domain 100) and higher- (domain 200) grade domains are listed in Table 14.1.

**Table 14.1 Approximate Grade Ranges of Gold Domains** 

Domain	g Au/t	g Ag/t
100	~0.2 to ~1.35	~0.7 to ~70
200	> ~1.35	> ~70

The DeLamar gold and silver mineralization was modeled by interpreting gold and silver mineraldomain polygons separately on a set of vertical, 30.48 meter (100-foot) spaced, northwest-looking (Az. 320°) cross sections that span the presently known extents of the deposit. The mineral domains were interpreted using the gold and silver drill-hole assay data, associated drill-hole lithologic codes, documented descriptions of the mineralization, and Intergra's modeling of the historical underground workings.

It appears that no historical section-by-section modeling of the geology, structure, and mineralizing controls was completed in the DeLamar area, although Integra has completed preliminary lithologic and structural interpretations that were used in the resource modeling. More detailed cross-sectional interpretations, which will require months of data compilation and interpretation, would be useful in future resource estimations. The mineral-domain modeling for the current resource estimation was therefore largely dependent on grade values alone, although fundamental lithologic influences, such as the general lack of mineralization above the contact of the flow-banded rhyolite with underlying volcanic units (see Section 14.3), are obvious and were important to the modeling. The orientations of the historical developmental workings were also helpful in the modeling of the higher-grade/structurally controlled zones, but the historical workings are restricted to the Sommercamp and North DeLamar areas. Beyond the areas of substantive underground stoping, orientations of the higher-grade zones are grade driven, and therefore of lower confidence. However, the volumes (tonnes) of the higher-grade zones, modeled as domain 200 for both gold and silver, as well as the lower-grade envelopes that encompass the structurally-controlled mineralization (domain 100 for both gold and silver), are considered to be reasonable.



Cross-sections showing examples of the gold and silver mineral domains for the Sullivan Gulch, Sommercamp – North DeLamar, and Glen Silver areas of the resources are shown in Figure 14.1 through Figure 14.6.



Figure 14.1 Cross Section 600 NW Showing Gold Domains for Sullivan Gulch

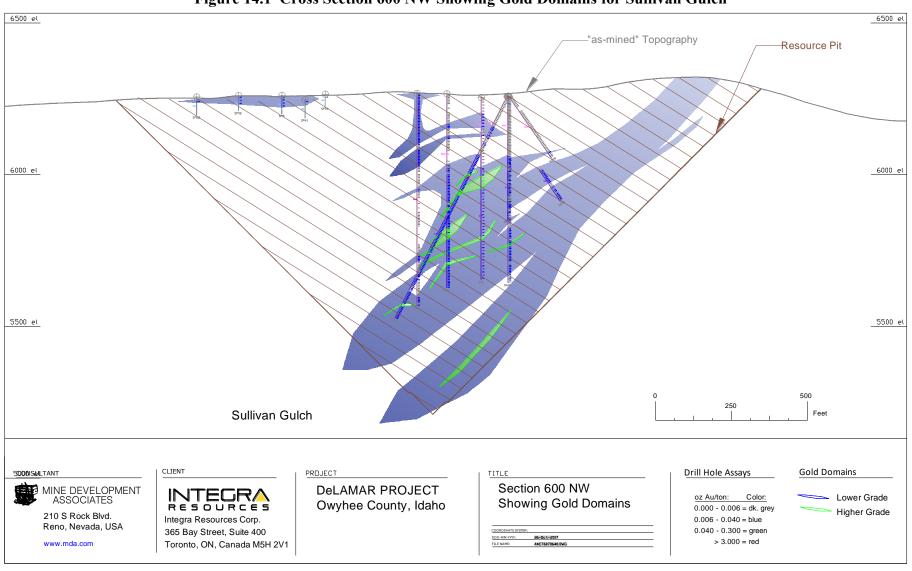
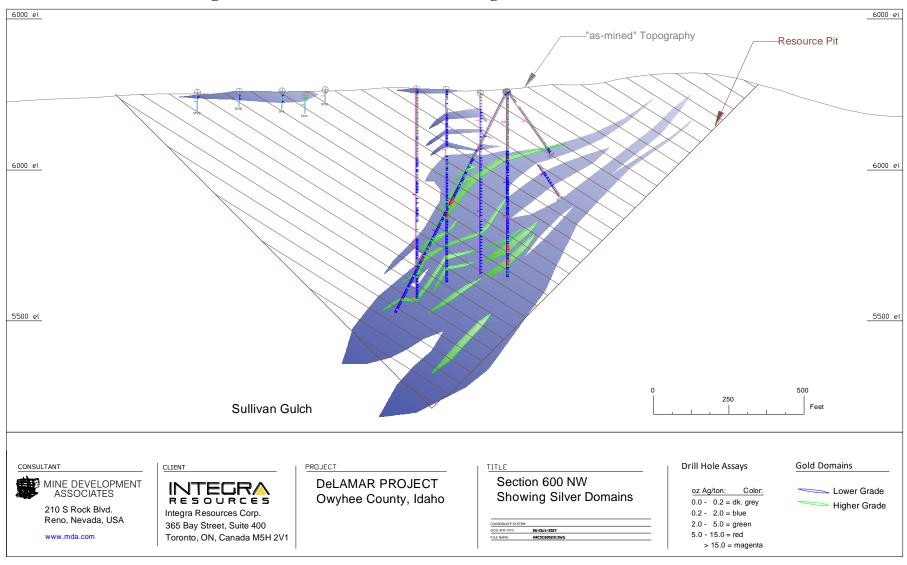




Figure 14.2 Cross Section 600 NW Showing Silver Domains for Sullivan Gulch



Print Date 11/1/17 2:24 PM



Figure 14.3 Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Gold Domains

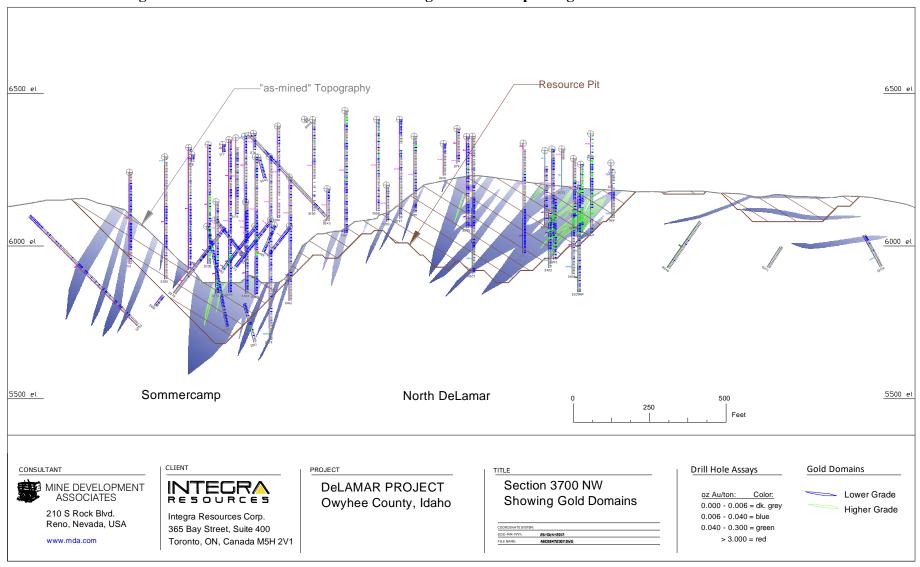




Figure 14.4 Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Silver Domains

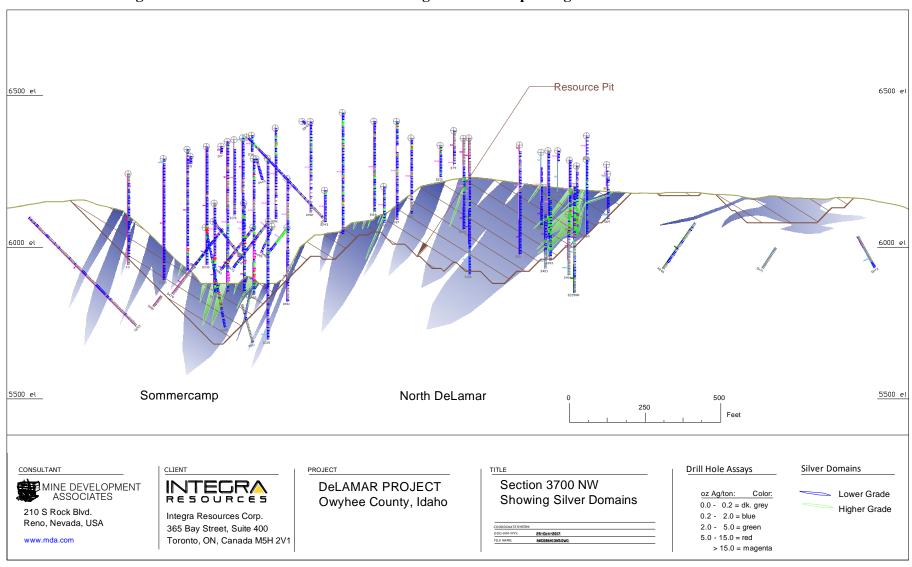




Figure 14.5 Cross Section 5000 NW Showing Glen Silver Gold Domains

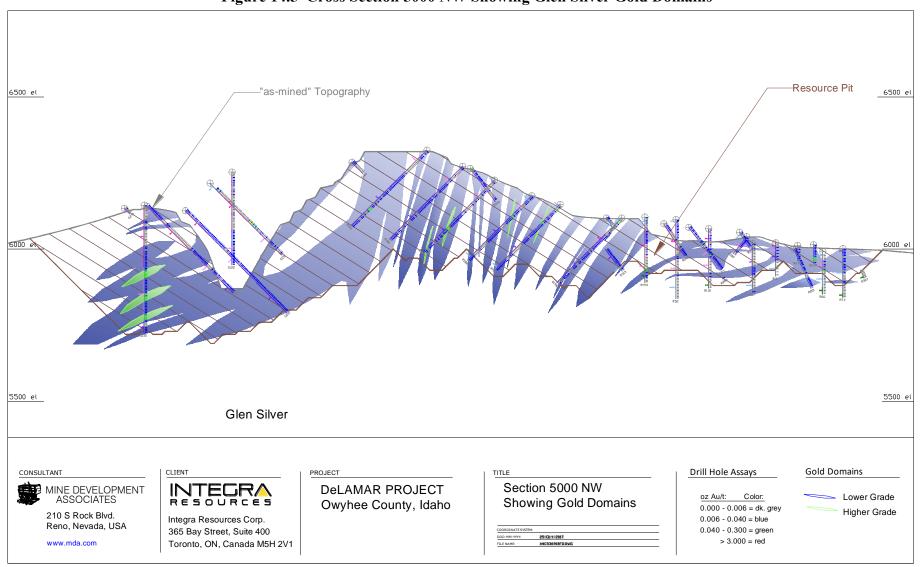
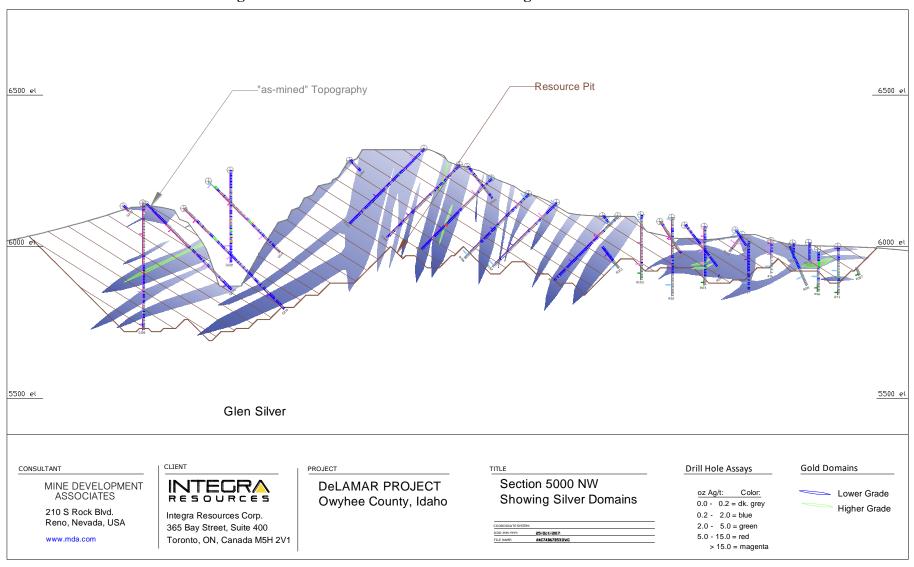




Figure 14.6 Cross Section 5000 NW Showing Glen Silver Silver Domains





## 14.6.2 Assay Coding, Capping, and Compositing

Drill-hole gold and silver assays were coded to the gold and silver mineral domains, respectively, using the cross-sectional polygons. Assay caps were determined by the inspection of population distribution plots of the coded assays by domain to identify high-grade outliers that might be appropriate for capping. The plots were also evaluated for the possible presence of multiple grade populations within each of the gold domains. Descriptive statistics of the coded assays by domain and visual reviews of the spatial relationships of the possible outliers, and their potential impacts during grade interpolation, were also considered in the definition of the assay caps (shown in Table 14.2).

Each model block was coded to the volume percentage of each of the two modeled domains for both gold and silver, as discussed below. For model blocks that are not entirely coded to the lower- and higher-grade modeled domains for either or both metals, these unmodeled volumes of the blocks (labeled to be "domain 0") were also estimated using assays lying outside of the modeled domains (uncoded assays). The uncoded assays used in this dilutionary estimate are also coded as shown in Table 14.2.

**Number Capped Number Capped Domain** g Au/t g Ag/t (% of samples) (% of samples) 0 6.9 82 (<1%) 240 219 (<1%) 100 n/a 411 5 (<1%) 200 42.9 6 (<1%) 1,714 11 (<1%)

Table 14.2 Number of Gold and Silver Assay Caps by Domain

In addition to the assay caps, restrictions on the search distances of higher-grade portions of the domains were applied during grade interpolations (discussed further below). The use of search restrictions can allow one to minimize the number of samples subjected to capping while properly respecting the highest-grade populations within each domain.

Descriptive statistics of the capped and uncapped coded assays are provided in Table 14.3 and Table 14.4 for gold and silver, respectively.

	1001		escriptive	~ **********	01 00000	001411	55 <b>43</b> 5	
Domain	Assays	Count	Mean (g Au/t)	Median (g Au/t)	Std. Dev.	CV	Min. (g Au/t)	Max. (g Au/t)
0	Au	45827	0.21	0.10	1.13	5.38	0.00	102.86
	Au Cap	45827	0.17	0.10	0.45	2.65	0.00	6.86
100	Au	30889	0.45	0.34	0.41	0.91	0.00	20.13
100	Au Cap	30889	0.45	0.34	0.41	0.91	0.00	20.13
200	Au	2163	3.36	1.89	9.84	2.93	0.07	368.64
200	Au Cap	2163	3.12	1.89	4.05	1.30	0.07	42.86
100+200	Au	33052	0.62	0.34	2.64	143.66	0.00	368.64
100+200	Аи Сар	33052	0.62	0.34	1.30	72.00	0.00	42.86

**Table 14.3 Descriptive Statistics of Coded Gold Assays** 

39.09



Median Min. Max. Mean **Domain Assays** Count Std. Dev. CV (g Ag/t) (g Ag/t) (g Ag/t) (g Ag/t) 3212.57 45041 10.63 2.74 51.77 4.87 0.00 Ag 0 Ag Cap 0.00 240.00 45041 9.26 2.74 25.71 2.78 Ag 29503 22.97 16.11 23.66 1.03 0.00 966.51 100 Ag Cap 29503 22.97 16.11 22.29 0.97 0.00 411.43 1.50 Ag 4336 153.26 102.86 230.40 0.69 7877.49 200 Ag Cap 4336 149.14 102.86 158.06 1.06 0.69 1714.29 Ag 33839 39.43 18.86 95.66 82.97 0.00 7877.49 100+200

**Table 14.4 Descriptive Statistics of Coded Silver Assays** 

The capped assays were composited at 3.048 meter (10-foot) down-hole intervals respecting the mineral domains. Descriptive statistics of DeLamar composites are shown in Table 14.5 and Table 14.6 for gold and silver, respectively.

18.86

73.37

64.46

0.00

1714.29

**Table 14.5 Descriptive Statistics of Gold Composites** 

Domain	Count	Mean (g Au/t)	Median (g Au/t)	Std. Dev.	CV	Min. (g Au/t)	Max. (g Au/t)
0	26648	0.17	0.10	0.38	2.24	0.00	6.86
100	16895	0.450	0.340	0.340	0.76	0.000	10.290
200	1357	3.120	1.990	3.500	1.12	0.340	42.860
100+200	18252	0.620	0.380	1.170	1.89	0.000	42.860

**Table 14.6 Descriptive Statistics of Silver Composites** 

Domain	Count	Mean (g Ag/t)	Median (g Ag/t)	Std. Dev.	CV	Min. (g Ag/t)	Max. (g Ag/t)
0	26141	9.26	3.09	23.66	2.56	0.00	240.00
100	16240	22.970	17.140	18.860	0.82	0.000	411.430
200	2592	149.140	109.370	139.540	0.94	0.690	1714.290
100+200	18832	39.090	20.230	67.540	1.73	0.000	1714.290

### 14.6.3 Block Model Coding

Ag Cap

33839

The cross-sectional mineral-domain polygons were used to code a three-dimensional block model with a model bearing of 320° and blocks that are 6.096 meter (20-foot) cubes. The percentage volume of each mineral domain is stored within each block (the "partial percentages").

Two topographic surfaces were used to code the block model: the as-mined and present-day surfaces discussed in Section 14.2.2. These digital topographic surfaces were imported into Surpac and in certain areas the triangulations were refined. The surfaces were then used to define: (1) the percentage of each block that lies below the present-day surface; and (2) the percentage of each block that represents



bedrock lying below the as-mined surface, or backfill/dump material lying above the as-mined surface and below the present-day surface. The present-day topographic surface is lower than the as-mined surface in some areas. In light of uncertainties described in Section 14.2.2, a conservative approach was taken whereby the lower of the two surfaces at any point was considered to be the as-mined level for the purposes of coding the resource block model.

The specific-gravity values discussed in 14.5 were assigned to model blocks coded as either bedrock or backfill/dump. The specific-gravity values were then used in combination with the percentages of rock and fill for each block to determine the tonnage of the block.

## 14.6.4 Grade Interpolation

The modeled mineralization has a variety of orientations throughout the 4.3-kilometer strike extent of the resources. The model was therefore coded to 6 unique orientation domains, each of which utilizes a unique search ellipse during grade interpolation.

Statistical analyses of coded assays and composites, including coefficients of variation and population-distribution plots, indicate that multiple populations of significance were captured in the higher-grade domain (domain 200) of both gold and silver. This recognition of multiple populations within the domains, coupled with the results of initial grade-estimation runs that indicated the higher-grade samples were affecting inappropriate volumes in the model, led to the incorporation of search restrictions. The restrictions place limits on the maximum distances from a block that the highest-grade composites can be used in the interpolation of gold and/or silver grade into that block. The final search restriction parameters were derived from the results of multiple interpolation iterations that employed various search restriction parameters. Search restrictions were also used for the dilutionary (domain 0) gold and silver grade estimations.

Gold and silver grades were interpolated using inverse distance to the third power, ordinary krige, and nearest-neighbor methods. The mineral resources reported herein were estimated by the inverse-distance interpolation, as this method led to results that were judged to more closely approximate the drill data than those obtained by ordinary kriging. The nearest-neighbor estimation was completed as a check on the inverse-distance and krige interpolations. The parameters applied to the gold-grade estimations at DeLamar are summarized in Table 14.7.

**Table 14.7 Summary of DeLamar Estimation Parameters** 

Au Domains 100, 200 & 0

Estimation	Sea	arch Ranges	(m)	Composite Constraints			
Pass	Major	S-Major Minor		Min	Max	Max/hole	
1	61	61	30	2	20	4	
3	152	152	152	2	20	4	



_		_			
Sear	ch.	PAG	:trı/	`tı^	ne
Jeai	CII	1/63	SLI IL	, LIU	113

Domain	Grade Threshold	Search Restriction	<b>Estimation Pass</b>
A		18 meters	
Au 200	>6.86 g Au/t	46 meters	2
A = 200	18 meters		1
Ag 200	>514 g Ag/t	46 meters	2
Au 0	>0.69 g Au/t	9 meters	1 & 2
Ag 0	>34.29 g Ag/t	9 meters	1 & 2

Grade interpolation was completed in two passes using length-weighted composites. The second pass was used to estimate grades into blocks that were not estimated in pass one.

The estimation passes were performed independently for each of the mineral domains, so that only composites coded to a particular domain were used to estimate grade into blocks coded by that domain. The estimated grades were coupled with the partial percentages of the mineral domains to enable the calculation of weight-averaged gold and silver grades for each block. The final resource grades, and their associated resource tonnages, are fully block-diluted.

### 14.6.1 Model Checks

Volumes derived from the sectional mineral-domain modeling were compared to the cross-sectional and coded block-model volumes to assure close agreement, and all block-model coding was checked visually on the computer. A polygonal estimate using the cross-sectional domain polygons, and the nearest-neighbor and ordinary-krige estimates were all used as a check on the inverse-distance estimation results. No unexpected relationships between the check estimates and the inverse-distance estimate were identified. Various grade-distribution plots of assays and composites and nearest-neighbor, ordinary-krige, and inverse-distance block grades were evaluated as a check on both the global and local estimation results. Finally, the inverse-distance grades were visually compared to the drill-hole assay data to assure that reasonable results were obtained.

#### 14.7 DeLamar Mineral Resources

In order to determine the limits of the modeled mineralization potentially available to open-pit extraction, milling, and tank leaching, an operating scenario similar to that used during historical open-pit mining, MDA completed a pit optimization using the parameters summarized in Table 14.7.



**Table 14.8 Summary of Pit-Optimization Parameters** 

Pit-O	Pit-Optimization Parameters										
Mining	\$	2.20	\$/tonne mined								
Mill Process	\$	10.00	\$/tonne processed								
G&A	\$	4,000,000	\$/year								
Tonnes per day		13,600									
Tonnes per year		4,760,000									
G&A	\$	0.84	\$/tonne processed								
Gold Recovery		95%									
Silver Recovery		80%									
Gold Price	\$	1,300	\$/oz								
Base Silver Price	\$	18	\$/oz								

To fully represent reasonable prospects for eventual economic extraction, a gold-equivalent cutoff grade of 0.3 g/t was applied to all model blocks lying within the optimized pit, but below the as-mined surface, to determine the DeLamar project gold and silver resources, as summarized in Table 14.9. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

**Table 14.9 DeLamar Project Gold and Silver Resources** 

Inferred Resources										
Tonnes g Au/t oz Au g Ag/t oz Ag										
117,934,000	0.41	1,592,000	24.34	91,876,000						

- 5. Mineral Resources are comprised of all model blocks with gold-equivalent values greater than or equal to 0.30 g/t that lie within an optimized pit and below the as-mined surface.
- 6. Gold equivalent =  $g Au/t + (g Ag/t \div 85)$
- 7. Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.
- 8. The effective date of the mineral resource estimate is October 1, 2017.

The gold and silver prices and recoveries presented in Table 14.8 yield a gold-silver equivalency factor of 85.8. For the purposes of the resource estimation, a gold equivalency factor of 85 was used. Using this factor, gold-equivalent grade (g AuEq/t) was then calculated as follows:

$$g AuEq/t = g Au/t + (g Ag/t \div 85)$$

The gold-equivalent value of each model block was used solely for the purposes of applying the 0.3 g AuEq/t cutoff to in-pit blocks, and thereby define the project resources.

The current mineral resources include only the modeled mineralization that was not mined during the historical open-pit operations, with the exception of a small mineralized stockpile that has sufficient drill data to allow its inclusion in the resources.

The DeLamar resources are classified entirely as Inferred, despite the fact that the drill spacing is sufficient to support higher classifications in many portions of the modeled area. The reasons for the



Inferred classification include: (i) the resource estimation is based on a relatively simplistic cross-sectional coding of the block model (see Section 14.8); (ii) the geological support for the resource modeling does not generally attain a level that would allow for higher resource classifications; (iii) all data used as the basis of the resource modeling is historical, and further compilation, evaluation, and verification of the historical data is required to increase confidence in that data; (iv) the as-mined topography, which defines modeled mineralization that has already been mined, versus remaining inground as potential resources, needs further refinement and verification; and (v) uncertainties related to the use of a single density value.

Although the authors are not expert with respect to any of the following aspects of the project, the authors are not aware of any unusual environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors not discussed in this report that may materially affect the DeLamar mineral resources as of the effective date of the report.

Figure 14.7 through Figure 14.12 are representative cross-sections showing the estimated block-model gold and silver grades, respectively. These figures correspond to the Sommercamp/North DeLamar mineral domain cross-sections presented in Figure 14.1 through Figure 14.6



Figure 14.7 Cross Section 600 NW Showing Sullivan Gulch Block-Model Gold Grades

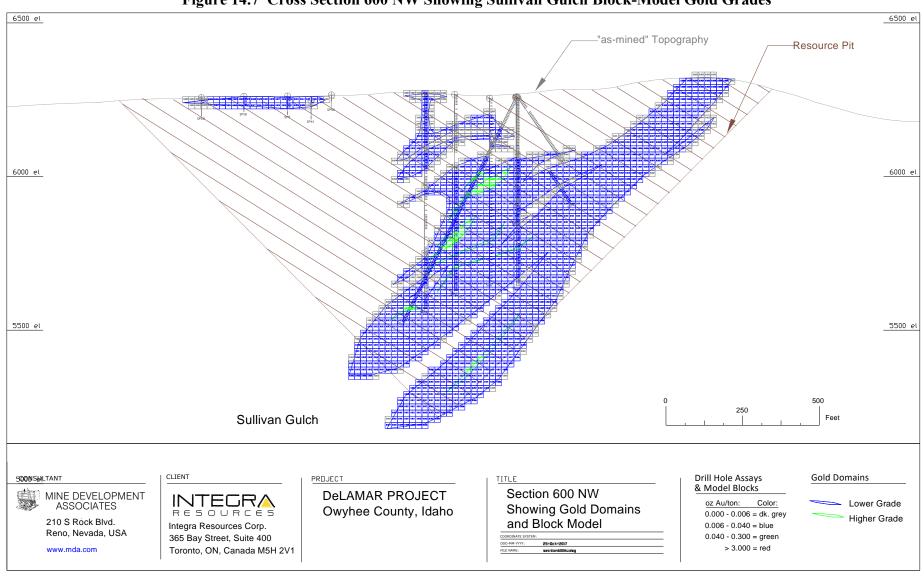




Figure 14.8 Cross Section 600 NW Showing Sullivan Gulch Block-Model Silver Grades

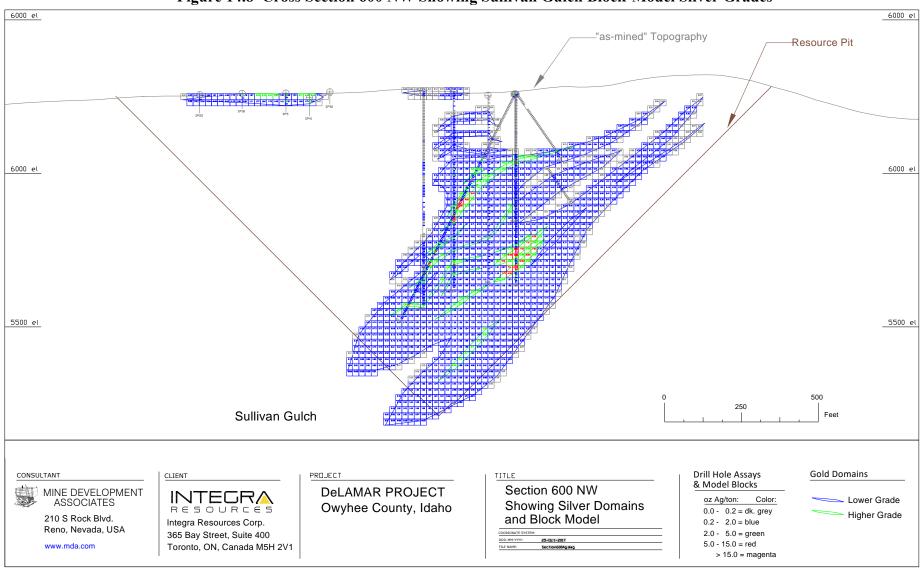




Figure 14.9 Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Block-Model Gold Grades

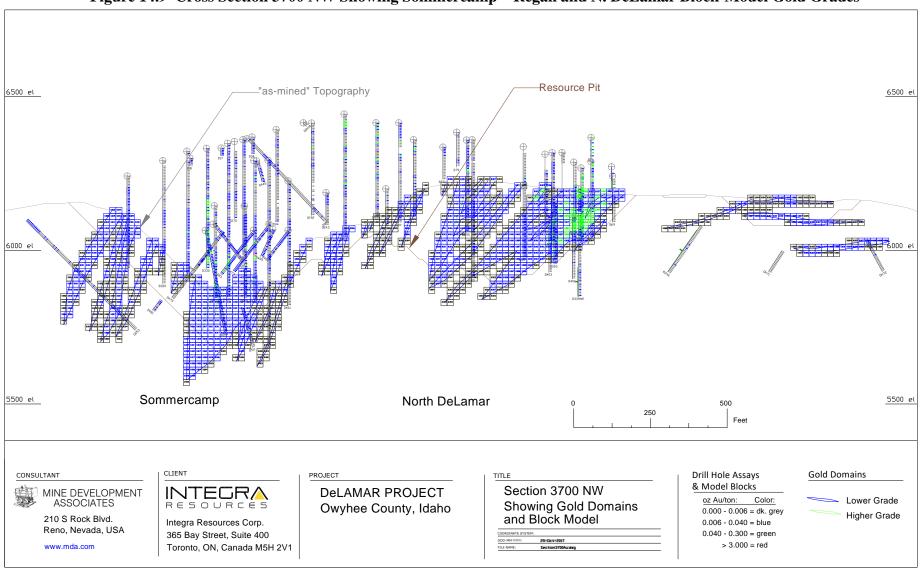
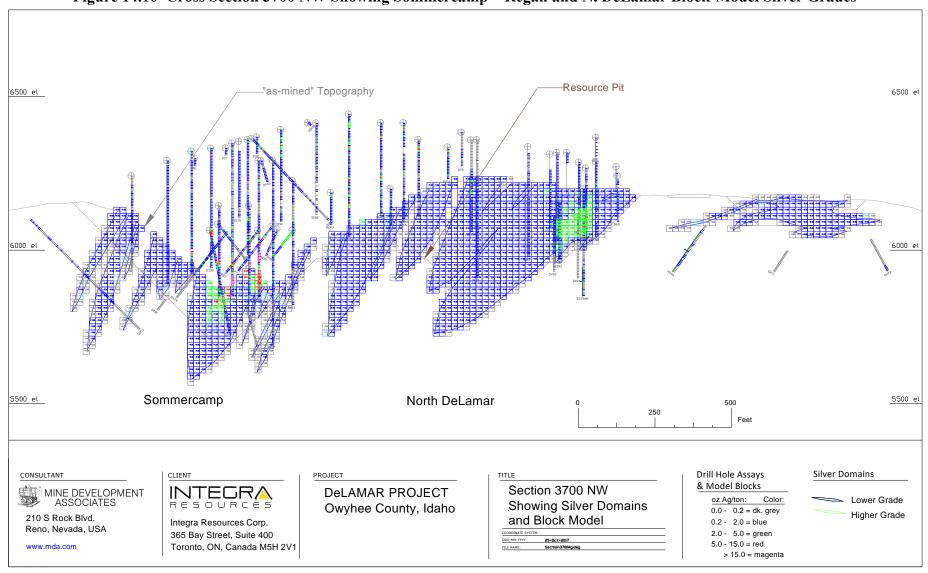




Figure 14.10 Cross Section 3700 NW Showing Sommercamp – Regan and N. DeLamar Block-Model Silver Grades



Print Date 11/1/17 2:24 PM



Figure 14.11 Cross Section 5000 NW Showing Glen Silver Block-Model Gold Grades

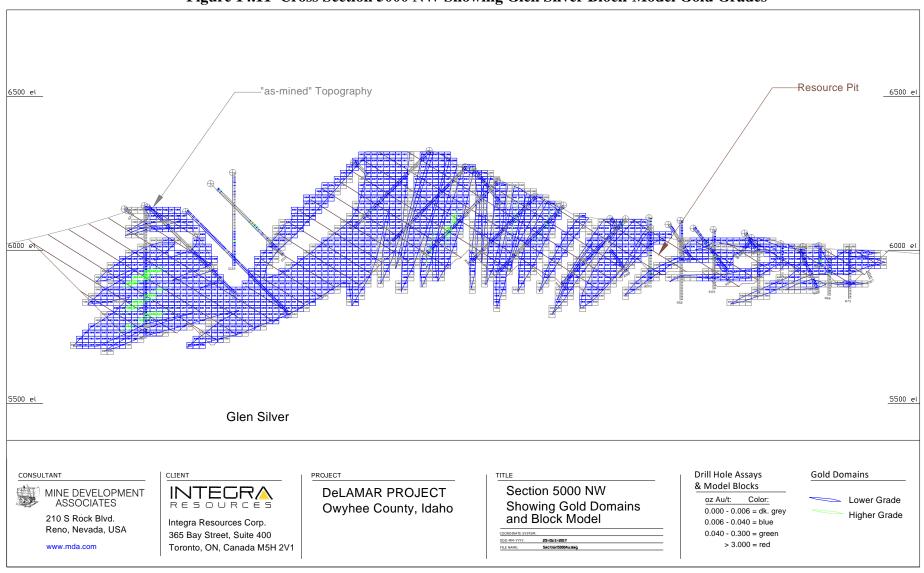
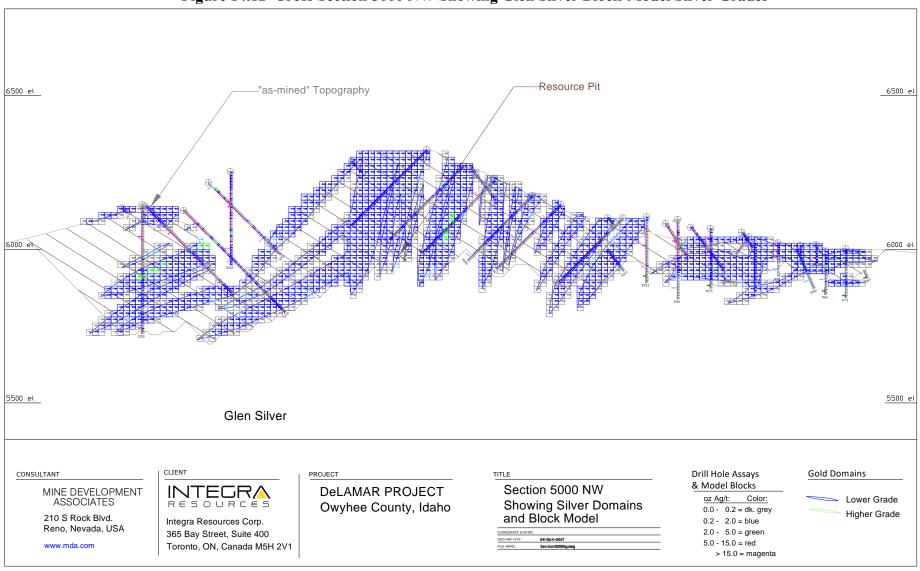




Figure 14.12 Cross Section 5000 NW Showing Glen Silver Block-Model Silver Grades





The modeled mineralization within the optimized pit that constrains the current resources is tabulated at various cutoffs in Table 14.10, with the current resources highlighted in bold. This information is presented to provide grade-distribution data that allow for a more meaningful and detailed assessment of the current project resources. All of the materials tabulated meet the requirement of reasonable prospects of economic extraction, as they are part of the current resources that are constrained by an optimized pit and 0.3 g AuEq/t cutoff. As such, the mineralized materials tabulated at cutoffs higher than the 0.3 g AuEq/t resource cutoff represent subsets of the current resources.

Table 14.10 DeLamar In-Pit Mineralization at Various Cutoffs

Cutoff (g AuEq/t)	Tonnes	g Au/t	oz Au	g Ag/t	oz Ag
0.30	117,934,000	0.41	1,592,000	24.3	91,876,000
0.40	94,172,000	0.48	1,418,000	27.8	84,395,000
0.50	71,060,000	0.51	1,200,000	32.6	74,805,000
0.75	33,716,000	0.69	735,000	48.7	52,747,000
1.00	16,028,000	0.89	451,000	69.3	35,770,000

Note: Rounding may cause apparent discrepancies.

## 14.8 Discussion of Resource Modeling

The block-modeling method employed in the resource estimation uses cross-sectional mineral-domain polygons to code the blocks, whereby the sectional polygons are projected forward and backward, perpendicularly from the section, to code the blocks on a section-by-section basis. This horizontal projection leads to some generalization of the locations of the mineralization, because the domain modeling is not fully three dimensional. While the resulting tonnes, grade, and ounces will not differ significantly from a fully three-dimensional approach, this methodology is not appropriate in modeling resources at classifications higher than Inferred.

The resource modeling was undertaken without the benefit of detailed sectional geologic interpretations. A full set of lithological and structural sections, as well as alteration sections if data are available, are needed to increase the confidence in the resource modeling.

The historical drilling that forms the basis of the resource estimation was done largely by conventional rotary and RC holes, which can be affected by down-hole contamination. In the few cases where down-hole contamination was suspected, the potentially affected intervals were excluded from the resources, but potentially contaminated samples may remain in the data used in the estimation. Some of the geologic logs reviewed by the authors include notations of water encountered during drilling. The presence of water significantly enhances the potential for contamination. All logs in the possession of Integra should be reviewed, and all notations relating to water (groundwater or injected by drillers), sample size, sample quality, voids and/or underground workings, etc., should be compiled and added to the drill hole database. This information can then be used in the classification of future resources; identifying sample intervals of suspect quality serves to increase confidence in non-suspect intervals.



Factored AA silver values are included in the data used to estimate the resources. Where the records exist, the underlying unfactored AA silver values need to added to the database, so that the factoring can be evaluated for its appropriateness in any updated resource modeling.

While the as-mined topographic surface created by Integra is reasonable, it may not fully represent all mined out areas and could locally overstate mined volumes as well. Blast-hole data needs to be incorporated into the project database and used to refine the existing as-mined surface.

No historical underground workings were removed from the resources. Essentially all historical stopes were mined out during the open-pit operations, leaving only a few developmental crosscuts within the resources. These remaining underground volumes are insignificant.

There are no oxidation data in the project database, although observations regarding oxidation state are present in some of the geologic logs reviewed by the authors. All oxidation data available needs to be compiled.

The current resources use a global density value (tonnage factor) that reflects the most common value used in the various historical resource and reserve studies reviewed by the authors. Well-documented density (specific gravity) data need to be obtained as the project progresses.

# 15.0 MINERAL RESERVE ESTIMATES

There are no estimated mineral reserves for the DeLamar project at this time.

Page 89

# 16.0 ADJACENT PROPERTIES

The authors have nothing to report regarding adjacent properties.



### 17.0 OTHER RELEVANT DATA AND INFORMATION

The DeLamar property extends east to include a small portion of the Florida Mountain claims, a collection of mineral claims that were historically subject to gold and silver mining. The bulk of the claims that host previously identified mineral deposits and historical mining operations are not owned by DeLamarCo. Integra has recently entered into a letter of intent with two arm's length companies to acquire some of these Florida Mountain claims, although any such transaction will only be concluded upon conclusive due diligence, negotiation, and execution of acquisition agreements and closing of the DeLamar transaction. Nevertheless, this prospective future interest, combined with historical data pertaining to Florida Mountain in the possession of DeLamarCo and its proximity, similar geological characteristics and history of shared production facilities, the authors have determined that the information on the Florida Mountain claims set forth below is relevant to, and will provide readers with a better understanding of, the DeLamar property.

There area 46 patented claims that are the subject of the letter of intent, known as the Empire and Banner claims, as shown in Figure 17.1 and listed in Table 17.1. These claims encompass an area of approximately 243 hectares.

RESOURCES

Mine Development

Associates



OWNED CLAIMS LEASED PATENTED CLAIMS Patented Claims Leases A-D State Lease 8129 Section 36 lots © 2013 National Geographic Society, i-cubed FLORIDA MOUNTAIN CLAIMS Empire and Banner Claims Project **DeLAMAR MINE PROJECT** 

Figure 17.1 Map of Empire and Banner Claims

Consultant

Title

Coordinate System:

MMM-DD-YYYY:

OWYHEE COUNTY, IDAHO

27 October 2017

DeLamar Land Position Map

Showing Empire and Banner Claims

UTM NAD 83 Zone 11N / Units: meters



**Table 17.1 Empire and Banner Patented Mining Claims** 

Patented Claim Name	Mineral Survey
Banner Claim	•
Banner	2296
Harmon	2296
C.O.D.	2296
Mammon	2296
Ella	2296
Coffee	2296
Star Spangle	2296
Tip Top	1303A
Justice	1302
Apex	1304
Empire Claim	
Black Jack	848A
Empire State	878
Phillips	879
Sullivan	880
Belfast	881
Colorado	1091
Sierra Nevada	1092
Independence	1097
Jumbo	1099
South Pluto	1100
Black Bart	1102
James C. Blaine	1103
Trade Dollar	1111
Fraction	1199
So. Ext. Blaine	1200
Caroline	1201
Owyhee Treasury	1233A
Seventy Nine	1234A
J.M. Guffy	1258A
Alpine	1277
Little Chief	1329
Harrison	1278
Alleghany	1330
Twenty One	1331
Sunflower	
	1509
Industry	1570 1671
Economy  No. Evt. Commonwealth	
No. Ext. Commonwealth Rough and Ready	1567 1256A
	1568
Commonwealth Comstock	1635
	+
Baltic	1636
Sterling  Riank lank Millaita	1637
Black Jack Millsite	848B
Pluto Millsite	1104B
Palm Beach Inn	1566



Historical underground mines at Florida Mountain are estimated to have produced a total of 133,000 ounces of gold and 15.4 million ounces of silver from 1883 to 1910 (Bonnichsen et al. undated, cited in Gierzycki 2004a). Modern historical exploration at Florida Mountain commenced in the 1970s and continued through to 1994 when Kinross commenced open-pit mining at Florida Mountain while continuing production from the Glen Silver, Sommercamp – Regan, and North DeLamar areas of the DeLamar project. Material was mined from three areas near the crest of Florida Mountain, named the Tip Top, Stone Cabin, and Blackjack open pits as shown in Figure 17.2. The ore from Florida Mountain, which was mined through 1998, was hauled 8.5 kilometers and processed at the DeLamar mine. Gierzycki (2004) estimated that 124,500 ounces of gold and 2.6 million ounces of silver were produced from the Florida Mountain through to the end of mining in 1998.

# 17.1 Geology and Mineralization

The geology of the Florida Mountain area is generally very similar to that of the DeLamar area, with the important exception that the Late Cretaceous Silver City granite crops out on the flanks of Florida Mountain and was extensively penetrated by workings of the historic underground mines. Field relations demonstrate the lower basalt flows partially buried an erosional, paleotopographic high of Silver City granite. Surface exposures and maps of the underground workings, as well as early drilling at Florida Mountain, led Lindberg (1985) to infer the granite forms a northeast-trending ridge beneath a relatively thin capping of quartz latite, tuff breccia, and one or more flows of rhyolite. As at the DeLamar area, both fissure veins and the bulk-mineable type of mineralization are present at Florida Mountain and have contributed to past gold and silver production.





Figure 17.2 Aerial View of the Florida Mountain (Stone Cabin Mine) Area

Note: shaded areas show Integra's DeLamar property position, September 1, 2017. Unshaded areas are the Florida Mountain claims.

## 17.2 1980s Florida Mountain Metallurgical Testing Potentially Pertinent to DeLamar Project

The following testwork is summarized below as it may be relevant to the potential for heap-leach processing of mineralized material at the DeLamar project, based on similarities in host-rock types and styles of mineralization.

During the 1980s, NERCO conducted column-leach and agitation-leach tests on samples of mineralized drill core from the Sullivan, Stone Cabin, and Clarke areas of Florida Mountain (Statter, 1989). The results of the column-leach tests, which were run for approximately 60 days, are summarized in Table 17.2. No information on the column diameter(s) or the oxidation states of the materials tested were provided.



Table 17.2 NERCO Florida Mountain Column-Leach Tests

(from Statter, 1989)

Florido Marrotaio Augo	Crush Size	Calc. Head Grade		Reagent	s lb/ton	Metal Extraction %	
Florida Mountain Area	(inches)	Ag oz/ton	Au oz/ton	NaCN	Lime	Ag	Au
Sullivan	-1	0.248	0.017	2.2	6	41.9	82.3
Sullivan	-1/2	0.227	0.018	2.2	6	53.8	82
Stone Cabin LG	-1	0.255	0.009	1.8	5.2	45.2	85.1
Stone Cabin LG	-1/2	0.317	0.01	1.9	5.2	43.1	84.5
Stone Cabin HG	-1	0.455	0.047	2.1	5.2	39.3	78.1
Stone Cabin HG	-1/2	0.42	0.043	2.3	5.3	47.6	84.3
Clark LG	-1	0.144	0.007	1.8	5.3	37.5	52
Clark LG	-1/2	0.127	0.007	2.2	5.4	53.6	83.7
Clark HG	-1	0.413	0.025	2.2	5.4	36.4	38.7
Clark HG	-1/2	0.446	0.023	2	5.3	48.9	59.3

Additional column-leach tests were conducted by NERCO in 1988 at the DeLamar mine laboratory with drill-core and mine-dump samples from the Stone Cabin area, and samples from a trench at the Tip Top area (Kilborn, 1988; Hampton, 1988). The tests were run for 56 and 60 days with material crushed from 70% at minus 0.25 inches, to minus two inches, as summarized in Table 17.3. The authors are unaware of the column diameter(s) or the oxidation states of the materials tested.

**Table 17.3 Other NERCO Florida Mountain Column-Leach Tests** 

(from Hampton, 1988 compiled by Integra, 2017)

Auga / Trues	Course Sins	Caluclated	Head Grade	Duration	Adjusted* Metal Extraction		
Area / Type	Crush Size	Ag oz/ton	Au oz/ton	days	Ag %	Au %	
Stone Cabin Dump	1"	1.761	0.108	60 days	39.7	83.1	
Stone Cabin Core	-1"	0.514	0.019	60 days	31.5	92.2	
Stone Cabin Core	- 1/2"	0.466	0.018	60 days	42.9	92.6	
Stone Cabin Core	-1/2"	0.53	0.35	60 days	36.2	78	
Tip Top Trench	-2"	0.506	0.03	56 days	41.6	92.2	
Tip Top Trench	-1"	0.576	0.032	56 days	42.8	91.5	
Tip Top Trench	70% -1/4"	0.636	0.03	56 days	45	95	

<sup>\*</sup> denotes an internal DeLamar mine assay factor was applied to silver and gold analyses.

Also, Statter (1989) reported a pilot column-leach test was performed in 1988 or 1989 using 14,850 pounds of Stone Cabin "run of dump" material. The test was likely conducted at the DeLamar mine laboratory. Leaching was conducted for 63 days resulting in 15.8% silver recovery and 72.2% gold recovery (Statter, 1989).

### 18.0 INTERPRETATION AND CONCLUSIONS

The authors have reviewed the historical DeLamar project data, verified the drill-hole database, attained an understanding of the extent of historical QA/QC procedures implemented, and visited the project site. Based on this work, it is the opinion of the authors that the project data are adequate for the modeling and estimation of the Inferred gold and silver resources disclosed in this report.

The first precious-metals production of significance from the DeLamar project area occurred from underground mines that exploited high-grade veins in the late 1800s to early 1900s. A total of 400,000 ounces of gold and 5.9 million ounces of silver were reportedly produced during this time period. Beginning in the late 1970s, lower-grade bulk-tonnage ores were produced from an open-pit mining and milling operation that operated over a period of 20 years. It has been reported that 625,500 ounces of gold and 45 million ounces of silver were produced from the DeLamar project from 1977 through 1998. Extensive reclamation of the mining areas has been undertaken prior to Integra's involvement in the project, and Integra will continue related water-management activities, monitoring, and reporting to the appropriate governmental agencies.

The DeLamar project gold and silver deposits are characterized as volcanic-hosted, low-sulfidation epithermal mineralization. Higher-grade, steeply- to moderately-dipping vein-type mineralization is structurally controlled and therefore relatively restricted in widths, although some of the principal mineralized structures are thought to persist to for 100s of meters along strike and locally have widths up to 10s of meters. Lower-grade mineralization peripheral to the vein-type occurs over drilled horizontal extents of up to 550 meters and a continuously mineralized strike length of 2.9 kilometers (not including an isolated zone of mineralization at Milestone, which lies about 1 kilometer northwest of the Glen Silver zone).

The project database includes the data from 1,547 generally shallow, historical conventional rotary, RC, and core holes drilled between 1966 and 1998 by various operators. These holes have an average downhole depth of less than 100 meters. A total of 1,298 of these holes contribute gold and silver data to the estimation of the project resources.

The DeLamar project potential open-pit gold and silver resources are constrained to lie within an optimized pit and are tabulated using a cutoff grade of 0.3 g AuEq/t. Parameters used in the pit optimization reflect milling of the mineralized materials and processing by tank leaching with cyanide. The Inferred resources total 117,934,000 tonnes averaging 0.41 g Au/t (1,592,000 ounces of gold) and 24.3 g Ag/t (91,876,000 ounces of silver).

The resources are classified entirely as Inferred, which is primarily due to uncertainties related to the historical nature of the data used to support the resource estimation. The most significant risks to the current resources are related to the presence of factored silver analyses in some portion of the project database and uncertainties related to the as-mined topography. Any changes to the as-mined surface are not likely to materially impact the resources, but could lead to some losses in tonnes. The factored silver data require a comprehensive review of the historical assay records to identify all factored analyses, and the potential impacts of the factored data would then need to be evaluated. In assessing the risk of the factored data at present, it is important to note that the historical drill-hole database, which included the

Page 97

factored silver analyses, formed the basis of a commercial mine that operated successfully over an extended period of time.

Exploration potential for additional bulk-tonnage mineralization on the DeLamar project is significant. Essentially all of the modeled mineralization is open at depth, and, considering the shallow extents of a high percentage of the historical holes, the potential to expand mineralization that is potentially minable by open-pit methods exists. While it is likely that deeper drilling will encounter a higher proportion of mixed oxidized/unoxidized and unoxidized mineralization than was produced to-date, historical records indicate that some of these materials were mined and processed in the past. Such processing may lead to lower recoveries; metallurgical testing would need to be completed as part of demonstrating potential economic viability.

In addition to the bulk-tonnage potential, there is also excellent potential for the discovery of high-grade vein-type mineralization similar to that mined in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. The historical mining, including the open-pit operations, exploited high-grade veins in the Sommercamp and North DeLamar areas that include a total northwest strike length of less than 500 meters of the 2.9 kilometers of northwest strike length of the continuously mineralized zone of modeled mineralization. While it is very unlikely that the entire mineralized footprint is underlain by high-grade veins, and it is possible that no additional high-grade mineralization exists that could potentially be mined by underground methods, the potential for such additional mineralization is real and warrants serious evaluation.

Finally, it is possible that some portion of the current resources, perhaps a large portion, could be amenable to heap-leach processing. The historical open-pit processing facilities at DeLamar were originally constructed prior to the advent of commercial heap-leach operations in the United States. A limited attempt to heap leach low-grade ore was made late in the mine life with limited success, but the heap was placed on what turned out to be unstable ground. Coarse, uncrushed materials were placed on the pad, and it is not clear if the pad was properly prepared to operate under the freezing conditions of winter. The authors are not aware of any metallurgical testing pertaining specifically to heap leaching of DeLamar mineralization, but a number of 60-day column-leach tests were performed on ¼- to 2-inch (0.6 to 5.1 centimeters) materials from Florida Mountain, the geology and mineralization of which is very similar to that at the DeLamar project. Gold and silver recoveries in these tests ranged from 52% to 95% for gold, and 32% to 54% for silver. The oxidation state of the tested samples, which include 13 tests on samples of drill core, three tests on trench samples, and one test of dump material, are not documented. Given these results, further investigations regarding the amenability of DeLamar mineralization to heap leaching are warranted.



#### 19.0 RECOMMENDATIONS

As discussed in 18.0, there is potential to increase the classification of the estimated mineral resources to Indicated status, and to expand the extents of mineralization of economic interest within the DeLamar property. The project therefore warrants significant additional investment in exploration with the goals of: (i) increasing confidence in the existing resources, which are potentially amenable to open-pit mining; (ii) expanding the potential open-pit resource base; and (iii) testing the high-grade vein potential at depth.

The authors recommend a work program with an estimated total cost of \$8,720,000 as outlined in Table 19.1. In addition to costs related to exploration, the recommended program includes land-holding and environmental-permitting costs, as well as ongoing water treatment, through to April 2019. Prior to significant surface activities, specifically drilling, project-wide digital topography should be obtained ("DTM" in Table 19.1).

Proposed drilling includes 2,000 meters of core drilling and 18,000 meters of RC drilling. This drilling should focus on testing extensions to previously defined mineralization, including high-grade veins within lithologic units beneath the porphyritic rhyolite. Inclined holes are recommended and, where possible, should be sited to pass through areas of previously modeled mineralization in order to provide increased confidence in resource estimation. Extensive specific-gravity testing should be undertaken on all core holes drilled.

Metallurgical testing is also recommended, with a focus on defining the metallurgical characteristics and potential extraction parameters of oxide, mixed, and sulfide material within the estimated resource. Processing alternatives involving both milling and heap-leaching should be tested. In addition, an Induced Potential ("IP") geophysical survey of 15 line-kilometers is proposed to help delineate the deeper, potentially mineralized structures prior to drill testing.

Following completion of the proposed drilling and metallurgical testing, an updated resource estimate should be completed, followed by a Preliminary Economic Assessment.

**Table 19.1 Cost Estimate for the Recommended Program** 

Item	Estimated Cost
RC and Core Drilling (incl. access roads, drill pads, water, surveys)	\$3,300,000
Assaying and Geochemistry	400,000
Geology, Soil and Rock Sampling, Geophysics, DTM	195,000
Direct Salaries and Expenses (Geology team)	722,000
Land Holding Costs	330,000
Permitting and Environmental (includes ongoing water management, maintenance, safety, security and site office G&A)	2,844,000
Metallurgy	413,000
Resource Estimation & PEA	400,000
Other Administrative / Office expenses	116,000
Total	\$8,720,000



As a critical part of the work program summarized above, MDA recommends that Integra undertake the following data capture and evaluation to improve confidence in the project database and, together with the proposed drilling, support the classifications higher than Inferred in future resource estimations:

- Digital electronic compilation of all comments on the drill logs concerning sample recovery, sample quality, difficult drilling conditions, water (natural or injected during drilling), the intersection of historical workings, oxidation, etc.;
- Attempt to resolve questions remaining about the details of the historical drill holes, including the dates drilled, hole types, drilling methods, and companies responsible;
- Digital electronic compilation of historical down-hole deviation records, if they can be located;
- Digital electronic compilation of original AA silver values where only factored AA values are present in the project database;
- Continue to seek records that quantify the tonnages and grades of the various oxidation material types processed and their respective gold and silver recoveries, as such information could be pertinent to future potential processing of materials that are likely to be less oxidized, on average, than the ores processed historically;
- Digital electronic compilation of Union Assay's QA/QC data, which exist in paper form;
- Attempt to locate any check-assay results or other QA/QC data pertinent to the mine laboratory and compile digitally;
- Digital electronic compilation of historical blast-hole data, to be used to refine and finalize the as-mined surface and to provide spatial details of the mined gold and silver mineralization details that would greatly increase the confidence of future resource modeling; and
- Continue to compile and evaluate all records of existing metallurgical testing, and work to identify the details of the tested samples, for example their location and oxidation state.

It is also important for Integra to compile and evaluate geophysical and geochemical data that may be exist in the historical records. Insights gained from such an evaluation may be applicable to further exploration drilling of the property.

Finally, it is recommended that Integra carry out the drilling and other work proposed above using a coordinate system compatible with modern-day surveying and GPS measuring devices. The local minegrid and all historical drill-collar locations should be transformed to Universal Transverse Mercator ("UTM") projection. This will facilitate the siting and surveying of new drill holes and will allow the integration and evaluation of regional and district geophysical data.

It is the author's opinion that the DeLamar project is a project of merit and warrants the proposed program and level of expenditures outlined above.



#### 20.0 REFERENCES

- Aseto, C.O., 2012, Geology, geochemistry, and geochronology of low-sulfidation epithermal Au-Ag ores on War Eagle Mountain, Silver City District, Idaho: unpublished M.S. thesis, Auburn University, 167 p.
- Asher, R.R., 1968, Geology and mineral resources of a portion of the Silver City region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 138, 106 p.
- Barrett, R.A., 1985, *The geology, mineralization, and geochemistry of the Milestone hot–spring silver-gold deposit near the Delamar silver-gold mine, Owyhee County, Idaho*: unpublished M.Sc. thesis, University of Idaho, 474 p.
- Bennett, E.H., and Galbraith, J., 1975, *Reconnaissance Geology and Geochemistry of the Silver City-South Mountain Region, Owyhee County, Idaho*: Idaho Bureau of Mines and Geology Pamphlet 162, 88 p.
- Bergendahl, M.H., 1964, *Gold*, in *Mineral and Water Resources of Idaho*: Idaho Bureau of Mines and Geology Special Report No. 1, p. 93-101.
- Bonnichsen, B., 1983, *Epithermal gold and silver deposits Silver City-De Lamar district, Idaho*: Idaho Geological Survey Technical Report 83-4, 29 p.
- Bonnichsen, B. and Godchaux, M.M., 2006, *Geologic Map of the Murphy 30 x 60 degree Quadrangle, Ada, Canyon, Elmore, and Owyhee Counties, Idaho*: Idaho Geological Survey DWM-80.
- Bonnichsen, B., Strowd, W.B., and Beebe, M., undated; Epithermal gold and silver deposits, Silver City-De Lamar District, Idaho: unpublished report, 28 p.
- Cupp, B.L., 1989, Mineralization and volcanism at the DeLamar Silver Mine, Owyhee County, Idaho: Unpublished M.Sc. thesis, Miami University, 95 p.
- DeLong, R., 2017 (September), untitled project communication document containing text for Section 4.4, received via email on September 25, 2017.
- Earth Resources Company, 1974, Feasibility study, DeLamar project, Owyhee County, Idaho, Volume II, geology and ore reserves: unpublished report, 41 p. plus figures and folded plates.
- Ekren, E.B., McIntyre, D.H., Bennett, E.H., and Malde, H.E., 1981, *Geologic map of Owyhee County, Idaho, west of longitude 116*°W: U.S. Geological Survey Map1-1256.
- Ekren, E.B., McIntyre, D.H., Bennett, E.H., and Marvin, R.F., 1982, *Cenozoic stratigraphy of western Owyhee County, Idaho*, in Bonnichsen, B. and Breckenridge, R.M., eds., Cenozoic Geology of Idaho, Idaho Bureau of Mines and Geology Bulletin 26.
- Ekren, E.B., McIntyre, D.H., and Bennett, E.H., 1984, High-temperature, large-volume, lavalike ashflow tuffs without calderas in southwestern Idaho: U.S. Geological Survey Professional Paper, 1272, 76 p.



- Elkin, D.C., 1993 (September), *Kinross Gold U.S.A. Inc. DeLamar Gold and Silver Mine Owhyhee County, Idaho Ore Reserves as of December 31, 1992*: unpublished report by Mine Reserves Associates, Inc. prepared for Kinross Gold Corporation, 39 p. plus appendices.
- Gierzycki, G.A., 2004 (April), *Exploration potential of the DeLamar Mine property, Owyhee County, Idaho*: report prepared for Kinross Gold Corporation, 33 p.
- Halsor, S. P., 1983, A volcanic dome complex and genetically associated hydrothermal system, DeLamar silver mine, Owyhee County, Idaho: unpublished M.Sc. thesis, Michigan Tech. Univ., 111 p.
- Halsor, S.P., Bornhorst, T.J., Beebe, M., Richardson, K., and Strowd, W., 1988, *Geology of the DeLamar silver mine, Idaho A volcanic dome complex and associated hydrothermal system*: Economic Geology: v. 83, p. 1159–1169.
- Hampton, P., 1988 (August), *Final Report on Phase-1 Florida Mt. Metallurgy*: internal company report, NERCO Minerals.
- Kilborn Engineering BC, 1988 (November), Nerco Delamar Co. 'Floridan' Mountain Project Review of Metallurgical Testwork: report prepared for NERCO Minerals.
- Lindberg, P.A., 1985 (September), *Geological appraisal of the Florida Mountain gold-silver district, Idaho*: unpublished report prepared for NERCO Minerals Company, 19 p. plus plates.
- Lindgren, W., 1900, *The gold and silver veins of the Silver City, De Lamar, and other mining districts in Idaho*: U.S. Geological Survey 20th Annual Report, Part 3, p. 65–256.
- Lindgren, W., and Drake, N.F., 1904, *Description of the Silver City quadrangle*: U.S. Geological Survey Geologic Atlas, Silver City Folio.
- Mason, M.S., Saunders, J.A., Aseto, C., Hames, W.E., and Brueseke, M.E., 2015, *Epithermal Au-Ag ores of War Eagle and Florida Mountains, Silver City district, Owyhee County, Idaho*: in Pennell, W.M., and Garside, L.J., eds., Proceedings of the Geological Society of Nevada Symposium, New Concepts and Discoveries, Reno, p. 1067-1078.
- Miyoshi, T.K., 1974 (January), *Preliminary metallurgical testing on the North DeLamar ore*: report prepared for Earth Resources Company by Hazen Research Inc., HRI Project 1466.
- Miyoshi, T.K., Zaman, S., and Yarroll, W.H., 1971 (August), *Metallurgical and economic studies of a silver ore for Earth Resource Company*: report prepared by Hazen Research Inc., HRI Project No 979.
- Mitchell, V.E., 2010 (August), *History of the Florida Mountain mines, Owyhee County, Idaho*: Staff Report 10-7, Idaho Geological Survey, University of Idaho, 65 p.



- Mosser, K.L., 1992, Mineralogy, paragenesis, and fluid inclusion relationships of the hydrothermal ore deposits at Florida Mountain, Carson mining district, Owyhee County, Idaho: unpublished M.Sc. thesis, University of Arizona, 216 p.
- Pancoast, L., 1990, 1989 South Wahl geologic model: NERCO Exploration Company internal report, 9p plus appendices.
- Panze, A.J., 1971, Geology and ore deposits of the Silver City-De Larmar-Flint Creek region, Owyhee County, Idaho: unpublished Ph.D. Thesis, Colorado School of Mines, 150 p.
- Panze, A.J., 1972, K-Ar ages of plutonism, volcanism and mineralization, Silver City region, Owyhee County, Idaho: Isochron/West, no. 4, p. 1-4.
- Pansze, A.J., 1975, Geology and ore deposits of the Silver City-DeLamar-Flint region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 161, 79 p.
- Perry, J.K., 1971 (August), *Mineralogy of silver-bearing drill core from De Lamar, Idaho*: unpublished report prepared for Earth Resources Company by Hazen Research Inc., HRI Project No. 979, 35 p.
- Piper, A.M., and Laney F.B., 1926, *Geology and metalliferous resources of the region about Silver City, Idaho*: Idaho Bureau of Mines and Geology Bulletin 11, 165 p.
- Porterfield, B., and Moss, K., 1988 (March), *Geology and mineralization of Florida Mountain*: internal company report for NERCO Minerals Company, 31 p., plus plates.
- Rak, P., Shaw, D.R., and Schmidt, R., 1989 (March), *Sullivan Gulch Gold Silver Ore Metallurgical Studies*: report prepared for NERCO Minerals by Hazen Research Inc.
- Richardson, Kim, 1985 (November), Fire AA adjustment factors used to generate final silver values in computer data base; internal NERCO memorandum, 4 p.
- Rodgers B., 1980, *DeLamar silver mine*, *Owyhee County*, *Idaho*: unpublished company report prepared for Earth Resources Co., 6 p.
- Sillitoe, R.H., and Hedenquist, J.W., 2003, *Linkages between volcanotectonic settings, ore-fluid compositions, and epithermal precious metal deposits*: Soc. Economic Geologists Special Publication 10, p. 315-343.
- Statter, D.J., 1989 (May), *Progress Report #8 on Florida Mountain Metallurgy*: internal NERCO company report, 2 volumes.
- Taubeneck, W.H., 1971, *Idaho batholith and its southern extension*: Geological Society of America Bulletin, v. 82, p. 1899-1928.
- Thomason, R. E., 1983, Volcanic stratigraphy and epithermal mineralization of the DeLamar silver mine, Owyhee County, Idaho: unpublished M.Sc. thesis, Oregon State Univ., 70 p.
- Wells, W.W., 1963, Gold camps and silver cities: Idaho Bureau of Mines and Geology Bulletin 22, 36 p.

# 21.0 DATE AND SIGNATURE PAGE

Effective Date of report: November 1, 2017

Completion Date of report: November 1, 2017

"Michael M. Gustin" Date Signed:

Michael M. Gustin, C.P.G.

November 1, 2017

"Steven I. Weiss" Date Signed:

Steven I. Weiss, PhD, C.P.G.

November 1, 2017



#### MICHAEL M. GUSTIN, C.P.G.

- I, Michael M. Gustin, C.P.G., do hereby certify that I am currently employed as Senior Geologist by Mine Development Associates, Inc., 210 South Rock Blvd., Reno, Nevada 89502 and:
- 1. I graduated with a Bachelor of Science degree in Geology from Northeastern University in 1979 and a Doctor of Philosophy degree in Economic Geology from the University of Arizona in 1990. I have worked as a geologist in the mining industry for more than 30 years. I am a Licensed Professional Geologist in the state of Utah (#5541396-2250), a Licensed Geologist in the state of Washington (# 2297), a Registered Member of the Society of Mining Engineers (#4037854RM), and a Certified Professional Geologist of the American Institute of Professional Geologists (#CPG-11462).
- 2. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101"). I have previously explored, drilled, evaluated and modeled similar volcanic-hosted epithermal gold-silver deposits in the western US and Mexico. I certify that by reason of my education, affiliation with certified professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 3. I have not visited the DeLamar project site.
- 4. I am responsible for all Sections of this report titled, "Technical Report and Resource Estimate, DeLamar Gold Silver Project, Owyhee County, Idaho, USA", with an effective date of October 1, 2017 (the "Technical Report").
- 5. I have had no prior involvement with the DeLamar property or project that is the subject of the Technical Report, and I am independent of Integra Resources Corp., Mag Copper Ltd., and Kinross Gold Corporation, and all of 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.
- 6. As of the effective date of this Technical 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 those parts of this Technical Report for which I am responsible for not misleading.
- 7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1 <sup>st</sup> day of November 2017.	
•	
"Michael M. Gustin"	

Michael M. Gustin



#### CERTIFICATE OF QUALIFIED PERSON

STEVEN I. WEISS, PH.D., C.P.G.

I, Steven I. Weiss, C.P.G., do hereby certify that:

- I am currently a self-employed Senior Associate Geologist for Mine Development Associates, Inc., located at 210 South Rock Blvd., Reno, Nevada, 89502; and
- I graduated with a Bachelor of Arts degree in Geology from the Colorado College in 1978, received a Master of Science degree in Geological Science from the Mackay School of Mines at the University of Nevada, Reno in 1987, and hold a Doctorate in Geological Science from the University of Nevada, Reno, received in 1996.
- I am a Certified Professional Geologist (#10829) with the American Institute of Professional Geologists and have worked as a geologist in the mining industry and in academia for more than 35 years.
- I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101"). I have previously explored, drilled, evaluated and reported on gold-silver deposits in volcanic and sedimentary rocks in Nevada, California, Canada, Greece, and Mexico. I certify that by reason of my education, affiliation with certified professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I am a co-author of this Technical Report titled "Technical Report and Resource Estimate, DeLamar Gold-Silver Project, Owyhee County, Idaho, USA" prepared for Integra nResorces Corp., and with an effective date of October 1, 2017. Subject to those issues discussed in Section 3.0, I am co-responsible for sections 2, 3, 5, 6, 7, 8, 9 and 10, and co-responsible for sections 1, 16, 17, 18, 19, and 20 of this Technical Report.
- I have not had prior involvement with the property that is the subject of this Technical Report. I visited the DeLamar project site on August 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>, 2017.
- To the best of my knowledge, information and belief, as of the effective date the Technical Report contains the necessary scientific and technical information to make the Technical Report not misleading.
- I am independent of Integra Resources Corp., Mag Copper Ltd., and Kinross Gold Corporation, and all of their subsidiaries, applying all of the tests in Section 1.5 of National Instrument 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 accordance with the requirements of that instrument and form.

Dated this November 1, 2017	
"Steven I. Weiss"	
Signature of Qualified Person	

# LISTING OF PATENTED AND UNPATENTED FEDERAL LODE MINING CLAIMS AND LEASED LAND

### APPENDIX A

The following described lands are located in Owyhee County, Idaho:

## **Unpatented Mining Claims**

Claim Name	BLM #	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
Little Rose	IMC-19293	Oct/30/1976	5S 4W, 2	10/470	
Grand Central	IMC-20391	Oct/30/1976	5S 4W, 1		
MONO	IMC-19294	Jun/01/1901	5S 4W, 2	13/386	160527
NORTHERN LIGHT	IMC-19295	Nov/04/1905	5S 4W, 2	13/608	
SKYLARK	IMC-19296	Dec/10/1906	5S 4W, 2	14/36	
COLUMBIA	IMC-19297	Jun/24/1908	5S 4W, 2	14/353	
GLOBE	IMC-20389	Jan/01/1913	5S 4W, 1		
PAYETTE	IMC-20392	Jan/02/1913	5S 4W, 1		
DALY	IMC-20390	Jan/03/1913	5S 4W, 1		
LAST CHANCE	IMC-19298	Aug/27/1917	5S 4W, 2	16/608	
DELAGARDE	IMC-19299	Jul/02/1921	5S 4W, 2	17/194	
Ontario	IMC-11500	Jul/01/1925	5S 4W, 1	31864	
Golden Gate	IMC-19300	Aug/15/1931	5S 4W, 2	19/73 43273	
New Deal	IMC-19301	Jul/03/1933	5S 4W, 2 4S 4W, 35	19/131 46551	
Progress	IMC-19302	Jul/03/1933	5S 4W, 1 5S 4W, 2 4S 4W, 35 4S 4W, 36	19/132 46552	
Century	IMC-19303	Jul/03/1933	5S 4W, 2 4S 4W, 35	19/130 46550	
Vein Dike	IMC-20388	Jun/01/1935	5S 4W, 1		
Vein Dyke Fraction	IMC-20387	Aug/01/1938	5S 4W, 1		
Gold Standard #4	IMC-13714	Jun/12/1960	5S 4W, 5 5S 4W, 8	25/303 102867	
Red Cloud	IMC-14797	Jun/12/1962	5S 4W, 10 5S 4W, 3	26/23 107134	
Noon Silver	IMC-13703	Jun/01/1964	5S 4W, 8	26/365-366 411720	
Cook 2	IMC-16257	Jul/17/1964	5S 4W, 11	26/378 111933	
Cook 3	IMC-16258	Jul/17/1964	5S 4W, 11	26/379 111934	
Cook 6	IMC-16261	Jul/17/1964	5S 4W, 10	26/382 111937	
Cook 8	IMC-16263	Jul/17/1964	5S 4W, 10	26/384 111939	
Cook 10	IMC-16265	Jul/17/1964	5S 4W, 10	26/386 111941	

Appendix A Page 1 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
G 1 12	D (C 1 (2 (7	T 1/17/1064	50 477 10	26/388	
Cook 12	IMC-16267	Jul/17/1964	5S 4W, 10	111943 26/390	
Cook 14	IMC-16269	Jul/17/1964	5S 4W, 10	111945	
COOK 11	1020)	341/17/1901	35 111, 10	26/392	
Cook 16	IMC-16271	Jul/17/1964	5S 4W, 10	111947	
				26/395	
Cook 19	IMC-16274	Jul/18/1964	5S 4W, 2	111950	
Cook 48	IMC-16303	Jul/22/1964	5S 4W, 10	26/424 111979	
Elko	IMC-13655	Jul/02/1966	5S 4W, 5	27/356	
			5S 4W, 1		
Elko No.2	IMC-13656	Jul/02/1966	5S 4W, 12	27/355	
Cook 52	IMC-16307	Nov/23/1967	5S 4W, 2	28/124 119693	
COOK 32	IWIC-10307	1100/23/1907	33 4 W, Z	28/125	
Cook 53	IMC-16308	Nov/23/1967	5S 4W, 2	119694	
			,	28/126	
Cook 54	IMC-16309	Nov/23/1967	5S 4W, 2	119695	
G 1.54	D (G 1 (2))	N. 100/10 55		28/128	
Cook 56	IMC-16311	Nov/23/1967	5S 4W, 2	119697 28/129	
Cook 57	IMC-16312	Nov/23/1967	5S 4W, 2	119698	
COOK 37	10312	1101/23/1707	35 411, 2	28/130	
Cook 58	IMC-16313	Nov/23/1967	5S 4W, 2	119699	
Cop 1	IMC-16337	Nov/24/1967	4S 4W, 32 4S 4W, 33 5S 4W, 4 5S 4W, 5	28/139 120085	
Cop 3	IMC-16339	Nov/24/1967	4S 4W, 32 5S 4W, 5	28/141 120087	
Cop 5	IMC-16341	Nov/24/1967	4S 4W, 32 5S 4W, 5	28/143 120089	
Cop 13	IMC-16349	Nov/24/1967	4S 4W, 33 5S 4W, 4	28/151 120097	
Cop 7	IMC-16343	Nov/25/1967	4S 4W, 32 5S 4W, 5	28/145 120091	
Cop 9	IMC-16345	Nov/25/1967	4S 4W, 32 5S 4W, 5	28/147 120093	
Cop 11	IMC-16347	Nov/25/1967	4S 4W, 32 5S 4W, 5	28/149 120095	
Cop 15	IMC-16351	Nov/25/1967	5S 4W, 3 4S 4W, 34	28/153 120099	
Cop 17	IMC-16353	Nov/25/1967	4S 4W, 33 5S 4W, 4	28/155 120101	
Cop 19	IMC-16355	Nov/25/1967	4S 4W, 33 5S 4W, 4	28/157 120103	
Summit	IMC-13704	Jul/28/1968	5S 4W, 5		143103
North Chance	IMC-13705	Sep/01/1968	5S 4W, 5	28/279	143105

Appendix A Page 2 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
Cop 21	IMC-16357	Sep/01/1968	4S 4W, 33 5S 4W, 4	28/339 121847	
Cop 22	IMC-16358	Sep/01/1968	4S 4W, 33 5S 4W, 4	28/340 121848	
Cop 23	IMC-16359	Sep/01/1968	4S 4W, 33 5S 4W, 4	28/341 121849	
Cop 24	IMC-16360	Sep/01/1968	4S 4W, 33 5S 4W, 4	28/342 121850	
Cop 25	IMC-16361	Sep/01/1968	4S 4W, 33 5S 4W, 4	28/343 121851	
Cop 26	IMC-16362	Sep/02/1968	5S 4W, 3 4S 4W, 34	28/344 121852	
Cop 32	IMC-16368	Sep/02/1968	4S 4W, 34	28/350 121858 28/351	
Cop 33	IMC-16369	Sep/04/1968	4S 4W, 34	121859 28/352	
Cop 34	IMC-16370	Sep/04/1968	4S 4W, 34	121860 28/353	
Cop 35	IMC-16371	Sep/04/1968	4S 4W, 34	121861 28/358	
Cop 40 Cop 68	IMC-16376 IMC-16404	Sep/04/1968 Sep/23/1968	4S 4W, 34 5S 4W, 4	121866 28/417 122107	
Cop 69	IMC-16405	Sep/23/1968	5S 4W, 4	28/418 122108	
North Summit	IMC-13709	Oct/01/1968	5S 4W, 5	28/325 121733	
Cook 60	IMC-16315	Oct/04/1968	4S 4W, 34	28/382	
Cook 62	IMC-16317	Oct/04/1968	4S 4W, 34	28/384 28/419	
Cop 70	IMC-16406	Oct/04/1968	5S 4W, 3	122109 28/422	
Cop 73	IMC-16409	Oct/04/1968	5S 4W, 10	122112 28/423	
Cop 74 Cop 75	IMC-16410	Oct/04/1968 Oct/04/1968	5S 4W, 9 5S 4W, 9	122113 28/424 122114	
Cop 78	IMC-16414	Oct/04/1968	5S 4W, 9	28/427 122117	
Cop 80	IMC-16416	Oct/04/1968	5S 4W, 9	28/429 122119	
Cook 74	IMC-16329	Oct/13/1968	4S 4W, 34	29/244 122410 29/245	
Cook 75	IMC-16330	Oct/15/1968	4S 4W, 34	122411 29/246	
Cook 76	IMC-16331	Oct/15/1968	4S 4W, 35	122412 29/247	
Cook 77	IMC-16332	Oct/15/1968	4S 4W, 35	122413 29/248	
Cook 78	IMC-16333	Oct/27/1968	4S 4W, 35	122414	

Appendix A Page 3 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
Cook 79	IMC-16334	Oct/27/1968	4S 4W, 35	29/249 122415	
DeLamar Fraction 4	IMC-11234	Jul/07/1970	5S 4W, 8	126814	129813
DeLamar #5 Fraction	IMC-11235	Jul/21/1970	5S 4W, 5	126815	129815
South DeLamar #11	IMC-11259	Jul/24/1970	5S 4W, 9	126827	129821
			5S 4W, 4	126828	129822
South DeLamar #12	IMC-11262	Jul/24/1970	5S 4W, 4 5S 4W, 9		130138
South DeLamar #13	IMC-11263	Jul/25/1970	5S 4W, 4	126829	130139
South DeLamar #14	IMC-11264	Jul/25/1970	5S 4W, 4	126830	130140
Virginia	IMC-11499	Jun/14/1971	5S 4W, 1	129793	
South DeLamar #16	IMC-11266	Aug/14/1973	5S 4W, 8	138034	
South DeLamar #18	IMC-11268	Aug/14/1973	5S 4W, 8	138036	
DeLamar Fraction #6	IMC-11236	Aug/15/1973	5S 4W, 4	138029	
DeLamar Fraction #7	IMC-11237	Aug/15/1973	5S 4W, 4	138030	
DeLamar Fraction #9	IMC-13720	Jul/03/1974	5S 4W, 5	141448	
DeLamar Fraction #11	IMC-13722	Jul/05/1974	5S 4W, 5	141450	
North DeLamar #4	IMC-13728	Jul/05/1974	5S 4W, 5	141444	
South DeLamar #11A	IMC-11260	Sep/21/1974	5S 4W, 9	141997	
South DeLamar #12A	IMC-11261	Sep/21/1974	5S 4W, 9	141998	
DeLamar Fraction #14	IMC-13724	Sep/21/1974	5S 4W, 8	141993	
DeLamar Fraction 2A	IMC-11232	Sep/23/1974	5S 4W, 5	141990	
DeLamar Fraction 3A	IMC-11233	Sep/23/1974	5S 4W, 5	141991	
DeLamar Fraction #1A DeLamar Fraction	IMC-11231	Sep/27/1974	5S 4W, 8	141989	
#13	IMC-11239	Oct/01/1974	5S 4W, 8	142451	
DeLamar Fraction #16	IMC-11241	Nov/23/1974	5S 4W, 5	142452	
Rawhide A	IMC-13716	Nov/26/1974	5S 4W, 5 5S 4W, 8	142450	
Sommercamp A	IMC-13717	Nov/26/1974	5S 4W, 8	142449	
DeLamar Fraction #15	IMC-11240	Jun/30/1975	5S 4W, 4	145225	
ENGL 1	IMC-14687	Sep/13/1975	5S 4W, 1	145597	
ENGL 3	IMC-14689	Sep/13/1975	5S 4W, 1	145599	
ENGL 4	IMC-14690	Sep/13/1975	5S 4W, 1	145600	
ENGL 5	IMC-14691	Sep/13/1975	5S 4W, 1	145601	
FM-1 Fraction	IMC-11485	Oct/06/1975	5S 4W, 1	145674	
GS-1	IMC-13672	Nov/12/1975	5S 4W, 5	145678	
GS-2	IMC-13673	Nov/12/1975	5S 4W, 5	145679	

Appendix A Page 4 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
GS-3	IMC-13674	Nov/12/1975	5S 4W, 6	145680	
GS-4	IMC-13675	Nov/12/1975	5S 4W, 6	145681	
GS-5	IMC-13676	Nov/12/1975	5S 4W, 6	145682	
GS-6	IMC-13677	Nov/12/1975	5S 4W, 6	145683	
GS-7	IMC-13678	Nov/12/1975	5S 4W, 6	145684	
GS-9	IMC-13680	Nov/12/1975	5S 4W, 6	145686	
GS-11	IMC-13682	Nov/12/1975	5S 4W, 6	145688	
GS-13	IMC-13684	Nov/12/1975	5S 4W, 6	145690	
GS-14	IMC-13685	Nov/12/1975	5S 4W, 6	145691	
GS-15	IMC-13686	Nov/12/1975	5S 4W, 6	145692	
GS-16	IMC-13687	Nov/12/1975	5S 4W, 6	145693	
GS-17	IMC-13688	Nov/12/1975	5S 4W, 6	145694	
GS-26	IMC-13697	Nov/12/1975	5S 4W, 6	145703	
GS-27	IMC-13698	Nov/12/1975	5S 4W, 6	145704	
North DeLamar #7	IMC-13731	Nov/12/1975	5S 4W, 6	145675	
DeLamar Fraction 17	IMC-11242	May/18/1976	5S 4W, 5	147427	
DeLamar Fraction 18	IMC-11243	May/18/1976	5S 4W, 5	147428	
DeLamar Fraction 20	IMC-11245	May/18/1976	5S 4W, 5	147430	
FM Fraction #2	IMC-11486	Jun/28/1976	5S 4W, 1	148083	
FM Fraction #3	IMC-11487	Jun/28/1976	5S 4W, 1	148084	204295
ENGL 9	IMC-16228	Jul/13/1976	5S 4W, 1	148236	
ENGL 10	IMC-16229	Jul/13/1976	5S 4W, 1 4S 4W, 36	148237	
ENGL 11	IMC-16230	Jul/13/1976	5S 4W, 1 5S 4W, 2	148238	
ENGL 12	IMC-16231	Jul/13/1976	5S 4W, 1 5S 4W, 2 4S 4W, 35 4S 4W, 36	148239	
ENGL 13	IMC-16232	Jul/13/1976	5S 4W, 2	148240	
ENGL 14	IMC-16233	Jul/13/1976	5S 4W, 2 4S 4W, 35	148241	
ENGL 15	IMC-16234	Jul/13/1976	5S 4W, 2	148242	
ENGL 16	IMC-16235	Jul/13/1976	5S 4W, 2 4S 4W, 35	148243	
ENGL 17	IMC-16236	Jul/13/1976	5S 4W, 2	148244	
ENGL 19	IMC-16238	Jul/13/1976	5S 4W, 2	148246	
FM Fraction #5	IMC-11489	Jul/19/1976	5S 4W, 1	148086	
FM Fraction #6	IMC-11490	Jul/19/1976	5S 4W, 1	148087	
ENGL 21	IMC-16240	Jul/21/1976	5S 4W, 2	148248	
DeLamar Fraction	IMC-11244	Jul/27/1976	5S 4W, 5	148027	

Appendix A Page 5 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
19A					
FM Fraction #7	IMC-11491	Aug/07/1976	5S 4W, 1	148282	204296
ENGL 24	IMC-16243	Aug/13/1976	5S 4W, 2	148251	
		_	5S 4W, 11		
ENGL 25	IMC-16244	Aug/13/1976	5S 4W, 2	148252	
ENGL 26	IMC-16245	Aug/13/1976	5S 4W, 2	148253	
ENGL 27	IMC-16246	Aug/13/1976	5S 4W, 11 5S 4W, 2	148254	
ENGL 28	IMC-16247	Aug/13/1976	5S 4W, 2	148255	
ENGL 29	IMC-16248	Aug/13/1976	5S 4W, 11 5S 4W, 2	148256	
ENGL 30	IMC-16249	Aug/13/1976	5S 4W, 2	148257	
ENGL 31	IMC-16250	Aug/13/1976	5S 4W, 11 5S 4W, 2	148258	
ENGL 32	IMC-16251	Aug/13/1976	5S 4W, 2	148259	
ENGL 33	IMC-16252	Aug/13/1976	5S 4W, 11 5S 4W, 2	148260	
ENGL 34	IMC-16253	Aug/13/1976	5S 4W, 2	148261	
ENGL 35	IMC-16254	Aug/13/1976	5S 4W, 11 5S 4W, 12 5S 4W, 2	148262	
ENGL 36	IMC-16255	Aug/14/1976	5S 4W, 1	148263	
FM Fraction #8	IMC-11492	Aug/18/1976	5S 4W, 1	148283	
FM Fraction #9	IMC-11493	Aug/18/1976	5S 4W, 1	148284	
FM Fraction #10	IMC-11494	Aug/18/1976	5S 4W, 1	148285	
South DeLamar No. 39	IMC-79	Oct/30/1976	5S 4W, 9	149292	
South DeLamar No. 40	IMC-80	Oct/30/1976	5S 4W, 9	149293	
South DeLamar No. 41	IMC-81	Nov/05/1976	5S 4W, 9	149294	151482
South DeLamar No. 42	IMC-844	Jun/06/1977	5S 4W, 9	151146	
South DeLamar No. 43 South DeLamar No.	IMC-845	Jun/06/1977	5S 4W, 9	151147	
48 South DeLamar No.	IMC-850	Jun/14/1977	5S 4W, 9	151152	
49	IMC-851	Jun/14/1977	5S 4W, 9	151153	
Hawk #1	IMC-1043	Jul/17/1977	5S 4W, 1	151525	
Hawk #2	IMC-1044	Jul/17/1977	5S 4W, 1	151526	
CHINA	IMC-49020	Oct/21/1979	4S 4W, 34	163225	
JACOBS	IMC-49021	Oct/21/1979	4S 4W, 34	163226	
WAGON 1	IMC-49023	Oct/21/1979	5S 4W, 6	163228	
WAGON 2	IMC-49024	Oct/21/1979	5S 4W, 6	163229	

Appendix A Page 6 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
Barnes	IMC-50576	Apr/15/1980	4S 4W, 35	163589	
Blue Gulch	IMC-50577	Apr/15/1980	4S 4W, 26	163585	
MERCURY	IMC-50578	Apr/15/1980	4S 4W, 35	163586	
LAST CHANCE	IMC-50579	Apr/15/1980	4S 4W, 34	163587	
DeLamar Fraction 19	IMC-50822	Jun/10/1980	5S 4W, 5	164310	
DeLamar Fraction #20	IMC-50823	Jun/10/1980	5S 4W, 5	164311	
DeLamar Fraction 21	IMC-50824	Jun/10/1980	5S 4W, 5	164312	
West Henrietta-11	IMC-53374	Aug/12/1980	5S 4W, 7	165032	
West Henrietta-12	IMC-53375	Aug/12/1980	5S 4W, 7	165033	
West Henrietta-13	IMC-53376	Aug/12/1980	5S 4W, 7	165034	
West Henrietta-15	IMC-53378	Aug/12/1980	5S 4W, 7	165036	
West Henrietta-16	IMC-53379	Aug/12/1980	5S 4W, 7	165037	
West Henrietta #2	IMC-53365	Aug/13/1980	5S 4W, 6	165023	165584
West Henrietta #3	IMC-53366	Aug/13/1980	5S 4W, 6	165024	
West Henrietta #4	IMC-53367	Aug/13/1980	5S 4W, 6	165025	
West Henrietta #5	IMC-53368	Aug/13/1980	5S 4W, 7	165026	
West Henrietta #6	IMC-53369	Aug/13/1980	5S 4W, 6	165027	
West Henrietta 7	IMC-53370	Aug/13/1980	5S 4W, 6	165028	
West Henrietta 8	IMC-53371	Aug/13/1980	5S 4W, 6	165029	
West Henrietta 9	IMC-53372	Aug/13/1980	5S 4W, 6	165030	
West Henrietta 10	IMC-53373	Aug/13/1980	5S 4W, 6	165031	
South DeLamar #54A	IMC-167689	Apr/24/1981	5S 4W, 7 5S 4W, 8	168763	
South DeLamar #55	IMC-61553	Apr/24/1981	5S 4W, 7	168764	
South DeLamar #56	IMC-61554	Apr/24/1981	5S 4W, 7	168765	
South DeLamar #57	IMC-61555	Apr/24/1981	5S 4W, 7	168766	
South DeLamar #58	IMC-61556	Apr/24/1981	5S 4W, 7	168767	
South DeLamar # 59	IMC-61557	Apr/24/1981	5S 4W, 7	168768	
South DeLamar #63	IMC-61561	Apr/24/1981	5S 4W, 8	168772	
DLF-23	IMC-65556	Jul/09/1981	5S 4W, 4	170032	
DLF-24	IMC-65557	Jul/09/1981	5S 4W, 4 5S 4W, 5	170033	
DLF-25	IMC-65558	Jul/09/1981	5S 4W, 5	170034	
DLF-26	IMC-65559	Jul/09/1981	5S 4W, 5	170035	
DLF-27	IMC-65560	Jul/09/1981	5S 4W, 5	170036	
DLF-28	IMC-65561	Jul/09/1981	5S 4W, 5	170037	
DLF-29	IMC-65562	Jul/09/1981	5S 4W, 5	170038	
DLF-30	IMC-65563	Jul/10/1981	5S 4W, 5	170039	
FM 16-Fraction	IMC-111724	Jul/22/1986	5S 4W, 1	190077	

Appendix A Page 7 of 12

Claim Name	BLM #	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
FM 21-Fraction	IMC-111729	Jul/22/1986	5S 4W, 1 4S 4W, 36	190082	
FM 18-Fraction	IMC-111726	Jul/24/1986	5S 4W, 1 5S 4W, 12	190079	
FM 19-Fraction	IMC-111727	Jul/24/1986	5S 4W, 12	190080	
FM 20-Fraction	IMC-111728	Jul/24/1986	5S 4W, 11 5S 4W, 12	190081	
FM 22 Fraction	IMC-111730	Aug/01/1986	5S 4W, 12	190083	
FM 23 Fraction	IMC-111731	Aug/01/1986	5S 4W, 12	190084	
FMP-4	IMC-125864	Aug/08/1987	5S 4W, 1	193604	
FMP-5	IMC-125865	Aug/08/1987	5S 4W, 1	193605	
FMP-6	IMC-125866	Aug/08/1987	5S 4W, 1	193606	
FMP-7	IMC-125867	Aug/08/1987	5S 4W, 1	193607	
FMP-12	IMC-125872	Aug/08/1987	5S 4W, 1	193612	
FMP-13	IMC-125873	Aug/08/1987	5S 4W, 1	193613	
FMP-14	IMC-125874	Aug/08/1987	5S 4W, 1	193614	
FMP-15	IMC-125875	Aug/08/1987	5S 4W, 1	193615	
FMP-21	IMC-125882	Aug/08/1987	5S 4W, 1	193622	
TM # 29	IMC-134677	May/20/1988	4S 4W, 26	195462	
TM #40	IMC-134688	May/20/1988	4S 4W, 14	195473	
TM #42	IMC-134690	May/20/1988	4S 4W, 14	195475	
DLF 33	IMC-134646	Jul/26/1988	5S 4W, 4	195482	
DLF 34	IMC-134647	Jul/26/1988	5S 4W, 4	195483	
DLF 35	IMC-134648	Jul/26/1988	5S 4W, 5	195485	
ENGL 2	IMC-137927	Aug/02/1988	5S 4W, 1	196038	
ENGL 6	IMC-137928	Aug/02/1988	5S 4W, 1	196041	
ENGL 7	IMC-137929	Aug/02/1988	5S 4W, 1	196040	
ENGL 7A	IMC-137930	Aug/02/1988	5S 4W, 1 5S 4W, 36	196039	
DAM #8	IMC-136064	Sep/16/1988	5S 4W, 11	195975	
DAM #12	IMC-136068	Sep/16/1988	5S 4W, 11	195979	
DAM #13	IMC-136069	Sep/16/1988	5S 4W, 11	195980	
DAM #20	DMC 126072	S/16/1000	5S 4W, 10 5S 4W, 11 5S 4W, 2	105092	
DAM #28	IMC-136072	Sep/16/1988	5S 4W, 3 5S 4W, 10	195983	
RG 1	IMC-140230	Sep/29/1988	5S 4W, 11	196935	
RG 3	IMC-140232	Sep/29/1988	5S 4W, 11	196937	
RG 5	IMC-140234	Sep/29/1988	5S 4W, 11	196939	
RG 7	IMC-140236	Sep/29/1988	5S 4W, 11	196941	

Appendix A Page 8 of 12

Claim Name	BLM#	Loc. Date	Twn,Rng, Sec	Original Bk/Pg/Doc	Amended Bk/Pg/Doc
RG 41	IMC-140270	Sep/30/1988	5S 4W, 13	196975	
RG 43	IMC-140272	Sep/30/1988	5S 4W, 13	196977	
			5S 4W, 13		
RG 56	IMC-140285	Sep/30/1988	5S 4W, 24	196990	
RG 57	IMC-140286	Sep/30/1988	5S 4W, 13 5S 4W, 24	196991	
		•	5S 4W, 13		
RG 58	IMC-140287	Sep/30/1988	5S 4W, 24	196992	
RG 59	IMC-140288	Sep/30/1988	5S 4W, 13 5S 4W, 24	196993	
DLF #36	IMC-153395	Oct/02/1989	5S 4W, 5	201094	
SC 5	IMC-160973	Jun/25/1990	5S 4W, 10	203471	
SC 6	IMC-160974	Jun/25/1990	5S 4W, 10	203472	
SC 7	IMC-160975	Jun/25/1990	5S 4W, 10	203473	
SC 10	IMC-160978	Jun/25/1990	5S 4W, 10	203476	
MARY LYNN 1	IMC-163890	Oct/23/1990	5S 4W, 1	204290	
MARY LYNN 2	IMC-163891	Oct/23/1990	5S 4W, 1	204291	
MARY LYNN 3	IMC-163892	Oct/23/1990	5S 4W, 1	204292	
ENGL 8	IMC-163888	Nov/13/1990	5S 4W, 1	204298	
ENGL 23	IMC-163889	Nov/13/1990	5S 4W, 1	204299	
MARY LYNN 4	IMC-163893	Nov/14/1990	5S 4W, 1	204294	
MVC	IMC-169335	Mar/14/1992	5S 4W, 10 5S 4W, 9	207434	
M&D	IMC-169336	Mar/14/1992	5S 4W, 10	207435	
			5S 4W, 5		
DL-7	IMC-217434	Dec/06/2016	5S 4W, 6	291631	
DL-8	IMC-217435	Dec/06/2016	5S 4W, 5 5S 4W, 6	291632	
DL-9	IMC-217436	Dec/06/2016	5S 4W, 6	291633	
DL-10	IMC-217437	Dec/06/2016	5S 4W, 6	291634	
DL-17	IMC-217444	Dec/06/2016	5S 4W, 4 5S 4W, 9	291641	
DL-4	IMC-217431	Dec/07/2016	4S 4W, 32 5S 4W, 5	291628	
DL-6	IMC-217433	Dec/07/2016	4S 4W, 32 5S 4W, 5	291630	
DL-11	IMC-217438	Dec/07/2016	5S 4W, 6 5S 4W, 7	291635	
DL-12	IMC-217439	Dec/07/2016	5S 4W, 7	291636	
DL-13	IMC-217440	Dec/07/2016	5S 4W, 7	291637	
DL-2	IMC-217429	Dec/08/2016	4S 4W, 32 5S 4W, 5	291626	

Appendix A Page 9 of 12

				Original	Amended
Claim Name	BLM #	Loc. Date	Twn,Rng, Sec	Bk/Pg/Doc	Bk/Pg/Doc
			4S 4W, 31		
			4S 4W, 32		
			5S 4W, 5		
DL-3	IMC-217430	Dec/08/2016	5S 4W, 6	291627	
			4S 4W, 32		
DL-5	IMC-217432	Dec/08/2016	5S 4W, 5	291629	
DL-14	IMC-217441	Dec/08/2016	5S 4W, 4	291638	
DL-15	IMC-217442	Dec/08/2016	5S 4W, 4	291639	
DL-16	IMC-217443	Dec/08/2016	5S 4W, 4	291640	
			4S 4W, 31		
MS-1	IMC-217422	Dec/09/2016	5S 4W, 6	291619	
			4S 4W, 31		
MS-2	IMC-217423	Dec/09/2016	5S 4W, 6	291620	
			4S 4W, 31		
MS-3	IMC-217424	Dec/09/2016	5S 4W, 6	291621	
			4S 4W, 31		
MS-4	IMC-217425	Dec/09/2016	5S 4W, 6	291622	
			4S 4W, 31		
MS-5	IMC-217426	Dec/09/2016	5S 4W, 6	291623	
			4S 4W, 31		
MS-6	IMC-217427	Dec/09/2016	5S 4W, 6	291624	
			4S 4W, 31		
MS-7	IMC-217428	Dec/09/2016	5S 4W, 6	291625	

Appendix A Page 10 of 12

#### **Patented Mining Claims**

#### 1. Tax Parcel #RP 95S04W050106A

#### LODES:

BOSTON, MS 855; CASH, MS 859A; CHICAGO, MS 643A; CHRISTIAN WAHL, MS 642A; CROWN PRINCE & BISMARCK CONSOLIDATED, MS 923A; DENVER, MS 856A; DISSON, MS 921; HIDDEN TREASURE, MS 1264; HOPE, MS 920A; IBURG, MS 1260; IDAHO, MS 548; LONDON, MS 857A; LOUIS WAHL, MS 854; MICHIGAN, MS 1266; MOLLOY, MS 1029A; NEW YORK, MS 863A; PHEBE GRACE, MS 858; PHILADELPHIA, MS 862A; SAN FRANCISCO, MS 860; STODDARD, MS 38; TORPEDO, MS 1261; WALLSTREET, MS 1265; WILSON, MS 547; ZULU, MS 1259.

#### **MILLSITES:**

CASH MILL SITE, MS 859B; CHICAGO MILL SITE, MS 643B; CHRISTIAN WAHL MILL SITE, MS 642B; CROWN PRINCE & BISMARCK CONSOLIDATED, MS 923B; DELAMAR MILL SITE, MS 1024; DENVER MILL SITE, MS 856B; HOPE MILL SITE, MS 920B; LONDON MILL SITE, MS 857B; NEW YORK MILL SITE, MS 863B; PHILADELPHIA MILL SITE, MS 862B; WILSON MILL SITE, MS 652.

#### 2. Tax parcel #RP 95S04W060146A

Leply group, MS 3066, ADVANCE, BOONE, CHATAQUA (sic), INDEPENDENCE, and a portion of BECK and LAST CHANCE

#### 3. Tax parcel #RP 95S04W050147A

BECK, LAST CHANCE, MS 3066, described as Lot 47.

Per Assessor's office, said Lot 147 is a portion of Beck and Last Chance (Leply group)

#### 4. Tax parcel #RP 95S04W08119AA

PORTION OF IBURG, MS 1260, Tax 119A

#### 5. Tax parcel #RP 95S04W050151A

ELLA, CZARINA, ONLY CHANCE, BADGER, MS 3067

#### 6. Tax parcel #RP 95S04W05074AA

HOWE, MS 950A, & MANHATTAN, MS 866, less a portion

#### 7. Tax parcel #RP 95S04W05074BA

PORTION OF HOWE, MS 950A, & MANHATTAN, MS 866

#### 8. Tax parcel #RP 95S04W056000A

NDCO SEC5 #27, 28, [29-32], 30, 31, [34-35], 36, 37, 38, 39, 40

#### 9. Tax parcel #RP 95S04W068400A

NDCO SEC6 #17, 18, 19, 20, 21, 22, 23, 24, 25, 29, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43

#### 10. Tax parcel #RP 95S04W072300A

NDCO SEC7 #6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41

#### 11. Tax parcel #RP 95S04W084300A

NDCO SEC8 #8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88, 89, 90

#### 12. Tax parcel #RP 95S04W094600A

NDCO SEC9 #8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57

Appendix A Page 11 of 12

# 13. Tax parcel #RP 95S04W01093FA EUREKA, MS 3100, located in 1-5S-4W Leased Patented Claims (Owyhee County, ID):

A. Elordi

Description: HENRIETTA, MS#630, Patent #17275, in Sec 6, T5S, R4W, BM

Royalty: 5% NSR until \$50,000 has been paid, thereafter 2.5% NSR until \$400,000 paid.

B. Getchell/Gross

Description: OHIO, MS #3064, Patent #1031892, in Sec. 4, T5S, R4W, BM

Royalty: 5% NSR

C. Elordi

Description: MAMMOTH & ANACONDA, MS 2151, Patent #45359, Sec 1&2,

T5S, R4W, BM

Royalty: 2.5% NSR

D. Brunzell/Jayo/Brunzell

Description: SUMMIT, MS#2383, Patent #88744, in Sec 1, T5S, R4W, BM

Royalty: 2.5% NSR

#### Leased Fee Lands (Owyhee County, ID):

1. Gusman Livestock

Description: The following lands in Owyhee County, Idaho, Boise Meridian

Leased Land:

T5S, R5W

Sec 11: E/2 SE Sec 12: SW

Sec 13: NW, N/2 SW Sec 14: E/2, SE SW Sec 23: NE NW

2. State of Idaho ML #8129

Description: T 4 S, R 4 W, BM, Section 36: Lots 1-22, N/2 NE

Royalty: 5%

Appendix A Page 12 of 12