Updated Preliminary Economic Assessment NI 43-101 Technical Report

Gold Springs Project

Utah-Nevada, USA

Effective Date: May 1, 2020
Issue Date: June 22, 2020

Prepared for:

Gold Springs Resource Corporation

Prepared by:

Global Resource Engineering, Ltd.

Qualified Persons
Terre Lane, MMSA 01407QP, SME Registered Member 4053005
Todd Harvey, PhD, PE, SME Registered Member 4144120
Kurt Katsura, SME Registered member 4194699

Date and Signature Page

This Technical Report on the Gold Springs Project is submitted to Gold Springs Resource Corporation and is effective May 1, 2020.

The Qualified Persons and Responsible Report Sections follow:

Qualified Person	Responsible for Report Sections
Kurt Katsura	Sections 1.2, 1.7.1, 4-12, 23 and 26.1
Dr. Todd Harvey	Sections 1.7.2, 13, 17, 21.1.2, and 21.2.2
Terre Lane	Sections 1.1, 1.3-1.6, 1.7.3-1.7.5, 2, 3, 14-16, 18, 19, 20, 21.1, 21.1.3, 21.2.1, 21.2.3, 22, 24, 25, 26.3-26.5, and 27

(Signed) "Kurt Katsura" 6/22/2020
Signature Kurt Katsura Date

(Signed) "Todd Harvey" 6/22/2020
Signature Dr. Todd Harvey Date

(Signed) "Terre Lane" 6/22/2020
Signature Terre Lane Date

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PHOTOS

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

2-D	two-dimensional
3-D	three-dimensional
A.A.	atomic absorption
Ag	silver
Amanda Resources	Amanda Resources Corporation
ANFO	ammonium nitrate fuel oil
asl	above sea level
Astral	Astral Mining Corporation
Au	gold
AuEq	gold equivalent
BLM	Bureau of Land Management
BV	Bureau Veritas
Cambior	Cambior, Inc.
CIM	Canadian Institute of Mining, Metallurgy and Petroleum

CSA	Canadian Securities Administrators
CSAMT	Controlled Source Audio Magento Tellurics
DEM	Digital Elevation Model
DT	total divergency
DTM	digital terrain model
E	east
EA	Environmental Assessment
EIS	Environmental Impact Statement
Energex	Energex Minerals Ltd.
FONSI	Finding of No Significant Impact
G&A	General and Administrative
g/t	grams per tonne
Gold Springs	Gold Springs Gold Project
gpm	gallons per minute
gpm/ft^2	gallons per minute per square foot
GPS	global positioning system
GRC	Gold Springs Resource Corp. a Canadian Corporation
GRE	Global Resource Engineering Ltd.
GSLLC	Gold Springs, LLC.
ha	hectares
HDG	High Desert Gold Corporation, a Canadian Corporation
Hz	hertz
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectrometry
IDS	International Directions Services, LLC
IRR	Internal Rate of Return
ISO	International Organization for Standardization
JV	Joint Venture
KCA	Kappes Cassiday Associates
kg	kilograms
km	kilometre
L&A	Lane and Associates, Inc.
lph/m^2	litres per hour per square metre
m	metre
m^3/hr	cubic metres per hour
Ma	million years ago
MEG	Minerals Exploration and Environmental Geochemistry
min	minute
mm	millimetre
N	north
NAD	North American Datum
NI	National Instrument
NPV@10%	Net Present Value at a discount rate of 10%
NPV@5%	Net Present Value at a discount rate of 5%

NSR	net smelter royalty
NVHDGLLC	Nevada High Desert Gold, LLC., a Nevada Limited Liability Company
OTCQB	Over the Counter
oz	ounce (troy ounce)
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
PG	Pilot Gold Inc.
Phelps Dodge	Phelps Dodge Exploration, Inc.
PoO	Plan of Operations
ppb	parts per billion
ppm	parts per million
QA/QC	quality assurance/quality control
Qal	alluvial deposits
Qc	talus, colluvial deposits
QSP	quartz-sericite/illite –pyrite
RC	reverse circulation
RDi	Resource Development Inc.
ROD	Record of Decision
RQD	rock quality designation
RSD	Relative Standard Deviation
RTP	Reduced to Pole
SITLA	School and Institutional Trust Land Administration (Utah)
SME	Society of Mining, Metallurgy, and Exploration
SRK	SRK Consulting (Canada) Inc.
Tal	silt and fine sand sediments
Tbb	breccia
Tbg	rhyolite tuffs
Tbi	rhyolite intrusions
Tlf	andesite to latite lava flows and tuffs
TMI or TriMetals	Mining Inc., a Canadian Corporation
TMI-US	TriMetals Mining Inc., a USA Corporation
tpd	tonnes per day
tpy	tonnes per year
Trdo	older rhyolite member
Ts	sediments
Tscl	younger latite lava flows and tuffs
Tsr	rhyolite lava flows
TSX	Toronto Stock Exchange
Tt	Pliocene-Miocene epiclastic and clastic deposits
ZTEM	Z-Tipper Electromagnetic System

1.0 SUMMARY

Global Resource Engineering Ltd. (GRE) was retained by Gold Springs Resource Corp. ("GRC") and assisted by Randall Moore, Executive V.P. of Exploration for GRC, to complete a National Instrument 43-101 (NI 43-101) Preliminary Economic Assessment (PEA) Technical Report on the Gold Springs Gold Project ("Gold Springs" or "the Property") located in the Gold Springs and Deer Lodge Mining Districts, Iron County, Utah, and Lincoln County, Nevada. This report has been prepared in accordance with the Canadian Securities Administrators (CSA) NI 43-101, and the Resources have been classified in accordance with standards as defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "CIM Definition Standards – For Mineral Resources and Mineral Reserves," prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on December 17, 2010, as amended May 10, 2014 and the generally accepted Canadian Institute of Mining's (CIM) "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 29, 2019)".

GRC is a British Columbia (Canada) company trading on the Toronto Stock Exchange (TSX) as GRC, and on the U.S. Over the Counter Market Group (OTCQB) as GRCAF. This Updated Technical Report was commissioned following the 2017 and 2019 drill programs that were focused on the South Jumbo, Etna resource and the Central Jumbo area in 2017 and on the newly acquired Homestake patented claims in 2019. These drill campaigns were successful in intercepting significant gold mineralization at all locations. Highlights of these results include:

South Jumbo (Etna)

- E-17-003 21.3 metres@ 1.09 grams per tonne (g/t) Au and 6.3 g/t Ag
- E-17-005 51.8 metres @ 0.97 g/t Au and 10 g/t Ag
- E-17-016 16.8 metres @ 1.67 g/t Au and 22.1 g/t Ag
- E-17-019 12.2 metres @ 1.53 g/t Au and 10.4 g/t Ag

Central Jumbo

- SS-17-001 21.3 metres @ 1.53 g/t Au and 2.5 g/t Ag

Homestake

- HS-19-007 6.1 metres @ 21.88 g/t Au and 69.25 g/t Ag
  and 71.6 metres @ 0.71 g/t Au and 1.9 g/t Ag
- HS-19-012 38.1 metres @ 0.63 g/t Au and 2.6 g/t Ag

Details of these results are presented in the corresponding sections of this report.

This PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

The Qualified Persons (QPs) responsible for the preparation of this Technical Report are:

- Terre A. Lane
- Kurt T. Katsura
- Todd Harvey

1.1 Property Description and Ownership

The Gold Springs project is an advanced exploration-stage gold project located along the Nevada-Utah border in the United States of America, in western Iron County, Utah, and eastern Lincoln County, Nevada. The project consists of nine hundred twenty-four (924) unpatented lode claims, nineteen (19) patented lode claims, one partial-patented lode claim that includes an easement for existing roadways, and five (5) Utah state mineral leases, all covering a total of approximately 7,544 hectares (ha.). The project also has an undivided interest in an additional five (5) patented lode claims that cover approximately 31.25 ha.

The Gold Springs property is held by Gold Springs, LLC (GSLLC), a Nevada limited liability company and wholly owned subsidiary of GRC-US, a Delaware corporation whose name was changed from TriMetals Mining Inc. (TMI-US) on November 4, 2019. Prior to March 17, 2014, GRC was known as South American Silver Corp. and acquired 100% ownership of TMI-US through its acquisition of High Desert Gold Corporation, a Canadian corporation ("HDG"), on December 20, 2013. HDG, GRC-US and Gold Springs, LLC. are now wholly owned subsidiaries of GRC.

1.2 Geology and Mineralization

Gold mineralization at Gold Springs is hosted by complex sheeted veins, breccias, and stockwork vein systems that are laterally extensive and locally form erosion-resistant ledges and ribs that protrude up to 10 metres above the surrounding ground surface. The veins contain quartz, adularia, and bladed calcite with minor sulfides (<1%) and represent a low sulfidation, epithermal gold-silver vein system. Controls for the mineralization are structurally prepared zones related to Basin and Range extensional faulting and along the margins and ring fractures of several collapsed caldera complexes. The ground preparation along these structural zones provided conduits for hydrothermal alteration and mineralization that commonly extends along permeable structurally prepared zones and along lithologic contacts. An important note is that mineralization and alteration extend beyond the discrete vein structures to produce zones with disseminated precious metal concentrations. This deposit is most-similar to Round Mountain in Central Nevada, which is also a low sulfidation epithermal gold-silver deposit hosted within a caldera complex superimposed on a Basin and Range structural fabric.

Gold and silver mineralization are hosted in quartz and quartz-calcite veins, breccias, and stockwork/sheeted vein zones and extend outward into the adjacent wallrock. The true thickness of the mineralized intervals is up to 150 metres wide; the strike length of the structural corridor that controls the Jumbo Trend extends up to 8 kilometres (km), as shown by surface exposures and geophysical data.

The Gold Springs project has a number of exploration targets that have been drill tested, and several of these have been consolidated into distinct resource areas described in this report. The North Jumbo resource area includes the Jumbo and Jumbo North exploration targets, the Central Jumbo resource area includes the State Section target, and the South Jumbo area includes the Etna and the East Etna targets. In this report, the Etna Resource is also referred to as the South Jumbo resource area.

During 2017, GRC, through its wholly owned operating company Gold Springs LLC. (GSLLC), completed 28 reverse-circulation (RC) drill holes for a total of 4,625.5 metres within the South Jumbo (also referred to as the Etna) and Central Jumbo (also referred to as State Section) targets. During 2019, GSLLC completed 14 RC holes for a total of 1,856.2 metres within the newly acquired (November 2017) Homestake patented claim block located on the Nevada side of the project. These two drilling programs constitute new significant data, which is presented in this Technical Report.

GRC began working on the Gold Springs project in 2010 as High Desert Gold Corporation, and to date has completed 281 drill holes within the Gold Springs Project totaling 41,971.7 metres. Another 21 drill holes totaling 2,646.6 metres were completed by previous operators.

GRC has identified additional exploration targets containing gold mineralization on the property. Eleven of these target areas have had limited drilling, and an additional seventeen targets with outcropping gold mineralization remain to be drill tested. The primary focus of GRC drilling on the property during 2017 was to continue extending the mineralization at South Jumbo and to test for continuity in the higher-grade mineralization. In 2019, the drilling was conducted on the Homestake patented claims, which represented the first time this property has been drilled.

1.3 Mineral Processing and Metallurgical Testing

GRC has completed a series of preliminary metallurgical test work programs on the Grey Eagle and the North Jumbo resources. The work to date consists of:

- Gravity concentration followed by bottle roll cyanidation of the gravity tailing of 74-micron (200-mesh) material from drill cuttings (Inspectorate, 2010)
- Cyanide extraction from bottle roll tests on drill cuttings ground to 74 microns (Inspectorate, 2012)
- Cyanide extraction from bottle roll tests of RC cuttings which varied in size from a P_{80} of 0.762 to 8.636 millimetres (mm) (KCA, 2014)
- Small column tests of trench samples from Grey Eagle material crushed to 9.5 mm (KCA, 2015)
- Small column tests from North Jumbo drill core crushed to 9.5 mm (KCA, 2015)
- Large Column tests from North Jumbo drill core (RDi, 2016)

The gravity/cyanide tests produced a range of gold cyanide recoveries from 35% to 95%, with an average recovery of 76%. The combined cyanide and gravity recoveries were all greater than 91% and averaged 97%. Of the total gold recovered from the samples during these tests, between 2% and 57% was recovered from the gravity circuit.

Additional testing at Inspectorate Labs using bottle roll leach tests on RC drill cuttings ground to 74 µm yielded average gold recoveries for North Jumbo and Grey Eagle of 85% and 93%, respectively, while silver extractions were 78% and 53%, respectively. These tests produced consistently high recoveries for gold, though silver showed variability, with lower recoveries observed from the Grey Eagle resource.

Further bottle roll leach tests completed on RC cuttings (KCA, 2013) of a coarser size fraction produced an average gold extraction from Grey Eagle of 71% (range: 38% to 83%) for P_{80} of 0.07 to 0.34 inches and 88.5% (range: 88% to 89%) from North Jumbo for P_{80} of 0.03 to 0.14 inches. Silver extractions for the same samples were more variable and lower, with an average total silver recovery of 21% for Grey Eagle and 54% for North Jumbo.

A total of six column tests were conducted (KCA, 2014) using 9.5-mm crushed material from the Grey Eagle trench (3 samples) and core from North Jumbo drill hole J-11-001C (3 samples). Material was subjected to cyanide leach tests and sampled at approximately 7-day intervals for 129 days. These tests showed a variation in recoveries from 63% to 87% gold and 9% to 23% silver for Grey Eagle, and 56% to 92% gold and 37% to 58% silver for North Jumbo.

Additional column testing was completed (RDi, 2016) with material with a wide range of grades varying from 1.09 g/t to 0.23 g/t gold. The material was crushed to a P_{80} of ¾ inches. The material was leached and sampled over a longer time frame to evaluate the impact on gold and silver extraction. Rest periods were included, and a high cyanide dosage was employed to enhance silver extraction. Table 1-1: shows that gold recoveries increased several percent after the rest period, and silver recoveries increased significantly. Approximately 90% of the gold recovery was achieved in the first 12 to 18 days.

Table 1-1: Final Extractions for 2016 Large Column Testing Over Extended Time Frame

	43-day Extraction		84-day Extraction		282-day Extraction after rest period*		Calculated Head Grade	
Column	Gold %	Silver %	Gold %	Silver %	Gold %	Silver %	Gold g/t	Silver g/t
1	90.1	25.3	90.6	28.4	94.3	34.3	1.09	24.3
2	62.5	35.4	62.5	43.3	66.9	53.4	0.54	20.6
3	76.8	39.9	76.8	48.0	81.9	59.8	0.23	11.9

*Leach sequence included 84 days of leaching followed by 35-day rest, followed by 44 days of leaching, followed by a second rest period of 90 days, followed by a further 29 days of leaching.

No testing has been conducted on run of mine size materials.

1.4 Previous Resource Estimates and Economic Models

Previous resource estimates were completed in 2012 by Armitage (Armitage, 2012), in 2013 by Armitage and Katsura (Armitage, et al., 2013), in 2014 by Lane and Associates, Inc. (L&A) and Kurt Katsura (L&A and Kurt Katsura, 2014) , in 2015 by GRE (GRE, 2015), and in 2017 by GRE (GRE, 2017a). The results of those resource estimates are summarized in Table 1-2:.

Two Preliminary Economic Assessments (PEAs) have been completed for the Gold Springs Project: in 2014 by L&A (L&A, 2014) and in 2015 by GRE (GRE, 2015). The results of the two PEAs are summarized in Table 1-3:.

Table 1-2: Summary of Previous Resource Estimates

Year	Resource Category	Tonnes (1000s)	Gold (oz)	Gold Grade (g/t)	Silver (oz)	Silver Grade (g/t)	Gold Equivalent (oz)	Gold Equivalent Grade (g/t)
Grey Eagle								
2013	Inferred	2,900	62,000	0.67	633,000	6.8	74,000	0.79
2014	Measured	3,337	69,000	0.64	767,000	7.1	82,000	0.77
	Indicated	4,329	81,000	0.58	928,000	6.7	97,000	0.70
	Inferred	3,484	65,000	0.58	759,000	6.8	78,000	0.70
2015	Measured	3,368	63,000	0.58	736,000	6.8	76,000	0.70
	Indicated	5,751	96,000	0.52	1,165,000	6.3	116,000	0.63
	Inferred	2,193	25,000	0.36	339,000	4.8	31,000	0.44
North Jumbo								
2012	Inferred	9,392	173,000	0.57	3,881,000	12.9	233,000	0.77
2013	Inferred	16,473	239,000	0.45	5,574,000	11.0	342,000	0.65
2014	Measured	-	-	-	-	-	-	-
	Indicated	13,623	189,000	0.43	4,992,000	11.4	276,000	0.63
	Inferred	13,190	149,000	0.35	4,098,000	9.7	221,000	0.52
2015	Measured	6,209	90,000	0.45	2,468,000	12.4	133,000	0.67
	Indicated	14,718	185,000	0.39	4,927,000	10.4	271,000	0.57
	Inferred	18,694	200,000	0.33	4,274,000	7.1	275,000	0.46
2017	Measured	8,448	143,000	0.53	3,599,000	13.25	-	-
	Indicated	8,546	128,000	0.47	3,025,000	11.01	-	-
	Inferred	2,328	34,000	0.45	542,000	7.25	-	-
Etna								
2017	Measured	2,098	43,000	0.64	466,000	6.91	-	-
	Indicated	3,214	60,000	0.58	645,000	6.24	-	-
	Inferred	1,435	23,000	0.50	243,000	5.27	-	-
Thor								
2017	Measured	210	7,000	0.99	128,000	19.0	-	-
	Indicated	145	4,000	0.92	73,000	16.93	-	-
	Inferred	23	400	0.63	8,000	11.1	-	-

Gold Equivalent calculations reflected gross metal content using the following metal prices and were not adjusted for metallurgical recoveries:
2012: $1,020/oz Au and $15.80/oz Ag
2013: $1,600/oz Au and $28/oz Ag
2014: Au/Ag price ratio of 57.14
2015: Au/Ag price ratio of 57.14

Table 1-3: Results of Previous PEAs

Year	Gold Base Price	Silver Base Price	Capital Costs	Operating Costs per Tonne	Pre-Tax NPV@5%	Pre-Tax IRR	After Tax NPV@5%	After Tax IRR
2014	$1,300	$21	$57.5 M	$8.16	$162 M	57.5%	$109 M	42.0%
2015	$1,300	$21	$79.9 M	$7.92	$137 M	49.9%	$92 M	35.8%

M – million
NPV – Net Present Value
IRR – Internal Rate of Return

1.5 Updated Mineral Resource Estimate

In May 2020, GRE was contracted to complete an updated Mineral Resource Estimate incorporating the drilling through 2017. The updated Mineral Resource includes an update for the South Jumbo (Etna) resource area and a re-statement of the 2017 Jumbo, 2017 Thor, and 2015 Grey Eagle resource areas. These estimates are current as of the effective date of this report.

Table 1-4 shows the updated geologic Mineral Resource at a gold grade cutoff of 0.25 g/t.

Table 1-4 May 14, 2020 Updated Mineral Resource - Geologic

Category	Tonnes (1000s)	Au			Ag		
		Grade (g/t)	Grams (1000s)	Troy oz (1000s))	Grade (g/t)	Grams (1000s)	Troy oz (1000s)
Jumbo							
Measured	9,384	0.51	4,786	155	12.6	118,238	3,805
Indicated	10,709	0.45	4,819	156	10.1	108,161	3,473
Measured Plus Indicated	20,093	0.48	9,645	312	11.3	227,051	7,279
Inferred	4,860	0.43	2,090	67	6.8	33,048	1,067
Etna							
Measured	5,569	0.52	2,896	94	6.16	34,305	1,103
Indicated	5,967	0.46	2,745	88	5.64	33,654	1,083
Measured Plus Indicated	11,536	0.49	5,653	181	5.89	67,947	2,186
Inferred	1,950	0.36	702	23	5.02	9,789	314
Thor							
Measured	1,075	0.69	742	24	11.0	11,825	381
Indicated	1,457	0.64	932	30	8.5	12,385	396
Measured Plus Indicated	2,532	0.66	1,671	54	9.6	24,307	777
Inferred	1,639	0.73	1,196	38	7.8	12,784	411
Grey Eagle							
Measured	2,871	0.65	1,866	60	7.22	20,729	666
Indicated	4,835	0.57	2,756	89	6.74	32,588	1,047
Measured Plus Indicated	7,706	0.60	4,624	149	6.92	53,326	1,713
Inferred	1,637	0.41	671	21	5.03	8,234	265
Total							
Measured	18,899	0.55	10,394	333	9.80	185,210	5,955
Indicated	22,968	0.49	11,254	363	8.12	186,500	5,999
Measured Plus Indicated	41,867	0.52	21,771	696	8.88	371,779	11,955
Inferred	10,086	0.46	4,640	149	6.35	64,046	2,057

Numbers have been rounded and may not add exactly.

Table 1-5 shows the updated pit-constrained Mineral Resource at a gold grade cutoff of 0.25 g/t.

Table 1-5 May 20, 2020 Updated Mineral Resource - $1600 Au

Category	$1,600 Au Pit						
		Au			Ag		
	Tonnes (1000s)	Grade (g/t)	Grams (1000s)	Troy oz (1000s)	Grade (g/t)	Grams (1000s)	Troy oz (1000s)
Jumbo							
Measured	8,456	0.53	4,452	143	13.3	112,481	3,616
Indicated	8,617	0.47	4,047	130	11.0	95,168	3,060
Measured Plus Indicated	17,073	0.50	8,499	273	12.2	207,650	6,676
Inferred	2,556	0.46	1,172	38	7.2	18,368	591
Etna							
Measured	4,995	0.53	2,640	85	6.2	31,105	1,000
Indicated	4,342	0.48	2,098	67	5.8	25,113	807
Measured Plus Indicated	9,337	0.51	4,737	152	6.0	56,218	1,807
Inferred	924	0.42	389	13	6.5	6,007	193
Thor							
Measured	945	0.69	648	21	11.3	10,709	344
Indicated	1,367	0.61	832	27	8.3	11,389	366
Measured Plus Indicated	2,312	0.64	1,480	48	9.6	22,098	710
Inferred	1,323	0.66	870	28	7.4	9,805	315
Grey Eagle							
Measured	2,725	0.65	1,762	57	7.2	19,700	633
Indicated	4,211	0.59	2,489	80	7.1	29,695	955
Measured Plus Indicated	6,936	0.61	4,251	137	7.1	49,395	1,588
Inferred	830	0.43	355	11	6.3	5,235	168
Total							
Measured	17,120	0.56	9,502	306	10.16	173,995	5,594
Indicated	18,537	0.51	9,465	304	8.71	161,366	5,188
Measured Plus Indicated	35,657	0.53	18,967	610	9.41	335,361	10,782
Inferred	5,634	0.49	2,787	90	7.00	39,415	1,267

Numbers have been rounded and may not add exactly.

1.6 Economic Model Results

The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

1.6.1 Multi Scenario Analysis

A multi scenario analysis method was used to analyze the economic performance of the project by varying the crushing cutoff grade used and optionally leaching run-of-mine (ROM) material at a fixed cutoff grade. A total of seven cases were evaluated using five different crushing cutoff grades (0.15, 0.20, 0.25, 0.30, and 0.35 g/t) and a discretionary ROM option fixed at a cutoff grade of 0.15 g/t. The resulting seven scenarios are summarized in Table 1-6.

Table 1-6: Crushing and ROM Cutoff Grade Summarized by Case Number

Case	Crushing Cutoff (g/t)	ROM Cutoff (g/t)
1	0.15	0
2	0.20	0
3	0.20	0.15
4	0.25	0
5	0.25	0.15
6	0.30	0
7	0.30	0.15

1.6.2 Economic Analysis

GRE performed an economic analysis of the project by building an economic model based on the following assumptions:

- Federal corporate income tax rate of 21%
- Utah taxes:
  - Corporation franchise and income tax – 4.95%
  - Property tax – 1.0915%
  - Mining severance tax – 2.6%
- Nevada taxes:
  - Proceeds of minerals tax – variable up to 5%
  - Property tax – 3.0786%
- 6.2% sales tax (average of Utah and Nevada)
- Sales and use taxes not included in the model
- Equipment depreciated over a straight 5 years and has no salvage value at the end of mine life
- No loss carried forward
- Depletion allowance, lesser of 15% of net revenue or 50% of operating costs
- Gold price of $1,450 per troy ounce
- Silver price of $16 per troy ounce
- Gold crushed and ROM recoveries of 73% and 40% respectively
- Silver crushed and ROM recoveries of 40% and 20% respectively
- Gold 98% payable
- Silver 95% payable
- No over-riding royalties
- Contract mining option is used

1.6.3 Base Case

Case 3 was selected as the preferred scenario since it returned the highest net present value (NPV) and internal rate of return (IRR) with a minimum mine life of 8 years of the cases that include ROM ore. Case 3 represents a crushing cutoff of 0.20 g/t Au with a fixed ROM cutoff grade of 0.15 g/t. Table 1-7 lists the key economic indicators for the selected scenario.

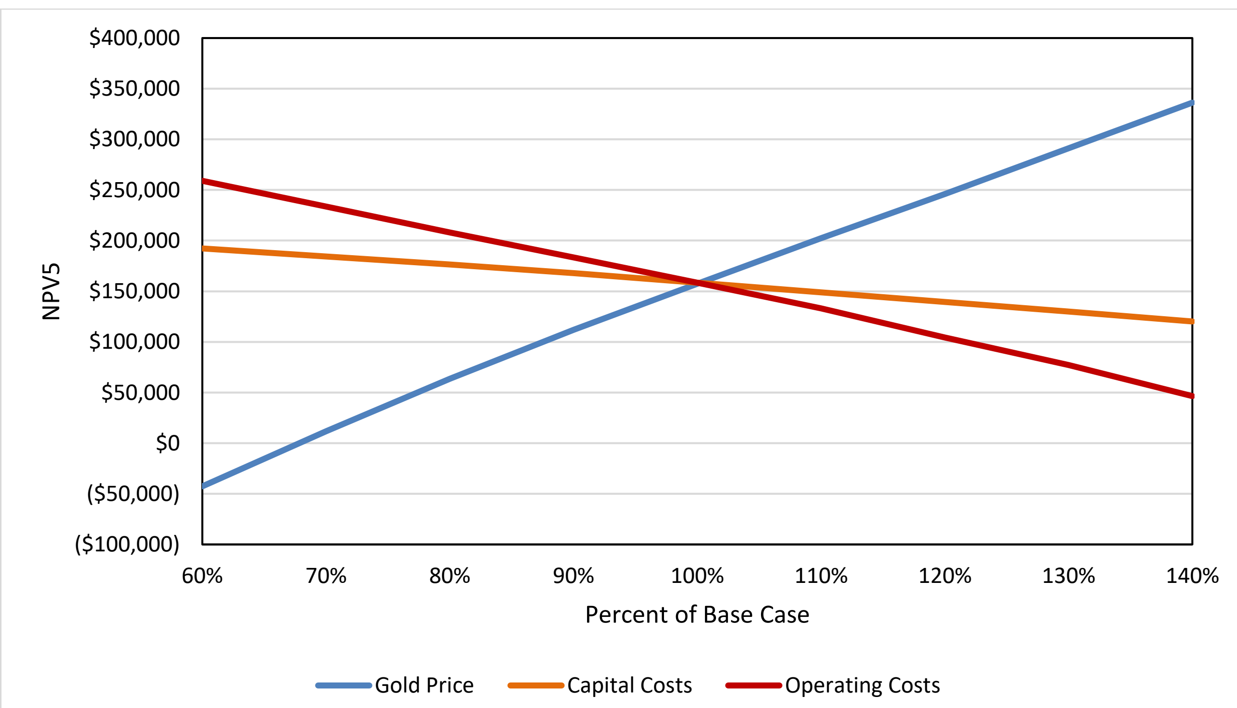
Table 1-7: Key Economic Indicators

Post Tax Economic Indicators	Value
After Tax NPV5	$153,618,000
After Tax NPV10	$110,510,000
After Tax IRR	38.9%
Initial Capital	$83,552,000
Pay Back Period (Years)	2.9
Life of Mine (Years)	8

1.6.4 Sensitivity Analyses

GRE evaluated the after-tax NPV@5% sensitivity to changes in gold price, capital costs, and operating costs. The results indicate that the after-tax NPV@5% is most sensitive to gold price, moderately sensitive to operating cost, and least sensitive to capital cost (see Figure 1-1).

Figure 1-1 NPV@5% Sensitivity to Varying Gold Price, Capital Costs, and Operating Costs



1.6.5 Conclusions of Economic Model

The project economics shown in the PEA are favorable, providing positive NPV values at varying gold prices, capital costs, and operating costs.

1.7 RECOMMENDATIONS

Table 1-8 tabulates the estimated costs to complete an intensive 2-year program designed to maximize the resource within the project area. Components of this program would include:

- 90,500 metres of reverse-circulation (RC) and 10,700 metres of diamond (core) drilling
- Expanding ground geophysical coverage to all priority drill targets,
- Conducting detailed structural mapping on priority targets,
- Completing all drill related permitting,
- Completing comprehensive metallurgical testing,
- Producing an EIS
- Producing a Prefeasibility Study (PFS)
- Clearing all cultural sites within the resource and mine plan areas
- Mitigating all significant cultural sites within the resource and mine plan areas

Table 1-8 Estimated Costs to Complete the 2-year program

Exploration Cost Area	Year		
	2020	2021	Total
Drilling, Surface Sampling, and geochemistry Down-Hole Surveys	$7,585,900	$7,079,450	$15,295,350
Land and Option Payments	$399,840	$274,840	$674,680
Staffing & HHRR Travel Meals	$600,000	$613,000	$1,213,000
Reclamation, Environmental	$35,000	$48,000	$83,000
Camp Operations	$54,000	$60,000	$114,000
Geophysics	$240,000	$ -	$240,000
Capital-Asset Purchases	$162,000	$32,000	$194,000
43-101 Technical Reports	$200,000	$250,000	$450,000
Cultural Surveys	$200,000	$200,000	$400,000
EIS	$265,000	$395,000	$660,000
Metallurgy	$250,000	$250,000	$500,000
Permitting and Consultants	$84,000	$58,000	$142,000
Information Technology & Miscellaneous	$17,000	$17,000	$34,000
Totals	$10,092,740	$9,907,290	$20,000,030

1.7.1 Drilling

Drilling requirements have been estimated to move the project forward rapidly with the goal of developing a +2,500,000-ounce gold resource by the end of 2022. This will be achieved by deploying 3 RC drills to continue resource expansion in the Jumbo trend and to investigate the other high priority targets. This program would provide for 90,500 metres of reverse-circulation (RC) drilling in approximately 610 holes and 10,700 metres of diamond (core) drilling in 70 holes. Sequencing for the program would be to initially focus on the Jumbo Trend and completely define the total resource within this +5-kilometre trend. Drilling would advance to other high priority targets within Nevada based on priorities developed through continuing geologic, geophysical, geochemical and structural studies.

Geotechnical HQ size core will be used to define the acceptable slopes within the planned open pits. Core provides a better view of the geology than RC chips. A portion of the core will be consumed for metallurgical column testing.

1.7.2 Metallurgical Testing

A limited amount of metallurgical testing has been completed on the Gold Springs project. To advance the project, it will be necessary to complete additional column testing on the four resource areas. It is anticipated that core from South Jumbo, North Jumbo, Thor, and Grey Eagle will be collected for test columns. Sampling and testing should be designed to provide better spatial and grade representation across the deposits and include heap leach testing (columns) across a wider variety of material sizes.

1.7.3 Baseline Cultural / Environmental

Cultural and biological surveys have been completed over large areas of the project. This work should continue but will focus on additional target areas and to minimize potential interference with significant cultural sites. Many of these studies will be carried out over multiple years to create baseline studies with enough data to use in an EIS.

1.7.4 Land Work

Allowances have been made to keep land ownership and title current along with acquisition.

1.7.5 Utilities

GRC has acquired 965 acre-feet of water in the Escalante water basin. These water rights ensure access to sufficient water to run a large-scale heap leach mining operation capable of producing +150,000 ounces of gold/year.

GRC has contacted power companies in Nevada and Utah about bringing power to the site. In Nevada, there is an old power line easement that was used to bring power to the historic Jennie mill. In Utah, power can be brought in along Gold Springs road, which is a county easement, for a reasonable price and with potentially streamlined permitting.

2.0 INTRODUCTION

2.1 Terms of Reference

Global Resource Engineering Ltd. (GRE) and Kurt Katsura were retained by Gold Springs Resource Corp. ("GRC") with the assistance of Randall Moore Executive V.P of Exploration for GRC to complete a National Instrument 43-101 (NI 43-101) Technical Report on the Gold Springs Gold Project ("Gold Springs" or "the Property"). The property is bisected by the Utah-Nevada state boundary and is located in the Gold Springs and Deer Lodge Mining Districts, Iron County, Utah, and Lincoln County, Nevada. This report has been prepared in accordance with the Canadian Securities Administrators (CSA) NI 43-101, and the Resources have been classified in accordance with standards as defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "CIM Definition Standards – For Mineral Resources and Mineral Reserves," prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on December 17, 2010, as amended November 30, 2019.

GRC is a British Columbia (Canada) company trading on the Toronto Stock Exchange (TSX) as GRC, and on the U.S. Over the Counter Market Group (OTCQB) as GRC AF. This update was commissioned to provide information on the drill programs conducted in 2017.

The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this Preliminary Economic Assessment (PEA) will be realized.

The independent Qualified Persons (QPs) as defined by NI 43-101 responsible for the preparation of this Technical Report are:

- Terre Lane, MMSA 01407QP, SME Registered Member 4053005
- Kurt Katsura, SME Registered Member 4194699
- Todd Harvey, PhD, PE, SME Registered Member 4144120

In addition, sections of this report were prepared with input from Randall Moore, Executive Vice President of Exploration for GRC, SME Registered Member 4194046.

Practices consistent with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) (2014) were applied to the generation of this Resource Estimate.

Ms. Lane, Dr. Harvey, and Mr. Katsura are collectively referred to as the "Authors" of this PEA. Ms. Lane and Mr. Katsura have visited the property (see Section 2.4). In addition to their own work, the Authors have made use of information from other sources and have listed these sources in this document under "References."

Table 2-1: lists the primary "Qualified Persons" (as defined in the National Instrument 43-101) that compiled different sections of the report.

Table 2-1: List of Contributing Authors

Section	Section Name	Qualified Person
1	Summary 1.0, 1.1, 1.3-1.6, and 1.7.3-1.7.5	Terre Lane
1	Summary 1.2, 1.7.1	Kurt Katsura
1	Summary 1.7.2	Todd Harvey
2	Introduction	Terre Lane
3	Reliance on Other Experts	Terre Lane
4	Property Description and Location	Kurt Katsura
5	Accessibility, Climate, Local Resources, Infrastructure, and Physiography	Kurt Katsura
6	History	Kurt Katsura
7	Geological Setting and Mineralization	Kurt Katsura
8	Deposit Types	Kurt Katsura
9	Exploration	Kurt Katsura
10	Drilling	Kurt Katsura
11	Sample Preparation, Analyses and Security	Kurt Katsura
12	Data Verification	Kurt Katsura
13	Mineral Processing and Metallurgical Testing	Todd Harvey
14	Mineral Resource Estimates	Terre Lane
15	Mineral Reserve Estimates	Terre Lane
16	Mining Methods	Terre Lane
17	Recovery Methods	Todd Harvey
18	Project Infrastructure	Terre Lane
19	Market Studies and Contracts	Terre Lane
20	Environmental Studies, Permitting and Social or Community Impact	Terre Lane
21	Capital and Operating Costs 21.0, 21.1.1, 21.1.3, 21.2.1, and 21.2.3	Terre Lane
21	Capital and Operating Costs 21.1.2, and 21.2.2	Todd Harvey
22	Economic Analysis	Terre Lane
23	Adjacent Properties	Kurt Katsura
24	Other Relevant Data and Information	Terre Lane
25	Interpretation and Conclusions	Terre Lane
26	Recommendations 26.0, 26.3-26.5	Terre Lane
26	Recommendations 26.2	Todd Harvey
26	Recommendations 26.1	Kurt Katsura
27	References	Terre Lane

Abbreviations: ALL – Terre Lane, Kurt Katsura, Todd Harvey
Note: Where multiple authors are cited, refer to author certificate for specific responsibilities.

2.2 Purpose of Report

The purpose of the Technical Report is to provide Gold Springs Resource Corp. and its investors with an updated Preliminary Economic Assessment of the project. This report contains:

- Updates of the resource estimate for the South Jumbo (Etna) resource area, with results from the 2017 drill program as well as the geologic work and 2019 drilling on the Homestake patented claims.
- An economic evaluation of the project costs and revenues

- An independent opinion as to the technical merits of the project and the appropriate manner to proceed with continuing exploration and project development

It is intended that this report may be submitted to those Canadian stock exchanges and regulatory agencies that may require it. It is further intended that GRC may use the report for any lawful purpose to which it is suited.

2.3 Sources of Information

Drill hole and assay data for the property were generated by GRC from 2010 through 2019 through one of its subsidiaries, GSLLC. In addition, an extensive geological and assay database was provided by Astral Mining Corporation from their work on the Gold Springs property between 2004 and 2009. Geologic maps, reports, results from geochemical sampling, and geophysical work were supplied by GRC, including available work by previous operators. Mr. Katsura or Mr. Moore have satisfactorily verified these interpretations and results in the field during visits to the Property.

2.4 Scope of Personal Inspection of the Property

Mr. Katsura has conducted site visits in November 2013, January 2014, October 2014, November, 2016, and June 2018 to review the surface sampling, mapping, the results from the drilling programs conducted on the Property by GRC, and to directly observe the geological units and style of mineralization (Photo 2-1). Terre Lane conducted a site visit to the property in February 2014. Mr. Moore has been the Executive Vice President of Exploration for GRC over the course of the project and has managed most of the programs, Todd Harvey has not visited the property.

Photo 2-1: Surface Outcropping of the Jumbo Vein

Surface outcropping of the Jumbo vein in the Gold Springs property in Utah, note outcrop of the vein extends along the ridge in the right background

2.5 Units

All measurements used in the Gold Springs Project are metric units. Tonnages are in metric tonnes, and grade is reported as grams per tonne unless otherwise noted. Cost and revenue are reported in U.S. dollars at the time this report was written.

3.0 RELIANCE ON OTHER EXPERTS

In the preparation of this report, the authors have conducted due diligence to verify the technical reports and data prepared by geologists engaged or employed by GRC as described below in Section 12.0.

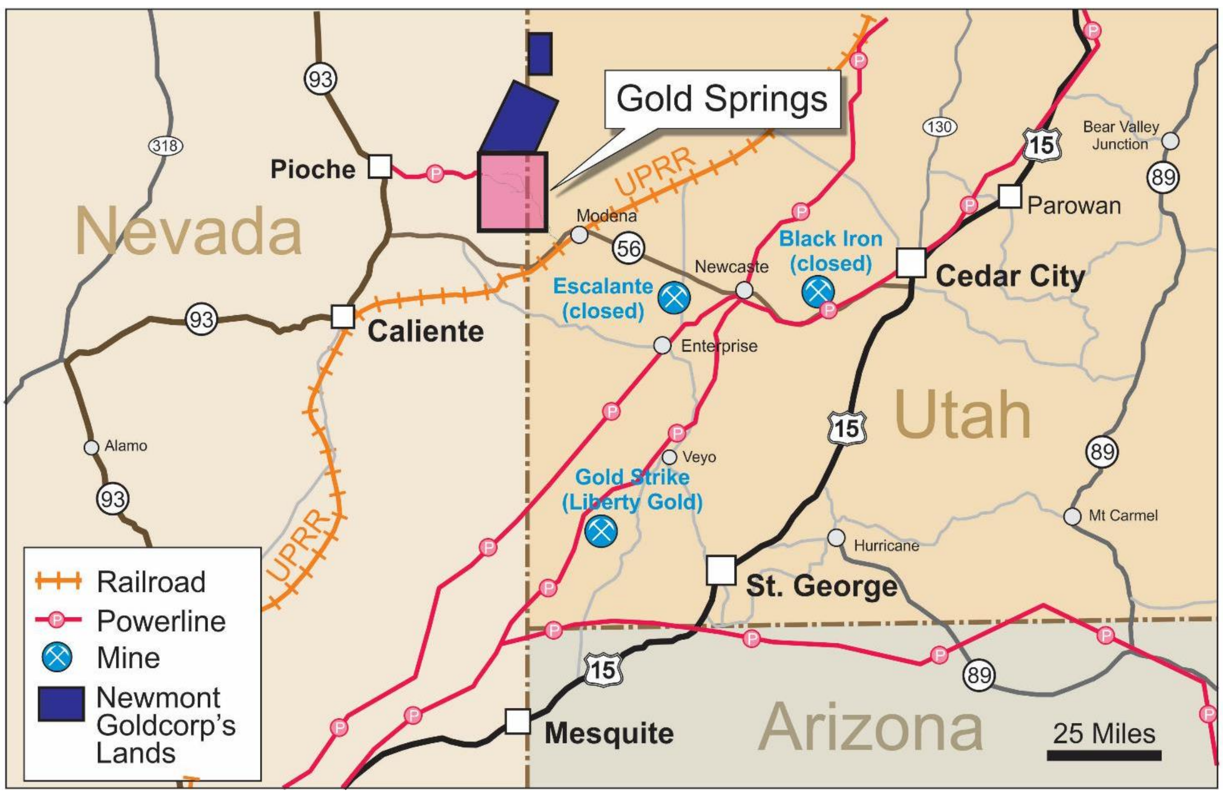
The authors have not reviewed land status or independently verified the permitting status of the Gold Springs Project and have relied upon information provided through communication with Randall Moore, GRC Executive Vice President of Exploration.

4.0 PROPERTY LOCATION AND DESCRIPTION

4.1 Property Location

The Gold Springs property is located along the Nevada-Utah state lines approximately 90 kilometres (km) west of Cedar City, Utah, and 35 km east of Pioche, Nevada. The primary target resource areas on the property are approximately 15 km north of Utah State Highway 56/ Nevada Route 25, as shown in Figure 4-1. Cedar City is the nearest significant town to the property, with a population of approximately 29,000, and lies along Interstate 15, which provides access between Las Vegas, Nevada, and Salt Lake City, Utah, and is served by the Union Pacific railroad and an airport with regular daily service to Salt Lake City. There is a long history of mining in Iron County, Utah, dating back to the 1860s, and Cedar City has the facilities to provide labor and services to support the exploration and mining activities on the property. Recent mining in Iron County includes the underground Escalante silver mine that closed in 1988, the Black Iron LLC open pit iron mine that operated until 2014, and the ongoing exploration at the Goldstrike Oxide Gold Project by Liberty Gold. Pioche, Nevada, is located 35 km west of the property, with a population of approximately 2,000, and is the County seat of Lincoln County, Nevada.

Figure 4-1: Gold Springs Project Location



Gold Springs Project location and the Great Basin in Utah/Nevada, USA

4.2 Property Description

GRC's Gold Springs project area falls within several historic mining districts that include the Deer Lodge, Fay, and the Eagle Valley district, all within Nevada, and the Gold Springs District in Utah. For the purposes of this report, the entire area is collectively referred to as the Gold Springs Mining District. The project area contains numerous historical mines and prospects that were active starting around 1897 and several mines that continued producing gold intermittently until the early 1940s.

The Gold Springs project was officially formed by an Option and Earn-in Agreement dated January 10, 2010, which called for GRC to expend $1 million in exploration and make payments to Liberty Gold (“LGD”) totaling $160,000. These obligations were completed, and the two companies formed a 60% (GRC) and 40% (LGD) joint venture (JV) on the project, which is held by, and initiated the formation of, Gold Springs, LLC (“GSLLC”). GSLLC is a wholly owned subsidiary of Nevada High Desert Gold, LLC (“NVHDGLLC”) which is a wholly owned subsidiary of GRC-US. Following the formation of the JV, LGD’s interest was diluted through non-contribution to the continuing exploration programs. In 2013, GRC acquired LGD’s remaining interest and currently holds a 100% interest in the Gold Springs project. On December 20, 2013, GRC completed the acquisition of TMI-US through its sole shareholder, High Desert Gold Corporation, a Canadian corporation, to take control of 100% of the property.

All lands which make up the Gold Springs property are held under Gold Springs LLC. The Gold Springs property, as shown in Figure 4-2, includes nine hundred twenty-four (924) unpatented lode claims on Bureau of Land Management (“BLM”) lands in Utah and Nevada, and on Stock Raising Homestead Lands in Nevada, where private surface rights are underlain by Federal mineral rights. The mineral rights located under the homestead lands were staked under a Notice of Intent to Locate filed with the BLM Nevada state office on April 26, 2010. All claims were located with the use of a global positioning system (GPS) and tied to section corners and quarter-section corners physically located in the field. In addition to the unpatented lode claims, GSLLC controls nineteen(19) patented lode claims, one partial patented lode claim, which includes an easement for existing roadways, and five (5) Utah state mineral leases, all covering a total of approximately 7,544 hectares (ha.), as well as an undivided interest in an additional five (5) patented lode claims which cover approximately 31.25 ha.

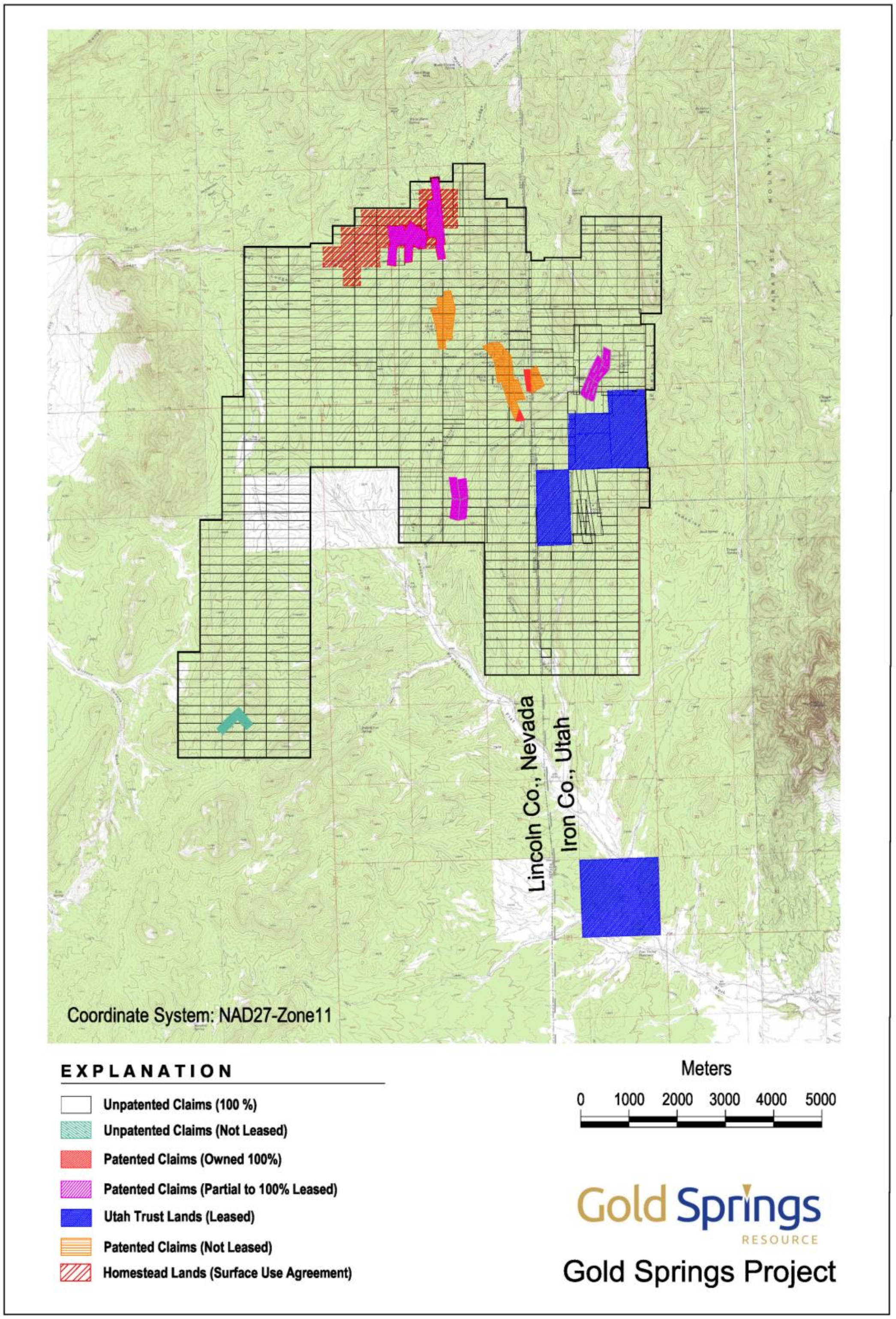
Two (2) unpatented claims, Grandee 2 and Grandee 4, covering 16.72 ha., were part of the original JV land package with LGD and are subject to an underlying lease with option-to-purchase agreement dated June 11, 2009. This agreement requires annual advanced royalty payments and is subject to a small royalty on Net Smelter Returns (“NSR”). It also allows for the purchase of a 100% interest in the claims within the first 10 years of the agreement. The option to purchase was exercised in June 2019 and these claims are 100% controlled by Gold Springs LLC with no retained underlying royalty.

The Melville and Midnight patented claim blocks include twelve (12) patented claims covering 75.49 ha. and are subject to a lease agreement dated March 19, 2010 requiring annual payments and a small retained royalty on Net Returns, whereas all payments under the agreement are considered advance royalty.

The Talisman patented claim block claim covers 6.77 ha. and was purchased on June 12, 2015 through a lease with option to purchase agreement dated April 4, 2011 and is now 100% controlled by GRC.

Two (2) unpatented mining claims, Snowflake No. 6 and Snowflake No. 7, which cover 18.13 ha. and one (1) surface real estate deed parcel covering 2.3 ha., which includes an easement for existing roadways were acquired through a lease with option to purchase agreement dated August 1, 2013. The option to purchase was exercised in August 2018 and these claims are now 100% owned by Gold Springs LLC.

Figure 4-2: Gold Springs, LLC Land Position in Utah and Nevada



Map showing the Gold Springs property and the claims and leases held by Gold Springs LLC in Utah and Nevada

Five (5) Metalliferous Minerals leases covering 580.19 ha. have been completed on Utah State Trust lands between 2010 and 2016 and require annual payments and a royalty on gross value of leased substances with an annual minimum royalty commencing on the 11th year of each lease, creditable against actual production royalties accrued during each year.

GSLLC has recently acquired an undivided interest in five (5) additional patented lode claims covering approximately 31.25 ha through a lease agreement dated February 8, 2017, which requires annual payments and a royalty on Net Returns.

In October 2017, GSLLC acquired through a lease agreement the six patented Homestake lode claims covering 44.1 hectares requiring annual payments and a small retained royalty on Net Returns

All land agreements are in good standing as of the date of this report. Table 4-1 through Table 4-7 summarize the unpatented, patented, state leases, surface real estate, and right-of-way comprising the Gold Springs property.

Table 4-1: Nevada Unpatented Federal Lode Claims

Name of Claim	BLM Serial No. Nevada State Office	County Recording No. Lincoln County, Nevada
BS 1 – BS 88	NMC 1063344 – NMC 1063431	DOC 0140182 – DOC 0140269
BS 89 – BS 157	NMC 1062422 – NMC 1062490	DOC 0140337 – DOC 0140405
BS 158 – BS 186	NMC 1067785 – NMC 1067813	DOC 0140667 – DOC 0140695
BS 187	NMC 1067815	DOC 0140696
BS 188	NMC 1067814	DOC 0140697
BS 189 – BS 271	NMC 1067816 – NMC 1067898	DOC 0140698 – DOC 0140780
BS 272 – BS 283	NMC 1086823 – NMC 1086834	DOC 0142426 – DOC 0142437
BS 284 – BS 293	NMC 1086785 – NMC 1086794	DOC 0142415 – DOC 0142424
BS 294 – BS 295	NMC 1086835 – NMC 1086836	DOC 0142438 – DOC 0142439
BS 296 – BS 343	NMC 1091016 – NMC 1091063	DOC 0143140 – DOC 0143187
FAY 1 – FAY 7	NMC 1020231 – NMC 1020237	DOC 0135170 – DOC 0135176
FAY 20 – FAY 49	NMC 1020238 – NMC 1020267	DOC 0135177 – DOC 0135206
FAY 51 – FAY 90	NMC 1020269 – NMC 1020308	DOC 0135208 – DOC 0135247
FAY 91	NMC 1020309	DOC 0135772
FAY 92 – FAY 104	NMC 1020310 – NMC 1020322	DOC 0135249 – DOC 0135261
FAY 105	NMC 1026130	DOC 0136167
FAY 106	NMC 1020324	DOC 0135263
FAY 107	NMC 1026131	DOC 0136168
FAY 108	NMC 1020326	DOC 0135265
FAY 109 – FAY 110	NMC 1026132 – NMC 1026133	DOC 0136169 – DOC 0136170
FAY 111 – FAY 117	NMC 1020329 – NMC 1020335	DOC 0135268 – DOC 0135274
FAY 118	NMC 1026134	DOC 0136171
FAY 119	NMC 1020337	DOC 0135276
FAY 120	NMC 1026135	DOC 0136172
FAY 121	NMC 1020339	DOC 0135278
FAY 122 – FAY 156	NMC 1026136 – NMC 1026170	DOC 0136173 – DOC 0136207
FAY 157 – FAY 170	NMC 1039147 – NMC 1039160	DOC 0137857 – DOC 0137870
FAY 171 – FAY 189	NMC 1026172 – NMC 1026190	DOC 0136208 – DOC 0136226
FAY 190	NMC 1026171	DOC 0136227
FAY 191 – FAY 214	NMC 1039161 – NMC 1039184	DOC 0137871 – DOC 0137894

Name of Claim	BLM Serial No. Nevada State Office	County Recording No. Lincoln County, Nevada
FAY 229 – FAY 266	NMC 1062154 – NMC 1062191	DOC 0140054 – DOC 0140091
FAY 399 – FAY 417	NMC 1062192 – NMC 1062210	DOC 0140092 – DOC 0140110
FAY 422 – FAY 439	NMC 1062378 – NMC 1062395	DOC 0140112 – DOC 0140129
FAY 450 – FAY 454	NMC 1062406 – NMC 1062410	DOC 0140140 – DOC 0140144
FAY 698 – FAY 699	NMC 1081495 – NMC 1081496	DOC 0142225 – DOC 0142226
FAY 700	NMC 1081497	DOC 0144017
FAY 701 – FAY 704	NMC 1081498 – NMC 1081501	DOC 0142228 – DOC 0142231
FAY 714	NMC 1081502	DOC 0142233
FAY 715	NMC 1081503	DOC 0144018
FAY 739	NMC 1081504	DOC 0144019
FAY 740	NMC 1081505	DOC 0142237
FAY 741	NMC 1081506	DOC 0144020
FAY 742	NMC 1081507	DOC 0142239
MN 21 – MN 30	NMC 849467 – NMC 849476	120568 – 120577
MN 31 – MN 43	NMC 846731 – NMC 846743	120017 – 120029
MN 45 – MN 47	NMC 846745 – NMC 846747	120031 – 120033
MN 108 – MN 121	NMC 846752 – NMC 846765	120038 – 120051
MN 130 – MN 133	NMC 846748 – NMC 846751	120034 – 120037
MN 181 – MN 188	NMC 846766 – NMC 846773	120052 – 120059
SNOWFLAKE 6	NMC 1109884	DOC 0147130
SNOWFLAKE 7	NMC 1109885	DOC 0147131

Table 4-2: Utah Unpatented Federal Lode Claims

Name of Claim	BLM Serial No. Utah State Office	County Recording No. Iron County, Utah
CND 8 – CND 21	UMC 369567 – UMC 369580	00463645 – 00463658
ETNA 1 – ETNA 2	UMC 369036 – UMC 369037	00456463 – 00456464
ETNA 3 – ETNA 9	UMC 369560 – UMC 369566	00463638 – 00463644
ETNA 10 – ETNA 14	UMC 369942 – UMC 369946	00465039 – 00465043
ETNA 15 – ETNA 17	UMC 380867 – UMC 380869	00518145 – 00518147
FAY 8 – FAY 19	UMC 411144 – UMC 411155	00651846 – 00651857
FAY 267 – FAY 271	UMC 414459 – UMC 414463	00651834 – 00651838
FAY 272	UMC 414464	00655538
FAY 273	UMC 414465	00655544
FAY 274 – FAY 287	UMC 414466 – UMC 414479	00651859 – 00651872
FAY 288	UMC 414480	00655545
FAY 289 – FAY 294	UMC 414481 – UMC 414486	00651874 – 00651879
FAY 305 – FAY 308	UMC 419668 – UMC 419671	00636587 – 00636590
FAY 309 – FAY 311	UMC 414491 – UMC 414493	00651840 – 00651842
FAY 312	UMC 414494	00655539
FAY 313 – FAY 314	UMC 414495 – UMC 414496	00651844 – 00651845
FAY 315 – FAY 318	UMC 414497 – UMC414500	00651880 – 00651883
FAY 319	UMC 414501	00655546
FAY 320 – FAY 329	UMC 414502 – UMC 414511	00651885 – 00651894
FAY 330 – FAY 331	UMC 414512 – UMC 414513	00655547 – 00655548

Name of Claim	BLM Serial No. Utah State Office	County Recording No. Iron County, Utah
FAY 332 – FAY 339	UMC 414514 – UMC 414521	00651897 – 00651904
FAY 340	UMC 414522	00655549
FAY 341	UMC 414523	00622007
FAY 343	UMC 414525	00622009
FAY 345	UMC 414527	00621011
FAY 347	UMC 414529	00643925
FAY 349	UMC 414531	00622015
FAY 351	UMC 414533	00643926
FAY 353	UMC 414535	00622019
FAY 355	UMC 414537	00622021
FAY 357	UMC 414539	00622023
FAY 359	UMC 414541	00622025
FAY 361	UMC 414542	00622026
FAY 363	UMC 414545	00622028
FAY 365	UMC 414547	00622030
FAY 367	UMC 414549	00622032
FAY 369	UMC 414551	00656690
FAY 371	UMC 414553	00651906
FAY 373	UMC 414554	00651907
FAY 375	UMC 414556	00651908
FAY 377	UMC 414559	00651909
FAY 398	UMC 414580	00651910
FAY 482 – FAY 486	UMC 415345 – UMC 415349	00630968 – 00630972
FAY 492	UMC 415355	00630978
FAY 513 – FAY 515	UMC 415376 – UMC 415378	00622923 – 00622925
FAY 516	UMC 415379	00630999
FAY 517	UMC 415380	00622927
FAY 518	UMC 419661	00636614
FAY 519	UMC 415381	00622928
FAY 540 – FAY 544	UMC 415402 – UMC 415406	00622949 – 00622953
FAY 545 – FAY 549	UMC 419662 – UMC 419666	00636615 – 00636619
FAY 550	UMC 419667	00639210
FAY 551	UMC 415412	00622959
FAY 572 – FAY 578	UMC 415433 – UMC 415439	00622980 – 00622986
FAY 579	UMC 415440	00631004
FAY 580 – FAY 582	UMC 415441 – UMC 415443	00622988 - 00622990
FAY 603	UMC 415464	00623011
FAY 604	UMC 415465	00631006
FAY 605 – FAY 613	UMC 415466 – UMC 415474	00623013 – 00623021
FAY 634 – FAY 645	UMC 415495 – UMC 415506	00631025 – 00631036
FAY 705 – FAY 709	UMC 419650 – UMC 419654	00636621 – 00636625
FAY 710 – FAY 713	UMC 419655 – UMC 419658	00656691 – 00656694
FAY 716 – FAY 717	UMC 419672 – UMC 419673	00655551 – 00655552
FAY 719 – FAY 720	UMC 419675 – UMC 419676	00655553 – 00655554
FAY 721	UMC 419677	00660106
FAY 722 – FAY 723	UMC 419678 – UMC 419679	00655555 – 00655556

Name of Claim	BLM Serial No. Utah State Office	County Recording No. Iron County, Utah
FAY 724	UMC 419680	00636599
FAY 725 – FAY 726	UMC 419681 – UMC 419682	00655557 – 00655558
FAY 727	UMC 419683	00636602
FAY 728 – FAY 729	UMC 419684 – UMC 419685	00655559 – 00655560
FAY 730	UMC 419686	00636605
FAY 731 – FAY 732	UMC 419687 – UMC 419688	00655561 – 00655562
FAY 733	UMC 419689	00636608
FAY 734 – FAY 737	UMC 419690 – UMC 419693	00655563 – 00655566
FAY 738	UMC 419694	00636613
FAY 743	UMC 419659	00656696
Grandee 2	UMC 159222	145694
Grandee 4	UMC 159224	145995
GRETA 1 - GRETA 3	UMC 417370 – UMC 417372	00633000 – 00633002
GRETA 4 – GRETA 10	UMC 417373 – UMC 417379	00627417 – 00627423
GRETA 11	UMC 417380	00633003
GRETA 12 – GRETA 15	UMC 417381 – UMC 417384	00627425 - 00627428
GRETA 16 – GRETA 17	UMC 417385 – UMC 417386	00633004 - 00633005
GRETA 18 – GRETA 19	UMC 417387 – UMC 417388	00627431 - 00627432
GS 1 – GS 24	UMC 369581 – UMC 369604	00463659 – 00463682

Table 4-3: Nevada Patented Lode Claims Leased or Optioned to Purchase by Gold Springs, LLC

Name of Claim	USMS Number
Nevada(1)*	3235
Nevada #5(1)*	3235
Jessie(1)*	3235
Mabel(1)*	3235
Jackenni(1)*	3235
Duplex #2(1)*	3235
Monitor #2(1)*	3235
Indiana(1)*	3235
Everest (amended)(1)*	3895
Midnight (amended)(1)*	3895
Ione (amended)(1)*	3895
Reliance (amended)(1)*	3895
Homestake No. 1(2)	3897
Amended Homestake No. 2(2)	3897
Amended Homestake No. 3(2)	3897
Amended Homestake No. 4(2)	3897
Homestake No. 5(2)	3897
Amended Deerlodge(2)	3897

Notes: (1) Subject to a lease dated March 19, 2010 by and between Marvil Investments, LLC and TMI-US. * TMI-US conveyed its interest to GSLLC pursuant to an Assignment of Mining Lease dated September 25, 2012. (2) Subject to a lease dated October 25, 2017 by and between Lynette Taylor and Gold Springs, LLC.

Table 4-4: Nevada Patented Lode Claims - Purchased

Name of Claim	USMS Number
Talisman No. 2(1)*	2352

Notes: (1) Talisman No. 2 patented claim was purchased on June 12, 2015 pursuant to the option to purchase agreement dated April 4, 2011 by and between Beacon Group LLC and TMI-US. * TMI-US conveyed its interest to GSLLC pursuant to an Assignment of Mining Lease dated September 25, 2012.

Table 4-5: Utah Patented Lode Claims Situated in Iron County, UT – Ownership % Leased

Name of Claim	USMS Number
Fitzhugh Lee(1)	4113
Sigsbee(1)	4113
Marix(1)	4113
Richmond(1)	6257
Richmond No. 2(1)	6257

Notes: (1) Partial interest acquired pursuant to the lease agreement dated February 8, 2017 by and between Charles and Cheryl Reeve and GSLLC.

Table 4-6: Utah State Lands Situation in Iron County – Leased

Minerals Lease No.	Legal Description
ML#51806(1)	T33S, R20W, SLB&M. SEC.36: S1/2NW1/4
ML#52053(2)	T34S, R20W, SLB&M. SEC.2: LOTS 1(35.92), 2(24.05), 3(27.48), 4(28.26), 5(29.05), SE1/4NE1/4, E1/2SE1/4 [ALL]
ML#52119 (3)	T33S, R20W, SLB&M. SEC.36: E1/2
ML#52608 (4)	T34S, R20W, SLB&M. SEC.36
ML#53269 (5)	T33S, R20W, SLB&M. SEC.36 : SW1/4

Notes: (1) Lease dated June 1, 2010 by and between State of Utah School and Institutional Trust Lands Administration (SITLA) and Gold Springs LLC. (2) Lease dated September 1, 2011 by and between State of Utah SITLA and Gold Springs LLC. (3) Lease dated March 1, 2012 by and between State of Utah SITLA and Gold Springs LLC. (4) Lease dated September 1, 2013 by and between State of Utah SITLA and GSLLC. (5) Lease dated March 1, 2016 by and between State of Utah SITLA and GSLLC.

Table 4-7: Nevada Surface Real Estate with Easement – Optioned to Purchase

Description	Reference#
Surface Real Estate Deed Parcel including Easement to existing roadways	Parcel#12-080-04 Easement Permit#64710(1)

Notes: (1) Subject to a lease with option to purchase dated August 1, 2013 by and between Dan Maxwell and GSLLC. These lands were purchased in August, 2018

The titles to all of the properties listed above have been transferred into GSLLC, which is now a subsidiary of GRC.

The Authors do not know of any environmental, permitting, legal, title, surface access, taxation, socio-economic, marketing, or political issue that could materially affect the information contained in this technical report. Annual payments to the BLM are required to maintain the claims in good standing, and these are current through August 2020.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

Access to the property is from Cedar City, west along State Route 56, to a point just west of the town of Modena, Utah, and then north via maintained gravel roads approximately 15 km to the Property. Access is also available via County-maintained gravel roads east from Pioche, Nevada, through Eagle Valley and Ursine, Nevada. Road access within the Property is served by a network of maintained gravel roads, dirt roads, and trails that were previously developed to serve the mining and ranching activities in the area.

5.2 Climate

Climate is typical for the southern Great Basin, relatively arid with winter temperatures ranging from an average of 5°C in January to 9°C in February, and moderate summer temperatures that average 29.5°C in June to 33°C in July. Precipitation falls relatively evenly throughout the year, with slightly heavier periods during the summer monsoon season and from Pacific storm systems that generally last from July through early September and winter snowstorms that occur between January and March. Average annual precipitation is 260 millimetres (mm), as recorded at Modena, Utah, approximately 20 km southeast of the Property.

5.3 Local Resources

The Gold Springs property is located approximately 90 km west of Cedar City, Utah, 35 km east of Pioche, Nevada, and approximately 15 km north of Utah State Highway 56/ Nevada Route 25, as shown in Figure 4-1. Cedar City is the nearest significant town to the Property, with a population of approximately 29,000. Cedar City lies along Interstate 15, which provides access between Las Vegas, Nevada, and Salt Lake City, Utah, and is served by the Union Pacific railroad and an airport with regular daily service to Salt Lake City. Electric power lines and a spur of the Union Pacific railroad follow Utah State Highway 56, with the closest utility services at Modena, Utah, and Pioche, Nevada. Pioche, Nevada, is located 35 km west of the property and is the county seat for Lincoln County, Nevada. Pioche has a population of approximately 1,000 and lies along U.S. Highway 93, which links Caliente and Ely, Nevada, and provides services to the local ranching communities.

There is a long history of mining in Iron County, Utah, and Lincoln County, Nevada, dating back to the 1860s, and Cedar City has adequate facilities to provide labor and services to support the exploration and mining activities on the Property. Recent mining activity includes the Black Iron mine that closed in late 2014 and the Escalante Silver Mine that closed in 1988 (Arentz, 1978; Holloway, et al., 1990).

5.4 Infrastructure

Currently there is little infrastructure developed at the Gold Springs property other than a series of dirt roads that are maintained by the county, dirt roads and trails maintained by GRC, and a few local springs, wells, and tanks for watering livestock. However, power lines and a spur railroad line follow Utah State Highway 56, approximately 15 km south of the Property. A power line easement exists from Pioche to the historic Jennie mill site; however, the line has been removed. There is also a powerline along Hwy 56 that could provide a source for power to a project facility.

There has been adequate water available from springs and a well in the area to support the recent drilling operations at the project. In 2016, GRC filed for and was granted a 900-acre-feet water right permit in the Escalante Basin from the Nevada Division of Water Rights. GRC purchased another 65-acre-feet water right within the Nevada portion of the Escalante Basin in 2018. This total water allocation is equivalent to 3,260 cubic metres per day (m^3/day) (approximately 37.7 liters per second [L/s]). Cedar City is currently the closest source for an adequate labor force available for mining and development, transportation, and medical services.

5.5 Physiography

The property has sufficient area in gently rolling topography and valleys available to accommodate the development of an open-pit, heap leach mining operation.

The Gold Springs property is located between Gold Springs Wash and the Deer Lodge Canyon along the southwestern flank of the Mahogany Mountains that straddle the Utah/Nevada state line. The project covers gently rolling to moderately steep topography that ranges in elevation from 1,950 metres (6,400 feet) above sea level (asl) at Newell Spring to 2,337 metres (7,668 feet) asl at Bull Mountain. Photo 5-1 shows the generalized topography.

Photo 5-1: View Toward the South Jumbo Resource Area

View looking south down the Jumbo Trend with the resource area in the foreground and Etna located at the southern edge of the cleared area.

The topography is typical for the flanks of the Basin and Range region, with colluvial cover blanketing the lower slopes of the fault-block range, and subsequent downcutting by erosion. The hills and slopes in the project area are covered by scrub Juniper and Pinyon pine, with sage brush dominating the valleys. Locally, areas have been stripped of woody species (as shown in Photo 5-1) to support livestock grazing, which is the primary economic use of the lands.

6.0 HISTORY

The following section is taken from the report titled "Preliminary Economic Assessment Update, Gold Springs Property, Utah/Nevada, USA," with an effective date of August 12, 2015, prepared by GRE (GRE, 2015).

The Gold Springs project area has a long history of gold mining and exploration activity dating back to the 1870s, when "Old Man Pike" found high-grade gold in float while prospecting in the area but was unable to trace it to its source (Perry, 1976) (Photo 6-1). In 1896, gold was discovered in the nearby Stateline District in Utah, and this "rush" attracted prospectors to the Gold Springs area (Tshanz, et al., 1970), with the first locations filed in 1897 on the Jumbo and Wild Irish claim groups (Salt Lake Mining Review, 1903). The Gold Springs district was formed shortly thereafter (Tingley, 1998; Doelling, et al., 1983). Originally, the portion of the mining district located in Utah was called the Gold Springs District, and the portion located in Nevada was called the Eagle Valley district and the Fay district (Perry, 1976); the use of several names for these mining areas has contributed to some of the confusion with regards to crediting past production records to various mining districts and various states (Perry, 1976). Mining continued in the Gold Springs area until the 1940s, with the historical production reported as being 9,300 ounces of gold up to 1942.However, it is certain that this amount is well below what was actually produced because some reports have combined mine production from the Gold Springs and the nearby Stateline District in Utah, and some of the individual mine production records exceed what has been officially reported for the district (Perry, 1976). Historic reports describe the inability of operators to establish significant land positions and control the lateral extent of the vein systems as the key elements that hampered previous exploration and development. In addition, some of the veins are offset by post-mineral faults (as is documented at the Jennie Mine), but the displaced extensions were never located. The largest historical producing mines in the district are the Horseshoe, Jennie, and Homestake mines, for which individual production records are generally lacking and inconsistent. Historically, the gold ores are reported to have been mined from high-grade veins and stockworks that averaged >10 g/t gold across mining widths that locally exceeded 10 metres wide (Perry, 1976). The ores typically had a low-sulfide content (<2%) and were treated in local mills, which are reported to have recovered >80% of the gold by gravity separation and cyanide vat leaching methods (Short, 1909).

During the 1960s to 1970s, Ranchers Exploration, Inc. and others conducted drilling programs at the Horseshoe and Jumbo properties, with limited success in identifying significant gold resources (Ranchers, 1974). In the early 1980s, AMAX Exploration, Inc. examined potential molybdenum mineralization in the nearby Stateline District in Utah (Candee, 1981), and there is evidence that FMC Exploration, Inc. may have also been interested in molybdenum mineralization in the Gold Springs caldera, where several drill holes targeted the rhyolitic breccias and rhyolite dome complex in the Bull Mountain area (Askey, 1985).

In 1981, Energex Minerals Ltd. ("Energex") initiated consolidation of a significant land position that included the Jumbo Trend, and in 1988 completed a 10-hole, 890-metre reverse circulation (RC) drilling program that focused on identifying bulk-mineable gold mineralization targets. The Energex drilling data reported mineralized drill intercepts at the Jumbo target grading 2.0 g/t gold across 24.4 metres, and 14.5 g/t gold across 1.5 metres (Energex News Release, 9/1988). Between 1985 and 1988, Energex completed 12 drill holes in the Jumbo, Etna, and Thor target areas; however, this data was not available to the Authors for review. During 1996-1998, Cambior Inc. ("Cambior"), acquired a large land position in the area

Photo 6-1: Ore Bin at the Thor Mine

and conducted a program of geological mapping, rock chip, and soil sampling. Cambior collected and analyzed 662 rock chip samples across the project area and 88 soil samples. In 1998, the property was optioned to Phelps Dodge Exploration, Inc. ("Phelps Dodge"), who evaluated the property, focusing their efforts on gold mineralization hosted in the caldera environment and in potential bulk tonnage targets in the Jumbo Trend. Phelps Dodge allowed the claims to lapse in 2001. North American Gold Inc. re-staked and acquired claims in the area during 2002-2003, conducted geochemical sampling, and completed the drilling of six RC holes in the North Jumbo and South Jumbo target areas. In 2004, Amanda Resources Corporation ("Amanda Resources") acquired the property from North American Gold Inc. and conducted exploration on a portion of the current property controlled by GSLLC. The work conducted by Amanda Resources included geologic mapping and sampling in the Etna, Jumbo, and Iris mine areas and geophysical work consisting of magnetometer and Controlled Source Audio Magneto Tellurics (CSAMT) surveys on portions of the property conducted by Zonge Geosciences of Reno, Nevada. In 2005, Amanda Resources changed its name to Astral Mining Corporation ("Astral") and filed a NI 43-101 report on their work to that date. Astral completed a 10-hole RC drilling program in 2006 on the North Jumbo, South Jumbo, and North Jennie targets. In 2009, Astral terminated their interest in the project due to a lack of funds.

7.0 GEOLOGIC SETTING AND MINERALIZATION

7.1 Regional Overview

The Gold Springs property is situated in the southeastern portion of the Basin and Range physiographic province, which is characterized by northerly-trending mountain ranges with closed internal drainage basins that are the result of extensional tectonism and associated volcanism during the Tertiary period. The Basin and Range province extends from southern Oregon and Idaho through Nevada and most of Utah. The Gold Springs project lies within the Indian Peak volcanic field, which is a broad Tertiary volcanic field that straddles the Utah-Nevada border and contains several nested, collapsed calderas and resurgent dome features that formed as part of a major Oligocene-Miocene "ignimbrite flare-up cycle" (Best, et al., 1989). The Indian Peak caldera complex is the southeastern extension of the Central Nevada volcanic complex and represents a 10-million-year period of focused magmatic and volcanic activity (Best, et al., 1989). The initial volcanic field formed about 32 to 27 million years ago (Ma) in the southeastern Great Basin and consists of the Indian Peak caldera complex and the surrounding blanket of calc-alkaline ash-flow tuff sheets that cover an area of approximately 55,000 square km, with an estimated volume of approximately 10,000 cubic km of volcanic rocks. The caldera complex is located central to the volcanic field, and the volume of rock is dominated by ash-flow tuff units, with minor amounts of andesite and rhyolite flows that were extruded during the early stages and again later in the life of the volcanic complex (Best, et al., 1989). Subsequent dome building resurgence and associated felsic volcanism (25 to 19 Ma) and hydrothermal mineralization are related to the Buck Mountain-Gold Springs rhyolite dome-caldera-diatreme event between 19 to 16.5 Ma (Williams, et al., 1997). Younger volcanic activity in the project area consists of felsic flows and tuffs dated between 16 to 10 Ma (Williams, et al., 1997) with associated periods of hydrothermal activity.

The oldest rocks in the region consist of Proterozoic through lower Mesozoic sedimentary sequence that became folded and thrust-faulted eastward during the Cretaceous Sevier orogeny and were subsequently overlain by Tertiary sedimentary deposits (Stewart, 1980). Regional crustal extension during the middle Cenozoic resulted in crustal thinning, widespread volcanic activity throughout the Central Nevada volcanic field, including the Indian Peak volcanic field, and extending eastward to the Marysville volcanic complex that was active until 10 Ma. Younger basin and range faulting overprints the Indian Peak caldera complex, resulting in nearly half of the complex now lying beneath alluvium-filled basins or younger volcanic rocks (Best, et al., 1989a).

Andesite and latite flows were prevalent during the early and late stages in the evolution of the Indian Peak volcanic complex. The early andesite flows have previously been correlated with the Escalante Desert Formation, Wah Wah Springs Formation, or Ryan Springs Formation, approximately 32 Ma (Best, et al., 1989a); however, recent data suggests that the older andesite-latite sequence is more closely related to the 22 to 23 Ma Condor Canyon Formation (Williams, et al., 1997) (Rowley, et al., 2008). This thick section (300 metres) of intermediate volcanic tuffs and flows are andesitic-latitic to trachydacitic in composition and are overlain by a series of rhyolitic to dacitic flows and tuffs associated with episodic eruptions from the caldera complex, which are correlated with the Blawn Formation. This latter stage of felsic volcanic activity includes the development of collapse caldera features and resurgent domes and ash eruptions that were deposited over an extensive area (Best, et al., 1992). The Gold Springs caldera was formed during this period of activity and is a prominent feature in the project area.

Following a hiatus of approximately three million years after final eruptions in the Indian Peak complex, the Caliente caldera complex began activity 40 km to the south of the project area, and the resurgent White Rock caldera overprints the southwestern margin of the Indian Peak caldera, as part of the continued regional volcanism (Best, et al., 1989a; Rowley, et al., 1988). During the Pliocene, local basins and lakes formed during initial Basin and Range faulting, and these features accumulated sediments and ash deposits that overlie the older volcanic rock units. Uplift and faulting have continued into the Quaternary, and many of the slopes surrounding the ranges are covered with a variable thickness of recent colluvial and alluvial deposits.

Gold mineralization in the Gold Springs project is hosted by veins, complex sheeted veins, breccias, and stockworks that are oriented along north-south and northeast- and northwest-striking structural zones that cut andesite and latite flows and rhyolite dikes around the collapsed margins of the Gold Springs caldera. The veins typically form resistant ledges and ribs that protrude up to 10 metres above the surrounding ground surface and consist of quartz, adularia, and calcite with minor (<1%) sulfides. The vein systems are laterally extensive and can be traced for up to two kilometres along strike between exposures, and likely further, where the veins extend beneath Quaternary cover. The Gold Springs area is known for numerous small mines and prospects, primarily exploiting high-grade gold and silver veins that are scattered across the volcanic field and have remained largely inactive since the 1940s(see Section 6.0) (Perry, 1976; Thomson, et al., 1975).

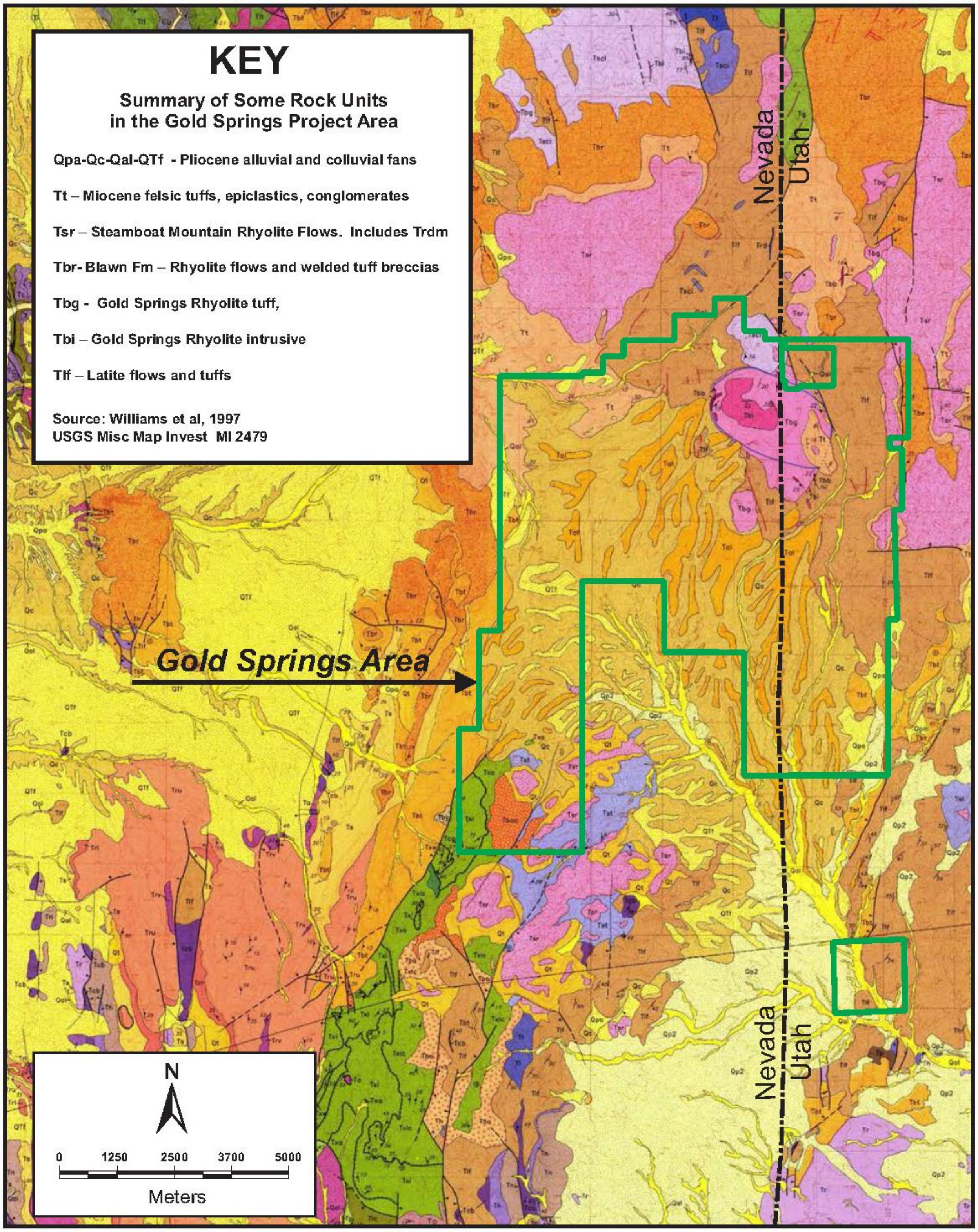
7.2 Local Geologic Setting

The Gold Springs project area is located in the southern portion of the Indian Peak volcanic field, surrounding and including the Gold Springs caldera.

The following is a summary of the rock units in the central Indian Peak volcanic complex near the project area, as they have been described and subdivided by Williams et al. (1997), in Utah by Rowley et al. (2008), and are summarized in Figure 7-1. The correlation among individual rock units within a volcanic field is an inherently complex matter because individual eruptive events, flows, and units are generally not laterally extensive, and temporal sequences are tenuous at best. In the Gold Springs project area, recent mapping by Rowley et al. (2008) was conducted in the Utah portion of the project area, and some of these maps units attempt to further refine the volcanic stratigraphy described by (Williams, et al., 1997). The following discussion of the geology is a comprehensive summary that incorporates a combination of this data. The rock units are presented chronologically from the oldest to youngest units.

Andesite to latite lava flows and tuffs (Oligocene-Miocene 23 to 22 Ma) are prevalent in the project area (Tlf), and may be correlated with the Escalante Desert Formation, Wah Wah Springs Formation, or Ryan Springs Formation at approximately 32 to 28 Ma (Best, et al., 1989a) or possibly part of the Condor Canyon trachydacite at 22.8 Ma (Rowley, et al., 2008). The andesite-latite-trachydacite flows are of variable thicknesses, and incomplete sections are as much as 300 metres thick (Rowley, et al., 2008). The andesite section is predominant in the Buck Mountain to Grey Eagle area and is composed of a series of andesite

Figure 7-1: Regional Geologic Map Showing the Gold Springs Project Area



flows, lithic tuff breccias, and biotite tuffs and is the primary host rock for gold-silver mineralization at Jennie, Thor, Snowflake, Homestake, and Grey Eagle mine areas. The older andesite-latite to trachydacite flows and tuffs appear to overlie the andesite section and are often only distinguishable from the Buck

Mountain andesites by having an increase in biotite content. The andesite-to-trachydacite flows are the primary host rock for the vein systems that are exposed in the Jumbo, State Section, and portions of the Etna mine areas.

There are also younger latite lava flows and tuffs (Miocene) that form a sequence of reddish-brown to grey-green lava flows containing phenocrysts of plagioclase, biotite, and clinopyroxene and magnetite, and are probably as much as several hundred metres thick in the Jumbo-Etna area (Best, et al., 1992). The younger latite flows and tuffs are mostly post-mineral and are observed to cover mineralized sections in the older andesite and latite flows.

Blawn Formation (Miocene) is an assemblage of siliceous rhyolite rocks of early Miocene age that have been subdivided into informal members of rhyolite tuffs and rhyolite lava flows (Tbg), rhyolite intrusions (Tbi), breccias (Tbb), mafic lava flows, and minor epiclastic deposits (Tt). The age for the rhyolite flows range from 24 to 18 Ma (Best, et al., 1992).

In the Utah portion of the property, the low-silica rhyolites described by Rowley et al. (2008) as Trdo (older rhyolites) probably represent the terminal phase of calc-alkaline volcanism related to an ignimbrite episode. Subsequent volcanism in the project area shows a trend towards increasing alkaline flows and tuffs.

Perhaps the most striking geologic feature in the project area is the collapsed Gold Springs caldera, mapped by United States Geological Survey (USGS) (Best, et al., 1992), in the vicinity of Bull Mountain. This caldera is bound on the west and northwest by heterolithic breccia dikes along a steeply dipping contact with older andesite flows. Interior to the caldera is a resurgent rhyolite dome complex at Bull Mountain and intercalated tuffaceous sediments, tuffs, and flows that are 20-16.5 Ma (Rowley, et al., 2008). In the Pope and Charlie Ross Mine areas, the tuff units breached the caldera margin and uncomformably overlie the surrounding andesite flows, extending southward towards the Jennie Mine.

Pliocene-Miocene (16 to 10 Ma) clastic rock units (Tt) consist of a heterogeneous sequence of weakly consolidated primary pyroclastic flows, reworked pyroclastic material, conglomerates, and epiclastic rocks that locally underlie the Steamboat Mountain Formation (Best, et al., 1992). This unit generally represents the erosional unconformity that occurred during and after the major felsic tuff eruptive cycle from the caldera complex. These sedimentary rock units were deposited in basins that formed during Basin and Range extensional faulting and subsidence of the Pine Park and Telegraph Draw calderas. These poorly consolidated volcanoclastic and epiclastic units cover broad areas of prospective older andesite and latite and commonly contain clasts of vein material.

Steamboat Mountain Formation (Tsr) is a bi-modal assemblage of high-silica rhyolite and basaltic trachyandesite of middle Miocene age (Best, et al., 1987). In the project area, the Steamboat Mountain rhyolite flow unit is found capping some of the ridges between Deer Lodge Canyon and the Jumbo area.

Lacustrine Deposits (Upper Miocene to Pliocene) consist of silt and fine sand sediments (Tal) that accumulated in a shallow lake that occupied ancestral Eagle Valley. These sediments are generally fine-grained and grade laterally and upwards into coarse sands and gravels, representing a transition from lacustrine to alluvial deposition as the basin filled and along its eastern margins.

Quaternary Deposits consist of several units that represent tectonic episodes and subsequent erosion and deposition along the basin and range front. These include talus (debris trains), colluvial deposits (Qc), alluvial deposits adjacent to streams (Qal), floodplain deposits in the modern washes, and older benches and terraces associated with progressive down cutting of fan and pediment alluvium.

Perhaps the most important result of Quaternary geomorphology is the fact that the project area is covered by Quaternary deposits of varying thickness, and that these deposits may locally contain cobbles and boulders of high-grade vein material. Several shafts and cuts were historically developed in the colluvium and appear to follow boulders of ore-grade material. In some cases, the vein material appears to have travelled only a short distance from nearby buried vein outcroppings.

7.3 Project Lithologic Units

The Gold Springs project is located in the southern portion of the Indian Peak volcanic field, surrounding and including the Gold Springs caldera. The project area includes many of the lithologic units that are described above, or portions of those units, as shown in Figure 7-1:. In general, the gold-silver mineralization is found in a variety of northwest to northeast striking quartz-adularia +/- calcite veins, stockworks, hydrothermal breccias, and silicified structural zones and altered host rock around these features. Host rocks are predominantly older (23 to 22 Ma) andesite-latite to trachydacites and trachyandesite flows and tuffs around the margins of the Gold Springs (19 to 16.5 Ma) caldera/diatreme. Locally, the Gold Springs rhyolite and welded to non-welded tuff breccias are also mineralized. The following are the significant lithologic units found in the project areas. These are described and presented below in chronological order.

The older andesites (Ta) are a composite of numerous flows, tuffs, and multilithic tuff breccias with a variable aggregate thickness of as much as 400 metres (Best, et al., 1992). There has been some attempt to identify individual flow units (Smith, 2005); however, these are generally not laterally continuous. The uppermost member of the Ta andesite sequence is a biotite rich (5% to 20%) tuff found in the central Grey Eagle and White Point areas. It has largely been removed by erosion in the North and South Grey Eagle areas and is unconformably overlain by the Tt tuffs. The andesite flows are the primary host rock for the vein systems that have been historically mined in the Gold Springs project area (Perry, 1976), and are the primary host rocks for Grey Eagle, Homestake, Horseshoe, Snowflake, Jennie, Thor, and Midnight mine mineralization. Post-mineral andesite dikes are found in the Grey Eagle area and locally appear to crosscut the mineralization in the Grey Eagle and Iris mine areas.

The older andesite-latite to trachydacites and trachyandesite flows and tuffs (Ta) are the prevalent ore hosts in the North, Central, and South Jumbo areas. Differentiating between the flows is difficult; however, some flows can generally be identified based on increased biotite content, magnetite, and rare quartz phenocrysts. Where mineralized, the flows exhibit strong QSP (quartz-sericite/illite-pyrite) alteration with associated strong quartz stockworking and breccias. The northern and western flanks of the Jumbo Ridge (North Jumbo resource) area are often capped by thin, platy, biotite-latite flows that are typically light grey in color, exhibit moderate sericitic (illite) alteration, and are weak veining. These platy latites may form a cap to the mineralizing system and created hydrothermal “ponding” at the base of the flows. The platy latite unit has a variable thickness (5 to 100 metres) and appears to have been largely eroded from the east flank of Jumbo Ridge.

A sequence of younger latite tuffs and flows (Tpl) overlies the mineralized andesite and latite flows along the east flank of Jumbo Ridge and ranges from 5 to 70 metres in thickness. The section of grey-green to reddish brown, variably indurated, locally altered biotite latite crystal tuff unconformably overlies and may be in fault contact with the Main Jumbo vein system and older latite units. The typical tuff section consists of an upper grey-green propylitic-altered tuff overlying a lower, oxidized, hematitic zone where it overlies the vein zone. Drill cross sections show that the Ta/Tpl contact dips at 35 to 60-degrees to the east, which is generally steeper than other erosional contacts observed in the project area. This implies a possible structural contact that was synchronous or post-dates deposition of the tuff eruptive event. The younger tuff is moderately, to strongly, QSP (quartz-sericite/illite-pyrite-calcite) altered with local disseminated pyrite. The altered tuff generally exhibits a slightly elevated level of detectable gold and silver but is not known to host ore-grade mineralization. The younger tuff unit (Tpl) may have been deposited after main stage mineralization, and the observed pervasive alteration may be related to active hydrothermal activity. In the South Jumbo area, the younger tuff is capped by more recent buff colored, lacustrine, and air-fall tuff (Tt) that overlies much of the district between the Jumbo and Grey Eagle areas.

The widespread latite-dacite flows (Tld) are weakly porphyritic, magnetite-bearing, and locally exhibit an aphanitic matrix. They surround and cover much of the State Section and Etna area, south of the Jumbo target, and are the dominant lithology of Rowley's (2008) Tlf latite flows. The base of the latite flows are locally altered, but, in several locations north of the Etna mine, the fresh flows overlie strongly stockworked, altered, and mineralized latite and andesite. The airborne magnetic survey conducted on the Jumbo-Etna area by GSLLC shows this unit to be strongly magnetic and indicates a large area of Tld extending to the northwest, west, south, and southeast of Etna.

A series of three moderately to densely welded units of trachytic ash-flow tuffs unconformably overlie the latite-andesite flows (Rowley et al., 1991). These units are referred to as the old rhyolite (Trdo) in the recent mapping in Utah (Rowley et al., 2008) and are the host for part of the mineralization in the State Line District to the north of the Gold Springs project. Remnants of an upper unit locally contain a black vitrophyre, and several lower members have been identified that exhibit reddish cooling units and may be intercalated with tuffs from other sources found to the east of the Jumbo mine area and cap some of the higher ridges and hills in the project area. Locally in the project area, there are zones with late stage deuteric alteration observed that appear as orange frothy tuff zones, but no significant mineralization has been found within the old rhyolites east of the Jumbo target area.

The Gold Springs caldera is a prominent feature in the project area and was identified by the USGS (Best, et al., 1992), in the vicinity of Bull Mountain. The caldera is partially defined on the west and northwest by outcrops of heterolithic breccias that locally form large ribs along the steeply-dipping contact with older andesite flows to the south and west caldera margin and central to the caldera is a resurgent rhyolite dome complex. Rhyolitic flows and intercalated tuffaceous sediments and tuffs occur within the caldera and extend beyond the margins, where they unconformably overlie the surrounding andesite flows in the Pope and Charlie Ross Mine areas and extend southward towards the Jennie Mine. These tuffs are observed to host veins and stockwork gold mineralization. The Gold Springs Caldera appears to be the geographic focus of gold-silver mineralization hosted by the welded tuff unit and in pipe-like bodies that cut the resurgent rhyolite dome associated with fluorite mineralization.

Throughout the Gold Springs district, poorly consolidated felsic tuffs, reworked epiclastics and lacustrine deposits, and tuffaceous sediments overlie the andesite flows and veins. In the Grey Eagle area, Miocene-Pliocene sediments and tuff (Ts) accumulated in the ancestral Eagle Valley and unconformably overlie the mineralized andesite flows. The lacustrine sedimentary units grade laterally into agglomerates and poorly sorted sediments that are weakly consolidated and are often indistinguishable from the younger Quaternary sediments. Locally present are vitrophyres, obsidian-bearing tephra units, and tuffaceous sedimentary units that are intercalated with the coarse sands and gravels. One example occurs on Buck Mountain and another near the north edge of Prohibition Flats. It appears that these naturally occurring obsidian deposits have been incorporated into the Quaternary deposits that blanket the range and is the source of obsidian nodules scattered throughout the area.

The USGS (Best, et al., 1992) has identified several distinct and mappable Quaternary units in the project area that represent a series of tectonic episodes and subsequent erosion and deposition along the range front. The most pronounced basin in the area is a broad, west-northwest trending basin that corresponds to Prohibition Flats area on the southwestern portion of the project. The clastic units include talus (debris trains), colluvial deposits, alluvial deposits adjacent to streams, floodplain deposits in the modern washes, and older benches and terraces associated with progressive down cutting of fan and pediment alluvium. Most the project area is covered beneath these Quaternary deposits (Qc), which are of varying thickness, and it is interesting to note that the majority of areas where the bedrock andesites are exposed are also where gold mineralization has been prospected and mined. Of particular interest is the presence of high-grade vein material as cobbles and boulders that occur in some of the Quaternary deposits. Historically, this is what initially attracted the first wave of prospecting in the 1870s, but the source for the ore material remained elusive to the early prospectors (Perry, 1976). There are a number of shafts and open cuts throughout the project area that are developed in colluvium searching for the presence of ore-grade material. In some cases, this material may not have travelled far from the source, and indicate nearby buried areas of the outcropping veins, as observed in the North Jumbo resource area and in trenches in the Grey Eagle area. The significance of these local basin filling sediments became evident during the 2013 Grey Eagle exploration drilling, where the main northeast-striking, westerly dipping South Grey Eagle stockwork zone was traced under post-mineral clastic cover for over 400 metres to the south. The post-mineral (Ts) tuff package is typically thin bedded, gently to moderately (5 to 30 degrees) dipping to the southwest. The air fall and lacustrine crystal ash tuff units exhibit local scour and fill, graded bedding, and reworked conglomerates. The thickness of the post-mineral clastic unit (Ts) is locally modified by normal faulting and can vary between 3 and 50 metres, thickening downslope to the southwest where GSLLC step-out drilling in 2014 intercepted >200 metres of overlying tuff above the mineralized contact. Drilling shows that the basal tuff zones incorporated variable thicknesses (one to eight metres) of mineralized vein-bearing regolith deposited in a high-energy environment on moderate to steep topography that is an erosional surface. Resistant ridges of quartz veining are locally surrounded and covered by post-mineral deposits that show a minimum of 20 metres of cut and fill channels. The 2014 road building and drilling program in the South Grey Eagle area exposed a >50-metre-thick zone of reworked tuff exhibiting high-energy cut and fill structures, mudflows, heterolithic, poorly sorted, vein bearing debris-flow conglomerates. Along the southeast flank of the Grey Eagle main ridge, a significant portion of the southern extension of the Grey Eagle vein system was removed by erosion and is overlain by tuff (Ts) and sediments (Qc). This was illustrated with holes GE-14-001 to GE-14-004, which were drilled to extend the mineralization intercepted in GE-13-038, GE-13-016, and GE-13-005.

7.4 Structure

The Gold Springs project area is located within the Basin and Range physiographic province and is characterized by north-south block faulting that produced internally draining basins and ranges that have developed from east-west extensional tectonism since about 30 Ma (Best, et al., 1992). The original rock units in the Indian Peak volcanic field have been displaced by faulting, and most of the project area is covered beneath younger Pliocene to Quaternary sediments and colluvium.

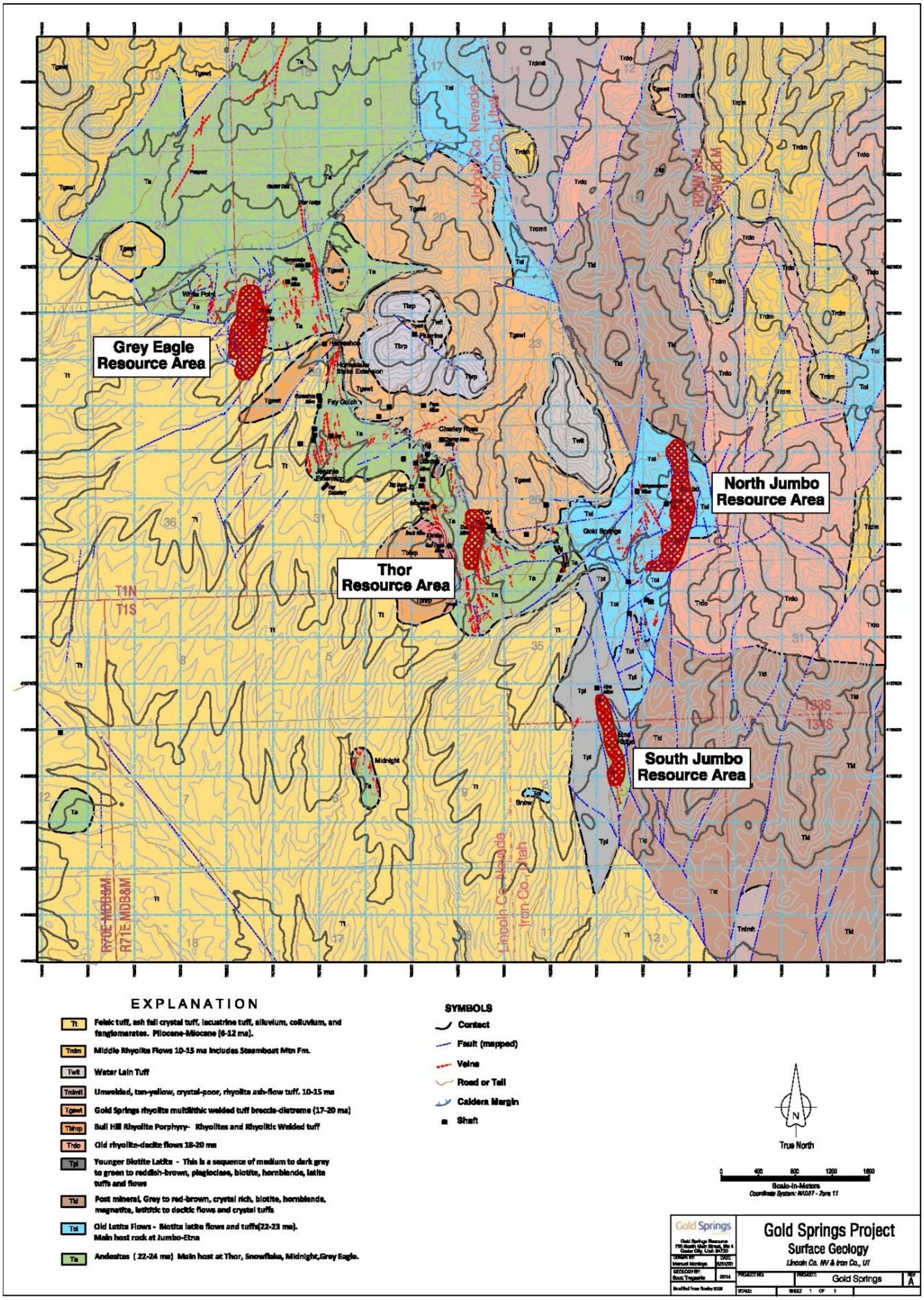
The dominant mineralized zones in the Gold Springs project generally strike north-south to northeast-northwest and are moderately to steeply-dipping along laterally extensive faults and veins that cut the andesites, as shown in Figure 7-2. In addition, there are subsidiary northeast-striking vein systems such as in the Etna and Midnight mine areas that locally exhibit a series of dilatant northwest-striking veins. In the North Jumbo resource area, the mineralization consists of veins and a wide area of silicification, veining, alteration, and clast and matrix-supported breccias and micro-breccias, with predominate sets of north-northeast or southwest striking orientations within the zone.

Extensional tectonics (30 to 10 Ma) created a series of horst and graben features in the district which are superimposed on earlier caldera collapse and resurgent dome fractures related to the development of the Indian Peak and White Rock Caldera systems (34 to 22 Ma). There are indications of strike-slip faulting following the same general north-south basin and range style block faulting with local conjugate shearing developing between parallel strike-slip faults. GSLLC is conducting more detailed analysis to determine if there are additional structural controls on the high-grade gold mineralization, which has been suggested by detailed mapping on a portion of the Jumbo system. Historically at the Jumbo and other mines in the Gold Springs district, it is observed and reported that only certain portions of the veins grading >0.2 oz/t gold were mined (Perry, 1976), and the remaining vein material was left behind.

Arcuate structural zones related to collapsed caldera margins are also a dominant feature at the Gold Springs. Numerous nested calderas have been identified within the outcrop exposures and highlighted in the Lidar and Z-Tipper Electromagnetic System (ZTEM™) results. These areas of ring fractures and collapse features are the host of mineralization within the Grey Eagle resource area and are priority target areas for future exploration efforts.

Post-mineral faults that offset mineralization have been observed and reported by previous workers (many observed in inaccessible underground mine workings). Several faults displace or are oriented parallel to the mineralized veins with the predominate faults striking east, northeast, and north-south. Some workers have speculated that the north-south faults reflect re-activation along basement structures in the pre-Tertiary rocks (Perry, 1976). In the Jennie Mine, the main vein was cut off above the 300-foot

Figure 7-2: Map Showing the Project Geology, Structures and Resource Locations



level by a series of north-south faults dipping to the west, and a fault striking north 80° east, dipping 55° south, displaced the Jennie vein to the north of the main shaft (Mallory, 1928). The Thor vein is also cut off on the north by post-mineral faulting that is likely the same northern faults that offset the Jennie vein.

There are several areas where the north-south vein structures appear to intersect the margins of the Gold Springs Caldera (Figure 7-2) in the vicinity of the Pope and Charlie Ross mines that exhibit stockwork veining and pervasive alteration (hematite, jarosite, and goethite staining) in the welded tuff units. The Pope vein strikes north-60° to 65° east, is nearly vertical and cuts welded crystal tuffs. The Charlie Ross vein strikes north-30° east and dips 72° south and is associated with pervasive sericitic alteration and some quartz veining.

7.5 Mineralization

Mineralization in the Gold Springs area is characterized by large through-going structural corridors hosting veins, breccias, and disseminated gold and silver mineralization in altered rocks. These are generally north-striking faults and structures that are the primary control for the low sulfidation-type gold bearing quartz veins, with subsidiary northeast and northwest striking veins also noted in the target areas. In addition, caldera margins, collapse features, and breccias provide areas of structural preparation and host mineralization within the Grey Eagle resource area. Andesite and latite flows are the primary host rocks to the gold-silver mineralization in the district and were intercepted during drilling conducted by GSLLC at the North Jumbo, South Jumbo, Thor, State Section, Midnight, Grey Eagle, and White Point target areas.

In general, the gold mineralization in the Gold Springs area consists of structurally controlled quartz-adularia +/-calcite veins, hydrothermal breccias, and associated stockwork and sheeted veins, in addition to broad areas of disseminated mineralization. Host rocks adjacent to the veins and stockwork zones are variably silicified and exhibit sericitic (illite), argillic, and propylitic alteration in a general progression away from the major vein structures. Mineralization also occurs in the Gold Springs rhyolite ash-flow tuff that locally overlies the andesites, and here the mineralization occurs as stockworks surrounded by broad areas of sericitic (illite) alteration associated with the presence of fluorite. There are at least two distinct episodes of gold mineralization observed in the project area.

The dominant orientation for vein systems in the District is north-northwest to north-northeast with variable dips to the east and west. Individual veins may be segmented and occur in a regional belt or zones of mineralization that trend north to south. On a local scale, there are some distinct differences observed in the styles of mineralization between the North Jumbo, South Jumbo, Thor, and Grey Eagle zones, which are described below in detail in the following section for each of the target areas.

Within the vein zones, quartz is generally coarse-grained crystalline and appears in crustiform, colloform banding, comb, and pseudomorphs of bladed carbonate forms. The quartz veins are generally white to light grey and greenish in color. Multiple episodes of veining are evident from the replacement textures and the different varieties of vein material being crosscut by subsequent veins.

Sulfides are uncommon in the veins and generally constitute <1% of the veins, but when observed, they typically occur as pyrite, predominantly in the Jumbo Trend. Pyrite is observed disseminated throughout lateral or vertical zones within the host matrix or as blocky or equant crystals along fracture surfaces.

Gangue minerals include calcite (with occasional iron and/or manganese carbonates), fluorite, and locally abundant amounts of adularia.

The Jumbo-South Jumbo zones, referred to generally as the Jumbo Trend, is defined as a prominent north-south striking structural zone of veins, stockworks and breccias that cut altered and mineralized andesites and latites. The Grey Eagle resource is characterized by numerous veins cutting hematite-altered andesites. A younger stage of mineralization in the Gold Springs caldera consists of pipe-like bodies that cut the rhyolite dome and intra-caldera flows where gold mineralization is associated with late stage hematite and fluorite in breccias that form pipe-like bodies. An example of this is the Pope and Charlie Ross areas where gold mineralization occurs in stockworks, fractures, and veins cutting welded tuffs on the margins of the Gold Springs caldera.

7.6 Target Areas

GRC has identified several target areas for gold mineralization located across the project area. These targets are shown in Figure 7-3 and include veins, stockworks, and disseminated styles of mineralization similar to that observed in the Jumbo and Grey Eagle resource areas. In addition, several target areas show gold mineralization hosted by welded tuffs and pipe-like breccias that are spatially associated with the Gold Springs caldera complex. The following is a synopsis of the targets where GSLLC conducted drilling and sampling followed by a brief description of additional targets that are identified in the project area. Table 7-1 summarizes the work completed by GSLLC for each of the target areas.

Figure 7-3: Map Showing the Target Areas Identified by GSLLC in the Gold Springs Project Area

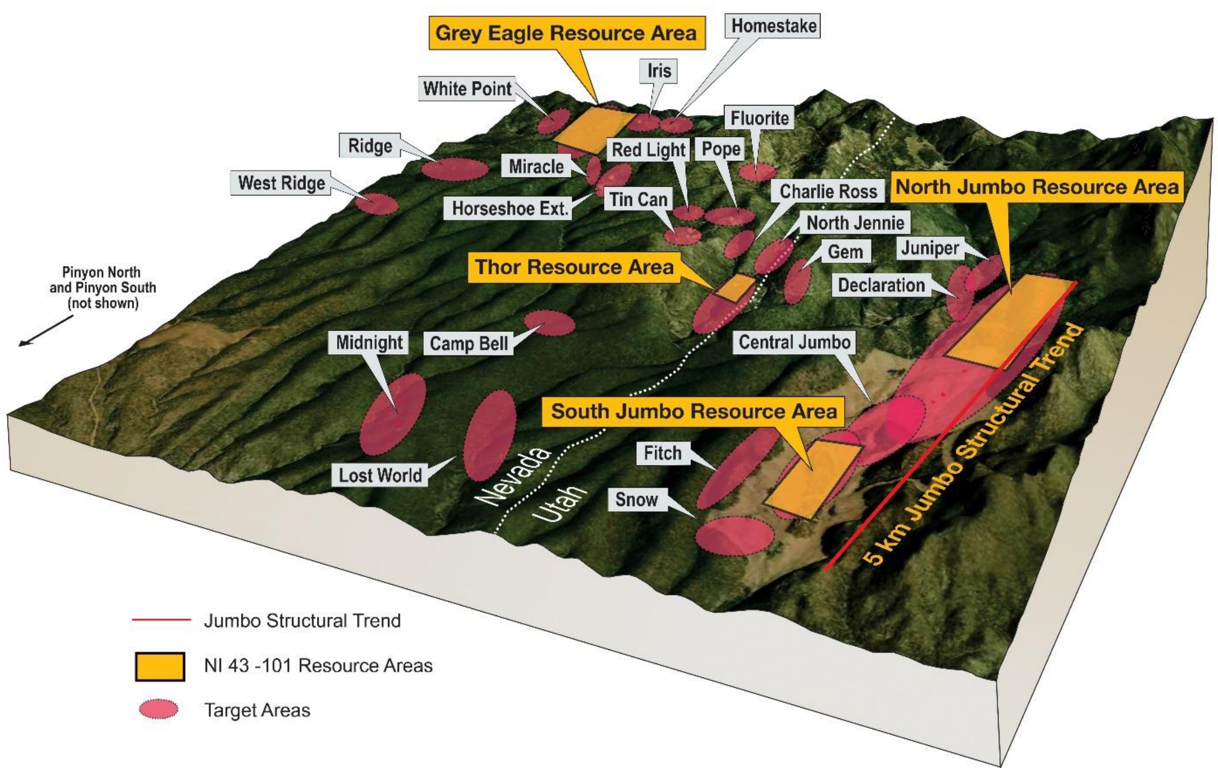


Table 7-1: GSLLC Target Areas and Comprehensive Summary of Work Completed through April 2020

Target	RC Drilling	Core Drilling	Mapping	Rock Chip Sampling	Soil Sampling
North Jumbo	89 holes-GSLLC 16 holes pre-GSLLC	3 holes GSLLC	Yes	Detailed	Yes
Thor	14 holes GSLLC 2 holes pre-GSLLC	1 hole GSLLC	Yes	Detailed	Yes
Grey Eagle	85 holes GSLLC	2 holes	Yes	Detailed	Yes
Homestake	14 holes GSLLC	No	Yes	Detailed	Yes
White Point	5 holes GSLLC	No	Yes	Limited	Yes
Midnight	2 holes GSLLC	No	Yes	Detailed	Yes
South Jumbo (Etna)	36 holes GSLLC 4 holes pre-GSLLC	No	Yes	Detailed	No
North Jennie	1 hole pre-GSLLC	No	Yes	No	No
Jumbo North	1 hole GSLLC	No	Yes	Limited	No
Fluorite	3 holes GSLLC	No	Yes	Limited	No
Silica Hill	5 holes	No	Partial	Detailed	Yes
Silica Hill Extension	No	No	Partial	Detailed	Yes
Lost World/Camp Bell	No	No	No	Limited	No
Pope	2 holes GSLLC	No	Yes	Detailed	No
Tin Can	3 holes GSLLC	No	No	Detailed	No
Horseshoe extension	No	No	Yes	Detailed	Yes
Iris	No	No	Yes	Detailed	Yes
Central Jumbo	15 holes GSLLC	No	Yes	Detailed	Yes
Snow	No	No	Yes	Limited	No
Ridge	No	No	No	Limited	No
West Ridge	No	No	No	Limited	No
Declaration	No	No	Yes	Detailed	No
Miracle	No	No	Yes	Limited	No
Gem	No	No	Yes	Limited	No
Red Light	No	No	Yes	Limited	Yes
Fitch	No	No	Yes	Detailed	No
Juniper	No	No	Yes	Detailed	Yes

7.6.1 Jumbo Trend

The Jumbo Trend is located in the east-central part of the project area and consists of three target areas, North Jumbo, Central Jumbo, and South Jumbo (Photo 7-1). The Jumbo Trend extends approximately 8 km and is coincident with a significant ZTEM and CSAMT anomalies that appears to continue under colluvium (Figure 9-4:). GSLLC has completed a total of 116 holes in the Jumbo Trend from 2010 through 2016. Prior to this, Astral completed nine drill holes in 2006, Amanda Resources completed three drill holes in 2003, and Energex completed 10 drill holes in 1988. This body of data provides the basis for determining the resource at North Jumbo and South Jumbo (Etna). Since the updated resource as described in Section 14.0 was filed an additional 28 holes were drilled in the Jumbo Trend within the

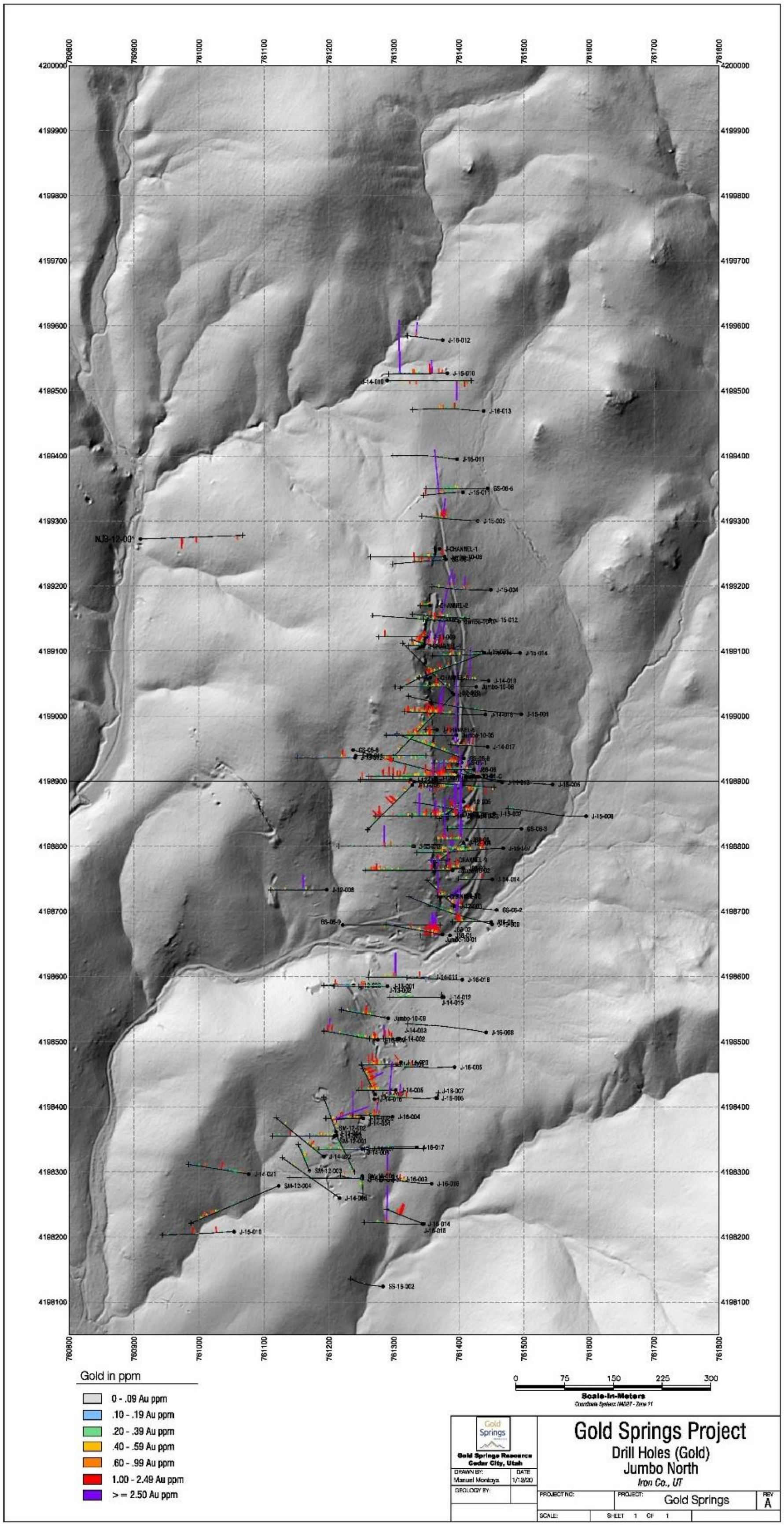
Central and South Jumbo targets in 2017. These holes were primarily designed to extend the known mineralization at South Jumbo and to test for continuity in the higher-grade material.

North Jumbo Resource Area

The North Jumbo resource area consists of a continuous structural zone that can be traced on surface for 1,500 metres before it is obscured by post-mineral cover to the north. The North Jumbo target area is characterized by a prominent vein and breccia central corridor up to 30 metres wide along a north-south striking and a steep easterly dipping zone that forms outcrops as shown in Photo 2-1. The southern portion of this resource is characterized by numerous veins and stockworks over a broad area of up to 150 metres wide (Photo 7-1). The northern extension of the Jumbo system is primarily defined by the ZTEM survey completed by GSLLC and the CSAMT survey conducted by Astral. Most of this northern area is covered by post-mineral colluvium with discrete windows that reveal altered volcanic rocks and vein material. In 2015 and 2016, drilling programs intercepted sub-surface mineralization beneath this post mineral cover (Figure 7-4). Recent mapping has identified windows in the post mineral cover north of the current drilling, which could extend the system an additional 600 metres to the north.

Photo 7-1: View of the North Jumbo Zone Looking North Showing the Main Vein Structure

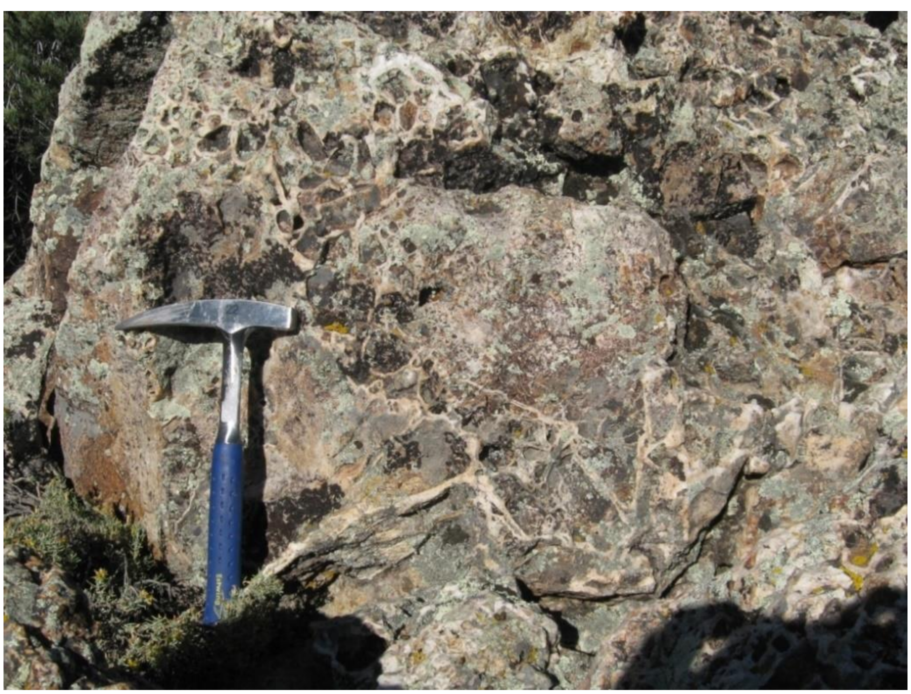
Figure 7-4: North Jumbo Resource Area Drilling



Within the North Jumbo resource area, there is a massive quartz and quartz/calcite vein that can exceed 5 metres in width and forms a rib as shown in Photo 2-1 and Photo 7-1, often referred to as the Jumbo Ridge. The central quartz vein is dense, fine-grained quartz, which on close examination will exhibit relict rounded pebble breccias, banding, and bladed texture after calcite. The distribution and rounded form of the breccia clasts indicate that they are derived from repeated hydrothermal brecciation and fluidization within the vein system. In some areas, the breccia consists of angular silicified wallrock clasts in a quartz matrix. The quartz veins exhibit bladed texture, which suggests that boiling occurred within the hydrothermal system. Adjacent to the veins and breccias, extensive areas of quartz stockwork veining becomes more diffuse outward from the main vein structures and grades into crackle fractures, breccias, and silicified rock.

The south end of the prominent Jumbo vein zone is offset by an east-west trending post-mineral fault that separates it from the southern portion of the resource area, and the vein structures are less prominent. This southern section is characterized by numerous veins, hydrofractures, micro-breccias, and stockworks that extend over a broad area. Locally within the main Jumbo system, there are somewhat discontinuous zones of distinct quartz veins, silicified wallrock, and quartz stockwork in both the footwall and hanging wall to the central vein structure. The pebble breccias occur within pipe-like bodies within the veins, where rounded to sub-rounded individual clasts of country rock are coated by a rim of acicular quartz crystals in a siliceous-quartz crystal matrix (Photo 7-2). In North Jumbo, mineralization is also associated with siliceous micro-breccias and hairline silica fractures, which may indicate significant over-pressuring of the hydrothermal system and fluid being released during hydrofracture events into the surrounding wallrock. These structural zones occur in areas of apparent higher permeability distant from the main structural conduits and host gold mineralization in the stockworks, breccias, and disseminated in altered wallrocks.

Photo 7-2: View of Pebble Breccia in the Main Jumbo Vein Zone



Note rounded clasts rimmed by quartz, many of the breccia clasts exhibit cross cutting relations from earlier vein episodes

Wallrock alteration surrounding the Jumbo vein system typically extends outward from the vein into the adjacent andesite wallrock up to 200 metres. The low-sulfidation alkaline fluids which formed the main quartz-adularia +/- calcite veins appear to be associated with the QSP (quartz-sericite/illite-pyrite) alteration assemblage and are spatially proximal to the main structural conduit and gold mineralization. This alteration is observed to over-print the early propylitic (chlorite-epidote) alteration with potassium-iron smectite (celadonite) forming after chlorite, which results in a distinctive blue-green color to the QSP alteration. There is commonly an intense argillic alteration selvedge adjacent to, and along, the hanging wall of the main Jumbo vein zone that appears to be the result of an incursion of acidic fluids late during the collapse of the hydrothermal system. In the North Jumbo area, disseminated pyrite is paragenetically associated with an early alteration event and pre-dates the low-sulfidation gold mineralization. It is unclear if the early pyrite event is associated with any gold mineralization.

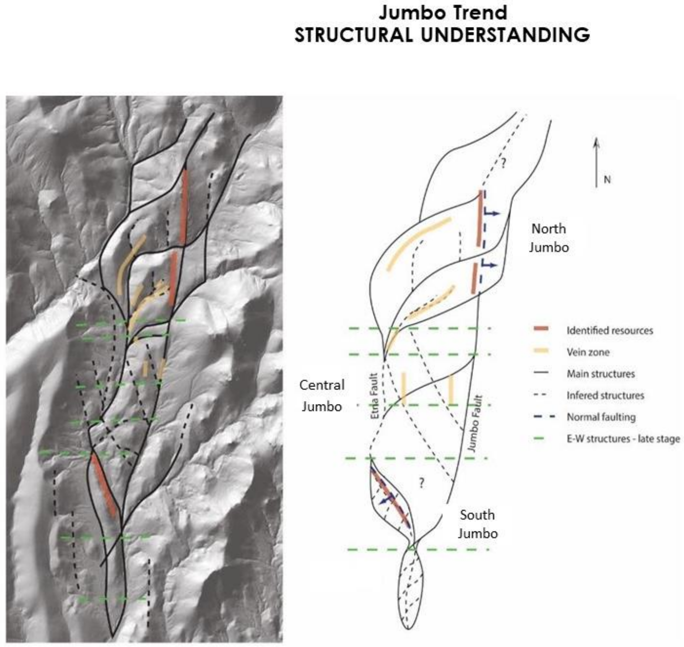
The 2016 drilling focused on extending the North Jumbo resource to the north and south as well as to the east in the southern portion of the resource area. Drill hole locations can be seen in Figure 7-4. These holes were successful in demonstrating continuation of the mineralization to the north and south with gold intercepts that are generally higher than the resource overall average. Holes testing the eastern extension of the system found that along the 761340 NAD 27 Zone 11 easting line the system has been fault offset or there is a rapid change in gold grades over very short distances limiting the expansion of the system in this direction, based on current drilling information. Hole J-16-009 was drilled in the southern portion of the resource and intersected a gold bearing zone deep in the hole suggesting a parallel gold zone west of the identified main resource area. Further drilling will be needed to better define this mineralization.

7.6.1.1 Central Jumbo (State Section)

GSLLC controls the Utah Trust Lands in Section 36, Township 20 West, Range 33 South. This area is along the southern projection of the Jumbo Tend and is shown to have a strong ZTEM resistivity anomaly (Figure 7-4). There are numerous small pits located on these lands with wide areas of clay +/- sericite alteration.

Mapping and sampling were completed on this target in 2012 and 2016. The results of this work outlined several drill targets based on structural intersections and ZTEM resistivity anomalies. Sampling of the vein systems have produced values in rock chip samples of up to 6.7 g/t gold over two metres from one prominent vein exposure. Surface exposures of veins scattered across this target area are generally lenticular and oriented N-S. These have been sampled from outcrops that carry values in the 1.0-2.0 g/t range gold. Central Jumbo is geologically characterized by a set of discontinuous quartz veins hosted within strongly clay altered and oxidized volcanic flows. The area is bounded by two north-south trending fault zones: the Etna fault to the west and the Jumbo fault to the east. Structural interpretations are complicated within the State Section target area due to offset along numerous east-west fault sets, and volcanic plugs that truncate and displace mineralization. There are similar structural features to the South Jumbo (Etna) resource within this target area, with intersecting fault zones and left-lateral north-south faulting that requires further field studies (Figure 7-5).

Figure 7-5: Structural Setting of the Jumbo Trend

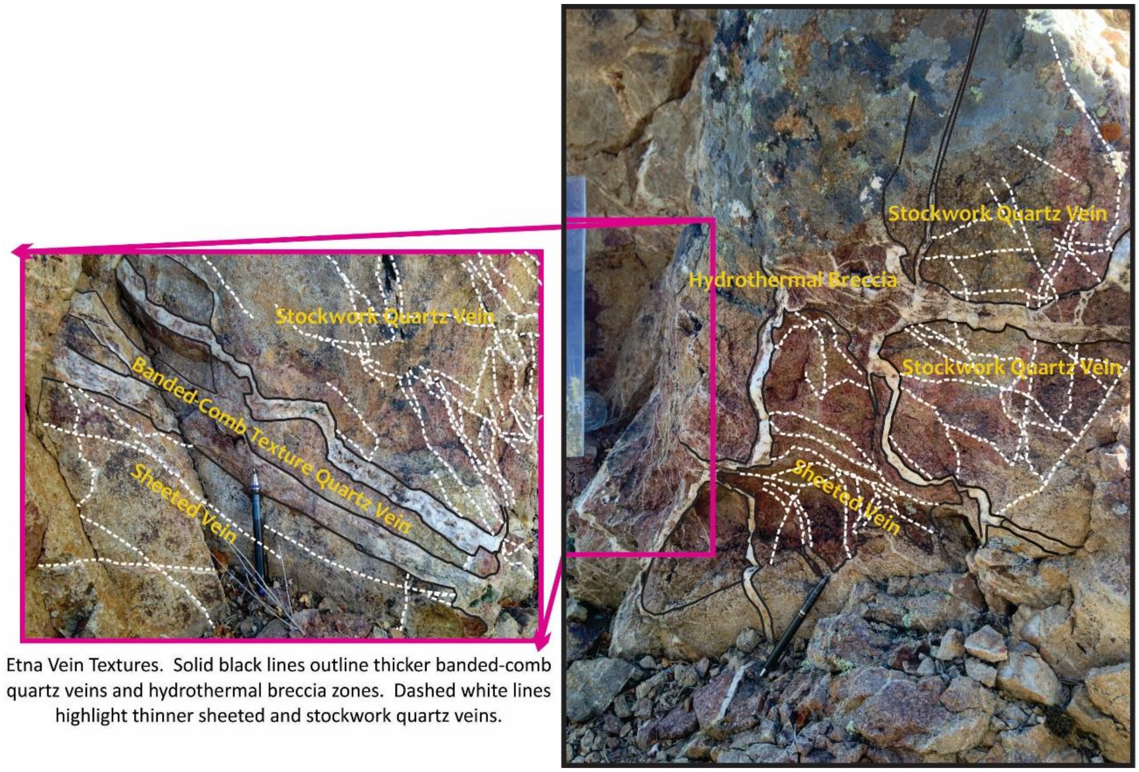


A total of nine holes had been completed in Central Jumbo prior to 2017 with an additional 9 holes drilled in 2017. Significant drill results include drill hole SS-12-002 intercepting 6.1 metres at 2.2 g/t gold. This hole was drilled into an area of post-mineral cover to test a ZTEM anomaly. Three drill holes were completed in 2016 on the State Section target area. Drill hole SS-16-001 was drilled under one of the outcropping vein systems and showed significant gold grades, with 12.2 metres averaging 0.79 g/t gold and 5.79 g/t silver. Nine holes were completed in 2017 in the Central Jumbo target. This drilling was highlighted by hole SS-17-001 with 21.3 metres averaging 1.53 g/t gold and 2.5 g/t silver. Offset holes failed to intersect this mineralized zone. Future plans will include completing a CSAMT survey over Central Jumbo and conducting detailed structural mapping to better understand the controls on gold mineralization.

7.6.1.2 South Jumbo (Etna)

South Jumbo (Etna) resource area is located on the southern end of the Jumbo Trend, as defined by the ZTEM, CSAMT and surface exposures of the mineralized zone, and likely extends southward under the Quaternary cover. Mineralization at South Jumbo occurs primarily as quartz stockwork, sheeted quartz veins, and in hydrothermally brecciated andesite (Figure 7-6) and forms the prominent Etna Ridge extending from Newell Spring, on the south, for 1500 metres to the north, where it is covered by post mineral andesite flows near the historic Etna Mine. The surface exposures of the South Jumbo zone range from 75 to 140 metres wide, with the greatest widths present along the north end of the zone. The silicified andesite locally forms large cliff outcrops along the eastern side of the ridge, where a possible fault has displaced mineralization to the east below post-mineral cover.

Figure 7-6: South Jumbo (Etna) Vein Types and Textures



Etna Vein Textures. Solid black lines outline thicker banded-comb quartz veins and hydrothermal breccia zones. Dashed white lines highlight thinner sheeted and stockwork quartz veins.

Gold mineralization at South Jumbo and in the Etna Mine area is not characterized by a single prominent vein, unlike other targets in the project area where the quartz vein structures are one of the dominant mineralized features (Figure 7-6). The mineralized zone consists of silicification and re-cemented breccias and stockwork zones that grade into variably argillized andesite. With no single dominant vein in the South Jumbo system, the mineralization is characterized by a large block of silicified andesite that was shattered and brecciated by movement along two structures trending at 340° on the east and west sides of the Etna ridge. Mineralization is hosted by silicified andesite, which originally appears to have been strongly jointed (trending approximately 240° and 350°) prior to silicification and subsequently fractured. Typically, mineralization is found within silicified andesite with hydrothermal brecciation, and crosscutting stockwork and sheeted veins. An example is shown in Figure 7-6, where the thinner quartz veins commonly have comb, banded, vuggy, crustiform, colloform, and bladed pseudomorph (after calcite) textures. Several crosscutting dikes identified in drilling appear to utilize the same fractures and joints as the hydrothermal fluids and show weak to moderate, pervasive propylitic alteration.

During 2012 and 2014, GSLLC completed nine drill holes in the South Jumbo target, three in 2012 and six in 2014. The first drill hole was to twin an Energex hole (E88-01) that was reported to bottom in 3.05 metres at 9.3 g/t gold at a depth of 91.44 metres and contained 44.2 metres at a gold grade of 0.88 g/t gold (Caulfield, 1988; Smith, 2005). The drill site is located on the northern end of Etna Ridge, and the GSLLC drill hole E-12-001 intercepted 1.5 metres at 4.9 g/t gold at the same depth where the Energex hole bottomed in the high-grade interval. The 2012 GSLLC drill hole E-12-001 intersected 39.6 metres at 0.57 g/t AuEq between 61 and 100.6 metres. in 2014 GSLLC drill hole E-14-001 intersected 106.9 metres at 0.49 g/t AuEq.

During 2016, eight RC drill holes were completed at South Jumbo. These holes, along with E-12-001 and E-14-001, define a mineralized zone roughly 400 metres long and 150 metres wide that remains open to the North and South as well as laterally and at depth. The 2016 drill holes (except E-16-006) all collared in mineralized and silicified andesite. Drill hole E-16-001 was drilled at an azimuth of 90^{o} with a -50^{o} inclination to a depth of 215 metres and crossed the eastern bounding fault to the Etna ridge. The hole terminated in mineralization, with the last 15.2 metres of the hole averaging 0.67 g/t gold and 3.06 g/t silver. Drill hole E-16-005 confirms that the South Jumbo resource has widths similar those observed at North Jumbo, with a 150.9-metre intercept averaging 0.87 g/t gold and 7.78 g/t silver. Subsequent to the resource calculation at South Jumbo (Etna), GSLLC completed 19 RC drill holes in 2017. This drilling was successful in extending mineralization to the south (Figure 7-7) and defining higher-grade portions of the system (Table 7-2). Drilling has intersected a higher-grade, horizontal pipe-like mineralized zone which has sufficient drilling to model this body (Figure 7-8). This zone has a thickness of 20.4 metres and averages 1.4 g/t gold and 13.0 g/t silver. It has been traced for 400 metres and remains open along strike. There is evidence from the drilling that there may be 2 or 3 more potential high-grade features in this same area. GSLLC has now completed a total of 36 drill holes at South Jumbo (Etna) totaling 5,948 metres. In addition, there were 3 drill holes completed by previous operators totaling 283 metres. Proposed plans will be to complete additional drilling with the goal of extending the resource to the north and south as well as at depth. Plans also include the testing of the possible East Etna parallel mineralized zone, which is interpreted to be a mineralized zone approximately 100 metres east of the current resource. This eastern target is identified through structural studies, geophysical anomalies, and tested by drill intercepts. In total, there have been four holes drilled to the east across the Jumbo fault (Figure 7-7) into the East Etna target area. Two of these holes intersected gold mineralization after crossing the Jumbo fault. In 2016, hole E-16-001 crossed the Jumbo fault and intersected +1 g/t Au and 1 to 10 g/t Ag, bottoming in 15.3 metres averaging 0.67 g/t gold and 3.1 g/t silver. Hole E-17-001 also drilled east across the Jumbo fault, intersecting 0.6 g/t Au and +1 g/t Ag, ending in anomalous gold mineralization. At surface, the area is covered with post mineral flows but is structurally similar to the North and South Jumbo resources. The area displays a structural setting, with several north and northeast trending fault intersections that display extensional features that may be conducive for hosting gold mineralization.

Figure 7-7: South Jumbo Drill Holes

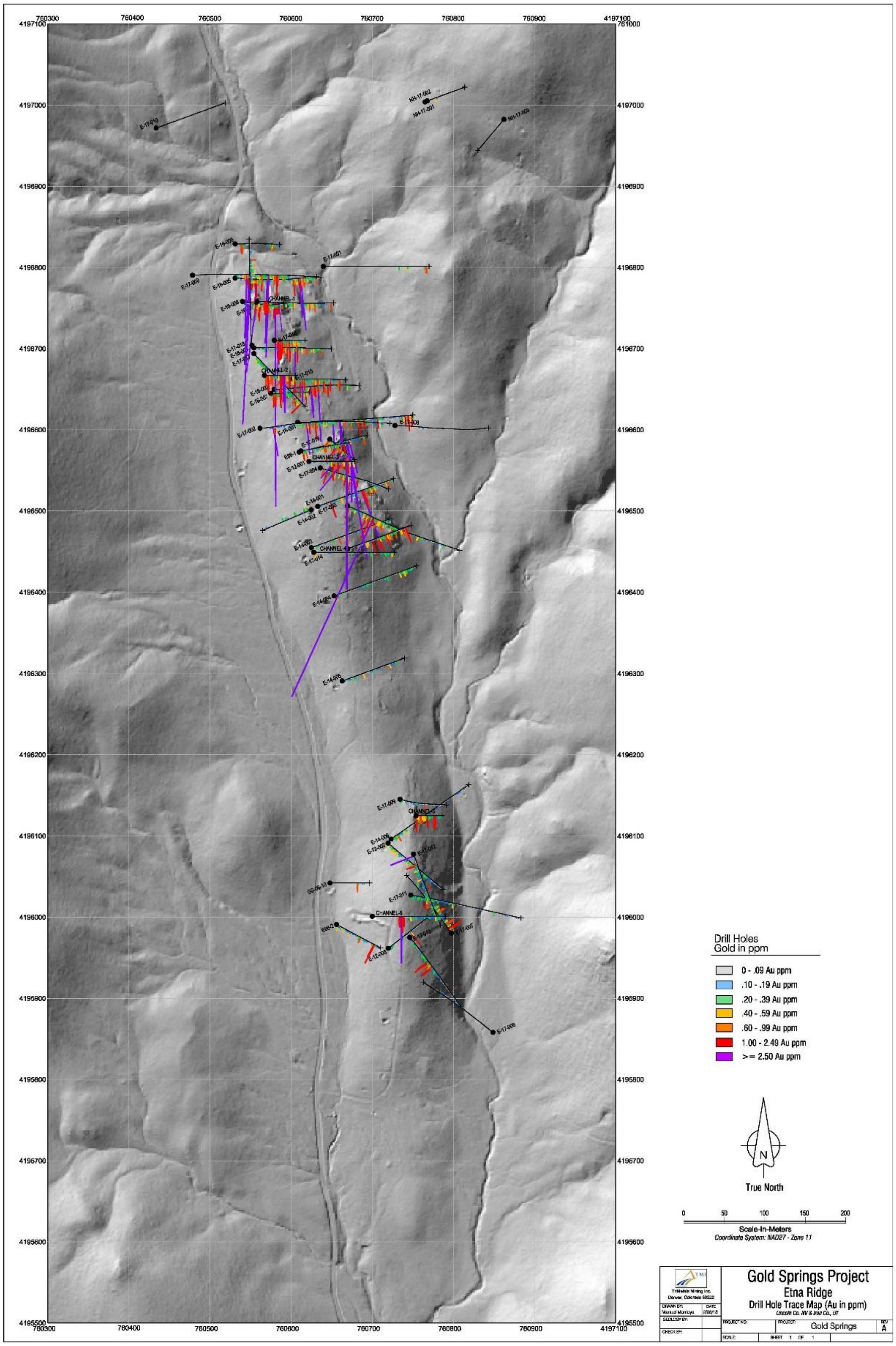
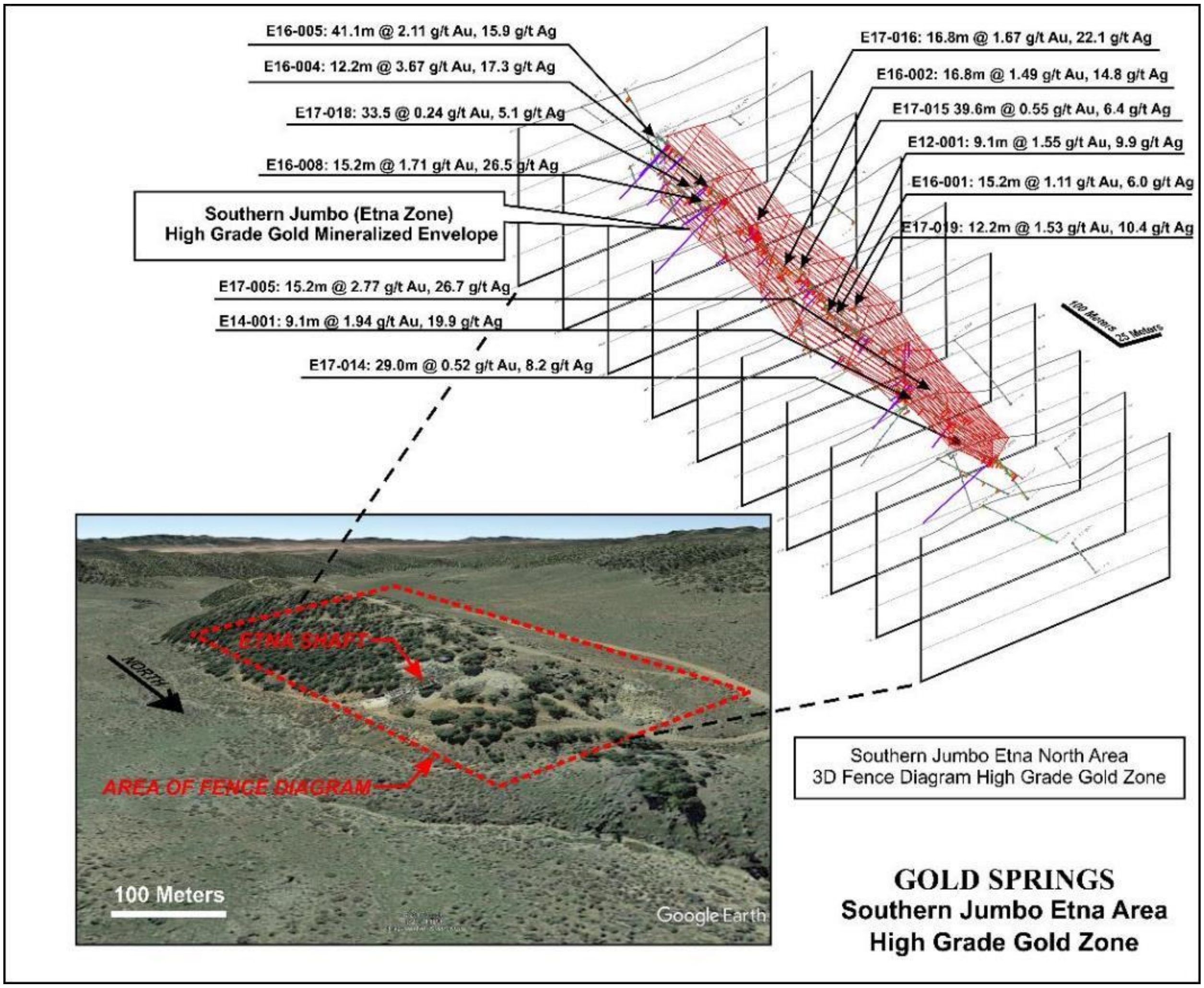


Table 7-2: Drill Results from 2017

Hole	From (m)	To (m)	Thickness (m)	Gold (g/t)	Silver (g/t)
E-17-002	24.4	32.04	7.6	1.01	11.7
and	89.9	97.5	7.6	1.14	13.2
and	109.7	132.6	22.9	0.33	3.60
E-17-003	94.5	178.3	83.8	0.64	6.50
Inc.	94.5	106.7	12.2	1.31	12.8
and	140.2	161.5	21.3	1.09	6.5
E-17-004	9.1	21.3	12.2	0.39	3.6
and	60.4	121.9	57.9	0.35	3.8
E-17-005	4.6	85.3	80.8	0.74	7.2
Inc.	4.6	56.4	51.8	0.97	10.0
E-17-007	3.0	10.7	7.7	0.70	22.0
Void Old Workings	10.7	13.7	3.0		
and	13.7	97.5	83.8	0.26	5.3
E-17-011	1.5	45.7	44.2	0.28	8.86
Inc.	29.0	45.7	16.8	0.42	12.1
E-17-012	0	54.9	54.9	0.28	5.05
Inc.	0	4.6	4.6	1.11	5.4
E-17-013	61	93	32	0.52	9.8
Inc.	61	79.2	18.3	0.75	13.48
E-17-014	30.5	89.8	59.4	0.41	5.9
Inc.	65.5	80.8	15.2	0.56	5.3
E-17-015	0	138.7	138.7	0.36	4.9
Inc.	0	39.6	39.6	0.55	6.4
E-17-016	7.6	89.9	82.3	0.63	11.6
including	7.6	35.1	27.4	1.19	17.3
And	12.2	22.9	10.7	2.02	25.2
E-17-018	115.8	166.1	50.3	0.23	4.3
E-17-019	0	93	93	0.51	5.9
Inc.	51.8	83.8	32.0	0.83	9.8
Inc.	71.6	83.8	12.2	1.53	10.4

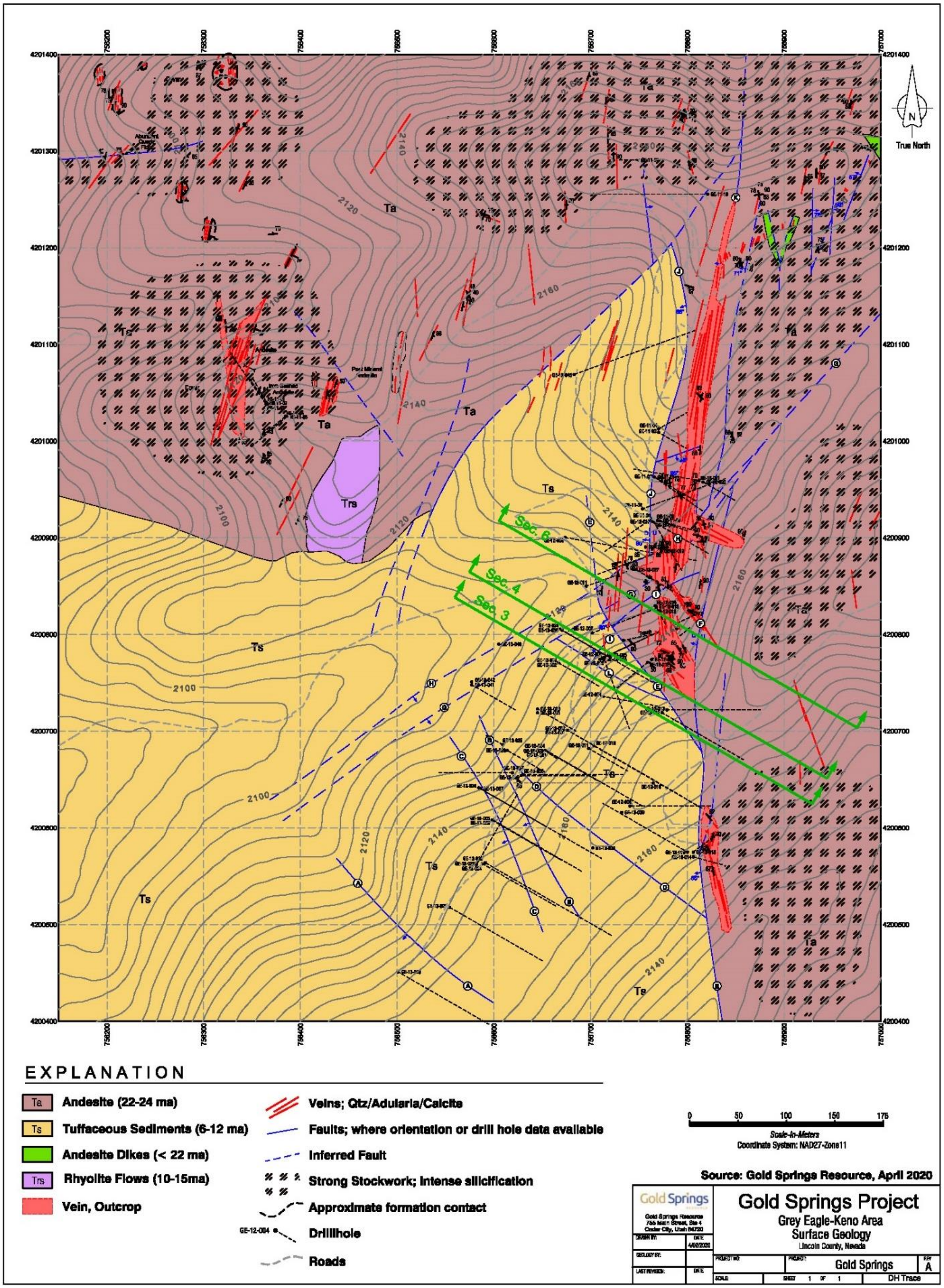
Figure 7-8: Higher-Grade Portion of South Jumbo (Etna)



7.6.2 Grey Eagle

The Grey Eagle target is characterized by a complex zone of intersecting veins trending north-south, northeast, and northwest within a north-northeast trending structural zone dipping 50° to 85° west. The structure is interpreted to be a segment of a caldera ring fracture system which is also observed in the ZTEM geophysical data (Figure 9-3:). The zone is defined by an upper and lower bounding structure which is a segment of a bounding fault along a caldera margin. The rocks between the faults were shattered by differential movement along the structures, which resulted in a 20- to 80-metre thick zone of permeable and mineralized material. The veins form within this structural package, which is traceable on the surface for over 700 metres before being obscured by post-mineral cover (Figure 7-9). The individual veins and vein zones are characterized by white quartz, crustiform, colloform banding, comb, and pseudomorphs of silica after bladed calcite forms. Calcite and fluorite have been observed both in outcrop and in drill samples. Areas of brecciation, stockwork, and sheeted veining are present throughout this package of structurally prepared rocks.

Figure 7-9: Geology and Mineralization in the Grey Eagle Zone



Rock chip sampling in the Grey Eagle target has been conducted across the area of mineralization, and the results show values of up to 13.85 g/t gold and 35.3 g/t silver. During 2012, GSLLC completed a 60-metre-long trench (Figure 7-10) across a portion of the southern Grey Eagle zone and opened two historic underground workings (Photo 7-3). The trench was nearly perpendicular to the strike of the mineralized zone and exposed five main north- south striking veins between 1.5 to 8 metres thick and numerous smaller veinlets and stockworks of varying orientation. A 56.4-metre-wide section cut perpendicular across the mineralization averaged 1.4 g/t gold and 10.1 g/t silver. GSLLC collected 22 select vein and surrounding host rock samples throughout the length of the trench. The selective samples assayed from 0.12 g/t to 8.59 g/t gold, with an average value for all samples of 1.4 g/t, which is identical to the average of the channel sampling in the trench. The 2013 and 2014 drilling programs demonstrated that this mineralization extends toward the south and west, where it lies covered by post-mineral tuff, rhyolite flows, and colluvium. No new drilling in the Grey Eagle target has been conducted by GRC since 2014.

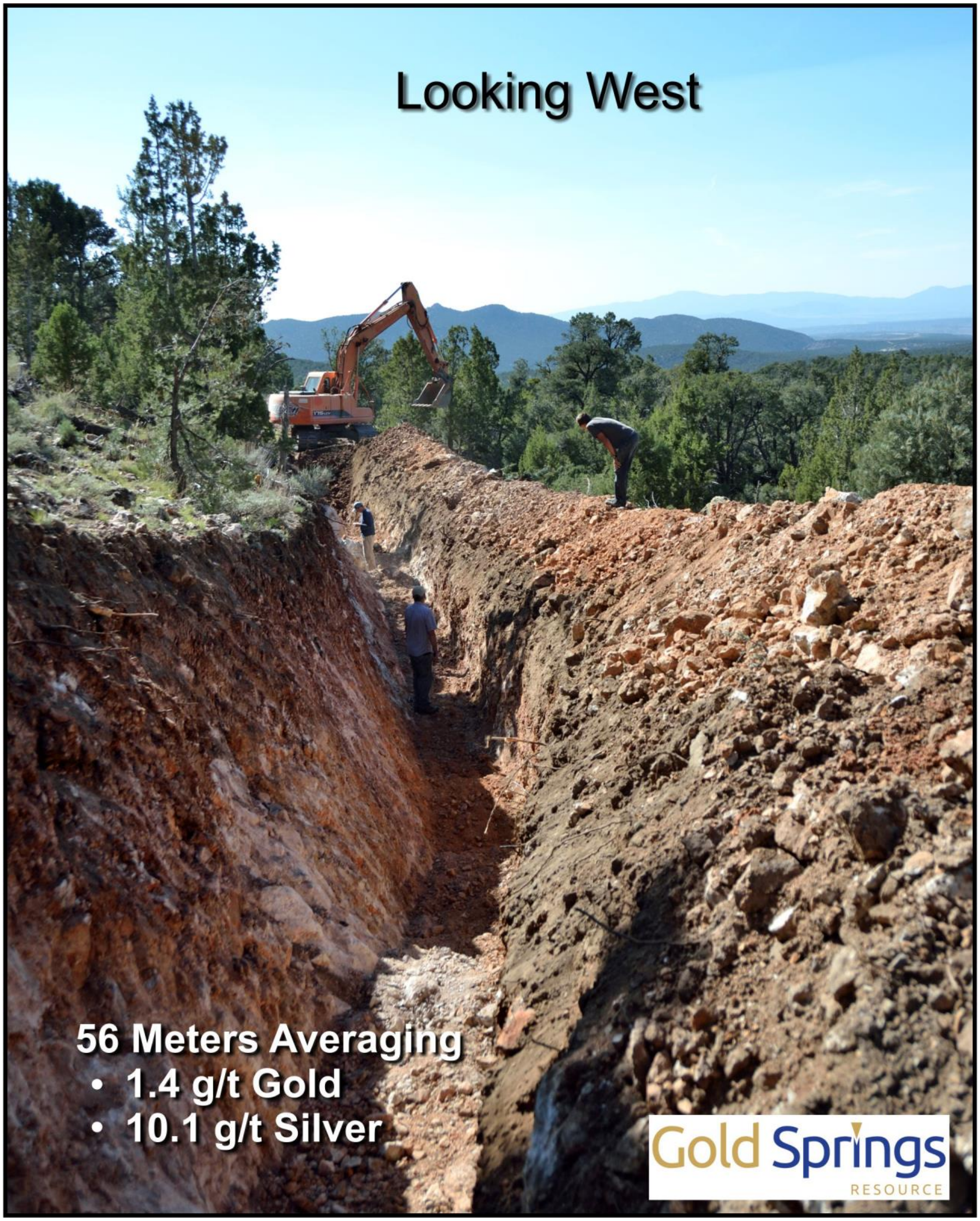
Surface sampling and trenching was conducted in the Grey Eagle target area in 2013. A series of eight, 5-foot continuous chip-channel samples across vein exposures along the north Main Ridge vein zone was conducted with line spacing of approximately 50 to 100 metres. The results showed strong Au-Ag mineralization (0.35 to 2.02 g/t Au) in most of the 5-foot channel samples across the northern zone.

An 800-foot (244-metre) long trench was excavated along the northern Grey Eagle Canyon ridgeline to expose the northern extension of the Main Grey Eagle Vein zone. Detailed sampling and mapping were completed on the >20-metre-thick main vein/stockwork zone and a series of complex, cross-cutting to sub-parallel footwall structural zones with variable quartz-calcite, +/-fluorite stockwork.

GSLLC has completed 85 drill holes in the Grey Eagle area for a total of 12,275 metres. The drilling in 2013 and 2014 was successful in extending known mineralization an additional 420 metres along strike to the south beneath post-mineral tuff. The mineralization consists of three anastomosing quartz-calcite sheeted vein-stockwork zones ranging from 45 to 100 metres in cumulative thickness that are oriented north-30° east and dip 50° to 65° west (Figure 7-11).

During the previous work at the Grey Eagle target, Energex conducted underground sampling from an adit (Deering, et al., 1985) that is beneath the trench that was excavated in 2012. The results (pre 43-101) from the Energex channel sampling report intervals of 0.91 metres at 11.56 g/t gold, 1.83 metres at 6.25 g/t gold, 0.91 metres at 10.31 g/t gold, 0.91 metres at 9.69 g/t gold, 0.91 metres at 6.25 g/t gold, and 3.5 metres at 12.5 g/t gold. These samples were all reported to have been collected from an underground stope that is in the footwall portion of the mineralized zone (Photo 7-3). During 2012, GSLLC collected select samples from these underground workings that showed values of up to 29.3 g/t gold and 47.4 g/t silver. These selective samples are from quartz and quartz-calcite veins, stockwork zones, and matrix-supported breccia cemented by silica.

Figure 7-10: Trench in the Grey Eagle Zone

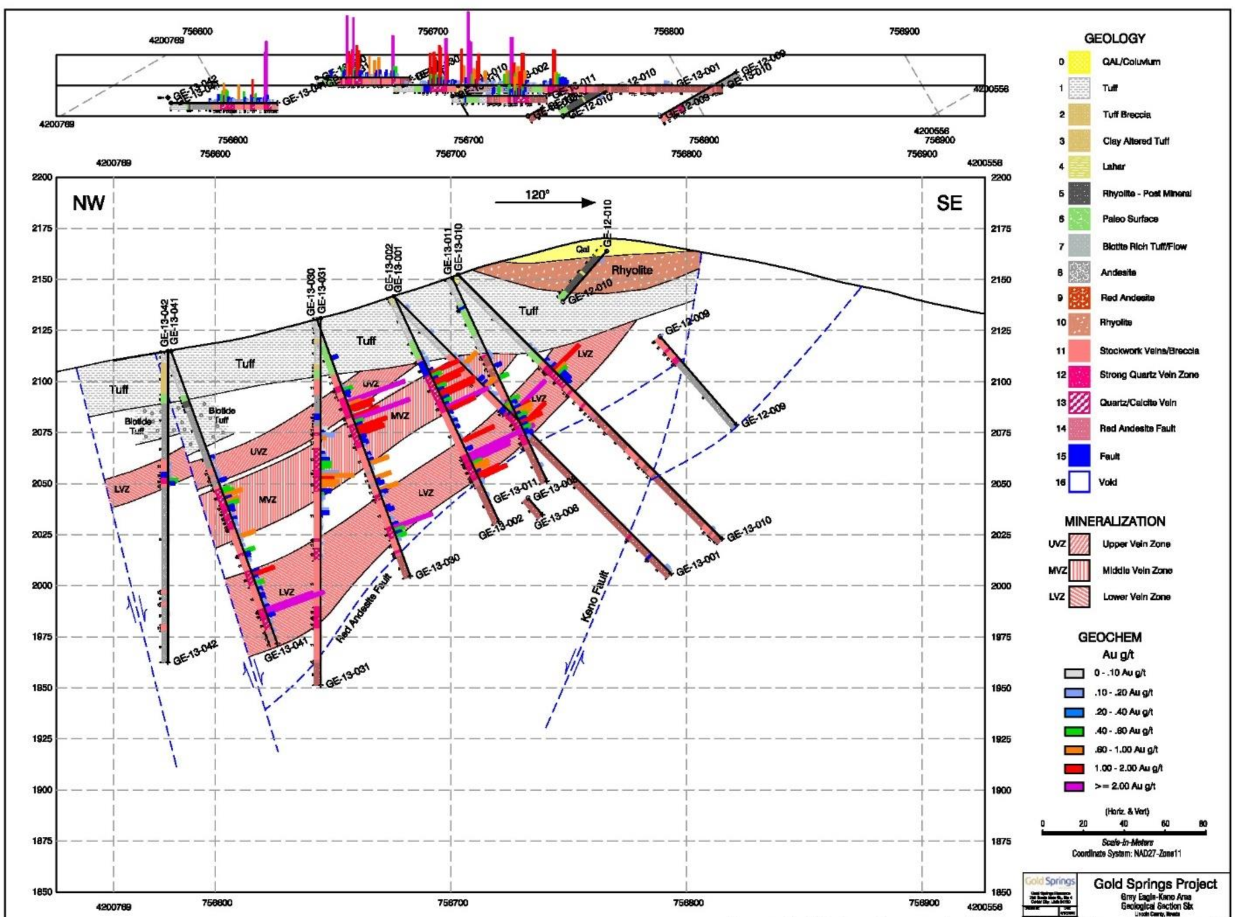


GSLLC trench through the southern Grey Eagle target area, showing vein mineralization

Photo 7-3: Underground Workings in the Grey Eagle Zone

Underground workings in the Grey Eagle area, approximately underneath the GSLLC trench, showing some of the previous Energex sampling intervals

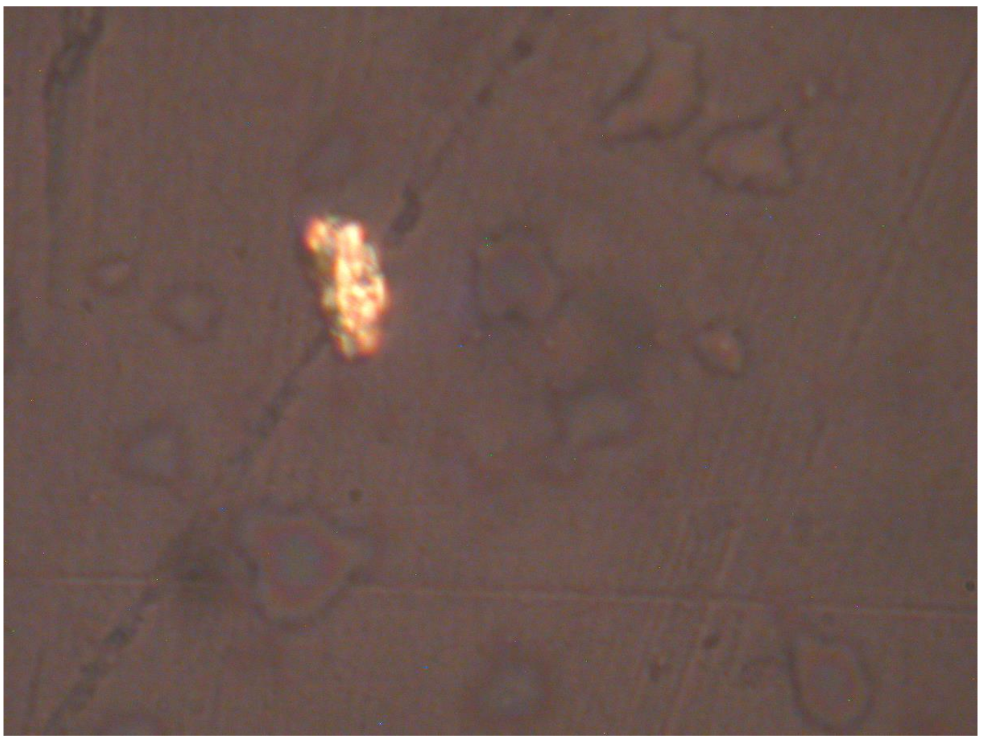
Figure 7-11: Cross Section Showing Geology and Mineralization in the Grey Eagle Zone



Source: Gold Springs Resource., April 2020

In the Grey Eagle system, gold and silver mineralization occurs within stacked quartz-calcite veins, stockwork, and breccia zones. Of particular interest is the observation that there is typically abundant calcite veining in close proximity to the precious metal mineralization and that some of the calcite appears to be contemporaneous with gold mineralization. Petrographic work identified gold grains within calcite in drilling samples from the 50.3- to 51.8-metre (165 to 170-foot) interval (sample #84451) in drill hole GE- 12-002. This interval had values of 0.347 g/t Au. The gold grain is observed to be within quartz vein material and fragments cemented by later calcite and aragonite. Some of the aragonite blades are replaced by quartz, and gold occurs in the quartz and calcite (Hansley, 2012). A photomicrograph in reflected light is shown in Photo 7-4**.** Previously, the calcite veining was thought to be a late stage of veining and to post-date gold mineralization in many parts of the Gold Springs project area.

Photo 7-4: Photomicrograph Showing Gold Grain in Calcite, Grey Eagle Target



Native gold grain in calcite in polished section under reflected light, 1000x, FL 110 microns.

7.6.3 White Point Target

The White Point target area is a 200-metre-wide zone of sheeted veins that extend up to 300 metres, trends N-S and is located in the northwest portion of the property on patented claims and BLM lands controlled by GSLLC. This mineralization is characterized by a 3-metre-wide north-south to northeast striking vein system with an intersecting 5-metre-wide north-35° east veining (Photo 7-5). In addition, there is a surrounding zone of sheeted northeast-trending veins exposed in GSLLC drill roads and pads that can be traced for 300 metres along strike to the South where it is obscured by post mineral volcanic rocks and colluvium. There are several shafts located within the White Point target, with no recorded historic production.

Photo 7-5: Vein Exposed in Caved Stope at the White Point Target

GSLLC has conducted rock chip sampling in the White Point area with results that include values up to 8.169 g/t Au and 8.9 g/t Ag from selected vein samples. A total of five RC holes were drilled by GSLLC in 2011. In 2013, GSLLC completed a series of seven continuous chip/channel sample lines comprised of a set of contiguous 5 to 10-foot samples across vein and stockwork zone exposures. The White Point target area has been prepared for a drilling program in 2017. GSLLC conducted channel sampling along road cuts and drill pads with a series of continuous 3.05- to 4.6-metre (10- to 15-foot) channel samples in four zones across the target area. A summary of the 2013 and 2014 channel sampling results from the White Point target area is shown in Table 7-3.

Table 7-3: White Point Channel Samples

Length of Channel Sample (metres)	Au (g/t)	Ag (g/t)
9.14	0.329	2.7
7.62	0.854	6.66
6.09	0.198	2.75
27.4	0.627	6.66
3.4	0.281	2.35
4.57	0.348	3.57
13.7	0.885	12.93
30.5	0.600	8.27
13.7	0.069	3.03

Length of Channel Sample (metres)	Au (g/t)	Ag (g/t)
9.15	0.118	7.2
26.5	0.696	8.6

7.6.4 Midnight Target

The Midnight target area is located in the southern portion of the property. The target is located on patented claims controlled by GSLLC. One of the largest shafts found within the project area is located on the Midnight vein system. In the 1990s, these patented claims were leased to a group that initiated excavation of a production size adit in the shaft area but never progressed beyond a depth of 20 metres. There are numerous cuts across the adjacent hillside areas that explore several smaller veins and stockwork zones within this vein system characterized by extensive zones of silicification. A second shaft is located on a parallel vein approximately 50 metres east of the main shaft. Selected samples from this area show gold values of up to 57.3 g/t gold. A third parallel vein/silicified zone is located approximately 70 metres further east and was the target of several old diggings and small shafts. This eastern-most zone can be traced for approximately 600 metres in a north-south direction within the patented claim block before being obscured by post mineral cover. GSLLC has conducted surface rock chip sampling in the Midnight area that indicates a potentially wide area of gold mineralization (up to 120 metres wide) associated with predominantly north-south trending veins, sub-parallel faults, sheeted veins, stockwork zones, and breccias. Veins are characterized by white massive quartz, pale pink to gray to white colloform banding, druse-lined quartz fracture surfaces and/or vugs, and pseudomorphs of silica after bladed calcite forms with surrounding areas of intense argillization and/or propylitization. The rock sampling results include numerous samples of +0.1 g/t gold, with values up to 57.3 g/t gold and 59.4 g/t silver.

In 2010, GSLLC completed two RC holes on the Midnight target. The results were encouraging; however, problems with the drilling included one hole that passed through two unanticipated open stopes in the underground workings, which may be more extensive than historically documented.

During 2013, two east-west trenches were completed across portions of the main north-east striking vein system. The two trenches and an additional five east-west sample lines located approximately 100 metres apart were completed at the Midnight target during 2013. The sample lines consisted of a series of 5-foot continuous chip-channel samples collected across exposures of a prominent quartz vein stockwork zone. The results indicate a wide zone of anomalous gold mineralization with variable concentrations from 0.20-1.10-g/t gold.

7.6.5 Thor Zone

The Thor vein is in the southeast 1/4 of Section 32, Township 1 North, Range 71 East and is approximately 180 metres west of the Jennie Vein. The Jennie was one of the district's largest producing mines, with a reported grade of 0.4 oz/t (12.4 g/t) gold over widths of 1.5 to 7.0 metres (Perry, 1976). Mineralization in the Thor target area occurs in discrete vein zones that range from 0.6 to 6.1 metres in width and are traceable for 400 metres along strike (north-south to northwest-southeast), where it is poorly exposed along the surface due to colluvial cover. The vein is traced through exposures in shallow pits, trenches, and drill holes along the defined 400-metre (Photo 7-6).

Photo 7-6: Vein Exposed in Caved Stopes at the Thor Mine

Sample KK-11-39 was collected across 2 metres of this structure Vein exposed in caved stope at the Thor Mine, assays 3.1 g/t gold across the 2 metres face shown above.

The Thor vein coincides with a structural corridor defined by a ZTEM anomaly that runs north-south connecting the Thor, Southern Vein, and Silica Hill target areas (Figure7-12). The Thor vein is reported to be offset on the north and south by post-mineral faults (Perry, 1976). The vein system generally strikes northwest with a variable easterly dip but is reported at depth to roll over and dip to the west. The vein varies in width from 0.6 to 6.1 metres and consists of quartz, calcite, and adularia sometimes exhibiting distinct bands of high-grade gold mineralization that were selectively mined with other vein bands left behind as waste.

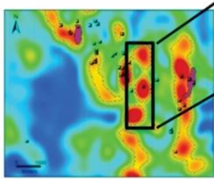
Samples of the vein near open stopes exhibit banded quartz and adularia, sparse oxidized sulfide grains, visible gold grains, and rock samples that assay up to 23.35 g/t gold and 252.9 g/t silver. A rock chip sample across a 2-metre section of the Thor vein left behind by early mining assayed 3.1 g/t gold (Photo 7-6).

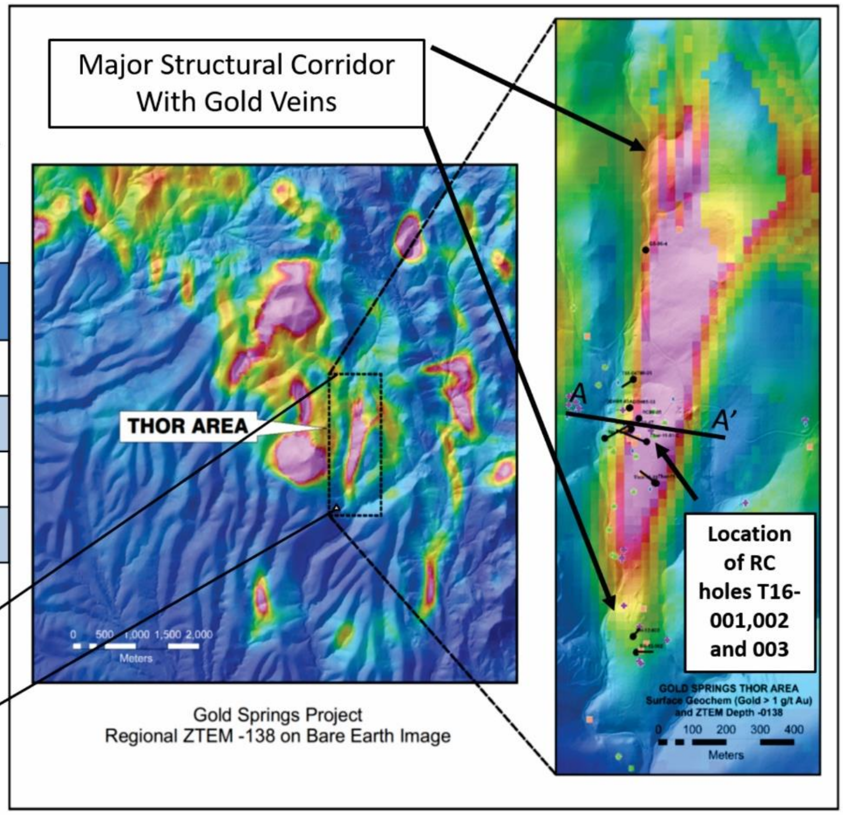
The mapping and detailed rock chip sampling conducted by GSLLC demonstrates that there are at least four smaller veins roughly parallel to the Thor vein that range from 30 centimetres (cm) to 2 metres in width. The mineralized veins are often white to grey banded quartz and quartz-calcite with bladed silica textures after calcite, and often occur with seams of hematite clay between bands. Veins can have large open vugs (up to 10 cm) that contain drusy quartz crystals and/or bladed silica with a dusting of earthy hematite. Gold mineralization tends to be associated with hematite clay seams between bands of quartz-calcite and in the open vugs. Veins occur in structural settings in fracture, breccia, and fault zones with

Figure7-12: Thor Trend as Defined by ZTEM

- High grade near surface veins
- Gold occurs along the edge of a high resistivity anomaly

RC Hole	Wdth m	Au g/t	Ag g/t	AuEq g/t
T-16-001	1.5	2.58	42.20	3.26
T-16-002	1.5	12.63	77.3	13.88
within	6.1	4.47	45.7	5.2
T-16-003	6.1	3.43	51.6	4.26

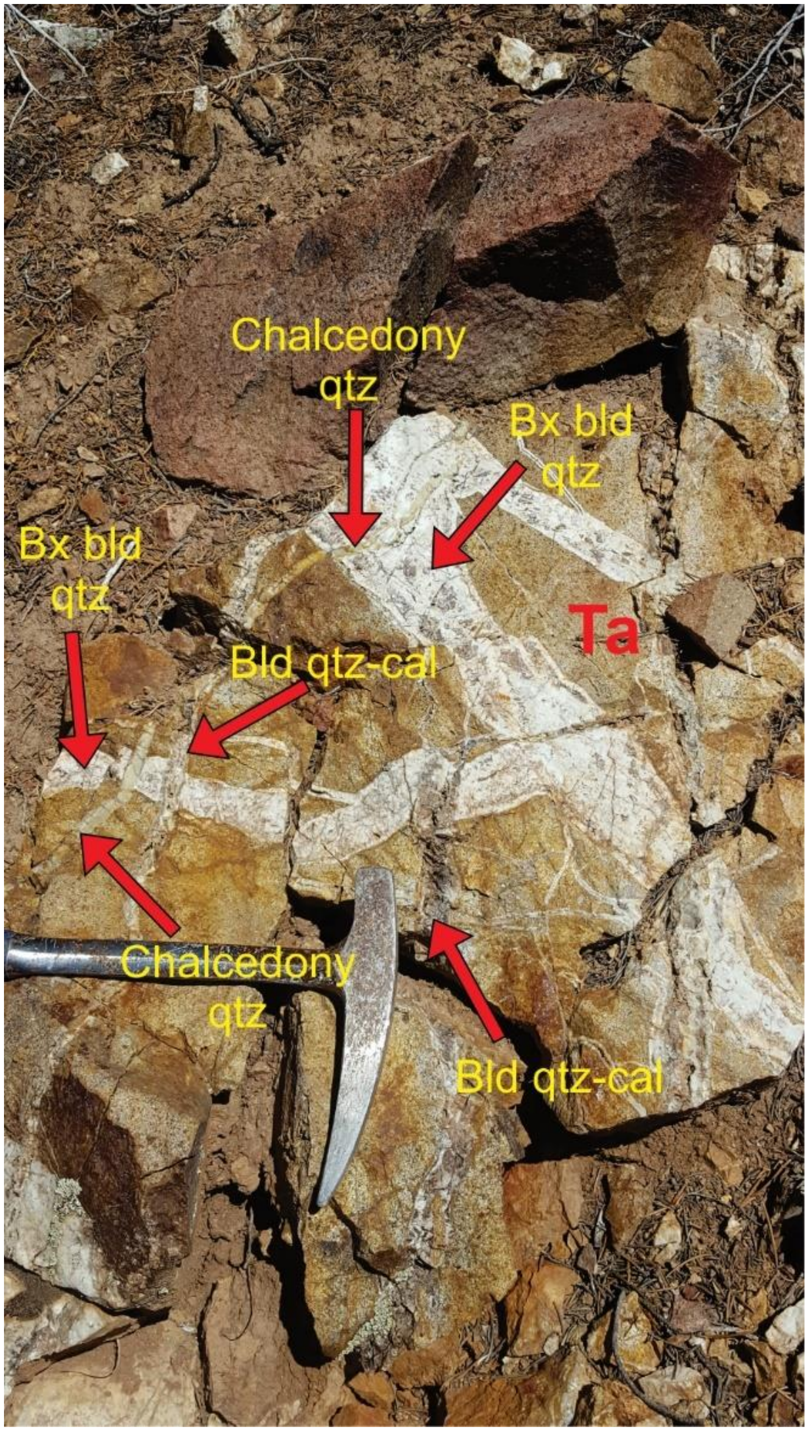




several generations of veining observed (Figure 7-13. The Thor vein is margined by hydrothermal breccia zones (up to 1.5 metres in width) that appear coeval with vein emplacement. Lithic breccias are associated with fault zones that contain quartz-calcite vein material and appear to be syn- to post-mineralization (Figure 7-14). The wall rock around veins exhibit little alteration that extends beyond the vein selvedge; however, the host rock is often silicified near veins and has an increase in jarosite and hematite alteration in fracture, fault, and breccia zones immediately adjacent to crosscutting veins. Fracture zones also vary in size from 5 centimetres to 2 metres in width and often contain some quartz and quartz-calcite vein material.

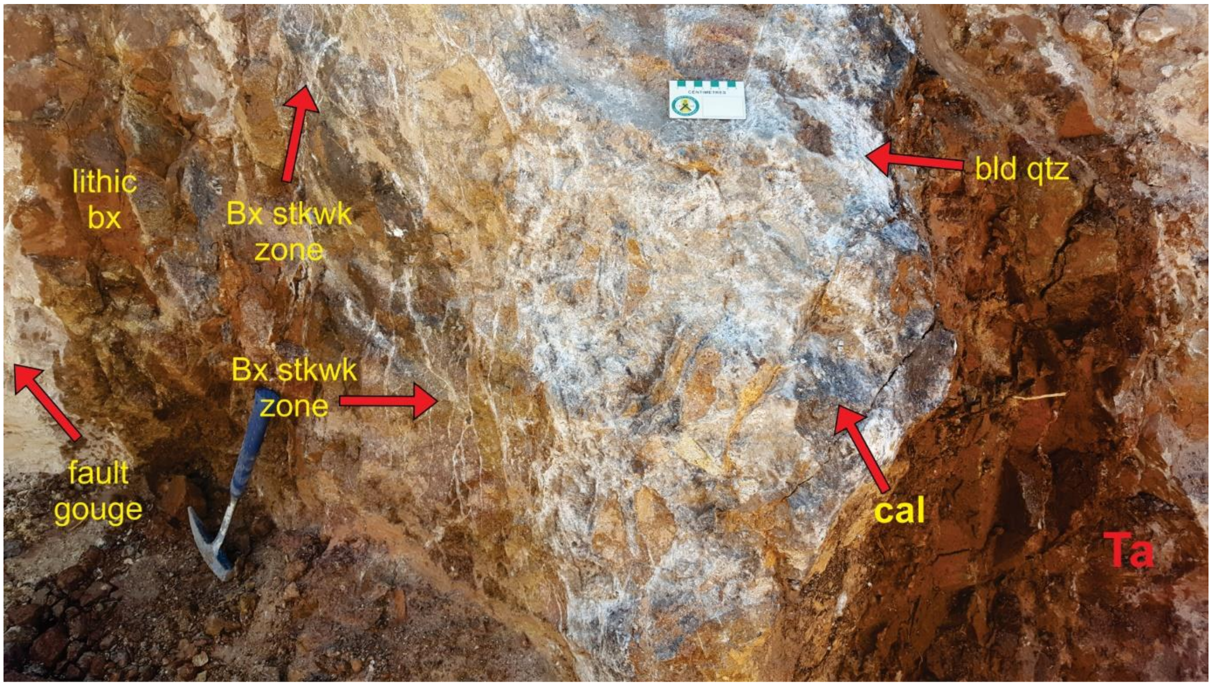
During 2016, eight trenches were excavated to follow vein structures from north to south across the area. Three trenches ran east-west and were located just west of drill pads T-16-001 and T-16-002, T-16-003 and T-16-005. Of these three trenches, Trench #2 and #3 had samples with significant gold values. The Thor vein was not intersected in these trenches; however, smaller discrete vein sets in oxidized facture zones generally trending north-south and moderately to steeply dipping to the east had values up to 19 g/t gold. Five trenches ran east-west across the top of the ridge, with a major fault zone traceable across the trenches. The fault zone is often margined by breccia zones where clast of hematized andesite (Ta) are cemented by silica and quartz stockwork veins, similar to what is seen along the margins of the Thor and Jennie veins. The fault strikes 002° dipping 71° east and contains fragments of quartz and calcite-quartz vein material. Trenches also revealed a previously unknown calcite-quartz vein 0.25-1.0 metres in width with grades up to 1 g/t gold (Figure 7-16). The vein is margined by silicified breccia zones and is cut off by a major fault zone to the north, where fragments of the vein are suspended in the fault gouge.

Figure 7-13: Thor Vein System Showing Multiple Generations of Veining in Andesite (Ta) Host Rock.



Quartz (qtz) veins with incorporated breccia clast (bx) and bladed silica textures (bld) are cut by later quartz-calcite (qtz-cal) veins with bladed silica textures (bld). These veins are in turn cut by light green chalcedony quartz (chalcedony qtz) veins.

Figure 7-14: Quartz-Calcite Vein System and Related Breccias Within the Thor Trend



Quartz (qtz)-Calcite (cal); lithic breccia (lithic bx), and breccia/stockwork vein zones (Bx-stkwk zone) within the Thor Trench and hosted by andesite (Ta)

GSLLC completed a total of three drill holes in the Thor target area during 2011. One core hole was drilled to intersect the vein in an area of historic work and contained several intercepts with values >3.0 g/t gold. Two additional RC drill holes were completed approximately 100 metres south of the core drill hole. Each of these drill holes intersected vein material and contained significant gold values.

All 11 drill holes from 2016 were completed with RC drilling and intersected andesite flows cut by discrete rhyolite dikes and overlain by post mineral, quaternary alluvium. Andesite flows have slight variations in characteristics; the dominate andesite flow unit is the Thor andesite (Ta) which is porphyritic in texture and plagioclase-rich with fine-grained biotite phenocryst. Coarser-gained porphyritic andesite and equigranular andesite flows were also intersected in drill holes. Mineralization is hosted in cross-cutting banded quartz and quartz-calcite veins, often within intensely oxidized fracture zones with a larger envelope of silicification. Veins tend to be margined by breccia zones and stockwork veining. Drill holes T-16-001 to T-16-003 intersected the Thor vein with grades of 1.0 to 4.5 g/t gold (at 12-18 metres) and one 1.5-metre interval at 14 metre depth with values of 12.2 g/t gold and 105 g/t silver in drill hole T-16-002 (Figure 7-15). This vein zone trends roughly North-South and is dipping 35-45° to the East. Drill holes (T-16-001 to T-16-004 and T-16-011) also intersected a deeper quartz-calcite vein in the Thor vein system which is trending 340° and dipping 45-60° to the east with the dip shallowing moving south (Figure 7-16). In the most southern drill holes, the Thor vein system was intersected in holes T-14-001 to T-16-004, allowing the vein system to be traced farther south for an overall strike length of 400 metres. The Thor vein is still open to extension in both the north and south directions. It appears that there is a porphyritic andesite unit that is generally not mineralized in the footwall to the Thor vein system.

Figure 7-15: Thor Cross Section Showing the Shallow Thor Vein and the Deep High-Grade Intercept

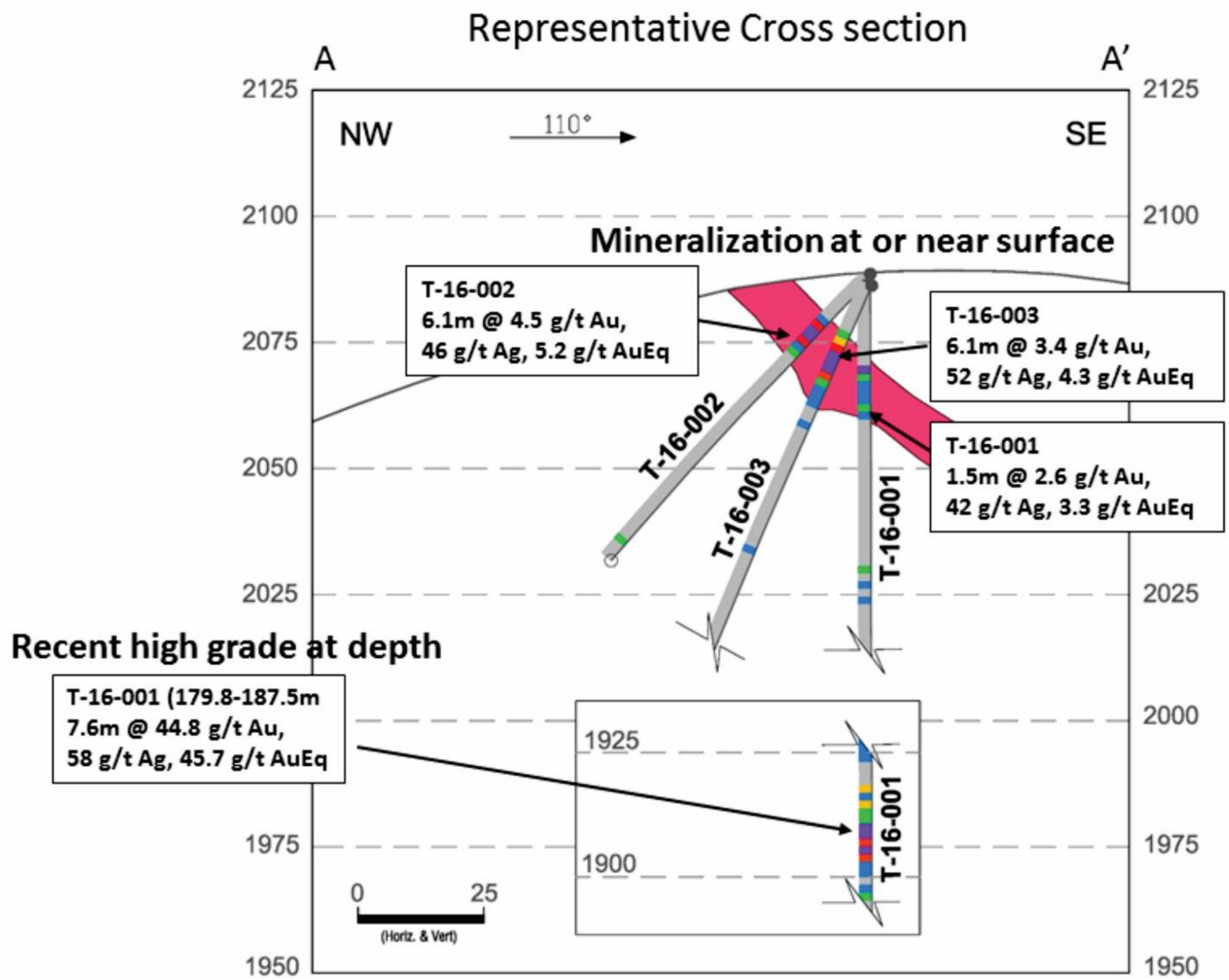


Figure 7-16: Quartz-Calcite Vein Within the Thor Trend Showing Shallow Easterly Dip

Drill hole T-16-001 was drilled vertically to intercept the vein deeper than other holes that had been completed in the area in the past and to test for the potential for a stacked system and additional subparallel veins. Results show that mineralization is present at depth with a high-grade zone that averaged 44.8 g/t gold and 58 g/t silver over 7.6 metres between 179.8 metres and 187.4 metres (Figure 7-15), and contained one 1.5-metre interval that assayed 7.0 oz/t gold and 105 g/t silver. The mineralization occurred within a zone of hematized, brittle andesite host rock with little quartz-calcite vein material. Drill hole T-16-011 was drilled back towards this interval and intersected the mineralization with gold values that averaged 1.87 g/t gold and 15.3 g/t silver. Additional drilling would be required to determine the orientation and extent of this high-grade zone.

7.6.6 Silica Hill

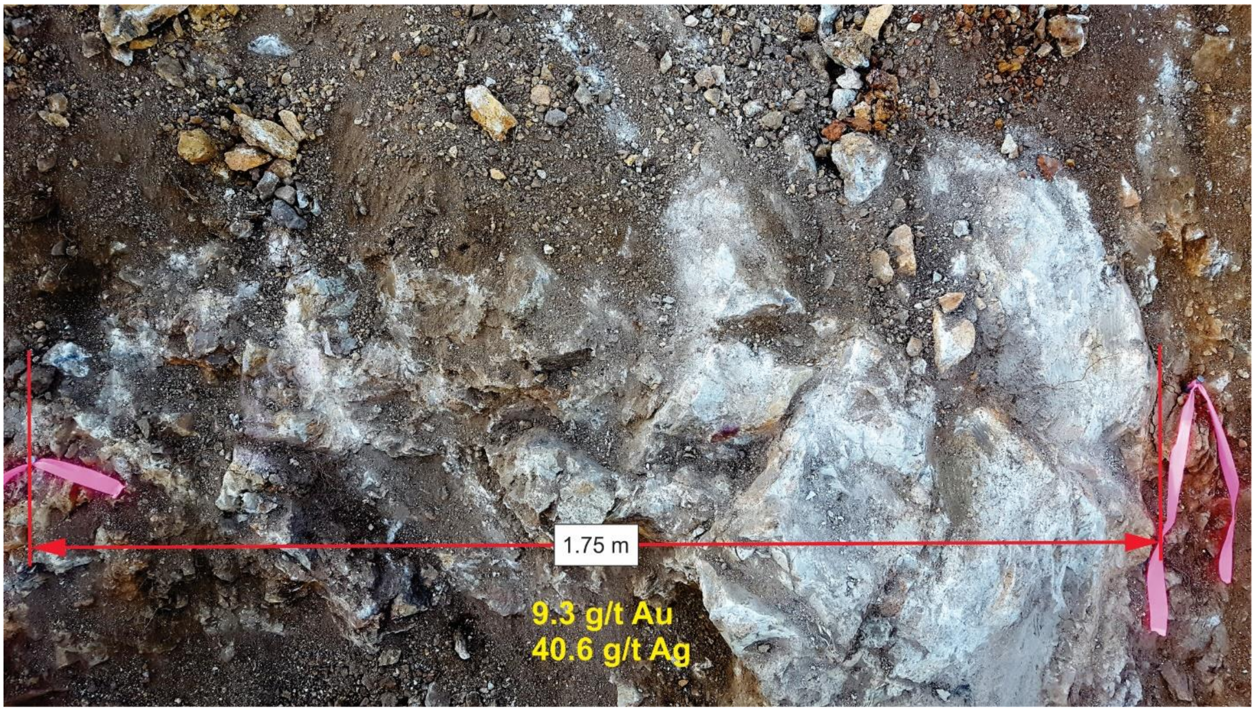
The Silica Hill target areas are located to the west of, and are generally sub-parallel to the Thor vein, with vein mineralization exposed by numerous small pits and trenches. The target area is covered by colluvium that contains abundant vein fragments that link projections of the outcropping veins, suggesting that this material is locally derived. The main host rock is comprised of silicified and brecciated andesite cut by discrete rhyolite dikes and is overlain by lahar flows and welded tuffs; some of the units are themselves extremely silicified. Selected vein material displays visible gold with assays reaching highs of 126.3 g/t gold. The Silica Hill and Silica Hill Extension are 340° trending zones that are 1,600 metres in length, displaying widths of up to 300 metres, in which these narrow high-grade veins are found. Veins within the corridor generally exhibit orientations of 035°, 330°, and 350°, all of which contain gold mineralization.

Three holes were completed within the Silica Hill area in 2012, and two were completed in 2016. Two drill holes contained zones of significant gold mineralization ranging up to 1.86 g/t gold (SH-12-002, 86.9 to -88.4 metres). Drill hole SH-12-002 was lost after it entered a void thought to be a solution cavity. Just prior to entering the void, the hole contained 4.6 metres at 1.04 g/t gold (86.9 to 91.4 metres). The third 2012 hole failed to reach the target depth. Drill hole SH-16-001 intercepted gold values up to 1.17 g/t gold in a discrete vein zone at 25.9 to 27.4 metres, and drill hole SH-16-002 intercepted low-grade gold values from 3.0 to 21.3 metres (0.22 g/t gold) and 56.4 to 71.6 metres (0.28 g/t gold).

7.6.1 Southern Vein

The Southern Vein target area is located approximately 260 metres southeast of the historic Jennie mine workings, across the drainage where tailings from the historic mine where dumped. The main host rock is the same andesite unit that hosts the Thor vein system. The Southern vein strikes 177^{o} and dips 52^{o} east and is traced on surface for more than 200 metres in a window surrounded by a post mineral lithic tuff unit. The width of the vein ranges from 1.0-1.75 metres and consists of a banded white-grey quartz-calcite vein with extreme hematite alteration between layers and within vugs (Figure 7-17) that locally cuts a breccia zone with quartz cement. Surface samples collected range from 4.4-9.7 g/t gold and 41-52 g/t silver across the width of the vein with selected samples of the vein carrying up to 33.6 g/t gold and 57.8 g/t silver. Drill hole SV-16-001 intersected the breccia zone along the margins the vein and penetrated a fault zone that appears to have displaced the vein at depth. No significant gold assays were reported from this drill hole.

Figure 7-17: Southern Vein in Road Outcrop



7.6.2 Fluorite Target

Bull Hill is the historic name for the prominent hill to the north of the Pope Mine (shown in Photo 7-7) and is a resurgent rhyolite dome surrounded by intercalated flows and tuffaceous sediments and tuffs that accumulated within the Gold Springs caldera moat (Best, et al., 1992) (Photo 7-8). Locally, the rocks exhibit opaline silicification, which may represent the near-surface expression of an epithermal system as described by Hedenquist et al. (2000) and shown schematically in Figure 8-1. Mineralization at the Fluorite target area is unusual and consists of a vertical shaft (Photo 7-9) and a lower adit that explore a fluorite-bearing pipe that cuts the rhyolite and tuffs and is surrounded by a broad area of phyllic alteration. The "vein" structure is reported to trend north-20° east, and averages 0.7 to 1.0 metres wide. Mineralization consists of purple and green fluorite, crustiform lattice quartz, and red earthy hematite. The fluorite is concentrically banded, and forms pods up to 2 metres across. Hematite often occurs as thin seams between bands of fluorite and appears later than the quartz. The hematite material will produce a tail of gold when panned, and samples taken of the fluorite have resulted in assays of up to 23.45 g/t gold. GSLLC completed three drill holes on the Fluorite target. Each hole intercepted the target structure displaying fluorite associated with hematite muds and typically followed along the margins of a younger latite dike that cut the rhyolite flows. The latite dike has a northwest strike and near vertical dip. Gold values from the holes were anomalous with most 1.52 metre intervals in the 0.04-0.09 g/t Au range and a high of 0.5 g/t Au. The drilling showed that these structures continue along strike and at depth but lacked the high-grade gold mineralization observed at the surface.

Additional geological work is required to better understand the gold mineralization in the Fluorite area. Mineralization appears to be directly associated with the Gold Springs caldera complex and is a distinctly separate style of mineralization than the vein systems observed elsewhere in the district.

Photo 7-7: View from the Pope Mine Looking Towards Bull Hill

Photo 7-8: View of the Bull Hill Area Showing a Portion of the Rhyolitic Dome and Flows

View of the Bull Hill area showing a portion of the rhyolitic dome and flows in the background and the heteroclastic breccias that form outcrops along the caldera margin.

Photo 7-9: The Shaft at the Fluorite Target Area

The shaft at the Fluorite target area, note the abundant red hematite staining and the banded fluorite veining.

7.6.3 Pope Target

The Pope Mine area is located in the central part of the current Gold Springs project and consists of numerous narrow-sheeted quartz veins and clay seams which cut welded tuffs associated with the resurgent rhyolitic dome in the Gold Springs caldera. These veins generally strike east-west and are surrounded by a broad area of sericitic alteration and narrow veinlets and stockwork of quartz-adularia veins that individually can assay as high as 19.06 g/t gold and 70 g/t silver. Rock chip samples reported by Cambior in 1997 indicated that anomalous gold values of up to 0.57 g/t were obtained from the silicified tuff unit (Katsura, 1997).

GSLLC completed two holes in the Pope Target area. Drill hole P-12-001 intersected an open stope between 56.4 metres and 62.5 metres, and at 72.6 metres the drill hole intersected 1.5 metres at 9.2 g/t gold. The second hole failed to get to target depth due to poor drilling conditions.

7.6.4 Charlie Ross Target

This target is similar to the Pope in that it is hosted within tuffs along the margin of the Gold Springs caldera. This area has not received any detailed work by GSLLC, but initial investigations reveal occasional narrow veins in a broad area of sericite and clay alteration. Samples of altered and hematite-stained tuff have returned gold values as high as 1.3 g/t with some samples displaying visible gold. Historical reports describe a “175 foot shaft with a 40 foot talc zone with high-grade streaks and shipments up to $2,900/ton with tellurides of gold” (Tschanz and Pampeyan, 1970). The collar of the shaft is situated about 150 feet above the apparent rhyolite/andesite unconformity, and the contact may be a potential target associated with the Gold Springs caldera. The Charlie Ross target is largely untested and likely presents a continuation or similar style of mineralization as the Pope target.

7.6.5 Tin Can Target

This area is located north of the historic Little Buck mine and is characterized by a wide area of strong sericitic alteration with pyrite casts. There are a few historic pits and tunnels with abundant vein outcroppings and float covering the hillside. GSLLC has conducted initial mapping and rock chip sampling within the Tin Can area with samples showing up to 6.58 g/t Au and 16.8 g/t Ag from historic mine workings. Petrified wood has been found in the area signifying a preserved paleosurface and high-level expression of an epithermal gold system. Potential sinter is found in the western hills of the target area, with amorphous siliceous material containing plant debris fossils. The area is dominated by a north-south trending structural zone which hosts the veins and is at the projected structural intersection with a northeast trending structural zone. There are a few historic pits and underground workings which exploited the vein systems. The eastern portion of the target is covered with post-mineral tuff. The CSAMT survey shows this target to be underlain by a resistivity anomaly of similar magnitude as that seen at North Jumbo.

Three holes were drilled in the Tin Can Target area in 2012. Two holes were drilled westerly to test the CSAMT anomaly. These holes generally intersected intervals of low-grade gold mineralization hosted by andesite. The highest individual assay interval was in TC-12-001 where interval 105.2 to 106.7 metres (1.5 metres) assayed 1.9 g/t gold. Drill hole TC-12-003 was drilled in an easterly direction to test a northeast trending structural zone consisting of quartz veins and stockworks, and the hole was lost in a void thought to be a solution cavity but could also be underground workings. The gold values were increasing in this drill hole prior to it entering the void, with an interval of 12.2 metres (141.7 to 153.9 metres) averaging 0.35 g/t gold, and where silver values averaged 15.9 g/t over the bottom 3.05 metres (150.85 to 153.9 metres). Abundant calcite veining was observed in these intervals.

7.6.6 North Jennie Target

Astral completed one hole on the North Jennie target, which is reported in their data (Smith, 2005). Astral defined this target based on interpretations of the CSAMT survey conducted by Zonge Geoscience. The target is located beneath a thick cover of Quaternary gravels at the drill collar. Astral’s drill hole demonstrated that gold mineralization is present along the northern projection of the Jennie vein system, with the bottom 9.2 metres of the hole averaging 1.04 g/t gold and 5.83 g/t silver. This projection corresponds to the resistivity anomaly shown in the CSAMT survey data. The majority of this area is covered by post-mineral colluviums, and the target currently remains untested by GSLLC.

7.6.7 Lost World (Camp Bell) Target

Camp Bell and Lost World represent targets developed during reconnaissance prospecting at Gold Springs that focused primarily on areas of colluvial cover in areas where ZTEM data identified potential anomalies. This target is characterized by linear traces of vein material as float fragments ranging in size from 0.2-metre to 1-metre across showing bladed quartz and adularia textures formed after calcite. The apparent linear zones of mineralized vein float follow the predominant orientation of the major veins within the district. Considering the large ribs that form in some of the Gold Springs vein systems, one hypothesis is that the source of these float trains may be locally-derived and represent traces of nearby structures. Assays as high as 145.68 g/t gold and 148.2 g/t silver have been generated from samples of the float material, and gold grades of >3 g/t are not uncommon. Continued exploration of this type of target will require either trenching or drilling to determine the presence of subsurface mineralization.

7.6.8 Horseshoe Extension Target

The historic Horseshoe mine was one of the largest producers in the historic Fay District. The northern projection of this north-south structural vein system extends into an area of extensive colluvial cover. This area contains numerous shafts that were collared in the colluvium and display gold bearing vein fragments on the dumps. There are rare outcrops of andesite which generally display stockwork veining that have returned values of up to 4.0 g/t gold from rock chip samples collected over 1-metre intervals. This target remains untested.

7.6.9 Iris Target

The Iris zone is located in the northwestern corner of the Gold Springs project. The vein strikes 050° and rolls steeply to the east and to the west. The vein can be traced on the ground for over 600 metres (2,000 feet) prior to going under post-mineral cover. The Iris mine produced high-grade gold from unknown widths. Samples from old stockpiles of ore return gold grades of 12.5 g/t. Of particular significance is that the area is characterized by wide zones of small and multiple parallel veins that cut the andesites in both the footwall and hanging wall of the main vein. During 2013, four drill holes (GE-13-017 to GE-13-020) were completed to test the southern extension of the Iris zone. These holes failed to intercept significant mineralization comparable to that observed in the historic workings. However, the complex structural elements observed at the Grey Eagle may apply to the Iris area, and further evaluation of the data may be warranted.

7.6.10 Snow Target

The Snow target is located approximately 800 metres west of Etna on the Utah side of the property. Selected rock samples from this east-west striking structural zone include assays of up to 3.7 g/t gold and 12 g/t silver over 4.6 metres, as described in Table 7-4. This target is characterized by a series of historic underground workings and prospect pits. Historic mining exploited a 1- to 3-metre-wide shattered quartz vein zone which can be traced for 100 metres before going under post mineral cover. Results from initial sampling are shown in Table 7-4.

Table 7-4: Snow Target Samples

Sample Number	Description	Gold (g/t)	Silver (g/t)
102789	2×3 m Panel of Altered Wall Rock	0.38	3.5
102790	4.6 m Across Altered Wall Rock	3.72	12.0
102791	Vein from Lower Dump	3.32	40.9
26448	Vein from Lower Dump	2.21	18.5
26449	Altered Wall Rock from Lower Dump	2.50	13.2

7.6.11 Ridge Target

The Ridge target is located 800 metres west of White Point and is characterized by scattered quartz vein float and limited outcropping veins. Several small prospect pits were identified using the bare earth LIDAR imagery. Sampling has produced numerous +1 g/t gold values. The area is dominated by post-mineral cover, and the extent and frequency of the veining is unknown at this time. Additional work will be required to further develop this target; in particular, trenching will be required to see below post-mineral cover. The Ridge area is situated on the western flank of a prominent north-northwest trending ZTEM conductivity high ridge near an intersection with a moderate northeast trending ZTEM conductivity high linear. White Point and Grey Eagle are situated on the east side of the intersection.

7.6.12 West Ridge Target

Using the bare earth LIDAR image, GSLLC was able to identify this new area with historic workings consisting of two adits and several prospect pits. The area is blanketed with post-mineral cover, but the dumps on the inaccessible adits show both vein and stockwork material. While most of the dumps consist of post mineral debris, select sampling of the veining carried 24.85 g/t gold and 24 g/t silver. From the dump of a second tunnel, a sample of stockwork veined andesite carried 0.12 g/t gold and 4.6 g/t silver. Exploration of this area will require trenching to expose bedrock and re-opening of the old adits.

7.6.13 Declaration Target

Declaration is located to the east of the North Jumbo resource. Declaration is a massive banded quartz vein averaging 0.5 metres in width and is hosted within altered andesite. Adjacent to the vein the host rock is brecciated and strongly silicified with stockwork veining continuing into the wall rock. The vein can be traced for 800 metres along strike with breccia and stockwork zones extending along 200 metres of strike length. Together with breccia/stockwork zones and altered host rock the target has a possible width of 50 metres. Sampling from the Declaration target has returned grades of +1 g/t Au and +100 g/t Ag with grades as high as 5.4 g/t Au and 153 g/t silver from selected vein material.

7.6.14 Miracle Target

The Miracle target is located approximately 500 metres west of the Horseshoe Extension target. This was the site of historic mining, with a small shaft and adit located on the target. The workings exploited a banded quartz adularia vein system that can only be seen within a small window through the post-mineral cover. This area was detected from the bare earth LIDAR image. Initial sampling has returned low-level gold and silver values. Work moving this target forward will require the opening of the collapsed tunnel and trenching to expose bedrock.

7.6.15 Gem Target

The Gem target consists of a 3.05 to 4.8-metre-thick, moderately silicified 350°, 80° east dipping shear zone near the Gold Springs town site which carries anomalous gold-silver mineralization. The mineralization trends to the south, where it is largely covered by grey, weakly altered platy latite. Two samples collected in the zone show low level (93 to 113 g/t gold) gold mineralization; however, the platy latite may form a cap to mineralization, as is observed elsewhere in the Jumbo area.

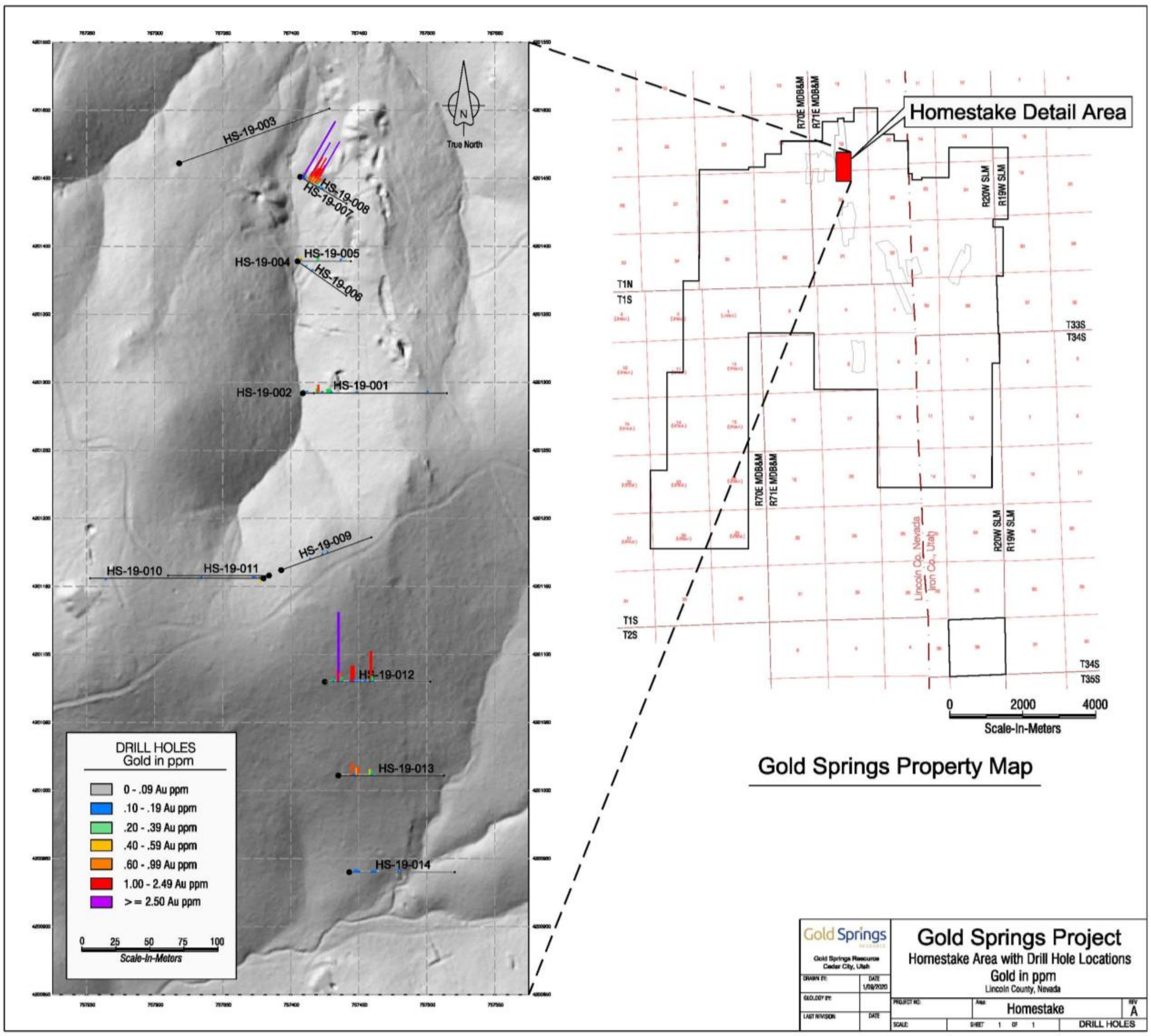
7.6.16 Red Light Target

The Red Light target is situated in Fay Canyon near the old town site of Fay, where a series of prominent northeast trending structures with variable veining and stockwork zones are developed by several historic deep shafts and adits. Limited dump sampling and grid soil sampling has identified a broad northeast trending gold anomaly which justifies additional mapping and sampling in this area.

7.6.17 Homestake Target

The Homestake target is located at the northern boundary of the Gold Springs property, 700 metres east of the Grey Eagle resource (Figure 7-18). The target is comprised of a group of six patented lode claims controlled by the company through a lease agreement dated October 2017.

Figure 7-18: Homestake Drill Hole Location Map



The Homestake target is a part of the of the overall Homestake-Iris vein system and is characterized by a set of north-south trending banded quartz and quartz-calcite veins with opposing dips. The Homestake veins are two parallel, stacked veins of colloform banded and bladed quartz that dip shallowly (45-55°) to the west, while the Iris vein is a quartz-calcite banded vein dipping steeply (75-85°) to the east. Vein widths vary but are generally 2-4 metres wide as exposed in the historical mine workings. Veins can be traced for a total of 600 metres along strike and become obscured by post mineral cover to the north and south. The distinct vein structures are surrounded by zones of silicified breccias and stockwork quartz veining within the porphyritic andesite host rock that extend up to a total width of 400-metres, and in some places may extend further beneath post mineral cover. Rock chip samples collected from the Homestake veins show values of 3.5-14.4 g/t Au and 21.1-48.3 g/t Ag along a strike length of 600 metres. Breccia and stockwork zones grade as high as 1.6 g/t Au and 68.1 g/t Ag and 2.4 g/t Au and 9.9 g/t Ag, respectively, from selected rock chip samples.

The Homestake veins are hosted within an andesite package that is strongly silicified adjacent to the vein walls with larger halos of sericite and propylitic alteration. The veins occur in the hanging wall of a 005° trending strike-slip fault zone that exhibits h post mineral dike placement along the footwall. These post mineral dikes are andesitic and generally unaltered, although areas of sericitic alteration does occur within this unit directly along the fault contact. Underlying the andesite flows, the andesite is a package of dacite flows intercalated with thin 5-7-metre-wide rhyolite flows. The dacite and rhyolite units exhibit sericitic alteration with localized zones of Quartz-Sericite-Pyrite alteration occurring where they are brecciated or at the contact with the overlying andesite.

During 2019, GRC completed a 14-hole drill program at the Homestake target to explore the veins along strike and at depth (Figure 7-18). This drilling intersected bonanza grade mineralization at the northern exposure of the vein zone in HS-19-007, with a six-metre-wide interval averaging 22.9 g/t Au and 69.3 g/t Ag and a second larger 72-metre-wide zone grading 0.7 g/t Au and 1.9 g/t Ag (Figure 7-19 and Table 7-5). Four hundred metres to the south, the vein splays into a set of three parallel veins averaging one-metre widths at surface; drilling beneath this area returned grades of 1.12-4.23 g/t Au and 2.5-8.5 g/t Ag in hole HS-19-012 (Table 7-5). Other drill holes along strike of the Homestake system show nominal gold values, including HS-19-001 containing a 3-metre interval with an average of 0.46 g/t Au and 15.0 g/t Ag and hole HS-19-013 intersecting a 7.6-metre interval averaging 0.47 g/t Au and 3.2 g/t silver. This preliminary drilling drill results suggests there are high grade ore shoots within the vein system, similar to what is observed in the Jumbo system. Current drilling information is encouraging, and additional drilling will be required to further test this target area.

Figure 7-19: Homestake Cross-Section

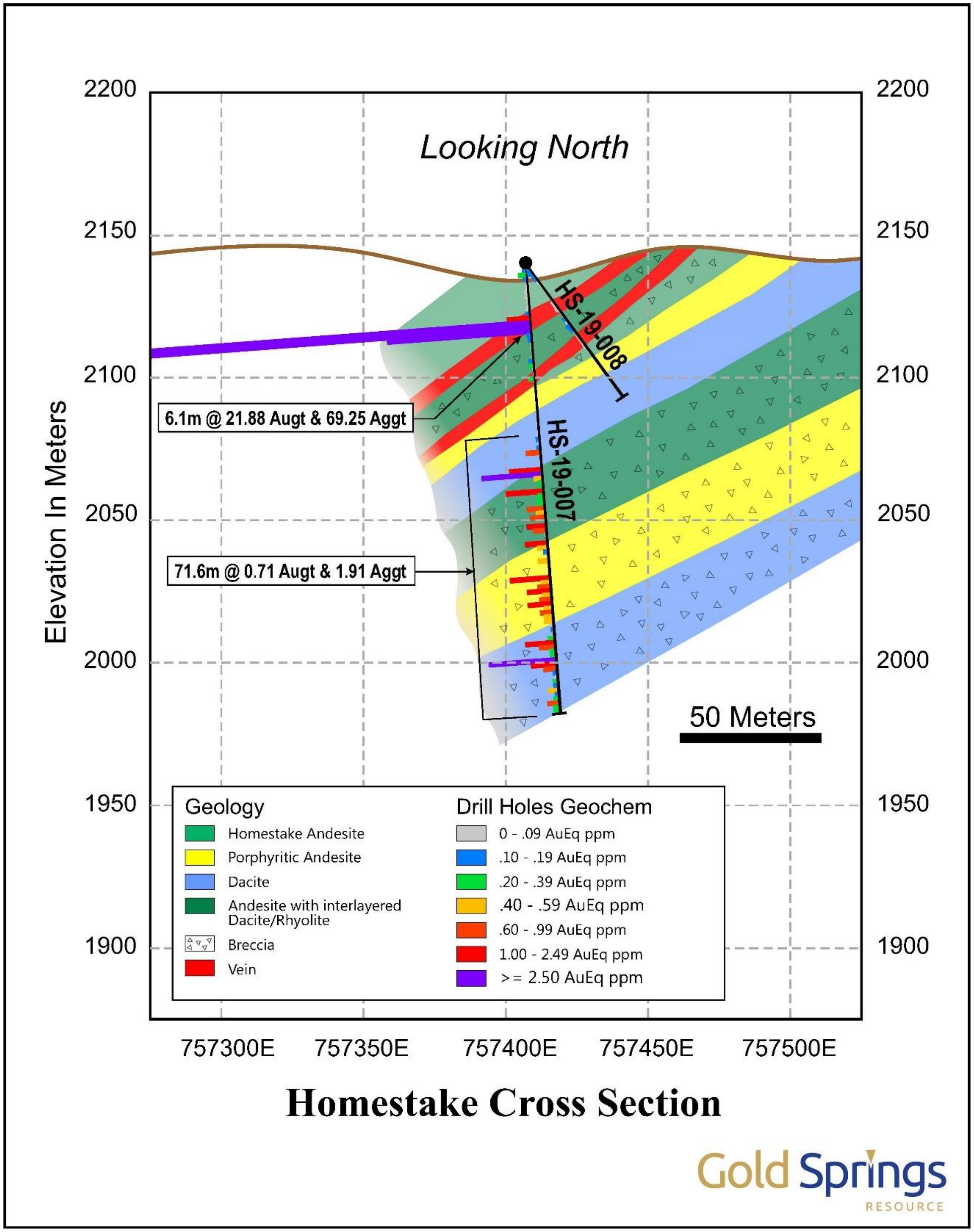


Table 7-5: Homestake Drill Results

Hole #	From (m)	To (m)	Interval (m)	Au ppm	Ag ppm
HS-19-001	15.2	18.3	3.0	0.46	15
HS-19-007	18.3	24.4	6.1	21.88	69.25
	71.6	143.3	71.6	0.712	1.91
	132.6	143.3	10.7	1.24	4.88

Hole #	From (m)	To (m)	Interval (m)	Au ppm	Ag ppm
HS-19-012	12.2	15.2	3.0	4.23	2.5
	27.4	30.5	3.0	1.12	4
	47.2	50.3	3.0	1.31	8.5
	12.2	50.3	38.1	0.63	2.6
HS-19-013	13.7	21.3	7.6	0.47	3.2

7.6.18 Fitch

The Fitch target lies along a north-south trending ridge line that runs parallel to the South Jumbo (Etna) ridge and is located 400 metres due west of the South Jumbo (Etna) resource area. The Fitch target is hosted along a possible structure associated with a caldera margin and is primarily identified by the ZTEM geophysical survey.

The target consists of a series of mapped conjugate fault sets that have accommodated block faulting with the displacement down dropping to the south. Alteration is traceable for 1.5 kilometre along strike; however, veining and breccia textures are best exposed in the up lifted northern blocks. Mineralization consist of calcite-quartz banded and bladed veins hosted within strongly clay/sericite altered andesite. Calcite-quartz veins are observed as float in windows through post mineral gravels occurring as large boulders in and around historical mining trenches and makes up 35-40% of the back fill used to close the historical mine shaft. Rock samples taken from vein in float and dump material at old historic trenches at the new Fitch target grade as high as 2.4 g/t Au and 4.4 g/t silver.

7.6.19 Juniper Target

The new Juniper target is located just east of the Declaration and northwest of the North Jumbo resource. It is a structural target identified using LIDAR imaging, CSAMT geophysical surveys and soil sampling programs. The target is bound by two regional left-lateral strike-slip faults that have accommodated extension and dilatational zones between them with a series of intersecting faults oblique to the main strike-slip fault zones. These fault intersections have similar character and orientations to the structural zones that host both the North Jumbo and South Jumbo (Etna) Resources. The northern portion of this target is predominantly covered by post-mineral material, however, windows into the underlying bedrock exhibit veining, breccias, and alteration suggesting that post-mineral cover is not very thick. Historic prospect pits are seen throughout the target area exposing quartz veins, hydrothermal breccias, and altered andesite. Altered host rock samples have assayed up to 1.27 g/t Au and 6.9 g/t silver, and this mineralization appears to extend over an area roughly 600 x 400 metres, which closely coincides with the CSAMT resistivity anomaly.

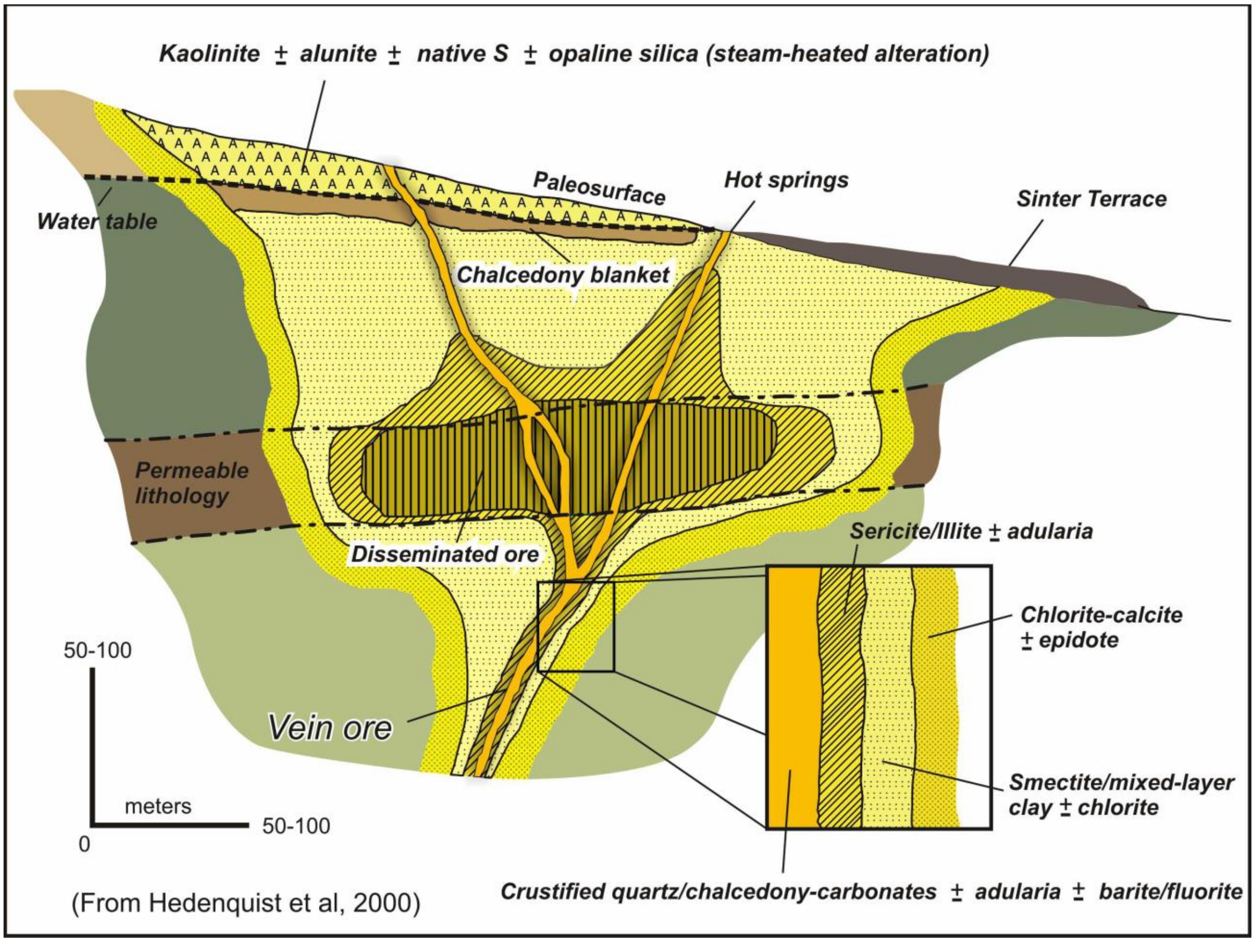
8.0 DEPOSIT TYPES

Gold mineralization on the Gold Springs project is characterized by structurally controlled vein and stockwork systems that are laterally extensive forming wide corridors of mineralization that are traceable over a strike length of several kilometres. The structural zones are a combination of Basin and Range through-going faults and ring fracture systems associated with caldera margins. Within these structurally prepared zones, mineralization takes the form of discreet veins, breccias, sheeted vein zones, stockwork veins, and zones of disseminations. The veins exhibit quartz, adularia, and low sulfide contents that are typical of a deposit type referred to as "low-sulfidation epithermal deposits" (Robert, et al., 2007). Examples of this deposit type include Round Mountain, Nevada, Hishikari, Japan (Etoh, et al., 2002), the Republic district, Washington, and Midas, Nevada (Leavitt, et al., 2004). These systems have been correlated with fossil hot springs, and the hydrothermal systems that underlie them, that developed in response to alkalic and silicic volcanic activity, commonly in a caldera setting (Robert, et al., 2007). One of the characteristics that help classify the Gold Springs systems as a "low-sulfidation epithermal deposit" are the observed textures of quartz, adularia, and calcite in the vein deposits and would be tentatively correlative with the "vein rock" schematically shown in Figure 8-1. These areas of "vein rock" are typically surrounded by broad areas of stockwork and breccia -hosted mineralization, and/or areas of altered and fractured wallrock where increased permeability hosts disseminated gold mineralization. The mineralization observed in the Bull Hill and Pope Mine areas may correspond to some of the upper levels of a hot springs system, as schematically shown in Figure 8-1, or may be a part of a completely different style of gold mineralization. Ongoing detailed geologic work by GSLLC is focusing on a better understanding of the mineralization in these target areas.

Several well documented "low sulfidation" epithermal gold systems include the El Peñón deposit in Chile, where structurally controlled veins containing quartz and adularia, cut felsic volcanic units, and are associated with waning rhyolitic volcanic activity (Robbins, 2000). Silicification extends outward from the veins into the country rock, with sericitic alteration haloes. The precious metal-bearing veins exhibit stockworks, breccias, banded texture, comb quartz, and bladed texture in quartz that replaces carbonates (Photo 8-1) (Robbins, 2000). The Midas deposit in Nevada is another low sulfidation epithermal deposit that is structurally controlled near the margins of a volcanic complex and is known for very high-grade gold mineralization hosted by veins (Leavitt et al., 2004), though it lacks the broader disseminated and stockwork-controlled mineralization as seen at Round Mountain and Gold Springs.

Low sulfidation epithermal gold deposits commonly exhibit a vertical zoning for precious metals that correspond to the levels of boiling that occurred within the hydrothermal system. Episodic sealing and explosive activity formed the breccias and stockworks commonly observed in the structures, and the concurrent rapid pressure changes resulted in the precipitation of carbonates and, in many cases, the subsequent resorption and replacement of the carbonates by quartz that result in a lattice-texture and bladed texture where quartz replaces calcite (Simmons, et al., 1994). These textures are noted as an important feature and observation in the mineralized zones of low sulfide systems because it records the rapid changes associated with the boiling zone and is associated with the precipitation of gold (Etoh, et al., 2002). Low sulfidation epithermal systems are noted for distinct vertical zoning of mineralization horizons that correspond to the boiling level in the system (Etoh, et al., 2002), and have been reported to range generally from <300 metres to almost 1-km vertical thickness (Robert, et al., 2007). This vertical

Figure 8-1: Schematic Cross Section Showing Components in a Low Sulfidation Epithermal System



Schematic cross section showing components in a low sulfidation epithermal system, after Hedenquist et al., 2000.

Photo 8-1: Bladed Texture and Banding in Quartz Vein Sample from the Jumbo System

zoning of precious metal mineralization has also been documented in systems such as at Midas, Nevada (Leavitt, et al., 2004).

The alteration associated with low sulfidation epithermal systems commonly exhibits silicification proximal to the veins and stockworks, illite alteration, and distal propylitic alteration in the country rocks, with some vertical zonation of clay minerals that have been noted ranging from higher temperature (deeper) illite to low temperature (shallow) kaolinite in the wall rock alteration assemblage (Simmons et al., 2005). Low sulfidation epithermal systems associated with alkalic volcanism may exhibit vanadium-rich mica and abundant carbonate minerals in the alteration surrounding the veins (Jensen, et al., 2000). In some examples, massive opaline silica and siliceous sinter can form, and generally indicate a very shallow level in the system that corresponds to where the paleo-water table intersected surface topography (Simmons, et al., 2005).

In the Gold Springs project area, gold mineralization is typically hosted by andesites and is also associated with the younger episodes of rhyolitic volcanism and caldera formation. The vein systems exhibit silicification adjacent to the structures, sericitic alteration, and distal propylitic alteration in the andesites. In the Bull Hill and Pope Mine areas, mineralization is hosted by rhyolitic flows and tuffs, and alteration appears to have a different character, dominated by sericitic alteration with fluorite and carbonate. The role of favorable host rocks to gold mineralization is being developed at the Gold Springs project. Preliminary studies from drilling suggest that in the Jumbo trend, andesites are the favorable host rock and that an underlying rhyolite unit appears to form a base to mineralization or possibly a portion of a stacked system. In the Etna target, an underlying andesite unit appears to form a lower boundary or marker in the mineralizing system. In the Pope and Charlie Ross area, rhyolitic rocks are a favorable host, and in the Fluorite area rhyolites and pipe-like features are the host for mineralization.

9.0 EXPLORATION

GRC has been involved with the Gold Springs Project since 2010 through the GSLLC subsidiary. Summaries of past exploration and drilling are detailed in the 2011, 2012, 2013, 2015 and 2017 NI 43-101 reports filed on SEDAR, (L&A and Kurt Katsura, 2014; Katsura, 2011; GRE, 2015; GRE, 2017a). Since 2010, GSLLC has completed 281 drill holes at Gold Springs for a total of 41,971.7 metres. The Company has completed resource estimates on four of the 28 outcropping targets; North Jumbo (Jumbo), South Jumbo (Etna), Thor and Grey Eagle. These resource estimates are based on the assay information from drill holes completed through 2019. In this report, new drilling data is reported from RC holes completed in 2017 and 2019 in the South Jumbo (Etna), and Homestake areas.

In 2017, GSLLC completed 28 RC drill holes within the South and Central Jumbo targets for a total of 4,625.5 metres. At South Jumbo (Etna), the holes were designed to extend the mineralization and to better define some of the higher-grade zones intersected in previous drilling. Drilling at the Central Jumbo area was designed to test for new areas of mineralization.

In 2017 GRE conducted a review of satellite images and Lidar maps and identified many geological structures in the vicinity of and coincident with mineralization zones to construct a structural geologic model for the site that may predict additional locations of mineralization. In addition, GRE visited the site to become familiar with the project area and to observe evidence supporting or refuting the conceptual structural geologic model. (GRE, 2017b)

In 2019, GSLLC completed a total of 14 holes totaling 1,856.2 metres on the Gold Springs project. These holes were all located within the Homestake patented claim block and represented the first drilling of this target area. The Homestake claims were acquired in October 2017 representing the first time the property has been leased for modern exploration.

Prior exploration activities carried out on the Property between 2010 and 2016 include:

- 35,490 metres of drilling in 239 RC holes
- 662 metres of drilling in 6 core holes
- Surface geologic mapping
- Geological interpretations of the resource areas and 3D modeling
- Flying and the interpretation of a property wide airborne ZTEM and magnetic survey
- Flying of a project-wide LIDAR survey and the development of a detailed elevation model
- Collection of surface rock chip and trench samples
- Extensive soil surveys
- Stream sediment surveys
- Ongoing metallurgical testing programs, including:
    - Gravity concentration followed by bottle roll cyanidation of the gravity tailing of 74-micron (200-mesh) material from drill cuttings
    - Cyanide extraction from bottle roll tests on drill cuttings ground to 74 microns

    - Cyanide extraction from bottle roll tests of RC cuttings which varied in size from a P_{80} of 0.762 to 6.069 mm
    - Small column tests of trenched Grey Eagle material and Jumbo drill core crushed to 9.5 mm
    - Large column tests on composite drill core from Jumbo crushed to P_{80} ¾-inch
- Resource calculations and a Preliminary Economic Evaluation for the North Jumbo (Jumbo) and Grey Eagle areas
- Updated resource calculations for North Jumbo (Jumbo), South Jumbo (Etna), Thor, and Grey Eagle
- Identification of 26 areas with outcropping gold mineralization in the project area

Activities carried out after 2016 and not included in prior 43-101 reporting include:

- 6,481.7 metres of drilling in 42 RC holes
- Acquisition of the 6 patented Homestake claims
- Geologic mapping
- Rock chip sampling
- Raptor survey

9.1 Geophysics

9.1.1 LIDAR

The LIDAR survey was completed by GSLLC in late June 2014, and final deliverable products were received in August 2014. Products include the following:

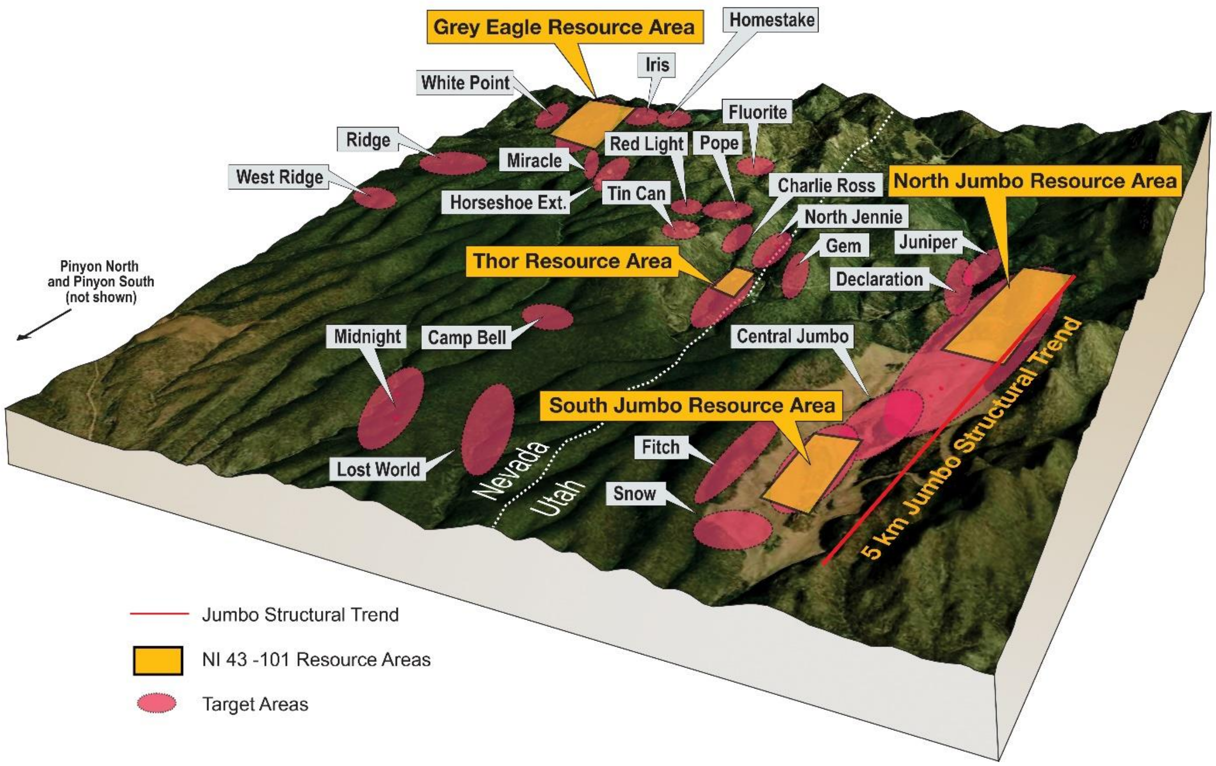
- Classified LiDAR point clouds, Ground (digital terrain model [DTM] Keypoints), Low Vegetation and High Vegetation
- Digital Terrain Model (DTM Keypoints)
- Bare Earth and Full Feature grid points at 1-metre spacing
- Greyscale hillshade models of Bare Earth and Full Feature surfaces at 1-metre pixel resolution
- 1-metre topographic contours without breaklines
- Digital color orthophoto mosaics with a 20-cm pixel resolution, 1 km x 1 km tiles
- LiDAR and orthotile index map
- LiDAR survey report outlining collection methodology, quality control measures, sensor description, calibration and check point statistics, flight line maps, ground control, LiDAR and orthophoto processing.

The survey results provided a valuable detailed topographic base for future mine planning and produced a bare earth view of the project area filtering out the Pinyon pine forest and vegetation (Figure 9-1:). This enhanced view allows for a more detailed structural interpretation by revealing the true ground surface, as well as identifying additional areas of historic pits, adits, and shafts. Several new areas of mineralization were identified by this process for follow-up sampling activities.

9.1.2 ZTEM

In 2011, GSLLC completed a 470-line-km ZTEM and aeromagnetic helicopter survey. Previous ground CSAMT surveys revealed a positive correlation between the known epithermal gold systems and buried, subvertically-dipping resistivity high features. The ZTEM results correlated very well with CSAMT results and known geology, especially with the presence of all the known mineralized areas. This work indicated numerous additional targets in the project area which were subsequently incorporated into the project by additional federal lode claims.

Figure 9-1: Target Areas at Gold Springs



During April 27–30, 2011, Geotech Ltd. carried out a helicopter-borne geophysical survey for GSLLC over the Gold Springs project (Photo 9-1). The principal geophysical sensors included a ZTEM and a caesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimetre. A total of 470-line-km of geophysical data were acquired during the survey.

The survey operations were based out of the town of Pioche, Nevada. In-field data quality assurance and preliminary processing were carried out daily during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products, were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results were presented as the following maps:

- Three-dimensional (3-D) view of In-Phase Total Divergence versus Skin Depth (30-720 hertz [Hz]) to 720 Hz)

- Total Magnetic Intensity
- Digital Elevation Model (DEM)
- Reduced to Pole (RTP) of Total Magnetic Intensity
- First Vertical Derivative of RTP
- Second Vertical Derivative of RTP
- 30 Hz In-Phase Total Divergence Grid

Photo 9-1: Helicopter Conducting ZTEM Survey for GSLLC during 2011

- 90 Hz In-Phase Total Divergence Grid
- 360 Hz In-Phase Total Divergence Grid
- Tzx (In-line) In-Phase Profiles over 90 Hz Phase Rotated In-Phase Grid
- Tzx (In-line) Quadrature Profiles over a 90 Hz Phase Rotated Quadrature Grid
- Tzy (Cross-line) In-Phase Profiles over 90 Hz Phase Rotated In-Phase Grid
- Tzy (Cross-line) Quadrature Profiles over a 90 Hz Phase Rotated Quadrature Grid

In addition to the above, Geotech was contracted to complete two-dimensional (2-D) inversion processing of the ZTEM data and more detailed processing of the magnetics, including the development of first and second derivatives of the RTP.

The survey was flown in an east to west (north-90° east azimuth) direction, with a flight line spacing of 200 metres. Tie lines were flown in a north to south (north-0° east azimuth) direction, with a flight line spacing of 1900 metres.

Total Divergence (DT) imaging, analogous to the very low frequency Peaker parameter of Pedersen (1998), converts the ZTEM tipper cross-over data into peak responses, which assists their interpretation in plan. The DT lows (conductive) areas signify areas with sulphides or possibly conductive clays, and the DT highs (resistive) areas represent resistive rocks which show an excellent correlation with known gold occurrences, as would be expected in the low sulphidation environment. This correlation of resistive rocks and gold mineralization can also be demonstrated in the prior ground CSAMT.

Following completion of the 2-D inversion by Geotech, Mira Geoscience was contracted to complete a 3-D inversion of both the ZTEM conductivity data and the magnetics. This work was carried out in 2012. The modelling process used geologic and geophysical modelling software including GOCAD, ZTEM_MT3D and MAG3D. The resulting models for the ZTEM and magnetic inversions provided a 3-D conductivity model of the earth that honours the ZTEM and magnetic data to a specified level of fit. The modelling correctly considered 3-D topographic effects, which can significantly influence the data. The inversion modelling was unconstrained by geologic and physical property information.

The primary outcome of these studies was the development of a clear correlation with the location of surface gold mineralization and gold intersected in drill holes particularly with the margins of the high resistivity features. This correlation can be seen both in the "depth-slice" presentation (Figure 9-2: and Figure 9-3:) of the data and in cross-sections developed from the 3-D inversion study (Figure 9-2:). When the resistivity high is shallow, a strong correlation between the margins of the resistivity highs and gold intersected in drill holes exists, as can be seen in the North and South Jumbo Resource areas (Figure 9-4:). When the resistivity high is deeper, as at Grey Eagle, gold mineralization is found both at the margins and over the top of the resistivity features. This correlation is interpreted as relating to the heat source for the "hot spring" style mineralization seen at Gold Springs, the heat source being high silica, highly resistive rhyolites.

Surface and subsurface follow-up of the resistive features continues on the property. In the case of the Jumbo Trend, it can be seen to extend in the subsurface for several kilometres to the north of the area drilled to date and several kilometres to the south, and defines the Jumbo Trend, which includes the South Jumbo (Etna) as referred to in earlier reporting. GRC is currently working with the geophysical data to help define targets and extensions of known gold mineralization where they likely extend under the colluvial cover or have been offset by fault structures.

Figure 9-2: ZTEM Resistivity Highs and Correlation with Outcropping Gold Bearing Rocks and Gold in Drill Holes in the North Jumbo Resource Area

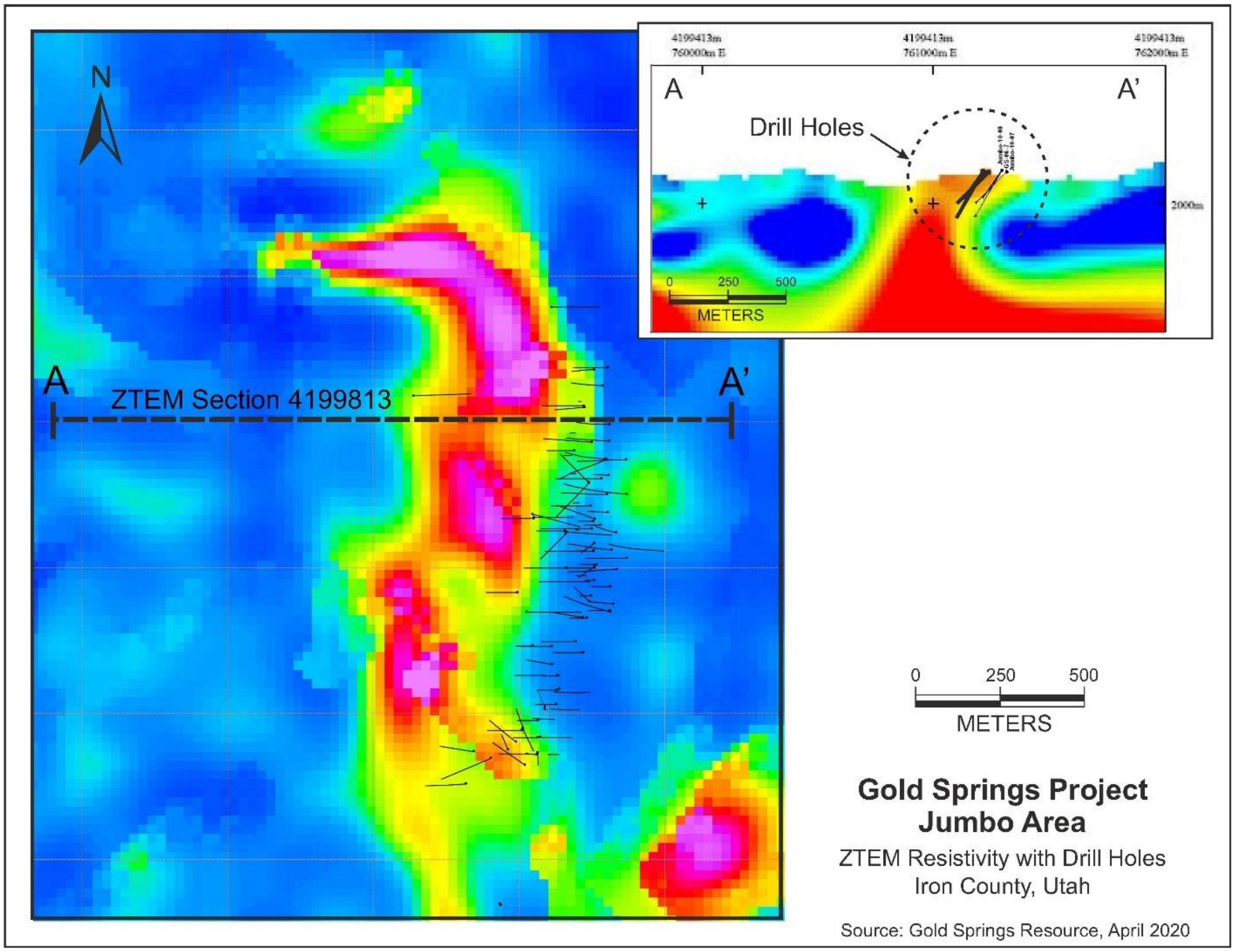


Figure 9-3: ZTEM Resistivity Highs and Correlation with Outcropping Gold Bearing Rocks in the Gold Springs Project Area

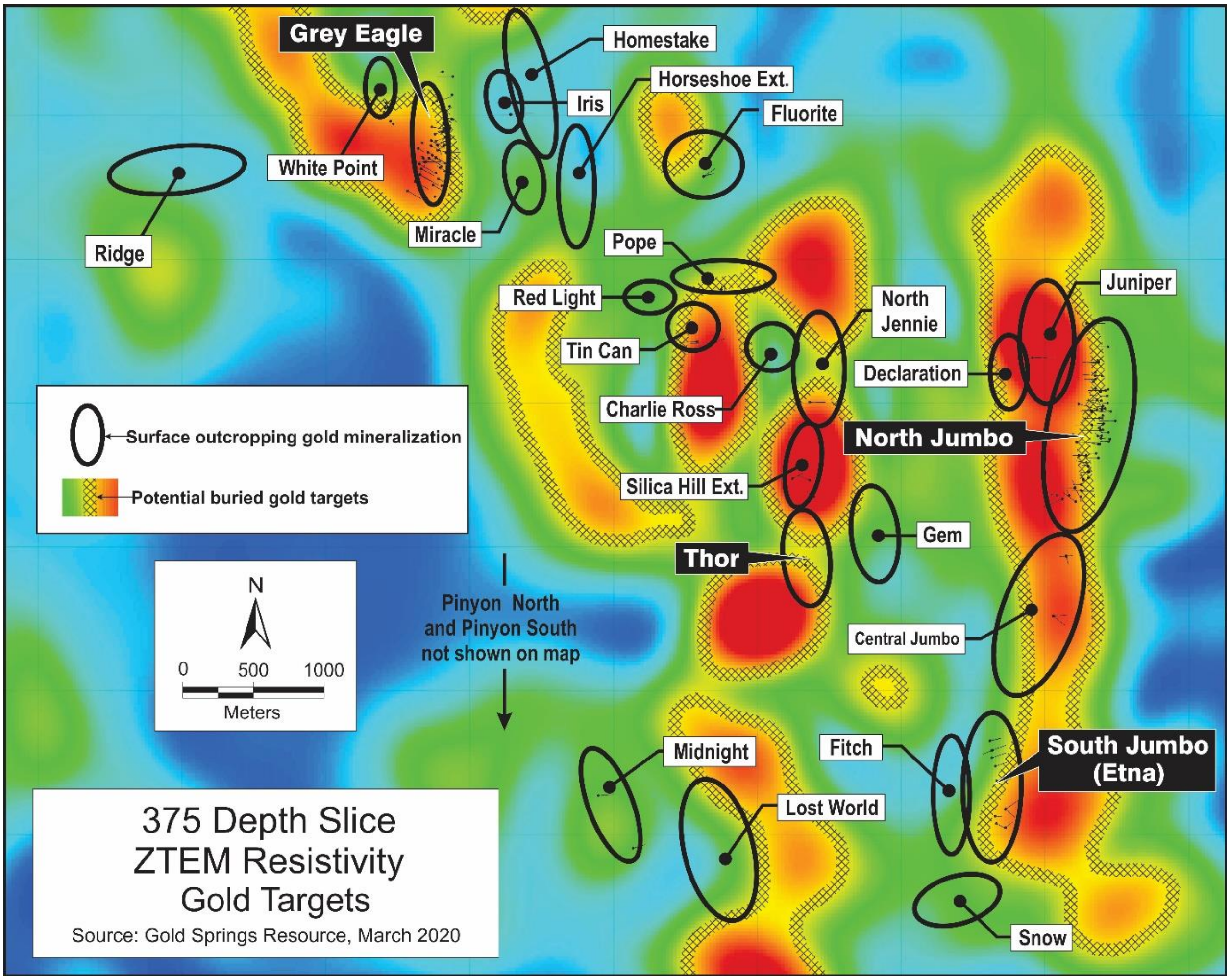
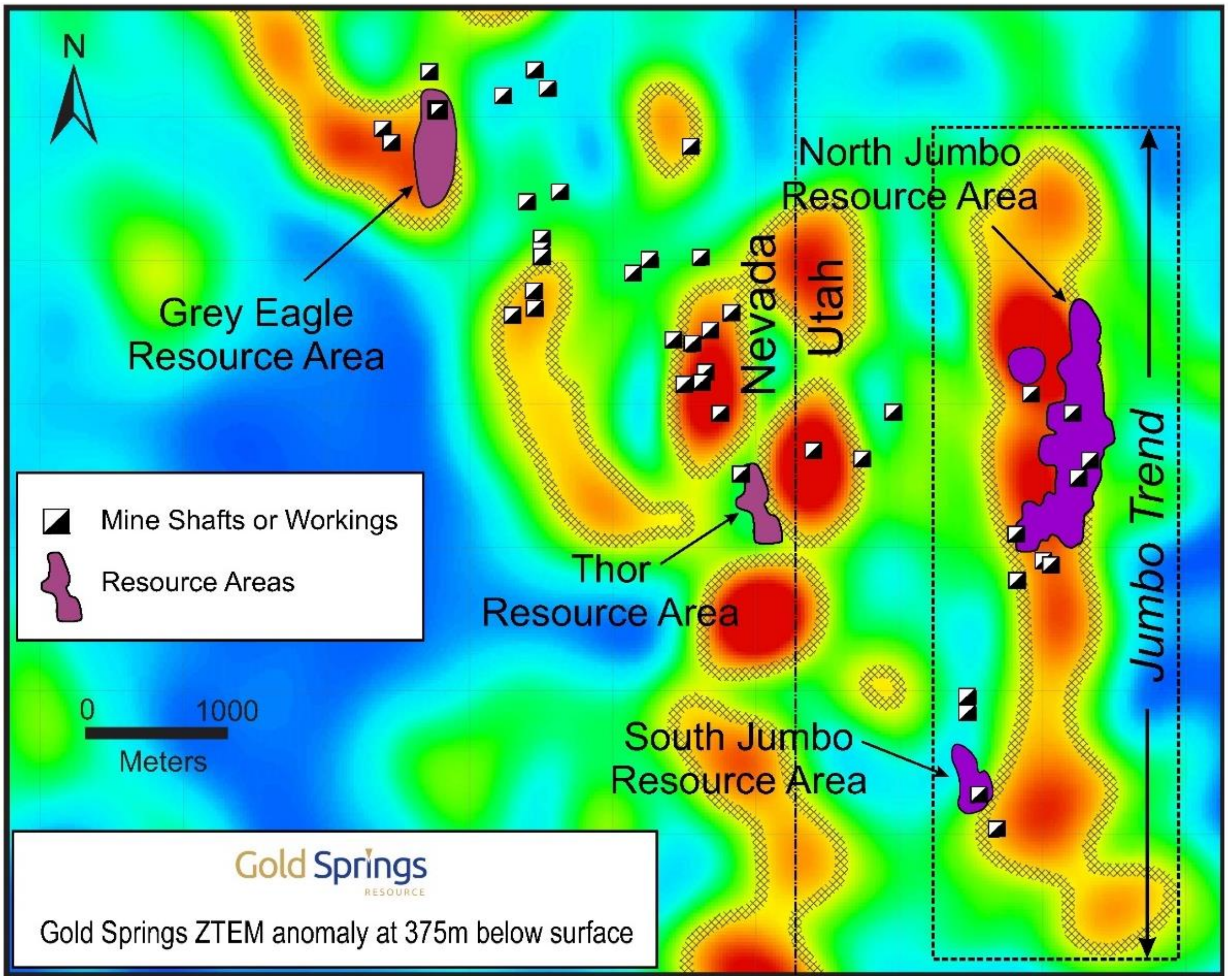


Figure 9-4: Jumbo Trend Showing ZTEM Anomaly



10.0 DRILLING

Exploration work in 2017 and 2019 focused on the South Jumbo, Central Jumbo, and Homestake targets. GSLLC completed 42 RC drill holes during those two years. The 2017 and 2019 drill holes are listed in Table 10-1: and Table 10-2, respectively, with significant results listed in Table 10-3.

All drill hole locations in 2017 were surveyed by Platt & Platt Inc., professional surveyors, using Trimble surveying instrumentation. The 2019 hole locations were surveyed using hand-help GPS units and will be professionally surveyed in the future. GSLLC completed downhole surveys on all the 2017 drill holes and one hole in 2019. Surveys were conducted by International Directional Services, LLC (IDS) using a gyro deviation survey instrument.

Table 10-1: GRC 2017 Drilling

Hole ID	Target	Easting UTM NAD 27	Northing UTM	Elevation (m)	Azimuth	Inclination	Total Depth (feet)	Total Depth (m)
E-17-001	South Jumbo	760640	4196801	2001	90	-50	665	203.0
E-17-002	South Jumbo	760562	4196602	2012	90	-50	860	262.0
E-17-003	South Jumbo	760478	4196790	2016	90	-50	740	225.5
E-17-004	South Jumbo	760636	4196553	2023	110	-65	680	207.3
E-17-005	South Jumbo	760669	4196506	2022	110	-50	800	243.8
E-17-006	South Jumbo	760728	4196605	1993	90	-55	705	214.9
E-17-007	South Jumbo	760798	4195980	1981	320	-55	505	153.9
E-17-008	South Jumbo	760849	4195858	1971	310	-45	500	152.4
E-17-009	South Jumbo	760734	4196145	2000	110	-55	465	141.7
E-17-010	South Jumbo	760434	4196972	2017	70	-50	465	141.7
E-17-011	South Jumbo	760747	4196027	2002	105	-50	765	233.2
E-17-012	South Jumbo	760751	4196078	2001	160	-50	555	169.2
E-17-013	South Jumbo	760746	4195975	2001	145	-50	665	202.7
E-17-014	South Jumbo	760670	4196453	2019	70	-45	365	111.3
E-17-015	South Jumbo	760599	4196663	2018	90	-60	465	141.7
E-17-016	South Jumbo	760579	4196710	2017	90	-70	325	99.1
E-17-017	South Jumbo	760554	4196694	2016	130	-45	425	129.5
E-17-018	South Jumbo	760552	4196704	2016	0	-45	685	208.8
E-17-019	South Jumbo	760648	4196588	2014	130	-65	305	93.0
SS-17-001	State Section	761134	4197346	2036	270	-50	600	182.8
SS-17-002	State Section	761122	4197301	2032	270	-50	760	231.6
SS-17-003	State Section	761092	4197244	2031	90	-65	800	243.8
SS-17-004	State Section	761075	4197146	2027	270	-50	425	130.9
SS-17-005	State Section	761130	4197398	2038	270	-50	540	164.6
SS-17-006	State Section	761162	4197577	2049	270	-50	365	111.2
NH-17-001	State Section	760768	4197005	2028	70	-50	245	76.7
NH-17-002	State Section	760765	4197004	2029		-90	205	62.4
NH-17-003	State Section	760862	4196982	2029	220	-55	285	86.9

Table 10-2: GRC 2019 Drilling

Hole ID	Target	Easting UTM NAD 27	Northing UTM	Elevation (m)	Azimuth	Inclination	Total Depth (feet)	Total Depth (m)
HS-19-001	Homestake	757409	4201292	2152	90	-50	540	164.6
HS-19-002	Homestake	757409	4201292	2152	90	-85	300	91.4
HS-19-003	Homestake	757318	4201461	2136	70	-50	600	182.9
HS-19-004	Homestake	757405	4201389	2142		-90	360	109.7
HS-19-005	Homestake	757405	4201389	2142	90	-50	200	61.0
HS-19-006	Homestake	757405	4201389	2142	125	-65	340	103.6
HS-19-007	Homestake	757407	4201451	2140	120	-85	520	158.5
HS-19-008	Homestake	757407	4201451	2140	120	-50	200	61.0
HS-19-009	Homestake	757393	4201162	2132	70	-50	360	109.7
HS-19-010	Homestake	757384	4201158	2188	90	-75	940	286.5
HS-19-011	Homestake	757380	4201156	2179	90	-50	650	198.1
HS-19-012	Homestake	757425	4201080	2178	90	-45	360	109.7
HS-19-013	Homestake	757435	4201011	2186	90	-45	360	109.7
HS-19-014	Homestake	757443	4200940	2168	90	-45	360	109.7

Table 10-3: GRC Mining Inc. 2017 and 2019 Significant Drill Results

Hole	From (m)	To (m)	Thickness (m)	Gold (g/t)	Silver (g/t)
SS-17-001	135.6	157.0	21.3	1.53	2.5
Inc.	135.6	147.8	12.2	2.22	3.9
E-17-002	24.4	32.04	7.6	1.01	11.7
and	89.9	97.5	7.6	1.14	13.2
and	109.7	132.6	22.9	0.33	3.60
E-17-003	94.5	178.3	83.8	0.64	6.50
Inc.	94.5	106.7	12.2	1.31	12.8
and	140.2	161.5	21.3	1.09	6.5
E-17-004	9.1	21.3	12.2	0.39	3.6
and	60.4	121.9	57.9	0.35	3.8
E-17-005	4.6	85.3	80.8	0.74	7.2
Inc.	4.6	56.4	51.8	0.97	10.0
E-17-007	3.0	10.7	7.7	0.70	22.0
Void Old Workings	10.7	13.7	3.0		
and	13.7	97.5	83.8	0.26	5.3
E-17-011	1.5	45.7	44.2	0.28	8.86
Inc.	29.0	45.7	16.8	0.42	12.1
E-17-012	0	54.9	54.9	0.28	5.05
Inc.	0	4.6	4.6	1.11	5.4
E-17-013	61	93	32	0.52	9.8
Inc.	61	79.2	18.3	0.75	13.48
E-17-014	30.5	89.8	59.4	0.41	5.9
Inc.	65.5	80.8	15.2	0.56	5.3
E-17-015	0	138.7	138.7	0.36	4.9
Inc.	0	39.6	39.6	0.55	6.4

Hole	From (m)	To (m)	Thickness (m)	Gold (g/t)	Silver (g/t)
E-17-016	7.6	89.9	82.3	0.63	11.6
including	7.6	35.1	27.4	1.19	17.3
and	12.2	22.9	10.7	**2.02**	**25.2**
E-17-018	115.8	166.1	50.3	0.23	4.3
E-17-019	0	93	93	0.51	5.9
Inc.	30.5	83.8	53.3	0.66	7.8
Inc.	71.6	83.8	12.2	1.53	10.4
SS-17-006	50.3	53.3	3.0	1.07	3.3
HS-19-001	15.2	18.3	3.1	0.46	15.0
HS-19-007	18.3	24.4	6.1	21.88	69.25
and	71.6	143.3	71.7	0.716	1.19
Inc.	132.6	143.3	10.7	1.24	4.88
HS-19-012	12.2	50.3	38.1	0.63	2.6
Inc.	12.2	15.2	3.0	4.23	2.5
Inc.	27.4	30.4	3.0	1.12	4.0
Inc.	47.3	50.3	3.0	1.31	8.5
HS-19-013	12.7	21.3	7.6	0.47	3.2

Details and interpretations for all previous drilling can be found in the following reports:

- GRE. 2017. Amended Technical Report and 2017 Mineral Resource, Gold Springs Project. 2017.
- GRE. 2015. Preliminary Economic Assessment Update, Gold Springs Property, Utah/Nevada, USA. 2015.
- Katsura, K.T. 2011. Technical Report on the Gold Springs Property Utah/Nevada, USA. 2011.
- L&A. 2014. Amended Preliminary Economic Assessment of the Gold Springs Property, Utah/Nevada, USA. 2014.
- L&A and Kurt Katsura. 2014. Updated Technical Report on the Gold Springs Property, Utah/Nevada, USA. 2014.

10.1 Structure

On July 19, 2018, the Company announced the completion of a structural context analysis identifying five prospective drill target areas in the central portion (Central Jumbo) of the significant Jumbo Trend at the Gold Springs Project. The Company will use the analysis to support further gold exploration and future drilling at Gold Springs. TMI engaged SRK Consulting (Canada) Inc. (SRK) from Toronto to investigate the structural controls for gold mineralization within the Central Jumbo area, between the North Jumbo and South Jumbo resource zones. The North and South Jumbo zones lie within a defined 5.5-kilometre-strike of the Jumbo Trend in Utah in the eastern portion of the Gold Springs Project. Dr. Antoine Caté of SRK produced the Central Jumbo structural report (the “SRK Report”) for the Company based on interpretation from a site visit to key outcrops and evaluating structural geology, which were used to define the five drill target areas. The Company believes that prospective gold mineralization exists in Central Jumbo and that an improved understanding of the fault structures pervasive throughout the area will assist in future drill targeting.

10.2 RC Drilling

The following is a synopsis of the Gold Springs drilling conducted by GSLLC. Figure 10-1: depicts a project wide map showing the drill hole locations for the entire property. The bulk of the drilling and defined mineral resource is contained with the Jumbo resource block located on the eastern extent of the project. A representative section of Jumbo showing the orientation of the mineralization and drilling is contained in Figure 10-2:.

The 2010 drilling program was performed by Diversified Drilling and was done by wet reverse-circulation. Material coming out of the hole passed through a wet rotary splitter producing two samples of equal size. The samples were collected on 5-foot (1.5-metre) intervals and handled by GSLLC employees. A geologist was at the drill site, at all times during drilling. The geologist collected a small sample coming from the rotary splitter and placed it into chip trays labeled by drill hole number and footage. Samples were numbered with one split being designated as a duplicate sample. Duplicate samples were stored on site until the end of the drill program, when they were transported to a locked storage facility in Cedar City, Utah. Samples for analysis were transported on a daily basis to a secured area behind locked gates.

Drill samples were transported from the site to the Inspectorate Laboratory facility in Sparks, Nevada, by GSLLC employees every three to four days and were delivered directly to laboratory personnel.

The 2011 RC drill program was conducted by Drift Drilling and was done without injecting water. Material from the hole was passed through a Jones-style splitter, and 100% was collected in two equal splits on 5-foot (1.5-metre) intervals. One split was labeled as a duplicate sample, which was stored on site behind a locked access gate until the end of the drill program and then transported by GSLLC-US employees to a locked facility in Cedar City, Utah. Samples were handled at all times by GSLLC-US personnel, and a geologist was present during drilling. The geologist collected a small portion of the duplicate sample, which was placed into chip trays labeled by drill hole number and footage. Chips were then logged on site by the geologist. From the duplicate sample, GSLLC filled a 4x6 inch zip lock bag labeled by drill hole number and footage. This material was intended to be used for chip boards and future petrographic study. Samples for analysis were transported from the drill site to a secured area behind a locked gate on a daily basis. From the secured area, samples were picked up by Inspectorate Laboratories and transported to their facilities in Sparks, Nevada.

The 2012, 2013, 2014, and 2015 drilling programs were performed by Diversified Drilling and conducted by wet reverse-circulation drilling method. All RC samples were collected by, or under the direct supervision of, an GSLLC geologist. Emphasis by the Project Manager was placed on quality control and the proper handling and numbering of all samples. The RC drill cuttings are collected as they come out of the drill hole from an industry standard rotary wet splitter provided by the drilling company, which delivers the material to three collection points. Samples are collected on 1.52-metre (5-foot) intervals. Material from the first collection point was designated for transport to Inspectorate Laboratories, located in Sparks, Nevada, USA for analysis. The material from the second collection point was retained as a duplicate sample for future testing if needed. The material from the third sample point was geologically logged onsite and put into chip trays which are labeled with sample numbers and footage intervals from which the sample was taken. In addition to the chip trays, a 10.16 x 15.24-centimetre (4 x 6-inch) zip lock bag labeled with the drill hole designation and footage interval was filled from the third sample point. This

Figure 10-1: Project Drill Hole Location Map

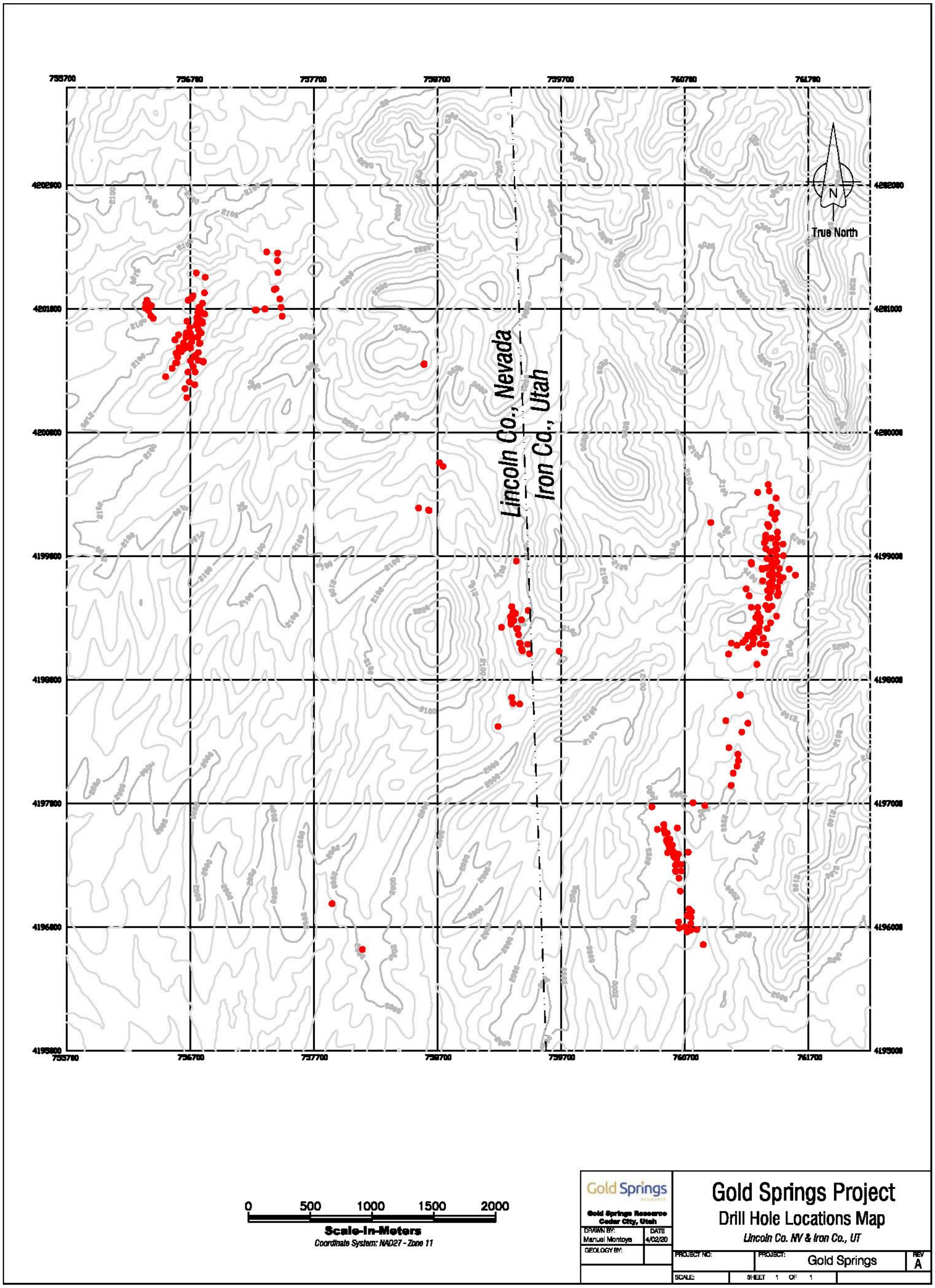
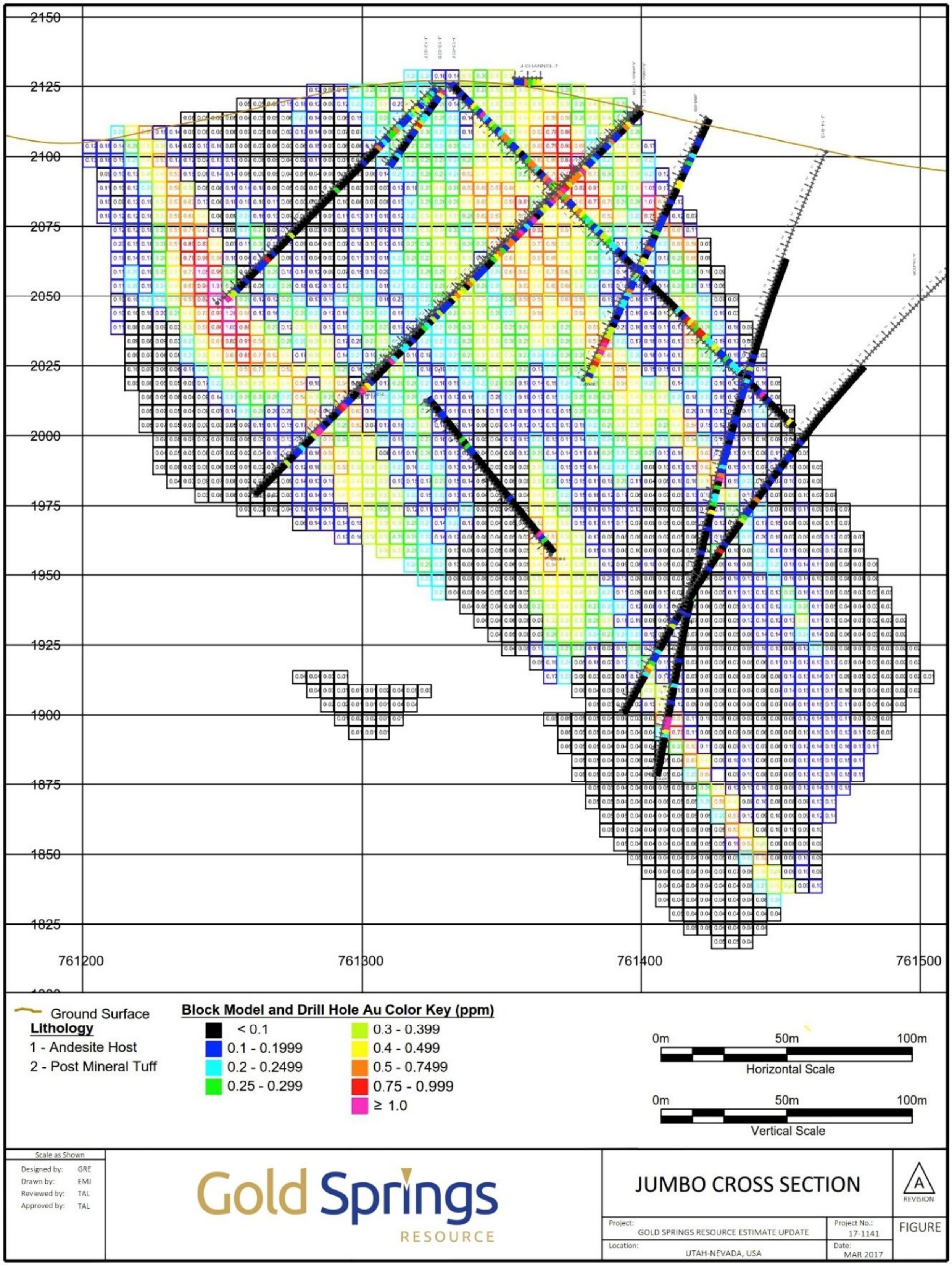


Figure 10-2: Jumbo Representative Cross-Section



material was retained for possible petrographic work. All samples were transported on a daily basis to a secured site within the project area behind a locked gate where they were stored. Samples designated for analysis were picked up by Inspectorate Laboratory personnel or transported by GSLLC personnel to the Inspectorate sample preparation laboratory facility in Elko, Nevada. No sample preparation was conducted by an employee, officer, director, or associate of GSLLC.

The 2016 drilling program was performed by Diversified Drilling and conducted by wet reverse-circulation drilling method. All RC samples were collected by, or under the direct supervision of, a GSLLC geologist. Emphasis was placed on quality control and the proper handling and numbering of all samples. The RC drill cuttings were collected as they came out of the drill hole from an industry standard rotary wet splitter provided by the drilling company. These sample splits were delivered to two collection points. Samples were collected on 1.52-metre (5-foot) intervals. Material from the first collection point was designated for transport to Inspectorate Laboratories, located in Sparks, Nevada, USA for analysis. The material from the second collection point was geologically logged onsite and put into chip trays which are labeled with sample numbers and footage intervals from which the sample was taken. All samples were transported on a daily basis to a secured area behind a locked gate where they were placed on drying racks and stored. Samples designated for analysis were picked up by Inspectorate Laboratory personnel and transported to the Inspectorate sample preparation laboratory facility in Elko, Nevada. No sample preparation was conducted by an employee, officer, director, or associates of GSLLC.

Randall Moore, Executive Vice President of Exploration for GRC organized sampling procedures and supervised the labeling and cataloging of all samples.

The 2017 drilling program was performed by Diversified Drilling and conducted by wet reverse-circulation drilling method. All RC samples were collected by, or under the direct supervision of a GSLLC geologist. Emphasis was placed on quality control and the proper handling and numbering of all samples. The RC drill cuttings were collected as they came out of the drill hole from an industry standard rotary wet splitter provided by the drilling company. These sample splits were delivered to two collection points. Samples were collected on 1.52-metre (5-foot) intervals. Material from the first collection point was designated for transport to Inspectorate Laboratories, located in Sparks, Nevada, USA for analysis. The material from the second collection point was geologically logged onsite and put into chip trays which are labeled with drill hole number, sample numbers, and footage intervals from which the sample was taken. All samples were transported on a daily basis to a secured area behind a locked gate where they were placed on drying racks and stored. Samples designated for analysis were picked up by Inspectorate Laboratory personnel and transported to the Inspectorate sample preparation laboratory facility in Elko, Nevada. No sample preparation was conducted by an employee, officer, director, or associates of GSLLC.

The 2019 drilling program was performed by New Frontier Drilling and conducted by wet reverse-circulation drilling method. All RC samples were collected by, or under the direct supervision of a GSLLC geologist. Emphasis was placed on quality control and the proper handling and numbering of all samples. The RC drill cuttings were collected as they came out of the drill hole from an industry standard rotary wet splitter provided by the drilling company. These sample splits were delivered to two collection points. Samples were collected on 1.52-metre (5-foot) intervals. Material from the first collection point was designated for transport to Bureau Veritas Minerals Laboratories, located in Sparks, Nevada, USA for analysis. The material from the second collection point was geologically logged onsite and put into chip trays which are labeled with sample numbers and footage intervals from which the sample was taken. All samples were transported on a daily basis to a secured area behind a locked gate where they were placed on drying racks and stored. Samples designated for analysis were picked up by Inspectorate Laboratory personnel and transported to the Bureau Veritas Minerals sample preparation laboratory facility in Elko, Nevada. No sample preparation was conducted by an employee, officer, director, or associates of GSLLC.

A comprehensive review of the procedures and methodology for the drilling and sampling conducted by GRC show that they are consistent with industry standards and that there are no drilling, sampling or recovery factors that would materially impact the accuracy or reliability of the drilling and sampling results.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Quality Assurance and Quality Control Procedures

All drill sampling, testing, and analysis are conducted using rigorous quality assurance/quality control (QA/QC) procedures to ensure reliability and validity of results. Having sound QA/QC protocols in place instills a level of confidence with the Company, as GRC is fully aware of what is happening with all samples to establish a “chain of custody.” Moreover, transparent QA/QC procedures demonstrate GRC 's strict adherence to industry “Best Practices” to the investment community. Initial sample preparation and assays were reported by Inspectorate Laboratories USA (a wholly owned subsidiary of Bureau Veritas Laboratories). This report will refer to all laboratories as Bureau Veritas (BV).

The following is a description of the current (2017 and 2019) and previous (2010-2016) “chain of custody” handling that all samples follow from initial drilling to final announcement of results.

11.1.1 On the Property

GRC geologists lay out drill-hole locations in the field. Drill hole locations are designed from the GIS database, geologic interpretations, and detailed cross-section evaluation. GRC staff supervises pad construction (and later reclamation), and fore-sight/back-sight markers are set to align the direction of drilling. Drillers are informed by GRC as to the inclination of the hole. Once the drill is set on the pad, both the bearing and inclination are checked and approved by staff GRC geologist.

1. RC drilling is conducted by a third-party contractor. The drill is a track-mounted rig capable of drilling to a depth of 500 metres.
2. Down-hole surveys are conducted by IDS using a gyro deviation survey instrument at or near the termination of the hole. These surveys provide detailed down-hole data on the azimuth and dip of the hole over the length of the hole. Surveys were performed for a portion of the 2014 drilling and on all holes in 2015, 2016, and 2017.
3. Drill hole locations completed were surveyed by Platt & Platt Inc., professional surveyors located in Cedar City, Utah. This information is compiled in a drill hole database which includes drill hole number, UTM location, elevation, inclination, bearing, and depth of holes. The 2019 drill holes are awaiting survey by Platt & Platt and are currently located using a handheld GPS unit.
4. RC drilling provides for a continuous sample stream which passes through a cyclone into a rotary sample splitter. The RC drill cuttings are collected as they come out of the drill hole from an industry standard rotary wet splitter provided by the drilling company. The splits are delivered by the drilling Contractor staff to two collection points. Samples are collected on 1.52-metre (5-foot) intervals. Material from the first collection point is designated for transport to BV Laboratories, located in Elko, Nevada, USA, for drying and the preparation of the pulps. The pulps are then sent to BV Laboratories in Sparks, Nevada, for analysis of gold through a 30-gram fire assay with an atomic adsorption (A.A.) finish (code FA430). Pulps are then sent to BV Laboratories in Vancouver, BC, Canada, for multi-element analysis using a 4-acid digestion Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES) analysis (code MA300). The material from the second sample point is geologically logged onsite and put into chip trays which are labeled with drill hole number, sample numbers, and footage intervals from which the sample was taken.

5. GRC personnel prepare the sample bags prior to drilling. Bags are numbered sequentially, with standards and blanks inserted for QA/QC purposes. GRC has a geologist at the drill at all times it is in operation. The geologist logs the cuttings onsite and tracks the sampling. At the end of every 1.52-metre sample interval, the bag of material for analysis is loaded into GRC trucks and, at the end of each day, the samples are transported back to the Gold Springs compound and stored behind locked gates for air drying. The samples are then picked up by BV Laboratory every few days and transported to Elko to the sample prep facility (Photo 11-1).

Photo 11-1: Sample Pick-up from GSLLC Compound at the Gold Spring Project

6. Standards and blanks are inserted into the numbering sequence of the drill cuttings at regular intervals by the GRC geologist, with two standards and one coarse blank submitted every twenty samples. These are then submitted to the laboratory as part of the numbered drill sample sequence for random quality control. The samples are analyzed in the sequence order they are received by the lab, and the standards and blanks are used as a check for consistency in analysis. These samples are recorded by the GRC geologist on a master database which contains all the sample numbers, footage intervals, and drill hole numbers. The standards and blanks are also recorded on the drill log that is produced by GRC geologists at the drill. Independent standard and blank material inserted by GRC is purchased from Minerals Exploration and Environmental Geochemistry (MEG) of Reno, Nevada. MEG is an independent sample preparation laboratory with a focus on providing standard reference materials to the mining and environmental industries. Samples are individually packaged pulps that are put into the sample stream at the time bags are numbered and prepared for use on the drill.
7. GRC geologists record the sample number, footage, geological, alteration and structural information for each sample interval.

8. Sample bags are picked up by BV Laboratories and transported to the Laboratory prep facility in Elko, Nevada. At the time of pick-up or delivery, GRC geologists deliver two copies of a sample submittal sheet to the lab personnel listing the samples submitted and the desired analysis. The lab representative signs one copy, which is retained by GRC for documenting the chain of custody. These records are retained on site and as electronic versions in the project files.

11.1.2 Bureau Veritas Laboratories in Elko and Sparks, Nevada, and Vancouver, BC, Canada

1. Under controlled laboratory conditions, BV Laboratories has the samples dried, crushed, split, ground and analyzed for gold using an industry standard 30-gram fire assay charge. Analyses are conducted using an A.A. or gravimetric finish, and trace element geochemistry performed using standard ICP-AES methods beginning with a four-acid, near-total digestion of the sample matrix. All samples with gold or silver geochemical content greater than the upper detection limit for ICP methodology were re-analyzed using fire assay with a gravimetric finish method. The BV Laboratory facilities are International Organization for Standardization (ISO) certified.
2. The laboratory inserts an average of approximately 10% blank and standard samples into each analyzed sample batch to ensure precision and accuracy. The lab conducts repeat analysis of pulps from samples submitted at a rate of approximately 5% and creates duplicate pulps from the coarse rejects that are analyzed at a rate of approximately 5%. Both types of check analyses showed very consistent results with variations of less than +/- 2%.

11.1.3 GRC

1. Sample and assay results are tabulated on spreadsheets by GRC geologist. Originals of the assay certificates are sent by e-mail to the GRC VP of Exploration by the lab and inserted into the master database.
2. Upon receiving completed analytical results, GRC geologists then extract the blank and standard samples for examination of expected values and tested values, where an acceptable range is set at +/- 3 standard deviations.
3. Pulps are resubmitted for samples around any two consecutive blanks or standards that returned values outside of an acceptable range of +/- 3 standard deviations.
4. The spreadsheet information for drill hole samples is then matched with sampling intervals and geological observations for interpretation. This data is merged with the assay data by the GRC geologist into a master database.
5. GRC management periodically prepares news releases to make public the information from the drilling in a format compatible with NI 43-101 standards. A “Qualified Person” signs-off on news releases containing technical data. Results are kept in strict confidence until a news release is prepared and the information released.

11.2 QA/QC Results

11.2.1 External Quality Assurance Protocol

Multiple drill holes were submitted at any one time during the 2017 and 2019 drilling programs. Each drill hole submitted for analysis included external certified standards that were placed at a regular interval of two standards and one coarse blank every 20 samples. As a blinding technique, sample numbers were used rather than drill hole number and footage to identify each sample. External certified standards and blanks were provided by MEG, Inc. to GSLLC, who inserted the quality control samples into the sample stream.

11.2.2 External Gold Standards

Gold and silver standards were purchased from MEG, Inc. and are made from mineralized rock that has been doped with additional gold to create suites of material with a wide range of metal concentrations. Values are certified for gold using conventional industry-standard "round robin" assay methods. In this QA/QC evaluation, the standards and their concentrations are as shown in Table 11-1:, along with the laboratory results for each standard. GRC used a strict +/- 3 standard deviation analysis to determine if standards passed the laboratory analysis. These results are summarized below showing the acceptable ranges of 3 standard deviations.

Table 11-1: External Gold Standards Used in the 2017 and 2109 Drill Programs

Standard Sample ID	Standard value Au (ppb)	Acceptable Lower Value Au (ppb)	Acceptable Upper Value Au (ppb)	Samples Within Range	Number of Samples	Percent Passing
10.01	20	14	26	7	14	50
10.03	60	42	78	13	13	100
11.13	1800	1555	2043	16	16	100
11.15	3480	3081	3879	21	26	81
11.19	120	81	159	12	12	100
11.29	3500	2543	4457	53	54	98.2
12.13	900	723	1077	76	77	98.7
12.21	140	107	173	3	3	100
12.25	720	624	816	77	77	100
13.01	310	268	352	13	14	92.9
13.03	1800	2023	1479	45	46	97.8
17.01	380	335	425	56	59	96.6
17.02	510	420	600	56	56	100

GSLLC ran a series of commercially prepared standard samples from MEG, Inc. with gold standard values ranging from 20 to 3,480 ppb, each with reported standard deviations. GSLLC applied an acceptance criterion of standard value plus or minus 3-times the standard deviation. As shown in Table 11-1:, each standard sample met the acceptance criterion of a rate of 81% to 100% other than standard 10.01, which has a value of 20 ppb. Since this standard value is well below the cutoff for the resource and is near the lower limits of detection, it was determined by the QP that this standard testing result was not significant for quality control. It was determined that the results from testing the other gold standard samples are acceptable, with most samples achieving a rate of +90% passing the required criteria.

11.2.3 External Silver Standard Values

Several of the gold standards were also certified as silver standards (11.13, 11.15, 11.19, 11.29, 12.13, 12.25, 13.01, 13.03, 17.01 and 17.02). As with the gold, standards values are certified for silver using conventional industry-standard "round robin" assay methods. In this QA/QC evaluation, the standards and their concentrations were as shown in Table 11-2:, along with the laboratory results for each standard. GRC used a strict +/- 3 standard deviation analysis to determine if standards passed the laboratory analysis. These results are summarized below showing the acceptable ranges of 3 standard deviations.

Table 11-2: External Silver Standards Used in the 2015 and 2016 Drill Programs

Standard Sample ID	Standard value Ag (ppm)	Acceptable Lower Value Ag (ppm)	Acceptable Upper Value Ag (ppm)	Samples Within Range	Number of Samples	Percent Passing
11.13	20.6	16.7	24.5	16	16	100
11.15	52.14	41.97	62.31	26	26	100
11.19	1.9	1.3	2.5	12	12	100
11.29	13.4	10.7	16.1	54	54	100
12.13	33.4	23.65	43.33	77	77	100
12.25	4.4	2.9	5.9	70	70	100
13.01	0.83	0.275	1.367	14	14	100
13.03	0.8	0.257	1.34	46	46	100
17.01	6.53	5.64	7.41	56	59	96.6
17.02	4.99	4.15	5.84	56	56	100

11.2.4 Coarse Blank Standards

GSLLC inserted one coarse blank sample at a rate of 1 per 20 samples and included these in the shipments to BV laboratories. This equates to 1 coarse blank for every 17 drill samples. These samples consist of post mineral tuff collected from the Gold Springs project area by GRC. This material was tested for gold and silver content prior to use as a blank, with all analyses returning values of <5 ppb gold and <0.5 ppm silver. The coarse blanks are inserted into the sample stream primarily to test for cross contamination during sample preparation. A total of 228 coarse blanks were sent through the sample prep process and analyzed for gold and silver. Of these 228 samples all returned values of <5 ppb gold and <0.5 ppm silver. All were in the acceptable range of results with a 100% rate of passing.

11.2.5 Cross Lab Checks

In 2019, GSLLC additionally checked the BV results by having 99 coarse reject samples from the drilling samples sent to Paragon Geochemical to be re-pulped and assayed. This cross check of samples was scattered through the drilling population and represented 8.1% of the total drill samples. The re-assays were conducted for gold only. While individual samples showed variations, the populations as a whole corresponded to within 0.2% for the cross-check assays.

11.3 QA/QC Conclusions and Recommendations

The QP recommends the following with regard to QA/QC:

- External analytical standards and coarse blanks showed both good analytical and sample preparation consistencies and are acceptable other than Standard Sample 10.01, which had a pass rate of 50%. Since this standard has a value of 20 ppb (0.02 g/t) gold, which is below the cutoff grades for the resource and is near the lower detection limits, it should not adversely affect resource evaluation and its use should be discontinued in the future.

- External standards with gold concentrations below 0.15 g/t are of little practical use to future drill programs and it is recommended that these lower-grade standards be discontinued as they are below the resource cutoff grades.
- Increase the percentage of drill samples to be cross-checked by external laboratories and run analyses for both gold and silver.
- In conclusion, these results indicate assay values for gold and silver are satisfactory for resource evaluation, with indications where future protocol could be improved.

12.0 DATA VERIFICATION

All geological data has been reviewed and verified by Kurt Katsura as being accurate to the extent possible, and, to the extent possible, all geologic information provided by GRC was reviewed and confirmed. The Authors have relied on technical reports and data prepared by geologists employed by GRC-US.

The geochemistry data from the GSLLC drilling was compiled by GRC into a comprehensive database. This database was checked against approximately 10% of the data reported in the original assay certificates from Labs for accuracy by the Authors. This review verified that the database information is accurate, and that no discrepancies between the assay certificates and the data base were detected.

The Authors feel that the assay sampling and review of the QA/QC work conducted by GRC provides adequate and good verification of the data. The recommendations discussed above in section 11.3 should be considered to maintain and improve the reliability of the assay data.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Bottle Roll Tests 2012

In 2012, GSLLC conducted a series of metallurgical tests designed to assess the recoverability of gold by bottle roll testing using cyanidation. This work was completed by Inspectorate Labs of Sparks, Nevada. Tests were completed on 4,748 samples collected from available RC chips from the 2012 drill program at the Grey Eagle and Jumbo targets. Additional samples were included from a trench at the Grey Eagle target. All samples had previously been analyzed by fire assay methods.

These bottle roll tests used a sample size of one kilogram. Previous fire assays were based on a 30-gram sample. The average cyanide recovery for all gold samples tested was 90% (33%-98%). Except for one test, all results showed greater than 77% recovery. Gold grades calculated from the cyanide recoveries increased by an average of 15% over the original fire assays for values >0.2 g/t Au. Gold grades ranged from 0.043 g/t to 13.056 g/t in the original results, providing a broad range of values for the test work. Samples in this test came from drill holes GE-12-001, GE-12-002, J-12-004, and J-12-005, as well as the Grey Eagle trench.

The one-kilogram samples were ground to 85% less than 200 mesh, then subjected to cyanidation for 72 hours, with gold assays taken at 24, 48, and 72 hours. The residue or tail was also assayed. The vast majority of the gold was recovered in the first 24 hours with only an additional 3% of the gold being recovered between 24 and 48 hours and little additional recovery between 48 and 72 hours, indicating rapid availability of the gold at the 200-mesh size. Recoveries were very uniform, with only a slight increase in recovery with grade.

13.2 Bottle Roll Tests 2013

During 2013, GSLLC conducted further metallurgical tests utilizing KCA of Reno, Nevada. These tests were conducted on seven samples collected from the RC chips from the 2012 drill program at the Grey Eagle and Jumbo targets. Tests were carried out on RC chips rather than pulverized material as had been used in previous metallurgical tests.

Five-kilogram samples were subjected to cyanidation bottle roll testing using agitation for one minute every hour for 40 days. The average gold extraction in the Grey Eagle target (Nevada) was 71% (range: 38%-83%). For the Jumbo (Utah) target, the results were 88% and 89% for the two tests. Gold grades for all the tests ranged between 0.16 g/t and 6.2 g/t. These values are based upon calculated heads. Tested sizes ranged from 0.76 millimetres to 8.6 millimetres.

Silver extractions for the same samples were much more variable and lower than gold, as was anticipated from previous work. There is a significant difference in silver extraction between Grey Eagle and Jumbo, with much higher extractions coming from Jumbo. The average silver extraction from Grey Eagle was 21% and from Jumbo was 54%. Further testing will be needed to determine the basis for these differences.

13.3 Column Tests 2015

During 2015, KCA completed a set of column leach tests on three samples each from Jumbo and Grey Eagle. The material was crushed to 100% passing 9.5 millimetres and was leached in columns 75 millimetres in diameter and 0.6 metres in height. The material leached quickly, and most of the gold leaching occurred within the first 20 days (84% to 97% of total leached) and was substantially completed in 60 days. Silver leaching was typically much slower. The cyanide concentration was increased at approximately day 85, which did result in an increase in silver recovery, resulting in a 10% increase. Unfortunately, this change in reagent concentration significantly increased the cyanide consumption (KCA, 2015). Using a simple average, gold recovery for the Grey Eagle and Jumbo area were 77% and 68%, respectively. This does not consider weighting of the recovery by proportion of ore type as unique ore types were not separately weighed prior to combining for testing. Globally between the two resource areas, the recovery averaged 73% for gold. Silver recovery averaged 16% and 47% for Grey Eagle and Jumbo, respectively. The cause for the lower silver recovery experienced for Grey Eagle is unknown at this time. Table 13-1: presents the results of this test program.

Table 13-1: 2015 KCA Column Tests

Sample Description	Crush Size (mm)	Days of Leach	Calculated Head (Gold g/t)	Calculated Head (Silver g/t)	Extracted Gold	Extracted Silver	Consumption NaCN (Kg/t)	Cement Addition (Kg/t)
GE Trench 1	9.5	141	2.548	12.01	82%	23%	14.31	2.01
GE Trench 2	9.5	141	2.446	12.00	87%	15%	13.60	2.05
GE Trench 3	9.5	141	0.899	11.01	63%	9%	11.61	1.95
Jumbo Met Samples 1-4	9.5	141	0.679	12.52	92%	37%	14.61	2.02
Jumbo Met Samples 5-7	9.5	141	0.843	17.28	56%	45%	12.04	2.03
Jumbo Met Samples 8-11	9.5	141	0.370	20.33	57%	58%	12.69	2.01

NaCN – sodium cyanide

Figure 13-1 and Figure 13-2 show the gold and silver extractions for the GE Trench and Met Sample materials.

Figure 13-1: GE Trench and Met Samples Gold Extraction Column Leach Results

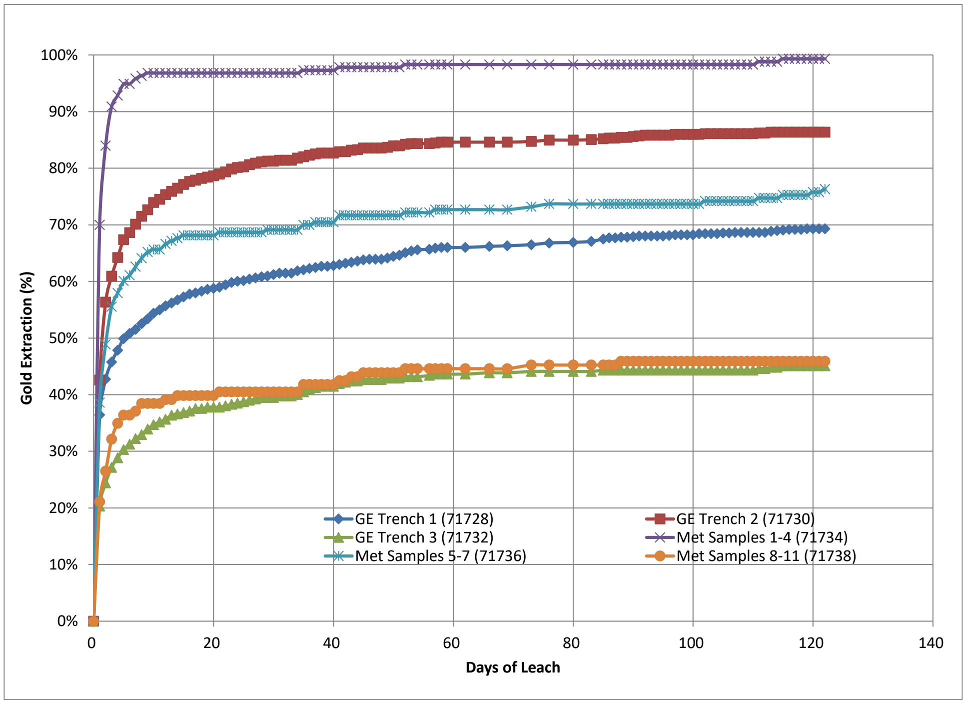
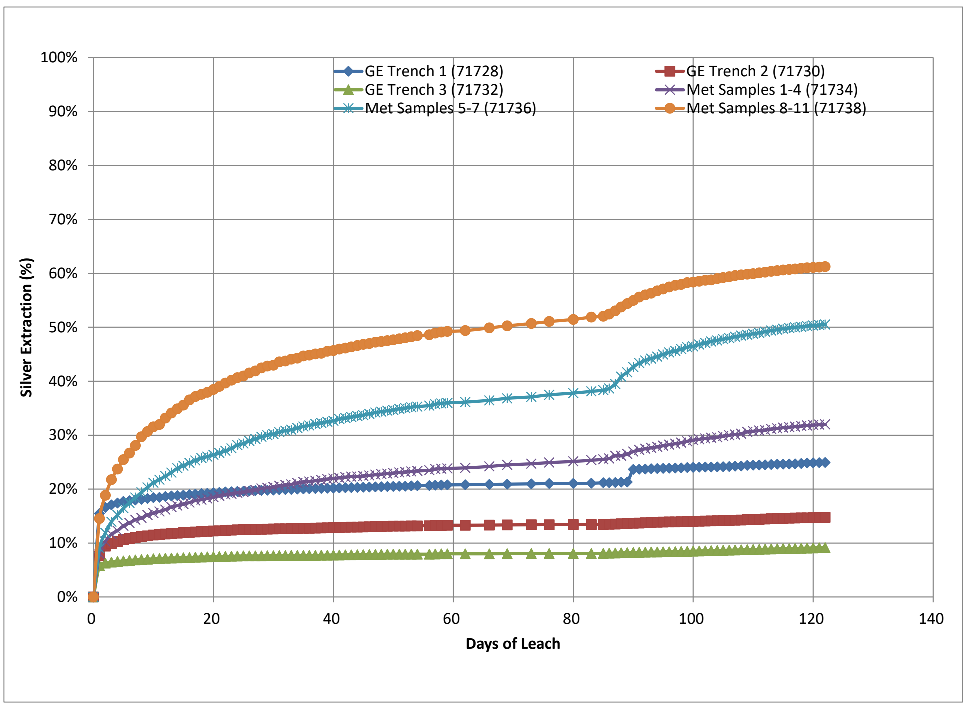


Figure 13-2: GE Trench and Met Samples Silver Extraction Column Leach Results



13.4 Column Tests 2016

Additional column testing was completed in 2016 using RDi of Denver, Colorado. The metallurgical tests were conducted over 282 days to look at extraction rates over the short term and long term after a "rest period" in which no additional cyanide solution was applied. The extraction values are shown below in Table 13-2:.

Table 13-2: Jumbo Estimated Gold Extractions

Column	Final Extraction*		Calculated Head Grade	
	Gold (%)	Silver (%)	Gold (g/t)	Silver (g/t)
#1	94.3	34.3	1.09	24.3
#2	66.9	53.4	0.54	20.6
#3	81.9	59.8	0.23	11.9

* extractions after 157 days of leaching and 125 days of rest

The three columns covered a wide range of grades varying from 1.09 g/t to 0.23 g/t gold, with good recoveries even from the lower grade material. Approximately 22 kg of each type of mineralized material, crushed to a P_{80} of ¾ inches, were loaded into 4-inch diameter columns approximately 6 feet high. The final extractions over time are shown in Table 13-3:.

Table 13-3: Large Column Extraction Detail Data with Rest Periods

Column	43 day Extraction		84-day Extraction		282-day Extraction after rest period*		Calculated Head Grade	
	Gold %	Silver %	Gold %	Silver %	Gold %	Silver %	Gold g/t	Silver g/t
1	90.1	25.3	90.6	28.4	94.3	34.3	1.09	24.3
2	62.5	35.4	62.5	43.3	66.9	53.4	0.54	20.6
3	76.8	39.9	76.8	48.0	81.9	59.8	0.23	11.9

*Leach sequence included 84 days of leaching followed by 35-day rest, followed by 44 days of leaching, followed by a second rest period of 90 days, followed by a further 29 days of leaching.

The material was leached and sampled over a long-time frame to evaluate how much more gold and silver could be extracted over time and after rest periods during which the cyanide solution is not circulated. As can be seen in Table 13-2: and Table 13-3:, gold recoveries increased several percent after the rest period, and silver recoveries increased significantly, with increases in the double-digit percentages. Approximately 90% of the gold recovery was achieved in the first 12 to 18 days. Figure 13-3 to Figure 13-5 show the column leach results for the Jumbo composites.

Table 13-4: shows the reagent consumptions for the column tests at various periods during the tests. These reagent consumptions are high by column leaching standards because a high cyanide concentration was employed in an attempt to extract additional silver. Cyanide consumption in the production environment has been shown to typically be one-third of laboratory consumptions.

Additional Static Bucket Tests were completed by RDi during 2016. Bucket tests are used to assist in identifying a reasonable crush size for future conventional column testing. Recoveries do not necessarily represent those recoveries to be expected during column testing. Grey Eagle was a series of four tests with each test representing the four crush sizes. Jumbo was a series of six tests, again with each test consisting of four crush sizes. A summary of the results is presented in Table 13-5.

Apart from material used for one series of tests for Grey Eagle, all the samples were less than 0.40 grams per tonne, and the majority were less than 0.30 grams per tonne. The selected samples for Grey Eagle appear to perform poorly. Previously tested samples exhibited good results (see Table 13-1:). Additional column tests are planned as part of the work program going forward.

Figure 13-3: Jumbo Composite 1 Column Leach Results

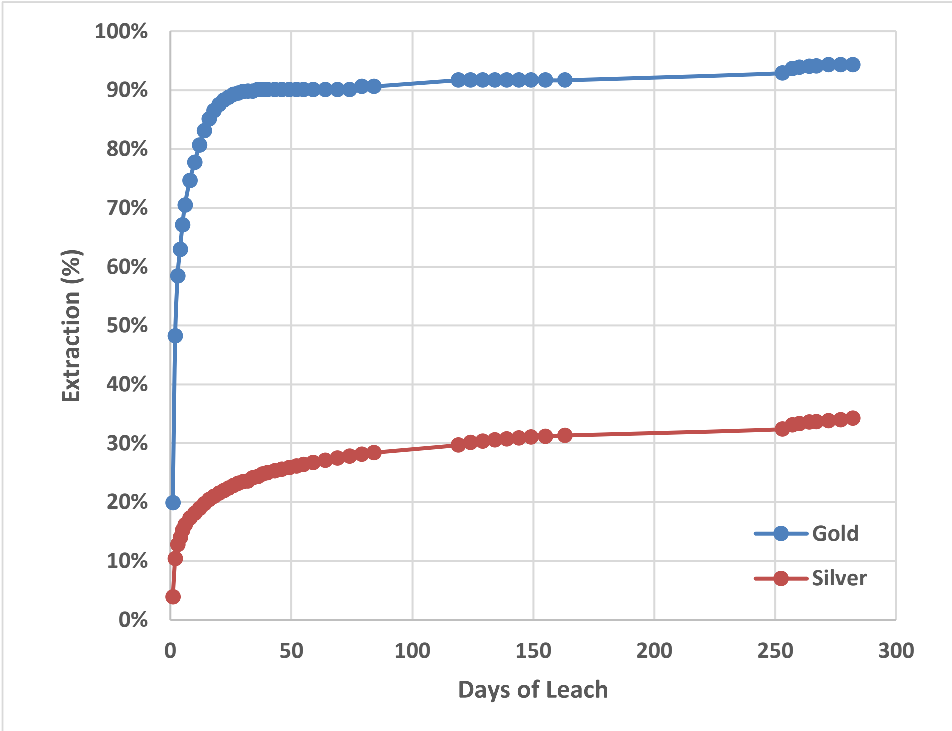


Figure 13-4: Jumbo Composite 2 Column Leach Results

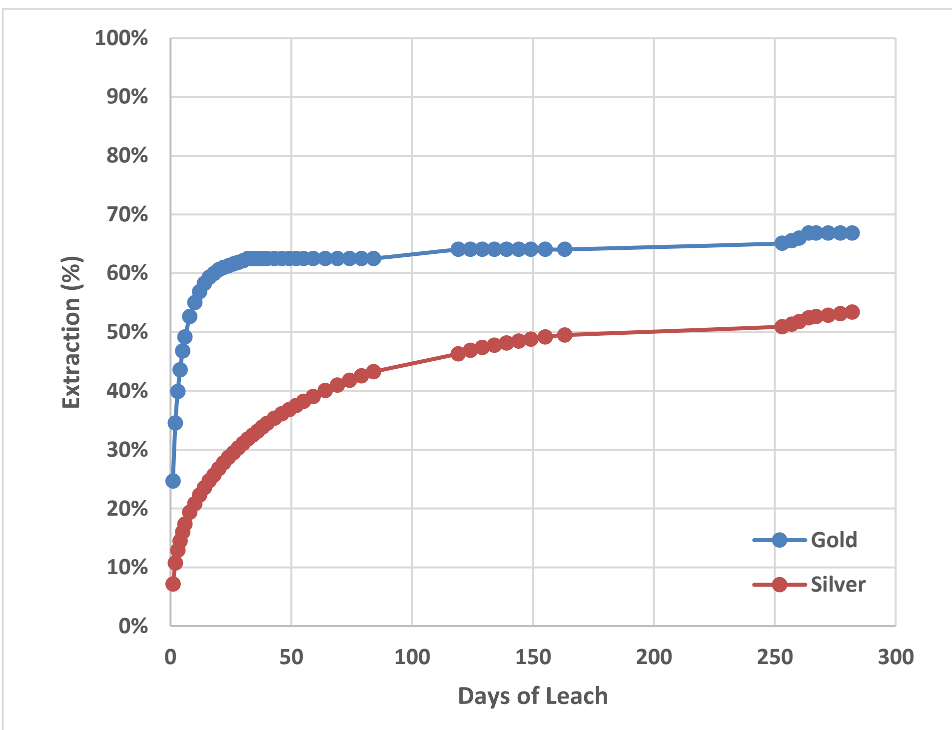


Figure 13-5 Jumbo Composite 3 Column Leach Results

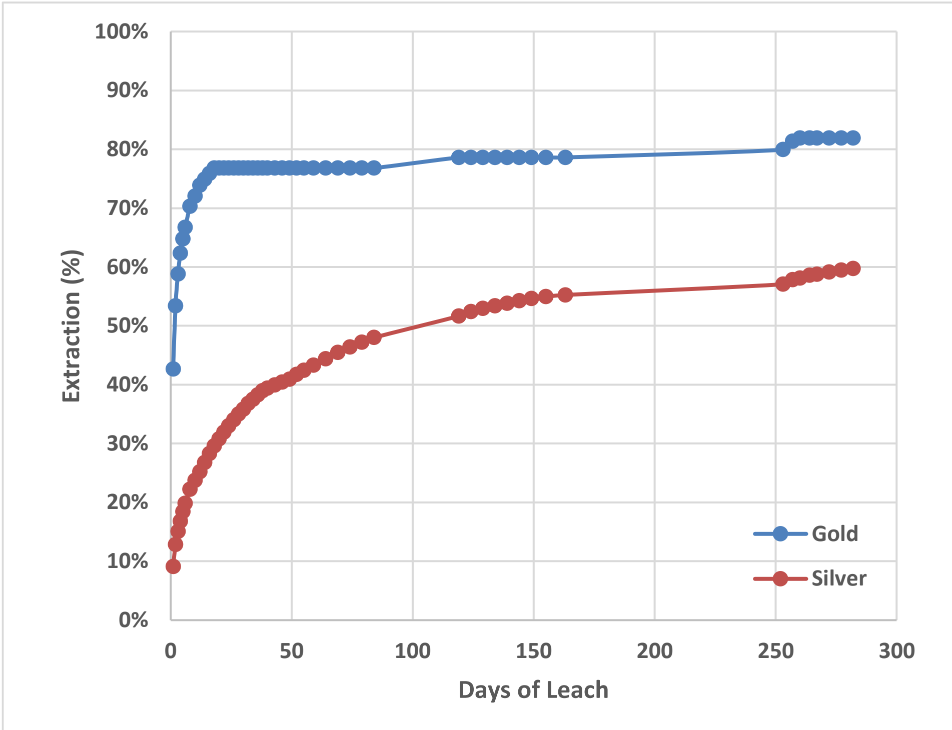


Table 13-4: Large Column Reagent Consumptions

Composite	43 days		84 days		282 days	
	Cyanide (kg/t)	Lime (kg/t)	Cyanide (kg/t)	Lime (kg/t)	Cyanide (kg/t)	Lime (kg/t)
1	1.63	1.99	2.97	3.62	5.79	7.07
2	1.28	1.84	2.51	3.60	4.80	4.80
3	1.32	1.82	2.62	3.60	5.06	6.97

Table 13-5: Static Bucket Test Results

	Grey Eagle	Jumbo
Grade Range g/t	0.17 – 2.6	0.10 – 5.3
Test Size		
3 MM	39.2 – 46.8%	65.7 – 96.1%
3/8 INCH	16.6 – 47.0%	53.5 – 82.5%
¾ INCH	21.2 – 51.1%	66.0 – 90.0%
1 INCH	15.1 – 20.8%	21.7 – 78.4%

Of the material tested thus far there have been no deleterious elements identified that would interfere with metal recovery.

The project has limited metallurgical testing. GRE recommends that a complete metallurgical test program be completed to identify and test the various ore types to determine crush size, leach cycle, recovery and reagent consumption. Samples for this work should be collected during the next drill campaign.

13.5 Recommended Metallurgical Variables

The following parameters have been used in the development of the design criteria for this project:

<u>Gold Recovery System</u>

- Merrill-Crowe

<u>Heap Leach Time</u>

- Primary Period: 45 days
- Total Period: 135 days

<u>Irrigation</u>

- Rate: 12 litres per hour per square metre (lph/m2) (0.005 gallons per minute per square foot [gpm/ft^2])

<u>Size</u>

- Crush Size: 12 mm (approximately 1.2 inch)
- ROM: as received

<u>Extraction</u>

Crush

- Gold: 73%
- Silver: 40%

ROM

- Gold: 40%
- Silver: 20%

<u>Reagent Consumptions</u>

Crush

- Cyanide: 0.4 kg/t
- Lime: 0.75 kg/t

ROM

- Cyanide: 0.2 kg/t
- Lime: 0.5 kg/t

14.0 MINERAL RESOURCE ESTIMATES

The updated 2020 Mineral Resource Estimate for the Etna resource area of the Gold Springs Project, presented herein, was completed under the direction of Terre Lane, Principal of GRE and a NI 43-101 Qualified Person, using all available results as per the effective date of each zone. The main objective was to publish revised mineral resource estimates for the above-mentioned resource area.

This updated resource estimate integrates 2,596 metres of new drilling completed in the Etna resource area. Of the 2,596 metres, 2,394 metres have been assayed for gold.

The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

This section also re-states the results of the 2017 Mineral Resource Estimate for the Jumbo and Thor resource areas and the 2015 Mineral Resource Estimate for the Grey Eagle resource area. These Mineral Resource Estimates were also performed by Terre Lane.

The Authors do not know of any environmental, permitting, legal, title, surface access, taxation, socio-economic, marketing, or political issue that could materially affect the information contained in this technical report.

14.1 Methodology

The 2020 Mineral Resource Estimate for the Etna resource area and geostatistical study detailed in this report was performed using Leapfrog® Geo and Leapfrog® Edge software. Leapfrog® Geo was used to update the geologic model, and Leapfrog® Edge was used for geostatistical analysis and grade modeling in the block model.

14.2 Block Models

The Etna block model was constructed with block dimensions of 5 metres by 5 metres by 5 metres. Blocks were located relative to the LIDAR elevation model. Each of the blocks was assigned fields to contain gold and silver grade for each estimation method, resource classification, rock density, block tonnage, contained ounces, lithology, and lithology groups. The block model has the attributes shown in Table 14-1.

Table 14-1: Block Model Attributes

	X	Y	Z
Etna			
Lower left coordinate	760,190	4,195,485	1,305
Column/Row/Level size (m)	5	5	5
Number of columns/rows/levels	265	349	146

14.3 Geologic Model

GRE created a geologic model for Etna which contained new drill hole data as part of the 2017 exploration drilling. The model was completed using LeapFrog® software (Leapfrog). Drill hole information for the entire Gold Springs Project was uploaded into Leapfrog, including collar, assay, survey, and lithology. The lithology logs for the drill holes contain detailed lithologies consisting of multiple types of andesite, rhyolite, quartz veins, and breccias to distinguish discrete volcanic flows and structurally controlled silicified features. GRE visually reviewed the data in Leapfrog along with the GRC field geologists and independent geologist Kurt Katsura to correlate lithologic and structural controls with mineralized intervals. The initial review showed mineralization spanning several discrete lithologies and structural features and did not show a clear correlation with mineralization. However, when grouping the lithology and structures into host and non-mineralized areas, a clear correlation was revealed for each of the model areas. Table 14-2 lists the defined lithology groups.

Table 14-2: Lithology Groups

Mineral Hosts	Non-Mineralized
Andesite Host	EFW
Other Hosts	Post Mineral
Rhyolite	Post Mineral TPL
Vein	Post Mineral VFG
VFG Andesite	Thor Porphyry

Etna contains the Andesite Hosts, Other Hosts, Vein, EFW, and Post Mineral lithologic groups. Small areas of the Post Mineral group are evident in the topographic high areas, but, in general, the Andesite Host group is exposed at the surface. Like Jumbo and Thor, the Andesite Host group contains intermittent occurrences of the Vein and Other Hosts groups. Mineralization indiscriminately spans the lithologies contained with the Andesite Host group. The EFW group lies across the entire deposit area in a mostly flat orientation and is faulted with a down dropped block around 100 feet lower on the east. The EFW group has a mostly constant thickness around 50 feet and contains less frequent and lower grade assay values than the Andesite Host group. A typical section through the geologic model is shown in Figure 14-1. An isometric view of the Etna wireframe solids created in Leapfrog is shown in Figure 14-2.

Figure 14-1: Typical Geologic Model Section - Etna

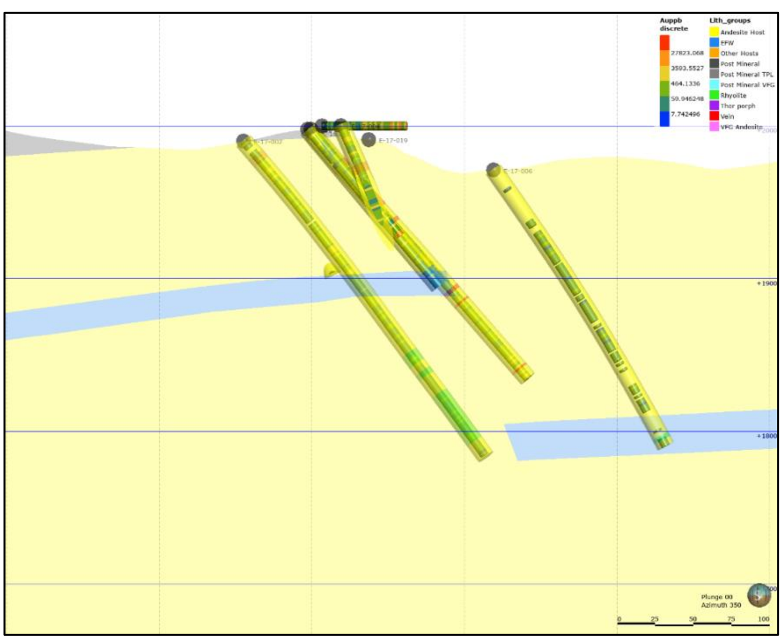
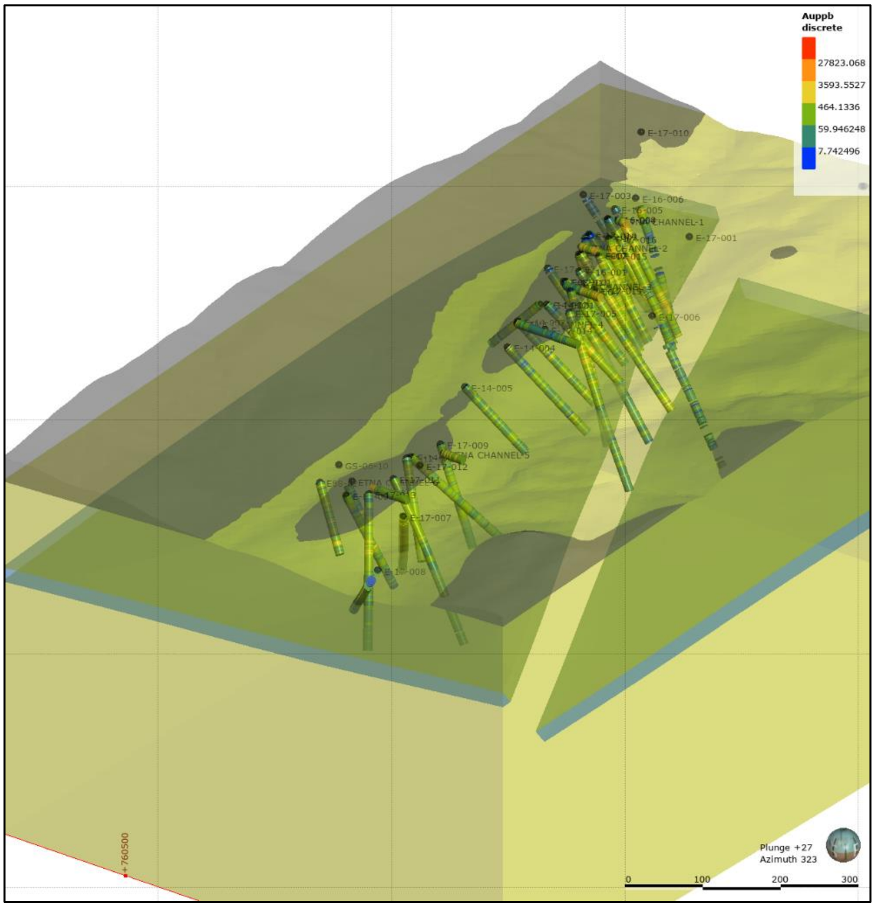


Figure 14-2: Wireframe Solid of the Etna Vein



GRE coded the block model into Mineralized Zones and Non-Mineralized Zones based on the wireframes created in the geologic model.

14.4 Bulk Density

14.4.1 2015 Specific Gravity Estimates

Specific gravity measurements were conducted on four core holes drilled in November 2014, as well as on a series of surface samples collected from various sites on the North and South Jumbo targets. In addition, KCA performed numerous specific gravity tests on samples from the Grey Eagle trench and core from hole J-11-001C. For the 2014 core drilling, a core sample was selected for specific gravity tests at approximately five-foot intervals from each core hole drilled and given a sequential number from 1-273 and described by Drill Hole, Footage, Lithology, and Mineralization Type. The series of Jumbo surface samples was numbered sequentially from 274-315 and described by Geographical Reference or Drill Pad ID, GPS Location, Lithology, and Mineralization Type.

Measurements were conducted using a Veritas S3201 Precision Balance (+/- 0.1 g) with a normal surface weighing pan and an undercarriage hook for under balance weighing of a suspended sample submerged in water. The Veritas balance was leveled and plugged into a 110-volt power source for a minimum of 0.5 hours to allow for machine electronic stabilization and was then calibrated using the auto-calibration function with a high precision 1 kg +/- 0.1 g stainless steel standard weight. A sheet of clean velum weighing-paper was zeroed out using the zero-tare function key. A 5-gallon bucket of water was placed under the Veritas balance, and a 30-inch hooked copper wire, which would subsequently be used to support a rock sample suspended in water, was hung from the under balance hook and weighed while partly submerged in water to give a wire weight. Ideally, the fresh water should be at 4°C, but the water temperature during the weighing ranged from 2 to 4°C; however, the error induced by the minor difference is minimal.

Specific gravity, also called relative density, is the ratio of the density of a substance to that of a standard substance. The usual standard of comparison for solids and liquids is water at 4°C (39.2°F), which has a density of 1.000 kg per liter (62.4 pounds per cubic foot). (Encyclopedia Britannica)

The specific gravity is calculated using the following formula: $SG = \frac{\text{Dry Weight}}{\text{Dry Weight - (Wet Weight - Wire Weight)}}$.

14.4.1.1 Procedure for Competent Samples

1. Weigh dry sample in air on upper balance tray with tared weighing paper. Record weight.
2. Secure sample in copper wire “cage,” hook wire with sample into balance hook, and submerge the suspended sample entirely into underlying bucket. Record weight.
3. Calculate SG.

14.4.1.2 Procedure for Porous-Poorly Indurated Samples

1. Weigh dry sample in air on upper balance tray with tared weighing paper. Record weight.
2. Dip porous tuff sample in melted wax bath until completely coated. Weigh and record weight.
3. Secure sample in copper wire “cage,” hook wire with sample into balance hook, and submerge the suspended sample entirely into underlying bucket. Record weight.
4. $SG = \frac{\text{Dry Weight (no wax)}}{\text{Dry Weight - (Wet Weight - Wax Weight - Wire Weight)}}$

There is a minor error introduced by coating the sample with wax in that it decreases the overall density of the sample by adding a low density material, but the weight of the wax added ranged from 0.7% to 1.6 % of the total sample dry weight, and the error is considered insignificant for the calculated specific gravities of the post mineral, low density tuffs.

In addition to the specific gravity work performed by GRC, a series of core samples from the 2011 drilling at Jumbo, trench samples from Grey Eagle, and surface samples of the post mineral tuff were submitted to KCA for SG testing. A summary of the work as presented in their report, Gold Springs Project Report of Metallurgical Test work (2014) is provided below.

Rock density tests were completed on specimens selected by the client prior to the test program. The specimens selected were whole shapes or broken pieces and exhibited sufficient structural integrity to permit handling. Rock densities were determined utilizing the wax immersion test method (ASTM Method C914, Standard Test Method for Rock Density and Volume of Solid Refractories by Wax Immersion).

Each specimen was tested as follows:

1. The test specimen was dried to a constant weight by heating to 104° to remove entrapped moisture. Any loose material or soil was removed from the test specimen. The dried specimen was then weighed for an initial weight, *W*.
2. The test specimen was then coated with wax by submersion in the container of melted wax. A wax coated weight, *P*, of the test specimen was then measured.
3. A counterbalanced device was then utilized to suspend the sample in water and measure the water-immersed weight of the wax-coated specimen, *S*.
4. Since 1 cubic centimetre of water weighs 1 gram, the total volume, *V1*, of the wax coated test specimen (specimen including the wax coating) was calculated in cubic centimetres as follows:

   $V1 = P – S$
5. Given *K* is the density of the wax, the volume of the wax coating on the test specimen, *V2*, was calculated in cubic centimetres as follows:

   $V2 = (P – W)/K$
6. The volume of the test specimen, *V*, was then calculated by subtracting the volume of the wax coating (Step 5) from the total volume (Step 4).

   $V = V1 – V2$
7. The rock density, *D*, of the test specimen in grams per cubic centimetres (g/cm^3) was calculated as the quotient of the initial weight divided by the volume of the test specimen, excluding the volume of wax.

   $D = W/V$

Measured SGs for each lithology type were averaged to obtain representative SGs by mineralization type[1], as shown in Table 14-3.

Table 14-3: Gold Springs Specific Gravity by Mineralization Type

Mineralization Type	Subset	Average Specific Gravity (g/cm^3)
J-0		
	Andesite	2.46
	Rhyolite	1.90
	Tuff	1.93
J-1		2.43
J-2		2.49
J-3		2.52
J-4		2.49
J-5		2.50
J-6		2.60
GE-0		
	Andesite	2.42
	Red Andesite Fault	2.45

[1] The mineralization types were defined in the 2015 PEA (GRE, 2015) as shown in Table 14-3:, and as follows: J-1 – Oxidized quartz; J-2 – Unoxidized quartz; J-3 – Quartz vein; J-4 – Stockwork/breccia; J-5 – Oxidized footwall; J-6 – Unoxidized footwall; GE-1 – Quartz calcite vein; GE-2 – Stockwork/breccia; GE-3 – Quartz vein; GE-4 – Andesite. These mineralization codes were not used in this report.

Mineralization Type	Subset	Average Specific Gravity (g/cm^3)
	Tuff	1.62
GE-1		2.54
GE-2		2.51
GE-3		2.54
GE-4		2.46

14.4.2 Specific Gravity Estimate

The 2015 Mineral Resource Estimate and PEA (GRE, 2015) specific gravity data was available for the Grey Eagle and Jumbo resource areas only, and no additional data or testing for specific gravity has been completed since then. Because this report includes two resource areas for which specific gravity data is unavailable, and because the data that is available for Jumbo is limited, GRE calculated a weighted average specific gravity for the Jumbo and Grey Eagle mineralized zones and then reduced that value by approximately 3% to obtain a conservative value of 2.4 g/cm^3 for all mineralized blocks in each block model.

14.5 Drill Hole Sample Database

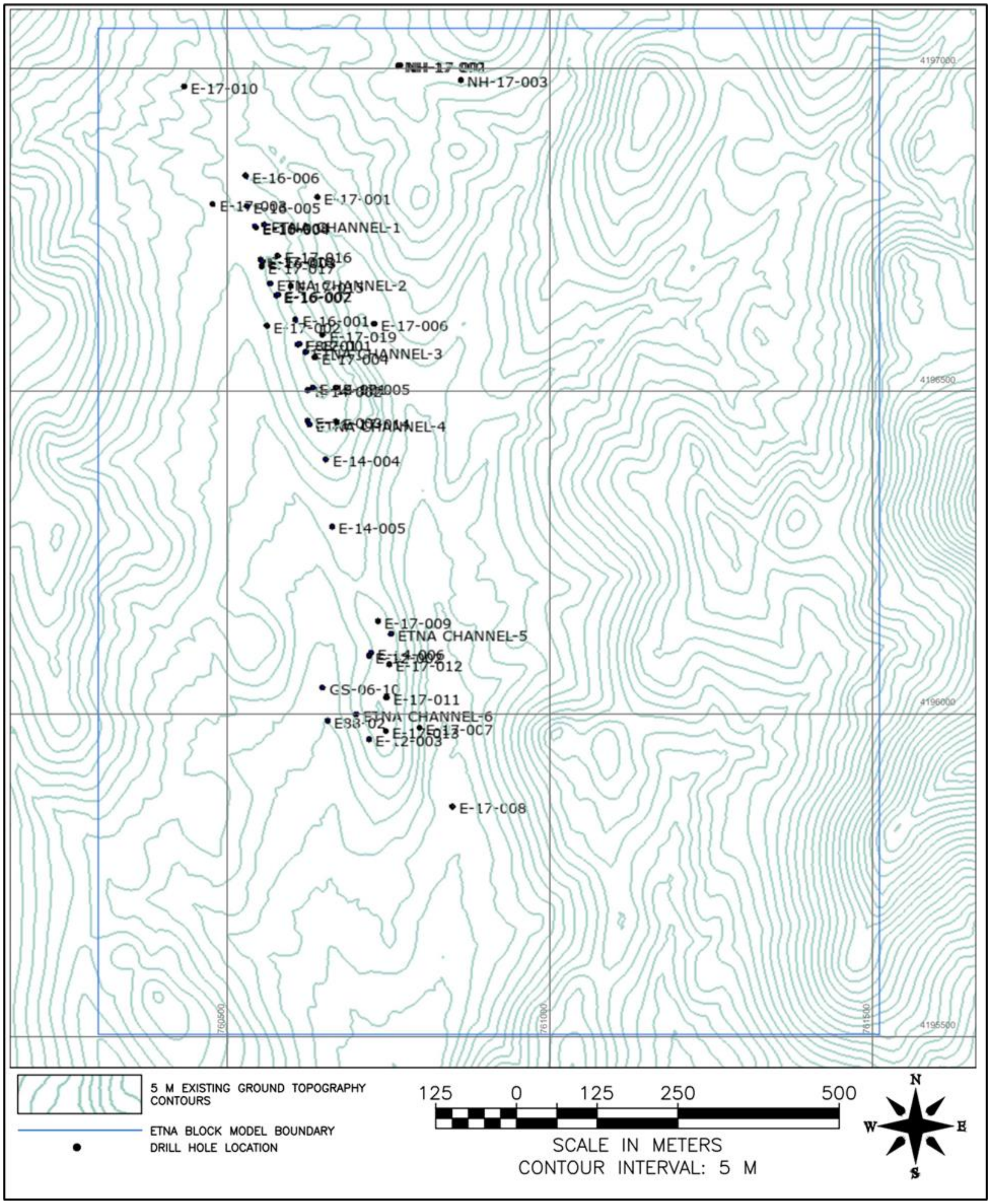
The Etna block model extents and drill hole locations are shown on Figure14-3.

Etna data provided by GRC, and verified by Kurt Katsura, included drill hole data for 36 drill holes and 6 trenches, collar coordinates, drill hole direction (azimuth and dip), lithology, and sampling and assay data. Topography was derived from 1-metre LIDAR data. The assay data included hole ID, gold in ppb, and silver in ppm.

The drill holes in the Etna area total 5,948.22 metres, and the channels total 329.19 metres. The database includes three RC drill holes completed in 2012 totaling 417.6 metres, six holes in 2014 totaling 810.8 metres. eight RC drill holes completed in 2016 totaling 1,385 metres and 19 drill holes completed in 2017 totaling 3,334.6 metres. Recent drill hole collar locations were surveyed by Platt & Platt Inc., professional surveyors, using Trimble surveying instrumentation. Historic drill hole collar locations were surveyed in a similar manner. Downhole surveys were conducted on all of the 2016 Etna drill holes, and downhole survey were conducted on 14 of 19 Etna drill holes completed in 2017.

There are 3,620 gold and 3,273 silver assay data values in the Etna database.

Figure14-3: Etna Drill Hole Locations



14.6 High Grade Capping

Very high-grade assay values can, if they are outliers, bias grade estimation. Statistical methods for grade estimation, however, are relatively insensitive to a low number of very high values. To determine if grade capping is necessary, GRE produced cumulative frequency plots of the data for each deposit. If the cumulative frequency plots form a relatively straight line, capping is unnecessary; but if there is a break in the upper end, that is usually an indication that grade capping should be performed.

14.6.1 Gold

Figure 14-4 shows a histogram of the Etna gold assay data, and Figure 14-5 displays the cumulative frequency plot of all gold samples above 5 ppb. These charts indicate that the Etna gold data forms a log-normal distribution with very few outliers. The data approximates a straight line, which is consistent with a log-normal distribution and a single population. There are four gold sample values above 10,000 ppb. The high assay values between are believed to be a valid part of the data set. The impact of including them uncut in the composites is negligible to the overall resource estimate. Thus, the author recommends no capping to gold grade.

Figure 14-4: Histogram of Etna Gold Assay Data > 5ppb

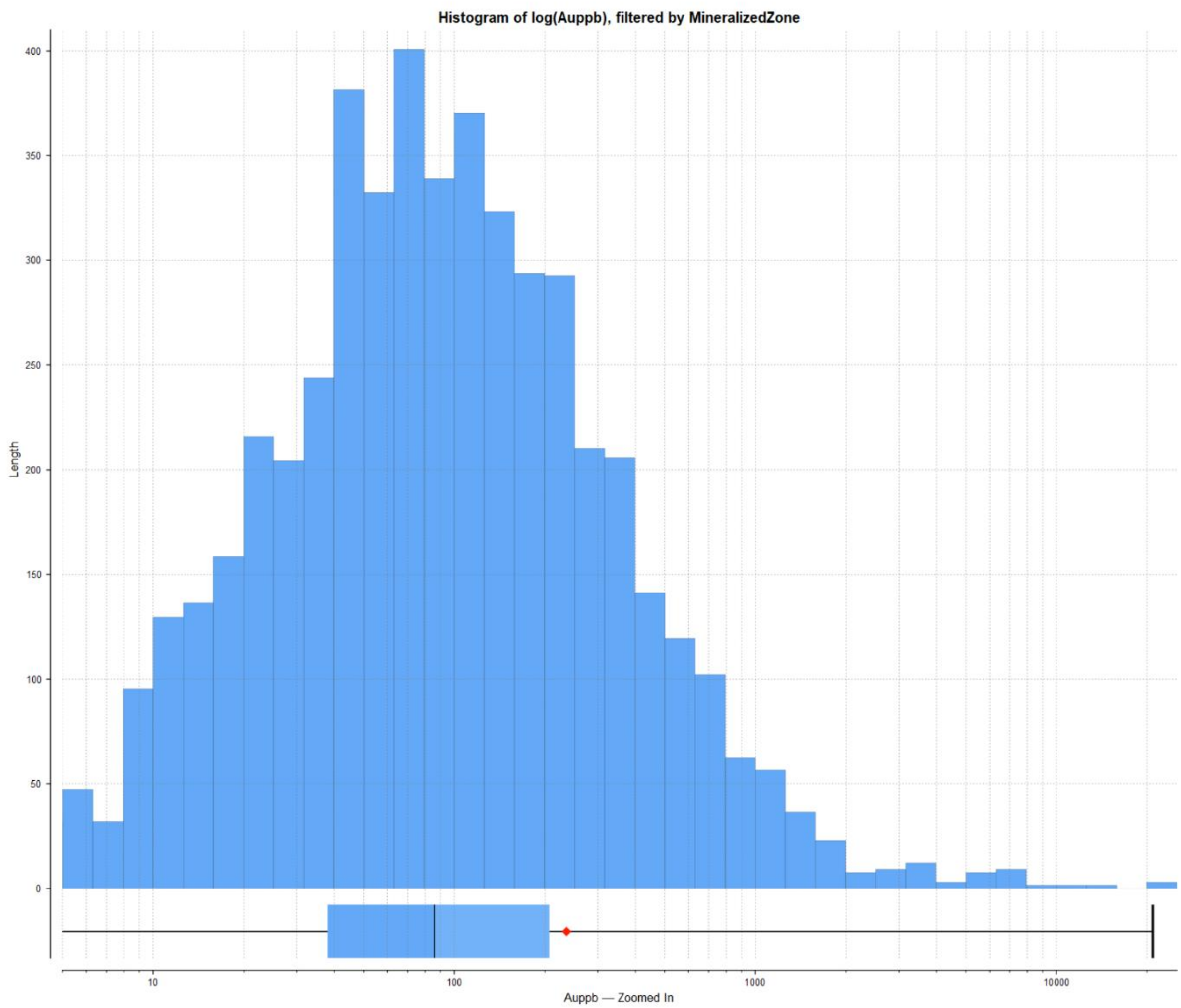
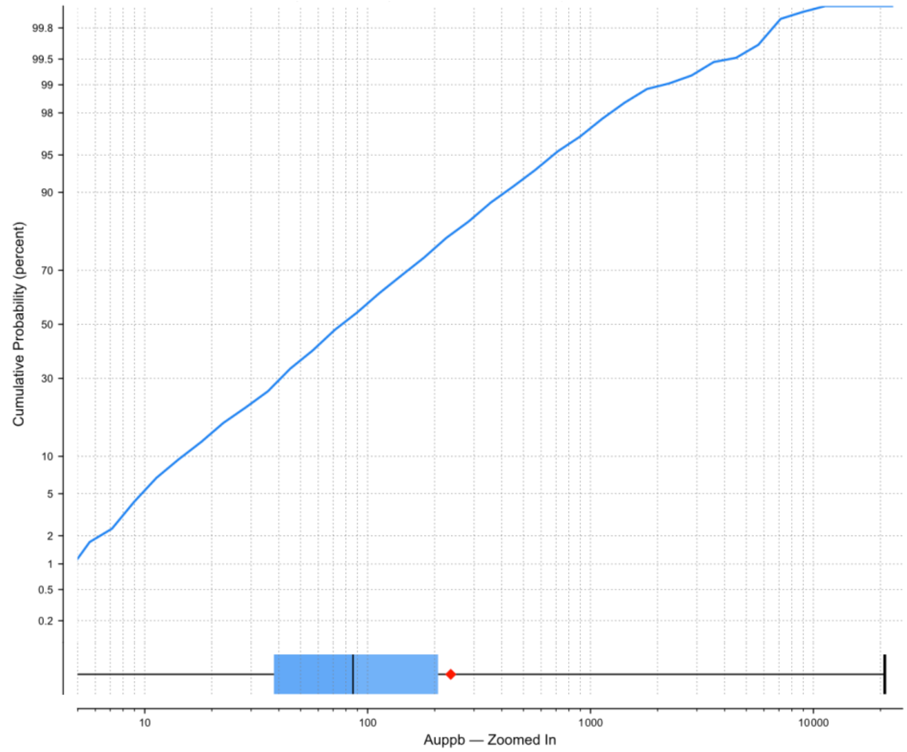


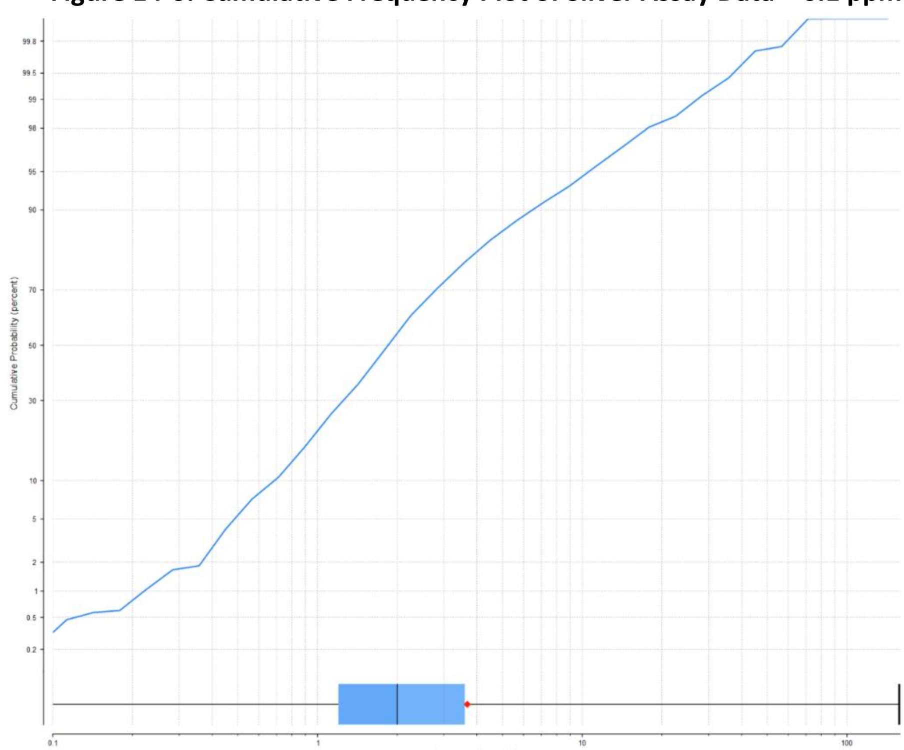
Figure 14-5: Cumulative Frequency Plot of Etna Gold Assay Data > 5 ppb



14.6.2 Silver

The silver assay data has very few high values; therefore, the author recommends no grade capping for silver. A silver cumulative frequency plot, from the Etna resource area, is provided as Figure 14-6.

Figure 14-6: Cumulative Frequency Plot of Silver Assay Data > 0.1 ppm



14.7 Compositing

Compositing sample assay intervals to larger intervals is typically required to accurately model open pit minable deposits and is viewed by the geostatistical community as one of the first steps required to perform a geostatistical resource estimate.

The Gold Springs assaying was performed almost exclusively using 1.52-metre-long sample intervals and assayed using a 30-gram fire assay. This small sample will have higher variability (higher and lower grade) than a larger open pit minable volume due to the size of the mining equipment and its ability to selectively mine a discrete volume.

The Etna data was composited into 4.57-metre (15-foot) lengths. The change of support, or correction for volume variance, will affect the spread and symmetry of the distribution, but should not result in drastic changes to the mean value. When moving from a small sample size to a larger volume, a reduction in the spread and variability of the data set is expected. To verify an appropriate change from the sample data set to the composited values, a set of summary statistics was performed for the metals to be estimated. Table 14-4 compares the sample and composite statistics. As shown in the table, the spread and variability of each metal is reduced, with no significant change in the mean value, indicating that the 4.57-metre composite length is an appropriate selection.

Table 14-4: Sample and Composite Summary Statistics, Etna

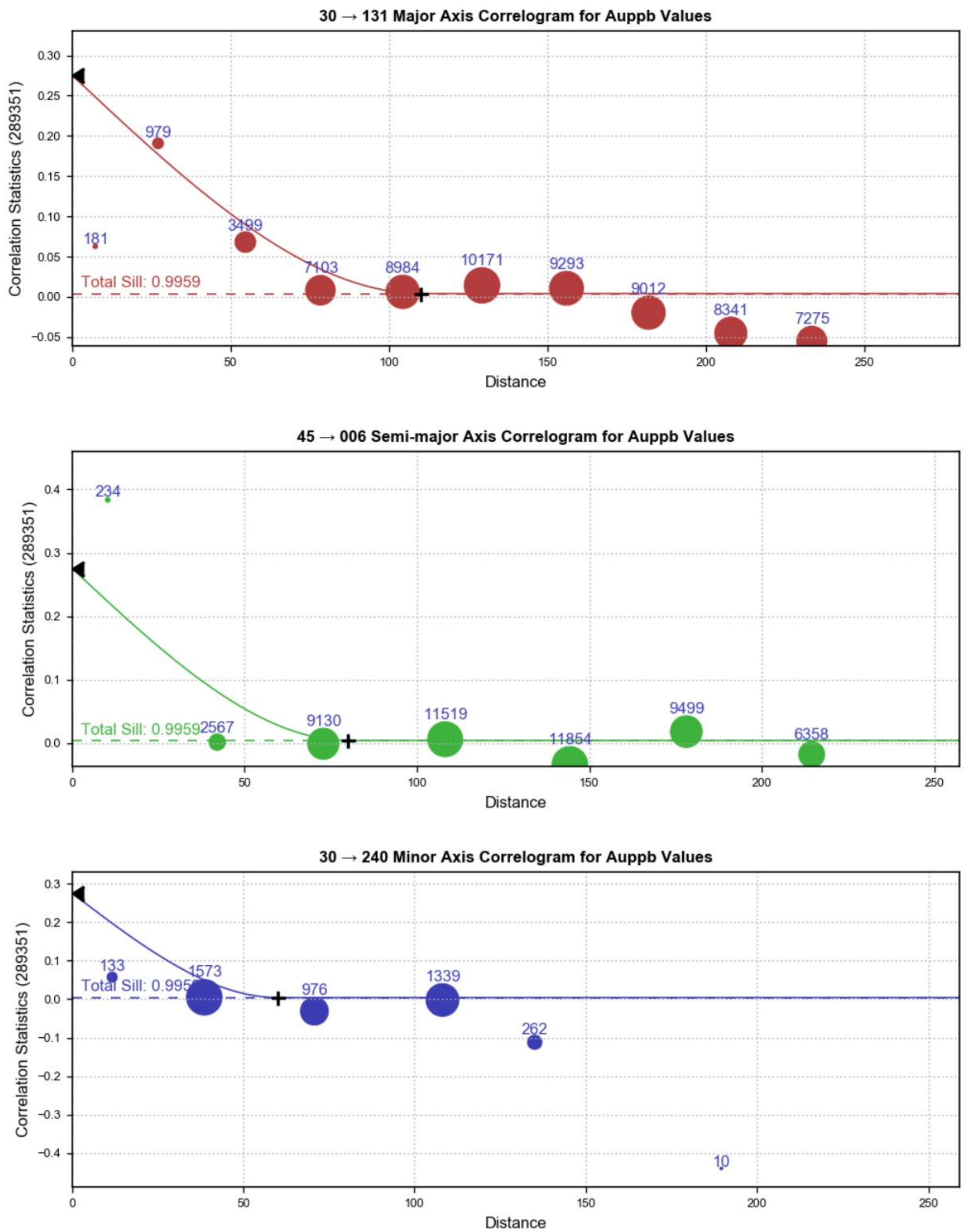
Statistic	Sample Values		4.57-Metre Composite Interval	
	Au (ppb)	Ag (ppm)	Au (ppb)	Ag (ppm)
Number	3,620	3,273	1,237	1,189
Mean	245.93	3.86	239.45	3.64
Standard Deviation	800.00	7.27	537.68	5.29
Variance	639,996	52.9	289,100	28.02
Maximum	20,899	167.30	7,772	77.75
Minimum	1	0.01	3.02	0.06
Range	20,899	167.30	7,771	77.75
Coefficient of Variation	3.25	1.88	2.25	1.46

Au – gold
ppb – parts per billion
Ag – silver
ppm – parts per million

14.8 Variography

GRE completed variography on the composite values using Leapfrog® Edge software. The analysis was used to determine the size and orientation of the search ellipsoid for the ID2.5 grade estimate. First, experimental correlograms were examined in all azimuth directions in increments of 30 degrees from 0 to 330 and dip increments of 15 degrees from 0 to 90. Afterwards, the direction with greatest continuity was further analyzed at whole number increments and the ellipse orientation was established. Distances were set from the correlogram pairs for the 3 axes as shown in Figure 14-7:.

Figure 14-7: Directional Correlograms for Major, Semi-Major, and Minor Axes



14.9 Grade Modeling

Using Leapfrog, GRE modeled gold and silver grades into the Jumbo block model using ID2.5, OK, and NN interpolators. The search parameters are identified in Table 14-5.

Table 14-5: Etna ID2.5 Search Parameters

Deposit	Length			Direction			Max. Samples	Min. Samples	Max. Samples per Hole
	Major	Semi-Major	Minor	Dip	Dip Azimuth	Pitch			
Etna	110	80	60	60	60	145	15	4	3

For each estimate, GRE first estimated the blocks only within the Mineralized Zone. grams of gold and silver contained were calculated from the modeled grades using the block specific gravity.

GRE chose the ID2.5 method with 2 holes required as the preferred method because it had better local variability that more closely fit the data.

14.10 Resource Categories

As part of the ID2.5 estimation, the average distance to composites was stored in the model. These distances were then used to establish the resource category, as follows:

- Measured: average distance less than 25 metres from the drill holes
- Indicated: average distance between 25 and 50 metres from the drill holes
- Inferred: average distance between 50 and 100 metres from the drill holes

Each block was tagged with a numeric code for the appropriate resource category: 1 for measured, 2 for indicated, and 3 for inferred.

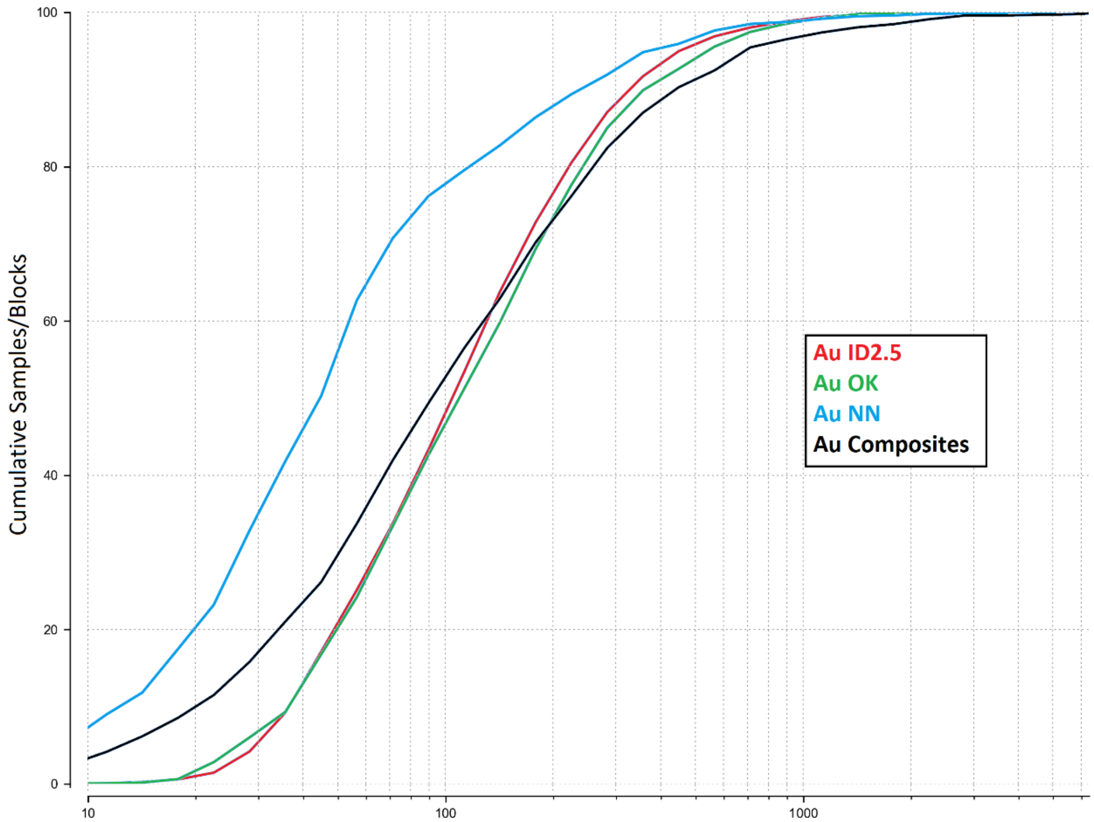
14.11 Model Validation

GRE validated the modeling results by comparing the results of each modeling method and by generating cross-sections of the modeling results to confirm that the results agree with the geologic interpretation and closely fit the drill hole data. Figure 14-8 shows the cumulative frequency plots of the block model grades for each of the three modeling methods and also shows the cumulative frequency plot of the drill hole composite data. The plots indicate that the modeling methods result in the following statistics:

- ID2.5:
  - Blocks populated: 229,200 for Etna
  - Highest block grade: 5.57 g/t gold for Etna
  - Average block grade: 0.177 g/t gold for Etna
- Kriging (OK, for ordinary kriging):
  - Blocks populated: 229,665 for Etna
  - Highest block grade: 2.55 g/t gold for Etna
  - Average block grade: 0.191 g/t gold for Etna
- Nearest Neighbor (NN):
  - Blocks populated: 385,056 for Etna
  - Highest block grade: 7.77 g/t gold for Etna

- Average block grade: 0.117 g/t gold for Etna

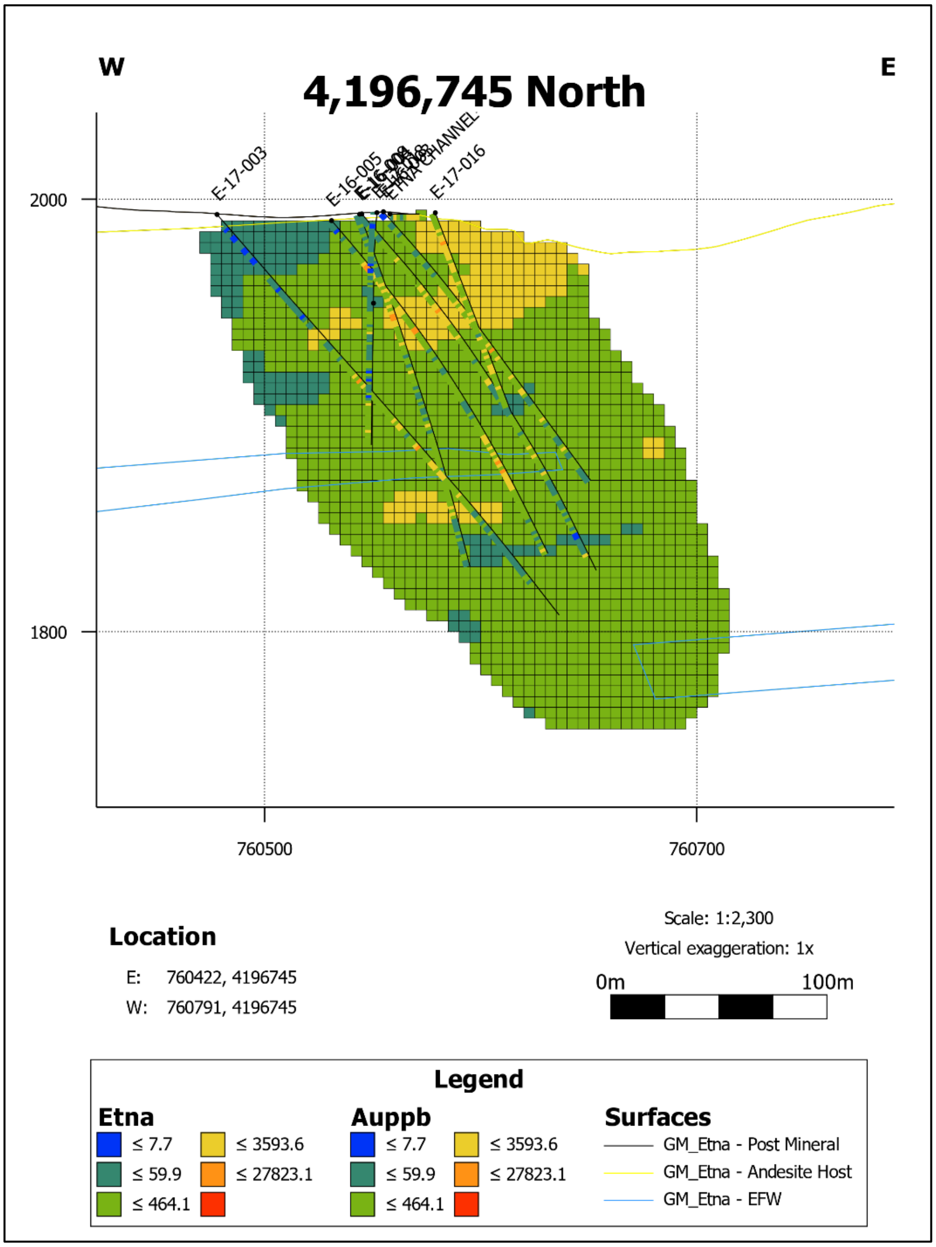
Figure 14-8: Etna Cumulative Frequency Plot Comparison for Three Modeling Methods



The results indicate that the ordinary kriging method does not capture the high value areas as well as does the ID2.5 method but that both methods produce similar average grades.

A sample cross-section for Etna, provided as Figure 14-9, illustrates that the grade modeling closely fits the drill hole data.

Figure 14-9: Etna Cross-Section



14.12 Comparison with Previous Resource Estimates

Table 14-6 shows the current geologic Mineral Resource Estimate compared with the 2017 geologic Mineral Resource Estimate for the Gold Springs Project at a cutoff of 0.2 g/t, and Table 14-7 shows the current pit constrained Mineral Resource Estimate compared with the 2017 pit constrained Mineral Resource Estimate for the Gold Springs project at a cutoff of 0.2 g/t. The comparison shows that, as more exploration of the area has been completed, more of the resource has been categorized as measured and indicated with less of the resource being categorized as inferred. In addition, the overall resource quantities have increased due to exploration in new resource areas.

Table 14-6 Comparison of Gold Springs Geologic Resource Estimates @ 0.2 g/t Cutoff

Resource Estimate	Tonnes (1000s)	Gold		Silver	
		Troy oz	Grade (g/tonne)	Troy oz	Grade (g/tonne)
2017 Resource Estimate – Measured + Indicated					
Grey Eagle	9,119	159,000	0.54	1,901,000	6.5
Jumbo	26,710	359,000	0.48	8,649,000	10.1
Etna	8,141	126,000	0.48	1,428,000	5.5
Thor	1,363	26,000	0.59	412,000	9.4
Total	45,333	670,000	0.48	12,390,000	8.8
2020 Resource Estimate – Measured + Indicated					
Grey Eagle	9,119	159,000	0.54	1,901,000	6.5
Jumbo	26,709	359,000	0.42	8,649,000	10.1
Etna	14,312	193,000	0.49	2,342,000	5.1
Thor	3,312	60,000	0.56	853,000	8.0
Total	47,281	704,000	0.46	12,831,000	8.4
2017 Resource Estimate – Inferred					
Grey Eagle	2,193	25,000	0.36	339,000	4.8
Jumbo	6,773	81,000	0.37	1,378,000	6.3
Etna	2,731	34,000	0.39	393,000	4.5
Thor	2374	44000	0.57	466,000	6.1
Total	14,071	184,000	0.42	2,576,000	5.9
2020 Resource Estimate – Inferred					
Grey Eagle	2,193	25,000	0.36	339,000	4.8
Jumbo	6,773	81,000	0.37	1,380,000	6.3
Etna	2,737	28,000	0.32	366,000	4.2
Thor	2,374	44,000	0.57	466,000	6.1
Total	14,071	184,000	0.41	2,579,000	5.7

g – grams oz – ounces Note: due to rounding, some numbers may not add correctly.

Note: The Grey Eagle Mineral Resource Estimate was not updated for the 2017 or 2020 Mineral Resource Estimates. The Jumbo and Thor Mineral Resource Estimates were not updated for the 2020 Mineral Resource Estimate.

Table 14-7: Comparison of Gold Springs Pit Constrained Resource Estimates @ 0.2 g/t

Resource Estimate	Pit Shell	Tonnes (1000s)	Gold		Silver	
			Troy oz	Grade (g/tonne)	Troy oz	Grade (g/tonne)
2017 Resource Estimate – Measured + Indicated						
Grey Eagle	$1,500 pit	8,046	147,000	0.57	178,000	6.9
Jumbo	$1,500 pit	22,106	308,000	0.43	7,750,000	10.9
Etna	$1,500 pit	7,043	116,000	0.51	1,318,000	5.8
Thor	$1,500 pit	372	11,000	0.93	209,000	17.5
Total		37,567	582,000	0.50	9,455,000	8.1
2020 Resource Estimate – Measured + Indicated						
Grey Eagle	$1,600 pit	7,984	144,229	0.56	1,730,800	6.7
Jumbo	$1,600 pit	21,857	306,940	0.44	7,705,220	11.0
Etna	$1,600 pit	12,237	173,125	0.44	2,137,165	5.4

Resource Estimate	Pit Shell	Tonnes (1000s)	Gold		Silver	
			Troy oz	Grade (g/tonne)	Troy oz	Grade (g/tonne)
Thor	$1,600 pit	2,995	52,446	0.54	784,812	8.2
Total		45,072	676,740	0.48	12,357,998	8.8
2017 Resource Estimate – Inferred						
Grey Eagle	$1,500 pit	1,013	13,000	0.40	199,000	6.1
Jumbo	$1,500 pit	3,068	39,000	0.40	664,000	6.7
Etna	$1,500 pit	2,013	27,000	0.42	312,000	4.8
Thor	$1,500 pit	24	470	0.61	8,000	10.6
Total		6,118	79,470	0.42	1,183,000	6.2
2020 Resource Estimate – Inferred						
Grey Eagle	$1,600 pit	960	12,363	0.40	187,072	6.1
Jumbo	$1,600 pit	3,250	42,574	0.41	699,547	6.7
Etna	$1,600 pit	1,323	15,404	0.36	241,012	5.7
Thor	$1,600 pit	1,647	30,301	0.57	339,088	6.4
Total		7,180	100,642	0.45	1,466,720	6.6

Note: The Grey Eagle Mineral Resource Estimate was not updated for the 2017 or 2020 Mineral Resource Estimates. The Jumbo and Thor Mineral Resource Estimates were not updated for the 2020 Mineral Resource Estimate

New pits were generated in 2020 for all four resource areas, which accounts for the differences, besides pit $ value, in the reported resources.

14.13 Economic Parameters

The following parameters were input into the block model to generate pits so that pit-constrained resources could be calculated:

- Mining cost: $1.80/tonne
- Processing cost: $3.00/tonne
- G&A cost: $0.80/tonne
- Gold recovery: 75%
- Silver recovery: Etna – 35%

14.14 Statement of Mineral Resource Estimate

The statement of Mineral Resources includes the Mineral Resource Estimate for Etna, derived as described above in this Section, and the 2017 Mineral Resource Estimates for Jumbo and Thor (GRE, 2017a), and the 2015 Mineral Resource Estimate for Grey Eagle (GRE, 2015).

Readers are advised that Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability under National Instrument 43-101. The PEA included herein is preliminary in nature and includes inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101.

Results for the ID2.5 method that are within the $1,600 gold pit are presented in Table 14-8 through Table 14-11. The results at a gold grade cutoff of 0.25 g/t are considered the "base case" for the project and are bolded in the tables below.

Table 14-8: May 1,2020 Etna Resource Estimate – Pit Constrained

Category	Cutoff Au	$1,600 Au Pit						
		Tonnes (1000s)	Gold			Silver		
			g/t	Grams (1000s)	Troy oz (1000s)	g/t	Grams (1000s)	Troy oz (1000s)
Measured	0.1	10,081	0.35	3,513	112.9	4.62	46,538	1,496
	0.2	6,440	0.46	2,963	95.3	5.65	36,386	1,170
	0.25	**4,995**	**0.53**	**2,640**	**84.9**	**6.23**	**31,105**	**1,000**
	0.3	3,926	0.60	2,347	75.5	6.86	26,916	865.4
	0.4	2,485	0.74	1,850	59.5	8.06	20,036	644.2
	0.5	1,629	0.90	1,467	47.2	9.10	14,831	476.8
	0.75	707	1.30	921.6	29.6	11.41	8,061	259.2
	1.0	422	1.60	675.9	21.7	13.35	5,632	181.1
Indicated	0.1	9,494	0.31	2,989	96.1	4.26	40,472	1,301
	0.2	5,797	0.42	2,422	77.9	5.19	30,087	967.3
	0.25	**4,342**	**0.48**	**2,098**	**67.4**	**5.78**	**25,113**	**807.4**
	0.3	3,343	0.55	1,825	58.7	6.35	21,217	682.1
	0.4	2,030	0.68	1,371	44.1	7.24	14,694	472.4
	0.5	1,246	0.82	1,021	32.8	7.96	9,920	318.9
	0.75	543	1.10	598.9	19.3	10.09	5,479	176.2
	1.0	237	1.42	336.3	10.8	12.33	2,919	93.9
Measured + Indicated	0.1	19,575	0.33	6,501	209.0	4.44	87,009	2,797
	0.2	12,237	0.44	5,385	173.1	5.43	66,473	2,137
	0.25	**9,337**	**0.51**	**4,737**	**152.3**	**6.02**	**56,218**	**1,807**
	0.3	7,270	0.57	4,172	134.1	6.62	48,133	1,548
	0.4	4,515	0.71	3,220	103.5	7.69	34,730	1,117
	0.5	2,875	0.87	2,488	80.0	8.61	24,751	795.8
	0.75	1,250	1.22	1,520	48.9	10.84	13,540	435.3
	1.0	659	1.54	1,012	32.5	12.99	8,552	274.9
Inferred	0.1	2,225	0.28	614.6	19.8	4.49	9,998	321.4
	0.2	1,323	0.36	479.1	15.4	5.66	7,496	241.0
	0.25	**924**	**0.42**	**389.4**	**12.5**	**6.50**	**6,007**	**193.1**
	0.3	631	0.49	309.4	9.9	7.25	4,577	147.1
	0.4	280	0.67	188.8	6.1	8.30	2,327	74.8
	0.5	135	0.93	125.3	4.0	8.91	1,206	38.8
	0.75	78	1.17	90.5	2.9	10.30	800.3	25.7
	1.0	33	1.58	51.8	1.7	13.67	447.0	14.4

Table 14-9: March 29, 2017 Jumbo Resource Estimate – Pit Constrained

Category	Cutoff Au	$1,600 Au Pit						
			Gold			Silver		
		Tonnes (1000s)	g/t	Grams (1000s)	Troy oz (1000s)	g/t	Grams (1000s)	Troy oz (1000s)
Measured	0.1	17,382	0.34	5,887	189	9.17	159,423	5,126
	0.2	10,711	0.46	4,946	159	11.97	128,204	4,122
	0.25	**8,456**	**0.53**	4,452	**143**	**13.30**	**112,481**	**3,616**
	0.3	6,749	0.59	3,993	128	14.49	97,804	3,144
	0.4	4,479	0.72	3,221	104	16.25	72,781	2,340
	0.5	3,047	0.85	2,588	83	17.20	52,405	1,685
	0.75	1,331	1.17	1,557	50	18.30	24,345	783
	1.0	627	1.53	960	31	18.39	11,533	371
Indicated	0.1	18,393	0.31	5,630	181	7.79	143,201	4,604
	0.2	11,146	0.41	4,601	148	10.00	111,456	3,583
	0.25	**8,617**	**0.47**	4,047	**130**	**11.04**	**95,168**	**3,060**
	0.3	6,698	0.53	3,531	114	11.92	79,864	2,568
	0.4	4,228	0.64	2,688	86	13.04	55,140	1,773
	0.5	2,699	0.75	2,014	65	13.63	36,790	1,183
	0.75	965	1.02	982	32	14.08	13,588	437
	1.0	395	1.27	501	16	12.78	5,046	162
Measured + Indicated	0.1	35,775	0.32	11,517	370	8.46	302,624	9,730
	0.2	21,857	0.44	9,547	307	10.96	239,659	7,705
	0.25	**17,073**	0.50	8,499	**273**	**12.16**	**207,650**	**6,676**
	0.3	13,446	0.56	7,524	242	13.21	177,668	5,712
	0.4	8,707	0.68	5,910	190	14.69	127,921	4,113
	0.5	5,745	0.80	4,602	148	15.52	89,195	2,868
	0.75	2,295	1.11	2,539	82	16.53	37,933	1,220
	1.0	1,022	1.43	1,461	47	16.22	16,579	533
Inferred	0.1	5,300	0.30	1,609	52	5.37	28,477	916
	0.2	3,250	0.41	1,324	43	6.69	21,758	700
	0.25	**2,556**	0.46	1,172	**38**	**7.19**	**18,368**	**591**
	0.3	1,953	0.52	1,009	32	7.60	14,844	477
	0.4	1,204	0.63	754	24	8.01	9,638	310
	0.5	746	0.74	551	18	7.70	5,745	185
	0.75	287	0.97	278	9	7.12	2,048	66
	1.0	118	1.11	131	4	6.74	794	26

Table 14-10: March 29, 2017 Thor Resource Estimate – Pit Constrained

Category	Cutoff Au	$1,600 Au Pit						
			Gold			Silver		
		Tonnes (1000s)	g/t	Grams (1000s)	Troy oz (1000s)	g/t	Grams (1000s)	Troy oz (1000s)
Measured	0.1	2,026	0.41	827	27	6.84	13,865	446
	0.2	1,206	0.59	706	23	9.68	11,673	375
	0.25	**945**	**0.69**	648	**21**	**11.34**	**10,709**	**344**
	0.3	785	0.77	605	19	12.73	9,997	321
	0.4	577	0.92	532	17	15.15	8,737	281
	0.5	437	1.08	470	15	17.60	7,682	247
	0.75	265	1.38	365	12	22.01	5,832	187
	1.0	176	1.64	288	9	24.92	4,373	141
Indicated	0.1	2,933	0.37	1,095	35	5.39	15,810	508
	0.2	1,789	0.52	926	30	7.12	12,738	410
	0.25	**1,367**	**0.61**	832	**27**	**8.33**	**11,389**	**366**
	0.3	1,111	0.69	762	24	9.19	10,217	328
	0.4	737	0.86	632	20	11.28	8,307	267
	0.5	522	1.03	536	17	13.50	7,045	227
	0.75	263	1.45	382	12	18.59	4,886	157
	1.0	207	1.62	336	11	19.87	4,112	132
Measured + Indicated	0.1	4,959	0.39	1,922	62	5.98	29,675	954
	0.2	2,995	0.54	1,631	52	8.15	24,410	785
	0.25	**2,312**	0.64	1,480	**48**	**9.56**	**22,098**	**710**
	0.3	1,896	0.72	1,366	44	10.66	20,213	650
	0.4	1,313	0.89	1,164	37	12.98	17,044	548
	0.5	958	1.05	1,006	32	15.37	14,727	473
	0.75	528	1.42	747	24	20.31	10,718	345
	1.0	383	1.63	624	20	22.18	8,485	273
Inferred	0.1	2,642	0.41	1,085	35	4.88	12,884	414
	0.2	1,647	0.57	942	30	6.40	10,547	339
	0.25	**1,323**	0.66	870	**28**	**7.41**	**9,805**	**315**
	0.3	1,170	0.71	828	27	7.88	9,220	296
	0.4	817	0.86	706	23	9.76	7,978	256
	0.5	540	1.08	582	19	12.58	6,795	218
	0.75	258	1.58	408	13	17.24	4,454	143
	1.0	221	1.71	378	12	18.21	4,027	129

Table 14-11: May 2015 Grey Eagle Resource Estimate – Pit Constrained

Category	Cutoff Au	$1,600 Au Pit						
		Tonnes (1000s)	Gold			Silver		
			g/t	Grams (1000s)	Troy oz (1000s)	g/t	Grams (1000s)	Troy oz (1000s)
Measured	0.1	4,121	0.49	2,007	65	6.03	24,839	799
	0.2	3,175	0.59	1,863	60	6.83	21,683	697
	0.25	**2,725**	**0.65**	1,762	**57**	**7.23**	**19,700**	**633**
	0.3	2,363	0.70	1,663	53	7.57	17,884	575
	0.4	1,782	0.82	1,462	47	8.28	14,763	475
	0.5	1,314	0.95	1,251	40	9.10	11,957	384
	0.75	637	1.32	840	27	11.38	7,245	233
	1.0	335	1.74	582	19	13.75	4,610	148
Indicated	0.1	6,299	0.45	2,843	91	5.84	36,806	1,183
	0.2	4,809	0.55	2,623	84	6.69	32,151	1,034
	0.25	**4,211**	**0.59**	2,489	**80**	**7.05**	**29,695**	**955**
	0.3	3,700	0.63	2,348	76	7.36	27,214	875
	0.4	2,687	0.74	1,993	64	8.13	21,851	703
	0.5	1,790	0.89	1,592	51	9.22	16,506	531
	0.75	903	1.17	1,057	34	11.32	10,225	329
	1.0	490	1.43	701	23	13.06	6,393	206
Measured + Indicated	0.1	10,419	0.47	4,850	156	5.92	61,645	1,982
	0.2	7,984	0.56	4,486	144	6.74	53,834	1,731
	0.25	**6,936**	0.61	4,251	**137**	**7.12**	**49,395**	**1,588**
	0.3	6,063	0.66	4,012	129	7.44	45,098	1,450
	0.4	4,469	0.77	3,455	111	8.19	36,614	1,177
	0.5	3,104	0.92	2,843	91	9.17	28,463	915
	0.75	1,540	1.23	1,898	61	11.34	17,470	562
	1.0	825	1.56	1,283	41	13.34	11,003	354
Inferred	0.1	1,323	0.33	436	14	5.21	6,890	222
	0.2	960	0.40	385	12	6.06	5,819	187
	0.25	**830**	0.43	355	**11**	**6.30**	**5,235**	**168**
	0.3	710	0.45	322	10	6.53	4,635	149
	0.4	469	0.51	237	8	7.03	3,297	106
	0.5	152	0.64	97	3	8.80	1,338	43
	0.75	28	0.90	25	1	10.58	292	9
	1.0	3	1.14	4	0	11.00	36	1

15.0 MINERAL RESERVE ESTIMATES

"Mineral reserves" differ from "Mineral Resources" in that Mineral Reserves are known to be economically feasible for extraction. The CIM Definition Standards require the completion of a Preliminary Feasibility Study (PFS) as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves. At this time, a PFS has not been completed for the Gold Springs project. Therefore, reserve estimates have not been made.

16.0 MINING METHODS

The Gold Springs deposit is a near-surface epithermal gold system most suitable for open pit mining and heap leach gold recovery. GRE has used that approach for economic analysis.

The resources were reported by bench showing tonnes of leachable material, waste, and tuff and ounces of gold and silver. Codes distinguishing measured, indicated, and inferred resources were not used for this study (i.e., all leachable material, whether measured, indicated, or inferred, was treated equally for the purposes of the PEA).

Codes identifying the average grade of the leachable material on a bench were set up to allow GRE to easily and quickly view the effects of changing the cutoff grade on the project schedule and economics. GRE examined the project at crushing and ROM cutoff grades of: 0.15 g/t crush and no ROM; 0.20 g/t crush and no ROM; 0.20 g/t crush and 0.15 g/t ROM; 0.25 g/t and no ROM; 0.25 g/t crush and 0.15 g/t ROM; 0.30 g/t crush and no ROM; and 0.30 g/t crush and 0.15 g/t ROM,.

GRE selected the $1,300 pit at a cutoff grade of 0.20 g/t with a ROM cutoff grade of 0.15 g/t. All further references to “the pit” or the “base case” in this document are referring to the $1,300 pit at a crush cutoff grade of 0.20 g/t with a fixed ROM grade of 0.15 g/t.

16.1 Mine Scheduling

A preliminary mining schedule was generated from the base case pit resource estimate. GRE used the following assumptions to generate the schedule:

- Crushing Production Rate: 15,000 tonnes per day (tpd)
- ROM Production Rate: Variable (LOM average 3,200 tpd)
- Mine Operating Days per Week: 7
- Mine Operating Weeks per Year: 52
- Mine Operating Shifts per Day: 2
- Mine Operating Hours per Shift: 10

The schedules for Grey Eagle and Jumbo were broken out into Phase 1 and Phase 2, where Phase 1 included all material within the $700 pit, and Phase 2 included remaining material, approximating a phased pit design. Additional design work will likely better balance the annual leach and waste stripping and metal production.

Pre-stripping of waste and/or tuff was included if either of the following criteria were true: waste or tuff occurred on a bench that had no corresponding leachable material or the tonnage of waste or tuff on a bench exceeded seven times the tonnage of leachable material on that bench. The production rate for pre-strip benches was set to two times the leach material production rate, or 30,000 tpd.

For all other benches, all waste and tuff on a bench were scheduled to be mined over the same duration as the leach material on that bench (i.e., if the leach material mining duration on a bench was 10 days, all waste and tuff on that bench, regardless of quantity, were also mined during those same 10 days). This scheduling method resulted in some years with high waste and/or tuff quantities relative to the leach material quantity mined. GRE used pre-stripping and phasing, as described above, as much as possible to smooth out the production, but the limitations of the scheduling program resulted in some inefficiencies.

The mining schedule is summarized below in Table 16-1:. Jumbo was mined first, followed immediately by Etna, Thor, and Grey Eagle. Mining Jumbo first optimized the project economics because it is large enough to be mined in phases, increasing early year cash flow with a higher grade initially mined first. The tuff tonnes listed in Table 16-1: are those handled by the rippers and scrapers. The non-rippable tuff is included with the waste quantities.

Table 16-1: Mine Schedule Summary (1000s)

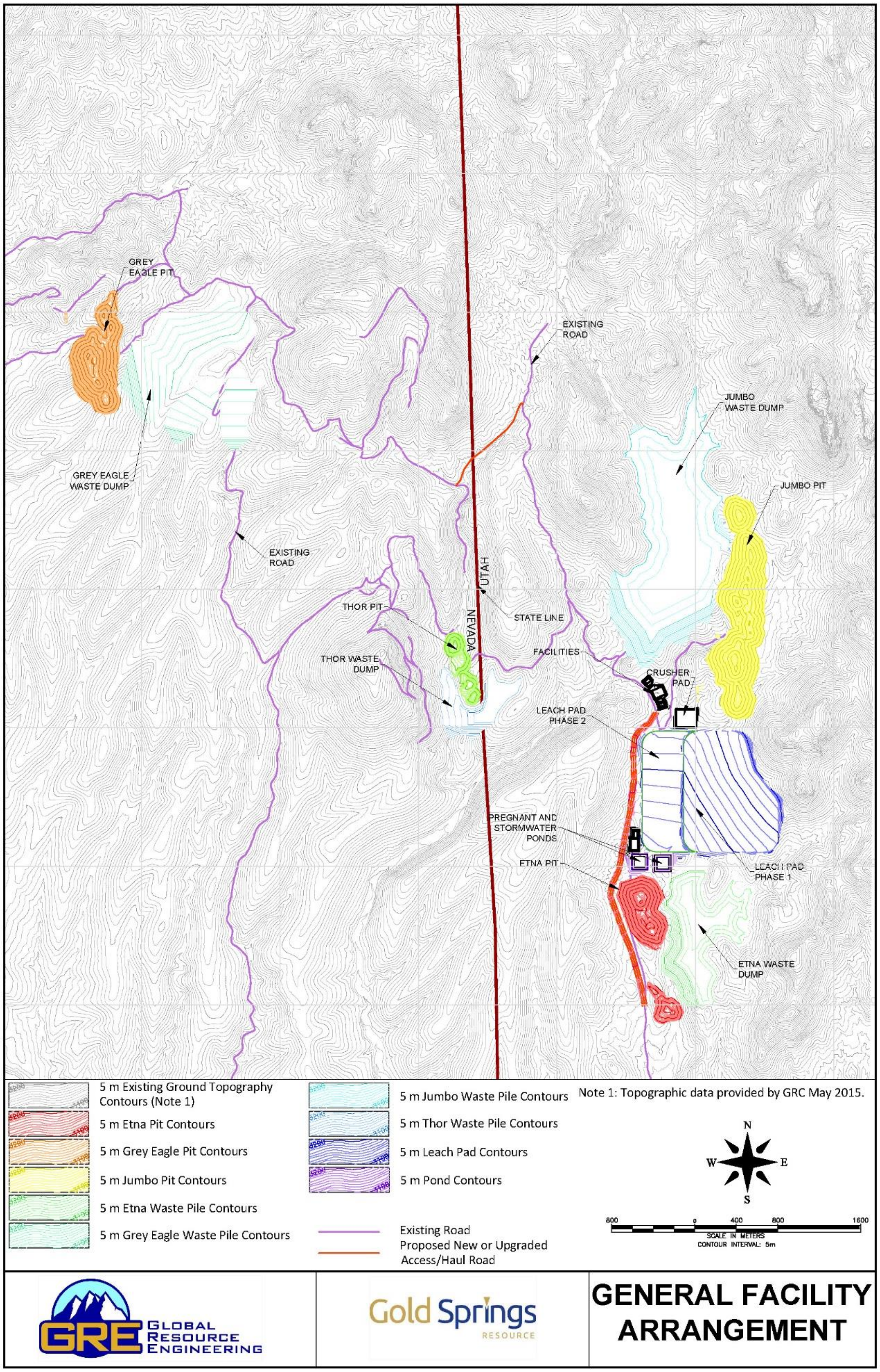
Material	Deposit	Year								Total
		1	2	3	4	5	6	7	8	
Crushed Tonnes	Jumbo	5,460	5,460	5,460	5,436	0	0	0	0	21,816
Crushed Tonnes	Etna	0	0	0	24	5,460	5,460	236	0	11,180
Crushed Tonnes	Thor	0	0	0	0	0	0	1,564	0	1,564
Crushed Tonnes	Grey Eagle	0	0	0	0	0	0	3,660	4,981	8,641
Crush Au oz	Jumbo	85	65	77	84	0	0	0	0	312
Crush Au oz	Etna	0	0	0	0	94	69	3	0	166
Crush Au oz	Thor	0	0	0	0	0	0	26	0	26
Crush Au oz	Grey Eagle	0	0	0	0	0	0	75	77	153
Crush Ag oz	Jumbo	2,296	1,453	1,783	2,101	0	0	0	0	7,633
Crush Ag oz	Etna	0	0	0	2	1,148	933	26	0	2,110
Crush Ag oz	Thor	0	0	0	0	0	0	456	0	456
Crush Ag oz	Grey Eagle	0	0	0	0	0	0	857	1,018	1,876
Waste Tonnes	Jumbo	4,303	18,791	7,233	2,855	0	0	0	0	33,182
Waste Tonnes	Etna	0	0	0	65	8,316	2,602	23	0	11,007
Waste Tonnes	Thor	0	0	0	0	0	0	2,984	0	2,984
Waste Tonnes	Grey Eagle	0	0	0	0	0	0	3,434	7,066	10,500
Tuff Tonnes	Jumbo	1,134	8,694	4,196	1,212	0	0	0	0	15,236
Tuff Tonnes	Etna	0	0	0	117	302	0	0	0	419
Tuff Tonnes	Thor	0	0	0	0	0	0	552	0	552
Tuff Tonnes	Grey Eagle	0	0	0	0	0	0	6,463	4,637	11,100

16.2 Mine Operation and Layout

Sites for crushing, the leach pad, a Merrill-Crowe plant site, administrative offices, warehouse, and furnace facility used for final casting of ingots and buttons will be centrally located between the Jumbo, Thor, and Etna pits. Each pit will have dedicated waste dumps. The leach material and waste will be drilled and blasted using a rotary crawl driller and ammonium nitrate fuel oil (ANFO) and transported in dump trucks. The tuff at Grey Eagle and in the southern portion of Jumbo will be ripped with a dozer and then transported with scrapers to the waste dump. The tuff in the northern portion of Jumbo will be drilled and blasted along with the leach material and waste.

GRE developed conceptual layouts for the project, including waste dump locations and sizes, leach pad location and size, pond locations and sizes, processing facility location, and access road routes. Figure 16-1: illustrates the conceptual Gold Springs project layout with pits, pads, and dumps.

Figure 16-1: Gold Springs Conceptual Site Layout



16.3 Mine Equipment Productivity

GRE estimated cycle times determining the equipment size and numbers of trucks and loaders that would be required to meet the project schedule. A simplified approach to cycle calculations was used; it considered productivity variables such as average daily production of leachable material and waste, average truck haul distance and travel speed, hours per shift and shifts per day, availability variables such as breaks during the day, and truck and loader/shovel capacities. Hourly production rates and truck and loader wait times were calculated in order to optimize the design.

A similar cycle time formulation was prepared for the scrapers for the rippable tuff to determine the number of scrapers needed to meet the project schedule.

17.0 RECOVERY METHODS

17.1 Process Description

The Gold Springs project would employ open pit mining with a conventional heap leach system on a 365 day per year 24 hour per day basis. The heap leach will utilize both run-of mine (ROM) and crushed material. The ROM is delivered directly from the open pit to the heap via the mine haul trucks. The trucks will pass under a silo that will deposit a measured amount of lime on the load for pH control. Higher grade ore will be subjected to primary and secondary crushing. The haul trucks will dump into the jaw crusher pocket or in a nearby stockpile. The final crushed product will be conveyed to a fine ore bin that will fill dedicated haul trucks for transport to the heap leach. These trucks will also pass under the lime silo for pH control. The crushing circuit is conducted in an open circuit configuration to minimize screening and conveyors.

The heap leach would consist of a suitable area lined with a containment system, typically a linear low-density polyethylene (LLDPE) liner with an over liner of sized material to facilitate drainage. Within this over liner would be placed drainage pipes to conduct the leach solution to the centralized collection ponds. The ROM and crushed material comingled and stacked in lifts on the lined pad by means of truck dumping. The lifts are targeted at 32 feet (10 metres) in height with a total heap height of 328 feet (100 metres). Once a suitable area has been stacked (cell), the cell would be irrigated with dilute cyanide solution. Stacking would continue to advance, and each area irrigated with cyanide solution for a set period of time (primary leach cycle). The solution leaches gold from the heap materials and is transported to the gold recovery circuit as pregnant leach solution (PLS).

This PLS would be processed in the Merrill-Crowe plant (MC), diverted to a dedicated pond or recirculated to the heap. The gold in the solution is precipitated on zinc dust and collected in a plate and frame filter. The gold rich precipitate is then refined to produce doré. The depleted "barren" solution would report to the heap leach barren pond/tank and be recirculated back to the heap after having the reagent levels adjusted (pH and cyanide).

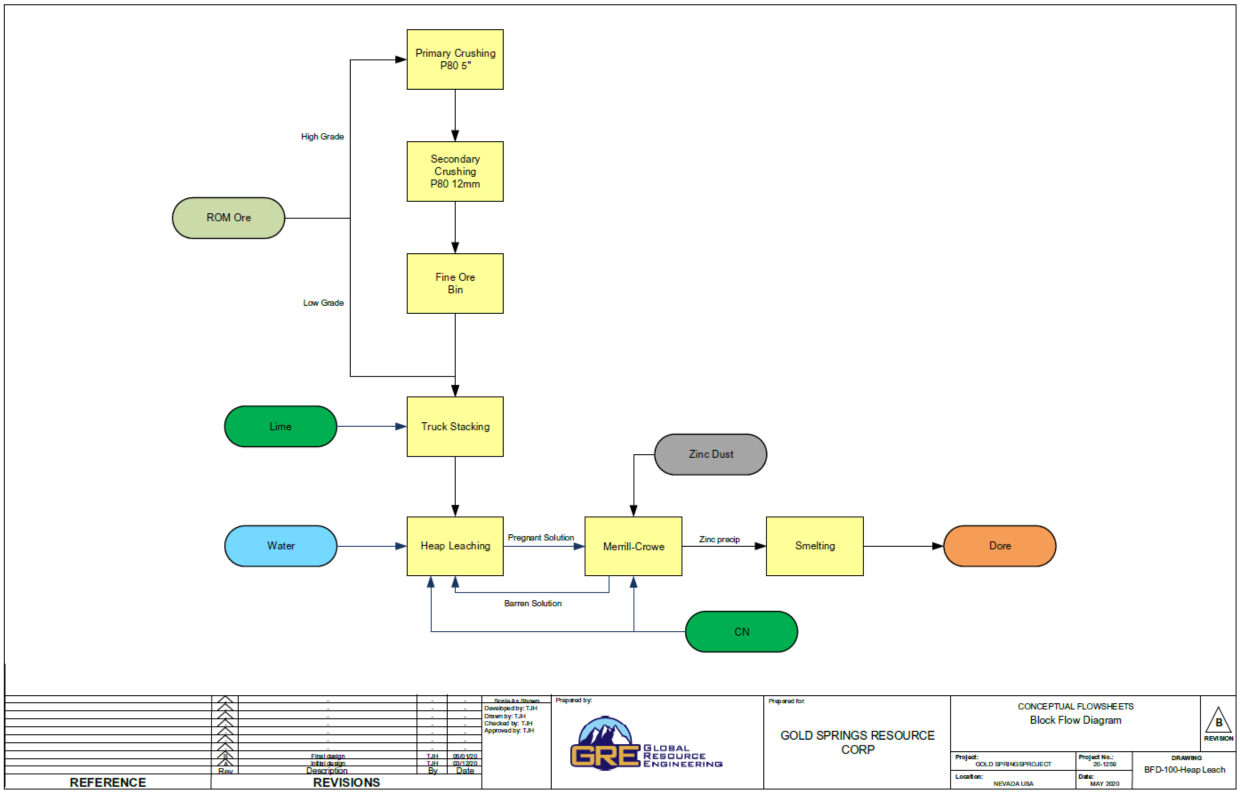
The heap leach is typically designed to have multiple lifts installed. Each new lift goes on top of the last lift until the heap reaches its ultimate height. Heap leaches often utilize 10 or more lifts to reach an ultimate height of 328 feet to 492 feet (100 to 150 metres). The configuration of the heap leach is heavily dependent on the permeability characteristics of the material, the terrain available, and the geotechnical aspects of the site. Portions of the Gold Springs material that are of a higher head grade will be directed to crushing to provide increased gold extraction. The determination of whether the material is to be crushed is defined by the cross-over grade. The cross-over grade defines the material treatment path: grades higher than the crossover grade would report to the crusher and grades lower than the cross-over grade but above the cutoff grade would report directly to the ROM heap leach.

Figure 17-1 shows the complete conceptual flowsheet.

Portions of the Gold Springs material that are of a higher head grade will be directed to crushing to provide increased gold extraction. The determination of whether the material is to be crushed is defined by the cross-over grade. The cross-over grade defines the material treatment path: grades higher than the

crossover grade would report to the crusher and grades lower than the cross-over grade but above the cutoff grade would report directly to the ROM heap leach.

Figure 17-1: Conceptual Heap Leach Flowsheet



17.2 Crushing Circuit

The run of mine feed passes over a vibrating grizzly with a 64-mm (2.5-inch) opening. The undersize reports directly to the jaw crusher discharge conveyor while the oversize feeds the 2m x 1.5m jaw crusher (400 KW). The jaw crusher would crush to a nominal 175 mm (7-inch), with the crushed product reporting by conveyor to a 200 tonne screen feed bin. The crusher is also equipped with a rock breaker. The crusher will process approximately 15,000 tonnes per day (tpd) on a 24-hour basis. with an availability of 75%. The design crushing rate is 830tph.

This bin feeds three standard cone 6-foot crushers (450 KW) with a closed side setting of 25 mm (1 inch). The secondary crushing circuit is operated in closed circuit. The discharge from the crushers falls onto a common conveyor belt feeding the screen feed bin. This crushing circuit is capable of achieving a P_{80} of 12 mm (1/2 inch). The double deck screen has an area of 22.5 m2 (3.02 x 7.32 m) and equipped with a 60 mm opening top deck and a 22 mm opening bottom deck.

Ore is deposited from the fine ore bin directly into dedicated haul trucks. The trucks would also pass under a lime silo for a suitable lime addition.

17.3 Heap Leach Circuit

Ore would be stacked for a sufficient period to allow enough surface area to be created for irrigation, this also allows operation personnel to be a safe distance from active irrigation areas. Irrigation is provided by an emitter-type irrigation system designed to deliver 12 liters per hour per square metre [lph/m^2] (0.005 gpm/ft^2). The emitter layout is designed to provide suitable ore wetting. The heap would be placed under primary irrigation for a period of approximately 45 days. After the primary leach, irrigation would be discontinued and advanced to the next cell. No rinse phase is included because of the multiple lift system employed. The subsequent lift will be placed on top up to a total of 10 lifts. Rinsing will only occur before closure or once the heap reaches its ultimate height.

High concentration gold leach solutions or pregnant leach solutions (PLS) flow from the pad to the PLS sump by gravity. The solution is pumped from the sump to the MC circuit. Excess solution is diverted to the PLS pond. Solution is collected from each heap cell by a series of drain pipes under the heap that transport the solution to perimeter piping. The solution can be placed in either the PLS or Event Pond piping. Storm water collected from the pad during heavy precipitation events can be diverted to a storm water pond. The storm water can be used as fresh make up water to the circuit.

17.4 Merrill-Crowe Plant

GRE has included a Merrill-Crowe plant for recovery of gold and silver from the pregnant solution due to the potentially high silver solution grades. An Adsorption-Desorption Recovery (ADR) plant would be preferred but further test work is required to validate the solution tenors. The capital costs are nearly identical for the two.

The PLS solution reports to a series of four pressure leaf clarifier to remove the suspended solids. Suspended solids not only blind the zinc dust cake and filter media within the precipitation filter presses but can slow down the zinc precipitation through passivation on the metallic zinc surface. The clarification filter is coated with diatomaceous earth as required. The highly porous diatomaceous earth filters the suspended solids from the solution. The suspended solids concentration after clarification will typically be less than 5 ppm. Cleaning the clarifiers will be done after the clarifier is taken offline from the process solution stream. The clarifiers are cleaned by backwashing with water. The diatomaceous earth and removed solids will be discharge to a purpose-built pond. This pond will need period excavation.

After passing through the clarifiers, the solution will be fed to the de-aeration tower (Crowe tower), where a negative pressure generated by a vacuum pump removes dissolved oxygen from the solution. The presence of dissolved oxygen slows down the reaction with the metallic zinc and increases the precious metals content in the barren solution due to re-dissolution of precious metals. The dissolved oxygen concentration of the de-aeration tower is targeted for less than 1 ppm.

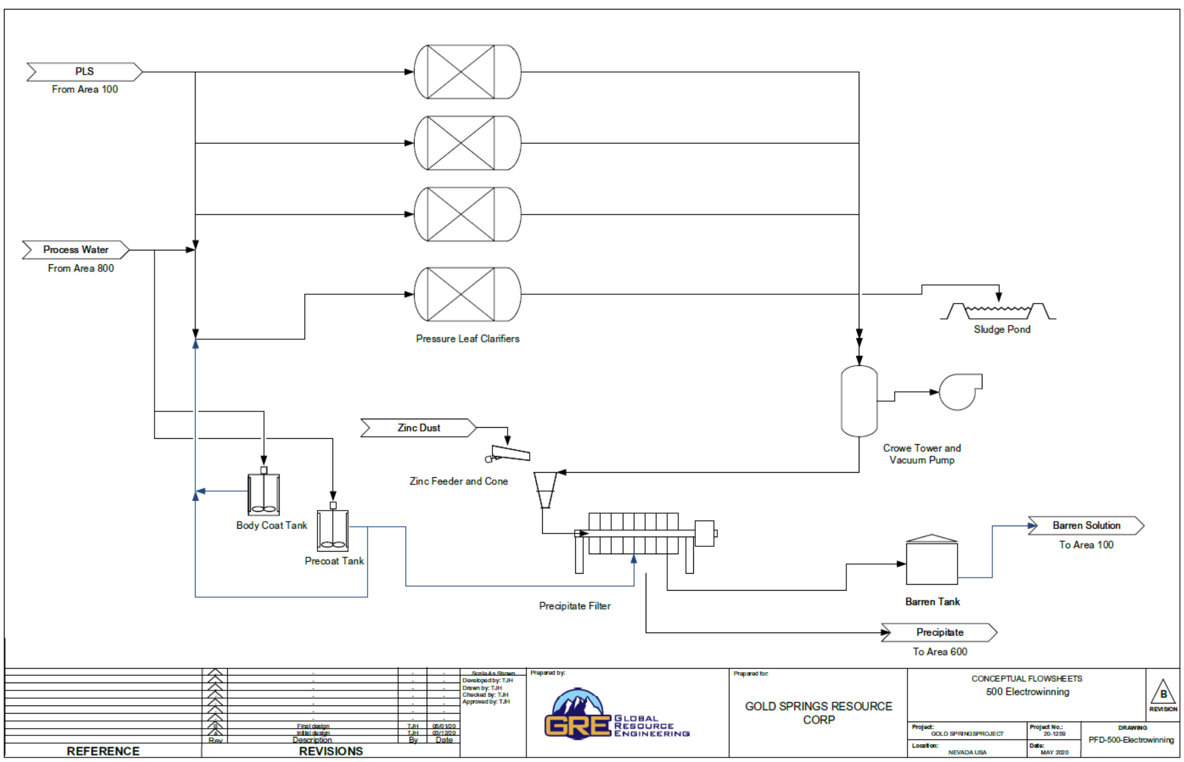
Zinc is used to precipitate the gold and silver from the cyanide solution. Zinc is less noble than gold and silver and gives exchanges electrons to these metals along with copper and other metals. This reaction reduces the gold and silver to their native states. The gold and silver under reduction while the zinc is oxidized and become soluble. Zinc is fed into the solution after de-aeration to prevent oxidation and passivation of the zinc surface. Zinc is fed at a specific rate into solution to precipitate the desired metals. Lead nitrate can also be added at a rate of approximately 10% of the zinc rate. The lead increases the zinc reactivity and inhibits the formation of zinc hydroxide on the zinc surface. Typically, zinc is added in excess of the stoichiometric quantity depending upon the solution grade (4x). Lower grade solutions require a higher proportion of zinc addition. Additional cyanide is also typically added to ensure the correct precipitation reactions.

Gold and silver precipitates will be collected within a recessed plate and frame precipitate filter press. The discharge solution from the filter press is the barren solution. The precipitate filters will be emptied on a weekly basis. Prior to opening, the filter will be purged with low pressure compressed air to remove the excess solution and partially dry the filter cake precipitate. The precipitate will be collected from the press and dried prior to refining.

Refining is a multistep process. The cake will first be dried, followed by retorting to remove any contained mercury. After completion of retorting, the cake will be mixed with appropriate fluxes and smelted in an electric melting furnace. Dore´ (a mixture of gold and silver) will be stored in a vault until shipment to a third-party refinery.

A schematic of a Merrill-Crowe system is provided in Figure 17-2.

Figure 17-2: Merrill-Crowe System Schematic



17.5 Conceptual Heap Leach Pad and Pond Design

The HLF consists of the following system components:

- Heap leach pad
- Liner system
- Leachate (solution) collection system

- Storm pond
- Stormwater management system
- Freshwater supply

To minimize capital expenditure, the heap leach pad has been designed in phases, with each phase requiring advanced expansion of the engineered pad. The HLF would be constructed in two phases, with the pad foundation preparation, liner installation, and collection piping advanced as the leach pad expands. The capacity of each stacking stage includes an initial three-year period two additional two-year period.

The initial HLF development (Phase 1) would also include the full development of the solution handling system, storm pond, and perimeter diversion ditches prior to commencing ore stacking and leaching. Table 17-1 shows the development phases and the lift capacity in ore volume and duration. Design details for each of the HLF components are discussed further in the following sections. This HLF has been designed to maximize the capacity of both crushed and ROM material.

Table 17-1: Heap Capacity

Development Phase	Elevation (abs m)	Lift Capacity (days)	Mine Life (years)	Ore Volume	
				(m^3)	(cum m^3)
1	10	256	0.7	4,806,633	4,806,633
	20	473	1.3	4,066,316	8,872,950
	30	653	1.8	3,380,205	12,253,155
	40	800	2.2	2,748,295	15,001,451
	50	915	2.5	2,170,579	17,172,030
	60	1003	2.7	1,647,042	18,819,072
	70	1066	2.9	1,177,652	19,996,724
	80	1106	3.0	762,318	20,759,042
	90	1128	3.1	400,679	21,159,720
2	10	1207	3.3	1,480,544	22,640,264
	20	1281	3.5	1,402,466	24,042,730
	30	1352	3.7	1,324,394	25,367,123
	40	1418	3.9	1,246,332	26,613,456
	50	1481	4.1	1,168,287	27,781,743
	60	1539	4.2	1,090,271	28,872,014
	70	1593	4.4	1,012,315	29,884,329
	80	1643	4.5	934,501	30,818,830
	90	1688	4.6	857,182	31,676,012
3	10	1767	4.8	1,480,492	33,156,504
	20	1842	5.0	1,402,402	34,558,906
	30	1913	5.2	1,324,313	35,883,219
	40	1979	5.4	1,246,227	37,129,445
	50	2041	5.6	1,168,143	38,297,589
	60	2099	5.8	1,090,065	39,387,654
	70	2153	5.9	1,011,994	40,399,648
	80	2203	6.0	933,936	41,333,584

17.6 Heap Leach Pad

The heap leach pad consists of a perimeter berm, pad liner system, and leachate collection system to collect and convey the leachate solution to the MC plant, which should be located adjacent to the heap leach facility. The leach pad has an approximate final footprint area of 800,000 square metres (8.6 million square feet). The heap leach pad is designed to be operated as a fully drained system with no leachate storage within the HLF. Prior to the start of each of the development stages, the pad foundation must be prepared. Foundation preparation involves stripping the topsoil and vegetation and the removal of any rocks. The topsoil would be stockpiled at a convenient location and used for reclamation of the HLF at closure. The underlying soils would be excavated down to a competent, stable foundation to provide a uniform and graded surface for the pad liner. Grading and backfill would be used to level the surface and to ensure that the pad grading will promote leachate flow towards the collection piping system and sump. A minimum pad grade of 1-2% is required.

17.7 Liner System

A liner system is planned to maximize solution recovery and minimize environmental impacts by minimizing leachate losses through the bottom of the leach heap pad. The liner system consists of both barrier and drainage layers using a combination of synthetic and natural materials to provide leachate solution containment that meets the accepted standards for leach pad design. The pad is designed to operate with minimal solution storage within the pad structure during normal operating conditions. The liner system is designed to meet the required performance standards assuming fully saturated solution storage conditions.

17.8 Liner Design

A liner system has been developed for the pad using an engineered composite double liner design. The double liner system is designed to be installed as the primary liner system under the entirety of the HLF. The double liner system consists of the following components:

- 0.5-metre-thick (1.6-foot-thick) over liner (38 mm (1.5-inch) minus with less than 10% fines content) using ore as the material
- 2 mm (80-mil) LLDPE geomembrane
- 0.3-metre-thick (1-foot-thick) compacted low permeability soil liner
- Leak Detection and Recovery System (LDRS)
- 1.5 mm (60-mil) LLDPE geomembrane.
- LLDPE was proposed for the geomembrane liner systems for the heap leach pad because it has the following benefits (Lupo, 2005):
    - Generally higher interface friction values, compared to other geomembrane materials
    - Ease of installation in cold climates due to added flexibility,
    - Good performance under high confining stresses (large heap height)
    - Higher allowable strain for projects where moderate settlement may become an issue.

17.9 Construction

Development of the heap leach liner would be constructed in three phases, with pad expansions proposed after two years of initial production to meet ore stacking requirements. The liner system would be constructed with both the synthetic and natural layers extending to the top of the perimeter berms to provide full containment. The synthetic liners would be anchored and backfilled in a trench along the heap leach pad perimeter and perimeter berms to ensure that ore loading does not compromise the liner coverage of the heap leach pad footprint by pulling the liner into the pad. Along the pad toe, all liners would be tied into their corresponding liner layer along the foundation of the pad to provide a continuous seal and drainage connection.

The perimeter berm would be constructed as part of the liner tie-in around the perimeter of the pad footprint to ensure that heap solution is contained within the pad and to prevent surface runoff entering the pad collection system. A 0.3-metre-thick (1-foot-thick) bedding sand layer would be placed on the face of the confining embankment directly underneath the second (bottom) geomembrane liner to provide additional integrity protection to the liner.

17.10 Over Liner

A protective layer of approximately one-half metre (1.5 feet) of coarse crushed ore/waste would be placed over the entire liner system footprint to protect the liner's integrity from damage during ore placement. The over liner acts as the drainage layer, allowing solution drainage into the pipe collection system. The over liner material must be competent and be free from fines.

17.11 Solution Collection System

Collection and recovery of the leach solution is facilitated by the solution collection system in conjunction with the heap leach liner, over liner, and LDRS. The collection system consists of the following pipe and sump components:

- Lateral collection pipes
- Collection header pipes
- Main header collection pipes
- Leachate collection sumps

The solution collection system would be designed to facilitate quick and efficient solution conveyance off the pad to reduce the potential risk of solution losses through liner system. The entire piping system would be constructed from perforated corrugated plastic tubing (CPT), which is embedded within the over liner layer.

The lateral collection pipes, which would be spaced approximately five metres (16 feet) apart under the entire pad footprint, feed directly into the collection header pipes, which then flow into the main header. The main header pipes would be positioned along the centerline of each heap leach pad cell and terminate at the upstream toe of the perimeter berm at the leachate collection ditch. Two leachate collection ditches allow solution to flow by gravity to the required storage pond. The collection pipes would be fitted with gate valves to allow solution to be directed to one of the three perimeter collection ditches – PLS, Barren, or Storm.

17.12 Leak Detection and Recovery System

The LDRS would be designed to capture and convey any solution that may leak through the overlying geomembrane and low permeability soil layers. The LDRS consists of a 0.3-metre-thick (1-foot-thick) sand layer embedded with 100 mm (4-inch) diameter perforated CPT collection pipes. A non-woven needle punched geotextile overlies the LDRS sand layer to prevent particles from the above soil layer from entering the LDRS. Any leakage recovered by the LDRS would be conveyed into the LDRS sump at the downstream toe of the HLF. A level-switch controlled submersible sump pump would transfer the recovered solution via a pipe installed within the LDRS sand layer and connect into the main solution recovery line for processing. Monitoring of the leakage recovery would be undertaken by recording pump operating hours.

17.13 Leakage Detection Cells

To facilitate more accurate leak identification, the entire pad solution collection system is typically subdivided into multiple independently monitored areas (cells) separated by small berms. Each of these cells has a dedicated leakage detection collection system comprising a drain gravel layer beneath the inner composite liner system which conveys the leakage to a 100 mm (4-inch) diameter perforated collection pipe within the LDRS collection trench. The LDRS ditches flow by gravity at a minimum 0.5 % slope towards the LDRS collection sump, located along the sides of the leach pad. The flow rates from the dedicated collection pipes are continuously monitored and measured prior to discharging into a sump.

17.14 Solution Storage

17.14.1 Storm Pond

The Storm Pond is designed to provide storage for excess leachate and runoff generated as a result of rainfall events. The pond is situated immediately down gradient of the HLF, and pond flows are conveyed via solution collection piping inside lined ditches. The Storm Pond is designed to meet the following design criteria:

- Storage capacity to contain the excess HLF leachate and surface runoff from the 1 in 100-year 24-hour storm event without discharge
- Overflow designed to discharge the 1 in 200-year 24-hour storm event

The storage requirements for the Storm Pond were established based on containment of the entire estimated surface runoff generated from the HLF (at the Phase 3 footprint) during the 1 in 100-year 24-hour storm event. Based on the surface runoff estimates, the following storage requirements for the events pond were identified:

Total runoff estimates for 1 in 100-year 24-hour storm event 54,000 cubic metres (1.9 million cubic feet), 10% additional factor of safety included.

Solution stored in the Storm Pond would be pumped back to the heap leach pad using the Storm Pond pump station. The pump station is designed to be able to drain the storm volume over a period of approximately ten days.

17.14.2 PLS Pond and Barren Tank

The PLS and Barren tank/ponds are designed to provide storage for leachate and MC return solutions. The ponds are situated immediately down gradient of the HLF, and pond flows are conveyed via solution collection piping and ditches. The PLS and Barren ponds are designed to meet the following design criteria:

- Storage capacity to contain sufficient solution volumes to maintain irrigation and feed to the CIC circuits
- The PLS Pond is designed to contain up to 24 hours of solution assuming a maximum irrigation rate of 15 lph/m^2
- The PLS Pond is designed with a capacity of approximately 56,415 cubic metres (1,992,277 cubic feet).
- The Barren tank is designed to hold 15 minutes of solution at a capacity of 24,717 cubic feet (700 cubic metres).

Excess solution flows to any of these ponds/tanks would be diverted to the PLS or Storm Pond for recycle back to the heap.

17.14.3 Pond Liner System

The engineered double liner system designed for the ponds uses the same design principles as the HLF pad liner system. The liner design consists of the following layer configuration:

- 1.5 mm (60-mil) high-density polyethylene (HDPE) geomembrane
- 0.3-metre-thick (1-foot-thick) low permeability soil liner
- Geosynthetic “geonet” drainage layer
- 1.5 mm (60-mil) HDPE geomembrane.

The liner system installed on the upslope of the pond embankment would have an additional 0.3-metre-thick (1.0 foot-thick) bedding sand layer that would interface with the lower geomembrane layer to protect the integrity of the liner.

Installation of a LDRS is not required for the Storm Pond as the pond is operated as a dry facility and would only receive and store runoff water during significant storm events. In the event that leakage does occur through the double liner system, this water would be conveyed via the geonet layer to a 1-metre-thick (3-foot-thick) drainage blanket that underlies the Storm Pond embankment. This drainage blanket discharges to a sump for solution return to the pond.

It is recommended that HDPE geomembrane be used for the pond liner system rather than LLDPE. Unlike the heap leach pad, the pond liner system would not be subjected to high confining stresses from ore stacking, and HDPE has a higher ultraviolet resistance, which is critical for exposed surfaces like that of the ponds.

17.15 Runoff Collection and Diversion

The surface water management system proposed for the site consists of a series of ditches constructed around the perimeter of the HLF to intercept overland surface runoff around the HLF pad and to convey surface water away from the active site. The ditches are designed to meet the following design criteria:

- Conveys the 1 in 100-year 24-hour duration storm event
- Minimum freeboard = 0.3 metres (1-foot)
- Minimum ditch grade = 0.01 metre/metre (foot/foot)
- Side slopes = 2H:1V
- Channel shape = trapezoidal.

Lining and protection of the ditch channels from erosion and scouring may be required for all permanent ditches. Temporary ditches would be constructed between heap phases.

18.0 PROJECT INFRASTRUCTURE

Currently, the project site has no electricity, one small water well, and low-quality gravel access roads. The project will require a power line along the old Jeannie Mill power line right-of-way in Rose Valley approximately 10 miles from the site, additional upgrades to the access roads, and at least one additional water well. TMI has identified available water within the project area and has applied for rights to use that water.

As discussed above, GRE developed conceptual layouts for the deposit areas, including waste dump locations and sizes, leach pad locations and sizes, pond locations and sizes, processing facility locations, access road routes, and overhead power line routes. An office, dry, warehouse, truck shop, guard house, substation, and fuel tank are included in the estimate. A general site layout was provided earlier as Figure 16-1.

Makeup water for processing operations is estimated to average 227 cubic metres per hour (m^3/hr) (1,000 gpm) annually, with an additional 22.7 m^3/hr (100 gpm) required at the crusher for water addition and dust control, 22.7 m^3/hr (100 gpm) for domestic use and truck wash, and 22.7 m^3/hr (100 gpm) for dust control on haul roads. This water demand is roughly equivalent to the 295 m^3/hr (1,300 gpm) in purchased water rights (see Section 5.3).

Suitable labor pools are available in nearby areas.

19.0 MARKET STUDIES AND CONTRACTS

The Gold Springs project will produce doré (gold-silver alloy) bars. A long-established, active, worldwide market exists for the buying and selling of gold and silver. GRC expects this to continue throughout the life of the Gold Springs project. Further market studies are not deemed necessary to establish the existence of a market for the product.

The 3-year trailing averages for gold and silver prices through May 2020 are $1,360/oz and $16.14/oz, respectively. The 2-year look ahead for gold as of May 2020 is $1600/oz. In line with this data, GRE used a gold price of $1,450/oz and a silver price of $16.00/oz for the base case analyses.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

The Company is currently operating its exploration program under Plans of Operations (PoOs) in both Nevada and Utah. For each PoO, the Company was required to complete an Environmental Assessment (EA) in each state. In conjunction with the EAs, the Company performed cultural and biological surveys on significant portions of the Gold Springs project areas in 2013 through 2105. In both Nevada and Utah, the Bureau of Land Management (BLM) determined that there were no significant impacts from the PoOs. On March 27, 2014, the Nevada Caliente Field Office of the BLM issued a Record of Decision (ROD) and Finding of No Significant Impact (FONSI) for the Company's EA covering exploration on the Nevada portion of the Gold Springs project. On September 22, 2015, the Utah Cedar City Field Office of the BLM issued a ROD and FONSI for the Company's EA covering exploration on the Utah portion of the Gold Springs project. The acceptance of the EAs in Nevada and Utah means that the Company is free to conduct the work proposed in its PoOs, which outline staged exploration activities for possible resource expansion. These staged activities are only limited by adequate bonding. As the scope of the activities increases, GRC will be required to have a sufficient bond in place to cover the cost of reclamation.

Prior to mining activities involving public (BLM) land, the project will require an Environmental Impact Statement (EIS) that will include investigation of the impacts of the project on environmental resources and community. The EIS process is expected to take four to five years, including the collection of data, preparation of the document, agency review, and public comment and review.

Discussions with the BLM and the new time requirements for processing EIS documents indicate it is feasible to obtain necessary environmental permits to mine within two to three years.

Table 20-1 outlines anticipated permits and regulatory agency approvals needed for the Gold Springs project.

Table 20-1: Anticipated Environmental and other Permitting Requirements

Permit	Agency	Purpose	Need
Federal Permits, Approvals, and Registrations			
Plan of Operations/EIS	U.S. Bureau of Land Management	Prevent unnecessary or undue degradation associated with Plan of Operations. EIS to disclose environmental impacts and project alternatives. Includes biological and cultural surveys.	Necessary for mining and processing activities involving BLM land
Explosives Permit	U.S. Bureau of Alcohol Tobacco & Firearms	Storage and use of explosives	Potentially not necessary; third-party contractor to obtain
EPA Hazardous Waste ID No.	U.S. Environmental Protection Agency	Registration as a small-quantity generator of wastes regulated as hazardous	Necessary for any on-site laboratory
Notification of	Mine Safety & Health	Mine safety issues training plan	Necessary for any type

Permit	Agency	Purpose	Need
Commencement of Operations	Administration	mine registration	of mining or processing, regardless of land status
Nationwide Section 404 Permit	U.S. Army Corps of Engineers	Installation of any required culverts on the access road, or potential wetlands impacts.	Necessary if the project impacts any streambed. May be simplified in arid regions.
Endangered Species Act	U.S. Fish and Wildlife Service	Only if project affects species listed as threatened or endangered (not anticipated)	Not necessary
Federal Communications Commission	FCC Frequency registrations for radio/microwave communication facilities	Use of on-site radios with its own frequency	Potentially not necessary; third-party contractor to obtain
State Permits			
Air Quality Operating Permit	NV Division of Environmental Protection (NDEP); UT Division of Air Quality (UDAQ)	Regulates project sources of air emissions.	Necessary for any type of mining or processing, regardless of land status
Mining and Reclamation Permit	NDEP; UT Department of Environmental Quality (UDEQ)	Reclamation of surface disturbance due to mining and mineral processing.	Necessary for any type of mining or processing, regardless of land status
Storm Water Pollution Prevention Plan (SWPPP)	NDEP; UDEQ	Prevent degradation of waters of the state from mining establishes minimum facility design and containment requirements.	Necessary for any type of mining or processing, regardless of land status
Spill Prevention Control and Countermeasures Plan (SPCC)	NDEP; UDEQ	On-site treatment and management of hydrocarbon contaminated soils	Necessary for any type of mining or processing involving storage and use of hydrocarbons, regardless of land status
Permit to Construct Impoundments; Dam Safety Engineer Review	NV/UT Division of Water Resources	Design and construction of a tailings embankment or other structures with a crest height 20 feet or higher as measured from the downstream toe to the crest or that will impound 20 acre-feet or more	Necessary for any type of mining or processing involving construction of embankments, regardless of land status
Potable Water System Permit	NV/UT Bureau of Safe Drinking Water	Water system for drinking water and other domestic uses (e.g. lavatories)	Potentially not necessary; use of water coolers and signages may be a better route

Permit	Agency	Purpose	Need
Radioactive Materials License	NV Bureau of Safe Drinking Water; UT Division of Solid and Hazardous Waste	Nuclear flow and mass measurement devices if used in the mineral processing facilities	Necessary for any type of mining or processing that uses equipment with a radioactive source, regardless of land status
Septic Treatment Permit Sewage Disposal System	NDEP; UDEQ	Design operation and monitoring of septic and sewage disposal systems	Necessary for any type of mining or processing, regardless of land status
Hazardous Materials Storage Permit	NV Fire Marshall/UT Fire Marshall	Hazardous materials safety	Necessary for any type of mining or processing, regardless of land status
Local Permits			
Building Permits	Building Planning Departments, Lincoln County, NV and/or Iron County, UT	Facility construction	Necessary for any type of mining or processing, regardless of land status
County Road Use and Maintenance Permit	Building Planning Departments, Lincoln County, NV and/or Iron County, UT	Use and maintenance of county roads	Necessary for any type of mining or processing, regardless of land status

Both Nevada and Utah have a long history of mining and derive a significant portion of their revenue from the mining industry. The primary social and community impacts that are expected to occur with full scale development of the Gold Springs property relate to the creation of jobs and tax revenue in the surrounding area, particularly affecting Lincoln County, NV and Iron County, UT. Based on the manpower estimates in Table 21-10, the number of jobs directly created could be about 150 (60 in mining and 60 in processing, plus administration). Additional jobs would be created indirectly in the surrounding communities. Along with increased tax revenue, local communities would experience an increased demand for services such as roads and schools.

20.1 Mine Closure

Closure and final reclamation of the mine site will occur over several years following the cessation of mining operations. Final leaching and rinsing of the leach pad will occur over a 1- to 2-year period after which final reclamation will begin. This will include knocking down the leach pad benches to their final slope, placing a cover of the heap leach pad, removing the process facilities and other infrastructure such as powerlines and administrative buildings, backfilling the process ponds, ripping & grading of the site access roads, and finally revegetation of all disturbed areas. Finally, monitoring of the drain down from the heap leach will be ongoing for a 5- to 10-year period. A reclamation bond has been included in the economic analysis that established an escrow account at Year -1 for closure expenditures in the amount of $2.7 million.

21.0 CAPITAL AND OPERATING COSTS

Capital costs are presented for the mining, mineral processing, and administrative portions of the operation. Sources for costs used in the economic model include both Infomine (InfoMine, 2020) and GRE's internal references. When Infomine costs data seemed inaccurate, GRE used costs from similar projects in North America or estimated costs from first principles. Working capital was estimated to be 2 months' operating costs. Working capital was estimated to be recovered the year after production ends. Sustaining capital was estimated as 10% of the mobile equipment cost per year. Capital contingency was set at 15%.

A trade off option between owner operated and contract mining was analyzed in the economic model. If contract mining is used, mining equipment capital, sustaining costs, and heavy equipment shop costs are applied throughout the life of the mine as an operating cost rather than as a capital cost.

21.1 Mining

Mining capital costs used to develop the economic model are summarized in Table 21-1 below.

Table 21-1: Mine Capital Costs Summary

Category	Item	# Units	Units	$ / Unit	Total Cost
Development	Clearing, Grubbing, Road Improvements	1	LS	$500,000	$500,000
	Haul Road Construction	5000	ft	$120	$600,000
Major Mining Equipment	Haul Truck 789D	5	ea	$3,081,700	$15,408,500
	Loader 994K	1	ea	$5,111,000	$5,111,000
	Blast Hole Drill	1	ea	$2,900,000	$2,900,000
	Dozer for Tuff (D10T)	2	ea	$1,700,000	$3,400,000
	Scraper for Tuff (657G)	4	ea	$1,698,000	$6,792,000
Mine Support Equipment	Dozer w/Ripper D6T	1	ea	$380,250	$380,250
	Grader 12ft	1	ea	$349,700	$349,700
	Water Truck 5,000 gal	1	ea	$779,900	$779,900
	Service/Tire Trucks	2	ea	$166,400	$332,800
	ANFO Truck	1	ea	$219,800	$219,800
	Light Plants 10 kw	2	ea	$25,800	$51,600
	Pumps 2000 gpm, 120 HP (submersible)	2	ea	$38,200	$76,400
	Pickup Trucks	6	ea	$55,600	$333,600
Buildings	Heavy Eq Shop w/tools	1	LS	$671,000	$671,000
	Dry	1	LS	$382,000	$382,000
	Cap Magazine and ANFO Storage	1	LS	$65,000	$65,000
	Fuel Station	1	LS	$125,000	$125,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

21.1.1 Mineral Processing

Estimated equipment costs for the mineral processing plant are summarized in Table 21-2. The process plant includes the Merrill-Crowe gold and silver recovery system, leach pad, ponds, crushing plant, and laboratory. Equipment costs are estimated assuming new Chinese sourced processing equipment.

Table 21-2: Equipment Costs for Mineral Processing Facility

Mineral Processing Component	Cost
Crushing	$8,499,000
Fine Ore Load Out	$619,000
Leach Pad, Ponds, Sol'n Dist and Collection	$20,907,000
Merrill-Crowe	$1,736,000
Utilities	$7,576,000
Total Equipment	$39,337,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

Equipment costs above are scaled by factors to account for installation costs including labor, concrete, piping, structural steel, instrumentation, insulation, electrical, coatings and sealants, spares and first fills, and engineering/management. The scaled equipment costs are then added to the mobile equipment cost required for the mineral processing area. This brings the total mineral processing capital cost to $63.8 million. Most of the capital costs are applied the year before production begins during construction of the mineral processing plant. Some processing plant capital expenses occur during active mining such as expansion of the heap leach pad. Table 21-3 summarizes the schedule of mineral processing capital expenses that are applied to the economic model.

Table 21-3: Capital Costs for Mineral Processing by Phase

Phase	Capital Cost
Phase 1 - Year -1	$56,801,000
Phase 2 - Year 2	$3,485,000
Phase 2 - Year 4	$3,485,000
Total	$63,770,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

21.1.2 Administrative

Administrative costs for capital expenses are estimated using GRE's experience with similar sized projects in the American West. Administrative capital costs applied to the economic model are listed below in Table 21-4.

Table 21-4: Administrative Capital Costs

Item	Quantity	Units	Total
Diff. GPS - Survey	1	ea	$50,000
Guard House / Security	1	ea	$100,000
Startup Training	1	ea	$250,000
Emergency Vehicle/Supplies	1	ea	$100,000
Office	1	ea	$250,000
Warehouse	1	ea	$514,000
Fire Protection	1	ea	$200,000
Water Supply	1	ea	$1,000,000
Power line to site	10	mi	$500,000
Substation (5 MW)	1	LS	$279,800
Electrical Switch Gear	1	LS	$250,000

Item	Quantity	Units	Total
Reclamation Bond	1	ea	$2,700,000
Working Capital (2 months)	Allowance	ea	$8,439,000
Sustaining Capital (10% Of Equip)	Allowance	annual	$3,614,000
Mine Closure	Allowance	Ea	$14,042,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

Sustaining capital is estimated as 10% of the mining mobile equipment cost per year. Working capital is estimated to be 2 months' operating costs and is to be recovered the year after production ends. Note that in the case where a contract mining service is used, sustaining capital becomes zero. Additionally, owner's costs such as permitting, land, exploration, metallurgical testing, and feasibility studies are not applied to the economic model but are estimated as shown in Table 21-5.

Table 21-5: Estimate of Owner's Costs

Item	Cost
Definition Drilling	$10,000,000
Permitting	$2,000,000
Engineering	$2,000,000
Total	**$14,000,000**

If these items above are not complete at the time that mining is anticipated to commence, they will need to be factored into the economic analysis.

21.2 Operating Costs

Operating costs in the economic model are calculated based on first principles, estimated using the experience of GRE senior staff, or scaled from Infomine. The operating costs are categorized by mining, mineral processing, or administrative functions. Operating contingency was set at 5%.

A trade-off between owner operated and contract mining was analyzed in the economic model. If contract mining is used mining equipment capital, sustaining costs, and heavy equipment shop costs are applied throughout the life of the mine as a contractor operating cost rather than as a capital cost. The contract mining operating cost is determined by calculating the required cost of the equipment plus 20% for profit and overhead, and 10% for equipment replacement. This total cost is then divided by the total ore tonnes mined during operation and applied to the ore tonnes mined in that specific period.

21.2.1 Mining

Operating costs for mining include equipment operation, labor, and consumable materials. A summary of how each of the three operating costs for mining is provided below.

Mining equipment includes production equipment, rental production equipment, and support equipment. Mining production equipment hours are calculated using the equipment productivity estimates and the number of tonnes required to be moved. It is assumed that if the mining capacity of the fleet is exceeded that rental production equipment will be utilized in both the owner operated and contract mining scenarios. See Table 21-6 for a summary of production equipment hours by year. Mining support equipment hours are calculated using the number of shifts that the equipment is operated per day, the number of pieces of equipment, and the operating hours per day. The operating hours per day are calculated assuming utilization of 90%, availability of 95%, and two ten-hour shifts per day. See Table 21-7 for a summary of support equipment hours by year.

Table 21-6: Production Equipment Operating Hours Summarized by Year

Equipment	Max. Hrs. per Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Haul Truck 789D	31,100	27,100	31,100	31,100	24,900	31,100	26,200	30,000	31,100	5,800	238,400
Loader 994K	6,200	1,100	2,500	1,400	1,000	1,400	1,000	1,200	1,300	200	11,100
Blast Hole Drill		6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	55,800
Dozer for Tuff (D10T)	12,400	2,400	18,500	8,900	2,800	700	0	13,400	11,300	0	58,000
Scraper for Tuff (657G)	24,900	2,400	18,500	8,900	2,800	700	0	13,400	11,300	0	58,000
Rental Haul Truck 789D		0	31,600	4,800	0	2,700	0	0	2,000	0	41,100
Rental Loader 994K		0	0	0	0	0	0	0	0	0	0
Rental Scraper for Tuff (657G)		0	0	0	0	0	0	0	0	0	0

Table 21-7: Support Equipment Operating Hours Summarized by Year

Item	Number	Operating Shifts per Day	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Dozer w/Ripper D6T	2	2	14,400	16,600	16,200	15,200	14,700	15,400	14,100	14,300	3,000
Grader 12ft	1	1	3,600	4,200	4,100	3,800	3,700	3,900	3,500	3,600	800
Water Truck 5,000 gal	1	1	3,600	4,200	4,100	3,800	3,700	3,900	3,500	3,600	800
Service/Tire Trucks	2	1	7,200	8,300	8,100	7,600	7,400	7,700	7,100	7,200	1,500
ANFO Truck	1	1	3,600	4,200	4,100	3,800	3,700	3,900	3,500	3,600	800
Light Plants 10 kw	2	1	7,200	8,300	8,100	7,600	7,400	7,700	7,100	7,200	1,500
Pumps 2000 gpm, 120 HP (submersible)	2	0.12	800	1,000	900	900	900	900	800	800	200
Pickup Trucks	6	0.23	5,100	5,800	5,700	5,300	5,200	5,400	5,000	5,000	1,100

Blasting material consumption is determined assuming a powder factor of 0.5 for ore and 0.4 for waste. The blasting material calculation is shown below in Table 21-8.

Table 21-8: Blasting Material Calculation

Item	Factor	Units
Constants		
ANFO density	0.9	tonnes/cubic metres
ANFO powder factor - ore	0.5	pounds/tonne rock
ANFO powder factor - waste	0.4	pounds/tonne rock
Bench height	5	metres
drilling rate	0.6	metres/minute
drill available %	0.9	
minutes used/hr	50	
avail labor hrs per shift	9	

Item	Factor	Units
blasthole depth	6	metres
blasthole diameter	10.66	inch
rod length	45	feet
ANFO thick	5	metres
ANFO setup min/hole	15	minutes
Calculated		
Blasthole diameter	0.270764	metres
Blasthole volume	0.34548	cubic metres
ANFO volume	0.2879	cubic metres
ANFO weight tonnes	0.25911	tonnes
tonnes of rock blasted/hole	1142.5	tonnes/hole
volume of rock blasted/hole	455.2	cubic metres/hole
Drill hole grid spacing	9.541186	metres

Manpower for the mine includes both hourly-rate employees and salaried employees. The number of required equipment operators was estimated using the quantities of equipment required, the number of personnel per piece of equipment, and shifts per day. Numbers of required salaried personnel are estimated based on GRE's experience. A burden factor of 35% was added to all labor costs. The burden includes fringe benefits, holidays, vacation and sick leave, insurances, etc. A summary of the manpower requirements is provided in Table 21-9 and Table 21-10.

Table 21-9: Hourly Labor Summary for Average Production Year

Position	Average Quantity	Base Rate	Burden	Burdened Rate
Drillers	4	$28.00	$9.80	$37.80
Blasters	2	$30.00	$10.50	$40.50
Excavator/Loader Operators	4	$29.00	$10.15	$39.15
Truck Drivers	20	$24.00	$8.40	$32.40
Grader/Dozer Operators	6	$27.00	$9.45	$36.45
Tuff - Dozer	8	$27.00	$9.45	$36.45
Tuff - Scraper	16	$27.00	$9.45	$36.45
Water truck Operators	2	$24.00	$8.40	$32.40
Mechanics	8	$28.00	$9.80	$37.80
Laborers/Maintenance	2	$20.00	$7.00	$27.00

Table 21-10: Salaried Labor Summary

Position	Quantity	Base Wage	Burden	Burdened Salary
Mine Superintendent	1	$120,000	$42,000	$162,000
Foreman	4	$88,000	$31,000	$119,000
Maintenance Foreman	4	$88,000	$31,000	$119,000
Engineer	1	$90,000	$32,000	$122,000
Geologist	1	$80,000	$28,000	$108,000
Surveyor/Technician	2	$65,000	$23,000	$88,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

21.2.2 Mineral Processing

Operating costs for mineral processing include labor, reagents, power, and consumables. Mineral processing operating costs used in the economic model are categorized as either fixed or variable costs. Fixed costs do not vary over the life of the mine and are applied regardless of the quantity of ore mined. Variable costs are scaled on a per tonne basis against ore categories that include common, crushed, and ROM ore. Assumptions used to develop the processing costs include:

- Plant will operate two 12-hour shifts per day, 365 days per year
- HLF and Merrill Crowe plant will accommodate variable production of ROM

The processing costs shown in Table 21-11 below include all post mining activities until shipment off site for smelting and refining including primary crushing, secondary crushing, leaching, Merrill Crowe plant, and refining of doré.

Table 21-11: Variable and Fixed Annual Mineral Processing Costs

Area	Fixed $/year	Variable $/tonne	Units
Labor - Salaried Common	$1,075,000		
Labor - Common	$2,932,000		
Labor - Crush	$2,206,000		
Reagents - Common		$0.42	$/t total on pad
Reagents - Crush		$2.04	$/t total crushed
Reagents - ROM		$0.88	$/t total ROM
Power - Common		$0.10	$/t total crushed
Power - Crush		$0.29	$/t total crushed
Power - ROM		$0.08	$/t total ROM

Note: Costs rounded to nearest thousand may not sum due to rounding.

Operating costs for salaried and hourly labor are based upon GRE estimates of required manpower for the operation and GRE senior staff experience with processing employee wages (Table 21-12 and Table 21-13). Note that a 35% percent burden factor was estimated for all employees.

Table 21-12: Summary of Labor Requirements for Mineral Processing Hourly Employees

Area	Position	Quantity	Base Rate	Burden	Burdened Rate
Crusher	Operator	12	$28.00	$9.80	$37.80
	FEL Operator	4	$28.00	$9.80	$37.80
	Maintenance	2	$30.00	$10.50	$40.50
	Electrical	1	$30.00	$10.50	$40.50
Heap	Irrigation Operator	4	$28.00	$9.80	$37.80
	Reagent Operator	4	$20.00	$7.00	$27.00
	Dozer/FEL Operator	4	$28.00	$9.80	$37.80
	Assayers	4	$28.00	$9.80	$37.80
	Mechanic	1	$30.00	$10.50	$40.50
	Electrician	1	$30.00	$10.50	$40.50

Area	Position	Quantity	Base Rate	Burden	Burdened Rate
Merrill Crowe	Merrill-Crowe	4	$28.00	$9.80	$37.80
	Refiners	2	$28.00	$9.80	$37.80
	Samplers	4	$20.00	$7.00	$27.00
	Reagent Operator	4	$20.00	$7.00	$27.00
	Mechanic	2	$30.00	$10.50	$40.50
	Electrician	1	$30.00	$10.50	$40.50

Table 21-13: Summary of Labor Requirements for Mineral Processing Salary Employees

Position	Quantity	Base Wage	Burden	Annual cost/person
Superintendent	1	$120,000	$42,000	$162,000
General Foreman	1	$88,000	$30,800	$118,800
Maintenance Foreman	1	$88,000	$30,800	$118,800
Shift Foreman	4	$64,000	$22,400	$86,400
Chief Assay Chemist	1	$60,000	$21,000	$81,000
Sr Metallurgist	1	$72,000	$25,200	$97,200
Metallurgist	1	$64,000	$22,400	$86,400
Instrument Technician	1	$48,000	$16,800	$64,800

Note: Costs rounded to nearest thousand may not sum due to rounding.

Costs associated with consumables for mineral processing are estimated using the assumptions listed in Table 21-14. Note that reagent usage was estimated from metallurgical testwork and GRE experience.

Table 21-14: Consumption of Reagents and Consumables for Mineral Processing

Material	Unit Consumption	Units	Cost Per Unit	Total $/year
Crusher				
Jaws and Cheek Plates	6.00	set/yr	$125,000	$750,000
Mantles and Concave	12.00	set/yr	$90,000	$2,160,000
Misc - belts, lube	Allowance	Annual	$250,000	$250,000
Subtotal				**$3,160,000**
Leach				
Cyanide - Crushed	0.40	kg/t	$2,860	$6,266,000
Lime - Crushed	0.75	kg/t	$198	$813,000
Cyanide - ROM	0.20	kg/t	$2,860	$3,132,000
Lime - ROM	0.50	kg/t	$198	$542,000
Caustic	0.04	kg/t	$437	$191,000
Antiscalent	0.003	kg/t	$3,345	$110,000
Irrigation Drippers	Allowance	Annual	$500,000	$500,000
Subtotal				**$11,554,000**
Merrill-Crowe				
Cyanide	0.01	kg/t	$2,860	$157,000
Zinc	10.37	g/t	$12,050	$1,369,000
Lead Nitrate	2.07	g/t	$2,420	$55,000
DE	0.04	kg/t	$1,300	$556,000
Flux	0.01	kg/t	$1,000	$110,000

Material	Unit Consumption	Units	Cost Per Unit	Total $/year
Subtotal				**$2,246,314**
Consumables				
Maintenance Items	5.0%	Equip Cost	$1,964,000	$1,964,000
Diesel	120.96	liters/hr	0.79	$768,000
Gasoline	45.36	liters/hr	0.92	$334,000
Lab/Refining Supplies	Allowance	Annual	$500,000	$500,000
Misc Op Supplies	65.00	employ	$130,000	$130,000
Subtotal				**$3,696,000**
Total				**$20,657,000**

Note: Costs rounded to nearest thousand may not sum due to rounding.

Power consumption was estimated by first principles, projected power consumption is summarized by annual requirements listed in Table 21-15.

Table 21-15: Annual Power Consumption and Cost for Mineral Processing By Area

Area	Power kwh/year	Total Cost
Crushing	13,057,000	$1,153,000
Heap	9,811,000	$866,000
Merrill-Crowe/Water	12,296,000	$1,086,000
Total	35,163,000	$3,105,000

21.2.3 Administrative

Administrative operating costs are estimated for the project based upon GRE's experience with similar sized mines located in the American West. Table 21-16 lists the estimated administrative operating costs. Table 21-7 lists the estimated quantities and salaries of administrative staff required to operate the mine.

Table 21-16 Administrative Service and Supply Costs

Services and Supplies	Cost	Unit
Office Supplies	$1,000	per month
Maint Supplies	$1,000	per month
Janitorial Services	$5,000	per month
Computers / Software	$3,000	per month
IT Services	$4,000	per month
Mining Software	$4,000	per month
Training	$6,000	per month
Subscriptions	$1,000	per month
Travel	$4,000	per month
Contributions - Local	$2,500	per month
Insurance	$20,000	per month
Legal	$10,000	per month
Security	$20,000	per month
Ambulance / Safety	$3,000	per month
Transportation (Dore)	$10	per troy ounce Au

Table 21-17: Quantities, Annual Salary, Burden, and Burdened Annual Salary of Administrative Staff

Position	Quantity	Annual Salary	Burden	Burdened Annual Salary
General Manager	1	$134,000	$47,000	$181,000
Chief Accountant	1	$100,000	$35,000	$135,000
Accountant	2	$73,000	$25,000	$98,000
Purchasing Agent	2	$68,000	$24,000	$92,000
Clerk	2	$48,000	$17,000	$64,000
Warehouse Clerk	3	$48,000	$17,000	$64,000
Secretary	2	$44,000	$15,000	$59,000
Compliance Manager	1	$82,000	$29,000	$111,000
Environmental Engineer	1	$82,000	$29,000	$111,000
Environmental Technician	2	$60,000	$21,000	$81,000
Health and Safety	1	$63,000	$22,000	$84,000
Training	1	$45,000	$16,000	$61,000
Human Resources	1	$90,000	$32,000	$122,000

Note: Costs rounded to nearest thousand may not sum due to rounding.

22.0 ECONOMIC ANALYSIS

Readers are advised that Mineral Resources that are not Mineral Reserves and do not have demonstrated economic viability under National Instrument 43-101. This PEA is preliminary in nature and includes inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

22.1 Model Cases

A multi scenario analysis method is used to analyze the economic performance of the project by varying the crushing cutoff grade used and optionally leaching ROM material at a fixed cutoff grade. A total of 7 cases are evaluated using 5 different crushing cutoff grades (0.15, 0.20, 0.25, 0.30, and 0.35 g/t) and a discretionary ROM ore option fixed at a cutoff grade of 0.15g/t. The resulting 7 scenarios are summarized in Table 22-1.

Table 22-1: Crushing and ROM Cutoff Grade Summarized by Case Number

Case	Crushing Cutoff (g/t)	ROM Cutoff Grade (g/t)
1	0.15	0
2	0.20	0
3	0.20	0.15
4	0.25	0
5	0.25	0.15
6	0.30	0
7	0.30	0.15

A trade off option between owner operated and contract mining was analyzed in the economic model. If contract mining is used, mining equipment capital, sustaining costs, and heavy equipment shop costs are applied throughout the life of the mine as an operating cost rather than as a capital cost. It was determined that the contract mining option made a large positive impact on the economic performance of the model by deferring large capital costs in early years of the operation. The economic analysis was therefore performed assuming the contractor mining option will be used.

22.2 Economic Analysis

GRE performed an economic analysis of the project by building an economic model based upon the following assumptions:

- Federal corporate income tax rate of 21%
- Utah taxes:
    - Corporation franchise and income tax – 4.95%
    - Property tax – 1.0915%
    - Mining severance tax – 2.6%
- Nevada taxes:
    - Proceeds of minerals tax – variable up to 5%

    - Property tax – 3.0786%
- 6.2% sales tax (average of Utah and Nevada)
- Sales and use taxes are not included in the model
- Equipment depreciated over a straight 5 years and has no salvage value at the end of mine life
- Loss carried forward
- Depletion allowance, lesser of 15% of net revenue or 50% of operating costs
- Gold price of $1,450 per troy ounce
- Silver price of $16 per troy ounce
- Gold crushed and ROM recoveries of 73% and 40% respectively
- Silver crushed and ROM recoveries of 40% and 20% respectively
- Gold 98% payable
- Silver 95% payable
- No over-riding royalties
- Contract mining option is used

22.3 Base Case

GRE considered the following key economic parameters to determine the best scenario: NPV, IRR, payback period, mine life, and initial capital cost. Case 3 was selected as the preferred scenario since it was the highest NPV and IRR scenario with a minimum mine life of 8 years of the cases that included ROM. Case 3 represents a crushing cutoff of 0.2 g/t Au with ROM material at a fixed cutoff of 0.15 g/t. Table 22-2 lists the key economic indicators for the selected scenario.

Table 22-2: Key Economic Indicators

Post Tax Economic Indicators	Value
After Tax NPV5	$153,618,000
After Tax NPV10	$110,510,000
After Tax IRR	38.9%
Initial Capital	$83,552,000
Pay Back Period (Years)	2.9
Life of Mine (Years)	8

Another method used to judge the potential success of the project is to analyze the operating costs per tonne. The operating costs are broken down into several categories are presented in Table 22-3.

Table 22-3: Operating Costs per Tonne

Operating Cost	Value
Mine Operating Cost/tonne ore	$3.84
Mine Operating Cost/tonne material mined	$1.47
Process Operating Cost/ tonne ore	$3.38
G&A Operating Cost/tonne ore	$0.56

The all-in sustaining cost (AISC) is $837.41/oz Au produced, net of silver credits, and the cash cost is $715.35/oz Au produced, net of silver credits.

22.4 Cash Flow

A summary of the cashflow by year is presented in Table 22-4.

Table 22-4: Cashflow of Economic Model Summarized by Year

Item	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Revenue											
Gold @ $1450/ounce	$0	$91,164	$72,640	$85,191	$91,614	$101,198	$76,213	$109,333	$83,366	$0	$710,720
Silver @ $16/ounce	$0	$14,465	$9,615	$11,643	$13,500	$7,380	$6,068	$8,276	$6,527	$0	$77,474
Royalty	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operating Costs											
Mine											
Production Equipment - Cost	$0	$8,168	$22,623	$11,968	$7,697	$10,155	$6,814	$12,442	$11,439	$0	$91,306
Support Equipment - Cost	$0	$1,299	$1,494	$1,462	$1,371	$1,372	$1,385	$1,222	$1,212	$0	$10,815
Materials Requirements	$0	$3,442	$7,890	$4,553	$3,173	$4,706	$3,106	$3,918	$4,079	$0	$34,867
Rental Equipment	$0	$0	$4,931	$0	$0	$1,233	$0	$0	$0	$0	$6,163
Process											
Reagents - Common	$0	$2,688	$3,092	$3,025	$2,837	$2,839	$2,865	$2,528	$2,509	$0	$22,384
Reagents - Crush	$0	$11,134	$11,134	$11,134	$11,134	$11,134	$11,134	$11,134	$10,156	$0	$88,093
Reagents - ROM	$0	$770	$1,611	$1,472	$1,081	$1,083	$1,140	$437	$822	$0	$8,416
Power - Crush	$0	$1,582	$1,582	$1,582	$1,582	$1,582	$1,582	$1,582	$1,443	$0	$12,515
Power - ROM	$0	$69	$144	$132	$97	$97	$102	$39	$74	$0	$753
Labor											
Mine Hourly	$0	$5,774	$7,575	$5,774	$5,774	$6,085	$4,374	$5,774	$5,774	$0	$46,902
Mine Salaried	$0	$1,517	$1,517	$1,517	$1,517	$1,517	$1,517	$1,517	$1,517	$0	$12,139
Plant Hourly	$0	$4,483	$5,157	$5,045	$4,732	$4,734	$4,779	$4,216	$4,185	$0	$37,330
Plant Salaried	$0	$1,075	$1,075	$1,075	$1,075	$1,075	$1,075	$1,075	$1,075	$0	$8,597
G&A											
Labor	$0	$1,785	$1,785	$1,785	$1,785	$1,785	$1,785	$1,785	$1,785	$0	$14,284
Services and Supplies	$0	$1,914	$1,759	$1,876	$1,927	$2,021	$1,781	$2,081	$1,841	$0	$15,201
Operating Cost Contingency 5%	$0	$2,285	$3,668	$2,620	$2,289	$2,571	$2,172	$2,487	$2,396	$0	$20,488
Total Operating Costs	**$0**	**$47,986**	**$77,037**	**$55,018**	**$48,070**	**$53,988**	**$45,610**	**$52,237**	**$50,308**	**$0**	**$430,254**
Pre-tax Operating Cash Flow	*$0*	*$57,644*	*$5,218*	*$41,816*	*$57,044*	*$54,591*	*$36,670*	*$65,373*	*$39,585*	*$0*	*$357,940*

Item	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Capital Cost											
Mine											
Development	$1,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,100
Mining Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Buildings	$572	$0	$0	$0	$0	$0	$0	$0	$0	$0	$572
Plant											
Plant	$56,863	$0	$3,500	$0	$3,500	$0	$0	$0	$0	$0	$63,863
Laboratory	$768	$0	$0	$0	$0	$0	$0	$0	$0	$0	$768
General and Administrative	$6,194	$0	$0	$0	$0	$0	$0	$0	$14,042	$0	$20,236
Subtotal Equipment Capital	**$65,496**	**$0**	**$3,500**	**$0**	**$3,500**	**$0**	**$0**	**$0**	**$14,042**	**$0**	**$86,538**
Working Capital (2 months)	$8,232	$0	$0	$0	$0	$0	$0	$0	$0	-$8,232	$0
Sustaining Capital (10% Of Equip)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contingency 15%	$9,824	$0	$525	$0	$525	$0	$0	$0	$2,106	$0	$12,981
Total Capital Cost	**$83,553**	**$0**	**$4,025**	**$0**	**$4,025**	**$0**	**$0**	**$0**	**$16,149**	**-$8,232**	**$99,519**
Before Tax Cash Flow	*-$83,553*	*$57,644*	*$1,193*	*$41,816*	*$53,019*	*$54,591*	*$36,670*	*$65,373*	*$23,436*	*$8,232*	*$258,421*
Tax											
Federal Tax	$0	$5,885	$0	$849	$2,718	$6,968	$3,775	$9,230	$4,051	$0	$33,477
Utah Tax	$0	$2,116	$0	$994	$1,937	$2,652	$1,557	$96	$0	$0	$9,352
Nevada Tax	$0	$0	$0	$0	$0	$0	$0	$62	$972	$0	$1,034
Utah Property Tax	$572	$429	$317	$166	$46	$31	$15	$8	$123	$92	$1,889
Nevada Property Tax	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	*$0*
Income after tax	***-$84,125***	***$49,214***	***$877***	***$39,807***	***$48,318***	***$44,941***	***$31,323***	***$55,976***	***$18,290***	***$8,140***	***$212,669***

NOTE: all cashflows are in thousands (x1000)
Years 10 and 11 not shown, so totals for Income after tax may not add.

22.5 Sensitivity Analyses

GRE evaluated the after-tax NPV@5% sensitivity to changes in gold price, capital costs, and operating costs. The results indicate that the after-tax NPV@5% is most sensitive to gold price, moderately sensitive to operating cost, and least sensitive to capital cost, see Figure 22-1 and Table 22-5. This analysis is performed on the contract mining scenario option only and would differ if an owner operated mining scenario was used.

Figure 22-1 NPV@5% Sensitivity to Varying Gold Price, Capital Costs, and Operating Costs

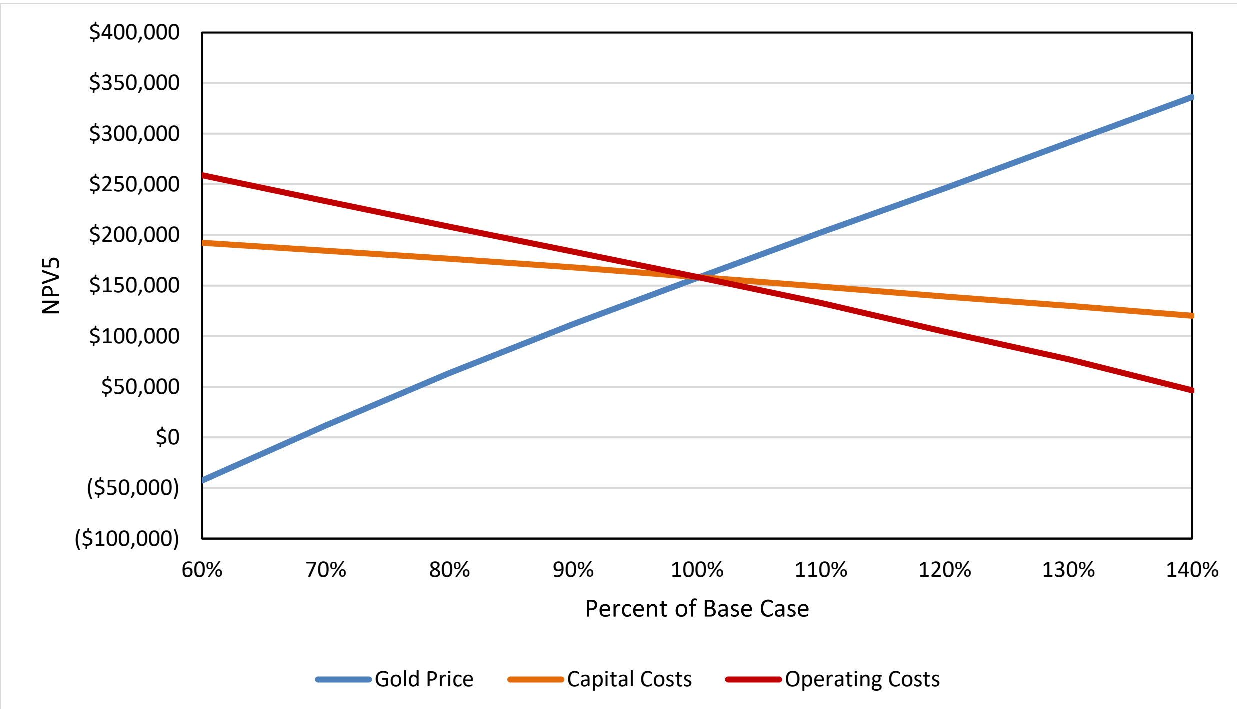


Table 22-5: Post Tax NPV@5% (000s) Sensitivity to Gold Price, Capital Costs, and Operating Costs

Gold Price	60%	70%	80%	90%	100%	110%	120%	130%	140%
After Tax NPV5	($42,225)	$12,181	$61,358	$108,185	$153,618	$198,558	$243,157	$288,179	$333,202
from base case	-127.5%	-92.1%	-60.1%	-29.6%	0.0%	29.3%	58.3%	87.6%	116.9%
CAPEX	**60%**	**70%**	**80%**	**90%**	**100%**	**110%**	**120%**	**130%**	**140%**
After Tax NPV5	$189,335	$180,833	$172,088	$163,010	$153,618	$143,982	$134,102	$123,980	$113,602
from base case	23.3%	17.7%	12.0%	6.1%	0.0%	-6.3%	-12.7%	-19.3%	-26.0%
OPEX	**60%**	**70%**	**80%**	**90%**	**100%**	**110%**	**120%**	**130%**	**140%**
After Tax NPV5	$255,444	$229,861	$204,278	$179,073	$153,618	$127,747	$101,159	$73,493	$44,886
from base case	66.3%	49.6%	33.0%	16.6%	0.0%	-16.8%	-34.1%	-52.2%	-70.8%

NOTE: NPV @ 5% is in thousands (x1000)

The project's after tax NPV5 for select gold prices are shown in Table 22-6.

Table 22-6: Project After Tax NPV5 at Select Gold Prices

Gold Price	$1,300	$1,400	$1,600	$1,800	$2,000
After Tax NPV5	$106,615	$137,965	$200,099	$261,787	$323,887

22.6 Conclusions of Economic Model

The project economics shown in the PEA are favorable, providing positive NPV values at varying gold prices, capital costs, and operating costs. The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

23.0 ADJACENT PROPERTIES

There are no significant gold properties or mines within the vicinity of the Gold Springs Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

Section 27, References, provides a list of documents that were consulted in support of the PEA. No further data or information is necessary, in the opinion of the Authors, to make the PEA understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

GRE consider the following key economic parameters to determine the best scenario: NPV, IRR, payback period, mine life, and initial capital cost. Case 3 was selected as the preferred scenario since it was the highest NPV and IRR scenario with a minimum mine life of 8 years of the cases that included ROM. Case 3 represents a crushing cutoff of 0.20 g/t Au with ROM material at a fixed cutoff of 0.15. Table 25-1 lists the key economic indicators for the selected scenario.

Table 25-1: Key Economic Indicators

Post Tax Economic Indicators	Value
After Tax NPV5	$153,618,000
After Tax NPV10	$110,510,000
After Tax IRR	38.9%
Initial Capital	$83,552,508
Pay Back Period (Years)	2.8
Life of Mine (Years)	8

Another method used to judge the potential success of the project is to analyze the operating costs per tonne. The operating costs are broken down into several categories are presented in Table 25-2.

Table 25-2: Operating Costs per Tonne

Operating Cost	Value
Mine Operating Cost/tonne ore	$3.84
Mine Operating Cost/tonne material mined	$1.47
Process Operating Cost/ tonne ore	$3.38
G&A Operating Cost/tonne ore	$0.56

The project economics shown in the PEA are favorable, providing positive NPV values at varying gold prices, capital costs, and operating costs. The 2020 PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves under National Instrument 43-101. Readers are advised that there is no certainty that the results projected in this preliminary economic assessment will be realized.

26.0 RECOMMENDATIONS

Table 26-1 tabulates the estimated costs to complete an intensive 2-year program designed to maximize the resource within the project area. Components of which would include:

- 90,500 metres of reverse-circulation (RC) and 10,700 metres of diamond (core) drilling
- Expanding ground geophysical coverage to all priority drill targets
- Conducting detailed structural mapping on priority targets
- Completing all drill related permitting
- Carrying out an extensive drill program with the objective of maximizing resources
- Completing comprehensive metallurgical testing
- Producing an EIS
- Producing an updated Preliminary Economic Assessment (PEA) or Prefeasibility Study (PFS)
- Clearing all cultural sites within the resource and mine plan areas
- Mitigating all significant cultural sites within the resource and mine plan areas

Table 26-1: Estimated Costs to Complete the Proposed Program

Exploration Cost Area	Year		
	2020	2021	Total
Drilling, Surface Sampling, and geochemistry Down-Hole Surveys	$7,585,900	$7,079,450	$15,295,350
Land and Option Payments	$399,840	$274,840	$674,680
Staffing & HHRR Travel Meals	$600,000	$613,000	$1,213,000
Reclamation, Environmental	$35,000	$48,000	$83,000
Camp Operations	$54,000	$60,000	$114,000
Geophysics	$240,000	$ -	$240,000
Capital-Asset Purchases	$162,000	$32,000	$194,000
43-101 Technical Reports	$200,000	$250,000	$450,000
Cultural Surveys	$200,000	$200,000	$400,000
EIS	$265,000	$395,000	$660,000
Metallurgy	$250,000	$250,000	$500,000
Permitting and Consultants	$84,000	$58,000	$142,000
Information Technology & Miscellaneous	$17,000	$17,000	$34,000
Totals	$10,092,740	$9,907,290	$20,000,030

26.1 Drilling

Drilling requirements have been estimated to move the project forward rapidly with the goal of developing a +2,500,000-ounce gold resource by the end of 2022. This will be achieved by deploying 3 RC drills to continue resource expansion in the Jumbo trend and to investigate the other high priority targets. This program would provide for 90,500 metres of reverse-circulation (RC) drilling in approximately 610 holes and 10,700 metres of diamond (core) drilling in 70 holes. Sequencing for the program would be to initially focus on the Jumbo Trend and completely define the total resource within this 5+ kilometre trend.

Drilling would advance to other high priority targets within Nevada based on priorities developed through geologic, geophysical, geochemical and structural studies.

Geotechnical HQ size core will be used to define the acceptable slopes within the planned open pits. Core provides a better view of the geology than RC chips. A portion of the core will be consumed for metallurgical column testing.

26.2 Metallurgical Testing

A limited amount of metallurgical testing has been completed on the Gold Springs project. To advance the project, it will be necessary to complete additional column testing on the four resource areas. It is anticipated that core from North and South Jumbo, Thor, Grey Eagle and other resource areas that may be developed will be collected for test columns. These additional tests will better define extraction and reagent consumption

26.3 Baseline Cultural / Environmental

Cultural and biological surveys have been completed as part of clearance for exploration sampling and drilling for 2017. Work should be continued on studies to establish baseline studies towards an EIS. An estimate has been made to fund these activities. Many of these studies will be carried out over multiple years to create baseline studies sufficient to use in an EIS.

26.4 Land Work

Allowances have been made to keep land ownership and title current along with acquisition.

26.5 Utilities

GSLLC has acquired 965 acre-feet of water in the Escalante water basin within Nevada and leased another 1,600 acre-feet of water in Utah, also within the Escalante basin. These water rights are sufficient to run a large-scale heap leach mining operation capable of producing +150,000 ounces of gold/year.

GSLLC has contacted power companies in Nevada and Utah about bringing power to the site. In Nevada, there is an old power line easement that was used to bring power to the historic Jennie mill. In Utah, power can be brought in along Gold Springs road, which is a county easement, for a reasonable price and with the possible effect of an easier and more streamlined permitting process.

27.0 REFERENCES

2007. Abundance in Earth's Crust. *WebElements.* [Online] 2007. WebElements.com.

Arentz, S. S. 1978. *Geology of the Escalante Silver Mine, Iron County, Utah.* Field Excursion C-2 Guidebook for Mineral Deposits of Southwestern Utah. s.l. : Utah Geol. Assoc. Publication 7, 1978. pp. 59-63.

Armitage, Allan and Studd, Duncan. 2013. *Amended Technical Report on the Gold Springs Property, Utah/Nevada, USA.* s.l. : unpubl. private report, 2013. p. 102.

Armitage, Allan. 2012. *Mineral Resource Estimate for High Desert Gold's (HDG) Jumbo Zone, Gold Springs Property in Nevada.* s.l. : unpubl. private report, 2012. p. 10.

Askey, J. L. 1985. *Results of Sampling and Drilling Conducted by FMC Corporation on Patented Claim 3235, Gold Springs Area, Lincoln County, Nevada.* s.l. : FMC Corporation in-house report, 1985.

Best, M. G., Christiansen, E. H. and Blank, R. H., Jr. 1989. Oligocene caldera complex and calc-alkaline tuffs and lavas of the Indian Peak volcanic field, Nevada and Utah. 1989, pp. 1076-1090.

Best, M. G., Keith, J. D. and Williams, V. S. 1992. Preliminary geologic map of the Ursine and Deer Lodge Canyon quadrangles, Lincoln County, Nevada, and Iron County, Utah. *U.S. Geological Survey Open file Report 92-341.* 1992, pp. 17, map.

Best, M. G., Lemmon, D. M. and Morris, H. T. 1989a. Geologic map of the Milford quadrangle and east half of the Frisco quadrangle, Beaver County, Utah. *U.S. Geological Survey Miscellaneous Investigations Series Map I-1904, scale 1:50,000.* 1989a.

Best, M.G., et al. 1987. Miocene Magnatism and Tectonism in and near the Southern Wah Wah Mountains, Southwestern Utah. *U.S. Geological Survey Professional Paper 1433-B.* 1987.

Blowes, D. W., Ptacek, C. J. and Jurjovec, J. 2003. Chapter 5. Mill tailing: Hydrogeology and geochemistry. [ed.] J. L. Jambor, D. W. Blowes and A. I.M. Ritchie. *Environmental Aspects of MINE WASTES.* Ottawa : Mineralogical Association of Canada, 2003, pp. 95-116.

Candee, C. R. 1981. *Summary of Geochemical Sampling, Stateline District, Utah-Nevada.* s.l. : AMAX Exploration, Inc., unpublished in-house report, 1981.

Cate, Antoine. 2017. *Preliminary Targeting at State Section: GRC in-house Report.* 2017.

Caulfield, D.A. 1988. *Summary Report on the Gold Springs Joint Venture, Energex Resources, Inc.* 1988.

Deering, D.R., Caulfield, D. and Ikona, C.K. 1985. *1985 Summary Report, Gold Springs Property, Eagle Valley Mining District, Lincoln County Nevada & Gold Springs (Stateline) Mining District, Iron County, Utah, Energex Resources, Inc., in house report.* 1985.

Doelling, H. H. and Tooker, E. W. 1983. Utah Mining District Areas and Principal Metal Occurrences. s.l. : Utah Geological and Mineral Survey, Map 70, 1983.

Etoh, J., et al. 2002. Bladed Quartz and its Relationship to Gold Mineralization in the Hishikare Low-Sulfidation Epithermal Gold Deposit, Japan. *Economic Geology.* 2002, Vol. 97, pp. 1841-1851.

GRE. 2017a. *Amended Technical Report and 2017 Mineral Resource, Gold Springs Project.* 2017a.

—. 2015. *Preliminary Economic Assessment Update, Gold Springs Property, Utah/Nevada, USA.* 2015.

—. 2017b. *Structural Geology Report.* 2017b.

Hansley, P. 2012. *Petrography of Gold Springs Volcanic Breccias, Nevada, Petrographic Consultants, International, Inc., unpublished private report for High Desert Gold.* 2012.

Hedenquist, J.W., Arribas, A.R. and Gonzalez-Urien, G. 2000. Exploration for Epithermal Gold Deposits. *Society of Economic Geologists Reviews in Economic Geology.* 2000, Vol. 93, pp. 373-404.

Holloway, J. M. and Petersen, E. U. 1990. *Mineralization and Geochemistry of the Escalante Silver Mine, Iron County, Uah.* Energy and Mineral Resources of Utah. s.l. : Utah Geol. Assoc. Publication 18, 1990. pp. 83-95.

InfoMine. 2020. *Mining Cost Service.* 2020.

Inspectorate. 2012. *Cyanide Extraction from Bottle Roll Tests on Drill Cuttings Ground to 74 microns.* s.l. : unpublished private report, 2012.

—. 2010. *Gravity Concentration Followed by Bottle Roll Cyanidation of the Gravity Tailing of 74-micron (200-mesh) Material from Drill Cuttings.* s.l. : unpublished private report, 2010.

Jensen, E.P. and Barton, M.D. 2000. Gold Deposits Related to Alkaline Magmatism. *Society of Economic Geologists Reviews in Economic Geology.* 2000, Vol. 13, pp. 279-314.

Katsura, K.T. 1997. *Midnight Project: Cambior Exploration, Inc.* s.l. : unpublished in-house report and maps, 1997.

—. 2011. *Technical Report on the Gold Springs Property Utah/Nevada, USA.* 2011.

KCA. 2015. *Gold Springs Project Report of Metallurgical Test work May 2015.* s.l. : unpublished private report, 2015.

—. 2014. *Gold Springs Project Report of Metallurgical Test Work October 2014.* s.l. : unpublished private report, 2014.

L&A. 2014. *Amended Preliminary Economic Assessment of the Gold Springs Property, Utah/Nevada, USA.* 2014.

L&A and Kurt Katsura. 2014. *Updated Technical Report on the Gold Springs Property, Utah/Nevada, USA.* 2014.

Leavitt, E.D., et al. 2004. Geochronology of the Midas Low-Sulfidation Epithermal Gold-Silver Deposit, Elko County, Nevada. *Economic Geology.* 2004, Vol. 99, pp. 1665-1686.

Lupo, J.F. 2005. *Heap Leach Facility Liner Design.* s.l. : Golder Associates, Inc., Lakewood, Colorado, 2005.

Mallory, E. 1928. *Unpublished report on Jennie Mine, Iron County, Utah.* 1928.

Perry, Lee I. 1976. *Gold Springs Mining District, Iron County, Utah, and Lincoln County, Nevada.* Utah Geology Vol. 3., No. 1. s.l. : Utah Geological and Mineral Survey, 1976. pp. 23-49.

RDi. 2016. *Leach Testing of Gold Springs Ore for TriMetals Mining Inc.* s.l. : private unpublished report, 2016.

Robert, F., et al. 2007. Models and Exploration methods for Major Gold Deposits: Ore Deposits and Ex;oration Technology, Paper 48. [ed.] B. Milkereit. *Proceedings of the Fifth Decennial International Conference on Mineral Exploration, Ore Deposits and Exploration Technology.* 2007, pp. 691-711.

Rowley, P.D. and Siders, M.A. 1988. Miocene Calderas of the Caliente Caldera Complex, Nevada-Utah. *Eos.* 1988, Vol. 69, No. 44, p. 1508.

Rowley, P.D., et al. 2008. Interim Geologic Map of the Utah Part of hte Deer Lodge Canyon, Prohibition Flat, Uvada, and Pine Park Quadrangles (East Part of the Caliente 30'x60' Quadrangle), Iron and Washington Counties, Utah. *Utah Geological Survey Open File Report 530.* 2008, pp. 20, scale 1:24,000.

Salt Lake Mining Review. 1903. 1903. p. 13.

Short, C. A. 1909. *Unpublished report on Eagle Valley and Stateline Mining District, Iron County, Utah and Lincoln County, Nevada.* 1909.

Simmons, S.F. and Christenson, B.W. 1994. Origins of Calcite in a Boiling Geotehrmal System. *American Journal of Science.* 1994, Vol. 294, pp. 361-400.

Simmons, S.F., White, N.C. and John, D.A. 2005. Geological Characteristics of Epithermal Precious and Base Metal Deposits. [ed.] J.W. Hedenquist, et al. *Economic Geology.* 2005, Vol. 100th Anniversary Volume, pp. 485-522.

Smith, G.F. 2005. *Technical Report on the Gold Springs Project, Statline Mining District Lincoln County Nevada and Iron County Utah U.S.A., private report for Astral Mining Corporation.* 2005.

Thomson, K.C. and Perry, L.I. 1975. Reconnaissance study of the Stateline Mining District, Iron County, Utah. *Utah Geology, v. 2, no. 1.* 1975, pp. 27-47.

Tingley, J. V. 1998. *Mining Districts of Nevada - Second Edition.* s.l. : Nevada Bureau of Mines, 1998.

Tshanz, C. M. and Pompeyan, E. H. 1970. *Geology and Mineral Deposits of Lincoln County, Nevada.* s.l. : Nevada Bureau of Mines, Bulletin 73, 1970. p. 188.

Williams, V. S., Best, M. G. and Keith, J. D. 1997. Geologic Map of the Ursine-Panaca Summit-Deer Lodge Area, Lincoln County, Nevada and Iron County, Utah. *U.S. Geological Survey Miscellaneous Investigations Series Map I-2479, scale 1:50,000.* 1997.

CERTIFICATE OF QUALIFIED PERSON

I, Terre A. Lane, of 600 Grant St., Suite 975, Denver, Colorado, 80203, the co-author of the report entitled "Preliminary Economic Assessment NI 43-101 Technical Report, Gold Springs Property, Utah-Nevada, USA" with an effective date of May 1, 2020 and an issue date of June 22, 2020 (the "Technical Report"), DO HEREBY CERTIFY THAT:

1. I am a MMSA Qualified Professional in Ore Reserves and Mining, #01407QP, and I am a Registered Member of the Society for Mining, Metallurgy, and Exploration
2. I hold a degree of Bachelor of Science (1982) in Mining Engineering from Michigan Technological University.
3. I have practiced my profession since 1982 in capacities from mining engineer to senior management positions for engineering, mine development, exploration, and mining companies. My relevant experience for the purpose of this PEA is as the resource estimator, mine planner, and economic modeler with 25 or more years of experience in each area.
4. I have taken classes in geology, structural geology, mineralogy, Mineral Resource estimation in university, and have taken several short courses in geostatistics subsequently.
5. I have worked in geology, managed geologic teams, created lithological and structural models, and I have been involved in or conducted the estimation of resources for several hundred projects at locations in North America, Central America, South America, Africa, Australian/New Zealand, India, China, Russia and Europe using nearly all estimation techniques.
6. I have estimated resources for many epithermal style gold deposits including, Santa Fe, Relief Canyon, Gilt Edge, Buffalo Valley, Golden Reward, Idaho Almaden, Aurora, and others, and have oversaw the resource estimate of many other similar gold deposits.
7. I have created or overseen the development of mine plans for several hundred open pit and underground projects and operating mines.
8. I have been involved in or managed several hundred studies including scoping studies, prefeasibility studies, and feasibility studies.
9. I have been involved with the mine development, construction, startup, and operation of several mines.
10. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional organization (as defined in National Instrument 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of National Instrument 43-101.
11. I most recently visited the Gold Springs property in February 2014 for one day and have reviewed previous geological data, geochemical results, metallurgical and technical reports on the subject property.
12. I am responsible for Sections 1 through 3, 14 through 16, and 18 through 27 of the Technical Report.
13. I am independent of Gold Springs Resource Corp. as described in section 1.5 by National Instrument 43-101.

14. I performed a Resource Estimate Technical Report for the Gold Springs project, a Mineral Resource Estimate and a PEA for the Gold Springs project, and an Amended Resource Estimate and PEA for the Gold Springs project in 2014.
15. I performed a Mineral Resource Estimate and PEA Update for the Gold Springs Project in 2015 and a Mineral Resource Estimate in 2017.
16. I have read National Instrument 43-101 and Form 43-101F1. The Technical Report has been prepared in compliance with the National Instrument 43-101 and Form 43-101F1.
17. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Terre A. Lane

"Terre A. Lane"

Mining Engineer

Global Resource Engineering, Ltd.

Denver, Colorado

Date of Signing: June 22, 2020

CERTIFICATE OF QUALIFIED PERSON

I, KURT T. KATSURA, of P.O. Box 51346, Eugene, Oregon, 97405, the co-author of the report entitled "Preliminary Economic Assessment NI 43-101 Technical Report, Gold Springs Property, Utah-Nevada, USA" with an effective date of May 1, 2020 and an issue date of June 22, 2020 (the "Technical Report"), DO HEREBY CERTIFY THAT:

1. I am a Registered Geologist in the State of Oregon RG #1221 and a Licensed Geologist in the State of Washington #1720, and practice under the designation of Registered Geologist (RG).
2. I hold degrees in Geology, and I hold the degree of Bachelor of Science (1981) and a Master of Science (1988), both from the University of Oregon.
3. I have been practicing my profession since 1982 (38 years) and have since that time been actively employed in various capacities in the mining industry at numerous locations in North America and Central America. My relevant experience for the purpose of this Technical Report is as a Registered Geologist.
4. I am a Registered Member of the Society for Mining, Metallurgy, and Exploration (#4194699)
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional organization (as defined in National Instrument 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of National Instrument 43-101.
6. I most recently visited the Gold Springs property in November 2016 for six days and have reviewed previous geological data, geochemical results, and technical reports on the subject property.
7. I am responsible for Sections 2 through 12 of the Technical Report and for the geologic content in Sections 1, 14, and 23 through 27.
8. I am independent of Gold Springs Resource Corp. as described in section 1.5 by National Instrument 43-101.
9. I spent 6 months during 1996-1997 working at the Gold Springs project area for Cambior Exploration, Inc. I co-authored Technical Reports on the Gold Springs Property in 2012 and 2013, a Resource Estimate Technical Report in 2014, a Resource Estimate and PEA and updated Resource Estimate and PEA for the Gold Springs project in 2014, and an updated Resource Estimate and PEA for the Gold Springs project in 2015, and a Mineral Resource Estimate update in 2017.
10. I have read National Instrument 43-101 and Form 43-101F1. The Technical Report has been prepared in compliance with the National Instrument 43-101 and Form 43-101F1.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Kurt T. Katsura RG

"Kurt T. Katsura"

Consulting Geologist

Eugene, Oregon

Date of Signing: June 22, 2020

CERTIFICATE OF QUALIFIED PERSON

I, J. Todd Harvey, of 600 Grant Street, Suite 975, Denver, CO 80203, the co-author of the report entitled "Preliminary Economic Assessment NI 43-101 Technical Report, Gold Springs Property, Utah-Nevada, USA" with an effective date of May 1, 2020 and issue date of June 22, 2020 (the "Technical Report"), DO HEREBY CERTIFY THAT:

1. I am currently employed as Principal Process and Mining Engineer by Global Resource Engineering, Ltd.
2. I graduated with Ph.D. in Mining Engineering from the Queen's University at Kingston in 1994, a Master's degree in Mining Engineering from the Queen's University at Kingston in 1990 and a Bachelors degree in Mining Engineering in 1988 all with a specialization in mineral processing. I also hold a degree in Metallurgical Engineering and Computer Science from Ryerson University in Toronto Canada graduating in 1986 as well as an MBA from the University of New Brunswick in Saint John Canada graduating in 2001.
3. I have worked as a Process Engineer for over 35 years since my graduation from university. My relevant experience includes process due diligence/competent persons evaluations of developmental phase and operational phase mines throughout the world, including mines in the USA, Canada, Kazakhstan, Brazil, Mexico, and Africa to name a few. I have a wide range of experience in multiple mineral fields including precious metal processing and base metals such as copper, lead, and zinc.
4. I am a Registered Member (No. 04144120) of the Society for Mining, Metallurgy & Exploration Inc. (SME). I am also a member of the Association for Mineral Exploration (AME), Minerals Engineering Journal Review Board, and the Journal of Hydrometallurgy Review Board.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional organization (as defined in National Instrument 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of National Instrument 43-101.
6. I have not visited the Gold Springs Property.
7. I am responsible for Sections 13 and 17, and contributed to Sections 1 through 3, 21, and 24 through 27 of the Technical Report.
8. I am independent of Gold Springs Resource Corp. as described in section 1.5 by National Instrument 43-101.
9. I previously co-authored the updated Preliminary Economic Assessment for the Gold Springs project in 2015.
10. I have read National Instrument 43-101 and Form 43-101F1. The Technical Report has been prepared in compliance with the National Instrument 43-101 and Form 43-101F1.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

J. Todd Harvey

"J. Todd Harvey"

Metallurgist

Global Resource Engineering, Ltd.

Denver, Colorado

Date of Signing: June 22, 2020