# **TECHNICAL REPORT – JULY 2012 RESOURCE UPDATE GEOLOGY AND MINERAL RESOURCES ATLANTA PROJECT**

# LINCOLN COUNTY, NEVADA

USA



Atlanta Mine Panorama, from USLM 4843

**Prepared for** 

Meadow Bay Gold Corp. July 16, 2012

# Dana Durgin, QP and AIPG Certified Professional Geologist #10364 and Dr. Matt Ball, P.Geo.

# DATE AND SIGNATURE PAGE

Dana C. Durgin, CPG 10364 Reno, Nevada July 16, 2012



Dr. Matt Ball Pit Meadows. Canada July 16, 2012

M. Ball



Dr. Matt Ball, P.Geo. Note: Digital Signature Provided For Security Reasons

# Table of Contents

1.0	SUMMARY	. 1
1.1	Introduction	. 1
1.2	Geology and Mineralization	. 1
1.3	Exploration and Mining History	. 2
1.4	Drilling and Sampling	. 3
1.5	Metallurgical Testing	. 3
1.6	Mineral Resource Estimate	. 3
1.7	Interpretation and Conclusions	.4
1.8	Recommendations	
2.0	INTRODUCTION .	. 5
3.0	RELIANCE ON OTHER EXPERTS	. 9
4.0	PROPERTY DESCRIPTION AND LOCATION	. 9
4.1	Location	9
4.2	Land Ownership	. 9
4.3	Terms of Agreement	.10
4.4	$\beta$	
5.0	ACCESSIBILITY; CLIMATE; LOCAL RESOURCES; INFRASTRUCTURE; ANI	D
	PHYSIOGRAPHY	12
6.0	HISTORY	13
6.1	Historical Resource Estimates	16
7.0	GEOLOGICAL SETTING AND MINERALIZATION	17
7.1	Regional Geology	17
7.2	District Geology	17
7.3	Atlanta Project Geology	20
7.4	Mineralization	.20
7.4	.1 The Atlanta Mine Area	21
7.4	.2 Hanging Wall Volcanics Mineralization	22
8.0	DEPOSIT TYPES	22
8.1	Epithermal Breccia Fill and Replacement	22
9.0	EXPLORATION	24
9.1	Prior Mapping and Sampling	24
9.2	Geophysics by Goldfields	25
9.3		
9.4		
9.5	Underground Sampling	30
10.0	DRILLING	
10.		
	10.1.1 Historic Reverse Circulation Drilling	
	10.1.2 Historic Core Drilling	
	2 Meadow Bay Drilling 2011	
11.0	SAMPLE PREPARATION, ANALYSIS AND SECURITY	
11.	1 0	
11.		
11.	3 Sample Preparation and Analytical Procedures	40

11.3.1 Historical Work	40
11.3.2 Meadow Bay and ALSChemex	41
12.0 DATA VERIFICATION	
13.0 MINERAL PROCESSING AND METALLURGICAL TESTING	
13.1 Ore Description	
13.2 Metallurgy	
14.0 MINERAL RESOURCE ESTIMATES	
14.1 Introduction	
14.2 Data	
14.3 Geological Interpretation	45
14.4 Statistical Analysis	
14.4.1 Compositing	
14.4.2 Basic Statistics	
14.4.3 Top Cut	
14.5 Variography	53
14.6 Block Modeling	
14.7 Specific Gravity	
14.8 Mineral Resource Classification	
14.8.1 Resource Definitions	58
14.8.2 Atlanta Mineral Resource Classification	59
14.9 Atlanta Mineral Resource Estimate	60
15.0 MINERAL RESERVE ESTIMATES	
16.0 MINING METHODS	66
17.0 RECOVERY METHODS	66
18.0 PROJECT INFRASTRUCTURE	66
19.0 MARKET STUDIES AND CONTRACTS	66
20.0 ENVIRONMENTAL STUDIES, PERMITTING SOCIAL OR COMMU	NITY
ІМРАСТ	
21.0 CAPITAL AND OPERATING COSTS	
22.0 ECONOMIC ANALYSIS	68
23.0 ADJACENT PROPERTIES	
24.0 OTHER RELEVANT DATA AND INFORMATION	
25.0 INTERPRETATIONS AND CONCLUSIONS	
26.0 RECOMMENDATIONS	
26.1 Atlanta Project Budget September 2011 to April 2012	
27.0 REFERENCES	
28.0 CERTIFICATES OF AUTHORS	74
APPENDIX I ATLANTA PROJECT CLAIM DATA LISTS	76
APPENDIX II GUSTAVSON ASSOCIATES PROTOCOL	
APPENDIX III GUSTAVSON LETTER	96

# LIST OF TABLES

Table 4.4	Meadow Bay Claim Staking	12
-----------	--------------------------	----

Table 6.1	Historical Resource Estimates (Not NI 43-101 compliant)	17
Table 10.1	Summary of Historic Atlanta Drilling	30
Table 10.2	Significant Meadow Bay 2011 Drill Intercepts	35
Table 14.1	Basic Statistics on Down Hole Composites	50
Table 14.2	Basic Statistics on Main Zone Drill Hole Composites and Block Model	55
Table 14.3	Mineral Resource Estimate for Atlanta Property	61
Table 24.0	Expenditures – March 2011 to December 2011	68
Table 26.1	Atlanta Project Budget 2012	72

# LIST OF FIGURES

Figure	4.1	Atlanta Project Location Map	8
Figure	4.4	Atlanta Claim Map1	11
Figure	5.0	Atlanta Mill Site, Looking Southeast1	13
Figure	6.1	Atlanta Mill – Crusher Complex1	15
Figure	6.2	Atlanta Mill – Primary Ball Mill1	15
Figure	7.1	Generalized Geologic Map of Nevada1	8
Figure	7.2	Atlanta District Geology	19
Figure	7.3	Atlanta Deposit Geology1	
Figure	7.4	Intricately Banded Epithermal Pyrite in Quartz Vein	20
Figure	7.4.1	Conceptual Block Model of Atlanta Deposit	
Figure	8.1.1	Atlanta Pit Geology	23
Figure	8.1.2	Generalized Epithermal Deposit Model (after Buchanan)	24
Figure	9.2.1	Goldfields AMT Survey	25
Figure	9.2.2	Goldfields Ground Magnetics Survey	26
Figure	9.3.1	Atlanta Mine Area Ground Magnetics	27
Figure	9.3.2	Western Knolls Area Ground Magnetic	28
Figure	9.4	Atlanta Land Position and Exploration Areas	29
Figure	10.2.1	Meadow Bay Core Drilling – Completed Holes	32
Figure	10.2.2	Cross Section – Geology of Atlanta Porphyry and Jasperoid Breccia	34
Figure	11.2	Sawing Core	
Figure	14.1	Perspective View to Southeast Showing Three Dimensional Solid Models of	
-		The Atlanta Mineral Zones	47
Figure	14.2	View to East (Longtitudinal Projection) of Three Dimensional Solid Models	
-		of Atlanta Mineral Zones	48
Figure	14.3	Cumulative Probability Chart, Gold Values in ppm5	51
Figure	14.4	Cumulative Probability Chart, Silver Values in ppm	52
Figure	14.5	Directional Variogram and Corresponding Model of Down Hole Composites	
		in Atlanta Deposit Main Zone5	54
Figure	14.6	Example Cross section Through Block Model at 99080 North (mine grid) for	
		Atlanta Main Zone	57
Figure	14.7	View Looking East at Atlanta Main Zone Resource Model for Gold	53
Figure	14.8	Perspective View Looking Northeast At Atlanta Main Zone Resource Block	
-		Model Showing Drillhole Traces	54
Figure	14.9	View Looking West at Atlanta E-W Resource Block Models	

### 1.0 SUMMARY

This technical report was prepared at the request of Meadow Bay Gold Corporation ("Meadow Bay") a Canadian public corporation, listed on the TSX exchange with the symbol MAY and on the OTCQX exchange as MAYCF, in connection with its filings with British Columbia, Ontario and Alberta Securities Commissions and the TSX Exchange. The report was written in compliance with disclosure and reporting requirements set forth in the newly revised (June 30, 2011) Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1. It includes a new resource estimate.

On December 8, 2010 Desert Hawk Resources, Inc. ("Desert Hawk") executed with Bobcat Properties, Inc. ("Bobcat Properties") a purchase agreement for the Atlanta Mine. By this agreement Desert Hawk received 100 percent ownership of the patented and unpatented mining claims, and all facilities and data associated with the property in exchange for a payment of US \$6 million and a 3% net smelter royalty. The final payment was made February 15, 2011. The royalty is to be paid in kind (gold) and is capped at 4000 ounces of gold equivalent. There is a residual 3% net smelter royalty due to Exxon Minerals Corporation on production from four of the unpatented mining claims, located on the historic mill tailings.

Meadow Bay Gold Corporation has executed a purchase agreement with Desert Hawk Resources to acquire all of the issued and outstanding shares of Desert Hawk (and the Atlanta Mine) in exchange for 7,500,000 common shares of Meadow Bay, plus other payments totaling \$337,500.

Tim Master of Desert Hawk Resources reviewed all the available data and completed a fatal flaw analysis of the project. An environmental review was completed by Entrix Inc. of Las Vegas, Nevada.

More recently Meadow Bay Gold Corporation made an agreement with Atna Resources in July 2011 to purchase their 135 surrounding claims for a total payment of \$250,000 plus 400,000 shares of Meadow Bay stock and a 3% NSR royalty. An additional 454 claims were staked in May, August and October 2011. Claim details are discussed in Section 4. The total land package as of 04/20/2012 is approximately 13,485 acres or 4606 hectares.

### 1.1 Introduction

The Atlanta Mine is located in Lincoln County, Nevada, 160 air miles (250 km) north of Las Vegas. The nearest town is Pioche, approximately 50 road miles (80 km) south of the property. The main deposit is at a latitude/longitude of 38 27'45" North and 114 20'00" West.

### **1.2 Geology and Mineralization**

The Atlanta property is underlain by a thick series of Paleozoic carbonates with some quartzite units. These are in turn overlain by a sequence of Tertiary intermediate volcanic rocks. Tertiary intrusive rocks are locally present.

The mineralization is hosted largely by a north-south trending normal fault zone and by a cross-cutting east-west trending fault zone. The north-south fault has been interpreted as a caldera margin fault. The principal deposit is an intensely silicified multi-phase fault breccia and quartz-pyrite veinlet stockwork composed of fragments of quartzite and limestone in a silicified rock flour matrix with a width of up to 100 feet, a strike length of up to 4000 feet and a known depth extent of approximately 900 feet. The east-west striking, sub-vertical fault has a strike length of at least 1200 feet, a thickness of several tens of feet and a known depth extent of at least 1000 feet. It too is a mineralized, intensely silicified fault breccia. Mineralization is known but not well defined in the volcanic rocks of the hanging wall of both faults.

Mineralization is largely electrum in the matrix of the silicified breccias and in small quartz veinlets. It is epithermal in character and has the common trace element suite of such deposits with anomalous levels of arsenic, mercury, antimony and others.

### **1.3 Exploration and Mining History**

The Atlanta mineralization was probably discovered in the 1860's, but the first significant work done was a 400 foot exploration shaft dug in 1905. There was no recorded production. In 1954 22,000 tons of ore were mined from shallow pits and shipped to the McGill smelter. In the 1960's another 27,000 tons were milled by A & B Gold Silver Mines.

Bobcat Properties acquired the property in 1970 and formed a joint venture with Standard Slag. The mill was upgraded and between 1975 and 1985 they produced approximately 1.5 million tons of ore grading 0.09 oz Au and 1.25 oz Ag per ton. Total production was 113,000 ounces of gold and 800,000 ounces of silver, based on records through 1985.

The property was optioned by Goldfields in 1990 to 1991. They carried out mapping, sampling, geophysics and a 56,735 foot (17,297m) drilling program. In 1997-98 Kinross Gold explored the property. They compiled all the previous data and drilled a total of 54,285 feet (16,550m). In 2001 Cordex Exploration drilled 2735 feet (1136m) during an option period.

The property was idle until Desert Hawk Resources negotiated a purchase agreement late in 2010. The property was then acquired by Meadow Bay early in 2011. Meadow Bay recently acquired a 135 block of adjacent claims from Atna Resources and staked additional claims.

Quantec Geoscience Limited was contracted to carry out a ground magnetic survey north of the Atlanta Mine and in the Western Knolls area, for a total of 88 line miles (154 km). Interpretation of the data is in progress.

Meadow Bay carried out a detailed soil sampling program late in the fall of 2011, largely in the northern and western part of the Western Knolls/PEG area, and to a limited extent in the Limestone hills area. A total of 2860 samples were collected at 100 foot (30m) intervals on lines 330 feet (100m) apart. As geologic mapping is incomplete, an interpretation of the relationship between gold-in-soil anomalies and the geology is also incomplete.

### 1.4 Drilling and Sampling

The quality of sampling techniques and procedures for all drilling done prior to that of Kinross Gold in 1997 and 1998 are not well documented. Hole locations for historic drilling done since 1985 were surveyed and are well preserved in the property database.

A total of 141,038 feet (43,000m) of drilling was completed at the Atlanta project between 1975 and 2001. The bulk of this was done by Goldfields in 1990-92 and by Kinross Gold in 1997-98. Of this total, over 90% was reverse circulation drilling. Less than 10% was core drilling - 9286 feet (2831m) - done by Goldfields.

Meadow Bay's 2011 drilling program began June 17<sup>th</sup> and ended December 22<sup>nd</sup>. Core drilling consisted of 21 holes for a total of 17,914 feet (5462.4m). In addition, 18 reverse circulation holes were drilled for a total of 12,940 feet (3944 meters). Three objectives were achieved. First was the duplication of seven prior holes. Both the geology and assay results matched reasonably well. Second was infill drilling among widely spaced older holes and step out drilling along strike and down dip. These fifteen holes succeeded in demonstrating greater continuity of mineralization among the older holes and expanding the known mineralized area to the north and west. Third was the better delineation of the Atlanta porphyry. Thirteen holes were dedicated to this goal. These better defined the extent of the mineralized porphyry and indicated that the porphyry is truncated at depth by the mineralized Atlanta fault breccia.

### **1.5 Metallurgical Testing**

There has been no significant metallurgical testing done at Atlanta since the mining ceased in 1985. Testing in the 1970's and additional work near the end of the original mine life showed that precious metal recoveries in a heap leach scenario were extremely low, indicating that heap leaching would not be economically viable.

During the mine life the ore was processed by agitated cyanide leaching of material ground to 90% minus 100 mesh in size. Mill recoveries overall were 81.5 % for gold and 42.7 % for silver. With advances in technology since the early 1980's, it would be logical to assume that those recoveries could be improved somewhat nearly 30 years later, however no recent metallurgical test work has been done to support this assumption.

### **1.6 Mineral Resource Estimate**

For this Technical Report an updated mineral resource has been estimated by Dr. Matt Ball. The new total estimated Mineral Resource for the Atlanta project at a 0.5 gram per tonne gold cut-off value includes an Indicated Mineral Resource of 7,259,311 tonnes at a grade of 1.61 grams per tones gold and 7.63 grams per tonne silver, plus an Inferred Mineral Resource of 4,681,991 tonnes at a grade of 1.10 grams per tonne gold and 17.24 grams per tonne silver. The resources are contained within four separate zones, of which the Main Zone contains the bulk (+80%) of the resource both in terms of tonnes and of gold.

3

No Mineral Reserves were estimated because insufficient work has been done to define the various technical, economic, legal, environmental, socio-economic and governmental factors required for definition of mineral reserves. None of the resource was classified as Measured Mineral Resource because of uncertainties in the historical drilling

### **1.7 Interpretation and Conclusions**

The authors consider that the data provided by Meadow Bay provides an accurate representation of work completed on the Atlanta project. The geology and controls of mineralization in the immediate area of the early open pit are reasonably well known as a result of mapping and drilling. The limits of mineralization are reasonably well defined in the immediate pit area, but remain ill-defined to the north and south along strike on the Atlanta fault and along the east-west cross fault. Known mineralization intersected in the hanging wall volcanic and intrusive rocks is now more well-defined. In the spring and summer of 2011 Meadow Bay found attractive alteration and mineralization in the Western Knolls, Peg, Limestone Hills and Lauren areas. Interpretation of Goldfields' geophysics suggests that the Atlanta Fault continues at least 2.5 miles to the north. Claims were staked to cover these attractive exploration areas. Recent ground magnetics confirms and expands upon the Goldfields geophysics. Magnetic highs seem to reflect the mineralized porphyry near the mine and a large similar anomaly 6000 feet (1829m) to the north remains untested. The relationship between the magnetic signature and the underlying geology in the Western Knolls area can be clarified by more geologic mapping.

### **1.8 Recommendations**

A concerted effort should be made to upgrade the drill hole and assay database to include scanned copies of all available assay receipts and survey records. Also, further validation of gold and silver results should be done by re-analysis of a significant portion (say 10%) of the available rejects for samples located within the resource zones.

The successful but limited confirmation and expansion drilling program for 2011 must be continued near the Atlanta mine and in the area to the north. Initial exploration drilling should begin as a follow-up to the mapping, geophysics and soil sampling in the Western Knolls and Limestone hills areas. Additional reconnaissance mapping and sampling may identify other exploration targets.

Metallurgical testing will help refine the extraction process to be used in the mill and to guide the planning leading to production. It will also be necessary to address potential environmental issues related to permitting for future production. Preliminary engineering studies will also be necessary.

The budget for the planned program for the calendar year 2012 at Atlanta is \$3,380,000.

### 2.0 INTRODUCTION AND TERMS OF REFERENCE

This Technical Report for the Atlanta Project has been prepared at the request of Meadow Bay Gold Corporation (Meadow Bay). It includes a new resource estimate.

Purchase agreements between Bobcat Properties Inc., the underlying owner, and Desert Hawk Resources, Inc. and between Desert Hawk Resources, Inc and Meadow Bay Gold Corporation placed 100% ownership of the property in the hands of Meadow Bay upon completion of the payments due in February 2011. A purchase agreement between Meadow Bay Gold Corporation and Atna Resources in July 2011 placed an additional 135 unpatented claims in the hands of Meadow Bay. An additional 509 claims were staked in May and August 2011.

This report is written in compliance with disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP and Form 43-101, newly revised in June 2011. Work on the property by Meadow Bay before the spring of 2011 had been limited to a thorough due diligence effort and data compilation. The current ongoing exploration and land acquisition program began in the spring of 2011.

Dana Durgin reviewed pertinent prior reports and data relative to the regional and property geology, land status, history of the district and project, past exploration efforts and results, methodology, interpretations, and other data necessary to the understanding of the project, sufficient to produce this report. Mr. Durgin carried out such independent investigations of the data and of the property in the field, as has been deemed necessary in the professional opinion of the author, so that he might reasonably rely on this information. The property was visited in January 2011, and again in August 2011. Mr. Durgin had once visited the property many years previously in his career. The visit in August 2011 was to review the new data acquired since May 2011 and integrate it with prior work. The current exploration program is being carried out in a thorough and professional manner and the authors have no reason to doubt the validity of results of this program.

Mr. Durgin has worked on gold projects in Nevada for many years, including six years in eastern Nevada and is familiar with the regional and local geology.

Dr. Matt Ball is the author and qualified person responsible for the chapter entitled Mineral Resource Estimates. A mineral resource estimate for the Atlanta project compliant with NI 43-101 was requested by Company management because the last mineral resource estimate was done in 1998 by Kinross Gold U.S.A., Inc. The new mineral resource estimate was done using data supplied by the Company. Dr. Ball has over ten years of experience conducting resource estimation by manual and computer methods for various types of gold deposits and porphyry copper deposits.

The historic drilling, assay and geologic data required to produce this report were generated in several phases over many years from the 1970's to 2001. The available historic data has passed into the possession of Meadow Bay and additional data is being sought. Recently acquired data, both from prior work and from the 2011 exploration program have been incorporated in this report.

As mandated by NI 43-101 requirements, the observations, conclusions and recommendations of the author in this report are derived from comprehensive reviews of the Atlanta Project database and site inspections on January 17 and 18, and August 30 and 31, 2011. These site inspections were designed to confirm geologic relationships and characterize alteration/mineralization types exposed in surface outcrops and mine workings at the project, as well as to review the current exploration program.

The authors believe that the data presented to them by Meadow Bay are a reasonable and accurate representation of the Atlanta gold-silver project.

Units of measure, conversion factors and currency used in this report are as follows:

### = 2.54 centimeters = 254 millimeters 1 inch 1 foot = 0.3048 meter = 0.9144 meter 1 yard 1 mile = 1.6 kilometers **Area Measure** = 0.4047 hectare 1 acre 1 square mile = 640 acres, or 259 hectares **Capacity Measure (liquid)** 1 US gallon = 4 quart or 3.785 liters

#### Weight

Linear Measure

1 short ton		= 2000 pour	= 2000 pounds $= 0.907$ tonne	
1 pound	= 16 oz	= 0.454  kg	= 14.5833 troy ounces	

### Analytical Values

1%	Percent	Grams per Metric Tonne	Troy Ounces per Short Ton
1%	1%	10,000	291.667
1 gr/tonne	0.0001%	1	0.0291667
1 oz troy/tn	0.003429%	34.2857	1
100 ppb			0.0029
100 ppm			2.917

## Commonly used abbreviations and acronyms

AA	atomic absorption spectrometry
Ag	silver
Au	gold
CIM	Canadian Institute of Mining, Metallurgical and Petroleum
core	diamond drilling method, producing a cylinder of rock
FA-AA	fire assay with an atomic absorption finish
g	grams
g/t Ag	grams of silver per metric tonne, equivalent to ppm
g/t Au	grams of gold per metric tonne, equivalent to ppm
g/t Au-eq	grams per metric ton expressed in gold-equivalent.
ha	hectares
m	meters
mm	millimeters
km	kilometers
ppm	parts per million
RC	reverse circulation drilling method
tpd	tonnes per day

All monetary figures used in this report are US Dollars.



Figure 4.1 Atlanta Project Location Map.

### **3.0 RELIANCE ON OTHER EXPERTS**

The authors' principal task was to review and compile the historic data made available by Meadow Bay and add the current data from the ongoing exploration program. This report has relied strongly on work by experienced professionals in the following areas:

Environmental	Baseline Environmental Survey Assessment report by Entrix Inc., March 2007.		
Cultural Study	Kautz Environmental Consultants, October 2011 report.		
Land Status	Due diligence report by Tim Master of Desert Hawk, December 2010.		
Geology, Resources	Reports by Prochnau (Goldfields), 1992 and Thomas (Kinross) 1999.		
Current Program	Dr. Douglas Oliver, Meadow Bay Project Manager, personal contact.		

After this review, it is the opinion of the authors that the data provided to them by Meadow Bay Gold Corp were collected in accordance with standard industry practices, and there is no reason to doubt their validity. Receipts from the US Bureau of Land Management and Lincoln County demonstrated that the unpatented claims are current and valid and that the taxes have been paid for the patented claims.

Conclusions regarding the Atlanta Project and the recommendations presented in this report are those of the authors, based on a review of the data and extensive personal experience as geologists in the mining industry, particularly in eastern Nevada, and do not necessarily reflect those of Meadow Bay Gold Corporation.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location

The Atlanta Project is located in Lincoln County, Nevada, approximately 160 air miles (250 km) north of Las Vegas. It is reached by driving northeast from Las Vegas on Interstate 15, then north on Highway 93 for about 182 miles (291 km). Approximately 29 miles (46 km) north of the town of Pioche, turn right at the Pony Springs rest stop at the sign marked "Atlanta". Travel east on the gravel road for 20 miles (32 km) to the property. The main deposit is at a latitude/longitude of 38 27'45" North and 114 20'00" West. Driving time from Las Vegas to the property is approximately 4.5 hours. The property encompasses portions of townships T7N/R67, 68, 69E and T8N/R68E, Mount Diablo Baseline and Meridian. In addition, two mill site claims are located in section 27, T7N, R67E and section 5, T6N, R67E, respectively.

### 4.2 Land Ownership

Except for the older patented mining claims, all of the land underlying and immediately

surrounding the property is administered by the US Bureau of Land Management. The core of the Atlanta property is 13 patented mining claims, covering approximately 170 acres (68.8 hectares), which were held by Bobcat Properties Inc. and were quitclaimed to Desert Hawk Resources Inc. An additional 47 unpatented lode claims and two mill site claims covering approximately 738 acres (298.7 hectares) completed the property package as of February 2011. Since that time an agreement was completed with Atna Resources to purchase their package of 135 unpatented mining claims of 2789 acres (1129 hectares) which surround the original property acquired from the Bobcat Group. During 2011 Meadow Bay staked a total of 454 unpatented claims covering 9788 acres (3110 hectares) around these earlier blocks and in a separate group to the east. See claim map - Figure 4.2.

The Atlanta project now encompasses a total area of approximately 13,485 acres (4606 hectares), after deductions for overlapping claims.

All claims were physically staked with wooden posts at the corners and at the discovery monuments. Maintenance fees payable to the Bureau of Land Management are required to keep the unpatented mining claims in good standing. Property taxes are required on the patented mining claims. Maintenance fees and property taxes have been paid through September 1, 2012.

Detailed claim information is provided in Appendix I

### 4.3 Terms of Agreements

The underlying agreement for the central part of the Atlanta property is a Purchase Agreement between Bobcat Properties, Inc., a Nevada corporation whose principal owner is Rutherford Day, and Desert Hawk Resources, Inc, a Delaware corporation.

The agreement includes 13 patented and 49 unpatented mining claims located in Lincoln County, Nevada, and listed in Appendix I. Also part of the agreement are the mill and all other facilities, water rights and power lines and all digital and paper records, maps, reports and assays, as well as drill chips, core and other samples present on the property.

The terms of the agreement are as follows. In exchange for 100 percent ownership of the above described items, Bobcat Properties is to receive a total of US \$6 million plus a 3% Net Smelter Return (NSR) royalty upon commencement of production. This royalty is to be paid in "refined gold-silver calculated as gold equivalent in kind, and it is capped at 4000 ounces". The initial payment of \$300,000 was made on December 31, 2010, and the remaining \$5,700,000 payment was made February 15, 2011. In addition, a 3% NSR is due to Exxon Minerals Corporation for production from the four claims named ATL-122, 124, 126 and 156.

Dana Durgin has reviewed an executed copy of this agreement and all appears to be in order.

The agreement between Desert Hawk Resources Inc. and Meadow Bay Gold Corporation is a purchase agreement. Meadow Bay has acquired all of the issued and outstanding common shares of Desert Hawk (and the Atlanta Mine) in exchange for a \$100,000 payment upon execution of a Letter of Intent, and on the closing date of February 14, 2011 Desert Hawk Resources received 7,500,000 shares of Meadow Bay Capitol Corporation. In addition Meadow Bay paid \$337,500 to Ponderosa on closing.

At the end of July 2011 Meadow Bay Gold Corporation concluded an agreement to purchase from Atna Resources Inc their block of 135 unpatented claims, shown in blue on Figure 4.2, surrounding the initial Bobcat claim block. The claims were acquired in exchange for \$150,000 and 400,000 shares of Meadow Bay common stock on signing, an additional \$100,000 payable on the first anniversary of the signing, and a 3% Net Smelter Royalty. Meadow Bay can purchase one third of this royalty (or 1 of the 3 percent) within 5 years for \$1,000,000. Detailed claim data is attached as Appendix I. These claims nominally cover 20.66 acres each for 2789 acres (1129 ha). In reality they are generally slightly smaller, particularly where they abut or slightly overlap older claims.

Mr. Durgin has also reviewed a copy of the Meadow Bay - Desert Hawk agreement, and the Meadow Bay – Atna Resources agreement.

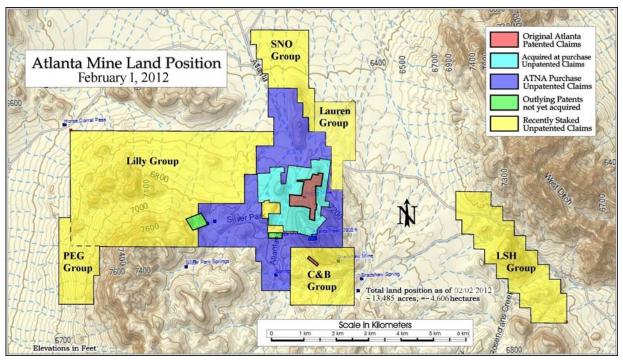


Figure 4.2 Atlanta Claim Map

### 4.4 Meadow Bay Claim Staking

In addition to the claims acquired through the agreements summarized above, Meadow Bay has staked several blocks of unpatented claims in 2011. These are summarized in the table below, and detailed claim lists are attached as Appendix I. Each claim is nominally 1500 x 600 feet in size and covers 20.66 acres. In reality each claim is generally slightly smaller, as is the total acreage.

#### **Claim Block** Date Claims Acres Hectares 217 4483 1129 Lilly May 2011 PEG Aug 2011 30 620 251 SNO Aug 2011 40 826 334 LSH Aug 2011 73 1508 610 Aug 2011 44 C&B 909 368 NFL Aug 2011 5 103 42 Oct 2011 Lauren 45 930 376 454 9788 3110

### Table 4.4 Meadow Bay Claim Staking

Shown in yellow on Figure 4.2 are the blocks of unpatented claims staked in the past several months by Meadow Bay.

# 5.0 ACCESS; CLIMATE; LOCAL RESOURCES; INFRASTRUCTURE; AND PHYSIOGRAPHY

The Atlanta Mine is accessible to a point within 20 miles (32 km) by Highway 93, the main north-south highway across eastern Nevada. The last 20 (32 km) miles is on a gravel road maintained by Lincoln County. The driving time from Las Vegas, Nevada, is approximately 4.5 hours.

The property is located on the foothills and the adjacent valley floor at the north end of the Wilson Creek Range. Topography is moderate and elevations range from 6,500 to 7,800 feet (1980 to 2380 meters). The project area is typical of eastern Nevada desert. Vegetation at lower elevations consists of sagebrush and grasses whereas pinion and juniper trees are common at higher elevations. The climate is high semi-desert with about 10 inches (33 cm) of rainfall per year, mainly as sparse winter snow and summer thunderstorms. Summers are hot and dry although temperatures rarely exceed 100 degrees F (38 C). Winters are moderate with temperatures rarely less than 10 degrees F (-12 C) and modest snowfall accumulation. The area is suitable for year-round operations. There is no appreciable surface water on the property but groundwater was encountered in drilling at 1200 feet below the surface.

The Atlanta Mine is a two-hour drive from Ely (population about 4,000 people), which is a potential source of labor and basic supplies. The city of Las Vegas can provide most other

supplies and heavy equipment. A functioning 3-phase power line stretches approximately 16 miles (26 km) from Highway 93 to the project site. The line terminates at a 480 volt substation to the north of the mill and was the primary source of power when the mill was in operation. Communications have recently been upgraded to include four telephone lines. A 60 x 48 foot modular exploration camp has also been added recently. The old mine office has been renovated and is in use as the project office. Process water is available at a well located about 10 miles (16 km) to the east of the property in Lake Valley. During past mining operations this well produced 350 gallons per minute. However, sections of the pipeline from the well to the mine site have fallen into disrepair and will require renovation before production can begin.

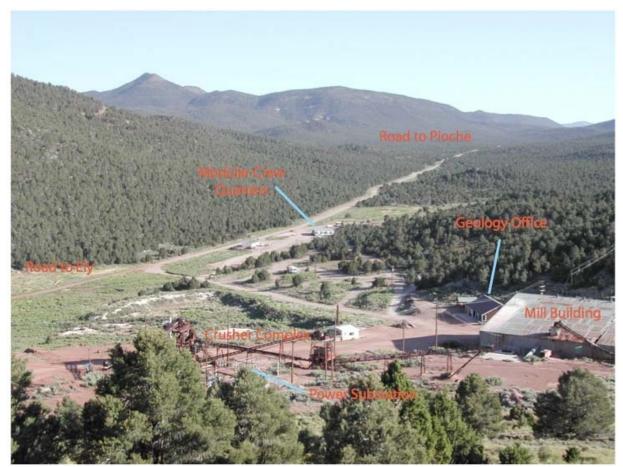


Figure 5.0 Atlanta Mill Site, Looking Southeast

### 6.0 HISTORY

The early history of the property was documented by Mr. Prochnau in his December 1992 report, and summarized further here (note that all resource and reserve calculations noted in this section are <u>not</u> NI 43-101 compliant). Gold was discovered about 2 miles (3.2 km) west of the Atlanta Project at Silver Park in the 1860s. Mineralization at Atlanta was probably identified at the time but serious development was not undertaken until 1905 when a 400 ft (121 meter) shaft and a series of crosscuts at the 100 ft (30 meter) and 200 ft (61 meter) levels were driven in a search for high grade ore shoots. Numerous sampling programs and general investigations were carried out over the next 50 years.

In 1954 the Atlanta Gold and Uranium Company undertook the first production with a shipment of 22,000 tons of ore grading 0.33 oz per ton Au and 1.16 oz per ton Ag to Kennecott's McGill smelter near Ely, Nevada. A&B Gold Silver Mines purchased the property in the mid-1960s and moved the existing plant from the Adelaide District in northern Nevada to the site. They treated an additional 27,000 tons from a number of shallow pits before selling the property to Golden Cycle Corp. in 1969.

Bobcat Properties Inc. acquired the property from Golden Cycle in 1970 and shortly afterward entered into a joint venture agreement with Standard Slag Company to develop the mine. Acting as the operator of the joint venture, Standard Slag rehabilitated the mill and commenced operation from the present pit in 1975. During the 10-year operating period through early 1985 the Bobcat / Standard Slag joint venture mined about 1,500,000 tons grading 0.09 oz per ton Au and 1.25 oz per ton Ag. Approximately 110,000 ounces of gold and 800,000 ounces of silver were produced.

Early testing showed that the Atlanta Mine material would require extensive grinding to overcome silica encapsulation problems. The mill was rated at a capacity of 800 tons per day. A three-stage crushing circuit fed ore into one primary and two secondary ball mills which reduced the ore to 90% <100 mesh. Cyanide solution was introduced in the ball mills and the slurry was fed into three agitator tanks. The overflow was pumped into the first of five dewatering thickeners. The process tailings were pumped into the tailings pond as a slurry. Recovery of precious metals from the pregnant solution was by the Merrill Crowe process, in which powdered zinc was added to the pregnant solution to create a precipitate. From 1975 to 1977 the precipitate was mixed with a borax/soda ash/sodium nitrate/silica flux that was placed into an oil-fired melting furnace with the resulting molten gold dore' poured into conical molds. After 1977 the furnace was shut down and the precipitate was shipped off site for final processing. Permanent buildings include the mill, office / lab, smelting building and a caretaker's quarters.

The mine was closed in 1985 as the result of falling gold prices and the Standard Slag joint venture was terminated. Bobcat has kept the property on a care and maintenance basis from the closure of the mine to the present time. In a 1985 report (Bennett, 1985) Legend Mining Laboratory appraised the Atlanta mill at a replacement cost of \$12,494,523. A 2011 review of the milling facility showed that most of the processing equipment is too worn or simply too obsolete to be of significant salvage value.

Bobcat entered into an option purchase agreement with Gold Fields Mining Corp in late 1990. As part of the agreement, Gold Fields initiated an extensive exploration program with the goal of outlining reserves of 1,000,000 ounces of gold. Goldfields conducted detailed geologic mapping of the Atlanta pit and Bradshaw areas on the Bobcat Property as well as the nearby Silver Park, Solo Joker / Miner's Delight and Hulse Mine areas. They did detailed rock-chip geochemical surveys on and around the principal prospect areas. Grid soil geochemical surveys for gold, silver, arsenic, antimony and mercury were conducted over the Bradshaw prospect area and outlying claims. A sagebrush bio-geochemical survey was conducted over the gravel-covered area north of the Atlanta pit. Induced polarization / resistivity, AMT,

magnetic and radiometric surveys were conducted over the mine and areas to the north and south of it. Aerial photography was taken and topographic maps were prepared at a scale of 1" = 200 ft with a 5 ft contour interval. A drilling program consisting of eleven core or combination reverse circulation / core holes totaling 9,286 ft (2831m) and seventy-one reverse,



Figure 6.1 Atlanta Mill - Crusher Complex



**Figure 6.2** Atlanta Mill – Primary Ball Mill circulation holes totaling 46,735 ft (14,248m) were drilled. Gold Fields located 614 new lode

mining claims and entered into exploration agreements on third party claims in the Silver Park Solo Joker / Miner's Delight and Hulse Mine areas. Gold Fields did not achieve their goal and terminated the agreement at the end of 1991. The 614 claims acquired through location were assigned to Bobcat Properties upon termination. Bobcat did not retain many of these claims. Kinross Gold Corp. entered into an option to purchase agreement with Bobcat Properties in 1997. They drilled eighty reverse circulation holes totaling 54,255 ft (16,541m), digitized the data previously collected and created a wireframe model of the deposit. A resource estimate (not NI 43-101 compliant) was performed using Datamine software. Because the size of the resource did not meet internal investment criteria, Kinross terminated the agreement in 1998.

Cordilleran Exploration Company optioned the property in 2000. They drilled five reverse circulation holes totaling 2,785 ft (849m) before returning the project to Bobcat 2001.

Nearly all of the Goldfields and Kinross data has passed into the hands of Meadow Bay Capital Corp. Very little of the Cordilleran Exploration data is available.

### 6.1 Historical Resource Estimates

Since the termination of mining by Standard Slag in 1985, there have been several historical resource estimates at the Atlanta Project. All were produced prior to the implementation of NI 43-101 in February, 2001, and details of how the estimates were calculated are incomplete, thus they are not NI 43-101 compliant. The most recent historic resource estimate, made by Kinross Gold in 1998, was done by competent mining professionals using modern methodologies. There are no existing Technical Reports from Goldfields or Kinross in the NI 43-101 format as the statute did not exist at that time. Meadow Bay currently has only copies of Kinross monthly reports that discuss the resource estimate, but the final report that would presumably contain the details of the relevant key assumptions, parameters and methods used to prepare the historical estimate is not available.

The historical estimates contained in Table 6.1 below have been superseded by the current mineral resource estimates contained in this report.

Year	Estimator	Resource (000s t)	Grade	Based On
1992	Prochnau	2,466.8 t measured	0.088 opt Au, 1.27 opt Ag	Drill intercepts, cross- sections, polygons
		888.2 t indicated	0.043 opt Au, 0.08 opt Ag	
		3,355.0 t inferred	0.076 opt Au, 0.96 opt Ag	
		1,575.5 t tailings	0.014 opt Au, 0.884 opt Ag	Standard Slag production records
1998	Kinross	6,210.0 t indicated	0.054 opt Au, 0.506 opt Ag @ 0.02 opt Au cut-off	Drill composites, Data- mine software
		3,070.0 t inferred	0.041 opt Au, 0.236 opt Ag @ 0.02 opt Au cut-off	

### Table 6.1 Historical Resources (Not NI 43-101 Compliant)

### 7.0 GEOLOGIC SETTING AND MINERALIZATION

### 7.1 Regional Geology

The Atlanta Project is located in the Basin and Range geological province that covers the area from the Sierra Nevada range west of Reno to the Wasatch Front east of Salt Lake City, Utah, and from southern Idaho into northern Sonora, Mexico. The Basin and Range topography was created by mid to late Tertiary extensional tectonics, producing a series of roughly north-south oriented, fault-bounded mountain ranges separated by basins filled with thick accumulations of younger sediments and volcanic rocks. Topographic relief varies across the Basin and Range, from 1,500 feet to in excess of 5,000 vertical feet. Structural relief throughout the Basin and Range commonly exceeds topographic relief. The geologic section in this area of eastern Nevada is composed largely of thick Paleozoic carbonate units with some quartzite and Tertiary intermediate volcanic units, as shown in Figure 7.1.

### 7.2 District Geology

The Atlanta Project lies at the northern end of the Wilson Creek Range. The core of the range is composed of Ordovician Pogonip Limestone, Eureka Quartzite and Ely Springs Dolomite. Tertiary volcanic, volcaniclastic and intrusive rocks lie to the west of the range front. These are primarily felsic to intermediate in composition. The Tertiary and Paleozoic units are in structural contact with the volcanics in the hanging-wall and the sediments in the footwall. The Atlanta Fault strikes north-south and dips between 50 to 70 degrees to the west. This fault has been interpreted to be a segment of the Oligocene Indian Peak Caldera margin (LaBerge, 1994).

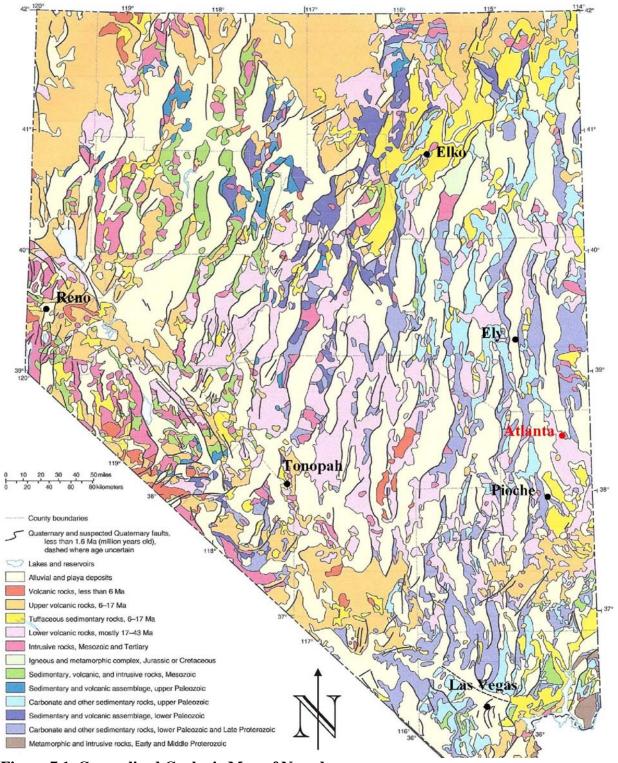


Figure 7.1 Generalized Geologic Map of Nevada

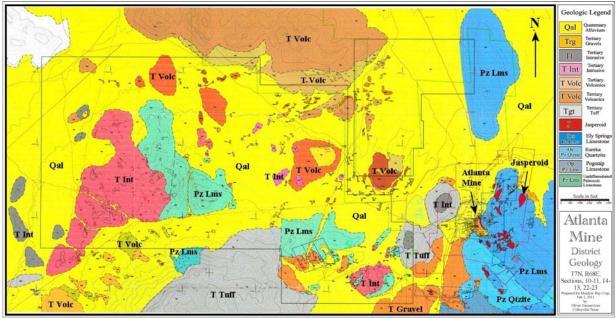


Figure 7.2. Atlanta District Geology

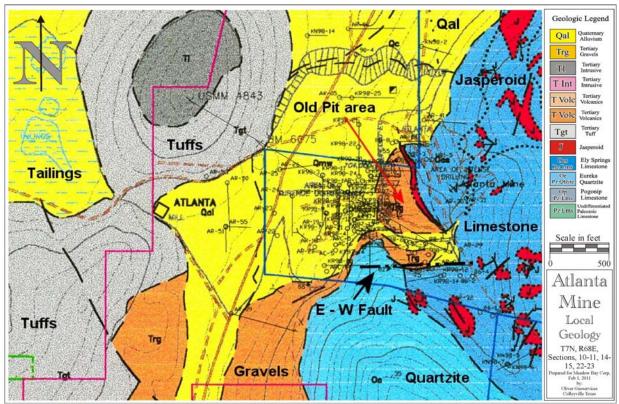


Figure 7.3 Atlanta Project Geology

### 7.3 Atlanta Project Geology

Gold mineralization at the Atlanta Project is localized along the north-south trending Atlanta normal fault separating the Tertiary volcanic rocks from the Ordovician sediments. In addition a roughly east-west trending fault zone cuts the north-south fault and is also strongly mineralized. Although the bulk of the currently well known mineralization is located in close proximity to the Atlanta fault, appreciable mineralization has also been discovered in the hanging-wall volcanics. Brecciation during movement along the fault coupled with pervasive silicification has produced extensive, complex jasperoid breccias which have a consistent width of approximately 100 feet. A similar mineralized breccia is developed along the cross-cutting east-west fault zone. These breccias were the principal ore hosts at the Atlanta Mine.

### 7.4 Mineralization

The gold mineralization at the Atlanta Project is strongly structurally controlled. The primary control is the north-south trending Atlanta Fault that juxtaposes the Tertiary volcanics against the Ordovician sedimentary rocks. A secondary high-angle east-west structure also appears to have been instrumental in localizing the mineralization. At the intersection of the north-trending and east-trending structures both the width and the grade of mineralization is increased relative to adjacent areas along the Atlanta Fault. Disseminated mineralization in silicified and brecciated volcanic rocks in the hanging-wall appears to be genetically related to the east-west trending structure. Atlanta mineralization is a product of complex multi-phase brecciation and silicification with some argillic alteration. There are also several generations of epithermal quartz veinlet stockworks which often contain intricately banded pyrite. Sulfides are generally very fine grained and occasionally coarse grained as in Figure 7.4. These are generally oxidized to depths of several hundred feet.



**Figure 7.4 Intricately Banded Epithermal Pyrite in Quartz Vein** Mineralized jasperoid breccias have been followed in outcrop or drill holes for 4000 ft (1,212

m) along the Atlanta Fault. In addition, they have been encountered in drill holes to depths in excess of 1,000 ft (303 m). Similar mineralization persists along the east-west fault zone for at least 1200 feet (366m) along strike and to similar depths.

### 7.4.1 The Atlanta Mine Area

With the exception of sporadic exploration in areas of alteration, anomalous geochemistry and/or small vein mineralization, most of the work at the Atlanta Project has focused on the deposit exploited in the main pit and its down-dip and lateral extensions. Drilling has shown

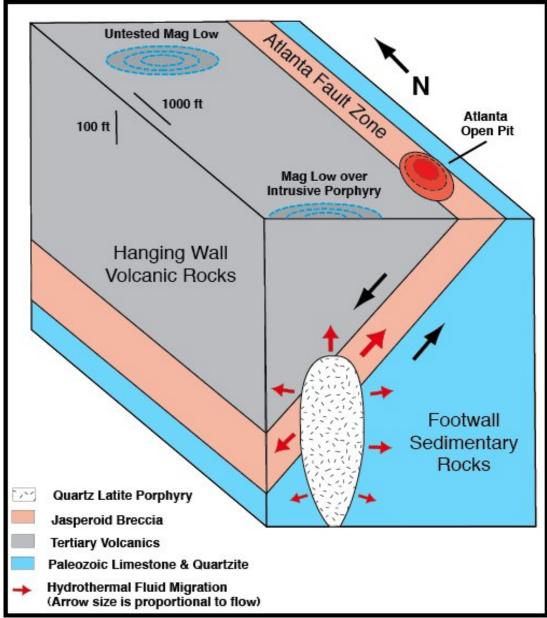


Figure 7.4.1 Conceptual Block Model of Atlanta Deposit

that the mineralized jasperoid horizon occupying the Atlanta fault is continuous for at least

4,000 ft (1,212 m) along strike and through a vertical range of at least 1,000 ft (303 m). However, the open pit mine itself is situated on the thick, higher-grade, near-surface portions of this structure. The Bobcat – Standard Slag joint venture mined a segment with a strike length of 650 ft (197 m) with an average width of 85 ft (26 m). The deposit was mined to a depth of 250 ft (76 m) on the west or the hanging-wall side and 450 ft (136 m) on the east or the footwall side. The breccia zone is tabular to lenticular in shape and dips at 45 to 60 degrees to the west. Grades are relatively evenly distributed across the host jasperoid but distinctly higher grades occur within a steeply south plunging core, about 200 ft (61 m) long, in the central part of the mine area. This high-grade core occurs where the east-west cross structure intersects the Atlanta Fault. Deep drilling indicates that the grade and thickness of the deposit remains relatively constant with depth. However, the dip of the breccia zone becomes more shallow at depth and is essentially flat-lying below a vertical depth of 1,000 ft (303 m). Although no ore-microscopy has been conducted on the ores from the Atlanta Mine, it is assumed that gold particles are in the micron size range. The silver:gold ratio is approximately 9:1. The Kinross assay reports suggest that deposit contains approximately 0.1% arsenic.

### 7.4.2 Hanging Wall Atlanta Porphyry Mineralization

Deep exploratory drilling in the past has identified mineralization west of the Atlanta pit in rocks then interpreted as silicified volcanics,. These rocks have been brecciated, with the clasts partially replaced by fine-grained silica. These breccias are thoroughly oxidized and display strong iron oxide staining. The silver content is less than the main deposit. The 2011 drilling has lead to the interpretation that these hanging wall rocks are actually a fine grained porphyritic intrusive body. The porphyry is typically cut by stockworks of thin pyrite veins. The majority of the rock has been argillically altered. Lesser amounts of silicification, generally accompanied by brecciation, are also present.

The Atlanta Porphyry appears to be wedge-shaped in profile and thickens from east to west. The southern limit of the porphyry lies roughly 160 feet (50m) south of hole 06C The Altanta fault truncates the porphyry both at depth and to the east. A second high angle fault may also truncate it on the west near hole 18C. It extends to the north beyond hole 15C.

### 8.0 DEPOSIT TYPES

### 8.1 Epithermal Breccia Fill and Replacement

The Atlanta Project deposit is characterized as a low sulfidation epithermal fill and replacement of carbonate fault breccias. Hydrothermal fluids have both filled open voids in the breccias as well as replaced individual carbonate clasts. The silica is microcrystalline except where late drusy quartz has been deposited in open spaces. Minor late quartz +/- pyrite veinlets cut both the clasts and the breccia fill. The deposit is completely oxidized both in



Figure 8.1.1 Atlanta Pit Geology

23

outcrops and in the deepest levels of the pit, and the jasperoids are hematite stained. Small amounts of sulfides – primarily pyrite – have been encountered in the deeper drill holes. In addition to the silicification, strong and widespread argillic (kaolinite, illite) alteration are found in the hanging-wall volcanics. The volcanic breccias and tuffs have also been silicified and cut by minor quartz veinlets. Although the ore minerals have not been microscopically characterized, it is assumed that the gold occurs as electrum.

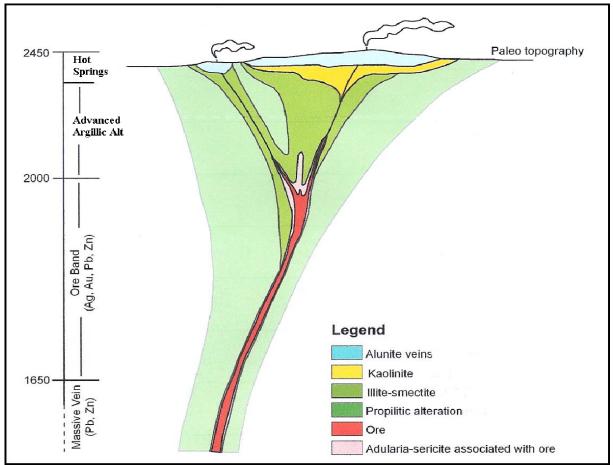


Figure 8.1.2 Generalized Epithermal Deposit Model (after Buchanan)

## 9.0 EXPLORATION

This section will briefly summarize the significant historic exploration on the property, and discuss the ongoing Meadow Bay exploration program.

### 9.1 Prior Mapping, Sampling

Mapping has been completed in a reconnaissance style across the greater project area as a result of the past efforts. Detailed geologic mapping was conducted by Goldfields over the Atlanta Mine as well as the Bradshaw, Silver Park, Solo Joker / Miner's Delight and Hulse Mine areas. Kinross also did extensive mapping in areas of jasperoid outcrops east of the pit area that are hosted in the Ordovician sedimentary rocks.

Gold Fields conducted extensive geochemical sampling using a variety of media. Rock-chip sampling was done around the principal prospect areas. Grid soil surveys were conducted over the outlying claims for gold, silver, arsenic, antimony and mercury. Sagebrush geochemical surveys were conducted over gravel covered areas north of the Atlanta pit. Kinross did additional sampling of jasperoid outcrops in the area east of the Atlanta pit as well as soil sampling in the southeastern part of the claim block.

### 9.2 Geophysics by Goldfields

Goldfields conducted induced polarization / resistivity, AMT, magnetic and radiometric surveys over the Atlanta mine as well as the areas to the north and south of it. This data was reviewed for Kinross by Mr. Joe Anzman and the magnetic and resistivity data were recontoured.

Meadow Bay personnel reviewed the geophysical results with great interest. The AMT (audiomagneto-telluric) map (Figure 9.2.1) shows that there is a very sharp boundary trending slightly to the west of north that runs for at least 2.5 miles northward from the Atlanta mine. This represents the Atlanta fault, which controls most of the mineralization in the district. The mineralization appears to be along this sharp break, associated with a cross fault. Figure 9.2.2 is a ground magnetic map. There is a strong magnetic low over the mine itself and another one

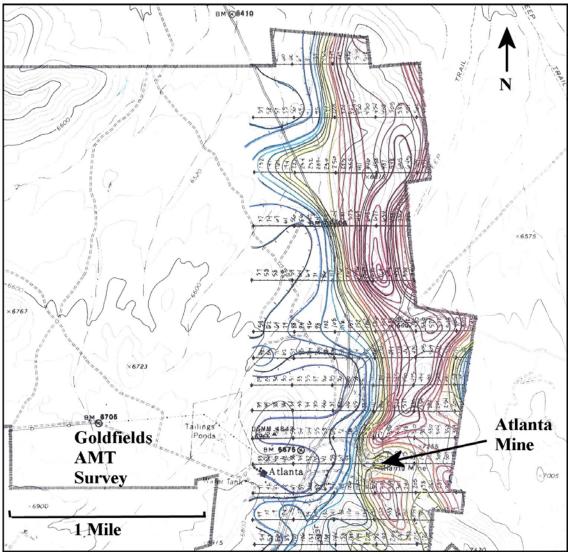


Figure 9.2.1 Goldfields AMT Survey

a short distance to the north, which remains untested. The magnetic low clearly persists to the 25 2881 Fargo Way, Sparks, NV 89434 Tel/Fax 775-356-6121 diverdana@hotmail.com

BM 08410 the sta CHO CHO 054 1000 750 500 010 250 ×6575 750 1000 2823252867 500 10000 1250 1000 BM 6705 Altanta Tailings Ponds Mine Goldfields 750 Ground 1000 Magnetics 1-Mile

north and becomes very strong about 1.5 miles to the north, possibly indicating mineralization. There is no prior drilling in this area.

Figure 9.2.2 Goldfields Ground Magnetic Survey

Based on these geophysical results, Meadow Bay chose to extend its claim block to the north along the strike of the fault. This area is one of their higher priority drilling targets, after completing their infill and step-out drilling near the known deposit.

### 9.3 Meadow Bay Geophysics 2011

In October 2011 Meadow Bay contracted Quantec Geoscience Limited to carry out Total Field ground magnetic surveys in two areas. Instrumentation was GEM-10 walking and base station receivers. Line spacing was 100 meters (328 ft) with measurements recorded at 2 second

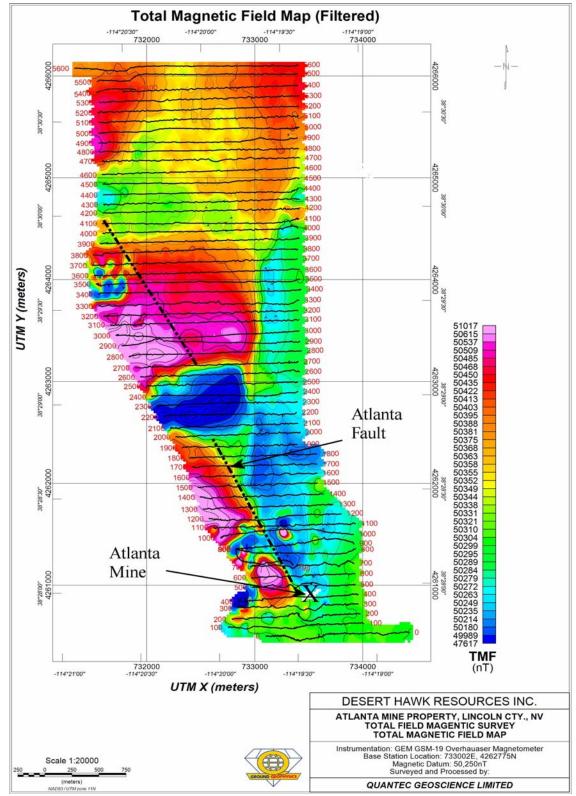


Figure 9.3.1 Atlanta Mine Area Ground Magnetics

intervals. The first was an elongate swath along the northward projection of the Atlanta Fault.

28

The area covered was approximately 18,700 feet (5700m) in a north-south direction and up to 5900 feet east-west(1800m). Along the Atlanta Fault, 57 lines were measured for a total of 54 line miles (86.8km). The results were somewhat similar to the work done by Goldfields, but more detailed. The Atlanta fault is shown to persist to the north with a strong and attractive magnetic high about 6000 feet (1829m) north of the mine, which is not yet drilled. The magnetic high near the mine appears to correlate well with the mineralized porphyry body. The interpretation of the magnetic data will continue to be refined over the winter months. A second ground magnetic survey covered the area to the southwest of the Atlanta mine called the Western Knolls, where reconnaissance exploration had identified geochemically significant gold in favorable lithologies. Maximum dimensions of this survey were 9200 feet (2800 m) in an east–west direction and 8500 feet (2600 m) in a north-south direction. It was composed of 27 lines miles comprising 160.7 miles (43 km) of readings. The geology there is somewhat more complex and the detailed geologic mapping is incomplete. At this point it is unclear whether the partially mapped rhyolite domes in the area coincide with the magnetic features. This area will also be studied during the winter months. Mapping will continue in the spring.

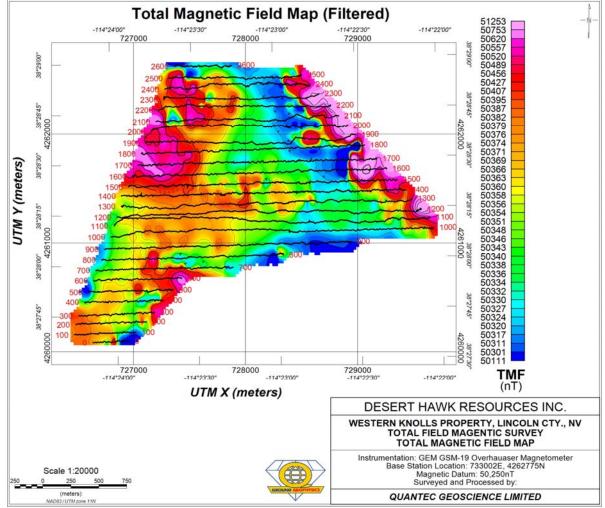


Figure 9.3.2 Western Knolls Area Ground Magnetics

### 9.4 Meadow Bay Mapping and Sampling

Meadow Bay is continuing to field check previous work and doing more detailed geologic mapping in areas of interest. In addition to reviewing those locations noted above, Meadow Bay's reconnaissance work has identified interesting areas of alteration and mineralization in three new areas, noted on Figure 9.4 below.

In the Western Knolls area reconnaissance work identified silicified, brecciated and ironstained volcanic rocks associated with what have been interpreted to be rhyolite domes. Preliminary chip samples of favorable lithologies revealed the presence of precious metals and key pathfinder elements in significant quantities. Follow-up sampling has expanded the area of alteration to encompass over 3 square miles. In the PEG area just to the south, initial widely spaced stream sediment sampling revealed anomalous values beneath cliffs of post-mineral volcanic rocks. Reconnaissance mapping revealed alteration in favorable lithologies, as well as small old exploration workings which were not mentioned in any old reports. Initial samples were highly anomalous in gold.

Grid soil sampling of the northwestern portion of the Western Knolls area and the adjacent PEG area was completed late in 2011. A total of 2848 soil samples were collected on 43 lines spaced 330 feet (100m) apart. Sample spacing along the lines was 100 feet (30m). Approximately 50 rock samples were also collected while sampling the soil lines. Many samples contained anomalous gold values. Most of the assay results have been received and analysis of the data is in progress.

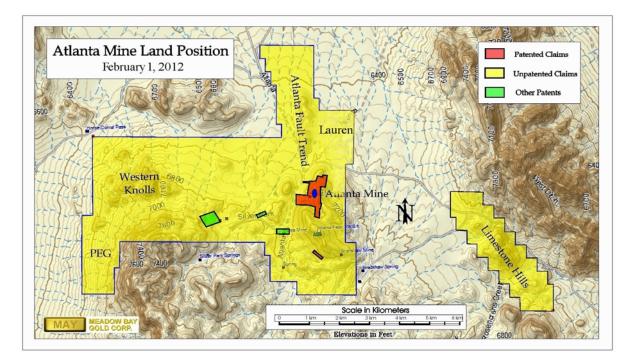


Figure 9.4 Atlanta Land Position and Exploration Areas

Three miles east of the Atlanta Mine, in the Limestone Hills, initial reconnaissance revealed

carbonate rocks which were iron-stained, brecciated and silicified in proximity to Tertiary volcanic rocks. In addition, five drill sites from the 1990's were found in the area. Additional mapping and sampling was done in the fall of 2011. In the southern Limestone Hills area five lines of soil samples were sampled at the same 100 foot (30m) sample spacing. A total of 210 soil samples were collected along with 10 rock samples. Like the Western Knolls and PEG areas, analysis of the Limestone Hills data is in progress.

As a result of the initial exploration work in the Western Knolls, Peg, Limestone Hills and Lauren areas, additional mining claims were staked to cover those areas, as shown in Figure 9.3 above.

### 9.5 Underground Sampling

There are no accessible underground workings in the immediate mine area, thus there has been no recent sampling. Assay maps of the old underground workings are available in the data base acquired from Bobcat Resources

### 10.0 DRILLING

### **10.1 Historic Drilling Summary**

This section reviews historic drilling on the property. The first known drill holes were completed in the mid 1970's by the Standard Slag – Bobcat Properties joint venture. Table 10.1 below summarizes the drilling sequence and footages drilled.

### Table 10.1 Summary of Historic Atlanta Project Drilling

Operator	Date	Program	Footage
Standard Slag - Bobcat Properties Joint Venture	1975 - 1985	98 RC holes	15,387 ft
Bobcat Properties	1986 - 1990	18 RC holes	12,590 ft
Gold Fields	1990 - 1991	9 RC / Core holes 73 RC holes	9,286 ft 46,735 ft
Kinross	1997 - 1998	80 RC holes	54,255 ft
Cordilleran Exploration	2000 - 2001	5 RC holes	2,785 ft
Grand Total Historic Drill	ing	283 holes	<b>141,038 ft</b> (43,000m)

With the exception of some early Standard Slag holes, drill logs, assay sheets, coordinates,

elevations, depths, azimuths and inclinations of all these holes are well preserved. The entire drilling database has been compiled into a digital format.

### 10.1.1 Historic Reverse Circulation Drilling

Over 90% of the 141,038 ft (43,000m) of drilling was by reverse circulation (RC) drilling. This work spanned a 26 year period using several drilling companies. Cuttings were logged and sampled by several geologists at various levels of detail, and samples were assayed by different analytical laboratories.

The commercial laboratories used by Goldfields, Kinross and Cordilleran Exploration are considered to be reputable labs with facilities in Reno, Nevada and with quality control and assay procedures that were consistent with best industry practices at the time of the drilling and assaying. All drill sites were surveyed relative to established survey grid points. All of this data remains available.

### 10.1.2 Historic Core Drilling

Historically at the Atlanta Project, core drilling comprised less than 10% of the total footage drilled. Core drilling was performed only during the Gold Fields exploration program and was done after drilling most of the hole by reverse circulation with coring of only select intervals. The core was washed and photographed in the core boxes. The core was then logged in detail by the geologist for geology, mineralization and alteration. The core was sawn lengthwise using a diamond impregnated core saw with half sent to the lab for analyses and the other half retained in the core box. The split core remains stored at the mine site in the mill building.

### 10.2 Meadow Bay Drilling 2011

Meadow Bay Gold conducted an exploratory drilling program during the 2011 field season. Drilling commenced on June 17th and was concluded on December 22nd. A total of 21 core holes totaling 17,914 feet (5,460.2m) and 18 reverse circulation (RC) holes totaling 12,940 feet (3994.1m) were drilled. Kirkness Diamond Drilling provided both the Atlas Copco CS-14 core drill as well as a small, track-mounted RC drill. In addition, National Drilling of Elko, Nevada provided a Schramm 685 RC truck-mounted drill.

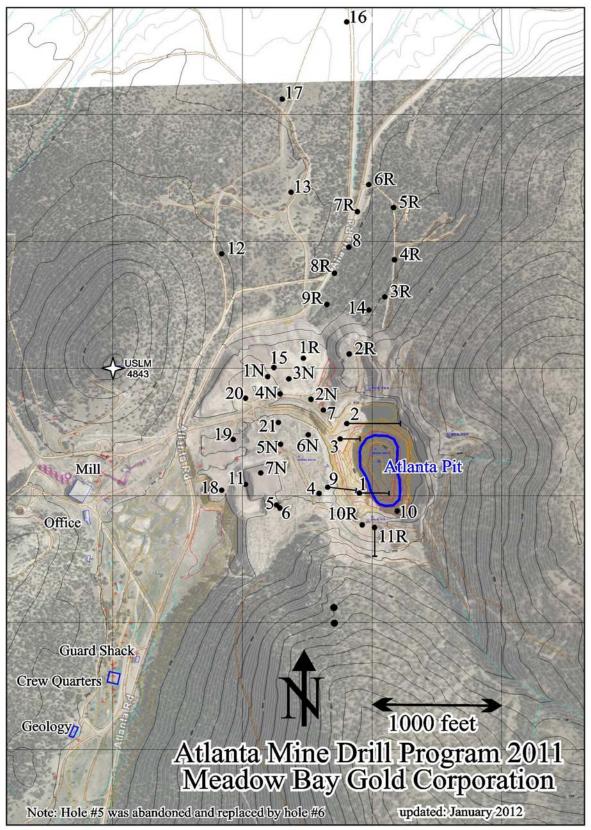


Figure 10.2.1 Meadow Bay Core Drilling – Completed Holes

The drilling program focused on three goals -

**Verification of Previous Drilling** Seven core holes were dedicated to twinning previous drill holes in order to determine the validity of previous drilling. The seven holes we all in or adjacent to the Atlanta Mine in areas where previous drilling had encountered gold mineralization in excess of 1.0 gpt Au.

Original Hole	Twinned Hole
99060 Cross-section	DHRC-11-01C
99500 Cross-section	DHRC-11-02C
KR98-15	DHRC-11-03C
C96-08	DHRC-11-04C
AR-19	DHRC-11-06C
KR98-22	DHRC-11-07C
88-9	DHRC-11-09C

A preliminary comparison of the geologic drill logs suggests there is a high correlation of geologic information and a moderately good assay correlation between the original and twinned holes. Gustavson Associates is currently conducting a statistical analysis of the assay results of the two sets of data. Upon completion of their study they will render a formal opinion regarding the success of the verification drill program in confirming the existing data.

**Step-Out and In-Fill Drilling** Fifteen holes were drilled to either look for extensions of gold mineralization beyond the limits of the previous drilling or to fill large gaps between previous holes. These drill holes include Kirkness core holes DHRC-11-08C, 12C, 13C, 14C, 16C and 17C, Kirkness RC holes DHRC-11-02R, 03R, 04R, 05R, 06R, 07R, 08R and 09R, and National RC hole DHRC-11-N02.

The majority of these drill holes were to the north of the open pit where previous drilling had encountered gold mineralization in Atlanta Fault jasperoid breccias. The farthest north of these holes (16C) was collared over 6900 feet (2,100m) north of the Atlanta Pit. Although the majority of the holes encountered jasperoid breccias to the north along the Atlanta Fault, both the width of the mineralized interval and the gold concentrations were lower than in the Atlanta Pit area.

Three holes (10C, 10R and 11R) were drilled to the south of the Atlanta Pit. All of these holes encountered jasperoid breccias along the Atlanta Fault south of any previous drilling. In holes 10C and 10R the gold and silver concentrations were similar to that reported from existing holes adjacent to the Atlanta Pit. Assay results for hole 11R have not yet been received. This portion of the drilling seems to have confirmed prior results and expanded the known mineralized area.

**Delineation of The Atlanta Porphyry** Examination of existing core and drill cuttings to the southwest of the Atlanta Pit brought into question the interpretation of the results from previous exploration. It was hypothesized that what had previously been described as silicified hanging-

wall volcanics were in fact an intrusive porphyry body. This hypothesis was tested with hole 04C that went through 75m of a fine-grained rock that is interpreted as having crystallized *in situ* as an intrusive rock. Additional holes that have encountered the Atlanta Porphyry include Kirkness core holes 06C, 11C, 15C, 18C, 19C, 20C and 21C, and National RC holes 01N, 03N, 04N, 05N, 06N and 07N.

The rock is quartz latite in composition and has a pophyritic texture. The dominant phenocysts are plagioclase averaging about 2mm in diameter with lesser amounts of embayed quartz grains. The groundmass is a greenish gray in color and contains minor biotite crystals. The rock is isotropic in texture where massive but is more typically cut with thin pyrite veins. The majority of the rock has been argillically altered with the plagioclase crystals being replaced by clay. Lesser amounts of silicification – often accompanied with brecciation – have been observed.

In geometry, the Atlanta Porphyry appears to be wedge-shaped in profile and thickens from east to west. The southern limit of the porphyry is defined by Kinross and Gold Fields drill holes and lies roughly 50m south of drillhole 06C. The Atlanta Fault truncates the porphyry both at depth and to the east. A second high-angle fault may also truncate it on the west in the vicinity of hole 18C. The porphyry extends beyond hole 15C to the north.

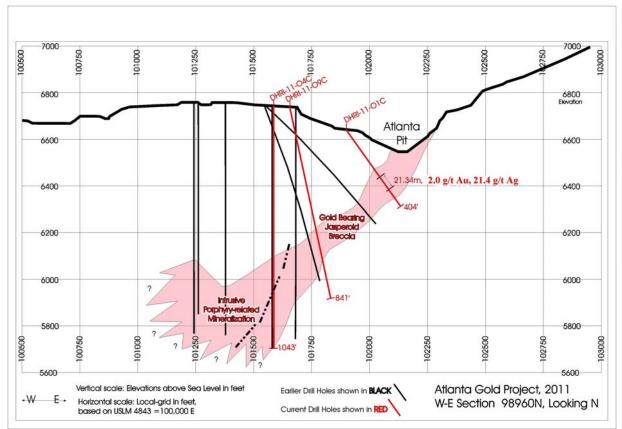


Figure 10.2.2 Cross Section – Geometry of Atlanta Porphyry and Jasperiod Breccia

Holes 04C, 06C and 11C encountered mineralization similar to that reported in nearby Kinross

and Gold Fields holes in terms of widths and gold concentrations. Analyses indicate that the silver content of the mineralized Atlanta Porphyry is much less than what occurs in the jasperoid breccias along the Atlanta Fault. The copper and base metal content is also very low.

It is observed that the Atlanta Fault truncates the Atlanta Porphyry at depth and that silicified jasperoid breccias are always present below the porphyry. These jasperoid breccias are similar in terms of appearance and thickness to breccias encountered further to the east in the pit area. The concentrations of gold and silver are also similar. A consequence of investigating the Atlanta Porphyry has been to extend the limits of the mineralized Atlanta Fault breccias down-dip and to the west of previous drilling.

Drill Hole	Area	Total Depth (m)	From (m)	To (m)	Width (m)	Au g/t	Ag g/t
DHRC- 11-01C	Atlanta Pit	123.14	74.68	96.01	21.33	2.00	21.4
DHRC- 11-02C	Atlanta Pit	180.75	86.87	105.16	18.29	0.45	85.2
DHRC- 11-03C	Jasperoid Breccia West of Pit	174.96	150.88	170.69	19.81	2.52	52.8
DHRC- 11-04C	Margin of Quartz Latite Porphyry	317.91	198.12	260.60	62.48	1.58	2.8
			269.75	301.75	32.00	0.79	29.7
DHRC- 11-05C	Hole abandone	ed – replaced b	y DHRC-11-(	)6C			
DHRC- 11-06C	Quartz Latite Porphyry	292.61	228.60	292.61	64.01	1.11	18.8
		Including			7.01	4.83	99.7
DHRC- 11-07C	Jasperoid Breccia NW of Pit	292.91	0.00	6.10	6.10	1.19	500.5
			202.69	292.91	90.22	0.95	25.4
DHRC- 11-08C	Jasperoid Breccia North of Pit	160.48	80.80	103.66	22.87	0.62	0.0
DHRC- 11-09C	Jasperoid Breccia SW of Pit	256.49	172.21	188.98	16.77	0.49	16.8

 Table 10.2 Significant Meadow Bay 2011 Drill Intercepts

			196.60	231.65	35.05	2.86	35.1	
		Including			16.77	4.88	85.8	
DHRC- 11-10C	Jasperoid Breccia South of Pit	160.93	76.20	114,30	38.10	1.80	24.0	
DHRC- 11-11C	Quartz Latite Porphyry	447.45	266.70	301.75	35.05	0.18	52.9	
			324.61	350.52	25.91	0.74	2.8	
			411.48	437.39	25.91	1.92	21.6	
DHRC- 11-12C	Jasperoid Breccia NW of Pit	322.48	300.30	304.87	4.57	0.33	16.7	
DHRC- 11-13C	Jasperoid Breccia North of Pit	218.69	170.73	176.83	6.10	0.69	0.0	
DHRC- 11-14C	Jasperoid Breccia North of Pit	172.21		No	Significant	Values		
DHRC- 11-15C	Quartz Latite Porphyry	349.91	271.34	333.84	62.50	0.29	10.1	
DHRC- 11-16C	Jasperoid Breccia North of Pit	168.25		No	Significant	Vlaues		
DHRC- 11-17C	Jasperoid Breccia North of Pit	176.17		No	Significant	Values		
DHRC- 11-18C	Quartz Latite Porphyry	272.64		No	Significant	Values		
DHRC- 11-19C	Quartz Latite Porphyry	521.51		No	Significant	Values		
DHRC- 11-20C	Quartz Latite Porphyry	319.43		No	Significant	Values		
DHRC- 11-21C	Quartz Latite Porphyry	349.00	335.37	362.20	26.83	0.52	7.44	
DHRC- 11-01R	Hole abandone	ed due to exces	ssive caving					
DHRC- 11-02R	Hole abandone	ed due to exces	ssive caving					

DHRC- 11-03R	Jasperoid Breccia North of Pit	147.83	No Significant Values							
DHRC- 11-04R	Jasperoid Breccia North of Pit	147.83	103.66	114.33	10.67	0.64	0.0			
DHRC- 11-05R	Jasperoid Breccia North of Pit	103.63	65.55	76.22	10.67	0.35	4.5			
DHRC- 11-06R	Jasperoid Breccia North of Pit	97.54	No Signific	ant Values						
DHRC- 11-07R	Jasperoid Breccia North of Pit	108.20	105.18	108.23	3.05	1.15	0.0			
DHRC- 11-08R	Jasperoid Breccia North of Pit	152.40	121.95	128.05	6.10	0.52	4.0			
DHRC- 11-09R	Jasperoid Breccia North of Pit	313.36		No	Significant	Values				
DHRC- 11-10R	Jasperoid Breccia South of Pit	149.35	108.23	129.57	21.34	1.75	11.4			
DHRC- 11-11R	Jasperoid Breccia South of Pit	143.26	99.09	125	25.91	1.07	5.0			
DHRC- 11-N01	Quartz Latite Porphyry	338.33	310.98	338.41	27.44	0.42	5.9			
DHRC- 11-N02	Jasperoid Breccia NW of Pit	339.85	208.84	314.02	105.18	2.00	13.5			
DHRC- 11-N03	Quartz Latite Porphyry	377.95	263.72	321.65	57.93	3.83	21.1			
DHRC- 11-N04	Quartz Latite Porphyry	385.57	329.27	350.61	21.34	2.77	9.4			
DHRC- 11-N05	Quartz Latite Porphyry	396.24	312.50	371.95	59.45	1.66	9.7			
DHRC- 11-N06	Quartz Latite Porphyry	371.86	300.30	355.18	54.88	0.49	11.5			

DHRC- 11-N07 Quartz Latite Porphyry	475.49	317.07	367.38	50.3	0.17	27.4	
---	--------	--------	--------	------	------	------	--

## 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

## **11.1 Historic Sampling Procedures**

Previous operators at the Atlanta Project collected rock chip samples and samples from both reverse circulation drilling and from core drilling. These were reportedly collected in a very conventional manner.

**Rock Chip Sampling** Methods used by the several groups exploring the property are not well documented. From brief descriptions, these were generally samples selected to be representative of something specific at each site, thus they were selectively collected rather than randomly collected. Some were single specimens, but most were composed of several to many chips of rock over a specific area, such as a one meter by one meter square series of chips on an outcrop, to represent an average value for that outcrop. Locations were noted on a map and marked in the field with a metal tag. Samples were collected in a cloth sample bag with the number written on the outside and a tag placed in the bag.

**Reverse Circulation Sampling** At the time of nearly all of the reverse circulation drilling done at Atlanta before 1990, the holes were drilled dry using compressed air (no drilling fluids added) to as great a depth as possible, until the water table was reached. The whole area drilled at Atlanta is generally above the water table. An exception to drilling dry was that in areas of badly broken rock with poor sample return, it became necessary to either stop the hole or continue using drilling fluids, occasionally just water, but usually with mud additives such as bentonite.

When drilling dry, sampling was quite simple. The drill cuttings for each 5-foot interval were allowed to accumulate in the cyclone with some fine dust blowing out the stack. At the end of every 5 feet (1.52m), the sample was dumped from the cyclone through a riffle splitter set up so that two samples were collected about 5 pounds (2.3kg) in weight. The second sample was kept as a reference sample or to be sent to the lab as a duplicate. The cyclone and splitter were blown clean with compressed air between samples. Small reference samples for each interval were preserved in plastic compartmented chip trays for descriptive logging and later reference.

During wet drilling, the sample passed from the cyclone to a rotary wet splitter in which the sample material was distributed over a series of slots which divide the sample material into equal size samples and the excess was discharged. It was important to thoroughly rinse the cyclone and splitter with water between samples. Sample bags were marked as in dry sampling. A pair of duplicate samples was commonly collected for each interval. Chip trays were used in the same manner as in dry sampling.

**Core Sampling** Core only comprised less than 10% of the historic footage drilled. The core was washed and carefully re-aligned in the box and a center line was marked on the core. Core

was carefully marked by the geologist into sampling intervals. It was split, as well as possible, into equal halves using a core saw or a hydraulic splitter. Core was described in detail to capture geologic information such as alteration, mineralization and fracturing. Half of each core interval was bagged in carefully labeled cloth bags with a sample tag inside. The second half was retained for reference.

## 11.2 Meadow Bay Sampling Procedures

**Soil Sampling** Meadow Bay's soil sampling was carried out by hand digging shallow holes into the B horizon soil layer. Material was placed in labeled kraft paper soil envelopes. Samples were screened to minus 100 mesh and analyzed by 41 element ICP techniques at the ALSChemex lab in Elko, Nevada. As with rock samples, each was marked with a unique number, a metal tag was attached at the site and the site's coordinates were acquired using a GPS instrument.

**Reverse Circulation sampling** In Meadow Bay's RC drilling program all holes were drilled wet. The National drill rig was set up with a cyclone and rotary splitter as described in Section 11.1 and the sample material was distributed over a series of slots which divide the sample material into equal size samples and the excess was discharged. Marking and bagging of samples was done in the same manner. The Kirkness RC drill rig used a smaller diameter pipe. In this case, rather than splitting it, the entire sample was collected using a large sample bag in a 5 gallon bucket. Fluids were allowed to drain through the bag fabric and the entire sample was shipped to the lab, thus there was no second or duplicate sample.

**Core Sampling** Meadow Bay retained Gustafson Associates to provide a detailed protocol for core drilling and for sampling QA/QC procedures. The entire document is attached as Appendix II. Gustafson also visited the site during the early part of the drilling program to supervise and verify the proper use of these procedures. They are summarized here.

a.) Core handling and storage – use proper sturdy boxes; handle core carefully to avoid contamination or spillage; store in a secure place; verify that the drillers place the core in boxes in the proper order; handle carefully to avoid creating new fractures

b.) Core cleaning and alignment - wash core thoroughly to avoid contamination; align core by matching ends of core pieces. Photograph core after cleaning, and do RQD analyses before additional moving of the core for logging or sampling.

c.) Logging and sampling – log the core in detail before splitting and sampling; review after splitting for additional details. Geologists are to mark the core for sampling in regular intervals or at geologic or mineralization contacts. Mark and split with a diamond core saw into equal halves. Collect samples as marked in new cloth bags, including half of the fines. Place a sample tag in the bag as well as marking the outside. Keep the sawing area very clean to avoid cross-contamination of samples. Staple sample tags in boxes in sampled intervals.

d.) Assure that core boxes are properly marked and stored carefully in a secure location.



Figure 11.2 Sawing Core

**Rock Chip Sampling** While collecting soil samples on grids, selected rock chip samples were collected in several areas of interest (e.g. Western Knolls, Peg and Limestone Hills). Rock chips were collected in the conventional manner. Generally rock specimens were selected as representative of each specific area on interest. Commonly several chips were collected over perhaps a square meter to achieve a representative average value; others were specifically selected high grade samples of veins or other attractive mineralization to see if strong mineralization was present. All sample sites were marked with metal tags and location coordinates were acquired using a GPS instrument.

All core, RC, rock and soil samples were stored in a secure area awaiting shipment to the lab.

## 11.3 Sample Preparation and Analytical Procedures

## **11.3.1** Historical Work

While careful research in the files at the Atlanta Mine might reveal more details, the authors are unaware of sample preparation and assay procedures used by the earlier workers at Atlanta. None of the prior project operators discussed quality control procedures in their reports. The laboratories used were certified, reputable ones based in Reno, Nevada and still in business. They would have used sample preparation and assay protocols that matched the industry standards of the time. Assay certificates for the work done prior to 1997 are only partially

available. Assay certificates prepared by Chemex (now ALSChemex) are available from the work done by Kinross Gold in 1997 and 1998. Although 14 years have passed, it should be possible to reconstruct the assay and quality control procedures used by Chemex, and probably others, at that time as part of an effort to make the Kinross work NI 43-101 compliant.

## 11.3.2 Meadow Bay and ALSChemex

All of Meadow Bay's soil, RC cutting, rock and core samples have been sent to ALSChemex for preparation and analysis. Samples collected were stored on site in a secure location, then trucked by Meadow Bay personnel directly to the ALSChemex sample preparation facility. Gold and silver values were obtained by standard fire assay techniques.

ALSChemex is an internationally recognized analytical facility. It is certified under the ISO 9001:2008 and ISO 17025:2005 quality management systems. These systems are in place to assure that clients receive accurate, precise and quality data.

Their standard sample preparation procedure after careful sample log-in and checking is:

- 1) Dry samples in oven as needed.
- 2) Crush until 70% of the sample passes a 2mm screen, then riffle split a 250 gram subsample.
- 3. Pulverize this split until 85% passes a 75 micron (Tyler 200 mesh) screen.

These characteristics are measured and results reported and logged to verify the quality of sample preparation. Standard procedure requires that at least one sample per shift be taken from each sample prep station. Measurement of sample preparation quality allows the identification of equipment, operators and processes that are not operating within specifications, with corrective actions completed as necessary.

Quality control samples including certified reference materials are inserted within each analytical run. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analyzed at the end of each batch. All data gathered for quality control samples are automatically captured, sorted and retained in the QC database and are available for client review. Every batch of samples has a dual approval and review process. Individual analytical runs are monitored and approved by the analyst. The final work order has a second and very detailed review prior to final work order approval and certification.

Meadow Bay retained Gustavson Associates to provide a QA/QC protocol for all samples submitted to the laboratory. The full text is attached as Appendix 1. The protocol is summarized here.

1) Duplicate samples consisting of  $\frac{1}{4}$  - split core should be taken every 50<sup>th</sup> sample and inserted into the sample stream in the natural numerical sequence, not adjacent to the original.

2) Standard reference samples are to be inserted at a rate of 1% to 5%. Standards should be appropriate to the rock types and expected gold grades.

3) Blanks should be inserted at a rate of a minimum of 1% of the samples submitted. They should generally be inserted after suspected high grade samples.

4) Compare the results of duplicates, standards and blanks before reporting results. Any significant deviations from standards should be reported to the lab and the sample batch should be re-analyzed.

Gustavson Associates will monitor the QA/QC program as it proceeds and suggest appropriate changes as they develop.

## 12.0 DATA VERIFICATION

Tim Masters of Desert Hawk Resources completed a due diligence study of the historical data from the project in 2010, before the initial agreement was made between Desert Hawk and Bobcat Properties, which was carefully reviewed by the author. All of the historic drill hole collars were surveyed as the holes were completed and are referenced to the same survey grid. This data is preserved in the electronic database and was used in the resource estimation process used by Goldfields and by Kinross Gold. Many of the drill collars have been erased by time and subsequent activity, thus many of their locations would be impossible to check. Both Goldfields and Kinross were satisfied as to the accuracy of the drill hole locations, as was Masters in his data review. Meadow Bay is collecting the coordinates of any hole collars that still exist using a highly accurate GPS instrument. The author verified that all of the holes found to date match well the coordinates listed in the database.

Dana Durgin reviewed current procedures for collecting and boxing the core at the drill rig, as well as the core cleaning, aligning and sampling procedures. These match well the protocol established by Gustavson Associates. Claiborne Newton of Gustafson Associates also reviewed the procedures in the field and he was "...satisfied that DHR (Desert Hawk Resources, subsidiary of Meadow Bay) is handling and preparing samples in an industry-standard best-practice and NI 43-101 compliant manner." This letter is attached as Appendix III. The author also reviewed the current core logging procedures and compared the logs to the core in two holes currently being logged and sampled. He also reviewed a comparison of earlier drill holes with current twin holes in terms of assays and geology. The geologic contacts match well and the assay intervals match somewhat less well. This is as expected in twinned reverse circulation and core holes.

The authors have not done any core sampling for assay verification purposes. With the vast database of assays from 141,000 feet (43,000 meters) of drilling, the collection of a few dozen check samples would be statistically meaningless. The drilling and sampling was done by experienced professionals, the data was carefully reviewed at least three times and found to be quite adequate.

From this review, the authors are satisfied that established protocols are being followed. The historical database appears to have been properly checked and maintained. Historical drill holes locations appear to be correct. The limited verification drilling done to date has repeated the original holes well. In the authors' professional opinion, the data is completely adequate for the purposes of this report.

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

## **13.1** Ore Description

The mineralization at the Atlanta Project consists of micron-sized electrum particles hosted in oxidized jasperoid breccia. It is not known which silver minerals are present. There are no obvious cyanocides in the ore although some manganese oxides were observed in the pit. However, silica encapsulation was a significant problem and in the past required reducing the ore to a very fine size (minus 100 mesh) in order to achieve adequate recovery of the gold and silver. Direct cyanidation of run-of-mine ore by heap leaching was ineffective.

The gangue mineral is primarily fine-grained quartz. Minor amounts of calcite, hematite and manganese oxide are present. There are no visible arsenic minerals although its presence is indicated in geochemical analyses.

## 13.2 Metallurgy

No metallurgical testing was conducted in this study. The only metallurgical data available is the historical processing sequence at the Atlanta mill before the mid 1980's. Early testing showed that the Atlanta Mine material would require extensive grinding to overcome silica encapsulation problems. A three-stage crushing circuit fed ore into one primary and two secondary ball mills which reduced the ore to 90% <100 mesh. Cyanide solution was introduced in the ball mills and the slurry was fed into three agitator tanks. The overflow was pumped into the first of five dewatering thickeners. The process tailings were pumped into the tailings pond as a slurry. Recovery of precious metals from the pregnant solution was by the Merrill Crowe process.

It would be logical to assume that any new mill would use a somewhat similar process. However extensive metallurgical testing will be required before designing a new milling and recovery process.

## 14.0 MINERAL RESOURCE ESTIMATE

## 14.1 Introduction

An update of the mineral resource estimate for the Atlanta project compliant with NI 43-101 was requested by Company management. The last mineral resource estimate was done in 1998 by Kinross Gold U.S.A., Inc. (Snider, 1998) as described in the section of this report titled "History". Since then, the only new information that has been generated within the areas covered by the Kinross estimate is provided by seven confirmation holes that were drilled by the Company in 2011 to check previous drilling results. The updated estimate is described herein and was done using the same information as was used for the Kinross estimate, with the addition of the 2011 holes.

Dr. Matt Ball, P.Geo. is the qualified person responsible for the new mineral resource estimate. Dr. Ball has over ten years of experience conducting resource estimation by manual and computer methods for various types of gold deposits and porphyry copper deposits. The estimate was carried out by Mr. Eric Connolly, B.Sc. (geologist) under the supervision of Dr. Ball. Mr. Connolly has four years experience in 3D modeling and resource estimation using computer software.

## 14.2 Data

Data for the Atlanta Project was provided by the Company in digital format. Drillhole data was supplied in MS Excel spreadsheets and was cleaned, validated and formatted for importing into an MS Access database. The access database was first created using the mining software program Surpac 6.2, and then the drill hole data was imported from the spreadsheets. The database was then validated and drill hole display styles were created using Surpac 6.2.

The database includes assay, survey and geological codes. The assay data includes values for gold, silver, arsenic, mercury and antimony. Survey data includes collar coordinates and down-hole surveys. The database contains information for 297 drill holes totaling 44,296.5 metres (145,329.8 feet), with a total of 24,933 intervals with geochemical analyses. Of these, a total of 204 holes intersected the mineralized zones. The assay information for holes drilled by Kinross is supported by laboratory analytical reports in spreadsheet format. Missing assay data were assigned negative values whereas those below detection were assigned zero (0) value. Geological information was limited to numeric rock codes for the pre-2011 holes. For the 2011 holes, lithology and alteration codes, and recovery and RQD data were provided in spreadsheet format. Recovery in the 2011 (cored) holes was generally good (90 to 100%), with some poor sections with recovery as low as 38%.

Historic data for holes drilled by Golden Chief Mining have gold assay values in ounces per ton that appear to be rounded to two decimal places. This is common for many of the shallow RC drill-holes drilled by Standard Slag in the old Atlanta pit during production. Furthermore, the same value is often repeated over several intervals. There are also long runs

of interval values with the value 0.001 in the data. It is not known whether these values were below detection limit or not. Due to lack of assay certificates from these holes, the original values cannot be ascertained. Most of the drill-hole data in question is for holes drilled directly below and within 45.7 metres (150 feet) of the bottom of the old open pit. Although the accuracy of this data is questionable, the grade across broad zones appears to be corroborated by more recent drilling.

Since many of the drill holes were not surveyed down the hole, Kinross applied average dip deviations to these holes (Snider, 1998). Average deviations among holes that were downhole surveyed in the Kinross 1997 and 1998 drilling programs were calculated as 1.2 degrees per 100 ft and 1.5 degrees per 100 ft., respectively. The average for 1997 was applied to all un-surveyed holes drilled before 1998, and the 1998 average was applied to all 1998 unsurveyed holes.

The database contains analytical data for reverse circulation and diamond drill holes. The database contains 22,216 assay intervals from reverse circulation holes and 2,447 from cored holes. Since reverse circulation holes are by far the dominant sample type, the extent to which any potential systematic differences between the two sample types could influence the estimation is very limited. The vast majority of samples were collected in 1.5 metre (5 foot) lengths.

## 14.3 Geological Interpretation

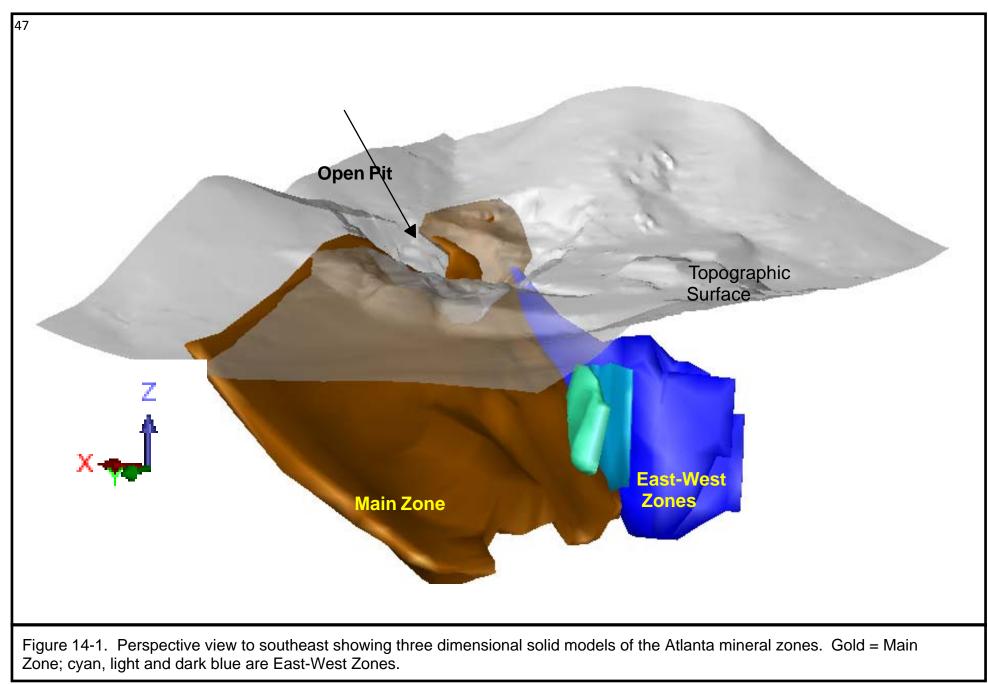
The following description of the mineralized zones at the Atlanta project is taken from the Kinross work (Snider, 1998).

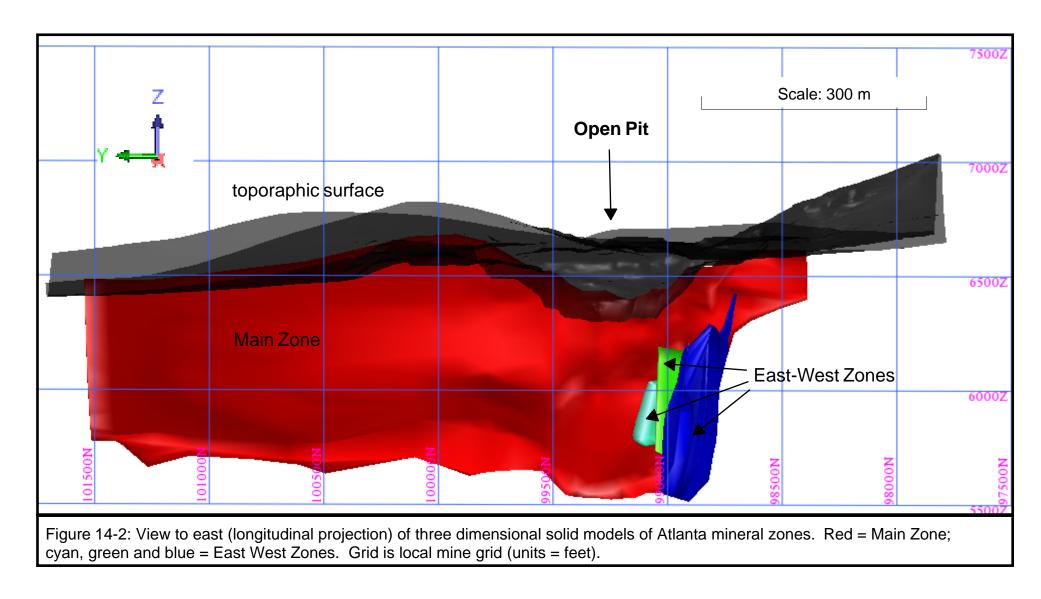
"Most gold mineralization in the vicinity of the old Atlanta pit occurs in a northerly trending, moderately dipping contact zone between overlying Tertiary volcanic rocks and Paleozoic dolomites. The contact zone (also known as the Main-Zone jasperoid) is characterized by intense silicic alteration and varies from 40 to 200 ft in true thickness. Overall intercept composite grades typically average around 0.05 opt Au in grade, with many individual intercepts exceeding 0.15 opt Au. Gold mineralization in the south end of the main-zone jasperoid abruptly terminates against a series of steeply dipping east-west trending structures at the south end of the old Atlanta pit. The southernmost structure forms a near-vertical contact zone between volcanic rocks and Paleozoic quartzite to the south. The east-west structures, which vary from 10 to 120 ft in thickness, are well mineralized with gold grades similar to that of the main N-S structure. The highest grades in the deposit occur in the vicinity of the intersection between the main N-S structure and the E-W structures. Some shallow gold mineralization also occurs along the strike of the Main-zone jasperoid up to 400 feet south of its intersection with the E-W structures. Within both the N-S and E-W structures, grade patterns indicate gold and silver mineralization occurs as a series of sheeted lenses within wider mineralized zones."

Mineralization at Atlanta has therefore been modeled in four distinct zones (figures 1 and 2). The main zone is a north striking and west dipping tabular body that dips moderately near surface but flattens slightly with depth. The main zone was partially mined near surface in the Atlanta open pit. Three narrow, east-striking and steeply dipping mineralized zones were modeled that occur near the southern end of the main zone. All of the mineralized zones are associated with silicic breccias and are interpreted to be fault-controlled.

The geometry of the mineralized zones was originally interpreted in three dimensions by Kinross in 1998, with the zones boundaries having been identified where elevated gold values were intersected (approximately 0.10 grams per tonne gold or more) and where there is the presence of silica alteration (Snider, 1998). The mineralized zone boundaries were created in digital line format on cross sections and then snapped to drillhole traces where they intersected the mineralized zones.

The previously interpreted mineralized zone boundaries were supplied in digital (string) format. These were visually checked against the drillhole data visually using Surpac to verify that they accurately enveloped the mineralized zones. For some of the 2011 holes the mineralization extends slightly beyond the zone boundaries. However, for the purpose of this update, no modifications were done to the original zone boundaries. The zone strings were then used to create valid closed three dimensional solid models using Surpac. The geological solid models were also visually checked against the drillhole data and deemed acceptable to constrain the mineralized zones.





## 14.4 Statistical Analysis

## 14.4.1 Compositing

An intercept table containing the full width intervals of the drillholes within and intersecting the 3D solid models of the mineralized zones was created in the drill hole database. The drillhole assays within these intervals were then composited using the down hole method, which were then used in statistical analysis and resource estimation. This procedure eliminates any influence from intersections in adjacent mineralized zones. No attempt was made to composite grades for holes drilled outside of the modeled zones. In order to normalize any influence of variable sample lengths, drill hole assay data within the mineralized zones were composited into 3.0 metre (ten foot) down-hole intervals. This composite length was chosen to match that used in the Kinross 1998 resource estimate.

## 14.4.2. Basic Statistics

Basic exploratory statistics were carried out on the resulting ten foot composite data. The data are highly skewed and therefore basic statistics were re-run on log10 transformed data (Table 14-1).

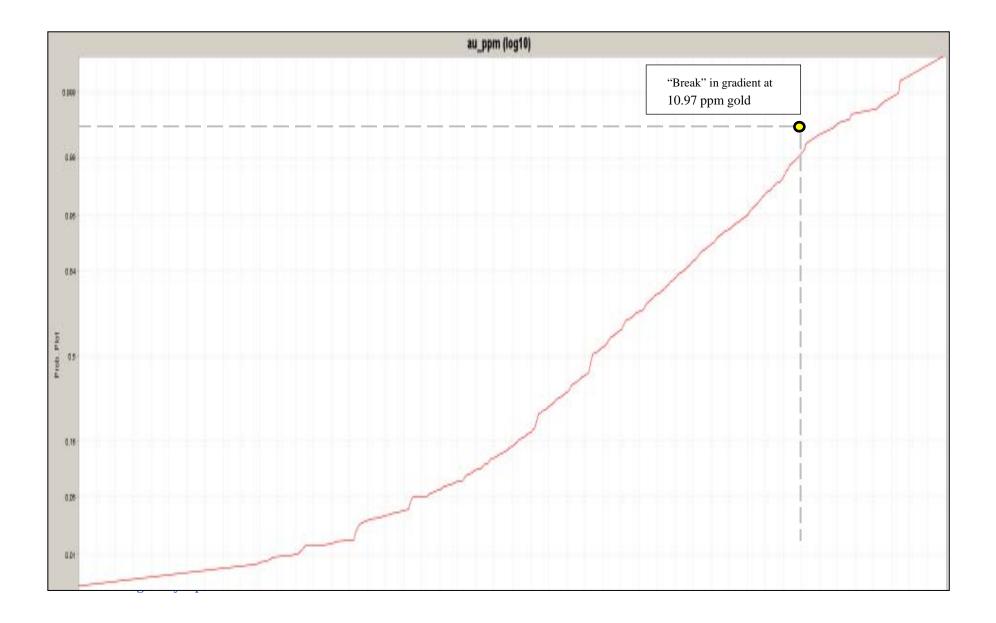
### 14.4.3. Top Cut

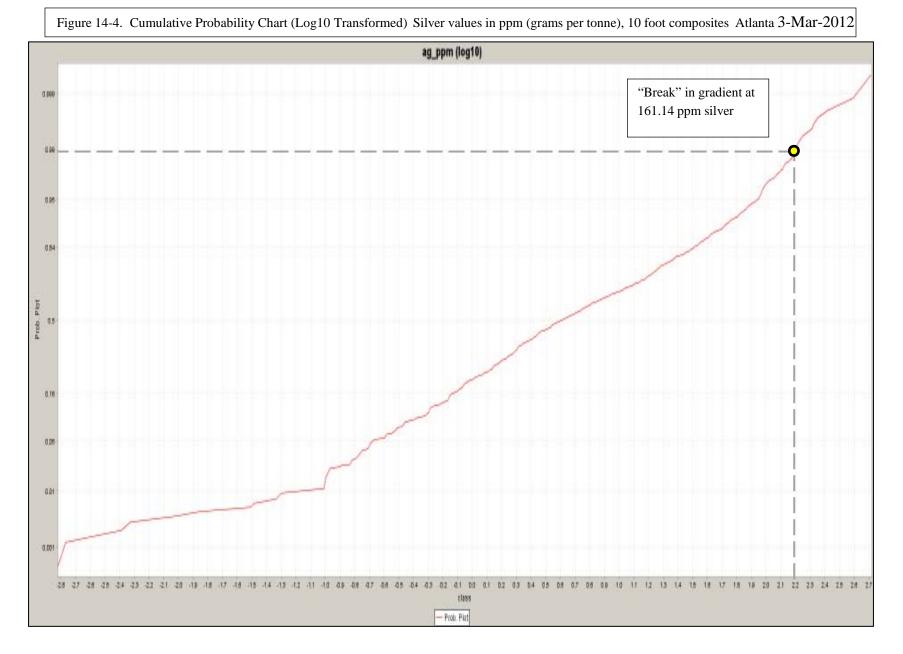
Top-cut values were determined using a log-transformed cumulative probability plot, and were selected where the curve starts to flatten out at high percentile levels for both gold and silver values (figures 14-2 and 14-3). Once the top-cut values were determined then they were applied to composite data. A top cut of 10.97 grams per tonne gold was used, affecting 13 composite data points and a top cut of 161.14 grams per tonne silver was used affecting 10 composite data points.

	RAW Au ppm	LOG10 Au ppm	
Transformation	none	log10	Back Transform
Lower cut	0.070	0.070	
Number of samples	3069.000	3069.000	
Minimum value	0.070	-1.155	0.070
Maximum value	82.217	1.915	82.217
Ungrouped Data			
Mean	1.131	-0.262	0.547
Median	0.546	-0.263	0.546
Geometric Mean	0.547	N/C	
Variance	5.635	0.251	
Standard Deviation	2.374	0.501	
Coefficient of variation	2.098	-1.911	
Moment 1 About Arithmetic Mean	0.000	0.000	
Moment 2 About Arithmetic Mean	5.635	0.251	
Moment 3 About Arithmetic Mean	214.424	0.041	
Moment 4 About Arithmetic Mean	14952.558	0.168	
Skewness	16.031	0.324	
Kurtosis	470.954	2.675	
Natural Log Mean	-0.603	N/C	
Log Variance	1.330	N/C	
10.0 Percentile	0.120	-0.921	0.120
20.0 Percentile	0.175	-0.757	0.175
30.0 Percentile	0.290	-0.538	0.290
40.0 Percentile	0.368	-0.435	0.367
50.0 Percentile (median)	0.546	-0.263	0.546
60.0 Percentile	0.686	-0.164	0.686
70.0 Percentile	0.994	-0.002	0.994
80.0 Percentile	1.440	0.158	1.440
90.0 Percentile	2.571	0.410	2.571
95.0 Percentile	4.046	0.607	4.046
97.5 Percentile	6.123	0.787	6.123
Trimean	0.620	-0.278	
Biweight	0.584	-0.277	
MAD	0.384	0.356	
Alpha	-0.007	28.358	
Sichel-t	1.063	1.063	

Table 14-1. Basic Statistics on down hole composites

Figure 14-3. Cumulative Probability Chart (Log10 Transformed) Gold values in ppm (= grams per tonne), 10 foot composites Atlanta 03-Mar-2012





## 14.5 Variography

A directional variogram was generated for the Main zone, oriented in the plane and along the dip direction (-50 degrees towards 270 degrees). This is the direction that was used in the 1998 Kinross estimate. In the current exercise, this direction resulted in an adequate variogram model, with a range of 105 feet, a nugget value of 0.25 and sill value of 0.60 (figure 14-5).

Using the variogram modeling function in Surpac, a varogram map was created for all directions within the plane of the main zone, which indicated an optimum direction of - 45 towards 237. However the resultant variogram was not significantly different or better in quality that that described above. Attempts were also made at variograms across the thickness (across strike) but the results were not acceptable.

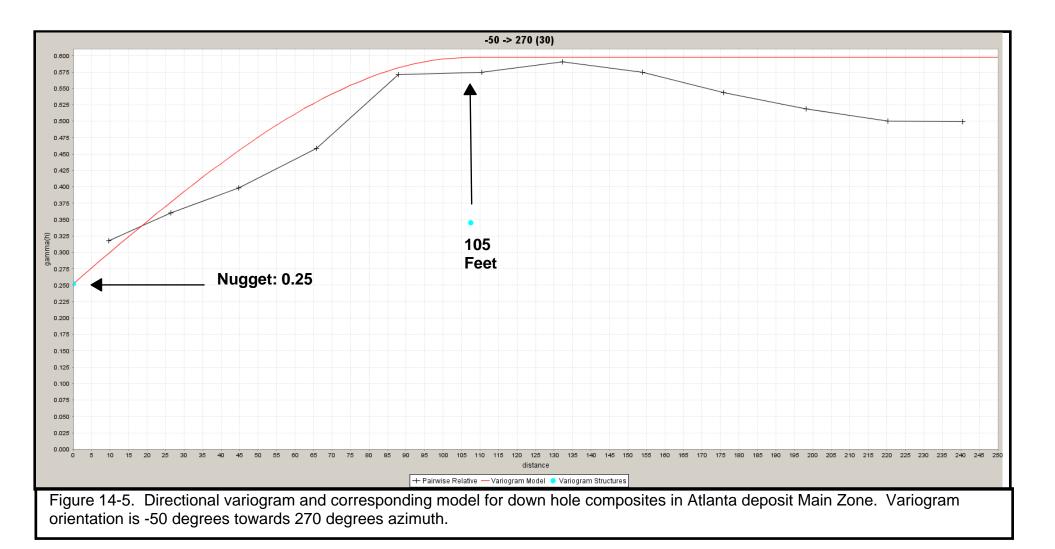
## 14.6 Block Modeling

A separate block model was created for each of the mineralized zones, along a grid oriented N-S and E-W using Surpac. The block models were set up with no rotation and a block size of 20 by 20 by 20 feet. Sub cells of dimensions  $10 \times 10 \times 10$  feet were used for the E-W zones due to their relatively narrow widths. These block dimensions match that used in the 1998 Kinross estimate.

An inverse distance to the power of four estimation algorithm was used in the 1998 Kinross estimate "to minimize the smearing of grade and to ensure grade was carried a sufficient distance from each composite" (Snider, 1998). The same parameter was used for the current estimate.

Anisotropic search ellipsoids were defined for each of the mineralized zones, with the major to semi-major axis ratio kept at 1:1 for all zones, but with major to minor ratios of 2.625 and 3.5 used for the N-S (Main Zone) and E-W zones respectively.

The estimation procedure that was selected calculated two discretization points in each X, Y, and Z direction, which were then averaged to provide the grade estimate for each block.



Basic Satistics	Main Zone - Composites	Main Zone - Block Model						
	a u_ppm	BLOCK au_ppm	LOG10 Au pp	m Au				
Transformation		ppm none	log10	Back Trans				
Lower cut	0.001	form						
Number of samples	1773.000							
Minimum value	0.001	17394.000	17394.000					
Maximum value	62.810		-3.293	0.001				
Ungrouped Date		9.990	1.000	9.990				
Ungrouped Data Mean Median	1.510	Un anoun ad Data	Un announ a d Dat					
Geometric Mean	1.513		-0.258	a 0.551				
	0.720							
Variance Standard Daviation	0.755		-0.166	0.682				
Standard Deviation	7.585							
Coefficient of variation	2.754		0.366					
	1.821	1.156	0.605					
Moment 1 About Ari thmeti c Mean		1.089	-2.340					
Moment 2 About Ari thmeti c Mean	0.000							
Moment 3 About Ari thmeti c Mean	7.585	0.000	0.000					
Moment 4 About Arithmetic Mean	212.638	1.337	0.366					
	10087.367	3.413	-0.274					
Skewnes s		16.675	0.748					
Kurtosis	10.178							
	175.313	2.209	-1.236					
Natural Log Mean		9.333	5.592					
Log Variance	-0.281							
	1.663	-0.595	N/C					
10.0 Percentile		1.939	N/C					
20.0 Percentile	0.189							
30.0 Percentile	0.343		-1.025	0.094				
40.0 Percentile	0.482		-0.660	0.219				
50.0 Percentile (median)	0.686		-0.435	0.368				
60.0 Percentile	0.720		-0.304	0.496				
70.0 Percentile	1.029		-0.166	0.682				
80.0 Percentile	1.371		-0.039	0.914				
90.0 Percentile	2.057		0.088	1.226				
95.0 Percentile	3.325		0.218	1.651				
97.5 Percentile	5.186		0.394	2.480				
	7.563			3.496				
Tri mea n	1.505	4.446	0.648	4.446				
Bi wei ght	0.000		0.070					
MAD Al	0.880 0.853		-0.181					
pha			-0.181					
Sichel-t	0.510		0.340					
	-0.001							
	1.733		3.260					
		1.454	1.454					

## Table 14-2. Basic statistics on Main Zone drill hole composites and block model.

The middle E-W mineralized zone (zone 3) is near vertical and intersected mostly by vertical drillholes. For this zone, drillhole intercepts were composited across the full width of the zone for use in the estimation. This was the same method followed in the Kinross 1998 estimate. An isotropic search ellipsoid was used for estimation in this case.

Basic statistics for the block model of the main zone were compared that for the drillhole composite data (Table 14-2). The statistical distribution is not significantly different than that of the composites. Block model cross sections showing drillhole composite gold values were also examined to check the block model grade estimates against the drillhole grades and no significant discrepancies were observed. Figure 14-6 shows an example of a cross section through the block model.

## 14.7 Specific Gravity

Specific gravity measurements were conducted on selected samples from the 2011 cores. A total of 129 specific gravity measurements were carried out for an average specific gravity of 2.46 grams per cubic centimeter. A total of 28 samples were measured for jasperoid breccias, jasperoid and silicified breccia, which are the main hosts for mineralization. The average specific gravity of these 28 measurements is 2.61 grams per cubic centimeter and this value was used for calculating the tonnages. For comparison, an arbitrary value of 13 cubic feet per ton was used in the 1998 Kinross estimate, which equates to 2.46 grams per cubic centimeters.

## 14.8 Mineral Resource Classification

The mineralization defined by drilling in the Main Zone and three smaller East-West Zones has been classified as Mineral Resources. No mineral Reserves have been classified. Insufficient work has been done to define the various technical, economic, legal, environmental, socio- economic and governmental factors required for definition of mineral reserves. Although there was previous production activity, the current study did not take into account any production records and no effort was made to reconcile resources with past production.

The Mineral Resources estimated for the Atlanta project were classified according to the "CIM Definition Standards on Mineral Resources and Mineral Reserves, 2005" as summarized below.

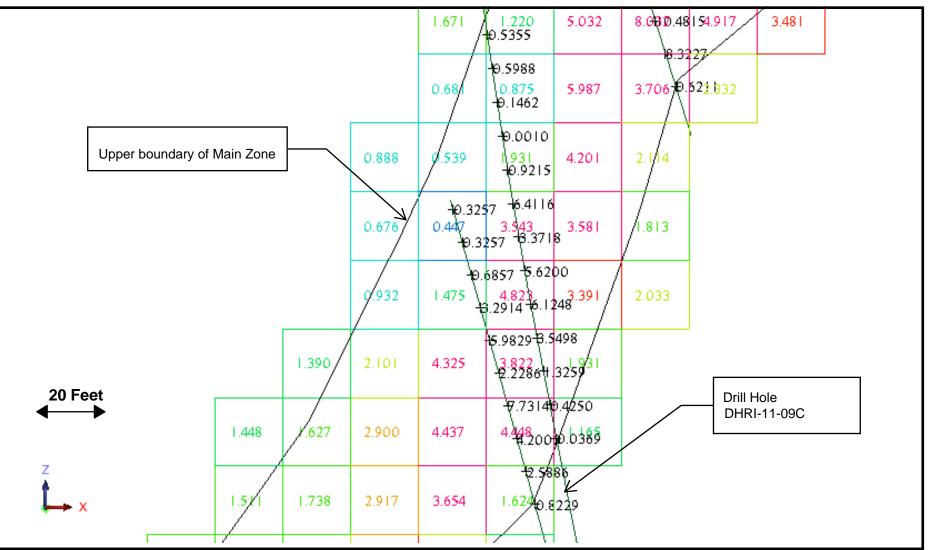


Figure 14-6. Example cross section through block model at 99080 North (mine grid) for Atlanta Main Zone. Section shows close correlation of block modeled gold grades with composite grades in drill holes. Also note similarity of composite grades in hole DHRI-11-09C with adjacent holes.

### 14.8.1. Resource Definitions

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

A <u>Mineral Resource</u> is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socioeconomic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

A <u>Measured Mineral Resource</u> is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

## 14.8.2 Atlanta Mineral Resource Classification

## Measured ResourceCategory

None of the estimated resources were classified as measured. Even though there are some densely drilled areas of the deposit that appear to be well defined, there are uncertainties in the historical drilling surveys and assay database that preclude the resources from being classified in the measured category.

### Indicated ResourceCategory

The maximum search distance used to classify Indicated Resources was 32 metres (105 feet), corresponding to the range determined by the variography. A minimum of 3 composite and a maximum of 20 composites were used within this search distance.

Most of the Indicated resource lies in an area of close-spaced drill holes which also generally coincides with the area of highest grades.

## **Inferred Resource Category**

The maximum search distance used for the Inferred Resource category was 73.2 metres (240 feet). This distance is the same as that used in the Kinross estimate and was chosen to compare to previous modeling results. A minimum of 1 sample and a maximum of 20 samples were used within the search distance.

All of the resource blocks within E-W zone 3 were categorized as inferred resources due to the coincidence of the orientation of the zone and the drill holes.

## 14.9 Atlanta Mineral Resource Estimate

The Mineral Resource Estimate for the Atlanta project is summarized in Table 14-3. An Indicated Resource of 7,259,311 tonnes at a grade of 1.61 grams per tones gold and 7.63 grams per tonne silver, and an Inferred Resource of 4,681,991 tonnes at a grade of 1.10 grams per tonne gold and 17.24 grams per tonne silver is estimated at a cut-off grade of 0.50 grams per tonne gold. Mineral Resources were estimated at a 0.50 gram per tonne gold cut-off to reflect a typical cut-off currently being used in resource estimation for a gold open pit milling operation in North America. This cut-off was not verified by metallurgical test work or other engineering work. The author is not aware of any legal, political, environmental, or other risks that could materially affect the potential development of these mineral resources.

This new estimate differs slightly from the previous 1998 Kinross estimate. At the previously used cut-off gold value of 0.69 grams gold per tonne (0.02 ounce per ton gold) the new estimate is 1.5% greater in tonnes and 1.3% lower in gold grade for the Main zone, but 23.0% greater in tonnes and 5.5% lower in grade for the E-W zones. The larger difference for the E-W zones is attributed to changes in the model that included new information provided by drill hole DHRI-11-06C, which intersected in one of the E-W zones.

The Main Zone resource is contained within a strike length of 963.2 metres between mine coordinates 98,330N and 101,490N (imperial units), and between the elevations of 1729.7 and 2100.1 metres (5,675 to 6,890 feet) as shown in figure 14-7.

Drill holes are close spaced in the area beneath the old open pit but widely spaced elsewhere, especially in the northern portion of the Main Zone (figure 14-8). Some portions of the main jasperoid zone have not been drilled adequately to define resources. In addition, two areas with possibilities for extensions of material with elevated grade can be seen in the middle and extreme northwest areas of the Main Zone (figures 14-7 and 14-8).

The E-W Zone resources are contained within a strike length of 373.4 metres between mine coordinates 100,910E and 102,135E, and between the elevations of 1719.1 and 2016.3 metres (5,640 to 6,615 feet) as shown in figure 14-9.

It is also noted that the silver to gold ratio is higher in the Main Zone than in the E-W zones, and is highest at the lowest gold cut-off grades. The ratio ranges from 11.3 to 8.8 (silver/gold) in the Main Zone at cut-offs between 0 and 3.5 g/t gold, whereas for the E-W zones the ratio ranges from 3.7 to 0.9.

	Indicated Reso	urce: 0 to 32r	n (105 :	ft) searc	ch			Inferred Resou	urce: 32 to 73.2	2m (10	5-240 fe	et) search		
Cut-off Grade Gold g/t	Tons	Tonnes	Gold g/t	Silver g/t	Gold Ounces	Silver Ounces	Eq. Gold Ounces	Tons	Tonnes	Gold g/t	Silver g/t	Gold Ounces	Silver Ounces	Eq. Gold Ounces
Main Zone														
0.00	10,715,526	9,720,964	1.06	7.05	331,928	2,204,100	373,515	9,539,285	8,653,896	0.60	11.94	167,285	3,322,240	229,969
0.25	8,343,088	7,568,724	1.33	8.13	324,316	1,977,760	361,633	6,151,153	5,580,234	0.85	14.77	153,154	2,650,458	203,162
0.50	6,391,218	5,798,017	1.62	8.42	302,797	1,569,689	332,414	4,330,227	3,928,317	1.06	19.04	133,662	2,404,717	179,034
0.75	5,011,490	4,546,349	1.90	9.39	277,807	1,372,100	303,695	2,720,256	2,467,775	1.32	23.04	104,596	1,828,126	139,088
1.00	3,974,406	3,605,522	2.17	9.96	251,551	1,154,464	273,333	1,677,818	1,522,091	1.60	29.71	78,478	1,453,665	105,906
1.25	3,139,781	2,848,362	2.45	8.61	224,165	788,731	239,047	1,099,970	997,876	1.85	37.66	59,501	1,208,103	82,295
1.50	2,497,410	2,265,613	2.73	6.68	198,534	486,860	207,720	708,293	642,553	2.12	47.66	43,861	984,640	62,439
1.75	1,966,639	1,784,105	3.03	3.96	173,533	227,153	177,819	411,322	373,145	2.50	65.43	30,011	785,015	44,823
2.00	1,527,352	1,385,591	3.36	8.61	149,599	383,698	156,839	271,210	246,038	2.83	80.74	22,406	638,658	34,456
2.25	1,247,545	1,131,754	3.64	13.71	132,338	498,896	141,752	216,178	196,113	3.01	88.92	19,007	560,680	29,585
2.50	1,058,766	960,497	3.86	19.22	119,289	593,597	130,489	175,606	159,307	3.16	95.29	16,198	488,084	25,408
2.75	913,674	828,871	4.06	26.19	108,197	698,038	121,368	111,282	100,953	3.48	107.54	11,285	349,036	17,870
3.00	773,480	701,689	4.27	35.08	96,421	791,377	111,353	75,062	68,095	3.78	117.50	8,267	257,252	13,121
3.25	644,319	584,517	4.50	47.44	84,660	891,499	101,481	60,377	54,773	3.93	121.85	6,927	214,571	10,975
3.50	533,385	483,879	4.74	98.55	73,756	1,533,181	102,684	44,598	40,459	4.13	125.18	5,377	162,835	8,450
East-West Zor	nes													
0.00	2,211,954	2,006,651	1.22	4.39	78,751	283,015	84,091	930,731	844,345	1.23	7.78	33,450	211,096	37,433
0.25	2,033,413	1,844,682	1.31	4.38	77,830	259,967	82,735	897,510	814,208	1.27	7.85	33,250	205,411	37,125
0.50	1,610,800	1,461,294	1.56	4.52	73,072	212,154	77,075	830,783	753,674	1.34	7.84	32,479	190,083	36,066
0.75	1,126,733	1,022,155	1.96	5.09	64,332	167,285	67,489	656,754	595,797	1.53	8.31	29,236	159,176	32,239
1.00	764,526	693,567	2.48	5.60	55,194	124,900	57,551	447,765	406,206	1.84	7.60	24,001	99,305	25,875
1.25	590,451	535,648	2.88	6.06	49,543	104,353	51,512	287,298	260,632	2.24	4.59	18,734	38,436	19,460
1.50	483,920	439,005	3.21	5.89	45,277	83,196	46,847	222,304	201,671	2.50	3.19	16,181	20,687	16,571
1.75	417,696	378,928	3.46	5.43	42,160	66,191	43,409	201,252	182,573	2.59	2.87	15,183	16,834	15,500
2.00	354,864	321,927	3.74	4.84	38,724	50,077	39,668	178,795	162,200	2.68	2.48	13,950	12,953	14,195
2.25	313,831	284,703	3.95	4.57	36,198	41,852	36,988	156,117	141,627	2.75	2.08	12,536	9,474	12,714
2.50	280,826	254,761	4.14	4.29	33,912	35,166	34,576	122,134	110,798	2.86	2.05	10,189	7,287	10,327
2.75	241,990	219,530	4.38	4.04	30,936	28,487	31,474	64,513	58,525	3.06		5,759	3,813	5,831
3.00	215,351	195,363	4.57	4.19	28,720	26,327	29,216	29,731	26,972	3.30	1.91	2,864	1,660	2,895
3.25	188,573	171,071	4.78	4.37	26,274	24,044	26,728	12,860	11,666	3.55	2.20	1,333	825	1,348
	158,530	143,816	5.04	4.62	23,318	,	21 - F	,	5,517	3.77	2.37	668	-	, -

Table 14-3. Mineral Resource Estimate for Atlanta Property (Effective Date: July 16, 2012).

Note: Ounces = troy ounces; Eq. Gold = gold equivalent ounces calculated using silver to gold ratio of 53:1

## Table 14-3 (cont'd). Mineral Resource Estimate for Atlanta Property (Effective Date: July 16, 2012).

	Indicated Resource: 0 to 32m (105 ft) search								Inferred Resource: 32 to 73.2m (105-240 feet) search						
Cut-off Grade Gold g/t	Tons	Tonnes	Gold g/t	Silver g/t	Gold Ounces	Silver Ounces	Eq. Gold Ounces	Tons	Tonnes	Gold g/t	Silver g/t	Gold Ounces	Silver Ounces	Eq. Gold Ounces	
0.00	12,927,480	11,727,616	1.09	6.60	410,679	2,487,115	457,606	10,470,016	9,498,241	0.66	11.57	200,735	3,533,336	267,402	
0.25	10,376,501	9,413,406	1.33	7.39	402,146	2,237,727	444,367	7,048,663	6,394,441	0.91	13.89	186,403	2,855,869	240,288	
0.50	8,002,018	7,259,311	1.61	7.63	375,869	1,781,842	409,488	5,161,010	4,681,991	1.10	17.24	166,141	2,594,799	215,100	
0.75	6,138,223	5,568,504	1.91	8.60	342,139	1,539,385	371,184	3,377,010	3,063,573	1.36	20.18	133,831	1,987,302	171,328	
1.00	4,738,932	4,299,088	2.22	9.26	306,745	1,279,364	330,884	2,125,583	1,928,297	1.65	25.05	102,479	1,552,969	131,781	
1.25	3,730,232	3,384,011	2.52	8.21	273,708	893,084	290,559	1,387,268	1,258,509	1.93	30.81	78,235	1,246,539	101,755	
1.50	2,981,330	2,704,618	2.80	6.56	243,812	570,056	254,567	930,597	844,224	2.21	37.04	60,042	1,005,327	79,010	
1.75	2,384,335	2,163,033	3.10	4.22	215,692	293,345	221,227	612,574	555,718	2.53	44.88	45,194	801,849	60,323	
2.00	1,882,216	1,707,518	3.43	7.90	188,323	433,776	196,507	450,005	408,238	2.77	49.65	36,356	651,611	48,651	
2.25	1,561,376	1,416,457	3.70	11.87	168,537	540,748	178,739	372,295	337,740	2.90	52.51	31,542	570,155	42,300	
2.50	1,339,592	1,215,258	3.92	16.09	153,201	628,762	165,065	297,740	270,105	3.04	57.04	26,388	495,371	35,734	
2.75	1,155,664	1,048,401	4.13	21.55	139,134	726,525	152,842	175,795	159,479	3.32	68.82	17,044	352,849	23,702	
3.00	988,831	897,053	4.34	28.35	125,141	817,705	140,569	104,793	95,067	3.64	84.71	11,131	258,912	16,016	
3.25	832,892	755,587	4.57	37.69	110,934	915,543	128,209	73,237	66,440	3.87	100.84	8,259	215,396	12,323	
3.50	691,915	627,695	4.81	77.03	97,074	1,554,552	126,405	50,679	45,975	4.09	110.45	6,045	163,255	9,125	

## Combined Total Resource - All Zones

Note: Ounces = troy ounces; Eq. Gold = gold equivalent ounces calculated using silver to gold ratio of 53:1

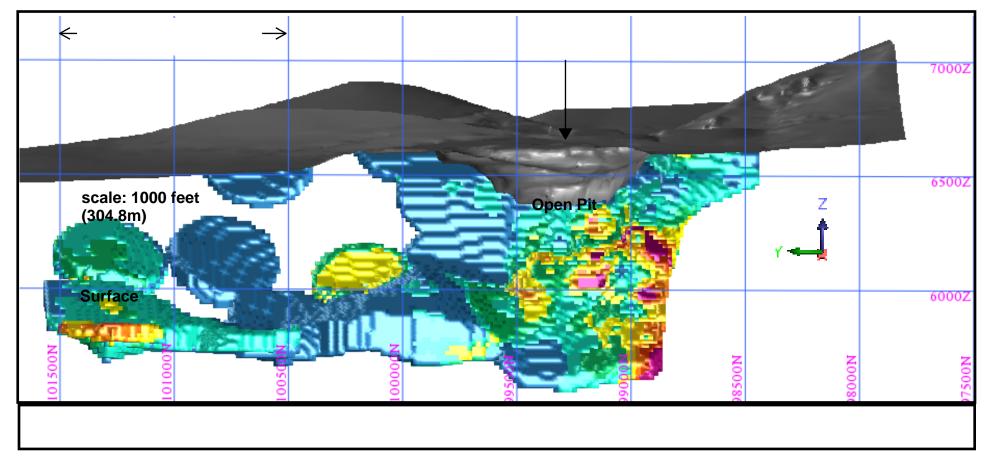


Figure 14-7. View looking east at Atlanta Main Zone resource block model for gold. Blue = low grade; purple = high grade.

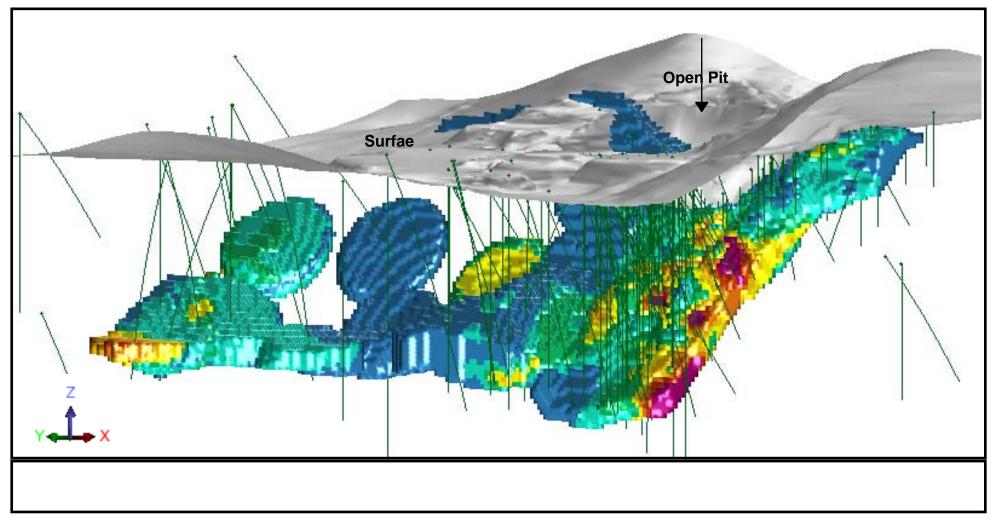
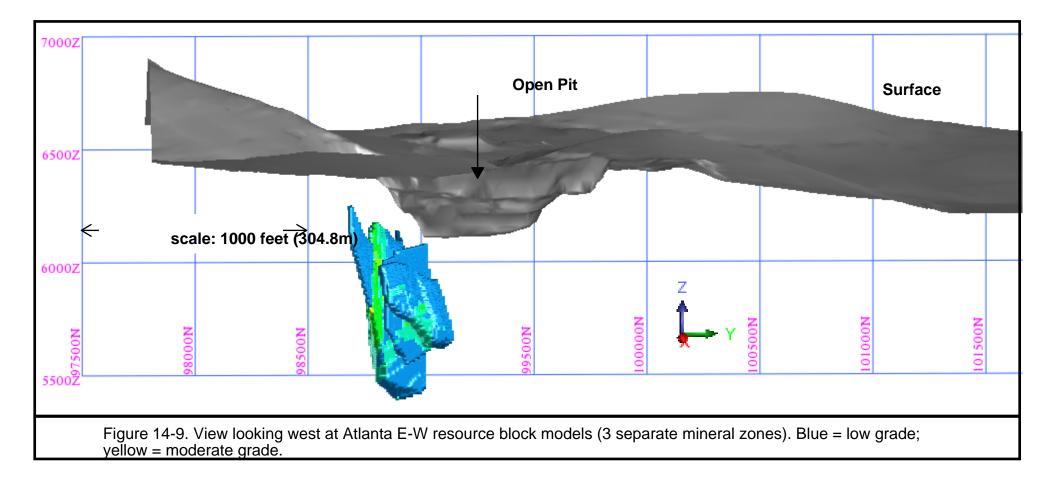


Figure 14-8. Perspective view looking northeast at Atlanta Main Zone resource block model showing drill hole traces (green lines). Area beneath open pit is more densely drilled.



## 15.0 MINERAL RESERVE ESTIMATE

No reserves were calculated in this study, nor are any historic reserves available.

## **16.0 MINING METHODS**

During the period of mining in the past, primarily from 1975 to 1985, the siliceous gold-silver ore was mined from an open pit. Limited testing indicated that heap leaching was impractical due to silica encapsulation.

The Atlanta Project is currently in an advanced exploration to resource development stage. If a mining decision is made, mining will most likely be by open pit. However it is too early to have done any mine planning.

## **17.0 RECOVERY METHODS**

Historically, gold and silver ores were treated by fine grinding and agitated leach processes, followed by a Merrill-Crowe recovery process. This is logically the most likely process to be used by Meadow Bay in the future, but no new metallurgical studies have yet been carried out to confirm this.

## **18.0 PROJECT INFRASTRUCTURE**

It is too early in the life of the project to have done any planning for new mining infrastructure. Three-phase power is still available from the former milling activities 26 years ago. The well and water supply pipeline produced 350 gallons per minute during prior operation of the mill. Some refurbishment will be necessary, but the water supply system is in place. Current road access is by county-maintained gravel roads; no significant improvement will be necessary. There is sufficient suitable space available for waste dumps, tailings ponds and other surface facilities. While no detailed planning has been done to date, no significant infrastructure problems are anticipated.

## **19. MARKET STUDIES AND CONTRACTS**

The gold and silver markets are currently very strong. At the current level of maturity of the project, no market studies have been made, nor contracts pursued.

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

In March 2007 Entrix Inc. conducted a Baseline Environmental Survey of the Atlanta Project. They found several items requiring remediation including petroleum-impacted soil, decommissioned transformers requiring disposal and a small unregulated landfill with a volume of approximately 100 cubic meters. Although the tailings disposal area is not in compliance with current standards, no remediation is required as long it remains undisturbed.

Entrix Inc. provided a Rough Order of Magnitude (ROM) for the estimated cost of remediation at \$501,000. There is no immediate requirement to carry out this remediation.

This was reviewed Tim Master as part of his due diligence efforts in 2010. There are no other environmental concerns at this time. Of course, as the permitting process leading to production begins, additional environmental studies will be required. Additional baseline studies and an Environmental Assessment are planned for 2012.

At this early stage, there are no plans or designs for waste and tailings disposal, site monitoring or water management during operations.

With the exception of the 13 patented claims (private land) acquired from Bobcat Properties, the Atlanta Project area is on US government land, administered by the US Bureau of Land Management (BLM). The unpatented claims, older and new, are all properly filed with the BLM and annual maintenance fees are paid. The current 2011 exploration program is being operated under a Notice of Intent to Operate (NOI) permit, which allows surface disturbance (access roads, drillsites, etc) up to a maximum of 5 acres, and is guaranteed by a reclamation bond whose amount is calculated by the BLM. This will be adequate for the 2011 program. Additional work in excess of the 5 acre limit will require either reclamation of earlier disturbance or the filing for the next level of disturbance called a Plan of Operations (POO). permit will require more detailed planning, environmental This POO and archaeological/cultural reviews of proposed areas of surface disturbance and additional reclamation bonding. The bond amount will be related to the amount of proposed disturbance. The granting of such permits is normally a foregone conclusion if all the required procedures are followed and the fees paid. It is possible, but unlikely, that some unforseen environmental problem, endangered species or important archaeological feature will be discovered. This could potentially delay the exploration program. Such obstacles can nearly always be overcome through cooperation with the regulatory agency, for example by detouring a proposed road to avoid an archeological site.

Kautz Environmental Consultants was retained to carry out a cultural and archaeological study of the area of Meadow Bay's planned drilling as part of the permitting process with the Bureau of Land Management. This area is located immediately north and west of the Atlanta Mine and covers an area of 188 acres. Their report (Memmot, et.al., 2011) documents and evaluates for the National register of Historic Places all cultural resources within the project area, thereby assisting the BLM in evaluating these resources and assessing the project's potential affect to them. Ten sites related to the historic time period between 1860 and 1960 were documented in the study. Nine of these were not sufficiently significant to require further management consideration. One site, a blacksmithing site, was found to be sufficiently significant that it should be avoided by at least 30 meters during any ground-disturbing activities. Meadow Bay intends to comply with these recommendations.

The Atlanta Project is 50 miles away from Pioche, the nearest town. The only people within 25 miles are on a few widely scattered ranches, the nearest of which is 10 miles away, thus there will be little physical impact on the local community. The economic impact may be significant. An open pit mine will employ dozens of people, some of whom will come from

Pioche. A mine also generates a significant amount of cash influx to the community from payroll and local purchases. Pioche is historically a ranching and mining town, so the concept of an operating gold mine 60 miles away is a positive thing to most of the people in the community. Meadow Bay personnel while in Pioche are often asked hopefully "are you going to be re-opening the mine soon?" There have been no agreements or negotiations with the local community at this time. It is important to maintain a positive relationship.

Mine closure and remediation is a complex issue that has not been considered in any detail by Meadow Bay at this early stage of the project. Planning for these is an integral part of the mine design and permitting process. It will be addressed as planning and permitting proceed. There are no inordinately restrictive mine closure regulations in place.

## 21.0 CAPITAL AND OPERATING COSTS

Capital and operating costs have not been considered, as the Atlanta Project is still in the exploration stage.

## 22.0 ECONOMIC ANALYSIS

There has been no economic analysis at this early stage of the Atlanta Project.

## **23.0 ADJACENT PROPERTIES**

There are no operating mines or near-production properties within 40 miles (64 km) of the Atlanta Project. There are active exploration properties near Pioche.

## 24.0 OTHER RELEVANT DATA AND INFORMATION

Between 1975 and 2001, drilling and related expenses on the property total approximately \$4,230,000. Between 2007 and 2010, Bobcat Properties, Inc. had expended a minimum of \$176,856, as tabulated below. In addition, Desert Hawk Resources, Inc. expended \$300,000 in 2010 on the Atlanta project.

## Table 24.0 Expenditures – March 2011 to December 2011

TOTALC

Independent Contractor Pay		TOTALS
Geologists	465,527.00	
Support Staff	114,970.00	-
Total Contractor Pay: Outside Consultants		580,497.00
Knight & Leavitt Assoc.	2,966.00	
Kautz Environmental	20,555.00	

Gustavson Associates	29,047.00	
Sunrise Eng.	7,500.00	
Gochnour Assoc.	4,367.00	
Quantec Geophysical	54,276.00	
Total Outside Consultants: Project Administration		118,711.00
Insurance	32,730.00	
Travel Expenses	22,347.45	
Office expenses	4,416.71	
Total Administration Costs: Exploration		59,494.00
Assays	195,817.00	
Drilling	3,119,157.00	
Supplies (incl reclamation)	10,139.00	
Equipment rentals	47,617.00	
Total Exploration Costs: Land		3,372,730.00
Claim Staking	25,625.00	
BLM filing & maintenance fees	189,902.00	
County fees	37,150.00	
Permits	200.00	
Total Land/Claims Expense:		252,877.00

#### **Camp Operation Expenses:**

** GRAND TOTAL **		4,465,249.00
Total Camp Expenses:		80,940.00
Food & Sundries:	40,786.00	_
All Utilities:	40,154.00	

The authors are unaware of additional information concerning the Atlanta Project that is pertinent to this technical report.

## 25.0 INTERPRETATIONS AND CONCLUSIONS

Dana Durgin has reviewed the Atlanta project data in detail, and has visited the site twice. He believes that the data presented by Meadow Bay Gold Corporation provide an accurate and reasonable representation of the Atlanta gold project.

From his review of the available data, it is apparent to Mr. Durgin that the mineralization is distributed in the same manner and has similar grades to those that have been presented by prior workers. There is a substantial resource present in the Atlanta mine area as shown by the drilling, sampling and mapping done by prior operators of the property. The ongoing drilling program was designed to confirm the geologic and assay data upon which that resource was based, as well as to expand it. Historic resource estimates are not NI 43-101 compliant. Comparing metal prices and general mining cost data from the time of the 1998 resource estimated by Kinross with current data, it would appear that there is an excellent probability that a larger resource may be present on the Atlanta property at current metal prices.

The mineralization exploited by the earlier open pit clearly extends beyond the pit limits both along strike and down dip as indicated by drilling in the 1990's. In addition the strongly mineralized east-west structure, poorly known during the period of mining, extends some distance into the footwall of the main structure (eastward) and several hundred feet into the hanging wall. Also there were several intercepts well below the existing pit to the west and north which had gold grades which could potentially be mined. All of these extensions of the mineralization near the early pit offer potential for resource expansion.

The 2011 validation drilling intersected the Main and East-West zones as planned and results were generally comparable with those in the previous holes. However, small differences in the location of the mineralized zone boundaries were noted. Hence, any future mineral resource estimation should revise the geological interpretation of the mineralized zone boundaries to accommodate these small differences, and also to reflect a lower cut-off gold grade that would correspond to the current high metal prices. The seven holes dedicated to twinning previous drilling showed a high degree of agreement regarding geology and a reasonable degree of concordance in assay values. Sixteen holes were drilled as infill and close step-out. Most of these were tracing mineralization to the north of the Atlanta pit. The width and intensity of mineralization appears to decrease to the north, but additional drilling is needed. Thirteen

holes encountered the mineralized Atlanta porphyry. The Atlanta fault clearly truncates the porphyry.

Geologic mapping, geophysics and soil surveys in outlying areas, particularly the Western Knolls area, have aided in defining exploration targets. When the analysis of the data is complete, targets for drilling should be available.

While drill hole assay data, soil sample assay data and geophysical interpretations are incomplete, it appears that the mineralization exposed at the Atlanta mine persists several thousand feet to the north and remains opening that direction. Mineralization in the Atlanta porphyry appears to extend into a larger area than previously indicated and is truncated by the mineralized Atlanta fault jasperoid. The results of the current exploration program, as currently available, strongly suggest that the mineralization extends beyond the previously know area down-dip, along strike and in the mineralized porphyry body.

## 26.0 RECOMMENDATIONS

Continuing to integrate all the available data from past workers and the current program into a computerized three dimensional geologic model will aid greatly in interpreting the data and guiding future work. This will serve to guide the next phases of exploration and development work at the Atlanta project.

Interpretation of the existing geophysical work done by Goldfields and the new Quantec surveys should be done carefully. Perhaps the old data can be re-processed if the digital data is available. Comparison with recently mapped geology and new geologic data from drilling will aid in the interpretation.

Metallurgical testing will be very important for determining the most effective method of processing material from the Atlanta deposit (probably agitated leaching as before). An expert has evaluated the existing mill and determined that little of it, other than the building itself and the ball mills, is worthy of restoration. A modern mill design will be required to prepare for production.

A concerted effort should be made to upgrade the drill hole and assay database to include scanned copies of all available assay receipts and survey records. Also, further validation of gold and silver results should be done by re-analysis of a significant portion (say 10%) of the available rejects for samples located within the resource zones, and this should be done using proper QA/QC procedures. Previous open pit and underground assay data should also be compiled and, where possible, check sampling should be done across the mineralized zone where it is exposed in the open pit.

Although the East-West zones comprise only about 20% of the estimated mineral resource, they are poorly defined by holes that were drilled down the narrow steeply-dipping zones. Further drilling should be done to better define these zones involving holes oriented at high angles to the strike and dip of the zones.

It will also be necessary to move forward with environmental issues (already partially addressed) as well as metallurgical testing and preliminary engineering studies to move the Atlanta resource toward the reserve category.

It will be important to pay careful attention to the permitting process. Whether we like it or not the permitting hurdles must guide the exploration and mine development process if it is to proceed as rapidly as possible. An Environmental Assessment program will be necessary, associated with the preparation of a Plan of Operations (POE) for the US Bureau of Land Management. Preparation of this POE is in progress.

## 26.1 Atlanta Project Budget – September 2011 to April 2012

The planned program and budget for 2012 is as follows:

## Table 26.1Atlanta Project Budget 2012

Create 3D database in MapInfo, including software	\$125,000
Geophysics (IP and resistivity surveys)	75,000
District-wide exploration	75,000
Metallurgical review and ore testing	150,000
Drilling –	
RC drilling for resource upgrade - 40,000 ft @ \$35/ft	1,400,000
Core drilling for exploration - 7,000 ft @ \$90/ft	630,000
Create a new NI 43-101 compliant resource estimate	100,000
Permitting (including reclamation bonding)	500,000
Scoping study	125,000
General & Administrative	200,000
Total	\$3,380,000

Required permits to begin this work include an Occupancy Permit and a Plan of Operation to be filed with the US Bureau of Land Management. An application for this permit has not yet been submitted. A reclamation bond covering the disturbed area currently being used by Meadow Bay Gold as well as the historic mill will be required. The dollar amount of this bond is currently being determined.

## 27.0 REFERENCES

Bennetts, J.P., 1985, Legend Equipment Report: Legend Metallurgical Laboratory report to Bobcat Properties, 8 p.

Crotty, R., 2007, Baseline Environmental Survey Assessment, Atlanta Mine: Entrix Inc., 187p.

LaBerge, R.D., 1994, Epithermal gold mineralization related to caldera volcanism, Atlanta District, east-central Nevada: Masters Thesis, Oregon State University, 65 p.

Master, T., 2010, Due Diligence Summary on the Investigation of the Atlanta Project, Lincoln County, Nevada, 33 p.

Memot, M., Andrus, J., Marko, A., 2011, Class III Inventory of 188 acres at the Atlanta Mine, Lincoln County, Nevada, by Kautz Environmental Consultants, Report No. 8111-NV-04-11-1952(P), prepared for Bureau for US Land Management.

Miscellaneous unpublished reports, maps and data from Bobcat Properties Inc.

Miscellaneous unpublished reports, maps and data from Kinross Corp.

Olmore, S. D., 2005, Atlanta Gold Mine, Lincoln County, Nevada – Mineralization and Exploration Potential (PowerPoint Presentation), 40 p.

Prochnau, J., 1992, Summary Report: Ore Reserves and Exploration Potential, Atlanta Gold Mines Property (Bobcat Properties Inc.), Lincoln County, Nevada, U.S.A., 37 p.

Prochnau, J., 1992, Memorandum to Rutherford Day: Atlanta Mine Potential Underground Reserves, 10 p.

Prochnau, J., 1996, Summary Report: Ore Reserves and Exploration Potential, Atlanta Gold Mines Property, prepared for Golden Chief Resources, 47 p.

Snider, L., 1998, Wilson Creek Resource Evaluation. Kinross Gold USA Inc., Unpublished Internal Memorandum, 12/22/98, 10 pages.

Thomas, Dennis, 1999, Wilson Creek Project - Interim Report. Kinross Gold USA Inc., Unpublished Internal Memorandum, 23 pages..

Tschanz, C.M., and Pampeyan, E.M., 1970, Geology and Mineral Deposits of Lincoln County, Nevada: Nevada Bureau of Mines and Geology Bulletin 73, 188 p.

## 28.0 CERTIFICATES OF AUTHORS

#### A. I, Dana C. Durgin, do hereby certify that:

- 1. I am Principal Geologist of: Delve Consultants, 2881 Fargo Way, Sparks, Nevada, USA 89434
- 2. I graduated with a degree in Geology from Dartmouth College in 1970. In addition, I obtained a Masters Degree in Geology from the University of Washington in 1972.
- 3. I am a member of the American Institute of Professional Geologists (CPG #10364), a Registered Professional Geologist in Wyoming (PG-2886), and a member of the Geological Society of Nevada.
- 4. I have worked as a geologist for a total of 38 years since my graduation from university. My career has focused on the exploration and exploitation of gold deposits. I have worked extensively in Nevada including assignments as both an exploration and mine geologist in eastern Nevada. I have completed several NI 43-101 Technical Reports for projects in Mexico and the USA.
- 5. I have read the definition of "qualified person" in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I authored this Technical Report, and as a "Qualified Person" reviewed the ongoing exploration program of Meadow Bay Gold Corporation managed by Dr. Douglas Oliver. I am responsible for the preparation of the technical report titled "Technical Report July 2012 Resource Update, Geology and Mineral Resources, Atlanta Project, Lincoln, Nevada, USA" dated July 16, 2012 for Meadow Bay Gold Corporation, based upon my critical review of current and historical technical information with the exception that Section 14.0 was prepared by Dr. Matt Ball.
- 7. I visited the Atlanta mine site January 17 & 18, and August 30 & 31, 2011. I have had no prior involvement with the property that is the subject of this report.
- 9. As of the date of this certificate, 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.
- 10. I am independent of the issuer and have no financial or material interests in the property or with Meadow Bay Gold Corporation.
- 11. I have read National Instrument 43-101 and Form 43-101F1, updated June 30, 2011, and the Technical Report has been prepared in compliance with that instrument and form.
- 12. I consent to the use and public filing of this Technical Report prepared for Meadow Bay Gold Corporation, and to the filing of extracts from or a summary of the Technical Report in the written disclosure of Meadow Bay Gold Corporation as required, and confirm that it fairly represents the data of the Atlanta project.

Dated this 16th day of July 2012.

"Dana C. Durgin"

I, Mathew Ball, of 122-19673 Meadow Gardens Way, Pitt Meadows, British Columbia, hereby certify:

- 1) I am presently self employed as a consultant geoscientist.
- 2) I am a graduate of Queen's University (1998) and hold a Ph.D. degree in economic geology. I have been employed in my profession by various mining companies since first graduating with a B.Sc. in geology from the University of British Columbia in 1980.
- 3) I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, and have been a member since 1980.
- 4) I have read the definitions of "Qualified Person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101. The author's past relevant work experience includes 30 years of work as a geologist on underground and open pit gold and gold-copper mines and exploration properties during which I personally conducted Mineral Resource and Mineral Reserve calculations at producing gold mines and exploration properties for over 5 years.
- 5) I am responsible for section 14 of the report titled "Technical Report Julyl 2012 Resource Update, Geology and Mineral Resources, Atlanta Project, Lincoln County, Nevada, USA", dated 16 July, 2012 (the "Technical Report"). I have not visited the Atlanta property.
- 6) I have had no prior involvement with the property discussed in this Technical Report.
- 7) As of the date of the certificate, to the best of my knowledge, information and belief, the portion of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 8) I am entirely independent, as defined in section 1.5 of National Instrument 43-101, of Meadow Bay Gold Corporation and any associated companies. I do not have any agreement, arrangement or understanding with Meadow Bay Gold Corporation and any affiliated company to be or become an insider, associate or employee. I do not own securities in Meadow Bay Gold Corporation or any affiliated companies and my professional relationship is at arm's length as an independent consultant, and I have no expectation that the relationship will change. I am also entirely independent, as defined in section 1.5 of National Instrument 43-101, of the Atlanta property.
- 9) I have read NI 43-101 and NI 43-101F1 and the section of the Technical Report that I am responsible for has been prepared in compliance with that instrument and form.
- 10) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public.

DATED at Pitt Meadows, Canada this 16th day of July, 2012.

"M. Ball"

Dr. Matt Ball, P.Geo.

APPENDIX I	ATLANTA PROJECT CLAIM DATA LISTS
------------	----------------------------------

Atlanta Bobcat Group Patented Mining Claims							
Mineral							
Name of Claim	Survey No.	T/R/Sec No.					
Atlanta Home	3915	T7N/R68E/S14, 15					
Atlanta Strip #1	3915	T7N/R68E/S14					
Atlanta Strip	3915	T7N/R68E/S15					
Atlanta #1	3915	T7N/R68E/S14					
Atlanta #2	3915	T7N/R68E/S14					
Atlanta #3	3915	T7N/R68E/S14, 15					
Belle	3915	T7N/R68E/S14					
Hillside	3915	T7N/R68E/S14, 15					
Mid #2	3915	T7N/R68E/S14, 15					
Minnett and Hayes #1 Lode	3920	T7N/R68E/S14, 23					
Pactolian Fraction	3915	T7N/R68E/S14					
Sparrow Hawk	3915	T7N/R68E/S14					
Conway and Bradshaw	37 (1367)	T7N/R68E/S23					

# Atlanta Bobcat Group Unpatented Claims

Name of Claim	County Book & Page Number	T/R/Sec No.	BLM Serial No.
ATL - 122	34 / 376	T7N/R68E/S15	139872
ATL - 124	34 / 378	T7N/R68E/S15	139874
ATL - 126	34 / 380	T7N/R68E/S15	139876
ATL - 156	34 / 354	T7N/R68E/S15	139904
Atlanta Star #1	R1 / 351	T7N/R68E/S15	16593
Atlanta Star #2	R1 / 351	T7N/R68E/S15	16594
Atlanta Star #3	W1 / 234	T7N/R68E/S15	16595
Bluebird #2	R1 / 250	T7N/R68E/S22	16643
Bluebird #3	R1 / 251	T7N/R68E/S15, 22	16644
Bluebird #15	R1 / 129	T7N/R68E/S15	16656
Bluebird	W1 / 233		16678
Fraction		T7N/R68E/S15	
Bobcat #1	33 / 51	T7N/R68E/S11, 14	126537
Bobcat #2	33 / 52	T7N/R68E/S14	126538
Bobcat #3	33 / 53	T7N/R68E/S14	126539
Bobcat #4	33 / 54	T7N/R68E/S11, 14	126540
Bobcat #5	33 / 55		126541
(fraction)		T7N/R68E/S11, 14	
Eastline #1	R1 / 65	T7N/R68E/S11, 14	16586
Gem #1	R1 / 330	T7N/R68E/S14, 15	16581
	R1 / 331	T7N/R68E/S14, 15, 22,	16582
Gem #2		23	
Gem #3	R1 / 331	T7N/R68E/S22, 23	16583
Gem #4	R1 / 332	T7N/R68E/S22, 23	16584
Hogan	W1 / 268	T7N/R68E/S15	16589
Mid	Q1 / 52	T7N/R68E/S15	16596
Mid #1	Q1 / 52	T7N/R68E/S14, 15	16597

Mid #2	W1 / 297	T7N/R68E/S14, 15	16598
Millsite	Q1 / 53	T7N/R68E/S15	16599
Millsite #1	Q1 / 53	T7N/R68E/S10, 15	16600
Millsite #8	R1 / 97	T7N/R68E/S15	16604
Minnette &	R1 / 369		16633
Hayes #2		T7N/R68E/S14, 23	
Minnetti &	R1 / 465		16634
Hayes #3		T7N/R68E/S23	
Minnetti &	R1 / 466		16635
Hayes #4	<b>D</b> / / 000	T7N/R68E/S14, 23	(0000
Minnette &	R1 / 368		16636
Hayes #5	D4 / 400	T7N/R68E/S14	40007
Minnetti & Hayes #6	R1 / 466	T7N/R68E/S14	16637
Moab	Q1 / 51	T7N/R68E/S14, 15	16605
Moab #1	Q1/51	•	16606
	U1 / 15	T7N/R68E/S14	16607
Moab #2		T7N/R68E/S14, 15	
Ridge #1	R1 / 130	T7N/R68E/S15	16685
Ridge #2	R1 / 130	T7N/R68E/S15	16686
Ridge #3	R1 / 130	T7N/R68E/S15	16687
Ridge #4	R1 / 132	T7N/R68E/S15	16688
Lake Valley			
Millsite	137 / 109	T7N/R67E/S27	792474
Lake Valley	407 / 444		700 175
Millsite #2	137 / 111	T6N/R67E/S5	792475
Bluebird #4	198 / 145	T7N/R68E/S22	893561
Bluebird #5	198 / 146	T7N/R68E/S22	893562
Bluebird #6	198 / 147	T7N/R68E/S15, 22	893563
Gem #5	198 / 148	T7N/R68E/S22, 23	893564
Flo #1	231 / 167	T7N/R68E/S15	955048
Flo #2	231 / 168	T7N/R68E/S15	955049
Flo #3	231 / 169	T7N/R68E/S15	955050

## Atlanta – Atna Claim Group

				BLM NMC	
Claim Name	Township	Range	Section	#	Assessment
NBI- 7	7N	68E	3	973736	2012
NBI- 8	7N	68E	3	985534	2012
NBI- 9	7N	68E	3	985535	2012
NBI- 10	7N	68E	3	985536	2012
NBI- 11	7N	68E	3	985537	2012
NBI 28	7N	68E	3, 10	937757	2012
NBI- 29	7N	68E	3, 10	985547	2012
NBI- 30	7N	68E	3, 10	985548	2012
NBI- 31	7N	68E	3, 10	985549	2012
NBI- 32	7N	68E	3, 10	985550	2012
NBI- 33	7N	68E	2, 3, 10, 11	985551	2012
NBI- 65	7N	68E	10	985560	2012
NBI- 66	7N	68E	10	985561	2012
NBI- 67	7N	68E	10	985562	2012

7N	68E	10	985563	2012
7N	68E		985564	2012
7N	68E	11	985565	2012
7N	68E	10		2012
7N	68E	10		2012
				2012
				2012
7N	68E	10.11		2012
7N	68E	11		2012
7N	68E	11		2012
7N	68E	11		2012
7N	68E	11		2012
7N				2012
7N				2012
				2012
7N	68E	10		2012
7N	68E	10		2012
				2012
				2012
				2012
				2012
				2012
				2012
				2012
				2012
				2012
		-		2012
				2012
				2012
				2012
		,		2012
				2012
		10. 11, 14,		
7N	68E	15	985619	2012
7N	68E	11. 14	985620	2012
7N	68E	11, 14	985621	2012
7N	68E	15, 16	985632	2012
7N	68E	15, 16	985633	2012
7N	68E	15	985634	2012
7N	68E	14	985635	2012
7N	68E	16	985642	2012
7N	68E	15, 16	985643	2012
7N	68E	15	985644	2012
7N	68E	14	985645	2012
7N	68E	14	985646	2012
7N	68E	14	985647	2012
7N	68F	16, 17, 20, 21		2012
7N 7N	68E	16, 21	987572	2012
	7N         7N <tr td=""> <tr td=""></tr></tr>	7N       68E         7N       68E <td< td=""><td>7N         68E         10, 11           7N         68E         10           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         10           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         10, 15           7N</td><td>7N         68E         10, 11         985564           7N         68E         10         985573           7N         68E         10         985574           7N         68E         10         985575           7N         68E         10         985575           7N         68E         10         985576           7N         68E         11         985577           7N         68E         11         985579           7N         68E         11         985579           7N         68E         11         985580           7N         68E         11         985591           7N         68E         10         985592           7N         68E         10         985593           7N         68E         10         985595           7N         68E         10         985595           7N         68E         10         985593           7N         68E         10         985595           7N         68E         10         985595           7N         68E         11         985601           7N         68E         10</td></td<>	7N         68E         10, 11           7N         68E         10           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         10           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         11           7N         68E         10, 15           7N	7N         68E         10, 11         985564           7N         68E         10         985573           7N         68E         10         985574           7N         68E         10         985575           7N         68E         10         985575           7N         68E         10         985576           7N         68E         11         985577           7N         68E         11         985579           7N         68E         11         985579           7N         68E         11         985580           7N         68E         11         985591           7N         68E         10         985592           7N         68E         10         985593           7N         68E         10         985595           7N         68E         10         985595           7N         68E         10         985593           7N         68E         10         985595           7N         68E         10         985595           7N         68E         11         985601           7N         68E         10

NBI- 246	7N	68E	16, 21	987573	2012
NBI- 247	7N	68E	16, 21	987574	2012
NBI- 248	7N	68E	16, 21	987575	2012
NBI- 249	7N	68E	16, 21	987576	2012
NBI- 250	7N	68E	16, 21	987577	2012
NBI- 251	7N	68E	16, 21	987578	2012
NBI- 252	7N	68E	16, 21	987579	2012
	/11	002	15, 16, 21,	00/0/0	2012
NBI- 253	7N	68E	22	987580	2012
NBI- 254	7N	68E	15, 22	987571	2012
NBI- 258	7N	68E	14, 23	987582	2012
NBI- 259	7N	68E	14, 23	987583	2012
NBI- 260	7N	68E	14, 23	987584	2012
NBI- 261	7N	68E	14, 23	987585	2012
NBI- 273	7N	68E	20, 21	987588	2012
NBI- 274	7N	68E	21	987589	2012
NBI- 275	7N	68E	21	987590	2012
NBI- 276	7N	68E	21	987591	2012
NBI- 277	7N	68E	21	987592	2012
NBI- 278	7N	68E	21	987593	2012
NBI- 279	7N	68E	21	987594	2012
NBI- 280	7N	68E	21	987595	2012
NBI- 281	7N	68E	21	987596	2012
NBI- 282	7N	68E	21, 22	987597	2012
NBI- 283	7N	68E	22	987598	2012
NBI- 284	7N	68E	22	9897599	2012
NBI- 288	7N	68E	23	987600	2012
NBI- 289	7N	68E	23	987601	2012
NBI- 290	7N	68E	23	987602	2012
NBI- 291	7N	68E	23	987603	2012
NBI- 292	7N	68E	23	987604	2012
NBI- 299	7N	68E	20, 21	973943	2012
NBI- 300	7N	68E	21	987606	2012
NBI- 301	7N	68E	21	9897607	2012
NBI- 302	7N	68E	21	9897608	2012
NBI- 303	7N	68E	21	987609	2012
NBI- 304	7N	68E	21	987610	2012
NBI- 305	7N	68E	21	987611	2012
NBI- 306	7N	68E	21	987612	2012
NBI- 307	7N	68E	21	987613	2012
NBI- 308	7N	68E	21, 22	987614	2012
NBI- 309	7N	68E	22	987615	2012
NBI- 310	7N	68E	22	987616	2012
NBI- 311	7N	68E	22	987617	2012
NBI- 312	7N	68E	22	9897618	2012
NBI- 313	7N	68E	22	987619	2012
NBI- 314	7N	68E	22	987620	2012
NBI- 315	7N	68E	22	987621	2012
NBI- 316	7N 7N	68E	22	987622	2012

NBI- 317	7N	68E	22, 23	987623	2012
NBI- 318	7N	68E	23	987624	2012
NBI- 319	7N	68E	23	987625	2012
NBI- 320	7N	68E	23	987626	2012
NBI- 321	7N	68E	23	987627	2012
NBI- 322	7N	68E	23	987628	2012
NBI- 323	7N	68E	23	987629	2012
NBI- 328	7N	68E	22, 27	973972	2012
NBI- 329	7N	68E	22, 27	973973	2012
NBI- 330	7N	68E	22, 27	973974	2012
NBI- 331	7N	68E	22, 27	973975	2012
NBI- 332	7N	68E	22, 27	973976	2012
NBI- 336	7N	68E	27	973980	2012
NBI- 337	7N	68E	27	973981	2012
NBI- 338	7N	68E	27	973982	2012
NBI- 339	7N	68E	27	973983	2012
NBI- 340	7N	68E	27	973984	2012
NBI- 343	7N	68E	22	987633	2012
NBI- 344	7N	68E	22	987634	2012
NBI- 345	7N	68E	22	987635	2012
NBI- 346	7N	68E	22	987636	2012
NBI- 347	7N	68E	22	987637	2012
NBI- 348	7N	68E	22	987638	2012
NBI- 349	7N	68E	15	987639	2012
NBI- 350	7N	68E	15	987640	2012
NBI- 351	7N	68E	11, 14	9876441	2012

# Atlanta – Lilly Claim Group

				BLM NMC	
Claim Name	Township	Range	Section	#	Assessment
LILY 1	T7N	R68E	10	1050752	2012
LILY 2	T7N	R68E	10	1050753	2012
LILY 3	T7N	R68E	10	1050754	2012
LILY 4	T7N	R68E	10	1050755	2012
LILY 5	T7N	R68E	9	1050756	2012
LILY 6	T7N	R68E	9	1050757	2012
LILY 7	T7N	R68E	9	1050758	2012
LILY 8	T7N	R68E	9	1050759	2012
LILY 9	T7N	R68E	9	1050760	2012
LILY 10	T7N	R68E	9	1050761	2012
LILY 11	T7N	R68E	9	1050762	2012
LILY 12	T7N	R68E	9	1050763	2012
LILY 13	T7N	R68E	8, 9	1050764	2012
LILY 14	T7N	R68E	8	1050765	2012
LILY 15	T7N	R68E	8	1050766	2012
LILY 16	T7N	R68E	8	1050767	2012
LILY 17	T7N	R68E	8	1050768	2012
LILY 18	T7N	R68E	8	1050769	2012

LILY 19	T7N	R68E	8	1050770	2012
LILY 20	T7N	R68E	8	1050771	2012
LILY 21	T7N	R68E	8	1050772	2012
LILY 22	T7N	R68E	7, 8	1050773	2012
LILY 23	T7N	R68E	7	1050774	2012
LILY 24	T7N	R68E	7	1050775	2012
LILY 25	T7N	R68E	7	1050776	2012
LILY 26	T7N	R68E	7	1050777	2012
LILY 27	T7N	R68E	7	1050778	2012
LILY 28	T7N	R68E	7	1050779	2012
LILY 29	T7N	R68E	7	1050780	2012
LILY 30	T7N	R68E	7	1050781	2012
LILY 31	T7N	R68E	7	1050782	2012
	T7N	R67E	12		
LILY 32	T7N	R67E	12	1050783	2012
LILY 33	T7N	R67E	12	1050784	2012
LILY 34	T7N	R67E	12	1050785	2012
LILY 35	T7N	R68E	10	1050786	2012
LILY 36	T7N	R68E	9	1050787	2012
LILY 37	T7N	R68E	9	1050788	2012
LILY 38	T7N	R68E	9	1050789	2012
LILY 39	T7N	R68E	9	1050790	2012
LILY 40	T7N	R68E	9	1050791	2012
LILY 41	T7N	R68E	9	1050792	2012
LILY 42	T7N	R68E	9	1050793	2012
LILY 43	T7N	R68E	9	1050794	2012
LILY 44	T7N	R68E	8, 9	1050795	2012
LILY 45	T7N	R68E	8	1050796	2012
LILY 46	T7N	R68E	8	1050797	2012
LILY 47	T7N	R68E	8	1050798	2012
LILY 48	T7N	R68E	8	1050799	2012
LILY 49	T7N	R68E	8	1050800	2012
LILY 50	T7N	R68E	8	1050801	2012
LILY 51	T7N	R68E	8	1050802	2012
LILY 52	T7N	R68E	8	1050803	2012
LILY 53	T7N	R68E	7, 8	1050804	2012
LILY 54	T7N	R68E	7	1050805	2012
LILY 55	T7N	R68E	7	1050806	2012
LILY 56	T7N	R68E	7	1050807	2012
LILY 57	T7N	R68E	7	1050808	2012
LILY 58	T7N	R68E	7	1050809	2012
LILY 59	T7N	R68E	7	1050810	2012
LILY 60	T7N	R68E	7	1050811	2012
LILY 61	T7N	R68E	7	1050812	2012
LILY 62	T7N	R68E	7	1050813	2012
	T7N	R67E	12		
LILY 63	T7N	R67E	12	1050814	2012
LILY 64	T7N	R67E	12	1050815	2012

LILY 65	T7N	R67E	12	1050816	2012
LILY 66	T7N	R68E	10, 15	1050817	2012
LILY 67	T7N	R68E	9, 16	1050818	2012
LILY 68	T7N	R68E	9, 16	1050819	2012
LILY 69	T7N	R68E	9, 16	1050820	2012
LILY 70	T7N	R68E	9, 16	1050821	2012
LILY 71	T7N	R68E	9, 16	1050822	2012
LILY 72	T7N	R68E	9, 16	1050823	2012
LILY 73	T7N	R68E	9, 16	1050824	2012
LILY 74	T7N	R68E	9, 16	1050825	2012
LILY 75	T7N	R68E	8, 9, 16, 17	1050826	2012
LILY 76	T7N	R68E	8, 17	1050827	2012
LILY 77	T7N	R68E	8, 17	1050828	2012
LILY 78	T7N	R68E	8, 17	1050829	2012
LILY 79	T7N	R68E	8, 17	1050830	2012
LILY 80	T7N	R68E	8, 17	1050831	2012
LILY 81	T7N	R68E	8, 17	1050832	2012
LILY 82	T7N	R68E	8, 17	1050833	2012
LILY 83	T7N	R68E	8, 17	1050834	2012
LILY 84	T7N	R68E	7, 8, 17, 18	1050835	2012
LILY 85	T7N	R68E	7, 18	1050836	2012
LILY 86	T7N	R68E	7, 18	1050837	2012
LILY 87	T7N	R68E	7, 18	1050838	2012
LILY 88	T7N	R68E	7, 18	1050839	2012
LILY 89	T7N	R68E	7, 18	1050840	2012
LILY 90	T7N	R68E	7, 18	1050841	2012
LILY 91	T7N	R68E	7, 18	1050842	2012
LILY 92	T7N	R68E	7, 18	1050843	2012
LILY 93	T7N	R68E	7, 18	1050844	2012
	T7N	R67E	12, 13		
LILY 94	T7N	R67E	12, 13	1050845	2012
LILY 95	T7N	R67E	12, 13	1050846	2012
LILY 96	T7N	R67E	12, 13	1050847	2012
LILY 97	T7N	R68E	16	1050848	2012
LILY 98	T7N	R68E	16	1050849	2012
LILY 99	T7N	R68E	16	1050850	2012
LILY 100	T7N	R68E	16	1050851	2012
LILY 101	T7N	R68E	16	1050852	2012
LILY 102	T7N	R68E	16	1050853	2012
LILY 103	T7N	R68E	16	1050854	2012
LILY 104	T7N	R68E	16, 17	1050855	2012
LILY 105	T7N	R68E	17	1050856	2012
LILY 106	T7N	R68E	17	1050857	2012
LILY 107	T7N	R68E	17	1050858	2012
LILY 108	T7N	R68E	17	1050859	2012
LILY 109	T7N	R68E	17	1050860	2012
LILY 110	T7N	R68E	17	1050861	2012
LILY 111	T7N	R68E	17	1050862	2012

LILY 112	T7N	R68E	17	1050863	2012
LILY 113	T7N	R68E	17, 18	1050864	2012
LILY 114	T7N	R68E	18	1050865	2012
LILY 115	T7N	R68E	18	1050866	2012
LILY 116	T7N	R68E	18	1050867	2012
LILY 117	T7N	R68E	18	1050868	2012
LILY 118	T7N	R68E	18	1050869	2012
LILY 119	T7N	R68E	18	1050870	2012
LILY 120	T7N	R68E	18	1050871	2012
LILY 121	T7N	R68E	18	1050872	2012
LILY 122	T7N	R68E	18	1050873	2012
	T7N	R67E	13		
LILY 123	T7N	R67E	13	1050874	2012
LILY 124	T7N	R67E	13	1050875	2012
LILY 125	T7N	R67E	13	1050876	2012
LILY 126	T7N	R68E	16	1050877	2012
LILY 127	T7N	R68E	16	1050878	2012
LILY 128	T7N	R68E	16	1050879	2012
LILY 129	T7N	R68E	16	1050880	2012
LILY 130	T7N	R68E	16	1050881	2012
LILY 131	T7N	R68E	16	1050882	2012
LILY 132	T7N	R68E	16	1050883	2012
LILY 133	T7N	R68E	16, 17	1050884	2012
LILY 134	T7N	R68E	17	1050885	2012
LILY 135	T7N	R68E	17	1050886	2012
LILY 136	T7N	R68E	17	1050887	2012
LILY 137	T7N	R68E	17	1050888	2012
LILY 138	T7N	R68E	17	1050889	2012
LILY 139	T7N	R68E	17	1050890	2012
LILY 140	T7N	R68E	17	1050891	2012
LILY 141	T7N	R68E	17	1050892	2012
LILY 142	T7N	R68E	17, 18	1050893	2012
LILY 143	T7N	R68E	18	1050894	2012
LILY 144	T7N	R68E	18	1050895	2012
LILY 145	T7N	R68E	18	1050896	2012
LILY 146	T7N	R68E	18	1050897	2012
LILY 147	T7N	R68E	18	1050898	2012
LILY 148	T7N	R68E	18	1050899	2012
LILY 149	T7N	R68E	18	1050900	2012
LILY 150	T7N	R68E	18	1050901	2012
LILY 151	T7N	R67E	13	1050902	2012
LILY 152	T7N	R67E	13	1050903	2012
LILY 153	T7N	R67E	13	1050904	2012
LILY 154	T7N	R67E	13	1050905	2012
LILY 155	T7N	R68E	17	1050906	2012
LILY 156	T7N	R68E	17	1050907	2012
LILY 157	T7N	R68E	17	1050908	2012
LILY 158	T7N	R68E	17	1050909	2012

LILY 159	T7N	R68E	17	1050910	2012
LILY 160	T7N	R68E	17	1050911	2012
LILY 161	T7N	R68E	17	1050912	2012
LILY 162	T7N	R68E	17	1050913	2012
LILY 163	T7N	R68E	17, 18	1050914	2012
LILY 164	T7N	R68E	18	1050915	2012
LILY 165	T7N	R68E	18	1050916	2012
LILY 166	T7N	R68E	18	1050917	2012
LILY 167	T7N	R68E	18	1050918	2012
LILY 168	T7N	R68E	18	1050919	2012
LILY 169	T7N	R68E	18	1050920	2012
LILY 170	T7N	R68E	18	1050921	2012
LILY 171	T7N	R68E	18	1050922	2012
LILY 172	T7N	R67E	13	1050923	2012
LILY 173	T7N	R67E	13	1050924	2012
LILY 174	T7N	R67E	13	1050925	2012
LILY 175	T7N	R67E	13	1050926	2012
LILY 176	T7N	R68E	17, 20	1050927	2012
LILY 177	T7N	R68E	17, 20	1050928	2012
LILY 178	T7N	R68E	17, 20	1050929	2012
LILY 179	T7N	R68E	17, 20	1050930	2012
LILY 180	T7N	R68E	17, 20	1050931	2012
LILY 181	T7N	R68E	17, 20	1050932	2012
LILY 182	T7N	R68E	17, 20	1050933	2012
LILY 183	T7N	R68E	17, 20	1050934	2012
			17, 18, 19,		
LILY 184	T7N	R68E	20	1050935	2012
LILY 185	T7N	R68E	18, 19	1050936	2012
LILY 186	T7N	R68E	18, 19	1050937	2012
LILY 187	T7N	R68E	18, 19	1050938	2012
LILY 188	T7N	R68E	18, 19	1050939	2012
LILY 189	T7N	R68E	18, 19	1050940	2012
LILY 190	T7N	R68E	18, 19	1050941	2012
LILY 191	T7N	R68E	18, 19	1050942	2012
LILY 192	T7N	R68E	18, 19	1050943	2012
LILY 193	T7N	R67E	13, 24	1050944	2012
LILY 194	T7N	R67E	13, 24	1050945	2012
LILY 195	T7N	R67E	13, 24	1050946	2012
LILY 196	T7N	R67E	13, 24	1050947	2012
LILY 197	T7N	R68E	20	1050948	2012
LILY 198	T7N	R68E	20	1050949	2012
LILY 199	T7N	R68E	20	1050950	2012
LILY 200	T7N	R68E	20	1050951	2012
LILY 201	T7N	R68E	20	1050952	2012
LILY 202	T7N	R68E	20	1050953	2012
LILY 203	T7N	R68E	20	1050954	2012
LILY 204	T7N	R68E	19, 20	1050955	2012
LILY 205	T7N	R68E	19	1050956	2012
LILY 206	T7N	R68E	19	1050957	2012

LILY 207	T7N	R68E	19	1050958	2012
LILY 208	T7N	R68E	19	1050959	2012
LILY 209	T7N	R68E	19	1050960	2012
LILY 210	T7N	R68E	19	1050961	2012
LILY 211	T7N	R68E	19	1050962	2012
LILY 212	T7N	R68E	19	1050963	2012
LILY 213	T7N	R68E	19	1050964	2012
LILY 214	T7N	R67E	24	1050965	2012
LILY 215	T7N	R67E	24	1050966	2012
LILY 216	T7N	R67E	24	1050967	2012
LILY 217	T7N	R67E	24	1050968	2012

# Altanta - SNO Claim Group

Claim Name	Township	Range	Section	BLM NMC #	Assessment
SNO- 1	T7N	R68E	3	1051441	2012
SNO-2	T7N	R68E	3	1051442	2012
SNO- 3	T7N	R68E	3	1051443	2012
SNO- 4	T7N	R68E	3	1051444	2012
SNO- 5	T7N	R68E	3	1051445	2012
SNO- 6	T7N	R68E	2, 3	1051446	2012
SNO- 7	T7N	R68E	7	1051447	2012
SNO- 8	T7N	R68E	2, 3	1051448	2012
SNO- 9	T7N	R68E	2	1051449	2012
SNO- 10	T7N	R68E	2, 11	1051450	2012
SNO- 11	T7N	R68E	2	1051451	2012
SNO- 12	T7N	R68E	2, 11	1051452	2012
SNO- 13	T7N	R68E	11	1051453	2012
SNO- 14	T8N	R68E	34	1051794	2012
SNO- 15	T8N	R68E	34	1051795	2012
SNO- 16	T8N	R68E	34	1051796	2012
SNO- 17	T8N	R68E	34	1051797	2012
SNO- 18	T8N	R68E	34	1051798	2012
SNO- 19	T8N	R68E	34	1051799	2012
SNO- 20	T8N	R68E	34	1051800	2012
SNO- 21	T8N	R68E	34	1051801	2012
SNO- 22	T8N	R68E	34, 35	1051802	2012
SNO- 23	T8N	R68E	35	1051803	2012
SNO- 24	T8N	R68E	34	1051804	2012
SNO- 25	T8N	R68E	34	1051805	2012
SNO- 26	T8N	R68E	34	1051806	2012
SNO- 27	T8N	R68E	34	1051807	2012
SNO- 28	T8N	R68E	34	1051808	2012
SNO- 29	T8N	R68E	34	1051809	2012
SNO- 30	T8N	R68E	34	1051810	2012
SNO- 31	T8N	R68E	34, 35	1051811	2012
SNO- 32	T8N	R68E	35	1051812	2012
SNO- 33	T8N	R68E	34	1051813	2012
	T7N	R68E	3		

SNO- 34	T8N	R68E	34	1051814	2012
	T7N	R68E	3		
SNO- 35	T8N	R68E	34	1051815	2012
	T7N	R68E	3		
SNO- 36	T8N	R68E	34	1051816	2012
	T7N	R68E	3		
SNO- 37	T8N	R68E	34	1051817	2012
	T7N	R68E	3		
SNO- 38	T8N	R68E	34	1051818	2012
	T7N	R68E	3		
SNO- 39	T8N	R68E	34, 35	1051819	2012
	T7N	R68E	2, 3		
SNO- 40	T8N	R68E	35	1051820	2012
	T7N	R68E	2		

## Atlanta – PEG Claim Group

Claim Nama			Section		Accomment
Claim Name	Township	Range	Section	BLM NMC #	Assessment
PEG-1	T7N	R67E	13, 24	1051821	2012
PEG-2	T7N	R67E	13, 24	1051822	2012
PEG-3	T7N	R67E	24	1051823	2012
PEG-4	T7N	R67E	24	1051824	2012
PEG- 5	T7N	R67E	24	1051825	2012
PEG-6	T7N	R67E	24	1051826	2012
PEG-7	T7N	R67E	24	1051827	2012
PEG-8	T7N	R67E	24	2052828	2012
PEG-9	T7N	R67E	24	1051829	2012
PEG- 10	T7N	R67E	24	1051830	2012
PEG- 11	T7N	R67E	24	1051831	2012
	T7N	R68E	19		
PEG- 12	T7N	R67E	24, 25	1051832	2012
PEG- 13	T7N	R67E	24, 25	1051833	2012
PEG- 14	T7N	R67E	24, 25	1051834	2012
PEG- 15	T7N	R67E	24, 25	1051835	2012
PEG- 16	T7N	R67E	24, 25	1051836	2012
PEG- 17	T7N	R67E	24, 25	1051837	2012
PEG- 18	T7N	R67E	24, 25	1051838	2012
	T7N	R68E	19, 30		
PEG- 19	T7N	R67E	25	1051839	2012
PEG- 20	T7N	R67E	25	1051840	2012
PEG- 21	T7N	R67E	25	1051841	2012
PEG- 22	T7N	R67E	25	1051842	2012
PEG- 23	T7N	R67E	25	1051843	2012
PEG- 24	T7N	R67E	25	1051844	2012
PEG- 25	T7N	R67E	25	1051845	2012
PEG- 26	T7N	R67E	25	1051846	2012
PEG- 27	T7N	R67E	25	1051847	2012
PEG- 28	T7N	R67E	25	1051848	2012
PEG- 29	T7N	R67E	25	1051849	2012

	PEG- 30	T7N	R67E	25	1051850	2012
--	---------	-----	------	----	---------	------

PEG- 30	T7N	R67E	25	1051850							
	Atlanta - C& B Claim Group										
Claim Name	Township	Range	Section	BLM NMC #							
C&B -1	T7N	R68E	22	1051672							
C&B -2	T7N	R68E	23	1051673							
C&B -3	T7N	R68E	23	1051674							
C&B -4	T7N	R68E	23	1051675							
C&B -5	T7N	R68E	23	1051676							
C&B -6	T7N	R68E	23	1051677							
C&B -7	T7N	R68E	23	1051678							
C&B -8	T7N	R68E	23	1051679							
C&B -9	T7N	R68E	23	1051680							
C&B -10	T7N	R68E	23	1051681							
C&B -11	T7N	R68E	23	1051682							
C&B -12	T7N	R68E	22, 27	1051683							
C&B -13	T7N	R68E	22, 27	1051684							
C&B -14	T7N	R68E	26, 27	1051685							
C&B -15	T7N	R68E	26	1051686							
C&B -16	T7N	R68E	26	1051687							
C&B -17	T7N	R68E	26	1051688							
C&B -18	T7N	R68F	26	1051689							

Cad -1	17 IN	ROOE	23	1051676	2012
C&B -8	T7N	R68E	23	1051679	2012
C&B -9	T7N	R68E	23	1051680	2012
C&B -10	T7N	R68E	23	1051681	2012
C&B -11	T7N	R68E	23	1051682	2012
C&B -12	T7N	R68E	22, 27	1051683	2012
C&B -13	T7N	R68E	22, 27	1051684	2012
C&B -14	T7N	R68E	26, 27	1051685	2012
C&B -15	T7N	R68E	26	1051686	2012
C&B -16	T7N	R68E	26	1051687	2012
C&B -17	T7N	R68E	26	1051688	2012
C&B -18	T7N	R68E	26	1051689	2012
C&B -19	T7N	R68E	26	1051690	2012
C&B -20	T7N	R68E	26	1051691	2012
C&B -21	T7N	R68E	26	1051692	2012
C&B -22	T7N	R68E	26	1051693	2012
C&B -23	T7N	R68E	27	1051694	2012
C&B -24	T7N	R68E	27	1051695	2012
C&B -25	T7N	R68E	26, 27	1051696	2012
C&B -26	T7N	R68E	26	1051697	2012
C&B -27	T7N	R68E	26	1051698	2012
C&B -28	T7N	R68E	26	1051699	2012
C&B -29	T7N	R68E	26	1051700	2012
C&B -30	T7N	R68E	26	1051701	2012
C&B -31	T7N	R68E	26	1051702	2012
C&B -32	T7N	R68E	26	1051703	2012
C&B -33	T7N	R68E	26	1051704	2012
C&B -34	T7N	R68E	27	1051705	2012
C&B -35	T7N	R68E	27	1051706	2012
C&B -36	T7N	R68E	26, 27	1051707	2012
C&B -37	T7N	R68E	25	1051708	2012
C&B -38	T7N	R68E	25	1051709	2012
C&B -39	T7N	R68E	25	1051710	2012
C&B -40	T7N	R68E	25	1051711	2012
C&B -41	T7N	R68E	25	1051712	2012
C&B -42	T7N	R68E	25	10517113	2012
C&B -43	T7N	R68E	25	1051714	2012
C&B -44	T7N	R68E	25	1051715	2012

Atlanta – LSH Claim Group							
Claim Name	Township	Range	Section	BLM NMC #	Assessment		
LSH-1	T7N	R69E	17, 18	1051721	2012		
LSH- 2	T7N	R69E	17	1051722	2012		
LSH- 3	T7N	R69E	17	1051723	2012		
LSH- 4	T7N	R69E	17	1051724	2012		
LSH- 5	T7N	R69E	17	1051725	2012		
LSH- 6	T7N	R69E	17	1051726	2012		
LSH- 7	T7N	R69E	17, 18, 19, 20	1051727	2012		
LSH- 8	T7N	R69E	17, 20	1051728	2012		
LSH- 9	T7N	R69E	17, 20	1051729	2012		
LSH- 10	T7N	R69E	17, 20	1051730	2012		
LSH- 11	T7N	R69E	17, 20	1051731	2012		
LSH- 12	T7N	R69E	17, 20	1051732	2012		
LSH- 13	T7N	R69E	17, 20	1051733	2012		
LSH- 14	T7N	R69E	17, 20	1051734	2012		
LSH- 15	T7N	R69E	17, 20	1051735	2012		
LSH- 16	T7N	R69E	17, 20	1051736	2012		
LSH- 17	T7N	R69E	17, 20	1051737	2012		
LSH- 18	T7N	R69E	17, 20	1051738	2012		
LSH- 19	T7N	R69E	17, 20	1051739	2012		
LSH- 20	T7N	R69E	17, 20	1051740	2012		
LSH- 21	T7N	R69E	17, 20	1051741	2012		
LSH- 22	T7N	R69E	17, 20	1051742	2012		
LSH- 23	T7N	R69E	20, 21	1051743	2012		
LSH- 24	T7N	R69E	20	1051744	2012		
LSH- 25	T7N	R69E	20	1051745	2012		
LSH- 26	T7N	R69E	20	1051746	2012		
LSH- 27	T7N	R69E	20	1051747	2012		
LSH- 28	T7N	R69E	20	1051748	2012		
LSH- 29	T7N	R69E	20	1051749	2012		
LSH- 30	T7N	R69E	20, 21	1051750	2012		
LSH- 31	T7N	R69E	21	1051751	2012		
LSH- 32	T7N	R69E	21	1051752	2012		
LSH- 33	T7N	R69E	20	1051753	2012		
LSH- 34	T7N	R69E	20	1051754	2012		
LSH- 35	T7N	R69E	20	1051755	2012		
LSH- 36	T7N	R69E	20	1051756	2012		
LSH- 37	T7N	R69E	20, 21	1051757	2012		
LSH- 38	T7N	R69E	21	1051758	2012		
LSH- 39	T7N	R69E	21	1051759	2012		
LSH- 40	T7N	R69E	21	1051760	2012		
LSH- 41	T7N	R69E	21	1051761	2012		
LSH- 42	T7N	R69E	20, 29	1051762	2012		
LSH- 43	T7N	R69E	20, 29	1051763	2012		
LSH- 44	T7N	R69E	20, 21, 28, 29	1051764	2012		
LSH- 45	T7N	R69E	21, 28	1051765	2012		

LSH- 46	T7N	R69E	21, 28	1051766	2012
LSH- 47	T7N	R69E	21, 28	1051767	2012
LSH- 48	T7N	R69E	21, 28	1051768	2012
LSH- 49	T7N	R69E	21, 28	1051769	2012
LSH- 50	T7N	R69E	21, 28	1051770	2012
LSH- 51	T7N	R69E	28, 29	1051771	2012
LSH- 52	T7N	R69E	28	1051772	2012
LSH- 53	T7N	R69E	28	1051773	2012
LSH- 54	T7N	R69E	28	1051774	2012
LSH- 56	T7N	R69E	28	1051776	2012
LSH- 57	T7N	R69E	28	1051777	2012
LSH- 58	T7N	R69E	28	1051778	2012
LSH- 59	T7N	R69E	28	1051779	2012
LSH- 60	T7N	R69E	28	1051780	2012
LSH- 61	T7N	R69E	28	1051781	2012
LSH- 62	T7N	R69E	28	1051782	2012
LSH- 63	T7N	R69E	28	1051783	2012
LSH- 64	T7N	R69E	28	1051784	2012
LSH- 65	T7N	R69E	28	1051785	2012
LSH- 66	T7N	R69E	28	1051786	2012
LSH- 67	T7N	R69E	27, 28	1051787	2012
LSH- 68	T7N	R69E	28, 33	1051788	2012
LSH- 69	T7N	R69E	28, 33	1051789	2012
LSH- 70	T7N	R69E	28, 33	1051790	2012
LSH- 71	T7N	R69E	28, 33	1051791	2012
LSH- 72	T7N	R69E	28, 33	1051792	2012
LSH- 73	T7N	R69E	28, 33	1051793	2012

# Atlanta – NFL Claim Group

Claim Name	Township	Range	Section	BLM NMC #	Assessment
NFL- 1	T7N	R68E	15, 22	1051716	2012
NFL- 2	T7N	R68E	22	1051717	2012
NFL- 3	T7N	R68E	22	1051718	2012
NFL-4	T7N	R68E	22	1051719	2012
NFL-5	T7N	R68E	22	1051720	2012

Atlanta – Lauren Claim Group

Claim Name	Township	Range	Section	BLM NMC #	Assessment
Lauren 1	T7N	R68E	2, 11	1060968	2012
Lauren 2	T7N	R68E	2, 11	1060969	2012
Lauren 3	T7N	R68E	2, 11	1060970	2012
Lauren 4	T7N	R68E	2, 11	1060971	2012
Lauren 5	T7N	R68E	2, 11	1060972	2012
Lauren 6	T7N	R68E	2, 11	1060973	2012
Lauren 7	T7N	R68E	1,2,11,12	1060974	2012

Lauren 8	T7N	R68E	11	1060975	2012
Lauren 9	T7N	R68E	11	1060976	2012
Lauren 10	T7N	R68E	11	1060977	2012
Lauren 11	T7N	R68E	11	1060978	2012
Lauren 12	T7N	R68E	11	1060979	2012
Lauren 13	T7N	R68E	11	1060980	2012
Lauren 14	T7N	R68E	11,12	1060981	2012
Lauren 15	T7N	R68E	11	1060982	2012
Lauren 16	T7N	R68E	11	1060983	2012
Lauren 17	T7N	R68E	11	1060984	2012
Lauren 18	T7N	R68E	11	1060985	2012
Lauren 19	T7N	R68E	11,12	1060986	2012
Lauren 20	T7N	R68E	11	1060987	2012
Lauren 21	T7N	R68E	11	1060988	2012
Lauren 22	T7N	R68E	11	1060989	2012
Lauren 23	T7N	R68E	11,12	1060990	2012
Lauren 24	T7N	R68E	12, 14	1060991	2012
Lauren 25	T7N	R68E	12, 14	1060992	2012
Lauren 26	T7N	R68E	14	1060993	2012
Lauren 27	T7N	R68E	14	1060994	2012
Lauren 28	T7N	R68E	2	1060995	2012
Lauren 29	T7N	R68E	2	1060996	2012
Lauren 30	T7N	R68E	2	1060997	2012
Lauren 31	T7N	R68E	2	1060998	2012
Lauren 32	T7N	R68E	2	1060999	2012
Lauren 33	T7N	R68E	2	1061000	2012
Lauren 34	T7N	R68E	2	1061001	2012
Lauren 35	T7N	R68E	2	1061002	2012
Lauren 36	T7N	R68E	2	1061003	2012
Lauren 37	T7N	R68E	2	1061004	2012
Lauren 38	T7N, 8N	R68E	2, 35	1061005	2012
Lauren 39	T7N, 8N	R68E	2, 35	1061006	2012
Lauren 40	T7N, 8N	R68E	2, 35	1061007	2012
Lauren 41	T7N, 8N	R68E	2, 35	1061008	2012
Lauren 42	T7N, 8N	R68E	2, 35	1061009	2012
Lauren 43	T7N	R68E	35	1061010	2012
Lauren 44	T7N	R68E	35	1061011	2012
Lauren 45	T7N	R68E	35	1061012	2012

## APPENDIX II GUSTAVSON ASSOCIATES PROTOCOL

## Recommended Core Drilling and Sampling QA/QC Procedures for the Atlanta Project, Desert Hawk Resources

## Introduction

Because multiple and often junior geologists commonly work in drilling programs, it is important to have a written plan for drilling and sampling to maintain consistency and to remain NI 43-101 compliant. This document outlines such a plan.

Not dealt with in this report, but which is also considered important for a company to have, is a written policy outlining the use of personal protective equipment, emergency response procedures and environmental protection practices.

The success of a QA/QC program depends on how well trained the drilling and sampling personnel are. They should be told and should understand the reasons for the tasks they are performing, and they should be motivated and rewarded for properly performing their work.

## **Core sampling procedures**

- All drill core samples should be handled carefully, kept away from sources of contamination, and stored securely so as to avoid any chance of accidental or deliberate contamination or destruction. There should be written procedures for sample handling and a record of the chain of custody between collection and analysis. It is the responsibility of the project geologist to review and inspect sample handling procedures and facilities.
- Core boxes should be clean and sufficiently sturdy to protect the core. The boxes should be sufficiently tight to prevent contamination or loss of fine material. If loose fine gold is considered a possibility, plastic or micropore liners should be used to catch all fines. All boxes should have some form of cover or lid securely attached to avoid spillage or contamination.
- The geologist should verify that the drillers are placing the core in boxes in the proper sequence. This can be done by matching core ends across breaks and between boxes. Although a geologist is often not at a core rig when drilling is taking place, periodic checks of core boxing procedures should be made, particularly at the beginning of the program.
- A major source of rock quality designation (RQD) error is rough handling of core between drill site and logging site. It is best, whenever possible, to collect RQD data at the drill site, before transporting core. Also when the core is first collected, before any additional disturbance, sample recovery should be noted and proper labeling of all core boxes should be confirmed.

- 92
- If mud has been used in the drilling process, this represents a sample contaminant and should be carefully and thoroughly washed from the core and from the core box. Care and judgment must be exercised to remove contaminant but not to wash away fine sample material. If there is potential for loss of fine material, this can be checked by periodically collecting and assaying the fine material washed from the core.
- The core should be photographed before splitting to create a permanent record of the initial rock condition. RQD analysis should be completed before splitting as well, as core splitting will inevitably further break up the rock. If the rock contains a significant amount of clay, subsequent desiccation may entirely change the condition of the material.
- Geologic logging of the core should be completed before splitting and sampling. The core should then be re-examined after splitting to observe features exposed on the cut surfaces.
- The project geologist should mark the intervals for sampling. In relatively homogeneous rock, these might be standard intervals such as five-foot or one-meter intervals. If there are lithologic or alteration contacts or structural zones, sample breaks should be chosen to coincide with geologic breaks, but with intervals no greater than 5 feet (1.5 meters).
- Competent drill core should be completely removed from the box and split into two equal portions using a water-cooled diamond-bladed saw. The saw cut should be oriented along the core axis so as to divide the core equally, at the largest possible angle to veins, fractures or bedding. In special cases, where sawing will result in the loss of high-grade fines, it may be preferable to use a core splitter.
- Typically, core is split in halves, with one half of the core being submitted for analysis and the second half retained for geologic logging, subsequent metallurgical testing, or for repeat analysis. If a later second sample, such as a duplicate sample, is required, the core should be sawed in quarters.
- Duplicate samples should be taken about every 50th sample. Duplicates should be inserted into the sample stream at some distance (number of samples) away from the sample which is being duplicated. The duplicate should be given a number in the sequence where it is inserted, not the next sample number after the original sample, with no other labeling as to footage, duplicate sample, etc. Careful records must be kept as to what samples are duplicates. Duplicates should also periodically be sent to another laboratory as an analytical check.
- The core sawing area must be kept strictly clean to prevent cross-sample contamination. Fine material and rock scraps produced during sawing should be split, with half added to the sample and half returned to the core box.
- The half of the core that is to be submitted for analysis is randomly selected from the two halves and placed in an appropriately sturdy sample bag properly labeled. If there is broken or fine material left in the core box, one-half of this material should be included, split along the axis of the core box and carefully gathered with a spoon or brush or whatever is required to do the job.

- Core boxes should be marked on the box with the beginning and ending of each sample interval and a tag with sample number should be stapled into the box in each sample interval. Samples should have a tag inserted into the bag, the sample number written on the bag, and nothing else, such as drill hole number or footage, should be on the bag.
- Early in the drilling program, and periodically thereafter, separate samples should be collected of intact core and associated fines to ascertain whether there are any significant systematic differences in grade in these materials.
- Sampling of "rubble" zones should proceed similar to RC sampling. The entire interval of fine and coarse material should be split into equal halves using a Gilson splitter, with one-half placed in a bag for assay and the other half returned to the core box.

## Drill hole surveying and abandonment

- Drill holes should have downhole surveying performed by methods capable of delivering accurate azimuth and dip readings unaffected by magnetics.
- Drill hole collars should be accurately surveyed in a publically recognized coordinate system with accurate elevations.
- Drill holes should be abandoned according to specifications of the regulating agency. A permanent location marker should be installed, such as a concrete slab around or over the drill pipe, with a permanent inscription or tag indicating the drill hole identification.

## Records

Accurate records should be made during all drill sampling, and these records should be retained with project files. These records should record all information that might be of value in interpreting the geology of the deposit and all information that may be required to verify the integrity of the samples for audit.

For all projects and every drill hole, this will include information recorded on a drill hole record sheet ("header information")

- Project
- Drill Hole Number
- Driller, samplers, helpers
- Geologist and samplers
- Drill Hole Location, azimuth and inclination
- Dates and times of initiation and completion

For each sample interval, the record should contain

- Sample number
- Starting and ending depth; starting and ending time.
- Color

- Estimated sample recovery.
- Comments on drilling conditions and other sample observations, particularly evidence of core recovery problems such as plucking and spindling.

For every batch of samples, there should be a record of everything that is done to the samples, by whom, where and when. This audit trail or chain of custody has to be done for each sample from point of collection to assay. These records become a permanent part of each project's files.

## Analytical QA/QC

- Insert standard reference samples into routine analytical batches at a rate of 1% to 5%, depending on the confidence level with the laboratory and the size of the batch. Standards should be purchased which have the appropriate gold content (high-grade or low-grade) and which represent the appropriate rock matrix (oxide or sulfide).
- Compare the results of standards from a batch before reporting, plotting or interpreting those data.
- Significant departure from the recommended values for standards should be reported to the laboratory immediately and relevant sections of the batch re-analyzed.
- Duplicate submission has been discussed above under "Core sampling procedures". They should be taken about every 50th sample and inserted into the sample stream at some distance (number of samples) from the sample they are duplicating.
- Submit blank samples at a rate of at least 1% of the samples. They should also be inserted after suspected high-grade samples. Ideally, these check samples should be camouflaged from the lab; but they should be submitted even if they can be identified as checks. Some actual core, known to be devoid of gold, would be ideal for this purpose.

## **Bulk Density**

- Bulk density measurements should be taken with rock, core, small pits or truck weightometer tests.
- At least 10 bulk density measurements for each rock unit modeled, and for ore-bearing units, are needed.

## Documentation

• Proper archiving of hard-copy documents for all data is a necessary element of proper project database management. Data received electronically should be filed in hard copy format for later auditing and validation of data. This includes assays, drill hole logs, bulk density determinations, down-hole survey records, collar surveys, quality assurance and quality control results.

• Project data files should be maintained in secure files that protect the data yet permit access by everyone working on the project. A duplicate set of all critical project data should be kept in a separate secure location.

#### APPENDIX III GUSTAFSON ASSOCIATES LETTER



September 21, 2011

Mr. Robert Dinning, Chief Executive Officer Desert Hawk Resources Inc. #804 750 West Pender Street Vancouver, BC CANADA V6C 2T7

#### Subject: QA/QC procedures at the Atlanta project

Dear Mr. Dinning:

As a Gustavson Associates, LLC (*GA*) qualified person for the purposes of NI 43-101 reporting, I was asked by Desert Hawk Resources Inc. (*DHR*) to prepare a document outlining appropriate quality assurance/quality control (QA/QC) procedures for drilling and sampling at the Atlanta project in Lincoln County, Nevada. In June 2011, I prepared a document entitled "Recommended Core Drilling and Sampling QA/QC Procedures for the Atlanta project, Desert Hawk Resources". In September 2011, I updated this document to include reverse circulation drilling and sampling procedures and the updated document was entitled "Recommended Drilling and Sampling QA/QC Procedures for the Atlanta project, Desert Hawk Resources".

I was also asked to review on-site the QA/QC practices of DHR staff. Accordingly, to date, I have made two visits to the project site, once on May 26-27, 2011 and again on July 18-21, 2011, when I observed DHR's core drilling and sampling practices first-hand during active drilling.

Based on the practices I have observed and the information that has been provided to me by DHR, I am satisfied that DHR is handling and preparing drill samples in an industry-standard best-practice and NI 43-101 compliant manner.

Yours truly,

**Gustavson Associates, LLC** 

MC newton, Et

M. Claiborne Newton, III, Ph.D., C.P.G. Vice President / Director – Geological Services ECSI, LLC<sup>1</sup>

<sup>1</sup>ECSI, LLC is part of a group of companies, including Gustavson Associates, that are controlled by Ecology and Environment, Inc.

5757 Central Ave Suite D Boulder, CO 80301 USA +1 (303) 443-2209 FAX +1 (303) 443-3156 Mining Office: 274 Union Boulevard Suite 450 Lakewood, CO 80228 USA +1 (720) 407-4062 FAX +1 (720) 407-4067 http://www.gustavson.com gustavson@gustavson.com