

**TECHNICAL REPORT AND
MINERAL RESOURCE UPDATE
ON THE
EAGLE MOUNTAIN GOLD and MOWASI PROJECTS
GUYANA
for
EAGLE MOUNTAIN GOLD CORP.**

Report No. 967

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Toronto, Ontario, Canada

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A.C.A. HOWE INTERNATIONAL LIMITED
Mining and Geological Consultants

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“Signed and Sealed”



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1 SUMMARY

This technical report (“the Report”) has been prepared by A. C. A. Howe International Limited (“Howe”) at the request of Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Eagle Mountain Gold Corp. (“EMGC” or “the Company”). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) with respect to the Eagle Mountain Prospecting License (EMPL), also referred to as the Eagle Mountain Property, and the adjacent Mowasi Property (“Property” or “Properties”) and focuses on Howe’s independent update of IAMGOLD Corporation, Guyana Exploration and Technical Services Groups’ October 2009 Eagle Mountain mineral resource inventory and ACA Howe’s November 2010 audit of the latter. The report also updates EMGC’s exploration work conducted at the Eagle Mountain Property during 2011 and 2012 and at the semi-contiguous Mowasi property during 2011 and 2012. The Properties are situated in west-central Guyana, South America, bounded by latitudes 5° 02’ N and 5° 21’ N and longitudes 58° 52’ W and 59° 09’ W, approximately 200 kilometres south-southwest of the capital, Georgetown.

The Eagle Mountain Property is located approximately five kilometres south of Mahdia Township, and four kilometres south of the Mahdia airstrip. The Mowasi Property, comprising 2 noncontiguous blocks, is located approximately 15 km due east and southeast of Mahdia respectively, east and southeast of the Eagle Mountain Property. Mahdia can be accessed by road from Georgetown in five to seven hours, approximately 325 kms. The road is paved from Georgetown to Linden. Access between Linden and Mabura is via a wide laterite road. An unpaved road from Mabura to Mahdia is all weather, though the rainy season often makes access difficult. A large motorized pontoon ferry is used to cross the Essequibo River at Mango Landing. The Mahdia airstrip was hard-surfaced in the spring of 2010 and is suitable for small commercial and charter twin-engine passenger aircraft. Local unpaved roads from Mahdia provide access to and within the EMPL and from Tumatumari Junction on the Mabura/Mahdia road to the Mowasi Property.

On September 29, 2010, Stronghold Metals Inc. (Stronghold) (now EMGC) announced that it had entered into an Earn-In and Joint Venture Agreement with Omai Gold Mines Ltd. (“OGML”) and Eagle Mountain Gold Inc. (“EMGI”), affiliates of IAMGOLD Corporation (“IAMGOLD”) whereby Stronghold may earn increasing interests in EMGI and the Eagle Mountain Property (or Eagle Mountain Prospecting License - EMPL) based on a combination of cash payments, share issuances and work expenditures. Eagle Mountain Gold Inc. (EMGI) owns the Eagle Mountain Gold Property. At the date of the agreement EMGI was 100% owned by OGML, a 95% owned subsidiary of IAMGOLD. The Republic of Guyana holds the remaining 5% of OGML. On January 16, 2012 Stronghold announced that it had entered into an Amended and Restated Earn-In and Joint Venture Agreement with OGML and EMGI. On March 30, 2012 Stronghold announced that it had exercised the option to earn a 50% interest in EMGI and the Eagle Mountain Prospecting Licence (“EMPL”). EMGC has an option to earn an additional 45% interest (95% total) in EMGI and the property. EMGC and OGML are joint venture partners, with EGMC acting as Operator.

On October 7, 2011, Stronghold (now EMGC) entered into a definitive Option Agreement with Mowasi Gold Corp., to earn a 95% beneficial interest in Mowasi Gold Corp’s exclusive interest



in 31 concessions which are adjacent to the Company's Eagle Mountain Property. Also, EMGC has the First Right of Refusal to acquire Mowasi's interest in 22 additional PPMS (ROFR properties).

On July 6, 2012, Stronghold announced its name change to Eagle Mountain Gold Corp. (EMGC).

The 31 permits of the Mowasi Property encloses an area of approximately 85 km² (8,500 hectares) or 32.8 sq miles (21,000 acres), with the exception of all third party lands legally held or occupied therein

The Eagle Mountain and Mowasi property areas occur within Palaeoproterozoic greenstones of the northern part Guiana Shield. The oldest rocks in this general area belong to the Barama-Mazaruni Supergroup and consist of folded, lower greenschist meta-volcanic and meta-sedimentary rocks. Synkinematic multi-phase plutons of the 1.9 to 2.2 Ga Younger Granite Group intrude the Mazaruni Group. The greenstones and granites are unconformably overlain by the Middle Proterozoic Uatuma SuperGroup, which includes folded sediments of the Moruwa Formation and locally tilted volcanics of the overlying Iwokrama Formation. These are overlain by a thick succession of flat-lying sediments of the Roraima Formation. Un-metamorphosed basic intrusions are widespread throughout Guyana and have a wide age range. Large sills and dykes of this Younger Basic Intrusive Suite include the post-mineralization sill at Eagle Mountain and the Tumatumari Dyke which are dated at 1.67Ga (Snelling and McConnell, 1969) and 1.6-1.8 Ga (Gibbs & Barron 1993).

A composite granodiorite pluton intruding the greenstone rocks hosts most of the known gold mineralization on the Eagle Mountain Property. Barren post-mineralization dolerite dykes and sills dated at 1.6-1.8 Ga are believed to be the youngest rocks in the area, although a suite of undated post-mineralization porphyry dykes have also been recognized locally.

The northerly portion of the Mowasi Property is predominantly intermediate volcanics with lesser amounts of granitoid. A noted feature of this area is the Tumatumari dolerite dyke. Granitoids dominate the central portion of the Property and the southerly permits are almost exclusively dolerite and gabbro-norite. These units may only be the tops of the hills/mountains and may overlay the volcanic sequence.

Alluvial gold has been exploited in the Eagle Mountain and Mowasi areas since at least the 1880s, with commercial exploration starting at Eagle Mountain in the period 1947-1948 (Anaconda British Guiana Mines Ltd). The Geological Survey of Guyana, which eventually became the Guyana Geology and Mines Commission, carried out a number of subsequent exploration phases at Eagle Mountain until modern systematic exploration commenced in 1988 (Golden Star Resources Ltd). Omai Gold Mines Ltd (OMGL) acquired ownership of the EMPL in late 1998. EMGC optioned the Eagle Mountain Property from OMGL in 2010.

The bulk of the gold resource is contained within the shallow dipping Zion (includes the previously separate Saddle) and Kilroy (includes the previously separate Millionaire) mineralized shear zones. Gold mineralization is associated with a distinctive chlorite – silica –



actinolite – epidote – sulphide (mainly pyrite) ± biotite alteration assemblage and minor quartz veining. Individual zones vary in thickness up to approximately 42 metres, and are separated from each other by 1 to 40 metres of barren rock that can be distinguished based on minor variations in trace element chemistry; for example, the Zion zone is relatively enriched in copper while Kilroy and Millionaire zones contain elevated arsenic. This style of mineralization has been delineated over an area of approximately two square kilometres.

Sporadic gold and molybdenum occurrences have been identified west the Eagle Mountain resource area and the north-east trending Minnehaha Fault and potentially represent a separate mineralization phase. Economically significant concentrations of this mineralization style have not yet been identified and these occurrences are not included in the current resource estimate.

The Mowasi Property is at an early exploration stage and only alluvial gold deposits have been worked to date by artisanal miners in and around the property area. The style of potential insitu bedrock hosted gold mineralization is uncertain. EMGC suggests that gold mineralization at Mowasi may be related to the phyllites and to a lesser extent sediments within the intermediate sheared volcanic package and associated felsic and mafic intrusions. EMGC notes that the quartz veining is generally white, approximately 50cm to several metres in thickness and is reported to contain visible gold. Veining is also recognized within granitoids. EMGC further notes that the veins are similar to those observed in portions of the Bishop Growler area of Eagle Mountain.

EMGC exploration has focused primarily on diamond drilling at the Eagle Mountain Deposit where it completed a 73 hole diamond drill program in 2011 (EMD11-044 to EMD11-116) totaling 10,715.93 metres of HQ/NQ core. EMGC also completed a total, 102.4m of surface channel sampling in 27 localities at the Eagle Mountain deposit from mechanically excavated drill pad walls. EMGC completed preliminary reconnaissance rock sampling and drainage sampling at the Mowasi Property in 2011 and 2012.

ACA Howe has prepared an updated estimate of mineral resources for the Eagle Mountain gold deposit. The mineral estimate was prepared by Leon McGarry, B.Sc., ACA Howe Geologist – Resources and supervised by Ian Trinder, M.Sc., P.Geo. (APGO, No. 452), ACA Howe Senior Geologist, an independent “qualified person” as defined in NI 43-101. Micromine[®] software (Version 12) was used to facilitate the resource estimation process.

Raw data incorporated into this resource update study consists of all trenching and diamond drilling data obtained from the Eagle Mountain Project between 1997 and 2011; earlier drill holes are not included because of the lack of QA/QC, lack of archived core and incomplete data. It is considered that the trench and diamond drill sample populations are sufficiently comparable allowing the use of assay data derived from both methods to in resource estimation. Auger, adit channel sample, pit and grab sample data are incorporated into the deposit database to aid modeling, however assay and geological data from these sources are treated as indicative and are not used in block grade estimation. Since completion of the ACA Howe 2010 resource audit detailed in its 2010 technical report (Roy and Trinder, 2010), EMGC drilled 73 diamond drill holes in 2011. Based on the 2011 and historic drill data EMGC revised the geological



interpretation at Eagle Mountain. Cross sections and plans provided to, and reviewed by ACA Howe are used in this resource estimation update.

ACA Howe has reviewed sample collection methodologies adopted by the Company and are satisfied that they are of a satisfactory standard.

Drill hole collar, assay, survey, geology, recovery data were received as electronic files in Microsoft Access database format. These data files were checked and imported into Micromine software and interrogated via Micromine validation functions prior to constructing a Micromine drill hole database for the deposit. Key fields within critical drill hole database data files are validated for potential numeric and alpha-numeric errors. Data validation, cross referencing collar, survey, assay and geology files, is performed in Micromine to confirm drill hole depths, inconsistent or missing sample/logging intervals and survey data. The database was found to be in very good condition. No significant errors were detected during data validation.

A lower modelling cut off of 0.2 ppm Au is used. Locally, lower grades are included to ensure the continuity of model domains. It is not possible to identify a statistically robust top cut. Nonetheless, the treatment of a small number of very high grades is required and a value of 20 g/t is used. To ensure the appropriate length weighting of assay grades samples within the Eagle mountain resource drill database are composited to a standard length of 1 m.

The 2012 revised geological interpretation for the Eagle Mountain deposit was reviewed and discussed with the Company geologists. Interpretations of geology, structure and mineralization are provided by the Company in plan and cross section diagrams. Surface drilling, trenching and outcrop mapping has defined two distinct zones of mineralization covering the southern flank of Eagle Mountain: Zion and Kilroy. Most known gold mineralization is association with low-angle thrust (10-30°) shear zones within granitoid rocks. Thrust characteristics show a gradational progression from the Zion zone in the northeast to the Kilroy zone in the southwest.

Granitoid hosted shear zone Au mineralization is cross cut by a later secondary network of northeast to southwest and east-west sub vertical faults. Apparent dip-slip movement has resulted in the down dropping of blocks towards the southeast across northeast faults and towards the south-west across easterly faults. The fault bound blocks have apparent vertical offsets that are typically between 1 and 30 metres. The resultant 29 fault bound subdomains have an approximate aerial extent of 1.65 km². For the purposes of resource estimation, subdomain boundaries are 'soft', such that assay grades may be interpolated across fault offsets.

The deposit is intruded by NE-SW basic dykes. Dyke emplacement is interpreted to be fault controlled and to post-date the granodiorite pluton mineralization. Where extensive intervals of dyke material are identified in drill core, the surrounding region is excluded from the resource model. Elsewhere, there is insufficient data to meaningfully delineate deleterious intrusions.

Strike and dip orientations of mineralized zones are interpreted using logged geology, structural orientation measurements, as well as geological and fault models developed by the Company. Drill hole intervals that meet a notional cut-off grade of 0.2 g/t gold over at least 2 meters vertical thickness are assigned to the fault bound subdomains. Locally low grade material is



also incorporated to honour the broader continuity of mineralized zones. Top and bottom 3D coordinates are extracted from assigned intervals. Within each fault bound domain, top and bottom depths are contoured separately using the minimum curvature method. This method attempts to fit curves with the least acute bends between points and produces smooth contours that approximate top and bottom bounding surfaces of in-situ mineralization. Where necessary, additional top and bottom points are digitized in 3D to ensure surfaces honor interpreted mineralization. Contoured top and bottom surfaces are constrained by interpreted fault boundaries to generate 3D wireframe solids for 29 domains throughout the Eagle Mountain deposit area.

The Base of Saprolite (BOS) depth is identified in drill hole geology logs. The 3D coordinates of BOS points are extracted and the vertical BOS depth below the DTM surface is gridded using 2D omnidirectional kriging. The BOS model is used to assign model blocks to saprolite and fresh weathering domains.

Bulk densities are assigned to each weathering domain, 1.6 t/m^3 for saprolite and 2.6 t/m^3 for fresh rock.

An empty cell block model is created to cover the extent of wireframes at the Eagle Mountain deposit. The parent block sizes for each model are 10 mE x 10 mN x 5 mRL and are based on the geological model and potential mining methods. Domain wireframes are assigned to the block model file such that blocks falling inside any given domain are assigned to that domain. All blocks outside of the wireframe model are deleted. A DTM surface representing the topography is used to constrain the upper surface of the block model. Blocks situated above the topography DTM surface are removed from the resource block model.

For geostatistical analysis and grade interpolation, the model blocks and composites falling within Zion and Kilroy are flattened. Flattening is undertaken using Micromine coordinate transformation functions that normalise domain blocks and composites relative to an idealised plane that passes through the vertical midpoint of the model. Horizontal flattening of Eagle Mountain domains limits deviations in the mineral horizon geometry associated with post mineralization faults that divide the subdomains. This allows a better representation of mineralized trends.

The variogram model for both the major Kilroy and Zion axes indicates a relatively narrow initial range of co-variance over approximately 40 to 50 m. This is followed by an apparent gradual increase in variance over a broad range of ~200 m. The variogram model for the semi-major axes indicates a comparable short initial range of co-variance over approximately 40 m to 50 m, followed by an apparent gradual increase in variance over a broad range of 150 m at which point the variogram collapses. For both the Zion and Kilroy domains, the minor axis is poorly behaved. An initial range is taken to be 15 m the second broader range is taken to be 30 m.

Gold grades are interpolated into the block model separately for Zion, Kilroy A, B and C. Blocks in a domain are assigned an interpolated grade derived from the flattened composite data which falls within that flattened domain. Gold grade interpolation is undertaken using top cut and composited drill and trench data. For each domain, the Ordinary Kriging interpolation



technique was used to interpolate block grades at increasing search radii, until all blocks within each domain receive an interpolated grade or are assigned a null value.

Three search ellipse ranges are determined by means of the evaluation of the geological model, exploration data spacing and by analysis of the variogram parameters for Zion and Kilroy. The first search radii are selected to be equal to the Zion zone first variogram model, defined as the 'Narrow Range' (major axis = 40 m; semi major axis = 40 m; minor axis = 10m). The second search radii are selected to be equal to half the range in the strike, dip and across dip directions of the second variogram model defined as the '½ Broad Range' (major axis = 100 m; semi major axis = 75 m; minor axis = 20m). The third search radii are selected to be equal to the second variogram model defined as the 'Broad Range' (major axis = 200 m; semi major axis = 150 m; minor axis = 30m). Model blocks that did not receive a grade estimate from the first interpolation run were used in the next interpolation run. Block estimates are informed by a minimum of two drill holes. Run 1 block estimates require a minimum of 4 samples per hole and 8 samples in total. Run 2 and 3 block estimates require a minimum of 2 samples per hole and 4 samples in total.

Updated mineral resources at the Eagle Mountain project are of Inferred and Indicated categories. All blocks captured in the first run are classified as "Indicated" resources. Blocks captured in run 2 and run 3 are categorised as 'Inferred'. The resource estimate is prepared in accordance with CIM Standards on Mineral Resources and Reserves and is reported in accordance with the Canadian Securities Administrators' NI 43-101. Classification, or assigning a level of confidence to Mineral Resources, has been undertaken with strict adherence to the CIM Standards on Mineral Resources and Reserves.

Only mineral resources are identified in this report. No economic work that would enable the identification of mineral reserves has been carried out and no mineral reserves are defined.

Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect the Eagle Mountain mineral resource estimate. However at the time of this report, Howe is unaware of any such potential issues affecting the resource and properties. There are 24 legal small scale mining permits within the license area. These are not considered to constitute a major risk to the future development of the Eagle Mountain project.

Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold. The volume of internal non-mineralized dike rocks has not been deleted from the mineral resource volume. The non-diluted Indicated mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 3,921,000 tonnes at 1.49 g/tonne gold for 188,000 ounces gold. The non-diluted Inferred mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 20,635,000 tonnes at 1.19 g/tonne gold for 792,000 ounces gold.

Resources estimated in the course of this study have an effective date of November 21, 2012 and are summarized by resource category and material zone in the following table:



Eagle Mountain 2012 Mineral Resource Update (0.5 g/t Au cutoff)

Category	Zone	Material	Density (t/m3)	Volume (m3)	Tonnes	Au_ppm	Ounces Au
Indicated	Zion	Saprolite	1.60	538,000	860,000	1.42	39,000
		Fresh	2.60	436,000	1,134,000	1.40	51,000
		Total	2.03	974,000	1,994,000	1.41	90,000
	Kilroy	Saprolite	1.60	456,000	730,000	1.49	35,000
		Fresh	2.60	461,000	1,197,000	1.63	63,000
		Total	2.08	917,000	1,927,000	1.58	98,000
	All	Saprolite	1.60	994,000	1,590,000	1.45	74,000
		Fresh	2.60	897,000	2,331,000	1.52	114,000
		Total	2.05	1,890,000	3,921,000	1.49	188,000
Inferred	Zion	Saprolite	1.60	2,671,000	4,274,000	1.31	180,000
		Fresh	2.60	3,035,000	7,891,000	1.13	286,000
		Total	2.16	5,706,000	12,165,000	1.19	466,000
	Kilroy	Saprolite	1.60	1,831,000	2,929,000	1.33	126,000
		Fresh	2.60	2,132,000	5,542,000	1.12	200,000
		Total	2.25	3,962,000	8,471,000	1.20	326,000
	All	Saprolite	1.60	4,502,000	7,202,000	1.32	306,000
		Fresh	2.60	5,167,000	13,433,000	1.13	486,000
		Total	2.19	9,668,000	20,635,000	1.19	792,000

Notes for mineral resource estimate:

1. A block cut-off value of 0.5 g/t Au was applied to all resource blocks.
2. Tonnes and ounces have been rounded to reflect the relative accuracy of the mineral resource estimate; therefore numbers may not total correctly.
3. A notional cut-off gold grade for mineralized domain interpretation was 0.2 g/tonne Au.
4. A top cut of 20 g/tonne Au was applied to raw assay values.
5. Composited Diamond drill hole and trench samples are assigned to 30 layered and fault bound resource domains that encompass the Zion and Kilroy portions of the deposit.
6. Corresponding domain blocks and composite samples are projected to a horizontal plane for grade estimation by Ordinary Kriging.
7. The block model is constrained by topography and saprolite and fresh weathering domains with bulk density values of 1.6 t/m3 and 2.6 t/m3 respectively assigned.
8. Mineral Resource tonnes quoted are not diluted.
9. Mineral resources are not mineral reserves and by definition do not demonstrate economic viability. This mineral resource estimate includes inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated resource categories through further drilling, or into mineral reserves, once economic considerations are applied.
10. This estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing or other relevant issues.



EMGC's 2011 drill program has confirmed a significant resource at Eagle Mountain. The 2011 infill and step-out drilling added metal content (gold ounces) and resulted in the estimation of inferred and indicated resources; previously only inferred resources were identified. Utilizing a new fault block geological model, a mineral deposit comprising two zones has been outlined that is shallow dipping (-30°) and 1,950 metres northeast by 950 metres southeast in plan view and 5 to 60 metres in thickness.

Continued close-spaced grid drilling or trenching at the Eagle Mountain deposit (on the order of 50m in selected areas) will be required to demonstrate the continuity of the main mineralized zones and to continue upgrading at least a portion of the current inferred resource to the indicated category.

Based on its preliminary 2011-2012 reconnaissance work on the Mowasi Property EMGC concludes that follow-up work is warranted in the northern part of the south claim block where the drainage geochemistry results show good gold values in both the drainage sample, the pan results and the one rock sample. EMGC also concludes that follow-up work should also be conducted in the central part of the north claim block where, although the drainage geochemistry results were poor, there is significant number of artisanal pits in saprolite and a number of rock samples returned greater than 0.5 g/t Au. Initial follow-up work should include soil/auger sampling of these areas to define soil anomalies and continued mapping of the artisanal pits and workings. Howe concurs with EMGC's conclusions and suggested follow-up work.

Howe concludes that the Eagle Mountain and Mowasi Properties warrant additional exploration expenditures.

Howe recommends that at the Eagle Mountain Property:

1. A systematic QA/QC protocol should be continued with the insertion of standards, blanks and duplicates into the sample stream in order to monitor the accuracy and precision of analytical results.
2. Given the lack of QA/QC information and documentation of sampling and assaying methodologies for the historic drill core (pre-2007), EMGC should conduct a check sampling program using available archived drill core.
3. The detailed Lidar topographic surveying of the mineral resource area should be completed to more accurately assess areas where the resource is incised by erosion and how much pre-stripping will be required to expose the mineralization where it is not at surface.
4. Surface and outcrop mapping should continue to identify dykes and faults and to generate a more definitive structural interpretation.
5. Diamond drilling should continue on the Eagle Mountain resource estimate area to (a) expand Inferred mineral resources along strike and (b) further upgrade Inferred resources to Indicated resources.
6. Specific gravity measurements should be continued on representative Eagle Mountain samples, particularly the mineralized zones during future drill programs. Check samples should be completed at an independent third party laboratory.



7. Additional metallurgical work, consisting of gravity, cyanide and flotation test work should be carried out on representative samples. This laboratory-scale work would take 1-2 months. The goal of this work would be to develop a preliminary mineral processing flowsheet that could be used during potential future preliminary economic analyses.
8. Because of its extended timeline, Environmental Impact and Social Assessment studies (EISA) necessary for a Mining Licence application should be considered. EMGC should confirm that weather data it has collected to date is sufficient for the application and flora and fauna studies should be initiated by an approved local environmental consultant.
9. Future resource estimates should attempt to model known occurrences of volumetrically significant non-mineralized dike rocks.
10. A Preliminary Economic Assessment (PEA) should be conducted on the Eagle Mountain mineral resource.

EMGC has proposed the following two phase Eagle Mountain Property work program budget for 2013 that will incorporate Howe's recommendations. Howe finds the proposed budget reasonable.

Eagle Mountain 2013 Phase 1

License & permits:	\$55,000
Preliminary Economic Assessment studies:	\$175,000
Drilling & Analytical costs:	\$1,881,000
Mineralogical & Metallurgical tests and studies:	\$150,000
Environmental Base Study and EIA:	\$148,000
Other engineering work:	\$125,000
Labour costs & local salaries:	\$489,000
Camp costs and maintenance:	\$115,000

Total Phase 1 US\$ 3,138,000

Eagle Montain 2013 Phase 2 (subject to successful PEA results)

Feasibility Studies direct costs:	\$450,000
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Total Phase 2 US\$ 450,000

Grand Total Phase 1 and 2 US\$ 3,588,000



EMGC has recommended and Howe concurs with following work program at the Mowasi Property:

1. 56 line km of auger samples at 400m line spacing and 50 m sample spacing with an estimated 1120 sample sites (5600 samples) to cover the 2012 EMGC anomalous drainage geochemistry area in the Southern Mowasi Claims.
2. 35 line km of auger samples at 50 m sample spacing with an estimated 700 sample sites (3500 samples) to cover the 2012 EMGC weakly anomalous drainage geochemistry area (but associated with significant artisanal workings and rock samples with significant gold assays).
3. 19 line km of auger samples at 50 m sample spacing with an estimated 380 sample sites (1900 samples) to cover the a anomalous drainage geochemistry (gold) area in the Breakfast Creek area of the Northern Mowasi Block and northeast corner of the EMPL.

Howe also recommends that:

4. EMGC work with Mowasi to determine the validity of the small scale mining activity within the Mowasi permits, particularly within the areas identified for follow-up exploration.

EMGC has proposed the following Mowasi Property work program budget for 2013 that will incorporate the above recommendations. Howe finds the proposed budget reasonable.

Mowasi 2013

License & permits:	\$35,000
Exploration work (auger sampling all inclusive)	<u>\$225,000</u>
	<u>Total US\$ 260,000</u>



2 INTRODUCTION

This technical report (“the Report”) has been prepared by A. C. A. Howe International Limited (“Howe”) at the request of Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Eagle Mountain Gold Corp. (“EMGC” or “the Company”). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) with respect to the Eagle Mountain Prospecting License (EMPL), also referred to as the Eagle Mountain Property, and the adjacent Mowasi Property (“Property” or “Properties”) in Guyana and focuses on Howe’s independent update of IAMGOLD Corporation, Guyana Exploration and Technical Services Groups’ October 2009 Eagle Mountain mineral resource inventory (Clouston, 2009) and ACA Howe’s November 2010 audit of the latter (Roy and Trinder, 2010). The report also updates EMGC’s exploration work conducted at the Eagle Mountain Property during 2011 and 2012 and at the adjacent Mowasi Property during 2011 and 2012. . The Properties are situated in west-central Guyana, South America, bounded by latitudes 5° 02’ N and 5° 21’ N and longitudes 58° 52’ W and 59° 09’ W, approximately 200 kilometres south-southwest of the capital, Georgetown.

On September 29, 2010, Stronghold Metals Inc. (Stronghold) (now EMGC) announced that it had entered into an Earn-In and Joint Venture Agreement with Omai Gold Mines Ltd. (“OGML”) and Eagle Mountain Gold Inc. (“EMGI”), affiliates of IAMGOLD Corporation (“IAMGOLD”) whereby Stronghold may earn increasing interests in EMGI and the Eagle Mountain Property (or Eagle Mountain Prospecting License - EMPL) based on a combination of cash payments, share issuances and work expenditures. Eagle Mountain Gold Inc. (EMGI) owns the Eagle Mountain Gold Property. At the date of the agreement EMGI was 100% owned by OGML, a 95% owned subsidiary of IAMGOLD. The Republic of Guyana holds the remaining 5% of OGML. On January 16, 2012 Stronghold announced that it had entered into an Amended and Restated Earn-In and Joint Venture Agreement with OGML and EMGI. On March 30, 2012 Stronghold announced that it had exercised the option to earn a 50% interest in EMGI and the Eagle Mountain Prospecting Licence (“EMPL”). EMGC has an option to earn an additional 45% interest (95% total) in EMGI and the property. EMGC and OGML are joint venture partners, with EGMC acting as Operator.

On October 7, 2011, Stronghold (now EMGC) entered into a definitive Option Agreement with Mowasi Gold Corp., to earn a 95% beneficial interest in Mowasi Gold Corp’s exclusive interest in 31 concessions which are adjacent to the Company’s Eagle Mountain Property. Also, EMGC has the First Right of Refusal to acquire Mowasi’s interest in 22 additional PPMS (ROFR properties).

On July 6, 2012, Stronghold announced its name change to Eagle Mountain Gold Corp. (EMGC).

EMGC is a junior resource company listed on the TSX Venture Exchange under the symbol “Z”. The corporate head office is located at Suite 206, 595 Howe Street, Vancouver, B.C., V6C 2T5. The Company’s current focus is the Eagle Mountain Gold and Mowasi Properties, Guyana.



Howe is an international mining and geological consulting firm that has been serving the international mining community for over 30 years. Howe is well recognized by the major Canadian Stock Exchanges and provincial regulatory bodies and its personnel have worked on projects involving a wide variety of commodities and deposit types throughout the world. The firm's services are provided through offices in Toronto and Halifax, Canada; and London, England.

Neither Howe nor any of the authors of the opinions expressed in this Report (nor family members nor associates) have business relationships with the Company or any associated company, nor with any other company mentioned in this Report which is likely to materially influence their impartiality or create the perception that the credibility of this Report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of the Company.

Moreover, neither the authors of this Report nor Howe (nor their family members nor associates) have any financial interest in the outcome of any transaction involving the property considered in this Report, other than the payment of normal professional fees for the work undertaken in its preparation (which are based upon hourly charge-out rates and reimbursement of expenses). The payment of such fees is not dependent upon the content or conclusions of either this Report, nor any consequences of any proposed transaction.

2.1 SCOPE AND CONDUCT

The purpose of the Report is to complete an update of IAMGOLD's October 2009 Eagle Mountain mineral resource inventory (Clouston, 2009) and ACA Howe's November 2010 audit of the latter (Roy and Trinder, 2010) based on EMGC's completion of an additional 73 diamond drill holes into the mineralized zone in 2011. The report also updates exploration work completed by EMGC on the Eagle Mountain Property in 2011 and on the adjacent Mowasi Property in 2011 and 2012.

The Eagle Mountain Property area has been a focus for small-scale artisanal gold mining for more than a hundred years and there are presently a number of minor active operations, both legitimate and illegal around the Prospecting License perimeter. There are 24 legal small scale mining permits within the license area. These are not considered to constitute a major risk to the future development of the project. Similarly, small-scale artisanal gold mining has historically occurred on the Mowasi Property and there are presently a number of minor active operations, both legitimate and illegal inside and around the Mowasi Property perimeter. These are not considered to constitute a major risk at this early grassroots stage of the Property.

This Report was prepared by Howe (Canada) personnel. Mr. Ian Trinder, M.Sc., P.Geo., Senior Geologist and Qualified Person (QP), is responsible for the preparation of this report. Mr. Trinder has a Master of Science degree in geology and is a registered Professional Geoscientist (P.Geo.) in good standing registered in the Provinces of Ontario and Manitoba (APGO no. 0452, APEGM no. 22924). The mineral resource update was prepared by Mr. Leon McGarry, B.Sc., Resource Geologist with Howe under the supervision of Mr. Trinder. Mr. Trinder has over 25 years' experience in the mining industry with a background in international precious and base



metals mineral exploration including project evaluation and management. Howe's mineral resource update has been prepared in accordance with CIM Standards on Mineral Resources and Reserves. Only Mineral Resources were estimated – no Mineral Reserves were defined.

Mr. Trinder first visited the Eagle Mountain Property site from October 9th, 2010 to October 12th, 2010 as part of due diligence in the preparation of Howe's 2010 technical report.

Mr. Trinder, accompanied by Mr. Doug Roy, Howe Associate Mining Engineer, revisited the Eagle Mountain Project in September 2012. On September 17th, Mr. Trinder and Mr. Roy visited EMGC's Georgetown office located at 62 Zinnia Ave, Bel Air Park. Hardcopy reports and maps were reviewed and sample pulp and reject storage areas were inspected. The third-party sample preparation and laboratory facilities of Activation Laboratories (Actlabs) located at 27/28 Parcel Beterverwagting Industrial Area, East Coast Demerara and Acme Analytical Laboratories (Guyana) Inc. located at Lot 13 Plantation Non Pariel, East Coast Demerara were also visited and inspected. On September 18th, Mr. Trinder and Mr. Roy accompanied by Ms. Anne Casselman, EMGC's Exploration and Country Manager - Guyana, were driven from Georgetown to the Eagle Mountain Project by EMGC's logistics coordinator Mr. Ian Moore in order to assess road conditions to the Project area. A brief inspection of access conditions and a drainage sample site south of Tumatumari Junction in the Mowasi Property's northern claim block was completed on the trip into the Eagle Mountain camp. From September 19th to mid-day September 21st, Mr. Trinder and Mr. Roy completed an inspection of isolated surface outcrops, historic adits, and selected historic and current EMGC drill hole collars. The field camp, core logging and core sampling facilities were inspected. The condition of Company's onsite core storage racks was checked and core from several EMGC drill holes was examined and checked. All of the work sites and technical observations were as reported by the Company. In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc.

This Technical Report is based on information known to Howe as of November 21, 2012 and includes assay data from historic drilling through to OMGL's 2009 diamond drill holes in addition to EMGC's 2011 diamond drill holes. Only the mineral resource area and associated drill intersections between approximately 264000 - 267000 E and 575400 – 577000 N (UTM Zone 21N, PSAD56) are discussed in any detail in this report. Howe reserves the right, but will not be obligated to revise this Report and conclusions if additional information becomes known to Howe subsequent to the date of this Report.

EMGC reviewed draft copies of this Report for factual errors. Any changes made as a result of these reviews did not include alterations to the conclusions made. Therefore the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

EMGC has accepted that the qualifications, expertise, experience, competence and professional reputation of Howe's Principals and Associate Geologists and Engineers are appropriate and relevant for the preparation of this Report. The Company has also accepted that Howe's Principals and Associates are members of professional bodies that are appropriate and relevant for the preparation of this Report.



EMGC has warranted that full disclosure of all material information in its possession or control at the time of writing has been made to Howe, and that it is complete, accurate, true and not misleading. The Company has also provided Howe with an indemnity in relation to the information provided by it. The Company has agreed that neither it nor its associates or affiliates will make any claim against Howe to recover any loss or damage suffered as a result of Howe's use of that information in the preparation of this Report. EMGC has also indemnified Howe against any claim arising out of the assignment to prepare this Report, except where the claim arises out of any proven willful misconduct or negligence on the part of Howe. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising out of the engagement.

2.2 SOURCES OF INFORMATION

In preparing the mineral resource audit, Howe utilized a digital database provided by EMGC. Howe has also reviewed geological reports, maps, miscellaneous technical papers, company letters and memoranda, and other public and private information as listed in Section 19 of this Report, "Sources of Information / References". Howe has conducted a spot check comparison of approximately 10 percent of the drill hole database assays against digital scans/PDF files of original lab certificates to verify the database's accuracy and completeness. No errors were detected.

Howe imported the EMGC database into Micromine 2010 software and the database files were reviewed and "verified" for errors such as missing data and overlapping intervals. No significant errors were detected. Howe reviewed EMGC cross-sections showing the diamond drill hole traces, assay intervals, lithological intervals, interpreted mineralized zone intervals, surface trace, saprolite/nonoxidized rock surface trace, fault traces and interpreted fault block outlines.

The existence of reported work sites was confirmed by during two site visits to the Project as detailed in Section 2.1. Logging, sampling and core handling procedures were found to be compliant with industry and NI 43-101 standards. Howe found the independent preparation and laboratory facilities of Actlabs and Acme to be compliant with industry standards.

Howe has only reviewed the land tenure in a preliminary fashion, and has not independently conducted any legal title or other searches, but has relied upon EMGC for information on the legal status of the claims, property title, agreements, and other pertinent conditions.

Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect the mineral resource estimate and the Eagle Mountain and Mowasi Properties. However at the time of this report, Howe is unaware of any such potential issues affecting the resource and properties.

Historical mineral resource figures contained in the Report, including any underlying assumptions, parameters and classifications, are quoted "as is" from the source. Howe confirms the audited resource is in compliance with National Instrument 43-101 and Form 43-101F



(Standards of Disclosure for Mineral Projects) and the definitions and guidelines of the CIM Standards on Mineral Resources and Reserves.

In addition, as part of its due diligence for this 2012 report, Howe carried out discussions with the EMGC's Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Anne Casselman, Exploration and Country Manager - Guyana and Kevin Pickett, Senior Geologist. Howe's extensive experience in lode gold deposits was also drawn upon.

The authors believe that information and data presented to Howe by EMGC are a reasonable and accurate representation of the Eagle Mountain Gold Project. Howe is of the opinion that the drill hole and assay database for the Eagle Mountain Project is of sufficient quality to permit the completion a NI 43-101 Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.

2.3 UNITS AND CURRENCY

All units of measurement used in this report are metric unless otherwise stated. Historical tonnage figures are reported as originally published in "tons" (short tons). Base metal values are reported in percent (%) or parts per million (ppm). Historical gold and silver grades are reported in their original unit of oz/ton Au or oz/ton Ag (ounces per short ton), although metric equivalents are also given for clarity. Recent analyses are reported in g/t (grams per metric tonne), ppm or parts per billion (ppb). Distances are expressed as kilometres (km) and metres (m). The U.S. dollar is used throughout this Report unless otherwise stated.

Location coordinates are expressed in Universal Transverse Mercator (UTM) grid coordinates, Zone 21N, using the Provisional South American Datum 1956, (PSAD 56).



3 RELIANCE ON OTHER EXPERTS

Howe has relied upon EMGC, its management and legal counsel for information on the Eagle Mountain Prospecting License and Mowasi Property permit locations and status, underlying contracts and agreements pertaining to the acquisition of the Prospecting License and permits and their status. The Property description presented in this report is not intended to represent a legal, or any other opinion as to title.



4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Eagle Mountain Prospecting License (EMPL) also referred to as the Eagle Mountain Property and the adjacent Mowasi Property are located approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America (Figure 4-1). The Properties are located between the Potaro, Konawaruk and Essequibo Rivers in Guyana's Administrative District VIII-2 (Potaro-Siparuni) and in Mining District 2 (Potaro). They lie within the Kaieteur Sheets 43NE, 43SE, 43NW & 43SW 1:50,000 scale topographic maps, bounded by latitudes 5° 02' N and 5° 21' N and longitudes 58° 52' W and 59° 09' W.

4.2 The Mining Regulations of Guyana

All mineral resources in Guyana are the property of the State. The state body responsible for the management of these resources is the Guyana Geology and Mines Commission (GGMC). The Mining Act of 1989 and extensive Mining Regulations provide the framework for the mineral tenure system. Tenure is categorized as small-, medium- and large-scale and GGMC officials exercise discretionary powers. Local legal advice is paramount to determine and clarify the legal status of any mineral tenure, royalties or participatory rights.

The Mining Act, 1989 allows for four scales of operation:

1. A Small Scale Permit has dimensions of 1,500 feet x 800 feet (457 metres by 244 metres) whilst a river permit consists of one mile (1,609 metres) of a navigable river.
2. Prospect Permit Medium Scale (PPMSs) permits cover between 150 and 1,200 acres (60.7 to 486 hectares).
3. Prospecting Licences (PLs) are issued for areas between 500 and 12,800 acres (202 to 5,180 hectares).
4. Permission for Geological and Geophysical Surveys is granted for reconnaissance surveys over large acreages, with the objective of applying for Prospecting Licences over favourable ground selected on the basis of results obtained from the reconnaissance aerial and field surveys.

The permits and licences are located and identified by orthogonal co-ordinates indicating the corners of the permits/licences.

Only citizens of Guyana or legal Guyanese entities may hold a Small Scale Permit and PPMS permit however, foreigners may enter into joint-venture arrangements whereby the two parties jointly develop the property under a private contract. In order to maintain such a permit, there is no requirement to submit a work program or budget, provide reports of work or monument the permit corners. The area may enclose earlier holdings that retain preferential mineral rights. The initial term of a PPMS is one year with a rental fee of US\$0.25 per acre (\$0.10 per hectare). The rental fee increases US\$0.10 per acre (\$0.04 per ha) per year and the permit may be renewed indefinitely for one year periods.

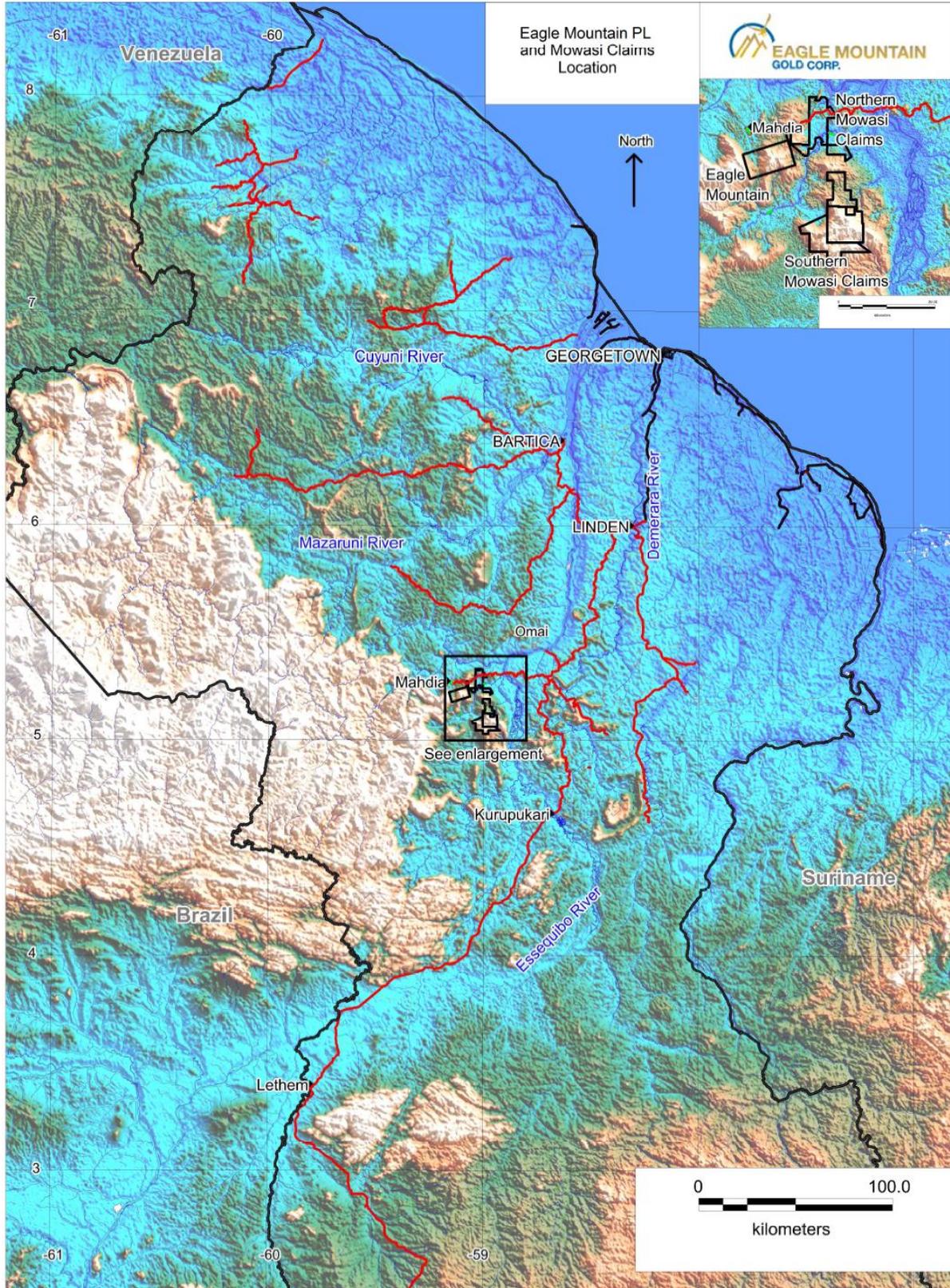


Figure 4-1: Location Map of the Eagle Mountain and Mowasi Properties, Guyana.



A Mining Permit may evolve out of a Prospecting Permit at the permittee's option. There is no requirement for a feasibility study to accompany an application to convert a Prospecting Permit, Medium Scale (PPMS) to a Mining Permit, Medium Scale (MPMS). The MPMS is for an initial term of five years or the life of the deposit whichever is shorter. Rental rates on a MPMS is US\$1.00 per acre (\$0.40 per ha). The State is entitled to a 5% non-contributory interest or royalty on gross production from MPMS. In individual cases, it is possible to negotiate and enter into a Mineral Agreement with the GGMC. Such an agreement would include, but not be limited to, prospecting, exploration and mining/processing and taxation.

Foreign companies may apply for Prospecting Licences and Permission for reconnaissance surveys. The term for PLs is three years with two rights of renewal one year each. The Mining Act, 1989 stipulates that three months prior to each anniversary date of licence, a work program and budget for the following year must be presented for approval. Rental rates for PLs are USD\$0.50 per acre for the first year; US\$0.60 for the second year, and US\$1.00 for the third year. An application fee of US\$100.00 and a Work Performance Bond, equivalent to 10% of the approved budget for the respective year, is also payable. The obligations of the licensee include quarterly technical reports on its activities and an audited financial statement to be submitted by June 30 for the previous year's expenditure. Should the licensee relinquish part or all of the Prospecting Licence area then he is required to submit an evaluation report on the work undertaken therein. Prospecting Licence properties are subject to ad hoc monitoring visits by technical staff of the GGMC.

At any time during the Prospecting Licence, and for any part or all of the Prospecting Licence area, the licensee may apply for a Mining Licence. This application will consist of a Positive Feasibility Study, Mine Plan, an Environmental Impact Statement and an Environmental Management Plan. Rental for a Mining Licence is currently fixed at US\$5.00 per acre per year and the licence is usually granted for twenty years or the life of the deposit, whichever is shorter; renewals are possible

4.3 Property Description and Title

4.3.1 Corporate Name Change

On July 6, 2012, subject to acceptance by the TSX Venture Exchange, Stronghold announced its intent to change its name to "Eagle Mountain Gold Corp." to emphasize the Company's focus on the exploration and development of the Eagle Mountain gold project in Guyana.

4.3.2 Eagle Mountain Property

EMGC currently holds a 50% interest in the Eagle Mountain Prospecting Licence ("EMPL") with an option to earn a 95% interest in the property as detailed in Section 4.3.2 below. EMGC and OGML are joint venture partners, with EMGC acting as Operator.

The Eagle Mountain Prospecting License encloses an area of approximately 50.50 km² (5,050ha) or 19.50 sq. mi. (12,480 acres), with the exception of all third party lands legally held or occupied therein (Figure 4-2).



Eagle Mountain (then called Minnehaha) and adjacent Mahdia areas to the north were originally held by Golden Star Resources Ltd. (“GSR”) as a five year Mineral Agreement with the Government of Guyana dated October 30, 1987. Work was suspended between 1992 and 1997 while the Guyana Government developed its current Prospecting License system, with various extensions of rights granted by Ministerial Decree. On October 14, 1998, a three year Prospecting License was granted to GSR, and then transferred to Omai Gold Mines Ltd. (“OGML”) on December 23, 1998.

A new Prospecting License was issued to OGML in October 2000 for a three year period. In May 2002, a release and discharge agreement was signed between GSR and OGML, and since then OGML has been the unique owner of the property. The Prospecting License was renewed in its entirety for a two year period in October 2003, and again in 2005. A new Prospecting License (PL15/2007) was issued for a three year period under revised rules on October 14, 2007, whereby OGML held specific rights to gold, valuable minerals & molybdenum and base metals including copper, lead, zinc and tungsten.

OGML filed application with the Guyana Geology Mines Commission (“GGMC”) in the summer of 2010 for a renewal of Prospecting Licence (PL15/2007) that covers the Property for the one year period of October 2010 to October 2011. The renewal was approved on November 18, 2010. The EMPL was transferred on December 18th 2010 from OGML to Eagle Mountain Gold Inc. (EMGI - the holding company for OGML). It was renewed for an additional year under name Eagle Mountain Gold Inc. in October 2011 and an application was submitted for a new license under Eagle Mountain Gold Inc. in July 2012. As of the date of this report, EMGC reports that GGMC has approved the renewal with the order published in the Official Gazette (August 12, 2012). EMGC is awaiting an invoice for payment of annual fees and issue of a new Prospecting Licence number.

During this entire period the formal description of the Property has been as follows:

The Eagle Mountain Prospecting License is located in the Potaro Mining District No.2 on the Government 1:50,000 topographic sheets, Kaieteur 43 NE/SE. It is described as follows and takes for its reference, a point “RP”, being on the southern end of the Mahdia airstrip at true geographic coordinates of:

- Longitude 59° 08’ 37” E UTM Easting 262,406.00
- Latitude 05° 16’ 06” N UTM Northing 582,740.00

1) Thence 4.43 kilometres (2.75 miles) at a true bearing of 199° to the boundary commencement point “A” located with true geographic coordinates of:

- Longitude 59° 09’ 24” E UTM Easting 260,965.17
- Latitude 05° 13’ 51” N UTM Northing 578,555.53

2) Thence 5.23 kilometres (3.25 miles) at a true bearing of 163° to the South Western corner of the P.L., at point “B”, located with true geographic coordinates of:

- Longitude 59° 08’ 36” E UTM Easting 262,494.34
- Latitude 05° 11’ 09” N UTM Northing 573,553.84



3) Thence 9.66 kilometres (6.00 miles) at a true bearing of 073° to South Eastern corner of the P.L, at point “C”, located with true geographic coordinates of:

- Longitude $59^{\circ} 03' 33''$ E UTM Easting 271,728.23
- Latitude $05^{\circ} 12' 42''$ N UTM Northing 576,376.92

4) Thence 5.23 kilometres (3.25 miles) at a true bearing of 343° to the North Eastern corner of the P.L, at the point “D”, located with true geographic coordinates of:

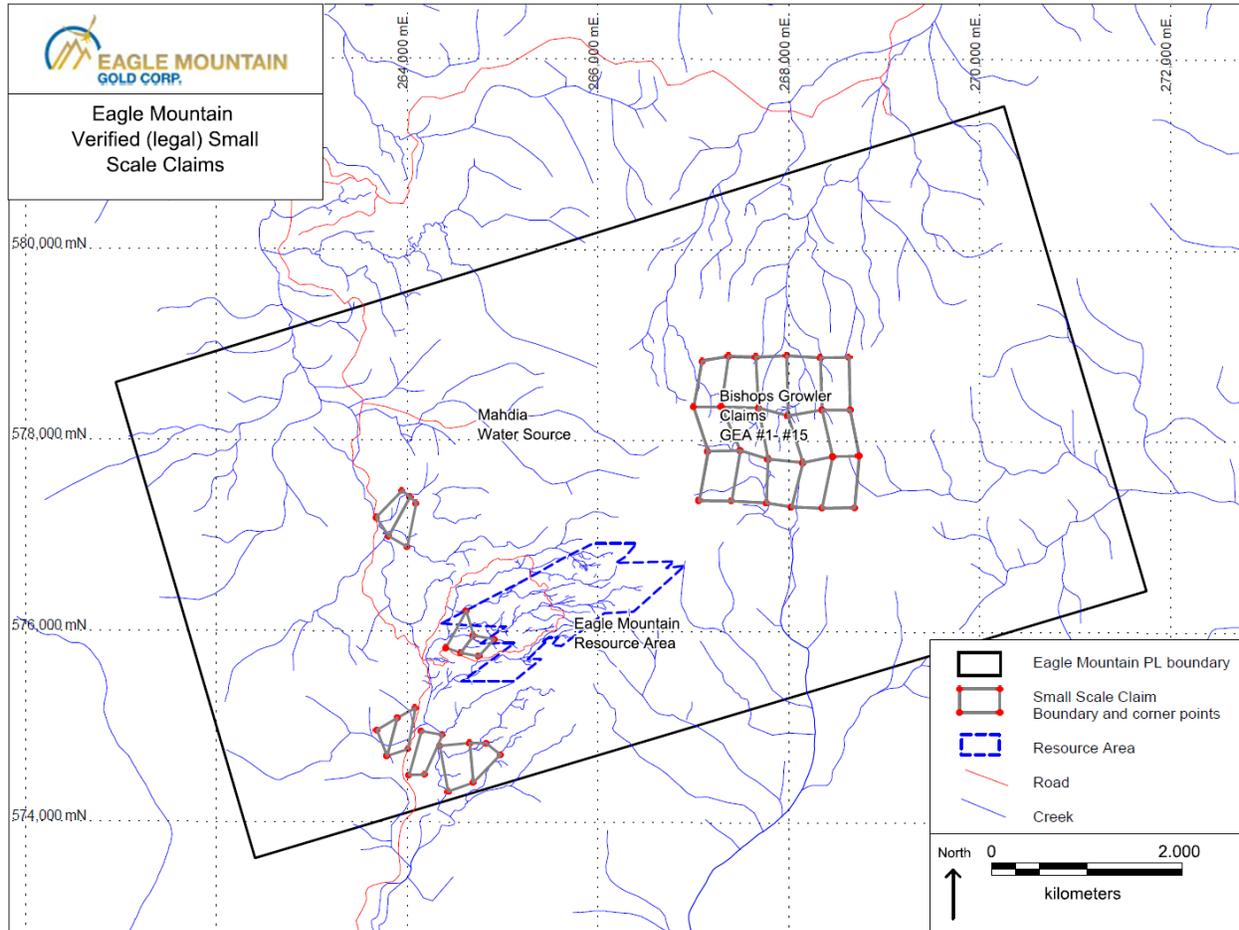
- Longitude $59^{\circ} 04' 22''$ E UTM Easting 270,199.06
- Latitude $05^{\circ} 15' 27''$ N UTM Northing 581,378.62

5) Thence 9.66 kilometres (6.00 miles) at a true bearing of 253° to the North Western corner or commencement point “A” of the P.L.

A total of 24 verified, legal small-scale permits are located within the EMPL boundary. The boundary posts have been located by EMGC and are shown in Figure 4-2. Nine of small-scale permits lie along the Mahdia River lowlands and work alluvial gold deposits. Two of these claims lie adjacent the southwest boundary of the Eagle Mountain mineral resource. The remaining 15 legal small-scale permits comprise the Bishop Growler group (Gea #1 to #15) in the central part of the EMPL northeast of the Eagle Mountain resource area. The small scale mining permits within the licence area are not considered to constitute a major risk to the future development of the project.

With exception to the 24 legal small-scale permits, a very small area with a farm grant and a north-south historic public road (now a track) occur within the EMPL, surface mineral rights are 100% held by EMGI. In the northern part of the EMPL, creek water is funneled into a six inch PVC pipe to supply potable water to Mahdia Township.

During the life of the EMPL, quarterly and annual reports are submitted to the GGMC, along with work programs and proposed budgets. GGMC is paid an annual fee of US\$3 and US\$1.5 per acre for the respective rights to two mineral groups: 1) gold and 2) other minerals except uranium. A performance bond representing 10% of the approved budget is also lodged.



Red dots are GPS-located legal small scale claim boards.

Figure 4-2: The Eagle Mountain Prospecting Licence with internal legal third-party small-scale permits

4.3.2.1 Stronghold/EMGC Joint Venture

On September 29, 2010, Stronghold Metals Inc. (Stronghold) (now EMGC) announced that it had entered into an Earn-In and Joint Venture Agreement with Omai Gold Mines Ltd. (OGML) and Eagle Mountain Gold Inc. (EMGI), affiliates of IAMGOLD Corporation (IAMGOLD) whereby Stronghold may earn increasing interests in EMGI and the Property based on a combination of cash payments, share issuances and work expenditures described in Table 4-1 below. Eagle Mountain Gold Inc. (EMGI) owns the Eagle Mountain Gold Property. At the date of the agreement EMGI was 100% owned by OGML, a 95% owned subsidiary of IAMGOLD. The Republic of Guyana holds the remaining 5% of OGML.



Table 4-1: Summary of 2010 Earn-in and JV terms (all money figures in US\$ Dollars).

Significant Milestone Date	Minimum Exploration Expenditure	Cash Payments to OGML	Issuing of Stronghold Common Shares to OGML	Vesting Interest for Stronghold	Nature of Commitment
On Transaction Closing	\$400,000	\$250,000	2,000,000 shares	25%	Firm
December 2010		\$250,000			
October 2011	\$1,100,000	\$1,000,000	2,000,000 shares		
<i>SUBTOTAL As of Oct 2011</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>4,000,000 shares</i>		
October 2012	\$2,000,000	\$1,000,000	2,000,000 shares	50%	Optional
<i>SUBTOTAL As of Oct 2012</i>	<i>\$3,500,000</i>	<i>\$2,500,000</i>	<i>6,000,000 shares</i>		
Within 6 Months from Oct 2012		\$1,000,000		95%	
On Granting of a Mining License		\$7,500,000			
<i>GRAND TOTAL</i>	<i>\$3,500,000</i>	<i>\$11,000,000</i>	<i>6,000,000 shares</i>	<i>95%</i>	

On January 16, 2012 Stronghold announced that it had entered into an Amended and Restated Earn-In and Joint Venture Agreement with OGML and EMGI. The Amendment Agreement makes several major changes to the terms of the Original Agreement pursuant to which the Company was granted the right to acquire up to 95% of the issued and outstanding shares of EMGI.

To January 16, 2012 Stronghold had paid OGML US\$600,000, issued OGML 4,000,000 shares and incurred approximately US\$3,500,000 in exploration expenditures on the Property. Stronghold incurred more than twice the required Expenditures under the Original Agreement, which in part has led to the restructuring of the Amendment Agreement.

Under the terms of the Original Agreement in addition to the cash and share payments made to January 16, 2012, Stronghold was required to:

- Pay OGML US\$900,000 by February 28, 2012;
- Pay OGML an additional US\$1.0 million; spend US\$3.5 million in qualified Expenditures on the Property and issue OGML 2 million common shares of Stronghold by October 31, 2012, in order to earn a 50% interest in EMGI; and
- Pay OGML an additional US\$1.0 million to increase the ownership to 95%. The Republic of Guyana holds the remaining 5%.



Under the terms of the Amendment Agreement, OGML agreed to immediately transfer a 50% interest in EMGI to Stronghold in consideration of the issuance of 7,500,000 shares of Stronghold. The changes reduce the cash obligation required under the Original Agreement and acknowledge the progress the Company has made on the Property with the US\$3.5 million expenditure during 2011.

Stronghold has the right to acquire the remaining 45% interest in EMGI on or before April 30, 2013 by paying OGML an additional US\$1,000,000 in cash or shares, at the Company's discretion. The number of shares will be determined based on a per share price equal to a five percent (5%) discount to the volume weighted average price ("VWAP") of Stronghold's shares for the 20 trading days before the date Stronghold notifies OGML of its intention to issue such shares, provided such share issuance does not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares. Between October 31, 2012 and January 31, 2013, OGML can require Stronghold to acquire the remaining 45% interest in the Property under the same terms and conditions.

Upon the grant of a mining or exploitation licence by the Government of Guyana for the development of the Property, Stronghold will pay OGML an additional US\$3,500,000. Stronghold may, at its sole option, elect to issue shares to OGML having a deemed value of US\$3,500,000, such value to be based on a per share price equal to a five percent (5%) discount to the VWAP of Stronghold's shares for the 20 trading days before the date Stronghold notifies OGML of its intention to issue such shares, provided such share issuance does not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares.

Finally, within 180 days from commencement of commercial production of gold from the Property, Stronghold shall pay US\$5,000,000 cash to OGML.

Stronghold has the option to issue shares to OGML in lieu of the latter two cash payment provided such share issuance does not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares.

4.3.2.2 Current Ownership

On March 30, 2012 Stronghold announced that it had exercised the option to earn a 50% interest in EMGI. The Company issued 7,500,000 shares to OGML, which together with prior cash payments (US\$600,000) share issuances (4,000,000) to OGML and completion of exploration expenditure commitments (approximately US\$3,500,000) on the Property have met the conditions for Stronghold to acquire 50% of EMGI and effectively an indirect 50% interest in the Property. Stronghold and OGML have become joint venture partners, with Stronghold continuing to act as Operator. On July 6, 2012, Stronghold announced its intent to change its name to Eagle Mountain Gold Corp. (EMGC).

4.3.3 Mowasi Property

On October 7, 2011, Stronghold (now EMGC) entered into a definitive Option Agreement with Mowasi Gold Corp., a private corporation registered in Barbados. Under the terms of the Option Agreement, EMGC can earn a 95% beneficial interest in Mowasi Gold Corp's exclusive interest



in 31 concessions which are adjacent to the Company's Eagle Mountain Property. Also, EMGC has the First Right of Refusal to acquire Mowasi's interest in 22 additional PPMS (ROFR properties – see Section 4.3.3.3). The terms and conditions are as follows:

- Mowasi Gold Corp. holds an option to acquire a 100% exclusive interest in the Concessions.
- EMGC has the sole and exclusive option to acquire up to 95% project equity in Mowasi Gold Corp.'s exclusive interest in 23 Prospecting Permits Medium Scale (PPMS), and in 8 Mining Permits Medium Scale (MPMS).
- First Option: Up to 18 months from the Acceptance Date, (Oct 11, 2011 - TSXV approval), EMGC can earn 49% in the Properties by paying Mowasi \$100,000 (completed), providing 250,000 shares to EMGC (completed), spending \$1 million in the first 18 months (EMGC has spent approx. \$250,000 to date) and paying \$300,000 by April 25 2012. EGMC is to make any required option payments to underlying owners including payments of \$7,000 USD and \$18,000 USD originally due to Vendors on August 17, 2011, both of which were deferred to October 17, 2011.
- Second Option: Within 3 months from vesting at 45%, EMGC can choose to vest an additional 46% to a total of 95% project equity by issuing to Mowasi 400,000 shares (2,000,000 shares before consolidation) and paying \$1 million in cash.
- In the event that Stronghold exercises the Option and acquires a 95% Interest in the Concessions, Mowasi Gold Corp.'s 5% interest in the Concessions will be carried until such time as the Company completes a Feasibility Study on the Concessions.
- Stronghold will be the operator on the Concessions during the Option Period and will be entitled to continue to act as Operator until it resigns. Operator's Fee is 5%.
- EMGC can terminate at any time with standard notices.

EMGC informs Howe that it is engaged in discussions with Mowasi Gold to pursue an amendment to the above agreement. All properties are currently in good standing.

The Mowasi Property comprises 23 prospecting permits medium scale and 8 mining permits medium scale totaling an area of approximately 85 km² (8,500 hectares) or 32.8 sq miles (21,000 acres), with the exception of all third party lands legally held or occupied therein (Figure 4-3, Table 4-2). The permits are subject to underlying option agreements between Mowasi Gold Corp. and the registered permit holders as described in Section 4.3.3.1 below.

The Mowasi Property is located in the Potaro Mining District No.2 on the Government 1:50,000 topographic sheets, Kaieteur 43NE, 43SE, 44NW & 44SW bounded by latitudes 5° 02' N and 5° 21' N and longitudes 58° 52' W and 59° 5' W.

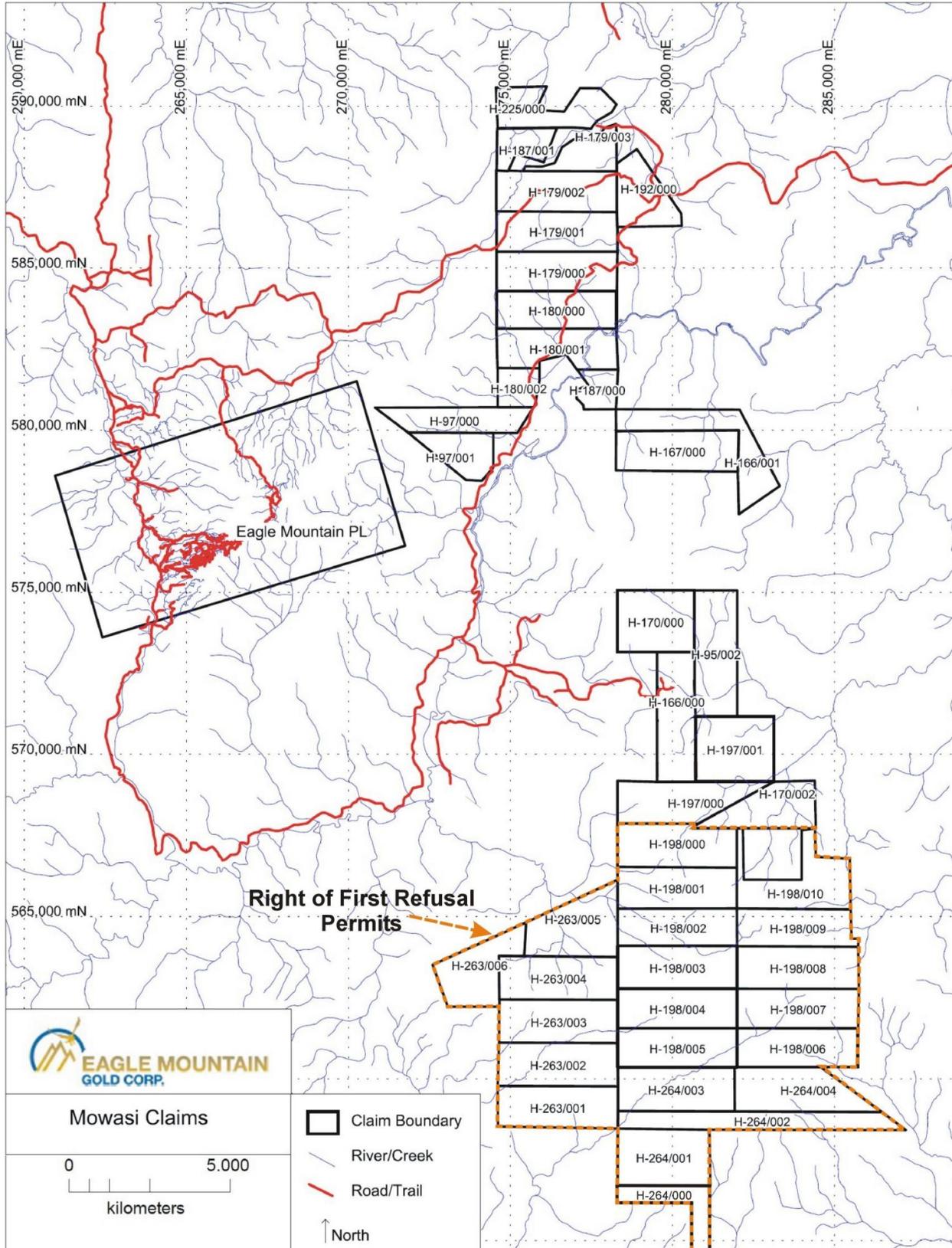


Figure 4-3: Location of Mowasi Property PPMS Permits



Table 4-2: EGMC/Mowasi Option Permits with underlying Vendors

Optioner / Optionee	Property	Permit Number	Type	Portion of	Area (acres)	Anniversary Date	Option Date Mowasi/Vendor	
Victor Hopkinson / Mowasi Gold Corp.	Mowasi	H-166/000	PPMS		1,194	17-Nov	17-Feb-10	
		H-166/001	PPMS		1173	17-Nov	17-Feb-10	
		H-167/000	PPMS		1153	17-Nov	17-Feb-10	
		H-180/000	PPMS		1046	07-Nov	17-Feb-10	
		H-180/001	PPMS		1088	07-Nov	17-Feb-10	
		H-180/002	PPMS		386	07-Nov	17-Feb-10	
		H-11/MP/000	MPMS	H-166/000				28-Sep-11
		H-30/MP/000	MPMS	H-166/001				28-Sep-11
		H-15/MP/000	MPMS	H-180/001				28-Sep-11
		H-23/MP/000	MPMS	H-180/001				28-Sep-11
		10			6040	Area Subtotal		
Edward Hopkinson / Mowasi Gold Corp.	Konawank Tiger River	H-192/000	PPMS		783	04-Jun	17-Feb-10	
		H-179/000	PPMS		1142	27-Dec	17-Feb-10	
		H-179/001	PPMS		1110	27-Dec	17-Feb-10	
		H-179/002	PPMS		1145	27-Dec	17-Feb-10	
		H-179/003	PPMS		525	27-Dec	17-Feb-10	
		H-187/000	PPMS		340	29-Jan	17-Feb-10	
		H-225/000	PPMS		892	11-Aug	17-Feb-10	
		H-187/001	PPMS		454	29-Jan	17-Feb-10	
		H-14/MP/004	MPMS	H-179/001				28-Sep-11
		H-22/MP/000	MPMS	H-187/000				28-Sep-11
			10			6391	Area Subtotal	
	Dawson Creek	H-97-000	PPMS			1033	16-Jul	17-Feb-10
		H-97-001	PPMS			620	16-Jul	17-Feb-10
			2			1653	Area Subtotal	
	Mowasi	H-170/000	PPMS			1157	07-Nov	17-Feb-10
		H-170/002	PPMS			944	07-Nov	17-Feb-10
		H-197/000	PPMS			1200	02-Nov	17-Feb-10
		H-197/001	PPMS			1194	02-Nov	17-Feb-10
		H-172/000	PPMS			~300		08-Sep-11
		H-172/001	PPMS			~1200		08-Sep-11
H-14/MP/003		MPMS	H-172/001				08-Sep-11	
		7			~5995	Area Subtotal		
Errol Tenpow / Mowasi Gold Corp.	Mowasi	T-66/001	PPMS		~900		09-Sep-11	
		T-5/MP/000	MPMS	T-66/001			09-Sep-11	
				2			~900	Area Subtotal
		31			~21,000	Grand Total		

4.3.3.1 Agreements Underlying the EMGC/Mowasi Option Agreement

Mowasi Gold Corp. has entered into Option and Joint Venture agreements to acquire thirty-one PPMS, located in the Konawaruk/Mowasi area of the Potaro Mining District # 2, of Guyana as described below:

E. Hopkinson/Mowasi Agreement (February 12, 2010)

On February 12, 2010, Mowasi entered an option and joint venture agreement with Edward Hopkinson to acquire 100% interest in 14 PPMS (Table 4-2). Mowasi must make cash payment of US\$17,000, on the date of the agreement and another US\$17,000 within 18 months of the date



of the agreement and within 12 month of the agreement deliver to Hopkinson half of one percent of Mowasi Holding Inc. common shares outstanding as at the date of the agreement. Mowasi must also incur US\$100,000 in exploration expenditures on the properties, as well as, on the Victor Hopkinson properties by the fifth anniversary. Mowasi will reimburse all the rents, dues and charges, including application and licence fees that come due to the GGMC or other government agency while the Agreement is in force. Hopkinson is entitled to 2% Net Smelter Returns Royalty ("NSR"); the NSR can be purchased for US\$1,500,000 at any time. Additionally, the sum of \$1,000,000 is payable to Hopkinson upon Mowasi's commencement of commercial production in excess of 1,000,000 ounces of gold from the property (or US\$1.0 for commercial production in excess of 500,000 ounces but less than 1,000,000 ounces).

V. Hopkinson/Mowasi Agreement (February 12, 2010)

On February 12, 2010, Mowasi also entered into an option and joint venture agreement with Victor Hopkinson to acquire 100% interest in six PPMS (Table 4-2). Mowasi must make cash payment of US\$8,000 on the date of the agreement and another US\$8,000 within 18 months of the date of the agreement and within 12 month of the agreement deliver to Hopkinson half of one percent of Mowasi Holding Inc. common shares outstanding as at the date of the agreement. Mowasi must also incur US\$100,000 in exploration expenditures on the properties, as well as, on the Edward Hopkinson properties by the fifth anniversary. Mowasi will reimburse all the rents, dues and charges, including application and licence fees that come due to the GGMC or other government agency while the Agreement is in force. Hopkinson is entitled to 2% NSR; the NSR can be purchased for US\$1,500,000 at any time. Additionally, the sum of \$1,000,000 is payable to Hopkinson upon Mowasi's commencement of commercial production in excess of 1,000,000 ounces of gold from the property (or US\$1.0 for commercial production in excess of 500,000 ounces but less than 1,000,000 ounces).

E. Hopkinson/Mowasi Agreement (September 8, 2011)

On September 8, 2011, Mowasi entered an option and joint venture agreement with Edward Hopkinson to acquire 100% interest in 2 PPMS and 1 MPMS (Table 4-2). Mowasi must make cash payment of US\$15,000, on the date of the agreement and another US\$15,000 within 12 months of the date of the agreement. Mowasi will reimburse all the rents, dues and charges, including application and licence fees that come due to the GGMC or other government agency while the Agreement is in force. Hopkinson is entitled to 2% Net Smelter Returns Royalty ("NSR"); the NSR can be purchased for US\$500,000 at any time. Additionally, the sum of \$1,000,000 is payable to Hopkinson upon Mowasi's commencement of commercial production in excess of 1,000,000 ounces of gold from the property (or US\$1.0 for commercial production in excess of 100,000 ounces but less than 1,000,000 ounces).

E. Tenpow/Mowasi Agreement (September 9, 2011)

On September 9, 2011, Mowasi entered an option and joint venture agreement with Errol Tenpow to acquire 100% interest in 1 PPMS and 1 MPMS (Table 4-2). Mowasi must make cash payment of US\$5,000, on the date of the agreement and another US\$10,000 within 12 months of the date of the agreement. Mowasi will reimburse all the rents, dues and charges, including application and licence fees that come due to the GGMC or other government agency while the Agreement is in force. Tenpow is entitled to 2% Net Smelter Returns Royalty ("NSR"); the NSR can be purchased for US\$500,000 at any time. Additionally, the sum of \$1,000,000 is payable to



Hopkinson upon Mowasi's commencement of commercial production in excess of 1,000,000 ounces of gold from the property (or US\$1.0 for commercial production in excess of 100,000 ounces but less than 1,000,000 ounces).

E. Hopkinson/Mowasi Agreement Amendment (September 28, 2011)

On September 28, 2011, Mowasi and Edward Hopkinson amended their February 12, 2010 agreement to include 2 MPMS (Table 4-2) converted from portions of the PPMS as follows:

- portion of H-179/001 converted to H-14/MP/004
- portion of H-187/000 converted to H-22/MP/000

V. Hopkinson/Mowasi Agreement Amendment (September 28, 2011)

On September 28, 2011, Mowasi and Victor Hopkinson amended their February 12, 2010 agreement to include 4 MPMS (Table 4-2) converted from portions of the PPMS as follows:

- portion of H-166/000 converted to H-11/MP/000
- portion of H-166/001 converted to H-30/MP/000
- portion of H-180/001 converted to H-15/MP/000 and H-23/MP/000

4.3.3.2 Mowasi Project Renewal Fees

The Permits comprising the Property have no expiry date per se provided the annual renewal fees are paid and the appropriate documents are filed with the Government. With a total area of approximately 21,000 acres (8,500 hectares) for the Mowasi option permits (Table 4-2) and approximately 25,130 acres (10,170 hectares) for the First Right of Refusal permits (Table 4-3) EMGC estimates renewal and licencing fees of approximately US \$35,000 due in 2013.

4.3.3.3 Mowasi Property ROFR Concessions

EMGC holds a First Right of Refusal to acquire 22 additional concessions totalling approximately 25,130 acres (10,170 hectares) which Mowasi holds or has the option to acquire (Figure 4-3, Table 4-3). If, prior to the fifth (5th) anniversary of the Acceptance Date of the EMGC/Mowasi option agreement, Mowasi receives a bona fide offer from an independent third party to purchase, by way of option or sale agreement, all or any portion of Mowasi's interest in any of the ROFR Concessions and Mowasi is willing and able to accept such offer, Mowasi shall not accept such offer unless and until Mowasi has first offered by notice in writing to option or sell all any portion of Mowasi's interest to EMGC on the same terms as contained in the offer received.

The underlying Mowasi/Vendor terms and conditions with respect to the 22 permits are as follows:

N. Douek/Mowasi Transfer (October 2008)

Mr. Neil Douek, President of Mowasi Gold Corp. acquired the mineral rights on 11 Prospecting Permits, Medium Scale (PPMS) from Mr. Alan Zaakir to whom the rights were assigned by Mr. Edward Hopkinson, holder of the Permits. In October 2008, Mr. Neil Douek transferred the mineral rights of these 11 PPMS, known as the Upper Mowasi Property, to Mowasi Gold Corp.



E. Hopkinson/Mowasi Agreement (August 6, 2010)

On 06 August 2010, Mowasi entered into an option and joint venture agreement with Edward Hopkinson to acquire 100% interest in 11 PPMS. Mowasi must make cash payment of US\$25,000 on the date of the agreement and another US\$25,000 within 18 months of the date of the agreement and within 12 month of the agreement deliver to Hopkinson half of one percent of Mowasi Holding Inc. common shares outstanding as at the date of the agreement. Mowasi must also incur US\$100,000 in exploration expenditures on the property by the fifth anniversary. Hopkinson is entitled to 2% NSR; the NSR can be purchased for US\$1,000,000 at any time. Additionally, the sum of \$1,000,000 is payable to Hopkinson upon Mowasi’s commencement of commercial production in excess of 1,000,000 ounces of gold from the property (or US\$1.0 for commercial production in excess of 500,000 ounces but less than 1,000,000 ounces).

Table 4-3: EMGC/Mowasi First Right of Refusal PPMS Permits

Optioner / Optionee	Property	Permit Number	Type	Portion of	Area (acres)	Anniversary Date	Option Date Mowasi/Vendor
100% owned Mowasi Gold Corp.	Upper Mowasi	H-198/000	PPMS		1,200	02-Nov	
		H-198/001	PPMS		1,117	02-Nov	
		H-198/002	PPMS		1,078	02-Nov	
		H-198/003	PPMS		1,166	02-Nov	
		H-198/004	PPMS		1,114	02-Nov	
		H-198/005	PPMS		1,109	02-Nov	
		H-198/006	PPMS		1,105	02-Nov	
		H-198/007	PPMS		1,112	02-Nov	
		H-198/008	PPMS		1,163	02-Nov	
		H-198/009	PPMS		1,024	02-Nov	
		H-198/010	PPMS		1,152	02-Nov	
		11			12,340	Area Subtotal	
Edward Hopkinson / Mowasi Gold Corp.	Mowasi Mountain	H-263/001	PPMS		1,200	29-Jul	06-Aug-10
		H-263/002	PPMS		1,200	29-Jul	06-Aug-10
		H-263/003	PPMS		1,200	29-Jul	06-Aug-10
		H-263/004	PPMS		1,200	29-Jul	06-Aug-10
		H-263/005	PPMS		1,200	29-Jul	06-Aug-10
		H-263/006	PPMS		963	29-Jul	06-Aug-10
		H-264/000	PPMS		1,087	29-Jul	06-Aug-10
		H-264/001	PPMS		1,200	29-Jul	06-Aug-10
		H-264/002	PPMS		1,141	29-Jul	06-Aug-10
		H-264/003	PPMS		1,200	29-Jul	06-Aug-10
		H-264/004	PPMS		1,200	29-Jul	06-Aug-10
		11			12,791	Area Subtotal	
		22			25,131	Grand Total	

4.4 Mineralization Location

The mineral resource and drill intersection discussed in this document and drill intersections that are still being assessed occur on the Eagle Mountain Property between approximately 264,000E – 267,000E and 575,000N – 577,500N (UTM Zone 21N, PSAD56).



4.5 Environmental Issues

There are no known environmental liabilities, although some areas have been deforested and disturbed by small-scale illegal mining. Should the identified resource be mined, reclamation will constitute part of the formal closure plan.

4.6 Permits Required

No additional permits other than maintaining the Prospecting License are required to conduct exploration. All current statutory requirements concerning the license have been fulfilled.

OGML may apply for all or part of the Prospecting License to be converted to a Mining License at any time. A Positive Feasibility Study, Mine Plan, an Environmental Impact Statement and an Environmental Management Plan are submitted to the GGMC and Guyana Environmental Protection Agency as part of the Mining License application process. A Mining License is usually granted for twenty years or for the life of the deposit, whichever is shorter, and renewals are possible. All gold production in Guyana is subject to a 5% Net Smelter Royalty.



5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY

The northern margin of the Eagle Mountain Property is located approximately five kilometres south of Mahdia Township (Figure 4-1), and four kilometres south of the Mahdia airstrip. The Mowasi Property, comprising 2 noncontiguous blocks, is located approximately 15 km due east and southeast of Mahdia respectively, east and southeast of the Eagle Mountain Property. Mahdia can be accessed by road from Georgetown in five to seven hours, approximately 325 kms. The road is paved from Georgetown to Linden. Access between Linden and Mabura is via a wide laterite road historically built by OGML and Demerara Timbers Ltd. An unpaved road from Mabura to Mahdia is narrow and locally steep. The Mabura /Mahdia road is all weather, though rainy season often makes access difficult. A large motorized pontoon ferry is used to cross the Essequibo River at Mango Landing. The Mahdia airstrip was hard-surfaced in the spring of 2010 and is suitable for small commercial and charter twin-engine passenger aircraft.

From Mahdia, the “old Potaro-Konawaruk Road” provides truck access to the western portion of the EMPL at Mile 118, a distance of eight kilometres. From there, the old Millionaire Hill and Porphyry Hill roads allow easterly access into the main mineralized areas. These roads are steep and currently only traversable by pick-up in the dry season.

The Mowasi area is reached via the Mabura/Mahdia road to Tumatumari Junction westward from Mango Landing or eastward from Mahdia. Tumatumari Junction may be reached in approximately 5 – 6 hours by vehicle from Georgetown (approximately 300 kms) or in about 1 hour from Mahdia (approximately 25 kms). Tumatumari Junction is located within the northern block of the Mowasi Property. From Tumatumari Junction it is approximately another 16 km to Rockers Landing on the Konawaruk River where the river must be forded or goods ferried in small boats. Jordan’s landing is 3.2 km farther to the south. Currently, there is extremely limited access to the central and southern parts of the Property. In 2009 a local contractor cut an ATV trail approximately 6.0 km into the central part of the Permit blocks.

The climate is tropical, with a main May-June rainy season, and “Christmas” rains separated by a short March-April dry season and a more consistent dry season from August to October. The abrupt topographic break in the area results in high rainfall, with a monthly average of just over 40cm and a recorded maximum of nearly 70cm for the month of June.

At the EMPL, Eagle Mountain is the highest peak in the area at 724.8 metres above mean sea level and was one of the primary triangulation points used to establish the original survey grid over Guyana (Figure 5-1). Dolerite sills and dykes near the summit form steep cliffs of up to 150m vertical relief. The northern Mowasi block covers some of the lower areas south of the Potaro River and east of Eagle Mountain (Figure 5-1). The southern block of the Mowasi Property covers the drainage area centred on Mowasi Mountain (664.5 metres above mean sea level) which rises approximately 300-600 m above the surrounding terrain. The terrain rises abruptly near the boundaries and the topographic and geologic maps show that the majority of the central part of the Property is highland (Figure 5-1).



In the EMPL area, small deeply incised creeks widen quickly near the EMPL boundaries to form alluvial flats up to two kilometres wide that drain either to the Mahdia River and then to the Potaro River, or to the Minnehaha River and then to the Konawaruk River. The alluvial deposits within both watersheds have been historically worked by artisanal miners, and are still worked today outside the property area. The Mowasi properties are predominantly within the Konawaruk River and Good Hope Creek drainage basins which flow northeast to the Essequibo River.

The surface expression of the Eagle Mountain Property mineralized zones (“Eagle Mountain deposit”) currently being investigated lies mainly between the elevations of 160m and 500m above mean sea level on the northwest flank of Eagle Mountain, extending over an area approximately 1950 metres by 950 metres. Topography in the mineralized areas is characterized by steep sections separating less steep “benches”. Fresh-rock dolerite boulders up to fifteen metres in diameter derived from weathering of the dolerite sill are frequent on the western flank of Eagle Mountain. The area is covered by thick tropical jungle, which has re-grown since the last period of historical mining in the 1940’s.

The nearby town of Mahdia was founded in 1884 and is reported to have a population of approximately 1,000 persons. Employment is dependent on local artisanal mining and mining-related activities. There is a local hospital, school, shops, restaurants, a gas station, several mechanical shops and two hotels/guest houses. Diesel generators provide electrical power to the town. Cell phone service is provided by Digicel. The limited infrastructure available is typical of isolated inland villages.

EMGC exploration activities are currently supported by a small exploration camp on the Eagle Mountain Property. Supplies are partly sourced from Georgetown, and partly from Mahdia. The camp has limited cell-phone coverage and an established satellite link at camp provides Internet access.

There is no power available locally. An abandoned hydropower station is located at Tumatumari, approximately twenty-one kilometres northeast of the resource area. This was constructed in 1957 by the British Goldfields Limited and operated until 1959 when mining operations ceased. The Government of Guyana re-commissioned the station in 1969 to serve local communities. This development included an embankment dam, a concrete overflow dam, and a 2-unit powerhouse with an installed capacity of 1500kW. Several organizations have signed MOUs within the last ten years to investigate the viability of refurbishing Tumatumari, but all are now believed to have expired. The Amalia Falls area located approximately fifty kilometres west-northwest of the EMPL is currently being assessed for potential large-scale hydroelectric power generation.

Potable water is available from multiple small creeks and a few small rivers within the EMPL and Mowasi Property.

Alluvial flats in the northwest and southwest areas of the EMPL are potentially suitable sites for infrastructure and tailings facilities.

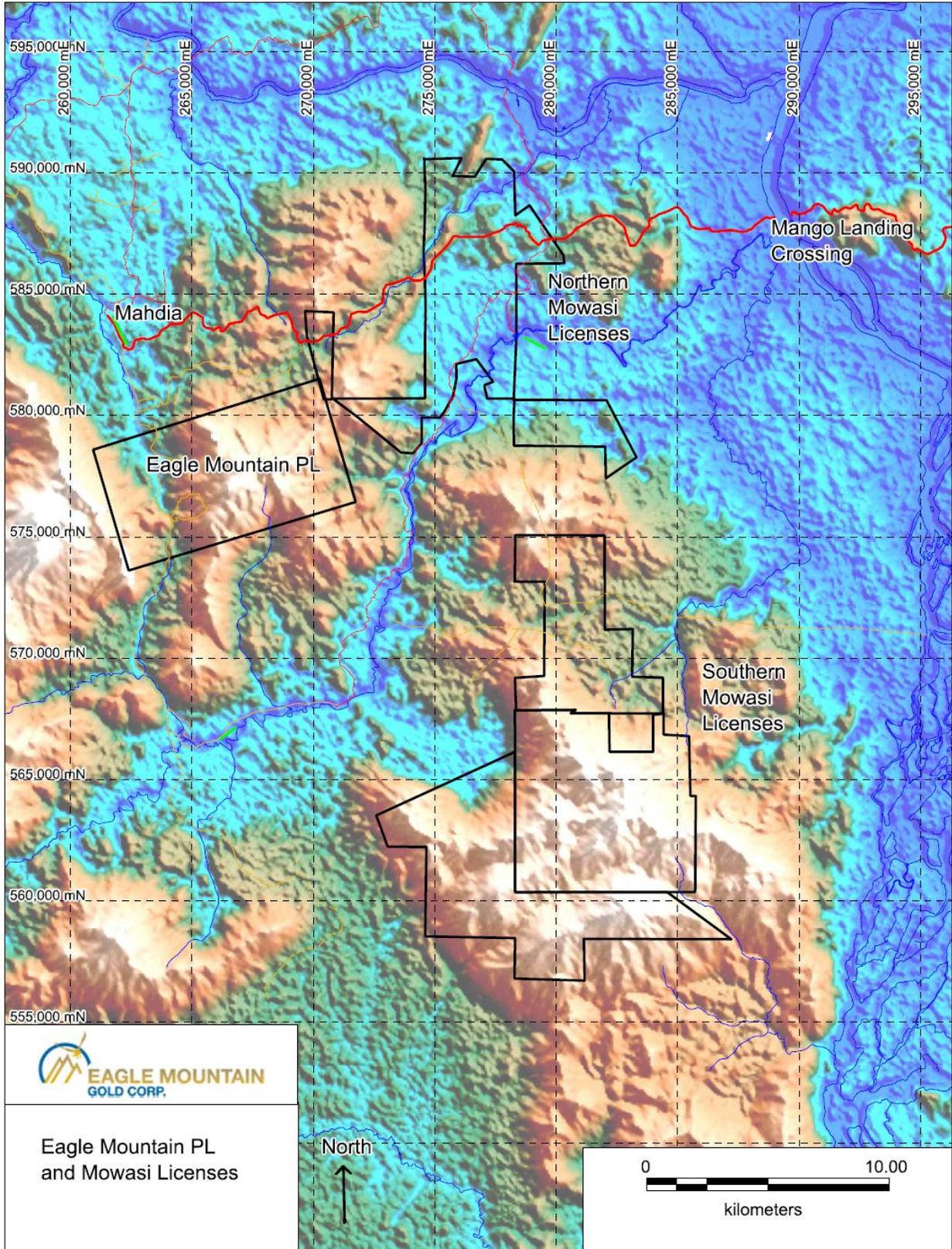


Figure 5-1: Physiography of the Eagle Mountain and Mowasi Property areas



6 PROPERTY HISTORY

6.1 Eagle Mountain Property History

Exploration work prior to EGMC's involvement in the EMPL is summarized in this section. Work by OMGL and IAMGOLD is presented in greater detail in Howe's 2010 technical report (Roy and Trinder, 2010).

6.1.1 Pre 1998 Exploration

Alluvial gold has been exploited in the Eagle Mountain area since at least 1884. Dredging operations were carried out by the Minnehaha Development Company and the British Guiana Consolidated Gold Company in the Mahdia and Minnehaha Rivers up to 1948 (MacDonald, 1968). Total production from the general area is estimated at over 1Moz of gold from alluvial and eluvial sources.

During World War II, several small stamp mills processing vein material from small tunnels and shafts were in operation in the Eagle Mountain area. The largest included No.1 Hill, which reportedly produced 1000oz of gold from 1000 tons of material in the period 1912-14. The mine was revived in 1921, although production statistics were not recorded. In 1946, a small-scale miner named Larken drilled near the Powder Tunnel and also at Dickman's Hill north of the EMPL boundary.

Anaconda British Guiana Mines Ltd ("Anaconda") explored the Eagle Mountain area in 1947 and 1948. Most quarterly and annual reports are still available and include maps. Anaconda's activities included geological mapping, diamond drilling (57 holes), tunneling and shaft sinking. This work outlined a series of shallow dipping (20-50°), gold-bearing mylonite zones of variable width (1.8 –10.7m), occurrences of auriferous sub-vertical quartz veining and molybdenite mineralization within quartz-feldspar porphyry to the west of Minnehaha Creek (Waterman, 1948). A summary report by Bracewell (1948) includes additional information such as petrology and specific gravity data from drill core.

In 1964-65, a soil sampling program completed by the Guyana Geological Survey outlined several significant molybdenum geochemical anomalies, one with a cumulative strike of two kilometres within the EMPL (Bateson, 1965). In 1966-67, Amax Exploration Inc. drilled nine vertical holes into the Dickman's Hill anomaly located to the north, outside of the EMPL boundary, but intersected only low-grade molybdenum mineralization (Banerjee, 1970). Data from this drilling program has not been located.

During 1970–1973, the Geological Survey of Guyana conducted follow-up work on the Eagle Mountain molybdenum anomaly within the EMPL, including pitting and fifteen diamond (AX) drill holes. An additional five holes were drilled at Dickman's Hill to the north and outside of the EMPL boundary (Banerjee, 1972). Some of this core still exists, although a portion was submitted to a commercial laboratory by GSR for re-assay. During the same period, drainage and soil sampling was carried out to screen the Baboon Creek area for tungsten mineralization. This work revealed widespread scheelite mineralization, but not in high concentrations. Several



reports on molybdenum and tungsten mineralization investigations at Eagle Mountain are summarized in a M.Sc. thesis by Inasi (1975).

Subsequent work by the Guyana Geology Mines Commission (GGMC), including eight vertical diamond (AX) drill holes completed in 1980, was performed specifically to investigate the gold potential of the area (Livan, 1981). Check assays completed at the GGMC and at various external institutions indicate that original gold assays are unreliable due to poor sample preparation techniques. Consequently, this data has not been included in the current mineral resource model.

In 1986 Golden Star Resources (GSR) tested the regional exploration potential of the EMPL area by detailed -80 mesh drainage sampling and multi-element analysis and also by panning. This work allowed subsequent exploration to be focused on discrete areas of identified gold anomalies. GSR carried out mapping, soil sampling, auger sampling and surface geophysics (VLF-EM and magnetics) between 1988 and 1990. The VLF-EM survey identified several distinct features that were interpreted as shear zones. Some of the known dykes could be identified by their strong magnetic signature. However, the large dolerite boulders, derived from weathering of the sill, create significant noise and render most of the ground magnetic data unusable (Jagodits, 1989). From 1997, GSR completed deep augering, trenching, diamond drilling (1,285m in 21 holes) and a preliminary 3D model. Exploration results are documented in quarterly and annual reports held at the GGMC, and much of their database was later transferred to OGML.

Growler Mine Joint Venture partners obtained an Exclusive Exploration Permission (“EEP”) covering the Irene-Good Hope Creek headwaters in 1988. This area was briefly explored by Red Butte Resources and IMPACT Minerals. Several Small Scale Permits held by a local owner occupy a portion of the original EEP area and are excluded from the EMPL (Figure 4.3).

In 1998, Cambior Inc. entered into a Joint Venture agreement with GSR and the EMPL was transferred to OGML in the latter part of the year. GSR sold its interest in OGML to Cambior in 2002. OGML and Cambior became part of IAMGOLD Corporation in 2006, when exploration work resumed in full.

6.1.2 Omai Gold Mines Ltd / Cambior 1998-2004

OGML/Cambior exploration activities between 1998 and 2004 included diamond drilling (70 holes for 5,936m), auger sampling and surveying. A digital 3D model and preliminary *in situ* geological resource estimate totaling 317,419 ounces of gold at an average grade of 1.33g/t Au was completed in mid-1999. A revised resource estimate of 6.4 Mt @ 1.2g/t Au for 245,475 oz was produced in 2003/2004 (Clouston, 2004). These historical mineral resource estimates were based on a significantly different geological interpretation than the current resource, particularly regarding the orientations of modeled mineralization zones. These historical resources have not been reviewed by Howe, and are not in compliance with NI43-101 "Standards of Disclosures for Mineral Deposits". Data used and the basis for the calculation of these resources are not known to Howe and as such these resources should not be relied upon. These historic resource estimates were superseded by IAMGOLD's 2009 NI 43-101 resource estimate (Clouston, 2009) and Howe's 2010 audit (Roy and Trinder, 2010).



6.1.3 Omai Gold Mines Ltd / IAMGOLD 2006-2009

A decision was made in late 2005 to re-examine the gold potential of the EMPL. Initial work included compilation of a digital GIS database incorporating all available historical data. A significant spatial offset between the Anaconda and GSR/OGML datasets as well as the topography in some areas was detected and subsequently corrected through this work.

Fieldwork resumed in early 2006 with a regional multi-element drainage sampling program (84 sites). Results revealed no significant gold anomalies in the southeastern part of the EMPL and confirmed the historically identified areas of molybdenum mineralization. Several new tungsten anomalies were also revealed. A number of areas were examined by auger sampling and geological mapping, including an area of granitoid northeast of Zion, north of the Bishop-Growler excluded area and at the headwaters of Tiger Creek. Results were generally erratic. In addition, Terraquest Ltd. of 2-2800 John Street, Markham, Ontario, Canada was contracted to fly the western part of the EMPL with a fixed-wing airborne radiometric and magnetometer survey. Total Count radiometric data dramatically shows up the regional scale Mahdia Valley Fault, though not all the radiometric highs are directly related to the presence of granite: tailings and bare ground are also anomalous. Low magnetic areas correspond to areas of mafic volcanics without interbedded/faulted porphyry.

In late 2006, auger and outcrop sampling in the Zion-Bacchus area, together with rock and channel sampling in the Bottle Bank, Dead Stop and VG Pit areas confirmed significant gold anomalies. Subsequent work programs included detailed auger sampling, principally over the Zion, Coolie and Kilroy-Bottle Bank areas, with a few lines in the Baboon area (6,255 samples from 1,985 auger holes). Several areas were trenched and a number of historic adits located and channel sampled. A total of 334 channel samples covering 306.3m were collected, as well as 385 rock samples. Some petrological work was also completed.

With completion of OMGL/IAMGOLD and previous work (1988-2009), a total of 5271 one-meter auger samples and 14,286 samples from 4711 deep auger sites were collected over the entire EMPL. In addition, 85 predominantly one-meter samples were collected from 10 Trado auger holes. Grab samples were collected at 184 locations where soils were very thin or absent. In total, 2090m of surface channel sampling was also completed in 39 localities, from hand dug and mechanically excavated trenches, road cuts, creek exposures and small scale workings.

The Eagle Mountain gold deposit is delineated by a 0.8km² area of significant auger anomalies (Figure 6-1), where an anomalous result is defined as a minimum 3m interval averaging over 0.5g/t Au. The significant aerial extent of the auger anomaly is a consequence of the deposit geometry plus the fact that the soil profile is typically very thin in this area. The low-angle mineralized sheets are orientated approximately parallel to the topography in places so that the auger directly samples mineralized saprolitic material.

Another significant gold anomaly occurs northwest of the main mineralized area, over areas of alluvial flat. Systematic exploration to investigate potential alluvial resources has not been attempted, although small-scale miners have worked the Mahdia and Minnehaha valleys for at least 100 years.



A low-level gold anomaly to the northeast of the main mineralized area is potentially sourced from low-angle mineralized shear zones exposed on the other side of Eagle Mountain. Additional exploration is required to determine the tenor and thickness of mineralization in this area.

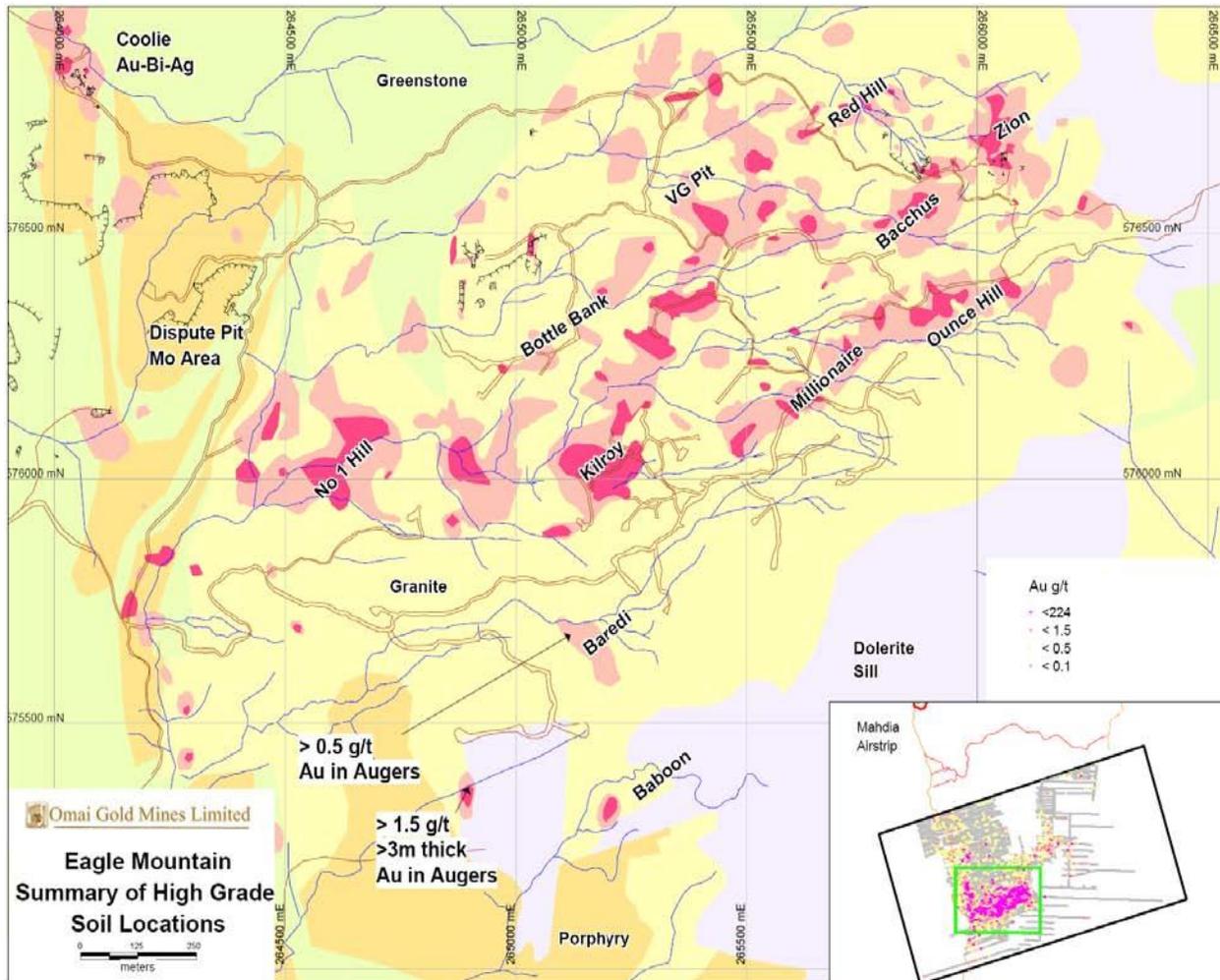


Figure 6-1: Eagle Mountain resource area soil auger summary with local area names

IAMGOLD completed a 3D IP and resistivity survey in 2008 over the main mineralized area. Survey results enabled the identification of several major structures, and inversion 3D modeling confirmed the presence of low-angle structures bounding domains of differing geology (Hill, 2008).

OGML/IAMGOLD completed a total of 43 diamond drill holes for 8,060m (EMD001-043; includes one restart) in four phases from 2007 to 2009. Drilling programs were designed to expand and further delineate the known gold resources, investigate the molybdenum potential of the Dispute Pit area and to test satellite structural, geochemical and/or geophysical targets.



Results gained from this work led to significant advances in the understanding of the mineralization styles at Eagle Mountain.

Four, shallowly south-west dipping gold mineralization zones (Saddle, Zion, Kilroy and Millionaire) that constitute the bulk of the 2009 Eagle mountain deposit mineral resource estimate were identified by OGML/IAMGOLD.

In the Dispute Pit area west of the Eagle Mountain deposit, follow-up drill targeting of scattered molybdenum anomalies yielded several significant gold intersections, for example, 1.5g/t Au over 14m in EMD08-21. Gold mineralization in this area is specifically associated with “cloudy” quartz vein arrays associated with epidote alteration. Economically significant concentrations of this mineralization style have not been identified. In the Coolie 271B Adit, a north-south striking quartz vein hosted in saprolitic granitoid is exposed in the adit walls, and averages 0.7g/t Au over 6m as well as 17.2 g/t Au over 19m across the plunge of the vein. The sample widths are apparent, true thicknesses are uncertain. In the creek to the north, channel sampling across quartz veining in meta-volcanics returned results of 9.4g/t Au over 3.5m, 3.3g/t Au over 3m and 9.8g/t Au over 1m. The sample widths are apparent, true thicknesses are uncertain.

In October 2009, IAMGOLD Technical Services and Exploration Guyana Group (“ITS”) prepared an internal mineral resource estimation (Clouston, 2009). Though the report was prepared in accordance to NI 43-101 and NI 43-101 Form F1, it was not independent. In November 2010, Douglas Roy, M.A.Sc. (Mining Engineering), P.Eng., an independent Associate Mining Engineer from Howe thoroughly reviewed the mineral resource estimation section of ITS’s report. Mr. Roy (“the Reviewing Author”) is a “Qualified Person” with respect to estimating mineral resources and reserves for precious metals deposits.

The resource estimate was prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves¹. Mineral resource classification, or assigning a level of confidence to Mineral Resources, was undertaken in strict adherence to those standards. Only mineral resources were identified in this report. No mineral reserves were identified.

Mineralized zones were outlined based on grade using a 0.5 g/tonne gold cut-off. The minimum zone thickness was three metres. Some narrower or weaker intercepts were included for sake of model continuity.

Six mineralized zones were outlined. The zones are more-or-less planar in shape with an average dip of 10-15 ° southwest. The zones are thin compared to their lateral extent. The Millionaire Zone is the largest and contains the most ounces. However, the Zion Zone appears to be more consistent, continuous and higher grade. Howe reviewed ITS’s zone interpretations and, with very few exceptions agreed with their interpretations.

ITS created a standard-type block model with a block size of 10x10x5 metres (East x North x Elevation). No sub-blocks were used. Mineralized zone codes were assigned to the block model and blocks that were located above the modelled saprolite base were identified. Samples were regularised over 2 metre intervals.

¹ CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted November 27, 2010



Assay values for gold were subjected to a probability grade test (log scale) and to deciles analysis to determine the appropriate capping level for each of the mineralized zones. Millionaire and Kilroy samples were capped at 10 g/tonne while Zion, NZ-2 and NZ-3 were capped at 15 g/tonne. Capping was not necessary for Saddle assays.

Variography was carried out to establish interpolation ranges. The maximum range values were 120x100x40 metres in the northeast, southeast and elevation directions, respectively.

Block grade estimation was carried out using inverse distance weighting with a power of two. The estimation profiles were based on the orientation of the main geological units and the ranges suggested by variography. The process was carried out in three “runs,” increasing in range each time to the maximum range that was suggested by variography.

ITS estimated mineral resources at the Eagle Mountain project in the Inferred category only. Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold. The volume of non-mineralized dike rocks was not deleted from the mineral resource volume. Utilizing IAMGOLD’s block model, Howe re-tabulated the non-diluted inferred mineral resource estimate (hosted by saprolite (oxide) and “fresh” (non-oxidized) rock) as 17.95 million tonnes with an average gold grade of 1.26 g/tonne gold for 729,000 ounces of gold.

Howe’s re-tabulation compared very well with IAMGOLD’s October 2009 non-diluted inferred mineral resource estimate of 17.96 million tonnes with an average gold grade of 1.27 g/tonne gold for 733,500 ounces of gold. The difference between Howe’s re-tabulation and IAMGOLD’s estimate is insignificant at less than 1% and is attributed to differences in rounding of values. Howe found IAMGOLD’s October 2009 Eagle Mountain mineral resource estimate reasonably accurate and in accordance to NI 43-101.

IAMGOLD Eagle Mountain Inferred Mineral Resource (Oct. 2009)

DDH only	Tonnes (000's)	AU-cap g/tonne	AU-cap oz contained
Saprolite (<i>oxide</i>)	6,248	1.34	268,300
Fresh Rock (<i>non-oxidized</i>)	11,711	1.24	465,100
Saprolite & Fresh Rock (<i>oxide & non-oxidized</i>)	17,959	1.27	733,500

Notes for Mineral Resource Estimate:

1. Cut-off grade for mineralized zone interpretation was 0.5 g/tonne.
2. Block cut-off grade for mineral resources was 0.5 g/tonne.
3. Zones extended up to 100 metres along strike from last intercept.
4. Minimum zone thickness was 3 metres.
5. Non-diluted.
6. Resource estimate prepared by IAMGOLD Technical Services
7. A specific gravity (bulk density) value of 1.6 was used for saprolite (oxidized) rock and 2.7 was used for fresh (non-oxidized) rock.
8. Top-cut values, ranging from 10-15 g/tonne depending on the zone, were determined using decile analysis.



The 2009 IAMGOLD mineral resource estimate (Clouston, 2009) and Howe's 2010 audit (Roy and Trinder, 2010) are now superseded by Howe's 2012 resource update presented in Section 15 of this report.

6.2 Mowasi Property History

Mowasi area has seen long-term activity due to its proximity to Mahdia. In the 1880s alluvial and placer work began in the creeks and rivers as the area opened up due to activity in the Mahdia area. Tiger River, Dazier Creek and the Mowasi areas have been estimated to have produced up to 1,000,000 ounces of gold between the late 1880s and the early 1970s.

The Lookout Mountain area was investigated in 1935 by Guyanese Mines Commission under the direction of the Toronto Canada based consulting group James and Buffram. Work concentrated on the Williams Creek/Hill and Dazier Creek areas. The presence of adits was noted at that time.

Canada Guiana Mines Limited, operating locally as Tiger River Mines Ltd., undertook a prospecting and drilling program and well as 2,500 m of tunneling in 1947 and 1948. Nineteen diamond drill holes totaling 2,500m were completed; summary logs are available in part but no assays or drill location maps remain. The holes were reported to be encouraging, having intersected predominantly mafic volcanics with minor diorite and granodiorite intrusives. Mineralization was associated with pyritic quartz veining within phyllites.

In 1970 and 1971 the Guyana Geological Survey and Mines Department produced a document entitled "Report on Tiger River Expedition, 2nd Field Season" by Inasi and Gibson. This report concentrated on Johannes, Williams Creek, Williams Hill, Danzier Creek, and Upper Fate Creek. Several adits were located and ongoing artisanal activity was noted. Soil samples were taken at 30 m intervals on a rough 3000 m by 1, 500 m grid. These samples were assayed for Ni, Cr, Co, Cu but not Au. Some panning was done (not systematic); pan concentrates averaged 0.5 – 0.9 g/t Au.

Guyana Geology and Mines Commission produced a geochemical study of the land-dredged areas within the Mahdia district in 1999. This study included sampling of tailings from dredges within the Tiger and Jumbie Creek areas. The results were 5.46, 19.24 and 1.47 g/t Au from Tiger Creek and 0.03 and 0.36 g/t Au from Jumbie Creek.

In January-February 2009 Mowasi Gold Corp retained Watts, Griffis and McOuat Limited (WGM) of Toronto Canada to undertake a systematic but limited stream sediment sampling and prospecting program within 7 southern PPMS. The program included 5 claims within the current EMGC/Mowasi option agreement (H-170-002, H-197-000, H-94/007, H-94/008 and H-95/000; prospecting rock samples only in the latter 3 claims) and 2 claims held under the EMGC's First Right of Refusal (H-198/000 and H-198/001). WGM collected a total of 93 stream sediment samples, 93 panned concentrate samples and 18 rock samples (10 separate sites) which were assayed for multiple elements. Nine rock samples were collected, including three of quartz vein material; six of the rock samples collected from H-94/007, H-94/008 and H-95/000 returned 15 to 249 ppb Au, three rock samples from H-198/000 and H-198/001 reported negligible Au.



In late 2009, WGM also reported on the interpretation of SRTM DEM imagery and RadarSat Ultrafine beam, Fine Beam and DEM imagery which was undertaken to identify structures that relate to mineralization in the Mowasi area.

Mowasi Gold Corp. undertook further exploration in 2009-2010 that included the collection of another 130 stream sediment samples and 15 rock chip samples which were assayed for multi-element. The work was completed by Burkeli Simon of Guyana Goldfields on behalf of Mowasi Gold Corp. and was not supervised by WGM. These samples were designed to cover the drainage basin of the Konawaruk River, an approximate 8-km² area that lies within 2 claims held under the EMGC's First Right of Refusal (H-263/004 and H-263/005). One drainage area returned a cluster of several stream sediment samples with a maximum gold content of 546 ppb (15-546 ppb range) and two rock chip samples of 93 and 138 ppb Au respectively.

The 2009 and 2010 multi-element analysis was done with the intent to locate similar geochemical signatures to the Omai gold deposit, namely; Au associated with Ag–Te–W–Bi–Pb–Zn–Cu–Hg–Mo. Many of these elements are also anomalous at Eagle Mountain, more specifically Mo–Bi–W. Anomalous Au was considered a value greater than 0.05 g/t Au. Seven areas in total were interpreted as being anomalous. EMGC notes however that some minerals do not preserve well in the tropical environment and are difficult to detect – especially Mo. WGM (Alexander, 2011) identified four possible Au-trace element domains from northeast to southwest: Au–Mo–As–Sb; Au; Au+/-Cu- Pb–Zn and Au–Pb. Each of these anomalous domains lies at an intersection of interpreted NE and NW trending RadarSat 2 lineaments.

Both artisanal river and land dredges are currently active within the Mowasi Property's rivers and small tributaries. In some cases the artisanal land activity is utilizing the saprolitic portions rather than strictly concentrating on alluvial materials.



7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Eagle Mountain and Mowasi property areas occur within Palaeoproterozoic greenstones of the northern part Guiana Shield. The oldest rocks in this general area belong to the Barama-Mazaruni Supergroup, and consist of volcanic and sedimentary rocks that are folded and metamorphosed to a lower greenschist chlorite-albite-epidote grade (Figure 7-1). According to Gibbs and Barron (1993), the mafic meta-volcanics are generally older than the intermediate to acidic meta-volcanics and meta-sediments.

The Younger Granite Group, which intrudes the Mazaruni Group, is characterized by synkinematic multi-phase plutons, often with foliated margins. Intrusions vary in size from batholiths to satellite discordant stocks. Documented ages range from 1.9 to 2.2 Ga, consistent with emplacement during the pervasive Trans-Amazonian tectonic event. Granodiorite compositions predominate, with lesser amounts of granite, diorite and late-stage quartz and feldspar porphyry.

Greenstones and granites are unconformably overlain by the Middle Proterozoic Uatuma SuperGroup, which includes folded sandstones and siltstones of the Moruwa Formation and locally tilted acid volcanics of the overlying Iwokrama Formation. These are overlain by a thick succession of flat-lying cross-bedded sandstones, arkoses, quartzite and conglomerates of the Roraima Formation that together with younger basic sills and dykes form the bulk of the Pakaraima Mountains immediately west of Eagle Mountain.

Un-metamorphosed basic intrusions are widespread throughout Guyana and have a wide age range. Large sills and dykes of the Younger Basic Intrusive Suite include the sill at Eagle Mountain and the Tumatumari Dyke (**Figure 7-1**), which were dated at 1.67Ga (K-Ar ages; Snelling and McConnell, 1969). The Omai Sill is also included in this suite but yielded a U-Pb age of 1.794 Ga (Voicu *et al.*, 2001). This minor difference may be due to analytical error. The northeast trending Tumatumari Dyke, which extends from Eagle Mountain to beyond the Omai area, is considered to be the feeder structure to Eagle Mountain Sill as well as three regional scale sills in the Pakaraima Mountains to the southwest. These intrusions are interpreted to have continental tholeiitic affinities (Gibbs and Barron, 1993), and vary from gabbroic to noritic in composition. A suite of smaller basic dykes (Apatoe Dykes) ranging in age up to Cretaceous typically have northeasterly strikes, while most of the older dykes trend NNE-SSW (the Tumatumari Dyke trends NE).

Tertiary-age shallow marine/fluviatile white quartz sands with thicknesses up to 90 metres extend from the coast to this area of Guyana. Gravel and pebble horizons may also occur along with some mud bands. These sands generally obscure the local geology.

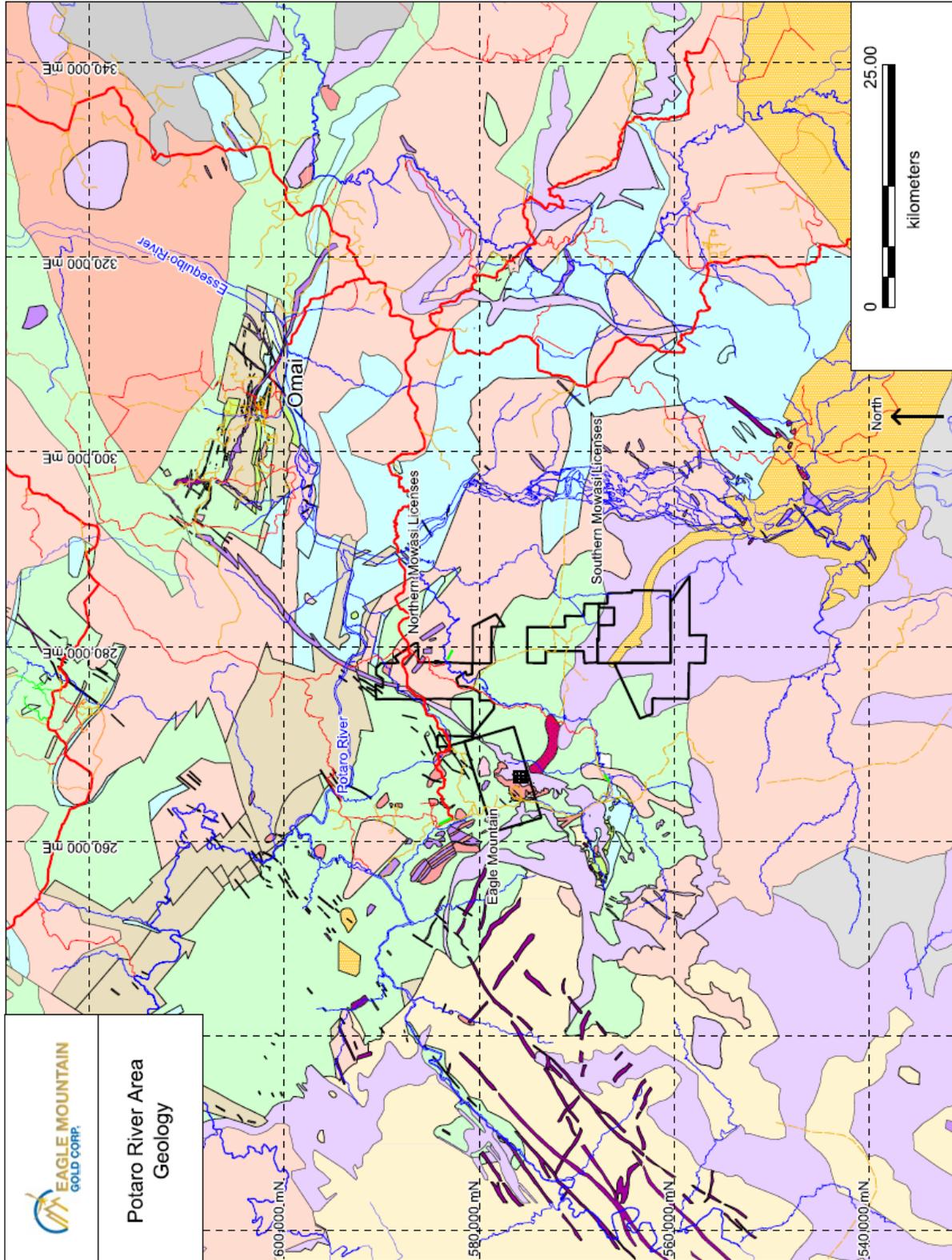


Figure 7-1: Regional Geology of the Eagle Mountain and Mowasi Property areas (EMGC, 2012)
See Figure 7-2 for legend

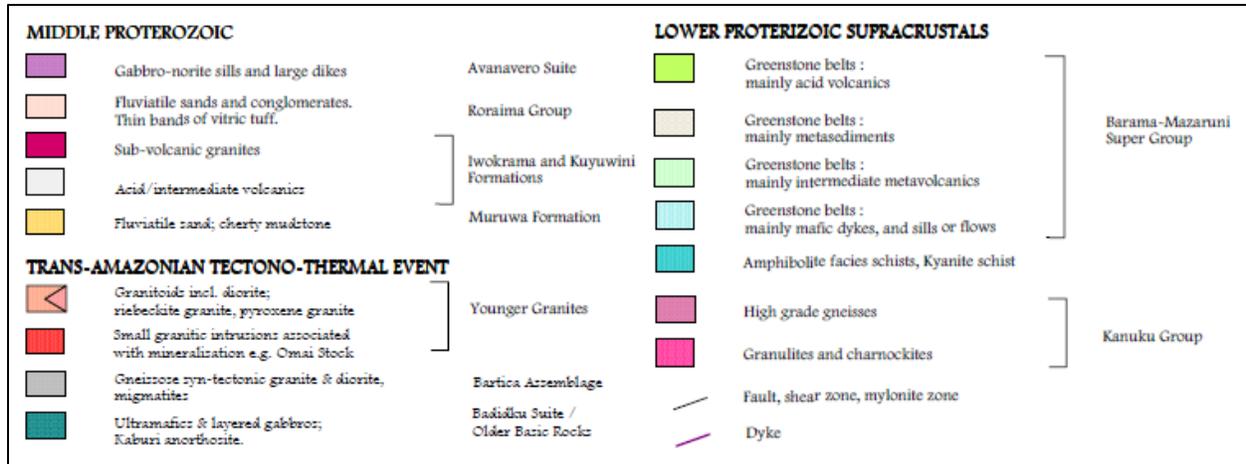


Figure 7-2: Geology legend (EMGC, 2012)

The Central Guiana Shear Zone located in northern Guyana comprises a series of major northwest-southeast striking shear zones contained within a 75-100 kilometer wide belt (Voicu *et al.*, 2001). These structures are spatially associated with many of the known mineral deposits in Guyana. The northwest-southeast lineament bounding the northern part of the Pakaramima Mountains to the west of Eagle Mountain is interpreted to be one of the more southerly strands of the Central Guiana Shear Zone (Figure 4-1). Several other regional scale lineaments intersect in the Eagle Mountain region where they are visible as topographic breaks. Based on the distribution and preserved thickness of the Roraima Formation, regional scale uplift is interpreted to have occurred between a north-northeast trending lineament that partly controls the shape of the Mahdia Valley and a parallel structure that bounds the western margin of the Cannister Outlier located over 90 kilometres to the southeast (Figure 4-1). Northeast-southwest and north-south orientated regional lineaments also intersect at Eagle Mountain. There is currently insufficient evidence to postulate a direct link between any of these structures and gold mineralization.

7.2 Eagle Mountain Property

7.2.1 Eagle Mountain Property Geology

The oldest rocks identified on the property belong to a meta-volcanic and meta-sedimentary package (Figure 7-3 and Figure 7-4). Meta-volcanics are typically fine-grained, dark coloured with a general N030 E cleavage, and contain minor disseminated pyrite. Meta-sediments include sericitic fine-grained arkose and manganeseiferous siltstones, and can be locally interbedded with the mafic meta-volcanics.

Andesitic, dacitic and rhyolitic meta-volcanics have also been recognized, and locally polymict volcanoclastic rocks are interbedded with mafic meta-volcanics and fine-grained sediments. All such rocks have been intruded by older mafic intrusions that have also undergone greenschist facies metamorphism. Some rocks contain large porphyroblasts of actinolite/hornblende. In some areas, amphibolitic rocks are believed to have formed as a result of contact metamorphism.



Quartz diorite/dacite porphyry intrudes or is interbedded with the meta-volcanics (Figure 7-3 and Figure 7-4). The growth of quartz phenocrysts in a variety of lithologies is interpreted as an alteration product associated with molybdenum mineralization. Resultant rock textures are difficult to distinguish from true quartz porphyry material (Figure 7-5).

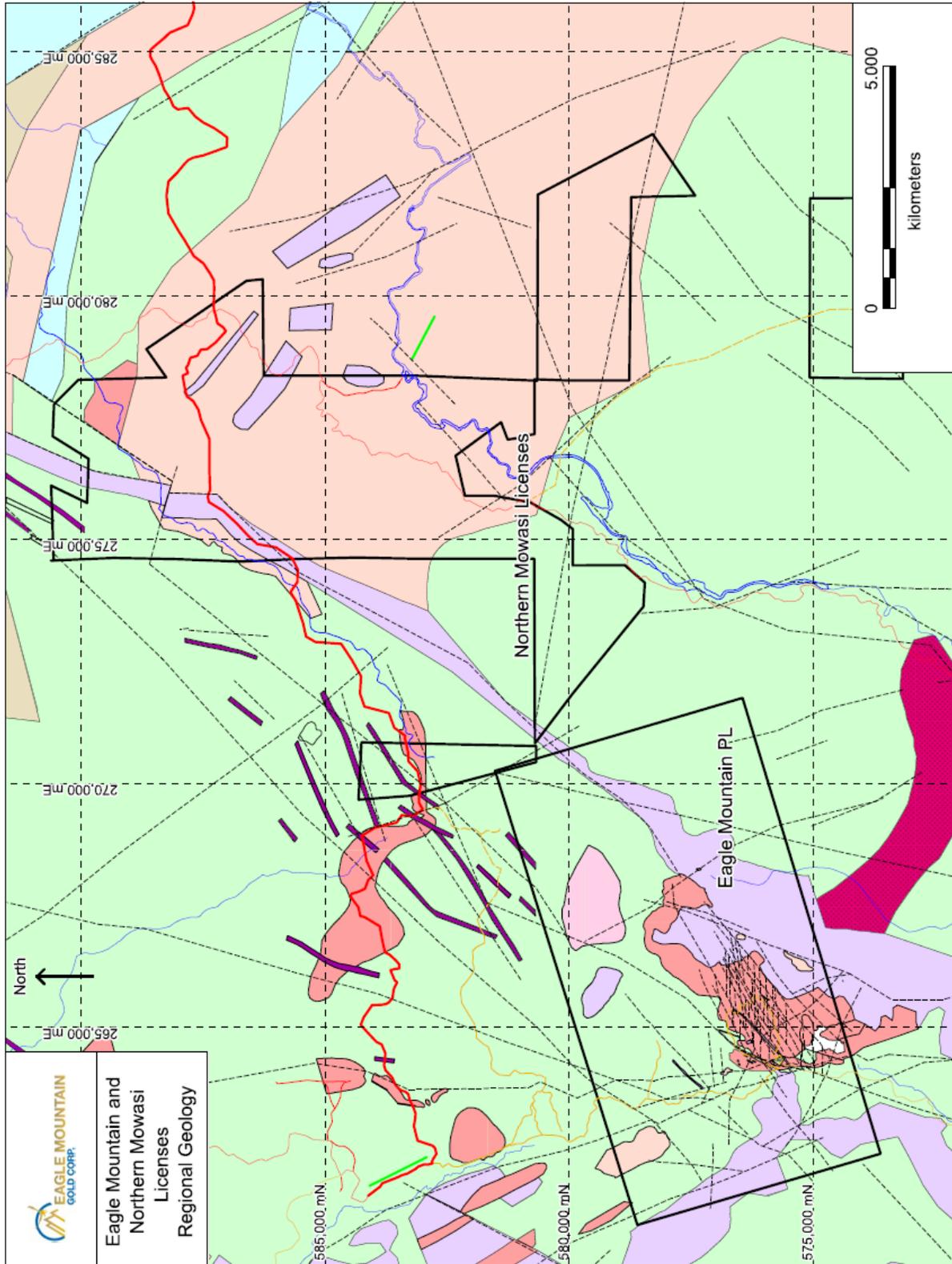


Figure 7-3: Geology of the Eagle Mountain and northern Mowasi Property areas (EMGC, 2012)
See Figure 7-2 for geology legend

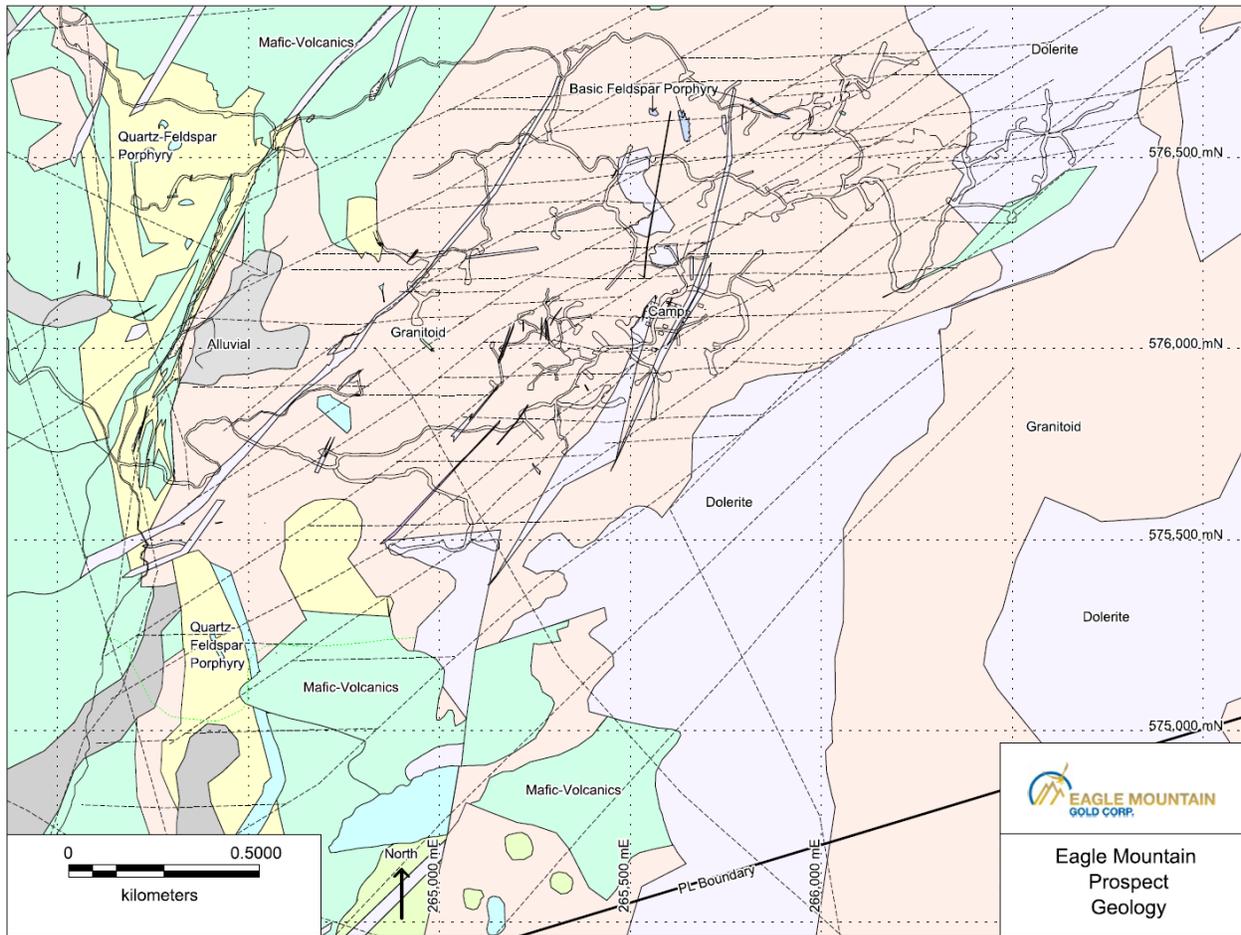


Figure 7-4: Geological map of the Eagle Mountain resource area (EMGC, 2012)



Figure 7-5: Host rock and alteration associated with molybdenum mineralization

Left to right: quartz-feldspar porphyry host rock; mafic volcanics with epidote-sericite alteration and quartz-phenocrysts; granitoid with epidote-sericite alteration.

A composite granodiorite pluton intrudes all older rocks and hosts most of the known gold mineralization on the property. The pluton has been mapped throughout the western flank of Eagle Mountain (Figure 7-3 and Figure 7-4), and occurs in scattered outcrops and old workings to near the eastern and southern limits of the EMPL. Various attempts have been made to divide this composite intrusion into separate compositional units, such as granodiorite, alkali granite and quartz diorite. However, these studies did not account for compositional modifications associated with hydrothermal alteration. In general, approximately equal amounts of medium-grained (2-6mm) plagioclase, orthoclase and quartz are present, with minor amounts of biotite and amphibole. Minor primary magnetite, accessory pyrrhotite and ilmenite have been recognized in some samples. The texture of unaltered granitoid is typically hypidiomorphic, with quartz and perthite interstitial to plagioclase and mafic minerals. Plagioclase, biotite and amphibole appear to have crystallized earlier than the orthoclase, with quartz last. Some microgranite also occurs locally, possibly as late stage dykes or at chilled margins.



The Roraima Formation occurs as a thick flat lying sequence of sandstones, arkoses and quartzite along the extreme western side of the property where large boulders and flat-lying outcrops are exposed. The Roraima Formation does not occur within the mineralized area and is not recognized east of the Mahdia valley.

A large diabase to gabbro-norite sill (Younger Basic Group) intrudes the granodiorite pluton and metavolcanic-sedimentary sequence. The sill is 25-40m thick in the Saddle area but appears to thicken to the north and south. It partly forms the ridge and cliffs at the top of Eagle Mountain. Northwards, the sill merges with the Tumatumari Dyke, which extends northeast to the Omai area where it intersects the Omai Sill. The basic sill is interpreted to be generally flat-lying, although locally it dips shallowly to the southwest, paralleling some of the mineralized shear zones. Additional examples of younger basic intrusions include at least two major (up to 60m thick), 030° to 040° striking and steeply dipping dykes that extend up to 0.8 kilometres in strike, plus a number of several smaller sills and dykes up to 15m in thickness.

Rare basic porphyry intrusions with feldspar crystals several centimetres in size and locally containing abundant rounded small xenoliths may be lamprophyres (Casselman, pers. comm., 2012). These dykes are oriented 120° , are probably less than 10m thick and post-date the granodiorite pluton that hosts the bulk of the gold mineralization.

Tertiary-age shallow marine/fluviatile sands are preserved as a thin cap below 60m ASL outside of the EMPL. A number of Tertiary paleo-channels occur within the area and contain alluvial gold, including the Proto-Mahdia Channel and the Homestretch-Salbora area located east of the access road at the northern EMPL boundary. Modern alluvium and dredge tailings fill the Mahdia and Minnehaha valleys downhill of the resource area, obscuring bedrock geology. A bowl-like basin within the mineralized area is also filled with recent alluvium.

7.2.2 Eagle Mountain Property Structural Geology

Two main styles of folding have been recognized in basement meta-volcanics and meta-sediments. The meta-volcanics and quartz-feldspar porphyry sills or flows occupy a broad syncline (the “Dispute Pit fold”) close to the Minnehaha Fault (Figure 7-4 and Figure 7-6), while meta-sediments are locally deformed into series of tight chevron folds. Molybdenum mineralization preferentially occurs within massive felsic porphyry in the core of the regional scale fold. Sporadic gold mineralization has also been identified in this area, mainly in association with “cloudy” quartz vein arrays. The local controls on gold mineralization require further investigation. Vein development may be related to folding during deformation between the north-east trending Minnehaha Fault and parallel structures to the north, and concentrated in the fold axial area in the form of saddle reefs.

There are two major faulting events that affect the gold mineralization. The oldest is a low-angle ($10-30^{\circ}$), southwest dipping thrust/shear system. This carries the bulk of the gold mineralization association. The shearing has gradational characteristics as it traverses the property from west to east. Gold mineralization is associated with the thrust structure, with mineralized fluids



permeating the shearing and fracturing structures of the thrust. Within the granitoid, in locations such as the “Zion” area the shearing is a single structural body, with a distinctive mylonite at its base and fracturing of the granitoid above. This area represents one “end member” of the gradation with the thrust faulting concentrated to form intense movement within the granitoid unit, resulting in a mylonite at the base of the thrust unit. The other “end member” of the thrust faulting occurs typically within the Number One Hill and Baredi areas. In these locations the granitoid and volcanic units are juxtaposition and several areas of smaller thrust faulting occur. These zones of thrusting within the granitoid are often accompanied by thin sections of highly deformed volcanic units from 2cm to 5 m in thickness. It is proposed that the thrusting in this geological environment has used the volcanic unit to lubricate the movement and hence the movement is not concentrated to a single major structure as with the “Zion” area, with a mylonite and fracturing/shearing above it, but with several smaller zones of movement in a “layer cake” arrangement that has dissipated the displacement over a larger vertical area. The “Kilroy” and “Bottle Bank” areas are an “intermediate” to the two “end members”. The “Kilroy” area does not have a significant volcanic slice association, or a distinct mylonitic base, but does have small mylonites within the (mineralized) thrust zone which is highly fractured to sheared. There is also a significant amount of quartz infill fractures/shears and some quartz flooding and overprinting. The “Kilroy” area often displays a splitting of the main thrust into an apparent upper and lower portion with a low shearing/fracturing in the centre (formerly known as Kilroy and Millionaire, with Millionaire being the lower portion). This occurs when the thrusting zone becomes wide and hence a dispersion of strain over a larger area. The “Bottle Bank” area has many characteristics as the “Kilroy” area with the added characteristic of significant silica flooding with deformed volcanic units. This area is suggested to be closer the Number One Hill/Baredi “end member” than that of Kilroy which is towards the “Zion end member”. The “Saddle” area contains “Zion end member” style mineralization which has developed into a wide zone and has developed a low shear density zone in the centre. In this area both the “upper” and “lower” segments contain a basal mylonite, although often weaker than found in the “Zion” area.

The second major faulting event does not host significant gold mineralization association but it does crosscut and displace the mineralization associated with the thrusting event. Previously, IAMGOLD had interpreted a mineralized corridor between two bounding faults at 060°. This interpretation has been further expanded through the 2011 Stronghold work. EMGC interprets the faulting is seen as a regional feature with near vertical to steeply north dipping faults in a north-east orientation. Movement appears to be oblique to dip and strike but is interpreted as part dextral and part reverse thrusting. The northeast faulting in the granitoid has resulted in a brittle fracture network with an associated secondary east-west fault set caused by the rheology of the granitoid. These associated faults are orientated near vertical to steeply dipping to south, in an east-west direction and are oblique dip slip down faulting to the west. The two fault sets result in an interpreted model of displaced blocks bounded by faults that trace on the surface at 050°-060° and 080°-090°. The result of this faulting has caused jogs in the continuation of the mineralized thrust structure with an apparent “dropping down” of blocks towards the south-east across the north-east faults and towards the south-west between them over the easterly faults. This model of displaced blocks is still under development and with information from future drilling EMGC expects to further refine this geological faulting model. Note that the main theory of gold emplacement along sub horizontal shears has not been changed as the faulting is a later geological event; the effect of the block faulting is only to displace/jog the mineralized zones.

Direct observation of fault zones can be made in creek outcrops, adits and drill core. Faults have also been interpreted from topographic, aeromagnetic, radiometric or IP data (Figure 7-4). Emplacement of the post-mineralization NE-SW basic dykes is also likely to have been fault controlled, but for the sake of clarity these are not shown on Figure 7.4.

Immediately east of the Minnehaha Fault, wedges of granite and meta-volcanics/meta-sediment/felsic porphyry are interpreted as a series of discrete, 50-100m thick thrust slices dipping 40-50° westwards (Figure 7-6). Within the Eagle Mountain granitoid, similarly orientated structures juxtapose domains of epidote-sericite and chlorite alteration.

Vertical and steeply dipping quartz veins arrays are recognized throughout the Eagle Mountain property. The dominant orientation of the larger vein sets is NE-SW, with vertical or steep southeasterly dips (Figure 7-4). A minor population of larger veins is oriented E-W, and are either vertical or dip steeply to the south. The larger vein sets can carry significant gold grades, however their distribution is erratic.

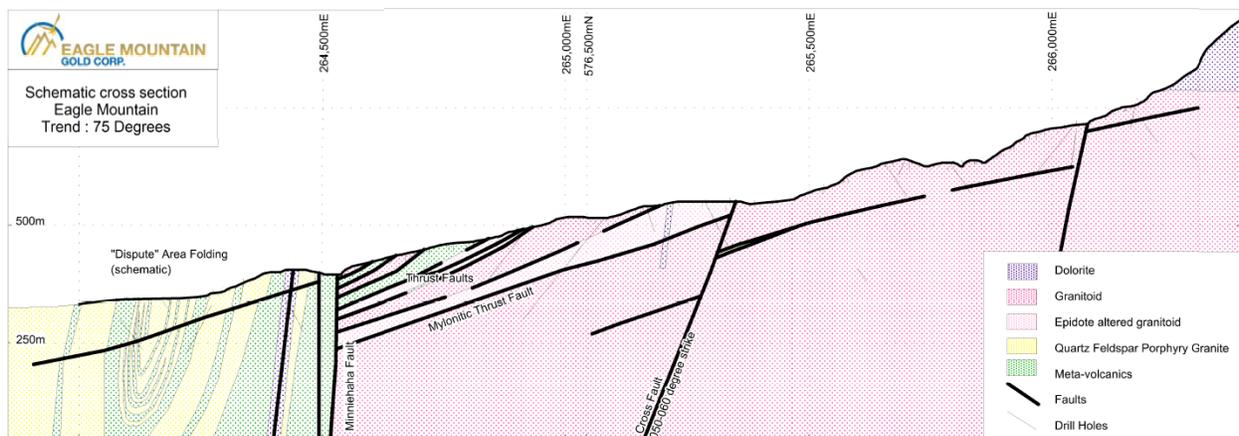
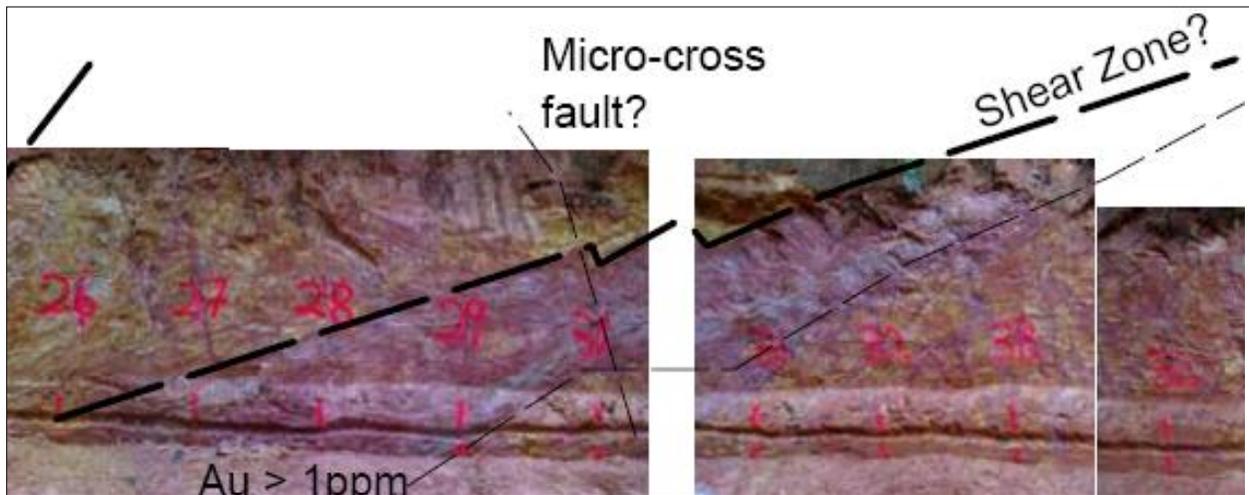


Figure 7-6: Schematic section looking north-northwest illustrating thrust bound lithological domains (EMGC, 2012)



Figure 7-7: Exposure of a low-angle shear zone in the LL 166/Friendly Road cut



Red numbers refer to 1m samples

Figure 7-8: Example of a small zone of low angle shear controlled mineralization



7.2.3 Eagle Mountain Property Mineralization and Alteration

7.2.3.1 Eagle Mountain Resource Area

Most known gold mineralization is hosted within the granitoid in association with low-angle shear zones. These generally dip 10-30° to the southwest. As described in the Property Structure section, the mineralization is structurally controlled with a sub-horizontal thrusting event being the auriferous host. The thrusting and mineralization is now interpreted by EMGC to show a gradational progression of characteristics between the two end members: Zion and Baredi (Figure 7-9).

Prior to the 2011 drill program. The Eagle Mountain resource mineralization was divided into four separate zones: Zion, Saddle, Kilroy and Millionaire. Based on the 2011 drill results, EMGC concluded that the previously interpreted Saddle zone is actually a part of the Zion zone. Saddle zone displays alteration and mineralization characteristics similar to the Zion zone. EMGC observed that as the Zion mineralized zone increases in thickness beyond twenty meters the alteration and gold mineralization weakens in the centre to less than 0.5 g/t Au with the core acting somewhat like a rotated porphyroblast. Thus where two units were previously interpreted (Saddle and Zion), it is in fact simply a single mineralized zone (Zion) with a weakly to non-mineralized and altered core. This is the same basic structural/mineralization/alteration model seen at the Omai deposit. Drilling in the Kilroy area suggests that the Millionaire zone may similarly be a portion of the Kilroy zone.

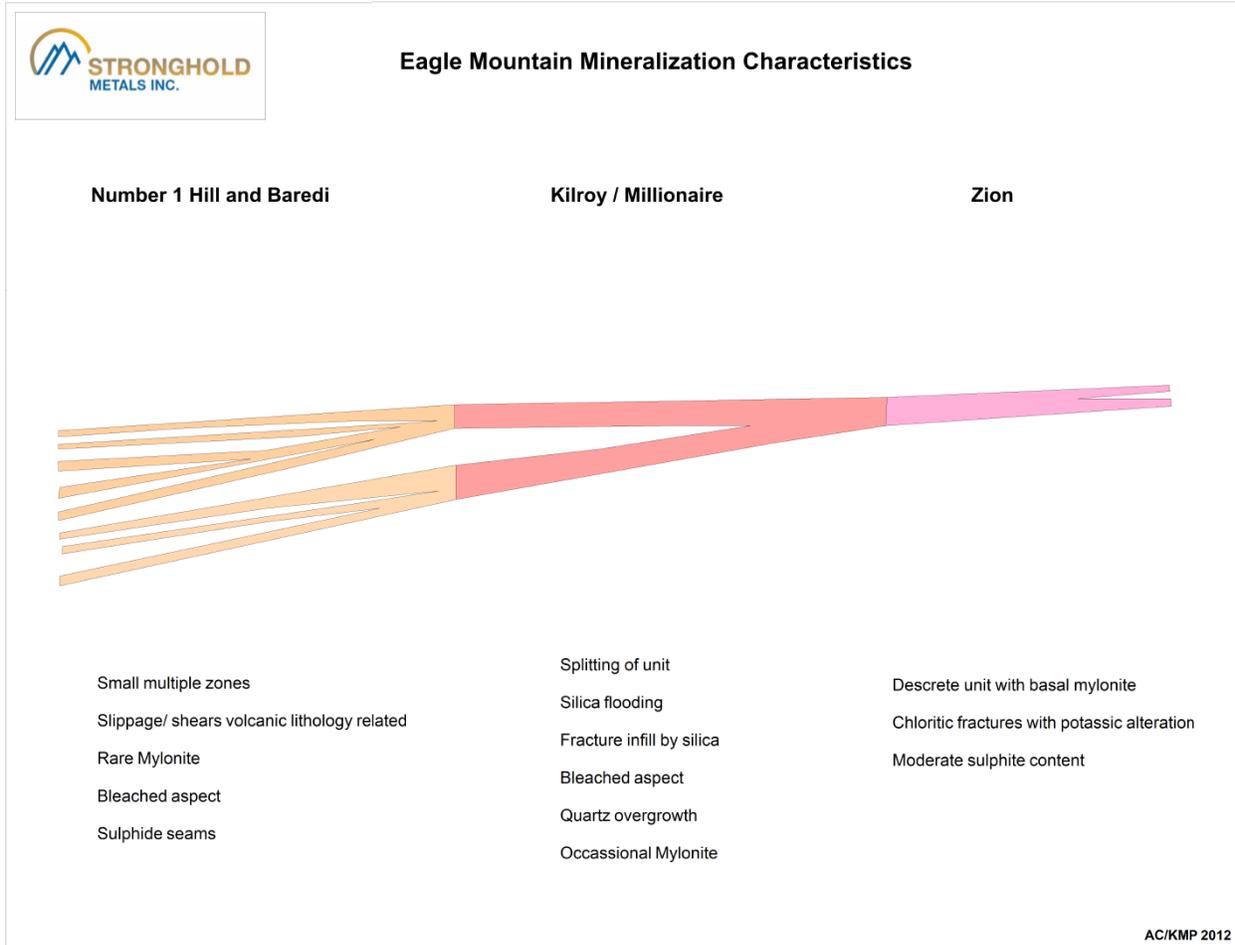


Figure 7-9: Eagle Mountain resource area mineralization characteristics (EMGC, 2012)

The Zion zone is very distinctive visually with an average grade of 1.56 g/t Au over 15-20m, although significantly higher grades have been intersected locally. The lower limit is defined by a basal mylonite that varies from less than a centimeter to several meters in thickness. Mineralization rarely extends for more than 20cm below this structure. The mylonite itself is typically mineralized and can be brown, grey or green in colour. Thin mylonitic shear bands occur throughout the hangingwall. The Zion zone is characterized by intense and pervasive chlorite-potassic alteration which gives it a distinctive colour and texture. Sulphide concentrations can reach 4-5% of the rock mass. The principal sulphide is pyrite, with subordinate arsenopyrite occurring as fine-grained disseminations and veinlets. Intense silicification and recrystallization are ubiquitous, as is chloritic fracturing similar to that observed in other mineralized zones. Zion extends eastwards under the dolerite sill and may be partly stopped by it. The zone is open to the north and south and daylights to the west where it is exposed in outcrop, historical pork-knocker pits and two adits. Erosion of the intensely silicified zone results in the formation of residual boulders along the edge of exposure, some up to 15m in diameter. Quartz veining is abundant within the Zion, with early NE-SW and NW-SE orientated veins overprinted by an E-W striking and south dipping vein set. All are disrupted by subsequent deformation. The older NE-SW vein set is characterized by a granular texture and diffuse



margins. Individual veins are typically discontinuous and rotated. These can contain visible gold. A sample of vein material from a creek outcrop called the “Anaconda Vein” graded 258 g/t Au. The younger E-W striking vein set comprises sheeted veins that are generally thinner and more continuous. This vein type is also auriferous, but to date no visible gold has been observed.

The other end member is the No 1 Hill/Baredi area. This end member displays multiple small zones in a “layer cake” orientation. There is no distinctive base, with rare mylonites. More common are small slices of highly distorted volcanics which act as a basal slide for the thrusting.

Between the two end members are gradational stages which can be generally classified as the Kilroy area. IAMGOLD had previously outlined the Kilroy zone near surface with the more weakly mineralized Millionaire zone beneath. While the Kilroy mineralized zone was intersected in the majority of 2011 and historic holes at surface the lower interpreted Millionaire zone was not necessarily present. EMGC now recognizes the Kilroy zone as a progression from the Zion zone, often showing a weakening of the centre of the zone where thicker, creating two sub zones, which were previously identified as two separate zones (Kilroy and Millionaire). The Kilroy zone is distinguished by moderate to intense chloritic fracturing, but alteration tends to be greyer in colour (**Figure 7-10**). Silicification occurs in patchy domains of quartz saturation and minor grey coloured quartz veining. Thin, disrupted mylonitic shear zones and brecciation occur locally. It is also characterized by moderate to intense chlorite-altered fracture networks with elevated sulphides (2-4%), typically pyrite, in the more strongly altered domains (**Figure 7-10**). The zone may be partially silicified and/or recrystallized, with visible gold occurring only rarely. The zone averages 1.0 g/t Au over 12-15m, although higher grade domains have been delineated, for example, 20.9 m at 5.8 g/t Au from 11.1 m in EM97-3 (approximate true thickness of 12m).

In comparison to the previous IAMGOLD mineralization model, EMGC has interpreted the Zion zone as having a greatly expanded areal distribution due to incorporation of the Saddle zone and re-assignment mineralization from the lower Kilroy/Millionaire units to the Zion zone due to the recognition of the Zion characteristics within these zones and the realization that the zones become weakly mineralized and altered in the centre when the zone thickness increases.

IAMGOLD had postulated a thrust fault between the Zion and Kilroy areas, but it was never located in the field and drilling to date has not identified a thrust fault. This is a reason for EMGC reinterpretation of the Eagle Mountain gold deposit mineralization model. The displacement of faulted blocks may explain the gap between the two zones and their spatial association



Figure 7-10: Characteristic mineralization core photos: Saddle (now Zion), Zion, Kilroy, Millionaire zones.

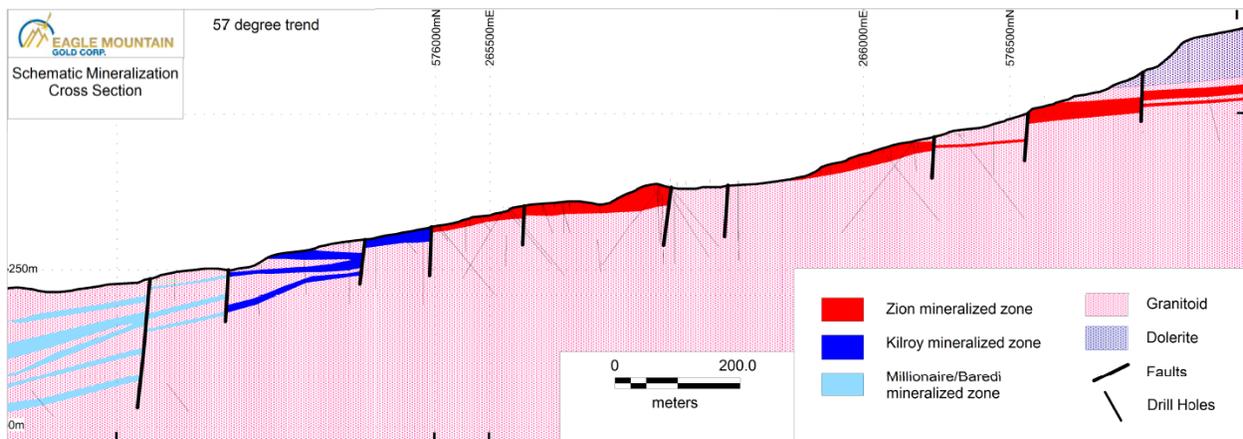


Figure 7-11: Northeast (057) trending section looking northwest illustrating gold mineralization zones (EMGC, 2012)



7.2.3.2 Additional Mineralization Styles at the Eagle Mountain Property

A separate gold mineralization style recognized on the property is characterized by irregular high-grade quartz vein arrays. At least two generations of quartz veining occur within, and partly extend beyond the auriferous shear zones. Steeply dipping E-W and NE-SW orientated veinlet zones have returned significant gold grades from a number of isolated locations elsewhere within the property, including 248 g/t Au over 1m in the Coolie 271B Adit.

A few large auriferous quartz veins have been recognized in the No. 1 Hill and Baboon areas, also spatially associated with low-angle mineralized shear zones. Several sets of quartz veins are present in the Dispute Pit area, although only one seems to be auriferous. Barren extensional quartz veins at this location are thought to be associated with the folding event and coincident molybdenum mineralization. Auriferous veins, often with visible gold, have a distinctive mottled or clouded colour and occur in both the meta-volcano-sedimentary and epidote-altered granodiorite. Economically significant concentrations of this mineralization style have not been identified.

Another mineralization style with restricted distribution has been recognized by EMGC. Termed the OHK zone, it crosscuts known mineralized zones such as Zion and Kilroy. It is characterized by moderate dissolution pitting and high sulphide content (globular to veinlet pyrite) plus or minus significant potassic alteration. This relatively minor unit is inconsistently mineralized for gold.

7.3 Mowasi Property

7.3.1 Mowasi Property Geology

The northerly portion of the medium scale blocks (referred to as the Tiger River and Dawson Creek blocks) is predominantly intermediate volcanics with lesser amounts of granitoid. Some in situ quartz veining has been reported. A noted feature of this area is the Tumatumari dolerite dyke. This unit is felt by some authors to be of significance due to the fact it forms the upper portions of the hills of Eagle Mountain, Chalmers Cliff, and Saddle and continues in a north easterly direction to intersect with the Omai sill. The sill at Omai bi-sects the ore and at present forms the basement to the Fennel pit at approximately 150 m depth, sealing off the underlying minimum 2.5 million ounces remaining beneath the sill. The Tumatumari dyke is observed on the Eagle property as a ridge that extends through the Baboon area and presumably intersects at some point with the dolerite cap. The Tumatumari dyke remains as a ridge within the Tiger River blocks. Howe and EMGC note however that there is no known temporal or causative association between the dolerite dyke and sill and gold mineralization.

Granitoids dominate the central portion of the claim blocks.

The southerly claims are termed Upper Mowasi and Mowasi Mountain, are almost exclusively dolerite and gabbro-norite. These units may only be the tops of the hills/mountains and may overlay the volcanic sequence. Regional geology interprets the Muri Alkaline Suite as being present as nepheline syenites and possible carbonatites. Neither of these units was observed.

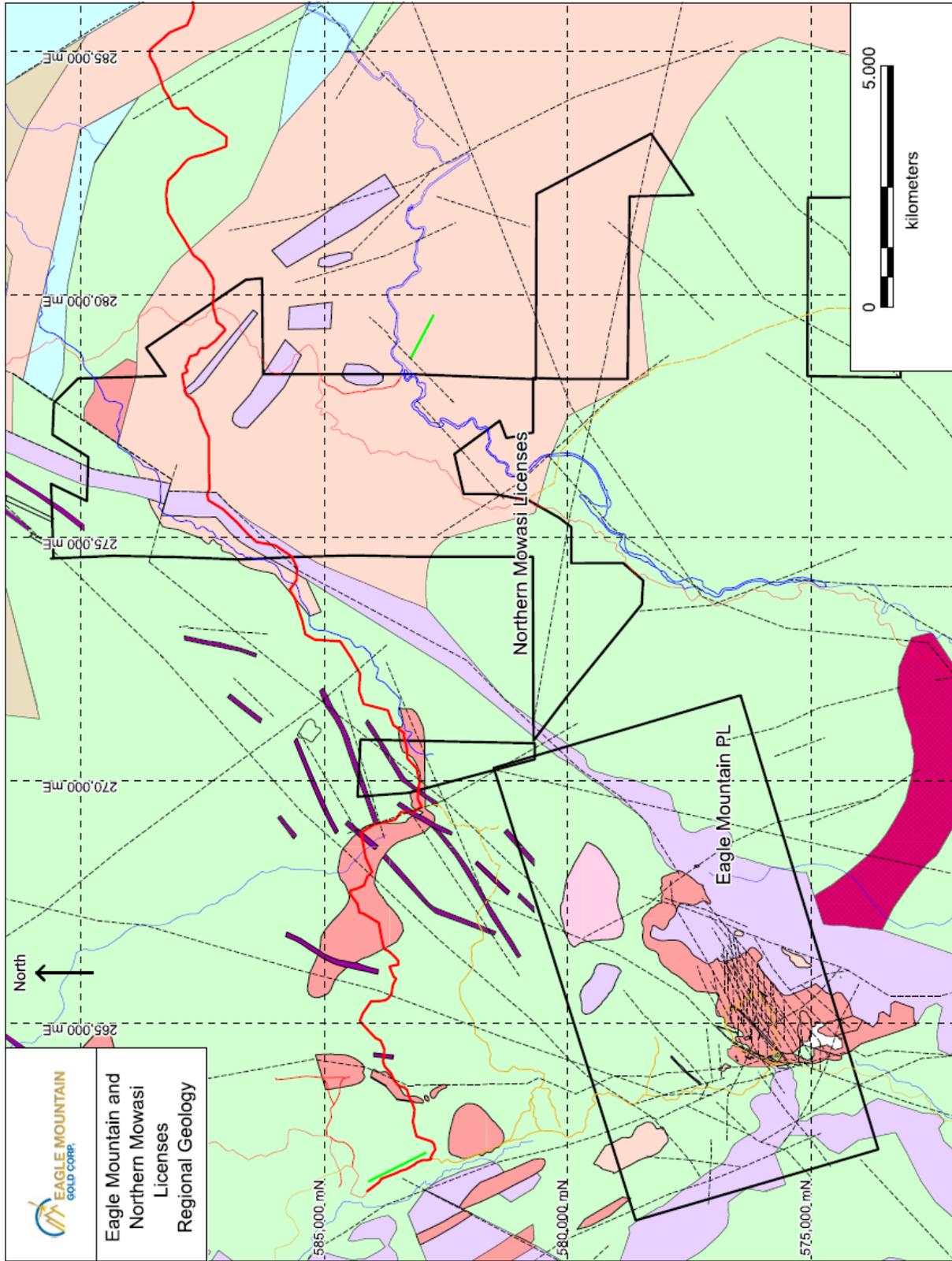


Figure 7-12: Geology of the Eagle Mountain and northern Mowasi Property areas (EMGC, 2012)
See Figure 7-14 for legend

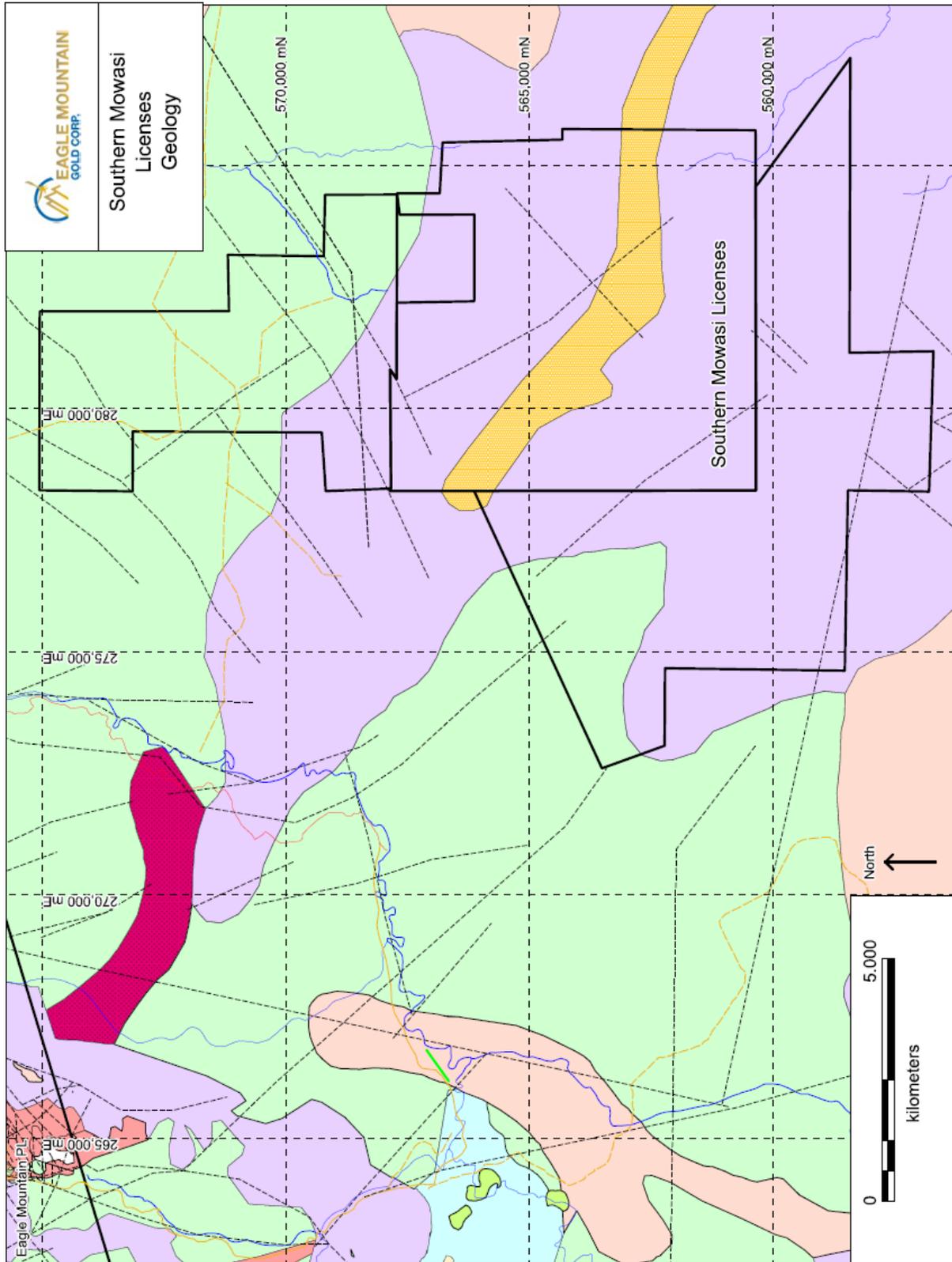


Figure 7-13: Geology of the southern Mowasi Property area (EMGC, 2012)
See Figure 7-14 for legend

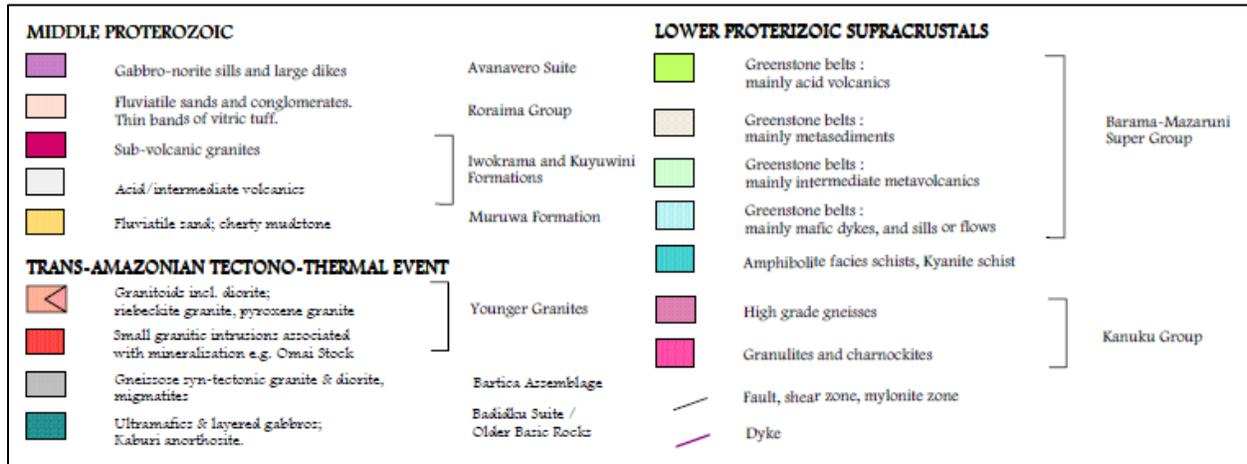


Figure 7-14: Geology legend (EMGC, 2012)

7.3.2 Mowasi Property Structural Geology

Mowasi Gold Corp. contracted Watts, Griffis and McOuat to carry out preliminary work on the Mowasi property. A portion of this work included a structural analysis utilizing the Shuttle Radar Topography Mission (SRTM) data to provide a shaded topographic relief map. The Digital Elevation Model (“DEM”) was used to enhance the image for the interpretation of lineaments and other features (Alexander, 2011).

Three separate major lineament trends were interpreted from this exercise:

- 1) NE trending structures appear to be the most continuous and are felt to be major contacts or faults or parallel features to these features. The predominantly 65° orientation is thought to relate to a basement structure and/or a stratigraphic feature that predates the mafic dykes and sills. Many rivers seem to be on this trend. These may represent the potential mineralization structures.
- 2) NW trending structure may be responsible for the larger topographic features and are considered to be related to faulting with or without splays. There is some rotation of these trends with the northern portion being more WNW. These faults and shears are late stage and affect even the mafic dykes and sills. The NW trending lineaments frequently offset the NE trending structures in a sinistral or left strike-slip direction and are not thought to be associated with mineralization.
- 3) NNW to NNE trend is generally shorter in length. NE trending features frequently terminate in proximity to the NNW trending structures. No significance is attached to these lineaments, as the age relationship remains unclear.

7.3.1 Mowasi Property Mineralization and Alteration

The Mowasi Property is at an early exploration stage and only alluvial gold deposits have been worked to date by artisanal miners in and around the property area. The style of potential insitu bedrock hosted gold mineralization is uncertain. EMGC suggests that gold mineralization at Mowasi may be related to the phyllites and to a lesser extent sediments within the intermediate sheared volcanic package and associated felsic and mafic intrusions. EMGC notes that a number



of adits extend underneath flat lying quartz veining (a total of 18 are recorded in the area, especially along Dazier Creek). The quartz veining is generally white, approximately 50cm to several metres in thickness and is reported to contain visible gold. Veining is also recognized within granitoids. EMGC further notes that the veins are similar to those observed in portions of the Bishop Growler area of Eagle Mountain.



8 DEPOSIT TYPES

The main and most significant style of gold mineralization on the Eagle Mountain Property is related to a series of tabular, shallow southwest-dipping, brittle-ductile composite shear zones within the granodiorite intrusion. This mineralization style forms the Eagle Mountain mineral resource. Very fine-grained gold is associated with chloritic \pm pyritic micro-fractures and in some cases within or adjacent to discrete chlorite – pyrite \pm potassic altered mylonitic shear zones. Alteration and sulphide mineralization within the mylonitic structures is interpreted to be syn-deformational.

A second style of mineralization is present west of the Eagle Mountain mineral resource where molybdenum mineralization occurs within the folded stratigraphy west of the Minnehaha fault in the Dispute Pit area. The felsic rocks within the fold package are the principal host, where mineralization occurs in association with epidote-sericite alteration. Molybdenite occurs as disseminated grains within the rock matrix, in quartz veins, particularly at vein margins, and within fractures. Mineralized quartz vein stockworks are developed within the centre of strongly altered units. Minor molybdenite is also present throughout the meta-volcanic and meta-sediments, occurring within quartz veins or coating fractures. Molybdenum and gold have an inverse grade relationship, and are interpreted to have occurred as two spatially and/or temporally separate events. Trace molybdenum occurs within the Eagle granitoid at quartz vein margins in association with areas of epidote/chlorite alteration.

The Eagle Mountain gold deposit and probably the Dispute pit area mineralization best fit into the orogenic lode gold deposit clan. Orogenic gold deposits (Moritz, 2000) are present in metamorphic terranes of various ages, displaying variable degrees of deformation. The host geological environments include volcano-plutonic and clastic sedimentary terranes. The host rocks have been characteristically metamorphosed up to greenschist facies conditions, and locally to amphibolite or granulite facies conditions. The gold deposits typically occur within or in the vicinity of regional, crustal-scale deformation zones with a brittle to ductile type of deformation. The geologic structures generally indicate compressional to transpressional tectonic settings. The gold deposits can be hosted by any rock type.

Typically, there is a strong structural control of the orogenic lode gold deposits and orebodies at all scales (Moritz, 2000). The morphology can be highly variable, including (1) brittle faults to ductile shear zones, (2) extensional fractures, stockworks and breccias, and (3) fold hinges. The orebodies can consist dominantly of altered host rock with disseminated mineralization or of fissure-filled mineralization, i.e. veins, *sensu stricto*.



9 EXPLORATION

EMGC exploration has focused primarily on diamond drilling at the Eagle Mountain Property (2011) and preliminary reconnaissance rock sampling and drainage sampling at the Mowasi Property (2011-2012).

9.1 Eagle Mountain Property

9.1.1 Infrastructure Improvements

Infrastructure improvements on the Eagle Mountain property include the upgrade of camp buildings and expansion of the camp with additional housing and core storage sheds. The most notable accomplishment is the building of an access road over the top of the Saddle portion between Eagle Mountain proper and Chalmers Cliff. This road has allowed access for the diamond drill rig and several aggressive holes have been completed now in the Saddle portion. Heavy equipment is present as well for drill support.

9.1.2 Lidar Survey

EMGC contracted Atlis Geomatics Inc. of 1333 Dugald Road, Winnipeg, Manitoba, Canada to conduct a LIDAR topographic survey for the Eagle Mountain Property area for better topographic control. The survey was partly flown (60%) on May 9, 2012 and was halted due to equipment failure. EMGC will work with Atlis to schedule and complete the survey.

9.1.3 Environmental Data Collection

Environmental monitoring continues; daily temperature maximums and minimums and rainfall accumulations are record. EGMC now has over two years of data.

9.1.4 Line Cutting and Surveying

Clouston (2009) considered the topography to be well defined over the main resource area, but noted that it relied on sparser information (i.e. survey points) in the fringe areas such as Baboon to the southwest and Dispute Pit to the northwest. Based on Clouston's recommendations additional theodolite survey points and traverses were collected by OGML after IAMGOLD's October 2009 resource estimate. A total of 42 drill hole collars were surveyed and survey traverses were completed in the southwest (Figure 9-1). The drill hole collar coordinates and topographic survey traverses were not incorporated into ACA Howe's 2010 audit but have been included in the current resource update presented in this technical report.

In 2012 EMGC also collected additional theodolite survey points, traverses and 73 EMGC drill hole collar coordinates (Figure 9-1) which have been incorporated into in the current ACA Howe resource update presented in this technical report.

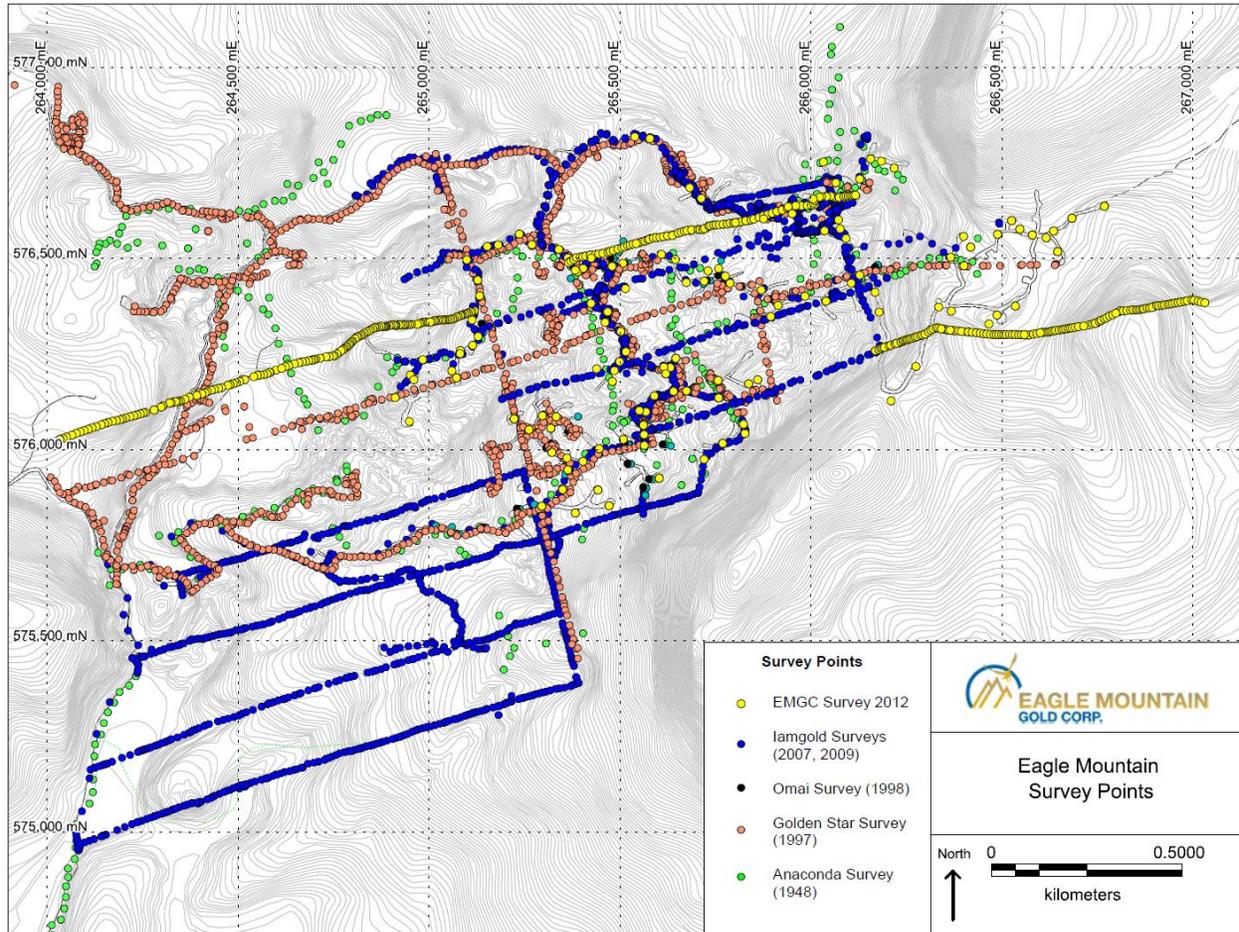


Figure 9-1: Topographic Map and Survey Point Locations – 2012 EMGC and historic 1948-2009 locations (EMGC, 2012)

9.1.5 2011 Trench & Outcrop Channel Sampling

EMGC completed a total, 102.4m of surface channel sampling in 27 localities, from mechanically excavated drill pad walls (Figure 9-2). At each site, a start point was designated, and from that point sample intervals were marked out using a tape measure, either at regular intervals or according to identified geological intervals. Samples equivalent to NQ-sized core were collected. Detailed plans and sections were created to illustrate logged geology, structure and assay results.



EMGC completed additional specific gravity tests on a variety of fresh and saprolitic, mineralized and non-mineralized rock types from 2011 diamond drill core. “Fresh” mineralized zones and saprolitic mineralized zones are confirmed to have average bulk densities of approximately 2.60 t/m^3 and 1.60 g/cm^3 respectively.

9.2 Mowasi Property Exploration

The Mowasi Property is a very early (grassroots) stage property. The Property has been interpreted by previous worker to have potential for lode gold mineralization based on the fact that the Tumatumari dyke that joins the Eagle Mountain dolerite and traverses the Eagle property and the northern Mowasi property to intersect the Omai Sill is spatially associated with the Au mineralization. The property’s gold exploration potential is also supported by the presence of artisanal miners (locally referred to as “pork-knockers”). Both artisanal river and land dredges are currently working alluvial gold in the Mowasi Property’s rivers and small tributaries. This fact alone does not signify any proximity to significant in situ mineralization since alluvials are predominantly being worked. In some cases the artisanal land activity is utilizing the saprolitic portions of the bedrock rather than strictly concentrating on alluvial materials, however local artisanal miners are able to work specific veins that would not be economic on a large scale. Based on the angular nature of the associated quartz the GGMC has suggested that the alluvial gold is in close proximity to its bedrock source (Alexander, 2011).

EMGC considers the more northerly claims more prospective at this time because near continuous gabbro-norite to dolerite covers the more southerly claim blocks.

9.2.1 Stronghold 2011 Reconnaissance Program

During March/April 2011, Stronghold personnel conducted a site visit to the Mowasi Property claims. The purpose of the visit was to locate artisanal miner (“pork knocker”) workings and access routes and to determine the type of material from which the artisanal miners were extracting gold.

The northern claims, called the Tiger Creek Block, are located along the main Mango Landing/Mahdia Road and the Tumatumari/ Konawaruk Road. The main area of activity in this area is located in PPMS H-179/001 and H-179/002 around Turn Creek. The far north is dominated by dolerite, which the road runs along and strikes approximately 030° .

Turn Creek has been extensively pork knocked along its course to a width of 150m. The majority of the workings were not in operation at time of visit, but evaluation of the material in the pit walls (in which the pits are flooded), suggest that the extraction was from in situ saprolite. The upper Turn Creek area (approximately $278100\text{E}/585900\text{N}$) is dominated by a quartz rich/sandy saprolite, which is granitoid in origin. Spoils from the workings have a large quantity of extensional quartz vein fragments. Downstream along Turn Creek adjacent to the Tumatumari/ Konawaruk Road are exposed walls of volcanic saprolite, probably mafic, which is generally homogeneous and massive, but has occasional disseminated sulphide relics. The deepest observed pork knocker pit, although flooded, is within volcanic saprolite at this location (approx. $278200\text{E}/585800\text{N}$). There is also evidence of later intrusions of a quartz porphyry unit, with a fine grained matrix, along sub-horizontal extensional features, seen in road side cuts



(approximately 278100E/584950N) which add to the case of structural deformation in the area. Based on the location of Turn Creek, the topography and nature of the saprolite, EGMC interprets the presence of a fault system (possible shearing) in a northwest/southeast orientation, with extensional quartz veining. The faulting cuts the dolerite hence it is a late feature.

The area to the south of Turn Creek, adjacent to the Konawaruk River (approx. 275800E/581900N) also contains a number of large pork knocker pits which have excavated into the underlying granitic saprolite. There are several boulders of unaltered coarse grained saprolitic granitoid in the pits that are not flooded. EMGC observed white, crystalline, heavily fractured, 2-5cm thick quartz veining in the granitic saprolite trending 020/80W.

Dawsons Creek Block (PPMS H-97/000 and H-97/001) adjacent to “Breakfast Point” had no significant pork knocking activities although the third party mining block to the east (V-19/MP/001) had several pits in alluvial material.

Dawsons Creek, located on the PPMS H-94/004 and H-94/005 (approx. 275000E/574400N), is in a valley incising dolerite and mafic volcanic bedrock. Pork knockers are working the alluvial deposits of this creek and tributaries. The alluvial material is almost exclusively mafic volcanic and dolerite pebbles and gravel, with very little quartz vein material.

Further east of Dawsons Creek the road follows a dolerite sill/dyke with the valleys on either side heavily pork-knocked. The workings have abundant volcanic and dolerite pebbles in the spoil and the worked material appears to be alluvial.

Table 9-1: 2011 Stronghold (EMGC) Rock/Float Samples

Sample	Date	Easting	Northing	Area	Permit	Description	Au ppm
202063	04/04/2011	276067	585892	Turn Creek	H-179/001	Sample of quartz from workings	0.917
202064	04/04/2011	276103	585950	Turn Creek	H-179/001	<i>In situ</i> saprolitic volcanic	0.03
202065	04/04/2011	276337	586454	Klondyke Hill	H-179/002	Laterite boulder	0.014
202066	04/04/2011	276314	587464	Klondyke Hill	H-179/002	<i>In situ</i> saprolitic Mafic Volcanic	0.013
202067	04/04/2011	278187	587734	Tumatumari Jct	H-179/002	Laterite and Quartz Fragments	0.011
202068	04/04/2011	278247	585750	Turn Creek	H-179/001	Mafic Volcanic Saprolite	0.011
202069	04/04/2011	278213	585796	Turn Creek	H-179/001	<i>In situ</i> mafic volcanic saprolite	0.013
202070	04/04/2011	278173	585819	Turn Creek	H-179/001	White crystalline extensional quartz	0.801
202071	04/04/2011	278173	585820	Turn Creek	H-179/001	Blue/grey massive quartz	0.052
202072	04/04/2011	278743	584988	Turn Creek	D-165/000	Mottled saprolite with muscovite	0.013
202073	04/04/2011	277495	583693	Konawaruk	H-180/000	Grey granular quartz from pit	0.039
202074	04/04/2011	277490	583690	Konawaruk	H-180/000	Quartz vein fragments from pit	0.33
202075	04/04/2011	278123	583834	Konawaruk	H-180/000	Gabbro	0.014
202076	04/04/2011	277090	584624	Konawaruk Road	H-179/000	Weathered intrusion	0.012
202077	05/04/2011	278998	586617	Tumatumari Jct	H-192/000	Mottled zone mafic volcanic sap. with quartz	0.015
202078	05/04/2011	278784	585384	Tumatumari Jct	D-165/000	Mafic Volcanic Saprolite	0.015
202079	05/04/2011	278130	584950	Konawaruk Road	H-179/000	Mottled mafic volcanic saprolite	0.013
202080	05/04/2011	278136	584940	Konawaruk Road	H-179/000	Mottled Volcanic Saprolite	0.014
202081	05/04/2011	276377	583109	Konawaruk	H-180/001	Granitoid float.	0.009
202082	05/04/2011	276408	583124	Konawaruk	H-180/000	Volcanic intrusion	0.021
202083	05/04/2011	276438	583151	Konawaruk	H-180/000	<i>In situ</i> granitoid with diff.	0.019



Sample	Date	Easting	Northing	Area	Permit	Description	Au ppm
						weathering	
202084	05/04/2011	276497	583282	Konawaruk	H-180/000	Saprolite - Granitoid - pit	0.214
202085	05/04/2011	276210	581990	Konawaruk	H-180/002*	Quartz sand	0.023
202086	05/04/2011	275876	581946	Konawaruk	H-180/002	Quartz Vein in granitoid saprolite	0.03
202087	05/04/2011	275876	581946	Konawaruk	H-180/002	Quartz Vein in granitoid saprolite	0.018
202088	05/04/2011	275117	579706	Breakfast	H-94/000 West	Mafic volcanic saprolite	0.017
202089	06/04/2011	275855	574258	Dawson Creek	H-94/004	1m vertical sample through alluvials	0.013
202090	06/04/2011	275553	574105	Dawson Creek	H-94/004	<i>In situ</i> mafic volcanic saprolite	0.074
202091	06/04/2011	275301	573616	Dawson Creek	H-94/005	Dolerite	0.008
202092	06/04/2011	279161	571425	Upper Mowasi	H-166/000	Vuggy quartz vein fragments	1.311

* - multiple claims

9.2.2 2012 Stronghold (EMGC) Drainage Sampling

During the first half of 2012, EMGC undertook a drainage sampling program to cover the PPMS licences within the EMGC–Mowasi option. The aim was to identify any geochemical anomalies using sample locations with a 2-4 km² average catchment area. A total of 49 samples were collected.

Drainage Samples were collected by sieving the sediment through -30, -80 and -100 mesh sieves into a container/pail. Flocculent was used to settle the sediment, prior to the removal of the water. The -100 mesh sediment is then placed in olefin sample bags and excess water squeezed out and a sample ID tag is inserted. The olefin sample bags are then placed in a plastic sample bag with an aluminum tag for security.

The sample is then bagged in white “rice bags” and sent to Activation Laboratories in Georgetown for sample preparation prior to the pulps being sent to Canada for “48+Au” analysis.

Figure 9-3 shows the results of the EMGC Au drainage geochemistry. The best Mowasi Property drainages are in the northern area of the south permit block. This area has drainages of 1.6 g/t Au and 0.55 g/t Au. A sample of vuggy quartz vein material collected in the area assayed 1.3 g/t Au (PPMS H-166/000, Table 9-1). Gold pan results also show good results in this area. This area is also the location of claims that have been converted to Mining Permits and are actively being mined with land dredges.

The majority of the other drainages are not anomalous in gold. The area in the central part of the north permit block returned low drainage geochemistry Au assays, but there are abundant artisanal workings and a few rock samples with +0.5 g/t Au assays. It is possible the amount of working of the creeks has caused a masking of the Au content in the sediment through the increase in clay and mud particles from the tailings of the workings. Gold pan results in the north claim block shows two catchments with fine gold content.

Silver (Ag) grades are generally not anomalous, but there is a weak elevation or results in the central part of the north claim block. In comparison, results in the Eagle Mountain PL are generally higher (Figure 9-4). The highest values for arsenic (As) are located in the southern



section of the north claim block, ranging from 5- 11 ppm As, which is comparable to that within the values in the Eagle Mountain PL (4.3 – 13 ppm As in area of known gold mineralization on the EMPL). The northern part of the south claim block also shows arsenic (As) values of 4.5 to 6.5 ppm (Figure 9-4). The highest copper (Cu) assays are located in the southern part of the north claim block, close to the Eagle Mountain PL with values of 80-146 ppm Cu, which are comparable to the drainage assays on the western portion of the Eagle Mountain PL (70-160 ppm Cu). There are also copper values of 50-90 ppm Cu in the drainages of the northern part of the south claim block (Figure 9-4). Zinc (Zn) drainage geochemistry mirrors the Cu anomalies with the high values in the southern part of the north claim block close to the Eagle Mountain PL and the northern section of the south claim block, with values of 80-180 ppm Zn, similar to those of the eastern portion of the Eagle Mountain PL (Figure 9-4). There were no drainage sites with anomalous molybdenum within the Mowasi claims.

EMGC concludes follow-up work is warranted in the northern part of the south claim block where the drainage geochemistry results show good gold values in the drainage sample, pan results and the one rock sample. EMGC also concludes that follow-up work should also be conducted in the central part of the north claim block where, although the drainage geochemistry results were poor, there is significant number of artisanal pits in saprolite and a number of rock samples returned greater than 0.5 g/t Au. Follow up work should include further augering of these areas and continued mapping of the artisanal pits and workings. Figure 9-5 shows the areas highlighted for further work. Howe concurs with EMGC's conclusions and suggested follow-up work.

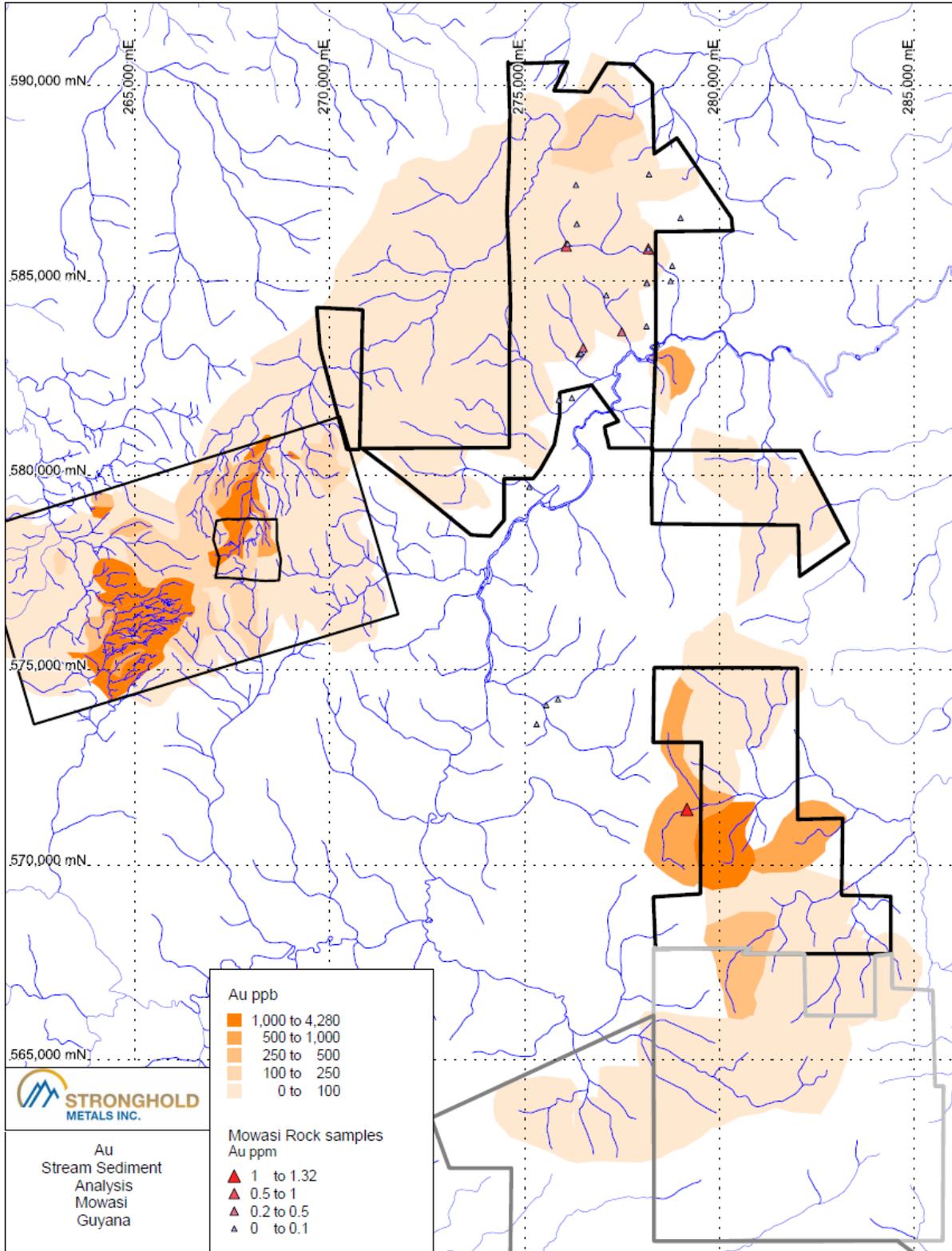


Figure 9-3: Au Drainage and Rock Geochemistry for the Mowasi and Eagle Mountain areas (EMGC, 2012)

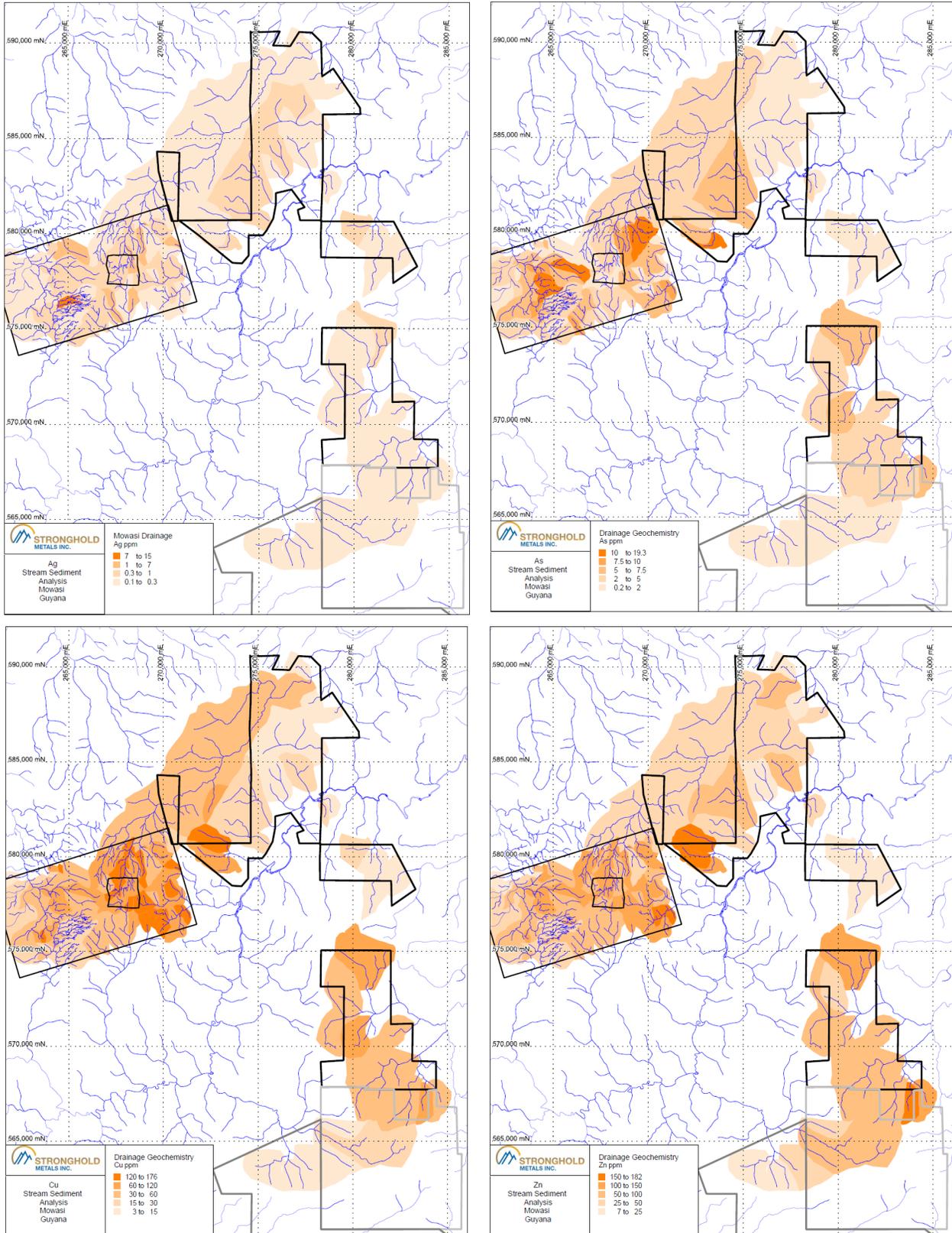


Figure 9-4: Ag, As, Cu, Zn Drainage Geochemistry for the Mowasi and Eagle Mountain areas (EMGC, 2012)

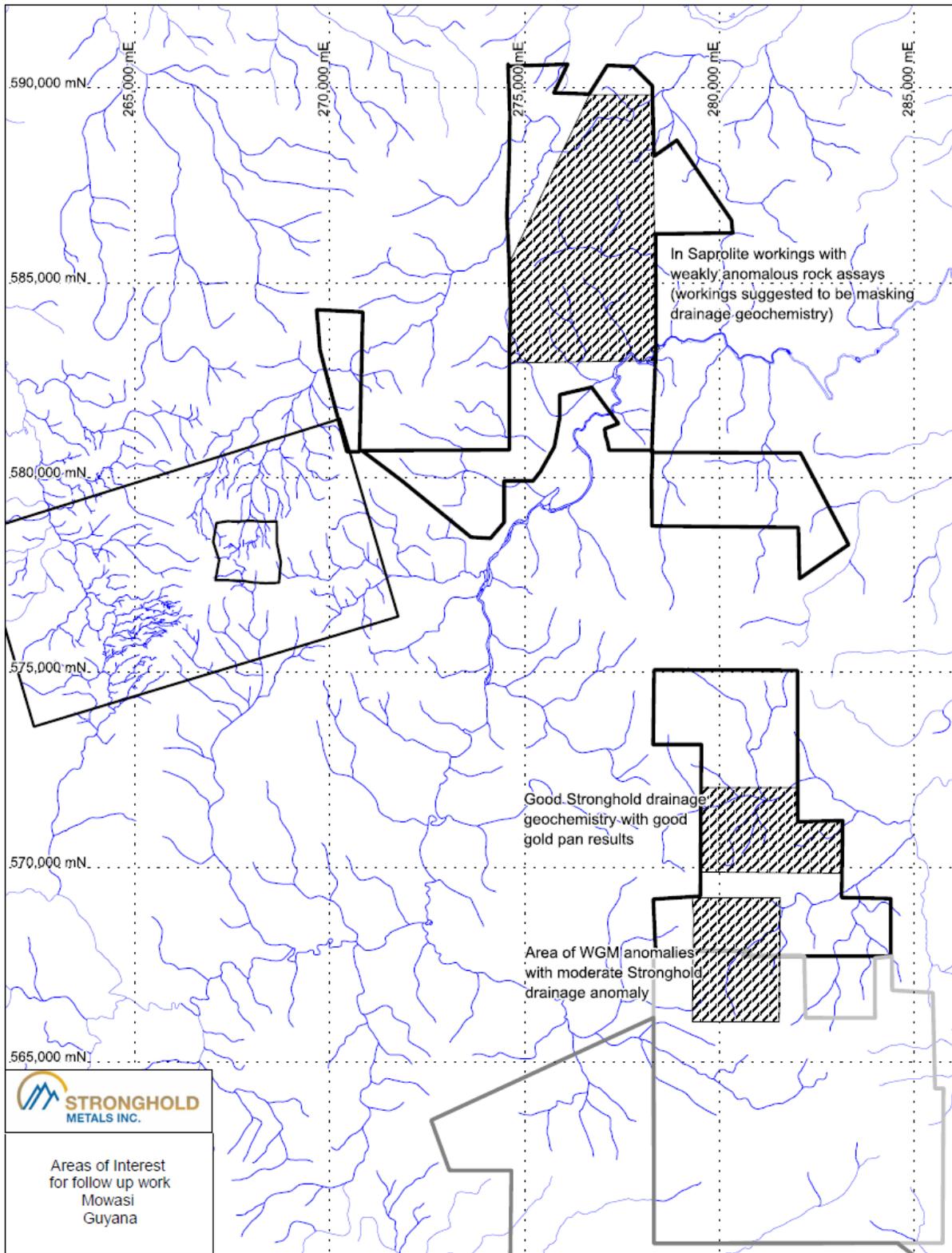


Figure 9-5: Areas of interest for follow-up work for the Mowasi Property (EMGC, 2012)



10 DRILLING

10.1 Historic Drilling

Drilling described in this section incorporates historical work carried out by Anaconda, Guyana Geological Survey (GGMC), Golden Star Resources (GSR) and Omai Gold Mines Ltd. (OMG) from 1947 to 2009.

Anaconda completed 57 AX-sized diamond drill holes for 5,832m in the period 1947-1948 (AD01 to AD57; Table 10-1, Figure). Most holes are located within the known resource area, except for one hole collared in the south of the EMPL. Saprolitic material was not recovered; sludge sampling was conducted to estimate grade in the saprolite. The assay data for fresh rock is also incomplete as only those intervals considered to be potentially mineralized were sampled. Drill hole collars were located by theodolite survey. However, down-hole survey data was not collected. Modern drill holes have been collared close to most of the original Anaconda drill sites. A few Anaconda drill holes have also been twinned.

Guyana Geological Survey completed 8 vertical AX-sized diamond drill holes for 473m in 1970 to evaluate the gold potential of the property. Gold assay results are incomplete and not considered representative. Consequently, they have not been incorporated into the database. Some of the holes were re-logged by GSR in the 1980's, which is useful for locating barren post-mineral dykes.

GGMC followed-up Anaconda's significant molybdenum results with soil sampling, pitting and 15 AX-sized diamond drill holes for 4,187m (EHD1-15; Table 10-1). Tape and compass surveying was used to define collar locations. However, several collars have been located in the field and re-surveyed. Down-hole survey data measuring the dip of the hole, but not the azimuth was recorded. Core was transported to Georgetown (Guyana), split and assayed for molybdenum using a spectrographic method. Results were encouraging, but partial re-assaying and re-logging of EHD02, 03, 08, 09, 10, 14 & 15 by GSR indicated that GGMC assay results had overstated molybdenum grades and were erratic for gold. Only GSR assay data has been retained in the database.

In 1997, GSR completed 30 diamond drill holes for 2,423m using a bulldozer-supported Longyear 38 drill rig (EM001-021 and re-drills; Table 10-1). HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in hard rock. All drill hole collars were located and systematically surveyed using a theodolite. Down-hole survey data was collected using a Tropari survey tool. Core orientation surveys were completed.

GSR drilled a further 20 diamond drill holes for 1,114m in late 1998, during the Joint Venture with OGML (EM022-040; Table 10-1). Late in the following year, management of drilling shifted to OGML and 31 diamond drill holes for 2,399m were completed (EM41 to 70; Table 10-1). Almost all holes drilled between 1998 and 1999 were vertical.



OGML resumed drilling in 2007, with 21 diamond drill holes for 2,209m (EMD001-019; Table 10-1). An RB 37 man-portable hydraulic drill rig was used, enabling steep areas such as Zion to be accessed. HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in fresh rock and continued to a maximum depth of 192m. All drill hole locations were surveyed and marked with a concrete monument. Down-hole survey data was not collected.

In 2008-2009, 25 diamond drill holes for 5,850m were completed using a bulldozer-supported Longyear 38 drill rig (EMD08-20 to 09-43; Table 10-1). Holes tested predominantly geophysical targets. HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in fresh rock and continued to a maximum depth of 414m. Down-hole survey data was collected for all holes except EMD09-32 to 09-37 using a Flexit survey instrument. All drill hole locations were marked with a concrete monument. All drill hole collars were positioned using a theodolite survey instrument however the survey data was not available at the time of the October 2009 resource estimate. The drill hole collar coordinates in the resource database have been subsequently updated with this survey information. Core orientation surveys were completed for holes EMD08-32 to EMD08-43 using an orientation spear that marked the upper side of the core. Inconsistent work by drill crews and locally rubbly core resulted in the orientation work being discontinued.

10.1.1 General Core Handling, Logging and Sampling Methods and Approach

The sampling methodology described in this section relates specifically to post-2005 OGML diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGML drill holes.

Diamond drill core was photographed using a digital camera and geotechnical data (recovery and RQD) is recorded prior to geological logging. Historical core has also been systematically photographed where available. Recovery data was recorded for most historical holes, and RQD data was documented for EM99-41 onwards.

The holes were logged and sample intervals marked out by the supervising geologist. Samples were collected to a minimum interval of 30 centimetres and a maximum of 1.5 metres in areas that were visually unmineralized. Thick dolerite and gabbro-norite dykes were not routinely sampled, except at contact zones. Most samples were cut with a diamond saw, with one half placed in a sample bag and the other half retained in the core box for reference. A hydraulic core splitter was used to halve samples from drill holes directly targeting molybdenum mineralization and from all holes drilled prior to 2007.

Blanks and Rocklabs certified standards were randomly placed within the sample stream at a frequency of one blank and one standard per 50 samples. Blanks were inserted within zones that were considered to be mineralized or immediately after a sample containing visible gold. Blank material consisting of bauxite was inserted within saprolitic sample intervals; blank Omai dolerite was used for fresh rock intervals.



Table 10-1: Summary of drilling completed on the Eagle Mountain property 1947-2009.

Period	Company	Hole Numbers	# of DDH	Metres	Comments
1947-1948	Anaconda British Guiana Ltd	AD01-AD10 AD12-AD26 AD28-AD57	55	5,832	AX core Not included in 2012 Resource Estimate
1970	Guyana Geological Survey	G01-G08	8	473	AX core. Only lithology data from a few holes available Not included in 2012 Resource Estimate
1973	Guyana Geological Survey	EHD01-EHD15	15	4,172	AX core. Some holes re-assayed by Golden Star Not included in 2012 Resource Estimate
1997	Golden Star Resources Ltd	EM001-021	21 (30 including failed starts)	2,423	HQ/NQ core Metreage includes 9 failed holes (272.01m) that were restarted
1998	Golden Star / Omai Gold Mines Ltd	EM022-040	19 (20 including failed starts)	1,114	HQ/NQ core – most holes vertical Metreage includes 1 failed hole (16.5m) that was restarted
1999	Omai Gold Mines Ltd / Cambior	EM99-41 to 70	30 (31 including failed starts)	2,399	HQ/NQ core – most holes vertical Metreage includes 1 failed hole (10.5 m) that was restarted
2007-2008	Omai Gold Mines Ltd / IAMGOLD	EMD07-01 to 08-19	19	2,209	HQ/NQ man-portable rig. 2 drilling periods
2008-2009	Omai Gold Mines Ltd / IAMGOLD	EMD08-20 to 09-43	24 (25 including failed starts)	5,851	HQ/NQ LY38 – 2 drilling periods Metreage includes 1 failed hole (66.0m) that was restarted
TOTAL			191 (203 including failed starts)	24,473	Includes failed starts

10.2 Eagle Mountain Gold 2011 Diamond Drill Program

EMGC's 2011 diamond drilling program on the Eagle Mountain Property commenced April 22nd, 2011 and was completed on December 3rd, 2011. The program consisted of 73 drill holes (EMD11-044 to EMD11-116) totaling 10,715.93 metres of HQ/NQ core (63.5/47.6 millimetres diameter) (Table 10-2, Figure 10-1). All holes were completed to their planned depths; three



holes totaling 97 metres failed and were restarted (EM11-084, EMD11-102 and EMD11-112) (Table 10-3). The drill program was completed under the supervision of: Anne Casselman, EMGC Exploration and Country Manager – Guyana and Kevin Pickett, EMGC Senior Geologist.

The 2011 EMGC drilling program had three objectives:

- Expand the Inferred mineral resource by in-fill drilling and step-out drilling along and across strike in three directions.
- Confirm historic records of gold mineralized horizons by drilling in close proximity to older historic holes lacking archived core for checking which, with success, would allow that gold mineralization to be incorporated into the mineral resource estimate.
- Upgrade the Inferred resources to Indicated resources with closely spaced in-fill drilling.

Table 10-2: 2011 EMGC Drill Hole Collar Data

Hole	UTM_E *	UTM_N *	Elevation (m)	Length (m)	Azimuth	Inclination	Start Date	Finish Date
EMD11_044	265366	576118	300.5	46.0	45	-50	22/04/2011	25/04/2011
EMD11_045	265231	576097	282.6	138.0	240	-50	25/04/2011	27/04/2011
EMD11_046	265369	575992	305.6	145.0	45	-50	28/04/2011	30/04/2011
EMD11_047	265308	576133	298.8	118.0	45	-50	30/04/2011	02/05/2011
EMD11_048	265321	575766	279.1	172.0	45	-50	02/05/2011	05/05/2011
EMD11_049	265572	576008	345.5	141.0	360	-90	05/05/2011	07/05/2011
EMD11_050	265599	576201	353.1	138.0	140	-50	07/05/2011	09/05/2011
EMD11_051	265423	576219	317.1	123.0	45	-50	09/05/2011	11/05/2011
EMD11_052	265501	576541	321.8	244.0	45	-50	11/05/2011	15/05/2011
EMD11_053	265756	576506	368.4	177.9	45	-50	15/05/2011	19/05/2011
EMD11_054	265967	576399	432.6	127.0	45	-50	19/05/2011	21/05/2011
EMD11_055	266136	576439	468.4	173.5	45	-50	22/05/2011	24/05/2011
EMD11_056	266133	576377	457.2	130.0	45	-50	24/05/2011	27/05/2011
EMD11_057	266055	576451	445.0	49.0	45	-50	27/05/2011	18/05/2011
EMD11_058	266044	576363	439.2	145.0	45	-50	29/05/2011	04/06/2011
EMD11_059	265884	576336	398.2	124.0	45	-59	04/06/2011	07/06/2011
EMD11_060	265918	576365	416.3	131.0	360	-90	07/06/2011	11/06/2011
EMD11_061	265858	576417	398.2	124.0	45	-50	11/06/2011	14/06/2011
EMD11_062	265925	576437	415.0	63.5	45	-50	14/06/2011	16/06/2011
EMD11_063	266276	576220	551.0	243.0	45	-50	18/06/2011	23/06/2011
EMD11_064	266338	576394	578.0	203.0	45	-50	23/06/2011	26/06/2011
EMD11_065	266496	576340	601.4	277.0	45	-50	26/06/2011	02/07/2011
EMD11_066	266559	576439	588.4	194.0	20	-50	02/07/2011	09/07/2011
EMD11_067	266587	576602	602.7	164.0	20	-50	09/07/2011	11/07/2011
EMD11_068	266767	576636	580.6	121.0	20	-50	11/07/2011	13/07/2011
EMD11_069	266661	576490	586.4	139.0	20	-50	13/07/2011	15/07/2011
EMD11_070	266499	576535	587.3	139.0	45	-50	15/07/2011	18/07/2011
EMD11_071	266455	576504	580.0	164.0	45	-50	18/07/2011	19/07/2011
EMD11_072	266524	576599	596.0	148.0	20	-50	19/07/2011	21/07/2011
EMD11_073	266371	576500	572.9	167.0	360	-90	21/07/2011	23/07/2011
EMD11_074	266399	576556	577.5	173.0	45	-50	23/07/2011	25/07/2011
EMD11_075	266077	576696	491.0	163.0	360	-90	25/07/2011	27/07/2011
EMD11_076	266075	576663	484.5	134.0	241	-72	27/07/2011	28/07/2011
EMD11_077	266126	576663	508.5	149.0	45	-50	10/09/2011	14/09/2011
EMD11_078	265107	576250	263.7	161.0	45	-50	14/09/2011	16/09/2011



Hole	UTM_E *	UTM_N *	Elevation (m)	Length (m)	Azimuth	Inclination	Start Date	Finish Date
EMD11_079	264995	576225	233.0	134.0	45	-50	16/09/2011	17/09/2011
EMD11_080	264962	576191	223.0	161.0	270	-50	17/09/2011	19/09/2011
EMD11_081	264948	576072	186.6	175.0	45	-50	20/09/2011	21/09/2011
EMD11_082	264983	576145	202.3	149.0	45	-50	21/09/2011	23/09/2011
EMD11_083	264953	576137	201.0	128.0	45	-50	23/09/2011	24/09/2011
EMD11_084A	265078	576179	244.3	166.0	45	-50	25/09/2011	27/09/2011
EMD11_085	265910	576215	409.0	139.0	45	-50	27/09/2011	29/09/2011
EMD11_086	265872	576199	409.7	130.0	45	-50	29/09/2011	01/10/2011
EMD11_087	265747	576189	387.4	130.0	45	-50	01/10/2011	03/10/2011
EMD11_088	265832	576127	402.0	127.0	45	-50	03/10/2011	05/10/2011
EMD11_089	265716	575944	380.2	155.0	45	-50	05/10/2011	07/10/2011
EMD11_090	265779	576017	400.4	127.0	45	-50	07/10/2011	09/10/2011
EMD11_091	265697	576241	364.1	127.0	45	-50	09/10/2011	11/10/2011
EMD11_092	265510	576177	326.2	123.0	45	-50	12/10/2011	14/10/2011
EMD11_093	265472	576060	334.9	127.0	45	-50	14/10/2011	16/10/2011
EMD11_094	265515	576075	346.4	154.0	45	-50	16/10/2011	18/10/2011
EMD11_095	265600	575920	350.1	142.0	45	-50	18/10/2011	20/10/2011
EMD11_096	265562	575889	345.8	142.0	45	-50	20/10/2011	22/10/2011
EMD11_097	265526	575959	335.2	160.0	45	-50	22/10/2011	24/10/2011
EMD11_098	265414	576023	320.1	124.5	45	-50	24/10/2011	25/10/2011
EMD11_099	265441	575984	323.3	149.0	45	-50	25/10/2011	27/10/2011
EMD11_100	265374	575845	296.0	121.0	45	-50	27/10/2011	30/10/2011
EMD11_101	265474	575856	317.2	133.0	45	-50	30/10/2011	31/10/2011
EMD11_102A	265439	575893	306.3	154.0	40	-50	02/11/2011	04/11/2011
EMD11_103	265366	576118	300.5	133.0	45	-50	04/11/2011	06/11/2011
EMD11_104	265497	576414	338.6	184.0	45	-50	06/11/2011	08/11/2011
EMD11_105	266223	576745	519.4	168.0	45	-50	08/11/2011	10/11/2011
EMD11_106	266227	576745	519.3	154.0	140	-50	10/11/2011	12/11/2011
EMD11_107	266164	576748	518.3	118.0	45	-50	12/11/2011	14/11/2011
EMD11_108	266174	576790	509.9	136.0	330	-50	14/11/2011	18/11/2011
EMD11_109	266134	576714	515.8	124.0	45	-50	18/11/2011	20/11/2011
EMD11_110	266054	576760	469.0	152.0	255	-50	20/11/2011	22/11/2011
EMD11_111	265448	576472	328.1	130.5	45	-50	22/11/2011	23/11/2011
EMD11_112A	265546	576479	339.8	117.0	45	-50	24/11/2011	25/11/2011
EMD11_113	265605	576530	353.7	161.0	45	-50	25/11/2011	27/11/2011
EMD11_114	265469	576371	320.6	178.0	45	-50	27/11/2011	30/11/2011
EMD11_115	265655	576662	382.2	138.0	45	-50	30/11/2011	02/12/2002
EMD11_116	265791	576704	378.3	196.0	45	-50	02/12/2011	03/12/2011
73 DDH				10,715.9				

*UTM Zone 21N (Datum - PSAD56)

Table 10-3: 2011 EMGC Failed Drill Hole Collar Data

Hole	UTM_E *	UTM_N *	Elevation (m)	Length (m)	Azimuth	Inclination	Start Date	Finish Date
EMD11_084	265079	576178	244.2	25.0	45	-50	24/09/2011	25/09/2011
EMD11_102	265448	575890	308.0	33.0	40	-50	31/10/2011	02/11/2010
EMD11_112	265540	576483	339.8	39.0	45	-50	23/11/2011	24/11/2011
3 DDH				97.0				

*UTM Zone 21N (Datum - PSAD56)

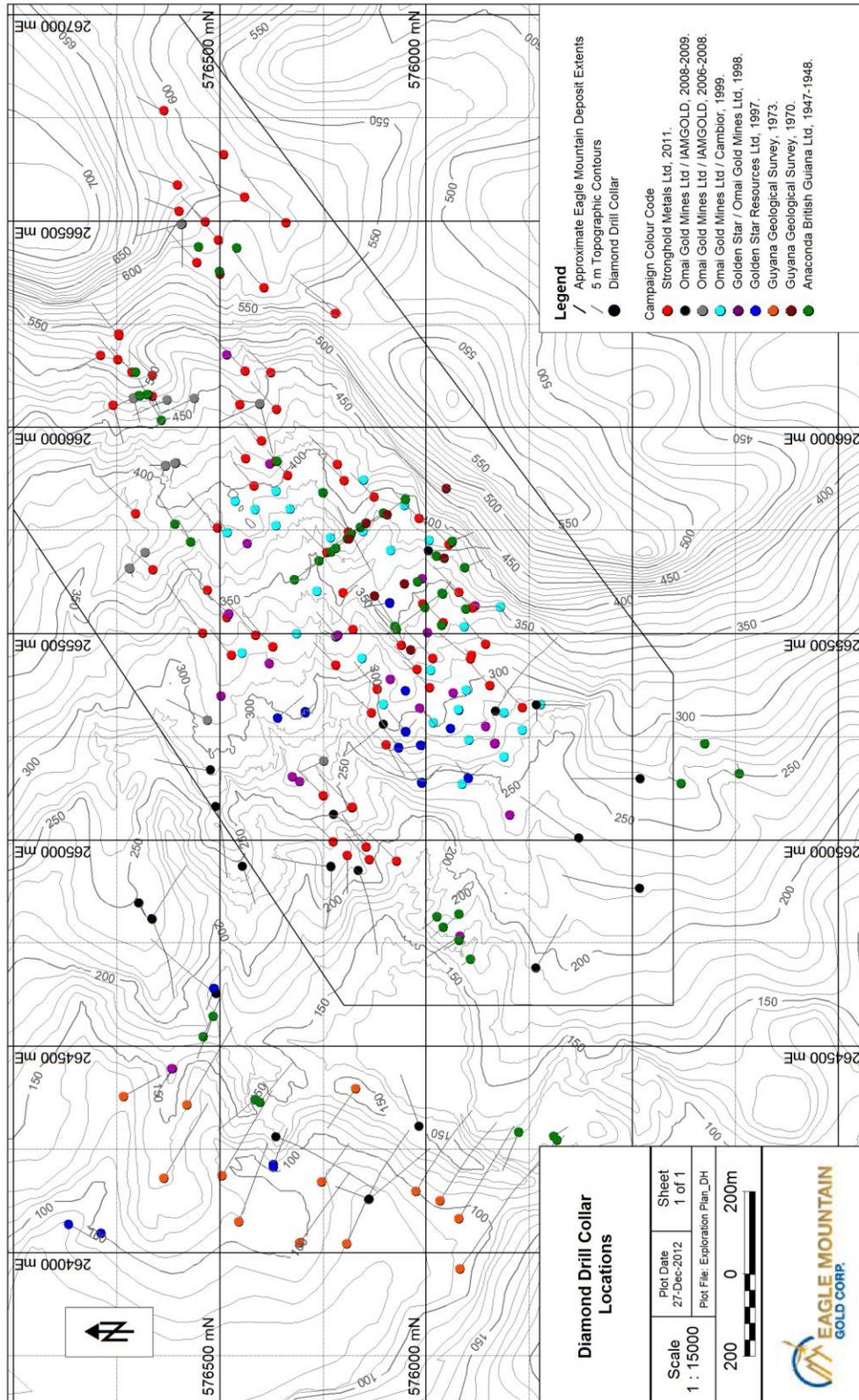


Figure 10-1: 2011 Stronghold/EMGC and historic DDH collar locations



Orbit Garant Drilling Inc. (Orbit) of 3200 Jean-Jacques Cossette, Val-d'Or, Quebec was the diamond drill contractor. Orbit used a Longyear 38 skid-mounted rig that was operated on two 12-hour shifts per day, seven days per week. Braveheart Construction of Linden, Guyana constructed drill access trails and drill pads. Drill water was supplied by pump and hose from a local surface water sources.

The infill holes produced good continuity within the mineralized zones at 50 m spacing. The step-out holes were successful in the continued expansion of known mineralized zones, particularly Zion. The majority of the 2011 EMGC holes encountered significant mineralized intervals including: EMD11_77 with 42.2 m at 0.97 g/t Au; EMD11_83 with 19.05m at 3.13 g/t Au; EMD_076 with 24.19 m at 9.1 g/t Au; EMD11_56 with 11.0 m at 3.95 g/t Au and; EMD11_75 with 22.85 m at 2.28 g/t Au.

The 2011 drill holes that were drilled in close proximity to the location of the 1947/1948 Anaconda holes were not successful in replicating the Anaconda results. EMGC attributes this to the fact that the Anaconda holes did not recover saprolite and the very small core size of the 1947/1948 drill holes would not have provided a sufficient sample size to generate reproducible results. The Anaconda geological logs also did not always prove to be reliable. As a result, if an Anaconda hole was located within the Stronghold drill pattern it was automatically re-drilled.

10.2.1 2011 General Drill Hole, Core Handling, Logging and Sampling Methods and Approach

10.2.1.1 2011 Drill Hole Survey Methods

The drill casing was removed from the drill holes. A short piece of scrap drill steel was left in each hole, capped and cemented in place with a concrete monument after the drill rig was removed.

Upon completion of drill holes, drill hole collar coordinates and elevations were surveyed in UTM coordinates, Zone 21S (PSAD 56 datum) utilizing a using a CST/Berger 205 theodolite survey instrument by Mr. David Griffith of South Rumsveld, Guyana. The survey has a horizontal and vertical accuracy of approximately 2-3 centimetres.

The drill contractor completed down-hole directional surveys on all diamond drill holes at approximately 50 metre intervals using a Flexit single shot digital survey tool.

Howe is of the opinion that the drill hole survey methods meet industry and NI 43-101 standards.

10.2.1.2 Drill Hole, Core Handling, Logging and Sampling Methods

Core was retrieved from the drill string using conventional wireline techniques. Sample security and chain of custody started with the removal of core from the core tube and boxing of drill core at each drill. Core was removed from the core tube by the drill contractor's personnel, carefully placed in labeled corrugated plastic core boxes and localized by inserted depth blocks. When filled with core, a matching corrugated plastic lid was placed on the box and secured with fibre tape. The boxed core remained under the custody of the drillers until it is transported from the



drill to EMGC's secure core logging, processing and sampling facility at the by either the drill contractor or one of the Company's designated personnel.

The core logging and processing facility was located at the Eagle Mountain camp on the EMPL (approximate UTM 265600E, 576100N). The facility was used for logging, sawing core and packing samples for shipment to the assay laboratory. The facility has covered rack storage space for core prior to logging and sampling.

The core was stored securely until it was moved into the core shack for processing. Processing of the core started with the core being laid out on workbenches and cleaned prior to logging and sample interval marking. The core was next photographed with a digital camera, capturing images in JPEG format. Spatial information related to each box of core was checked for accuracy and consistency and remedial actions were undertaken, if necessary, to correct deficiencies in the spatial information prior to entry into a database. A geotechnical log of core recovery and RQD measurements was completed by the EMGC geologist. The EMGC geologist then completed a descriptive log comprising a detailed description of rock type, structure, alteration, and mineralization.

The EMGC geologist then selected the sample intervals and input the intervals into the drill hole database. The selected portions of core were marked and measured for sampling and were identified with one part of a three part assay tag, placed at the downhole end of the sample interval. Samples are collected to a minimum interval of 30 centimetres and a maximum of 1.5 metres in areas that are visually unmineralized. Thick dolerite and gabbro-norite dykes and sections of unmineralized granodiorite below the mineralized zones are not routinely sampled, except at contact zones.

Saprolitic samples are split with a spatula. Most non-saprolitic (fresh – un-oxidized) samples were sawn with a 110-volt 1.5hp water-cooled masonry saw with 14-inch diamond blade and a mounted jig to assure the core is split equally. The core saw is located in a roofed, open-walled area separate from the core logging facility. Fresh water is used as a cooling/lubricating fluid; recycled water is not used.

The core was cut in half longitudinally, perpendicular to the foliation (50% split) with one half placed into plastic sample bags along with part two of the three part assay tag and sealed. The other half core was returned to the core box for archive and future verification and testing (if required). Each sample bag had the sample number written on the outside of the bag with black permanent marker corresponding to the sample tag placed inside. Information on the third part of the assay tag was entered into the database and the drill log, at which time accuracy and consistency were again reviewed and remedied, if necessary.

Core logging, sawing, sample bagging and sample shipment preparation was completed either by or under the onsite supervision of an EMGC geologist. After sampling was completed, the archived core boxes were re-covered with a lid, labeled and stacked on tarpaulin covered racks at the Eagle Mountain Camp.



Core recovery was generally very good and Howe is confident that there are no sampling or recovery factors that would negatively impact the sampling procedures.

Following analysis, digital assay files provided by the laboratory were merged with a “from” and “to” interval file created by EMGC, with the sample number linking the two files. This methodology limits data entry errors to sample numbering, as well as the “from” and “to” specifications.

Overall, core sampling methods are to industry standards for mineralization of this type. Howe is of the opinion that the sampling methods meet NI 43-101 standards.



11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Sample Security

11.1.1 Historic Work

Historic sampling methodology described in this section relates specifically to post-2005 OGML diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGML drill holes.

Batches of individual samples are packed in sacks and sealed on site, and then transported by company vehicle to the appropriate sample preparation facility. Dispatch sheets accompanied each shipment, with a copy retained on site.

Pulps and rejects prepared in Georgetown were routinely returned to the OGML exploration office for storage. Pulps and rejects prepared by the Omai mine laboratory were stored in containers in Linden, Guyana. Pulps and rejects from Cambior to OGML/IAMGOLD sampling have been maintained by EMGC and are currently stored in the EMGC enclosed office compound in Georgetown under contract security. Archived historic diamond drill (GSR to OMGL/IAMGOLD) is stored at the Eagle Mountain exploration camp; no pulps or rejects are stored at the camp. The camp is continuously occupied.

Howe is of the opinion that the security and integrity of the post 2005 historic samples submitted for analyses was un-compromised, given EMGC personnel's knowledge of record keeping, storage locations, sample transport methods, and the analytical laboratories' chain of custody procedures during that period.

11.1.2 2011-2012 Stronghold/EMGC Exploration Programs

Security of samples prior to dispatch to the analytical laboratory is maintained by limiting access of un-authorized persons. The samples are sealed in individual bags at the sampling location. When a sufficient number of samples are obtained they are then sealed in larger polypropylene rice bags, labeled on the exterior and stored at the Eagle Mountain camp. EMGC personnel maintained possession of the samples at the Eagle Mountain camp until delivery to the laboratory. When a sufficient number of rice bags are filled they are sealed within a tarpaulin and transferred to a pickup truck (at the base of the Mountain) and again sealed within a tarpaulin for transport to the laboratory (either Acme or Actlabs in Georgetown). All transport is completed by EMGC employees and company vehicles.

Before samples are shipped from camp, laboratory submittal paperwork is completed by local EMGC employees detailing the type and number of samples. This is checked by the EMGC geologist prior to shipping. Upon arrival in Georgetown, the paperwork is reviewed by EMGC's logistics officer who accompanies the shipment to the laboratory the same day of arrival where the samples are transferred to the laboratory's chain of custody procedures and protocols. A receipt is then obtained from the laboratory upon submittal. In rare instances, the samples remain sealed in the tarpaulin in the pickup truck overnight within the enclosed EMGC office compound under contracted security prior to delivery to the lab. The assay preparation laboratory



completes sample preparation operations and employs bar coding and scanning technologies that provide complete chain of custody records for every sample. A signed receipt is obtained when any pulps or rejects are collected from the laboratory. EMGC pulps and rejects are currently stored in the EMGC enclosed office compound in Georgetown under contract security. Archived EMGC diamond drill is stored at the Eagle Mountain exploration camp; no pulps or rejects are stored at the camp. The camp is continuously occupied.

Howe is of the opinion that the security and integrity of the EMGC samples submitted for analyses is un-compromised, given the adequate record keeping, storage locations, sample transport methods, and the analytical laboratories' chain of custody procedures.

11.2 Sample Preparation and Analyses

11.2.1 Historic Work

Historic sampling methodology described in this section relates specifically to post-2005 OGML diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGML drill holes.

A number of different laboratories were used for analysis of historic Eagle Mountain geochemical samples. Prior to 1997, all sample preparation and assaying was completed at Loring Laboratories Ltd in Guyana. The Omai mine laboratory was used for sample preparation and analysis during the period 1998-1999, with Loring used for check assays. OMGL auger and grab samples were prepared and assayed at Omai mine laboratory until the closure of the facility in May 2007. OMGL stream sediment samples were sieved at Omai mine laboratory, but analyzed by Activation Laboratories Canada ("Actlabs") using the 1H package (Au plus 48). In early 2007, Acme Laboratories ("Acme") opened a sample preparation facility in Guyana, and shipped pulps to Chile for gold analysis by fire assay and to Vancouver for multi-element analysis. Acme was used for sample preparation and gold analysis from mid-2007 to late 2008, with pulps and some rejects shipped to Actlabs for multi-element analysis. In late 2008, Actlabs also opened a sample preparation facility in Guyana, and a few batches of drill samples were sent for processing and multi-element analysis. However, the majority of samples from late 2008 to 2009 continued to be prepared and assayed by Acme.

Loring, Acme and Actlabs and their employees were independent from the historic operators at Eagle Mountain. The Omai mine laboratory was however, a non-independent in-house laboratory, utilized to various degrees by Cambior, OMGL and IAMGOLD as described above.

It is Howe's opinion that to the extent known, the security, sample collection, preparation and analytical procedures undertaken by previous operators on the Eagle Mountain Property during pre-2011 exploration programs were appropriate for the sample media and mineralization type and conformed to industry standards.



11.2.2 2011-2012 Stronghold/EMGC Exploration Programs

EMGC has retained Acme Analytical Laboratories Ltd. (Acme) as its primary analytical laboratory for drill core samples. Activation Laboratories Ltd. (Actlabs) has been retained for analyses of Mowasi exploration samples and check assays of drill sample pulps and rejects.

Samples are prepared at the Acme Georgetown facility (Lot 13 Plantation Non Pariel, East Coast Demerara) and sample pulps are forwarded to the Acme Santiago, Chile lab, (Av. Claudio Arrau 7152, Pudahuel, Santiago), for gold assay and the main Acme Vancouver, Canada laboratory (1020 Cordova St. East, Vancouver, BC) for multi-element analyses. These Acme facilities are individually certified to standards within ISO 9001:2008. The Vancouver analytical facility has received accreditation to ISO/IEC 17025:2005 from the Standards Council of Canada (SCC) for Fire Assay Au – gravimetric finish. The Santiago analytical facility has received accreditation to ISO/IEC 17025:2005 from the Standards Council of Canada (SCC) for Fire Assay Au - gravimetric and Atomic Absorption Spectrometry finish. Sample preparations follow industry best practices and procedures. The analytical methods used are routine and provide robust data associated with a high degree of analytical precision.

Acme uses a Laboratory Information Management System (LIMS) to track the flow of every sample through each stage of sample handling and analysis. When received, each sample is bar coded and labelled. This unique barcode is used to build an audit trail that documents the complete history of work performed on each sample. This includes recording each and every person that has touched each sample and the work that they performed. This provides Acme with a very high level of control but also provides clients with an unprecedented level of traceability and sample tracking.

Samples are prepared and gold fire assays completed at the Actlabs Georgetown facility (27/28 Parcel Beterverwagting Industrial Area, East Coast Demerara). Sample pulps are forwarded to the Actlabs Ancaster, Canada laboratory (1336 Sandhill Drive Ancaster, Ontario) for multi-element analyses. The Actlabs facilities are individually certified to standards within ISO 9001:2008. The Ancaster analytical facility has received accreditation to ISO/IEC 17025:2005 (CAN-P-4E) and CAN-P-1579 from the Standards Council of Canada (SCC). Sample preparations follow industry best practices and procedures. The analytical methods used are routine and provide robust data associated with a high degree of analytical precision.

Actlabs' Quality System monitors all steps and phases of its operations. The Quality System outlines comprehensive details concerning facilities, personnel qualifications and processes used. Additionally, Actlabs is routinely audited by four regulatory agencies that focus on continual improvement. A schedule for the maintenance and calibration of equipment used in the laboratory is maintained as part of the Quality System. Records of calibration and performance parameters are maintained for both testing and measuring equipment. Actlabs routinely monitors and documents the reliability of its sampling from the sample preparation process which ensures that sub-samples taken (e.g. from a crushed rock split) are reliable and representative of the original sample submitted.



Both Acme and Actlabs and their employees are independent from EMGC. EMGC personnel and consultants and contractors are not involved in sample preparation and analysis. EMGC personnel do however conduct in-house drill core bulk density calculations.

It is Howe's opinion that security, sample collection, preparation and analytical procedures undertaken by EMGC on the Eagle Mountain and Mowasi Properties during its 2011 and 2012 exploration programs are appropriate for the sample media and mineralization type and conform to industry standards.

11.2.2.1 Acme

At the Acme Georgetown facility, the sample is logged into the LIM management system, dried then crushed to 80% passing a 10 mesh screen. A split of 150 g is taken using a riffle splitter and pulverized in a grinding mill with a low-chrome steel bowl to better than 85 % passing a 75 micron (Tyler 200 mesh) screen (code R150). Compressed air is used to clean the equipment between samples. Barren material is crushed between sample batches. A split of the sample pulp is then forwarded to either the Santiago or Vancouver laboratory for analysis.

Rock samples are analysed as follows:

- Gold Fire Assay – AA Finish (Acme Code G6)
 - A 30 gram prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with gold-free silver and then cupelled to yield a precious metal bead.
 - The bead is digested in dilute nitric acid, concentrated hydrochloric acid is then added and the bead is further digested. The digested solution is cooled, diluted with de-mineralized water, and analyzed by atomic absorption spectroscopy (AA) against matrix-matched standards.

11.2.2.2 Actlabs

At the Actlabs Georgetown facility, the rock/core sample is logged into the sample management system, dried then crushed to 80% passing a 10 mesh (1.7 mm) screen. A split of 100 g is taken using a riffle splitter and pulverized in a mild steel grinding mill with a low-chrome steel bowl to better than 95 % passing a 105 micron (Tyler 150 mesh) screen (code RX2). Compressed air is used to clean the equipment between samples. Barren material is crushed between sample batches. A split of the sample pulp is then assayed for gold on site or forwarded to the Ancaster laboratory for multi-element analysis.

Samples are analysed as follows:

- Gold Fire Assay – AA Finish (Actlabs Code 1A2)
 - A 30 g prepared sample pulp is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector and the mixture is placed in a fire clay crucible, the mixture is preheated at 850°C, intermediate 950°C and finish 1060°C, the entire fusion process should last 60 minutes. The crucibles are then removed from the assay furnace and the molten slag (lighter material) is



carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button is then placed in a preheated cupel which absorbs the lead when cupelled at 950°C to recover the Ag (doré bead) + Au.

- The entire Ag doré bead is dissolved in aqua regia and the gold content is determined by atomic absorption spectroscopy (AA). If value exceeds upper limit, (3,000ppb) reanalysis by Fire Assay-Gravimetric (Code 1A3) is completed.
- Multi-Element (48) INAA and ICP-AES Analysis (Actlabs Code 1H)
 - Detection limits are tabled below
 - INAA Portion
A 30 g aliquot, if available, is encapsulated in a polyethylene vial and irradiated with flux wires and an internal standard (1 for 11 samples) at a thermal neutron flux of $7 \times 10^{12} \text{ n cm}^{-2} \text{ s}^{-1}$. After a 7-day decay to allow Na-24 to decay the samples are counted on a high purity Ge detector with resolution to better than 1.7 KeV for the 1332 KeV Co-60 photopeak. Using the flux wires, the decay-corrected activities are compared to a calibration developed from multiple certified international reference materials. The standard present is only a check on accuracy and is not used for calibration purposes. From 10-30% of the samples are rechecked by re-measurement. For values exceeding the upper limits, assays are recommended.

One standard is run for every 11 samples. One blank is analyzed per work order. Selected duplicates are analyzed when enough material is submitted.

- Total Digestion - ICP Portion
A 0.25 g sample is digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer controlled heating in several ramping and holding cycles which takes the samples to incipient dryness. After incipient dryness is attained, samples are brought back into solution using aqua regia.

With this digestion, certain phases may be only partially solubilized. These phases include zircon, monazite, sphene, gahnite, chromite, cassiterite, rutile and barite. Ag greater than 100 ppm and Pb greater than 5000 ppm should be assayed as high levels may not be solubilized. Only sulphide sulfur will be solubilized.

The samples are then analyzed using a Varian ICP. QC for the digestion is 14% for each batch, 5 method reagent blanks, 10 in-house controls, 10 samples duplicates, and 8 certified reference materials. An additional 13% QC is performed as part of the instrumental analysis to ensure quality in the areas of instrumental drift.



Multi-Element INAA and ICP-AES Analysis (Actlabs Code 1H) Detection Limits

Element	Detection Limit	Upper Limit	Reported By	Element	Detection Limit	Upper Limit	Reported By
Au	2 ppb	30,000 ppb	INAA	Mo †	1	10,000	ICP
Ag †	0.3	100,000	ICP&INAA	Na	0.01%	-	INAA
Al *	0.01%	-	ICP	Nd	5	10,000	INAA
As	0.5	100,000	INAA	Ni †	1	100,000	ICP&INAA
Ba †	50	-	ICP&INAA	P	0.001%	-	ICP
Be	1	-	ICP	Pb*	3	5,000	ICP
Bi	2	-	ICP	Rb	15	-	INAA
Br	0.5	-	INAA	S	0.01%	20%	ICP
Ca	0.01%	-	ICP	Sb	0.1	10,000	INAA
Cd	0.3	2,000	ICP	Sc	0.1	-	INAA
Ce	3	10,000	INAA	Se	3	-	INAA
Co	1	5,000	INAA	Sm	0.1	10,000	INAA
Cr	2	100,000	INAA	Sn	0.01%	-	INAA
Cs	1	-	INAA	Sr	1	-	ICP
Cu	1	10,000	ICP	Ta	0.5	10,000	INAA
Eu	0.2	10,000	INAA	Tb	0.5	10,000	INAA
Fe	0.01%	-	INAA	Th	0.2	10,000	INAA
Hf	1	-	INAA	Ti	0.01%	-	ICP
Hg	1	1	INAA	U	0.5	10,000	INAA
Ir	5 ppb	10,000 ppb	INAA	V	2	10,000	ICP
K	0.01%	-	ICP	W	1	10,000	INAA
La	0.5	10,000	INAA	Y *	1	1,000	ICP
Li	1	-	-	Yb	0.2	10,000	INAA
Lu	0.05	10,000	INAA	Zn †	1	100,000	ICP&INAA
Mg	0.01%	-	ICP				
Mn	1	100,000	ICP				

Notes:

* Element may only be partially extracted.

† Element reported by multiple techniques if one or more techniques may not be total.

Assays are recommended for values which exceed the upper limits.

11.3 QUALITY ASSURANCE AND QUALITY CONTROL

A number of different Quality Assurance and Quality Control (QA/QC) programs have been implemented at the Eagle Mountain Property. The monitoring and assessment of QA/QC data attempts to provide adequate confidence that sample and assay data obtained from laboratories can be used for resource estimation.

The QA/QC programs implemented by the historic and current operators include the following types of QA/QC samples:

Certified Reference Material (CRM) Samples - prepared from mineral matrices that contain known gold values uniformly distributed throughout the pulverized rock. Submitted to the assay laboratory in foil sachets, CRM samples are used to assess laboratory accuracy and precision.



Blank samples – prepared from material containing trace amounts of the element under investigation. Blank samples are used in the assessment of contamination from other samples during sample processing and laboratory accuracy.

Core Duplicate Samples – quarter core samples taken from remaining core, used to assess the presence of a ‘nugget effect’.

Coarse Duplicate Samples - duplicate splits of coarsely crushed material, generated during sample preparation, used to check the presence of a nugget effect and to assess laboratory precision.

Pulp Duplicate Samples - duplicate splits taken from pulp sample material generated during sample preparation, used to assess laboratory precision.

QA/QC samples have been submitted at varying ratios with core samples in previous drill campaigns as described in Section 11.3.1.

11.3.1 Historic Diamond Drill Program Analytical QA-QC (2007-2009)

This section summarizes the systematic QA/QC protocol that was introduced at the commencement of the 2007 drilling campaign to monitor the accuracy and precision of analytical results. The various quality control methods used in earlier sampling programs are also described.

11.3.1.1 Blanks

Drill core samples of Omai dolerite were used for blank material prior to 2005. Since 2005, blank samples of Linden bauxite are inserted with saprolitic drill and auger samples and Omai dolerite core are inserted with fresh rock drill samples.

A total of 187 blank samples were assayed for gold by fire assay, with only four returning greater than 0.04 g/t Au (> 95% upper tail confidence interval). All of these were inserted in auger sample batches and it is likely that they are tagging errors, where duplicate control samples were mistakenly labeled as blanks. Twenty two blank samples were assayed by INAA / ICP at Actlabs (Canada). Six of these samples are bauxite and the rest are dolerite, with none assaying over 17ppb Au.

11.3.1.2 Certified Reference Materials

CRMs were introduced in the sampling stream from the beginning of the 2007 drilling program (EMD07-07 onward). Previous drill campaigns did not have a QA/QC protocol that included standards. Six different Rocklabs oxide standards have been used at an average insertion frequency of one per fifty samples. The standards certified grade ranges from 0.0798 to 3.557 g/t Au.

The only anomalous result from the submission of standard OxA26 is a very low value that may be the result of a tagging error when a blank may have been mistakenly labeled as standard. Two results came back anomalously low in the early submittals of standard OxE42. They may be the result of sample swaps. It is uncertain if corrective measures were taken.



Four assay results of standard OxF41 were outside the 95% confidence interval but only one (#13 from EMD024) was significantly outside. All results are from Acme's Chilean laboratory.

Half the assay results of standard OxH52 came back anomalous (three below and three above the 95% confidence interval). The three results plotting above the 95% confidence interval are from a single sample batch submitted to Actlabs.

Four assay results came back anomalous from standard OxJ47, but close to the 95% confidence interval limits. All results are from Acme's Chilean laboratory.

Like standard OxH52, half the assays of standard OxK48 failed the accuracy criteria and like OxH52, all the Activation Laboratories results came back anomalously high. This clear bias of Chilean ActLabs results over several standards must be investigated closely by the exploration group with the laboratory management before any new samples are submitted to them.

11.3.1.3 Duplicates

For GSR 1997 holes, EM001 to EM021, duplicate quarter core samples were assayed by Loring in the same batch under a different sample number. Thirty five sample pairs can be identified and show reasonable correlation. In addition, 150 available sample intervals from EM016, 016a, 017 & 017a that were considered to have molybdenum potential were ¼ cored and analyzed for multi-element geochemistry and gold using the Actlabs 1H package in 2006-2007. A good correlation generally exists between Loring 1997 and Actlabs 2007 gold results.

For the five GSR / OGML joint venture holes drilled in 1998, 82 duplicate sample splits of coarse reject material from the Omai mine laboratory were assayed in a single batch by Loring. For 1999 holes, EM041 to 070, 256 duplicate sample splits of coarse reject material were also submitted to Loring for analysis.

A variety of duplicate analyses has been performed for drill holes supervised by IAMGOLD. 2007-2009. Samples were selected from visibly anomalous sequences were duplicated using the Actlabs 1H package, either from pulps or rejects or occasionally quarter core. In total 562 pulps, 64 rejects, and 7 quarter core samples were reanalyzed at Activation Laboratories Ltd. Most outlying samples are attributable to earlier batches submitted to Acme during the setup of their sample preparation facility in Guyana. It is possible that mislabeling of some samples occurred at that time.

IAMGOLD pulp duplicates have the best precision with 80% of pairs having a half absolute relative difference ("HARD") value at or below 20%. Reject and quarter core duplicates have a lower precision performance with 60% and 40 % of samples having a HARD value at or below 20% respectively.

11.3.2 EMGC 2011 Diamond Drill Program Analytical QA-QC

Blanks and Rocklabs certified standards are randomly placed within the sample stream at a frequency of one blank and one standard per 50 samples. Blanks are inserted within zones that are considered to be mineralized or immediately after a sample containing visible gold.



11.3.2.1 Blanks

A total of 169 blank samples were assayed during the 2011 program. Blank samples of Linden bauxite are inserted with saprolitic drill and auger samples and Omai dolerite core are inserted with fresh rock drill samples. Blanks are placed within the sample stream at a frequency of one blank per 50 samples. Blanks are inserted within zones that are considered to be mineralized or immediately after a sample containing visible gold.

79% of blanks returned a gold grade below 0.01 ppm Au (> 95% upper tail confidence interval after removal of spurious values). Twenty one percent of samples returned assays of greater than 0.01 ppm Au with values ranging up to 0.036 ppm Au. One sample returned a spurious value of 0.079 ppm Au and may be the result of erroneous labeling.

11.3.2.2 Certified Reference Materials

Four different Rocklabs oxide standards have been used at an average insertion frequency of one per fifty samples. A total of 161 Rocklabs CRM samples were submitted during the 2011 program. Certified reference materials are chosen to test the range of gold grades encountered at the Eagle Mountain Property. The standard deviation for each CRM is calculated from assayed gold grades after outliers have been discounted.

Standard	Type	Control Grade	Count	Mean	Min	Max	Std. Dev	Average % Diff
OxE42	Gold	0.611	66	0.616	0.550	0.788	0.027	0.7%
OxH52	Gold	1.291	61	1.277	0.990	1.394	0.049	-1.1%
OxC88	Gold	3.557	26	3.537	3.352	3.880	0.141	-0.6%
OxN33	Gold	7.378	8	7.535	7.073	7.843	0.262	2.1%

Analysis results show no significant negative or positive bias at the CRM grades evaluated. Across all CRM grades, 67% and 92% of assay values were within +/- 1 and 2 standard deviations respectively.

CRM OxE42 had four samples greater than two standard deviations from a mean of 0.616 ppm Au. Two of these were outliers, samples 902326 and 902231 returned grades of 0.788 and 0.713 respectively. CRM OxH52 had seven samples greater than two standard deviations from a mean of 1.291 ppm Au. Two of these were outliers, samples S04116 and S05633 returned grades of 0.990 and 1.010 respectively.

All CRMs show a degree of cyclical analytical drift. It is particularly apparent in the Standard OxE42CRM plot, where there is a gradual decrease in the mean of returned CRM grades over the observation period, expressed as linear trend line from 0.645 to 0.584 ppm Au.

Analytical drift does not appear to correlate with outlying values. There is only one occasion where successive CRM assay values are greater than 2 standard deviations the expected value, (OxH52 samples S04116 and S05481).



Howe notes that on the whole CRMs performed well. There is no indication of periodicity in analytical bias or poor precision. Results demonstrate that assay values are sufficiently accurate to be used in resource estimation. Outliers should be further investigated. EMGC notes that it has used “aged” standards from bulk containers sourced from the OMGL laboratory at the Omai minesite. These standards were subjected to significant transport with possible “settling” and may not have been sufficiently homogenized prior to filling of individual sample packets thus potentially resulting in some outliers. EMGC intends to switch to newer prepackaged standards.

11.3.2.3 Duplicates

Coarse Duplicates

Duplicate data is available for 215 coarse duplicate samples. Duplicates are selected from 5 holes. EMD11_052 (3 samples), EMD11_053 (98 samples) EMD11_054 (46 samples), EMD11_067 (58 samples), EMD11_099 (10 samples) and are submitted for re analysis at Activation Laboratories in three batches over the course of the drill program.

Good repeatability of original assay values is indicated by a Pearson correlation coefficient of 0.90. Sixty four percent of repeat assays pairs had a HARD value within +/-20%. The mean HARD value is 21%. Variability decreases as mean grade increases. There is no relative bias between original and repeat assay values.

Large relative differences between assays at the lower limit of detection can result in an inaccurate analysis of sample repeatability. Because duplicate samples are not selected from mineralized zones, only 20 pairs had a mean gold grade above a cut off of 0.2 ppm Au and tested repeatability at economically significant grades. Above this nominal cut off repeatability appears to improve, 90 % of pairs had a HARD value within +/-20%. The mean HARD improves to 7.8%.

Pulp Duplicates

Duplicate data is available for 68 coarse duplicate samples. Duplicates are selected from 2 holes. EMD11_054 (36 samples) and EMD11_055 (34 samples) and are submitted for re analysis at Activation Laboratories in a single batch.

Good repeatability of original assay values is indicated by a Pearson correlation coefficient of 0.99. Sixty four percent of repeat assays pairs had a HARD value within +/-70%. Variability decreases slightly mean grade increases. There is no relative bias between original and repeat assay values.

Pulp duplicates are not selected from samples with economically significant grades. Only 6 pairs have a mean gold grade above 0.2 ppm, all returned values within 20% of the mean of the sample pair.

11.3.3 QA/QC Conclusions

The performance of blanks in historic sampling programs and since 2005 imply that there is minimal cross sample contamination of samples. CRM analysis indicates good analytical performance at the Acme laboratory. CRMs submitted to Actlabs Chilean laboratory show an apparent bias to over reporting of gold grades.



Analysis of CRMs submitted to Actlabs as part of the 2011 drill campaign performed well. There is no indication of periodicity in analytical bias or poor precision. Results demonstrate that assay values are sufficiently accurate to be used in resource estimation. Outliers should be investigated.

The IAMGOLD duplicate program shows acceptable repeatability of pulp samples. Coarse reject and quarter core samples show decreases in repeatability indicative a nugget effect associated with localized mineralization or gold grains.

Unlike the IAMGOLD program, samples obtained during the 2011 duplicate drill program were not selected from mineralized sequences. The selection of low grade or barren samples for duplicate analysis prevents a statistically meaningful evaluation of samples that inform grade estimates. The selection duplicates over a small number of holes prevents continuous monitoring of analytical precision.

In future drill programs Howe recommends that EMGC add to its QA-QC program by inserting ¼ core duplicate samples into each sample batch submitted to the analytical laboratory. The presence of a nugget effect should be investigated by selecting a greater proportion of duplicate samples from mineralized core.

Pulp duplicates should be regularly submitted to the primary assay laboratory (ALS) and check pulp duplicates to its secondary laboratory. Analytical accuracy and precision over time, including the cyclicity identified in CRM analysis, should be monitored by submitting pulp duplicates for re analysis in later batches. The implementation of such a program may require oversight by a geologist who can position QA/QC samples within the sample sequence for best effect.

It is considered that, where available, blank sample, CRM and duplicate results provide sufficient confidence in assay values for their use in the estimation of CIM compliant Inferred and Indicated resources.



12 DATA VERIFICATION

12.1 ACA HOWE 2010 VERIFICATION

12.1.1 ACA Howe 2010 Site Visit

Confirmation of the existence of reported work sites was conducted by Howe representative and co-author Mr. I. Trinder during his visit to the Property from mid-day October 9th, 2010 to mid-day October 12th, 2010 as part of Howe's due diligence in the preparation of this technical report. During the property visit, Mr. Trinder, along with Stronghold (EMGC) personnel: Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Mr. Michael Byron, then Vice President Exploration and Mr. Art Freeze, Director, met with IAMGOLD's Guyana Exploration Manager, Linda Heesterman, Senior Geologist Anne Casselman and Exploration Geologist Kevin Pickett to examine the Property area and discuss the IAMGOLD's exploration activities, methodologies, findings and interpretations. IAMGOLD's Georgetown, Guyana office was also visited on the afternoon of October 12th, 2010.

Mr. Trinder completed an inspection of isolated surface outcrops, historic trenches and adits, and selected drill hole collars. The field camp, core logging and core sampling facilities were inspected. The condition of Company's onsite core storage racks was checked and core from several holes was examined. Core from GSR drilling campaigns and later are well kept in plastic core trays in core sheds on site (Figure 12-1). All of the work sites and technical observations were as reported by the Company.

Mr. Trinder acquired a complete digital database of all historic and current exploration on the Property, and acquired and reviewed copies of historic reports available for the Property. The information was found to be well organized and easily accessible. The most important data on paper copies have been digitized and backups kept offsite. Most of the relevant exploration data have been merged into a single MS[®] Access database.

In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Logging, sampling and core handling procedures were found to be compliant with NI 43-101 standards. Electronic and paper copies are kept on site with offsite backup at the Georgetown office.

At the time of the 2010 visit, Eagle Mountain reject sample material was routinely returned from the laboratory and stored within a gated area at the IAMGOLD/OGML exploration office in Georgetown. Pulps were returned and stored on shelving within the same office.



Figure 12-1: Core storage at the Eagle Mountain camp.

12.1.2 ACA Howe 2012 Site Visit

As part of Howe's due diligence in the preparation of this technical report, Mr. Trinder, accompanied by Mr. Doug Roy, Howe Associate Mining Engineer, revisited the Eagle Mountain Project in September 2012. On September 17th, Mr. Trinder and Mr. Roy visited EMGC's Georgetown office located at 62 Zinnia Ave, Bel Air Park and were met by Ms. Anne Casselman, EMGC's Exploration and Country Manager - Guyana. Hardcopy reports and maps were reviewed and sample pulp and reject storage areas were inspected. The third-party sample preparation and laboratory facilities of Activation Laboratories Ltd., 27/28 Parcel Beterverwagting Industrial Area, East Coast Demerara and Acme Analytical Laboratories (Guyana) Inc., Lot 13 Plantation Non Pariel, East Coast Demerara were also visited and inspected. Howe found both sample preparation and laboratory facilities to be compliant with industry standards. Eagle Mountain reject sample material is routinely returned from the laboratory and stored within a gated area at the EMG exploration office in Georgetown. Pulps are returned and stored on shelving within the same office. Historic reject and pulp sample material previously stored at the IAMGOLD/OGML exploration office have been relocated to EMGC's Georgetown office.

On September 18th, Mr. Trinder and Mr. Roy, accompanied by Ms. Casselman, were driven from Georgetown to the Eagle Mountain Project by EMGC's logistics coordinator Mr. Ian Moore in order to assess road conditions to the Project area. A brief inspection of access conditions and a drainage sample site south of Tumatumari Junction in the Mowasi Property's northern claim block was completed on the trip into the Eagle Mountain camp.



From September 19th to mid-day September 21st, Mr. Trinder and Mr. Roy completed an inspection of isolated surface outcrops, historic adits, and selected historic and current EMGC drill hole collars. The field camp, core logging and core sampling facilities were inspected. The condition of Company’s onsite core storage racks was checked and core from several EMGC drill holes was examined and check sampled. Core from historic and current drilling campaigns remain well kept in plastic core trays in core sheds on site. All of the work sites and technical observations were as reported by the Company. Given the use of a hand-held GPS unit during the site visit and the extensive jungle canopy, the differences in coordinate positions are reasonable.

In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Logging, sampling and core handling procedures were found to be compliant with NI 43-101 standards. Electronic and paper copies are kept on site with offsite backup at the Georgetown office.

Howe notes that the deeply incised topography remains a limitation on the location of diamond drill hole collars.

12.1.3 ACA Howe 2010 and 2012 Verification Sampling

Howe conducted limited verification sampling during its 2010 site visit (four samples of quarter core from holes EM99-66, EMD07-08, EMD08-12 and EMD08-30) and during its 2012 site visit (seven samples of quarter core from holes EMD11-74, EMD11-82, EMD11-83 and EMD11-85). Mr. Trinder (2010) and Messrs. Trinder and Roy (2012) supervised the cutting of the quarter core samples, sealed the sample bags and maintained possession of all samples until delivery by courier to SGS Canada’s geochemistry lab at 1885 Leslie Street, Toronto, Ontario. SGS-Toronto is a reputable, ISO/IEC17025 accredited laboratory qualified for the material analyzed. SGS quality control procedures are method specific and include duplicate samples, blanks, replicates, reagent / instrument blanks for the individual methods.

The samples were prepared using SGS sample preparation package PRP89, which consists of conventional drying if required, in 105°C ovens; crushing; splitting and; pulverizing. After drying, the sample was passed through a primary oscillating jaw crusher producing material of 75% passing a 2mm screen. A 250-gram sub-sample was split from the crushed material using a stainless steel riffle splitter. This split was then ground to 85% passing 75 microns or better using a ring pulverizer.

The verification samples were analyzed for gold using SGS analytical code FAI313 (Table 12-1).

Table 12-1: ACA Howe Verification Samples – SGS Analytical Method

Method code	Description	Lower Detection Limit
FAI313	Au fire assay; ICP finish, 30 g nominal sample weight.	>5 ppb Au



Howe's duplicate core samples provide an independent confirmation of the presence of significant gold mineralization in the Zion, Kilroy, Millionaire (now part of Kilroy) and Saddle (now part of Zion) zones (Table 12-2 and Table 12-3). Data are too limited however, to make a meaningful comparison of Howe's duplicate sample analytical results with original analytical results. Howe notes however, that the variation between the original and duplicate assay results are reasonable given the difference in sample size (original 1/2 core vs. duplicate 1/4 core) and that the difference in results for 2012's ACA-SO1880/SO1880 may be due to local presence of coarse gold (nugget effect).

Table 12-2: 2010 ACA Howe Duplicates vs. Original Samples

ACA Howe Sample #	Hole ID	From (m)	To (m)	Zone	Sample Type	ACA Howe Au (ppb)	OMGL Sample #	OMGL Au (ppb)
ACA 332816	EM99-66	63.10	64.60	Millionaire	1/4 core	787	332816	1230
ACA 521221	EMD07-08	15.60	16.24	Zion	1/4 core	2170	521221	2040
ACA 521844	EMD08-12	84.02	84.62	Saddle	1/4 core	424	521844	530
ACA 524476	EMD08-30	71.00	71.80	Millionaire	1/4 core	2470	524476	2130
ACA 100000	CDN-GS-5D			Rec. Value: 5060 ppb Au	Standard	5120	n/a	

Table 12-3: 2012 ACA Howe Duplicates vs. Original Samples

ACA Howe Sample #	Hole ID	From (m)	To (m)	Zone	Sample Type	ACA Howe Au (ppb)	EMG Sample #	EMG Au (ppb)
ACA-SO1880	EMD11-74	73.56	75.00	Zion	1/4 core	13g/t	SO1880	5.13g/t
ACA-SO1885	EMD11-74	79.00	80.00	Zion	1/4 core	1410	SO1885	910
ACA-SO1889	EMD11-74	83.84	85.00	Zion	1/4 core	291	SO1889	590
ACA-SO2543	EMD11-82	10.00	11.00	Kilroy	1/4 core	1500	SO2543	1867
ACA-SO2644	EMD11-83	12.00	13.00	Kilroy	1/4 core	751	SO2644	1914
ACA-SO2645	EMD11-83	13.00	14.00	Kilroy	1/4 core	6350	SO2645	6023
ACA-SO2813	EMD11-85	40.50	42.00	Zion	1/4 core	2160	SO2813	1520
ACA 1000	CDN-GS-5D			Rec. Value: 5060 ppb Au	Standard	5130	n/a	



12.1.4 Database Verification

Howe has conducted a spot check comparison of approximately 10 percent of the drill hole database assays against digital scans/PDF files of original lab certificates to verify the database's accuracy and completeness. No errors were detected.

Drill hole collar, assay, survey, geology and recovery data were provided by EMGC as electronic files in Microsoft Access database format. These data files were imported into Micromine software and interrogated via Micromine validation functions. Key fields within critical drill hole database data files were validated for potential numeric and alpha-numeric errors. Data validation, cross referencing collar, survey, assay and geology files, was performed in Micromine to confirm drill hole depths, inconsistent or missing sample/logging intervals and survey data. No significant errors were detected during data validation.

Howe is of the opinion that the drill hole and assay database for the Eagle Mountain Project is of sufficient quality to permit the completion a NI 43-101 Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.



13 MINERAL PROCESSING AND METALLURGICAL TESTING

EMGC has conducted no mineral processing or metallurgical testwork to date on the Eagle Mountain mineralization and a processing flowsheet has not been developed. However, limited historical metallurgical test work has been performed on Eagle Mountain mineralization.

13.1 1989-1991 Golden Star Resources Metallurgical Testwork

Metallurgical studies completed by GSR in 1989 and 1991 were limited to desliming and gravity gold recovery test work. During the first quarter of 1989, two samples of saprolite were collected and treated to evaluate the free gold content and the feasibility of gold extraction by gravity. The preliminary results indicated that the majority of gold does not appear to be amenable to the gravity recovery method. Furthermore, the results may signify that gold is locked up in quartz or oxides.

Additional test work was completed later in 1989, and the preliminary testing on saprolite material showed that desliming achieves feed volume reduction of up to 81% with a high gold recovery to the sands fraction (+90%). It was anticipated that desliming ore could be an important pre-concentration step prior to processing. Gold recovered by gravity reached only 24 % of the total gold content, again demonstrating that the remainder of the gold may be locked in quartz or associated with oxides.

In 1991, GSR carried out additional gold gravity test work at Lakefield Research using a Falcon concentrator. Nine gravity tests were completed and average gold recovery was between 33 to 42 % of the total gold content. The gravity gold recovery increased using the more advanced gold recovery technology, but not significantly enough to be retained as a single technology for the recovery of gold from the Eagle Mountain deposit.

13.2 2009-2010 Omai Gold Mines Metallurgical Testwork

OGML submitted samples of 'Oxide' mineralization and 'Hard Rock' (Fresh) mineralization from the Eagle Mountain deposit to SGS Canada Inc. in Lakefield, Ontario for testwork to establish the nature of the gold occurrence. The testwork involved sample characterization using head analyses, mineralogy and grindability studies and an investigation of the amenability of the samples to gold recovery/extraction utilizing gravity separation and cyanide leaching.

SGS Lakefield received the shipment of Eagle Mountain samples on September 11, 2009 containing 4 'Hard Rock' (Fresh) mineralization samples (Kilroy, Millionaire, Zion and Saddle) and 4 'Oxide' mineralization samples (Kilroy Sap, Millionaire Sap, Zion Sap and Saddle Sap). The Saddle mineralization samples were not used in this test program and were retained in storage.

The following description of testwork and results has been extracted from the Executive Summary of SGS Canada's final report (SGS Canada Inc., 2010).



The individual ‘Oxide’ mineralization types underwent head analyses and cyanidation testing. A composite test sample generated from the 3 individual samples was used for mineralogical studies and gravity separation testwork.

The individual ‘Hard Rock’ mineralization types underwent grindability testing, head analyses and cyanidation testing. A composite test sample generated from the 3 individual samples was used for mineralogical studies and gravity separation testwork.

The head analyses of the ‘Oxide’ mineralization samples are summarized in Table 13-1. The first column gives the Au grade by screened metallics protocol and the second column reports the mean Au grade based on fire assay of duplicate cuts. The screened metallics Au values are likely to be more reliable due to the larger sample mass used.

Table 13-1: Head Analysis Summary: Eagle Mountain “Oxide” Mineralization Samples

Sample ID	Au ¹ (g/t)	Au ² (g/t)	Ag (g/t)	S %	S= %	Fe %	Cu (g/t)	Zn (g/t)
Kilroy Sap Oxide	2.79	1.62	3.0	< 0.01	< 0.05	0.28	25	65
Millionaire Sap Oxide	0.68	0.45	1.1	0.05	< 0.05	0.44	37	67
Zion Sap Oxide	0.68	0.70	3.3	0.02	< 0.05	0.35	71	49

Au¹ Gold by screened metallics protocol

Au² Gold by fire assay - duplicate cuts

The significant difference in Au grade seen between the screened metallics and fire assay data for the Kilroy Sap Oxide indicated the presence of ‘nugget’ gold in the sample. The Kilroy Sap Oxide was found to contain a significant quantity of coarse gold with 34.4% of the Au reporting to the +106µm fraction (0.8% of the mass) of the screened metallics. The Millionaire and Zion mineralization contained little coarse gold with the screened metallics +106µm fraction containing only 3.1% (in 2.5% mass) and 0.3% (in 2.2% mass) of the Au respectively.

Examination of the bulk mineralogy of the ‘Oxide Composite’ showed that the sample was mainly composed of quartz, with moderate amounts of plagioclase and kaolinite and minor to trace amounts of gibbsite, illite, potassium feldspar, goethite and magnetite.

The gold deportment study identified and measured 253 gold grains. Approximately 40% (accounting by total surface area) of the gold particles occurred as liberated grains with an average size of 10µm, with a further 39% occurring as locked grains (mainly with goethite) averaging 6µm in size. The remaining 21% were seen to occur as attached grains, predominantly to goethite and hematite, with an average size of 7µm. The largest gold grains observed were approximately 40µm.

A significant proportion of attached and locked gold occurred either partially or completely rimmed by a complex oxide/chloride phase which is mainly composed of variable amounts of Cu, Ag, Fe, (Si, Al, Ni, Sn, Cr), Cl and O. It was suspected these complex rims on native gold could hinder leaching and affect gold recovery.



The gold in the sample was found to be present mostly as native gold, hosting trace amounts of silver, copper and iron. The average composition was approximately 97.4% Au, 1.9% Ag, 0.4% Cu and 0.3% Fe.

Approximately 25% of the gold reported to the float fraction. Superpanning of a 60g subsample of the floats revealed no visible gold indicating that it is possibly present as fine inclusions in silicate minerals.

The head analyses of the ‘Hard Rock’ mineralization samples are summarized in Table 13-2. The Kilroy ‘Hard Rock’ sample (1.18 g/t Au) was higher grade than the Millionaire and Zion ‘Hard Rock’ samples at 0.58 g/t Au and 0.57 g/t Au respectively. The silver head grades for the 3 ‘Hard Rock’ mineralization types were all below the detection limit (< 0.5 g/t).

Table 13-2: Head Analysis Summary: Eagle Mountain “Hard Rock” Mineralization Samples

Sample ID	Au (g/t)	Ag (g/t)	S %	S= %	Fe %	Cu (g/t)	Zn (g/t)
Kilroy Hardrock	1.18	< 0.5	0.53	0.48	0.20	11	44
Millionaire Hardrock	0.58	< 0.5	0.30	0.26	0.24	15	43
Zion Hardrock	0.57	< 0.5	0.37	0.34	0.17	11	43

Examination of the mineralogy of the ‘Hard Rock Composite’ by bulk modal analysis conducted using QEM ARMS (Automated Rapid Mineral Scan) showed that 47.5% of the mineralization was composed of plagioclase and 28.3% was quartz. Potassium feldspar, micas and amphibole accounted for a further 15% of the sample. Pyrite was the main sulphide mineral present. The mineralogical analysis identified 72.7% of the pyrite as free and 4.1% liberated. Fe/Ti oxides in the sample were identified as being 30.9% free and 26.5% liberated.

The Eagle Mountain ‘Hard Rock’ samples underwent a standard Bond Ball Mill Grindability test with a closing screen size of 150µm. The mineralization types were found to be medium (Millionaire) to moderately hard (Kilroy) based on the SGS database. The Bond Ball Mill Grindability test results are presented in Table 13-3.

Table 13-3: Bond Ball Mill Grindability Test Results (Metric)

Sample	Work Index (kWh/t)	Hardness Percentile	Relative Hardness
Millionaire	15.2	57	medium
Zion	16.2	67	↓
Kilroy	17.0	74	mod hard



EGRG tests were carried out on samples of ‘Oxide Composite’ and ‘Hard Rock Composite’ to determine the GRG value (theoretical maximum amount of gold recoverable) as a function of the size distribution.

The ‘Oxide Composite’ had a GRG number of 70.2 indicating that approximately 70% of the gold in the sample was recoverable by gravity separation. This data is supported by the results of the heavy liquid separation (HLS) at SG 3.1 g/cm³ conducted during mineralogy sample preparation which showed 75% gold distribution to the HLS sink fraction.

The calculated head grade from the EGRG test for the ‘Oxide Composite’ was 1.78 g/t Au. This correlated well with the expected head grade based on the individual head analyses of approximately 1.4 g/t Au. The EGRG value is likely to be more reliable due to the larger sample size and assay methodology used.

The ‘Hard Rock Composite’ had a GRG number of 47.5 indicating that approximately 45% of the gold in the sample was recoverable by gravity separation. Most of the gold was recovered at the progressively finer grind sizes. This result indicated that there is a low free gold component in the ‘Hard Rock Composite’ sample.

The calculated head grade from the EGRG test for the ‘Hard Rock Composite’ was 0.87 g/t Au. This correlated well with the expected head grade based on the individual head analyses of approximately 0.8 g/t Au. The EGRG value is likely to be more reliable due to the larger sample size and assay methodology used.

Standard “rolling bottle” leach tests were completed on the each of the Eagle Mountain ‘Oxide’ and ‘Hard Rock’ mineralization samples to examine response to cyanide leaching. There was no preliminary gravity separation stage employed prior to cyanidation to remove any free gold. The cyanidation conditions applied were as follows:

Target grind size = 74µm
Pulp density = 40% solids (w/w)
Pulp pH = 10.5 – 11 (maintained with lime)
Cyanide Concentration = 1.0 g/L as NaCN
Retention time = 24 hours

The cyanidation test results are summarized in Table 13-4. The Zion ‘Oxide’ showed a poor response to cyanidation with only 64.9% Au recovery. A further “rolling bottle” leach test was conducted maintaining the same leach conditions with a 72 hour retention time. Au extraction increased to 95.5%. The complex rims observed during the gold deportment study may be influencing the leach kinetics. Further study is recommended to confirm this.

Silver extraction in the ‘Oxide’ mineralization showed a relationship to feed grade. The Millionaire ‘Oxide’ sample assayed at 1.1 g/t Ag and showed approximately 69% Ag recovery. The Kilroy ‘Oxide’ showed almost 82% silver recovery with a 3 g/t Ag head grade.



All of the ‘Hard Rock’ mineralization types showed a good response to cyanidation with Au recoveries from 92.7% to 95.5%. Silver recovery was low showing a relationship to low head grade.

Table 13-4: Cyanidation Test Results Summary

Feed	Grind Actual (P ₈₀ μm)	Extraction (%)		Residue (g/t)	
		Au	Ag	Au	Ag
Kilroy Sap Oxide	83	96.7	81.9	0.09	0.5
Millionaire Sap Oxide	99	91.0	69.2	0.10	0.5
Zion Sap Oxide	91	64.9	80.9	0.31	0.5
Kilroy Hard Rock	72	92.7	30.5	0.07	0.5
Millionaire Hard Rock	75	95.5	20.8	0.03	0.5
Zion Hard Rock	79	94.2	29.1	0.03	0.5

The metallurgical tests demonstrated that the Kilroy Sap and Millionaire Sap ‘Oxide’ mineralization types are amenable to gold extraction by cyanidation. Cyanidation was also effective for gold extraction from the Zion Sap mineralization. However, the rate of leaching appeared to be much slower. The ‘Oxide’ composite tested was amenable to gold recovery by gravity separation.

The metallurgical tests demonstrated that the ‘Hard Rock’ mineralization types are amenable to gold extraction by cyanidation. Gravity separation techniques were not of significant value for recovering gold from the ‘Hard Rock Composite’ sample tested.

13.3 Howe Comments on Historic 1989-1991 and 2009-2010 Metallurgical Test Work

Limited metallurgical work has been carried out. For a relatively lower grade, surface-exploitable deposit such as this one, the knowledge regarding to what extent the gold is recoverable using cyanide is very important. To date, only bottle-roll cyanidation work has been carried out. While useful, this work merely identifies the theoretical maximum leachability. Real-world processes, recovery values, retention times *et cetera* should be explored.

Howe strongly recommends that further metallurgical test work be carried out. The work should evaluate gravity, cyanide and flotation methods. A preliminary flowsheet should be developed. This work would be crucial for any future potential preliminary economic evaluation work.



14 MINERAL RESOURCE ESTIMATES

14.1 Overview

ACA Howe has prepared an updated of mineral resource estimate for the Eagle Mountain gold deposit, which has been tested by drilling completed between 1947 and 2011. Resource estimation methodologies, results, validations are presented in this section of the report.

The resource estimate was prepared in accordance with CIM Standards on Mineral Resources and Reserves (adopted November 27, 2010 and is reported in accordance with the Canadian Securities Administrators' NI 43-101. Classification, or assigning a level of confidence to Mineral Resources, has been undertaken with strict adherence to the CIM Standards on Mineral Resources and Reserves. In the opinion of Howe, the resource evaluation reported herein is a reasonable representation of the global gold mineral resources found in the Eagle mountain gold deposit at the current level of sampling.

The mineral estimate was prepared by Leon McGarry, B.Sc., ACA Howe Geologist – Resources and supervised by Ian Trinder, M.Sc., P.Geo. (APGO, No. 452), ACA Howe Senior Geologist, an independent “qualified person” as defined in NI 43-101. Micromine[®] software (Version 12) was used to facilitate the resource estimation process.

Only mineral resources are identified in this report. No economic work that would enable the identification of mineral reserves has been carried out and no mineral reserves are defined. Mineral resources that are not mineral reserves do not account for mineability, selectivity, mining loss and dilution and do not have demonstrated economic viability. These mineral resource estimates include inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied.

14.2 Data Summary

Raw data incorporated into this resource update study consists of all trenching and diamond drilling data obtained from the Eagle Mountain Project between 1997 and 2011. Since completion of the ACA Howe 2010 resource audit detailed in its 2010 technical report (Roy and Trinder, 2010) and summarized in Section 6 of this report, EMGC drilled 73 diamond drill holes in 2011 resulting in additional sample analyses and geological log data that are in digital format for use in Micromine.

ACA Howe has reviewed and discussed sample collection methodologies adopted by the Company and are satisfied that they are of a satisfactory standard. A review of findings pertaining to input data are presented in the report sections below and issues regarding the suitability of this data for inclusion in current and future resource estimates discussed in Section 14.13 Resource Classification.



Since 2010, the Company has revised the geological interpretation at Eagle Mountain. Cross sections and plans provided to, and reviewed by ACA Howe are used in this resource estimation update.

14.3 Data Validation

Drill hole collar, assay, survey, geology, recovery data are presented as electronic files in Microsoft Access database format. These data files are checked and imported into Micromine software and interrogated via Micromine validation functions prior to constructing a Micromine drill hole database for the deposit. Key fields within critical drill hole database data files are validated for potential numeric and alpha-numeric errors. Data validation, cross referencing collar, survey, assay and geology files, is performed in Micromine to confirm drill hole depths, inconsistent or missing sample/logging intervals and survey data.

The database was found to be in very good condition. No significant errors were detected during data validation.

14.4 Input Data

Input data that informs the 2012 resource estimation update study is summarized in Table 14-1. The Eagle Mountain deposit has been tested by diamond drilling completed between 1947 and 2011 (See Section 10). However, only drill holes completed since 1997 are included in the resource estimate; earlier drill holes are not included because of the lack of QA/QC, lack of archived core and incomplete data. Auger, adit channel sample, pit and grab sample data are incorporated into the deposit database to aid modeling, however assay and geological data from these sources are treated as indicative and are not used in block grade estimation.



Table 14-1: Micromine Input Data Files

MM Data Type		Records	Used in Resource	Comment
		Drill Database		
Diamond Drillhole	Collar	281	226	
	Geology	21,970	19,673	
	Assay	21,235	18,944	
	Survey	618	500	
	Structure	777	722	
	Recovery	2,620	2,620	
Trench	Collar	199	199	
	Geology	1,411	1,411	
	Assay	1,318	1,318	
	Survey	662	662	
	Recovery	88	88	
Adit	Collar	124	-	
	Geology	310	-	
	Assay	310	-	
	Survey	230	-	
	Recovery	66	-	
Auger	Collar	4,873	-	
	Geology	14,671	-	
	Assay	14,624	-	
	Survey	4,760	-	
	Recovery	153	-	
Soil	Collar	5,271	-	
	Geology	5,271	-	
	Assay	5,271	-	
	Survey	5,271	-	
	Recovery	5,271	-	
Grab	Collar	223	-	
	Geology	164	-	
	Assay	218	-	
	Survey	209	-	
	Recovery	3	-	
Specific Gravity		662		
Additional Input Data				
DTM Model				
Eagle Mountain Cross Sections and Plans				



14.5 Classical Statistical Analysis

Descriptive statistical analysis of assay data is undertaken for the identification of assay populations, which may represent separate styles of gold mineralization. Specifically this analysis is undertaken to estimate the natural gold cut-off grade that defines mineralized envelopes, and to determine the distribution parameters for gold.

The compatibility of assay data derived from different drill techniques and from different weathering profiles is evaluated by statistical comparison. The suitability of data for use resource estimation is determined.

Table 14-2 contains descriptive statistics generated for each sample type within the approximate Eagle Mountain gold deposit extents shown in Figure 14-2.

Table 14-2: Descriptive statistics - raw assay data

Values	Adit	Auger	DDH	Grab	Soil	Trench	Grand Total
Count	202	5479	16780	102	779	848	24190
Minimum	0.009	0.001	0.001	0.003	0.005	0.003	0.001
Maximum	78.275	82.5	172	4.78	104.7	55.57	172
Average	3.51	0.60	0.31	0.62	0.65	1.19	0.45
Standard Deviation	9.59	2.48	2.40	1.05	3.99	3.83	2.70
Variance	92.02	6.14	5.77	1.11	15.92	14.70	7.30

A review of the drill hole assay histogram shown in Figure 14-1 suggests that the gold grade distribution contains three or more mixed gold populations:

- Very low grade, sub 0.05 ppm Au population, with a mean value of 0.01 ppm Au that accounts for approximately 60% of assays.
- Low to medium grade, sub 10 ppm Au population, with a mean value of 0.2 ppm Au that accounts for approximately 39% of assays. This lower limit of this population is difficult to identify.
- High grade, greater than 10 ppm Au population with a mean value of 5 ppm Au that accounts for approximately 1% of assays.

It is not possible to discern a natural population break associated with a particular style or generation of mineralization at an economically significant grade.

A lower modelling cut off of 0.2 ppm Au is used. Locally, lower grades are included to ensure the continuity of model domains.

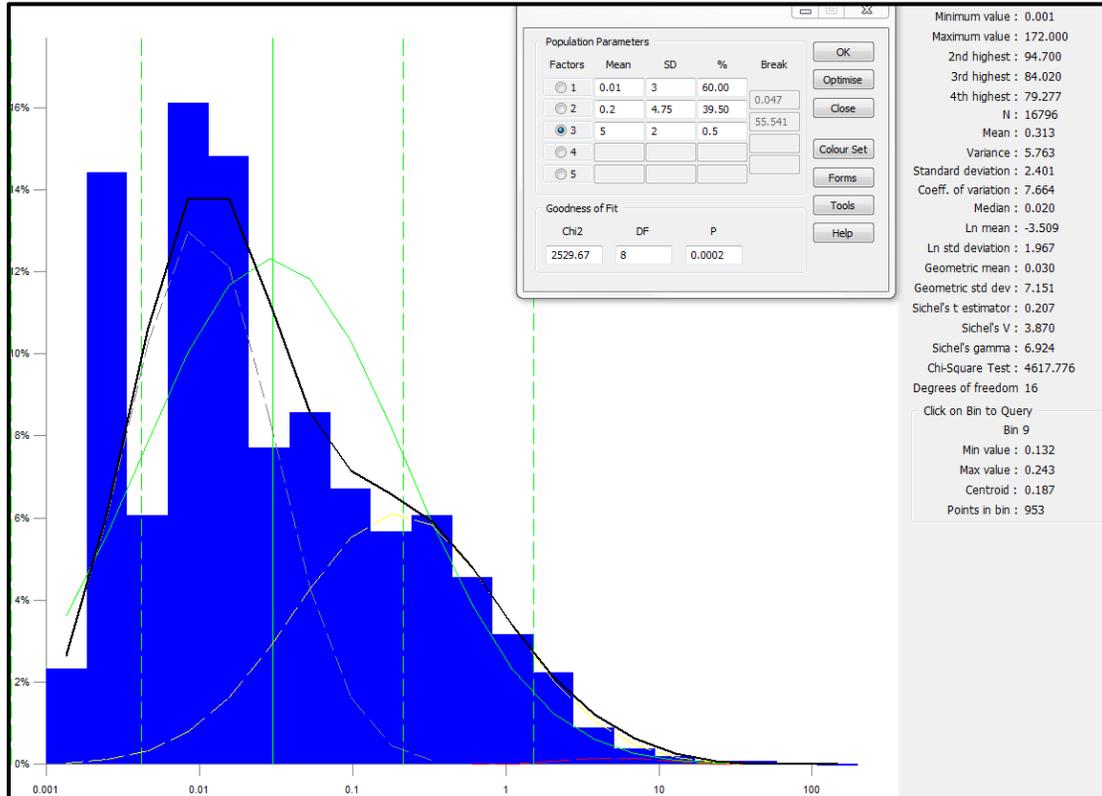


Figure 14-1: Drill core Au Assay Value Histogram Decomposition

14.5.1 Drill Technique

The inclusion of trench sample data in the resource database generates potential for a bias in sample support generated by sampling method. Cumulative frequency plots and statistics are generated for statistically significant assays derived from the following drilling methods:

- Diamond Drilling
- Trenching

Statistically significant samples were identified as those above 0.2 ppm Au within the approximate Eagle mountain deposit extents shown in Figure 14-2. Cumulative frequency plots and statistics for assays derived from diamond drilling and trenching are presented in Figure 14-3.

No significant bias in sample support is noted. Cumulative frequency plots show comparable grade profiles. Mean grades and standard deviation are similar. Howe considers that the trench and diamond drill sample populations are sufficiently comparable to permit the use of assay data derived from both methods to in resource estimation.

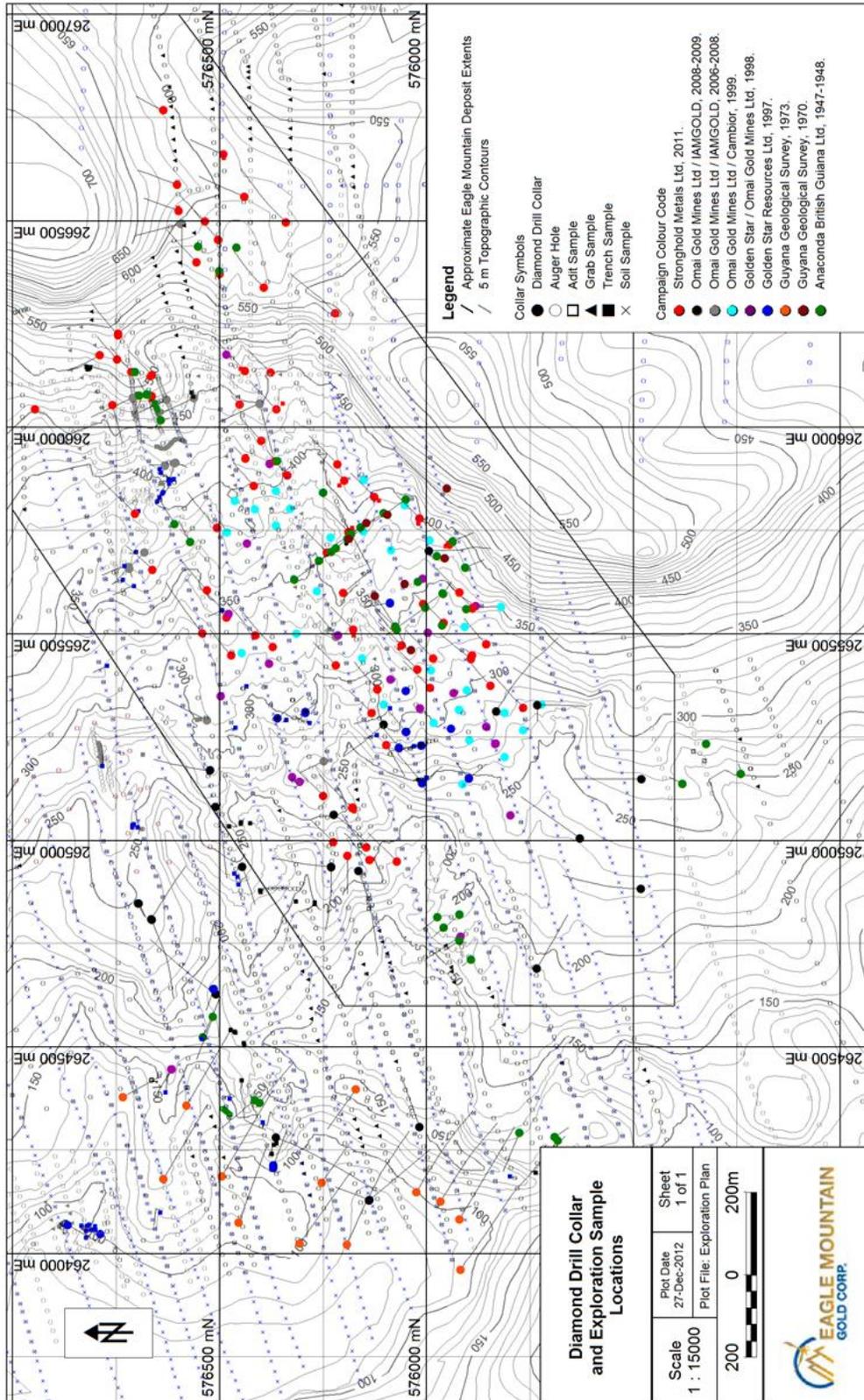


Figure 14-2: Approximate Eagle Mountain Deposit Extents

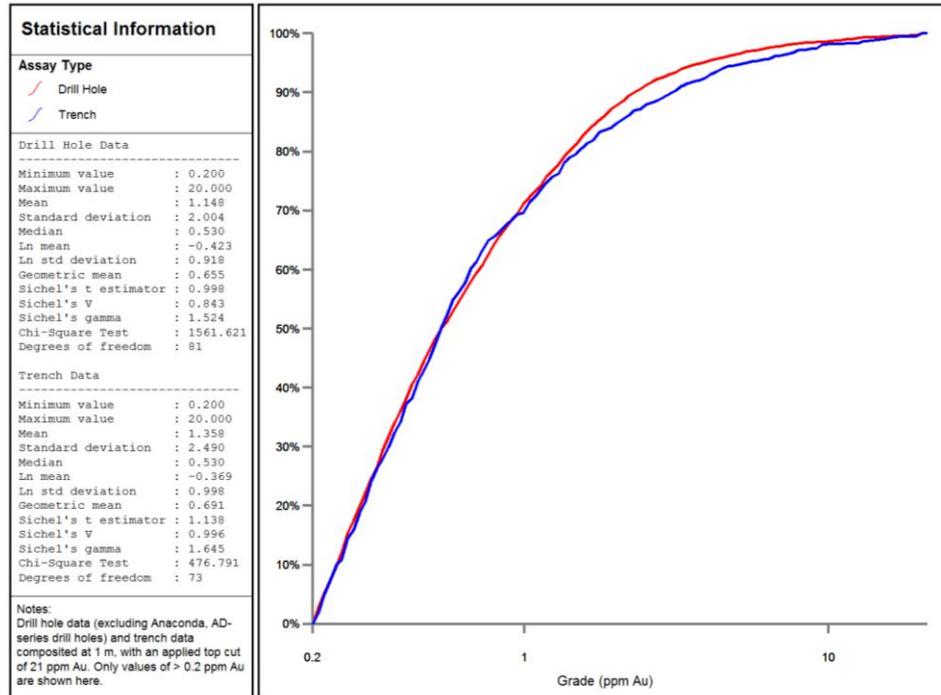


Figure 14-3: Comparison of Assays above 0.2 ppm Au by Drill Hole and Trench Methods

14.5.2 Weathering Profile

Additional population bias may result from lithology and weathering domains. Weathering zones include:

- Saprolite
- Fresh Rock

Statistically significant samples were identified as those above 0.2 ppm Au within the approximate Eagle mountain deposit extents shown in Figure 14-2. Cumulative frequency plots and statistics for assays derived from saprolite and fresh rock are presented in Figure 14-4.

No significant difference is noted between sample population derived from either weathering domain. It is considered that there is no need for separate modeling of the weathering domains for geostatistical analysis.

14.6 Raw Grade Top Cuts

Top cut analysis is performed on raw gold assay data to assess the influence extreme grade outliers have on the log-normally distributed sample population. Whilst extreme grades are real, these outliers are not usually statistically representative of assay populations. If left uncut outliers may result in overstated block grades in some parts of the deposit.

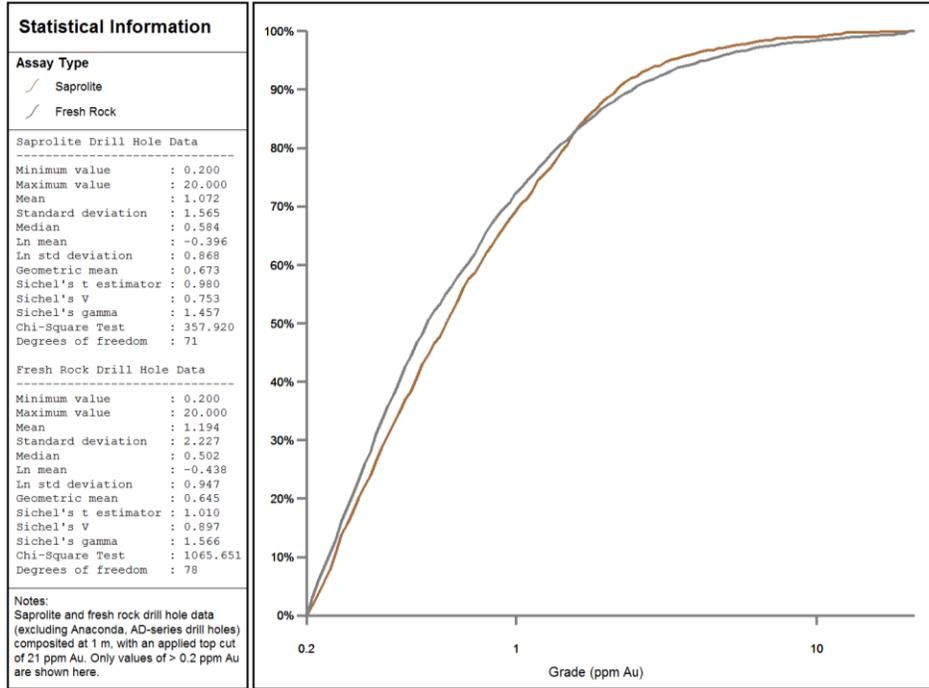


Figure 14-4: Comparison of Assays above 0.2 ppm Au by Weathering Domain

Histograms are generated for trench and drill hole assay values. The grades at which histogram tail disintegration occurs are established to identify appropriate top-cuts for each domain. The effect of a range of applied top-cuts on the co-efficient of variation (“COV”) is assessed and the amount of data from lost from each domain is considered.

It is not possible to identify a statistically robust top cut. Nonetheless, the treatment of a small number of very high grades is required; a value of 20 g/t is used.

Table 14-3: Top Cut Analysis Summary

Type	No of Samples	No of Samples Cut	% data cut	Un Cut				Cut			
				Mean	St Dev	Var	CV	Mean	St Dev	Var	CV
DDH	16,796	21	0.13%	0.31	2.40	5.76	7.66	0.27	1.15	1.33	4.24
TRENCH	848	6	0.71%	0.62	1.05	1.11	3.23	0.62	1.05	1.11	2.36

14.7 Composites

To ensure the appropriate length weighting of assay grades, samples within the Eagle Mountain gold deposit resource drill database are composited to a standard length of 1 m. Composite



length is determined by generating a histogram for raw sample intervals. The dominant sample interval is 1 m and is used as the composite sample length.

The composite assay file is the input for domain and grade shell modeling and block model interpolation. Descriptive statistics are generated for composited data, and the mean values for each domain compared with the raw assay mean grade and top-cut assay mean grade for each domain.

14.8 Domain Interpretation and modeling

The 2012 revised geological interpretation for the Eagle Mountain gold deposit was reviewed and discussed with the Company geologists. It is understood that local geology and spatial features associated with mineralization are understood in a general sense. Controls to mineralization and the extent of structural features at the deposit are also understood.

Interpretations of geology, structure and mineralization are provided by the Company in plan and cross section diagrams. The Company's sectional interpretations, stored as .MapInfo vector data, are imported into the Micromine model as 3D strings. These interpretations are used to guide resource domain modeling, which is based on the following:

- characteristic geological features,
- grade profiles and mineralization type
- localized fault offsets
- general strike orientations

Surface drilling, trenching and outcrop mapping has defined two distinct zones of mineralization over an aerial extent of approximately 1.65 km² covering the southern flank of Eagle Mountain: the Zion and Kilroy zones.

14.8.1 Mineralized Domains

Most known gold mineralization is association with low-angle thrust (10-30°) shear zones within granitoid rocks. Thrust characteristics show a gradational progression from the Zion zone in the northeast to the Kilroy zone in the southwest.

14.8.1.1 Zion

Within the Zion area, thrust movement is concentrated to a single granitoid hosted shear zone with a distinctive mylonite at its base.

The Zion shear zone has with an average grade of 1.56 g/t Au over a thickness of 15-20m, although significantly higher grades are intersected locally.

The northeast the portion of the Zion area (previously defined as the "Saddle" area) contains a thicker mineralized zone comprising higher grade upper and lower segments separated by central portion of lower grade material. The Saddle area is intersected in five drill holes and has an average grade and thickness of 1.2g/t Au over 10m.



The Zion domain is modeled as a single layer. Although the northeastern zone has distinct horizons, the low drill density there prevents them being modeled separately.

14.8.1.2 Kilroy

Progressing to the Kilroy zone it is postulated that volcanic units dissipate thrust strain over a larger vertical extent (thickness).

Mineralization at Kilroy is hosted by a sequence of apparent parallel sub-horizontal shear zones comprising more intensely mineralized upper and lower portions and a less intensely mineralized central zone.

The zone averages 1.0 g/t Au over 12-15m, although higher grade areas have been delineated, for example, 20.9 m at 5.8 g/t Au from 11.1 m in EM97-3 (approximate true thickness of 12m).

The Kilroy Zone is modeled as three locally discontinuous, parallel domains. Kilroy A (upper), B (middle) and C (lower). Thin and sporadic zones of mineralization identified below this sequence are not considered economic and are not included the current modeling exercise.

For the purposes of resource estimation, the Zion and Kilroy A, B and C domains are treated as 'hard' boundaries such that samples that fall within a domain may only inform that domain.

14.8.2 Faults

The granitoid hosted, shear zone localized Au mineralization is cross cut by a later secondary network of northeast to southwest and east-west trending sub vertical faults. Apparent dip-slip movement has resulted in the down dropping of blocks towards the southeast across northeast faults and towards the south-west across easterly faults.

Fault bound blocks have apparent vertical offsets that are typically between 1 and 30 metres. Where significant, these offsets are incorporated into the Zion, Kilroy A, B and C domains.

The resultant 29 fault bound subdomains have an approximate aerial extent of 1.65 Km² (**Figure 14-5**). For the purposes of resource estimation, subdomain boundaries are 'soft', such that assay grades may be interpolated across fault offsets.

Although secondary fault orientations are observed in outcrop, adits and drill core, interpreted dimensions are primarily inferred from relative offsets to linear features identified in drill hole, topographic and geophysical data. The model only incorporates relative dip-slip movement. Future drilling and surface mapping should seek to generate a more definitive structural interpretation that incorporates oblique or lateral offsets.

14.8.3 Veins

Sub vertical and steeply dipping quartz vein arrays are recognized throughout the property. Vein emplacement is interpreted to be fault controlled. Larger vein sets can carry significant gold grades however their distribution is erratic. Veins are not modeled.



14.8.4 Intrusive Rocks

The Eagle Mountain gold deposit is intruded by NE-SW basic dykes. Dyke emplacement is interpreted to be fault controlled and to post-date the granodiorite pluton mineralization. Where extensive intervals of dyke material are identified in drill core, the surrounding region is excluded from the resource model, for example the area intersected by holes, EMD11_101, EMD08_29 and EM99-69. Elsewhere, there is insufficient data to meaningfully delineate deleterious intrusions. Future drilling and surface mapping must seek to address this.

14.8.5 Domain Modeling

Strike and dip orientations of zones are interpreted using logged geology, structural orientation measurements, as well as geological and fault models developed by the Company.

Drill hole intervals that meet a notional cut-off grade of 0.2 g/t gold over at least 2 meters vertical thickness are assigned to the fault bound subdomains. Locally low grade material is also incorporated to honour the broader continuity of mineralized zones.

Top and bottom 3D coordinates are extracted from assigned intervals. Within each fault bound domain, top and bottom depths are contoured separately using the minimum curvature method. This method attempts to fit curves with the least acute bends between points and produces smooth contours that approximate top and bottom bounding surfaces of in-situ mineralization. Where necessary, additional top and bottom points are digitized in 3D to ensure surfaces honor interpreted mineralization.

Contoured top and bottom surfaces are constrained by interpreted fault boundaries to generate 3D wireframe solids for 29 domains throughout the Eagle Mountain deposit area.

The Minimum Curvature method is suitable for datasets with sparse and uneven data points (Smith and Wessel, 1990).

14.8.6 Weathering Boundaries and Bulk Densities

The Base of Saprolite (BOS) depth is identified in drill hole geology logs. The 3D coordinates of BOS points are extracted and the vertical BOS depth below the DTM surface is gridded using 2D omnidirectional kriging.

A selection of logged saprolite intervals with corresponding depth below saprolite points and interpolated BOS depth is shown in **Figure 14-6**. Interpolated saprolite depth is subtracted from the DTM to produce a revised BOS model for the Eagle Mountain Deposit, shown in section as a blue line in **Figure 14-6**. This model is not definitive and further delineation of the saprolite depth is required.

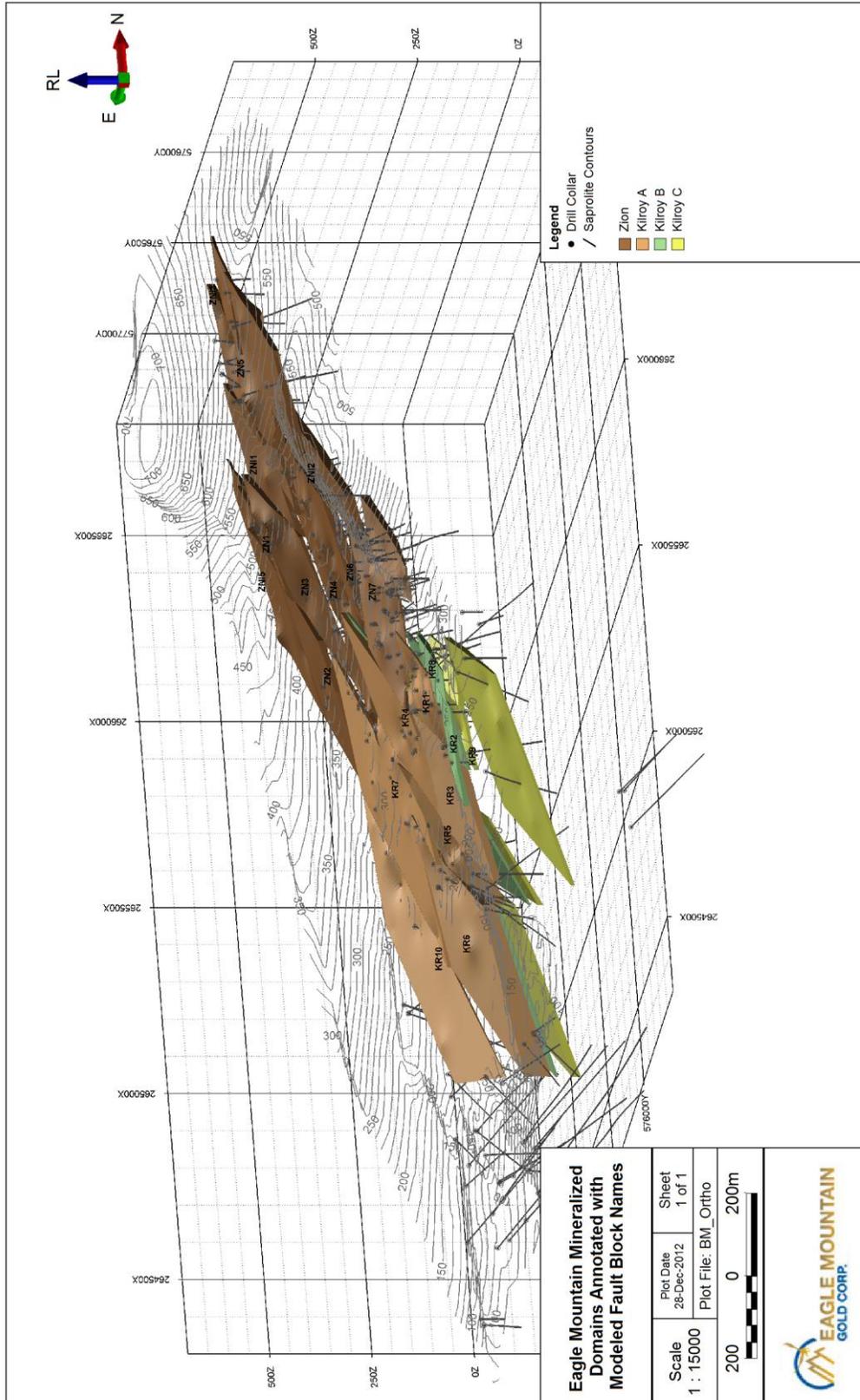


Figure 14-5: Eagle Mountain Mineralized Domains

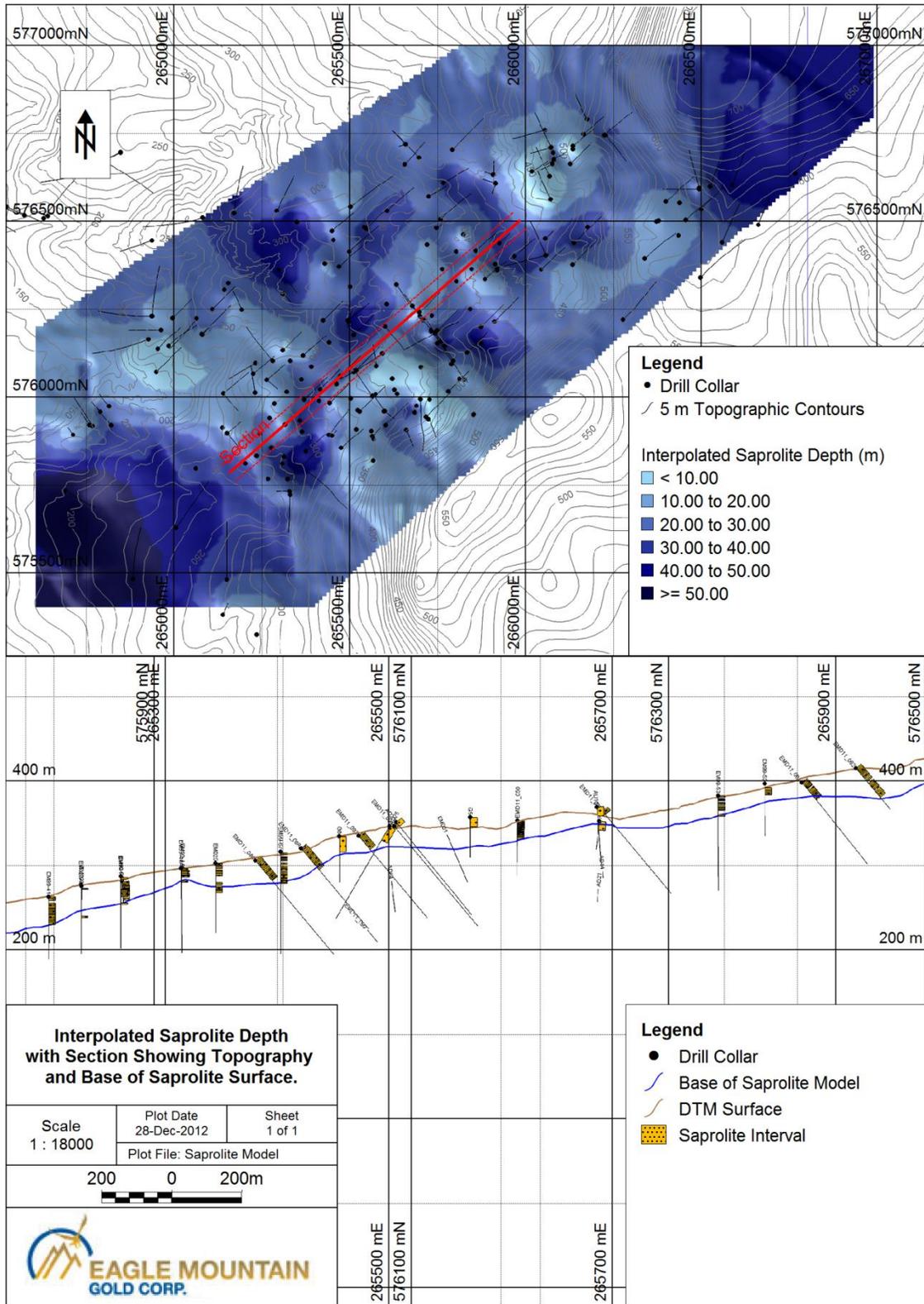


Figure 14-6: Plan of interpolated saprolite depth and Section showing topography and base of saprolite



The BOS model is used to assign model blocks to saprolite and fresh weathering domains. Bulk densities are assigned to each weathering domain, 1.6 t/m³ for saprolite and 2.6 t/m³ for fresh rock. The BOS model is not used as a ‘hard’ boundary in grade interpolation. As discussed in Section 14.5.2, no significant statistical relationship between weathering and grade is observed.

14.9 Block Model Creation

14.9.1 Empty Cell Block Modelling

An empty cell block model is created to cover the extent of wireframes at the Eagle Mountain deposit. The parent block sizes for each model are presented in Table 14-4 and are based on the geological model and potential mining methods.

Table 14-4: Block Model Extents

Dimension (m)	Origin Block Centre	Spacing (m)	# of Blocks	End Block Centre
Easting	264000	10	601	270000
Northing	575400	10	371	579100
RL	-200	5	81	600

Domain wireframes are assigned to the block model file such that blocks falling inside any given domain are assigned to that domain. All blocks outside of the wireframe model are deleted.

A DTM surface representing the topography is used to constrain the upper surface of the block model. Blocks situated above the topography DTM surface are removed from the resource block model.

14.9.2 Re-projection of Block Model and Data Points

For geostatistical analysis and grade interpolation, the model blocks and composites falling within Zion, Kilroy A, B and C are flattened.

Flattening is undertaken using Micromine coordinate transformation functions that normalise domain blocks and composites relative to an idealised plane that passes through the vertical midpoint of the model.

Horizontal flattening of Eagle Mountain domains, as shown in Figure 14-7 and Figure 14-8, limits deviations in the mineral horizon geometry associated with post mineralization faults that divide the subdomains. This allows a better representation of mineralized trends. Additionally, a larger number of samples are available for geostatistical observation within the repositioned domains.

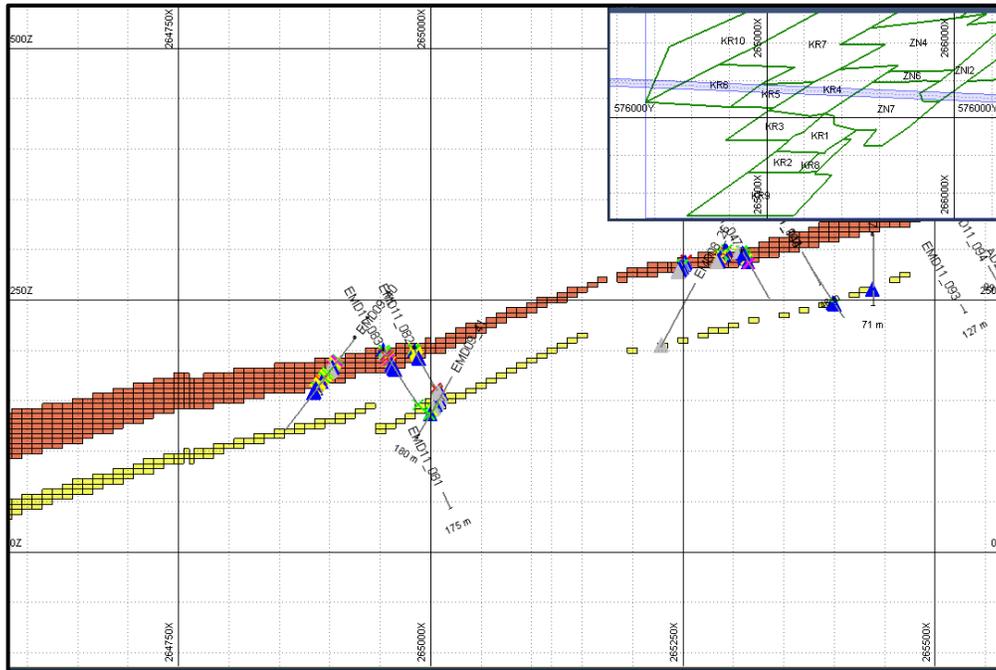


Figure 14-7: Example Kilroy A and B Blocks and Composites.

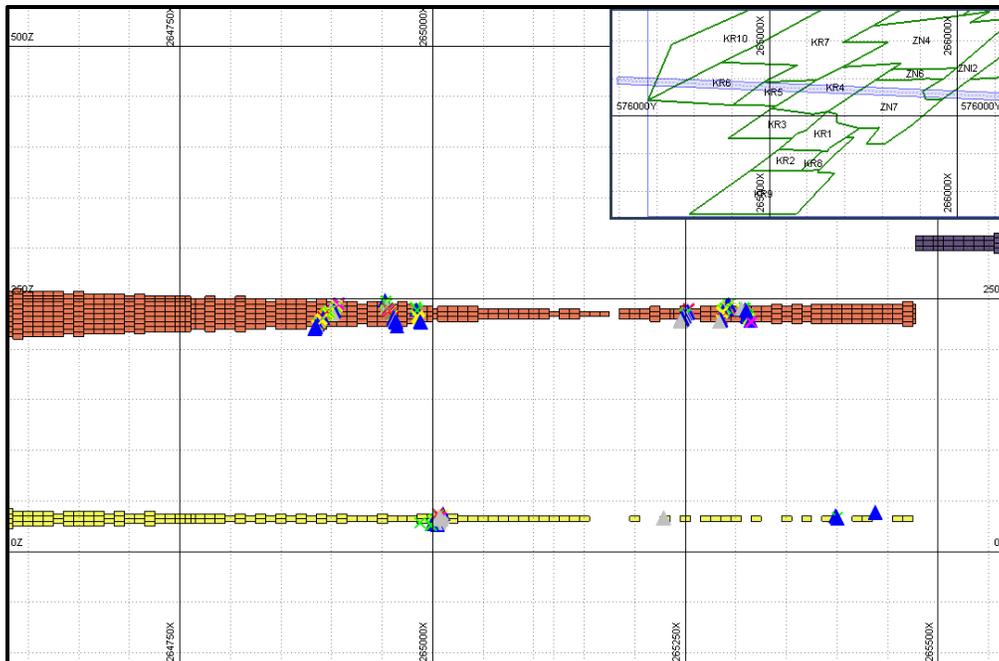


Figure 14-8: Flattened Kilroy A and B Blocks and Composites.



14.10 Geostatistics

14.10.1 Domain Statistics

Descriptive statistics were run for composite data within the mineralized domains. A description of mean values for each domain is contained in Table 14-5.

Table 14-5: Domain Mean Grades

Row Labels	Count	Min	Max	Average	StdDev	Var
Kilroy (all)	1989	0	20	1.05	2.02	4.06
KRA	1298	0	20	1.10	1.88	3.53
KRB	309	0	20	1.30	2.91	8.46
KRC	364	0.002	19.8	0.70	1.51	2.27
Zion	2162	0	20	0.97	1.96	3.84
Total	4151	0	20	1.01	1.99	3.94

Both the Zion and Kilroy A datasets have a statistically significant number of samples. Due to a smaller number of samples, Kilroy B and C domains are excluded from subsequent variographic analysis.

14.10.2 Variography

Spatial data analysis is undertaken prior to block model grade estimation in an attempt to generate a series of semi-variograms that define directions of grade anisotropy and spatial continuity of gold grades, such that these variogram parameters can be used as input parameters for grade estimation.

Variography is performed on 1 m composite assay data flagged within mineralized domain envelopes for Zion and Kilroy A:

- To estimate the presence of directional anisotropy of gold mineralization within the deposit. There is directional anisotropy if semi-variograms reach the total sill at different distances in different directions.
- To estimate the spatial continuity of gold grades in the main directions of anisotropy at Kilroy and Zion.
- The continuity of gold grades can be estimated using the semi-variogram ranges, i.e. the distance at which the semi-variogram reaches the total sill (where the variance trend reaches a plateau or disintegrates).
- Grades are not reliably estimated if the search radius for grade interpolation is greater than the semi-variogram range. When the semi-variogram reaches the sill, there is no correlation between pairs of samples at that sample distance.
- To obtain semi-variogram parameters to be input into the interpolation process.



Kilroy A search distances and variogram models are used for interpolation of the Kilroy B and C domains. Directional variogram models are described in Table 14-6:

Table 14-6: Variogram Parameters

Zone	Ellipse Rotation*			Nugget (Co)	Trend	Model	P Sill	Range (m)		
	z	y	x					Major	Semi-Major	Minor
Kilroy	50	0.00	0.00	0.57 (39%)	Narrow	Spherical	0.77	40	40	15
					Broad	Exponential	0.70	200	150	30
Zion	60	0.00	0.00	0.56 (33%)	Narrow	Spherical	0.43	50	50	15
					Broad	Exponential	1.28	200	150	30

The variogram model for both the major Kilroy and Zion axes indicates a relatively narrow initial range of co-variance over approximately 40m to 50m. This is followed by an apparent gradual increase in variance over a broad range of approximately 200m.

The variogram model for the semi-major axes indicates a comparable short initial range of co-variance over approximately 40m to 50m, followed by an apparent gradual increase in variance over a broad range of 150m at which point the variogram collapses.

For both the Zion and Kilroy domains, the minor axis is poorly behaved. An initial range is taken to be 15m and the second broader range is taken to be 30m.

14.10.3 Error Checking

To test the suitability of modeled semi-variograms for use in Ordinary Kriging, composite assay values are compared with values estimated by the variogram model at the same location. The operation is also known as “jack-knifing”.

The difference between estimated and measured values is used to calculate the standard error of the estimate and the error statistic. For the perfect semi-variogram model, the average error statistic should be zero and the standard deviation of the error statistic should be one. The error statistics for each Zone are presented in Table 14-7.

Scatter plots of original versus estimated gold grades are shown in Figure 14-9 and Figure 14-10. The trend line indicates that there is degree of grade smoothing whereby low grades are overstated and high grades understated. A degree of smoothing is to be expected in all linear estimation techniques, but on the whole, estimated grades correlate well with input composite sample grades.



Table 14-7: Variogram Model Error Statistics

Zone/Model	Item	Mean	St. Dev
Kilroy	Raw Data	1.071	2.033
	Estimated	1.019	1.069
	Standard error	0.915	0.055
	Error statistic	0.000	1.081
Zion	Raw Data	0.981	1.966
	Estimated	0.878	1.083
	Standard error	0.912	0.051
	Error statistic	0.002	1.127

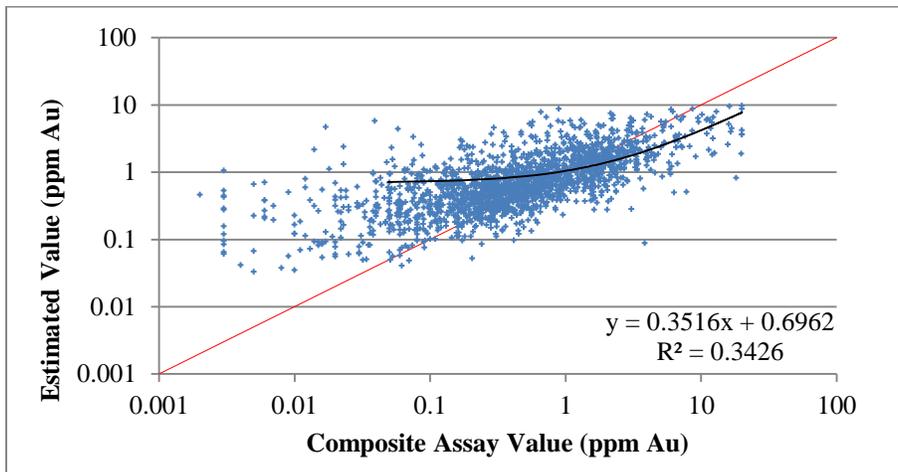


Figure 14-9: Kilroy error plot of original and estimated Gold Values

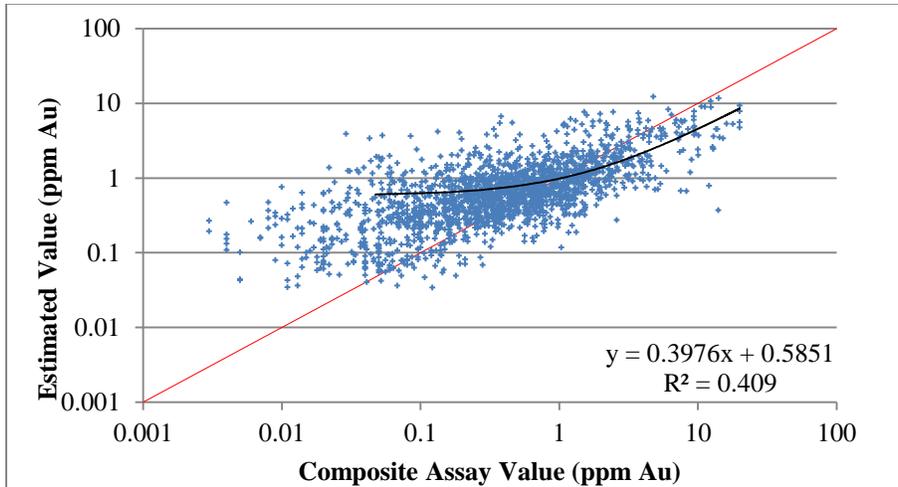


Figure 14-10: Zion Error plot of original and estimated Gold Values



14.11 Grade Interpolation

Gold grades are interpolated into the block model separately for Zion, Kilroy A, B and C. Blocks in a domain are assigned an interpolated grade derived from the flattened composite data which falls within that flattened domain (i.e. restricted or closed interpolation).

Gold grade interpolation is undertaken using top cut and composited drill and trench data. For each domain, the Ordinary Kriging interpolation technique was used to interpolate block grades at increasing search radii, until all blocks within each domain receive an interpolated grade or are assigned a null value.

The Ordinary Kriging (OK) interpolation method is a linear geostatistical method that uses the measured anisotropy of the deposit to weight composite assay values in the three orientation axes of mineralization within the deposit.

14.11.1 Search Ellipse Parameters

Three search ellipse parameters are determined by means of the evaluation of the geological model, exploration data spacing and by analysis of the variogram parameters for Zion and Kilroy as described in Section 14.10.2.

- The first search radii are selected to be equal to the Zion zone first variogram model, defined as the ‘Narrow Range’.
- The second search radii are selected to be equal to half the range in the strike, dip and across dip directions of the second variogram model defined as the ‘½ Broad Range’.
- The third search radii are selected to be equal to the second variogram model defined as the ‘Broad Range’.

Model blocks that did not receive a grade estimate from the first interpolation run were used in the next interpolation run. Interpreted search ellipse ranges are contained Table 14-8.

Table 14-8: Eagle Mountain Search Ellipse Parameters

Range Name	Major Axis	Semi Major Axis	Minor Axis
Run 1 – Narrow Range	40 m	40 m	10 m
Run 2 – ½ Broad Range	100 m	75 m	20 m
Run 3 – Broad Range	200 m	150 m	30 m

Data used to interpolate grade into the Eagle Mountain block model contains locally clustered drill hole sample data that has the potential to introduce local bias. Domains containing clustered data may overstate block grades compared to, in some areas, relatively sparse drilling data. To address this issue the interpolations include a restriction on the maximum number of samples that can be used in block estimation. The search ellipse is divided into two sectors and a constraint of 10 samples per sector applied, essentially de-clustering the data.



To honour the sub horizontal geometry of interpreted mineralized domains, a maximum of five, 1m composite samples are permitted per hole. The limited, 5m vertical extent of samples, is comparable to block vertical dimension.

Block estimates are informed by a minimum of two drill holes. Run 1 block estimates require a minimum of 4 samples per hole and 8 samples in total. Run 2 and 3 block estimates require a minimum of 2 samples per hole and 4 samples in total. Detailed definition of the interpolation parameters used in the estimation of updated resources is contained in Table 14-9.

Table 14-9: Block Model interpolation parameters

Interpolation Method	Ordinary Kriging		
	1	2	3
Interpolation Run #	1	2	3
Search Radii	Narrow Range	½ Broad Range	Broad Range
Number of Sectors	2	2	2
Max no of Samples per Sector	10	10	10
Min Number of Drill Holes	2	2	2
Min Number of Samples per Hole	4	2	2
Max Number of Samples per Hole	5	5	5
Min number of Samples (Total)	8	4	4
Max number of Samples (Total)	20	20	20
Discretisation	2*2*2	2*2*2	2*2*2

The search ellipses for Run 1 (red), Run 2 (yellow) and Run 3 (green) are show in Figure 14-11 with the block model also coloured by run number.

The plan view of the 2012 resource block model colored by grade is presented in **Figure 14-12** with the grey outline of the 2009/2010 mineral resource area shown for comparison.

14.12 Block Model Validation

Global and local resource model validation is undertaken on the Kilroy and Zion block models prior to resource reporting.

14.12.1 Global Validation

For each domain mean composite grades and mean block grades are compared to assess the potential over or under estimation of block grades during interpolation relative to the composites. Results are presented in Table 14-10.

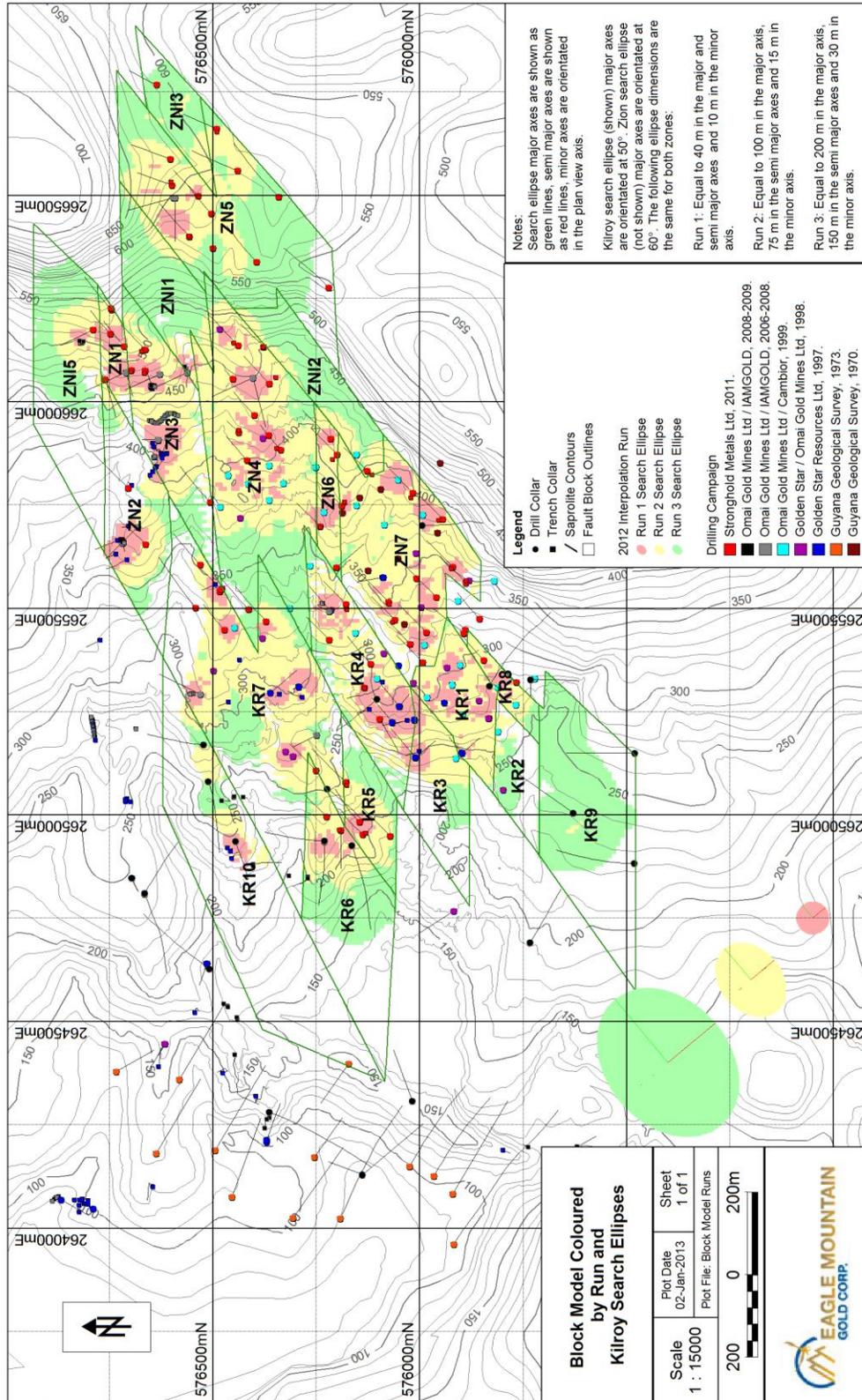


Figure 14-11: Block model coloured by run and Kilroy search ellipses.

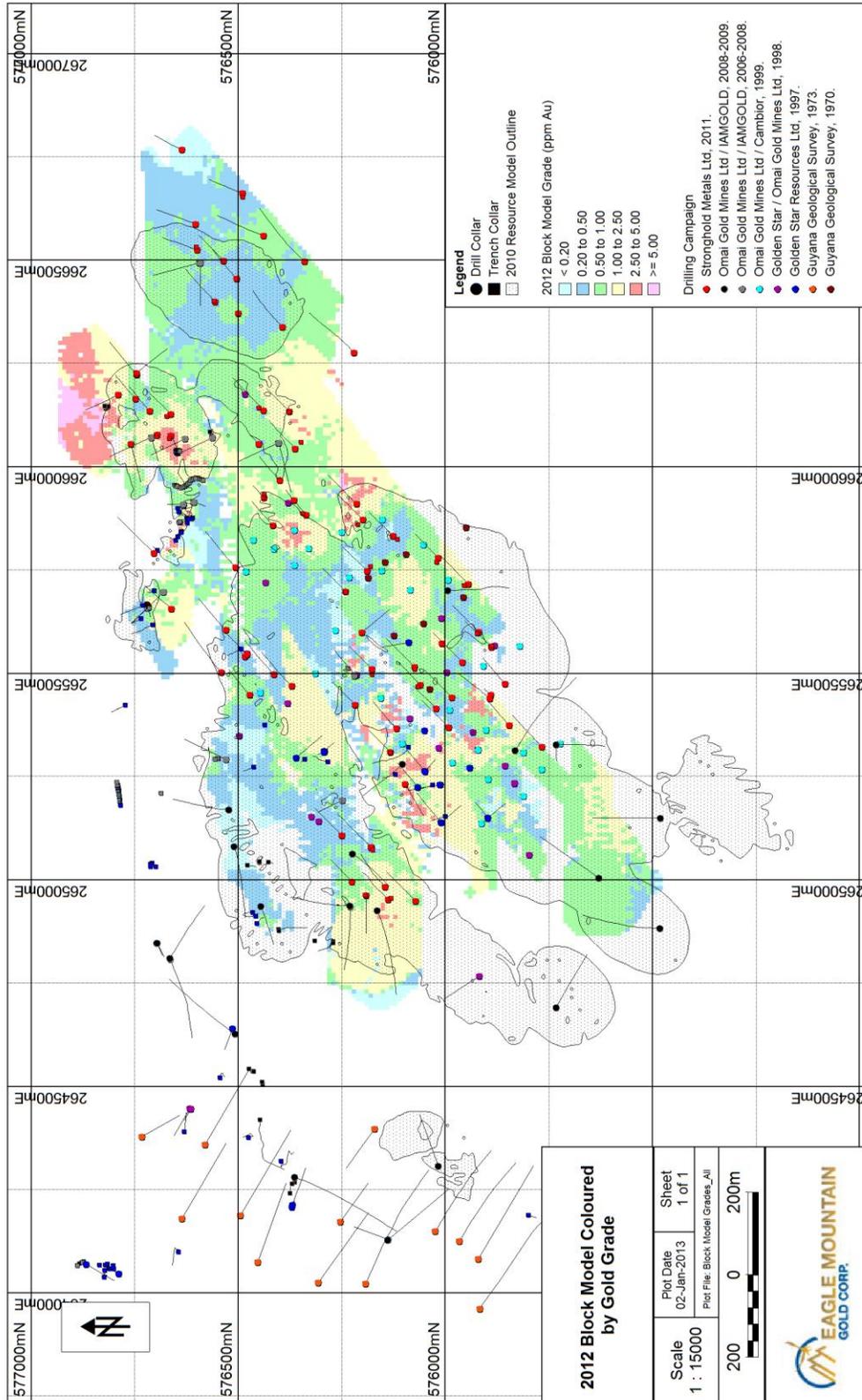


Figure 14-12: 2012 Block Model Coloured by Gold Grade



Table 14-10: Comparison of Means

	Composite			Block Model			Diff in Means
	Mean	Std. Dev.	Variance	Mean	Std. Dev.	Variance	
Zion	0.98	1.96	3.84	0.87	0.89	0.79	12%
Kilroy	1.07	2.03	4.11	0.92	0.81	0.66	16%
ALL	1.02	1.99	3.97	0.89	0.86	0.74	14%

A degree of smoothing of grade is inevitable when estimating block grades. However, at the current data spacing of the deposit, input composite grades used compare favourably to mean block grades.

Block model volumes are checked against wireframe volume to ensure that block model extents honour the wireframe. A comparison is made between the entire block model volume and the total volume of all domain wireframes. Results are presented in Table 14-11.

Table 14-11: Comparison of Volumes

	Wireframe Vol (M m3)	Block Model Vol (M m3)	Difference in Volume
Zion	136.67	136.74	0%
Kilroy	153.36	158.27	3%
All	290.03	295.01	2%

14.12.2 Local Validation

Interpolated block models are displayed in 2D slices with composite drill hole data in order to ensure block grades honour the general sense of composite drill hole grades, whereby high grade blocks are located around high sample grades, and vice versa. A section through the Kilroy block model is shown in Figure 14-13 and the Zion block model in Figure 14-14.

Overall, block grades correlate very well with input composite sample grades.

14.12.3 Sectional Validation Plots

Mean block model and composite grades are reported for 100 m intervals slices in the easting direction. The mean block model and composite grade at each interval are presented in the control plot in Figure 14-15. The same exercise is undertaken for 50 m slices in the northing direction (Figure 14-16).

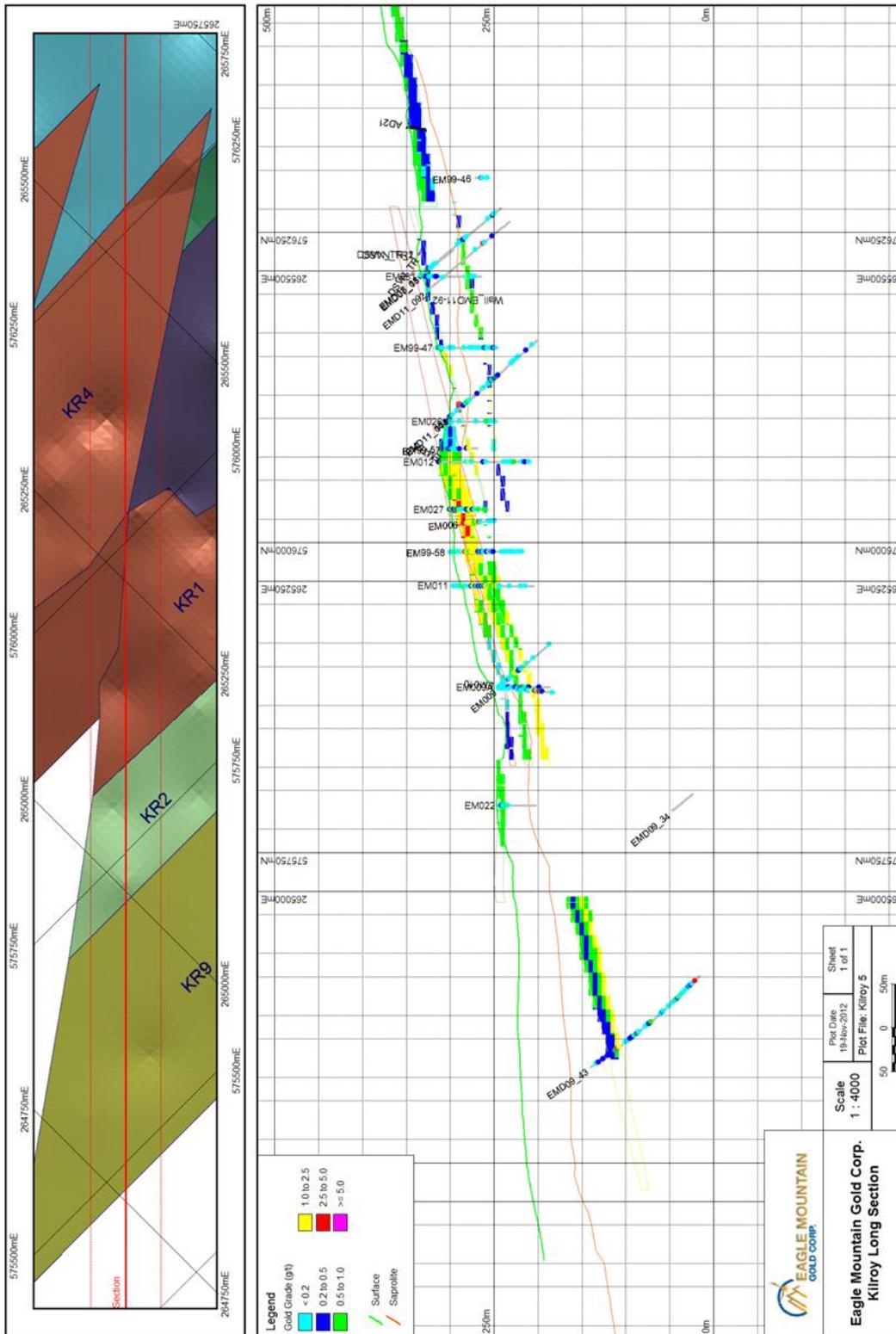


Figure 14-13: Section Block Model: Kilroy

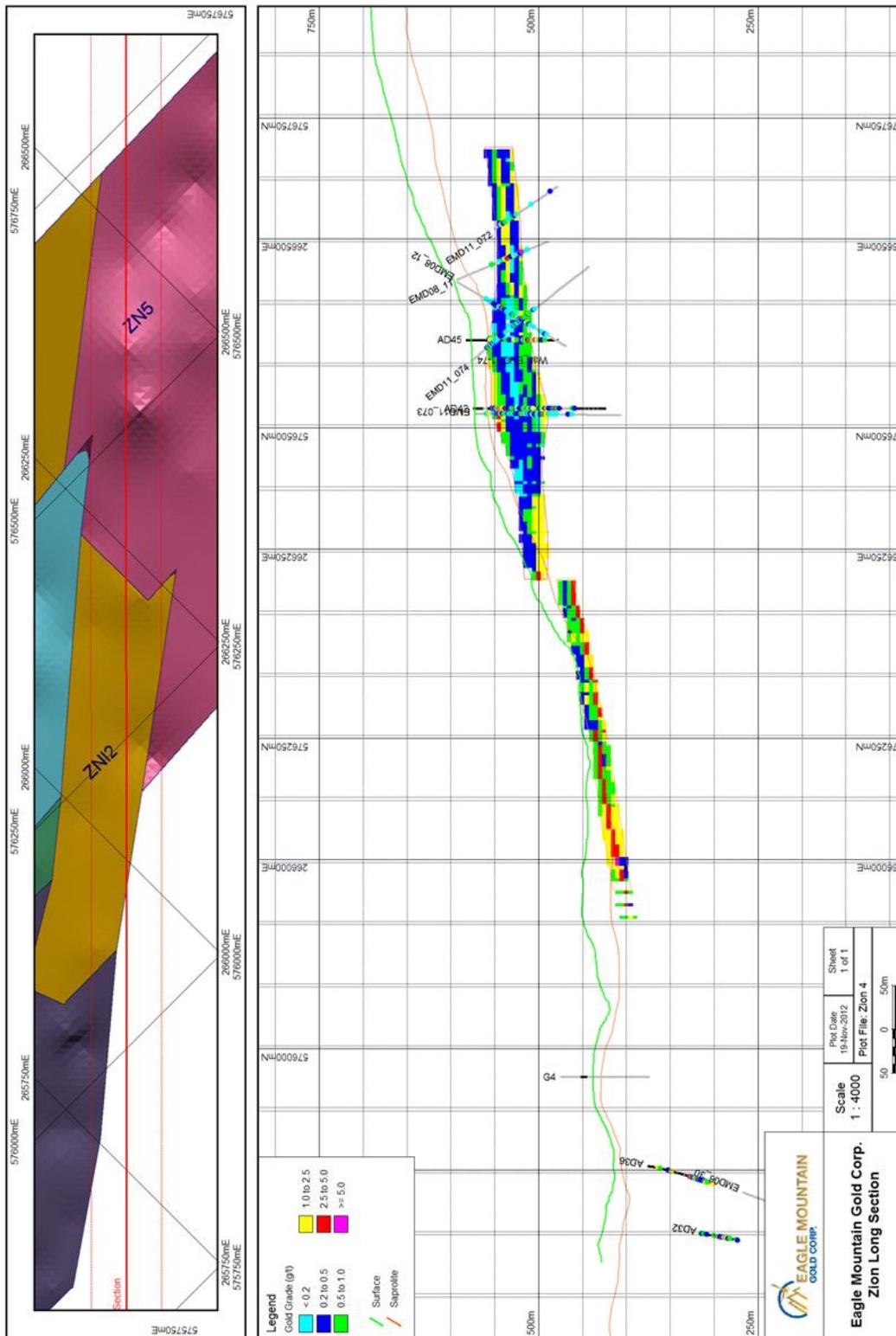


Figure 14-14: Section Block Model: Zion

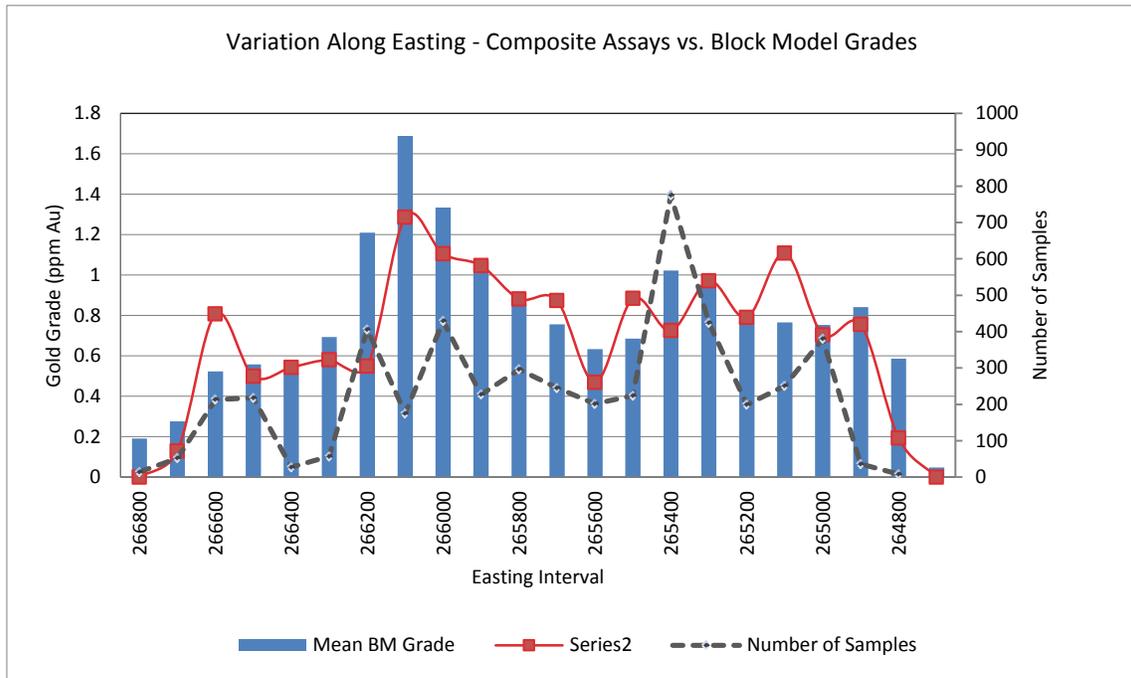


Figure 14-15: Sectional Block Model Validation Plot, 100 m Easting Intervals

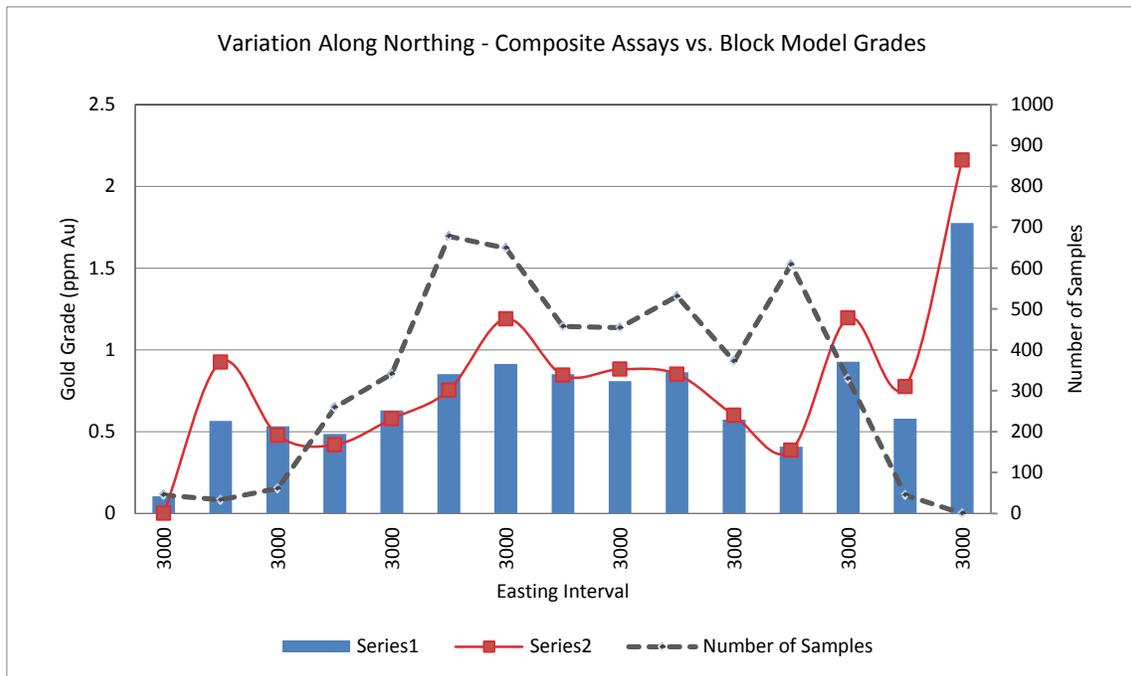


Figure 14-16: Sectional Block Model Validation Plot, 50 m Northing Intervals



14.13 Resource Classification

The CIM Definition Standards on Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Resource Definitions and adopted by the CIM council on November 27, 2010, provide standards for the classification of Mineral Resources and Mineral Reserve estimates into various categories. The category to which a resource or reserve estimate is assigned depends on the level of confidence in the geological information available on the mineral deposit, the quality and quantity of data available, the level of detail of the technical and economic information which has been generated about the deposit and the interpretation of that data and information. Under CIM Definition Standards:

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 or 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 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 ‘*Measured Mineral Resource*’ 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.

In addition, ACA Howe’s resource classification methodology follows ACA Howe Resource Modeling Standard Procedures (2006). The classification of interpolated blocks is undertaken by considering the following criteria:

- Reliability of geological, sample, survey and bulk density data.
- Robustness of the geological model.
- Drilling and sample density.
- Confidence in the continuity of mineralization.

2011 drilling at Zion and Kilroy has increased geological data sample density since the 2010 resource audit study report. Consequently a more robust geological model is developed that incorporates a rationalization of the ore forming processes and appropriate domain modeling and the incorporation of structural offset interpretations.



The following is taken into account when considering the classification of resources at Eagle Mountain:

- A review of all QA/QC assay for historic and recent drilling suggests assay data used in resource estimation is robust enough to achieve indicated resource classification.
- Core recoveries are considered acceptable such that ACA Howe is confident core samples, and the assay values derived from them, are representative of the material drilled and suitable for inclusion in resource estimation studies.
- Better delineation of the saprolite, saprock (intermediate) and fresh rock zones will allow the application of more representative bulk density values to the Block Model.
- The geological data derived from Diamond drill data which informs the majority of the Eagle mountain model resource is of a good standard.
- The assay results from the drill holes completed to date appear to show good lognormal gold distribution with few spurious values suggesting that the gold populations are generally well defined.
- The density of geological observations at Eagle Mountain is insufficient to determine the exact orientation and location of faults, or their relative movement and throw. The location and extent of unmineralized intrusions are not sufficiently understood.

The uncertain location of faults and intrusions limits the generation of Indicated resources. It is considered that blocks captured in the first run can be assigned sufficient geology and grade confidence to allow classification as Indicated resources. Blocks captured in run 2 and run 3 are categorised as Inferred resources.

14.14 Resource Estimate Reporting

Updated mineral resources at the Eagle Mountain project are of Inferred and Indicated categories only. Only mineral resources were identified in this update. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The “reasonable prospects for economic extraction” requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade taking into account possible extraction scenarios and processing recoveries. ACA Howe considers that the gold mineralization identified at Eagle Mountain may be amenable to open pit extraction.

Mineral resources were defined using a “block cut-off”² grade of 0.5 g/tonne gold. Assuming a typical mining recovery of 95%, a typical overall processing recovery of 90%, a typical smelter return of 98% and a 3 year trailing average gold price of approximately \$US 1450 per ounce, a tonne of rock with that grade would have a potential revenue of approximately \$US 20, thus 0.5 g/tonne is considered to be a reasonable block cut-off grade for conventional surface mining and processing – the most likely mining method that would be applied to this deposit.

² The grade at which it is possible to mine and process an exposed block (*i.e.*: stripping not included).



The volume of non-mineralized dike rocks has not been deleted from the mineral resource volume.

The 2012 mineral resource estimate update for the Eagle Mountain Gold Property was prepared in accordance with CIM Standards on Mineral Resources and Reserves (adopted November 27, 2010) and is reported in accordance with the Canadian Securities Administrators' NI 43-101. Resources estimated in the course of this study have an effective date of November 21, 2012.

The total non-diluted Indicated mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 3,921,000 tonnes at 1.49 g/tonne gold for 188,000 ounces gold. The total non-diluted Inferred mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 20,635,000 tonnes at 1.19 g/tonne gold for 792,000 ounces gold.

The resource update, summarized by resource category and material zone, is presented in Table 14-12.



Table 14-12: Eagle Mountain 2012 Mineral Resource Update (0.5 g/t Au cutoff)

Category	Zone	Material	Density (t/m ³)	Volume (m ³)	Tonnes	Au_ppm	Ounces Au
Indicated	Zion	Saprolite	1.60	538,000	860,000	1.42	39,000
		Fresh	2.60	436,000	1,134,000	1.40	51,000
		Total	2.03	974,000	1,994,000	1.41	90,000
	Kilroy	Saprolite	1.60	456,000	730,000	1.49	35,000
		Fresh	2.60	461,000	1,197,000	1.63	63,000
		Total	2.08	917,000	1,927,000	1.58	98,000
	All	Saprolite	1.60	994,000	1,590,000	1.45	74,000
		Fresh	2.60	897,000	2,331,000	1.52	114,000
		Total	2.05	1,890,000	3,921,000	1.49	188,000
Inferred	Zion	Saprolite	1.60	2,671,000	4,274,000	1.31	180,000
		Fresh	2.60	3,035,000	7,891,000	1.13	286,000
		Total	2.16	5,706,000	12,165,000	1.19	466,000
	Kilroy	Saprolite	1.60	1,831,000	2,929,000	1.33	126,000
		Fresh	2.60	2,132,000	5,542,000	1.12	200,000
		Total	2.25	3,962,000	8,471,000	1.20	326,000
	All	Saprolite	1.60	4,502,000	7,202,000	1.32	306,000
		Fresh	2.60	5,167,000	13,433,000	1.13	486,000
		Total	2.19	9,668,000	20,635,000	1.19	792,000

Notes for mineral resource estimate:

1. A block cut-off value of 0.5 g/t Au was applied to all resource blocks.
2. Tonnes and ounces have been rounded to reflect the relative accuracy of the mineral resource estimate; therefore numbers may not total correctly.
3. A notional cut-off gold grade for mineralized domain interpretation was 0.2 g/tonne Au.
4. A top cut of 20 g/tonne Au was applied to raw assay values.
5. Compositing Diamond drill hole and trench samples are assigned to 29 layered and fault bound resource domains that encompass the Zion and Kilroy portions of the deposit.
6. Corresponding domain blocks and composite samples are projected to a horizontal plane for grade estimation by Ordinary Kriging.
7. The block model is constrained by topography and saprolite and fresh weathering domains with bulk density values of 1.6 t/m³ and 2.6 t/m³ respectively assigned.
8. Mineral Resource tonnes quoted are not diluted.
9. Mineral resources are not mineral reserves and by definition do not demonstrate economic viability. This mineral resource estimate includes inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated resource categories through further drilling, or into mineral reserves, once economic considerations are applied.



Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect the Eagle Mountain mineral resource estimate. However at the time of this report, Howe is unaware of any such potential issues affecting the resource and properties. There are 24 legal small scale mining permits within the licence area. These are not considered to constitute a major risk to the future development of the Eagle Mountain project.

14.15 Grade Sensitivity Analysis

The mineral resources of the Eagle Mountain deposit are sensitive to the selection of block cut-off grade. To illustrate this sensitivity, global model quantities and grade estimates are presented in **Table 14-13** at four different block cut-off grades of 0.3, 0.5, 0.7 and 1.0 g/tonne Au in order to better understand the influence of grade on the size of the resource. The reader is cautioned that the figures presented in this table should not be misconstrued with a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of block cut-off grade.

Table 14-13: 2012 Global Block Model Quantities and Grade Estimates at various cut-off grades

Material	Cut Off Au ppm	Density (t/m3)	Tonnes (000's)	Gold Grade (g/t Au)	Ounces Au
Saprolite (oxide)	0.3	1.60	11,188	1.14	411,000
	0.5	1.60	8,792	1.34	380,000
	0.7	1.60	6,754	1.57	341,000
	1	1.60	4,697	1.89	285,000
Fresh Rock (non-oxidized)	0.3	2.60	21,796	0.96	676,000
	0.5	2.60	15,764	1.18	600,000
	0.7	2.60	11,288	1.42	515,000
	1	2.60	7,051	1.77	401,000
Total	0.3	2.21	32,984	1.02	1,087,000
	0.5	2.18	24,556	1.24	980,000
	0.7	2.16	18,042	1.48	856,000
	1	2.08	11,748	1.82	686,000

The reader is cautioned that the figures presented in this table should not be misconstrued as a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of block cut-off grade.

14.16 Comparison with 2009/2010 Mineral Resource Estimation and Grade Sensitivity Results

The 2009 IAMGOLD/2010 Howe audited mineral resources at the Eagle Mountain project were of the Inferred category only. Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold. The total non-diluted Inferred resource (hosted by saprolite (oxide) and “fresh” (non-oxidized) rock) was 17,959,000 tonnes at 1.27 g/tonne gold for 733,500 ounces gold. The volume of non-mineralized dike rocks was not deleted from the mineral resource volume.



The mineral resources of the Eagle Mountain deposit are sensitive to the selection of block cut-off grade. To illustrate this sensitivity, the 2009/2010 global model quantities and grade estimates are presented in **Table 14-14** at four different block cut-off grades of 0.3, 0.5, 0.7 and 1.0 g/tonne Au in order to better understand the influence of grade on the size of the resource. The reader is cautioned that the figures presented in this table should not be misconstrued with a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of block cut-off grade.

Table 14-14: 2009/2010 Global Block Model Quantities and Grade Estimates at various cut-off grades

Material	Cut Off Au ppm	Density (t/m ³)	Tonnes (000's)	Gold Grade (g/t Au)	Ounces Au
Saprolite (oxide)	0.3	1.60	8,219	1.11	294,100
	0.5	1.60	6,248	1.34	268,300
	0.7	1.60	4,861	1.55	242,200
	1	1.60	3,415	1.85	203000
Fresh Rock (non-oxidized)	0.3	2.70	13,881	1.11	493,600
	0.5	2.70	11,711	1.24	465,100
	0.7	2.70	8,409	1.49	402,600
	1	2.70	6,102	1.74	340900
Total	0.3	2.18	22,100	1.11	787,800
	0.5	2.21	17,959	1.27	733,500
	0.7	2.18	13,270	1.51	644,800
	1	2.19	9,517	1.78	543900

The reader is cautioned that the figures presented in this table should not be misconstrued as a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of block cut-off grade.



The change in the global block model quantities and grade estimates (sensitivities) from 2009 to 2012 is detailed in Table 14-15 at four different block cut-off grades of 0.3, 0.5, 0.7 and 1.0 g/tonne Au.

Table 14-15: Change in Global Block Model Quantities and Grade Estimates at various cut-off grades from 2009 to 2012

Material	Cut Off Au ppm	Density (t/m3)		Tonnes (000's)		Gold Grade (g/t Au)		Ounces Au	
		Δ	%	Δ	%	Δ	%	Δ	%
Saprolite (oxide)	0.3	0.00	0.0%	2,969	36%	0.03	2.7%	116,900	40%
	0.5	0.00	0.0%	2,544	41%	0.00	0.0%	111,700	42%
	0.7	0.00	0.0%	1,893	39%	0.02	1.3%	98,800	41%
	1	0.00	0.0%	1,282	38%	0.04	2.2%	82,000	40%
Fresh Rock (non-oxidized)	0.3	-0.10	-3.7%	7,915	57%	-0.15	-13.5%	182,400	37%
	0.5	-0.10	-3.7%	4,053	35%	-0.06	-4.8%	134,900	29%
	0.7	-0.10	-3.7%	2,879	34%	-0.07	-4.7%	112,400	28%
	1	-0.10	-3.7%	949	16%	0.03	1.7%	60,100	18%
Total	0.3	0.03	1.3%	10,884	49%	-0.09	-8.1%	299,200	38%
	0.5	-0.04	-1.6%	6,597	37%	-0.03	-2.4%	246,500	34%
	0.7	-0.02	-1.0%	4,772	36%	-0.03	-2.0%	211,200	33%
	1	-0.11	-5.0%	2,231	23%	0.04	2.2%	142,100	26%

The reader is cautioned that the figures presented in this table should not be misconstrued as a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of block cut-off grade.



15 ADJACENT PROPERTIES

There are no significant mineral properties adjacent to the EMPL other than tenements owned by small-scale miners. The 24 small scale mining claims located inside the EMPL have been verified by the GGMC as valid.

16 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant information known to Howe that would make this Report more understandable or if undisclosed would make this Report misleading.



17 INTERPRETATION AND CONCLUSIONS

17.1 Eagle Mountain Property

The Eagle Mountain project has been explored by numerous companies and mined by various small-scale operators. Alluvial gold has been exploited in the area since at least 1884, with an estimated 1Moz of gold produced from alluvial and eluvial sources.

Howe has reviewed the Eagle Mountain and Mowasi project data provided by EMGC, including the drilling database, has visited the site and has reviewed sampling procedures and security. Howe believes that the data presented by the company is generally an accurate and reasonable representation of the Eagle Mountain mineralization and Mowasi exploration results to date. Howe concludes that the database for the Eagle Mountain project is of sufficient quality to permit the completion a NI 43-101 compliant Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.

Work completed by the Company has confirmed the grade of mineralization outlined by previous operators, provided further detail on the extent and nature of the mineralized zones, resulted in a re-interpreted geological model incorporating post-mineral faulting and permitted the completion of an updated NI 43-101 mineral resource estimate.

A systematic QA/QC protocol was introduced at the commencement of the 2007 OGML/IAMGOLD drilling campaign to monitor the accuracy and precision of analytical results. EMGC has continued the QA/QC protocol. The majority of the older drilling data on which the mineral resource estimate is based has little or no documented QA/QC protocol. QA/QC results to date indicate that there are no major problems with the accuracy of the analyses. The current sampling and analytical protocols are considered by Howe to be appropriate but additional duplicate core sampling is recommended.

Following completion of IAMGOLD's October 2009 mineral resource estimate, additional bulk density data was collected from a variety of fresh and saprolitic, mineralized and non-mineralized rock types. The most significant result of this testwork is that the "Fresh" (non-oxidized) mineralized zones have a bulk density of approximately 2.60, representing an approximate 4% reduction from the value of 2.70 used for the October 2009 IAMGOLD mineral resource estimate. The new bulk density data has been incorporated the current 2012 update.

Based on an additional 73 EMGC diamond drill holes completed in 2011 and an EMGC reinterpreted geological model, in November 2012 Howe updated IAMGOLD's 2009 Eagle Mountain mineral resource estimate and Howe's 2010 mineral resource audit. The 2012 updated resources are of both inferred and indicated categories. Only mineral resources were identified in the update. No mineral reserves were identified. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold and a SG of 1.6 for saprolitic mineralization and 2.6 for "fresh" (non-oxidized) mineralization. The volume of non-mineralized dike rocks has not been deleted from the mineral resource volume.



EMGC's 2011 drill program has confirmed a significant resource at Eagle Mountain. The 2011 infill and step-out drilling added metal content (gold ounces) and resulted in the estimation of inferred and indicated resources; previously only inferred resources were identified. Utilizing a new fault block geological model, a mineral deposit comprising two zones has been outlined that is shallow dipping (-30°) and 1,950 metres northeast by 950 metres southeast in plan view and 5 to 60 metres in thickness.

The updated 2012 non-diluted indicated mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 3,921,000 tonnes at 1.49 g/tonne gold for 188,000 ounces gold. The updated 2012 non-diluted inferred mineral resource (hosted by saprolite (oxide) and "fresh" (non-oxidized) rock) is 20,635,000 tonnes at 1.19 g/tonne gold for 792,000 ounces gold.

The 2012 mineral resource estimate update for the Eagle Mountain Gold Project detailed in this report has been completed in accordance with CIM Standards on Mineral Resources and Reserves (adopted November 27, 2010) and is reported in accordance with the Canadian Securities Administrators' NI 43-101. Resources estimated in the course of this study have an effective date of November 21, 2012 and are summarized by resource category and material zone in Table 14-12.

Continued close-spaced grid drilling or trenching (on the order of 50m in selected areas) will be required to demonstrate the continuity of the main mineralized zones and to continue upgrading at least a portion of the current inferred resource to the indicated category.

The volume of non-mineralized dike rocks has not been deleted from the mineral resource volume. Known occurrences of volumetrically significant non-mineralized dike rocks should be modeled for future inclusion in the model.

A significant portion of the mineral resource occurs at or immediately below the surface. Consequently, the detailed Lidar topographic surveying of the Eagle Mountain Property should be completed to more accurately assess areas where the resource is incised by erosion and how much pre-stripping will be required to expose the mineralization where it is not at surface.

Howe concludes that the Eagle Mountain Property warrants additional exploration expenditures.

17.2 Mowasi Property

Howe has reviewed the Mowasi project data provided by EMGC, has visited the site and has reviewed sampling procedures and security. The Property is an early "grassroots" stage exploration project. Howe believes that the data presented by the company is generally an accurate and reasonable representation of the Mowasi exploration results to date. Howe concludes that the Mowasi database, although limited and at an early stage, is of sufficient quality to provide the basis for the conclusions and recommendations reached in this Report.

The geology is in general favourable in the Northern block and the northerly claims of the Southern block and given the interpreted regional structures there is potential to define gold



mineralization. The Southern block area would need significant mapping to determine if the dolerite is simply a cap to a possible gold mineralized host rock as it is at Eagle Mountain or if the gold presently being mined by artisanal miners from alluvial sources is derived from a different source area.

Gold drainage assays suggest a strong anomalous area in the northern part of the south claim block. Gold assays are not significantly anomalous in the north claim block, but there are significant artisanal workings to suggest that the gold results may be masked by tailings from the workings.

EMGC concludes that follow-up work is warranted in the northern part of the south claim block where the drainage geochemistry results show good gold values in both the drainage sample and pan results and the one rock sample. EMGC also concludes that follow-up work should also be conducted in the central part of the north claim block where, although the drainage geochemistry results were poor, there is significant number of artisanal pits in saprolite and a number of rock samples returned greater than 0.5 g/t Au. Initial follow-up work should include soil/auger sampling of these areas to define soil anomalies and continued mapping of the artisanal pits and workings. Howe concurs with EMGC's conclusions and suggested follow-up work.

Howe concludes that the Mowasi Property warrants additional exploration expenditures.



18 RECOMMENDATIONS

18.1 Eagle Mountain Property

Howe recommends that:

1. A systematic QA/QC protocol should be continued with the insertion of standards, blanks and duplicates into the sample stream in order to monitor the accuracy and precision of analytical results.
2. Given the lack of QA/QC information and documentation of sampling and assaying methodologies for the historic drill core (pre-2007), EMGC should conduct a check sampling program using available archived drill core.
3. The detailed Lidar topographic surveying of the mineral resource area should be completed to more accurately assess areas where the resource is incised by erosion and how much pre-stripping will be required to expose the mineralization where it is not at surface.
4. Surface and outcrop mapping should continue to identify dykes and faults and to generate a more definitive structural interpretation.
5. Diamond drilling should continue on the Eagle Mountain resource estimate area to (a) expand Inferred mineral resources along strike and (b) further upgrade Inferred resources to Indicated resources.
6. Specific gravity measurements should be continued on representative Eagle Mountain samples, particularly the mineralized zones during future drill programs. Check samples should be completed at an independent third party laboratory.
7. Additional metallurgical work, consisting of gravity, cyanide and flotation test work should be carried out on representative samples. This laboratory-scale work would take 1-2 months. The goal of this work would be to develop a preliminary mineral processing flowsheet that could be used during potential future preliminary economic analyses.
8. Because of its extended timeline, Environmental Impact and Social Assessment studies (EISA) necessary for a Mining Licence application should be considered. EMGC should confirm that weather data it has collected to date is sufficient for the application and flora and fauna studies should be initiated by an approved local environmental consultant.
9. Future resource estimates should attempt to model known occurrences of volumetrically significant non-mineralized dike rocks.
10. A Preliminary Economic Assessment (PEA) should be conducted on the Eagle Mountain mineral resource.
11. Subject to successful PEA results, further feasibility studies work should be scheduled.



EMGC has proposed the following two phase Eagle Mountain Property work program budget for 2013 that will incorporate Howe's recommendations. Howe finds the proposed budget reasonable.

Eagle Mountain 2013 Phase 1

License & permits:	\$55,000
Preliminary Economic Assessment studies:	\$175,000
Drilling & Analytical costs:	\$1,881,000
Mineralogical & Metallurgical tests and studies:	\$150,000
Environmental Base Study and EIA:	\$148,000
Other engineering work:	\$125,000
Labour costs & local salaries:	\$489,000
Camp costs and maintenance:	\$115,000
	<u>Total US\$ 3,138,000</u>

Eagle Mountain 2013 Phase 2 (subject to successful PEA results)

Feasibility Studies direct costs:	\$450,000
	<u>Total US\$ 450,000</u>

Grand Total US\$ 3,588,000

18.2 Mowasi Property

EMGC has recommended and Howe concurs:

1. 56 line km of auger samples at 400m line spacing and 50 m sample spacing with an estimated 1120 sample sites (5600 samples) to cover the 2012 EMGC anomalous drainage geochemistry area in the Southern Mowasi Claims.
2. 35 line km of auger samples at 50 m sample spacing with an estimated 700 sample sites (3500 samples) to cover the 2012 EMGC weakly anomalous drainage geochemistry area (but associated with significant artisanal workings and rock samples with significant gold assays).
3. 19 line km of auger samples at 50 m sample spacing with an estimated 380 sample sites (1900 samples) to cover the a anomalous drainage geochemistry (gold) area in the Breakfast Creek area of the Northern Mowasi Block and northeast corner of the EMPL.

Howe also recommends that:

4. EMGC work with Mowasi to determine the validity of the small scale mining activity within the Mowasi permits, particularly within the areas identified for follow-up exploration.



EMGC has proposed the following Mowasi Property work program budget for 2013 that will incorporate the above recommendations. Howe finds the proposed budget reasonable.

Mowasi 2013

License & permits:	\$35,000
Exploration work (auger sampling all inclusive)	<u>\$225,000</u>
Total	<u>US\$ 260,000</u>



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20 DATE AND SIGNATURE PAGE

This report titled “Technical Report and Mineral Resource Update on the Eagle Mountain Gold and Mowasi Projects, Guyana” for Eagle Mountain Gold Corp. dated November 21, 2012, was prepared and signed by the following authors:

“Signed and Sealed”

Dated at Toronto, Ontario
November 21, 2012

Ian D. Trinder, M.Sc., P.Geo.
Senior Geologist
A.C.A. Howe International Limited



21 CERTIFICATES OF QUALIFICATIONS



CERTIFICATE of AUTHOR

I, Ian D. Trinder, M.Sc., P.Geo. (ON, MAN), do hereby certify that:

1. I reside at 4185 Taffey Crescent, Mississauga, Ontario, L5L 2A6.
2. I am employed as senior geologist with the firm of A.C.A. Howe International Limited, Mining and Geological Consultants located at 365 Bay St., Suite 501, Toronto, Ontario, Canada. M5H 2V1.
3. I graduated with a degree in Bachelor of Science Honours, Geology, from the University of Manitoba in 1983 and a Master of Science, Geology, from the University of Western Ontario in 1989.
4. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM, No. 22924) and with the Association of Professional Geoscientists of Ontario (APGO, No. 452). I am a member of the Society of Economic Geologists and of the Prospectors and Developers Association of Canada.
5. I have over 25 years of direct experience with precious and base metals mineral exploration in Canada, USA and the Philippines including project evaluation and management. Additional experience includes the completion of various National Policy 2A and NI 43-101 technical reports for gold and base metal projects.
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I am author of the technical report titled: “Technical Report and Mineral Resource Update on the Eagle Mountain Gold and Mowasi Projects, Guyana” for Eagle Mountain Gold Corp. dated November 21, 2012. I am responsible for all Sections of the report. I visited the Eagle Mountain Gold Project from October 9th to 12th, 2010 and again September 17th to 21st, 2012 including a short visit to the Mowasi Property.
8. I previously co-authored the technical report titled: “Technical Report and Mineral Resource Audit on the Eagle Mountain Gold Project, Guyana” for Stronghold Metals Inc. dated November 12, 2010.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report and the omission to disclose which would make the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.
12. 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, of the Technical Report.

Dated this 21th Day of November 2012.

“Signed and Sealed”

Ian D. Trinder, M.Sc., P. Geo.

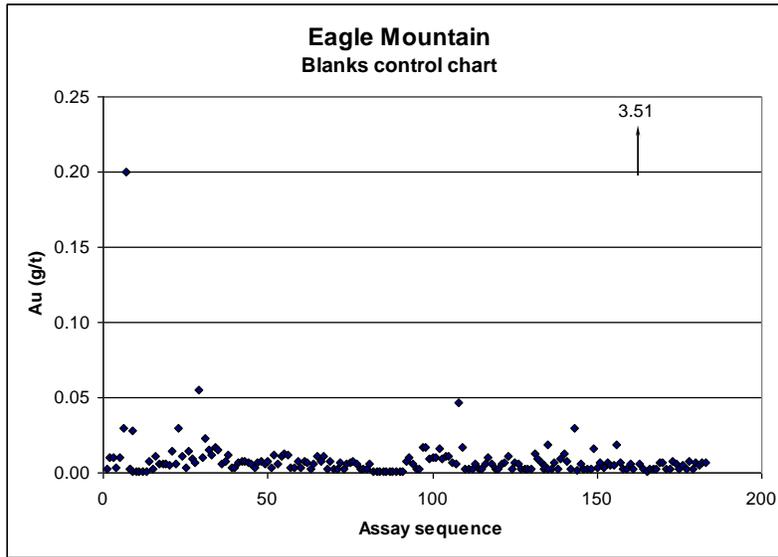


APPENDIX 1

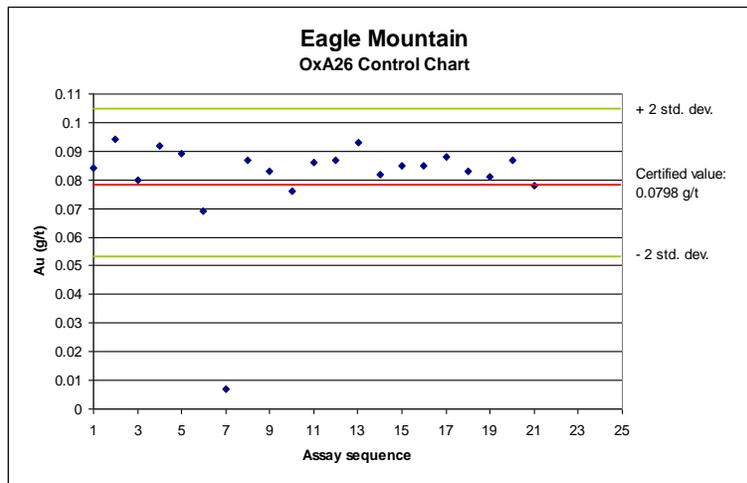
ASSAY QUALITY ASSURANCE AND QUALITY CONTROL PLOTS



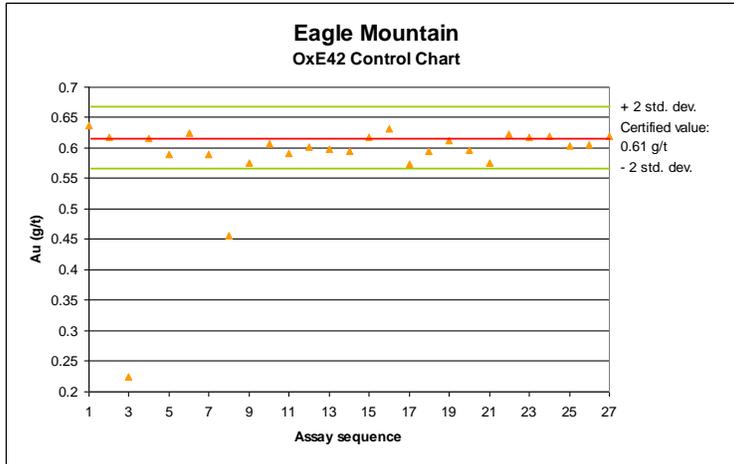
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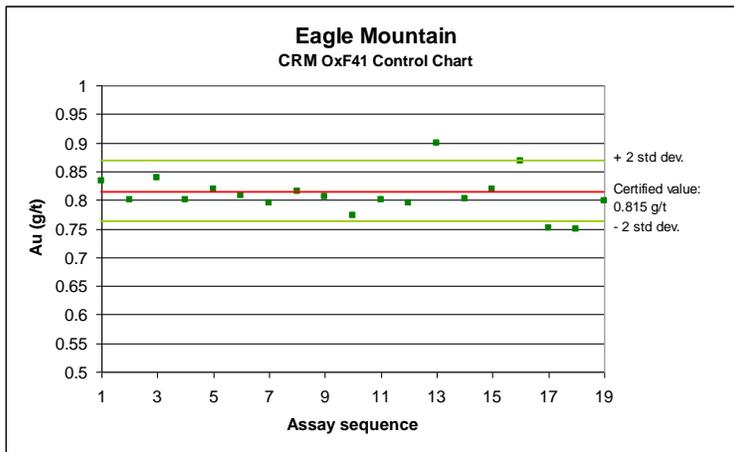
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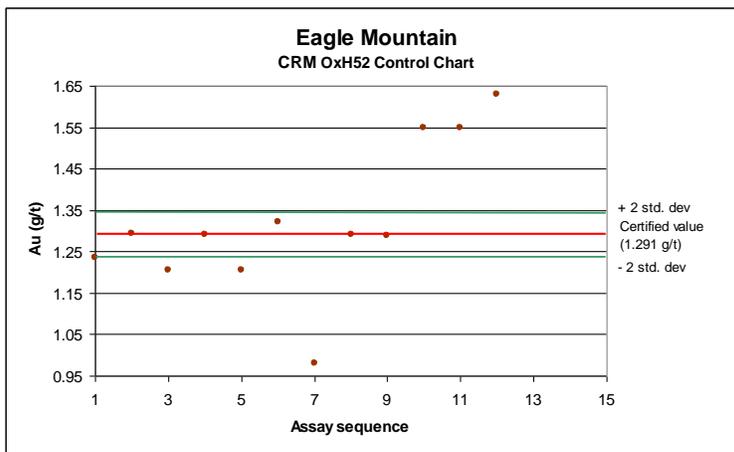
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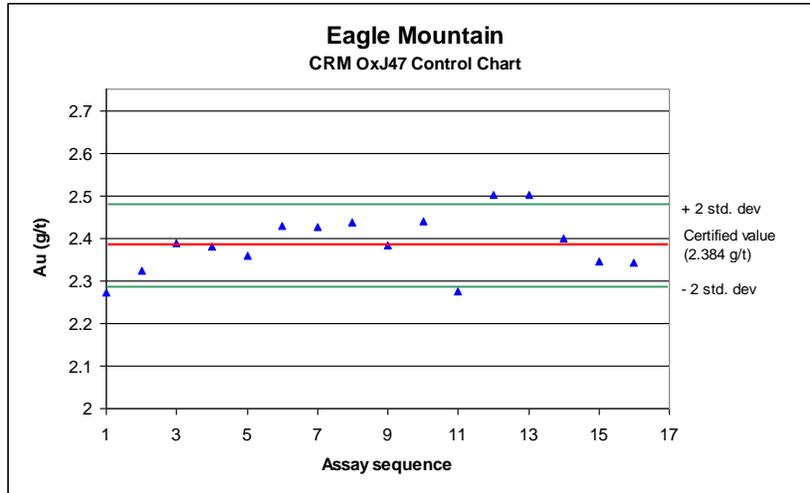
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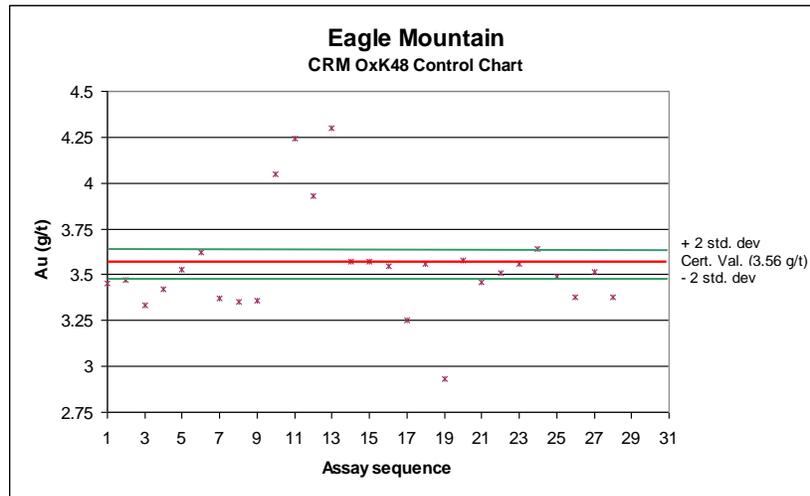
Standard OxF41 Control Chart



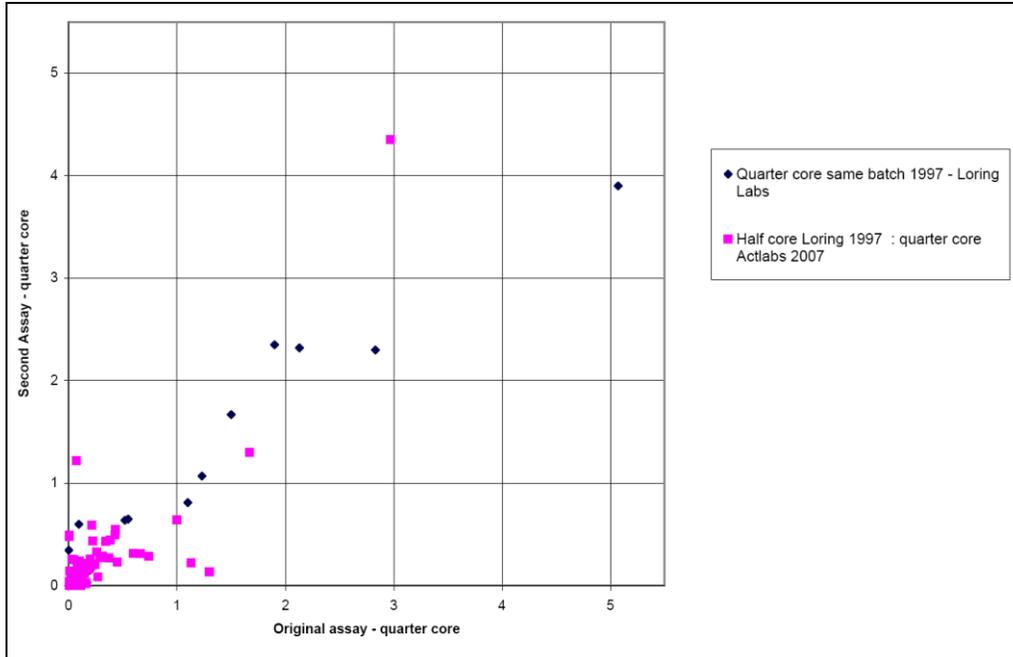
Standard OXH52 Control Chart



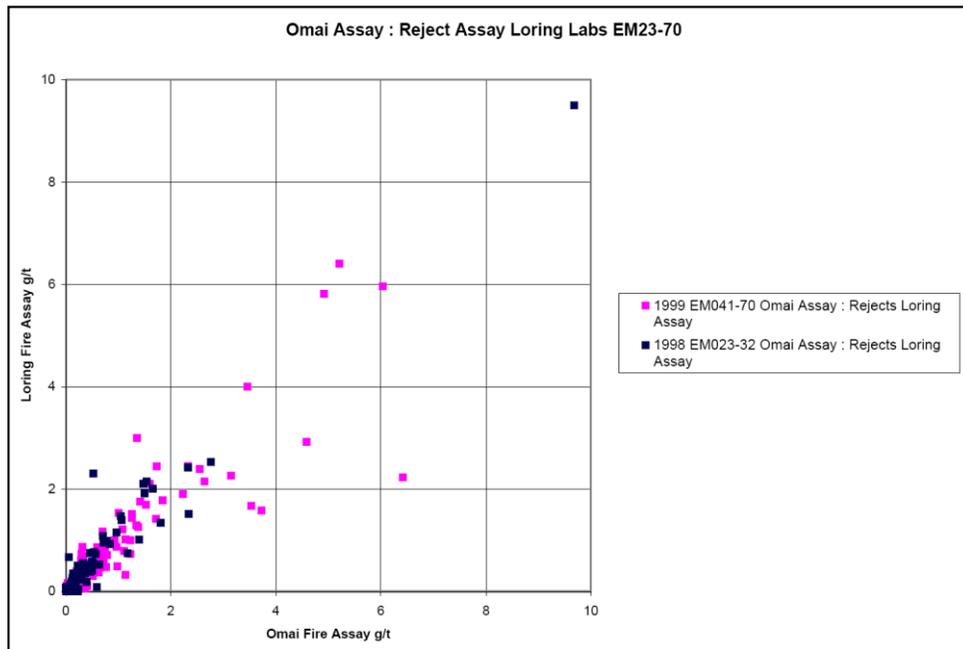
Standard OxJ47 Control Chart



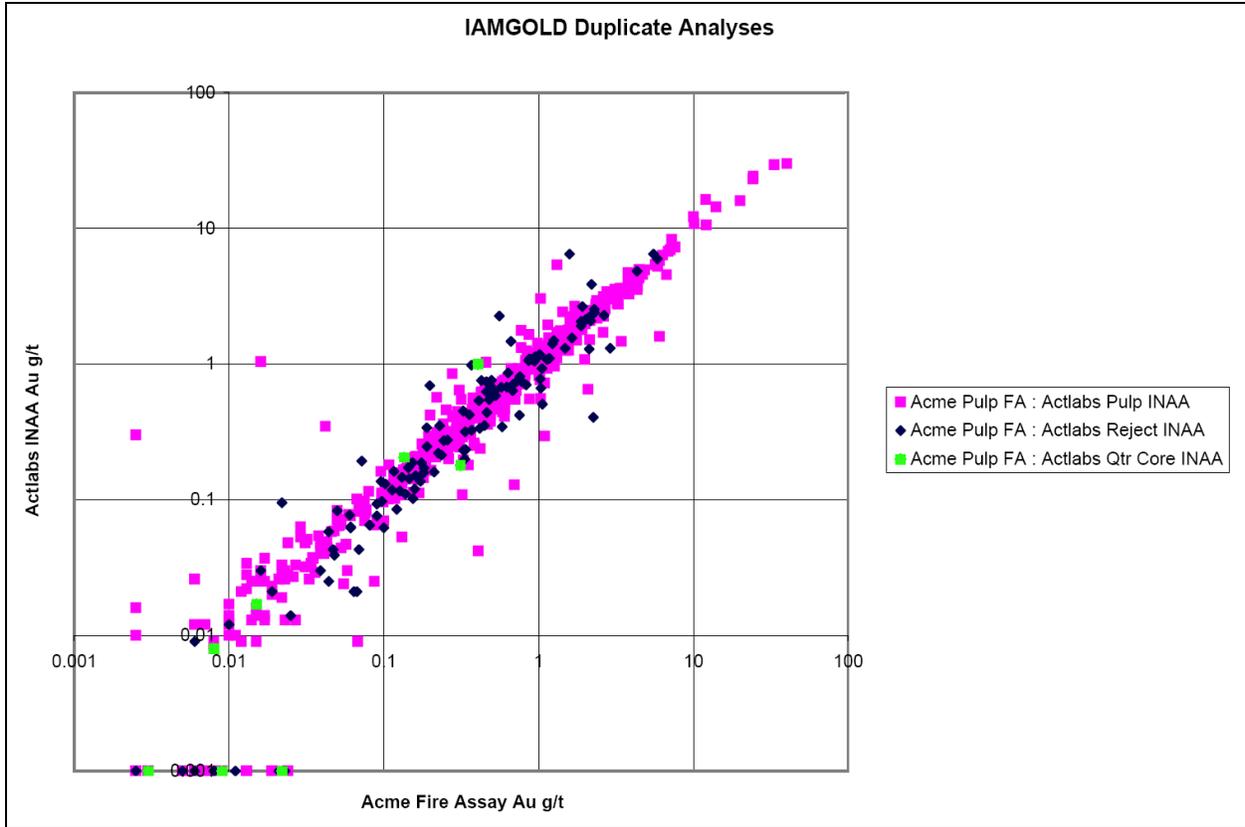
Standard OxK48 Control Chart



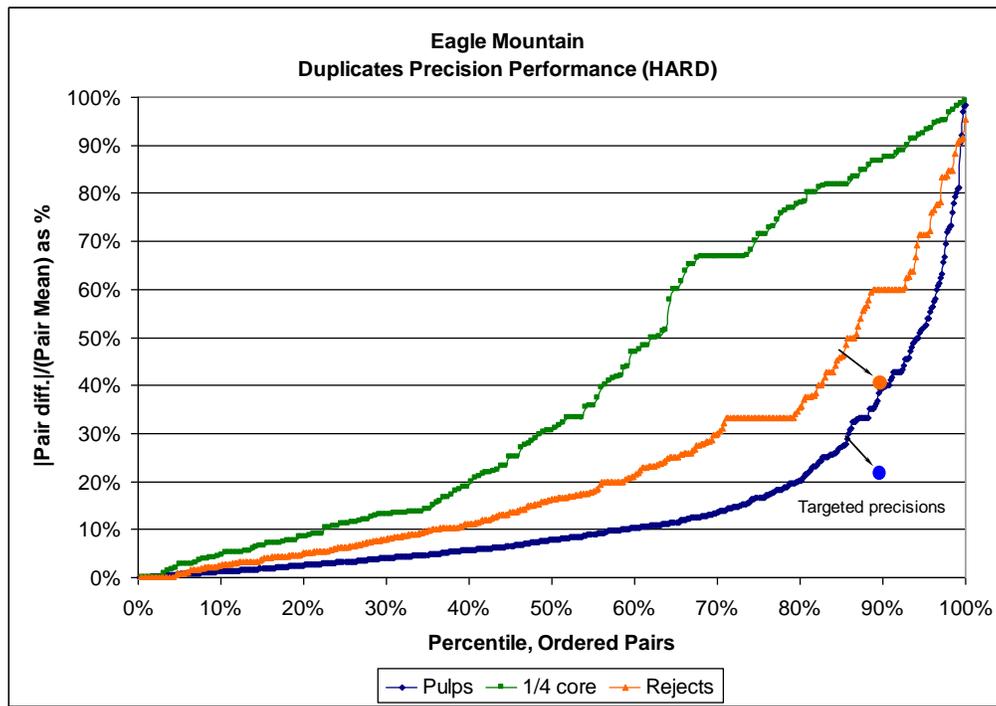
EM001-021 core duplicate assays.



EM023-032 and EM041-070 reject analysis



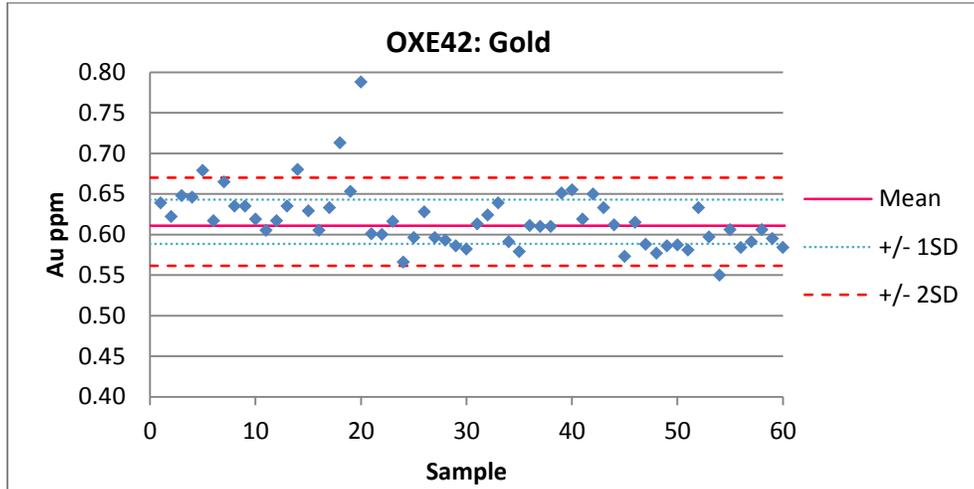
2007-2009 pulp, reject and quarter core duplicate analysis



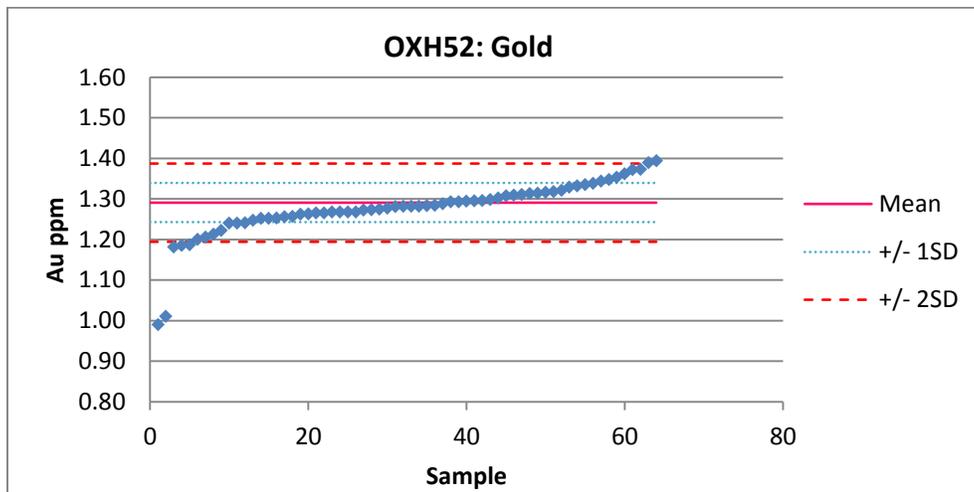
2007-2009 duplicate precision analysis



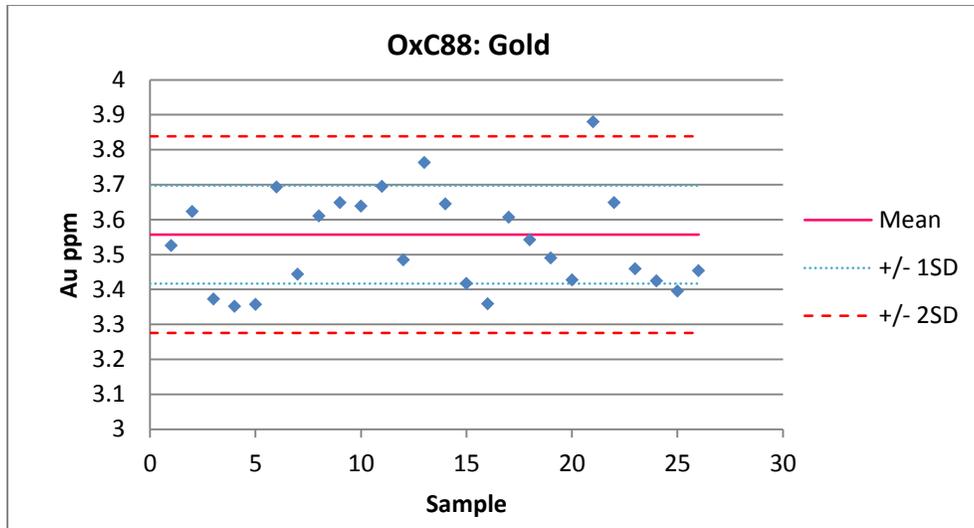
2011 EMGC QA/QC PLOTS



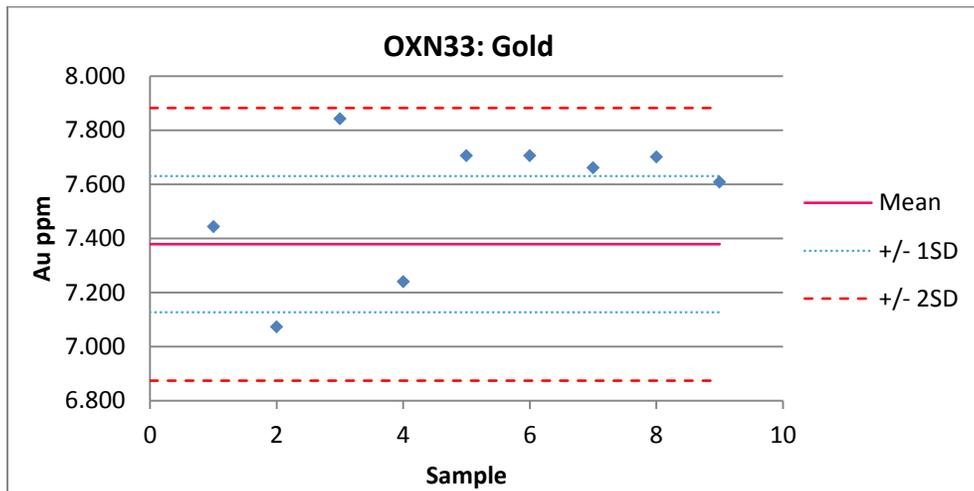
2011 Standard OxE42 Control Chart



2011 Standard OxH52 Control Chart



2011 Standard OxC88 Control Chart

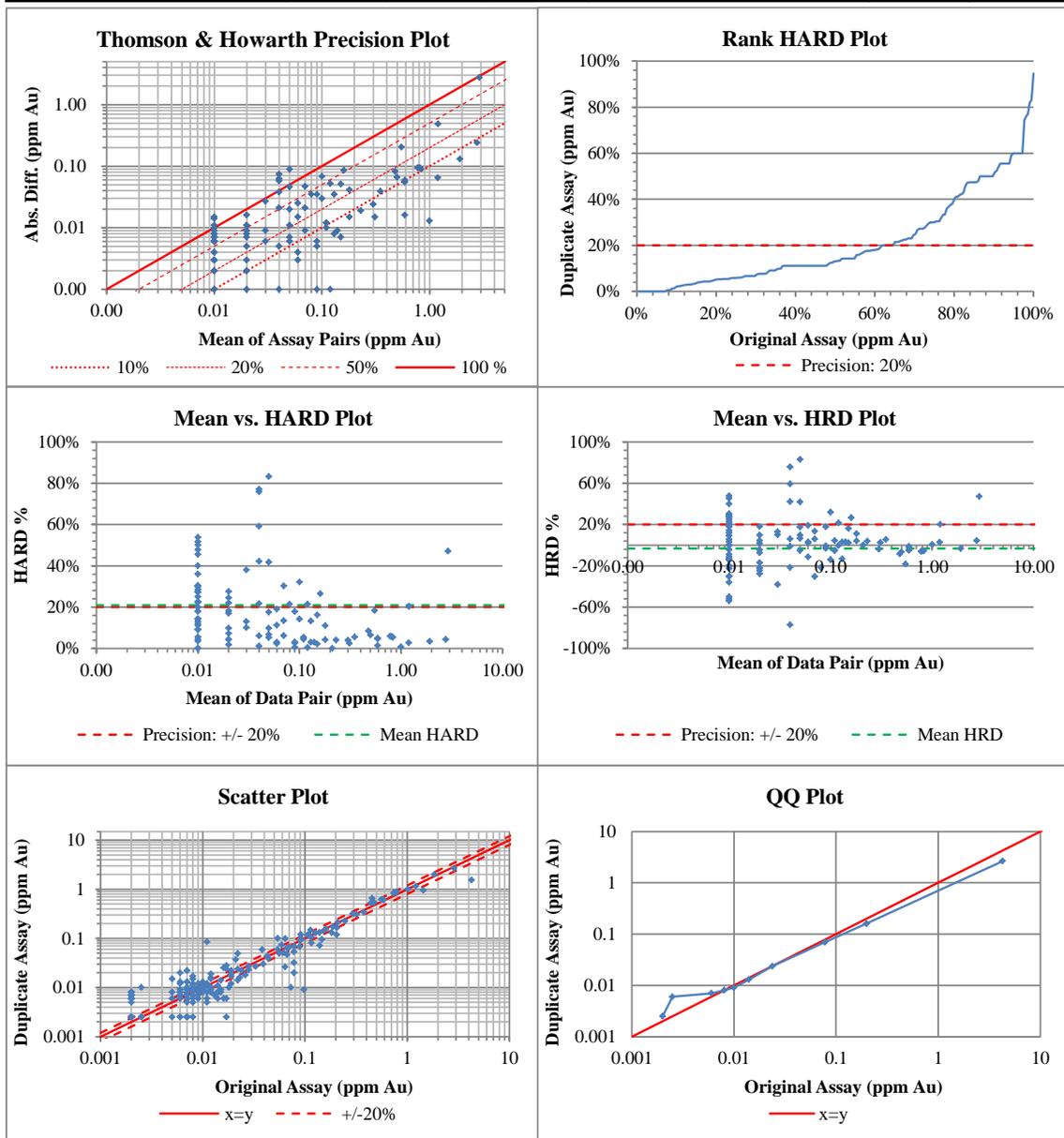


2011 Standard Oxn33 Control Chart



2011 DIAMOND DRILL SAMPLE COARSE DUPLICATE ASSAY DATA

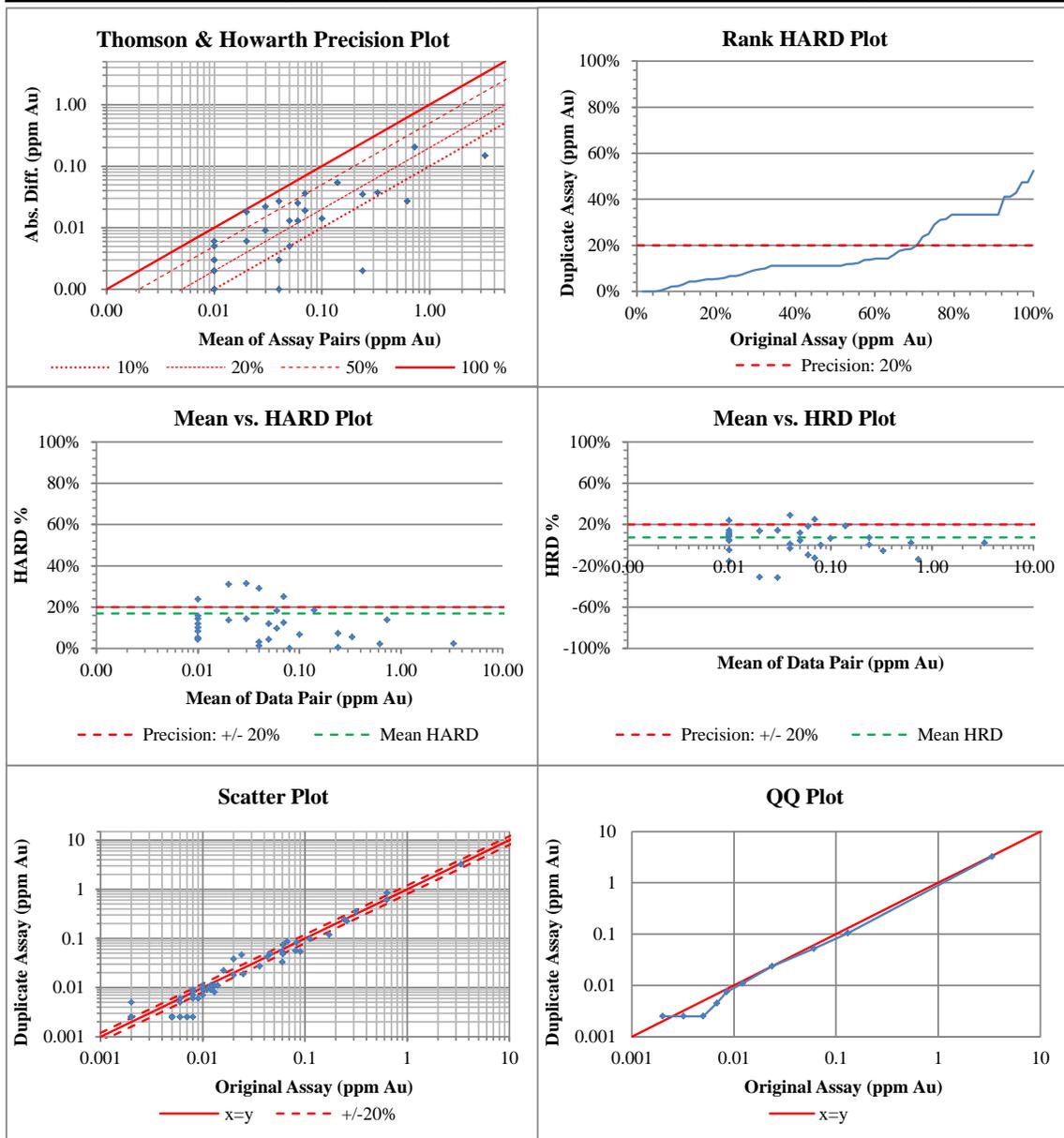
Item	Original	Duplicate	Units	Item	Paired	Units
Number of Pairs	215	215	n	Total Mean	0.11	ppm Au
Mean	0.12	0.10	ppm Au	Difference of Means	0.01	ppm Au
Minimum	0.00	0.00	ppm Au	Mean HARD	21.01	%
Maximum	4.28	2.65	ppm Au	Mean HRD	- 3.30	%
Standard Deviation	0.41	0.30	ppm Au	Pearson Correlation	0.90	
Coefficient of Variation	3.57	3.00		Regression Slope	0.81	R2
Within +/- 20% of mean	29.77	31.63	%	HARD Values within +/- 20%	64.19	%





2011 DIAMOND DRILL SAMPLE PULP DUPLICATE ASSAY DATA

Item	Original	Duplicate	Units	Item	Paired	Units
Number of Pairs	68	68	n	Total Mean	0.10	ppm Au
Mean	0.10	0.10	ppm Au	Difference of Means	0.00	ppm Au
Minimum	0.00	0.00	ppm Au	Mean HARD	17.00	%
Maximum	3.37	3.23	ppm Au	Mean HRD	7.57	%
Standard Deviation	0.42	0.41	ppm Au	Pearson Correlation	1.00	
Coefficient of Variation	4.20	4.16		Regression Slope	0.99	R2
Within +/- 20% of mean	30.88	35.29	%	HARD Values within +/- 20%	70.59	%





APPENDIX 2

COMPOSITES USED IN RESOURCE ESTIMATION



Composite Intervals Used in Resource Estimation

Domain	Block Code	Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	Gold (g/t Au)	Sample Type	Easting (mUTM)	Northing (mUTM)	RL (m)
Kilroy A	KR01A	EM009	15.00	18.00	3.00	2.65	0.137	DDH	265158	575904	233
Kilroy A	KR01A	EM009A	11.00	14.00	3.00	2.93	0.295	DDH	265151	575898	233
Kilroy A	KR01A	EM010	14.00	16.00	2.00	1.52	0.060	DDH	265155	575890	234
Kilroy A	KR01A	EM011	13.00	16.00	3.00	2.93	0.303	DDH	265271	575941	283
Kilroy A	KR01A	EM0203A	0.00	6.00	6.00	5.86	0.048	DDH	265233	575833	274
Kilroy A	KR01A	EM023	0.00	4.00	4.00	3.91	0.071	DDH	265234	575833	273
Kilroy A	KR01A	EM024	3.00	6.00	3.00	2.93	0.070	DDH	265276	575856	283
Kilroy A	KR01A	EM025	10.00	14.00	4.00	3.91	0.461	DDH	265357	575934	290
Kilroy A	KR01A	EM027	0.00	12.00	12.00	11.72	0.537	DDH	265319	576015	296
Kilroy A	KR01A	EM99-404A	3.00	6.00	3.00	2.93	0.250	DDH	265314	575921	292
Kilroy A	KR01A	EM99-44	3.00	6.00	3.00	2.93	0.500	DDH	265315	575922	292
Kilroy A	KR01A	EM99-58	14.50	22.50	8.00	7.81	1.988	DDH	265284	575982	282
Kilroy A	KR01A	EM99-61	3.00	15.00	12.00	11.81	0.866	DDH	265243	575897	273
Kilroy A	KR01A	EM99-62	12.00	20.00	8.00	7.81	0.601	DDH	265363	575902	285
Kilroy A	KR01A	EMD08_29	0.00	5.00	5.00	4.03	0.144	DDH	265314	575830	281
Kilroy A	KR02A	EM022	1.00	9.00	8.00	7.81	0.308	DDH	265060	575797	239
Kilroy A	KR02A	EM99-41	3.00	5.00	2.00	1.95	0.440	DDH	265202	575811	259
Kilroy A	KR03A	EM0007A	0.00	11.00	11.00	10.74	1.299	DDH	265138	576011	242
Kilroy A	KR03A	EM007	1.00	11.00	10.00	8.86	3.513	DDH	265142	576013	243
Kilroy A	KR03A	EM008	0.00	14.00	14.00	10.64	2.544	DDH	265142	576006	242
Kilroy A	KR03A	EM99-68	6.00	26.00	20.00	19.53	1.046	DDH	265136	575913	223
Kilroy A	KR03A	EMT01	0.00	20.00	20.00	1.07	3.183	Trench	265150	576009	253
Kilroy A	KR03A	EMT01A	0.00	12.30	12.30	3.42	2.431	Trench	265151	576005	252
Kilroy A	KR04A	EM0002A	0.00	23.00	23.00	22.45	1.230	DDH	265230	576013	275
Kilroy A	KR04A	EM0004A	0.00	12.40	12.40	12.36	0.851	DDH	265224	576067	276
Kilroy A	KR04A	EM002	0.00	34.00	34.00	27.25	1.400	DDH	265228	576023	274
Kilroy A	KR04A	EM003	2.00	32.00	30.00	26.59	2.721	DDH	265271	576057	282
Kilroy A	KR04A	EM004	0.00	16.00	16.00	14.18	0.519	DDH	265228	576070	276
Kilroy A	KR04A	EM005	0.00	28.00	28.00	27.34	2.213	DDH	265262	576049	281
Kilroy A	KR04A	EM006	2.00	38.00	36.00	28.22	2.165	DDH	265272	576041	280
Kilroy A	KR04A	EM026	0.00	7.00	7.00	6.83	0.115	DDH	265390	576086	301
Kilroy A	KR04A	EM99-57	0.00	17.00	17.00	16.66	0.249	DDH	265329	576103	297
Kilroy A	KR04A	EMD08_26	2.00	10.00	8.00	5.86	0.188	DDH	265277	576106	296
Kilroy A	KR04A	EMD08_26	13.00	28.00	15.00	11.02	3.781	DDH	265271	576113	285
Kilroy A	KR04A	EMD11_044	0.00	1.00	1.00	0.88	0.018	DDH	265366	576118	300
Kilroy A	KR04A	EMD11_045	0.00	4.00	4.00	2.44	0.861	DDH	265230	576096	281
Kilroy A	KR04A	EMD11_045	7.00	16.00	9.00	5.48	2.821	DDH	265225	576093	274
Kilroy A	KR04A	EMD11_047	0.00	3.00	3.00	2.65	0.592	DDH	265309	576134	298
Kilroy A	KR04A	EMD11_047	4.00	17.00	13.00	11.50	1.520	DDH	265313	576138	291
Kilroy A	KR04A	EMD11_103	0.00	2.00	2.00	1.77	0.191	DDH	265366	576118	300
Kilroy A	KR04A	EMT002A	0.00	6.00	6.00	1.43	1.120	Trench	265228	576033	286
Kilroy A	KR04A	EMT01	23.00	35.00	12.00	2.27	2.295	Trench	265145	576027	253
Kilroy A	KR04A	EMT02	0.00	39.00	39.00	13.60	0.767	Trench	265223	576048	282
Kilroy A	KR04A	EMT04	0.00	36.60	36.60	29.50	0.976	Trench	265250	576136	284
Kilroy A	KR04A	EMT05	0.00	104.00	104.00	42.53	0.725	Trench	265295	576129	297
Kilroy A	KR04A	Wall_EMD11-47	0.00	3.00	3.00	2.93	1.023	Trench	265306	576132	297
Kilroy A	KR05A	EMD11_081	0.00	27.00	27.00	24.89	0.741	DDH	264954	576077	176
Kilroy A	KR05A	EMD11_082	0.00	14.00	14.00	12.82	1.255	DDH	264986	576148	197
Kilroy A	KR05A	EMD11_083	0.00	28.00	28.00	24.34	2.207	DDH	264959	576144	190
Kilroy A	KR05A	EMD11_084	0.00	3.00	3.00	2.65	0.000	DDH	265080	576179	243
Kilroy A	KR05A	Wall_EMD11-804A	0.00	3.50	3.50	3.42	0.593	Trench	265071	576175	207
Kilroy A	KR05A	Wall_EMD11-83	0.00	5.00	5.00	4.88	0.512	Trench	264955	576130	205
Kilroy A	KR06A	EMD08_24	12.00	48.00	36.00	23.08	1.600	DDH	264915	576230	202
Kilroy A	KR06A	EMD08_25	7.00	24.00	17.00	14.18	0.921	DDH	264937	576240	213
Kilroy A	KR06A	EMD08_26	10.00	13.00	3.00	2.20	0.170	DDH	265275	576109	292
Kilroy A	KR06A	EMD09_40	28.00	72.00	44.00	27.88	2.069	DDH	264896	576154	174
Kilroy A	KR06A	EMD09_41	0.00	13.00	13.00	8.02	0.860	DDH	265060	576221	245
Kilroy A	KR06A	EMD11_045	4.00	7.00	3.00	1.83	0.348	DDH	265228	576095	278
Kilroy A	KR06A	EMD11_047	3.00	4.00	1.00	0.88	0.242	DDH	265310	576135	296
Kilroy A	KR06A	EMD11_078	0.00	2.00	2.00	1.84	0.224	DDH	265108	576250	263
Kilroy A	KR06A	EMD11_079	4.00	23.00	19.00	17.52	0.000	DDH	265001	576230	222
Kilroy A	KR06A	EMD11_080	15.00	47.00	32.00	22.34	0.732	DDH	264944	576191	198



Domain	Block Code	Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	Gold (g/t Au)	Sample Type	Easting (mUTM)	Northing (mUTM)	RL (m)
Kilroy A	KR07A	EM0103A	0.00	16.70	16.70	11.75	1.092	DDH	265314	576288	294
Kilroy A	KR07A	EM013	0.00	24.00	24.00	16.89	1.532	DDH	265317	576286	291
Kilroy A	KR07A	EM014	0.00	19.00	19.00	13.39	0.832	DDH	265300	576355	290
Kilroy A	KR07A	EM015	0.00	21.00	21.00	19.67	1.039	DDH	265307	576296	290
Kilroy A	KR07A	EM035	0.00	12.00	12.00	11.72	0.345	DDH	265548	576478	334
Kilroy A	KR07A	EM036	0.00	9.00	9.00	8.79	0.206	DDH	265153	576324	269
Kilroy A	KR07A	EM037	3.00	8.00	5.00	4.88	0.466	DDH	265142	576306	266
Kilroy A	KR07A	EM038	0.00	13.00	13.00	12.69	0.073	DDH	265348	576498	311
Kilroy A	KR07A	EM039	0.00	8.00	8.00	7.81	2.188	DDH	265428	576380	316
Kilroy A	KR07A	EM99-49	0.00	5.00	5.00	4.88	0.391	DDH	265452	576447	321
Kilroy A	KR07A	EMD08_17	0.00	20.00	20.00	15.39	0.292	DDH	265189	576255	262
Kilroy A	KR07A	EMD08_19	0.00	19.00	19.00	16.83	0.302	DDH	265294	576535	302
Kilroy A	KR07A	EMD11_1102A	7.00	9.00	2.00	1.77	0.572	DDH	265549	576483	334
Kilroy A	KR07A	EMD11_111	0.00	18.00	18.00	15.98	0.679	DDH	265452	576476	321
Kilroy A	KR07A	EMD11_112	0.00	15.00	15.00	13.27	0.250	DDH	265543	576486	334
Kilroy A	KR07A	EMD11_113	0.00	3.00	3.00	2.66	0.640	DDH	265606	576530	353
Kilroy A	KR07A	EMD11_114	13.00	18.00	5.00	4.43	1.060	DDH	265476	576378	309
Kilroy A	KR07A	Ditch_E	53.00	70.50	17.50	2.32	0.494	Trench	264884	576342	212
Kilroy A	KR07A	EMT07	0.00	27.70	27.70	1.08	0.525	Trench	265267	576474	306
Kilroy A	KR07A	EMT11	9.00	12.30	3.30	0.26	0.970	Trench	265286	576347	296
Kilroy A	KR07A	EMT12	0.00	2.00	2.00	0.04	0.210	Trench	265373	576436	310
Kilroy A	KR07A	VGVN_TR	0.00	9.00	9.00	0.82	0.743	Trench	265292	576551	304
Kilroy A	KR07A	VGVN_TR1	0.00	0.50	0.50	0.49	0.119	Trench	265292	576547	304
Kilroy A	KR07A	VGVN_TR2	0.00	0.30	0.30	0.29	0.178	Trench	265292	576550	304
Kilroy A	KR07A	VGVN_TR3	0.00	0.60	0.60	0.59	0.490	Trench	265291	576554	304
Kilroy A	KR10A	EMD08_23	0.00	15.00	15.00	12.50	0.120	DDH	265170	576528	287
Kilroy A	KR10A	EMD08_31	1.00	16.00	15.00	9.24	0.089	DDH	265075	576509	258
Kilroy A	KR10A	EMD09_42	10.00	21.00	11.00	6.85	0.318	DDH	264926	576442	239
Kilroy A	KR10A	Ditch_E	0.00	53.00	53.00	6.53	0.422	Trench	264883	576376	221
Kilroy A	KR10A	Ditch_N	0.00	3.00	3.00	0.59	0.082	Trench	264877	576401	227
Kilroy A	KR10A	PPT9800	0.00	25.00	25.00	12.06	0.724	trench	264902	576448	242
Kilroy A	KR10A	PPT9825	0.00	5.00	5.00	1.80	0.330	Trench	264913	576455	243
Kilroy A	KR10A	PPT9831	1.00	5.00	4.00	1.18	0.355	Trench	264923	576463	244
Kilroy B	KR01B	EM009	23.00	33.00	10.00	8.84	0.967	DDH	265163	575909	224
Kilroy B	KR01B	EM009A	25.00	31.00	6.00	5.86	0.711	DDH	265151	575898	218
Kilroy B	KR01B	EM010	32.00	34.00	2.00	1.51	0.313	DDH	265163	575881	220
Kilroy B	KR01B	EM011	20.00	34.00	14.00	13.67	0.625	DDH	265271	575941	270
Kilroy B	KR01B	EM0203A	18.00	30.00	12.00	11.72	0.618	DDH	265233	575833	253
Kilroy B	KR01B	EM024	22.00	35.00	13.00	12.69	0.313	DDH	265276	575856	259
Kilroy B	KR01B	EM025	32.00	36.00	4.00	3.91	4.767	DDH	265357	575934	268
Kilroy B	KR01B	EM027	20.00	29.00	9.00	8.79	0.824	DDH	265319	576015	277
Kilroy B	KR01B	EM99-404A	18.00	38.00	20.00	19.54	2.407	DDH	265314	575921	269
Kilroy B	KR01B	EM99-43	17.00	23.00	6.00	5.89	0.192	DDH	265308	575812	261
Kilroy B	KR01B	EM99-58	22.50	33.50	11.00	10.75	1.213	DDH	265284	575983	272
Kilroy B	KR01B	EM99-61	27.50	34.50	7.00	6.89	1.223	DDH	265243	575899	251
Kilroy B	KR01B	EM99-62	31.00	33.00	2.00	1.95	1.499	DDH	265363	575902	269
Kilroy B	KR04B	EM002	59.00	62.00	3.00	2.39	0.057	DDH	265223	576051	241
Kilroy B	KR04B	EM003	61.00	64.00	3.00	2.66	0.147	DDH	265293	576076	247
Kilroy B	KR04B	EM004	56.00	58.00	2.00	1.77	0.302	DDH	265252	576090	238
Kilroy B	KR04B	EM005	40.00	42.00	2.00	1.95	0.280	DDH	265262	576049	254
Kilroy B	KR04B	EM006	50.00	52.00	2.00	1.57	0.078	DDH	265287	576028	256
Kilroy B	KR04B	EM007	31.00	34.00	3.00	2.65	6.397	DDH	265155	576024	223
Kilroy B	KR04B	EM031	4.00	8.00	4.00	3.91	0.358	DDH	265496	576214	328
Kilroy B	KR04B	EM99-47	1.00	7.00	6.00	5.86	0.105	DDH	265440	576155	311
Kilroy B	KR04B	EM99-57	26.00	28.00	2.00	1.96	0.728	DDH	265329	576104	279
Kilroy B	KR04B	EMD07_01	10.00	14.00	4.00	3.55	0.313	DDH	265500	576223	325
Kilroy B	KR04B	EMD08_18	9.00	14.00	5.00	4.35	0.494	DDH	265496	576225	325
Kilroy B	KR04B	EMD08_26	73.00	78.00	5.00	3.72	0.617	DDH	265249	576140	243
Kilroy B	KR04B	EMD11_044	19.50	21.50	2.00	1.77	9.238	DDH	265375	576127	285
Kilroy B	KR04B	EMD11_045	58.00	60.00	2.00	1.22	1.840	DDH	265198	576078	237
Kilroy B	KR04B	EMD11_047	45.00	47.00	2.00	1.77	0.363	DDH	265329	576154	264
Kilroy B	KR04B	EMD11_051	4.00	13.00	9.00	7.96	0.391	DDH	265427	576222	311
Kilroy B	KR04B	EMD11_103	19.00	21.00	2.00	1.76	8.096	DDH	265375	576127	285



Domain	Block Code	Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	Gold (g/t Au)	Sample Type	Easting (mUTM)	Northing (mUTM)	RL (m)
Kilroy B	KR04B	DSVN_TR	0.00	13.00	13.00	4.56	6.717	trench	265509	576240	335
Kilroy B	KR04B	DSVN_TR_2	0.00	0.30	0.30	0.29	1.027	trench	265511	576235	336
Kilroy B	KR04B	DSVN_TR1	0.00	0.50	0.50	0.49	0.555	trench	265511	576234	336
Kilroy B	KR04B	Wall_EMD11-92	0.00	4.00	4.00	3.91	0.778	Trench	265496	576176	327
Kilroy B	KR05B	EMD09_41	82.00	97.00	15.00	9.12	0.459	DDH	265026	576179	182
Kilroy B	KR05B	EMD11_081	66.00	72.00	6.00	5.53	0.606	DDH	264976	576100	130
Kilroy B	KR05B	EMD11_082	40.00	46.00	6.00	5.28	0.631	DDH	265002	576164	168
Kilroy B	KR05B	EMD11_083	65.00	67.00	2.00	1.69	0.255	DDH	264984	576170	153
Kilroy B	KR06B	EMD08_24	74.00	90.60	16.60	10.87	0.414	DDH	264882	576231	161
Kilroy B	KR06B	EMD08_25	31.00	33.00	2.00	1.68	0.049	DDH	264937	576250	200
Kilroy B	KR06B	EMD09_40	79.00	85.00	6.00	3.78	0.342	DDH	264877	576148	149
Kilroy B	KR06B	EMD11_078	18.00	23.00	5.00	4.61	0.241	DDH	265116	576258	247
Kilroy B	KR06B	EMD11_079	29.00	36.00	7.00	6.45	0.000	DDH	265008	576238	206
Kilroy B	KR06B	EMD11_080	57.00	66.00	9.00	6.28	0.257	DDH	264927	576191	173
Kilroy B	KR08B	EM99-42	0.00	2.00	2.00	1.95	0.055	DDH	265267	575767	266
Kilroy B	KR08B	EMD08_29	13.00	30.00	17.00	13.47	1.428	DDH	265324	575824	267
Kilroy B	KR08B	EMD11_100	16.00	38.00	22.00	19.66	1.761	DDH	265386	575857	275
Kilroy C	KR01C	EM009A	32.00	37.00	5.00	4.88	0.154	DDH	265151	575898	211
Kilroy C	KR01C	EM010	58.00	67.00	9.00	6.75	1.825	DDH	265175	575866	198
Kilroy C	KR01C	EM011	35.00	52.00	17.00	16.60	1.279	DDH	265271	575941	254
Kilroy C	KR01C	EM0203A	60.00	72.00	12.00	11.72	0.528	DDH	265233	575833	211
Kilroy C	KR01C	EM024	50.00	59.00	9.00	8.79	1.041	DDH	265276	575856	233
Kilroy C	KR01C	EM025	46.00	48.00	2.00	1.95	0.064	DDH	265357	575934	255
Kilroy C	KR01C	EM027	40.00	43.00	3.00	2.93	0.216	DDH	265319	576015	260
Kilroy C	KR01C	EM99-404A	40.00	56.00	16.00	15.64	0.456	DDH	265314	575921	249
Kilroy C	KR01C	EM99-43	45.00	58.00	13.00	12.77	0.731	DDH	265308	575814	229
Kilroy C	KR01C	EM99-58	41.50	49.50	8.00	7.82	0.550	DDH	265284	575983	255
Kilroy C	KR01C	EM99-61	44.50	50.50	6.00	5.90	0.419	DDH	265243	575901	234
Kilroy C	KR01C	EM99-62	50.00	55.00	5.00	4.88	0.905	DDH	265363	575902	249
Kilroy C	KR04C	EM002	99.00	102.00	3.00	2.39	0.648	DDH	265218	576077	211
Kilroy C	KR04C	EM003	81.00	84.00	3.00	2.66	0.088	DDH	265303	576084	232
Kilroy C	KR04C	EM004	86.00	90.00	4.00	3.55	0.586	DDH	265267	576103	214
Kilroy C	KR04C	EM007	72.00	75.00	3.00	2.65	0.096	DDH	265175	576041	192
Kilroy C	KR04C	EM026	44.00	47.00	3.00	2.93	0.127	DDH	265390	576086	259
Kilroy C	KR04C	EM031	52.00	58.00	6.00	5.86	0.704	DDH	265496	576214	279
Kilroy C	KR04C	EM99-46	35.00	39.00	4.00	3.91	0.017	DDH	265603	576265	311
Kilroy C	KR04C	EM99-47	53.00	55.00	2.00	1.95	0.340	DDH	265440	576155	261
Kilroy C	KR04C	EMD07_01	60.00	63.00	3.00	2.66	0.219	DDH	265525	576243	287
Kilroy C	KR04C	EMD08_26	122.00	125.00	3.00	2.25	0.003	DDH	265230	576164	205
Kilroy C	KR04C	EMD11_045	101.00	105.00	4.00	2.44	0.736	DDH	265174	576064	204
Kilroy C	KR04C	EMD11_047	92.00	94.00	2.00	1.77	3.910	DDH	265351	576175	228
Kilroy C	KR04C	EMD11_051	54.00	57.00	3.00	2.65	0.626	DDH	265449	576244	275
Kilroy C	KR04C	EMD11_092	40.00	43.00	3.00	2.65	0.022	DDH	265529	576196	294
Kilroy C	KR04C	EMD11_103	70.00	74.00	4.00	3.49	0.326	DDH	265401	576150	246
Kilroy C	KR05C	EMD09_41	122.00	151.00	29.00	17.38	0.645	DDH	265005	576157	146
Kilroy C	KR05C	EMD11_081	84.00	88.00	4.00	3.69	0.079	DDH	264983	576106	116
Kilroy C	KR05C	EMD11_082	51.00	59.00	8.00	6.97	3.445	DDH	265008	576169	159
Kilroy C	KR05C	EMD11_083	76.00	78.00	2.00	1.69	0.568	DDH	264990	576175	145
Kilroy C	KR06C	EMD08_24	106.60	119.70	13.10	8.64	0.154	DDH	264863	576233	137
Kilroy C	KR06C	EMD08_25	42.00	46.00	4.00	3.38	0.114	DDH	264938	576258	191
Kilroy C	KR06C	EMD09_40	124.00	134.00	10.00	6.27	0.091	DDH	264848	576140	113
Kilroy C	KR06C	EMD11_078	41.00	43.00	2.00	1.84	0.052	DDH	265124	576267	229
Kilroy C	KR06C	EMD11_079	47.00	51.00	4.00	3.69	0.000	DDH	265015	576245	193
Kilroy C	KR06C	EMD11_080	99.00	119.00	20.00	13.96	0.539	DDH	264900	576191	134
Kilroy C	KR08C	EM99-42	24.00	46.00	22.00	21.55	0.859	DDH	265267	575768	232
Kilroy C	KR08C	EMD08_29	72.00	81.00	9.00	6.95	0.102	DDH	265356	575804	226
Kilroy C	KR08C	EMD11_048	68.00	103.00	35.00	31.40	0.383	DDH	265358	575802	216
Kilroy C	KR08C	EMD11_100	52.00	58.00	6.00	5.41	0.251	DDH	265399	575869	253
Kilroy C	KR09C	EMD09_33	107.00	125.00	18.00	14.90	1.556	DDH	265149	575555	180
Kilroy C	KR09C	EMD09_34	78.00	107.00	29.00	25.48	0.542	DDH	265039	575678	160
Kilroy C	KR09C	EMD09_43	129.00	148.00	19.00	15.88	0.716	DDH	264890	575571	114
Zion	ZN01	EMD07_08	7.00	27.00	20.00	15.44	1.149	DDH	266067	576720	478
Zion	ZN01	EMD07_09	7.00	32.00	25.00	17.39	1.676	DDH	266059	576706	475



Domain	Block Code	Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	Gold (g/t Au)	Sample Type	Easting (mUTM)	Northing (mUTM)	RL (m)
Zion	ZN01	EMD11_107	0.00	9.00	9.00	7.97	0.628	DDH	266167	576750	515
Zion	ZN01	EMD11_109	21.00	34.00	13.00	11.48	0.330	DDH	266147	576726	495
Zion	ZN01	EMD11_110	0.00	12.00	12.00	7.42	0.933	DDH	266051	576759	464
Zion	ZN02	EMD07_02	0.00	23.00	23.00	16.65	0.167	DDH	265653	576725	368
Zion	ZN02	EMD07_03	5.00	22.00	17.00	10.49	0.396	DDH	265649	576716	367
Zion	ZN02	EMD07_04	9.00	41.00	32.00	23.16	0.838	DDH	265685	576692	371
Zion	ZN02	EMD11_062	5.00	21.00	16.00	14.16	1.625	DDH	265931	576443	405
Zion	ZN02	EMD11_115	4.00	16.00	12.00	10.64	1.087	DDH	265660	576666	374
Zion	ZN02	BPT3E	2.00	6.00	4.00	0.59	0.110	Trench	265837	576641	403
Zion	ZN02	EMT08	0.00	58.00	58.00	21.52	0.785	Trench	265605	576732	365
Zion	ZN02	EMT13	0.00	36.00	36.00	8.64	0.970	Trench	265657	576746	370
Zion	ZN02	EMT14	0.00	18.50	18.50	6.70	0.377	Trench	265696	576710	381
Zion	ZN02	EMT15	0.00	28.50	28.50	7.95	0.454	Trench	265626	576746	369
Zion	ZN02	Wall_EMD07_02	0.00	1.00	1.00		4.228	Trench	265662	576717	378
Zion	ZN03	EMD07_05	6.00	16.00	10.00	6.64	0.944	DDH	265906	576611	413
Zion	ZN03	EMD07_06	10.00	16.00	6.00	3.80	0.258	DDH	265911	576599	412
Zion	ZN03	EMD07_07	0.00	26.00	26.00	20.07	0.893	DDH	266063	576636	462
Zion	ZN03	EMD08_10	0.00	11.00	11.00	8.49	1.747	DDH	266068	576565	450
Zion	ZN03	EMD08_15	0.00	12.00	12.00	8.02	0.828	DDH	265903	576634	415
Zion	ZN03	EMD08_16	0.00	17.00	17.00	14.07	0.944	DDH	265908	576638	413
Zion	ZN03	EMD11_075	0.00	32.00	32.00	31.26	2.090	DDH	266077	576696	475
Zion	ZN03	EMD11_076	0.00	29.00	29.00	25.22	3.792	DDH	266071	576661	471
Zion	ZN03	EMD11_077	0.00	42.00	42.00	38.72	0.977	DDH	266135	576672	491
Zion	ZN03	BPT02A	0.00	12.20	12.20	2.22	0.722	Trench	265879	576626	411
Zion	ZN03	BPT03A	0.00	4.00	4.00	1.67	0.350	Trench	265874	576611	413
Zion	ZN03	BPT03B	0.00	14.60	14.60	3.93	0.142	Trench	265868	576617	412
Zion	ZN03	BPT03C	0.00	25.90	25.90	6.13	0.067	Trench	265851	576626	403
Zion	ZN03	BPT1	0.00	17.00	17.00	3.36	0.363	Trench	265892	576645	408
Zion	ZN03	BPT2	0.00	18.50	18.50	3.04	0.391	Trench	265886	576637	409
Zion	ZN03	BPT3D	0.00	3.00	3.00	0.61	0.060	Trench	265842	576637	403
Zion	ZN03	BPT3E	0.00	2.00	2.00	0.33	0.020	Trench	265839	576638	402
Zion	ZN03	BPT4	0.00	25.00	25.00	4.62	0.357	Trench	265867	576629	404
Zion	ZN03	BPT6	0.00	45.60	45.60	12.28	2.880	trench	265873	576633	404
Zion	ZN03	BPT6_01	0.00	1.00	1.00	0.98	2.433	trench	265863	576639	401
Zion	ZN03	BPT6_02	0.00	1.00	1.00	0.98	3.134	trench	265863	576642	400
Zion	ZN03	BPT6_03	0.00	2.00	2.00	1.95	8.802	trench	265865	576642	400
Zion	ZN03	BPT6_04	0.00	1.00	1.00	0.98	7.502	trench	265866	576639	404
Zion	ZN03	Wall_EMD11-75	0.00	4.00	4.00	3.91	0.162	Trench	266072	576696	494
Zion	ZN03	Wall_EMD11-76	0.00	4.70	4.70	4.59	1.001	Trench	266067	576665	482
Zion	ZN03	Zion_1M	0.00	1.00	1.00		5.650	Trench	266036	576646	463
Zion	ZN03	ZW_01	0.00	6.00	6.00		0.505	Trench	265961	576617	427
Zion	ZN04	EM032	12.00	21.00	9.00	8.79	0.843	DDH	265719	576433	366
Zion	ZN04	EM033	0.00	30.00	30.00	29.29	0.814	DDH	265912	576379	402
Zion	ZN04	EM034	24.00	33.00	9.00	8.79	0.747	DDH	266175	576483	452
Zion	ZN04	EM99-48	10.00	14.00	4.00	3.91	0.066	DDH	265500	576314	314
Zion	ZN04	EM99-50	10.00	35.00	25.00	24.43	0.874	DDH	265822	576463	374
Zion	ZN04	EM99-51	19.00	24.00	5.00	4.89	0.709	DDH	265801	576414	370
Zion	ZN04	EM99-52	0.00	30.00	30.00	29.31	3.081	DDH	265846	576364	382
Zion	ZN04	EM99-53	0.00	24.00	24.00	23.44	1.489	DDH	265802	576330	370
Zion	ZN04	EM99-54	15.00	20.00	5.00	4.90	0.218	DDH	265762	576364	359
Zion	ZN04	EM99-55	38.00	44.00	6.00	5.12	0.495	DDH	265769	576498	357
Zion	ZN04	EMD08_13	0.00	22.00	22.00	16.98	0.472	DDH	266055	576410	445
Zion	ZN04	EMD08_14	0.00	29.00	29.00	17.92	0.600	DDH	266048	576401	443
Zion	ZN04	EMD11_054	0.00	18.00	18.00	16.02	1.117	DDH	265971	576403	426
Zion	ZN04	EMD11_055	18.00	27.00	9.00	8.01	0.794	DDH	266147	576449	451
Zion	ZN04	EMD11_056	0.00	28.00	28.00	24.94	1.814	DDH	266139	576383	446
Zion	ZN04	EMD11_057	0.00	12.00	12.00	10.62	0.542	DDH	266058	576454	440
Zion	ZN04	EMD11_058	0.00	22.00	22.00	19.50	0.676	DDH	266049	576368	431
Zion	ZN04	EMD11_059	0.00	29.00	29.00	25.75	0.721	DDH	265890	576342	387
Zion	ZN04	EMD11_060	0.00	35.00	35.00	34.28	0.829	DDH	265919	576365	399
Zion	ZN04	EMD11_061	5.00	28.00	23.00	20.45	0.726	DDH	265865	576424	385
Zion	ZN04	EMD11_091	17.00	25.00	8.00	7.08	0.076	DDH	265707	576250	348
Zion	ZN04	EMD11_104	4.00	10.00	6.00	5.33	0.391	DDH	265500	576417	333



Domain	Block Code	Hole ID	From (m)	To (m)	Interval (m)	True Width (m)	Gold (g/t Au)	Sample Type	Easting (mUTM)	Northing (mUTM)	RL (m)
Zion	ZN04	Wall_EMD11-58	0.00	4.50	4.50	4.39	0.601	Trench	266058	576347	437
Zion	ZN04	Wall_EMD11-59	0.00	4.30	4.30	4.20	0.515	Trench	265886	576344	402
Zion	ZN04	Wall_EMD11-62	0.00	2.60	2.60	2.54	0.340	Trench	265931	576436	413
Zion	ZN05	EMD08_11	62.00	98.00	36.00	28.64	0.893	DDH	266479	576644	532
Zion	ZN05	EMD08_12	55.00	109.00	54.00	34.23	0.348	DDH	266440	576591	530
Zion	ZN05	EMD11_063	37.00	49.00	12.00	10.85	1.305	DDH	266295	576239	517
Zion	ZN05	EMD11_064	50.00	80.00	30.00	27.69	0.265	DDH	266367	576420	526
Zion	ZN05	EMD11_065	64.00	115.00	51.00	45.81	0.496	DDH	266536	576380	532
Zion	ZN05	EMD11_066	27.00	71.00	44.00	38.11	0.910	DDH	266570	576469	551
Zion	ZN05	EMD11_067	70.00	74.00	4.00	3.53	0.488	DDH	266602	576644	546
Zion	ZN05	EMD11_069	19.00	25.00	6.00	5.22	0.302	DDH	266666	576503	569
Zion	ZN05	EMD11_070	32.15	69.15	37.00	33.18	0.658	DDH	266521	576558	548
Zion	ZN05	EMD11_071	27.00	64.00	37.00	33.56	0.308	DDH	266476	576523	544
Zion	ZN05	EMD11_072	65.00	90.00	25.00	22.19	0.392	DDH	266540	576643	534
Zion	ZN05	EMD11_073	13.00	86.00	73.00	71.04	0.889	DDH	266371	576500	523
Zion	ZN05	EMD11_074	24.00	88.00	64.00	56.87	0.471	DDH	266425	576581	534
Zion	ZN06	EM99-65	11.00	21.00	10.00	9.76	0.238	DDH	265732	576231	354
Zion	ZN06	EMD11_050	0.00	20.00	20.00	15.20	0.413	DDH	265603	576196	345
Zion	ZN06	EMD11_085	34.00	49.00	15.00	12.56	3.483	DDH	265930	576234	379
Zion	ZN06	EMD11_086	36.00	48.00	12.00	10.22	1.941	DDH	265891	576219	379
Zion	ZN06	EMD11_087	10.00	26.00	16.00	14.16	0.278	DDH	265755	576197	374
Zion	ZN06	EMD11_091	0.00	16.00	16.00	14.16	0.973	DDH	265701	576244	358
Zion	ZN07	AD38	25.00	31.00	6.00	5.86	0.707	DDH	265560	575903	315
Zion	ZN07	EM001	7.00	27.00	20.00	16.13	0.393	DDH	265572	576099	343
Zion	ZN07	EM028	39.00	42.00	3.00	2.93	0.114	DDH	265567	575881	307
Zion	ZN07	EM029	7.00	17.00	10.00	9.76	0.413	DDH	265502	575996	320
Zion	ZN07	EM030	10.00	21.00	11.00	10.74	0.484	DDH	265633	576009	338
Zion	ZN07	EM99-45	9.00	29.00	20.00	19.54	1.597	DDH	265701	576085	351
Zion	ZN07	EM99-59	21.00	40.00	19.00	18.57	0.729	DDH	265748	576153	353
Zion	ZN07	EM99-63	35.00	66.00	31.00	30.27	0.617	DDH	265811	576052	342
Zion	ZN07	EM99-67	3.00	10.00	7.00	6.83	0.326	DDH	265411	575989	310
Zion	ZN07	EM99-70	48.00	54.00	6.00	5.86	0.511	DDH	265726	575993	332
Zion	ZN07	EMD08_30	53.00	80.00	27.00	19.12	0.751	DDH	265701	575953	322
Zion	ZN07	EMD11_046	0.00	3.00	3.00	2.65	0.479	DDH	265369	575993	304
Zion	ZN07	EMD11_049	9.00	21.00	12.00	11.72	1.185	DDH	265572	576008	331
Zion	ZN07	EMD11_089	62.00	75.00	13.00	11.50	1.625	DDH	265747	575975	328
Zion	ZN07	EMD11_090	67.50	87.50	20.00	17.70	0.871	DDH	265815	576052	341
Zion	ZN07	EMD11_093	0.00	15.00	15.00	13.27	0.869	DDH	265475	576063	329
Zion	ZN07	EMD11_094	0.00	20.00	20.00	17.70	1.149	DDH	265519	576079	339
Zion	ZN07	EMD11_095	28.00	39.00	11.00	9.73	0.269	DDH	265615	575935	324
Zion	ZN07	EMD11_096	38.00	43.00	5.00	4.42	0.672	DDH	265581	575907	315
Zion	ZN07	EMD11_097	21.00	29.00	8.00	7.08	0.232	DDH	265538	575970	316
Zion	ZN07	EMD11_098	0.00	11.00	11.00	9.73	0.404	DDH	265417	576025	316
Zion	ZN07	EMD11_099	10.00	15.00	5.00	4.42	0.510	DDH	265447	575989	314
Zion	ZNI01	16_g_EW	0.00	18.15	18.15	2.32	0.211	Trench	266083	576563	458
Zion	ZNI01	16_g_NS	0.00	10.84	10.84	4.66	0.672	Trench	266083	576563	458
Zion	ZNI02	EMD11_088	26.00	36.00	10.00	8.85	0.012	DDH	265846	576141	378
Zion	ZNI03	EMD11_068	3.00	7.00	4.00	3.46	0.000	DDH	266768	576639	577
Zion	ZNI05	EMD11_108	16.00	30.00	14.00	10.74	1.352	DDH	266167	576803	492
Zion	ZNI05	ANVN	0.00	1.00	1.00	0.01	9.727	Trench	266145	576818	493
Zion	ZNI05	ANVN_01	0.00	17.05	17.05	0.33	2.129	Trench	266143	576818	493
Zion	ZNI05	ANVN_02	0.00	2.00	2.00	0.02	0.438	Trench	266142	576819	492
Zion	ZNI05	ANVN_03	0.00	5.00	5.00	0.49	0.217	Trench	266145	576814	494
Zion	ZNI05	EMT13	36.00	52.00	16.00	3.75	0.169	Trench	265648	576770	365



APPENDIX 3

SEMI VARIOGRAM MODELS

