InnovExplo Inc.
Consultants–Mines–Exploration
560, 3e Avenue, Val-d'Or (Québec) J9P 1S4
Telephone: 819.874-0447
Facsimile: 819.874-0379
Toll-free: 866.749-8140
Email: info@innovexplo.com
Web site: www.innovexplo.com

TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE FOR THE GRASSET Ni-Cu-PGE DEPOSIT (according to National Instrument 43 101 and Form 43 101F1)

Project Location

Latitude 49º58'09'' North and Longitude 78º20'20'' West
Province of Québec, Canada

Prepared for

Balmoral Resources Ltd
Suite 2300 - 1177 West Hastings Street
Vancouver, British Columbia
Canada V6E 2K3

Prepared by:

Pierre-Luc Richard, P. Geo.
Bruno Turcotte, P. Geo
InnovExplo – Consulting Firm

Effective Date: January 12th, 2016
Signature Date: March 30th, 2016

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

SIGNATURE PAGE – INNOVEXPLO

TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE
FOR THE GRASSET Ni-Cu-PGE DEPOSIT
(according to National Instrument 43 101 and Form 43 101F1)

Project Location

Latitude 49º58'09'' North and Longitude 78º20'20'' West
Province of Québec, Canada

Prepared for

Balmoral Resources Ltd
Suite 2300 - 1177 West Hastings Street
Vancouver, British Columbia
Canada V6E 2K3

(Original signed and sealed)
Pierre-Luc Richard, P. Geo
InnovExplo – Consulting Firm
Val-d'Or (Québec)

Signed at Val-d'Or on March 30, 2016

(Original signed and sealed)
Bruno Turcotte, P.Geo.
InnovExplo – Consulting Firm
Val-d'Or (Québec)

Signed at Val-d'Or on March 30, 2016

CERTIFICATE OF AUTHOR – PIERRE-LUC RICHARD

I, Pierre-Luc Richard, M.Sc., P.Geo. (OGQ licence No. 1119, APGO licence No. 1714, APEGBC licence No. 43255, NAPEG licence No. L2465), do hereby certify that:

1. I am employed as a geologist by and carried out this assignment for InnovExplo Inc. – Consulting Firm in Mines and Exploration, 560, 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I graduated with a Bachelor's degree in geology from the Université du Québec à Montreal (Montreal, Québec) in 2004. In addition, I obtained an M.Sc. from the Université du Québec à Chicoutimi (Chicoutimi, Québec) in 2012.
3. I am a member in good standing of the Ordre des Géologues du Québec (OGQ licence No. 1119), of the Association of Professional Geoscientists of Ontario (APGO licence No. 1714), of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC licence No. 43255), and of the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG licence No. L2465).
4. I have worked in the mining industry for more than 10 years. My exploration expertise has been acquired with Richmont Mines Inc., the Ministry of Natural Resources of Québec (Geology Branch), and numerous exploration companies through InnovExplo. My mining expertise was acquired at the Beaufor mine and several other producers through InnovExplo. I managed numerous technical reports, resource estimates and audits. I have been a geological consultant for InnovExplo Inc. since February 2007.
5. I have read the definition of "qualified person" set out in Regulation 43-101 / 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.
6. I am author and responsible for sections 12, 13, and 14 and I am co-author of and also shares responsibility for sections 1, 25, and 26 of the technical report entitled "TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE FOR THE THE GRASSET Ni-Cu-PGE DEPOSIT (according to National Instrument 43-101 and Form 43-101F1)", effective date of January 12, 2016, and signature date of March 30, 2016, prepared for Balmoral Resources Ltd.
7. I visited the property on July 13, 2015.
8. I have not had any other prior involvement with the project that is the subject of the Technical Report.
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 Report, the omission of which would make the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
11. I have read NI 43-101 Respecting Standards of Disclosure for Mineral projects and Form 43-101F1, and the items for which I am a qualified person in this Technical Report have been prepared in accordance with that regulation and form.

Signed this 30th day of March, 2016.

(Original signed and sealed)

Pierre-Luc Richard, P.Geo
InnovExplo Inc
pierreluc.richard@innovexplo.com

CERTIFICATE OF AUTHOR – BRUNO TURCOTTE

I, Bruno Turcotte, P.Geo. (APGO licence No. 2136, OGQ licence No. 453), do hereby certify that:

1. I am employed as a geologist by and carried out this assignment for InnovExplo Inc. – Consulting Firm in Mines and Exploration, 560, 3e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I graduated with a Bachelor of Geology degree from Université Laval in the city of Québec in 1995. In addition, I obtained a Master's degree in Earth Sciences from Université Laval in the city of Québec in 1999.
3. I am a member of the Ordre des Géologues du Québec (OGQ licence No. 453) and of the Association of Professional Geoscientists of Ontario (APGO licence No. 2136).
4. I have worked as a geologist for a total of 21 years since graduating from university. I acquired my exploration expertise with Noranda Exploration Inc., Breakwater Resources Ltd, South-Malartic Exploration Inc. and Richmont Mines Inc. I acquired my mining expertise on the Croinor Preproduction Project and at the Beaufor mine. I have been a geological consultant for InnovExplo Inc. since March 2007.
5. I have read the definition of "qualified person" set out in Regulation 43-101 / 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.
6. I am author and responsible for sections 2 to 11, 15 to 24, 27 and I am co-author of and also shares responsibility for sections 1, 25, and 26 of the technical report entitled "TECHNICAL REPORT AND MINERAL RESOURCE ESTIMATE FOR THE THE GRASSET Ni-Cu-PGE DEPOSIT (according to National Instrument 43-101 and Form 43-101F1)", effective date of January 12, 2016, and signature date of March 30, 2016, prepared for Balmoral Resources Ltd.
7. I have not had any prior involvement with the project that is the subject of the Technical Report. I have not conducted a site visit of the property.
8. 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, the omission of which would make the Technical Report misleading.
9. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have read NI 43-101 Respecting Standards of Disclosure for Mineral projects and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Signed this 30th day of March, 2016.

(Original signed and sealed)

Bruno Turcotte, P. Geo
InnovExplo Inc
bruno.turcotte@innovexplo.com

1. SUMMARY

1.1 Introduction

InnovExplo Inc. ("InnovExplo") was commissioned by Balmoral Resources Ltd to complete a Technical Report and a Mineral Resource Estimate for the Grasset Property in accordance with Canadian Securities Administrators' National Instrument 43 101 Respecting Standards of Disclosure for Mineral Projects ("NI 43 101") and its related form 43 101F1. The mandate was assigned by Mr. Darin Wagner, President and CEO of Balmoral Resources Ltd. InnovExplo is an independent mining and exploration consulting firm based in Val-d'Or (Québec).

This report is addressed to Balmoral Resources Ltd ("Balmoral" or the "issuer") and supports the disclosure of the mineral resource estimate for the Grasset deposit.

1.2 Property Description and Location

The Grasset Property is located in the Nord-du-Québec administrative region, approximately 50 km west-northwest of the city of Matagami, in the province of Québec, Canada.

The current Grasset Property consists of one block of three hundred ninety-eight (398) mining claims staked by electronic map designation ("map-designated cells"), covering an aggregate area of 22,057.12 ha. All claims are registered 100% in the name of Balmoral Resources Ltd. The Grasset Property is not subject to any royalty, back-in right, or other agreement or encumbrance.

1.3 Geological Setting

The Grasset Property is located in the northwestern Archean Abitibi Subprovince in the southern Superior Province of the Canadian Shield. The Abitibi Greenstone Belt is mainly composed of volcanic units which were unconformably overlain by large sedimentary Timiskaming-style assemblages. Generally, the Abitibi Greenstone Belt comprises east-trending synclines containing volcanic rocks and intervening domes cored by synvolcanic and/or syntectonic plutonic rocks (gabbro-diorite, tonalite, and granite) alternating with east-trending turbiditic wacke bands. Normally, the volcanic and sedimentary strata dip vertically and are usually separated by abrupt, variably dipping east-trending faults. The Abitibi Greenstone Belt is intruded by numerous late-tectonic plutons composed mainly of syenite, gabbro and granite with fewer lamprophyre and carbonatite dykes. Commonly, the metamorphic grade in the Abitibi Greenstone Belt varies from the greenschist to subgreenschist facies except in the vicinity of most plutons where the metamorphic grade corresponds mainly to the amphibolite facies.

The Grasset Property lies within the Harricana-Turgeon volcano-sedimentary segment. The segment extends from the Detour Lake mine, Ontario, in the west to Matagami, Québec, in the east, and includes the Matagami, Brouillan, Joutel and Casa-Berardi mining districts. The segment is dominated by mafic volcanic rocks, followed by sedimentary and plutonic rocks. It is transected by numerous E-W trending deformation zones located either at the contacts of volcano-sedimentary units and granitoid plutons or crosscutting them. The two major northernmost faults of the Abitibi are the Sunday Lake (SLDZ) and Grasset (GDZ) deformation zones. The GDZ is the equivalent of the South Detour Deformation Zone in Ontario. The SLDZ and the GDZ are the major structural features in the area. They are traced over 150 km from the western boundary of the Abitibi Subprovince in Ontario to the east of the Grasset Property up to the north of Matagami camp. These two faults share many characteristics with others major breaks of the Abitibi, meaning a large corridor of ductile and high strain deformation, highly altered volcanic, sedimentary, and intrusive rocks melange, including ultramafic slices and syn-orogenic felsic to intermediate dykes. Apart from the gabbro and ultramafic sills and dykes, the plutons in the NW Abitibi are felsic to intermediate in composition. The sparse stratification measurements recorded north of the SDLZ indicate that the basalt flows sequence dips moderately to steeply. The fold patterns interpreted are mainly based on the magnetic heights of gabbroic and ultramafic sills and the electromagnetic conductors that characterized graphitic tuffs or sediments horizons.

The Grasset Property is covered by 50 to 100 m of glacial overburden consisting mainly of sandy and gravel outwash material and lesser boulder-rich tills. The only known outcrops on the property are located on the SW shore of the Lac Grasset where a sequence of pillowed and massive basaltic flows and gabbros have been observed. Detailed information on property-scale geology is only available for those areas that have been drilled. The correlation between drill hole information and geophysical maps contribute to recognition of certain magnetic units such as gabbroic and ultramafic rocks, low magnetic sedimentary rocks, and highly conductor graphitic horizons. Basalt of the Manthet group, located north of the SLDZ, covers about the third quarter of the Grasset Property. Magnetic gabbroic sills follow the attitude of the contact between the Abitibi and the Opatica sub-provinces.

The Grasset Ultramafic Complex (GUC) is located in the western part of the property and hosts the Ni-Cu-PGE Grasset deposit which is the subject of this report. It is formed by a stacked piles of basalts, gabbro and ultramafic sills and dykes, with minor rhyodacitic to dacitic volcaniclastics and rhyolite flows, and several narrow intercalated bands of iron formation, and graphitic argillite in apparent conformable contact relations with the overlying rock units. The general attitude of the GUC is WNW, pinched between the Jeremie Pluton and the Opatica Subprovince. Several zones of ductile deformation have been intercepted in drill holes along strike in the complex, suggesting that the NW-SE trend may correspond to a major fault, parallel to others similar faults north and south of the SLDZ. The southern portion of the complex is sheared and possibly folded by the SLDZ.

1.4 Mineralization

1.4.1 Gold

The recent drilling by Balmoral (2011 to 2014) outlined gold mineralization, named the Grasset Gold discovery, at the contact between the sequence of strongly deformed polylithic Timiskaming-type conglomerates and a mafic intrusive of the Manthet group, in the footwall of the SLDZ. The first hole intersected 33.00 m grading 1.66 g/t Au, including two higher grade intervals grading 6.15 g/t Au over 4.04 m and 4.18 g/t Au over 5.00 m. The mineralization is hosted in an anastomosing quartz-carbonate vein system along the contact, which is open laterally and at depth.

1.4.2 Nickel-Copper-PGE

Mineralization is concentrated in two stacked sulphide-bearing horizons (H1 and H3) oriented NW-SE within vertically dipping peridotite ultramafic units. Mineralization consists of metre-scale layers of net-textured, blebby semi-massive and massive sulphides. Pyrrhotite is the dominant sulphide mineral, with subordinate amounts of pentlandite, chalcopyrite and pyrite. The concentration of pentlandite and chalcopyrite is proportional to the total sulphide content. The two horizons are stacked, 25 to 50 m thick, and separated by 10 to 50 m of unmineralized ultramafic rock. Horizon 3 (H3) is defined over a strike length of roughly 500 m, and hosts the bulk of the high Ni-Cu-PGE values defined to date. Horizon 1 (H1) has been defined over a longer strike length (~900 m) and hosts moderate nickel grades (<1%) over its entire extent. Both zones are open at depth.

1.5 Data Verification

The author, Pierre-Luc Richard, visited the Grasset Property on July 13, 2015. The site visit was complemented by a review of digital documents and databases both before and after the visit.

The purpose of this site visit was to get an overview of the Grasset Project, assess the NI 43 101 compliance of the work being conducted, and provide guidelines, if needed, to ensure the project was to be ready for a 43 101 resource estimate. A drilling program was underway at the time of the site visit.

Special emphasis was placed on the following items: collar locations, QA/QC protocols, drilling protocols, validation sampling, collar downhole surveys, specific gravity review, logging protocols, interpretation methodology, sampling protocols, and exploration program overview.

Overall, InnovExplo is of the opinion that the site visit and subsequent validation exercises demonstrated the validity of the protocols in place for the Grasset Project. The database is of sufficient quality to be used for a resource estimate.

1.6 Metallurgical Testing

A preliminary metallurgical testwork report dated September 24, 2015, was authored by Mr. Andrew Kelly, P.Eng. of Blue Coast Research Ltd ("Blue Coast"). Kelly (2015) concluded the following:

- Sulphide mineralization in Grasset material is made up of pentlandite, chalcopyrite, pyrite and pyrrhotite. The mineralized materials are nickel-rich with Ni:Cu ratios of approximately 6.5:1.
- Gangue mineralization is dominated by talc and magnesite, which together make up 52% of the mass in Master Composite 1 ("MC 1") and 67% of the mass in Master Composite 2 ("MC 2").
- Grindability tests indicate material of medium hardness.
- Differences in grind times between MC 1 and MC 2 indicate some variability in hardness, likely tied to the quantity of serpentine in the mineralized material
- Samples exhibited a low level of gravity recoverable platinum and palladium.
- 27% of the gold could be recovered to a low grade gravity concentrate.

- Based on locked cycle test results using the same basic flowsheet, metallurgical performance was consistent between both master composites
- A soda ash based flowsheet with the addition of carboxyl-methyl cellulose (CMC) is necessary to control the readily floatable talc present in each master composite.
- Finer primary grinds (~65 µm) produce faster flotation kinetics and result in higher grades and recovery to the final concentrate.
- Good nickel concentrates could be generated at consistent grades (13.4%–13.8%) at very good overall recoveries (86%–87%).
- Copper recovery to the final concentrate was 94%.
- Minor element scans did not indicate the presence of any penalty elements in significant quantities; however, exact penalty limits should be confirmed with concentrate marketing specialists.
- Acid Base Accounting and Net Acid Generation tests suggest Grasset tailings produced using this flowsheet are not likely to be acid generating.

1.7 Mineral Resource Estimate

The 2016 Grasset Mineral Resource Estimate herein was prepared by Pierre-Luc Richard, P.Geo. using all available information. The main objective of the mandate assigned by Balmoral was to produce a maiden resource estimate for the project.

The 2016 resource area measures 1,000 m along strike, 350 m wide and 600 m deep. The resource estimate is based on a compilation of recent diamond drill holes and a litho-structural model constructed in Leapfrog by Balmoral, and adapted for GEMS by InnovExplo.

The mineral resources presented herein are not mineral reserves as they have no demonstrable economic viability. The result of this study is a single Mineral Resource Estimate for two mineralized zones (H1 and H3). The estimate includes indicated and inferred resources for an underground scenario. The effective date of the estimate is January 12, 2016, based on compilation status and cut-off grade parameters.

Given the density of the processed data, the search ellipse criteria, the drill hole density, and the specific interpolation parameters, InnovExplo is of the opinion that the current internal mineral resource estimate can be classified as Indicated and Inferred resources. The estimate is compliant with CIM standards and guidelines for reporting mineral resources and reserves.

Table 1.1 displays the results of the In Situ Mineral Resource Estimate for the Grasset Project (2 mineralized zones) at the official 1.00% NiEq cut-off grade.

Table 1.1 – Grasset Project Mineral Resource Estimate at a 1.00% NiEq cut-off grade

	> 1.00 % NiEq	Tonnes (t)	NiEq (%)	Ni (%)	Cu (%)	Co (%)	Pt (g/t)	Pd (g/t)	Contained NiEq (lbs)	Contained Ni (lbs)	Contained Cu (lbs)	Contained Co (lbs)	Contained Pt (oz)	Contained Pd (oz)
INDICATED	Horizon 1	35,900	1.09	0.98	0.11	0.03	0.16	0.38	865,800	772,600	84,100	22,700	200	400
	Horizon 3	3,416,600	1.80	1.57	0.17	0.03	0.34	0.85	135,413,200	118,316,800	13,148,000	2,317,600	37,700	93,000
	Total Indicated	**3,452,500**	**1.79**	**1.56**	**0.17**	**0.03**	**0.34**	**0.84**	**136,279,000**	**119,089,400**	**13,232,100**	**2,340,300**	**37,900**	**93,400**
INFERRED	Horizon 1	4,700	1.08	0.96	0.11	0.03	0.17	0.39	111,500	99,400	11,700	3,100	100	100
	Horizon 3	86,400	1.20	1.06	0.11	0.02	0.20	0.48	2,282,400	2,027,600	217,100	45,900	600	1,300
	Total Inferred	**91,100**	**1.19**	**1.06**	**0.11**	**0.02**	**0.20**	**0.48**	**2,393,900**	**2,126,900**	**228,700**	**49,000**	**600**	**1,400**

- The Independent and Qualified Persons (QPs) for the Mineral Resource Estimate, as defined by National Instrument 43-101, are Pierre-Luc Richard, P.Geo., M.Sc., and Carl Pelletier, P.Geo., B.Sc., both of InnovExplo Inc. The effective date of the estimate is January 12, 2016
- These mineral resources are not mineral reserves as they do not have demonstrated economic viability.
- While the results are presented undiluted and in situ, the reported mineral resources are considered to have reasonable prospects for eventual economic extraction.
- The estimate includes two mineralized zones (Horizon 1 and Horizon 3).
- Resources were compiled at NiEq cut-off grades of 0.30%, 0.40%, 0.50%, 0.60%, 0.70%, 0.80%, 0.90%, 1.00%, 1.10%, 1.20%, 1.30%, 1.40%, 1.50% and 2.00%. The official resource potential is reported at a 1.00% NiEq cut-off grade.
- Cut-off calculations used (Canadian dollars): Mining= $48.00; Maintenance= $6.00; G&A= $10.00, Processing= $22.00. Total operating costs amount to $86.00. A dilution factor of 7.5% was also applied to the cut-off grade calculation.
- NiEq = $[[(Ni_{Grade(\%)} \times Ni_{CR(\%)} \times Ni_{Payable(\%)} \times Ni_{Price(\$)}) + (Cu_{Grade(\%)} \times Cu_{CR(\%)} \times Cu_{Payable(\%)} \times Cu_{Price(\$)}) + (Co_{Grade(\%)} \times Co_{CR(\%)} \times Co_{Payable(\%)} \times Co_{Price(\$)})] \times 2205 + [(Pt_{Grade(g/t)} \times Pt_{CR(\%)} \times Pt_{Payable(\%)} \times Pt_{Price(\$)}) + (Pd_{Grade(g/t)} \times Pd_{CR(\%)} \times Pd_{Payable(\%)} \times Pd_{Price(\$)})] / 31.1035 - Cr_{Penalty(\$)}] / (Ni_{Payable(\%)} \times Ni_{CR(\%)} \times Ni_{Price(\$} \times 2205)$; where CR(%) is a variable concentrate recovery ratio derived from metallurgical balance study, and Payable(%) is applied on concentrates. Note that a minimum deduction of 0.20% Co was applied on concentrate.
- NiEq calculations used: USD/CAD exchange rate of 1.14, Nickel price of US$6.56/lb, Copper price of US$2.97/lb, Cobalt price of US$13.00/lb, Platinum price of US$1,302.30/oz, and Palladium price of US$737.20/oz (These are 3-year trailing averages calculated at the effective date); Payable of 70% for Nickel, 75% for Copper, 75% for Cobalt (minimum deduction of 0.20%), 45% for Platinum, and 45% for Palladium applied on expected concentrate based on analysis of available smelting and refining cost parameters
- Cut-off and NiEq calculations would have to be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, smelting terms, and mining costs).
- Density values were estimated for all lithological units from measured samples. Density values for the Horizon 1 and Horizon 3 (H1 and H3) mineralized zones were interpolated from measured and calculated density databases. The calculated database is derived for a selection of metals (Ni, Fe, Co) yielding the best correlation with the measured database.
- The resource was estimated using GEMS v.6.7. The estimate is based on 111 diamond drill holes (39,999.43 m). A minimum true thickness of 3.0 m was applied, using the grade of the adjacent material when assayed, or a value of zero when not assayed.
- High grade capping was done on raw assay data and established on a per zone basis for Nickel (15.00%), Copper (5.00%), Platinum (5.00g/t) and Palladium (8.00g/t). Capping grade selection is supported by statistical analysis.
- Compositing was done on drill hole sections falling within the mineralized zones (composite = 1.0 m).
- Resources were evaluated from drill holes using a 3-pass ID2 interpolation method in a block model (block size = 5 x 5 x 5 m).
- The mineral resources presented herein are categorized as Indicated and Inferred based on drill spacing, geological and grade continuity. Based on the nature of the mineralization, a maximum distance to the closest composite of 50 m was used for Indicated resources. The average distance to the nearest composite is 22.9 m for the Indicated resources and 53.6 m for the Inferred resources.
- Ounce (troy) = metric tonnes x grade / 31.10348. Calculations used metric units (metres, tonnes and g/t). Metal contents are presented in ounces and pounds.
- The number of metric tons was rounded to the nearest hundred. Any discrepancies in the totals are due to rounding effects
- The quantity and grade of reported Inferred resources in this Mineral Resource Estimate are uncertain in nature, and there has been insufficient exploration to define these Inferred resources as Indicated or Measured, and it is uncertain if further exploration will result in upgrading them to these categories.
- CIM definitions and guidelines for mineral resources have been followed.
- The QPs are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue that could materially affect the Mineral Resource Estimate.

1.8 Interpretations and Conclusions

The objective of InnovExplo's mandate was to complete a Technical Report and a maiden Mineral Resource Estimate on the Ni-Cu-PGE Grasset deposit according to National Instrument 43-101 ("NI 43-101") and Form 43-101F1. A model was generated for the entire drilled area of the Grasset deposit, based on all available geological information and analytical results.

Following a detailed review of all pertinent information and after completing the 2016 Mineral Resource Estimate, InnovExplo concludes the following:

- Geological and grade continuity were demonstrated for the two mineralized zones of the Grasset deposit.
- Using a cut-off grade of 1.00% NiEq, the estimate of Indicated Resources stands at 3,452,500 tonnes grading 1.79% NiEq for 136,279,000 lbs NiEq, and Inferred Resources at 91,100 tonnes grading 1.19% NiEq for 2,393,900 lbs NiEq.
- It is likely that additional diamond drilling would upgrade some of the Inferred Resources to Indicated Resources.
- It is likely that additional diamond drilling would identify additional resources down plunge and in the surroundings of the currently identified mineralization.

1.9 Recommendations

Based on the results of the 2016 Mineral Resource Estimate, InnovExplo recommends the Grasset Project be advanced to the next phase, which would be the preparation of a preliminary economic assessment (PEA).

In parallel with the PEA, more work is warranted, as detailed below.

The company should complete a property-scale compilation and a target generation program.

Additional drilling should target the down-plunge extensions of the currently identified areas of interest described in this Technical Report. An additional objective would be the discovery of additional zones elsewhere on the Grasset Property.

InnovExplo also recommends initiating a stakeholder mapping and communication plan. Based on the results of this study, appropriate actions (to be determined) should be carried out.

If additional work proves to have a positive impact on the project, the current resource estimate should be updated.

InnovExplo has prepared a cost estimate for the recommended two-phase work program to serve as a guideline for the Grasset Project. Expenditures for Phase 1 are estimated at C$2,041,250 (incl. 15% for contingencies). Expenditures for Phase 2 are estimated at C$2,392,000 (incl. 15% for contingencies). The grand total is C$4,433,250 (incl. 15% for contingencies). Phase 2 is contingent upon the success of Phase 1.

2. INTRODUCTION

InnovExplo Inc. ("InnovExplo") was commissioned by Balmoral Resources Ltd to complete a Technical Report and a Mineral Resource Estimate for the Grasset Property in accordance with Canadian Securities Administrators' National Instrument 43-101 Respecting Standards of Disclosure for Mineral Projects ("NI 43-101") and its related form 43-101F1. The mandate was assigned by Mr. Darin Wagner, President and CEO of Balmoral Resources Ltd.

InnovExplo is an independent mining and exploration consulting firm based in Val-d'Or (Québec).

2.1 Issuers

This report is addressed to Balmoral Resources Ltd ("Balmoral" or the "issuer").

The issuer was incorporated under the Company Act (British Columbia) on January 24, 1983, under the name Golden Dividend Resources Corp. The name was subsequently changed to Caesars Gold Ltd on April 17, 1996; to Caesars Explorations Inc. on August 13, 1999; to Great Southern Enterprises Corp. on November 4, 2002; and to Balmoral Resources Ltd on March 29, 2010. On May 18, 2005, Balmoral (then, "Great Southern Enterprises Corp.") was transitioned under the *Business Corporations Act* (British Columbia), and is now governed by that statute.

The issuer's head office and principal business address is located at 1177 West Hastings Street, Suite 2300, Vancouver, British Columbia, Canada V6E 2K3. Its registered office and records office is located at 550 Burrard Street, Suite 2300, P.O. Box 30, Bentall 5, Vancouver, British Columbia, Canada V6C 2B5.

The issuer's common shares are listed on the Toronto Stock Exchange (TSX) under the symbol "BAR". The common shares are also quoted in the United States on the OTC Best Marketplace with Qualified Companies (OTCQX) under the symbol "BALMF".

2.2 Terms of Reference

The principal focus of the issuer's exploration activities is its Detour Trend Project, which consists of ten (10) properties (Fig. 1.1) covering more than 700 km^2 of land along and adjacent to the gold-bearing Sunday Lake Deformation Zone. Most of these properties were acquired for their gold potential.

One of these projects, the Grasset Property (the "Property"), was initially acquired by staking in November of 2010. Drilling on the Grasset Property in April of 2011 led to the discovery of a new zone of gold mineralization, which returned 33.00 m grading 1.66 g/t Au, including two higher grade intervals of 4.04 m grading 6.15 g/t Au and 5.00 m grading 4.18 g/t Au. The gold mineralization is located along the Sunday Lake Deformation Zone. Following these encouraging drill intercepts, the issuer expanded the size of the Grasset Property and completed additional testing in 2011 and 2012. Drilling in 2012 led to the discovery of a new zone of nickel-copper-platinum-palladium (Ni-Cu-PGE) mineralization associated with the Grasset Ultramafic Complex.

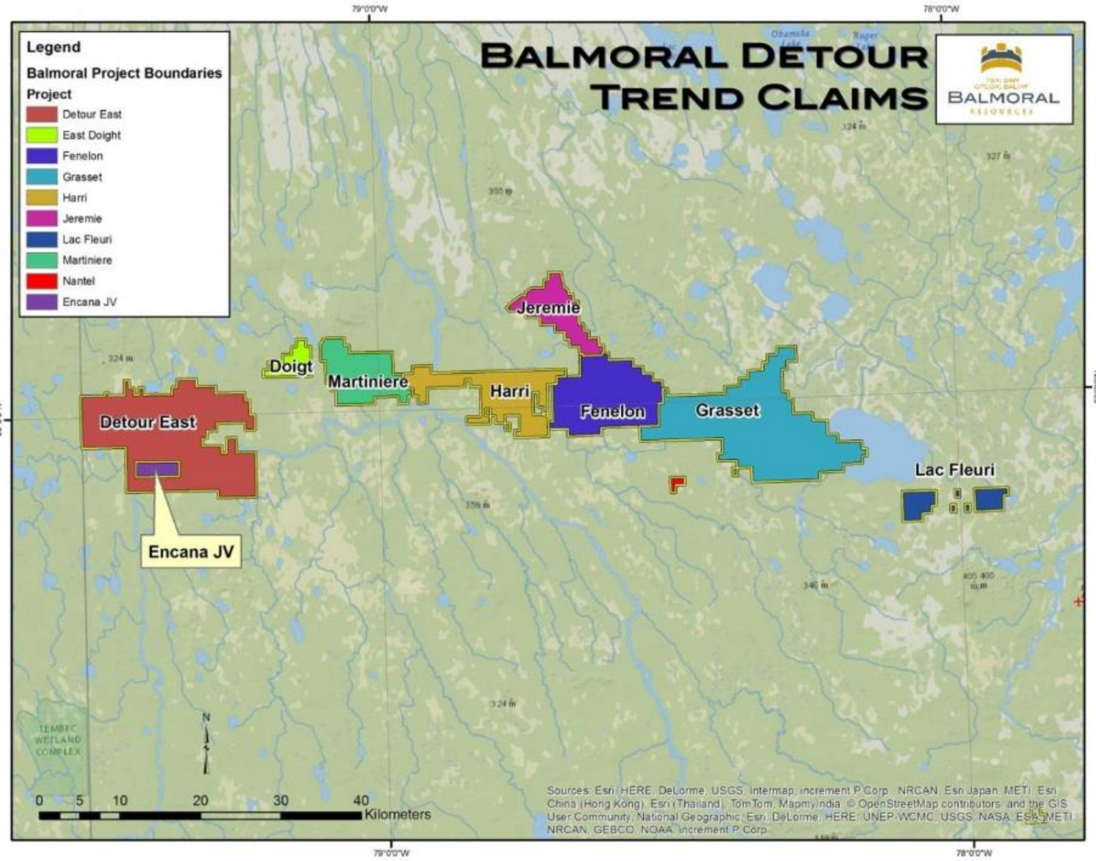

Figure 1.1 – Map of Balmoral's Detour Trend properties (Balmoral MD&A of September, 2015)

This Technical Report was prepared by InnovExplo for the purpose of providing a mineral resource estimate (the "2016 MRE") for the Ni-Cu-PGE Grasset deposit. The 2016 MRE includes all diamond drill holes drilled by the issuer on the Grasset deposit between 2012 and 2015.

2.3 Principal Sources of Information

Pierre-Luc Richard, P.Geo., and Bruno Turcotte, P.Geo., acting as InnovExplo's qualified and independent persons as defined by NI 43-101, were assigned the mandate to study technical documentation relevant to the Technical Report and to recommend a work program if warranted. As part of the mandate, they have reviewed the following with respect to the Grasset Property: the mining titles and their status on the GESTIM website (the Québec government's online claim management system); agreements and technical data supplied by the issuer (or its agents); public sources of relevant technical information on SIGEOM, the government's online warehouse for assessment work; and Balmoral's filings on SEDAR (press releases and management's discussion & analysis (MD&A) reports).

Some of the geological and/or technical reports for projects on or in the vicinity of the Grasset Property were prepared before the implementation of NI 43-101 in 2001. The authors of such reports appear to have been qualified and the information prepared according to standards that were acceptable to the exploration community at the time.

In some cases, however, the data are incomplete and do not fully meet the current requirements of NI 43-101. InnovExplo has no known reason to believe that any of the information used to prepare this Technical Report is invalid or contains misrepresentations. The authors have sourced the information for the Technical Report from the collection of reports listed in Section 27 (*References*).

InnovExplo believes the information used to prepare the Technical Report and to formulate its conclusions and recommendations is valid and appropriate considering the status of the project and the purpose for which the report is prepared. The consultants, by virtue of their technical review of the project, affirm that the work program and recommendations presented in the report are in accordance with NI 43-101 and CIM technical standards.

InnovExplo's QPs do not have, nor have they previously had, any material interest in Balmoral or its related entities. The relationship with Balmoral is solely a professional association between the issuer and the independent consultants. This Technical Report was prepared in return for fees based upon agreed commercial rates, and the payment of these fees is in no way contingent on the results of the Technical Report.

2.4 Qualified Persons

The qualified and independent persons ("QPs") responsible for the preparation of the Technical Report are:

- Pierre-Luc Richard, P.Geo. (OGQ #1119), Deputy Director (InnovExplo);
- Bruno Turcotte, P.Geo. (OGQ #453), Senior Geologist (InnovExplo).

In addition to the principal authors and QPs, the other people involved in the preparation of the Technical Report are:

- Denis Gourde, Engineering and Sustainable Development (InnovExplo);
- Sylvie Poirier, Director of Engineering (InnovExplo);
- Carl Pelletier, Co-President Founder (InnovExplo);
- Stéphane Faure, Geoscience Expert (InnovExplo);
- Daniel Turgeon, Technician (InnovExplo);
- Léopaul Lamontagne, Technician (InnovExplo).

The list below presents the sections of the Technical Report for which each QP was responsible:

- Pierre-Luc Richard supervised the assembly of the report. He is author of and responsible for sections 12 to 14. He is co-author and shares responsibility for sections 1, 25, and 26.
- Bruno Turcotte is author of and responsible for sections 2 to 11, 15 to 24 and 27. He is co-author and shares responsibility for sections 1, 25 and 26.

The 2016 MRE for the Grasset Property was prepared by Pierre-Luc Richard and Carl Pelletier. Pierre-Luc Richard, and Carl Pelletier are both professional geologists in good standing with the *Ordre des géolgues du Québec* and QPs as defined by NI 43-101.

2.5 Inspection of the Property

Pierre-Luc Richard, P.Geo., was the only author to have visited the Grasset Property. The visit took place on July 13, 2015, accompanied by Balmoral geologists.

2.6 Effective Date

The effective date of the Technical Report is January 12, 2016.

2.7 Units and Currencies

All currency amounts are stated in Canadian Dollars ($, $C, CAD) or US dollars ($US, USD). Quantities are stated in metric units, as per standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, percentage (%) for copper and nickel grades, and gram by tonne (g/t) for gold, platinum and palladium grades. Wherever applicable, imperial units have been converted to the International System of Units (SI units) for consistency. A list of abbreviations used in this report is provided in Appendix I.

3. RELIANCE ON OTHER EXPERTS

The QPs relied on the following for areas outside their field of expertise:

- The issuer supplied information about mining titles, option agreements, royalty agreements, environmental liabilities, and permits. Neither the QPs nor InnovExplo are qualified to express any legal opinion with respect to property titles or current ownership and possible litigation. This disclaimer applies to sections 4.4 to 4.10 of this report.
- The issuer supplied a report for the metallurgical test work done on mineralized samples from the Grasset Property. The report, "*Preliminary Metallurgical Testwork Report, Balmoral Grasset*", dated September 24, 2015, was written by Andrew Kelly, P.Eng., of Blue Coast Research Ltd.
- Sylvie Poirier, Eng., and Denis Gourde, Eng., both of InnovExplo, supplied the cut-off grade parameters used for the 2016 MRE.
- Peter Godbehere, Metallurgical Consultant, supplied the information on smelting contracts needed to generate net smelter returns for the 2016 MRE.
- Venetia Bodycomb, M.Sc., of Vee Geoservices provided linguistic editing for a draft version of this report.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Grasset Property is located in the Nord-du-Québec administrative region, approximately 50 km west-northwest of the city of Matagami, in the province of Québec, Canada (Fig. 4.1).

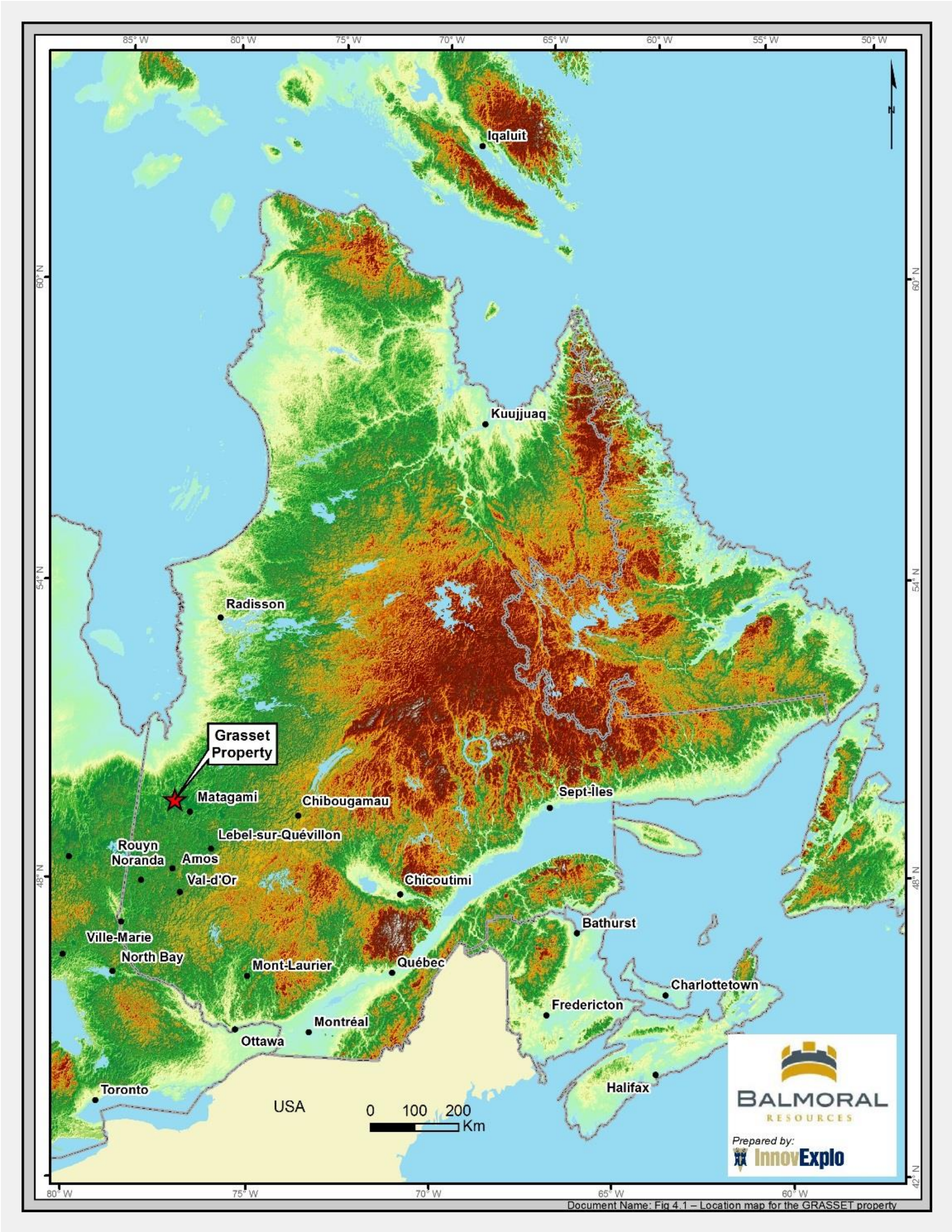

Figure 4.1 – Location of the Grasset Property in the province of Québec

The approximate centroid of the Grasset Property are 78°20'20"W and 49°58'09"N (UTM coordinates: 690830E and 5538600N, NAD 83, Zone 18). The nearest community is Matagami, located about 50 km east-southest of the Property. The Property lies in the townships of Fenelon, Du Tast, Subercase and Grasset on NTS maps sheets 32L/01, 32L/02, 32E/15 and 32E/16.

4.2 Mining Rights in the Province of Québec

The following discussion on mining rights in the province of Québec was mostly summarized from Guzun (2012), Gagné and Masson (2013), and from the Act to Amend the Mining Act (Bill 70; the "Amending Act") assented on December 10, 2013 (National Assembly, 2013). Please refer to Appendix II for a detailed discussion on mining rights in the province of Québec.

In Québec, mining and mineral exploration is principally regulated by the provincial government. The *Ministère de l'Énergie et des Ressources Naturelles du Québec* ("MERN"; the Ministry of Natural Resources) is the provincial agency entrusted with the management of mineral substances in Québec. The ownership and granting of mining titles for mineral substances are primarily governed by the Mining Act and its attending regulations. In Québec, land surface rights are distinct property from mining rights. Rights in or over mineral substances in Québec form part of the domain of the State (the public domain), subject to limited exceptions for privately owned mineral substances. Mining titles for mineral substances within the public domain are granted and managed by the MERN. The granting of mining rights for privately owned mineral substances is a matter of private negotiations, although certain aspects of the exploration for and mining of such mineral substances are governed by the Mining Act.

4.2.1 The Claim

The claim is the only exploration title currently issued in Québec for mineral substances (other than surface mineral substances, petroleum, natural gas and brine). A claim gives its holder the exclusive right to explore for such mineral substances on the land subject to the claim, but does not entitle its holder to extract mineral substances, except for sampling and only in limited quantities. In order to mine mineral substances, the holder of a claim must obtain a mining lease. Electronic map designation is the most common method of acquiring new claims from the MRN, whereby an applicant makes an online selection of available pre-mapped claims. There are only a few places in the province where claims can still be obtained by staking.

4.2.2 The Mining Lease

Mining leases are extraction (production) mining titles which give their holder the exclusive right to mine mineral substances (other than surface mineral substances, petroleum, natural gas and brine). A mining lease is granted to the holder of one or several claims upon proof of the existence of indicators of the presence of a workable deposit on the area covered by such claims and compliance with other requirements prescribed by the Mining Act. A mining lease has an initial term of 20 years, but may be renewed for three additional periods of 10 years each. Under certain conditions, a mining lease may be renewed beyond the three statutory renewal periods.

4.2.3 The Mining Concession

Mining concessions are extraction (production) mining titles which give their holder the exclusive right to mine mineral substances (other than surface mineral substances, petroleum, natural gas and brine).

Mining concessions were issued prior to January 1, 1966. After that date, grants of mining concessions were replaced by grants of mining leases. Although similar in certain respects to mining leases, mining concessions granted broader surface and mining rights and are not limited in time. A grantee must commence mining operations within five years from December 10, 2013. As is the case for a holder of a mining lease, a grantee may be required by the government, on reasonable grounds, to maximize the economic spinoffs within Québec of mining the mineral resources authorized under the concession. It must also, within three years of commencing mining operations and every 20 years thereafter, send the Minister a scoping and market study as regards to processing in Québec.

4.3 Mining Title Status

Mining title status for the Grasset Property was supplied by Darin Wagner, president and CEO for Balmoral. InnovExplo verified the status of all mining titles using GESTIM, the Québec government’s online claim management system at the following address: http://gestim.mines.gouv.qc.ca (via Internet Explorer browser only).

The current Grasset Property consists of one block of three hundred ninety-eight (398) mining claims staked by electronic map designation (“map-designated cells”), covering an aggregate area of 22,057.12 ha (Fig. 4.2). All claims are registered 100% in the name of Balmoral Resources Ltd. The Grasset Property is not subject to any royalty, back-in right, or other agreement or encumbrance. All mining titles are in good standing according to the GESTIM database. A detailed list of mining titles, ownership, royalties and expiration dates is provided in Appendix III.

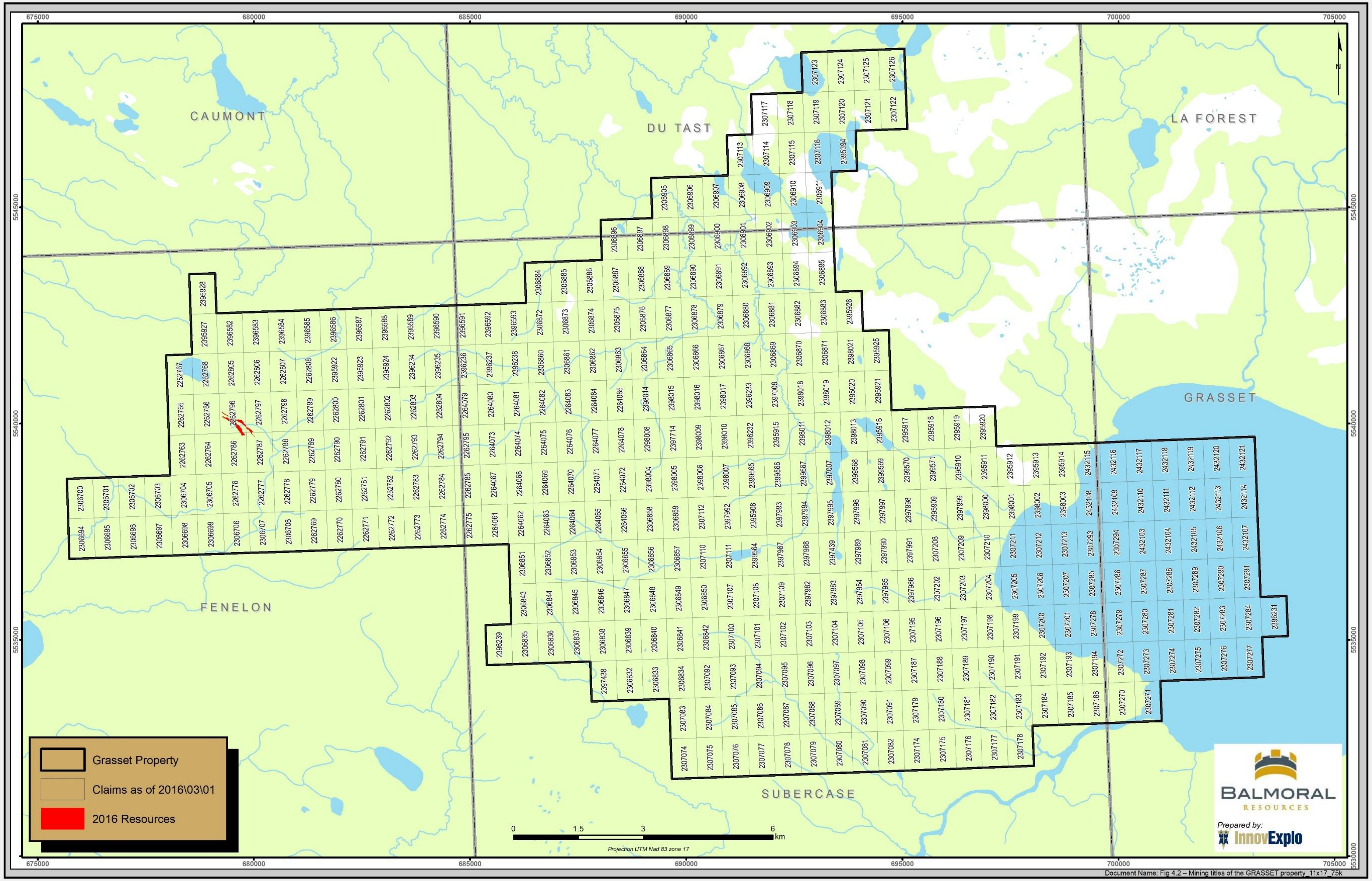

Figure 4.2 – Location of the Grasset Property mining titles; also shown in red are the mineralized zones of the 2016 Mineral Resource Estimate.

4.4 Acquisition of the Grasset Property

All mining titles were staked by Balmoral between 2010 and 2015 using electronic map designation ("map-designated cells") on the Québec government's online claim management system via the GESTIM website.

4.5 Access to the Property

The Grasset Property is entirely located in Eeyou Istchee Territory on Category III lands belonging to the Government of Québec and is subject to the James Bay and Northern Quebec Agreement (JBNQA). Mineral exploration is allowed under specific conditions. The issuer shall be submitted to the Environmental Regime which takes into account the Hunting, Fishing and Trapping Regime. In Category III lands, Eeyou Istchee peoples have exclusive rights to harvest certain species of wildlife and to conduct trapping activities. Each hunting area has a tallyman. The issuer should communicate with the regional level of government and the Cree Nation Government on these matters.

4.6 Permits

Permits are required for any exploration program which involves tree-cutting to create road access for the drill rig, or to carry out drilling and stripping work. Permitting timelines are short, typically on the order of 3 to 4 weeks. The permits are delivery by the *Ministère des Forêts, de la Faune et des Parcs* (Ministry of Forestry, Wildlife and Parks).

Balmoral has the required permits to execute the drilling programs.

4.7 Environment

There are no environmental liabilities pertaining to the Grasset Property.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Grasset Property (Fig. 5.1) is accessible by driving north from the town of Amos for 170 km along the paved provincial highway Route 111, then 70 km of paved forest road R1036, and 20 km of gravel road. The town of Val-d'Or lies an additional 70 km south of Amos whereas Matagami lies 185 km north of Amos (Fig. 5.1).

All of Balmoral's exploration programs have been based out of Camp Fenelon, which it owns. In summer, the best way to access the Property is by helicopter, although logging roads may be used to access parts of the property via all-terrain vehicle (ATV). These logging roads require some repair work to make them drivable for pick-up trucks in the summer, but they can be used for winter access in their current state.

5.2 Climate

The region experiences a typical continental-style climate, with cold winters and warm summers. Snow accumulation begins in November and generally remains until early May. Climate data from the nearest weather station in the town of Matagami, Québec, indicate that the daily average temperature ranges from -20°C in January to 16°C in July (Environment Canada, 2012). The coldest months are December to March, during which the temperature can fall below -40°C. Matagami has an average of 91 cm of precipitation per year, with the average monthly snowfall peaking at 65 cm in February (Environment Canada, 2012). Drilling can be conducted year-round with the exception of spring thaw from mid-March to May.

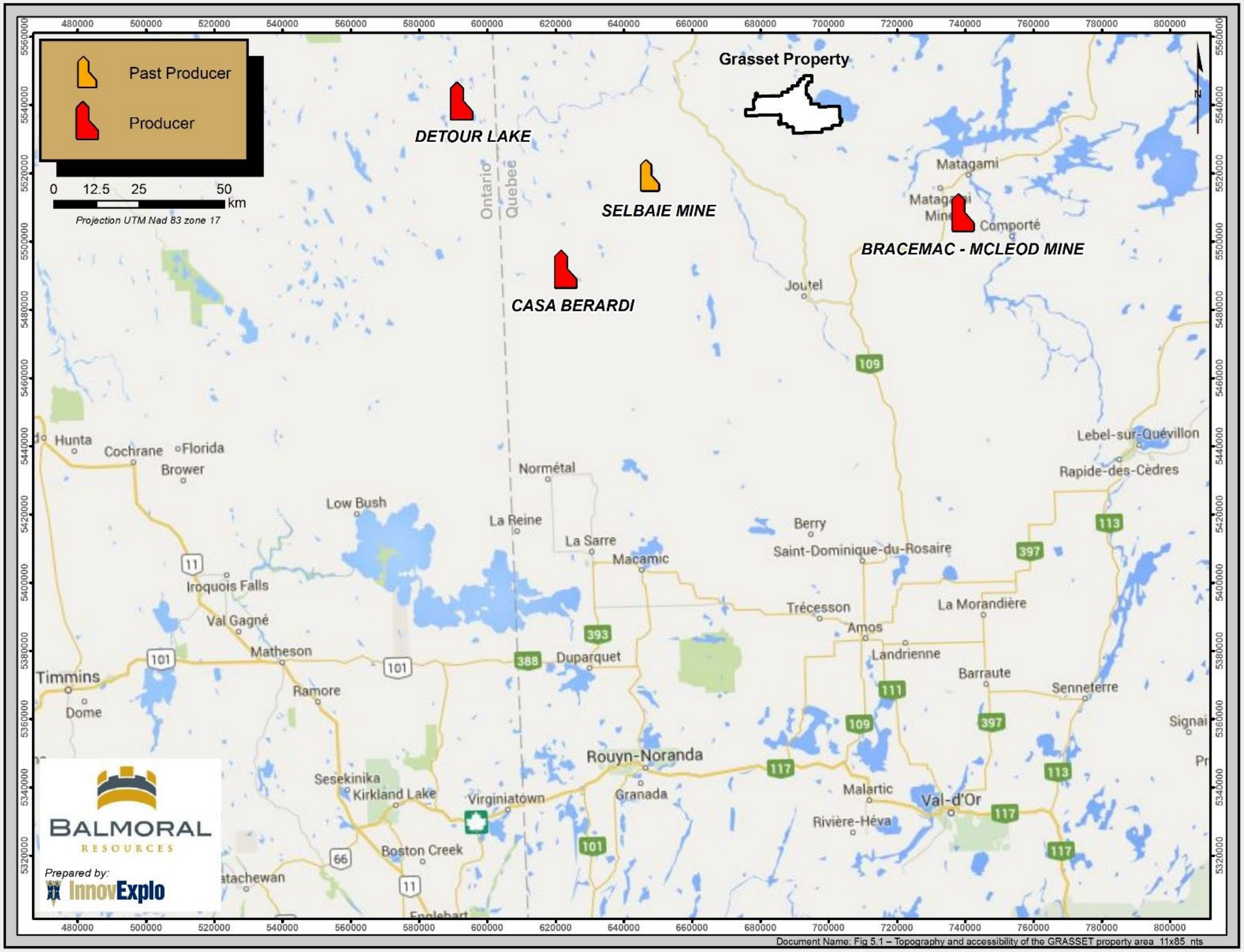

Figure 5.1 – Access and waterways of the Grasset Property and surrounding region

5.3 Local Resources

Camp Fenelon obtains supplies, personnel and maintenance support, via road, from the nearby towns of Amos (pop. 12,671) and Val-d'Or (pop. 31,862), both in Québec (Statistics Canada, 2011). Amos and Val-d'Or offer a full range of services and supplies for mineral exploration. A number of mining and mineral exploration companies have offices located in Val-d'Or. Local available resources include the following:

- Assayers – commercial laboratories (Val-d'Or);
- Civil construction companies (Amos and Val-d'Or);
- Diamond drilling – multiple contractors (Amos and Val-d'OrEngineering firms (Val-d'Or);
- Freight forwarding (Amos and Val-d'Or);
- Geological consultants (Val-d'Or);
- Geophysics contractors (Val-d'Or);
- Land surveyors (Amos and Val-d'Or);
- Mining contractors (Val-d'Or);
- Suppliers of industrial mining equipment, including diesel engines, explosives, mechanical parts, electrical supplies and cable, electronics and tires (Amos and Val-d'Or).

The nearest helicopter bases are in Cochrane, Ontario and La Sarre, Quebec, located 210 km southwest and 140 km south of the Grasset Property, respectively. Val-d'Or is the nearest regional airport which has daily flights to various destinations. The nearest rail access is the CN Rail line to Matagami, 55 km southeast of Grasset Property.

5.4 Infrastructure

Accommodations at Camp Fenelon (Fig. 5.2), which is owned by Balmoral, consists of ATCO trailers with indoor plumbing, a potable water well and forced-air heating. Electricity runs on a 78 kW generator. The camp has the capacity to support up to 25 people.

There are high voltage lines located 17 km south of the Grasset property. There is an ample supply of water on or near the property to supply a mining operation.

5.5 Physiography

The Grasset Property has a thick and extensive cover of Pleistocene glacial sediments, from 50 to 100 m thick. Bedrock exposures are scarce, locally occurring on small knolls and along major rivers. The low parts of the Property are almost devoid of outcrops. Most of the area is covered with swamps and flat forests formed by spruce, fir and pine (Fig. 5.3). Some areas of the Property have recently been logged and partly re-vegetated. The minimum and maximum elevations on the property are 250 masl and 320 masl, respectively.

Figure 5.2 – Access road to the Camp Fenelon

Figure 5.3 – Typical physiography in the Grasset Property area

6. HISTORY

6.1 1956–1964

During field mapping work in 1938–1939, Longley (1943) discovered a gold-copper showing on the southwest shore of Lac Grasset. According to Longley, the showing consisted of a 1.5-m-long exposure of sheared greenstone. The shear zone was slightly silicified and mineralized with chalcopyrite, appearing as small, irregularly distributed patches and as stringers traversing the host rock. A selected sample from this occurrence assayed 5.55 g/t Au.

In 1956, Subercase Syndicate staked a group of fifty (50) claims on the gold-copper showing sector. As described by Subercase Syndicate, the gold-copper showing consisted of a narrow fracture zone in intermediary volcanics with heavy pyrite and light chalcopyrite mineralization. At that time, the occurrence had been exposed in a 3-ft pit blasted into the rock. In February, 1957, Subercase Syndicate drilled four (4) holes (S-1 to S-4) totalling 954 ft (290.8 m) to test the lateral and depth extensions of the copper showing (Cunningham-Dunlop, 1957) (Fig. 6.1). The most significant result from this drill program was the confirmation of copper-bearing intervals hosted by intermediate volcanic rocks within the upper portion of hole S-2. The copper mineralization occurs as fine disseminated chalcopyrite accompanied by pyrite in andesite, and locally as chalcopyrite stringers. The best assay result was 0.37% Cu over 0.5 m. No additional exploration work was done by Subercase Syndicate, and all claims were dropped.

In August, 1957, a group of mining claims was staked by Orchan Mines Ltd on the strength of the former gold-copper showing worked by Subercase Syndicate (Maingot, 1958). Subsequent to the staking, the Federal Department of Mines and Technical Surveys issued an aeromagnetic map covering an area, including the group of staked mining claims. The aeromagnetic survey map showed two zones of magnetic highs on Orchan Mine’s claim group. In June 1958, a ground geophysical investigation was carried out on the claim group. Electromagnetic and magnetic surveys were conducted over a grid using a McPahr R.E.M. and a radar magnetometer (Maingot, 1958). In addition to the two aeromagnetic anomalies reported in 1957, two electrical conductivity zones were also outlined by the ground McPahr R.E.M. In winter 1959, a dual-frequency electromagnetic survey and magnetometer traverses were carried out on the group of claims owed by Orchan Mines (Davidson and Bell, 1959a). Five conductors were outlined by this survey.

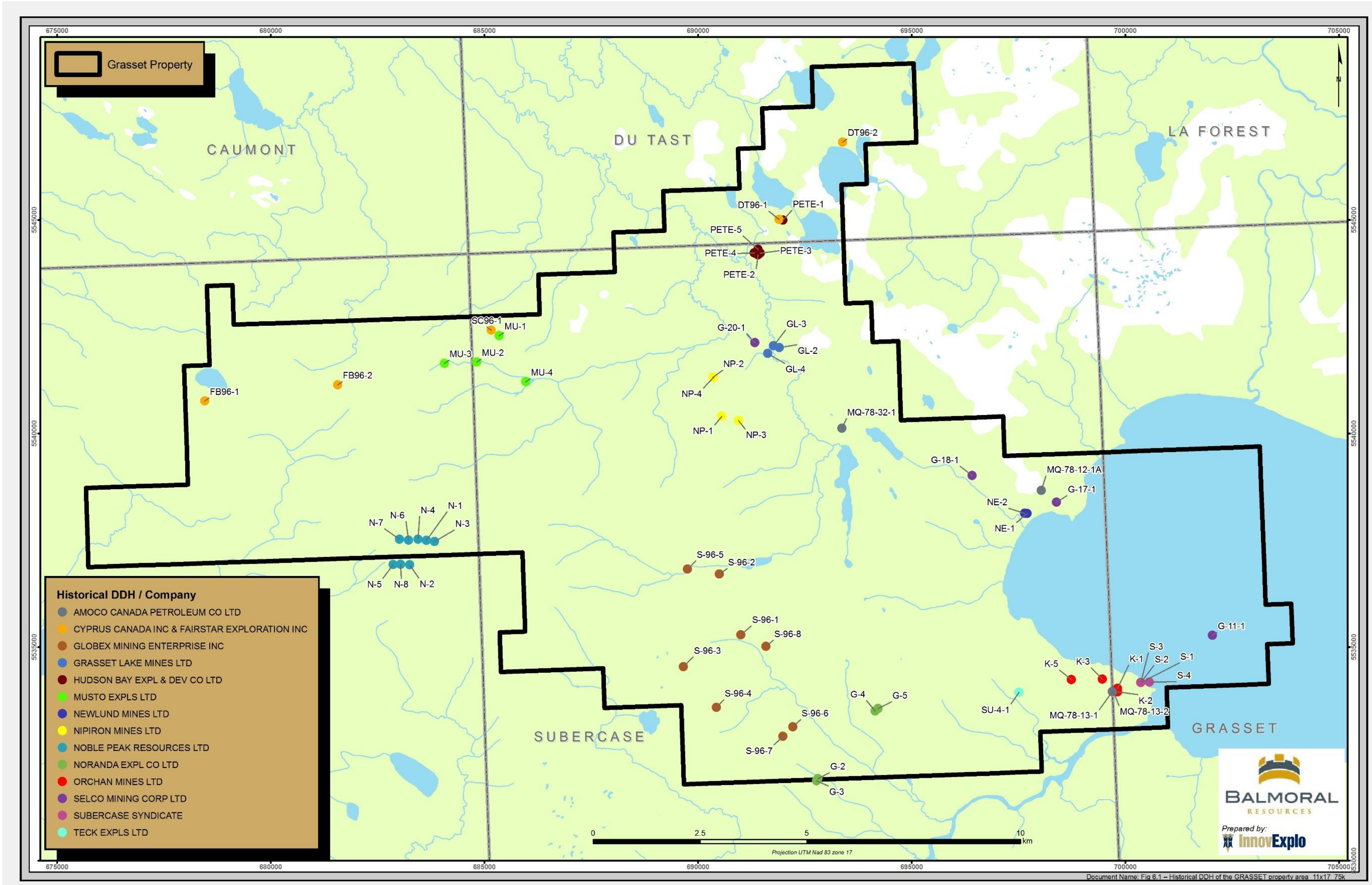

Figure 6.1 – Location of historical holes drilled on the Grasset Property before 2010

The interest in the gold-copper showing by Orchan Mines and the new aeromagnetic data provided by the Federal Department of Mines and Technical Surveys resulted in the staking of many mining titles by several companies. The Grasset area was the subject of fairly intense base metal exploration from 1959 to 1964. Thereafter, several airborne and ground geophysical surveys (magnetic and electromagnetic) were carried out on many parts of the current Grasset Property by different companies. Among these were Andersen Prospecting Trust (Wilson, 1958); United New Fortune Mines Ltd (Bernier, 1959); A. D Hellens (Stam, 1959a); St-Mary's Explorations Ltd (Szetu, 1959); Grasset Lake Mines Ltd (McAdam, 1959a); Nordex Development Company Ltd (Porter, 1959); Nipiron Mines Ltd (Flanagan, 1959; McAdam, 1959b); Consolidated Mining and Smelting Company of Canada Ltd (Woodard, 1959); Head of Lakes Iron Ltd (Stam, 1959b); Westfield Minerals Ltd (McAdam, 1959c); Daniel Mining Company Ltd (Stam, 1959c); Norsyncomague Mining Ltd (Stam, 1959d; Bell 1959); St-Mary's Explorations Ltd (Stam, 1959e); Newlund Mines Limited (Davidson and Bell, 1959b); and Noranda Exploration Company Ltd (Bell and Sutherland, 1959).

Despite the presence of magnetic highs and conductors from geophysical surveys in the area, companies had difficulty delineating good geophysical targets to drill due to the thick overburden and lack of outcrops. Nevertheless, some companies did investigate the geophysical anomalies by drilling.

In March 1959, Grasset Lake Mines Ltd drilled five (5) holes (GL-1 to GL-5) totalling 2,933 ft (894.0 m) to test the geophysical anomalies on their property (Gauvreau, 1959) (Fig. 6.1). The first hole did not reach the bedrock. The second cut a sequence of tuff, rhyolite and andesite. In a banded to silicified tuff, a fairly thick zone of disseminated to massive pyrrhotite and pyrite with specks of chalcopyrite was reported between 223.6 to 324.0 ft (68.2 to 98.8 m). The third hole cut gabbro, tuff and rhyolite. Silicified banded tuff was also observed. Mineralized zones of massive to disseminated pyrite, some pyrrhotite, and specks of chalcopyrite were reported in tuff at 431.2 to 559 ft (131.4 to 170.4 m). Mineralization was less extensive in holes GL-4 and GL-5. According to Jowsey (1960a), the wider sulphide zone in hole GL-3 dipped at a flat angle (about 30°) to the northwest.

In June 1959, Orchan Mines drilled six (6) holes on their property (K-1 to K-6) totalling 1,653 ft (508.3 m) to test geophysical anomalies (Jenney, 1959a) (Fig. 6.1). Two holes did not reach the bedrock due to the thick overburden. Graphite, pyrite, marcasite, pyrrhotite and chalcopyrite were reported in some holes. No assay results are available.

In July 1959, Newlund Mines Ltd drilled two (2) holes (NE-1 to NE-2) totalling 1,056 ft (321.9 m) (Fig. 6.1). The first hole intersected tuff, agglomerate and granite, and the second cut tuff and agglomerate (Jenney, 1959b). Hole NE-1 encountered two sulphide-rich horizons about 4.5 m thick each, carrying 50% pyrrhotite and pyrite with specks of chalcopyrite. In hole NE-2, another 4.5-m-thick sulphide-rich horizon was observed, this time with 10% to 50% pyrite and pyrrhotite. Only two samples were sent to Swastika Laboratories Ltd, returning up to 2 g/t Ag, 0.11% Cu and 0.05% Zn, but no nickel or gold.

In January 1960, Nipiron Mines Ltd drilled four (4) diamond drill holes (NP-1 to NP-4) on their property for a total of 1,596 ft (486.5 m) to test geophysical anomalies (Jowsey, 1960a;1960b) (Fig. 6.1). This property was adjacent to the Grasset Lake Mines Ltd property. The holes cut a sequence of andesitic, rhyolitic and dioritic units. Holes NP-2 and NP-4 were drilled one below the other. Both holes cut graphitic horizons, sometimes magnetic, mineralized with pyrite. Only gold values were reported in both holes, including an assay of 0.67 g/t Au over 0.90 m (hole NP-2) and 2.06 g/t Au over 1.1 m (hole NP-4) in siliceous material directly below a graphitic horizon. Hole NP-4 also cut 60 cm of massive pyrite and pyrrhotite, just above a graphitic horizon. Assay results from this section were negligible. No significant results were obtained from the last two holes.

In July 1959, Noranda Exploration Company Ltd drilled four (4) holes (G-2 to G-4) totalling 1,802 ft (549.3 m) (Fig. 6.1). In April 1960, holes G-2 and G-3 were collared on the south boundaries of the current Grasset Property (Fig. 6.1). These holes cut various mafic intrusive units, but no mineralized zones (Miller, 1960). In June 1960, holes G-4 and G-5 were collared northeast of the two previous holes (Fig. 6.1). Both cut a large sequence of chlorite-carbonate-albite schist that was thought to possibly correspond to a major shear zone (Miller, 1960). No mineralization was reported in the diamond drill logs.

In 1960, Hudson Bay Exploration and Development Ltd, COMPANY drilled five (5) holes (Pete-1 to Pete-5) totalling 1,615.8 ft (492.5 m) near Peter Lake (Gamay, 1961; Remick, 1961) (Fig. 6.1). The property was optioned from Northwoods Exploration Ltd. Hole Pete-2 did not reach the bedrock. The other holes cut a sequence of andesite and tuff with occasionally rhyolitic units. Many shear zones were reported in the hole, accompanied by some amounts of quartz veining. Disseminated to massive pyrite and pyrrhotite with rare specks of chalcopyrite are observed in volcanic rocks.

In 1964, John I. Cummings staked the former claim group of Orchan Mines Ltd. A ground electromagnetic and magnetic survey was performed in the area of the former copper showing discovered by Subercase Syndicate in 1956. The results of the survey indicated that the mineralized zone could have an apparent length of approximately 120 m and a maximum width of 6 m (Bergmann, 1964).

6.2 1974–1978

After a ten-year hiatus in exploration activity, the Lac Grasset area saw renewed interest from Selco Mining Corporation Ltd and Musto Explorations Ltd for its base metal potential.

Between January and March 1974, Musto Explorations carried out ground geophysical work on their property, consisting of electromagnetic and magnetometer surveys (Bazinet, 1974a). The electromagnetic survey outlined three conductors coincident with magnetic anomalies. In March and April 1974, Musto Explorations drilled four (4) holes (MU-1 to MU-4) totalling 1,939.2 ft (591.1 m) to test previously identified geophysical anomalies. These holes cut a sequence of felsic to mafic tuff containing some horizons of disseminated to massive pyrite and pyrrhotite with occasional specks of chalcopyrite (Bazinet, 1974b). Graphite was also observed in some places. No significant assay results were reported in the diamond drill logs.

From February to March 1974, ground magnetic and electromagnetic (EM-17 horizontal loop) surveys were carried out by Selco Mining Corporation over six (6) grids located on six (6) groups of claims in the Lac Grasset area (Reed, 1974). Electromagnetic work defined conductors on three grids that could be tested by drilling.

In August 1974, Selco Mining Corporation drilled hole G-20-1 on grid 80-20, northwest of the holes previously drilled by Grasset Lake Mines Ltd (Fig. 6.1). Totalling 370 ft (112.8 m), the hole cut a sequence of felsic and intermediate tuff (MacIntosh, 1974a). A mineralized zone was encountered from 205 to 223 ft (62.5 to 69 m), corresponding to disseminated to massive pyrite and pyrrhotite with minor flecks of chalcopyrite. This zone assayed anomalous values for zinc, copper and silver over 6.1 m, but no gold values. In September 1974, Selco Mining Corporation drilled hole G-18-1 on grid 80-18, northwest of the holes previously drilled by Newlund Mines Ltd (Fig. 6.1). Totalling 348 ft (106.1 m), the hole cut a sequence of felsic and intermediate tuff (MacIntosh, 1974b). A mineralized zone was encountered from 296.4 to 304 ft (90.3 to 92.6 m), corresponding to disseminated to massive pyrite and pyrrhotite. No assays are available for this zone. In March 1975, two other holes were added in the Lac Grasset area. The first hole, G-17-1, totalling 327 ft (99.7 m), was drilled southeast of the hole G-18-1. It cut a sequence of andesite, argillite and biotite gneiss (Anderson, 1975a). A horizon of massive sulphide was encountered from 261 to 263 ft (79.6 to 80.2 m), containing pyrrhotite and pyrite with traces of chalcopyrite. No significant assay results were obtained in this horizon. Graphitic argillite was also reported in the diamond drill log. The second hole, G-11-1, totalling 376 ft (114.6 m), was drilled on Lac Grasset (Fig. 6.1). The hole cut a sequence of andesite and sericite schist (Anderson, 1975b). No mineralized zones were encountered in this hole.

Between July 1977 and February 1978, Amoco Canada Petroleum Company Ltd conducted a ground magnetometer and electromagnetic survey on their property, which corresponded to a portion of the former property previously held by Subercase Syndicate. The work consisted of follow-up on an input anomaly identified by an airborne input survey carried out in 1977 (Maingot, 1978). In May 1978, Amoco Canada Petroleum Company Ltd drilled two (2) holes (MQ-78-13-1 and MQ-78-13-2) on their property for a total of 730 ft (222.5 m) (Fig.6.1). These holes cut a sequence of intermediate to mafic volcanic rocks, argillite and felsite (MacIssac, 1978). Some minor horizons with up to 40% pyrite and pyrrhotite were observed, associated with minor chalcopyrite. These horizons yielded anomalous values for zinc, copper and silver, but no gold results were obtained. Some graphitic beds were also observed. Two other holes were drilled northwest of Lac Grasset on the other claims group. The first hole (MQ-78-12-1A; 595 ft (181.4 m)) was drilled near previously drilled holes NE-1 and NE-2 by Newlund Mines Ltd (Fig. 6.1). The hole cut a sequence of intermediate to mafic volcanic rocks intruded by gabbro and quartz-feldspar porphyry (MacIssac, 1978). No significant mineralization was encountered within this hole. The second hole (MQ-78-32-1; 486 ft (148.1 m)) was drilled northwest of the last hole (Fig. 6.1). The hole cut a sequence of felsic to mafic volcanic rocks (MacIssac, 1978). A horizon of massive sulphide was intersected from 292 to 321 ft (89.0 to 97.8 m), composed of 80% sulphide (pyrite-pyrrhotite). This horizon yielded anomalous values for zinc, copper and silver, but no gold results were obtained.

6.3 1981–1989

In March 1981, Teck Exploration Ltd carried out geophysical surveys on four (4) groups of claims in the Lac Grasset area (Thorsen, 1981a; 1981b; 1981c; 1981d; 1983). Only one hole was drilled by Teck Exploration Ltd west of previously drilled holes by Amaco Canada Petroleum Company, Orchan Mines and Subercase Syndicate. Hole SU-4-1 (91.4 m) cut a sequence a felsic tuff, andesite, dacite and argillite with dioritic dykes (O'Connell, 1982) (Fig. 6.1). No significant mineralized zone was observed and one graphitic argillite horizon was reported.

In 1984, Detour Syndicate Ltd acquired, by staking, two groups of claims for gold exploration. The first group of claims corresponded to an area covering the former properties worked by Grasset Lake Mines, Westfield Minerals, Nipiron Mines, Selco Mining Corporation, and Amoco Canada Petroleum Company (Brereton, 1984a). In the summer of 1984, the core from the previous Nipiron Mines Ltd drilling program was located on the field and the core was found in an old core shack (Brereton, 1984b). The core was examined and re-sampled. Previous indications of gold in hole NP-4 (2.06 g/t Au over 1.1 m) was confirmed by Detour Syndicate. Detour Syndicate obtained 2.57 g/t Au over 0.9 m in a siliceous sedimentary host rock with an exhalative-like nature. The Grasset Lakes Mines core was also located and sampled. The presence of a major zone of semi-massive to massive pyrite-pyrrhotite mineralization was noted in altered tuffaceous rocks. Eleven (11) grab samples of heavy sulphide mineralization were analyzed, but the gold values only reached 51 ppm Au. The second group of claims corresponded to an area covered by the former properties worked by Subercase Syndicate, Orchan Mines, United New Fortune Mines, Selco Mining Corporation, and Amoco Canada Petroleum Company (Brereton, 1984a). In summer 1984, Detour Syndicate visited and re-sampled the gold-copper showing discovered by Longley (1943). They were unable to duplicate the previously reported gold values of up to 5.5 g/t Au obtained by Longley (1943).

In winter 1986, Minerex Resources Ltd carried out ground magnetic and electromagnetic surveys (HEM) on their property corresponding to the area previously drilled by Grasset Lake Mines and Nipiron Mines (Nickson, 1986). The surveys outlined six (6) conductors, of which five (5) correlated with magnetic anomalies. No anomalies were tested by drilling.

In spring 1986, Aiguebelles Resources Inc. carried out ground magnetic and electromagnetic surveys (HEM) on their property located in the vicinity of the gold-copper showing discovered by Longley (Turcotte and Betz, 1986). The surveys identified many magnetic and electromagnetic anomalies (Boustead, 1987; Hansen, 1987). No anomalies were tested by drilling.

In 1986, Ram Petroleums Ltd staked a large block of claims west of Lac Grasset. A compilation of past exploration work was carried out (Curtis, 1986). The most significant conclusion derived from the study was that the property contained a major interpreted "structural break" on the basis of geophysical results. Ram Petroleums considered the structure to possibly be a major structure associated with gold-bearing systems. In fall 1986, a combined helicopter-borne magnetic and electromagnetic survey was conducted on the property. Electromagnetic and magnetic anomalies were identified by this survey. No anomalies were tested by drilling.

Nodle Peak Resources Ltd conducted exploration and diamond drilling programs on their property, commencing with Landsat satellite imagery studies in the fall of 1986. These studies led to airborne total field magnetic and MK VI Input surveys in November and December, 1986 (Dvorak, 1987). In January 1987, one grid was cut to follow up on results of the airborne survey. Magnetic and electromagnetic (MaxMin II HLEM) surveys were carried out on this grid to locate EM conductors identified by the airborne survey (Roth, 1987). A diamond drilling program was designed on the basis of the above surveys to test linear EM conductors. In winter 1987, a total of 5,345 ft (1,629.2 m) was drilled in nine (9) holes (N-1 to N-8, and N8A (Fig. 6.1). Six (6) of the holes penetrated the bedrock. Drilling intersected two structural zones characterized by graphitic fault gouge with graphitic microcrystalline quartz, sericite and chlorite schists, shearing, brecciation and one section of a quartz-feldspar porphyry dyke (Beesley, 1987). Gold values associated with these structures were low (up to 420 ppb). Gold results on these two structural zones did not warrant additional drilling. In winter 1988, the results of four (4) reverse circulation drill holes indicated that MaxMin II HLEM anomalies from previous surveys were primarily due to conductive overburden effects and not to bedrock sources (Roth and Brereton, 1988). The results revealed the overburden section to be extremely thick yet relatively simple. Good till was encountered in all the holes. Only four (4) abraded gold grains were observed in the till samples, and no further work was recommended.

In winter 1988, a combined helicopter-borne magnetic and electromagnetic survey was conducted on two blocks of claims by Morrison Minerals Ltd. Electromagnetic and magnetic anomalies were outlined by this survey, and some conductors were interpreted to be of bedrock origin (Boustead, 1988). No anomalies were tested by drilling.

In March 1989, a ground magnetic and electromagnetic (HEM) survey was carried by Noranda Explorations on two grids on their property located west of Lac Grasset (Lambert and Turcotte, 1989). Despite the presence of ground geophysical anomalies, no drilling was performed to test them.

6.4 1996–1998

In 1995, Globex Mining Enterprises Inc. staked a group of claims west of Lac Grasset. Ground magnetometer and IP-resistivity surveys were conducted on the property in winter 1996 (Zalnieriunas, 1996; Chartré, 1996; Lambert, 1996). During the same period, a diamond drilling program was conducted on the property to test the defined IP targets. A total of eight (8) holes (S-96-1 to S-96-8) were completed for a total of 1,444.1 m. (Zalnieriunas, 1996) (Fig. 6.1). Hole S-96-5 did not reach the bedrock. The drilling program indicated the property hosts a series of fault systems and that significant regional-scale iron carbonate alteration was present. But the drilling program failed to intersect any significant zones of gold mineralization. The best result was 76 ppb Au.

Cyprus Canada Inc. and Fairstar Explorations Inc. completed exploration programs on three groups of mining claims located west of Lac Grasset in winter 1996 (Dion and Keast, 1996). These three groups of claims were subject to a 50/50 joint venture (JV) between the two companies. A high-resolution airborne survey, originally flown by Morrison Minerals in 1987, was reprocessed to a 10 x 10 m grid cell. Ground total field magnetic, electromagnetic (HLEM) and IP-resistivity surveys were carried out on all groups of claims (Dion and Keast, 1996; Boileau and Lapointe, 1996). In the same period, five (5) holes (FB96-1, FB96-2, SC96-1, DT96-1, and DT96-2) totalling 1,082 m were completed on some groups of claims to test geophysical targets (Dion and Keast, 1996) (Fig. 6.1). Moderate to strong shearing was encountered in four of the five holes, although no significant gold assays were obtained. The highest gold value was 55 ppb Au. However, hole DT96-2 intersected a 30-cm sample associated with a quartz vein that assayed 209 g/t Ag over 0.3 m. Anomalous copper and zinc values were reported in hole FB96-2, DT96-1 and DT96-2. In 1998, Cyprus Canada optioned the three groups of claims to International Taurus Resources Inc (Jeffery, 1998). In June and July 1998, magnetic and electromagnetic surveys (HLEM) were carried out on the groups of claims (Jeffery, 1998; Potvin, 1998a; 1998b).

6.5 Exploration Work by Balmoral from 2011 to 2014

The Grasset Property was staked by Balmoral in 2010. It lies adjacent to Balmoral's Fenelon Property that was purchased from American Bonanza Corporation. Since that time, Balmoral has conducted exploration programs in 2011, 2012, 2013 and 2014 (Perk, 2015). The initial programs comprised property-wide geophysical and soil sampling surveys.

6.5.1 2011 exploration work

Balmoral contracted Geotech Ltd of Aurora, Ontario, to conduct a helicopter-borne EM survey using their Versatile Time Domain Electromagnetic (VTEM Plus) system over the Grasset Property from October 5 to October 12, 2011. The work was split into two smaller projects, with 440.8 line-km flown over the western part of the property from the October 5 to 7, 2011, and an additional 1622.4 line-km of data acquired over the eastern portion of the property from October 7 to 12, 2011. Both surveys were flown with 100-m traverse line spacing and perpendicular tie lines spaced at 1,000 m. The main traverse lines were oriented at an azimuth of N000 over the western portion of the property and N030 on the eastern grid (Fiset et al., 2011a, 2011b).

The survey was successful in identifying several strong magnetic and conductive trends on the Grasset Property (Perk, 2015). The magnetic trends correlate well with the interpreted regional geology, with magnetic highs representing mafic and ultramafic rocks of the Manthet and Broullian-Nord groups, and with the most pronounced magnetic lows representing rocks of the metasedimentary Turgeon River Formation. As such, much of the previous exploration work (both by Balmoral and previous operators) has focused on areas near this contact.

The survey of the East grid identified a number of strong conductors, largely localized in two distinct bands along the northeastern and southwestern edges of the property (Perk, 2015). Both zones correlate with strong magnetic highs. The northeastern conductive zone has been drill-tested by 13 historical holes over a 6.5-km strike length. None of these holes intersected any significant mineralization and no follow-up work has been done by Balmoral. The survey of the Grasset West grid identified three discrete conductive zones, all of which are associated with magnetic highs in the mafic and ultramafic rock units of the Manthet Domain (Perk, 2015). Unlike the results of the Grasset East survey, there appears to be no direct correlation between the strength of the conductive response and the strength of the total magnetic field. The weakest conductor is found at the edge of the strongest magnetic high, and it is within this weakly conductive magnetic high that the Grasset Ni-Cu-PGE discovery was discovered, suggesting that the zones with the strongest electromagnetic responses are not necessarily the best candidates for Ni- Cu-PGE mineralization.

6.5.2 2012 exploration work

Balmoral conducted a soil sampling program on the Grasset Property. The program was conducted by Equity Exploration Consultants Ltd (“Equity”) personnel under the field supervision of Equity. Equity is a mining exploration service company with an office in Vancouver, British Columbia. Sample sites were widely spread over the entire Grasset Property, often consisting of a single line (Perk, 2015). A total of 225 samples (including blanks and duplicates) were collected during the fall of 2012 from the upper zone of mineral soil (generally buried under relatively thick organic cover) and submitted for MMI (Mobile Metal Ion) analysis by SGS Minerals in Toronto (MMI-M5 method code). In instances where it was not possible to reach mineral soil, a sample of the organic material from ~2 m below surface was collected and submitted to ACME Laboratories in Vancouver, British Columbia, for ICP analysis with an aqua regia digest (analysis code 1F15). The results of the 2012 program were presented in a report by Equity (Perk et al., 2012a), and much of the discussion in this section is summarized from this report.

6.5.3 2013 exploration work

6.5.3.1 Induced polarization and resistivity surveys

Ground-based IP-resistivity surveys with accompanying magnetometer surveys were conducted on the Grasset Property during the summer 2013. Work was contracted to Scott Geophysics Ltd of Vancouver, British Columbia. The 2013 survey was conducted over the Grasset Ni-Cu-PGE discovery, following up on promising drill results from the 2012 exploration program.

The 2013 survey consisted of a total of 18.8 line-km of IP-resistivity and magnetometer surveying along survey lines oriented at N030 azimuth, with perpendicular tie lines at N120 (Perk, 2015). The main survey lines were 1.3 km long and spaced 100 m apart. Readings were taken at 75-m intervals, with an “a” spacing of 75 m and “n” separations of 1–12. Magnetometer readings were taken at 12.5-m intervals. The results of the survey show a large chargeability high at depth over much of the survey grid with an accompanying magnetic high trending roughly east-west (Fig. 13). This is the geophysical signature that would be expected from a Ni-Cu-PGE magmatic sulphide deposit, and as such the results of the survey were judged to be promising enough to warrant follow-up drilling.

6.5.3.2 HLEM and magnetic survey

Balmoral conducted one small (3.75 line-km) ground-based HLEM and magnetic survey on the Grasset Property in late summer 2013. Work was conducted by Abitibi Geophysics of Val-d’Or, Québec, and consisted of three 1.25-km survey lines spaced at 400 m, over top of the Grasset Ni-Cu-PGE discovery (Perk, 2015). The survey detected a weak magnetic field increase over the discovery, but did not generate any meaningful EM data. The reason for the lack of usable EM data is not entirely clear; however, given the small scale of the survey, this result is not considered to have a material impact on the mineral potential of the property.

6.5.3.3 Soil geochemistry survey

Balmoral conducted another soil sampling program on the Grasset Property (Table 3). The program was conducted by Equity personnel under the field supervision of Equity. Sample sites were widely spread over the entire Grasset Property, often consisting of a single line (Figs. 14, 15). A total of 349 samples (including blanks and duplicates) were collected during the fall 2013 from the upper zone of mineral soil (generally buried under relatively thick organic cover) and submitted for MMI analysis by SGS Minerals in Toronto (MMI-M5 method code). In instances where it was not possible to reach mineral soil, a sample of the organic material from ~2 m below surface was collected and submitted to ACME labs in Vancouver, British Columbia, for ICP analysis with an aqua regia digest (analysis code 1F15). The results of the 2013 program (Perk et al., 2013) has been previously reported on by Equity and much of the discussion in this section is based on this report.

6.5.4 2014 exploration work

6.5.4.1 Airborne survey

An airborne survey was flown during the 2014 exploration season. Balmoral again contracted Geotech and their airborne VTEM Plus system, this time to conduct three smaller grids over portions of the property that had not previously been surveyed or justified more detailed exploration. The Nickel Test grid was flown, over the area of the 2012/2014 Ni-Cu-PGE discovery within the GUC (see section 10.2), at a 50-m flight line spacing with tie lines spaced at 500 m. The main flight lines for this grid were oriented at N045, with tie lines running perpendicular at N135. A total of 106 line-km were flown on this grid. The Grasset North and Grasset Gap grids were flown over areas where data was not obtained during the 2011 airborne survey, and consisted of traverse lines spaced at 100 m and perpendicular tie lines spaced at 1000 m (the same setup as the 2011 survey). The Grasset North grid traverse lines were flown at an orientation of N000 with a total flight path distance of 193.8 line-km; the Grasset Gap grid was oriented at N030, with a total flight path distance of 479.7 line-km (Venter et al., 2014).

Magnetic trends on the Grasset North and Grasset Gap grids are consistent with those found in previous airborne surveys (Perk, 2015). Both grids display parallel curved linear total field magnetic highs that follow a pattern consistent with the regional-scale folding of mafic members of the Manthet Group. The conductive zone outlined at the northern end of the Grasset East grid is part of a larger conductive trend that continues onto the Grasset Gap grid, bending into an east-west orientation at its southern end. This shape is consistent with the regional-scale folding interpreted from the magnetic data and, as such, this conductor may simply be a relatively conductive horizon within the stratigraphy. Similarly, several conductivity highs are present on the Grasset North grid, aligned with the strike of coincident magnetic anomalies and regional stratigraphy. While these conductivity highs should not be discounted entirely as targets for mineral exploration, any work must take into account the possibility that these zones are simply more conductive lithologies within the stratigraphy of the Manthet Group.

The Nickel Test grid comprises a more detailed survey over the Grasset Ni-Cu-PGE discovery (Perk, 2015). The survey successfully identified the mineralized zone as a magnetic high and identified one very small isolated EM anomaly which may be associated with a small part of the mineralized zone, though the possibility of false positives (i.e., magnetic and EM highs not produced by Ni-Cu-PGE mineralization) cannot be discounted.

6.5.4.2 Induced polarization and resistivity surveys

Ground-based IP-resistivity surveys (with accompanying magnetometer surveys were conducted on the Grasset Property during winter 2014. Work was contracted to Scott Geophysics Ltd of Vancouver, British Columbia. The 2014 survey consisted of a small addition to the 2013 grid and a separate survey on the eastern part of the property near Lac Grasset (Scott, 2014), covering an area identified by the 2011 airborne survey as hosting both magnetic and EM anomalies (Perk, 2015).

The 2014 survey on the edge of Lac Grasset consisted of 53.15 line-km of IP and 53.9 line-km of magnetometer readings. Survey lines were oriented north-south, and were of variable lengths and spacing (Perk, 2015). Magnetic readings were taken every 12.5 m. IP readings were taken at an “a” spacing of 50 m and an “n” separation of 1–10. Several chargeability anomalies of potential interest were identified by this survey. A well-defined east-west-trending chargeability high is present along the southern margin of the grid, and has been interpreted by Balmoral to be a potential sulphide-rich horizon. A more diffuse chargeability high coinciding with a resistivity high on the northern section of the grid is suggestive of orogenic gold mineralization (chargeable sulphide minerals hosted within a resistive zone of silicification). In addition to the main survey area, two smaller IP grids were surveyed in 2014: a small, 1.8 line-km grid to the south of Lac Grasset (“Small Cluster Target), and an additional 1.875 line km on the Grasset Nickel grid from 2013. Neither of these smaller surveys produced results of sufficient significance to alter the interpretations and planning derived from the larger surveys.

6.5.4.3 Borehole Pulse EM Surveys

Borehole EM surveys were carried out on 27 drill holes. Two geophysical contractors were used: Crone Geophysics & Exploration Ltd and Lamontagne Geophysics Ltd. The surveys took place during four separate periods between the months of February and October 2014.

Concurrent with the winter 2014 drilling program (February to April 2014), Balmoral contracted Crone Geophysics and Exploration to perform surface and borehole pulse EM surveys on the Grasset Ni-Cu- PGE discovery (Khan, 2014). Nine (9) drill hole surveys were completed for a total downhole survey length of 1,675 m, with a total of 22.3 km of surface EM surveys conducted on the areas surrounding the drill holes. Following the completion of the winter 2014 exploration program, a separate interpretation report on the downhole geophysical data was produced by Sharon Taylor (Taylor, 2014). The bulk of the following interpretation summary is taken from that report.

The surface EM survey defined two subvertical conductors with significant depth extent, both of which received drill testing in the summer of 2014. The smaller of the two conductors lies 100 m northwest of the discovery hole GR-12-09 and was tested with holes GR-14-35 and GR-14-38. Hole GR-14-35 did not intersect any significant mineralization; GR-14-38 intersected several zones of weak Ni-Cu-PGE enrichment. The larger of the two identified surface targets coincides roughly with the main body (northwest end) of Horizon 1, and was the target of several well-mineralized drill holes during the summer 2014 program. Despite these moderately mineralized intercepts, it is interpreted that the surface EM response is from graphitic rocks and pyrite horizons in the footwall to Horizon 1, as opposed to mineralization within the horizon itself.

The downhole EM surveys were successful in locating known massive and net-textured sulphides, showing that the method is appropriate for detection of mineralization at the Grasset Ni-Cu-PGE zone. Numerous additional off-hole anomalies were also identified, suggesting that additional mineralized zones may be present and offer promising drill targets (Taylor, 2014).

A Borehole UTEM 4 and UTEM 3 surface survey was also conducted by Lamontagne Geophysics from July 25 to August 4, 2014, and from August 13 to August 27, 2014 (Heminsley, and Demerling, 2014a). During this time, fourteen (14) holes were surveyed for a total downhole survey length of 8,715 m. During the same time period, Line 1000E was surveyed from 650N to 600S.

Another Borehole UTEM 4 survey was also carried out by Lamontagne Geophysics from October 21, to October 28, 2014 (Heminsley, and Demerling, 2014b). During this time, four (4) holes were surveyed for a total downhole survey length of 2,810 m.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 The Abitibi Terrane (Abitibi Subprovince)

The Grasset Property is located in the northwestern Archean Abitibi Subprovince in the southern Superior Province of the Canadian Shield. The Abitibi Greenstone Belt has been historically subdivided into northern and southern volcanic zones defined using stratigraphic and structural criteria (Dimroth et al., 1982; Ludden et al., 1986; Chown et al., 1992) and mainly based on an allochthonous greenstone belt model development; i.e. interpreting the belt as a collage of unrelated fragments. The first geochronologically constrained stratigraphic and/or lithotectonic map (Fig. 7.1), interpreted by Thurston et al. (2008), includes the entire Abitibi Greenstone Belt known coverage span; i.e. from the western Kapuskasing Structural Zone to the eastern Grenville Province. Thurston et al. (2008) described the Abitibi Greenstone Belt to be mainly composed of volcanic units which were unconformably overlain by large sedimentary Timiskaming-style assemblages. Similarly, both new mapping surveys and new geochronological data indicate an autochthonous origin for the Abitibi Greenstone Belt.

Generally, the Abitibi Greenstone Belt comprises east-trending synclines containing volcanic rocks and intervening domes cored by synvolcanic and/or syntectonic plutonic rocks (gabbro-diorite, tonalite, and granite) alternating with east-trending turbiditic wacke bands (MERQ-OGS, 1984; Ayer et al., 2002a; Daigneault et al., 2004; Goutier and Melançon, 2007). Normally, the volcanic and sedimentary strata dip vertically and are usually separated by abrupt, variably dipping east-trending faults. Some of these faults, such as the Porcupine-Destor Fault, display evidence of overprinting deformation events including early thrusting, later strike-slip and extension events (Goutier, 1997; Benn and Peschler, 2005; Bateman et al., 2008). Two ages of unconformable successor basins are observed: a) widely distributed fine-grained clastic rocks in early Porcupine-style basins, followed by b) Timiskaming-style basins composed of coarser clastic sediments and minor volcanic rocks, largely proximal to major strike-slip faults, such as the Porcupine-Destor and Larder Lake-Cadillac faults and other similar regional faults in the northern Abitibi Greenstone Belt (Ayer et al., 2002a; Goutier and Melançon, 2007). The Abitibi Greenstone Belt is intruded by numerous late-tectonic plutons composed mainly of syenite, gabbro and granite with fewer lamprophyre and carbonatite dykes. Commonly, the metamorphic grade in the Abitibi Greenstone Belt varies from the greenschist to subgreenschist facies (Jolly, 1978; Powell et al., 1993; Dimroth et al., 1983; Benn et al., 1994) except in the vicinity of most plutons where the metamorphic grade corresponds mainly to the amphibolite facies (Jolly, 1978).

7.2 New Abitibi Greenstone Belt Subdivisions

As mentioned in section 7.1, the most recent data from the newest mapping surveys and new geochronological information by the Ontario Geological Survey and Géologie Québec, were used to define the new Abitibi Greenstone Belt subdivisions. The following section presents a more detailed description of these new subdivisions, mostly abridged from Thurston et al. (2008) and references therein.

Seven (7) discrete volcanic stratigraphic episodes define the new Abitibi Greenstone Belt subdivisions based on numerous U-Pb zircon age groupings. The new U-Pb zircon ages clearly show timing similarities for volcanic episodes and plutonic activity ages between the northern and southern portions of the Abitibi Greenstone Belt, as indicated in Fig. 7.1. These seven volcanic episodes (Fig. 7.1) are listed below, chronologically from the oldest to the youngest:

- Volcanic episode 1 (pre-2750 Ma);
- Pacaud Assemblage (2750–2735 Ma);
- Deloro Assemblage (2734–2724 Ma);
- Stoughton-Roquemaure Assemblage (2723–2720 Ma);
- Kidd-Munro Assemblage (2719–2711 Ma);
- Tisdale Assemblage (2710–2704 Ma);
- Blake River Assemblage (2704–2695 Ma);

The Abitibi Greenstone Belt successor basins are of two types: 1) laterally extensive basins corresponding to the Porcupine Assemblage with early turbidite-dominated units (Ayer et al., 2002a); followed by 2) the aerially more restricted alluvial-fluvial or Timiskaming-style basins (Thurston and Chivers, 1990).

The geographic limit (Fig. 7.1) between the northern and southern parts of the Abitibi Greenstone Belt has no tectonic significance but is similar to the limits between the internal and external zones of Dimroth et al. (1982) and those between the Central Granite-Gneiss and the Southern Volcanic zones of Ludden et al. (1986). The boundary between the northern and southern parts passes south of the wackes of the Chicobi and Scapa groups with a maximum depositional age of 2698.8 ± 2.4 Ma (Ayer et al., 1998, 2002b).

The Abitibi Subprovince is bounded to the south by the Larder Lake-Cadillac Fault Zone, a major crustal structure that separates the Abitibi and Pontiac subprovinces (Fig. 7.1) (Chown et al., 1992; Mueller et al., 1996; Daigneault et al., 2002, Thurston et al., 2008).

The Abitibi Subprovince is bounded to the north by the Opatica Subprovince (Fig. 7.1), a complex plutonic-gneiss belt formed between 2800 and 2702 Ma (Sawyer and Benn, 1993; Davis et al. 1995). It is mainly composed of strongly deformed and locally migmatized, tonalitic gneisses and granitoid rocks (Davis et al., 1995).

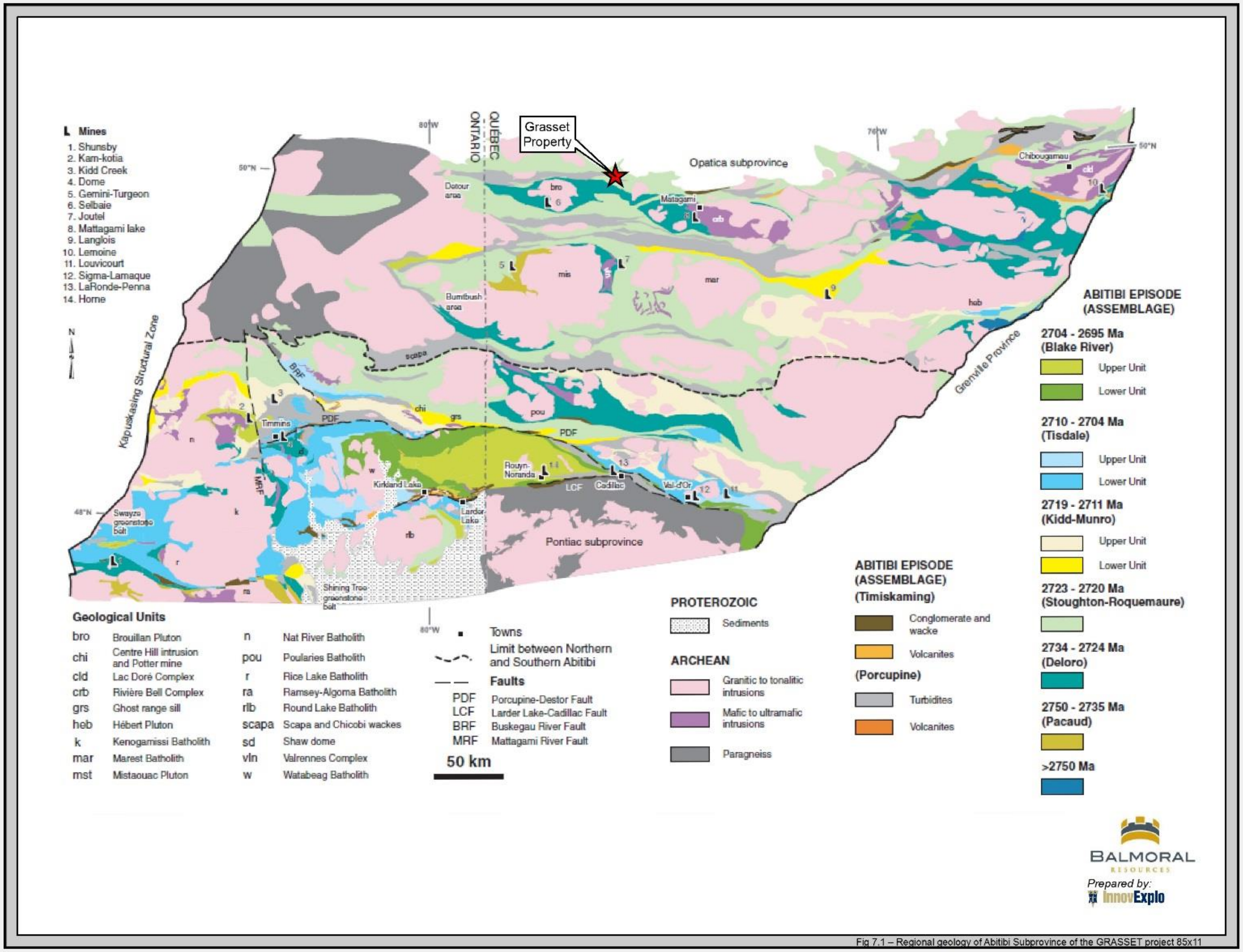

Figure 7.1 – Abitibi Greenstone Belt is based on Ayer et al. (2005) and the Québec portion on Goutier and Melançon (2007). Figure modified from Thurston et al. (2008).

7.3 Regional Geology

The geology in the northwest Abitibi Subprovince has been described by Lacroix et al. (1990), Ayer et al., (2002a) and Faure (2012, 2015) and is referred to the Harricana-Turgeon volcano-sedimentary segment. The segment extends from the Detour Lake mine, Ontario, in the west to Matagami, Québec, in the east, and includes the Matagami, Brouillan, Joutel and Casa-Berardi mining districts.

The segment is dominated by mafic volcanic rocks, followed by sedimentary and plutonic rocks. It is transected by numerous E-W trending deformation zones located either at the contacts of volcano-sedimentary units and granitoid plutons or crosscutting them (Fig. 7.2). The two major northernmost faults of the Abitibi are the Sunday Lake (SLDZ) and Grasset (GDZ) deformation zones (Fig. 7.2). The GDZ is the equivalent of the South Detour Deformation Zone in Ontario.

The main rock assemblage north of the SLDZ consists of tholeiitic basalts of the Manthet Group dated in Ontario, north of the Detour Lake mine, at 2722 Ma (Marmont and Corfu, 1989). The basalt sequence is dominated by pillowed and massive flows and is intruded by mafic and ultramafic sills and dykes. This group is the equivalent of the Stoughton-Roquemaure assemblage in Ontario, which has been dated between 2723 and 2720 Ma (Thurston et al. 2008).

The volcanic package south of the GDZ is attributed to the Brouillan-Fenelon domain (Lacroix et al., 1990) and is subdivided in two volcanic assemblages. The older assemblage consists of bimodal andesite-rhyolite calc-alkaline volcanism and magmatism dated between 2725–2730 Ma and is correlated to the Deloro in southern Abitibi (Barrie and Krog, 1996; Thurston et al. 2008). This package of volcanic rocks is flanked around the Brouillan synvolcanic pluton and in the core of the Brouillan anticline, and hosts the Selbaie polymetallic epithermal deposit (Faure et al., 1996). The felsic volcanic rocks that host the volcanogenic massif sulphides deposits in the Matagami mining camp are also attributed to this package. The mafic assemblage south of the GDZ has similar volcanic facies and composition to the Manthet group with few ultramafic complexes and is correlated to Stoughton-Roquemaure assemblage.

Metasediments are present in two different rock packages. The synorogenic flysch-type sediments of the Matagami assemblage is wedged between the Sunday Lake and the Grasset deformation zones. The Matagami sediments are composed of interbedded argillaceous siltstones and wackes (turbidites sequences) and minor mafic to felsic volcaniclastic rocks. They are interpreted to be formed in a successor basin unconformably overlying the volcanic rocks (Mueller et Donaldson, 1992). They are equivalent in Ontario to the Caopatina sediments (2698 Ma) and to a broader scale to the Porcupine type sediments in southern Abitibi. A 15 km long by 2,5 km large basin of polygenic conglomerates occurs in the center of the segment north of the SLDZ. This late restricted basin is bounded by faults and has the hallmarks of Timiskaming-style divergent fault-wedge basin, a variant of a pull-apart basin, developed proximal to major strike-slip faults in southern Abitibi (Mueller et al., 1991). A similar conglomeratic basin occurs along the South Detour fault in Ontario (e.g. extension of the Grasset fault). These conglomeratic basins are spatially associated with orogenic and syenite gold deposits elsewhere in the Abitibi (Robert, 2001). A few layers of sulphidic and graphitic shale or tuffs (tens to hundreds of metres), highly conductive, are interlayered between basaltic flows or within the Matagami sediments.

Apart from the gabbro and ultramafic sills and dykes, the plutons in the NW Abitibi are felsic to intermediate in composition. Three major intrusions are present; the Brouillan, Jeremie and Turgeon. The Brouillan is a polyphase mafic tholeiitic to felsic calc-alkaline synvolcanic intrusion dated at 2729 Ma (Barrie and Krogh, 1996). The Jeremie and Turgeon plutons, as well as smaller granodiorite and diorite intrusions, have metamorphic aureoles to upper greenschist to lower amphibolite facies and are interpreted as pre to synkinematic (Lacroix, 1994).

The rock sequence has been affected by a regional deformation and metamorphism. The metamorphism increases towards the Opatica Subprovince, from greenschist facies in the south to the amphibolite to the north. The appearance of the hornblende that marks the amphibolite isograd occurs between 2 to 5 km south of the limit between the two subprovinces (Lacroix, 1994).

The sparse stratification measurements observed by Lacroix (1994) north of the SDLZ indicate that the basalt flow dips moderately to steeply. The fold pattern interpreted are mainly based on the magnetic heights of gabbroic and ultramafic sills and the electromagnetic conductors that characterized graphitic tuffs or sediments horizons. The folds are inclined and open to tight with axial traces oriented NW-SE, except around Detour Lake mine and north of the Jeremie plutons where they are isoclinal.

The SLDZ and the GDZ are the major structural features in the area. They are traced over 150 km from the western boundary of the Abitibi Subprovince in Ontario to the east of the Grasset Property up to the north of Matagami (Fig. 7.2). These two faults share many characteristics with others major breaks of the Abitibi, meaning a large corridor of ductile and high strain deformation, highly altered volcanic, sedimentary, and intrusive rocks melange, including ultramafic slices and syn orogenic felsic to intermediate dykes. At Detour Lake mine, the SLDZ display overprinting deformation events, including early thrusting with later both sinistral and dextral strike-slip events (Oliver et al., 2012). On the regional total magnetic field, the fault is defined as a linear east-west-trending magnetic low that truncates at high angle domains of rock units with low and high magnetic signatures to the north and the less contrasting magnetic signature of the sediments to the south.

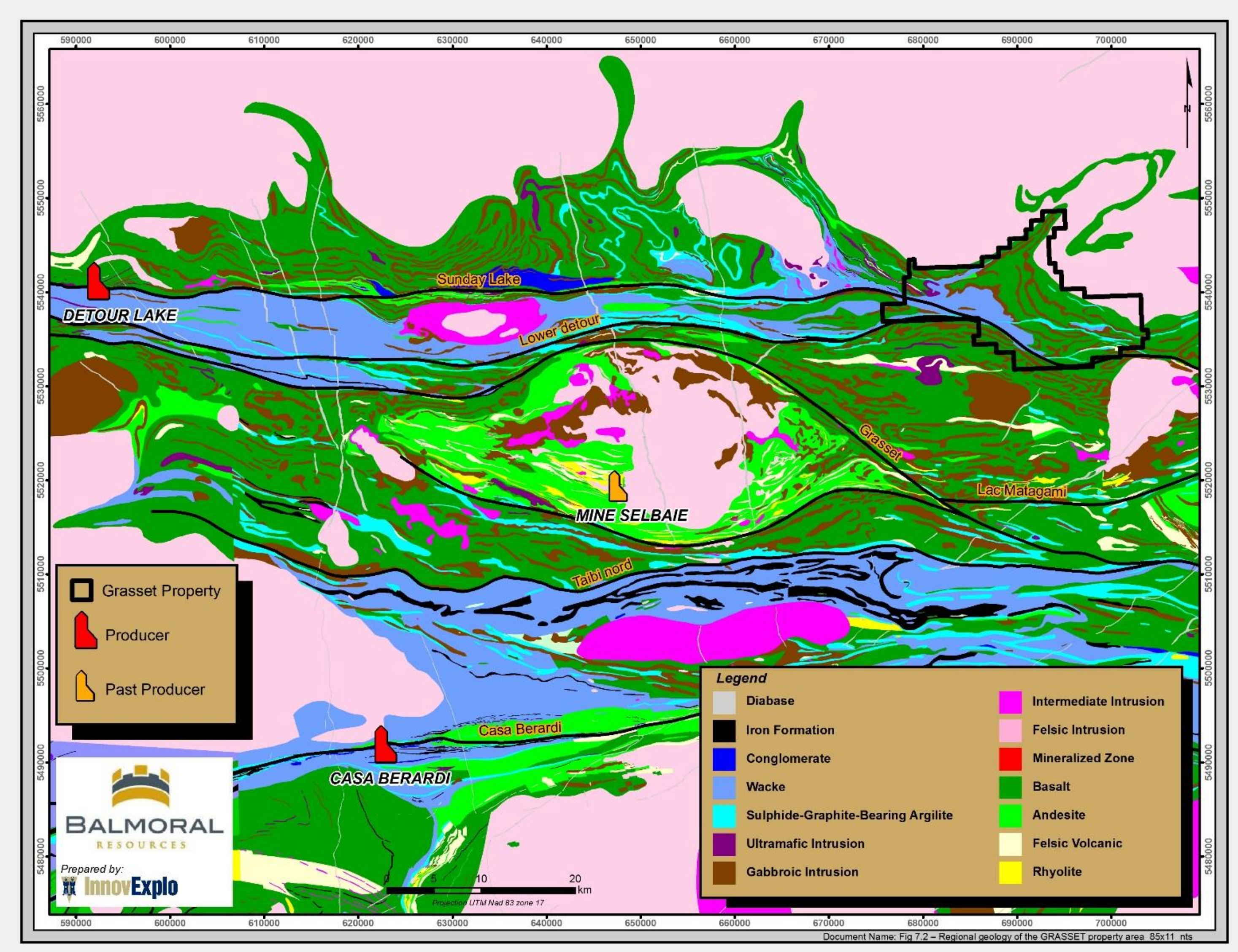

Figure 7.2 – New geological interpretation of Detour Lake and Selbaie areas. Adapted and modified from Faure (2015) and CONSOREM (2015).

7.4 Grasset Property Geology

The Grasset Property is covered by 50 to 100 m of glacial overburden consisting mainly of sandy and gravel outwash material and lesser boulder-rich tills. The only know outcrops on the property are located on the SW shore of the Lac Grasset where a sequence of pillowed and massive basaltic flows and gabbros of the Brouillan-Fenelon domain have been observed by Lacroix (1990). Detailed information on property-scale geology is only available for those areas that have been drilled. The correlation between drill hole information and geophysical maps contribute to recognition of certain magnetic units such as gabbroic and ultramafic rocks, low magnetic sedimentary rocks, and highly conductor graphitic horizons (Lacroix, 1994; Faure, 2012, 2015). Basalt of the Manthet group, located north of the SLDZ, covers about the third quarter of the Grasset Property. Magnetic gabbroic sills follow the attitude of the contact between the Abitibi and the Opatica sub-provinces.

An ultramafic intrusion complex has been outlined in the Manthet group by American Bonanza Gold Corporation between 2006 and 2007 (Brousseau et al., 2007; Le Grand, 2008) in the western part of the property. The Grasset Ultramafic Complex (GUC) hosts the Ni-Cu-PGE Grasset deposit which is the subject of this report. It is formed by a stacked piles of basalts, gabbro and ultramafic sills and dykes, with minor rhyodacitic to dacitic volcaniclastics and rhyolite flows, and several narrow intercalated bands of iron formation, and graphitic argillite in apparent conformable contact relations with the overlying rock units (Leclerc and Giguère, 2010; Faure, 2015). The general attitude of the GUC is WNW, pinched between the Jeremie Pluton and the Opatica Subprovince. Several zones of ductile deformation have been intercepted in drill holes along strike in the complex (Brousseau et al., 2007; Le Grand, 2008), suggesting that the NW-SE trend may correspond to a major fault, parallel to others similar faults north and south of the SLDZ (Fig. 7.3). The southern portion of the complex is sheared and possibly folded by the SLDZ. The ultramafic part of the complex is composed of olivine pyroxenite, black pyroxenite, and pyroxene dunite, with a serpentine and talc-carbonate alteration overprint (Perk, 2015). It is not clear if the ultramafic rocks are intrusive in the volcanic sequence, or are volcanic flows. Most drill hole intervals described the ultramafic as massive homogeneous, fine grained, and generally magnetic rocks (Brousseau et al., 2007; Le Grand, 2008) that may be correlated to the B cumulate layer at the base of komatiitic flows (Faure et al. 2006). The rare spinifex texture that have been observed by Brousseau et al. (2007) indicates that upper part of volcanic flows, the A layer, is also present in the sequence. In the center of the GUC, the presence of biotite in drill holes indicates that the metamorphism reaches the upper greenschist facies.

The northern part of the property stands on the tonalite and the granodiorite gneissic intrusions of the metamorphic Opatica Subprovince.

The Matagami turbiditic basin occupies a low magnetic domain in the southwestern and central part of the property. South of the Grasset deposit and in the SLDZ, a thick package of heterolithic conglomerates containing sheared, rounded to sub-rounded clasts of many lithologies not commonly found nearby, including granitoids have been intercepted in drill holes (Perk, 2015). These conglomerates bear strong resemblances to Timiskaming-type conglomerates (Wagner, 2012) and may be represent a younger marginal basin within the broader Matagami basin and also may be correlated to the 15 km long basin north of the SLDZ defined by Faure (2015).

The Brouillan-Fenelon domain occurs in the southern portion of the property. Volcanic and sedimentary units on the western part of the property are oriented E-W, whereas they are oriented NW-SE in the eastern sector.

The SDLZ and the GDZ merge in the center of the property and cross across the Matagami sediment basin. The regional E-W orientation of these two faults changes to an ESE orientation in the eastern part of the property. The thickness of the SLDZ varies between 500 and 1500 m and dips steeply to the SSE (Wagner, 2012). The contact between Manthet group and Matagami sediments is sheared and strongly altered.

7.5 Mineralization

7.5.1 Gold

The recent drilling by Balmoral (2011 to 2014) outlined gold mineralization, named the Grasset Gold discovery, at the contact between the sequence of strongly deformed polylithic Timiskaming-type conglomerates and a mafic intrusive of the Manthet group, in the footwall of the SLDZ. The first hole intersected 33.00 m grading 1.66 g/t Au, including two higher grade intervals grading 6.15 g/t Au over 4.04 m and 4.18 g/t Au over 5.00 m. The mineralization is hosted in an anastomosing quartz-carbonate vein system along the contact, which is open laterally and at depth.

7.5.2 Nickel-Copper-PGE

The following description of the Grasset Ni-Cu-PGE mineralization is modified from Perk (2015).

Mineralization is concentrated in two stacked sulphide-bearing horizons (H1 and H3) oriented NW-SE within vertically dipping peridotite ultramafic units. Mineralization consists of metre-scale layers of net-textured, blebby semi-massive and massive sulphides. Pyrrhotite is the dominant sulphide mineral, with subordinate amounts of pentlandite, chalcopyrite and pyrite. The concentration of pentlandite and chalcopyrite is proportional to the total sulphide content. The two horizons are stacked, 25 to 50 m thick, and separated by 10 to 50 m of unmineralized ultramafic rock. Horizon 3 (H3) is defined over a strike length of roughly 500 m, and hosts the bulk of the high Ni-Cu-PGE values defined to date. Horizon 1 (H1) has been defined over a longer strike length (~900 m) and hosts moderate nickel grades (<1%) over its entire extent. Both zones are open at depth.

8. DEPOSIT TYPE

The Harricana-Turgeon volcano-sedimentary segment includes the Matagami, Joutel and Selbaie base metal camps, the Casa Berardi mine and the giant Detour Lake mine. The Grasset Property lies at mid way north between Selbaie and Matagami and along strike with the Detour Lake mine (Fig. 7.2). The main exploration target along and north of the SLDZ, as indicated by historical work, has been for gold. However, the recent discovery of the Grasset Ni-Cu-PGE deposit has changed the exploration strategy in the area since it is the only significant komatiite-associated Ni-Cu-(PGE) deposit, along with the giant Dumont nickel deposit, north of the Porcupine-Destor Deformation Zone. The area between the SLDZ and the Opatica Subprovince is consequently favourable for gold, base metals related to volcanogenic massive sulphides (VMS), and komatiite-hosted deposits.

8.1 VMS Cu-Zn-(Ag-Au)

The following description of the volcanic massive sulphide (VMS) formation model is a summary of characteristics presented by Franklin et al. (2005). Ancient VMS deposits formed in collisional environments during periods of extension and rifting. As the result of rifting, subsidence, and thinning of the crust accompanied by the rise of hot asthenospheric mantle into the base of the crust caused bimodal mantle-derived mafic and crustal-derived felsic volcanism. Magmatism associated with rifting, which manifests itself by the emplacement of cogenetic intrusions at shallow and mid-crustal levels, caused heating and modification of entrapped seawater within adjacent volcanic strata. Heat-induced water-rock reactions resulted in metal leaching and the formation of hydrothermal convection systems. Long-lived systems ultimately discharged hot, metal-rich hydrothermal fluid from deep-penetrating, synvolcanic faults onto the sea floor or into permeable strata immediately below the sea floor, to form VMS deposits. They typically occur as concordant polymetallic semi-massive to massive lenticular lenses and discordant stockwork vein system and associated alteration halo (pipe). The shape of the deposit depends on the architecture of the fluid conduits, permeability of the host rocks, and the subsequent structural and deformation history events.

VMS in the Northwestern Abitibi are classified in two lithostratigraphic types groups: bimodal mafic settings (Matagami) and bimodal-felsic (Selbaie). The first group is interpreted to form in incipient-rifted suprasubduction oceanic arcs, typified by flows and <25% felsic strata, whereas the second group occurs in incipient-rifted suprasubduction epicontinental arcs, typified by 35–70% felsic volcaniclastic strata (Franklin et al., 2005). The basalts of the Manthet and Brouillan-Fenelon domains are also favourable for the development of mafic settings VMS that occur in primitive oceanic back arcs, typified by komatiites with <10% sediment (Faure, 2015). In the Matagami camp, some 19 Zn-rich VMS deposits are currently known in the camp, of which 11 have been mined out and 1 is currently in production (Bracemac-McLeod deposit). The VMS deposits are hosted by mafic to felsic, subalkaline volcanic rocks emplaced in a submarine environment. Many VMS deposits consist of concordant sulphide lenses underlain by sulphide stringers and a discordant chlorite ± talc-magnetite alteration pipe (Lavallière et al., 1994). The felsic volcanic rocks and the spatially associated VMS deposits occur in three trends, orientated NW-SE to WNW-ESE, named the North Flank and South Flank (located on the sides of the synvolcanic layered mafic intrusion of the Bell River Complex), and the West Camp.

The giant Selbaie deposit is a large tonnage low-grade Cu-Zn-Ag-Au deposit with both stratiform and epithermal characteristics (Faure et al., 1996; Taner, 2002). Two economic mineralization types are present: copper-rich and zinc-rich veins, vein arrays and hydraulic breccias, which were mined underground (A2 and B zones); and low-grade, high-volume, disseminated and stringer zinc-copper-silver mineralization, which was mined in the A1 Zone open pit. A volume of 8 Mt of subeconomic, locally silver-rich, massive pyrite was also present in the A1 Zone. Mineralization is contained within a volcanic stratigraphic succession of heterolithic breccia, and felsic and intermediate tuffs and flows (Larson and Hutchinson, 1993).

The only known VMS north of the SLDZ is the Martiniere East VMS system discovered in 2011 by Balmoral. The VMS mineralization stands along the regional NW-SE trending Martiniere Fault, interpreted as a reactivated synvolcanic fault parallel to a set of regional synvolcanic faults recognized in the Selbaie and Matagami base metal camps (Faure, 2015). Drill holes at Martiniere intersected a broad (20–50 m) zone of semi-massive to massive pyrite mineralization and intense chlorite alteration within the Manthet basalt. The pyrite-rich sections typically exhibit anomalous (100 to 1000 ppb) gold mineralization, but weak base metal values; however, one hole intersected a 2.3-m-thick semi-massive to massive base metal-bearing sulphides.

On the Grasset Property, there are no known significant volcanic felsic centers or large synvolcanic plutons like those at Selbaie or Matagami. VMS mineralization considered to be of economic significance is unknown. However, the presence of the Martiniere East VMS system in the same basaltic rock sequences that traverse the Grasset Property (Manthet Group) and the presence of felsic horizons in the eastern part of the property offer a possible perspective for base metals exploration.

8.2 Komatiite-hosted Ni-Cu-(PGE)

The Grasset Ultramafic Complex (GUC) is known to host Ni-Cu-PGE mineralization, which is the current focus of exploration on the Grasset Property. Geophysical data and drill holes indicate that ultramafic rocks of the GUC extend continuously for 12 km northwestward from the SLDZ. In 1995, Cyprus Canada Inc. intersected ultramafic rocks in three drill holes to the northeast of the Jeremie pluton, suggesting that the GUC may continue wrapping around this pluton.

In the Abitibi, komatiite-hosted Ni-Cu-(PGE) mineralization occurs in four volcanic assemblages and periods (Thurston et al. 2008): Pacaud (2750–2735 Ma), Stoughton-Roquemaure (2723–2720 Ma), Kidd-Munro (2719–2711 Ma) and Tisdale (2710–2704 Ma). The Manthet Group that hosts the GUC correlates temporally with the Stoughton-Roquemaure Assemblage and is thus a favourable period for Ni-Cu mineralization.

In the vicinity of the Ni-Cu-PGE Grasset deposit, volcanic rocks of the GUC are sheared and affected by strong deformation because they sit in the damage zone of the SLDZ. The metamorphic/deformational event may have altered the mineralogy, textures and morphology of the deposit (Barnes and Lightfoot, 2005). During deformation, stress may focus in the structurally incompetent massive sulphide units. While sulphide minerals do not change their mineralogy during metamorphism, the yield strength of the pentlandite and chalcopyrite is less than that of pyrrhotite and pyrite, resulting in a potential to segregate the sulphides mechanically throughout a structure. Nickel sulphide tends to remobilize as it has the yield strength and behaviour of toothpaste, and may move tens to hundreds of metres away from its original depositional position into fold hinges, footwall sediments or faults, for example (Barnes and Lightfoot, 2005).

Komatiite-associated Ni-Cu-PGE deposits can form in a wide range of volcanic environments and overlie a wide range of footwall rocks, including basalts (e.g., Kambalda, Western Australia), andesites (e.g., Alexo, Ontario), dacites (e.g., Bannockburn, Ontario), rhyolites (e.g., Dee's Flow, Ontario), sulphide facies iron-formations (e.g., Windarra, Western Australia) and sulphidic semi-pelites (e.g., Raglan, Québec). They rarely occur in isolation, but in clusters. The Grasset mineralization shares common geological and petrological associations with the Kambalda style of komatiite-hosted nickel sulphide deposits. The mineralization at Kambalda is interpreted to have developed as ‘ore shoots’ in either one of two processes: flow erosion upon the paleosurface or structural remobilization (Lightfoot, 2007). In the former, mineralization is interpreted to have developed in trough-like depressions, which may represent volcanic topographic irregularities that cut down through the stratigraphically underlying metasedimentary and metavolcanic rocks by thermomechanical erosion at the base of thickened parts of komatiite lava flow. In the latter, mineralization is found along structural features at the base of komatiite flows is interpreted as remobilized sulphide.

The ore zone in flow channel erosion typically consists, from the base upwards, of a zone of massive sulphides, matrix/net-textured sulphides, disseminated sulphides and cloud sulphides (Lightfoot, 2007). Due to their higher density compared to silicate melt, sulphides tend to pool by gravity within topographic lows. The massive sulphide normally sits upon a footwall of basalt or felsic volcanic rock, into which the massive sulphide may locally intrude, forming veins, interpillow sulphides and interbreccia sulphides. Semi-massive sulphides are more common and are composed of Fe-Ni-Cu sulphides with inclusions of olivine and wall rocks. Net-textured sulphides are composed of 30–50% sulphide interstitial to olivine (typically serpentinized), which have been interpreted to have formed by static gravitational segregation, dynamic flow segregation, or capillary infiltration.

The metal source is the ultramafic magma, which has been generated by high-degree partial melting of the mantle and which was strongly undersaturated in sulphide in the source. The sulfur source comes from sulphide-rich country rocks (sulphidic argillites or volcanic rocks), from which the sulphide is melted by the high-temperature komatiite magma. Ore deposition is favoured by prolonged high-volume flow magma over a horizontal floor or small intrusion (Barnes et al. 2015). This floor may take the form of the base of a channelized elongated sill, tube, blade, funnel or keel shaped dyke (chonoliths), which account for most of the known host igneous bodies to significant ore deposits. Deposition mechanisms may be chemical or physical, but large high-grade deposits require a major component of transported sulphide liquid, initially carried as droplets. Late-stage migration of sulphide liquid as gravity currents within intrusion networks, coupled with infiltration and melting of floor rocks, accounts for the common observation in mafic intrusion hosted deposits of cross-cutting relationships between massive sulphides, host intrusions and country rocks. Critical parameters controlling the presence or absence of mineralization include the primary magmatic composition, the availability of a suitable substrate, and most critically the physical volcanology or magma dynamic in small intrusion.

8.3 Orogenic Gold

Metamorphic belts like the Abitibi are complex regions where accretion or collision has added to, or thickened, continental crust. Gold-rich deposits can be formed at all stages of orogen evolution, so that evolving metamorphic belts contain diverse gold deposit types that may be juxtaposed or overprint each other (Groves et al. 2003).

The majority of gold deposits in metamorphic terranes are located adjacent to first-order, deep-crustal fault zones (e.g., Cadillac-Larder Lake, Porcupine-Destor, Casa Berardi and Sunday Lake in the Abitibi), which show complex structural histories and may extend along strike for hundreds of kilometres with widths of as much as a few thousand metres (Goldfarb et al., 2005). Fluid expulsion from crustal metamorphic dehydration along such zones was driven by episodes of major pressure fluctuations during seismic events. Ores formed as simple to complex networks of gold-bearing, laminated quartz-carbonate fault-fill veins of second- and third-order shears and faults, particularly at jogs or changes in strike along the major deformation zones. Mineralization styles vary from stockworks and breccias in shallow, brittle regimes, through laminated crack-seal veins and sigmoidal vein arrays in brittle-ductile crustal regions, to replacement- and disseminated-type orebodies in deeper, ductile environments (Groves et al. 2003). Most orogenic gold deposits occur in greenschist facies rocks, but significant orebodies can be present in lower and higher grade rocks. The mineralization is syn- to late-deformation and typically post-peak metamorphism. They are typically associated with iron-carbonate alteration. Gold is largely confined to the quartz-carbonate vein network but may also be present in significant amounts within iron-rich sulphidized wall-rock selvages or within silicified and sulphide-rich replacement zones (Dubé and Gosselin, 2007). One of the key structural factors for gold mineralization emplacement is the late strike–slip movement event that reactivated earlier-formed structures within the orogeny (Goldfarb et al. 2001), a condition that have been achieved along the SLDZ (Oliver et al. 2012).

Three significant gold mineralizations occur along the SLDZ; the giant Detour Lake mine, the Bug Lake Trend (See Martiniere Property; section 23.4) and the Discovery Zone (See Fenelon Property; section 23.6). These gold mineralizations present many similarities with mesothermal orogenic gold deposits in terms of metal associations, wall-rock alteration assemblages and structural controls.

8.3.1 Detour Lake Gold mine

The geology of the Detour Lake Gold mine has been studied in detail by Oliver et al. (2012), and the principal characteristics of the ore zones are summarized here. The total NI 43-101 Proven and Probable reserves for the Detour Lake mine, as at December 31, 2015, are estimated at 445.5 Mt grading 1.01 g/t Au, for a total of 14.48 Moz gold (Anwyll et al., 2016).

InnovExplo did not review the database, key assumptions, parameters or methods used by (Anwyll et al., 2016) for the 2015 mineral reserve estimate. The reserve estimate was stated as compliant with NI 43-101 criteria by (Anwyll et al., 2016), however InnovExplo is not able to confirm if new scientific or technical material information has become available since the effective date of the estimate. Consequently, InnovExplo cannot certify that the 2015 mineral reserve estimate is still complete and current.

The mineralized zones are hosted by a sequence of pillowed and massive flows, hyaloclastite units, and altered ultramafic rocks of the Detour Lake Formation, and are commonly oriented parallel to a series of high-strain zones that are co-planar to the SLDZ. Gold occurs in shear-hosted and extensional vein arrays of few hundreds of metres in wide into the hanging wall of the SLDZ and within the fault itself. The Detour Lake mine has many characteristics of syn-tectonic mesothermal orogenic vein deposits.

9. EXPLORATION

In 2015, Balmoral completed an extensive IP survey covering a series of very strongly folded and highly magnetic rocks located approximately 12 to 17 km east of the Grasset deposit. Several EM conductors are known in this area from the Balmoral's previous airborne geophysical work. A large number of very strong IP responses have been detected, associated both with the conductive zones and elsewhere along this trend.

The IP survey used a pole-dipole array (Scott, 2015). Readings were taken at an "a" spacing of 50 m at "n" separations of 1 to 12 (50/1-12), and at an "a" spacing of 150 m at "n" separations of 1 to 8 (150/1-8). The on-line current electrode was located to the east or south of the potential electrodes.

A total of 70.4 km of IP surveying at 50/1-12, and 5.1 km of IP surveying at 150/1-8 (cumulative total of 75.5 km) were performed on the following grids:

- VMS1: 21.75 km at 50/1-12;
- Fold: 15.9 km at 50/1-12;
- Ni: 17.65 km at 50/1-12;
- Ni2: 15.1 km at 50/1-12 and 5.1 km at 150/1-8 (20.2 km total).

A total of 2.85 km of magnetometer surveying was performed on a single line (1000E) on the Ni2 grid.

10. DRILLING

10.1 Drill Hole Survey

All the Balmoral drill holes were surveyed with either a FlexIT or Reflex EZ-Shot™, and most of the 2014 and 2015 holes were surveyed with a Reflex Gyro as well. The strongly magnetic character of the ultramafic rocks necessitated the frequent use of the Gyro survey tool.

In 2014 and 2015, FlexIT and EZ-Shot surveys were predominantly completed at 50 m or 30 m intervals, with the 50 m interval typically used for holes that were followed up with Gyro surveys or that were more exploratory in nature. Gyro surveys were performed at 5 m intervals.

All of the collar locations were initially spotted with a handheld GPS, which typically has a horizontal accuracy of ±5 m. The collar locations for holes drilled on the Grasset Ultramafic Complex were subsequently surveyed with a Total Station GPS (TSGPS) system that established the location of each collar casing with horizontal accuracy of ±0.03 m and vertical accuracy of ±0.05 m (1σ). The trend and plunge of casings was determined with a Reflex North Finder Azimuth Pointing System (APS). The TSGPS survey was completed by Patrick Descarreaux Quebec Land Surveyor Inc. of La Sarre, Québec.

10.2 Overburden

Vertical depth of overburden in the 2011–2015 Balmoral drill holes ranges widely across the property, from a low of 8.6 m to a maximum of 108.8 m. The overburden on the Grasset Ultramafic Complex is particularly thick, averaging 80.7 m of vertical thickness.

10.3 Core Recovery and RQD

Core recovery averaged about 99% for all holes drilled on the Grasset Property. Rock quality designation (RQD), which is a measurement of rock competency, averaged about 75% for all of the holes drilled on the Property. Drill core processing consisted of both geotechnical and then geological logging, after which the samples were marked out and the core was moistened and photographed. Geotechnical logging included measurement of core recovery, RQD and magnetic susceptibility. Core recovery, RQD and magnetic susceptibility were recorded at 3 m intervals whereas specific gravity was measured at variable intervals, possibly to target specific rock types.

10.4 Drilling Campaign

10.4.1 2011 Drilling Program

In 2011, diamond drilling started with a single NQ hole in the spring (GR-11-01) followed by four NQ holes in the fall (GR-11-02 to GR-11-05), the latter following up on a property-wide airborne magnetic and EM survey (Fiset et al., 2011b) (Figs.10.1 and 10.2). Between April 23, 2011 and October 5, 2011, 1,728 m of drilling were completed (Wagner, 2012). All five of these holes were collared within about 130 m of each other and targeted gold mineralization along the sheared contact between two geological domains. The 2011 drill program intersected an undiscovered gold-bearing zone, and confirmed the location of a major shear zone along geological domain boundaries. Hole GR-11-01 returned the most significant mineralization: 33.00 m grading 1.66 g/t Au, including two higher grade intervals of 4.04 m grading 6.15 g/t Au and 5.00 m grading 4.18 g/t Au. The gold mineralization is located along the Sunday Lake Deformation Zone.

10.4.2 2012 Drilling Program

The 2011 drilling program was followed by a drilling program in the winter of 2012, which totalled 1,899.0 m of drilling in 7 NQ holes (Perk et al., 2012b) (Figs.10.1 and 10.2). The first four of these holes (GR-12-06 to GR-12-09) were drilled along 1.2 km of strike length on Sunday Lake Deformation Zone with the remaining three holes (GR-12-13 to GR-12-15) testing a coincident EM-magnetic anomaly in the westernmost part of the Property. Holes GR-12-10 to GR-12-12 were drilled just off the Grasset Property on the adjacent Fenelon Property, and are therefore not discussed further.

A Ni-Cu-PGE discovery was made during the 2012 program in hole GR-12-09. Hole GR-12-09 intersected a 9.17 m interval that returned 0.51% Ni, 0.09% Cu and 0.50 g/t platinum+palladium+gold (Balmoral's press release dated May 23, 2012)

10.4.3 2014 Drilling Program

The Ni-Cu-PGE discovery made in 2012 was followed up in the winter of 2014, following additional geophysical and soil sampling surveys that were completed in 2013. The winter 2014 drill program comprised 11 NQ holes for a total of 3,633.6 m, of which nine (GR-14-16 to GR-14-20, and GR-14-22 to GR-14-25) were drilled into the newly discovered Grasset Ultramafic Complex, one was targeted at the sheared contact between the Matagami and Manthet domains (GR-14-21), and an exploration hole (GRX-14-01) was drilled on a coincident EM-magnetic anomaly in the northwestern corner of the Property (Wagner, et al., 2014) (Figs.10.1 and 10.2).

The winter 2014 program was successful in delineating at least three Ni-Cu-PGE mineralized horizons in the Grasset Ultramafic Complex, and was consequently followed up with a 51-hole NQ drill program, totalling 16,672.6 m, in the summer and fall of 2014. This summer-fall 2014 program was mostly focused on the Ni-bearing horizons of the Grasset Ultramafic Complex (GR-14-26 to GR-14-68), with minor amounts of exploration drilling on magnetic anomalies in the eastern part of the property (GRX-14-02 to GRX-14-07) and at the northeast edge of the Grasset Ultramafic Complex (GRX-14-08).

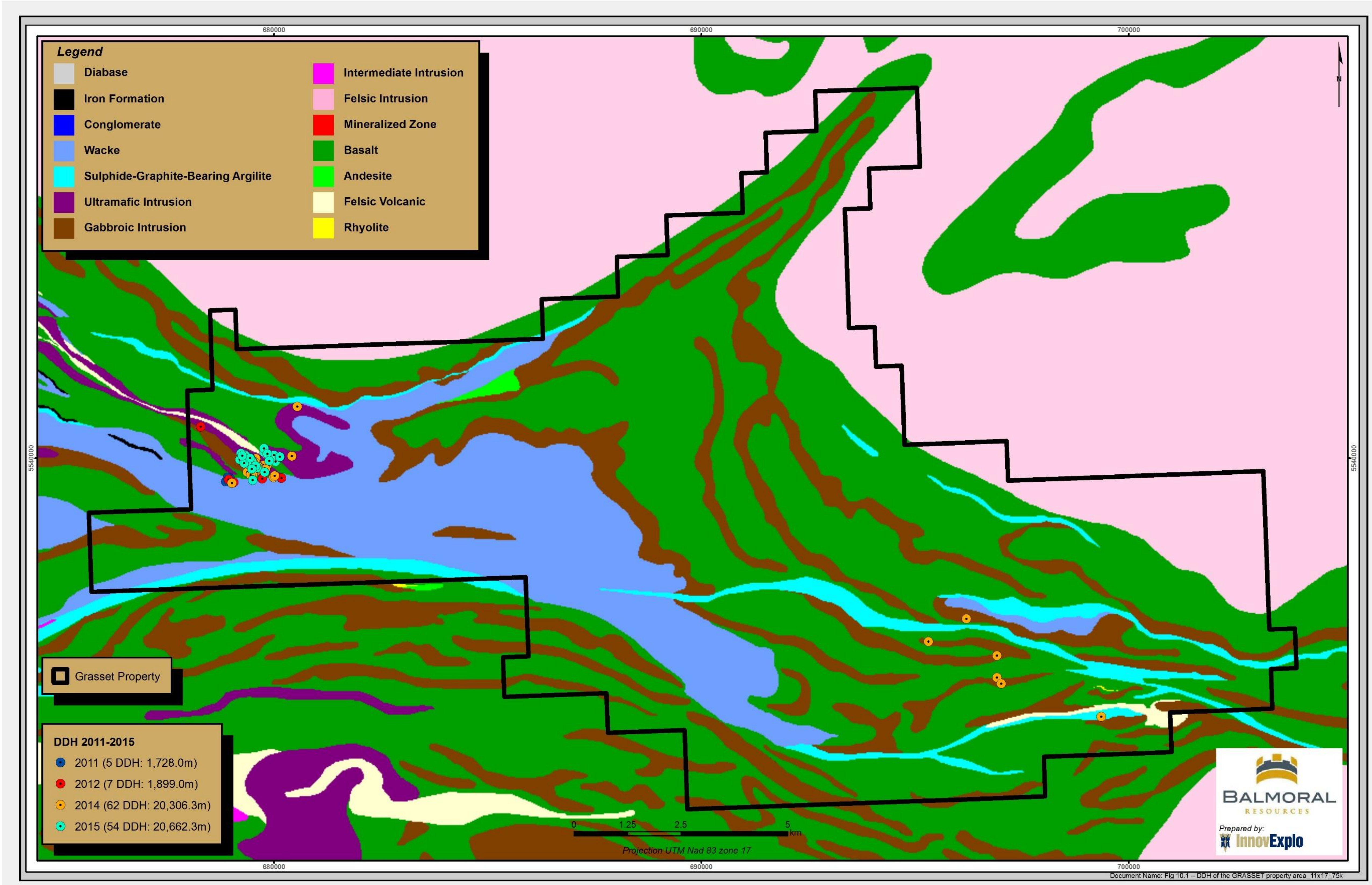

Figure 10.1 – Location of Balmoral's drill holes on the Grasset Property

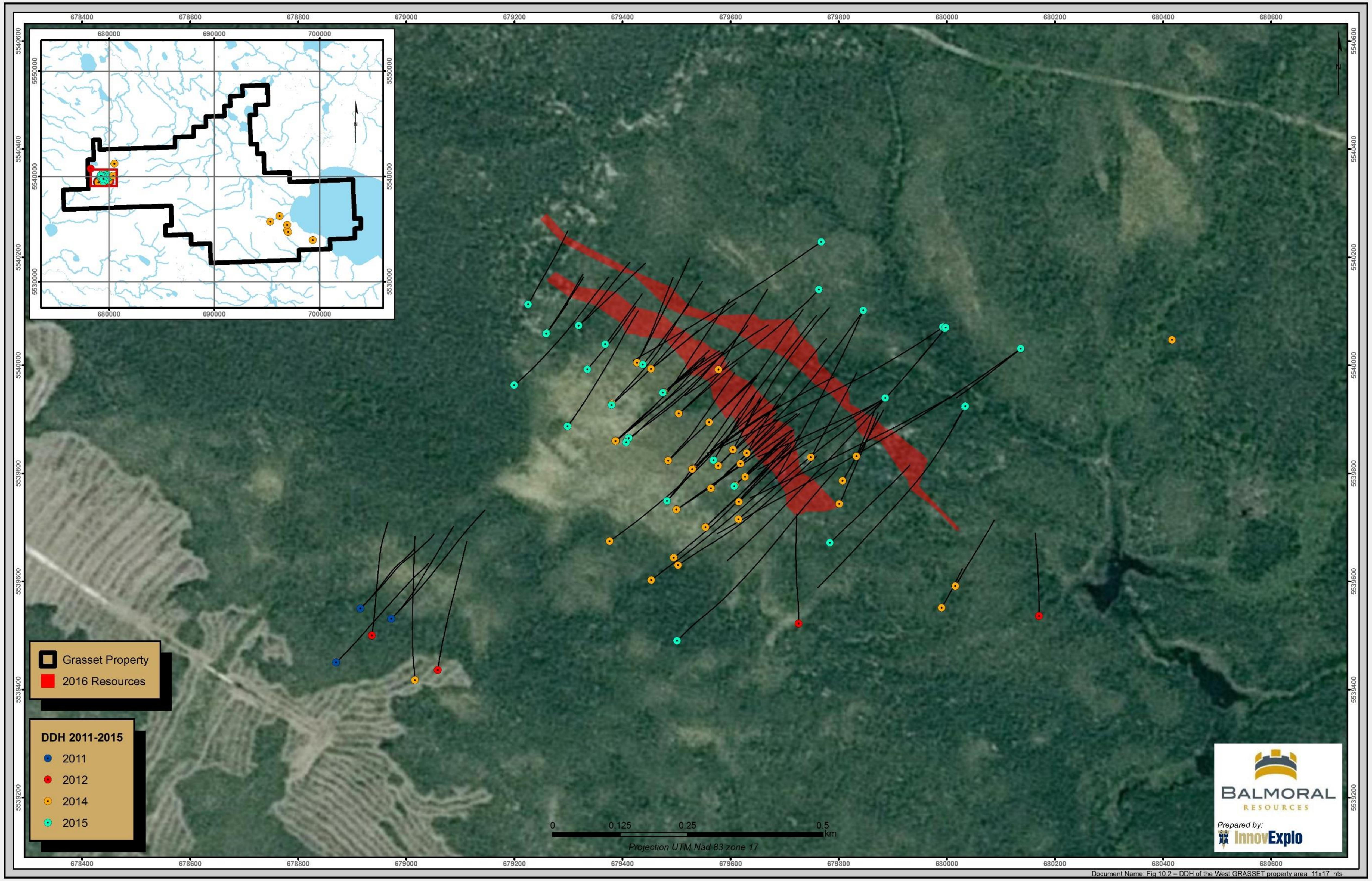

Figure 10.2 – Location of Balmoral's drill holes in the Grasset deposit area

The 2014 diamond drilling program on the Grasset Property was successful in identifying several ultramafic intrusions highly anomalous in nickel, copper and PGE (Wagner et al., 2014). These intrusions, referred to as the Grasset Ultramafic Complex, are strongly magnetic and are well highlighted by regional and ground magnetic surveys. Nevertheless, they are located among a multitude of other types of magnetic formations making their identification challenging. The nickeliferous mineralization consists mainly of pentlandite, pyrrhotite with minor amount of chalcopyrite. Some of the mineralized zones also contain various amounts of pyrite. The bulk of this mineralization is disseminated to net-textured with minor semi-massive to massive sulphide horizons. Some broad high grade zones were intersected; for example, hole GR-14-57 which returned 57.88 m grading 1.85% Ni, 0.21% Cu, 0.40 g/t Pt and 0.97 g/t Pd. The massive sulphide horizon contained in hole GR-14-57 returned 14.96% Ni, 0.74% Cu, 3.03 g/t Pt and 5.61 g/t Pd over 1.51 m.

10.4.4 2015 Drilling Program

The 2015 drilling program targeted extensions of the Horizon 3 Ni-Cu-PGE discovery and additional nickel targets within the Grasset Ultramafic Complex. During January to April 2015, a drill program comprised 14 NQ holes for a total of 6,900.7 m (GR-15-69 to GR-15-80A) (Figs.10.1 and 10.2). Drilling along strike and down-dip from the high grade zone on H3, and along H1, continued to intersect broad zones of disseminated nickel-copper-PGE sulphide mineralization, extending the scale of the mineralized system.

Drill core were also collected from three HQ holes (GR-15-81M to GR-15-83M) for a total of 623.8 m, in order to perform metallurgical testing on the H3 horizon. Assay results are highlighted by a broad, high-grade intercept of 97.11 m grading 1.10% Ni, 0.13% Cu, 0.24 g/t Pt, 0.61 g/t Pd and 0.17 g/t Au in metallurgical hole GR-15-81M, which included an intercept of 17.01 m grading 2.77% Ni, 0.38% Cu, 0.69 g/t Pt, 1.76 g/t Pd and 0.81 g/t Au. Hole GR-15-81M intersected H3 approximately 10 m below previously released hole GR-14-33. Holes GR-15-82M and GR-15-83M, which respectively intersected H3 12 m above and 20 m below previously reported hole GR-14-60, both returned similar mineralized intervals.

During summer 2015, infill and expansion drilling was carried out with two drills targeting the H3 nickel-copper-PGE zone. Twenty-five (25) drill holes, totaling 9,902.3 m (Figs.10.1 and 10.2), were drilled to provided sufficient information to perform an initial resource estimate for the Ni-Cu-PGE Grasset deposit.

During the fall 2015 program, Balmoral completed a total of twelve (12) exploration holes (GRX-15-09 to GRX-15-20), totalling 3,235.6 m. Six (6) holes were drilled on the Grasset Gap VMS target area, and three (3) holes on the Grasset Hinge area. The Grasset Gap target area is located 14 to 21 km east of the Grasset deposit. The target is marked by a 7.0 km trend of stratiform airborne EM conductors, which are now known to be associated with semi-massive to massive sulphide mineralization hosted by what are interpreted to be exhalative lithologies. Initial drill testing of five conductors intersected broad zones of massive to semi-massive sulphide mineralization, locally associated with anomalous levels of copper, lead, zinc and silver. Geologically the Grasset Gap Trend exhibits similarities to the productive West Camp in the nearby Mattagami VMS district.

Widely spaced testing in the Grasset Hinge area, a strongly folded sequence dominated by mafic intrusive and extrusive rocks located northeast of the H3 Zone, reinforced the issuer's view that the Hinge is prospective for gold mineralization. All the samples (163 in total) collected from two of the three holes in this area, GRX-15-19 and GRX-15-20, returned gold values above detection limits. Overburden cover in the Hinge area is considerably shallower than typically observed throughout the project, making it potentially amenable to low-cost geochemical surveying to further refine targets.

11. SAMPLE PREPARATION, ANALYSES, AND SECURITY

The following paragraphs describe Balmoral's sample preparation, analysis and security procedures for its diamond drilling program in 2015. The information was provided by Lustig (2016), who conducted a review of the quality control results of the 2015 drill program.

The descriptions relating to the 2011, 2012 and 2014 drilling programs were presented and discussed in Perk (2015).

11.1 Laboratories Accreditation and Certification

The International Organization for Standardization (IOS) and the International Electrotechnical Commission (IEC) form the specialized system for worldwide standardization. ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories sets out the criteria for laboratories wishing to demonstrate that they are technically competent, operating an effective quality system, and able to generate technically valid calibration and test results. The standard forms the basis for the accreditation of competence of laboratories by accreditation bodies. ISO 9001 applies to management support, procedures, internal audits and corrective actions. It provides a framework for existing quality functions and procedures.

All samples were submitted to the ALS Minerals Laboratory (ALS) in Val-d'Or, Québec, with sample preparation either at ALS Val-d'Or, Québec, or ALS Sudbury, Ontario. Gold analyses by fire assay with atomic absorption spectroscopy (AAS) and gravimetric finishes were completed by ALS Val Val-d'Or. Analyses for platinum, palladium, copper and nickel were completed at the ALS Vancouver laboratory. Gold analyses by ICP-AES were also completed in Vancouver. The ALS laboratories in Val-d'Or and Vancouver are ISO 9001 certified laboratories and are also individually accredited (ISO/IEC 17025) for the analytical methods used routinely on the Grasset samples. The ALS Val-d'Or and Vancouver facilities are commercial laboratories independent of Balmoral, and have no interest in the Grasset Property.

11.2 Core handling, Sampling and Security

Core handling and security procedures were managed by Balmoral personnel in 2015. Drilling core was first placed into routered wooden core trays at the drill site with the end of each drill run marked with a small wooden block displaying the total depth of the hole. The boxes were labelled with the hole and box number (e.g., GR-15-01 Bx 1), sealed with a lid, strapped with fibre tape and then transported daily from the drill site to the core storage and logging facility. These boxes were labelled in permanent marker with the hole and box number (e.g., GR-15-01 Bx 1). The core was transported mostly via helicopter, but also by snowmobile and truck during the winter programs. Camp Fenelon functioned as the core storage and logging facility for drilling programs.

Following geological and geotechnical logging, core samples were all NQ size and were cut lengthwise by diamond saw, with half of the core submitted as a primary samples and the remaining half core retained in the core box as a permanent record and as the source for further splitting for quality control analyses. Samples are typically 1 m in length with an average length of 1.217 m and a range from 0.33 m to 4.12 m.

Field duplicates were collected as a quarter-core sample from the same interval as the half-core sample, leaving a quarter-core in the box for reference. Core trays containing this remaining reference core were labelled with aluminum tags indicating the hole number and the core interval stored in each box, and are currently stored at Fenelon Mine and Camp Fenelon. The sampled portion of the core was placed into a clear polyethylene bag, along with a waterproof sample tag supplied by the analytical lab. The sample tag number was then written on the bag after which it was sealed with a cable tie. Up to 10 sealed sample bags were then placed in labeled rice bags, along with a request for analysis form, and then closed with a plastic seal. Samples from individual holes were sent to the laboratory as separate batches, or shipments, in order to optimally track and minimize possible handling and/or sample preparation errors. Prior to shipment to the laboratory, each sample bag was checked to verify it was numbered properly and sealed. Samples were then transported to ALS in Val-d'Or, Québec, by Balmoral personnel. Upon arrival in Val-d'Or, an ALS employee would sign the request for analysis form to verify that the full shipment had been delivered.

11.3 Sample Preparation at the ALS Chemex Laboratory

All samples were submitted to the ALS Minerals Laboratory (ALS) in Val-d'Or, Québec, with sample preparation either at ALS Val-d'Or, Québec, or ALS Sudbury, Ontario. After logging in and sorting, samples were dried and crushed using method CRU-31, consisting of fine crushing to better than 70% of the sample passing 2 mm. A crushed sample split of up to 1000 g was pulverized in a ring mill using a chrome steel ring set to at least 85% of the ground material passing through a 75 µm screen (method PUL32).

Table 11.1 – Method code and description of sample preparation (PREP-31B)

METHOD CODE	DESCRIPTION
LOG-22	Sample is logged in tracking system and a bar code label is attached.
DRY-21	Drying of excessively wet samples in drying ovens. This is the default drying procedure for most rock chip and drill samples.
CRU-31	Fine crushing of rock chip and drill samples to better than 70% of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-32	A sample split of up to 1000g is pulverized to better than 85% of the sample passing 75 microns.

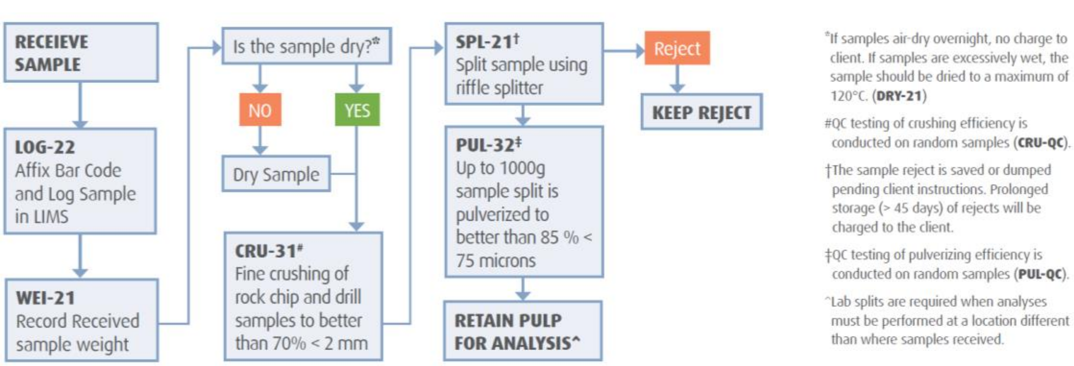

Figure 11.1 – Flow chart of the sample preparation PREP-31B at the ALS Minerals Laboratory

11.4 Analytical Methods (ALS Chemex Laboratory)

Gold analyses by fire assay with atomic absorption spectroscopy (AAS) and gravimetric finishes were completed by ALS Val-d'Or; methods Au-AA23 and Au-GRA21 respectively. Analyses for platinum, palladium, copper and nickel were completed at the ALS Vancouver laboratory (Table 11.2). Gold analyses by ICP-AES were completed in Vancouver as part of the PGM-23 package along with Platinum and Palladium.

Table 11.2 – Analytical methods used during the 2015 drill program (Lustig, 2016)

Element	Code	Method	Accreditation
Au	Au-AA23	Fire assay of 30 g sample with AAS finish	ISO 17025
Au	Au-GRA21	Fire assay of 30g sample with gravimetric finsih	ISO 17025
Multielement	MF-ICP61	35 element package by four acid digestion and ICP-AES	ISO 17025
Cu, Ni	ME-ICP81	Sodium peroxide fusion and ICP-AES, overlimit form ICP81	ISO 17025
Au, Pd, Pt	PGM-ICP23	fire assay of 30g sample with ICP-AES finish	ISO 17025
Zn	OG62	Four acid disgestion and ICP-AES	ISO 17025

Gold assays on the gold target zones were by method Au-AA23; fire assay of a 30 g aliquot followed by aqua regia (HNO3-HCl) digestion and measurement by atomic absorption spectroscopy (AAS). Samples in which the gold concentration exceeded 5 ppm were re-assayed from the same pulp by method Au-GRA21; fire assay of a 30 g aliquot, parting with nitric acid (HNO3) followed by gravimetric gold determination.

Gold was also analysed along with platinum and palladium by fire assay of a 30 g aliquot with aqua regia (HNO3-HCl) digestion and measurement by inductively coupled plasma atomic emission spectroscopy (ICP-AES, also known as ICP-OES and ICP-ES).

All samples were analysed by geochemical trace level multi-element geochemical method ME-ICP61, with analyses of a 0.25 g aliquot by ICP-AES following a four acid (HNO3-HClO4-HF-HCl digestion, HCl leach – nitric, perchloric, hydrofluoric, and hydrochloric acids). Samples returning values of 5,000 ppm copper or nickel were re-analyzed by method ME-ICP81, which consists of the fusion of a 0.2 g aliquot with a sodium peroxide (Na_2O_2) flux. The resulting fused material is dissolved in 30% hydrochloric acid and analyzed by ICP-AES. The detection limits are 0.005% with an upper reporting limit of 30%.

11.5 Balmoral Quality Control Results from 2015 Drilling Program

Quality control procedures for 2015 Drilling Program on the Grasset deposit were established during the 2012 drill program (Lustig, 2012) and included routine insertion of a standard reference material (standards), field or preparation duplicates and field blanks in each group of 20 samples. The initial drilling at Grasset deposit was targeting gold mineralization, but magmatic Ni-Cu-PGM mineralization was discovered during the 2012 program. The current QA/QC program now includes monitoring of platinum, palladium, copper and nickel in addition to gold (Lustig, 2016).

Analytical results from the Grasset samples have been continuously and independently monitored to assure that the quality of analyses is maintained. A "failure table" has been maintained to document departures from the accepted limits and to track corrective action. Assays exceeding the acceptable limits are examined to determine if there has been a sample mix-up in the field or laboratory, or whether it is an analytical issue that may require corrective action. Where necessary the affected samples are re-assayed.

Contamination is monitored by the routine insertion of barren coarse blank material that go through the same sample preparation and analytical procedures as the core samples. Results are monitored and corrective action applied where necessary.

Precision of the analytical results has been monitored by quarter core duplicate samples and preparation duplicates split after coarse crushing. Pulp duplicates were routinely analyzed as a part of the ALS internal quality control programs, which were reported and monitored. Duplicates are taken at each stage where the sample mass and grain size is reduced to monitor the overall sampling system. The field duplicates, representing the first split of the sample, incorporates the maximum amount of geological variability inherent in the material due to the particulate nature of the material.

In addition to the routine quality control samples inserted into each sample shipment, random selections from a geologically defined mineralized subset have been analysed at two different laboratories as an independent check of relative accuracy.

The following QC results for the 2015 drilling program were provided by Lustig (2016). Table 11.3 outlines the sampling included in the 2015 QC database. The program comprised 6,993 primary drill samples. The external quality control samples included 412 standards, 417 field blanks, 199 quarter core duplicates and 209 preparation duplicates. QC samples analyzed by ALS varied with the analyte and digestion method (Table 11.4).

Table 11.3 – Samples submitted to ALS for analysis along with routine samples (Lustig, 2016)

Type of Sample	#
Primary Drill Core Samples	6993
Field Blanks	417
Quarter Core Duplicates	199
Preparation Duplicates	209
Standards	412
Total Grasset	1237
Total Submitted	8230

Table 11.4 – ALS internal QC samples (Lustig, 2016)

Type of Sample	#
Pulp Duplicates	389
Preparation Duplicates	88
Blanks	704
Standards All	1696
Standards Au-AA23	253
Standards Au-GRA21	10
Standards Au-ICP-23	430
Standards PGM-ICP23	152
Standards ME-ICP61	646
Standards Cu-ICP81	72
Standards Ni-ICP81	289

11.6 Blanks

11.6.1 Results from Blanks

To monitor contamination during the sample preparation and analytical stages, 417 coarse quartz material blank samples were inserted into the sample stream at a rate of 1 in each group of 20 samples submitted (Table 11.3). In high-grade intervals, additional blanks were sometimes inserted. A general industry guideline is that blanks should not return results greater than 5x the detection limit. This guideline obviously has to take into account the actual detection limit; there may be a background greater than 5x the detection limit depending on the analytical method used (Table 11.5). As the copper and nickel analyses were the combinations of several methods, the detection limit of method ME-OG62 as a standard ore grade method with a detection limit of 0.001% was selected as the limit for establishing the warning levels for these elements.

Table 11.5 – Blank warning levels (Lustig, 2016)

Metal	DL	5 X DL
Gold	0.005 ppm	0.025 ppm
Platinum	0.005 ppm	0.025 ppm
Palladium	0.001 ppm	0.005 ppm
Copper	0.001%*	0.005%
Nickel	0.001%*	0.005%

* Warning levels for Cu an d Ni were based on the ME-OG62 method

The levels are relatively low to represent significant contamination but blank analyses exceeding these levels can usually be related directly to elevated concentrations of the respective element in the preceding drill core. This level, therefore provides a useful 'warning level' for more detailed examination. There were 16 field blanks exceeding the 5x DL warning level. These are shown on the blank vs. sample sequence charts (Figs.11.2 to 11.6). The orange plot in the background is the routine core samples in sequence with the blank samples, which helps to identify sources of contamination.

Two of the blanks exceeding the limit were determined to have been switched with the core samples. Re-assays of both blanks along with adjacent samples confirmed that the initial assays were of core samples and not blank material; one of the samples could not be definitely connected with a specific sample interval. Of the remaining warnings, 2 were copper, 8 nickel, 1 palladium, 1 palladium+copper+nickel, and 1 palladium+nickel. Each elevated blank value was examined to determine if it was likely caused by contamination and if that degree of contamination was significant given the overall values in the sample sequence. One copper and one nickel blank exceeding the warning limits had no apparent source or indication of contamination. The remaining samples could be correlated with higher grades in preceding samples, but there was no apparent significant contamination indicated with any of the samples following the elevated blanks.

According to Lustig (2016), there is a close correlation between the core grades and the blank analyses, which can be seen in the copper and nickel plots where the ME-ICP61 analyses combined with the ICP-81 high grade analyses allows us to see the full range from background to high grade (Figs. 11.5 and 11.6). Note how the profiles of the blanks (blue) follow that copper and nickel (orange) at low concentration well below significant contamination. This indicates that some contamination is always present. Also note the y-axis scale differences between the blank and core samples. Although there were indications of contamination associated with many of the mineralized intervals, the amount of metal added to the blank was not considered significant by Lustig (2016) in the context of the actual grades of the overall interval.

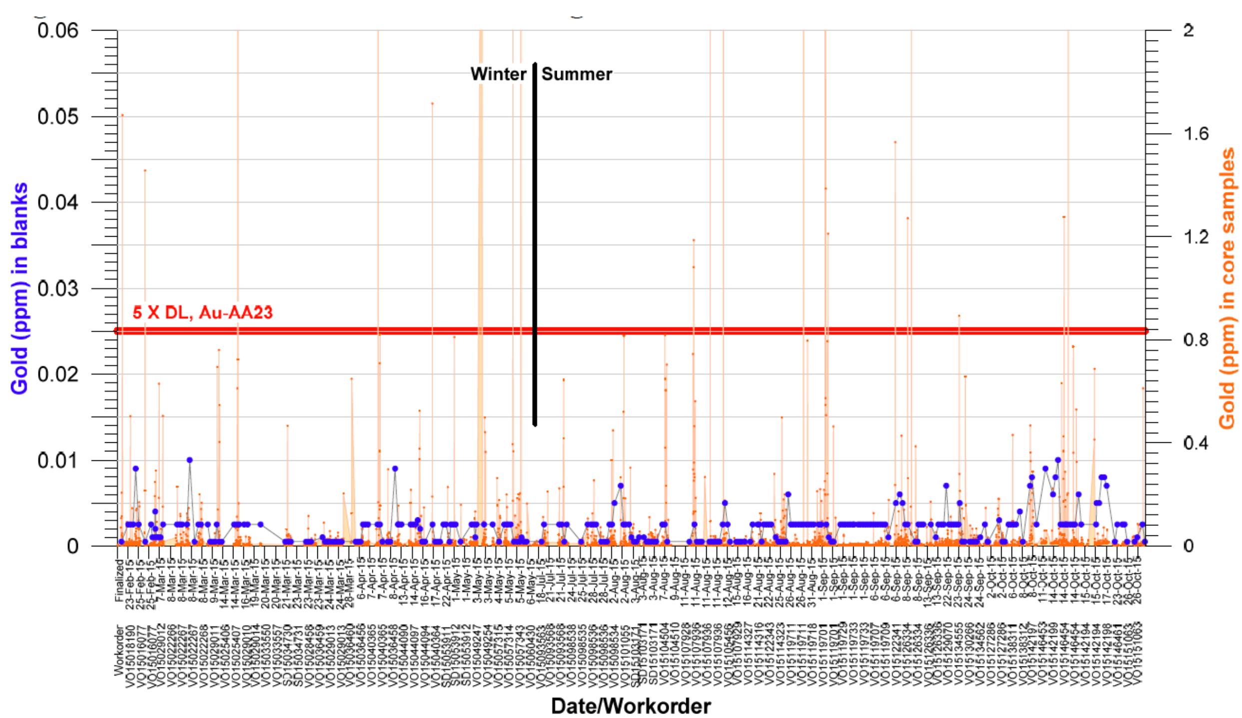

Figure 11.2 – Field blank gold analyses (blue) and all gold core analyses (orange) (Lustig 2016).

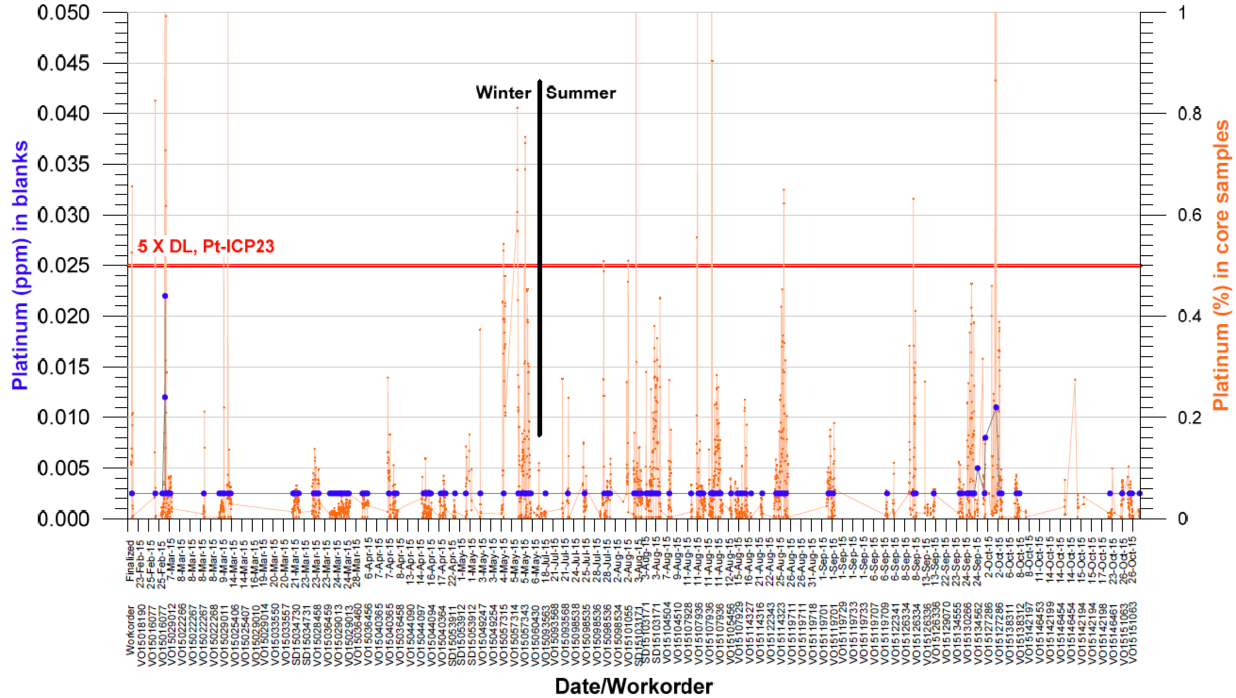

Figure 11.3 – Field blank platinum analyses (blue) and all platinum core analyses (orange) (Lustig 2016).

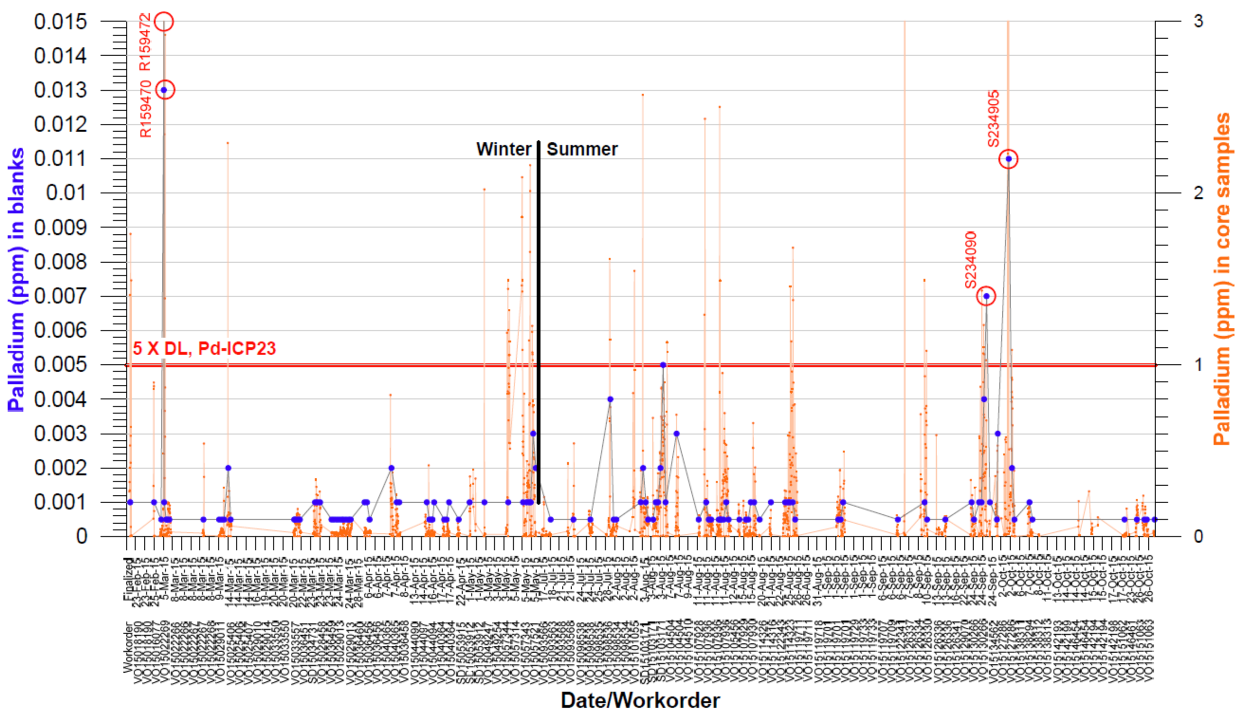

Figure 11.4 – Field blank palladium analyses (blue) and all palladium core analyses (orange) (Lustig 2016).

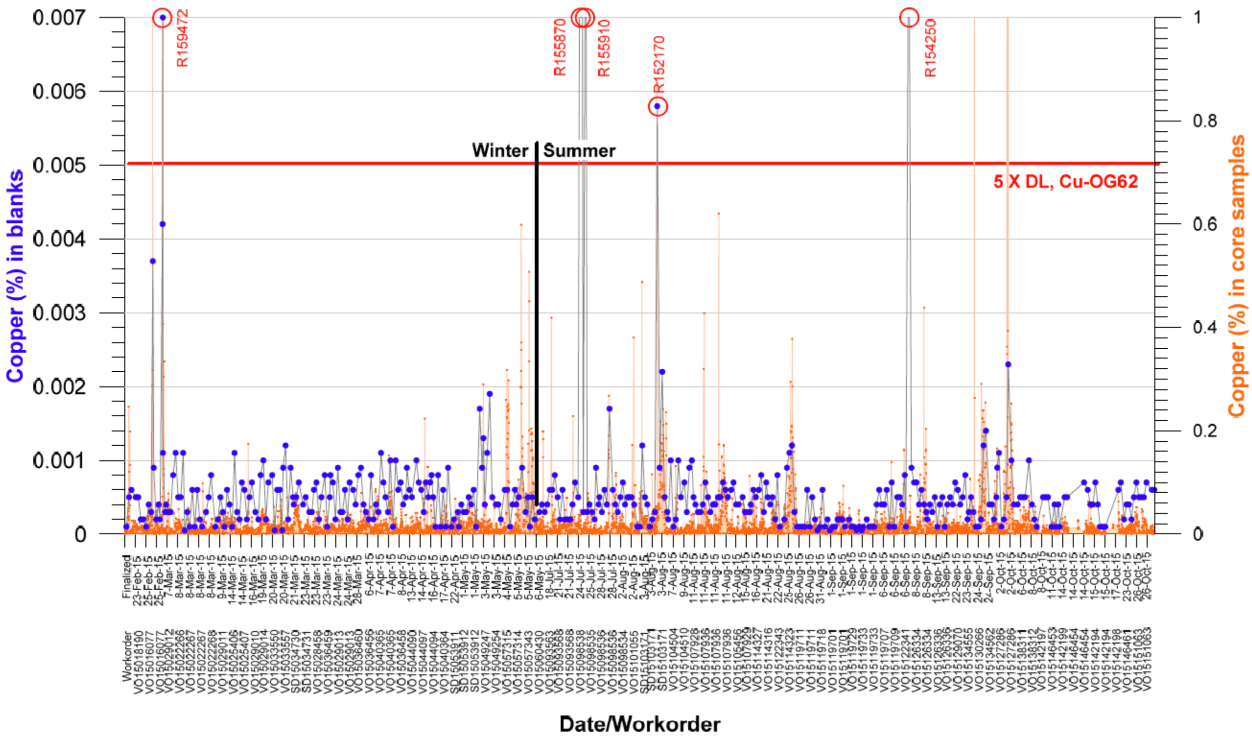

Figure 11.5 – Field blank copper analyses (blue) and all copper core analyses (orange). (Lustig 2016).

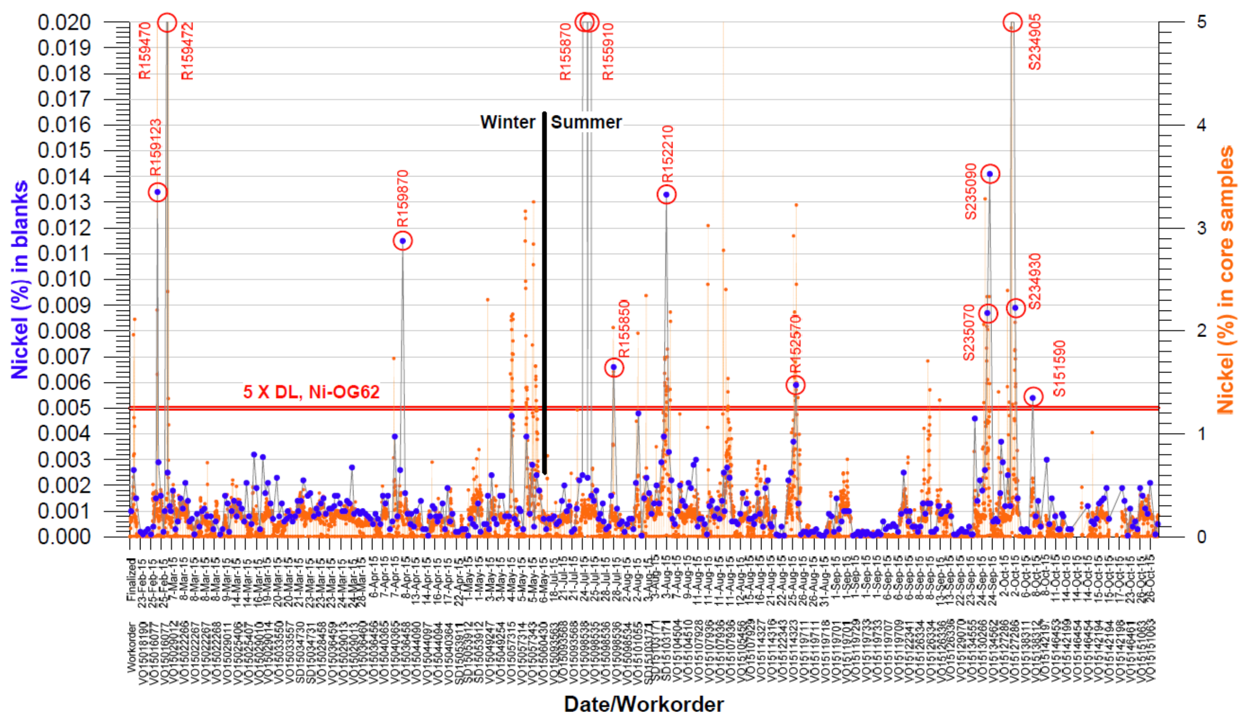

Figure 11.6 – Field blank nickel analyses (blue) and all nickel core analyses (orange) (Lustig, 2016).

11.6.2 Comment for Monitoring Contamination

InnovExplo is of the opinion that Balmoral's quality control results presented by Lustig (2016) for monitoring contamination using blanks during the 2015 drilling program are reliable and valid.

11.7 Certified Reference Materials (standards)

Accuracy was monitored by the insertion of standard reference material at the rate of 1 in each group of 20 samples submitted. Control limits were established at the recommended mean ±3SD (standard deviations) and warning limits at the recommended mean ±2SD. A ±3SD control limit for single analyses is based on the probability of a single standard analyses exceeding these limits of 0.3%, which should be a rare event and likely to indicate some anomalous occurrence. In a normal distribution there should be ~5% of samples exceeding the ±2SD "warning" limits, which could result in numerous false failures. The mean and standard deviation used to set the limits are those established during round robin characterization analyses. Any single standard analyses beyond the upper (UCL) and lower (LCL) control limits is considered a 'failure'. In addition, two successive standard analyses between the upper (UWL) and lower (LWL) warning limits and the control limits on the same side of the mean could also constitute a failure.

Analytical batches are not automatically re-analysed in the event of a standard failure; the complete batch is examined to determine the cause and significance of the failure. Analyses with large differences from expected values are often misidentified standards or have been switched with a routine drill samples. Batches where all results are less than detection or very low grade generally do not require re-analysis, but batches where there are mineralized results are always re-analysed if it is determined that the error is analytical rather than a sample mix-up.

The primary standards employed are certified commercial standards prepared by CDN Resource Laboratories Ltd of Langley, British Columbia, Canada. As part of their internal quality control program, ALS uses commercial standards provided by Canmet, AMIS, CDN, Geostats, OREAS and RockLabs.

Control charts showing concentration vs. the approximate analytical sequence, with warning and control limits plotted as horizontal lines have been prepared for each standard and each element analysed. All of the charts presented in the following sections display the results of the round robin analyses used for characterization of the standards plotted as red symbols on the left hand side of the plots.

There were 40 standard analyses exceeding the control limits (Table 11.6). Six of these were misidentified standards. These can be readily identified by the unique multi-element signature of each standard.

Table 11.6 – Standard failures (Lustig, 2016)

Standard	Elements	Failures	Re-assay	Misidentified
CDN-GS-1L	Au	6	0	3
CDN-GS-1M	Au	2	0	0
CDN-ME-1204	Au	1	0	0
CDN-ME-1207	Cu	26	1	1
CDN-ME-1207	Cu-Ni	1	0	1
CDN-ME-1207	Pt-Pd	1	1	0
CDN-ME-1208	Cu-Ni	1	0	1
CDN-ME-1208	Pd	1	1	0
CDN-ME-1208	Pt, Pd	1	1	0
Totals		**40**	**4**	**6**

There were nine gold standard analyses exceeding the control limits, six of which were CDN-GS-1L, two from CDN-GS-1M and one from the multi-element standard CDNME-1204. Three of the CDN-GS-1L failures were actually misidentified standards. No groups were re-assayed due to gold failures. As in 2014, the bulk of the standard failures were due to copper analyses of CDN-ME-1207 exceeding the upper control limit. Additional failures of CDN-ME-1207 were due to Cu-Ni and Pt-Pd failures, with the Cu-Ni failure due to misidentification of the standard. One group of samples was re-assayed based on copper failure and one due to the Pt-Pd failures. Standard CDN-ME-1208 had failures for Pt-Pd, Pd and Cu-Ni. The Cu-Ni failure was due to a misidentified standard and samples associated with the platinum and palladium failures were re-assayed.

11.7.1 Gold

Four gold standards were used during the 2015 drilling program, with certified values ranging from 1.16 ppm to 3.19 ppm (Table 11.7). Tables 11.6 and 11.7 summarize the results obtained during the quality control for the gold. No result recommended a re-analysis.

Table 11.7 – Statistical summary of all gold standard reference material analyses (Lustig, 2016)

Statistic	CDN-GS-1L	CDN-GS-1M	CDN-GS-3K	CDN-ME-1204
	Au_ppm	Au_ppm	Au_ppm	Au_ppm
Count Numeric	66	60	5	16
Minimum	0.711	0.909	3.05	0.792
Maximum	1.285	1.225	3.27	1.03
Mean	1.172	1.095	3.130	0.978
Certified grade	1.16	1.07	3.19	0.957
Bias (%)	**1.02**	**2.32**	**-1.88**	**2.17**
Median	1.185	1.0875	3.13	0.983
Standard Deviation	0.082	0.066	0.088	0.054
RSD%	6.96	5.99	2.81	5.56
Mean Z-score	**0.24**	**0.55**	**-0.46**	**0.63**

11.7.2 Platinum

Two platinum standards were used during the 2015 drilling program, with certified values ranging from 0.568 ppm to 0.807 ppm (Table 11.8). The Table 11.6 and 11.8 summarize the results obtained during the quality control for the platinum. Only two results recommended a re-analyse (Lustig, 2016).

11.7.3 Palladium

Two platinum standards were used during the 2015 drilling program, with certified values ranging from 0.9928 ppm to 3,420 ppm (Table 11.8). Tables 11.6 and 11.8 summarize the results obtained during the quality control for the platinum. Only three results recommended a re-analysis (Lustig, 2016).

Table 11.8 – Statistical summary of multi-element analyses including analyses of platinum, palladium copper and nickel (Lustig, 2016)

Statistic	CDN-ME-1204		CDN-ME-1207				CDN-ME-1208			
	Cu-ICP61	Cu-ICP81	Pt	Pd	Cu	Ni	Pt	Pd	Cu	Ni
Count Numeric	17	17	80	80	224	224	26	26	29	29
Minimum	0.515	0.501	0.513	0.936	0.0052	0.004	0.751	3.17	1.59	4.66
Maximum	0.557	0.534	0.611	1.055	0.465	1.745	0.872	3.62	1.69	4.95
Mean	0.530	0.518	0.561	1.003	0.419	1.615	0.801	3.464	1.628	4.773
Certified Value	0.519	0.519	0.568	0.992	0.407	1.572	0.807	3.420	1.635	4.770
Bias(%)	**2.12**	**-0.15**	**-1.16**	**1.11**	**2.94**	**2.72**	**-0.81**	**1.29**	**-0.41**	**0.07**
Median	0.528	0.518	0.563	1.005	0.420	1.620	0.795	3.460	1.625	4.750
Standard Deviation	0.012	0.009	0.020	0.027	0.031	0.113	0.027	0.083	0.023	0.076
RSD%	2.21	1.68	3.49	2.65	7.39	6.98	3.34	2.39	1.41	1.58
Mean Z-score	**1.00**	**-0.07**	**-0.24**	**0.19**	**1.20**	**0.73**	**-0.20**	**0.38**	**-0.16**	**0.03**

11.7.4 Copper

Three copper standards were used during the 2015 drilling program, with certified values ranging from 0.407% to 1.635% (Table 11.8). Tables 11.6 and 11.8 summarize the results obtained during the quality control for the platinum. Only one result recommended a re-analysis (Lustig, 2016).

11.7.5 Nickel

Two nickel standards were used during the 2015 drilling program, with certified values ranging from 1.572% to 4,770% (Table 11.8). Tables 11.6 and 11.8 summarize the results obtained during the quality control for the platinum. No result recommended a re-analysis (Lustig, 2016).

11.7.6 Comment for Monitoring Accuracy

InnovExplo is of the opinion that Balmoral's quality control results presented by Lustig (2016) for the monitoring accuracy using standards during the 2015 drilling program are reliable and valid.

11.8 Duplicates

Precision was monitored through a program of field and laboratory duplicates representing each level of sub-sampling. These included alternating quarter-core field duplicates and preparation duplicates taken after coarse crushing. With the exception of gross errors indicating sample mix-ups, samples or batches are not passed or failed based on the results of duplicate analyses, rather they quantify relative error and indicate how representative the sampling and sub-sampling procedures are.

The general expectation is that the error will decrease progressively from the field duplicate to preparation duplicate to pulp duplicate as the samples become more homogenous due to finer crushing, pulverizing and mixing. It is also expected that error will decrease with increasing concentration.

Of all of these duplicates, the most important are the duplicates of the core as relative error estimated with these data are cumulative including all subsequent sample preparation and analytical error as well as the natural variability of the parent material (Abzalov, 2008).

The split core represents the maximum geological variability and ideally the duplicate should consist of the other half of the primary sample. As this leaves no material for that interval for a permanent record, this practice is often not acceptable and as a compromise, quarter-split core is used. The procedure at Grasset was to initially split the core into two, submit half-core samples for analyses and then further split the remaining half into two quarters with one quarter remaining in the core box and the other quarter as the duplicate. With this protocol, the field duplicates compare quarter-core samples to half-core samples.

To obtain reliable average relative error values from this type of duplicate samples, the quarter-core field duplicates must be adjusted based on the differing sample support of the original and duplicate samples as described in a recent paper by Stanley (2014). Stanley states that: *"the combined mass of these ½ and ¼ core duplicates is not physically identical to the mass of the original routine ½ core samples. This is because their collective mass is ¾ of the original core interval.... the weighted averages and standard deviations of these ½ core-¼ core duplicates must be determined in order to obtain an average unbiased estimate of measurement error."*

11.8.1 Treatment of Outliers

Prior to statistical analyses and plotting of duplicate results, outliers were removed from the dataset (Lustig, 2016). Outliers are extreme values that can have a disproportionate influence on precision estimates based on duplicate data. Samples were identified as multivariate outliers using robust Mahalanobis distances (Filzmoser et al., 2005). A number of 'far outliers' were also removed manually.

11.8.2 Average Relative Error Calculation

There has been no measure of relative error universally accepted within the mineral industry. Thompson-Howarth (T-H) precision estimates have been commonly used as it provides a measure of precision at varying concentrations. Also, a variety of plots are widely used, such as absolute relative difference (ARD, AMPD, MAPD) or half absolute relative difference (HARD) versus percentile (rank) or duplicate pair mean.

Recent studies on the use of the Thompson-Howarth precision estimates (Abzalov, 2008; Stanley and Lawie, 2007a) have indicated that the condition of a normal distribution of error required by the T-H estimate is rarely met in mineral duplicate samples, particularly where there is a significant nugget effect. Stanley and Lawie (2007b) have advocated replacing ARD, HARD and other measures of relative error with the coefficient of variation (CV) as they are all related to and directly proportional to the CV:

$$ARD = \frac{|x_1 - x_2|}{\mu} = \sqrt{2} \times CV$$

$$HARD = \frac{1}{2}\frac{|x_1 - x_2|}{\mu} = \frac{\sqrt{2}}{2} \times CV$$

In addition, they indicate that: "the concept of precision is unfortunately counterintuitive. For example, if data exhibit higher precision (a desirable trait), the measure of precision is lower. This apparently contradictory feature of precision can leads to significant confusion. In contrast, although the concept of relative error is a negative trait (more error is not desirable), if data exhibit higher relative error, the measure of relative error (the coefficient of variation) is higher."

Abzalov (2008) has concurred with the use of CV as the standard measure of 'precision error', and has proposed a series of 'best practice' and 'acceptable practice' levels of error presented as the average coefficient of variation (CV_{AVR}(%J)). In their usage, 'relative error' and 'precision error' is equivalent.

Following the recommendation of Abzalov (2008) and Stanley and Lawie (2007b) the overall relative error expressed as CV_{AVR}(%) was determined based on the following equation from Abzalov:

$$CV_{AVR}(\%) = 100 \times \sqrt{\frac{1}{N}\sum_{i=1}^{N}\frac{\sigma_i^2}{m_i^2}} = 100 \times \sqrt{\frac{2}{N}\sum_{i=1}^{N}\left(\frac{(a_1 - b_1)^2}{(a_1 + b_1)^2}\right)}$$

-Where a_1 and b_1 are the original and duplicate sample respectively

The CV_{AVR}(%) has been calculated using all samples where both members of the duplicate pair have grades greater than the detection limit. More meaningful results would be obtained by sub-setting the mineralized data, eliminating a lot of the low-grade samples with inherently poor precision.

The final figures for the core duplicates presented by Lustig (2016) have been corrected for the bias that has been created by comparing half-core originals to quarter-core duplicates and differing samples lengths, using the methodology of Stanley (2014). The method separates the sampling error solely due to the initial split of the core from the error measured by the field duplicates, which includes the cumulative error of the core sampling, coarse crushing, splitting, pulverizing and analytical error. The preparation duplicates represent all of the error not related to the splitting of the core and is subtracted from the total error measured by the core duplicates. This figure, representing the sampling error, is then adjusted for the differing 'support' provided by both differing fractions of core, but also the difference in mass of the samples due to core length. Corrections could also be made based on density of each sample. Although with massive and semi-massive sulphides the differences in density can be significant, density corrections were not included due to lack of data. The values are recombined to provide an “unbiased total relative error” (Table 11.9). Separating and adding the errors are not simple addition and subtraction operations but RMS (root mean square) functions as are the initial CV_{AVR}(%) calculations.

Table 11.9 – Quarter-core to half-core bias corrections to the average total relative error using the method of Stanley (2014), as obtained by Lustig (2016)

Metal	Au	Pt	Pd	Cu	Ni
Observed total relative error	28.37	13.69	18.81	12.14	5.67
Observed other relative error	27.92	6.43	5.67	6.22	3.11
1/4 core sampling error	5.05	12.09	17.94	10.43	4.75
Support corrected 1/4 core sampling error	5.12	11.23	16.62	9.66	4.39
Support corrected 1/2 core sampling error	4.43	9.73	14.4	8.37	3.81
Unbiased total relative error	**28.27**	**11.66**	**15.47**	**10.43**	**4.91**
Relative pptn of other error	97.54	30.41	13.43	35.61	40.01
Relative pptn of sampling error	2.46	69.59	86.57	64.39	59.99

"Best and accepted" levels of precision errors suggested for Ni-Cu-PGM deposits by Abzalov (2008) are in the range of 10–20% for field duplicates and 5–10% for nickel and copper Cu pulp duplicates, and 10–20% for PGM pulp duplicates. It should be kept in mind that this is just a suggested guideline. In some cases these levels are not attainable by practical methods. Based on these parameters, the Grasset Ni-Cu-PGM average relative errors are well within acceptable limits (Lustig, 2016). Another useful, easily calculated measurement is the “relative precision” (RP), which is simply 2 times the CV (Sinclair and Blackwell, 2002, Stanley and Lawie, 2007b). This provides a plus and minus value that includes 95% of the data.

11.8.3 Duplicate Results

A series of duplicate plots are presented for each metal, consisting of scatter plot pairs, linear and log-scaled plots for each type of duplicate, ARD%/CV% vs. percentile or rank, and a set of relative error vs. concentration plots.

Scatter plots of all of the duplicate types allow a visual comparison of the relative error at the various stages of sample and particle size reduction. Duplicate sets are presented, both as linear-scaled plots, which emphasize the higher values, and log-scaled plots that provide detail at lower concentrations. The red line on the normal plots is a reduced major axis (RMA) regression line. A reduced major axis (RMA) regression is appropriate where it is important that errors in both variables be taken into account (Sinclair and Bentzen, 1998). Outliers that have been removed from the dataset are indicated as red symbols (Lustig, 2016).

The relative error vs. percentile plots presented here are absolute relative difference (ARD%) vs. percentile or rank, with a CV(%) scale on the right side y-axis which compares the relative error of all duplicate types on a single plot and can be used to compare the precision against a predefined specification. A general guideline using ARD(%) is that 90% of samples should have an ARD% less than 20% for preparation duplicates and 10% for pulp duplicates (Rossi and Deutsch, 2014). A value of 25–30% for field duplicates has been suggested, but it is not always achievable or practical, particularly with core drilling.

The ARD% is used as it is more common (along with HARD) and has general target specifications in common use. The ARD% values at the 90^{th} percentile are summarized for both the >DL values and >15 X DL in tables for each metal.

Plotting relative error as CV(%) against the mean of the duplicate pairs can provide an indication of the variation of relative error with concentration similar to the Thompson-Howarth precision calculation. It does not have the restrictions of a T-H plot that requires the data to have a single population, normal distribution and uncensored results. A moving average line (in red) on the plots provides an indication of the average CV(%) at any concentration. Due to the range of the data, the pair means x-axis is plotted with a logarithmic scale.

The important features to note in the duplicate plots is how the precision (or error) varies from element to element and also how it varies from the field duplicates through preparation duplicates to pulp duplicates.

11.8.3.1 Gold

Gold results in the following charts are based on a combined dataset of fire assay/AAS and fire assay/ICP-AES results. The uncorrected CV_{AVR}(%) results are quite different, with the ICP results having considerably higher relative error at 41.4% compared to 28.5% for the AAS analyses (Table 11.10). The ICP assays have slightly lower grade.

Table 11.10 – Comparison of gold analyses by fire assay with an ICP-AES final and AAS finish (Lustig, 2016)

Method	$CV_{(AVR)}$%	n	Average		Median	
			Orig	Dup	Orig	Dup
ICP	41.38	39	0.0095	0.0118	0.005	0.006
AAS	28.48	32	0.0121	0.0119	0.010	0.009

The overall corrected average relative error as indicated by the field duplicates at 28.37% is fairly good when compared to other deposits (Table 11.11) (Lustig, 2016). The precision indicated by the ARD% value of 90% at the 90^{th} percentile is quite poor. This may be due to some extent by the low overall grade of the complete gold dataset.

Table 11.11 – Gold by fire assay/AAS or ICP-AES finish (Au-AA23/ICP23): statistical summary (Lustig, 2016)

Statistic	Field duplicates		Preparation Duplicates		ALS Pulp Duplicates	
	Au Orig	Au Dup	Au Orig	Au Dup	Au Orig	Au Dup
No. of observations	71		97		105	
Outliers and <DL pairs removed	52		46		71	
Minimum	0.001	0.001	0.001	0.001	0.001	0.001
Maximum	0.068	0.068	1.080	1.185	0.819	0.963
Range	0.067	0.067	1.079	1.184	0.818	0.962
1st Quartile	0.004	0.005	0.005	0.005	0.005	0.006
Median	0.008	0.009	0.008	0.008	0.010	0.010
3rd Quartile	0.014	0.015	0.019	0.020	0.021	0.023
Mean	0.011	0.012	0.039	0.040	0.035	0.038
Variance (n-1)	0.000	0.000	0.018	0.020	0.010	0.016
Standard deviation (n-1)	0.011	0.012	0.133	0.140	0.101	0.128
Variation coefficient	1.007	1.026	3.384	3.531	2.905	3.314
Skewness (Pearson)	2.923	2.564	6.039	6.483	5.837	6.056
Kurtosis (Pearson)	11.402	7.590	40.344	46.389	37.391	37.321
Standard error of the mean	0.001	0.001	0.013	0.014	0.010	0.012
Lower bound on mean (95%)	0.008	0.009	0.012	0.011	0.015	0.014
Upper bound on mean (95%)	0.013	0.015	0.066	0.068	0.054	0.063
Median absolute deviation	0.005	0.004	0.005	0.005	0.006	0.005
Average relative error >DL* - CV_{AVR}(%)**	28.37**		27.920		23.600	
ARD% @90th PCTL / CV% @ 90th PCTL >DL	90 / 63.6		66.7 / 47.2		58.7 / 41.5	
Pearson correlation coefficient	0.769		0.985		0.979	
Spearman correlation coefficient	0.782		0.917		0.938	

* Detection limit

**Unbiased total relative error - corrected for 1/2 core original, 1/4 core duplicate and varying sample lengths using the method of Stanley (2014).

The generally erratic nature of the results of the field duplicates in the scatter plot is apparent (Fig. 11.7).

The overlap of outliers and non-outliers in the scatter plot is due to the differing detection limits for the AAS (0.005 ppm) and ICP analyses (0.001 ppm).

The decreasing variability is apparent in the preparation and pulp duplicates (Figs. 11.8 and 11.9), but there is not a great difference between the three sets of duplicates. This can also be seen in the ARD% vs. rank plots (Fig.11.10). Usually there would be a larger gap between the ¼ core duplicates and the preparation and pulp duplicates, both of which have been homogenized. The CV% vs. pair mean plot (Fig.11.11) also doesn't indicate a relationship between precision and grade for the preparation and pulp duplicates, which is unusual. This could be due to any one of the low overall gold grade, the small number of samples and the mix of analytical types, or possibly all of them together.

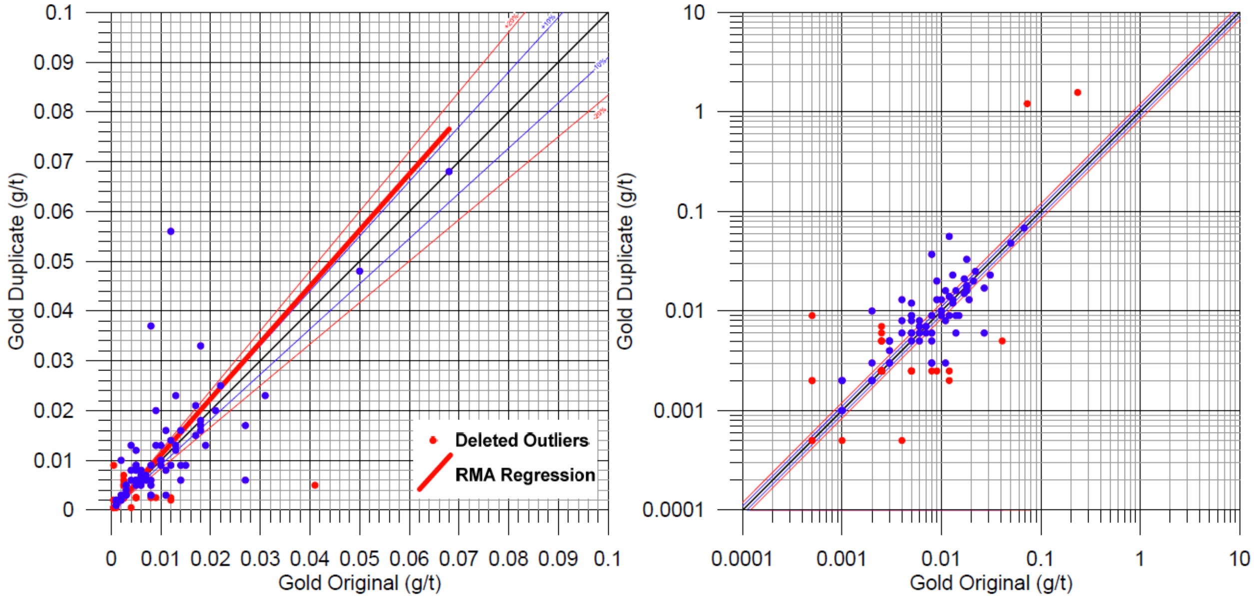

Figure 11.7 – Linear and log scatter plots of gold analyses of quarter-core field duplicates (Lustig, 2016)

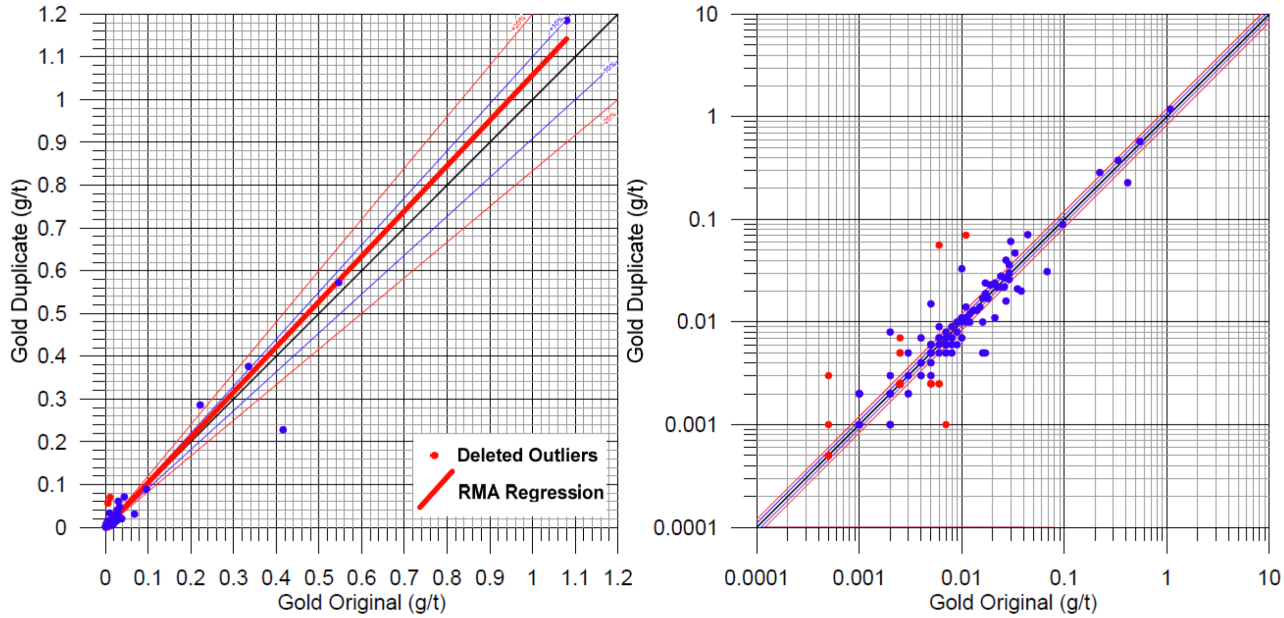

Figure 11.8 – Linear and log scatter plots of gold analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

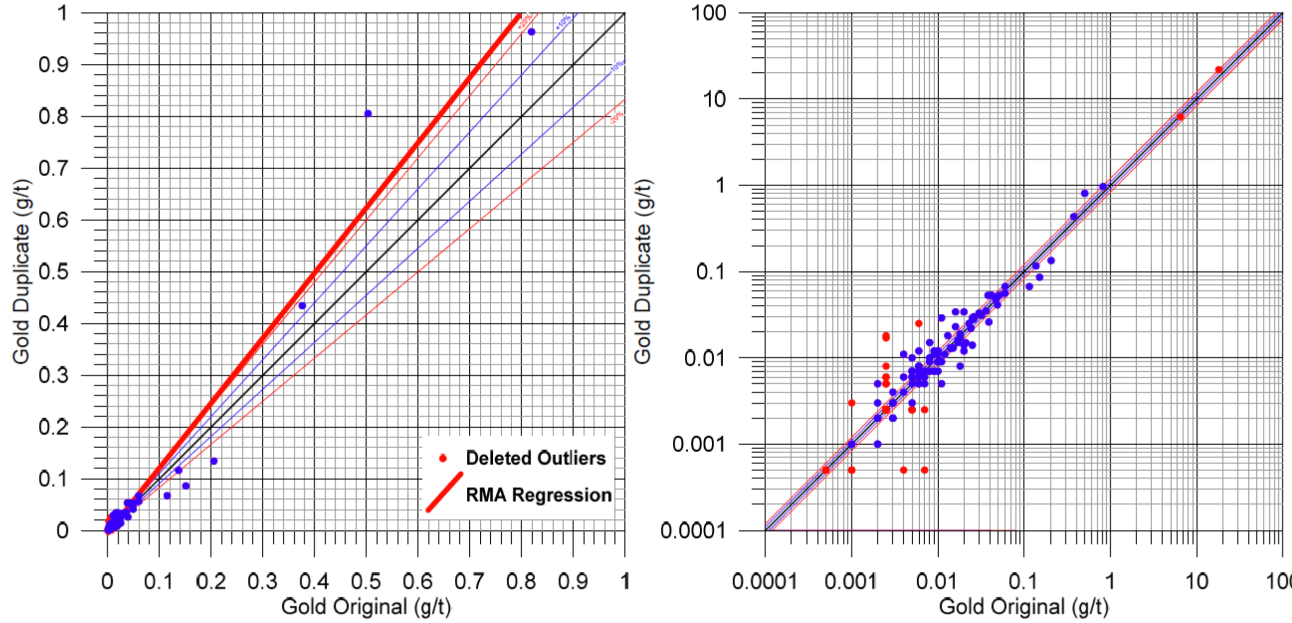

Figure 11.9 – Linear and log scatter plots of gold analyses of lab selected pulp duplicates. (Lustig, 2016)

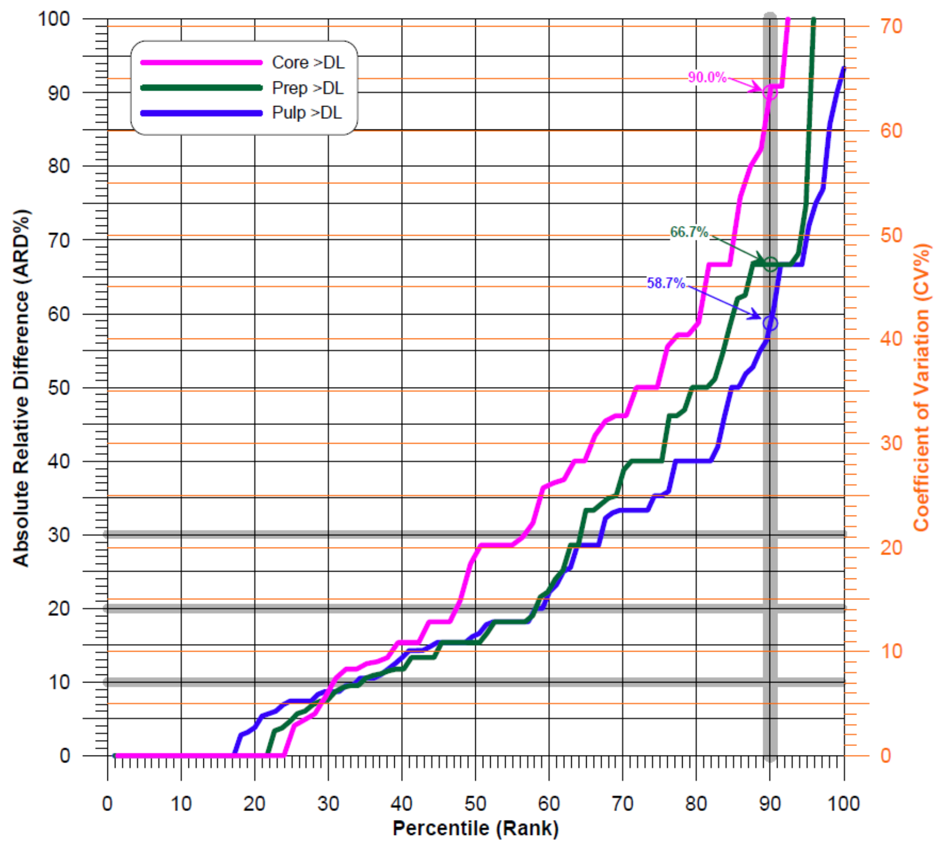

Figure 11.10 – Absolute relative difference vs. percentile (rank) plot for all gold duplicates (Lustig, 2016)

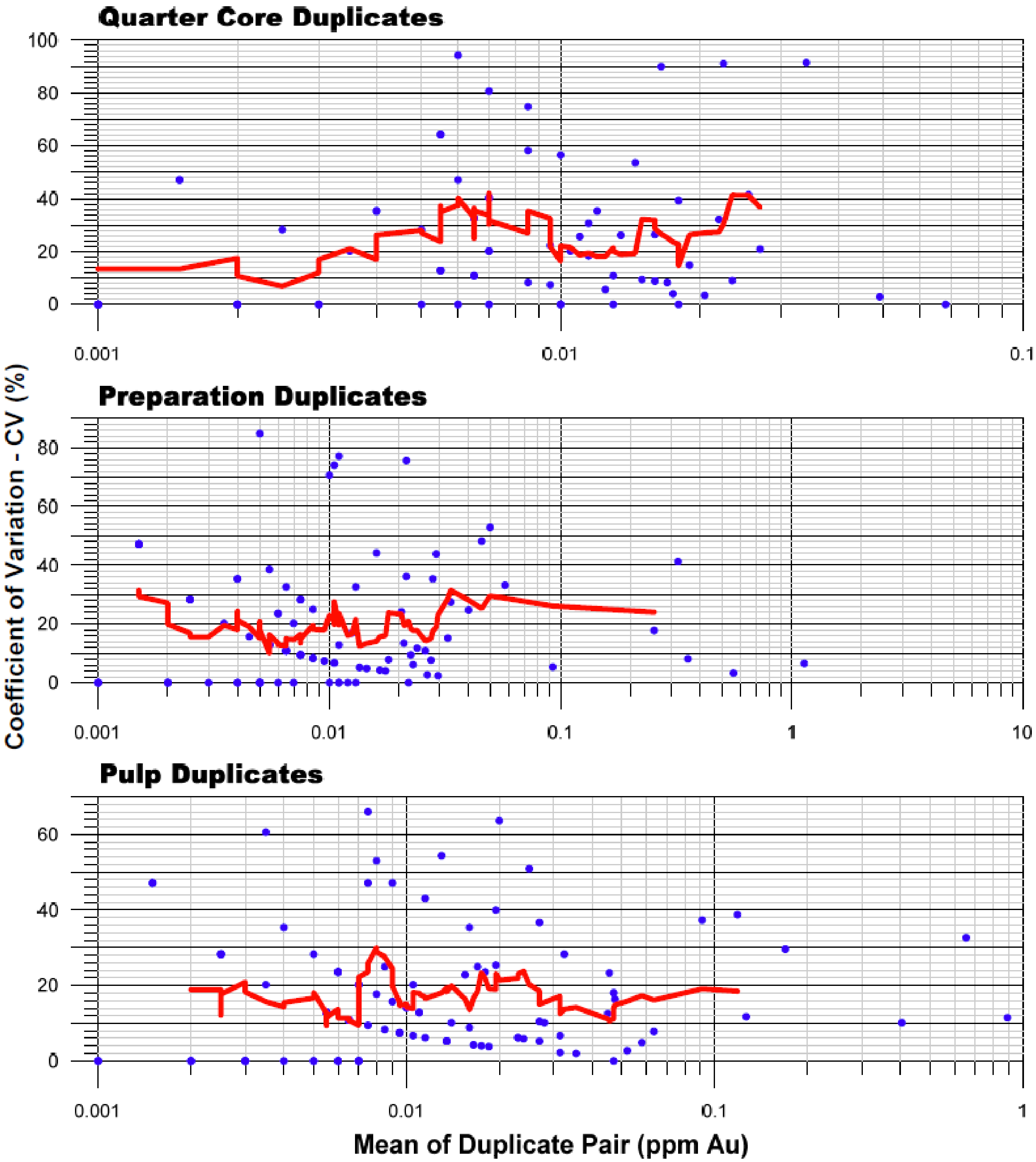

Figure 11.11 – Relative error expressed by the coefficient of variation in percent vs. the duplicate pair mean for gold (Lustig, 2016). This plot shows the relationship between precision and concentration.

11.8.3.2 Platinum

In contrast to gold, the platinum duplicate results indicate low average relative error with CV_{AVR}(%) values at 11.6% for quarter-core field duplicates, 6.4% for preparation duplicates and 5.3% for pulp duplicates (Table 11.12) (Lustig, 2016). The ARD% at the 90th percentile is also low at 29.2%, 13.3% and 10% for field, preparation and pulp duplicates, respectively. The scatter plots and relative error vs. rank plot show the improving precision with the decrease in sample mass and particle size (Figs. 11.12 to 11.15). The relative error as CV% vs. duplicate pair mean plot for the quarter-core duplicates indicates that there is little or no relationship between error and concentration (Fig. 11.16-top). The CV% for preparation duplicates decline from 10% at ~0.03 ppm to ~2% at 0.04%, remaining near this level to the end of the moving average line at 0.3 ppm (Fig. 11.16, middle). A similar pattern is apparent from the pulp duplicates with a drop from ~10% at 0.01 ppm to ~3% at 0.03 ppm to ~2% at 0.12 ppm (Fig. 11.16, bottom).

Table 11.12 – Platinum by fire assay/ICP-AES finish (PGM-ICP23): statistical summary (Lustig, 2016)

Statistic	Field duplicates		Preparation Duplicates		ALS Pulp Duplicates	
	Pt Orig	Pt Dup	Pt Orig	Pt Dup	Pt Orig	Pt Dup
No. of observations	47		58		65	
Outliers and <DL pairs removed	5		8		5	
Minimum	0.005	0.005	0.006	0.007	0.005	0.005
Maximum	0.384	0.349	0.568	0.567	0.903	0.925
Range	0.379	0.344	0.562	0.560	0.898	0.920
1st Quartile	0.015	0.014	0.016	0.016	0.015	0.015
Median	0.022	0.022	0.037	0.036	0.038	0.038
3rd Quartile	0.051	0.045	0.086	0.085	0.078	0.078
Mean	0.050	0.051	0.077	0.077	0.085	0.085
Variance (n-1)	0.005	0.006	0.011	0.011	0.021	0.021
Standard deviation (n-1)	0.074	0.075	0.104	0.105	0.146	0.146
Variation coefficient	1.455	1.460	1.340	1.344	1.699	1.705
Skewness (Pearson)	2.916	2.793	2.693	2.645	3.855	3.937
Kurtosis (Pearson)	8.849	7.463	8.372	7.930	16.650	17.599
Standard error of the mean	0.011	0.011	0.014	0.014	0.018	0.018
Lower bound on mean (95%)	0.028	0.029	0.049	0.050	0.049	0.049
Upper bound on mean (95%)	0.072	0.073	0.104	0.105	0.121	0.122
Median absolute deviation	0.009	0.012	0.027	0.026	0.026	0.027
Average relative error >DL* - CV_{AVR}(%)	11.66**		6.430		5.275	
ARD% @90th PCTL / CV% @ 90th PCTL >DL	29.2 / 20.7		13.3 / 20.6		10 / 7.1	
Pearson correlation coefficient	0.974		0.999		1.000	
Spearman correlation coefficient	0.961		0.996		0.998	

* Detection limit

**Unbiased total relative error - corrected for 1/2 core original, 1/4 core duplicate and varying sample lengths using the method of Stanley (2014).

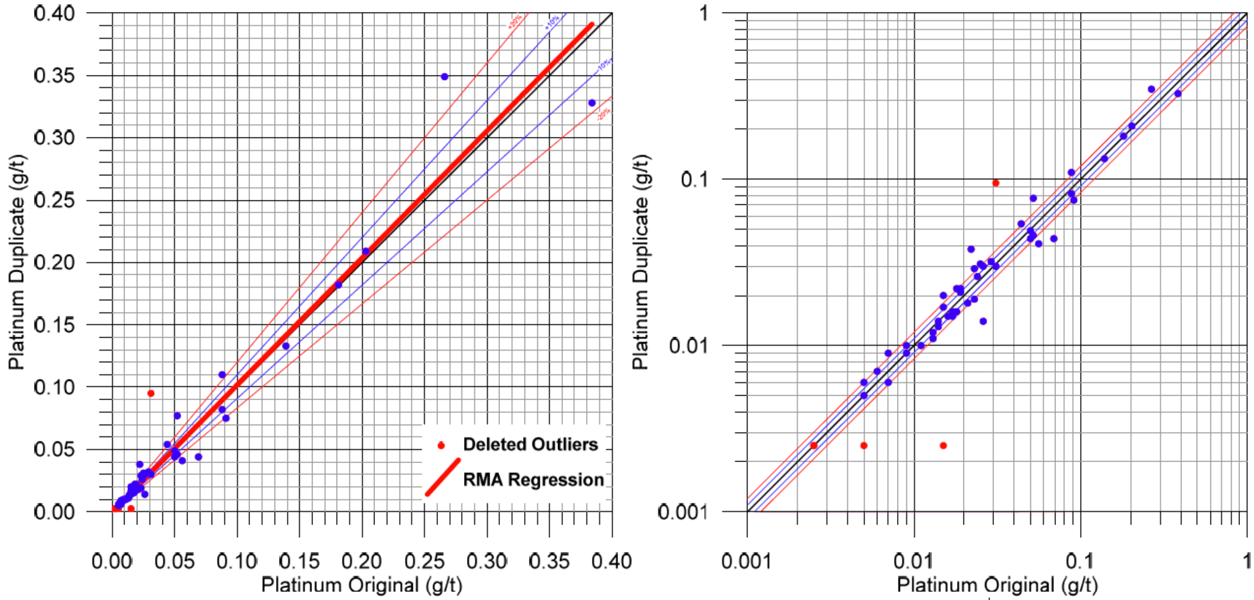

Figure 11.12 – Linear and log scatter plots of platinum analyses of quarter-core field duplicates (Lustig, 2016)

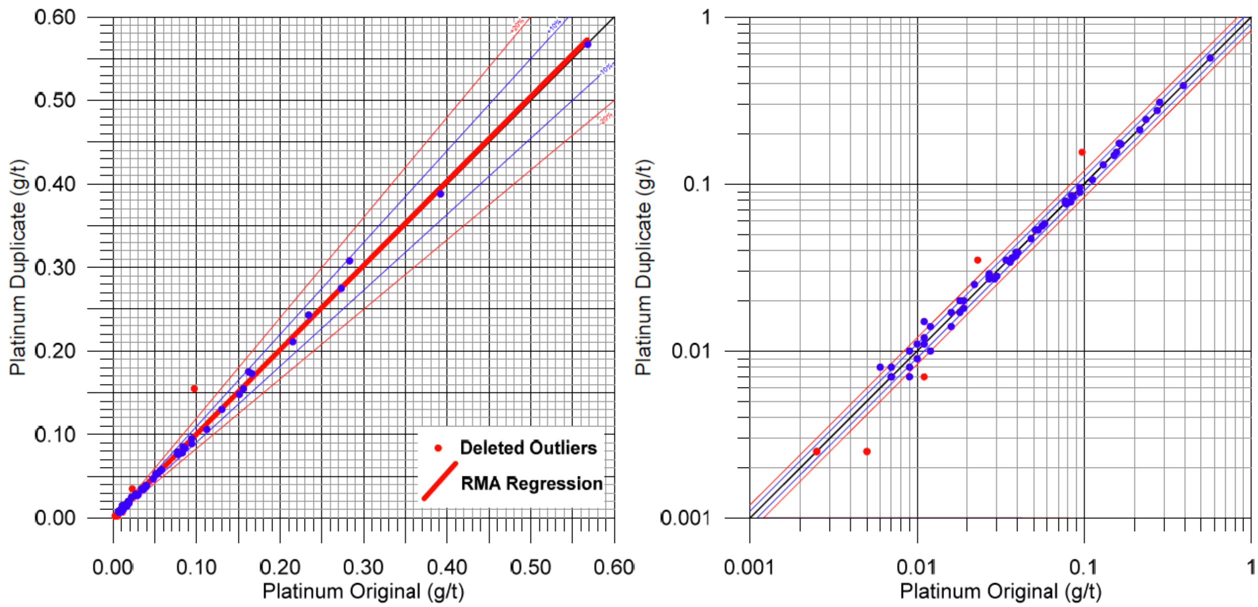

Figure 11.13 – Linear and log scatter plots of platinum analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

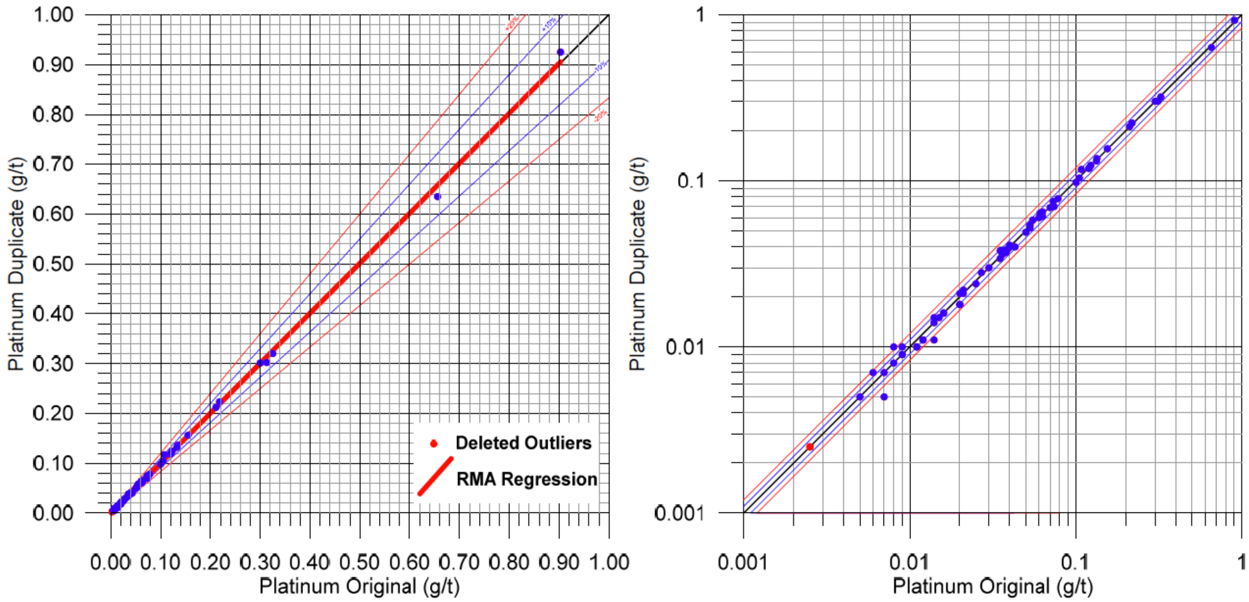

Figure 11.14 – Linear and log scatter plots of platinum analyses of laboratory-selected pulp duplicates (Lustig, 2016)

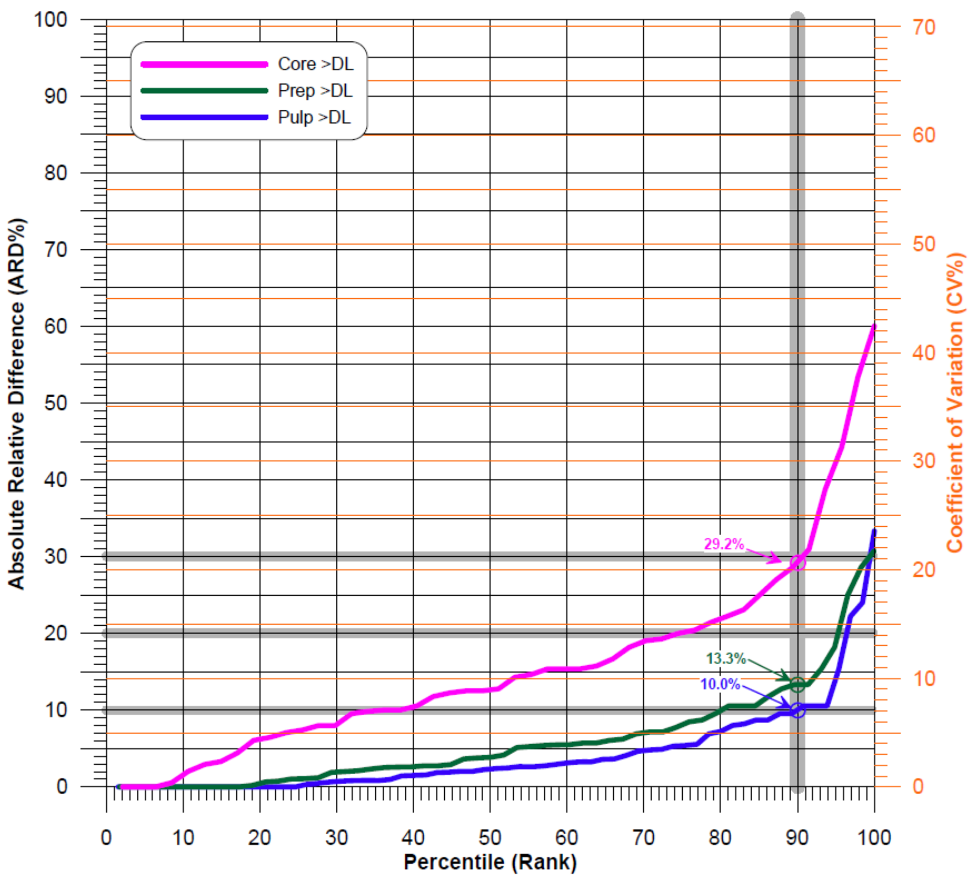

Figure 11.15 – Absolute relative difference vs. percentile (rank) plot for all platinum duplicates (Lustig, 2016)

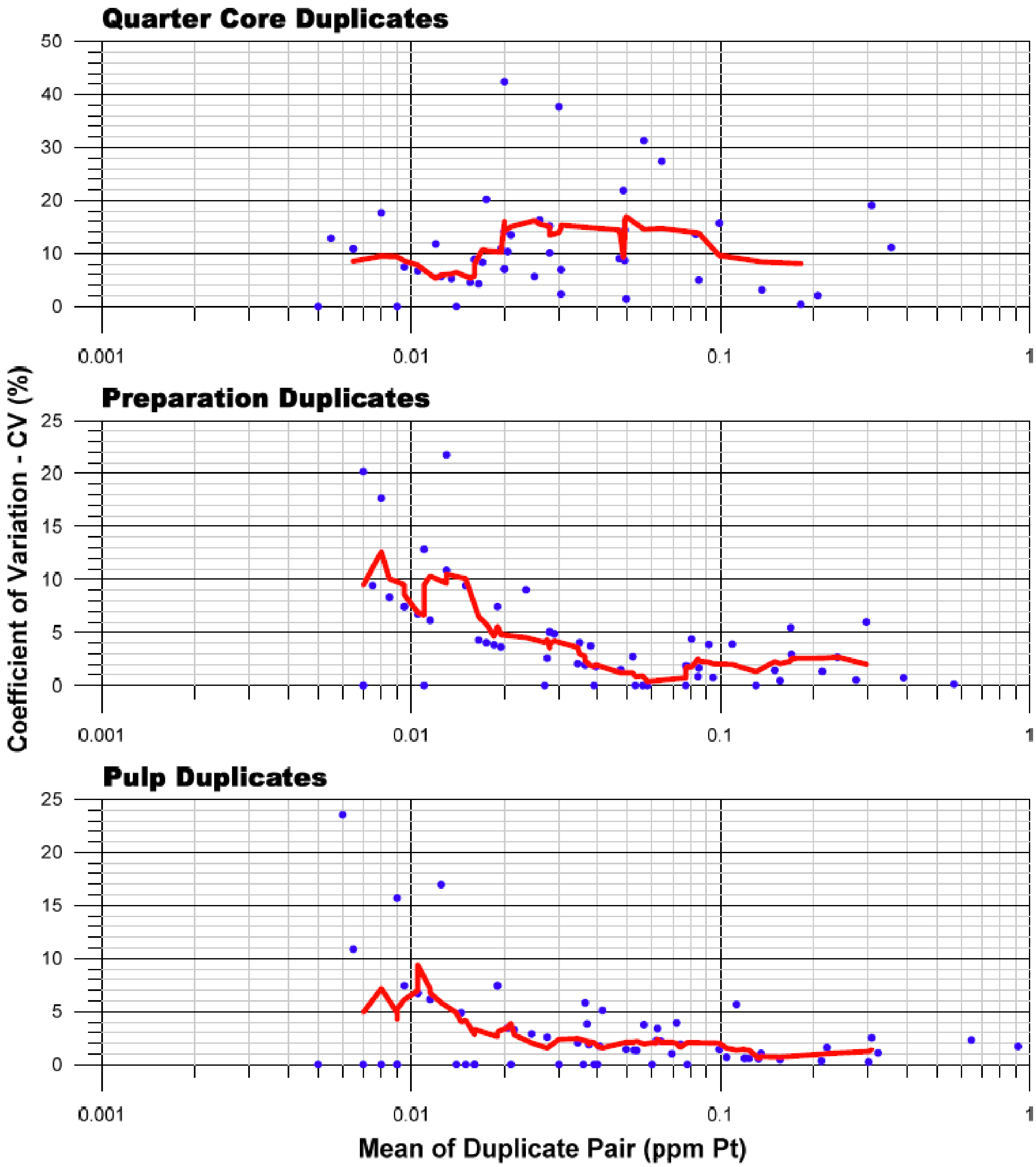

Figure 11.16 – Relative error expressed by the coefficient of variation in percent vs. the duplicate pair mean for platinum (Lustig, 2016). This plot shows the relationship between precision and concentration.

11.8.3.3 Palladium

According to (Lustig, 2016), the relative error of duplicate analyses for palladium are similar to platinum with CV_{AVR}(%) of 15.5%, 5.7% and 2.7% for field, preparation and pulp duplicates, respectively, and ARD% at the 90^{th} percentile is 40.3%, 15.4% and 5.7% (Table 11.13).

Table 11.13 – Palladium by fire assay/ICP-AES finish (PGM-ICP23): statistical summary (Lustig, 2016)

Statistic	Field duplicates		Preparation Duplicates		ALS Pulp Duplicates	
	Pd Orig	Pd Dup	Pd Orig	Pd Dup	Pd Orig	Pd Dup
No. of observations	50		60		64	
Outliers and <DL pairs removed	2		6		6	
Minimum	0.001	0.001	0.002	0.002	0.005	0.005
Maximum	1.065	0.959	1.425	1.490	1.760	1.640
Range	1.064	0.958	1.423	1.488	1.755	1.635
1st Quartile	0.017	0.020	0.022	0.022	0.020	0.021
Median	0.034	0.032	0.068	0.065	0.085	0.086
3rd Quartile	0.109	0.091	0.201	0.191	0.190	0.190
Mean	0.106	0.108	0.174	0.175	0.190	0.187
Variance (n-1)	0.039	0.040	0.070	0.073	0.101	0.094
Standard deviation (n-1)	0.197	0.200	0.265	0.271	0.318	0.307
Variation coefficient	1.829	1.825	1.509	1.535	1.660	1.626
Skewness (Pearson)	3.311	3.144	2.786	2.863	3.271	3.151
Kurtosis (Pearson)	11.484	9.610	8.686	9.314	11.731	10.779
Standard error of the mean	0.028	0.028	0.034	0.035	0.040	0.038
Lower bound on mean (95%)	0.051	0.052	0.105	0.105	0.111	0.111
Upper bound on mean (95%)	0.162	0.165	0.242	0.245	0.269	0.264
Median absolute deviation	0.021	0.026	0.056	0.054	0.069	0.071
Average relative error >DL* - CV_{AVR}(%)**	15.47**		5.667		2.720	
ARD% @90th PCTL / CV% @ 90th PCTL >DL	40.3 / 28.5		15.4 / 10.9		5.7 / 4.0	
Pearson correlation coefficient	0.9740		0.9990		0.9992	
Spearman correlation coefficient	0.9700		0.9980		0.9995	

* Detection limit

**Unbiased total relative error - corrected for 1/2 core original, 1/4 core duplicate and varying sample lengths using the method of Stanley (2014).

The scatter plots and ARD% vs. rank plots show the decreasing relative error with sample mass and particle size reduction during sample preparation (Figs. 11.17 to 11.20) and the decreasing relative error with concentration in the more homogenized preparation and pulp duplicates (Fig. 11.21).

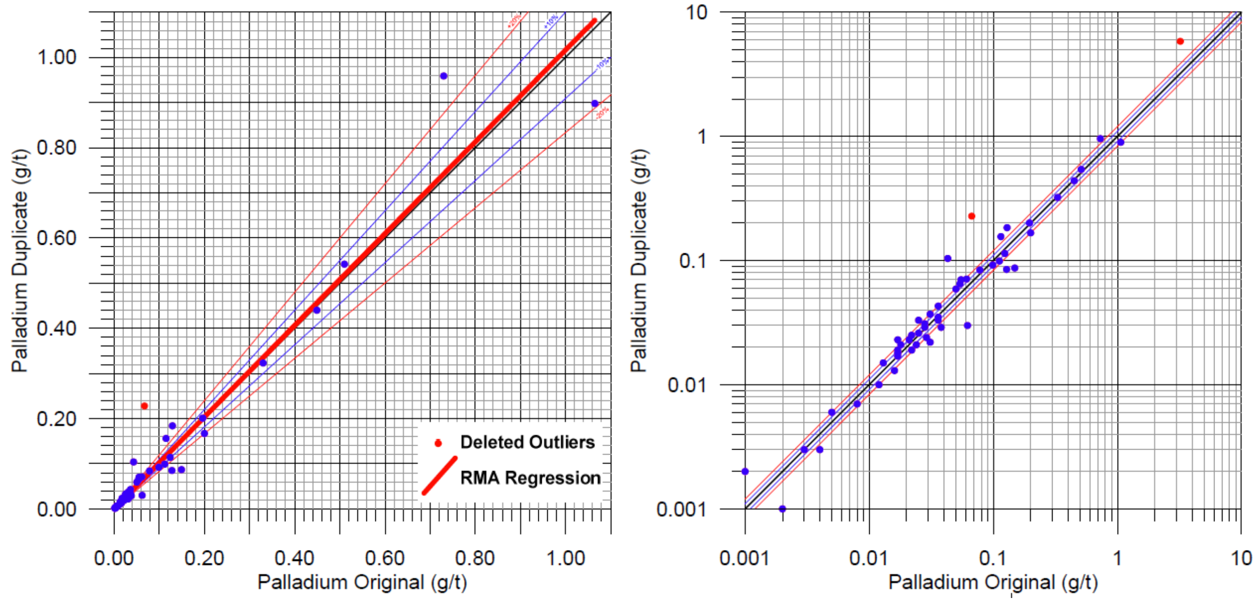

Figure 11.17 – Linear and log scatter plots of palladium analyses of quarter-core field duplicates (Lustig, 2016)

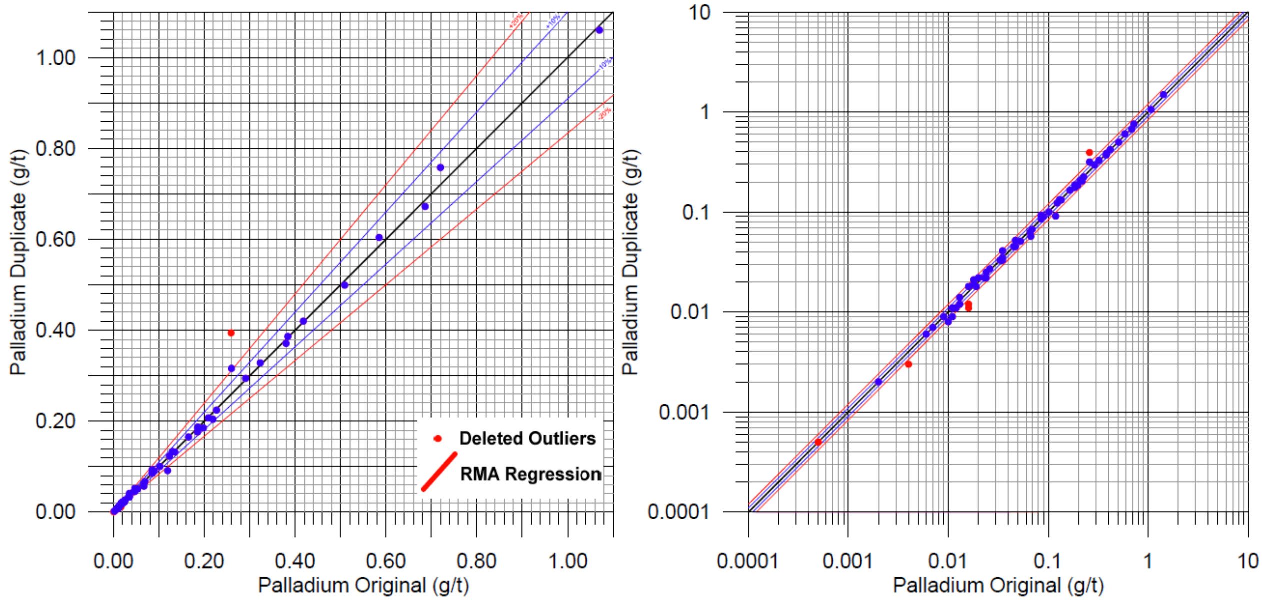

Figure 11.18 – Linear and log scatter plots of palladium analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

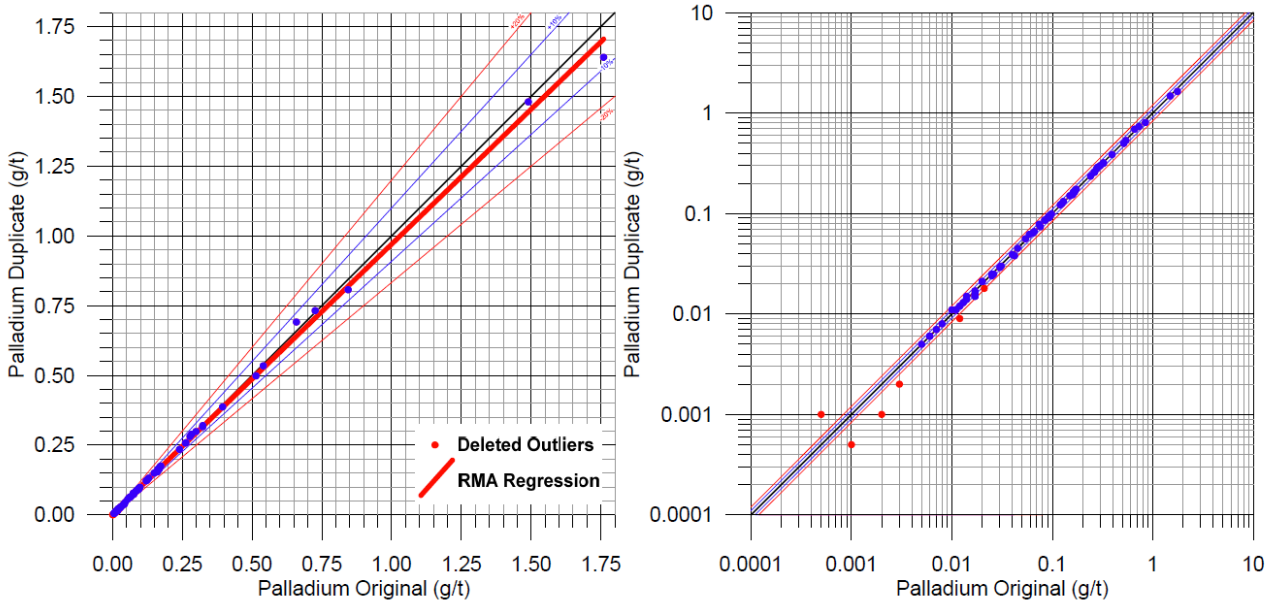

Figure 11.19 – Linear and log scatter plots of palladium analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

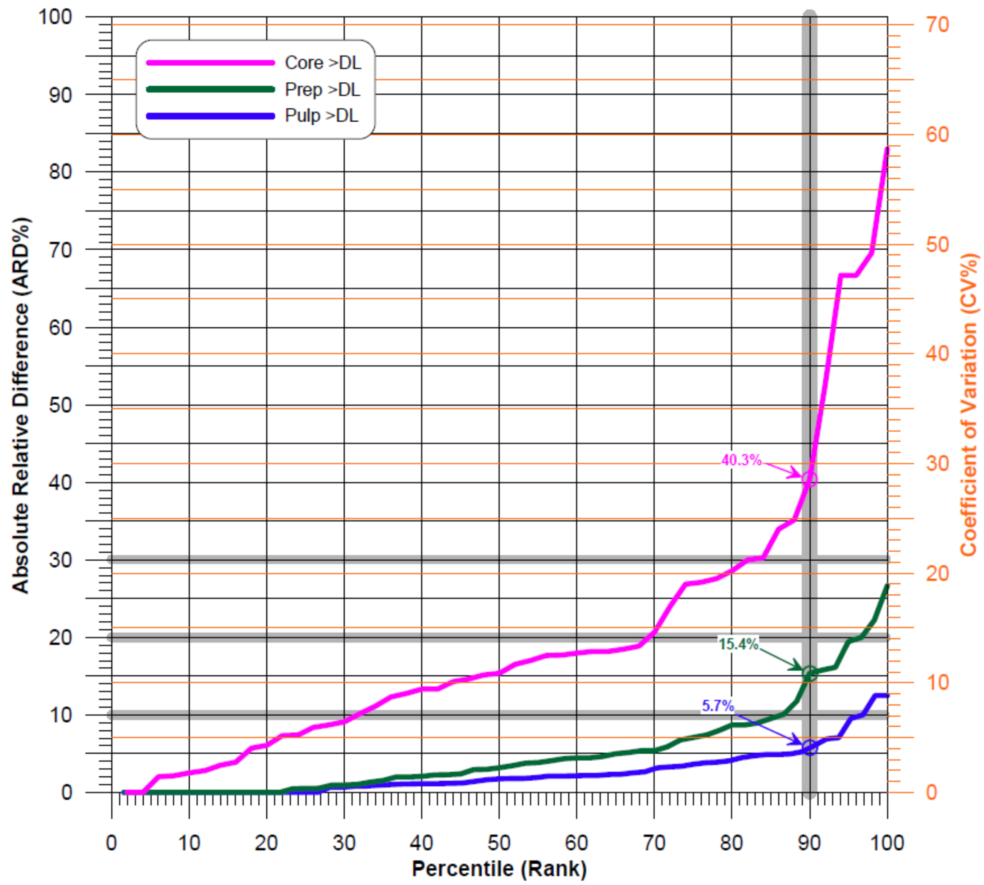

Figure 11.20 – Absolute relative difference vs. percentile (rank) plot for all palladium duplicates (Lustig, 2016)

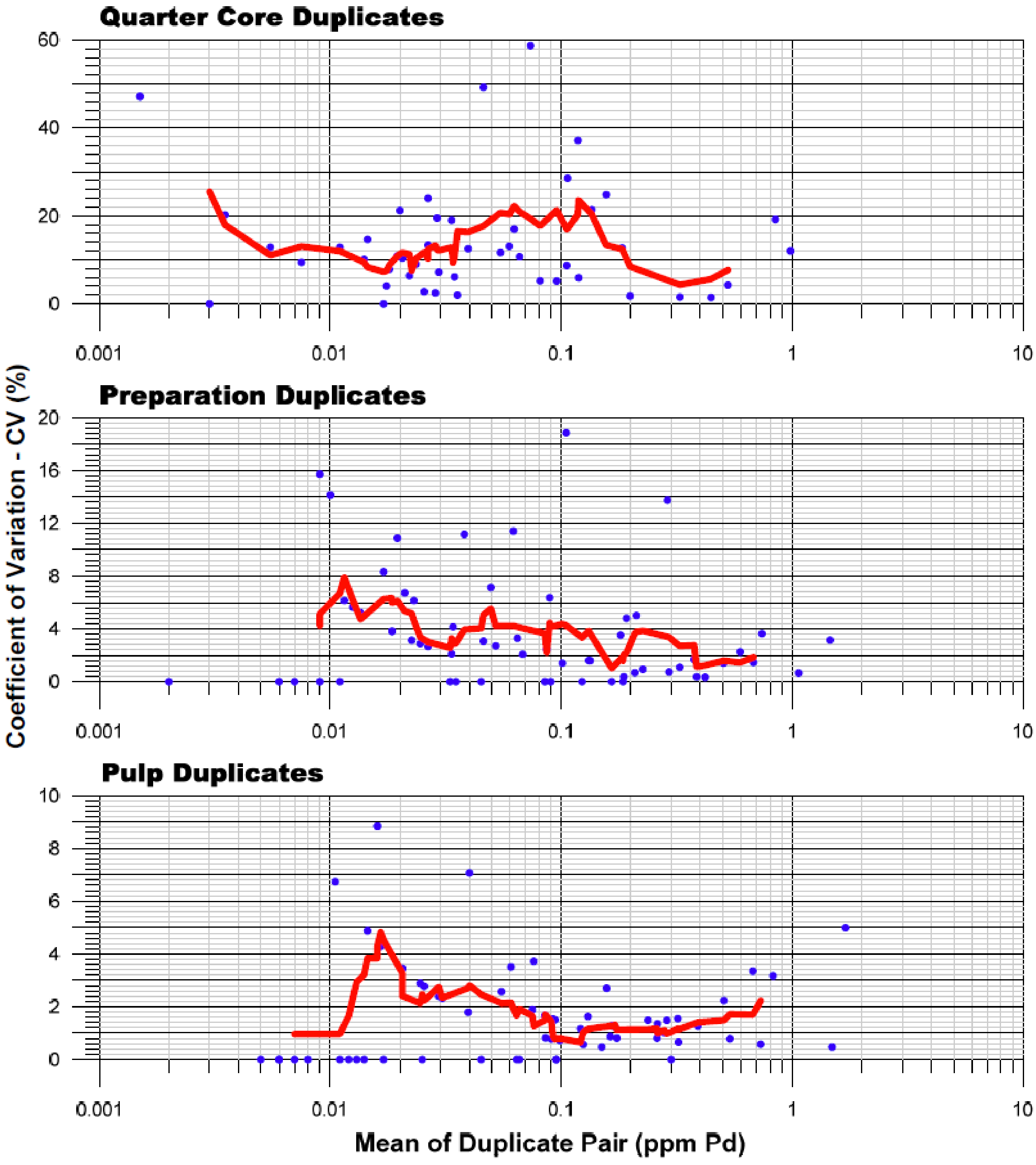

Figure 11.21 – Relative error expressed by the coefficient of variation in percent vs. the duplicate pair mean for palladium (Lustig, 2016). This plot shows the relationship between precision and concentration. (Lustig, 2016)

11.8.3.4 Copper

According to (Lustig, 2016), average relative error values as CV_{AVR}(%) for copper field duplicates at 10.4% are within the general guidelines of 10% "best practice" and 15% "acceptable practice" suggested by Abzalov (2008). Also, the CV_{AVR}(%) for pulp duplicates at 4.0% are within the best and acceptable guidelines of 5% and 10% (Table 11.14). The plots (Figs. 11.22 to 11.26) indicate consistent decrease in relative error from field duplicates to pulps and low grade to high grade.

Table 11.14 – Copper by 4-acid digestion or sodium peroxide fusion and ICP-AES (Au-ICP61, Cu-ICP81): statistical summary (Lustig, 2016)

Statistic	Field duplicates		Preparation Duplicates		ALS Pulp Duplicates	
	Cu Orig	Cu Dup	Cu Orig	Cu Dup	Cu Orig	Cu Dup
No. of observations	183		198		189	
Outliers and <DL pairs removed	9		6		3	
Minimum	0.001	0.001	0.000	0.000	0.000	0.000
Maximum	0.197	0.198	0.356	0.370	0.542	0.523
Range	0.197	0.198	0.356	0.370	0.542	0.523
1st Quartile	0.005	0.005	0.005	0.005	0.004	0.004
Median	0.009	0.009	0.010	0.010	0.009	0.009
3rd Quartile	0.013	0.013	0.020	0.020	0.018	0.018
Mean	0.013	0.013	0.021	0.021	0.032	0.032
Variance (n-1)	0.000	0.000	0.001	0.001	0.008	0.007
Standard deviation (n-1)	0.022	0.021	0.036	0.037	0.087	0.086
Variation coefficient	1.601	1.572	1.756	1.782	2.717	2.706
Skewness (Pearson)	5.864	6.077	5.313	5.527	4.531	4.517
Kurtosis (Pearson)	40.697	43.985	38.444	41.889	20.025	19.842
Standard error of the mean	0.002	0.002	0.003	0.003	0.006	0.006
Lower bound on mean (95%)	0.010	0.010	0.016	0.016	0.019	0.019
Upper bound on mean (95%)	0.017	0.017	0.026	0.026	0.044	0.044
Median absolute deviation	0.004	0.004	0.007	0.007	0.005	0.005
Average relative error >DL* - CV_{AVR}(%)**	10.43**		6.221		4.014	
ARD% @90th PCTL / CV% @ 90th PCTL >DL	29.9 / 21.1		14.4 / 10.2		8.9 / 6.3	
Pearson correlation coefficient	0.9917		0.9985		0.9999	
Spearman correlation coefficient	0.9651		0.9985		0.9980	

* Detection limit

**Unbiased total relative error - corrected for 1/2 core original, 1/4 core duplicate and varying sample lengths using the method of Stanley (2014).

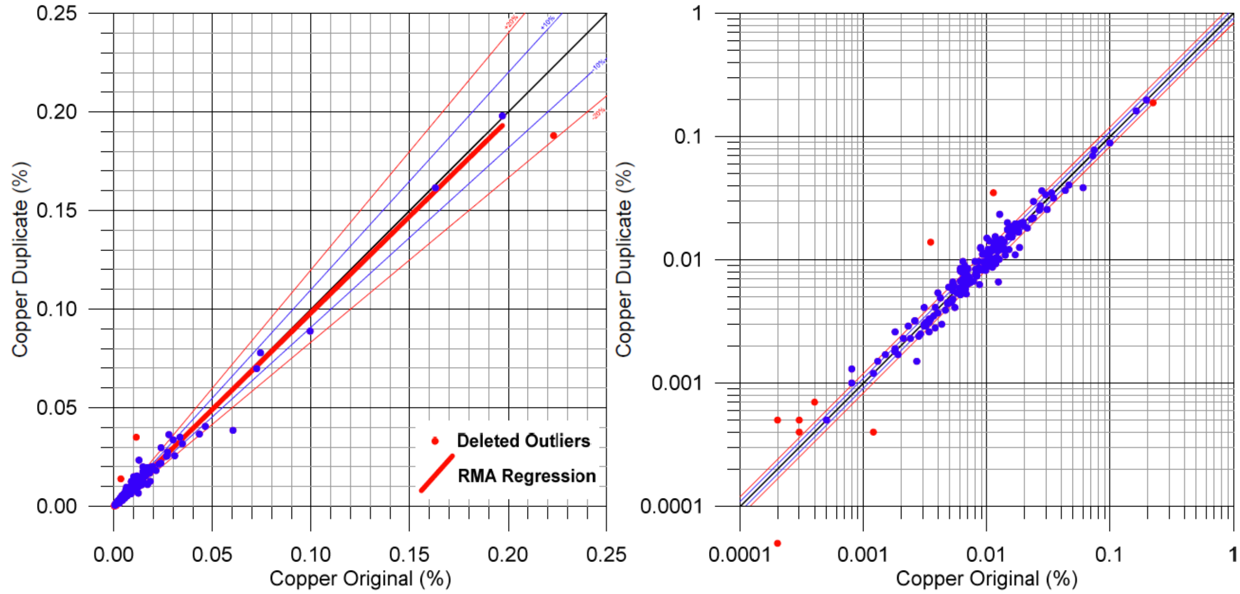

Figure 11.22 – Linear and log scatter plots of copper analyses of quarter-core field duplicates (Lustig, 2016)

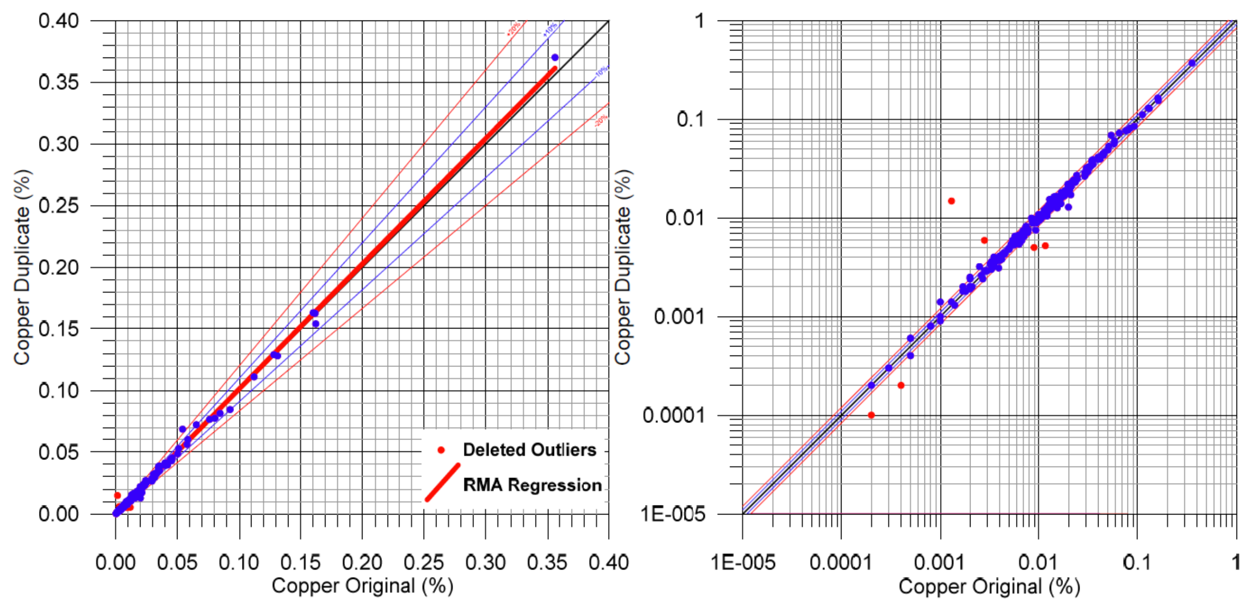

Figure 11.23 – Linear and log scatter plots of copper analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

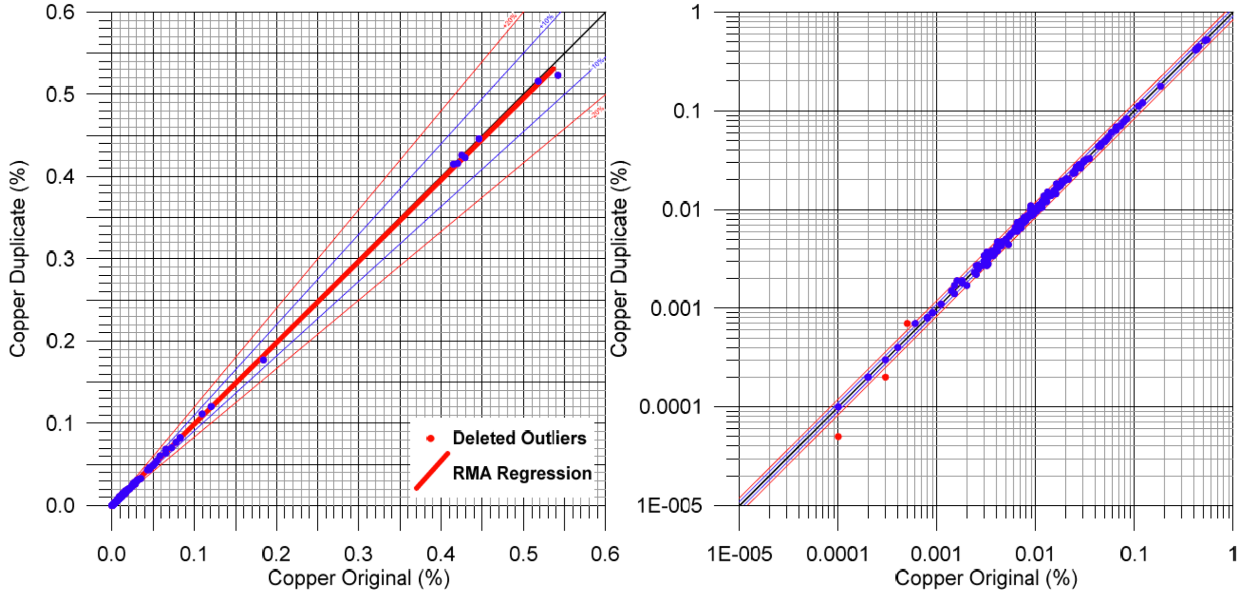

Figure 11.24 – Linear and log scatter plots of copper analyses of laboratory-selected pulp duplicates (Lustig, 2016)

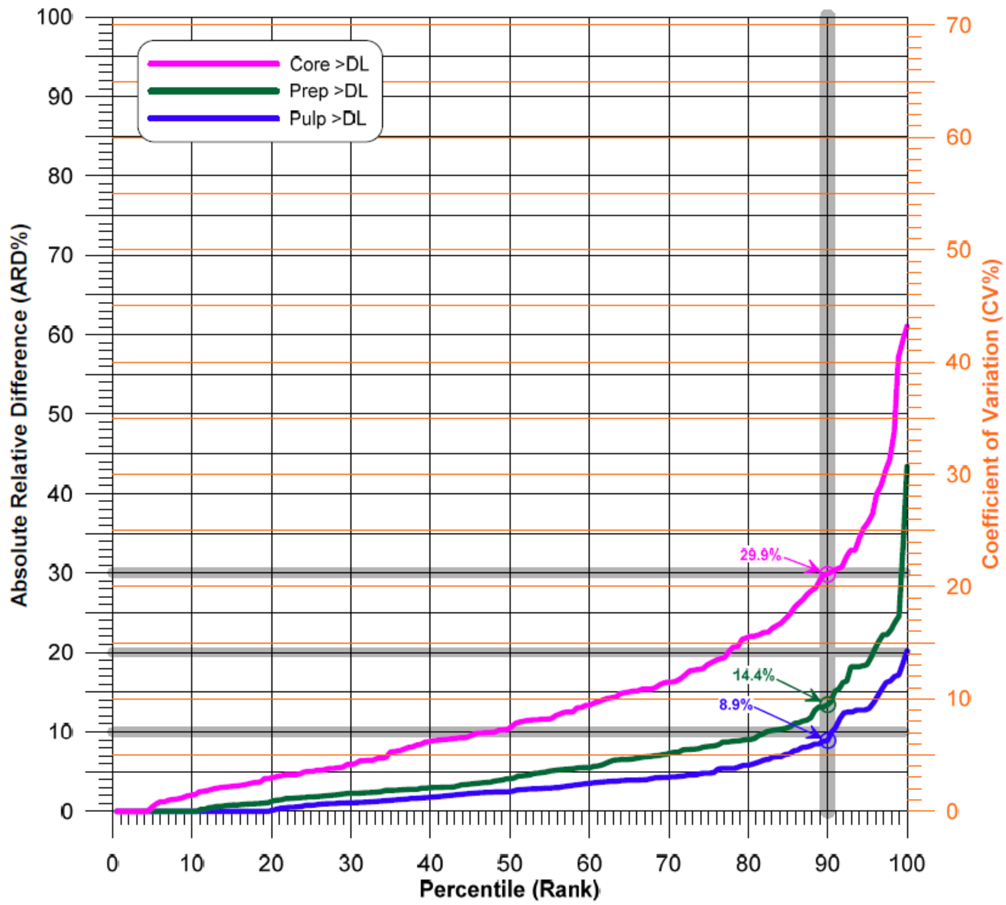

Figure 11.25 – Absolute relative difference vs. percentile (rank) plot for all copper duplicates (Lustig, 2016)

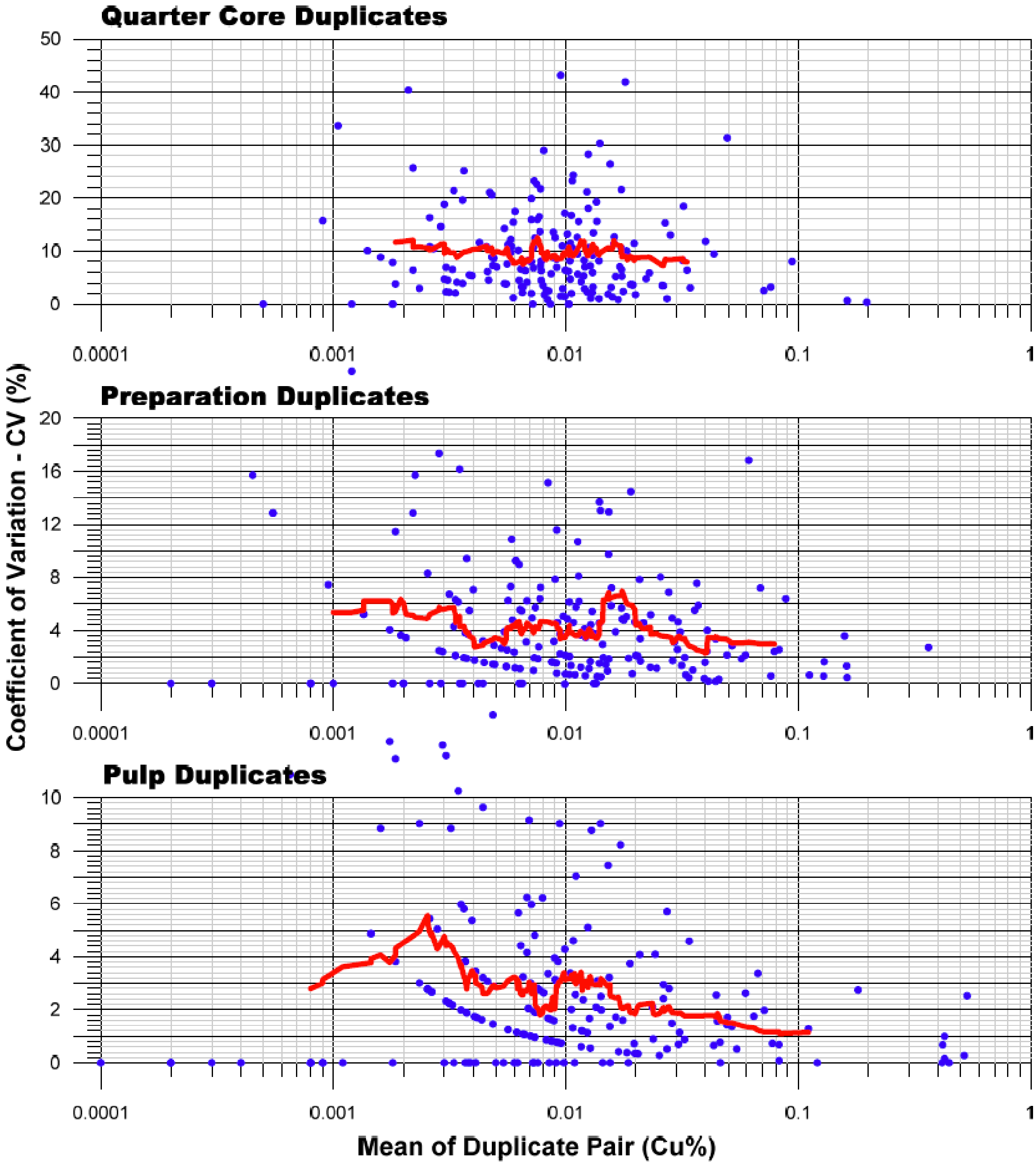

Figure 11.26 – Relative error expressed by the coefficient of variation in percent vs. the duplicate pair mean for copper (Lustig, 2016). This plot shows the relationship between precision and concentration.

11.8.3.5 Nickel

Nickel analyses of all duplicates indicate very low levels of relative error (Lustig, 2016). The CV_{AVR}(%) is 4.9% for quarter-core field duplicates, 3.1% for coarse preparation duplicates and 2.9% for pulp duplicates (Table 11.15). ARD% at the 90th percentile is also low at 13.5%, 6.3% and 6.7% for the three duplicate types. Interestingly, the ARD% at the 90th percentile for pulp duplicates is slightly higher than the preparation duplicates. The scatter plots display very tight patterns on both the linear and log plots for all duplicate types (Figs. 11.27 to 11.29). The ARD% vs. rank plot shows the very low levels of relative error plus the coincidence and crossover of the preparation and pulp curves (Fig. 11.30). The relative error vs. concentration plots indicate a distinct bimodal character to the results, with clusters at ~0.01% and ~0.2%, with a slight cluster ~1% (Fig. 11.31). It is assumed that these clusters represent the natural distributions of relative error in background and mineralized populations.

Table 11.15 – Nickel by 4-acid digestion or sodium peroxide fusion and ICP-AES (Au-ICP61, Cu-ICP81): statistical summary (Lustig, 2016)

Statistic	Field duplicates		Preparation Duplicates		ALS Pulp Duplicates	
	Ni Orig	Ni Dup	Ni Orig	Ni Dup	Ni Orig	Ni Dup
No. of observations	183		195		183	
Outliers and <DL pairs removed	9		9		8	
Minimum	0.001	0.001	0.001	0.001	0.001	0.001
Maximum	1.830	1.705	2.480	2.410	2.180	2.120
Range	1.829	1.704	2.479	2.409	2.179	2.119
1st Quartile	0.015	0.016	0.013	0.013	0.011	0.011
Median	0.154	0.157	0.162	0.163	0.145	0.144
3rd Quartile	0.218	0.219	0.240	0.238	0.231	0.228
Mean	0.173	0.175	0.198	0.197	0.236	0.234
Variance (n-1)	0.048	0.051	0.079	0.078	0.156	0.154
Standard deviation (n-1)	0.219	0.226	0.280	0.280	0.395	0.392
Variation coefficient	1.266	1.284	1.412	1.414	1.669	1.668
Skewness (Pearson)	4.038	4.115	4.193	4.081	3.139	3.108
Kurtosis (Pearson)	22.917	22.899	25.209	23.371	9.771	9.463
Standard error of the mean	0.016	0.017	0.020	0.020	0.029	0.029
Lower bound on mean (95%)	0.141	0.142	0.158	0.158	0.178	0.177
Upper bound on mean (95%)	0.205	0.208	0.238	0.237	0.293	0.292
Median absolute deviation	0.087	0.092	0.132	0.122	0.129	0.124
Average relative error >DL* - CV_{AVR}(%)**	4.91**		3.108		2.910	
ARD% @90th PCTL / CV% @ 90th PCTL >DL	13.5 / 9.5		6.3 / 4.5		6.7 / 4.7	
Pearson correlation coefficient	0.9897		0.9990		0.9997	
Spearman correlation coefficient	0.9939		0.9982		0.9988	

* Detection limit

**Unbiased total relative error - corrected for 1/2 core original, 1/4 core duplicate and varying sample lengths using the method of Stanley (2014).

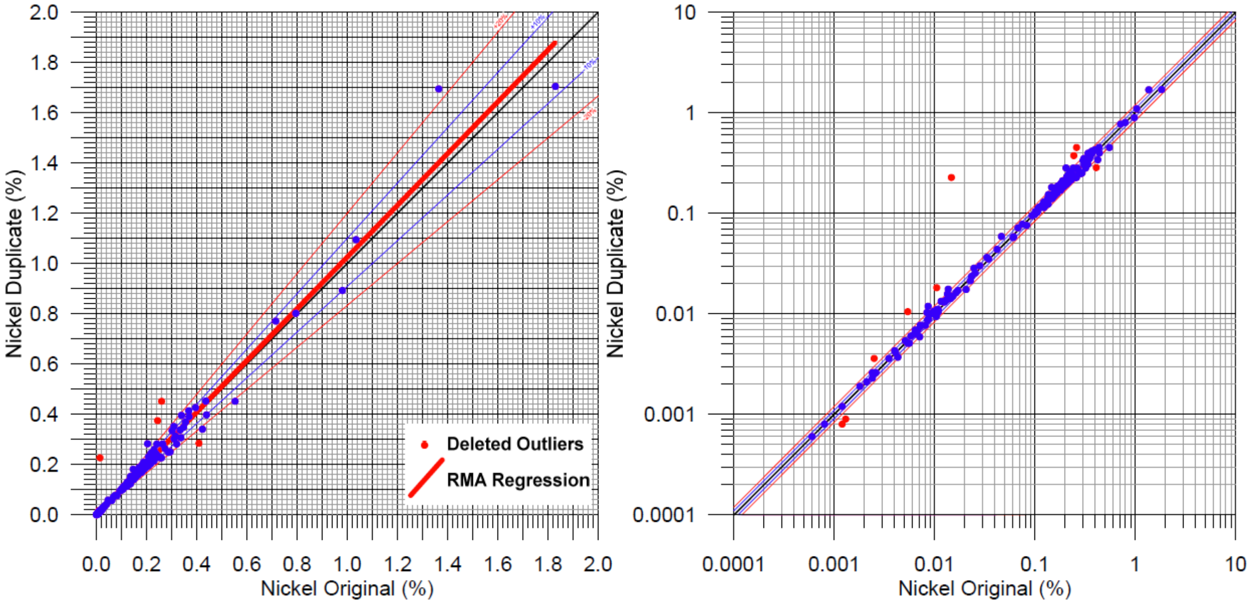

Figure 11.27 – Linear and log scatter plots of nickel analyses of quarter-core field duplicates (Lustig, 2016)

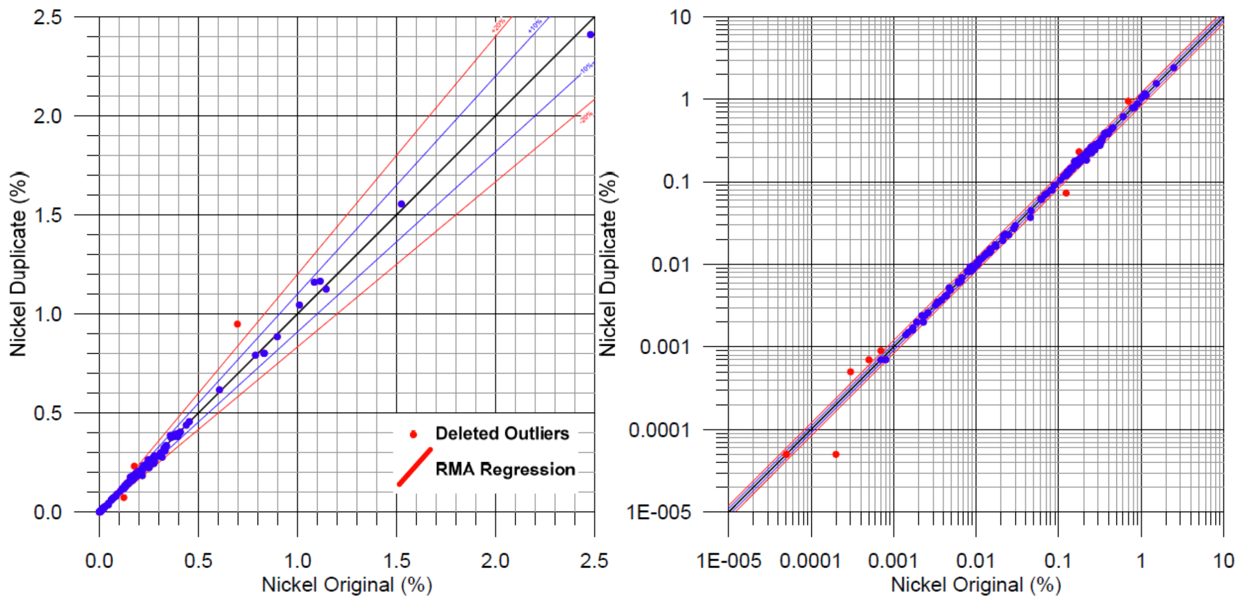

Figure 11.28 – Linear and log scatter plots of nickel analyses of field-selected coarse crushed preparation duplicates (Lustig, 2016)

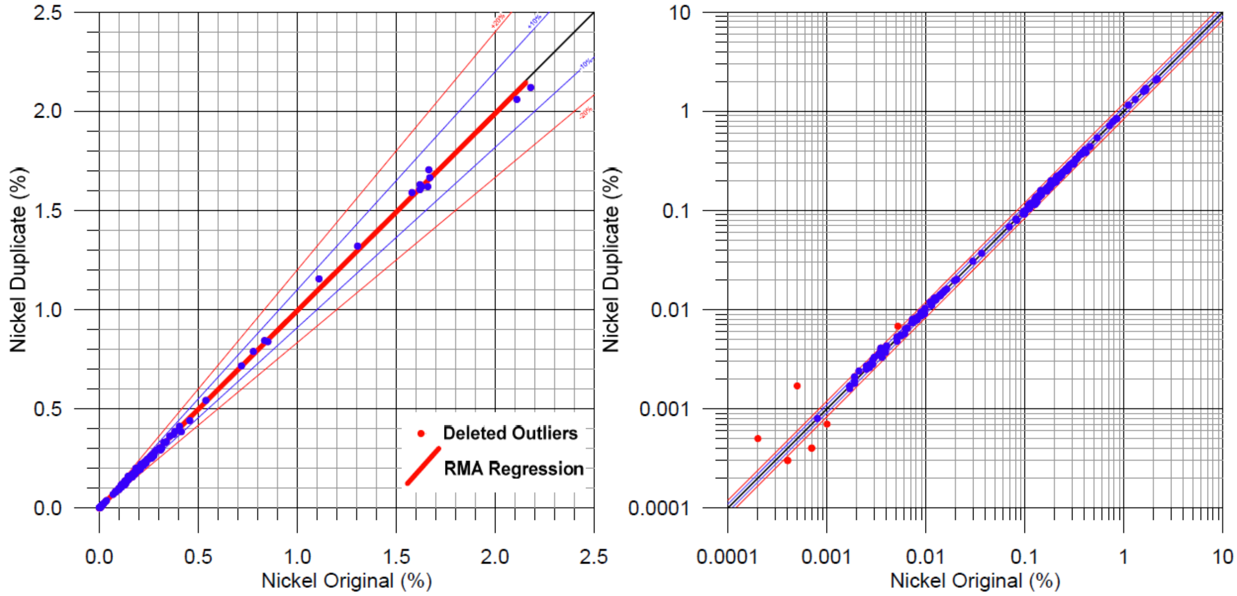

Figure 11.29 – Linear and log scatter plots of nickel analyses of laboratory-selected pulp duplicates (Lustig, 2016)

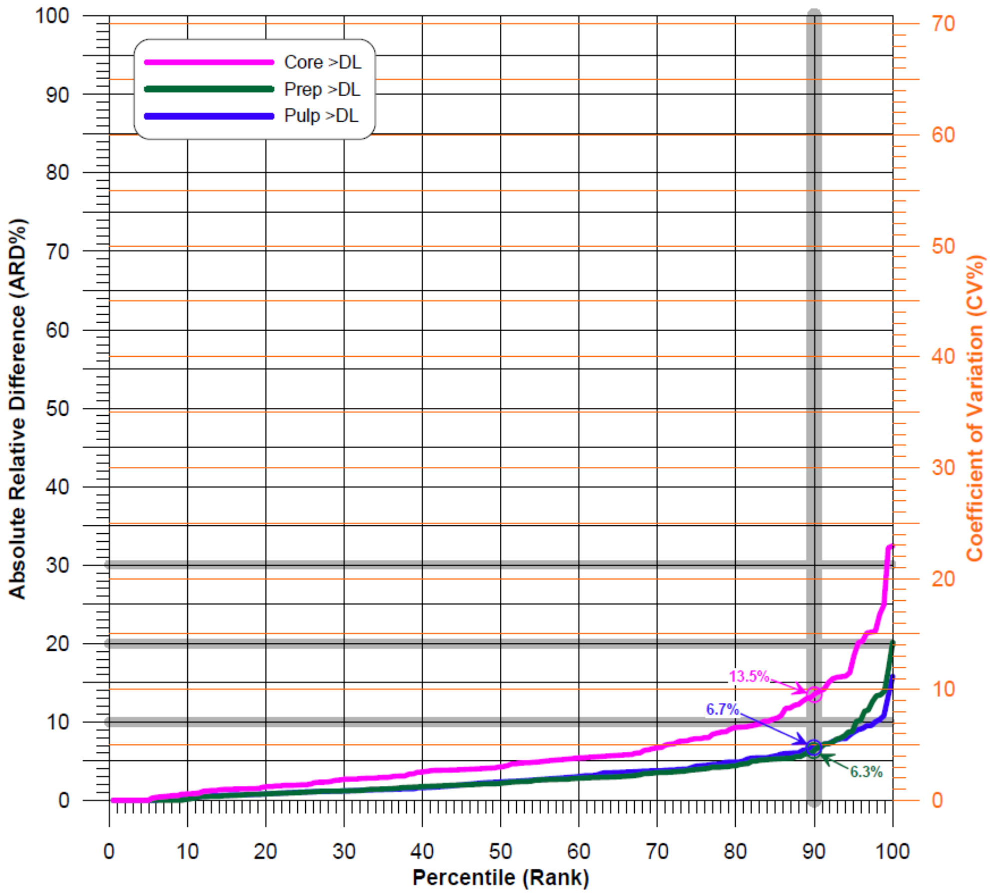

Figure 11.30 – Absolute relative difference vs. percentile (rank) plot for all nickel duplicates (Lustig, 2016)

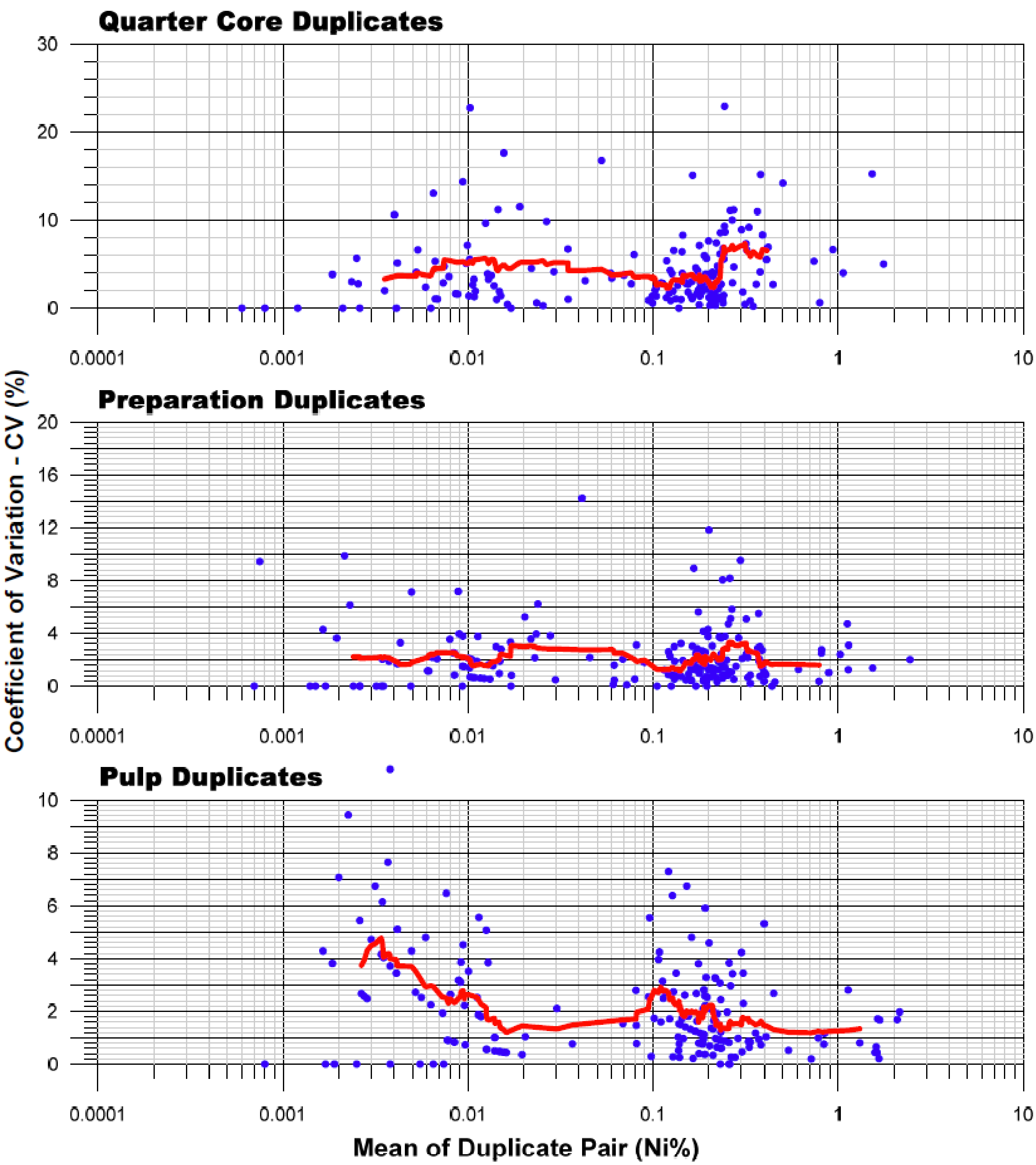

Figure 11.31 – Relative error expressed by the coefficient of variation in percent vs. the duplicate pair mean for nickel (Lustig, 2016). This plot shows the relationship between precision and concentration.

11.8.4 Comment for Monitoring Precision

InnovExplo is of the opinion that Balmoral's quality control results presented by Lustig (2016) for monitoring precision using duplicate pairs during the 2015 drilling program are reliable and valid.

11.9 External Check Assays

As an independent check of relative accuracy, pulps previously assayed by ALS were sent to external laboratories for check assays (Lustig, 2016). To avoid a selection bias and to avoid re-assaying a large number of barren samples, subsets of samples that had been visually logged as mineralized based on the presence of pyrrhotite were used as the basis for a computerized random selection. The external checks consisted of 50 samples each from the summer and winter drill programs. Pulps from the winter program were submitted to SGS Minerals Services Geochemistry Vancouver ("SGS") in Burnaby, British Columbia, accredited by the Standards Council of Canada to CAN-P-1579 and CAN-P-4E (ISO/IEC 17025:2005) for the methods GE_FAI313 (Au-Pt-PD FA/ICP-AES), GE_ICP40B (33 element 4A/ICP-AES) and GOICP90Q (Cu, Ni sodium peroxide fusion/ICP-AES); these methods are comparable to those employed by ALS.

The summer checks were sent to Bureau Veritas Mineral Laboratories ("BV") in Vancouver, British Columbia, accredited by the Standards Council of Canada to CAN-P-1579 and CAN-P-4E (ISO/IEC 17025:2005) only for the method FA330 (Au-Pt-Pd FA/ICP-AES), which is comparable to the method used by ALS. Methods for copper and nickel by 4-acid digestion and sodium peroxide fusion are comparable to the ALS methods, but are not accredited to BV.

For the purpose of this comparison, duplicate pairs with <DL samples from either laboratory were removed from the dataset (Lustig, 2016). Outliers were also removed before statistical analyses and plotting using the same methods as with the routine duplicate samples.

After the examination of checks assays results, Lustig (2016) concluded that the quality control and check assays confirm that the Grasset winter and summer 2015 assay data are accurate, precise and free of contamination to industry standards, and of sufficient quality to be used in resource estimation.

11.10 Conclusions on Balmoral's QA/QC

The statistical analysis of the QA/QC data provided by Lustig (2016) did not identify any significant analytical issues. InnovExplo is of the opinion that the sample preparation, analysis, QA/QC and security protocols used during the drilling programs on the Grasset deposit follow generally accepted industry standards, and that the data is valid and of sufficient quality to be used for mineral resource estimation purposes.

12. DATA VERIFICATION

The diamond drill hole database used for the 2016 Mineral Resource Estimate for the Grasset deposit presented herein was provided by Balmoral. The discussion below does not apply to exploration holes that were drilled on the Grasset Property far from the Grasset deposit, which were not used for the resource estimate. The reviewed database is referred to as the "Balmoral database" in this section.

The author, Pierre-Luc Richard, visited the Grasset Property on July 13, 2015. The site visit was complemented by a review of digital documents and databases both before and after the visit.

The purpose of this site visit was to get an overview of the Grasset Project, assess the NI 43-101 compliance of the work being conducted, and provide guidelines, if needed, to ensure the project was to be ready for a 43-101 resource estimate. A drilling program was underway at the time of the site visit.

Special emphasis was placed on the following items:

- Collar locations;
- Drilling protocols;
- Collar downhole surveys;
- Logging protocols;
- Sampling protocols;
- QA/QC protocols
- Validation sampling;
- Specific gravity review;
- Interpretation methodology;
- Exploration program overview.

12.1 Historical Work

The historical information used in this report was taken mainly from reports produced before the implementation of NI 43-101. In some cases, little information is available about the sample preparation and analytical protocols or the security procedures implemented for the historical work in the reviewed documents. However, InnovExplo assumes that the exploration activities conducted by earlier companies were in accordance with prevailing industry standards at the time.

That being said, the historical work presented in this Technical Report does not have an impact on the resource estimate as all drill holes used for the estimate are dated 2011 or younger.

12.2 Balmoral Database

InnovExplo was granted access to the certificates of assays for all holes in the database. Assays were verified for 100% of the drill holes.

No error of the type normally encountered in a project database encountered. This can be explained by the fact that Balmoral's technical team follow rigorous protocols and by the fact that all holes are recent (2011 to 2015), hence limiting sources of possible errors in the database.

The assay database is considered to be of good overall quality. InnovExplo considers the Balmoral database for the Grasset Project to be valid and reliable.

12.3 Balmoral Diamond Drilling

Drilling was underway at the Grasset Property during the author's site visit, which provided an opportunity for Balmoral personnel to explain the entire path of the drill core, from the drill rig to the logging and sampling facility (Figs. 12.1 to 12.3). The author is of the opinion that the protocols in place are adequate.

Figure 12.1 – Photo of the office, core logging and sampling facility, and the outdoor core storage area. Photo taken during the site visit

Figure 12.2 – Photos of the drill site of hole GR-15-89 (left and bottom right), and the next drill site being set up (top right)

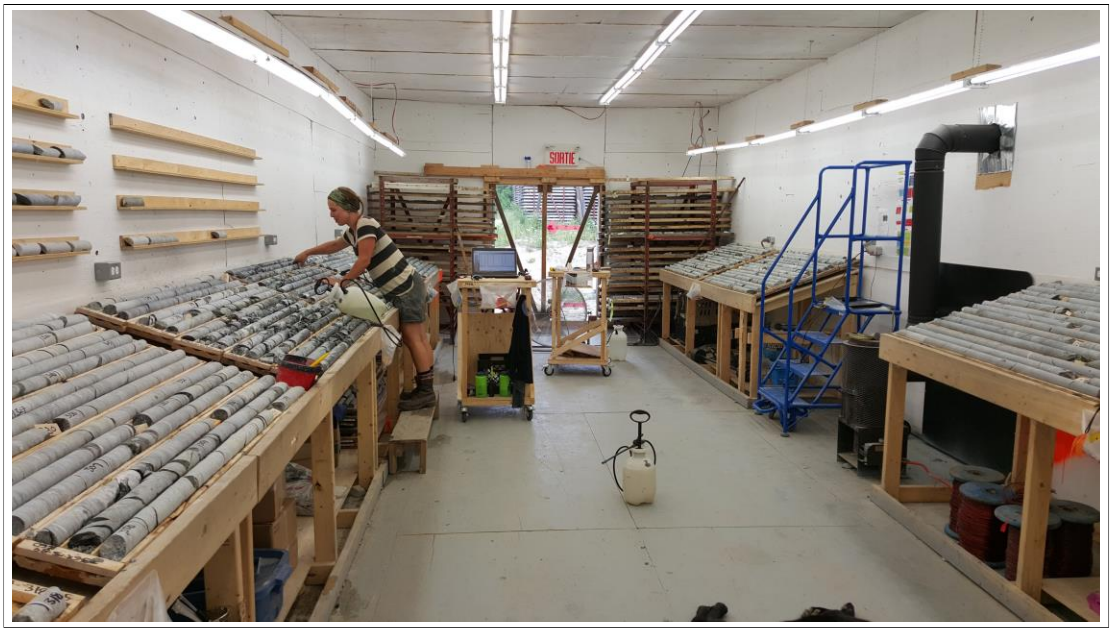

Figure 12.3 – View of the interior of the core logging facility

All surface drill hole collars on the Grasset Project (resource area) were either professionally surveyed or surveyed using a GPS unit. The collar surveys are considered adequate for the purpose of a resource estimate, although any collar that was only surveyed using a GPS unit should be professionally surveyed.

Downhole surveys were conducted on the majority of the holes (106 holes out of 111). Most holes saw Flexit single shots taken every 30 to 50 m during drilling, and a gyro survey once the hole was completed. Flexit and Gyro survey information was mathematically reviewed for all drill holes from the database to identify anomalies and a visual verification was performed on 100% of the downhole surveys. Minor modifications were made to the database.

During the site visit, the author located and collected coordinates using a hand-held GPS for seven (7) drill holes collars in the field (Fig. 12.4), and then compared these readings to those in the database. Results were all within acceptable ranges based on the limitations of a handheld GPS unit. Table 12.1 shows the results.

Figure 12.4 – Examples of handheld GPS validation of collar locations during the author's site visit

Table 12.1 – Comparison between hand-held GPS readings taken during the site visit and the coordinates in the database at the time of the site visit

	Database		Field Measurements		Differences (m)	
Collar	Easting	Northing	Easting	Northing	Easting	Northing
GR-14-22	679424.68	5540005.20	679426	5540005	1.32	0.20
GR-14-23	679424.85	5540005.20	679424	5540007	0.85	1.80
GR-14-60	679474.79	5539950.88	679476	5539949	1.21	1.88
GR-14-61	679474.24	5539950.48	679476	5539949	1.76	1.48
GR-15-82	679475.00	5539951.00	679473	5539950	2.00	1.00
GR-15-83	679475.00	5539951.00	679472	5539951	3.00	0.00
GR-15-89 (being drilled during the site visit)	Not in the database yet		679294	5539891	-	-

Although all results fell within acceptable ranges, one case was puzzling. Figure 12.4 shows a photo taken during the site visit of collars GR-14-60 and GR-14-61, which are located northeast (hole down-plunge direction) of collars GR-15-82 and GR-15-83. However, the database showed the opposite (Fig. 12.6). This was likely due to the relative inaccuracy of the handheld units (they were recent holes at the time of the site visit). A subsequent survey corrected this situation as one can see in Table 12.2 and

Figure 12.7 (current database used for the resource estimate). The differences between Tables 12.1 and 12.2 are due to a professional re-survey program that affected part of the database.

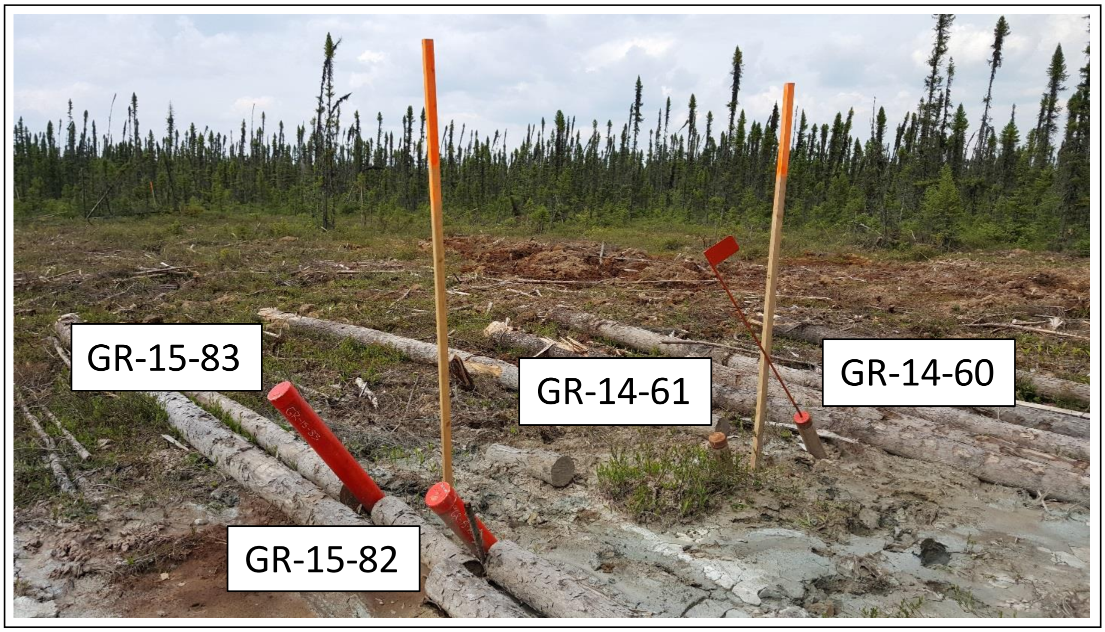

Figure 12.5 – Location of four collars. The view is roughly to the north

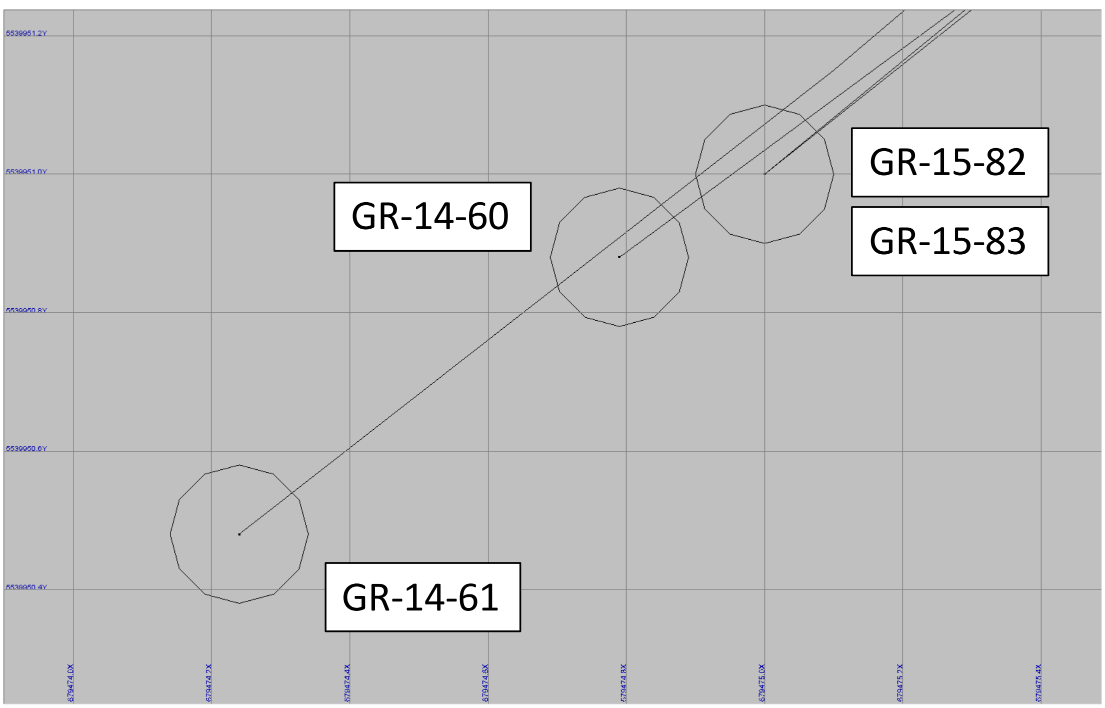

Figure 12.6 – Database location of the four collars photographed in Figure 12.1 at the time of the site visit

Table 12.2 – Comparison between handheld GPS readings taken during the site visit and the current database used for the resource estimate

	Database		Field Measurements		Differences (m)	
Collar	Easting	Northing	Easting	Northing	Easting	Northing
GR-14-22	679426.76	5540004.65	679426	5540005	0.76	0.35
GR-14-23	679426.93	5540005.01	679424	5540007	2.93	1.99
GR-14-60	679476.87	5539950.33	679476	5539949	0.87	1.33
GR-14-61	679476.32	5539949.93	679476	5539949	0.32	0.93
GR-15-82	679474.97	5539948.81	679473	5539950	1.97	1.19
GR-15-83	679474.67	5539949.57	679472	5539951	2.67	1.43
GR-15-89 (being drilled during the site visit)	679298.25	5539887.21	679294	5539891	4.25	3.79

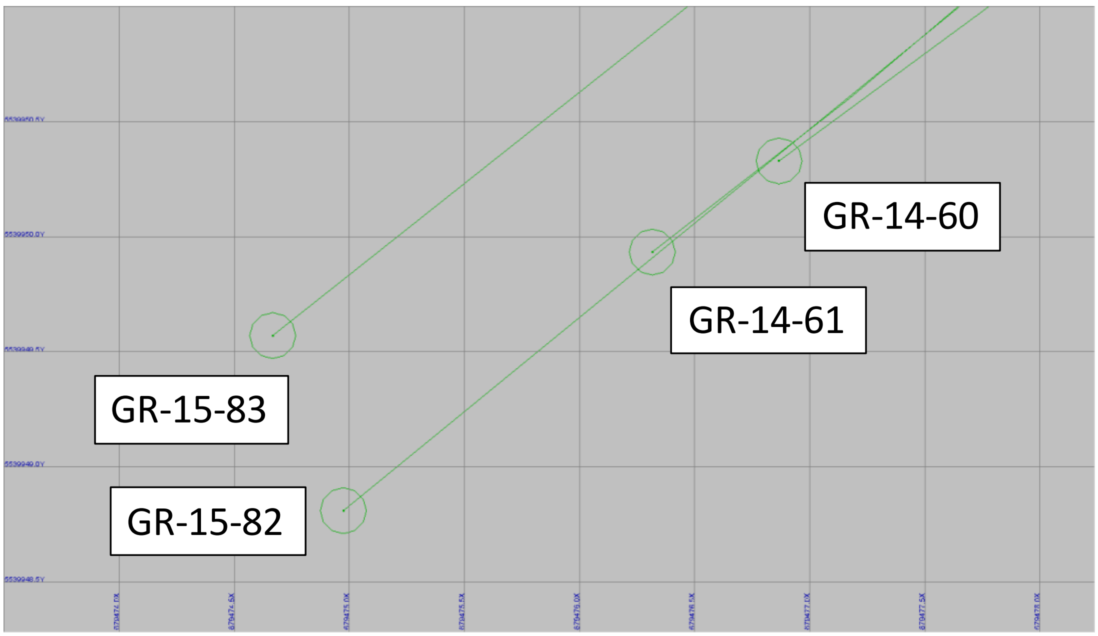

Figure 12.7 – Database location of the four collars photographed in Figure 12.1 in the current database used for the resource estimate (these positions better reflect reality)

12.4 QA/QC protocols

As reported in Lustig (2015) and confirmed during the site visit, Balmoral has established a quality assurance and quality control (QA/QC) program for the Grasset Project to monitor the accuracy, precision and contamination of the sampling and analytic components. QC samples consist of one blank, one duplicate and one standard reference material in each group of 20 samples (Fig. 12.8).

For the 2014 drilling program, approximately 5% of the sample pulps from the mineralized high-pyrite subset were randomly selected for check assays at a second laboratory.

The analytical results of the QC samples were continuously and independently monitored throughout the 2014 and 2015 programs, notably by compiling a table of

QC failures to document both the failures and the corrective actions taken, when necessary. All outstanding QC issues have been resolved.

The primary analytical laboratory, ALS Minerals (Val-d'Or and Vancouver facilities) is ISO 9001:2008 certified and each facility is individually ISO/IEC accredited to 17025:2005 for the analytical methods used on the Grasset samples.

External check assays were performed at the SGS Burnaby laboratory, which is accredited by the Standards Council of Canada to CAN-P4E (ISO/IEC 17025:2005) for the analyses performed.

InnovExplo is of the opinion that the QA/QC protocols are thorough, and of high quality.

Figure 12.8 – Photos of the different standards, the commercially crushed material used as blanks, and the area dedicated for sawing and preparing samples for the laboratory

12.5 Core description and sample validation

The author reviewed several sections of mineralized core while visiting the on-site core logging and core storage facilities (Fig. 12.9). All core boxes were labelled and properly stored outside. Sample tags were still present in the boxes, and it was possible to validate sample numbers and confirm the presence of mineralization in the reference half-core samples from mineralized zones.

The author was able to compare descriptions in the drill logs with the corresponding core for eleven (11) intersects, and then re-sample nine (9) of the mineralized intervals (Fig. 12.9):

- GR14-28 from 125 m to 133 m (sample Q110199 re-assayed);
- GR14-32 from 117 m to 124 m (sample Q110591 re-assayed);
- GR14-37 from 140 m to 236 m (sample Q111398 re-assayed);
- GR14-44 from 253 m to 259 m (sample Q112701 re-assayed);
- GR14-45 from 100 m to 107 m (sample Q112713 re-assayed);
- GR14-50 from 267 m to 274 m (sample R142154 re-assayed);
- GR14-57 from 334 m to 342 m (sample R141889 re-assayed);
- GR15-70 from 181 m to 206 m (sample R159122 re-assayed);
- GR15-73 from 364 m to 387 m (sample R159469 re-assayed);
- GR15-79A from 256 m to 630 m;
- GR15-81 from 200 m to 208 m.

Figure 12.9 – Views of some of the core reviewed at the core storage facilities visited by the author. These are the nine samples that were re-assayed as part of the data verification process. Note that some of the original tags showing in the photos identify a standard or a blank, thus the tags for the original core samples are found under these QA/QC tags.

Quarter-splits were taken from these nine (9) intervals and delivered by the author to ALS Laboratories in Val-d'Or. Results of the re-sampling validation program are presented in Table 12.3.

Table 12.3 – InnovExplo's re-sampling results

				Original results							Re-assay results						
Sample_ID	Hole	From_m	To_m	Sample_ID	Au (ppm)	Ag (ppm)	Ni (%)	Cu (%)	Pt (ppm)	Pd (ppm)	Sample_ID	Au (ppm)	Ag (ppm)	Ni (%)	Cu (%)	Pt (ppm)	Pd (ppm)
Q110199	GR-14-28	125.00	133.00	Q110199	0.59	2.20	3.12	0.68	1.04	2.16	58305	0.06	1.90	3.25	0.45	0.59	1.73
Q110591	GR-14-32	117.00	124.00	Q110591	0.11	0.70	1.10	0.13			58303	0.06	0.70	1.15	0.17	0.23	0.60
Q111398	GR-14-37	140.00	236.00	Q111398	0.17	1.30	2.00	0.25	0.52	1.37	58309	0.04	0.50	1.18	0.13	0.37	0.84
Q112701	GR-14-44	253.00	259.00	Q112701	1.05	3.20	3.83	0.94	0.91	2.22	58304	0.31	2.70	3.33	0.61	0.69	1.87
Q112713	GR-14-45	100.00	107.00	Q112713	0.11	0.50	1.38	0.09			58301	0.11	<0.50	1.36	0.10	0.12	0.27
R141889	GR-14-57	334.00	342.00	R141889		0.70	1.21	0.13			58302	0.05	0.90	1.27	0.17	0.26	0.59
R142154	GR-14-50	267.00	274.00	R142154		0.80	0.94	0.12			58306	0.07	0.90	1.14	0.48	0.15	0.44
R159122	GR-15-70	181.00	206.00	R159122	1.23	4.20	7.37	1.80	0.83	0.87	58308	1.20	5.70	6.83	2.12	0.69	0.78
R159469	GR-15-73	364.00	387.00	R159469	0.19	3.60	6.36	1.02	2.47	3.82	58307	0.08	3.10	5.89	0.87	2.37	3.36

Grades for Ni, Cu, Ag, Pt and Pd display good overall correlation considering the fact that quarter-core samples are being compared to original half-core samples, and that some local variability can be expected. Gold, on the other hand, is more puzzling as the re-assays are systematically lower than the original samples. This can be explained by the fact that we are dealing with low grades, and that samples have high sulphide contents, which can make it tricky for the laboratory to adequately estimate gold grades. However, since gold in the Grasset deposit is not taken into account for the resource estimate due to sub-economic levels, the re-assay results are deemed sufficient for the expected level of study. Further investigation may be warranted in the future to better understand the discrepancies in gold assays, especially if gold-rich zones are to be modelled (not currently the case).

Two objectives were met by the core validation and re-sampling program:

- Significant grades were found in the database for all six elements (Ni, Cu, Au, Ag, Pt, Pd);
- The program provided a geological overview of the deposit.

12.6 Specific Gravity Review

The current protocol for the Grasset Property is to measure specific gravity at the property site. On-site personnel measure a core intercept in air and water to determine the specific gravity value.

Although this is considered a valid method, the author recommended a specific gravity sampling program to validate the in-house measurements using an independent laboratory.

Such a validation test was made following the site visit. The results confirmed that on-site measurements are adequately conducted.

12.7 Conclusions

Overall, InnovExplo is of the opinion that the site visit and subsequent validation exercises demonstrated the validity of the protocols in place for the Grasset Project. The database is of sufficient quality to be used for a resource estimate.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

A preliminary metallurgical testwork report (the “Met Report”) dated September 24, 2015, was authored by Mr. Andrew Kelly, P.Eng. of Blue Coast Research Ltd (“Blue Coast”).

The Met Report includes a disclaimer stating that the data provided and the associated interpretations offered are based on the samples made available to Blue Coast by the issuer. No assurances can be made by Blue Coast on the representability of the samples tested.

The text below represents excerpts from the Met Report that have not been altered except for minor linguistic editing and formatting to ensure harmonization with the rest of this technical report.

Study Summary

Blue Coast was contracted by Balmoral to execute an initial metallurgical performance characterization of two master composites and variability testing of twelve additional composites for the Grasset nickel-copper-gold-PGM project, located in northwestern Québec. The testwork program was conducted on two master composites with average nickel grades of 1.9% and 1.3% respectively. Average grades for both master composites are summarized in Table 13.1. The program was designed to provide a scoping level metallurgical evaluation of the property and included grindability testing (Bond Rod and Bond Ball work index tests) gravity menability tests and both rougher and cleaner flotation tests. Single locked cycle tests were conducted for each composite using the best conditions developed during the cleaner flotation program. Tailings generated during the locked cycle tests were subjected to net acid generation and acid base accounting tests to determine the extent that tailings may be acid generating.

Table 13.1 – Master Composite Head Assays

Sample	Ni %	Cu %	Fe %	S %	Co %	Pt g/t	Pd g/t	Au g/t	Ag g/t
Master Composite 1	1.87	0.25	11.11	4.44	0.04	0.38	0.97	0.42	0.92
Master Composite 2	1.29	0.15	9.38	3.10	0.03	0.26	0.66	0.05	0.44

Both master composites displayed similar mineral compositions. Sulphide mineralization is made up of pentlandite, chalcopyrite, pyrrhotite and pyrite. Gangue mineralogy is composed of a mix of altered silicates (talc and serpentine) as well as carbonates (magnesite and dolomite). The talc content ranges from 29% in Master Composite 1 to 36% in Master Composite 2, making it substantially higher than most nickel deposits. Master Composite 1 contains a significant quantity of serpentine (25%), while this is almost non-existent in Master Composite 2 (0.4%). On the other hand, Master Composite 2 contains more chlorite (13%) compared to Master Composite 1 (0.5%).

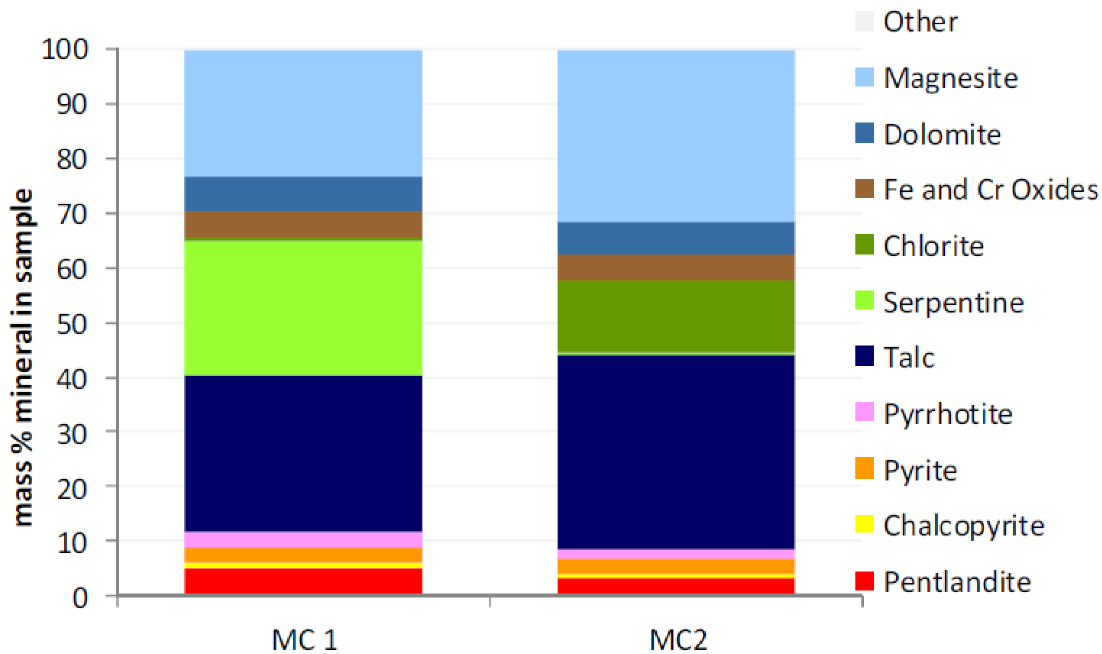

Figure 13.1 – Modal mineralogy of master composites

Variability composites were characterized by chemical assays and QEMSCAN automated mineralogical analysis. Overall, the variability composites showed similar mineralogical characteristics to the master composites. Sulphide mineralization was composed of pentlandite, chalcopyrite, pyrite and pyrrhotite. Once sample (R154073) contained millerite as the primary nickel host; however this was the only sample where millerite was observed. Four of the twelve samples (R15074, R15076, R15078 and R15083) contained moderate amounts of serpentine and are similar to Master Composite 1 in that regard. The remaining eight samples contain low levels of serpentine and are more closely related to Master Composite 2. Head assays are summarized in Table 13.2, while the modal mineralogy of the variability composites is summarized Figure 13.2.

Table 13.2 – Variability Composite Head Assays

Sample	Ni %	Cu %	Fe %	S %	Co %	Pt g/t	Pd g/t	Au g/t	Ag g/t
R154072	0.55	0.07	6.83	1.33	0.02	0.09	0.23	0.07	0.10
R154073	0.87	0.08	7.20	1.32	0.02	0.08	0.22	0.15	0.27
R154074	0.53	0.09	7.55	0.92	0.01	0.02	0.04	0.05	0.20
R154075	2.79	0.18	13.27	6.04	0.06	0.67	1.53	0.11	1.00
R154076	1.75	0.16	10.22	3.63	0.04	0.12	0.28	0.11	1.20
R154077	2.15	0.21	12.60	4.90	0.05	0.50	1.18	0.18	0.93
R154078	1.49	0.17	9.33	3.56	0.03	0.37	0.90	0.15	0.67
R154079	1.02	0.15	8.19	2.53	0.03	0.12	0.34	0.07	0.47
R154081	1.35	0.09	5.84	1.27	0.02	0.48	1.65	0.16	0.40
R154082	1.73	0.17	9.20	4.32	0.04	0.30	0.64	0.05	1.07
R154083	2.79	0.27	13.15	6.59	0.06	0.68	1.67	0.16	0.37
R154084	1.26	0.14	9.57	2.69	0.03	0.32	0.67	0.05	0.33

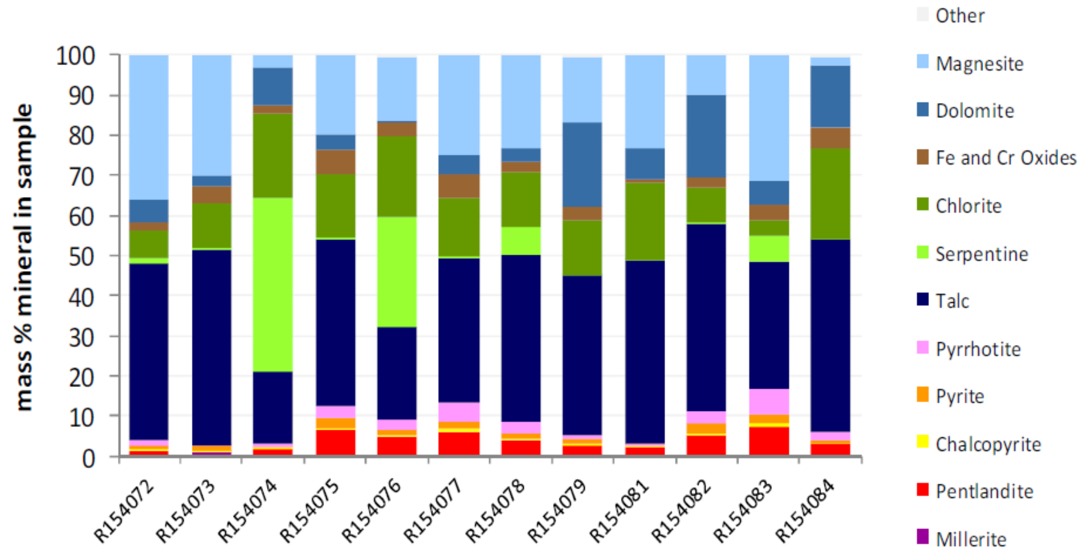

Figure 13.2 – Variability composite modal mineralogy

Grindability testing indicates material of moderate hardness which should not present difficulties during grinding. However, differences in grinding times were observed between the composites and are likely explained by the relative content of serpentine mineralization present, with greater quantities of serpentine tied to longer grind times. Grindability test results are summarized in Table 13.3.

Table 13.3 – Grindability test results

Test	Work Index (kWh/tonne)
Bond Rod Mill Work Index	12.9
Bond Ball Mill Work Index	11.4

Flotation results are presented in Table 13.4. The results were consistent between each composite. Concentrates grading between 13.4% and 13.8% nickel were produced with nickel recoveries ranging between 86% and 87%. Copper recovery to concentrate was 94%. Higher grades and recoveries were observed with Master Composite #2 (MC-2) and are likely explained by coarser pentlandite grain sizes which improved the overall liberation profile when compared to Master Composite #1 (MC-1).

Rougher and cleaner flotation tests identified significant drivers of overall metallurgical performance to be:

- Soda ash and CMC for talc depression;
- Primary grinds of approximately 80% passing 65 µm;
- Long cleaning flotation times to recover slower floating pentlandite.

Minor element scans of final concentrates did not detect the presence of any significant quantities of penalty elements; however exact penalty limits should be verified with concentrate marketing specialists. Iron to MgO ratios for MC-1 and MC-2 were 5.9 and 6.9 respectively.

Table 13.4 – Summary of Locked Cycle Test Results

Composite	Test ID	Assays (%)			Distribution (%)		
		Ni	Cu	Fe	Ni	Cu	Fe
MC-1	LCT-2	13.4	1.97	27.4	86.0	93.5	30.1
MC-2	LCT-1	13.8	1.79	29.6	87.3	94.4	25.9

The final locked cycle test concentrates were assayed for gold and PGE, with results summarized in Table 13.5. Flotation conditions were not specifically optimized for precious metals as part of this program. Gold recovery ranged between 42% and 54%, platinum recovery ranged between 35% and 49% while palladium recovery appeared the highest at 89%. Gold and PGE recoveries were based on a limited dataset of feed and concentrate assays coupled with mass recoveries from locked cycle tests. Accordingly, they are estimates only and should not be considered as robust as the base metal projections.

Table 13.5 – Gold and platinum group metal content in the LCT concentrates

Composite	Test ID	Assays (g/t)			Distribution (%)[1]		
		Au	Pt	Pd	Au	Pt	Pd
MC-1	LCT-2	1.88	1.1	7.17	54	35	89
MC-2	LCT-1	0.265	1.56	8.78	42	49	N/A[2]

Gold and PGE recoveries are estimates only and based on a limited dataset of feed and concentrate assays coupled with mass recovery measurements during the Locked Cycle Test.
Inconsistencies in palladium assays meant that palladium recovery could not be adequately determined for MC-2.

Two gravity tests were conducted during the test program. A single test was conducted on the feed material to identify the gravity response of the material itself. A second test was conducted to evaluate the ability to produce a separate precious metal stream from the final flotation concentrate. The test on feed material showed negligible recovery of platinum and palladium to the Knelson concentrate. Gold recovery to the Knelson concentrate was moderate at 27.7%, albeit at a fairly low concentrate grade of 8.1 g/t Au. Tabling the Knelson concentrate was able to upgrade the sample to 74.6 g/t Au, but at a low overall recovery of 1.9%. The results suggest that gravity concentration is not effective for gravity recovery of the PGE, and is only marginally better for gold.

Concentrate produced from Master Composite 1 (during LCT-2) was tabled to determine if the precious metals and gold could be placed into a separate, higher grade concentrate to reduce the impact of smelter deductions and increase the overall value of the project. The test showed that 53% of the gold, and 31% of the platinum and 31% of the palladium could be concentrated into 21% of the mass. Gold grades increased from 2.2 g/t to 5.7 g/t. The palladium grades increased from 7.8 g/t to 11.5 g/t, while the platinum grades remained relatively unchanged.

Acid-Base Accounting (ABA) and Net Acid Generation (NAG) tests were conducted to determine the extent that Grasset tailings could be acid generating. Results of both analyses suggest that the potential for Grasset tailings to be acid generating is low. The net neutralization potential (NNP) of each composite was an order of magnitude greater than the Maximum Potential Acidity. Additionally the NAG test results were both below detection limits and the final pH ranged between 8.7 and 8.8. ABA and NAG test results are summarized in Table 13.6.

Table 13.6 – Summary of Acid Base Accounting and Net Acid Generation Test Results

Composite	MPA t CaCO3 / 1Kt	NNP t CaCO3 / 1Kt	NAG @ pH 4.5 Kg H2SO4 / t	NAG @ pH 7.0 Kg H2SO4 / t	pH
MC-1	37.8	255	<0.01	<0.01	8.8
MC-2	21.3	231	<0.01	<0.01	8.7

Based on the test program the following recommendations are made:

- Conduct variability hardness testing to determine the range of hardness within the deposit.
- Evaluate conditions to increase the final concentrate grade by further depressing pyrite and pyrrhotite during flotation.
- Conduct a further evaluation of the cleaner circuit to optimize reagent addition and increase talc depression.
- Conduct a variability flotation program to determine the range of flotation response and to generate head grade/recovery relationships.

Conclusions

Blue Coast concluded the following:

- Sulphide mineralization in Grasset material is made up of pentlandite, chalcopyrite, pyrite and pyrrhotite. The mineralized materials[1] are nickel-rich with Ni:Cu ratios of approximately 6.5:1.
- Gangue mineralization is dominated by talc and magnesite, which together make up 52% of the mass in MC-1 and 67% of the mass in MC-2.
- Grindability tests indicate material of medium hardness.
- Differences in grind times between MC-1 and MC-2 indicate some variability in hardness, likely tied to the quantity of serpentine in the mineralized material[2].
- Samples exhibited a low level of gravity recoverable platinum and palladium.
- 27% of the gold could be recovered to a low grade gravity concentrate.
- Based on locked cycle test results using the same basic flowsheet, metallurgical performance was consistent between both master composites
- A soda ash based flowsheet with the addition of carboxyl-methyl cellulose (CMC) is necessary to control the readily floatable talc present in each master composite.

[1] "Ores" in the Met Report was changed to "mineralized materials" in the current report to meet the NI 43-101 requirement of avoiding the term "ore" unless reserves have been established on a project.
[2] Idem.

- Finer primary grinds (~65 µm) produce faster flotation kinetics and result in higher grades and recovery to the final concentrate.
- Good nickel concentrates could be generated at consistent grades (13.4%–13.8%) at very good overall recoveries (86%–87%).
- Copper recovery to the final concentrate was 94%.
- Minor element scans did not indicate the presence of any penalty elements in significant quantities; however, exact penalty limits should be confirmed with concentrate marketing specialists.
- Acid Base Accounting and Net Acid Generation tests suggest Grasset tailings produced using this flowsheet are not likely to be acid generating.

14. MINERAL RESOURCE ESTIMATES

The 2016 Grasset Mineral Resource Estimate herein was prepared by Pierre-Luc Richard, P.Geo. using all available information. The main objective of the mandate assigned by Balmoral was to produce a maiden resource estimate for the project.

The 2016 resource area measures 1,000 m along strike, 350 m wide and 600 m deep. The resource estimate is based on a compilation of recent diamond drill holes and a litho-structural model constructed in Leapfrog by Balmoral, subsequently adapted for GEMS by InnovExplo.

The mineral resources presented herein are not mineral reserves as they have no demonstrable economic viability. The result of this study is a single Mineral Resource Estimate for two mineralized zones (H1 and H3). The estimate includes indicated and inferred resources for an underground scenario. The effective date of the estimate is January 12, 2016, based on compilation status and cut-off grade parameters.

14.1 Drill Hole Database

The GEMS diamond drill hole database contains 111 surface diamond drill holes (39,999.43 m). From these, a subset of 105 holes (38,631.43 m) located inside the limits of the resource estimate area were used for the resource estimation. As part of the current mandate, all holes were compiled and validated before the estimate was initiated (Fig. 14.1).

All 105 holes contain lithological descriptions taken from drill core logs. A total of 101 holes (37,944.49 m) were sampled for nickel, copper, cobalt, platinum, palladium, gold or silver, or a combination of these elements. The remaining four (4) holes (686.94 m) were unsampled after being abandoned due to technical difficulties; they did not crosscut the mineralized zones.

The 105 drill holes cover the strike-length of the project at a variable drill spacing ranging from 25 to 100 m (mostly 50 m). This selection of 105 drill holes contains a total of 14,167 sampled intervals taken from 16,084.65 m of drilled core.

In addition to the basic tables of raw data, the GEMS database includes several tables containing the calculated drill hole composites and wireframe solid intersections required for statistical evaluation and resource block modelling.

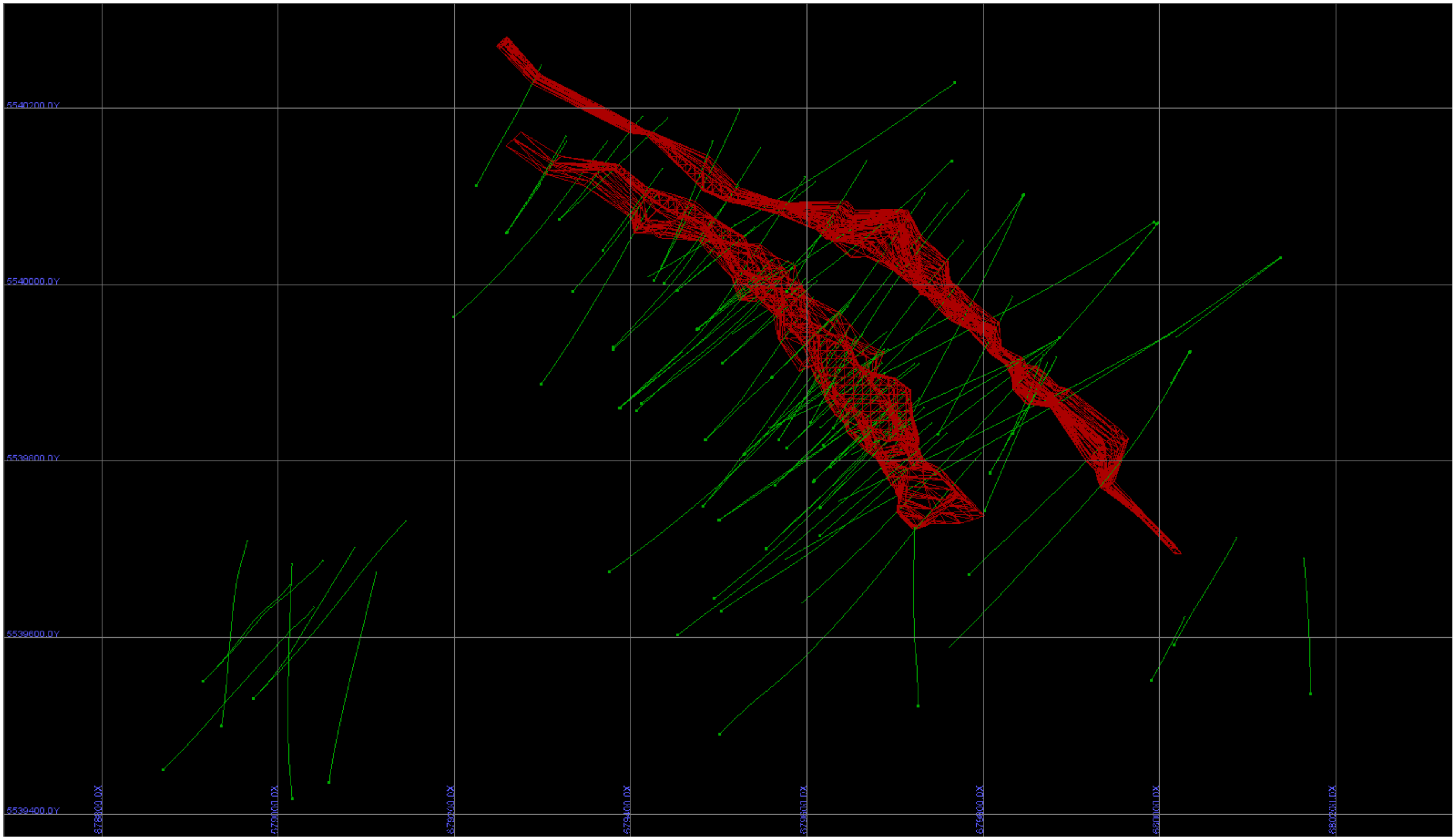

Figure 14.1 – Surface plan view of the Grasset drill hole database used for the resource estimate (n = 105). Red shapes are the H1 and H3 mineralized zones

14.2 Interpretation of Mineralized Zones

In order to conduct accurate resource modelling of the deposit, the author based the lithological and mineralized-zone wireframe model on the Leapfrog model provided by Balmoral. A total of 580 construction lines were created (207 3D rings and 373 tie lines), all of which snapped to drill hole intercepts in order to produce valid solids.

The author created a total of 11 lithological solids (coded 2100 to 7000; see table 14.7) and 2 mineralized solids (coded 1100 and 1300) that honour the drill hole database. Both mineralized zones are included within an ultramafic lithology (coded 2100). Overlaps were handled by clipping solids against each other prior to coding the block model.

Two surfaces were also created in order to define topography and overburden. These surfaces were generated from drill hole descriptions.

Figure 14.2 presents a 3D view of the lithological and mineralized solids.

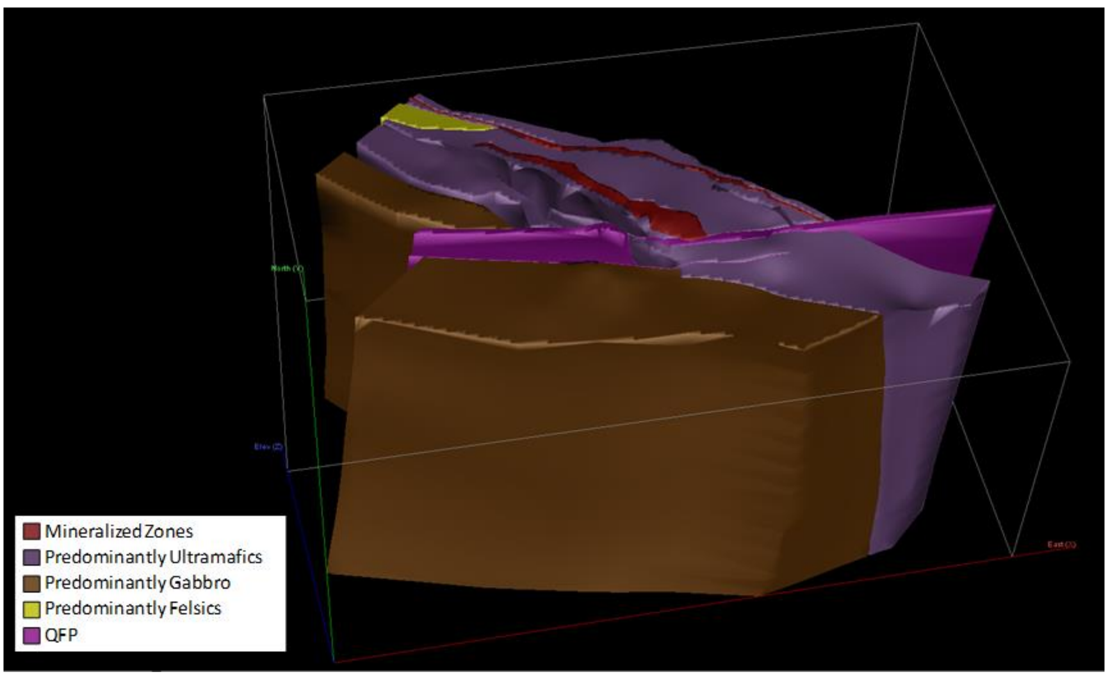

Figure 14.2 – 3D view of the lithological model for the Grasset deposit, looking north-northeast

14.3 High Grade Capping

For drill hole assay intervals that intersect interpreted mineralized zones, codes were automatically attributed based on the name of the 3D solids, and these coded intercepts were used to analyze sample lengths and generate statistics for high grade capping and composites.

Basic univariate statistics were performed on two raw assay datasets consisting of mineralized zones H1 (n = 482) and H3 (n = 3,326) for seven elements (Ni, Cu, Co, Pt, Pd, Au, Ag).

The following criteria were used to decide whether capping was warranted or not, and to determine the threshold when warranted:

- If the quantity of metal contained in the last decile is above 40%, capping is warranted; if below 40%, the uncapped dataset may be used;
- No more than 10% of the overall contained metal must be contained within the first 1% of the highest grade samples;
- The probability plot of grade distribution must not show abnormal breaks or scattered points outside of the main distribution curve;
- The log normal distribution of grades must not show any erratic grade bins nor distanced values from the main population.

Table 14.1 presents a summary of the statistical analysis for each dataset. Figures 14.3 to 14.9 show graphs supporting the capping threshold decisions for the H3 mineralized zone (a similar approach was used for the H1 mineralized zone).

Table 14.1 – Summary statistics for the raw assays by dataset

Dataset	Block Code	Metal	# of Samples	Max (g/t or %)	Uncut Mean (g/t or %)	High Grade Capping (g/t or %)	Cut Mean (g/t or %)	# of Samples Cut	% of Samples Cut	% Metal Factor Loss	Coefficient of Variation
Mineralized zone H1	1100	Ni (%)	482	4.38	0.40	15.00	0.40	0	0.00%	0.00%	0.97
		Cu (%)	482	0.55	0.04	5.00	0.04	0	0.00%	0.00%	1.26
		Co (%)	482	0.12	0.01	0.30	0.01	0	0.00%	0.00%	0.78
		Pt (g/t)	338	2.42	0.10	5.00	0.10	0	0.00%	0.00%	1.79
		Pd (g/t)	338	2.57	0.21	8.00	0.21	0	0.00%	0.00%	1.29
		Au (g/t)	378	0.76	0.03	5.00	0.03	0	0.00%	0.00%	2.55
		Ag (g/t)	482	3.90	0.17	10.00	0.17	0	0.00%	0.00%	1.51
Mineralized zone H3	1300	Ni (%)	3,326	18.95	0.81	15.00	0.81	2	0.06%	-0.11%	1.30
		Cu (%)	3,326	2.90	0.09	5.00	0.09	0	0.00%	0.00%	1.69
		Co (%)	3,326	0.25	0.02	0.30	0.02	0	0.00%	0.00%	0.86
		Pt (g/t)	2,918	4.12	0.19	5.00	0.19	0	0.00%	0.00%	1.40
		Pd (g/t)	2,918	12.00	0.46	8.00	0.46	2	0.07%	-0.29%	1.37
		Au (g/t)	2,946	5.13	0.05	5.00	0.05	1	0.03%	-0.06%	3.97
		Ag (g/t)	3,326	8.30	0.32	10.00	0.32	0	0.00%	0.00%	1.72

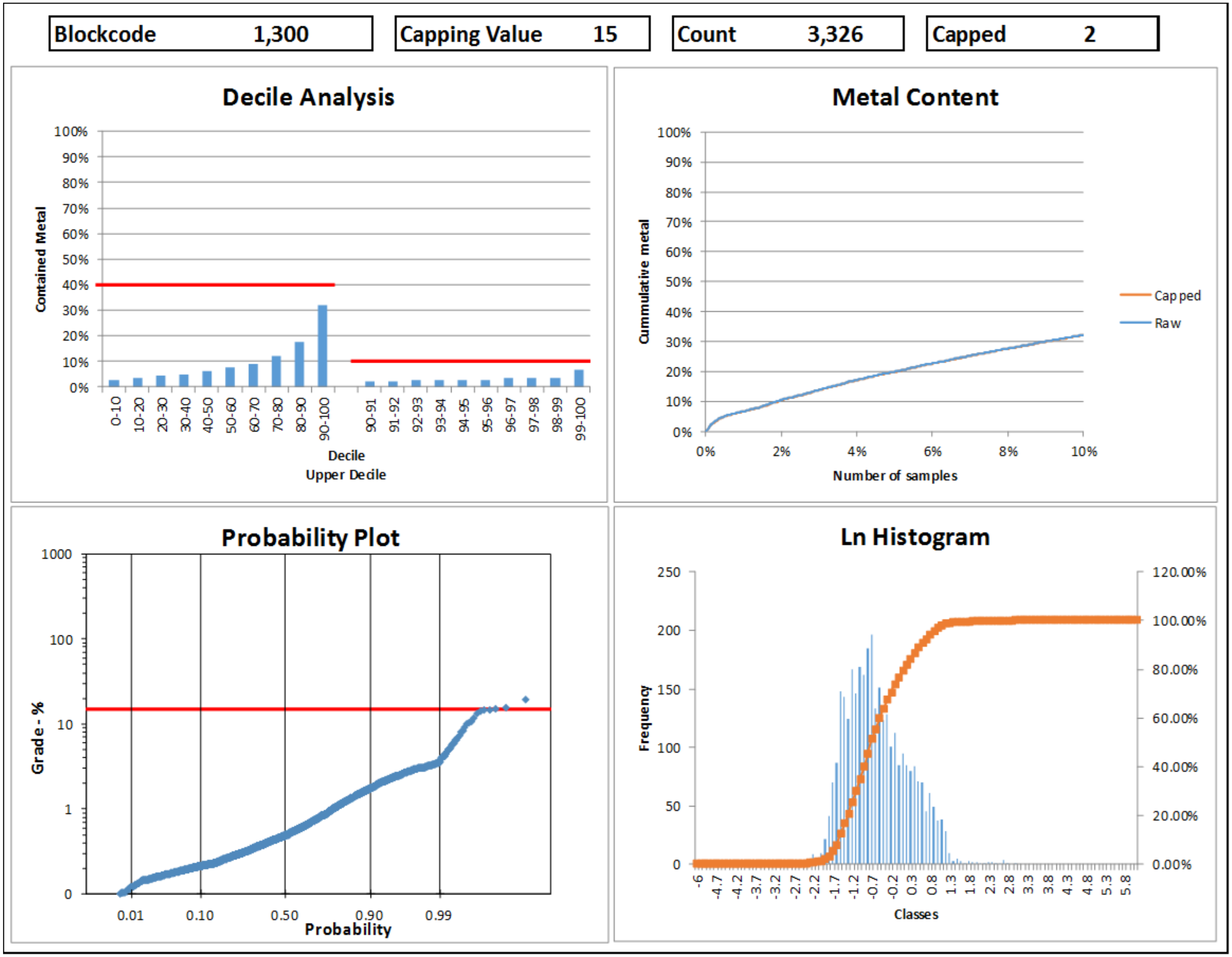

Figure 14.3 – Graphs supporting a capping grade of 15.00% Ni for the H3 mineralized zone

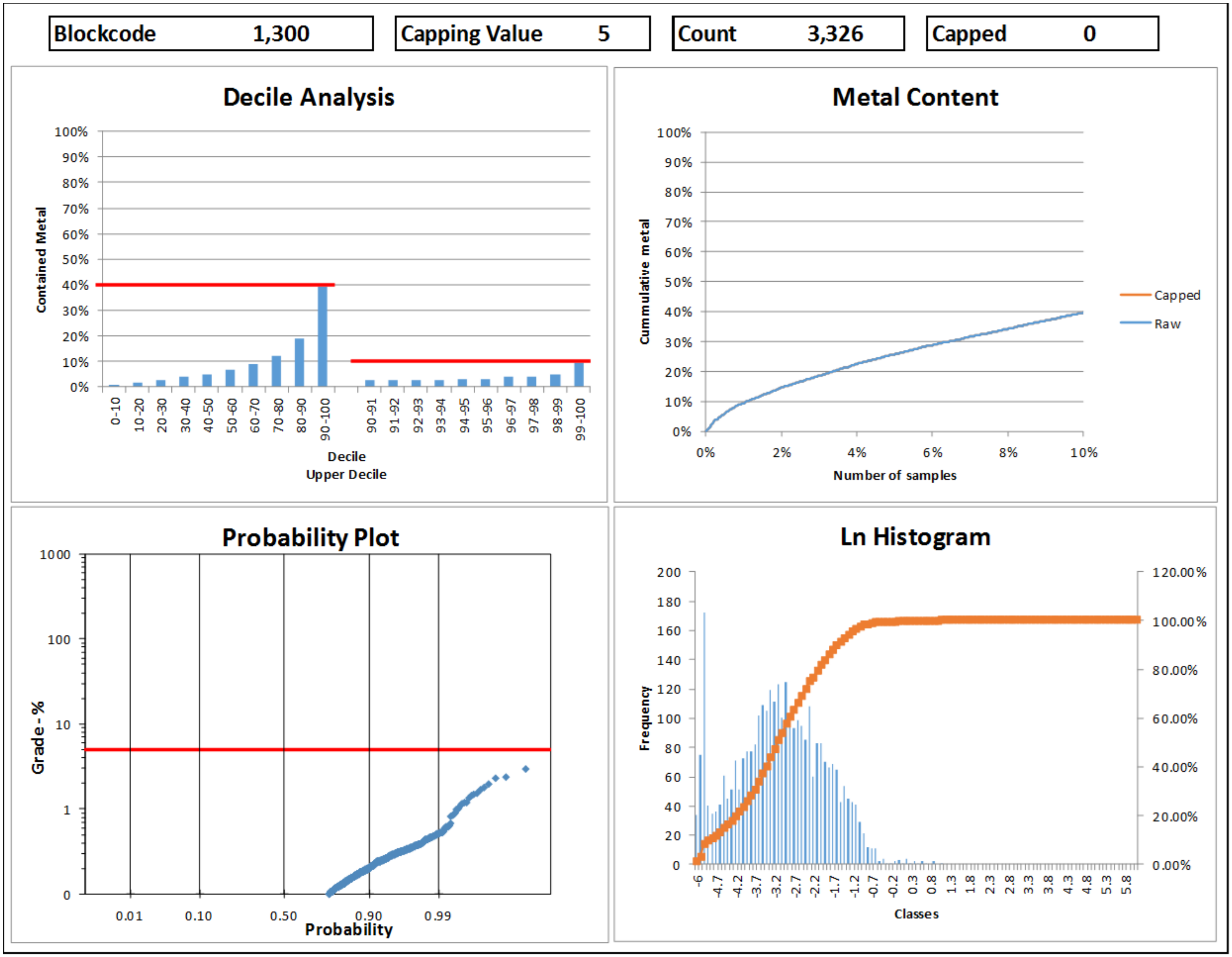

Figure 14.4 – Graphs supporting the absence of capping for Cu (arbitrarily 5.00%) for the H3 mineralized zone

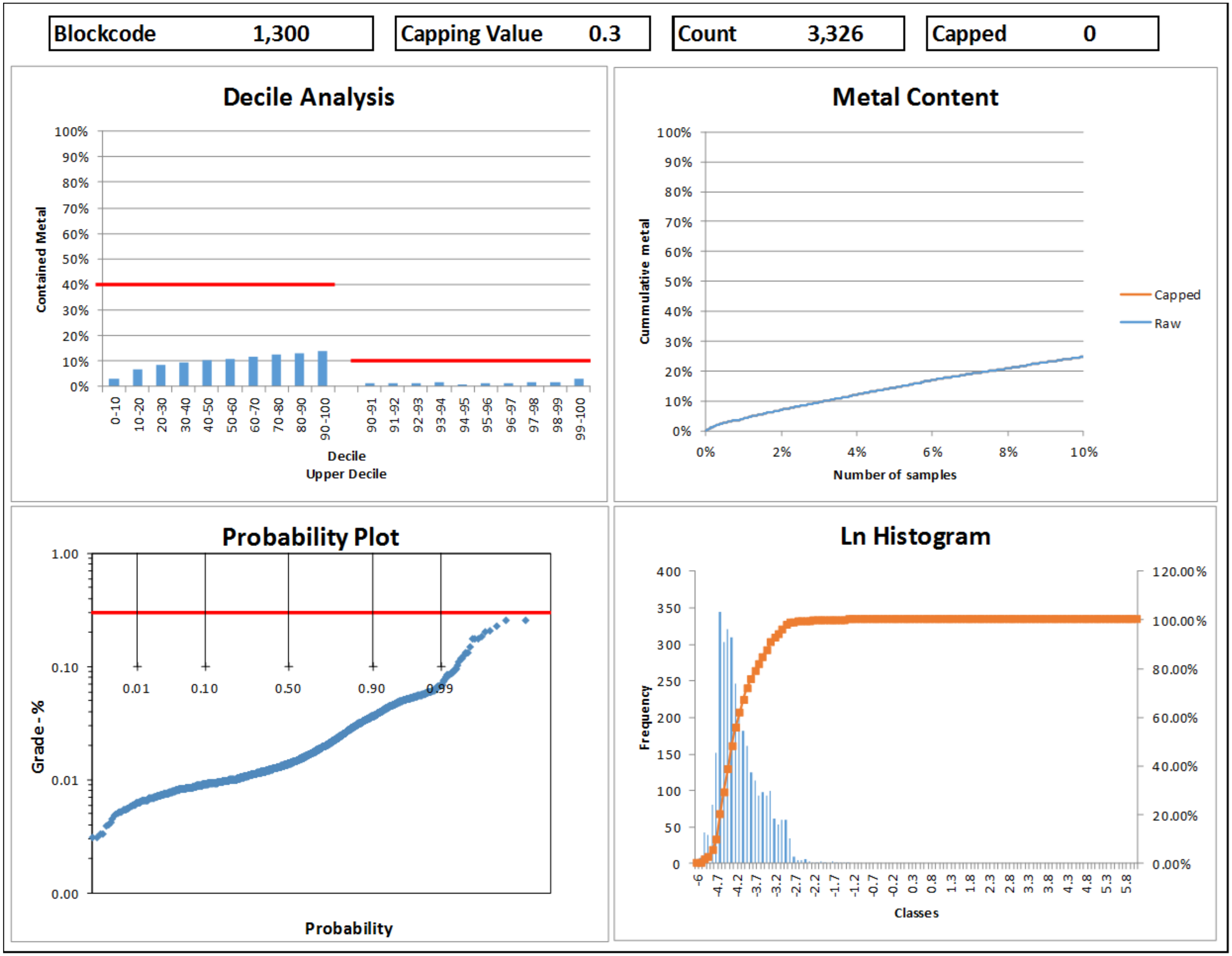

Figure 14.5 – Graphs supporting the absence of capping for Co (arbitrarily 0.30%) for the H3 mineralized zone

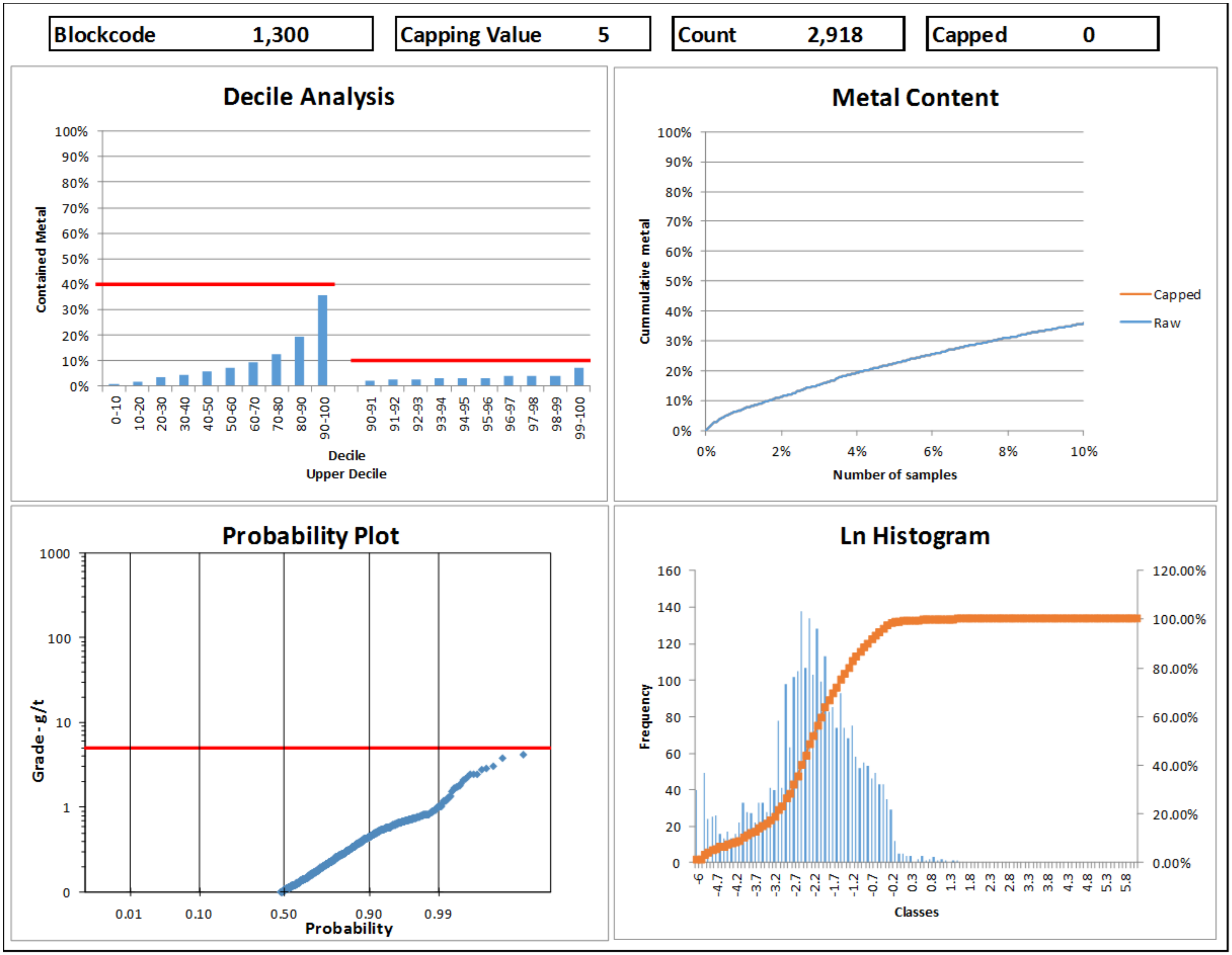

Figure 14.6 – Graphs supporting the absence of capping for Pt (arbitrarily 5.00g/t) for the H3 mineralized zone

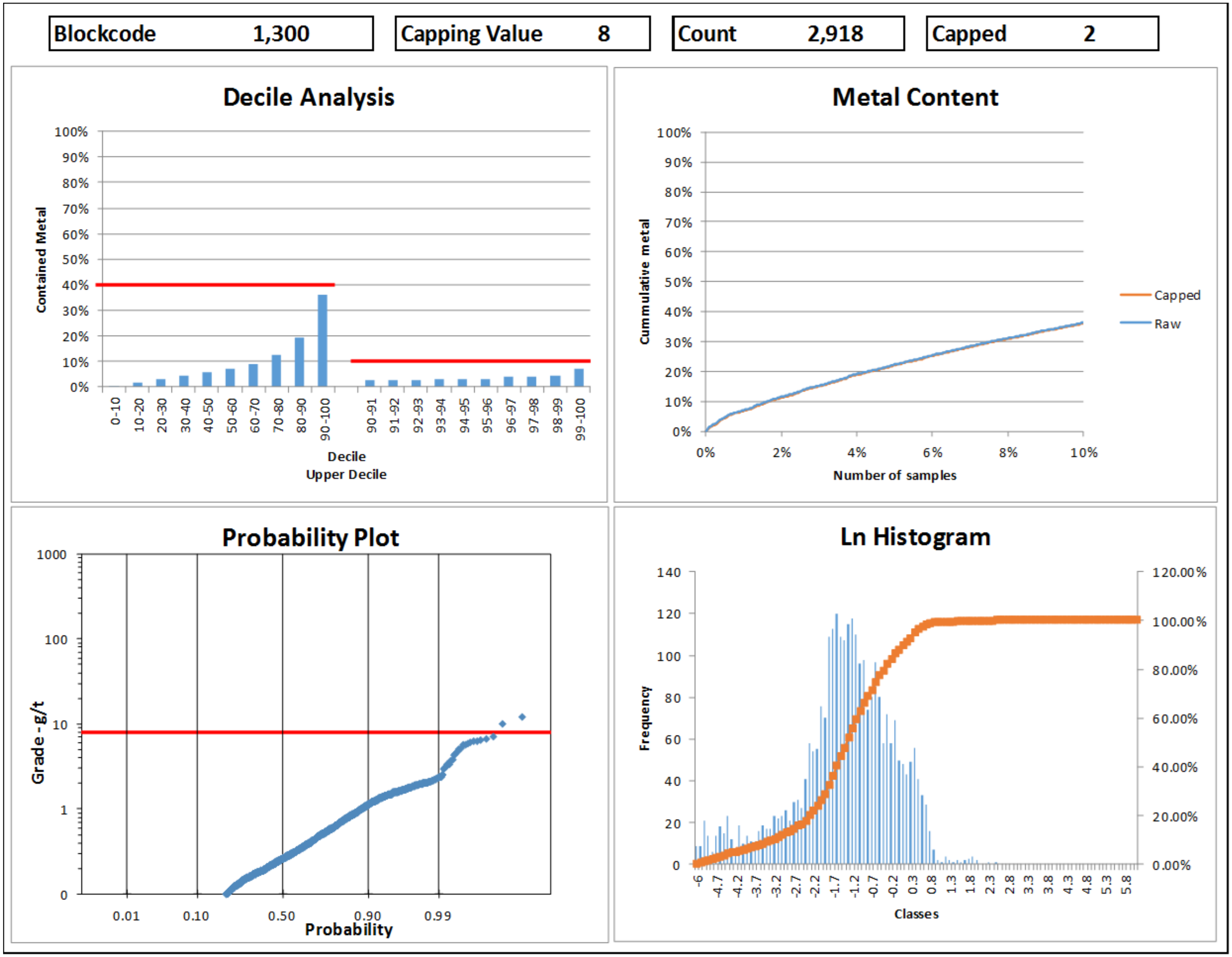

Figure 14.7 – Graphs supporting a capping grade of 8.00g/t Pd for the H3 mineralized zone

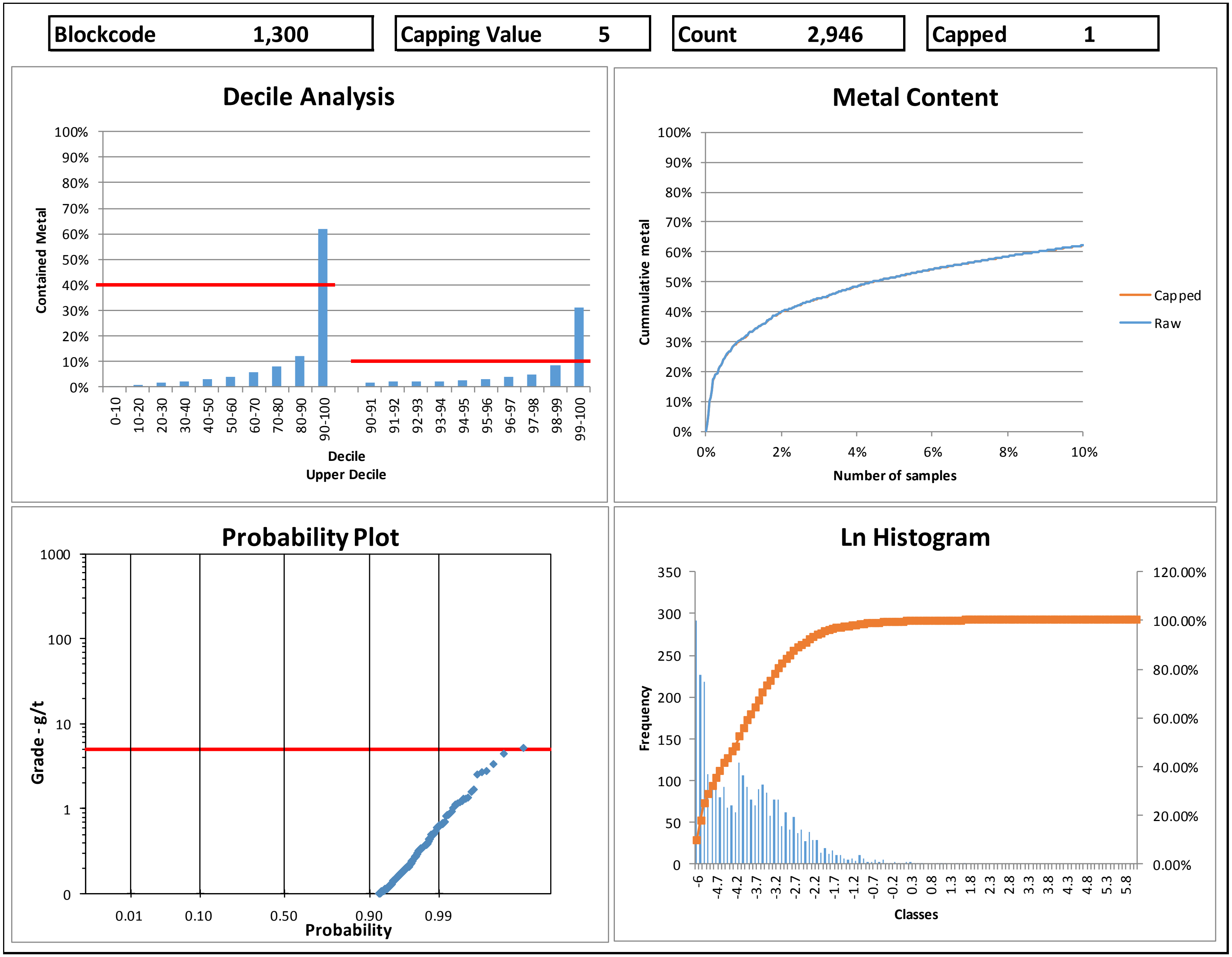

Figure 14.8 – Graphs supporting a capping grade of 5.00g/t Au for the H3 mineralized zone

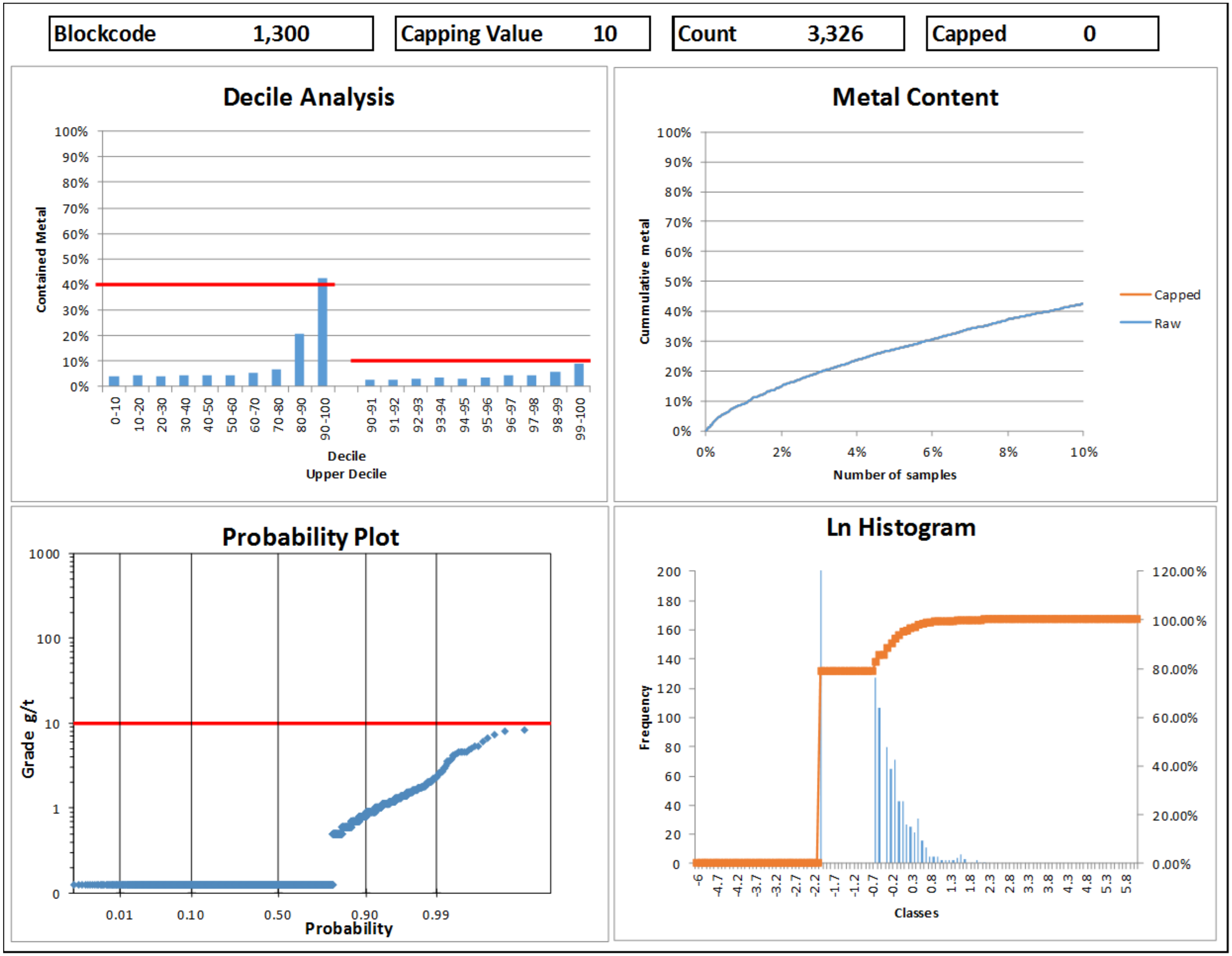

Figure 14.9 – Graphs supporting the absence of capping for Ag (arbitrarily 10.00 g/t) for the H3 mineralized zone

14.4 Compositing

In order to minimize any bias introduced by the variable sample lengths, the capped assays of the DDH data were composited to equal lengths of 1.00 metre ("1m composites") for all intervals that define each of the mineralized zones. When the last interval is less than 0.25 m, the composite is rejected. The total number of composites used in the DDH dataset is 13,296. A grade of 0.00 % (Ni, Cu, Co) or 0.00g/t (Pt, Pd, Au, Ag) was assigned to missing sample intervals.

Table 14.2 summarizes the basic statistics for the composites.

Table 14.2 – Summary statistics for the composites

Dataset	Block Code	Metal	# of Composites	Max (g/t or %)	Mean (g/t or %)	Standard Deviation	Coefficient of Variation
Mineralized zone H1	1100	Ni (%)	579	3.31	0.35	0.26	0.75
		Cu (%)	579	0.29	0.04	0.03	0.95
		Co (%)	579	0.09	0.01	0.01	0.59
		Pt (g/t)	579	1.62	0.06	0.10	1.86
		Pd (g/t)	579	2.29	0.12	0.18	1.44
		Au (g/t)	579	0.76	0.02	0.06	2.91
		Ag (g/t)	579	1.79	0.15	0.15	0.98
Mineralized zone H3	1300	Ni (%)	3,642	14.94	0.74	0.85	1.15
		Cu (%)	3,642	2.87	0.08	0.12	1.51
		Co (%)	3,642	0.20	0.02	0.01	0.73
		Pt (g/t)	3,642	2.79	0.15	0.21	1.40
		Pd (g/t)	3,642	7.91	0.36	0.51	1.42
		Au (g/t)	3,642	4.94	0.04	0.16	4.10
		Ag (g/t)	3,642	7.91	0.29	0.44	1.49

14.5 Density

Densities are used to calculate tonnages from the volume estimates in the resource-grade block model.

The drill hole database contains density measurements. Table 14.3 summarizes the available information per lithology or mineralized zone, either measured on-site by Balmoral or in a certified laboratory.

Table 14.3 – Breakdown of density values in the current database (measured on-site by Balmoral (internal) or in a certified laboratory)

Internal Measurements						Laboratory Measurements					
Unit	Blockcode	Count	Min (g/cm^3)	Max (g/cm^3)	Mean (g/cm^3)	Unit	Blockcode	Count	Min (g/cm^3)	Max (g/cm^3)	Mean (g/cm^3)
CR	6000	106	2.65	4.58	2.80	CR	6000	12	2.68	3.05	2.88
FELS1	6100	3	2.70	2.73	2.71	FELS1	6100				
GAB1	4100	13	2.67	2.89	2.80	GAB1	4100				
GAB2	4200					GAB2	4200				
H1	1100	8	2.78	4.30	3.10	H1	1100	5	2.68	3.15	2.98
H3	1300	177	2.66	4.70	2.96	H3	1300	77	2.62	4.26	2.95
QFP1	5100	6	2.67	2.78	2.72	QFP1	5100				
QFP2	5200					QFP2	5200				
UM1	2100	166	2.58	4.99	2.86	UM1	2100	35	2.65	3.27	2.87
UM2	2200	28	2.78	2.99	2.90	UM2	2200	6	2.75	3.15	2.95
UM3	2300	2	2.81	2.83	2.82	UM3	2300				
UM4	2400	10	2.69	2.90	2.82	UM4	2400	1	2.69	2.69	2.69
All		**519**	**2.58**	**4.99**	**2.88**	**All**		**136**	**2.62**	**4.26**	**2.92**

Table 14.4 – Summary of combined internal and laboratory density measurements in the current database

All Measurements					
Unit	Blockcode	Count	Min (g/cm^3)	Max (g/cm^3)	Mean (g/cm^3)
CR	6000	118	2.65	4.58	2.81
FELS1	6100	3	2.70	2.73	2.71
GAB1	4100	13	2.67	2.89	2.80
GAB2	4200				
H1	1100	13	2.68	4.30	3.06
H3	1300	254	2.62	4.70	2.96
QFP1	5100	6	2.67	2.78	2.72
QFP2	5200				
UM1	2100	201	2.58	4.99	2.86
UM2	2200	34	2.75	3.15	2.91
UM3	2300	2	2.81	2.83	2.82
UM4	2400	11	2.69	2.90	2.81
All		**655**	**2.58**	**4.99**	**2.89**

Comparing Balmoral's internal data to the laboratory data (Table 14.3) reveals the on-site measurements are adequately, thus allowing the on-site and laboratory measurements to be combined into a single database, referred to herein as the "measured database".

It was determined that the measured database does not contain enough data to allow for density interpolation. Distribution is heterogeneous in the mineralized zones and the isolated high values would bias the results (Fig. 14.10).

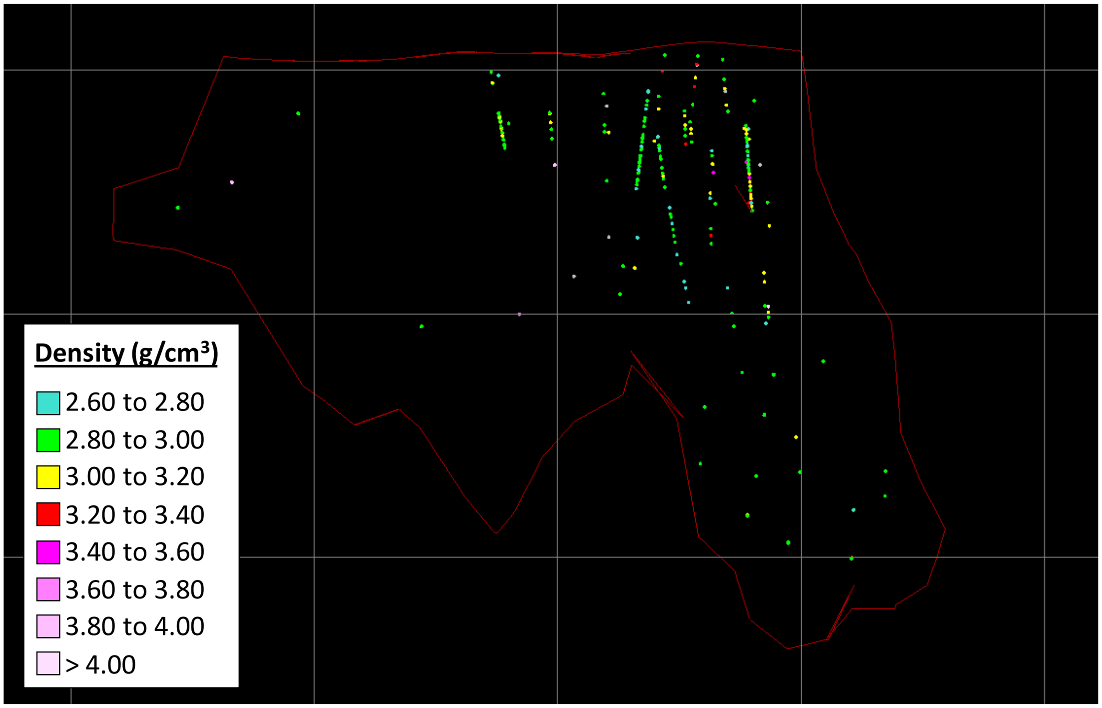

Figure 14.10 – Sampled density composite distribution in H1 and H3

The assay database, which includes much more data than the measured database, was investigated to determine whether a correlation could be made between density and certain elements to improve the density model for the two mineralized zones. It is typical in sulphide-rich deposits to see a correlation between sulphide content and density. Correlation graphs were built for several elements, and the best correlations were obtained with Ni, Fe and Co.

The author created a correlation matrix based on the combined Ni, Fe and Co contents, using a background value of 2.40 g/cm3 representing host rock artificially depleted of all three metals. The three metals were weighted to their respective densities (8.91 g/cm3 for Ni, 7.87g/cm3 for Fe and 8.86g/cm3 for Co). This matrix returned the best correlation when compared to the measured database (Fig. 14.11). The database derived from the correlation matrix is referred to herein as the “calculated database”.

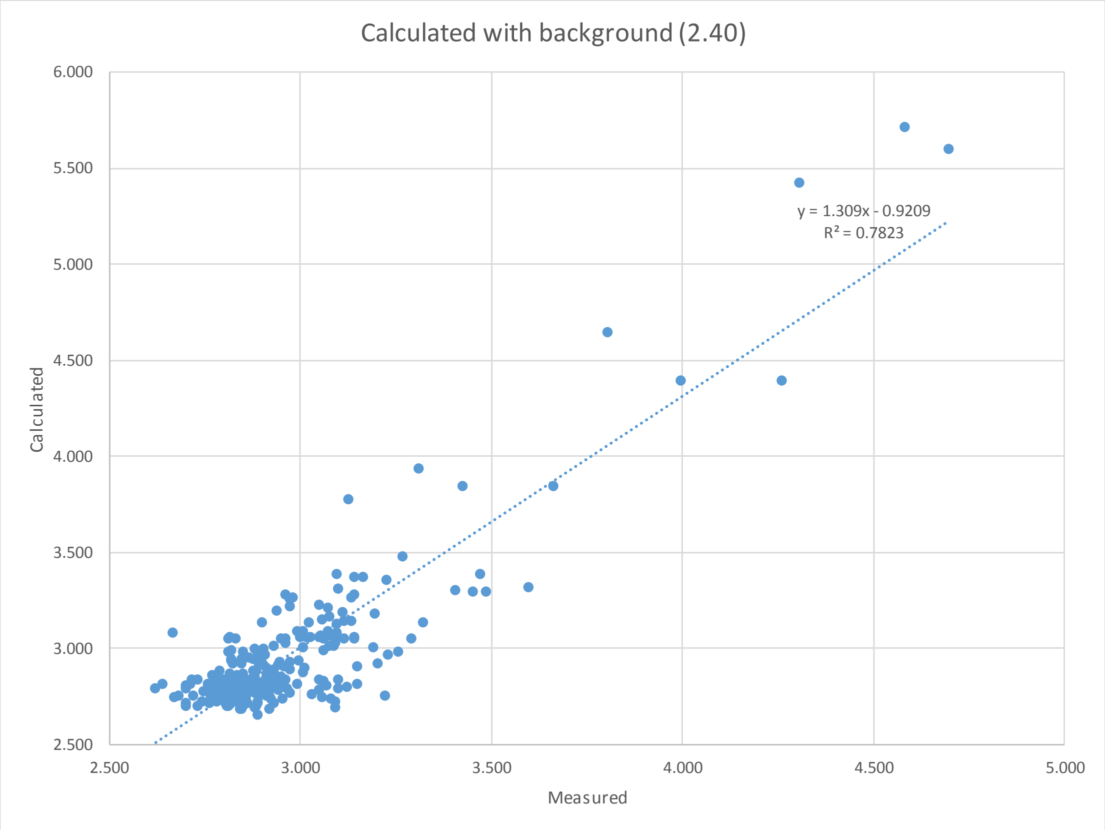

Figure 14.11 – Measured densities versus calculated values derived from a correlation matrix based on combined Ni, Fe and Co contents, using a background value of 2.40 g/cm3 (host rock artificially depleted of all three metals).

The calculated density values were capped at 4.697 g/cm3, corresponding to the highest measured value in the mineralized zones.

The resulting calculated database yielded a better distribution of information, thus allowing density composites to be interpolated using the measured and calculated databases, and the “P1_Other” ellipsoid (see Table 14.8 below). The author believes the result is a more precise density model for the mineralized zones, both locally and overall. Figure 14.12 shows the distribution of the density composites (measured and calculated databases), and Figure 14.13 shows the resulting density block model.

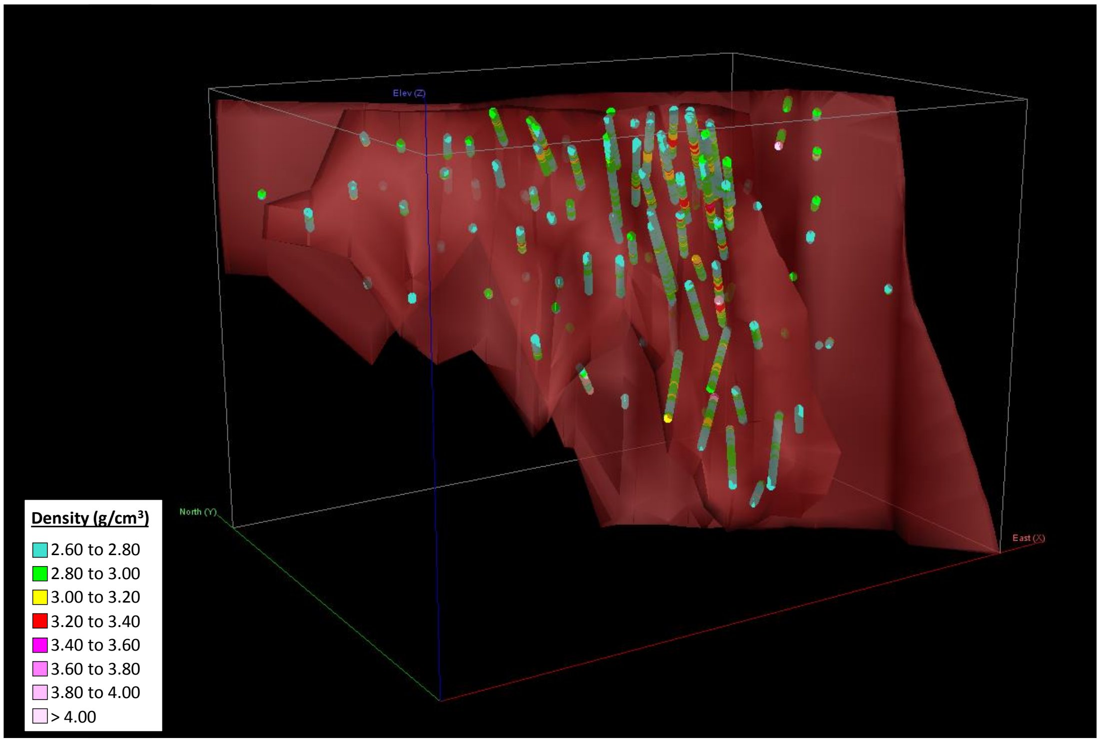

Figure 14.12 – Density composite distribution in H1 and H3 (calculated and measured databases)

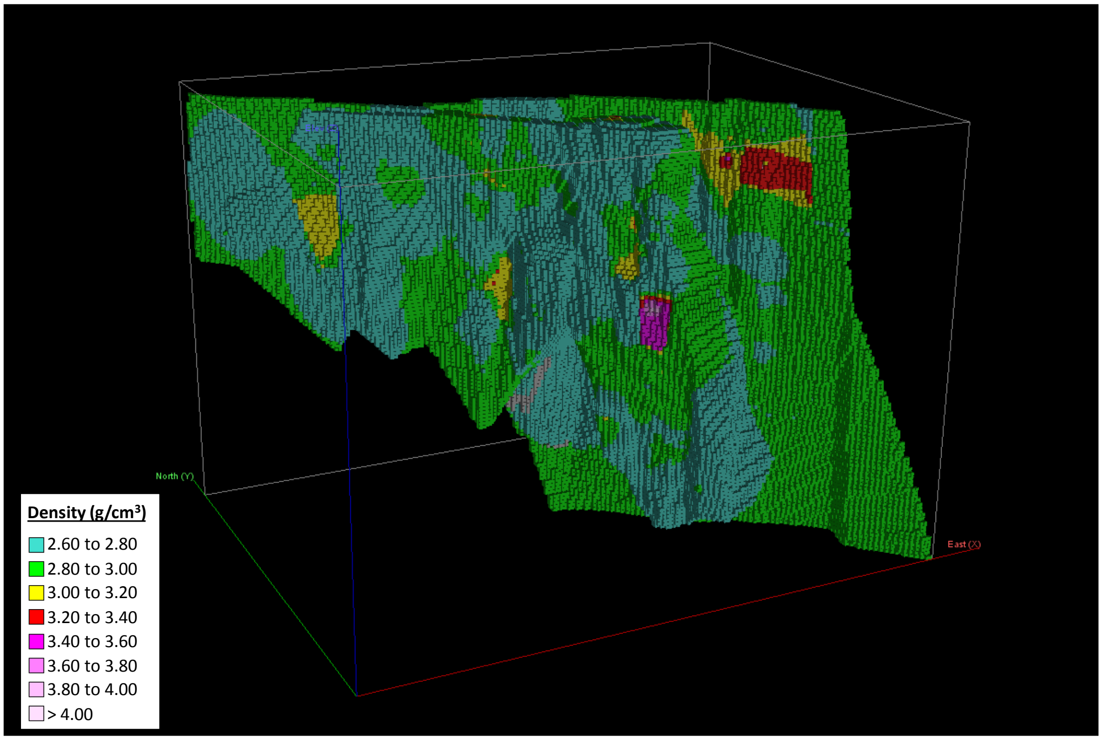

Figure 14.13 – Density distribution in H1 and H3 (based on the interpolation of the calculated and the measured databases)

Density values for the resource estimate were established as follows (Table 14.5):

- Fixed densities from the measured database for all lithological units;
- Interpolated densities from the measured and calculated databases for mineralized zones H1 and H3 (capped at 4.697 g/cm3: the highest measured value);
- Fixed density of 2.00 g/cm3 for the overburden.

Table 14.5 – Density values used for the resource estimate

Density used			
Unit	**Blockcode**	**Source**	**Mean (g/cm^3)**
CR	6000	From "All Measures"	2.81
FELS1	6100	From "All Measures"	2.71
GAB1	4100	From "All Measures"	2.80
GAB2	4200	idem to GAB1	2.80
H1	1100	Interpolated from Calculated and Measured Data	
H3	1300	Interpolated from Calculated and Measured Data	
QFP1	5100	From "All Measures"	2.72
QFP2	5200	idem to QFP1	2.72
UM1	2100	From "All Measures"	2.86
UM2	2200	From "All Measures"	2.91
UM3	2300	From "All Measures"	2.82
UM4	2400	From "All Measures"	2.81

14.6 Block Model

A block model was established for the purpose of the current resource estimate. The block model covers an area sufficient to host an open pit, if necessary. The model has been pushed down to a depth of approximately 800 m below surface. The block model was not rotated (Y-axis oriented along a N000 azimuth). The block dimensions reflect the sizes of the mineralized zones and plausible mining methods. Table 14.6 provides the properties of the block model.

Table 14.6 – Block model properties

Properties	X (Columns)	Y (Rows)	Z (Levels)
Origin coordinates (UTM NAD83)	678800	5539350	325
Block size	5	5	5
Number of blocks	290	215	170
Block model extent (m)	1450	1075	850
Rotation	Not applied		

All blocks with more than 0.001% of their volume falling within a selected solid were assigned the corresponding solid block code in their respective folder. A percent block model was generated, reflecting the proportion of each block inside every solid (that is, individual mineralized zones, individual lithological domains, the overburden and the country rock).

Table 14.7 provides details about the naming convention for the corresponding GEMS solids, as well as the rock codes and block codes assigned to each individual solid. The multi-folder percent block model thus generated was used in the mineral resource estimation.

Table 14.7 – Block model naming convention and codes

Workspace	Description	Rockcode	GEMS Triangulation Name			Precedence
			NAME1	NAME2	NAME3	
Zones	Mineralized Zone H1	1100	H1	Clip	F160113	3
	Mineralized Zone H3	1300	H3	Clip	F160113	2
Waste_01	Country Rocks	7000	CR		F160113	13
	Predominantly Felsic	6100	FELS1	Clip	F160113	10
	Predominantly Gabbro 1	4100	GAB1	Clip	F160113	11
	Predominantly Gabbro 2	4200	GAB2	Clip	F160113	12
	Predominantly Ultramafic 1	2100	UM1	Clip	F160113	6
	Predominantly Ultramafic 2	2200	UM2	Clip	F160113	7
	Predominantly Ultramafic 4	2400	UM4	Clip	F160113	9
Waste_02	Predominantly Ultramafic 3	2300	UM3	Clip	F160113	8
	QFP Dyke 1	5100	QFP1	Clip	F160113	4
	QFP Dyke 2	5200	QFP2	Clip	F160113	5
OB	Overburden	50	Bedrock	Solid	F160113	1

14.7 Variography and Search Ellipsoids

Three-dimensional directional variography was completed on DDH composites of the capped nickel assay data for mineralized zone H3. The study involved 10º incremental searches in the longitudinal plane, followed by 10º incremental searches in the vertical planes of the indicated preferred azimuths, as well as planes normal to the preferred azimuth. The 3D directional-specific investigations yielded the best-fit model along an orientation that corresponds to the strike and dip of the mineralized zone.

Ellipsoid radiuses obtained from the study resulted in a range of 49.3m x 27.6m x 26.4m (Figs. 14.14 and 14.15).

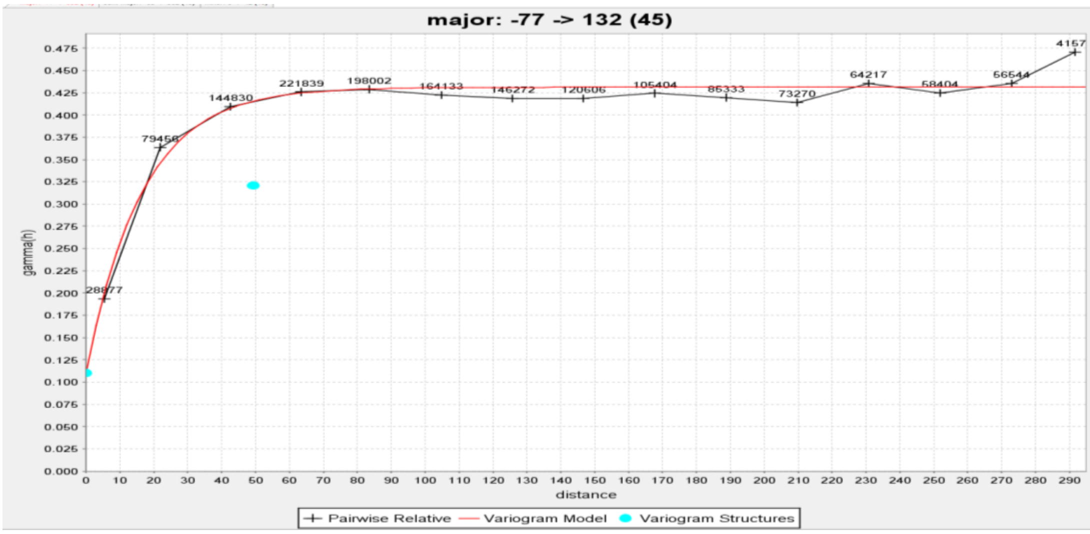

Figure 14.14 – Major axis variogram for mineralized zone H3

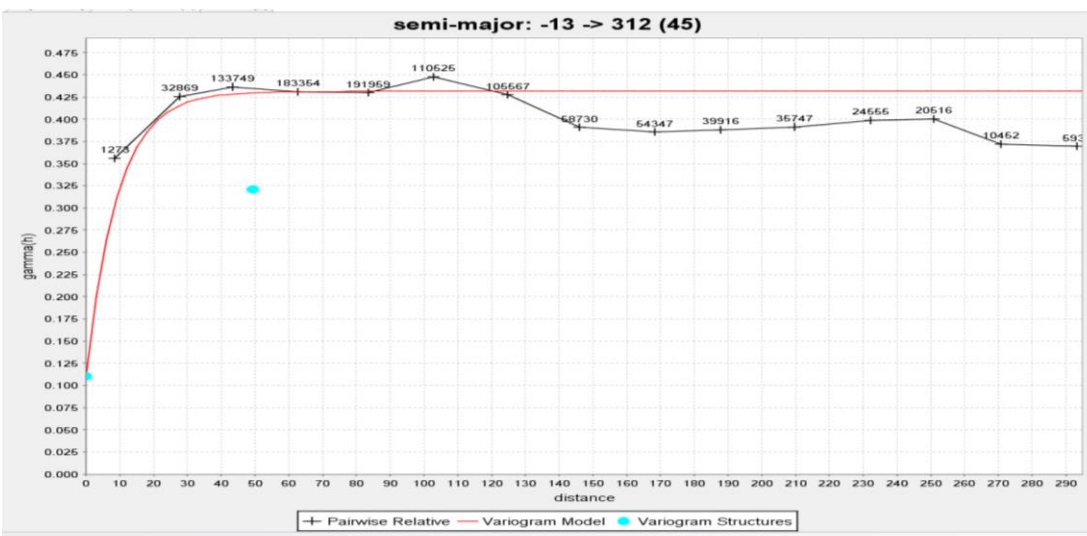

Figure 14.15 – Semi-major axis variogram for mineralized zone H3

Three ellipsoids were built from the results of the variography study. These correspond to: a) half the variography results (25m x 15m x 12.5m); b) the variography results (50m x 30m x 25m); and c) twice the variography results (100m x 60m x 50m).

Tables 14.8 summarizes the parameters of the final ellipsoids used for the interpolation, and Figures 14.16 to 14.18 show the ellipsoids in relation to the H3 mineralized zone and drill hole density.

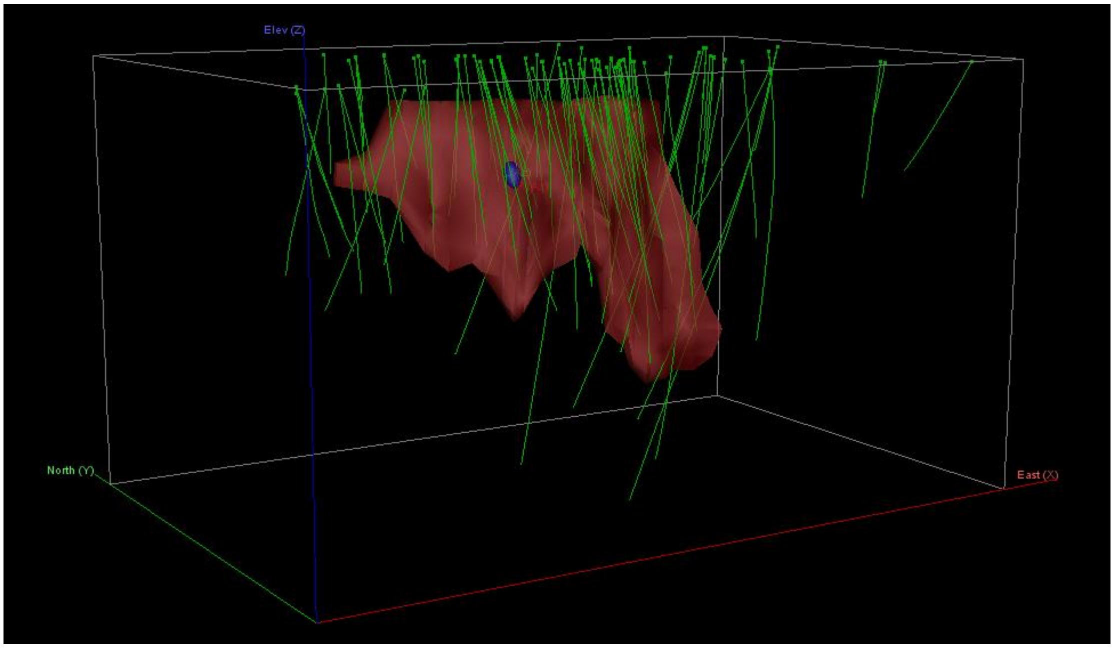

Figure 14.16 – 3D view looking northeast showing Zone H3 (red), all drill holes (green) and ellipsoid P1_Ni (blue; 25m x 15m x 12.5m)

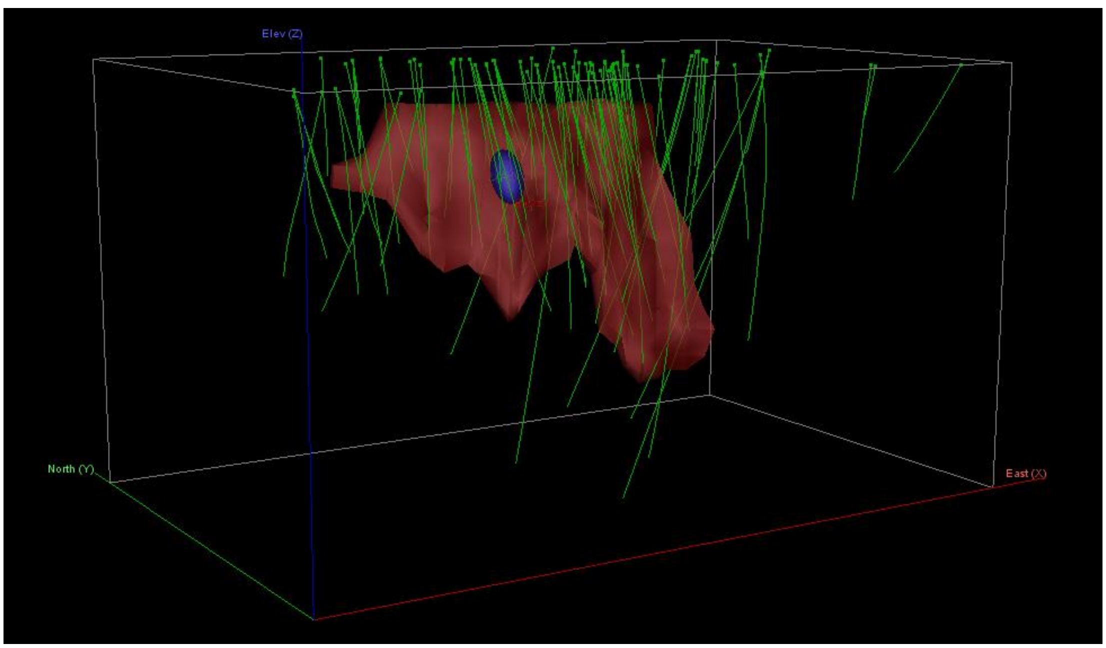

Figure 14.17 – 3D view looking northeast showing Zone H3 (red), all drill holes (green) and ellipsoid P2_Ni (blue; 50m x 30m x 25m)

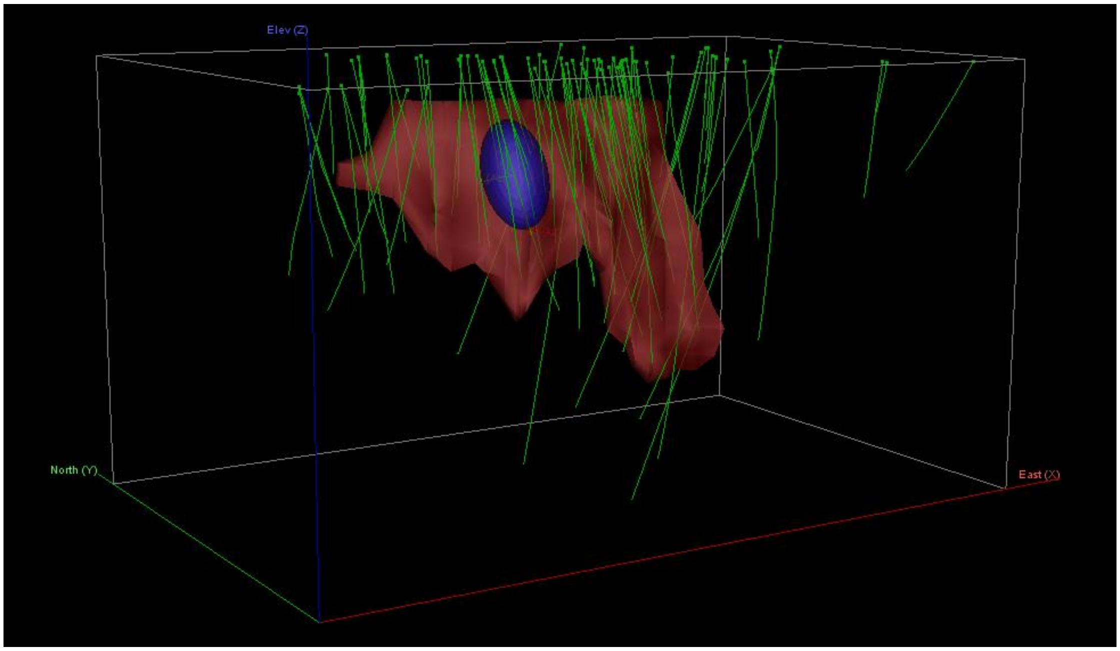

Figure 14.18 – 3D view looking northeast showing Zone H3 (red), all drill holes (green) and ellipsoid P3_Ni (blue; 100m x 60m x 50m)

Table 14.8 – Search ellipsoid parameters

Zone	Blockcode	Ellipsoid	ORIENTATION			RANGES		
			P. Az	Dip	I. Az	X (m)	Y (m)	Z (m)
H1	1100	P1_Ni	132	-77	312	25	15	12.5
		P2_Ni	132	-77	312	50	30	25
		P3_Ni	132	-77	312	100	60	50
		P1_Other	132	-77	312	100	60	50
H3	1300	P1_Ni	132	-77	312	25	15	12.5
		P2_Ni	132	-77	312	50	30	25
		P3_Ni	132	-77	312	100	60	50
		P1_Other	132	-77	312	100	60	50

14.8 Grade Interpolation

The variography study provided the parameters to interpolate a grade model using the composites from the capped grade data in order to produce the best possible grade estimate for the defined resources. The interpolation was run on a point area workspace extracted from the DDH dataset.

The composite points were assigned block codes corresponding to the mineralized zone in which they occur. The interpolation profiles specify a single composite block code for each mineralized-zone solid, thus establishing hard boundaries between the mineralized zones and preventing block grades from being estimated using sample points with different block codes than the block being estimated.

The interpolation profiles were customized to estimate grades separately for each of the mineralized zones. The inverse distance squared (ID2) method was selected for the final resource estimation.

Three passes were defined for nickel (Ni) while one pass was used for all other elements.

The ellipsoid radiuses from passes 1, 2 and 3 for Ni were established using half the variography results, same as the variography results and twice the variography results, respectively. Pass 2 interpolated only blocks that were not interpolated during Pass 1, and Pass 3 only interpolated blocks that were not interpolated by previous passes. The ellipsoid radiuses used to interpolate Cu, Co, Pt, Pd, Au and Ag were established using twice the variography results.

Parameters used to interpolate Ni during Pass 1:

- Ellipsoid P1_Ni (ranges: 25m x 15m x 12.5m)
- Minimum 9 composites
- Maximum 18 composites

Parameters used to interpolate Ni during Pass 2:

- Ellipsoid P2_Ni (ranges: 50m x 30m x 25m)
- Minimum 6 composites
- Maximum 18 composites

Parameters used to interpolate Ni during Pass 3:

- Ellipsoid P3_Ni (ranges: 100m x 60m x 50m)
- Minimum 4 composites
- Maximum 18 composites

Parameters used to interpolate Cu, Co, Pt, Pd, Au and Ag:

- Ellipsoid P1_Other (ranges: 100m x 60m x 50m)
- Minimum 4 composites
- Maximum 18 composites

14.9 Resource Categories

14.9.1 Mineral resource classification definition

The resource classification definitions used for this report are those published by the Canadian Institute of Mining, Metallurgy and Petroleum in their document "*CIM Definition Standards for Mineral Resources and Reserves*".

Measured Mineral Resource: 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.

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

Inferred Mineral Resource: that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

14.9.2 Mineral resource classification

All interpolated blocks were assigned to the Inferred category during the creation of the grade block model. The reclassification to an Indicated category was done for blocks meeting all the conditions below:

- Blocks showing geological and grade continuity;
- Blocks from mineralized zone H1 and H3 only; and
- Blocks for which the distance to the closest composite is less than 50 m.

A series of outline rings (clipping boundaries; one per mineralized zone) were created in long views using the criteria described above, but also keeping in mind that a significant cluster of blocks is necessary to obtain an Indicated resource. Within the Indicated resource outlines, some Inferred blocks were upgraded to the Indicated category, whereas outside these outlines, some Indicated blocks were downgraded to the Inferred category. The author is of the opinion that this was a necessary step to homogenize (smooth out) the resource volumes in each category, and to avoid isolated blocks from being included in the Indicated category. Figures 14.19 and 14.20 show the outlines used for the category classification for both the H1 and H3 mineralized zones.

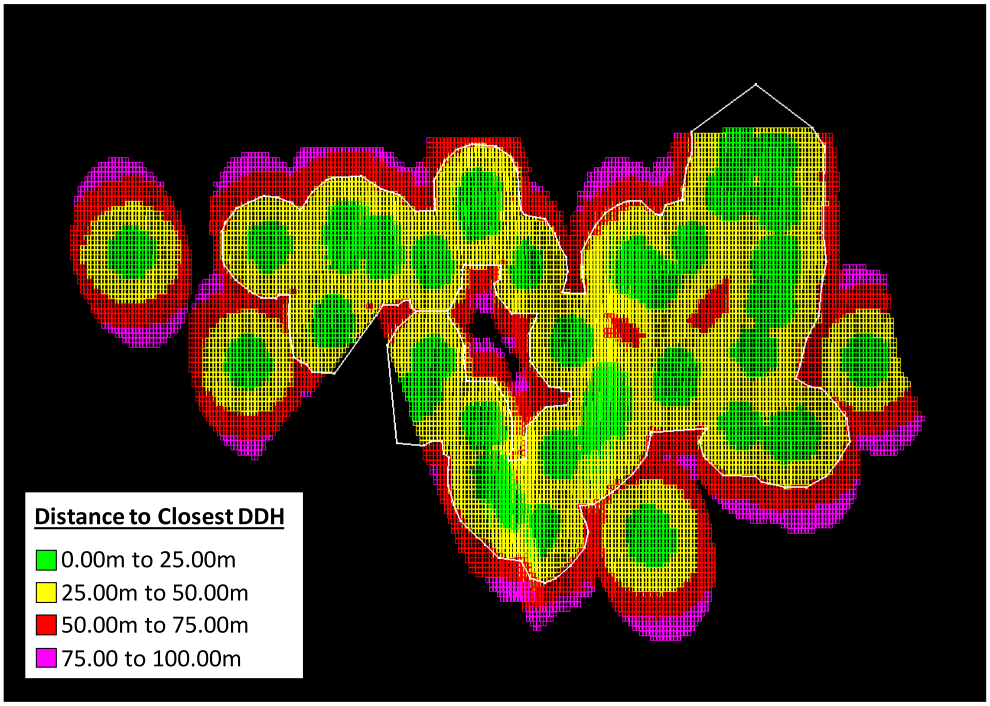

Figure 14.19 – Longitudinal view looking northeast showing all interpolated blocks of Zone H1 with colour-coded information on distance to closest drill hole. The white polyline was used to determine the Indicated resource.

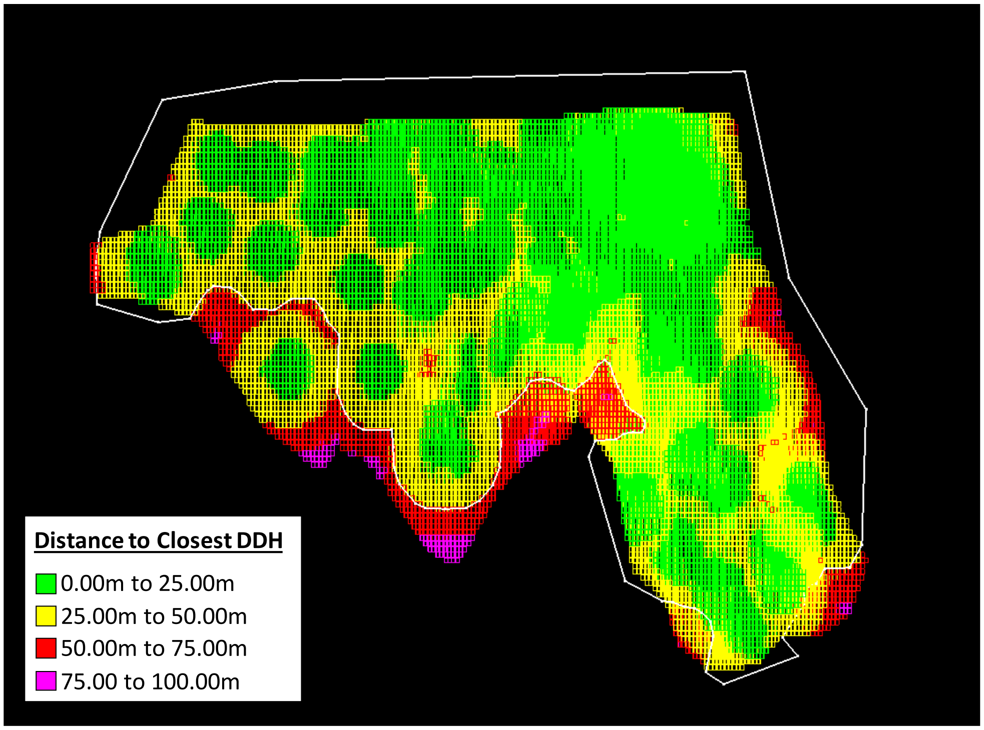

Figure 14.20 – Longitudinal view looking northeast showing all interpolated blocks of Zone H3 with colour-coded information on distance to closest drill hole. The white polyline was used to determine the Indicated resource.

14.10 Cut-off Grade

Given the polymetallic (Ni, Cu, Co, Pt, Pd, Au, and Ag) nature of the sulphide mineralization comprising the Grasset deposit, InnovExplo created a nickel equivalent (NiEq) block model by calculating the NiEq value of each mineralized block.

Many discussions were held with Peter Godbehere (consulting metallurgist) and the representatives of different smelters to determine adequate preliminary smelting terms. Metallurgical tests (see item 13) were also taken into account, and metallurgical balance studies were conducted to establish the appropriate recoveries.

For the purpose of the current resource estimate, the following parameters were applied on concentrates:

- 70% Payable Nickel without any minimum deduction;
- 75% Payable Copper without any minimum deduction;
- 75% Payable Cobalt with 0.20% minimum deduction;
- 45% Payable Platinum without any minimum deduction;
- 45% Payable Palladium without any minimum deduction;
- 45% Payable Gold with 0.75 g/t minimum deduction;
- 45% Payable Silver with 20.00 g/t minimum deduction.

A penalty of US$11 per tonne concentrate was applied to account for Chromium. The resultant is Nickel, Copper, Cobalt, Platinum and Palladium being payable where Gold and Silver do not contribute to the economics of the deposit.

For the purpose of the current resource estimate, the value of NiEq is given by the following formula:

$$NiEq = [[(Ni_{Grade\ (\%)} \times Ni_{CR(\%)} \times Ni_{Payable(\%)} \times Ni_{Price(\$)}) + (Cu_{Grade(\%)} \times Cu_{CR(\%)} \times Cu_{Payable(\%)} \times Cu_{Price(\$)}) + (Co_{Grade(\%)} \times Co_{CR(\%)} \times Co_{Payable(\%)} \times Co_{Price(\$)})] \times 2205 + [(Pt_{Grade(g/t)} \times Pt_{CR(\%)} \times Pt_{Payable(\%)} \times Pt_{Price(\$)}) + (Pd_{Grade(g/t)} \times Pd_{CR(\%)} \times Pd_{Payable(\%)} \times Pd_{Price(\$)})] / 31.1035 - Cr_{Penalty(\$)}] / (Ni_{Payable(\%)} \times Ni_{CR(\%)} \times Ni_{Price(\$)} \times 2205)$$

where CR (%) is a variable concentrate recovery ratio derived from metallurgical balance study, and Payable(%) is applied on concentrates. Note that a minimum deduction of 0.20% Co was applied on concentrate.

The NiEq calculation used a USD/CAD exchange rate of 1.14, a nickel price of US$6.56/lb, a copper price of US$2.97/lb, a cobalt price of US$13.00/lb, a platinum price of US$1,302.30/oz, and a palladium price of US$737.20/oz These are 3-year trailing averages calculated at the effective date. Figure 14.21 illustrates how the metal prices and exchange rate were determined (Fig. 14.21 is for nickel, but a same approach was used for all elements).

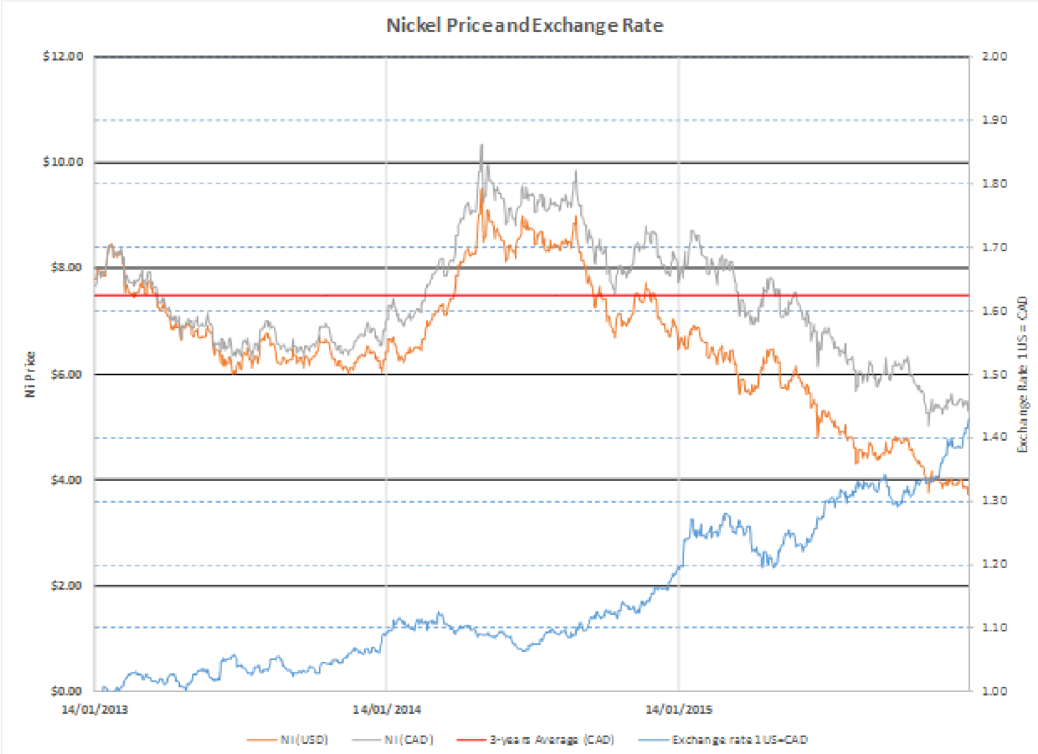

Figure 14.21 – Graph showing variations of nickel prices (in $US), the CAD: USD exchange rate, and the resultant nickel price in Canadian dollars. The red line presents the values used to determine the cut-off grade for the resource estimate presented in this report (3-year average).

The following values were used for a total of C$86.00 in operating costs:

- Mining: C$48.00;
- Maintenance: $6.00;
- G&A $10.00;
- Processing: $22.00.

A dilution factor of 7.5% was also applied to the cut-off grade calculation.

The parameters presented herein lead to a cut-off grade of 1.04% NiEq (Fig. 14.22). The selected cut-off grade of 1.00% NiEq allowed the mineral potential of the deposit to be outlined for an underground mining option. Although the open-pit option was briefly investigated, it was not retained due to the very thick overburden cover.

Cut-off and NiEq calculations would have to be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, smelting terms and mining costs).

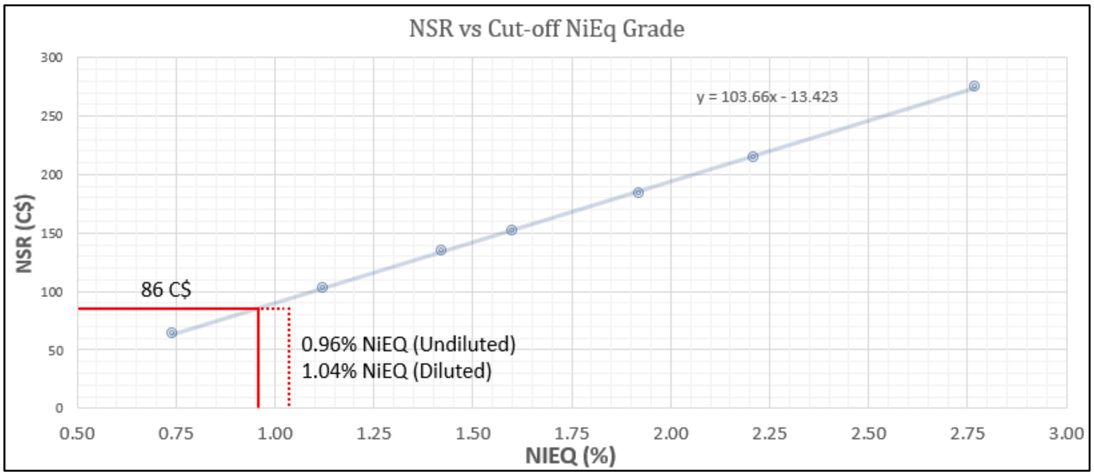

Figure 14.22 – Cut-off grade determination for the Grasset mineral resource estimate. A cut-off grade of 1.04% NiEq was determined from all the available information.

14.11 Mineral Resource Estimate

Given the density of the processed data, the search ellipse criteria, the drill hole density, and the specific interpolation parameters, InnovExplo is of the opinion that the current internal mineral resource estimate can be classified as Indicated and Inferred resources. The estimate is compliant with CIM standards and guidelines for reporting mineral resources and reserves.

Table 14.9 displays the results of the In Situ Mineral Resource Estimate for the Grasset Project (2 mineralized zones) at the official 1.00% NiEq cut-off grade. Tables 14.10 and 14.11 present the sensitivity of the resource estimate at other cut-off scenarios. The reader should be cautioned that the figures presented in Tables 14.10 and 14.11, apart from the official scenario at 1.00 % NiEq, should not be misinterpreted as a mineral resource statement. The reported quantities and grade estimates at different cut-off grades are only presented to demonstrate the sensitivity of the resource model to the selection of a reporting cut-off grade.

Figure 14.23 shows the grade distribution of the Grasset deposit above the selected 1.00% NiEq cut-off grade, and Figure 14.24 shows the category distribution above the selected 1.00% NiEq cut-off grade. Figure 14.25 shows the sensitivity of grade and tonnage to the price of nickel.

Table 14.9 – Grasset Project Mineral Resource Estimate at a 1.00% NiEq cut-off grade

	> 1.00 % NiEq	Tonnes (t)	NiEq (%)	Ni (%)	Cu (%)	Co (%)	Pt (g/t)	Pd (g/t)	Contained NiEq (lbs)	Contained Ni (lbs)	Contained Cu (lbs)	Contained Co (lbs)	Contained Pt (oz)	Contained Pd (oz)
INDICATED	Horizon 1	35,900	1.09	0.98	0.11	0.03	0.16	0.38	865,800	772,600	84,100	22,700	200	400
	Horizon 3	3,416,600	1.80	1.57	0.17	0.03	0.34	0.85	135,413,200	118,316,800	13,148,000	2,317,600	37,700	93,000
	Total Indicated	**3,452,500**	**1.79**	**1.56**	**0.17**	**0.03**	**0.34**	**0.84**	**136,279,000**	**119,089,400**	**13,232,100**	**2,340,300**	**37,900**	**93,400**
INFERRED	Horizon 1	4,700	1.08	0.96	0.11	0.03	0.17	0.39	111,500	99,400	11,700	3,100	100	100
	Horizon 3	86,400	1.20	1.06	0.11	0.02	0.20	0.48	2,282,400	2,027,600	217,100	45,900	600	1,300
	Total Inferred	**91,100**	**1.19**	**1.06**	**0.11**	**0.02**	**0.20**	**0.48**	**2,393,900**	**2,126,900**	**228,700**	**49,000**	**600**	**1,400**

- The Independent and Qualified Persons (QPs) for the Mineral Resource Estimate, as defined by National Instrument 43-101, are Pierre-Luc Richard, P.Geo., M.Sc., and Carl Pelletier, P.Geo., B.Sc., both of InnovExplo Inc. The effective date of the estimate is January 12, 2016
- These mineral resources are not mineral reserves as they do not have demonstrated economic viability.
- While the results are presented undiluted and in situ, the reported mineral resources are considered to have reasonable prospects for eventual economic extraction.
- The estimate includes two mineralized zones (Horizon 1 and Horizon 3).
- Resources were compiled at NiEq cut-off grades of 0.30%, 0.40%, 0.50%, 0.60%, 0.70%, 0.80%, 0.90%, 1.00%, 1.10%, 1.20%, 1.30%, 1.40%, 1.50% and 2.00%. The official resource potential is reported at a 1.00% NiEq cut-off grade.
- Cut-off calculations used (Canadian dollars): Mining= $48.00; Maintenance= $6.00; G&A= $10.00, Processing= $22.00. Total operating costs amount to $86.00. A dilution factor of 7.5% was also applied to the cut-off grade calculation.
- NiEq = $[[(Ni_{Grade(\%)} \times Ni_{CR(\%)} \times Ni_{Payable(\%)} \times Ni_{Price(\$)}) + (Cu_{Grade(\%)} \times Cu_{CR(\%)} \times Cu_{Payable(\%)} \times Cu_{Price(\$)}) + (Co_{Grade(\%)} \times Co_{CR(\%)} \times Co_{Payable(\%)} \times Co_{Price(\$)})] \times 2205 + [(Pt_{Grade(g/t)} \times Pt_{CR(\%)} \times Pt_{Payable(\%)} \times Pt_{Price(\$)}) + (Pd_{Grade(g/t)} \times Pd_{CR(\%)} \times Pd_{Payable(\%)} \times Pd_{Price(\$)})] / 31.1035 - Cr_{Penalty(\$)}] / (Ni_{Payable(\%)} \times Ni_{CR(\%)} \times Ni_{Price(\$)} \times 2205)$; where CR(%) is a variable concentrate recovery ratio derived from metallurgical balance study, and Payable(%) is applied on concentrates. Note that a minimum deduction of 0.20% Co was applied on concentrate.
- NiEq calculations used: USD/CAD exchange rate of 1.14, Nickel price of US$6.56/lb, Copper price of US$2.97/lb, Cobalt price of US$13.00/lb, Platinum price of US$1,302.30/oz, and Palladium price of US$737.20/oz (These are 3-year trailing averages calculated at the effective date); Payable of 70% for Nickel, 75% for Copper, 75% for Cobalt (minimum deduction of 0.20%), 45% for Platinum, and 45% for Palladium applied on expected concentrate based on analysis of available smelting and refining cost parameters
- Cut-off and NiEq calculations would have to be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, smelting terms, and mining costs).
- Density values were estimated for all lithological units from measured samples. Density values for the Horizon 1 and Horizon 3 (H1 and H3) mineralized zones were interpolated from measured and calculated density databases. The calculated database is derived for a selection of metals (Ni, Fe, Co) yielding the best correlation with the measured database.
- The resource was estimated using GEMS v.6.7. The estimate is based on 111 diamond drill holes (39,999.43 m). A minimum true thickness of 3.0 m was applied, using the grade of the adjacent material when assayed, or a value of zero when not assayed.
- High grade capping was done on raw assay data and established on a per zone basis for Nickel (15.00%), Copper (5.00%), Platinum (5.00g/t) and Palladium (8.00g/t). Capping grade selection is supported by statistical analysis.
- Compositing was done on drill hole sections falling within the mineralized zones (composite = 1.0 m).
- Resources were evaluated from drill holes using a 3-pass ID2 interpolation method in a block model (block size = 5 x 5 x 5 m).
- The mineral resources presented herein are categorized as Indicated and Inferred based on drill spacing, geological and grade continuity. Based on the nature of the mineralization, a maximum distance to the closest composite of 50 m was used for Indicated resources. The average distance to the nearest composite is 22.9 m for the Indicated resources and 53.6 m for the Inferred resources.
- Ounce (troy) = metric tonnes x grade / 31.10348. Calculations used metric units (metres, tonnes and g/t). Metal contents are presented in ounces and pounds.
- The number of metric tons was rounded to the nearest hundred. Any discrepancies in the totals are due to rounding effects
- The quantity and grade of reported Inferred resources in this Mineral Resource Estimate are uncertain in nature, and there has been insufficient exploration to define these Inferred resources as Indicated or Measured, and it is uncertain if further exploration will result in upgrading them to these categories.
- CIM definitions and guidelines for mineral resources have been followed.
- The QPs are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue that could materially affect the Mineral Resource Estimate.

Table 14.10 – Sensitivity table of the Grasset Project Mineral Resource Estimate at different cut-off grades (Indicated Resources)

Resource Class	Cut-off (NiEq %)	Tonnes	Ni Equivalent (%)	Ni %	Cu %	Co %	Pt g/t	Pd g/t	Contained Ni EQ (lbs)	Contained Ni (lbs)	Contained Cu (lbs)	Contained Co (lbs)	Contained Pt (oz)	Contained Pd (oz)
INDICATED	> 2.00	777,500	3.17	2.73	0.28	0.05	0.60	1.46	54,258,700	46,809,700	4,867,800	774,400	14,900	36,600
	> 1.50	1,687,100	2.39	2.07	0.23	0.04	0.47	1.15	88,953,700	77,175,500	8,476,300	1,391,300	25,400	62,200
	> 1.40	1,974,400	2.25	1.96	0.22	0.04	0.44	1.08	98,121,800	85,261,000	9,420,900	1,568,100	27,900	68,500
	> 1.30	2,297,400	2.13	1.85	0.21	0.03	0.41	1.02	107,743,200	93,756,300	10,391,300	1,755,300	30,500	75,200
	> 1.20	2,552,800	2.04	1.78	0.20	0.03	0.40	0.97	114,784,300	99,989,100	11,100,500	1,895,100	32,400	79,900
	> 1.10	2,865,400	1.94	1.69	0.19	0.03	0.37	0.92	122,685,900	107,000,200	11,894,000	2,055,600	34,500	85,000
	> 1.00	3,452,500	1.79	1.56	0.17	0.03	0.34	0.84	136,279,000	119,089,400	13,232,100	2,340,300	37,900	93,400
	> 0.90	4,038,600	1.67	1.46	0.16	0.03	0.32	0.78	148,552,200	130,018,400	14,418,200	2,604,100	41,000	101,100
	> 0.80	4,767,200	1.54	1.35	0.15	0.03	0.29	0.72	162,149,200	142,136,200	15,759,900	2,909,700	44,600	109,900
	> 0.70	5,880,300	1.39	1.22	0.13	0.03	0.26	0.64	180,435,200	158,478,300	17,445,200	3,331,000	49,100	121,000
	> 0.60	7,300,800	1.25	1.10	0.12	0.02	0.23	0.57	200,708,100	176,624,600	19,222,200	3,824,300	54,000	133,200
	> 0.50	9,434,000	1.09	0.96	0.10	0.02	0.20	0.49	226,557,400	199,816,100	21,446,200	4,499,200	59,900	147,300
	> 0.40	12,521,700	0.93	0.82	0.09	0.02	0.16	0.40	256,760,200	226,984,000	23,869,300	5,353,200	65,800	161,200
	> 0.30	15,564,000	0.82	0.72	0.07	0.02	0.14	0.34	280,494,000	248,376,200	25,653,400	6,122,900	69,700	170,100

Table 14.11 – Sensitivity table of the Grasset Project Mineral Resource Estimate at different cut-off grades (Inferred Resources)

Resource Class	Cut-off (NiEq %)	Tonnes	Ni Equivalent (%)	Ni %	Cu %	Co %	Pt g/t	Pd g/t	Contained Ni EQ (lbs)	Contained Ni (lbs)	Contained Cu (lbs)	Contained Co (lbs)	Contained Pt (oz)	Contained Pd (oz)
INFERRED	> 2.00	200	2.27	1.98	0.32	0.04	0.43	0.79	7,700	6,700	1,100	100	0	0
	> 1.50	200	2.03	1.78	0.30	0.03	0.37	0.65	10,200	9,000	1,500	200	0	0
	> 1.40	6,800	1.45	1.28	0.15	0.03	0.24	0.57	218,000	192,900	23,000	4,200	100	100
	> 1.30	22,500	1.38	1.23	0.14	0.03	0.23	0.56	685,600	607,600	67,900	13,400	200	400
	> 1.20	43,600	1.32	1.17	0.13	0.03	0.22	0.52	1,268,500	1,125,600	121,000	25,000	300	700
	> 1.10	55,500	1.28	1.14	0.12	0.03	0.21	0.51	1,568,500	1,392,100	150,000	31,200	400	900
	> 1.00	91,100	1.19	1.06	0.11	0.02	0.20	0.48	2,393,900	2,126,900	228,700	49,000	600	1,400
	> 0.90	122,900	1.13	1.00	0.11	0.02	0.18	0.43	3,052,300	2,714,900	305,400	64,000	700	1,700
	> 0.80	178,200	1.04	0.93	0.11	0.02	0.17	0.39	4,084,300	3,637,000	413,600	87,400	1,000	2,200
	> 0.70	259,300	0.95	0.84	0.09	0.02	0.16	0.36	5,411,200	4,823,400	536,500	118,700	1,300	3,000
	> 0.60	414,600	0.83	0.74	0.08	0.02	0.14	0.32	7,589,600	6,773,600	725,400	173,200	1,800	4,300
	> 0.50	788,700	0.69	0.62	0.07	0.02	0.11	0.26	12,029,700	10,758,000	1,159,300	292,600	2,800	6,600
	> 0.40	1,912,200	0.54	0.48	0.05	0.01	0.08	0.18	22,622,300	20,290,700	2,058,600	623,900	4,800	11,200
	> 0.30	2,999,400	0.47	0.43	0.04	0.01	0.06	0.15	31,316,700	28,129,800	2,711,400	911,200	6,100	14,200

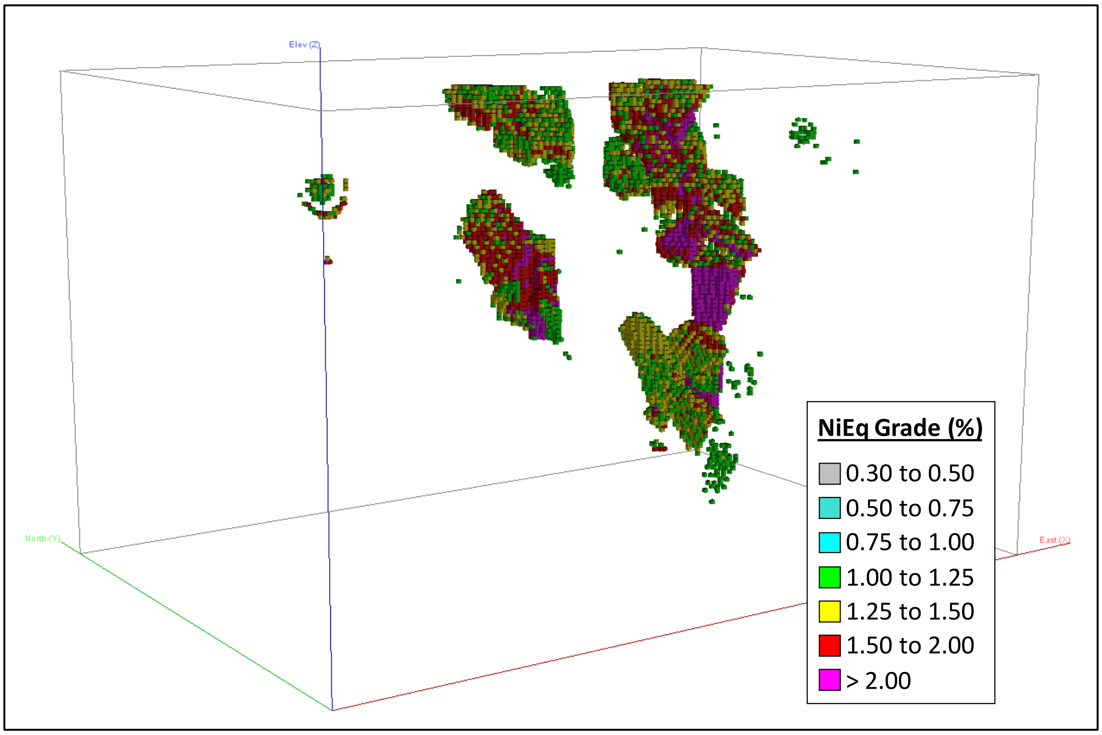

Figure 14.23 – Grade distribution above the selected 1.00% NiEq cut-off grade

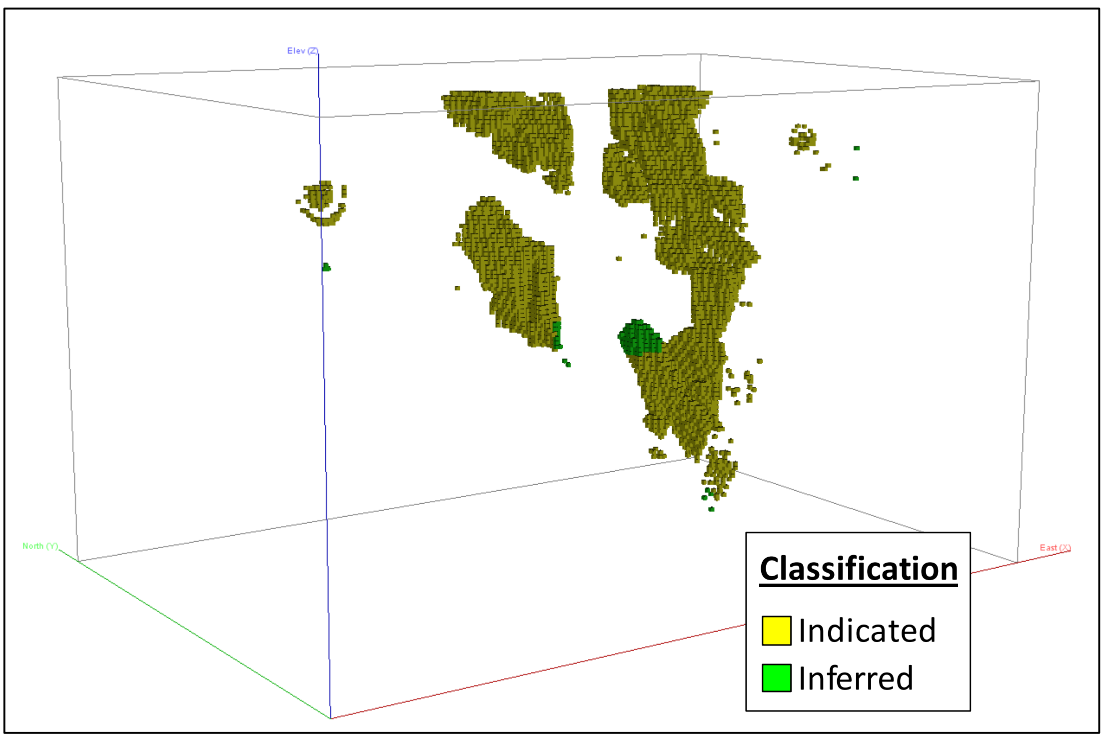

Figure 14.24 – Category distribution above the selected 1.00% NiEq cut-off grade

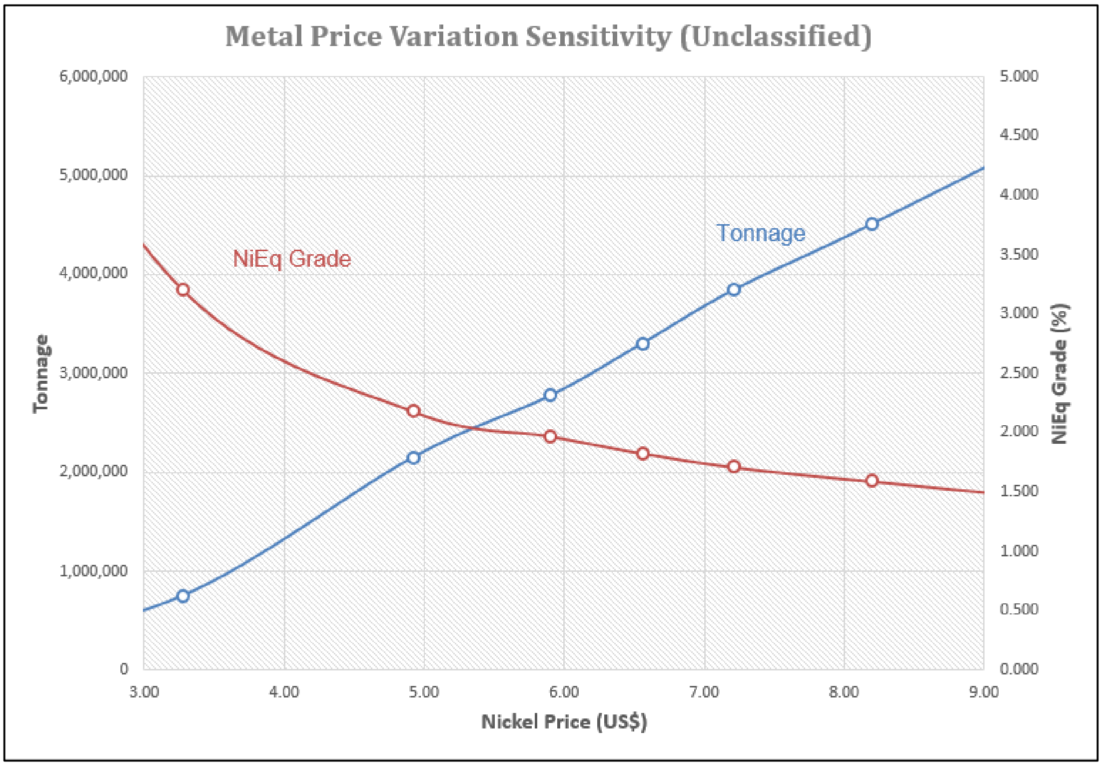

Figure 14.25 – Sensitivity chart showing the variation of grade and tonnage as a function of nickel price

15. MINERAL RESERVE ESTIMATES

The issuer has not published any NI 43-101 compliant mineral reserves for the Grasset Property.

16. MINING METHODS

The issuer has not evaluated mining methods for the Property.

17. RECOVERY METHODS

Apart from the preliminary tests discussed in item 13, the issuer has not carried out any recovery method tests on samples from the Property.

18. PROJECT INFRASTRUCTURE

The issuer has not evaluated project infrastructure needs or layouts beyond those required for ongoing exploration work.

19. MARKET STUDIES AND CONTRACTS

Market studies have not been carried out for the Property, and no contracts have been issued.

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

Environmental studies have not been carried out on the Property. Certificates of authorization and permits have not been obtained by the issuer outside those required for on-going exploration activities. Social and community impacts have not yet been evaluated.

21. CAPITAL AND OPERATING COSTS

Capital and operating costs have not been calculated for the Property.

22. ECONOMIC ANALYSIS

An economic analysis has not been prepared for the Property.

23. ADJACENT PROPERTIES

23.1 Detour East Property

The following description of the Detour East Property was taken and modified from the September 30, 2015 Management's Discussion and Analysis (MD&A) report filed by the issuer on SEDAR.

The Detour East Property (Fig. 23.1) covers more than 20 km of the Sunday/Detour Lake and Lower Detour Lake deformation zones stretching east from the Québec-Ontario border. The property consists of 539 mining claims (approximately 21,172.71 ha) held 100% by Balmoral, and an additional 18 mining claims (approximately 997.54 ha) in which Balmoral holds a 69% joint venture interest (the remaining 31% being held by Encana Ltd). Balmoral is the project operator. The Detour East Property is located immediately east of the Detour Lake mine.

Geochemical surveying was completed on the property during the fourth quarter of 2014, highlighting several areas/trends for further follow-up. Balmoral also located drill core from a number of historical drill holes completed on the Detour East Property, has taken control of them and transported them to Camp Fenelon. Detailed re-logging of these holes was pending at the time of the MD&A report date. Balmoral completed a single drill hole on the southwestern part of the Detour East Property in the summer 2015 that intersected two intercepts of weakly anomalous gold mineralization in a large gabbro complex.

23.2 Casault Property (Midland Exploration Inc.)

The following description of the Casault Property was taken and modified from the 2015 Annual Report filed by Midland Exploration on SEDAR.

Midland Exploration holds a 100% interest in the Casault Property (Fig. 23.1). At the end of 2014, this property consisted of 300 claims covering an area of approximately 16,507 ha.

In winter 2015, a drilling program consisting of seventeen (17) holes for a total of 3,467.2 m was completed in partnership with SOQUEM (50/50 Joint Venture). This program targeted the most promising gold occurrences discovered in 2012–2013. These areas include the north contact of the Turgeon pluton, where drill hole CAS-12-07 returned 10.4 g/t Au over 1.45 m, as well as areas immediately north and west of the conglomerate basin where pyrite and jasper clasts were identified in 2013. In the northern area, drill hole CAS-13-28A ended in a gold-bearing zone grading 0.29 g/t Au over 9.0 m. Two holes were also completed to test IP anomalies on the central block.

An IP-Orevision survey was also completed in the winter of 2015 (South Grid). This 17.1-km survey identified several strong chargeability responses near the granodiorite contact. These anomalies correspond to the mineralized package (sediments and diorite intrusions) found between the Turgeon Pluton and the mafic volcanics. Two drill holes (CAS-15-47 and 48) were completed to test this IP axis.

Another IP-Orevision survey was completed in March 2015 on the North Grid. This grid totalled approximately 25 km. Several new IP anomalies were identified on the North grid.

During the 2015 summer drill program, fifteen (15) drill holes totaling 5,002.00 m were completed in partnership with SOQUEM (50/50 JV). Of these, five (5) drill holes, CAS-15-55 to CAS-15-59, were drilled in the area of the gold-bearing porphyry intrusion sector that had been followed up in drill hole CAS-15-44 last winter. These five holes, spread over a distance of 2 km, intersected several anomalous gold values associated with porphyry intrusions and gabbro locally altered to silica, sericite and hematite, thereby confirming the excellent gold potential of this sector, which is strategically located in a folded zone at the contact between the Timiskaming-type basin conglomerates and mafic volcanics. In addition, new anomalous zones were intersected for the first time in the mafic volcanics along the northern contact of the porphyry intrusion. Anomalous gold-bearing zones running less than 0.50 g/t Au over 0.5 m or more were intersected in this area.

The other drill holes completed during this program to test geological, structural, IP and TDEM targets did not return significant gold values despite the fact that all targets were explained by the presence of sulphides.

23.3 Doigt Property

The following description of the Doigt Property was taken and modified from the issuer's website.

Balmoral holds a 100% interest in the Doigt Property (Fig. 23.1). Balmoral acquired the Doigt Property by staking in late 2011. The Doigt Property covers a roughly 5 by 5 km block of volcanic- and intrusive-dominated stratigraphy located to the west of the northern end of the Martiniere Property, and about 6 km northwest of Balmoral's Bug Lake and Martiniere West gold discoveries.

Work to date has been primarily focused on understanding the geology and mineral potential of the Doigt Property. The Doigt Property is located in the Casault structural domain, which is sandwiched between the Detour and Martiniere structural domains to the west and east respectively.

The Doigt Property is the least explored portion of the Detour Trend Project, with only two drill holes known on the property, both completed by Balmoral in 2013. Balmoral's first two drill holes intersected narrow intervals of anomalous, structurally controlled gold mineralization, thereby confirming the potential for mesothermal gold mineralization on the Doigt Property. Given the property's distance to regionally significant deformation corridors, targeting should focus on secondary structural corridors, in particular where these intersect known lithological contacts.

To date no indication of significant base metal potential has been observed on the Doigt Property. A narrow zinc-copper bearing vein was intersected in one of the two holes drilled on the property but does not appear to have any significant lateral extent. Additional surface mapping may aid in further understanding the property and determining the potential for base metal mineralization.

23.4 Martiniere Property

The following description of the Martiniere Property was taken and modified from the September 30, 2015 MD&A report and 2014 AIF report filed by the issuer on SEDAR, as well as from information on the issuer's website.

Balmoral owns a 100% interest in the Martiniere Property (Fig. 23.1), which hosts a number of near-surface occurrences of gold mineralization, including the West, Central and Bug Lake zones (or trends). The Bug Lake Trend is a structurally-controlled orogenic gold prospect that is hosted in the Bug Lake Fault Zone (BLFZ), which was recognized as a significant structure as early as 2011 but not identified as a gold-bearing trend until the summer of 2012. Similar to deposits throughout the Abitibi region, this discovery is characterized by high-gold grades, variable widths and strong silica-carbonate alteration. The Bug Lake Trend remains open for expansion, but has been traced thus far across 1,200 m of strike length and to vertical depths of over 400 m.

Located 600 m west of the central portion of the Bug Lake Trend, the West Zone is a second prominent, high-grade gold-bearing feature. Originally discovered by Cyprus Canada in the late 1990s, Balmoral has drill-defined the West Zone for 400 m along strike and to vertical depths of over 300 m. The West Zone sits in a separate structural zone from Bug Lake. This shear zone also hosts a number of gold occurrences on the Martiniere Property that warrant additional examination.

In addition to these two gold zones, Balmoral has identified at least 10 other prominent gold occurrences on the Martiniere Property, the most recent of which is some 2.0 km east of any previous gold-bearing intercepts. In addition, the historical Norbug gold occurrences, located more than 3 km to the northeast of the heart of the Bug Lake Trend, suggest the presence of a large gold-bearing system in the greater Martiniere area, only a small portion of which has been tested to date.

Balmoral is principally focused on delineating a number of zones of gold mineralization along the Bug Lake Trend that were discovered in 2012. Gold mineralization along the Bug Lake Trend (the Upper and Lower Bug Lake, Bug Lake Footwall, Bug Lake Hanging Wall zones) is localized along an early-stage fault system that was reactivated multiple times and which locally features high gold grades. Drilling to date on the Bug Lake Trend has intersected significant gold mineralization for over 1,800 m along strike and to vertical depths of 400 m.

The summer and winter 2015 drill programs focused on infill drilling in the northern half of the Bug Lake Trend at shallow depths between surface and 250 m vertical depth. Results were highlighted by a number of high-grade intercepts including an intercept of 19.55 g/t Au over 44.45 m from the Bug Lake Footwall Zone (see Balmoral's news release of April 20, 2015). On May 13, 2015, Balmoral released additional results from the winter program, including a follow-up intercept of 9.30 m grading 15.75 g/t Au from the Bug Lake Footwall Zone and a series of broad gold mineralized intercepts from the Upper and Lower Bug Lake Zones. Summer drill results included the intersection of Bug Lake-style gold mineralization 600 m beyond the previous southern limit of Bug Lake Trend.

Drilling has also begun to delineate a new gold-bearing structural zone on the Martiniere Property. Two holes, one drilled in late 2014 and a second completed this summer approximately 185 m further east, have intersected three subparallel zones of gold mineralization in a corridor 200 m+ wide characterized by moderate deformation and dyking. These new discoveries are approximately 2.3 km west of the northern end of the Bug Lake Trend.

Balmoral has retained a consultant to assist with metallurgical testing of a bulk sample from the Bug Lake Zone. There are no current resources calculated for the Martiniere Property.

In 2011, Balmoral also reported the discovery of a volcanogenic massive sulphide ("VMS") system on the Martiniere Property. Balmoral intersected a narrow, strongly brecciated interval near the upper margin of the Martiniere East VMS system (see Balmoral's news release of December 5, 2011). Hole MDE-11-09 intersected 0.50 m grading 0.72% Cu, 0.74% Zn, 1,390.0 g/t Ag, 74.60 g/t Au and 1,850 ppm W. The extremely high-grade gold-silver breccia intersected in hole MDE-11-09 sits in the immediate footwall to the massive sulphide portion of the Martiniere VMS system in this hole. Drilling in the winter of 2015 (see Balmoral's news release of April 20, 2015) intersected semi-massive sulphides believed to be associated with this discovery, which yielded copper, zinc, gold and silver assay results of potential economic interest. Hole MDE-15-172 intersected 2.10 m grading 1.52% Cu, 4.20% Zn, 29.44 g/t Ag and 2.79 g/t Au from a semi-massive sulphide interval incorporated into a brecciated phase of the Upper Bug Lake Gold Zone.

23.5 Harri Property

The following description of the Harri Property was taken and modified from the issuer's website.

Balmoral owns a 100% interest in the Harri Property (Fig. 23.1). The Harri Property covers a 20 km stretch of volcanic and sedimentary stratigraphy located immediately north of and along the Detour/Sunday Lake deformation zones, located between Balmoral's Martiniere and Fenelon properties. Balmoral acquired the Harri Property by staking in late 2010 and 2011. Work to date has been primarily focused on understanding the geology and mineral potential of the Harri Property.

The Harri Property traces the northern margin of the Sunday Lake Deformation Zone for approximately 20 km in an east-west direction across the property. The Hari Property also covers the eastward extension of the structural/stratigraphic sequence hosting the Martiniere gold system on Balmoral's adjacent property to the west. Across the Harri Property, the Sunday Lake Deformation Zone and its related structures are sparsely tested and have not been well understood historically due to the heavy overburden cover.

The southern portion of the Harri Property hosts a highly unusual, dome-shaped inlier of sedimentary stratigraphy approximately 10 km across. This highly unusual formation is ringed by an extensive series of electromagnetic (EM) conductors. Historical drilling in this area has been directed mainly at VMS (Zn-Cu) targets with limited success. The stratigraphy in this area is poorly understood.

23.6 Fenelon Property

The following description of the Fenelon Property was taken and modified from the September 30, 2015 MD&A filed by the issuer on SEDAR, as well as from information on the issuer's website.

Balmoral owns a 100% interest in the Fenelon Property (Fig. 23.1). The Fenelon Property hosts the Discovery Gold Zone, which consists of several high-grade gold-bearing veins hosted by an ultramafic sill. Gold mineralization on the Fenelon Property is associated with a series of silicified shear veins and small-scale silica-albite shear zones within a coarse-grained mafic intrusion that may be related to the broader Grasset Ultramafic Complex. Visible gold found underground is associated with pyrrhotite- and pyrite-rich sections within the silicified zones. Sulphide content of the gold mineralized zone is typically around 5–10%.

The Discovery Gold Zone extends for a minimum of 160 m along strike and to vertical depths of over 250 m. Historical work on the zone has included bedrock stripping, underground access and construction of two shallow vertical drifts and metallurgical testing. A ramp to the 35m vertical level, to access the Discovery Zone underground, was completed in 2004 by the previous operators. Upon completing the ramp, a bulk sample was collected and test-milled in Val-d'Or, Québec; it reportedly yielded excellent recovery characteristics (95%+ recoveries). The ramp and underground workings are currently flooded.

In 2011, Balmoral renewed the Fenelon mining lease for an additional 5-year term. In late January 2011, Balmoral launched a 36-hole diamond drill program targeting the Discovery Gold Zone and its extensions as part of the Phase I program. Results have indicated near-surface continuity to the Fenelon vein system for 180 m along strike and to a maximum vertical depth of 250 m. The Discovery Zone remains open to depth. It has demonstrated significant variations in thickness, from 0.35 m to 25.00 m, with grades ranging from 0.22 g/t Au over 3.0 m to 97.33 g/t Au over 6.19 m.

No work has been conducted on the Discovery Zone area since 2011 while Balmoral focused on the larger Martiniere gold system. In January 2013, Balmoral completed the acquisition of a 100% interest in the Fenelon Property from Cyprus Canada and granted a 1% NSR on the property in favour of Cyprus Canada as required by the acquisition agreement.

During the first quarter of 2015, Balmoral commenced drill testing of several geophysical anomalies along the projected northwestern continuation of the Grasset Ultramafic Complex through the Fenelon Property. The target was Ni-Cu-PGE mineralization similar to that recently discovered on its adjacent Grasset Property. Four new Ni-Cu-PGE occurrences were identified, highlighted by an intercept grading 0.37% Ni, 0.05% Cu, 0.06 g/t Pt and 0.13 g/t Pd in hole FAB-14-46, located 6.5 km northwest of the Grasset discovery. In addition, high-grade gold mineralization grading 216 g/t Au over 0.76 m was discovered in hole FAB-15-50, along the northeastern contact of the Grasset Ultramafic Complex, near nickel sulphide mineralization.

23.7 Jeremie Property

The following description of the Jeremie Property was taken and modified from the September 30, 2015 MD&A filed by the issuer on SEDAR, as well as from information on the issuer's website.

Following the discovery of Ni-Cu-PGE mineralization at Grasset, Balmoral acquired, by staking, a 100% undivided interest in a new property to the north of the Fenelon Property (Fig. 23.1).

The Jeremie Property covers a series of highly magnetic rocks, beneath extensive overburden cover, which are interpreted to represent the northwestern extension of the Grasset Ultramafic Complex.

Limited historical drilling on the property has identified low-grade nickel mineralization, suggesting potential for VMS and gold discoveries. Work by a predecessor company in 2006–2007 identified a number of Cu-Zn-Ag-Au occurrences within this felsic volcanic sequence on the adjacent Fenelon Property.

In the winter of 2015, Balmoral completed a winter exploration trail into the Jeremie Property to facilitate initial drill testing of several geophysical targets along the projected extension of the Grasset Ultramafic Complex during the second quarter of 2015. Two targets were tested but failed to intersect ultramafic lithologies. Anomalous zinc mineralization was intersected over narrow intercepts in both holes. Two holes completed on the property in the summer of 2015 intersected mafic volcanic and intrusive rocks and minor iron formation. No significant mineralization was obtained in either hole.

While not considered as highly prospective for gold as it is for base metals, Balmoral does recognize some potential for mesothermal gold mineralization on the property associated with structural zones adjacent to both ultramafic rocks of the Grasset Ultramafic Complex and the larger Jeremie batholith.

23.8 Detour Quebec Properties (Adventure Gold Inc.)

The following description of the Detour Quebec properties was taken and modified from the October 31, 2015 MD&A report filed by Adventure Gold Inc. on SEDAR, as well as from information on Adventure Gold's website.

The Detour Quebec Project includes nine (9) properties (Fig.23.1), 100%-owned by Adventure Gold, totalling more than 816 claims and covering an area of 45,304 ha or 453 km^2. The properties are strategically located over a strike length of 80 km on the Detour Gold Trend, which encompasses the Detour Lake Mine.

In recent years, Adventure Gold has explored its Detour Quebec properties using IP surveys, ground magnetic surveys and helicopter-borne electromagnetic VTEM-MAG surveys. This exploration work highlighted promising areas where many geophysical anomalies (from IP and VTEM surveys) near strong gold anomalies were identified as potential new gold-bearing zones along the Sunday Lake, Massicotte and Lower Detour/Grasset deformation zones and other subsidiary fault zones (see the Adventure Gold website for details). A compilation of previous work also highlighted follow-up drilling targets along the proven gold structures close to positive historical drilling intercepts and grab samples. The best targets include near-surface follow-up drilling on historical intercepts grading 3.7 g/t Au over 4.0 m, 18.3 g/t Au over 1.1 m, and 3.7 g/t Au over 3.1 m. Each area contains quality IP anomalies and/or follow-up drilling targets, and warrants new drilling. Historically, very little exploration work has been done on these claims, and only limited drilling on one area with VMS-style gold, zinc and copper mineralization. This geological environment shows some similarities with the Martiniere Property located further east.

23.9 Samson Property (Midland Exploration Inc.)

The following description of the Samson Property was taken and modified from the 2015 Annual Report filed by Midland Exploration on SEDAR, and from other information on the Midland Exploration website.

Midland Exploration holds a 100% interest in the Samson Property (Fig. 23.1). The Samson Property consists of 551 claims covering a surface area of about 30,592 ha. In December 2014, the aim of a major ground-based geophysical program totalling about 60 km and including magnetic and ground electromagnetic surveys was to characterize a series of untested MegaTEM conductors coinciding with strong magnetic responses. About a dozen high-priority MegaTEM targets were selected for this ground follow-up due to their association with strongly magnetic units interpreted as ultramafic rocks. Following the TDEM-ARMIT survey conducted over the best MegaTEM conductors, six (6) conductors were selected for drilling. In the summer of 2015, six (6) diamond drill holes totalling 1,625.5 m were completed on the Samson Property to test the selected TDEM-ARMIT conductors. Only anomalous values in copper, nickel and gold were reported by Midland Exploration for this drilling program.

23.10 Grasset Property (Xmet Inc.)

The following description of the Grasset Property taken and modified from information on the Xmet Inc. website.

The Grasset Property (Fig.23.1) is 100% owned by Xmet Inc. through its wholly-owned subsidiary Duquesne-Ottoman Mines Inc. The property comprises 128 contiguous exploration claims totalling 7,040 ha

The property has seen relatively little exploration work. Fourteen (14) drill holes were collared on the claims between 1959 and 1987 for a total of 1,910 m. All holes were drilled from land; no holes were collared on Lac Grasset. A few geophysical surveys were undertaken, consisting mainly of magnetic/gradiometric and electromagnetic surveys.

Two mineral occurrences have been identified on the property: Ingamar (0.93 g/t Au over 1.83 m) and Harricana-Turgeon (0.50% Cu over 1.0 m). Both occurrences occur along the south shore of the lake. On the western shore of the lake, a few hundred metres from the property boundary, a Cu-Au showing is reported to have assayed 5.5 g/t Au in grab sample (Longley, 1943). The Detour-Sunday Lake Deformation Zone is also interpreted to cross the claims near the south shore of Lac Grasset.

23.11 Grasset Dome Property (Hi Ho Silver Resources Inc.)

The following description of the Grasset Dome Project was taken and modified from information on the Hi Ho Silver Resources Inc. website.

Hi Ho Silver Resources Inc. ("Hi Ho") holds a 100% interest in the Grasset Dome Property, which covers approximately 6,000 ha adjacent to Balmoral's Grasset Property. The property is prospective for Ni-Cu-PGE deposits, gold deposits and copper-zinc-gold-silver VMS deposits.

Hi Ho is planning a geological and geophysical evaluation of the property based on available data in anticipation of an exploration program this season. The property is accessible by logging roads in well-drained terrain which has been largely logged-over in recent years.

On February 10, 2015, Hi Ho announced that it has purchased an additional eleven (11) mineral tenures covering 605 ha that were added to Hi Ho's Grasset Dome Property.

23.12 Gold and Base Metal Potential of Adjacent Properties

InnovExplo has not verified the above information about mineralization on adjacent properties around the Grasset Property. The presence of significant mineralization on these properties is not necessarily indicative of similar mineralization on Balmoral's Grasset Property.

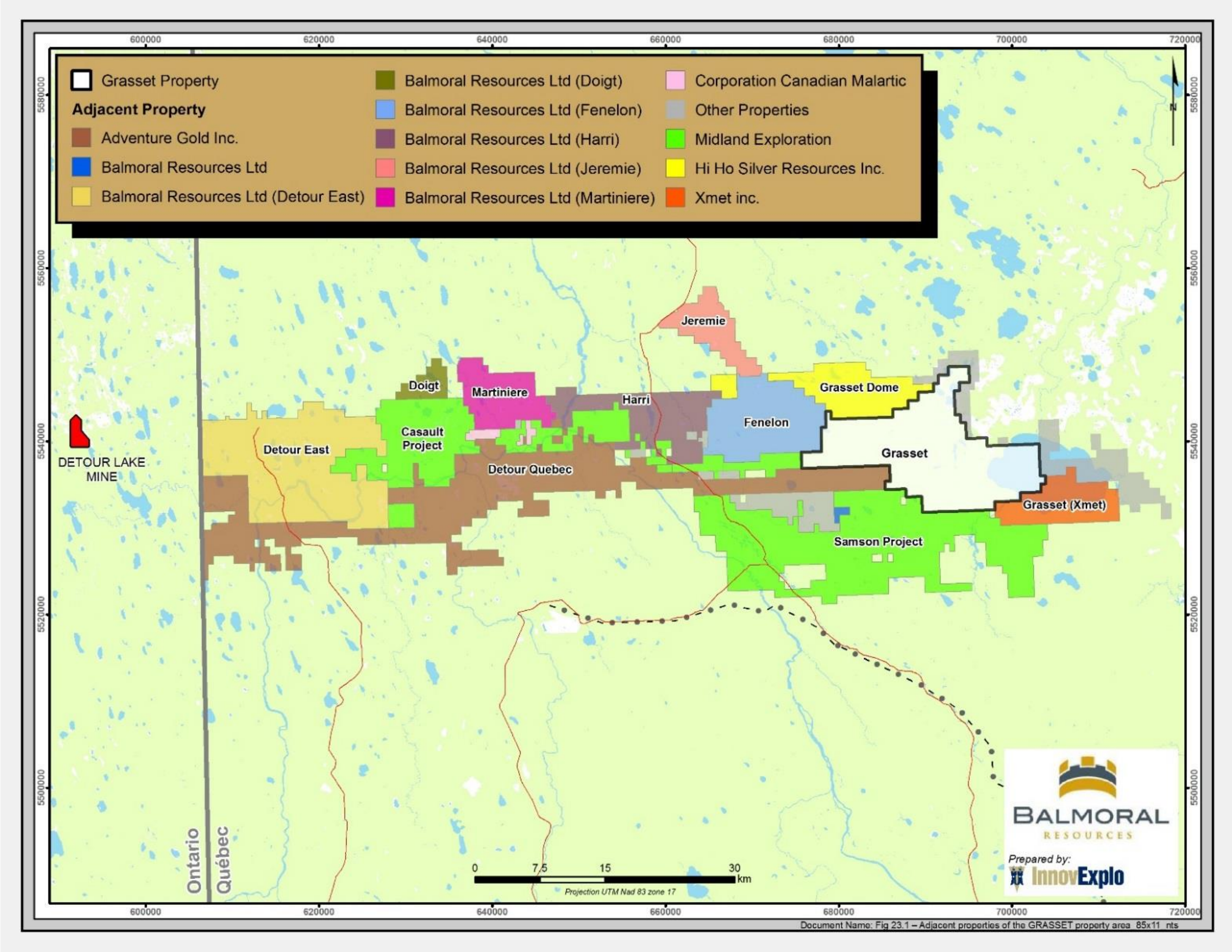

Figure 23.1 – Grasset Property and adjacent properties along the Sunday Lake Deformation Zone in the province of Québec.

24. OTHER RELEVANT DATA AND INFORMATION

All relevant data and information regarding the Grasset Property has been disclosed under the relevant sections of this report.

25. INTERPRETATION AND CONCLUSIONS

Since staking the initial Grasset claims in 2010, Balmoral has successfully advanced the project from grassroots exploration targets to a stage where multiple types and zones of mineralization may constitute an economically viable deposit.

The Grasset Property covers more than 30 km of the Sunday Lake Deformation Zone, which hosts the Detour Lake mine. This major shear zone hosts orogenic gold mineralization and was the target of early work by Balmoral. Drilling during the 2011 and 2012 seasons intersected several zones of shearing and veining containing promising, though not exceptional, gold values. Of much greater significance was the discovery of a series of sulphide-rich horizons within a package of ultramafic rocks (the Grasset Ultramafic Complex) hosting the Ni-Cu-PGE Grasset deposit. This magmatic sulphide Ni-Cu-PGE mineralization has been the focus of Balmoral's exploration work on the Grasset property since its discovery in 2012. Balmoral has conducted sufficient drilling on the Grasset deposit to carry out a mineral resource estimate.

Although the Grasset Property is crossed by a major shear zone and is marked by several magnetic highs and geophysical conductors, it is still a challenge to plan drill targets due to the very thick overburden cover and the lack of outcrops in the area.

25.1 The 2016 Mineral Resource Estimate

The objective of InnovExplo's mandate was to complete a Technical Report and a maiden Mineral Resource Estimate on the Ni-Cu-PGE Grasset deposit according to National Instrument 43-101 ("NI 43-101") and Form 43-101F1. A model was generated for the entire drilled area of the Grasset deposit, based on all available geological information and analytical results.

The 2016 resource area measures 1,000 m along strike, 350 m wide and 600 m deep. The resource estimate is based on a compilation of recent diamond drill holes and a litho-structural model constructed in Leapfrog by Balmoral, subsequently adapted for GEMS by InnovExplo. The result of this study is a single Mineral Resource Estimate for two mineralized zones (H1 and H3). Given the density of the processed data, the search ellipse criteria, the drill hole density and the specific interpolation parameters, InnovExplo is of the opinion that the current internal mineral resource estimate can be classified as Indicated and Inferred resources. The estimate is compliant with CIM standards and guidelines for reporting mineral resources and reserves.

Following a detailed review of all pertinent information and after completing the 2016 Mineral Resource Estimate, InnovExplo concludes the following:

- Geological and grade continuity were demonstrated for the two mineralized zones of the Grasset deposit.
- Using a cut-off grade of 1.00% NiEq, the estimate of Indicated Resources stands at 3,452,500 tonnes grading 1.79% NiEq for 136,279,000 lbs NiEq, and Inferred Resources at 91,100 tonnes grading 1.19% NiEq for 2,393,900 lbs NiEq.
- It is likely that additional diamond drilling would upgrade some of the Inferred Resources to Indicated Resources.

- It is likely that additional diamond drilling would identify additional resources down plunge and in the surroundings of the currently identified mineralization.

25.2 Additional Ni-Cu-PGE Potential

The Grasset deposit, discovered by the issuer in 2012, represents the first discovery of magmatic Ni-Cu-PGE mineralization in the Harricana-Turgeon volcano-sedimentary segment. Ongoing exploration has confirmed the presence of multiple occurrences of similar style mineralization within the 9-km-long Grasset Ultramafic Complex that traverses the issuer's Grasset and adjacent Fenelon properties.

25.3 Gold Potential

Covering approximately 30 km of the Sunday Lake Deformation Zone (SLDZ), the Grasset Property has good gold potential for structurally controlled mesothermal mineralization. In addition, the Property has potential for gold mineralization in secondary structures related to the SLDZ, similar to the structures associated with the gold zones on the issuer's Martiniere and adjacent Fenelon properties. Balmoral's first drill hole on the Grasset Property confirmed its potential with the discovery of the Grasset occurrence located on the western end of the Property along the northern contact of the SLDZ. This hole intersected 33.0 m grading 1.66 g/t gold, including two higher grade intervals grading 6.15 g/t Au over 4.0 m and 4.18 g/t Au over 5.0 m. This discovery is located along the northern contact of the SLDZ.

25.4 Copper-Zinc VMS Potential

The Matagami base metal camp, which hosts one actively producing Cu-Zn-Ag-Au VMS deposit and several former producers is located less than 30 km east of the Grasset Property. Exploration by Balmoral and previous operators has revealed the presence of VMS-style mineralization on the adjacent Fenelon Property, in the same rock sequences that traverse the Grasset Property. A number of untested geophysical features across the Property share characteristics with the geophysical signatures of deposits in the Matagami region, and recent drilling in the Lac Grasset area has intersected a number of zones of massive sulphide mineralization.

25.5 Risks and Opportunities

Table 25.1 identifies the significant internal risks, potential impacts and possible risk mitigation measures that could affect the future economic outcome of the project. The list does not include the external risks that apply to all mining projects (e.g., changes in metal prices, exchange rates, availability of investment capital, change in government regulations, etc.). Significant opportunities that could improve the economics, timing and permitting are identified in Table 25.2. Further information and study is required before these opportunities can be included in the project economics.

Table 25.1 – Risks for the Grasset Deposit

RISK	Potential Impact	Possible Risk Mitigation
Metallurgical recoveries are based on limited testwork	Recovery might differ negatively from what is currently being assumed	Conduct additional metallurgical tests
Surface and/or underground geotechnical evaluations not available	Geomechanical challenge to mining in ultramafic units	Conduct proper geomechanical testing to confirm rock quality and validate assumptions

Table 25.2 – Opportunities for the Grasset Deposit

OPPORTUNITIES	Explanation	Potential benefit
PEA study on the current resources	Potential to upgrade confidence in the economic potential of the project	Could potentially lead to a feasibility study
Exploration potential	Potential for additional discoveries at depth and around the Grasset deposit by drilling	Potential to increase resources
Metallurgy	Recovery might be better than what is currently being assumed	Conduct additional metallurgical tests

26. RECOMMENDATIONS

Based on the results of the 2016 Mineral Resource Estimate, InnovExplo recommends the Grasset Project be advanced to the next phase, which would be the preparation of a preliminary economic assessment (PEA).

In parallel with the PEA, more work is warranted, as detailed below.

The company should continu to revise a property-scale compilation and a target generation program.

Additional drilling should target the down-plunge extensions of the currently identified areas of interest described in this Technical Report. An additional objective would be the discovery of additional zones of similar mineralization type elsewhere in the vicinity of the Grasset deposit.

InnovExplo also recommends initiating a stakeholder mapping and communication plan. Based on the results of this study, appropriate actions (to be determined) should be carried out.

If additional work proves to have a positive impact on the project, the current resource estimate should be updated.

In summary, InnovExplo recommends a two-phase work program as follows:

- Phase 1:
    - Produce a PEA
    - Initiate a property-scale compilation and target generation program
    - Initiate a surface drilling program to potentially upgrade or expand resources on the Grasset deposit
    - Generate a stakeholder map and a communication plan

- Phase 2 (contingent upon success of Phase 1)
    - Follow-up on the surface drilling program on the Grasset deposit to potentially upgrade resource categories
    - Initiate a surface drilling program outside the Grasset deposit area to potentially identify new mineralization on the Grasset Property
    - Update the 3D model and resource estimate

InnovExplo has prepared a cost estimate for the recommended two-phase work program to serve as a guideline for the Grasset Project. The budget for the proposed program is presented in Table 26.1. Expenditures for Phase 1 are estimated at C$2,041,250 (incl. 15% for contingencies). Expenditures for Phase 2 are estimated at C$2,392,000 (incl. 15% for contingencies). The grand total is C$4,433,250 (incl. 15% for contingencies). Phase 2 is contingent upon the success of Phase 1.

Table 26.1 – Estimated costs for the recommended work program

Phase 1 - Work Program		Budget	
		Description	**Cost**
1a	Preliminary economic assessment (PEA) on current resources		$ 200,000
1b	Property-scale compilation and target generation		$ 25,000
1c	Surface drilling on the Grasset deposit (all-inclusive)	15,000 m	$ 1,500,000
1e	Stakeholder mapping, communication plan		$ 50,000
	Contingencies (~ 15%)		$ 266,250
	Phase 1 subtotal		**$ 2,041250**

Phase 2 - Work Program		Budget	
		Description	**Cost**
2a	Follow-up on surface drilling on the Grasset deposit (all inclusive)	10,000 m	$ 1,000,000
2b	Surface drilling outside the Grasset deposit (all inclusive)	10,000 m	$ 1,000,000
2d	3D model and resource estimate update		$ 80,000
	Contingencies (~ 15%)		$ 312,000
	Phase 1 subtotal		**$ 2,392,000**
	TOTAL (Phase 1 and Phase 2)		**C$ 4,433,250**

InnovExplo is of the opinion that the recommended two-phase work program and proposed expenditures are appropriate and well thought out, and that the character of the Grasset Project is of sufficient merit to justify the recommended program. InnovExplo believes that the proposed budget reasonably reflects the type and amount of the contemplated activities.

27. REFERENCES

Anderson, W. J., 1975b. DDH Logs of Hole G-11-1. Selco Mining Corporation Ltd. 1 page. **GM 30884**.

Anderson, W. J., 1975b. DDH Logs of Hole G-17-1. Selco Mining Corporation Ltd. 1 page. **GM 31192**.

Anwyll, D., Croal, A. G., McMullen, J., and Ritchie, D. G., 2016. Mineral Resource and Reserve Estimate for the Detour Lake Property. NI 43-101 Technical Report prepared by Detour Gold Corporation. 233 pages.

Abzalov, M, 2008, Quality control of assay data: a review of procedures for measuring and monitoring precision and accuracy: Exploration and Mining Geology, Vol. 17, Nos. 3-4, p. 131-144

Ayer, J.A., Trowell, N.F., Amelin, Y., and Corfu, F., 1998, Geological compilation of the Abitibi greenstone belt: Toward a revised stratigraphy based on compilation and new geochronology results: Ontario Geological Survey Miscellaneous Paper 169, p. 4-1–4-14.

Ayer, J., Amelin, Y., Corfu, F., Kamo, S., Ketchum, J.F., Kwok, K., and Trowell, N.F., 2002a, Evolution of the Abitibi greenstone belt based on U-Pb geochronology: Autochthonous volcanic construction followed by plutonism, regional deformation and sedimentation: Precambrian Research, v. 115, p. 63–95.

Ayer, J.A., Ketchum, J., and Trowell, N.F., 2002b, New geochronological and neodymium isotopic results from the Abitibi greenstone belt, with emphasis on the timing and the tectonic implications of Neoarchean sedimentation and volcanism: Ontario Geological Survey Open File Report 6100, p. 5-1–5-16.

Ayer, J.A., Thurston, P.C., Bateman, R., Dubé, B., Gibson, H.L., Hamilton, M.A., Hathway, B., Hocker, S.M., Houlé, M.G., Hudak, G., Ispolatov, V.O., Lafrance, B., Lesher, C.M., MacDonald, P.J., Péloquin, A.S., Piercey, S.J., Reed, L.E., Thompson, P.H., 2005. Overview of results from the greenstone architecture project: discover Abitibi initiative. Ontario Geological Survey, Open File Report 6154, 107 pages.

Barnes, S.J. and Lightfoot, P.C. 2005.Formation of magmatic nickel sulfide deposits and processes affecting their copper and platinum group element contents. Economic Geology 100th Anniversary Volume: 179-213.

Barnes, S.J., Cruden, A.R., Arndt, N., and Saumur, B.M., 2015. The mineral system approach applied to magmatic Ni–Cu–PGE sulphide deposits. Ore Geology Reviews.

Barrie, C.T., and Krogh, T. E. 1996. U-Pb Zircon Geochronology of the Selbaie Cu-Zn-Ag-Au Mine, Abitibi Subprovince, Canada. Economic Geology, 91: 563-575.

Bateman, R., Ayer, J.A., and Dubé, B., 2008, The Timmins-Porcupine gold camp, Ontario: Anatomy of an Archean greenstone belt and ontogeny of gold mineralization. Economic Geology, v. 103, p. 1285–1308.

Bazinet, E. W., 1974a. Report on Geophysical Surveys on the Property of Musto Explorations Ltd, Fenelon and Subercase Townships, Abitibi East, Quebec. 6 Pages. **GM 30181**.

Bazinet, E. W., 1974b. DDH Logs of hole #1 to hole #4. Musto Explorations Ltd. 15 pages. **GM 30182**.

Beesley, T. J., 1987. Report on Exploration and Diamond Drilling Programs, Fenelon – Subercase Project. Noble Peak resources Ltd. 17 pages. **GM 44525**,

Bell, R. A., 1959. Report on Electromagnetic Survey, Norsyncomaque Property, Mattagami Area, Quebec. McPhar Geophysics Limited. 4 pages. **GM 08823**.

Bell, R. A., and Sutherland, D. B., 1959. Report on Geophysical Survey, Noranda Exploration Company Ltd, Subercase and Fénélon Townships. McPhar Geophysics Limited. 5 pages. **GM 08818**.

Benn, K., Miles, W., Ghassemi, M. R., Gillet, J., 1994. Crustal structure and kinematic framework of the north-western Pontiac Subprovince, Québec: an integrated structural and geophysical study. Canadian Journal; of Earth Sciences, Vol. 31, pages 271-281.

Benn, K., and Peschler, A.P., 2005, A detachment fold model for fault zones in the Late Archean Abitibi greenstone belt: Tectonophysics, v. 400, p. 85–104.

Bergmann, H. J., 1964. Report on claim group in Subercase and Grasset Townships. Claims held by John I. Cummings. 7 pages. **GM 15869**.

Bernier, A. F., 1959. Vertical electromagnetic and magnetometer survey. United New Fortune Mines Limited. 5 pages. **GM 08620-A**.

Boileau, P., and Lapointe, D., 1996. Geophysical Surveys, property of Cyprus Canada Inc., Subercase A project, Subercase Township, Province of Quebec. Cyprus Canada Inc. 5 pages. **GM 54041**.

Boustead, G. A., 1987. Report on Combined Helicopter-Borne Magnetic and Electromagnetic Survey, Subercase Township, Quebec. Ram Petroleums Ltd. 15 pages. **GM 44450**.

Boustead, G. A., 1988. Report on Combined Helicopter-Borne Magnetic and Electromagnetic Survey, Gaudet, Fenelon, Subercase, Du Tast, Quebec. Morrison Minerals. 12 pages. **GM 46741**.

Brereton, W. E., 1984a. Report on the properties of the Detour Syndicate, Detour- Matagami Area, Northwestern Quebec. 49 pages. **GM 42312**.

Brereton, W. E., 1984b. Report on the Field Exploration Program, Detour Syndicate Properties. 41 pages. **GM 42312**.

Brousseau, K., Pelletier, C., Carrier, A., and Théberge, L. 2007. 2005-2006 Winter diamond drilling program, Fenelon Property, Fenelon Township, Province of Québec, Canada. Report prepared by InnovExplo Inc. for American Bonenza Corporation. 90 pages, **GM 62991**.

Chartré, E., 1996. Magnetometer Surveys, Subercase Township Project. Globex Mining Enterprises Inc. 5 pages. **GM 53933**.

Chown, E. H., Daigneault, R., Mueller, W., and Mortensen, J., 1992. Tectonic evolution of the Northern Volcanic Zone of Abitibi Belt. Canadian Journal of Earth Sciences, v. 29, pp. 2211-2225.

CONSOREM, 2015. Géologie Détour Selbaie 2015. Carte géologique 2013–02.

Cunningham-Dunlop, C. J., 1957, 4 DDH Logs and Assay Results. Subercase Syndicate. 5 pages. **GM 05226**.

Curtis, L. W., 1986. Report on the Ram Petroleums Ltd, Lac Grasset Property, Subercase Township, Northwest Quebec. 30 pages. **GM 44449**.

Daigneault, R., Mueller, W.U., Chown, E. H., 2002. Oblique Archean subduction: accretion and exhumation of an oceanic arc during dextral transpression, Southern Volcanic Zone, Abitibi Subprovince, Canada. Precambrian Research 115: 261–290.

Daigneault, R., Mueller, W.U., Chown, E.H., 2004. Abitibi greenstone belt plate tectonics: the diachronous history of arc development, accretion and collision. In Eriksson, P.G., Altermann, W., Nelson, D.R., Mueller, W.U., Catuneanu, O. (Eds.). The Precambrian Earth: Tempos and Events, Series: Developments in Precambrian geology, vol. 12, Elsevier, pages. 88–103.

Davidson, S., and Bell, R. A., 1959a. Report on Electromagnetic and Magnetic Survey for Orchan Mines Limited, Grasset Lake Claims, Mattagami Area. McPhar Geophysics Limited. 3 pages. **GM 09009-A**.

Davidson, S., and Bell, R. A., 1959b. Report on Electromagnetic Survey for Newlund Mines Limited, Grasset Lake Claims. McPhar Geophysics Limited. 3 pages. **GM 08878**.

Davis, W.J., Machado, N., Gariépy, C., Sawyer, E.W., and Benn, K., 1995. U-Pb geochronology of the Opatica tonalite-gneiss belt and its relationship to the Abitibi greenstone belt, Superior Province, Quebec. Canadian Journal of Earth Sciences, 32: 113-127.

Dimroth, E, Imrech, L., Rocheleau, M., Goulet, N., 1982. Evolution of the south-central part of the Archean Abitibi Belt, Quebec. Part I: stratigraphy and paleostratigraphic model. Canadian Journal of Earth Sciences, Vol. 19, pages 1729-1758.

Dimroth, E, Imrech, L., Rocheleau, M., Goulet, N., 1983. Evolution of the south-central part of the Archean Abitibi Belt, Quebec. Part III: plutonic and metamorphic evolution and geotectonic model. Canadian Journal of Earth Sciences, Vol. 20, pages 1374-1388.

Dion, J., and Keast, T., 1996. 1996 Subercase JV Diamond Drill Report, Fenelon, Du Tast, and Subercase Townships, NW Quebec. Cyprus Canada Inc. and Fairstar Exploration Inc. 11 pages. **GM 54040**.

Dubé, B., and Gosselin, P., 2007, Greenstone-hosted quartz-carbonate vein deposits, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 49-73.

Dvorak, Z., 1987. Interpretation Report Input MK VI Electromagnetic/Magnetic Report. Nodle Peak Resources Ltd., Matagami Area. 21 pages. **GM 44883**.

Faure, S., Jébrak, M. and Angelier, J. 1996. Structural evolution of Les Mines Selbaie, northern Abitibi, Québec, Canada. Exploration and Mining Geology, 5: 215-230.

Faure, S. 2012. Réévaluation paléo environnementale du complexe volcanique de Selbaie et de son potentiel métallogénique. Rapport CONSOREM 2011-08, 26 p.

Faure, S. 2015. Prolongement de la faille Sunday Lake (mine Detour Gold, Ont.) au Québec et son potentiel pour les minéralisations aurifères et en métaux de base. Rapport CONSOREM 2013-02, 31 p.

Filzmoser, P., Garrett R. G., Reimann, C., 2005. Multivariate outlier detection in exploration geochemistry. Computers & Geosciences 31 pp. 579–587

Fiset, N., Prikhodko, A., Kwan, K., and Legault, J., 2011a, Report on a helicopter-borne versatile time domain electromagnetic (VTEM) and horizontal magnetic gradiometer geophysical survey, Grasset east property. Balmoral Resources Ltd. 23 pages. **GM 66705**.

Fiset, N., Prikhodko, A., Kwan, K., and Legault, J., 2011b, Report on a helicopter-borne versatile time domain electromagnetic (VTEM) and horizontal magnetic gradiometer geophysical survey, Grasset west property. Balmoral Resources Ltd. 23 pages. **GM 66706**.

Flanagan, J. T., 1959. Report on Geophysical Surveys of Subercase Township Properties. Nipiron Mines Ltd. 7 pages. **GM 09183-A**

Franklin, J.M., Gibson, H.L., Jonasson, I.R., and Galley, A.G., 2005. Volcanogenic massive sulfide deposits. Economic Geology 100th Anniversary Volume: p. 523-560.

Gamay, K. A. 1961. DDH Logs of Holes Pete-1 to Pete-5. Hudson Bay Exploration and Development Company Ltd. 18 pages. **GM 50912**.

Gauvreau, E. J., 1959. DDH Logs of hole #1 to hole #5. Grasset Lake Mines Ltd. 10 pages. **GM 08917**.

Goldfarb R.J. Groves D.I., and Gardoll, S. 2001. Orogenic gold and geologic time: a global synthesis. Ore Geology Reviews 18: 1-75.

Goldfarb R.J., Baker, T., Dubé, B., Groves, D.I., and Hart, C.J.R., 2005. Distribution, character, and genesis of gold deposits in metamorphic terranes. Economic Geology 100th Anniversary Volume: 407-450.

Goutier, J., 1997, Géologie de la région de Destor: Ministère des Ressources naturelles du Québec 37 pages. RG 96-13.

Goutier, J., and Melançon, M., 2007, Compilation géologique de la Sous-province de l'Abitibi (version préliminaire): Ministère des Ressources naturelles et de la Faune du Québec.

Groves D.I., Goldfarb R.J., Robert, F., and Hart, C.J.R., 2003. Gold deposits in metamorphic belts: Overview of current understanding, outstanding problems, future research, and exploration significance. Economic Geology, 98: 1-29.

Guzun, V., 2012. Mining Rights in the Province of Quebec. Blakes Bulletin Real Estate – Mining Tenures July 2012. Blake, Cassels & Graydon LLP. 7 pages.

Hansen, J. E., 1987. Preliminary Evaluation of Airborne Geophysical Data, Subercase Property. Ram Petroleums Ltd. 7 pages. **GM 44450**.

Heminsley, G., and Demerling, C., 2014a. Logistics Report on a BH UTEM 4 Survey and Surface UTEM 3 Survey in the Grasset Project Area, Quebec. Balmoral Resources Ltd. 9 pages, **GM 69010**.

Heminsley, G., and Demerling, C., 2014b. Logistics and Interpretation Report on a BH UTEM 4 Survey in the Grasset Project Area, Quebec. Balmoral Resources Ltd. 6 pages, **GM 69011**.

Jeffery, B. D., 1998. 1998 Exploration Grant 98-B-605, Fenelon B / Subercase and du Tast Properties in the Harricana-Turgeon Belt of the Northwestern Quebec International Taurus Resources Inc. 15 pages. **GM 58336**.

Jenney, C. P., 1959a. DDH Logs of Holes K-1 to K-6. Orchan Mines Ltd. 8 pages. **GM 09009-B**.

Jenney, C. P., 1959b. DDH Logs of Holes N-1 to N-2. Newlund Mines Ltd. 7 pages. **GM 09119**.

Jolly, W. T., 1978. Metamorphic history of the Archean Abitibi Belt. In Metamorphism in the Canadian Shield. Geological Survey of Canada, Paper 78-10, pp. 63-78.

Jowsey, J. L., 1960a. Report on Grasset Lake Group. Nipiron Mines Ltd. 4 pages. **GM 10231-A**.

Jowsey, J. L., 1960b. DDH Logs of Holes 1 to 4. Nipiron Mines Ltd. 12 pages. **GM 10231-B**.

Kelly, A., 2015. Preliminary Metallurgical Testwork Report, Balmoral Grasset. Report prepared for Balmoral Resources Ltd by Blue Coast Research Ltd. Internal Report. 42 pages.

Khan, A. M., 2014. Geophysical Survey Report covering Surface & Borehole Pulse EM Surveys over the Grasset Property. Balmoral Resources Ltd. 20 pages. **GM 69008**.

Lacroix, S., Simard, A., Pilote, P., and Dubé, L.M. 1990. Regional geologic elements and mineral resources of the Harricana-Turgeon belt, Abitibi of NW Quebec. Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Special Volume 43: 313-326.

Lacroix, S., 1994. Géologie de la partie ouest du sillon Harricana-Turgeon, Abitibi. Ministère des Ressources naturelles du Québec, MB 94-54, 26 p.

Lambert, G., and Turcotte, R., 1989. Levé géophysique, propriété de Exploration Noranda Ltée. Projet Subercase 88-1. 6 pages. **GM 48781**.

Lambert, G., 1996. Report on Ground Geophysical Investigations: Induced Polarization Surveys. Globex Mining Enterprises Inc. 8 pages. **GM 53935**.

Larson, J.E. and Hutchinson, R.W., 1993. The Selbaie Zn-Cu-Ag deposits, Québec, Canada: An example of evolution from subaqueous to subaerial volcanism and mineralization in an Archean caldera environment. Economic Geology, 88, p. 1460-1482.

Lavallière, G., Guha, J., Daigneault, R., and Bonenfant, A., 1994. Cheminées de sulfures massifs atypiques du gisement de l'Isle-Dieu, Matagami, Québec: implications pour l'exploration: Exploration and Mining Geology, 3: 109-129.

Leclerc, A. and Giguère, E., 2010. Technical report on Fénelon property, Fénelon Township Province of Québec, Canada, NI 43-101 Technical Report prepared by Gestion Aline Leclerc inc. for Balmoral Resources Ltd, 72 pages.

Le Grand, M. 2008. Rapport sur les campagnes de forage au diamant. American Bonanza Gold Corporation. .31 pages. **GM 64106**.

Lightfoot, P. C. 2007. Advances in Ni-Cu-PGE Sulphide Deposit Models and Implications for Exploration Technologies. In "Proceedings of Exploration 07: Fifth Decennial International Conference on Mineral Exploration" edited by B. Milkereit, p. 629-646.

Longley, W. W., 1943. Geological Report 12. Kitchigama Lake Area, Abitibi Territory. Division of geological surveys, Department of Mine, Province of Quebec, Canada. 34 pages. **RG012(A).**

Ludden, J.N., Hubert, C., and Gariépy, C., 1986. The tectonic evolution of the Abitibi greenstone belt of Canada: Geological Magazine, v. 123, pp. 153-166.

Lustig, G. N., 2012, Review of 2012 Quality Control Results, Grasset Project, internal consultant's report for Equity Exploration Consultants Ltd. and Balmoral Resources Ltd.

Lustig, G. N., 2016. Review of Quality Control Results 2015 Drill Program, Grasset Project, NTS 32E15, 16 and 32L01, 02 Quebec, Canada. Balmoral Resources Ltd. Internal Report. 61 pages.

MacIntosh, J. A., 1974a. DDH Logs of Hole G-20-1. Selco Mining Corporation Ltd. 2 pages. **GM 30889**.

MacIntosh, J. A., 1974b. DDH Logs of Hole G-18-1. Selco Mining Corporation Ltd. 3 pages. **GM 30888**.

MacIsaac, B. 1978. DDH Logs of Hole MQ-78-12-1A, MQ-78-13-1, MQ-78-13-2, and MQ-78-32-1. Amoco Canada Petroleum Company Ltd. 9 pages. **GM 36103**.

Maingot, P., 1958. Report on Geological and Geophysical Investigations of a Group of Mining Claims in the Township of Subercase, Province of Quebec for Orchan Mines Limited. 3 pages. **GM 07808**.

Maingot, P., 1978. Report on Geophysical Survey Work, Anomaly 13. Amoco Canada Petroleum Company Ltd. 6 pages. **GM 33676**.

Marmont, S., and Corfu, F., 1989, Timing of gold introduction in the Late Archean tectonic framework of the Canadian Shield: Evidence from U-Pb zircon geochronology of the Abitibi subprovince. Economic Geology monograph 6, p. 101–111.

McAdam, J., 1959a. Electromagnetic Survey. Report prepared by Flanagan McAdam and Company for Grasset Lake Mines Ltd. 3 pages. **GM 10351.**

McAdam, J., 1959b. Electromagnetic Ground Check Survey. Nipiron Mines Ltd. 2 pages. **GM 09183-B**.

McAdam, J., 1959c. Electromagnetic Survey, North Group Subercase Township, Quebec. Westfield Minerals Ltd. **GM 09020**.

MERQ-OGS, 1984, Lithostratigraphic map of the Abitibi subprovince: Ontario Geological Survey and Ministère de l'Énergie et des Ressources, Québec, Map 2484 and DV 83–16.

Miller, R. J. M., 1960. DDH Logs of Holes G-1 to G-8. Noranda Exploration Company Ltd. 12 pages. **GM 10165-E**.

Mueller, W., Donaldson, J. A., Dufresne, D. and Rocheleau, M., 1991. The Duparquet Formation, sedimentation in a late Archean successor basin, Abitibi Greenstone belt. Can. J. Earth Sci., 28: 1394-1406.

Mueller, W., and Donaldson, J.A., 1992. Development of sedimentary basins in the Archean Abitibi belt, Canada: an overview. Can. J. Earth Sci. 29, 2249–2265.

Mueller, W. U., Daigneault, R., Mortensen, J, Chown, E. H., 1996. Archean terrane docking: upper crust collision tectonics, Abitibi Greenstone Belt, Quebec, Canada. Tectonophysics 265:127–150.

Nickson, R., 1986. Ground geophysical Surveys, Matagami Project, Group 1, Subercase Township, Northwestern Quebec. Minerex Resources Ltd. 54 pages. **GM 43327**.

O'Connell, J. C., 1982. DDH Log of Hole SU4-1. Teck Exploration Ltd. 3 pages. **GM 40493**.

Oliver, J., Ayer, J., Dubé, B., Aubertin, R., Burson, M., Panneton, G., Friedman, R., and Mike Hamilton, M., 2012. Structural, Chronologic, Lithologic and Alteration Characteristics of Gold Mineralization: The Detour Lake Gold Deposit, Ontario, Canada. Exploration and Mining Geology, 20:1-30.

Perk, N., Swanton, D., and Peat, C., 2012a. 2012 Soil Sampling Program Report, Grasset Property, Belmoral Resources Ltd. 13 pages. **GM 67158**.

Perk, N., Brennan, S., and Swanton, D., 2012b. 2012 Drill Program Report, Grasset Property, Balmoral Resources Ltd. 20 pages. **GM 67198**.

Perk, N., Letourneau, M., Brennan, S., and Voordouw, R., 2013. 2013 Soil Sampling Program Report, Grasset Property. Belmoral Resources Ltd. 16 pages. **GM 67765**.

Perk, N., 2015. Technical (NI 43-101) Report on the Grasset Property, Located in Fenelon, Du Tast, Subercase, and Grasset townships, Québec. NI 43-101 technical report prepared by Equity Exploration Consultants Ltd for Balmoral Resources Ltd. 60 pages.

Porter, L. T., 1959. Report on the magnetometer survey, Subercase and St-Helene Properties. Nordex Development Company Ltd. 6 pages. **GM 09266**.

Potvin, H., 1998a. A report on Geophysical Surveys Performed over the Fenelon B and Subercase A Properties, Du Tast and Subercase Townships, Quebec. International Taurus Resources Inc. 6 pages. **GM 55992**.

Potvin, H., 1998b. A report on Geophysical Surveys Performed over the Du Tast A Property, Fenelon and Subercase Townships, Quebec. International Taurus Resources Inc. 6 pages. **GM 56062**.

Powell, W. D., Carmichael, D. M., and Hodgson, C. J., 1993. Thermobarometry in a subgreenschist to greenschist transition in metabasite of the Abitibi greenstone belt, Superior Province, Canada. Journal of Metamorphic Geology, Vol. 11, pages 165-178.

Reed, L., 1974. Report of Magnetic and Electromagnetic Surveys, Grasset Area. Grid 80-17, 80-18, 80-19, 80-20, 80-21, and 80-22, Du Tast and Subercase Townships, County of Abitibi East, P. Q. Selco Mining Corporation Ltd. 13 pages. **GM 30031**.

Remick, J. H., 1961. Information Report. Hudson Bay Exploration and Development Company Ltd. 1 page. **GM 10848**.

Roth, J. 1987. Report on Ground Geophysical Surveys, Fenelon and Subercase Townships, Northwestern Quebec. Noble Peak Resources Ltd. 74 pages. **GM 44882**.

Roth, J., and Brereton, W. E., 1988. Report on Phase II Exploration Program, Casa Berardi Project, Fenelon and Subercase Townships, Northwestern Quebec. Noble Peak Resources Ltd. 48 pages**. GM 48294**.

Robert, F., 2001. Syenite-associated disseminated gold deposits in the Abitibi greenstone belt, Canada. Mineralium Deposita, v. 36, p. 503-516.

Rossi, M. E., and Deutsch, C. V., 2014, Mineral Resource Estimation, ed. Springer, January 2014, 332 page.

Sawyer, E., and Benn, K. 1993. Structure of the high-grade Opatica belt and adjacent low-grade Abitibi Subprovince: an Archean mountain front. Journal of Structural Geology, 15: 1443-1458.

Scott, A., 2015. Logistical Report Induced Polarization and magnetometer Surveys, Grasset NE Project, Rouyn-Noranda Area, PQ. Balmoral resources Ltd. Internal Report, 5 pages.

Scott, B., 2014. Logistical Report Induced Polarization and magnetometer Surveys, Grasset Project, Rouyn-Noranda Area, PQ. Balmoral resources Ltd. 6 pages. **GM 69007**.

Sinclair, A. J., and Bentzen, A, 1998. Evaluation of Errors in Paired Analytical Data by a Linear Model. Exploration and Mining Geology, Vol. 7, Nos. 1-2, p. 167-173.

Sinclair, A. J., and Blackwell, G. H., 2002. Applied Mineral Inventory Estimation, Cambridge University Press, New York, 381pages.

Stam, J. C., 1959a. Report on Interpretation of Aeromagnetic and Airborne Electromagnetic Surveys for A. D. Hellens. 18 pages. **GM 09352**.

Stam, J. C., 1959b. Report on Interpretation of Aeromagnetic and Airborne Electromagnetic Surveys for Head of Lakes Iron Ltd. 5 pages. **GM 09036**.

Stam, J. C., 1959c. Report on Interpretation of Aeromagnetic and Airborne Electromagnetic Surveys for Daniel Mining Company Ltd. 6 pages. **GM 09007**.

Stam, J. C., 1959d. Report on Interpretation of Aeromagnetic and Airborne Electromagnetic Surveys for Norsyncomague Mining Ltd. 5 pages. **GM 08926**.

Stam, J. C., 1959e. Report on Interpretation of Aeromagnetic and Airborne Electromagnetic Surveys for St-Mary's Explorations Ltd. 6 pages. **GM 08881**.

Stanley, C. R., and Lawie, D., 2007a, Thompson-Howarth error analysis: unbiased alternatives to the large-sample method for assessing non-normally distributed measurement error in geological samples: Geochemistry: Exploration, Environment, Analysis, Vol. 7, pp 1-10.

Stanley, C. R., and Lawie, D., 2007b, Average relative error in geochemical determinations: clarification, calculation and a plea for consistency: Exploration and Mining Geology, Vol. 16, Nos. 3-4, pp. 267-275.

Stanley, C. R., 2014, Duplicate sampling and the retention of archival diamond drill core: no longer a contradiction. Geochemistry: Exploration, Environment, Analysis, Vol. 14. 2014, pp. 369-379

Szetu, S.S., 1959. Report on Geophysical Check Surveys (Electromagnetic Conductor Tracing and Checking) on Property of St-Mar's Explorations Ltd, Subercase Township.5 pages. **GM 11467**.

Taner. M.F. 2002. The Geology of the Volcanic-associated Polymetallic (Zn, Cu, Ag and Au) Selbaie Deposits, Abitibi, Québec, Canada. Explor. Mining Geol., 9: 189-214.

Taylor, S., 2014, Surface and Borehole Time Domain EM Geophysical Surveys Interpretation Report, Grasset Property, Detour Trend, Quebec: Balmoral Resources Ltd. 33 pages. **GM 69009**..

Thorsen, K., 1981a. Geophysical surveys on group SU 6, Subercase Area, Subercase Township, Quebec. Teck Explorations Ltd. 4 pages. **GM 37923**.

Thorsen, K., 1981b. Geophysical surveys on group SU 7, Subercase Area, Subercase Township, Quebec. Teck Explorations Ltd. 4 pages. **GM 37924**.

Thorsen, K., 1981c. Geophysical surveys on group SU 7, Subercase Area, Subercase Township, Quebec. Teck Explorations Ltd. 4 pages. **GM 37925**.

Thorsen, K., 1981d. Assessment report on group SU-4, Subercase Township, Subercase Area, Quebec. Teck Explorations Ltd. 4 pages. **GM 37541**.

Thorsen, K., 1983. Assessment report on group SU-7, Subercase Township, in the Subercase Area, Quebec. Teck Explorations Ltd. 4 pages. **GM 40603**.

Thurston, P.C., and Chivers, K.M., 1990, Secular variation in greenstone sequence development emphasizing Superior province, Canada: Precambrian Research, v. 46, p. 21–58.

Thurston, P.C., Ayer, J.A., Goutier, J., and Hamilton, M.A., 2008, Depositional gaps in the Abitibi greenstone belt stratigraphy: A key to exploration for syngenetic mineralization. Economic Geology, v. 103, p. 1097−1134.

Turcotte, R., and Betz, J. E., 1986. Levé géophysique, propriété de Ressources Aiguebelle Inc. Projet Grasset 80-020. 6 pages. **GM 44126**.

Venter, N., Mokubung, K., Eadie, T., Legault, J., and Plastow, G., 2014, Report on a helicopter-borne versatile time domain electromagnetic (VTEM) and horizontal magnetic gradiometer geophysical survey, Lac Fleuri, Nantel, Grasset Gap, Grasset North, Jeremie-Fenelon and Nickel Test survey areas: Balmoral Resources Ltd. 26 pages. **GM 68603**.

Wagner, D., 2012. Report on the 2011 Drill Program, Grasset Property. Townships of Caumont, Fenelon, Du Tast, Subercase, La Forest, and Grasset. NTS 32L02, 32L01, 32E15,32E16. Balmoral Resources Ltd. 19 pages. **GM 66784**.

Wagner, D., Mann, R. K., Tucker, M. J., Booth, K., Dufresne R., 2014. 2014 Drill and Geophysical Program Report, Grasset Property. Balmoral resources Ltd. 37 pages. **GM 69006**.

Wilson, B. T., 1958. Report on the Airborne Electromagnetic Survey over Grasset Lake Prospect, Mattagami Lake Area, Province of Quebec for Andersen Prospecting Trust. Lundberg Explorations Ltd. 15 pages**. GM07722**.

Woodard, J. A., 1959. Loop-Frame Electromagnetic Survey for the Consolidated Mining and Smelting Company of Canada Ltd. 3 pages**. GM 09078**.

Zalnieriunas, R. V., 1996. Report on the February 1996 Diamond Drill Results, Subercase Project, Quebec. Globex Mining Enterprises Inc. 9 pages. **GM 53934**.

APPENDIX I – UNITS, CONVERSION FACTOR, ABBREVIATION

Units

Units in this report are metric unless otherwise specified. Precious metal content is reported in grams of metal per metric ton (g/t Pt, Pd or Au), unless otherwise stated. Tonnage figures are dry metric tons ("tonnes") unless otherwise stated. Ounces are troy ounces.

Abbreviations

°C	degrees Celsius	Au, Ag	gold, silver
g	grams	Pd, Pt	palladium, platinum
kg	kilograms	PGE, PGM	platinum group elements, platinum group metals
µm	micron (micrometre)	Ni, Cu, Co, Fe, W, Zn	nickel, copper, cobalt, iron, tungsten, zinc
mm	millimetres	oz	troy ounces
cm	centimetres	avdp	avoirdupois pound
m	metres	st	short ton
km	kilometres	oz/t	ounces per short ton
ha	hectares	t	metric ton (tonne)
masl	metres above sea level	Mt	million metric tons
lb	pound	g/t	grams per metric ton
' or ft	ft	tpd	metric tons per day
cfm	cubic ft per minute	ppb	parts per billion
m^3/min	cubic metres per minute	ppm	parts per million
wt%	percent by weight	cps	counts per second
Mbs	megabytes per second	hp	horsepower
Ma	million years	Btu	British thermal units
Ga	billion years	kV/kVA	kilovolts/kilovolt-amps
$ or C$ or CAD	Canadian dollars	kbar	kilobar
US$ or USD	American dollars	MPa	mega pascals

Conversion factors for measurements

Imperial Unit	Multiplied by	Metric Unit
1 inch	25.4	mm
1 foot	0.3048	m
1 acre	0.405	ha
1 ounce (troy)	31.1035	g
1 pound (avdp)	0.4535	kg
1 ton (short)	0.9072	t
1 ounce (troy) / ton (short)	34.2857	g/t

APPENDIX II – MINING RIGHTS IN THE PROVINCE OF QUÉBEC

II.1 Mining Rights in the Province of Québec

The following discussion on the mining rights in the province of Québec was largely taken from Guzon (2012) and Gagné and Masson (2013), and from the Act to Amend the Mining Act ("Bill 70") assented on December 10, 2013 (National Assembly, 2013).

In the Province of Québec, mining is principally regulated by the provincial government. The Ministry of Energy and Natural Resources ("MENR"; *Ministère de l'Énergie et des Ressources naturelles du Québec*) is the provincial agency entrusted with the management of mineral substances in Québec. The ownership and granting of mining titles for mineral substances are primarily governed by the Mining Act (the "Act") and related regulations. In Québec, land surface rights are distinct property from mining rights. Rights in or over mineral substances in Québec form part of the domain of the State (the public domain), subject to limited exceptions for privately owned mineral substances. Mining titles for mineral substances within the public domain are granted and managed by the MENR. The granting of mining rights in privately owned mineral substances is a matter of private negotiations, although certain aspects of the exploration for and mining of such mineral substances are governed by the Act. This section provides a brief overview of the most common mining rights for mineral substances within the domain of the State.

II.1.1 The Claim

A claim is the only exploration title for mineral substances (other than surface mineral substances, or petroleum, natural gas and brine) currently issued in Québec. A claim gives its holder the exclusive right to explore for such mineral substances on the land subject to the claim, but does not entitle its holder to extract mineral substances, except for sampling and in limited quantities. In order to mine mineral substances, the holder of a claim must obtain a mining lease. The electronic map designation is the most common method of acquiring new claims from the MENR whereby an applicant makes an online selection of available pre-mapped claims. In a few areas defined by the government, claims can be obtained by staking.

A claim has a term of two years, which is renewable for additional two-year periods, subject to performance of minimum exploration work on the claim and compliance with other requirements set forth by the Act. In certain circumstances, if the work carried out in respect of a claim is insufficient, or if no work has been carried out at all, it is possible for the claimholder to comply with the minimum work obligations by using work credits for exploration work conducted on adjacent parcels, or by making a payment in lieu of the required work.

Additionally, since May 6, 2015, claim holder must submit to the MENR, on each claim registration anniversary date, a report of the work performed on the claim in the previous year. Moreover, the amount to be paid to renew a claim at the end of its term when the minimum prescribed work has not been carried out now corresponds to twice the amount of the work required. Any excess amount spent on work during the term of a claim can only be applied to the six subsequent renewal periods (12 years in total). Holders of a mining lease or a mining concession are no longer able to apply work carried out in respect of a mining lease or mining concession to renew claims.

II.1.2 The Mining Lease

Mining leases and mining concessions are extraction (production) mining titles which give their holder the exclusive right to mine mineral substances (other than surface mineral substances, or petroleum, natural gas and brine). A mining lease is granted to the holder of one or several claims upon proof of indications that a workable deposit could be present on the area covered by such claims, and that the holder has complied with other requirements prescribed by the Act. A mining lease has an initial term of 20 years, but may be renewed for three additional periods of 10 years each. Under certain conditions, a mining lease may be renewed beyond the three statutory renewal periods.

The Act (as amended by Bill 70) states that an application for a mining lease must be accompanied by a project feasibility study, as well as a scoping and market study as regards to processing in Québec. Holders of mining leases must then produce such a scoping and market study every 20 years. Bill 70 adds, as an additional condition for granting a mining lease, the issuance of a certificate of authorization (CA) under the Environment Quality Act. The Minister may nevertheless grant a mining lease if the time required to obtain the CA is unreasonable. A rehabilitation and restoration plan must be approved by the Minister before any mining lease can be granted. In the case of an open-pit mine, the plan must contain a backfill feasibility study. This last requirement does not apply to mines in operation as of December 10, 2013. Bill 70 sets forth that the financial guarantee to be provided by a holder of a mining lease be for an amount that corresponds to the anticipated total cost of completing the work required under the rehabilitation and restoration plan.

II.1.3 The Mining Concession

Mining concessions were issued prior to January 1, 1966. After that date, grants of mining concessions were replaced by grants of mining leases. Although similar in certain respects to mining leases, mining concessions granted broader surface and mining rights, and they are not limited in time.

A grantee must commence mining operations within five years from December 10, 2013. As is the case for a holder of a mining lease, a grantee may be required by the government, on reasonable grounds, to maximize the economic spinoffs within Québec of mining the mineral resources authorized under the concession. It must also, within three years of commencing mining operations and every 20 years thereafter, send the Minister a scoping and market study as regards to processing in Québec.

II.1.4 Other Information

The claims, mining leases, mining concessions, exclusive leases for surface mineral substances, and the licences and leases for petroleum, natural gas and underground reservoirs obtained from the MENR may be sold, transferred, hypothecated or otherwise encumbered without the MENR's consent. However, a release from the MENR is required for a vendor or a transferee to be released from its obligations and liabilities owing to the MENR related to the mine rehabilitation and restoration plan associated with the alienated lease or mining concession. Such release can be obtained when a third party purchaser assumes those obligations as part of a property transfer. The transfers of mining titles, and the grants of hypothecs and other encumbrances in mining rights, must be recorded in the register of real and immovable mining rights maintained by the MENR and other applicable registers.

Under Bill 70, a lessee or grantee of a mining lease or a mining concession, on each anniversary date of such lease or concession, must send the Minister a report showing the quantity and value of ore extracted during the previous year, the duties paid under the Mining Tax Act and the overall contributions paid during same period, as well as any other information as determined by regulation.

APPENDIX III – DETAILED LIST OF MINING TITLES

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2262763	32E15	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262764	32E15	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262765	32E15	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262766	32E15	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262767	32E15	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262768	32E15	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262769	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262770	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262771	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262772	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262773	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262774	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262775	32E16	Active	55.42	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262776	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262777	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262778	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262779	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262780	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262781	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262782	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262783	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262784	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262785	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262786	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262787	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262788	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262789	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262790	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2262791	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262792	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262793	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262794	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262795	32E16	Active	55.41	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262796	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262797	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262798	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262799	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262800	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262801	32E16	Active	55.39	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262802	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262803	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262804	32E16	Active	55.40	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262805	32E16	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262806	32E16	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262807	32E16	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2262808	32E16	Active	55.38	December 3, 2010	December 2, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264061	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264062	32E16	Active	55.43	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264063	32E16	Active	55.43	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264064	32E16	Active	55.43	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264065	32E16	Active	55.43	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264066	32E16	Active	55.43	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2264067	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264068	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264069	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264070	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264071	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264072	32E16	Active	55.42	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264073	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264074	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264075	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264076	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264077	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264078	32E16	Active	55.41	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264079	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264080	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264081	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264082	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264083	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2264084	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2264085	32E16	Active	55.40	December 13, 2010	December 12, 2016	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306694	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306695	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306696	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306697	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306698	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306699	32E15	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306700	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306701	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306702	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306703	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306704	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306705	32E15	Active	55.41	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306706	32E16	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306707	32E16	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306708	32E16	Active	55.42	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306832	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306833	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306834	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306835	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306836	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306837	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306838	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306839	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306840	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306841	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306842	32E16	Active	55.46	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2306843	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306844	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306845	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306846	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306847	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306848	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306849	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306850	32E16	Active	55.45	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306851	32E16	Active	55.43	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306852	32E16	Active	55.43	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306853	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306854	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306855	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306856	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306857	32E16	Active	55.44	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306858	32E16	Active	55.43	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306859	32E16	Active	55.43	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306860	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306861	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306862	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306863	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306864	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306865	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306866	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306867	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306868	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306869	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306870	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2306871	32E16	Active	55.39	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306872	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306873	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306874	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306875	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306876	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306877	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306878	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306879	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306880	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306881	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306882	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306883	32L01	Active	55.38	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306884	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306885	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306886	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306887	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306888	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306889	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306890	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306891	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306892	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306893	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306894	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306895	32L01	Active	55.37	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306896	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306897	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306898	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2306899	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306900	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306901	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306902	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306903	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306904	32L01	Active	55.36	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306905	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306906	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306907	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306908	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306909	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306910	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2306911	32L01	Active	55.35	August 10, 2011	August 9, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307074	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307075	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307076	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307077	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307078	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307079	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307080	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307081	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307082	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307083	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307084	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307085	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307086	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307087	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307088	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2307089	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307090	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307091	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307092	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307093	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307094	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307095	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307096	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307097	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307098	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307099	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307100	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307101	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307102	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307103	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307104	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307105	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307106	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307107	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307108	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307109	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307110	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307111	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307112	32E16	Active	55.43	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307113	32L01	Active	55.34	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307114	32L01	Active	55.34	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307115	32L01	Active	55.34	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307116	32L01	Active	55.34	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2307117	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307118	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307119	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307120	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307121	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307122	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307123	32L01	Active	55.32	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307124	32L01	Active	55.32	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307125	32L01	Active	55.32	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307126	32L01	Active	55.33	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307174	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307175	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307176	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307177	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307178	32E16	Active	55.49	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307179	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307180	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307181	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307182	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307183	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307184	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307185	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307186	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307187	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307188	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307189	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307190	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307191	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2307192	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307193	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307194	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307195	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307196	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307197	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307198	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307199	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307200	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307201	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307202	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307203	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307204	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307205	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307206	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307207	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307208	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307209	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307210	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307211	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307212	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307213	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307270	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307271	32E16	Active	55.48	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307272	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307273	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307274	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307275	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2307276	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307277	32E16	Active	55.47	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307278	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307279	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307280	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307281	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307282	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307283	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307284	32E16	Active	55.46	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307285	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307286	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307287	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307288	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307289	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307290	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307291	32E16	Active	55.45	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307293	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2307294	32E16	Active	55.44	August 12, 2011	August 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395394	32L01	Active	55.34	December 4, 2013	December 3, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395908	32E16	Active	55.43	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395909	32E16	Active	55.43	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395910	32E16	Active	55.42	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395911	32E16	Active	55.42	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395912	32E16	Active	55.42	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395913	32E16	Active	55.42	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2395914	32E16	Active	55.42	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395915	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395916	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395917	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395918	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395919	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395920	32E16	Active	55.41	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395921	32E16	Active	55.4	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395922	32E16	Active	55.38	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395923	32E16	Active	55.39	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395924	32E16	Active	55.39	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395925	32E16	Active	55.39	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395926	32L01	Active	55.38	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395927	32L02	Active	55.37	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2395928	32L02	Active	55.36	December 12, 2013	December 11, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396231	32E16	Active	55.46	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396232	32E16	Active	55.41	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396233	32E16	Active	55.4	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2396234	32E16	Active	55.39	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396235	32E16	Active	55.39	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396236	32E16	Active	55.39	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396237	32E16	Active	55.39	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396238	32E16	Active	55.39	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396239	32E16	Active	55.45	December 18, 2013	December 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396582	32L01	Active	55.37	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396583	32L01	Active	55.37	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396584	32L01	Active	55.37	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396585	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396586	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396587	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396588	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396589	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396590	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396591	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396592	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2396593	32L01	Active	55.38	December 27, 2013	December 26, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2397007	32E16	Active	55.42	January 8, 2014	January 7, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397008	32E16	Active	55.40	January 8, 2014	January 7, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397438	32E16	Active	55.46	January 14, 2014	January 13, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397439	32E16	Active	55.44	January 14, 2014	January 13, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397714	32E16	Active	55.41	January 15, 2014	January 14, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397982	32E16	Active	55.45	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397983	32E16	Active	55.45	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397984	32E16	Active	55.45	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397985	32E16	Active	55.45	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397986	32E16	Active	55.45	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397987	32E16	Active	55.44	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397988	32E16	Active	55.44	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397989	32E16	Active	55.44	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397990	32E16	Active	55.44	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397991	32E16	Active	55.44	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397992	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397993	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397994	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397995	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397996	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397997	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397998	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2397999	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398000	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398001	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398002	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398003	32E16	Active	55.43	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398004	32E16	Active	55.42	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2398005	32E16	Active	55.42	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398006	32E16	Active	55.42	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398007	32E16	Active	55.42	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398008	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398009	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398010	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398011	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398012	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398013	32E16	Active	55.41	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398014	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398015	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398016	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398017	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398018	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398019	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398020	32E16	Active	55.4	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2398021	32E16	Active	55.39	January 21, 2014	January 20, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399564	32E16	Active	55.44	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399565	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399566	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399567	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399568	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399569	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399570	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2399571	32E16	Active	55.42	February 13, 2014	February 12, 2018	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432103	32E16	Active	55.44	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432104	32E16	Active	55.44	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432105	32E16	Active	55.44	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty

Type of Mining Tiles	Title Number	NTS Sheet	Status	Area (ha)	Registration Date	Expiration Date	Holder	Royalty
CDC	2432106	32E16	Active	55.44	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432107	32E16	Active	55.44	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432108	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432109	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432110	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432111	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432112	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432113	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432114	32E16	Active	55.43	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432115	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432116	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432117	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432118	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432119	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432120	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
CDC	2432121	32E16	Active	55.42	August 18, 2015	August 17, 2017	Balmoral Resources Ltd (100%)	No Royalty
			TOTAL	**22,057.12**	**ha**			