NI 43-101 Technical Report

Preliminary Economic Assessment (PEA)
Barry Gold Project, Quebec, Canada

Metanor Resources Inc.

Submitted to:

Metanor Resources Inc. (MTO)

Prepared by:

GoldMinds Geoservices (GMG)

Effective date: September 22, 2016

Issue date: November 03, 2016

GoldMinds Geoservices Inc.
2999, Ch. Ste-Foy, suite 200 Québec, Qc, Canada, G1X 1P7
1-418-653-9559

Certificate of Qualified Person

Claude Duplessis, Eng. - GoldMinds Geoservices Inc. 2999 Chemin Sainte-Foy, suite 200, Québec, Qc Canada G1X 1P7

To accompany the Report entitled: "Technical Report – Preliminary Economic Assessment, Barry gold project, dated November 3, 2016 with effective date of September 22, 2016 (the "Technical Report").

I, Claude Duplessis, Eng., do hereby certify that:

a) I am a graduate from the University of Quebec in Chicoutimi, Quebec in 1988 with a B.Sc. in geological engineering and I have practised my profession continuously since that time;
b) I am a registered member of the Ordre des ingénieurs du Québec (Registration Number 45523). I am also a registered engineer in the province of Alberta and Newfoundland & Labrador. I am a Member of the Canadian Institute of Mining, Metallurgy and Petroleum. I am a Senior Engineer and Consultant of GoldMinds Geoservices Inc;
c) I have worked as an engineer for a total of 26 years since my graduation. My relevant experience for the purpose of the Technical Report is over 21 years of consulting in the field of Mineral Resource estimation, ore body modelling, mineral resource auditing and geotechnical engineering;
d) I have prepared and written the technical report, I am responsible of the all sections of this report except section 13 & 17.
e) I have personally visited the Barry property several times (September 2010, April 2016 and July 2016).
f) I am independent of the issuer as defined in section 1.5 of NI 43-101("The Instrument");
g) I have read the definition of "qualified person" set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be an independent qualified person for the purposes of NI 43-101.
h) I have read NI 43-101 and Form 43-101F1 and have prepared the technical report in compliance with NI 43-101 and Form 43-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice, and as of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
i) I have no personal knowledge as of the date of this certificate of any material fact or material change, which is not reflected in this report.

This 3rd day of November 2016.

Original signed and sealed

(Signed) "Claude Duplessis"

Claude Duplessis Eng.

Senior Geological Engineer

GoldMinds Geoservices Inc.

Certificate of Qualified Person

Gaston Gagnon, Eng.

g.gagnon@goldmindsgeoservices.com

I, Gaston Gagnon, Eng., of Saint-Eustache, Quebec, do hereby certify:

a) I am a Senior Mining Engineer with Goldminds Geoservices Inc (GMG) with an office at 2999 Chemin Ste-Foy, suite 200 Québec, Qc, Canada G1X 1P7.

b) This certificate applies to the technical report entitled: Technical Report – Preliminary Economic Assessment, Barry gold project, dated November 3, 2016 with effective date of September 22, 2016 (the "Technical Report").

c) I am a graduate of the Laval University in Quebec City (B.Sc. Mining Engineering, 1964). I am a member of good standing (#15918) of the l'Ordre des Ingénieurs du Québec (Order of Engineers of Quebec). My relevant experience includes over 40 years of experience in mining, planning and administrating underground and surface producers and 5 years of consulting for several mining projects under development. I am a "Qualified Person" for purposes of National Instrument 43-101 (the "Instrument").

d) I have not visited the property for the purpose of this study, but I did two site visits at Barry, the last one in 2010.

e) I participated and collaborated with GMG for the preparation of Sections 1, 2, 16, 18, 19, 21, 22, 25, 26 and 27 of the Technical Report.

f) I am independent of Metanor Resources Inc., as defined by Section 1.5 of the Instrument.

g) I have had prior involvement in collaborating to the preparation of a PEA study and technical report in 2007 for Metanor Resources Inc.

h) I have read the Instrument and the Sections of the Technical Report that I have prepared in collaboration with GMG have been prepared in compliance with the Instrument.

i) As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report, or part that I have collaborated to, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

This 3rd day of November 2016.

Original signed and sealed

(Signed) "Gaston Gagnon"

Senior Mine Engineer

GoldMinds Geoservices Inc.

Certificate of Qualified Person

Gilbert Rousseau, Eng.

g.rousseau@goldmindsgeoservices.com

I, Gilbert Rousseau, B.Sc.A., Engineer, do hereby certify that:

a) I graduated with a mining engineer degree from the École Polytechnique of the University of Montreal in 1969.
b) I am a member of the l'Ordre des Ingénieurs du Québec (#20288)
c) I have worked as a mining engineer since my graduation, being involved in mining, milling and environment.
d) I visited the Bachelor mill in July 2016 for the purpose of this report.
e) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association, as defined in NI43-101 and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI43-101.
f) I am responsible for the preparation of the section 13 and 17 of the technical report titled "Technical Report – Preliminary Economic Assessment, Barry gold project, dated November 3, 2016 with effective date of September 22, 2016".
g) Except for visits in 2007 and 2009 for some other purposes I have not had prior involvement with the property that is the subject of the Technical Report.
h) I am not aware of any material fact or material change with respect of the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
i) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with the instrument and form.

This 3rd day of November 2016.

Original signed and sealed

(Signed) "Gilbert Rousseau"

Gilbert Rousseau Eng.

Senior Mine/Metallurgist Engineer

GoldMinds Geoservices Inc.

Table of Contents

1. Summary 1

1.1. General 1

1.2. Property description and ownership 1

1.3. Local resources and infrastructures 2

1.4. Geology and mineralization 2

1.5. Drilling recent works 2016 3

1.6. Mineral processing and metallurgical testing 3

1.7. Mineral resource estimates data 4

1.8. Mineral Resources Base Case 4

1.9. Mineral reserve estimates 6

1.10. Mining Method and Planning 6

1.11. Environment 7

1.12. Project Infrastructure 7

1.13. Capital and Operating Costs 7

1.14. Economic Analysis 8

1.15. Conclusions and Recommendations 9

2. Introduction 11

2.1. Terms of Reference – Scope of Work 11

2.2. Sources of Information 11

2.3. Personal inspection of the property by qualified person 11

2.4. Units and Currency 12

3. Reliance on Other Experts 14

4. Property Description and Location 15

4.1. Location 15

4.2. Property Description, Ownership and Agreements 17

4.3. Royalty Obligations 25

4.4. Permits and Environmental Liabilities 28

5. Accessibility, Climate, Local Resources, Infrastructure and Physiography....29
5.1. Accessibility....29
5.2. Physiography....29
5.3. Climate....30
5.4. Local Resources and Infrastructures....31
6. History....33
6.1. Summary of previous work....33
6.2. Details of previous work on Barry....35
6.2.1 Work by Fab Metals Mines in 1962-1964....35
6.2.2 Work done by Questor Surveys Ltd in 1981-1984....36
6.2.3 Work done by SDBJ in 1982-1984....36
6.2.4 Work done by Mines Camchib in 1983....36
6.2.5 Work done by Cominco-Agnico Eagle in 1989-89....36
6.2.6 Work done by Murgor resources in 1994....36
6.2.7 Work done by Murgor in 1995....37
6.2.8 Work done by Teck option during 1997....38
6.2.9 Work done by Osisko option during 2004-2005....41
6.2.10 Work done by Murgor during 2005-2006....42
6.2.11 Work done by Murgor during 2006....42
6.2.12 Work done during 2006-2007....43
6.2.13 Work done during 2008-2009....43
6.2.14 Work done during 2009-2011....44
6.2.15 Work done during 2013-2014....47
7. Geological Setting....50
7.1. Regional Geology....50
7.2. Property Geology....52
8. Deposit Model....59

9. Mineralization....63

10. Recent drilling works (2016)....67

11. Sample preparation, analyses and security....74

11.1. Sampling approach and methodology....74

11.2. Sample preparation at Bachelor laboratory....76

11.3. Quality assurance and Quality control....76

11.4. Security....85

12. Data verification....86

12.1. Previous data verification (2009-2010)....86

12.2. Historical database verification....91

12.3. Goldminds Geoservices Database (2016 drilling campaign 2016)....91

13. Mineral Processing and Metallurgical Testing....92

13.1. Milling Operation 2008 - 2010....92

13.2. Leach Test Work – Innovat Method (December 2011)....92

13.3. Grindability Characteristics and Grinding Simulations of Samples from the Barry Deposit (SGS Canada inc. February 2013)....94

13.4. An Investigation into the Determination of Total Gold in Three Composite Samples from the Barry Deposit (SGS Canada inc. July 2016)....95

Metallurgical testwork....96

a) Gravity separation testwork....96

b) Gravity tailing cyanidation testwork....97

13.5. Conclusion to the Previous Mill Run and to the Testworks....97

14. Mineral Resources Estimates....99

14.1. Previous Mineral Resource Estimate....99

14.2. Exploration Database....100

14.3. Specific gravity data....101

14.4. Resource model 1 (block size of 3x3x3) final for public disclosure....101

14.5. Resource model 2 (block size of 5x5x5)....108

14.6. Pit Optimization Procedure and Parameters 111
15. Mineral Reserve Estimates 122
16. Mining Methods 123
16.1. Open-pit Mining 123
16.2. Detailed Mine Design 123
16.3. Marginal Cut-Off Grade 127
16.4. Tonnage within Pit Design Shell 127
16.5. Dilution and Ore Loss 127
16.6. Mine Development and Production Schedule 128
16.7. Waste storage 133
16.8. Pit dewatering 134
16.9. Fleet Estimate 134
16.10. Drilling 135
16.11. Blasting 137
16.12. Load and haul 137
16.13. Hauling from Barry to Bachelor mill 140
17. Recovery Method 141
17.1. Acknowledgment 141
17.2. Present Milling Operation 141
17.3. Proposed Change and/or Addition to the Actual Mill Machinery to Process the Barry Mineralized Material and Increase the Mill Feed Rate from 750 tpd to 1200 tpd 142
17.4. Anticipated Gold Recovery 143
17.5. Estimation of the Mill Operation Costs (OPEX) 143
Man Power and Salaries 143
17.6. Consumables and Spare Parts 144
17.7. Capital Expenditure (CAPEX) 145
18. Project Infrastructure 146
18.1. On-Site Infrastructure 146

Power Plant 146
Hydrocarbon Fuel Storage 146
Core Racks 146
Core Shack 146
Mineralized Material Stockpile Pad 146
Water management 147
Warehouse 147
18.2. Needed Infrastructure 147
Camp 147
Service Buildings & Administration Building 148
Mine Maintenance Shop 148
Explosive magazines 148
Road to Bachelor Mill Upgrade 148
19. Market Studies and Contracts 153
19.1. Gold price 153
20. Environmental Studies, Permitting and Social or Community Impact 155
20.1. Environmental Studies 155
Physical environment 155
Biological environment 155
Social environment 157
Potential issues 157
20.2. Regulatory Context and Permitting Constraints 157
The James Bay and Northern Québec Agreement 158
Permitting and Environmental Protection Standards 158
20.3 Social or Community Impacts 159
Closure Plan 159

21. Capital and Operating Costs 160
21.1. Capital Cost Estimates 160
Mine Capital Cost 161
Process Capital Cost 161
Infrastructure Capital Cost 162
21.2. Operating Cost Estimates 163
Mine Operating Cost 163
Process Operating Cost 164
22. Economic Analysis 165
22.1. Principal assumptions 165
22.2. Cash flow Forecasts 165
22.3. Net present value, internal rate of return and payback period 168
22.4. Taxes, royalties and interests 168
Taxes 168
Royalties 170
Interests 170
Sensitivity analysis 170
23. Adjacent Properties 173
24. Other Relevant Data and Information 175
25. Interpretation and Conclusions 176
25.1. Geology 176
25.2. Mining 177
26. Recommendations 178
26.1. Geology and Mineral Resources 178
26.2. Mineral Processing and Metallurgical Testing 182
26.3. Mining 182
27. References 183

List of Tables

Table 1: Mine plan 7

Table 2: Economic analysis summary 8

Table 3: Sensitivity analysis results 9

Table 4: List of Abbreviations. 13

Table 5: Mining Titles List (1) from MNR GESTIM Mining Title Management System 18

Table 6: Rainfall and snowfall data 30

Table 7: Wind data 31

Table 8: Summary of the previous exploration work on the Barry property 35

Table 9: Locations and details of Diamond drillholes (2016 drilling campaign) 69

Table 10: Assay results (Au g/t) ALS versus Bachelor laboratory 78

Table 11: Comparative table of the assay results (Au g/t) SGS (Lakefield laboratory), Bachelor laboratory (MTO) and ALS laboratory (ALS) 79

Table 12: Screen metallic results, SGS laboratory 81

Table 13: Average of fire assay results and Screen Metallic for the analyzed intervals 83

Table 14: Assay results of core sampling From Metanor and MRB for data verification (part1) 88

Table 15: Assay results of core sampling From Metanor and MRB for data verification (part 2) 89

Table 16: Assay results of the core sampling by SGS Geostat from the 2009 drilling campaign 90

Table 17: Barry's Material, Size Distribution Analysis 93

Table 18: Grindability Test Summary 95

Table 19: Overall Results Summary 96

Table 20: Mineral resources of Barry property published in 2010 by SGS Geostat 99

Table 21: Search ellipsoid parameters and estimation parameters 108

Table 22: Search ellipsoids parameters for mineral resource classification 108

Table 23: Search ellipsoids and estimation parameters 110

Table 24: Search ellipsoids and classification parameters 110
Table 25: Base Case resources with in-pit resource sensitivity (block model used 3m x 3m x 3m). 112
Table 26: Pit Optimization parameters with Cut-Off grades 113
Table 27 : In-pit resources 127
Table 28: Mine Plan Summary 129
Table 29: Waste material stockpile parameters 133
Table 30: Main mining fleet 135
Table 31: Design parameters for blast hole drilling 136
Table 32: Blasting powder factor 137
Table 33: Loading Capacity of a CAT 345D Excavator 138
Table 34: 35 t articulated truck hauling capacity 139
Table 35: Mill Operation Costs per Tonne 143
Table 36: Man Power and Salaries 144
Table 37: Spare Parts and Consumables Costs per Tonne 145
Table 38: Estimated Capital Expenditure 145
Table 39: New Camp Capital cost 148
Table 40: Gold price and Conversion rate average 154
Table 41: Total capital cost estimation 160
Table 42: Mine capital cost estimation 161
Table 43: Mill capital cost estimation 162
Table 44: Infrastructure capital cost estimation 163
Table 45: Waste and mineralized material mining operating cost 163
Table 46: Process operating cost 164
Table 47: Cash flow summary 166
Table 48: Annual Pre-tax Cash Flow Forecast 167
Table 49: Tax-adjusted cash flow 169

Table 50: Sensitivity analysis results 171

Table 51 : NSR buyback sensitivity analysis pre-tax 172

List of Figures

Figure 1: Sensitivity analysis 9

Figure 2: General map with the location of Metanor properties (Barry and Bachelor) 16

Figure 3: Claims location, Barry project 17

Figure 4: Royalties....27

Figure 5: Monthly average temperature and rainfall data....30

Figure 6: Val-d'or 1971-2000 wind rose 31

Figure 7: Landsat map of PP from Abitibi Géophysique (November 2009) on the Barry property ..46

Figure 8: Geological map of the Urban-Barry belt (SNRC 32G/04 and 32B/13), map (Bandyayera et al., 2002) 51

Figure 9: A) Diorite 1 (D1) dyke cutting brecciated volcanic rock. B) Diorite 2 (D2) dyke cutting mafic volcanic rocks. C) Visible gold grain within diorite. D) Diorite 3 (D3) dyke along a QFP margin cutting mafic volcanic rocks. E) Photography of QFP core sample showing plagioclase and quartz phenocrysts in fine grained groundmass; F) Photomicrography of (E) in cross-polarized transmitted light. G) Quartz monzonite drill core sample, light pink K-feldspar, quartz, and chlorite crystals are coarse-grained with little to no groundmass in between; H) Photomicrography of (G) in crossed-polarized light (Photomicrography taken from Kitney, 2009) 54

Figure 10: Stereographic representation of the structural features of the Barry deposit, surface trench. A) Poles and contour plot of poles to foliation, stretching lineations, and fold axes in the mafic volcanic rocks. B: Poles to early and late faults and slickenline lineations on early faults. C) Poles and contour plot of poles to straight albite-carbonate-quartz veins. D) Poles and contour plot of poles to folded albite-carbonate-quartz vein (source Kitney 2009). † indicates data collected by Tessier during mapping in 1996....56

Figure 11: A) Folded auriferous albite-carbonate-quartz veins at the Barry deposit. B) Carbonate-quartz vein with visible gold (hole MB16-05)....57

Figure 12: Veins cross-cut QFP dykes filled by quartz cements (mainly vitreous quartz)....58

Figure 13: Localization of the mineralized zones at the Barry property (Source Metanor)....59

Figure 14: QFP cutting the volcanic units....60

Figure 15: Oxidized mineralization in the main E-W shear Zone, with coarse to fine-grained pyrite boxwork....61

Figure 16: Main E-W subvertical structure with sheeted Quartz-Carbonate veins with fine-grained pyrite stringers 62

Figure 17: Core sample showing mineralized zone above the QFP unit 64

Figure 18: Paragenesis of the minerals that have undergone pre ore, syn-ore, and post-ore alteration at the Barry deposit. (1) abundant in zones of high strain, (2) at depth greater than 30m (Kitney, 2009) 65

Figure 19: The distribution of the diorite (Green color) within the Barry property.....66

Figure 20: The distribution of the Diorite (Green color) and the Assays color coded by Au (g/t). The gold mineralization in between and upper the Diorite units.....66

Figure 21: Localisation of the 2016 new drillholes, Barry property 67

Figure 22: Section view showing the three mineralized zones dipping to the south east.....68

Figure 23: Diamond drill set-up.....70

Figure 24: Drillholes locations at the Barry property 71

Figure 25: Photos of cores taken from hole MB-16-11 72

Figure 26: Photos of cores taken from hole MB-16-14 73

Figure 27: Photos of cores taken from hole MB-16-15 73

Figure 28: Samples placed in plastic bags with tag.....75

Figure 29: Rice bags filled by samples ready to be shipped to the laboratory 75

Figure 30: Distribution of blank samples used for the 2016 drilling campaign (Au ppm) 76

Figure 31: Distribution of standards (Au ppm) used for the 2016 drilling campaign 77

Figure 32: Controlled assays in ALS laboratory versus Bachelor laboratory (Au ppm).....78

Figure 33: Controlled assays SGS Lakefield laboratory versus Bachelor laboratory (Au ppm).....80

Figure 34: Controlled assays SGS Lakefield laboratory, Bachelor laboratory and ALS laboratory (Au ppm).....80

Figure 35: Correlation between Au met (SGS) versus Fire assay (Bachelor laboratory).....82

Figure 36: Distribution of duplicates (Au ppm) used for the 2016 drilling campaign (ALS laboratory) 84

Figure 37: Average of sample duplicates versus original assays (Au ppm) 84

Figure 38: Correlation of the gold values between Metanor and SGS laboratories (SGS Geostat, 2010) 86

Figure 39: Correlation of the gold values between Metanor and MRB (ALS laboratory), (SGS Geostat, 2010) 87

Figure 40: Correlation between Metanor and ALS laboratories (SGS Geostat, 2010) 90

Figure 41: Grinding Circuit Configuration 94

Figure 42: Localization of drillholes and sampling channels collars on the Barry property 101

Figure 43: Plan view of the sections and localization of prism and collars, Barry property (color coded by Au ppm) 102

Figure 44: Section (IH: 15) NW-SE showing prism and envelope built around unmineralized granodiorite/diorite 103

Figure 45: Section (IH: 03) NW-SE showing prism and envelope built around unmineralized QFP 103

Figure 46: Section (IH: 15) NW-SE showing prism and envelope built around unmineralized diorite 104

Figure 47: Section (IH: 03) NW-SE showing prism and envelope built around sterile granodiorite and granodiorite and QFP 104

Figure 48: Section (IH: 15) NW-SE showing mass envelope and one granodiorite envelope to be subtracted 105

Figure 49: Compositing parameters 105

Figure 50: BlockModel settings 106

Figure 51: Mass envelope, Barry property 107

Figure 52: Blocks Model (3m x 3m x 3m) 107

Figure 53: Blocks model settings 109

Figure 54: Optimization daylight 115

Figure 55: Longitudinal A-A', looking southeast 116

Figure 56: Longitudinal A-A', looking southeast with block models (Au g/t) 116

Figure 57: Section B-B', looking northeast 117

Figure 58: Section B-B', looking northeast 117

Figure 59: Actual pits 118
Figure 60: Optimization Base Case 118
Figure 61: Optimization #1 119
Figure 62: Optimization #2 119
Figure 63: Optimization #3 120
Figure 64: Optimization #4 120
Figure 65: Typical 1-lane and 2-lane ramp section 124
Figure 66: Slope and bench configuration 125
Figure 67: Plan view of the pit design 126
Figure 68: Elevation 330 126
Figure 69: Material Output Throughout the LoM 129
Figure 70: Mine plan phase 1 130
Figure 71: Mine plan phase 2 131
Figure 72: Mine plan phase 3 131
Figure 73: Mine plan phase 4 132
Figure 74: Mine plan phase 5 132
Figure 75: Stockpile design 134
Figure 76: Waste stockpile parameters A-A' looking north 134
Figure 77: Diesel top hammer drill 135
Figure 78: Komatsu 6.0 m3 Bucket Wheel Loader 139
Figure 79: Road train similar to those proposed for hauling from Barry to Bachelor 140
Figure 80: Planned haulage path 150
Figure 81: Site 1 - Mine site to road 6000 151
Figure 82: Site2 - Road 3000-road 6000 junction 151
Figure 83: Site 3 - Bridge over Wetetnagami river 152
Figure 84: Site 4 - Road 4000 152

Figure 85 : 10-year gold price in CAD/oz (goldprice.org) 153

Figure 86 : Gold price in CAD/oz (www.kitco.com) 154

Figure 87: Sensitivity analysis graph 171

Figure 88: Adjacent properties 174

Figure 89: Localization of the proposed drillholes by GMG 179

Figure 90: proposed drillholes within zone 1 (Barry property) 180

Figure 91: Diagnos map showing two zones with high potential of gold mineralization. The first one fits with the main pit and the second one is located at the NE of the main pit and corresponds to zone 2 in Figure 65 181

1. Summary

1.1. General

This technical report was prepared by GoldMinds Geoservices Inc. for Metanor Resources Inc. to support the disclosure of a preliminary economic assessment (PEA) according to the guidelines set under "Form 43-101F1 Technical Report" of National Instrument 43-101 Standards.

The report describes the methodology used for modeling and estimation of the mineral resources of the Barry gold deposit using historical and recent drillholes data. The report also presents a review of the history, geology, sample preparation, QA/QC program and data verification of the Barry deposit. Mining, haulage and processing assumptions associated with financial analysis are presented and the report provides recommendations for future work.

The report is a Preliminary Economic Assessment (PEA) of the Barry gold project following the resources update from GoldMinds Geoservices from June 22nd 2016. Metanor has elected the scenario of Preliminary Economic Assessment with mining the Barry deposit with processing at his own mill at Bachelor Lake.

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

The current Barry mineral resources are estimated by GMG for the purposes of a gold production.

1.2. Property description and ownership

Metanor has 100% interest in the Barry gold deposit property located in the municipality of Senneterre (Abitibi-Témiscamingue region, Quebec province) at 100 km east of Lebel-sur-Quevillon city and 180 km southwest of Chibougamau city. The Barry property centered on UTM coordinates 443,674E and 5,426,517N (UTM-18, NAD 83) on the topographic map (NTS 32B/13, 32G/04).

The Barry property consists of one mining lease (BM 886) covering an area of 112.04 hectares delivered in August 27th, 2008 by the Ministry of natural resources and Fauna. The mining lease is surrounded by 179 claims covering and area of 8,075.16 hectares.

The Barry property is easily accessible by the provincial paved highway 113, a major regional road linking the town of Senneterre to Chapais, and by a 120 km all-weather gravel road linking the property to the town of Lebel-sur-Quevillon.

1.3. Local resources and infrastructures

The regional resources concerning labour force, supplies and equipment are sufficient. The closest town, Lebel-sur-Quevillon provides the workforce for minor services and the town of Val d'Or and Chibougamau for the possible mine exploitation.

A camp on the property, built in 2007 by Metanor, provides living facilities for 18 persons. Other infrastructures include core logging and splitting facilities, garage, two diesel generators and surface fuel tanks. All major services are available in Val d'Or, Chibougamau, and minor ones in Lebel-sur-Quevillon.

A major hydroelectric power line crosses the eastern part of the property allowing the possibility to build a mill that could run on hydroelectricity.

1.4. Geology and mineralization

The Barry project is located in the Urban-Barry belt in the Northern Volcanic Zone (NVZ) of the Abitibi greenstone belt. The Urban-Barry belt comprises mainly mafic volcanic rocks and isolated felsic volcanic rocks with ages ranging from 2791 Ma to 2707 Ma (Rhéaume and Bandyayera, 2006) interbedded with, or overlain by, volcanoclastic sedimentary rocks.

The geology of the property is composed of mafic volcanic flows, co-magmatic gabbro sills, local felsic flows, lapilli and welded tuffs, sedimentary rocks intruded by tonalite to granodiorite plutons, diorite dykes and feldspar and/or quartz porphyry dykes. These rocks were deformed during the Kenoran orogeny, giving them a dominant east-west trend (Chown et al., 1992). The regional foliation generally strikes NE to ENE with a variable dip from 30 to 85° SE (Hocq, 1989; Joly, 1990).

Regional metamorphism is typically in the lower greenschist facies except for the easternmost part of the belt where lower amphibolite facies is encountered and related to the Grenville Front.

The gold mineralization at the Barry deposit is structurally controlled. The gold mineralization is contained in a system of quartz-carbonate-albite-pyrite veins associated with sheared zones included in a wide deformation corridor at 60°/55 SE. The gold mineralization is mainly associated with 4 main mineralized zones: the Main Zone, Zone 45, Zone 48 and Zone 43 being located 80m south of the Main Zone. The mineralized zones coincide with strong IP anomalies occurring in volcanic units throughout the property. These IP anomalies were detected in the eastern and western extensions of the Barry deposit, as well as in parallel volcanic units that are highly prospective for gold mineralization similar to the mineralization exposed in the Barry pit.

The gold occurs as inclusions or fracture infill in pyrite, or in sharp contact with carbonate crystals within veins and altered wall rocks, as well as along micro fractures in fine-grained pyrite (Lariviere, 1997; Kitney, 2009).

1.5. Drilling recent works 2016

GoldMinds Geoservices Inc. was mandated to provide a mineral resource update of Barry project to Metanor resources Inc. The mandate includes also the identification of the drilling targets, the drilling supervision and the validation drilling of the high-grade zones with the study of the extensions of certain mineralized zones, for eventual open pit mining.

The drilling campaign of 1,370 meters started on the 12th of April, 2016. The focus of this drilling program was to test the new mineralization model proposed by Claude Duplessis, Eng. GMG located in the south of the principal pit and connect also the center and south pits with the principal pit.

A total of 15 holes were drilled over the Barry property totalling 1370 meters. A total of 1316 samples not including blanks and standards (63 blank, 61 standards and 120 duplicates) were analyzed at Bachelor laboratory and the first 48 samples were sent also to ALS laboratory for the QA/QC program. The drilling contractor for the 2016 drilling campaign was Forage Orbit Garant.

Claude Duplessis Eng. and Merouane Rachidi, Ph. D., P. Geo. as well as Simon Fontaine Jr. mining Eng. were present during the drilling campaign to supervise the drilling, logging and sampling.

1.6. Mineral processing and metallurgical testing

The purpose of the metallurgical test program was to determine the head grade of three composites samples from Barry project and incidentally determine the possible gold recovery. The samples were processed using gravity separation followed by cyanide leaching of the gravity tailing. An overall

gravity separation plus cyanidation metallurgical gold balance was performed to calculate the head grade of each sample. A summary of the testwork results is shown in the table below.

Sample	Overall Gold Recovery (%)			CN Residue Au Assay (g/t)	Calculated Heas Grade Au (g/T)
	Gravity	Cyanidation	Gravity + CN		
Comp A	30.4	63.4	93.8	0.20	3.22
Comp B	17.7	77.2	94.8	0.11	2.13
Comp C	22.8	71.4	94.2	0.04	0.69

This test protocol was used in order to avoid the potential discrepancies in the calculation of the head grades due to the coarse gold "nugget" effect. An overall (gravity + cyanidation) gold metallurgical balance was performed to calculate the head grade of each composites.

1.7. Mineral resource estimates data

GoldMinds Geoservices Inc. has prepared for Metanor resources Inc. an updated Mineral Resource Estimation using the existing drilling data (561 holes totalling 73,317 meters, and 524 of sampling channels totalling 4367 meters) and the new drilling data from the 2016 drilling campaign (15 holes, totalling 1,370 meters).

Two resources block models were produced using model with blocks dimensions of 05 m (EW) x 05 m (NS) x 05 m (Z) and 03 m (EW) x 03 m (NS) x 03 m (Z). The envelopes of waste were built around specific lithology and subtracted from the mass envelope.

After the verification/validation of the Barry database. GoldMinds Geoservices conducted mineralization interpretation and modelling of the 3D wireframe envelopes of the gold mineralization.

A total of three envelopes were created following the behavior of two specific lithology presenting no mineralization from the rest of the deposit. The three envelopes were then subtracted from the mineralized envelope before generating the blocks model.

1.8. Mineral Resources Base Case

Cautionary note: Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

The Mineral Resources for public disclosure representing the base case which represent the reasonable prospect of economic extraction is herewith defined as:

Optimization #	Resource classification	Mineral Resources			Waste		Total	
		Tonnage	Grade Au	Au content	Tonnage	Grade Au	Tonnage	Stripping ratio
		t	g/t	oz	t	g/t	t	
Base case	Measured	5 880 000	1,04	197 000	7 835 000	0,13	13 715 000	
	Indicated	3 020 000	0,87	85 000	5 795 000	0,12	8 815 000	
	Measured + indicated	**8 900 000**	**0,98**	282 000	**13 630 000**	**0,13**	**22 530 000**	
	Inferred	20 705 000	0,99	659 000	118 505 000	0,05	139 210 000	
								4,46

Rounded numbers.

The parameters used to define the base case of the current mineral resources at Barry are:

- Gold price CAN$: 1650 $/Oz
- Mineralized material mining cost: 3.25 $/$t_{mined}$
- Waste mining cost: 3.25 $/$t_{mined}$
- Processing cost: 18 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.36 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred
- Block model used: 3m x 3m x 3m

The 3m x3m x 3m block model has been selected as some contact structures requires this definition in some areas of the model. The base case presents the scenario of an on-site mill comparable to existing mining project in Canada.

A resource scenario using the Bachelor Mill has also been done and the results of this analysis present the following in-pit resources:

Optimization #	Resource classification	Mineral Resources			Waste		Total	
		Tonnage	Grade Au	Au content	Tonnage	Grade Au	Tonnage	Stripping ratio
		t	g/t	oz	t	g/t	t	
Pit 3	Measured	3 455 000	1,37	152 000	6 465 000	0,22	9 920 000	
	Indicated	910 000	1,24	36 000	1 845 000	0,20	2 755 000	
	Measured + indicated	**4 365 000**	**1,34**	188 000	**8 310 000**	**0,22**	**12 675 000**	
	Inferred	1 670 000	2,17	116 000	4 865 000	0,05	6 535 000	
								2,18

Rounded numbers

The parameters used for the definition of the in-pit mineral resources using the Bachelor Mill.

Optimisation 3 (Bachelor Mill scenario)

- Gold price Can$: 1650$/Oz
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.60 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred
- Block model used: 3m x 3m x 3m

1.9. Mineral reserve estimates

There are no NI 43-101 compliant mineral reserves at Barry, a Feasibility Study or Preliminary Feasibility Study is required to define mineral reserves.

1.10. Mining Method and Planning

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

The production fleet is composed of articulated dump trucks and excavators to load and haul the mineralized material and waste out of the open-pit. The production rate is 1,200 tpd with an overall strip ratio of 2.17. The mine plan is presented in Table 1.

Table 1: Mine plan

Years of production		1	2	3	4	5	6	7	8	9	
Operation days/y	0	210	350	350	350	350	350	350	350	350	
Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total**
Tonnes of ore mined/year	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
Au grade (diluted) - g/t	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
Strip ratio		2.17	2.17	2.17	2.17	1.93	2.17	2.17	1.93	1.58	2.17
Tonnes of waste		546,400	910,667	910,667	910,667	810,667	910,667	910,667	810,667	663,973	7,385,040

The 1,200 tpd mineralized material production will be shipped by 150 tonnes trucks to the Bachelor mill located 110 km from the mine site.

1.11. Environment

Metanor already received its certificate of authorization for the government of Quebec. Therefore, no extensive environmental study should be necessary to restart production. A 4 M$ provision was allocated to the mine closure in the project cash flow.

1.12. Project Infrastructure

Different infrastructures are already present on the mine site due to the previous exploitation. Since the mineralized material is shipped by 150 tonnes truck to the Bachelor mill, the existing road connecting the two sites must be upgraded. A 2 M$ provision was allocated to upgrade the road. However, a new camp will be built further from the mine.

1.13. Capital and Operating Costs

The capital cost estimation for the first two years of the project is 14.9 M$ and includes additional diamond drilling, pre-feasibility study and permitting, working capital, mill upgrade, infrastructures

and closing bond. The total operating cost per tonne milled is estimated at 60$/t which includes mining, power, trucking to the mill, G&A, room & board, equipment leasing, milling and a 5% contingency. The average operating cost per ounce is 1114$.

1.14. Economic Analysis

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

GMG made the following assumptions to produce the financial model:

- Price of gold: 1,560 CAD/oz (1-year trailing average)
- Royalty: 1.5% NSR
- Mill feed: 1,200 tpd
- Discount rate: 6%
- All prices are in CAD

The summary of the economic analysis is presented in Table 2.

Table 2: Economic analysis summary

Items	Units	Pre-Tax value	Post-tax value
NPV	M$	53.5	25.9
Internal rate of return	%	198	94
Payback period	year	0.58	0.71

A sensitivity analysis was produced with the pre-tax financial analysis and is shown in Figure 1 and Table 3.

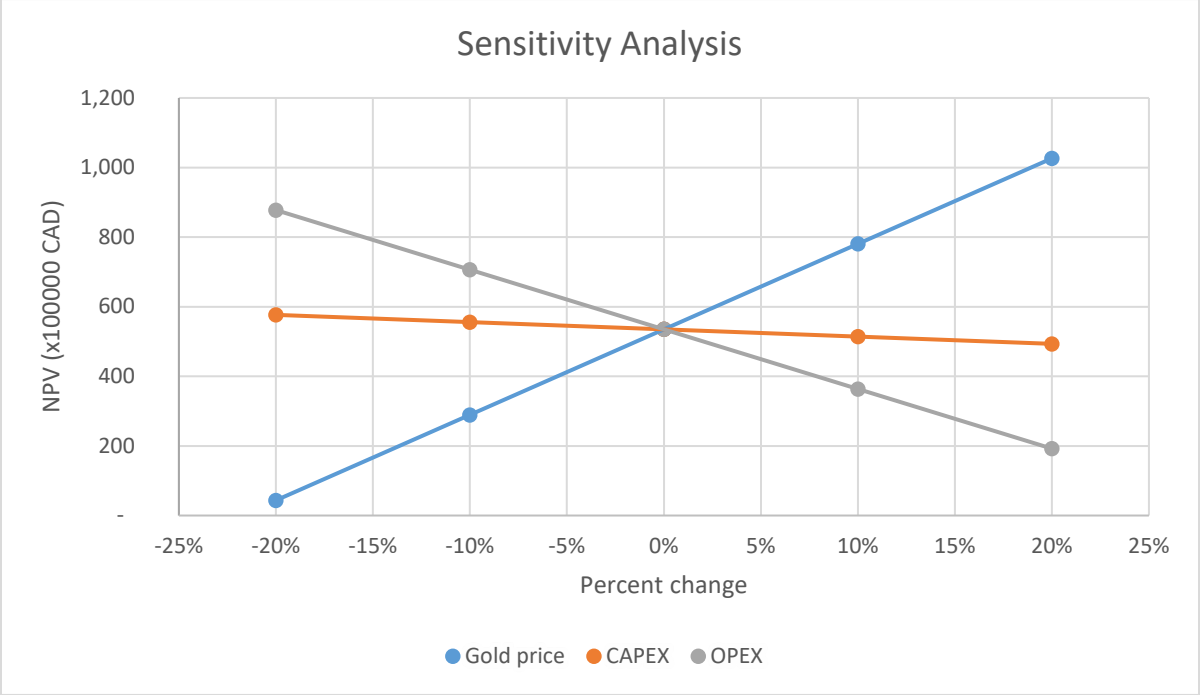


Figure 1: Sensitivity analysis

Table 3: Sensitivity analysis results

Gold price	-20%	-10%	0%	10%	20%
NPV ($)	4,358,000	28,929,000	53,500,000	78,072,000	102,643,000
IRR	-3%	146%	198%	246%	292%
CAPEX	-20%	-10%	0%	10%	20%
NPV ($)	57,665,000	55,583,000	53,500,000	51,418,000	49,335,000
IRR	263%	227%	198%	173%	153%
OPEX	-20%	-10%	0%	10%	20%
NPV ($)	87,778,000	70,639,000	53,500,000	36,361,000	19,223,000
IRR	242%	220%	198%	174%	149%

1.15. Conclusions and Recommendations

Looking at the cash flow results, the Mineral Resources, including Measured, Indicated and Inferred resources, is economic and it is recommended to go ahead with the next study stage which is extensive diamond drilling aiming to convert Inferred mineral resources to eventually enable preparation of a prefeasibility study.

At the time of writing this report, Metanor is drilling additional holes to increase the quantity and quality of resources on the Barry mine site. This additional information should be included in the next study.

GMG has prepared the current PEA for the Barry project and makes the following additional recommendations:

- A topographic surface survey (survey LIDAR Airborne) on the entire Barry property;

- Dewater the pits in order to carry out a detailed survey of the pit bottom topography;

- Geological and detailed structural mapping of the Barry property with a focus on the IP anomalies for an increase understanding of the structural system bearing gold in association with magnetism;

- The author recommends also to carry mineral resource update after drilling to enable preparation of a Prefeasibility Study. The PFS should target an open pit scenario with the mineralized material shipped to the Bachelor mill.

2. Introduction

2.1. Terms of Reference – Scope of Work

Ressources Metanor Inc. (MTO.V) "Metanor" mandated GoldMinds Geoservices Inc "GMG" to prepare this report to support the disclosure of updated mineral resources on the Barry property compliant to the National Instrument 43-101. The report describes a review of the history, geology, samples preparation and data verification of the Barry deposit and provides recommendations for future works. The report presents also the basis and methodology used for modeling and estimation of the resources of the Barry gold deposit from historical and new data.

This technical report was prepared according to the guidelines set under "Form 43-101F1 Technical Report" of National Instrument 43-101 Standards and Disclosure for Mineral Projects. The original certificate of qualification for the Qualified Persons responsible for this technical report have been supplied to Metanor as separate documents and can also be found at the very end of the report.

The scope of work as defined in the mandate of March 2016 includes the production of a NI 43-101 compliant PEA.

2.2. Sources of Information

The information presented in this technical report was delivered by SGS (database until 2009) and Metanor (drillholes database between 2010 and 2014) to GoldMinds Geoservices. GMG based its work on historical and recent data.

The information available to GMG at the time of preparation of this report comprises:

- Historical data (geological and geochemical data);
- Drillholes database of recent drilling campaigns;
- Channel sampling results;
- Composed surface;
- Other documents (legal, environmental and others) were used in the preparation of this report.

2.3. Personal inspection of the property by qualified person

The following persons visited Barry property:

Claude Duplessis P. Eng., Senior Engineer, GoldMinds Geoservices Inc., visited Barry property on two occasions as an independent Qualified Person as defined in the NI 43-101. The initial visit on September 30th, 2010 was to carry out an independent sampling program and an analytical check of the samples for the holes drilled in 2009. The second visit was from April 11th to 15th, 2016, to supervise the start of the drilling campaign, the establishment of a sampling procedure and a QA/QC program.

Merouane Rachidi, P Geo., Ph. D., GoldMinds Geoservices Inc., visited the site from April 11th to May 02nd, 2016. During this time, he supervised drilling, geological logging and he established the sampling procedure and QA/QC program with Claude Duplessis.

Simon Fontaine Jr. Eng., was present at the Barry property from April 11th to May 02nd, 2016 and he assisted Mr. Rachidi P Geo., during the drilling campaign.

2.4. Units and Currency

Quantities and measurements are generally stated in the International System of Units, the standard Canadian and international practice, including metric tonnes (tonnes, t) for weight and kilometers (km) and meters (m) for distance. The reference systems of coordinates used is UTM-18 NAD 83. A local grid system, in meters, is also used by Metanor Resources Inc. Abbreviations used in the report are listed below.

Table 4: List of Abbreviations.

Abbreviation	Description
GoldMinds Geoservices	GMG
Metanor Resources Inc.	MTO
tonnes or t	Metric tonnes
tpd	Tonnes per day
st, ton	Short ton (0.907185 tonnes)
kg	Kilograms
g	Grams
oz	Troy ounce (31.1035 grams)
oz/t	Troy ounce per short ton
g/t	Grams/tonne or ppm
NSR	Net smelter return
ppm, ppb	Parts per million, parts per billion
ha	Hectares
ft	Feet
In	Inches
m	Meters
km	Kilometers
m3	Cubic meters
NTS	National Topographic System
MTM	Modified Transverse Mercator coordinate system
UTM NAD83	Universal Transverse Mercator coordinate system – North American Datum of 1983

3. Reliance on Other Experts

The author of this technical report, Claude Duplessis, Eng., is not qualified to comment on issues related to legal agreements, royalties, permitting and environmental matters. The author relied upon the representations and documentations supplied by Metanor resources. The author reviewed the mining titles, their status, the legal agreement and technical data supplied by Metanor, and any public sources of relevant technical information.

This report was prepared by GoldMinds Geoservices Inc. using the database (until 2009) delivered by SGS Geostat, database (between 2010 and 2014) delivered by Metanor resources (Claude Gobeil, manager exploration) and also the new database from the drilling campaign of 2016 compiled by GMG. Information, conclusions, opinions and estimates contained in this document are based on the information available to GoldMinds Geoservices at the time of writing this report.

This report is to be used by Metanor Resources as a technical report in conformity with the Canadian Securities Regulatory System. Use in whole or of any part of this document by a third party for purposes other than those of the Canadian Provincial Securities Act Legislation will be at the risk of the user.

4. Property Description and Location

4.1. Location

The Barry property is located in the municipality of Senneterre (Abitibi-Témiscamingue region, Quebec province) at 100 km east of Lebel-sur-Quevillon city and 180 km southwest of Chibougamau city (Figure 2). The Barry property centered on UTM coordinates 443,674E and 5,426,517N (UTM-18, NAD 83) on the topographic map (NTS 32B/13, 32G/04).

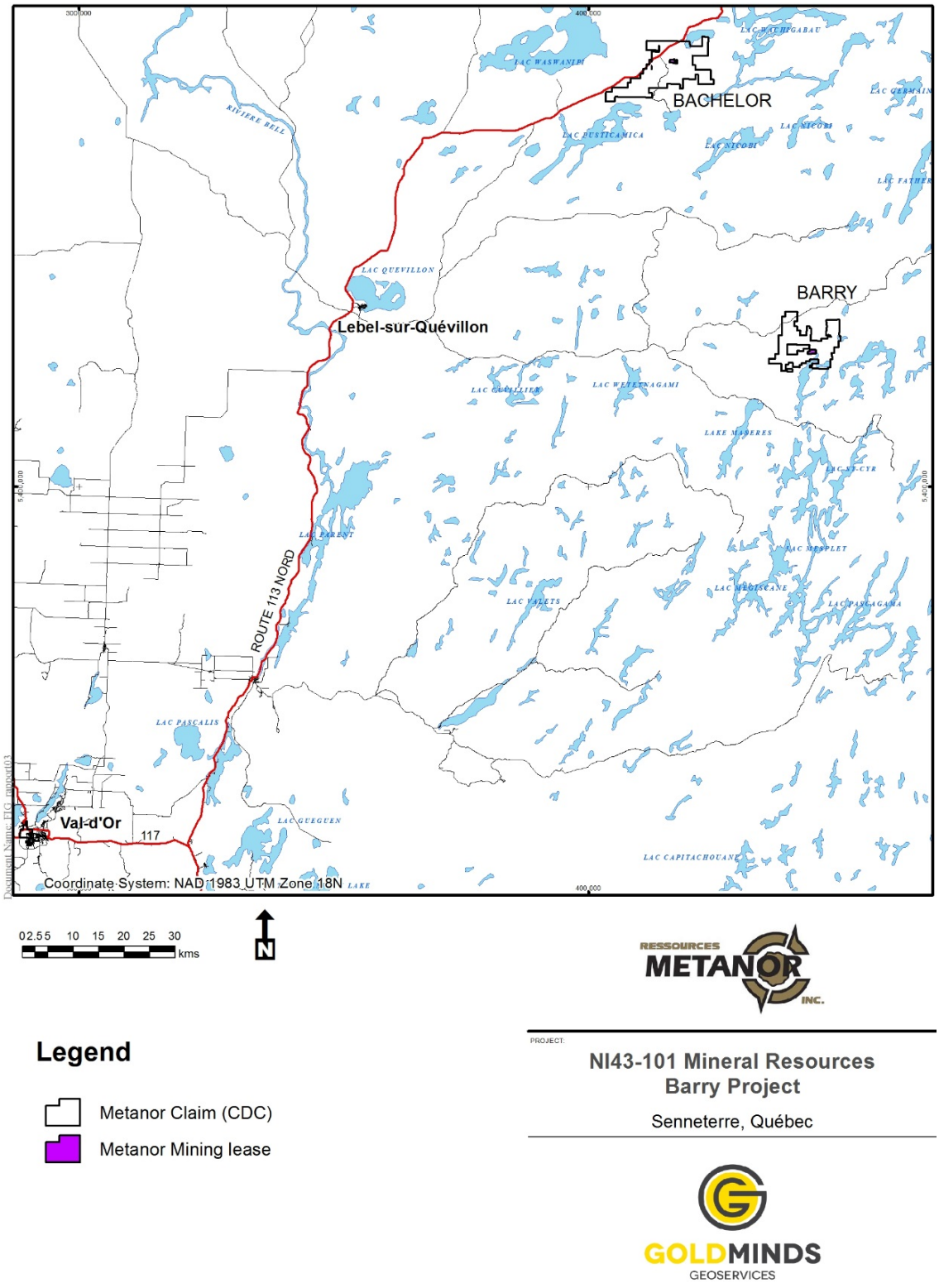


Figure 2: General map with the location of Metanor properties (Barry and Bachelor)

4.2. Property Description, Ownership and Agreements

The Barry property consists of one mining lease (BM 886) covering an area of 112.04 hectares delivered in August 27th, 2008 by the Ministry of natural resources and Fauna. The mining lease is surrounded by 179 claims covering and area of 8,075.16 hectares. The list of mining titles of the Barry property is shown below (Figure 3, Table 5).

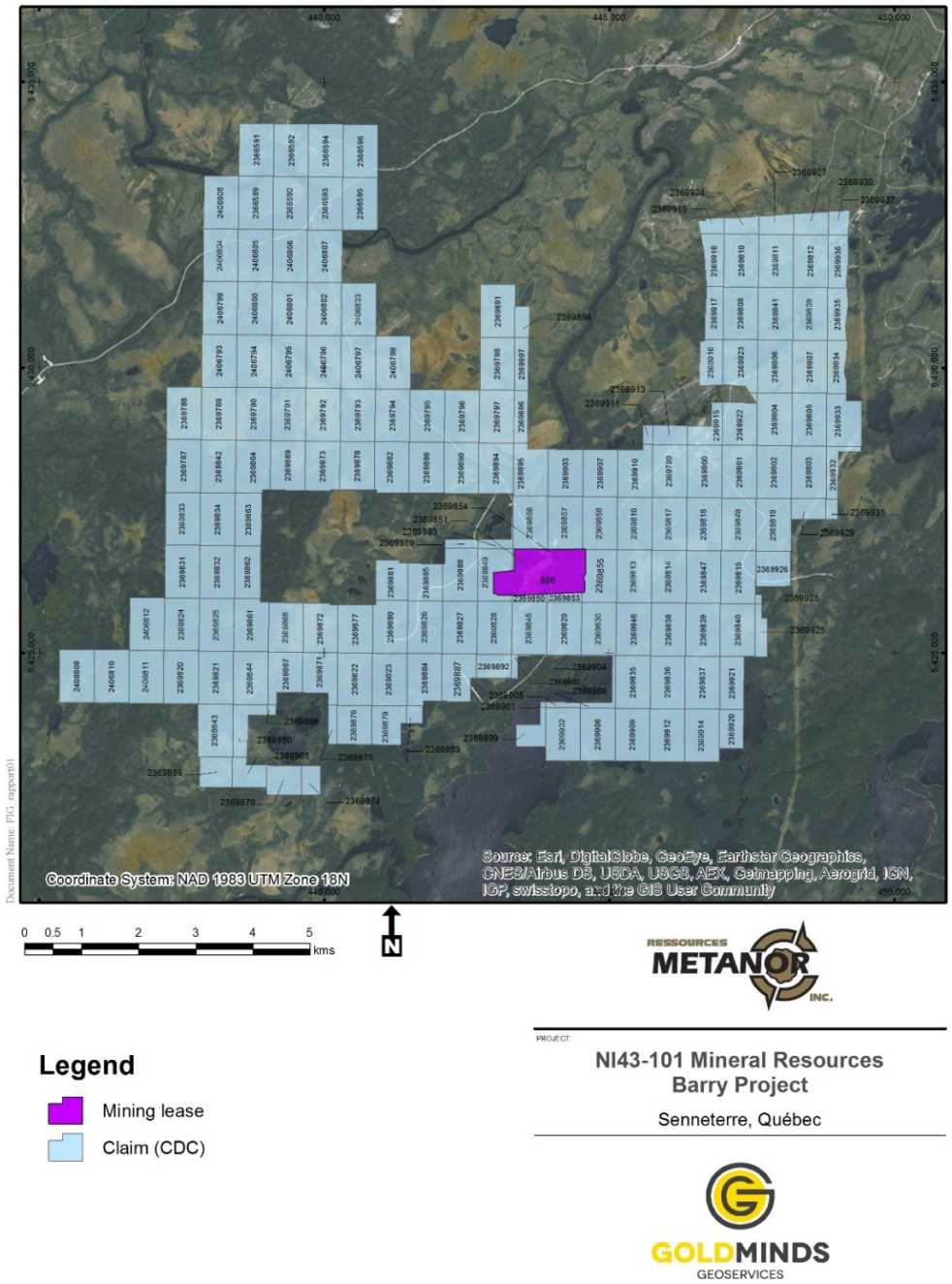


Figure 3: Claims location, Barry project

Table 5: Mining Titles List (1) from MNR GESTIM Mining Title Management System

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32B13	BM	886	Active	2008-08-27	2028-08-26	112,04
32B13	CDC	2369813	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369814	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369815	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369816	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369817	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369818	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369819	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369820	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369821	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369822	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369823	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369824	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369825	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369826	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369827	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369828	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369829	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369830	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369831	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369832	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369833	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369834	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369835	Active	2012-12-03	2018-08-21	56,5

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32B13	CDC	2369836	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369837	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369838	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369839	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369840	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369843	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369844	Active	2012-12-03	2018-08-21	56,5
32B13	CDC	2369845	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369846	Active	2012-12-03	2018-08-21	56,49
32B13	CDC	2369847	Active	2012-12-03	2018-08-21	56,48
32B13	CDC	2369848	Active	2012-12-03	2018-08-21	56,47
32B13	CDC	2369849	Active	2012-12-03	2018-08-21	42,94
32B13	CDC	2369850	Active	2012-12-03	2018-08-21	7,6
32B13	CDC	2369851	Active	2012-12-03	2018-08-21	1,41
32B13	CDC	2369852	Active	2012-12-03	2018-08-21	0,03
32B13	CDC	2369853	Active	2012-12-03	2018-08-21	9,66
32B13	CDC	2369854	Active	2012-12-03	2018-08-21	0,23
32B13	CDC	2369855	Active	2012-12-03	2018-08-21	52,32
32B13	CDC	2369856	Active	2012-12-03	2018-08-21	56,41
32B13	CDC	2369857	Active	2012-12-03	2018-08-21	56,39
32B13	CDC	2369858	Active	2012-12-03	2018-08-21	56,41
32B13	CDC	2369859	Active	2012-12-03	2018-08-21	30,39
32B13	CDC	2369860	Active	2012-12-03	2018-08-21	30,99
32B13	CDC	2369861	Active	2012-12-03	2018-08-21	55,62

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32B13	CDC	2369862	Active	2012-12-03	2018-08-21	42,66
32B13	CDC	2369863	Active	2012-12-03	2018-08-21	43,16
32B13	CDC	2369865	Active	2012-12-03	2018-08-21	27,6
32B13	CDC	2369866	Active	2012-12-03	2018-08-21	2,74
32B13	CDC	2369867	Active	2012-12-03	2018-08-21	46,71
32B13	CDC	2369868	Active	2012-12-03	2018-08-21	52,68
32B13	CDC	2369870	Active	2012-12-03	2018-08-21	31,23
32B13	CDC	2369871	Active	2012-12-03	2018-08-21	46,61
32B13	CDC	2369872	Active	2012-12-03	2018-08-21	52,04
32B13	CDC	2369874	Active	2012-12-03	2018-08-21	17,04
32B13	CDC	2369875	Active	2012-12-03	2018-08-21	10,38
32B13	CDC	2369876	Active	2012-12-03	2018-08-21	41,74
32B13	CDC	2369877	Active	2012-12-03	2018-08-21	51,12
32B13	CDC	2369879	Active	2012-12-03	2018-08-21	38,16
32B13	CDC	2369880	Active	2012-12-03	2018-08-21	56,07
32B13	CDC	2369881	Active	2012-12-03	2018-08-21	39,17
32B13	CDC	2369883	Active	2012-12-03	2018-08-21	8,49
32B13	CDC	2369884	Active	2012-12-03	2018-08-21	53,59
32B13	CDC	2369885	Active	2012-12-03	2018-08-21	39,58
32B13	CDC	2369887	Active	2012-12-03	2018-08-21	46,78
32B13	CDC	2369888	Active	2012-12-03	2018-08-21	55,72
32B13	CDC	2369889	Active	2012-12-03	2018-08-21	8,9
32B13	CDC	2369892	Active	2012-12-03	2018-08-21	25,81
32B13	CDC	2369893	Active	2012-12-03	2018-08-21	11,09

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32B13	CDC	2369899	Active	2012-12-03	2018-08-21	23,32
32B13	CDC	2369900	Active	2012-12-03	2018-08-21	5,79
32B13	CDC	2369901	Active	2012-12-03	2018-08-21	0,94
32B13	CDC	2369902	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369904	Active	2012-12-03	2018-08-21	1,24
32B13	CDC	2369905	Active	2012-12-03	2018-08-21	5,79
32B13	CDC	2369906	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369908	Active	2012-12-03	2018-08-21	12,08
32B13	CDC	2369909	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369912	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369914	Active	2012-12-03	2018-08-21	56,51
32B13	CDC	2369920	Active	2012-12-03	2018-08-21	29,16
32B13	CDC	2369921	Active	2012-12-03	2018-08-21	39,11
32B13	CDC	2369925	Active	2012-12-03	2018-08-21	17,14
32B13	CDC	2369926	Active	2012-12-03	2018-08-21	37,55
32B13	CDC	2369928	Active	2012-12-03	2018-08-21	1,91
32B13	CDC	2369929	Active	2012-12-03	2018-08-21	22,16
32B13	CDC	2369931	Active	2012-12-03	2018-08-21	7,54
32B13	CDC	2406809	Active	2014-06-18	2018-06-17	56,5
32B13	CDC	2406810	Active	2014-06-18	2018-06-17	56,5
32B13	CDC	2406811	Active	2014-06-18	2018-06-17	56,5
32B13	CDC	2406812	Active	2014-06-18	2018-06-17	56,49
32G04	CDC	2366589	Active	2012-11-15	2018-04-16	56,42
32G04	CDC	2366590	Active	2012-11-15	2018-04-16	56,42

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32G04	CDC	2366591	Active	2012-11-15	2018-04-16	56,41
32G04	CDC	2366592	Active	2012-11-15	2018-04-16	56,41
32G04	CDC	2366593	Active	2012-11-15	2018-04-16	56,42
32G04	CDC	2366594	Active	2012-11-15	2018-04-16	56,41
32G04	CDC	2366595	Active	2012-11-15	2018-04-16	56,42
32G04	CDC	2366596	Active	2012-11-15	2018-04-16	56,41
32G04	CDC	2369787	Active	2012-12-03	2018-08-21	56,47
32G04	CDC	2369788	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369789	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369790	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369791	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369792	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369793	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369794	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369795	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369796	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369797	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369798	Active	2012-12-03	2018-08-21	56,45
32G04	CDC	2369799	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369800	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369801	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369802	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369803	Active	2012-12-03	2018-08-21	56,46
32G04	CDC	2369804	Active	2012-12-03	2018-08-21	56,45

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32G04	CDC	2369805	Active	2012-12-03	2018-08-21	56,45
32G04	CDC	2369806	Active	2012-12-03	2018-08-21	56,45
32G04	CDC	2369807	Active	2012-12-03	2018-08-21	56,44
32G04	CDC	2369808	Active	2012-12-03	2018-08-21	56,44
32G04	CDC	2369809	Active	2012-12-03	2018-08-21	56,44
32G04	CDC	2369810	Active	2012-12-03	2018-08-21	56,43
32G04	CDC	2369811	Active	2012-12-03	2018-08-21	56,43
32G04	CDC	2369812	Active	2012-12-03	2018-08-21	56,43
32G04	CDC	2369841	Active	2012-12-03	2018-08-21	56,44
32G04	CDC	2369842	Active	2012-12-03	2018-08-21	56,47
32G04	CDC	2369864	Active	2012-12-03	2018-08-21	55,58
32G04	CDC	2369869	Active	2012-12-03	2018-08-21	52,77
32G04	CDC	2369873	Active	2012-12-03	2018-08-21	52,69
32G04	CDC	2369878	Active	2012-12-03	2018-08-21	51,65
32G04	CDC	2369882	Active	2012-12-03	2018-08-21	54,39
32G04	CDC	2369886	Active	2012-12-03	2018-08-21	54,31
32G04	CDC	2369890	Active	2012-12-03	2018-08-21	54,38
32G04	CDC	2369891	Active	2012-12-03	2018-08-21	56,44
32G04	CDC	2369894	Active	2012-12-03	2018-08-21	54,15
32G04	CDC	2369895	Active	2012-12-03	2018-08-21	52,75
32G04	CDC	2369896	Active	2012-12-03	2018-08-21	22,71
32G04	CDC	2369897	Active	2012-12-03	2018-08-21	22,68
32G04	CDC	2369898	Active	2012-12-03	2018-08-21	13,61
32G04	CDC	2369903	Active	2012-12-03	2018-08-21	50,22

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32G04	CDC	2369907	Active	2012-12-03	2018-08-21	50,59
32G04	CDC	2369910	Active	2012-12-03	2018-08-21	52,01
32G04	CDC	2369911	Active	2012-12-03	2018-08-21	5,85
32G04	CDC	2369913	Active	2012-12-03	2018-08-21	20,75
32G04	CDC	2369915	Active	2012-12-03	2018-08-21	28,3
32G04	CDC	2369916	Active	2012-12-03	2018-08-21	32,7
32G04	CDC	2369917	Active	2012-12-03	2018-08-21	29,04
32G04	CDC	2369918	Active	2012-12-03	2018-08-21	32,06
32G04	CDC	2369919	Active	2012-12-03	2018-08-21	11,61
32G04	CDC	2369922	Active	2012-12-03	2018-08-21	47,01
32G04	CDC	2369923	Active	2012-12-03	2018-08-21	51,2
32G04	CDC	2369924	Active	2012-12-03	2018-08-21	17,89
32G04	CDC	2369927	Active	2012-12-03	2018-08-21	20,69
32G04	CDC	2369930	Active	2012-12-03	2018-08-21	23,53
32G04	CDC	2369932	Active	2012-12-03	2018-08-21	23,43
32G04	CDC	2369933	Active	2012-12-03	2018-08-21	53,09
32G04	CDC	2369934	Active	2012-12-03	2018-08-21	30,91
32G04	CDC	2369935	Active	2012-12-03	2018-08-21	31,61
32G04	CDC	2369936	Active	2012-12-03	2018-08-21	31,87
32G04	CDC	2369937	Active	2012-12-03	2018-08-21	15,34
32G04	CDC	2406793	Active	2014-06-18	2018-06-17	56,45
32G04	CDC	2406794	Active	2014-06-18	2018-06-17	56,45
32G04	CDC	2406795	Active	2014-06-18	2018-06-17	56,45
32G04	CDC	2406796	Active	2014-06-18	2018-06-17	56,45

Sheet	Title type	Title number	Status	Registration date	Expiry date	Area (Ha)
32G04	CDC	2406797	Active	2014-06-18	2018-06-17	56,45
32G04	CDC	2406798	Active	2014-06-18	2018-06-17	56,45
32G04	CDC	2406799	Active	2014-06-18	2018-06-17	56,44
32G04	CDC	2406800	Active	2014-06-18	2018-06-17	56,44
32G04	CDC	2406801	Active	2014-06-18	2018-06-17	56,44
32G04	CDC	2406802	Active	2014-06-18	2018-06-17	56,44
32G04	CDC	2406803	Active	2014-06-18	2018-06-17	56,44
32G04	CDC	2406804	Active	2014-06-18	2018-06-17	56,43
32G04	CDC	2406805	Active	2014-06-18	2018-06-17	56,43
32G04	CDC	2406806	Active	2014-06-18	2018-06-17	56,43
32G04	CDC	2406807	Active	2014-06-18	2018-06-17	56,43
32G04	CDC	2406808	Active	2014-06-18	2018-06-17	56,42

The property is in good standing based on MERN GESTIM claim management system of Government of Quebec.

4.3. Royalty Obligations

On December 14, 2006, the Corporation signed an agreement with Murgor Resources Inc. to acquire a 100% interest in the Barry gold deposit, for a purchase price of $200,000 in cash and a royalty equivalent to 8% of the proceeds of sales of gold produced from the property.

On September 6, 2007, Metanor Resources Inc. has signed an agreement with Murgor Resources Inc. to buy 7% of its NSR royalty on the Barry Gold Deposit. Metanor will also acquire the remaining interest of Murgor in 8 additional claims of the Barry I property. Furthermore, Metanor also acquired 100% interest in the Barry United property, held jointly by Murgor and Freewest Resources Canada Inc. (FWR: TSX-V). Metanor has an option to acquire 70% interest in the Nelligan Property and the terms of the agreement are as follows:

- Metanor will pay $906,250 cash to Murgor on signing of the agreement.

- On signing of the agreement, Metanor will also issue 1,126,375 shares of Metanor to Murgor, based on a price of $0.80 per share for a total value of $901,100.
- Metanor will pay $200,000 cash to Murgor upon production of its first ounce of gold from the Barry deposit as an advance on Murgor's remaining 1% NSR royalty on the deposit.
- Upon production, Metanor will pay a royalty to Murgor equal to 1% of the proceeds from the sale of gold.
- Advances on royalties will be reimbursed to Metanor upon 50% of Murgor's first profits upon production.
- Murgor and Freewest will each retain a 0.5% NSR royalty on the Barry United Property.
- The Barry property is subject to a 1% NSR payable to Murgor. This later was bought by Sandstorm Gold in 2015.

The two portions of the mining lease presented in Figure 4 (hatch section) are subjected to a 3% NSR and both portions can be lowered to 2% in exchange for an amount of 500,000$ each. Furthermore, on each of the two claims block, 0.5% can be bought back from Franco-Nevada and Sandstorm for an additional 1 M$. In summary, for a total of 2M $, the NSR on the entire mining lease can be lowered from 3% to a 1.5%. On the claims hatched in red, SDBJ owns a 2% NSR and Sandstorm owns 1%. On the claim hatched in blue Duval owns a 2% NSR and Sandstorm-Franco-Nevada owns 1%. The author sought legal help to interpret the different contracts binding Metanor and the different parties involved. However, some of the contracts articles are open to interpretation and should be resolved before the completion of the prefeasibility study. GMG made assumption in its financial analysis that NSR could be lowered to 1.5% with purchase of portions of NSR.

Figure 4 presents the NSR applicable to the claims of the Barry property.

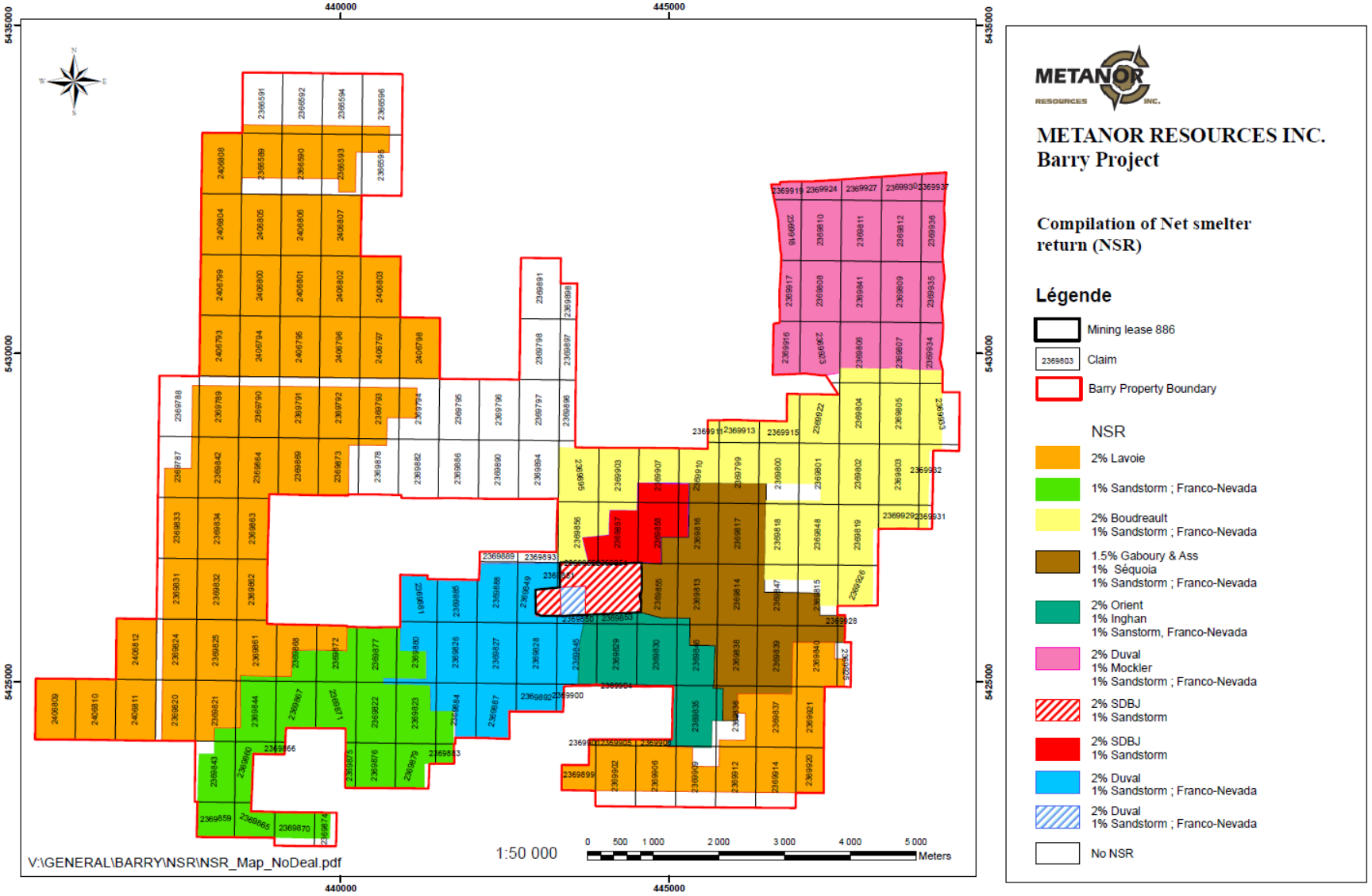


Figure 4: Royalties

4.4. Permits and Environmental Liabilities

In August 2007, Metanor has received its certificate of authorization from the 'Ministère du Développement Durable, de l'Environnement et des Parcs' (MDDEP) for a bulk sampling of 50,000 metric tonnes of ore. In April 2008, Metanor has received the same approval from the Ministère des Ressources Naturelles et de la Faune (MRNF). In July 2008, Metanor has received the certificate of approval of MDDEP for exploitation of 500,000 tonnes of ore. In 2011, Metanor has received the certificate for additional extraction of 1,200,000 tonnes from the Barry property. A deposit for reclamation has been put in place at that time.

A study has confirmed that mineralized and non-mineralized rocks at the Barry deposit are not subject to acid rock drainage.

5. Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1. Accessibility

The Barry property is easily accessible by the provincial paved highway 113, a major regional road linking the town of Senneterre to Chapais, and by a 120 km all-weather gravel road linking the property to the town of Lebel-sur-Quevillon. Many forest roads give access to the different sectors of the property. When the weather conditions allow it, a 110 km long forest road connects the Barry mine site to the Bachelor lake mill.

5.2. Physiography

The topography is generally flat; the bedrock is covered by a relatively thin layer of till, and, in the majority of the surface property, by fir trees and black spruces. The thickness of the overburden varies between zero in the area already stripped to 30 meters. Only a few natural outcrops are present on the property.

The overburden depth on the Barry property is variable, ranging from zero metre to 5 meters thick in the area of the "Main Showing Zone", to over 30 meters in other areas of the property. It is often made up of gravel, large boulders and till.

Topographic relief is weak to moderate, locally up to 50 meters in the northwest part of the property due to outcrop ridges and eskers trending in a NE-SW direction. The southeast part of the property is of very low relief and is poorly drained. Fir trees and black spruces characterize the vegetation in the well-drained part of the property. The more poorly drained parts to the south are covered with spruce, balsam and Labrador-tea.

The site of the Barry I Main Zone Area project presents low relief topography. Primarily black spruce forests, swamps, eskers and small lakes cover the property area. The vertical relief in the area is very low with a mean altitude of 400 meters above sea level. Very few outcrops occur on the property.

Most of the overburden covering the Barry I Main Zone central area has been removed and is stored on the property. The remaining overburden in the Barry I Main Zone Area shows a thickness smaller than 5 meters, according to the present drilling information.

The following fauna was observed at the Ashuapmushuan Wildlife Reserve which is located approximately 100 km to the east of the mine site. Terrestrial fauna includes: moose, black bear, wolf,

fox, hare and lynx. Notable aquatic animals include: Brook trout, lake trout, walleye, northern pike and vendance. Finally, species of bird present on the site include ruffed grouse and spruce grouse.

5.3. Climate

The climatologic data used to characterize the sector under study comes from the meteorological station of Chapais, Québec. These observations were carried out from 1981 to 2010. The following figure (Figure 5) shows minimum, average and maximum monthly temperatures as well as average precipitations per month.

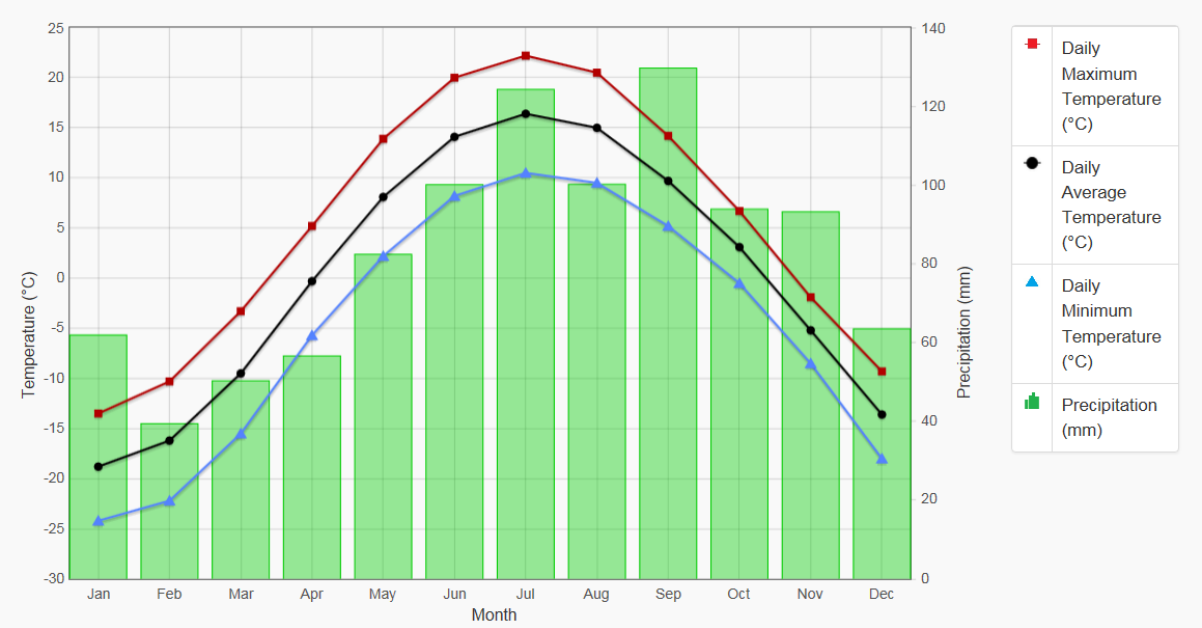


Figure 5: Monthly average temperature and rainfall data

The anemometric data collected in Val d'Or between 1961 and 1990 show that, in this sector, the winds have an average velocity varying between 11 and 14 km/h for an average of 13 km/h during the year with gust speed up to 119 km/h in the summer.

Table 6: Rainfall and snowfall data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Rainfall (mm)	3.2	2.4	8.8	28.7	75.5	100.1	124.3	100.2	128.6	70.9	36.7	5.0	684.5
Snowfall (cm)	58.8	37.0	41.6	29.5	6.9	0.0	0.0	0.0	1.2	23.0	56.5	58.5	312.9

Table 7: Wind data

Month		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Speed	km/h	13	13	14	14	13	13	12	11	13	13	13	12
Most Frequent direction		S	NW	NW	NW	N	SW	SW	SW	S	S	S	S
Gust Speed	km/h	96	89	91	89	89	119	100	84	98	98	89	104
Direction		NE	S	W	S	S	NW	W	SW	S	S	W	SW

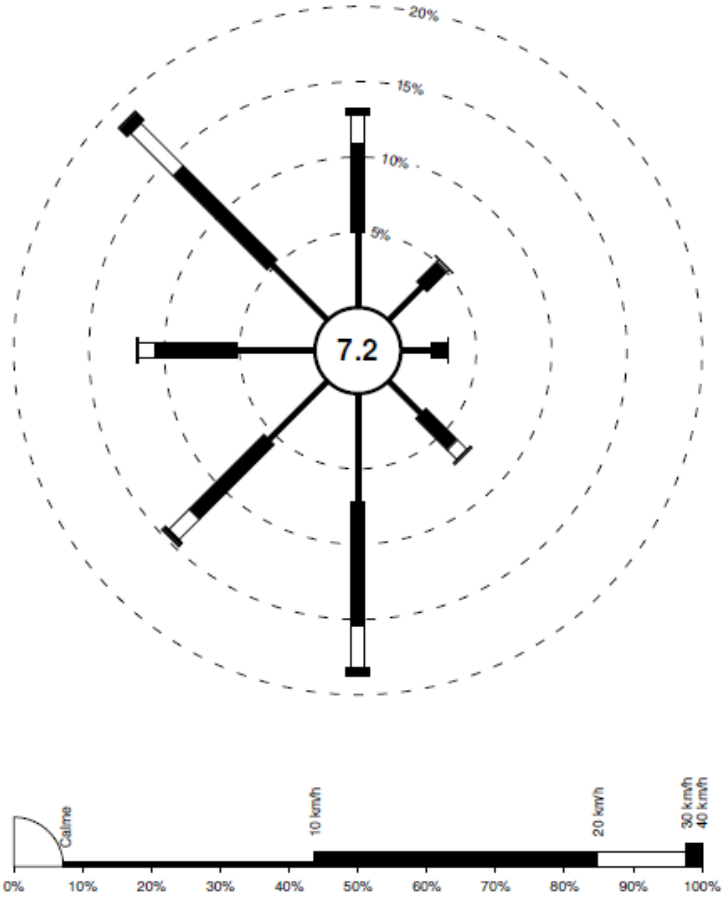


Figure 6: Val-d'or 1971-2000 wind rose

5.4. Local Resources and Infrastructures

The regional resources concerning labour force, supplies and equipment are sufficient, the area being well served by geological and mining service firms. The closest town, Lebel-sur-Quevillon provides the workforce for minor services and the town of Val d'Or and Chibougamau for the possible mine exploitation.

A camp on the property, built in 2007 by Metanor, provides living facilities for 18 persons. Other infrastructures include core logging and splitting facilities, a garage, two diesel generators and surface fuel tanks. All major services are available in Val d'Or, Chibougamau, and minor ones in Lebel-sur-Quevillon.

The construction of the access road, the first camp and the first stripping of the overburden were executed by Murgor between 1995 and 2005 on Barry, and the existing camp and the other infrastructures were added by Metanor and are all kept in a very good condition. It is also important to mention the availability of sand and gravel from an esker crossing the Barry property, if additional material is required.

A major hydroelectric power line of 735kV crosses the eastern part of the property.

6. History

This item was partially taken and updated from the 2010 NI43-101 Report realized under the supervision of Claude Duplessis Eng. (Table 8).

6.1. Summary of previous work

1943	Area mapped by Mimer.
1946-47	Area mapped by Fairbairn and Graham.
1958	Geological survey performed by Geological Survey of Canada.
1961	An airborne MAG-EM survey was performed by Claims Ostiguy.
1962-65	Geology, geophysics and 5 drillholes were completed by Fab Metal Mines LTD.
1981-84	An airborne MAG-EM survey was performed by Questor Surveys LTD. for the Quebec Ministry of Energy and Resources.
1981-83	Prospecting and Geological Mapping was carried out by SDBJ followed by three drillholes.
1983	Mines Camchib completed one hole of 146 meters (MB-83-1 1) at the western edge of the property. No significant assays were reported.
1988-89	Ground MAG and EM surveys were completed by Cominco-Agnico Eagle. Nine drillholes followed.
1990	An evaluation of this property was carried out by Albanel Minerals LTD. and Somine.
1995	Overburden stripping, trench and channel sampling by Murgor.
1995	Detailed mapping and geophysical works realized on the discovery showing.
1995-1996	Murgor drilled 56 holes on the property and sent 167 channel samples for assay.
1997	IP survey, geological mapping, lithogeochemical sampling and drilling of 4,456 meters of core by Teck Exploration, mainly on the Barry I Main property.
2004-2005	Geological interpretation and drilling (61 holes) on the property by Osisko Resources Inc.

2005	Writing of a preliminary assessment study on the Barry property by George McIsaac, eng., M. eng.
2005	Murgor realised one drilling campaign of six holes for 225 m. and a new geological interpretation of the Barry deposit by Murgor's staff.
2006	Drilling by Murgor of 32 drillholes for 1,409 m. and survey of the visible drillholes collars of the Main Zone.
2006-2007	Drilling of 58 drillholes totalling 5,076 m.
2008	Drilling of 79 drillholes totalling 9,413 m.
2009	Drilling of 167 drillholes totalling 19,557 m.
2009	52 kilometers of a complementary resistivity/induced polarization survey. (Press release 2010-02-24).
2010	Drilling of 15 drillholes totalling 4127 meters (Press release 2011-05-31).
2009-2011	223 km of magnetic survey and 195 km of IP survey (Press release 2011-10-04).
2013-2014	Drilling of 38 drillholes totalling 12,197 m. (Press release 2014-10-08).

Table 8: Summary of the previous exploration work on the Barry property

Fab Metal Mines	1962-65	5 drillholes	114 m
SDBJ	1981-83	3 drillholes	264 m
Mines Camchib	1983	1 drillhole	146 m
Cominco-Agnico Eagle	1988-89	9 drillholes	1,461 m
Murgor Resources	1995-96	74 drillholes	7,703 m
Murgor Resources	1995	167 channels	1,203 m
Teck Exploration	1997	15 drillholes	4,456 m
Osisko	2004-05	61 drillholes	2,580 m
Murgor Resources	2005	6 drillholes	225 m
Murgor Resources	2006	32 drillholes	1,409 m
Murgor Resources	2006-2007	58 drillholes	5,076 m
Metanor Ressources	2008	79 drillholes	9,412 m
Metanor Ressources	2009	167 drillholes	19,557 m
Metanor Ressources	2009-2011	Ip survey	195 km
Metanor Ressources	2009-2011	Magnetic survey	223 km
Metanor Ressources	2010	15 drillholes	4,127 m
Metanor Ressources	2013-2014	38 drillholes	12,197 m

6.2. Details of previous work on Barry

The area surrounding the Murgor property was first mapped in the 1940's, but it was not until 1962 that exploration work on the property was first recorded. Exploration in the area has progressed significantly in the last 10 years due to the increased access provided by the expanding network of logging roads.

6.2.1 Work by Fab Metals Mines in 1962-1964

In 1962, Fab Metal Mines, owned by Fred A. Boylen, drilled three short holes totalling 87 meters on the eastern shore of the Macho River outside of the "Main Showing" area. Basalts and feldspar porphyry were intersected, which contained sparse pyrite mineralization and the odd quartz veins.

In 1964, Boylen drilled two additional short holes totalling 37 meters on a zone of strong quartz veining on the west shore of the Macho River. Boylen's drill logs referred to sheared volcanics with quartz tourmaline veins and visible gold. No follow-up work has been done to date on that area.

6.2.2 Work done by Questor Surveys Ltd in 1981-1984

In 1981 and 1984, Questor Surveys Ltd. completed an airborne EM-INPUT and magnetometer survey over the area for the Quebec Ministry of Energy and Resources. This survey (DP 83-08 and DP 85-19A and B) identified several EM anomalies on the Murgor property associated with a strong magnetic conductor.

6.2.3 Work done by SDBJ in 1982-1984

The discovery of the "Main Showing" dates back to 1982 when grab samples taken by SDBJ assayed up to 35 g/t Au. Between 1982 and 1983, SDBJ completed prospecting, line cutting, geological mapping, magnetometer and horizontal loop EM surveys. Three diamond drillholes (83-9, 83-10 and 83-11) totalling 264.5 meters were drilled in the area of the "Main Zone" to test geophysical targets. All the drillholes intersected anomalous gold mineralization, with drillhole 83-9 assaying 4.l g/t over 1.4 meters.

6.2.4 Work done by Mines Camchib in 1983

In 1983, Mines Camchib completed one hole of 146 meters (MB-83-1 1) at the western edge of the property. No significant assays were reported.

6.2.5 Work done by Cominco-Agnico Eagle in 1989-89

In 1988-89, a Cominco-Agnico Eagle joint venture completed magnetic, EM, IP and soil geochemical surveys along with overburden trenching. Nine diamond drillholes (LON-88-l, -2, -3 & LON-89-4, -5, -6, -7, -8 and -9), totalling 1,461 meters, were drilled on the property. The best assay was from drillhole LON-88-3 with an assay of 6.45 g/t over 1.8 meters.

6.2.6 Work done by Murgor resources in 1994

In November of 1994, Murgor optioned the SDBJ claim block as well as the Duval and Boudreault claim blocks. The property was surveyed with magnetic, IP and basal till surveys along with an

extensive overburden stripping and channel-sampling program. Diamond drilling completed by Murgor concentrated on the Barry I Main Zone Area and totaled 56 holes (MB-1 to 56) for 5,918 meters. The Barry I Main Zone Area had been drilled over a strike length of 800 meters and down to a vertical depth of 250 meters. Multiple gold bearing zones were identified with intersections as high as 9.7 g/t Au over 7.7 meters. A mineral inventory was calculated on the Barry I Main by Murgor, which totalled 610,000 t grading 6.8 g/t Au (Tessier, 1996).

6.2.7 Work done by Murgor in 1995

A program of 18 drillholes was completed on the Barry I property between February 20 to April 2 1995. A total of 1,785 meters of NQ core were drilled and 1,516 samples were assayed for gold.

The drilling confirmed the presence of gold. A typical gold zone is composed of alternating sections of auriferous altered volcanics and unaltered volcanics.

The drill results indicate that the mineralized zones are very complicated, and it is impossible to tie together the mineralization on strike and on section. Some features which may help in localizing the gold mineralization could be the folding, contacts, fractures, flexures or intersecting structures.

The conclusions of the work done by Murgor are the following:

The Barry I property is located within a major deformation zone created by overlapping strain aureoles related to the emplacement of two large plutons. The two large plutons flank the greenstone rocks to the northwest and southeast.

The strike orientation of the gold associated deformation zone is 060º (east-northeast). Several gold showings in this area are also associated with this orientation. The dip of the units on the property is 60° south, whereas the plunge is 45° - 50° to the east.

The gold mineralization is typical of an Archean lode gold style with auriferous quartz-carbonate-albite veinlets hosted within highly carbonatized pillowed basalts and basaltic flows. The gold usually occurs as the native element or as inclusions within the pyrite. Hydrothermal fluids have been deposited within fractures rather than shear zones. Very little shearing is evident. 90% of the veinlets have the same dip as the foliation, which is 060° to the south.

Broad zones of Fe carbonate exist, zoned away from the veinlets. Biotite alteration also exists at the immediate contact with the volcanics and sometimes along fractures at right angles within the veinlets. The presence of biotite and the hornfelsic appearance of the volcanics locally suggest a very high fluid deposition temperature.

Some drillholes did not encounter the expected gold mineralization, as the results of previous surface works, suggesting a possible plunge of the main showing.

The same style of veinlets and sulphides observed in the quartz feldspar porphyries did not carry gold mineralization even though they did in the volcanics. This suggested that the QFP was not chemically correct to allow for gold precipitation.

The initial showing corresponds to a coinciding MAG high and IP anomaly.

The greater the vein frequency, the stronger the alteration, the higher the percentage of pyrite and therefore the higher the gold assays.

The veinlets are bulged suggesting a stretching deformation, while the pillows are flattened suggesting a compression deformation.

6.2.8 Work done by Teck option during 1997

A total of 4,456 meters of diamond drilling in 15 drillholes were completed on the Murgor property between June and August of 1997. This drilling tested the extensions of the auriferous Barry I Main Zone and parallel or faulted off structures to the north.

- Drilling

A total of six holes were drilled by Teck (MB-57 to MB-62 and MB-68 to MB-71) on the property. These holes tested the extension of the gold mineralization hosted in the Barry I Main Zone, along a strike of 800 meters and down to a vertical depth of 325 meters below surface. The gold mineralization was intersected in mineralized corridors in a variety of stratigraphic units. The most significant areas in order of importance include:

1. Altered basalts at the hanging wall contact of the quartz-feldspar-porphyry.
2. Basalts at the footwall contact of the quartz-feldspar-porphyry.
3. Basalt-gabbro to the north of the quartz-feldspar porphyry.

4. Quartz-feldspar porphyry.
5. Massive basalt unit to the south of the quartz-feldspar porphyry.
6. Brecciated basalt unit.

Sections with anomalous gold mineralization were identified in the quartz-feldspar-porphyry unit, the brecciated basalt unit, the more massive basalt unit to the south of the quartz- feldspar-porphyry and in the massive basalt-gabbro unit to the north of the quartz-feldspar-porphyry. Assay results for these zones were as high as 3.49 g/t Au over 1.8 meters. The gold mineralization in these corridors was commonly present as sheared and altered zones close to small quartz-feldspar-porphyry sills.

The diamond drilling did confirm that the mineralized system at the Barry I Main Zone Area is large, and the zone was intersected in virtually every hole. Although the mineralization remains open in all directions, the drilling shows that on a detailed scale the gold bearing zones are represented by numerous smaller lenses. Based on previous surface stripping and close spaced shallow drilling the size of individual mineralized lenses may only be in the order of 45 meters in strike.

The diamond drillholes MB-63 to MB-67 targeted a chargeability anomaly and associated magnetic high parallel and to the north of the Barry I Main Zone. The only significant assay from this shallow diamond drilling was from hole MB-64, which assayed 1.73 g/t Au over a core length of 1.6 meters. The gold mineralization encountered in this area is similar in style to that encountered at the Barry I Main Zone, and is associated with biotite-carbonate alteration, quartz-carbonate veining and disseminated pyrite. The assay quoted above in drillhole MB-64 is from the contact of a small quartz-feldspar-porphyry unit.

- Surface Mapping and Sampling

A program of surface mapping and outcrop sampling was completed on the property concurrently with the diamond-drilling program in the summer of 1997. A total of 52 samples were analyzed for gold. Of these, 27 samples were also analyzed for major and minor elements. The highest gold assay from a surface grab sample outside of the Barry I Main Zone Area was 2.01 g/t Au. This sample was taken from a small pit, located approximately 150 meters to the north of the Barry I Main Zone, which corresponds to the northern IP conductor drill tested with holes MB-63 to 67. The IP anomalies are due to the presence of disseminated pyrite and local stringers of magnetite.

A significant amount of quartz veining with rare pyrite mineralization was located in outcrops close to IP chargeability anomalies in the northern part of the property at L23+85E, l2+75N and in the eastern part of the property at L4l+85E, 7+105. The quartz veins in the northern part of the property on L23+85E were also found to contain up to 5% of a mineral identified as geikielite (MgTiO3), which has been found to be locally associated with gold mineralization in the Val d'Or mining camp.

- Geophysical IP survey

A dipole-dipole array IP survey was realized over 53 km, covering portions of the property not covered by previous surveys. Several moderate to strong chargeability anomalies were outlined in the northern and eastern parts of the property.

Two of the 12 anomalies defined by previous surveys correspond to the known sulphide mineralization; i.e. the Barry I Main Zone Area and the zone 150-200 meters to the north. These 17 anomalies are characterized by strong chargeability, background resistivity signatures and are associated with magnetic highs. Both of these anomalies, each approximately 1,000 meters in length, appear to have been offset by an E-W trending structure with a sinistral movement. The chargeability highs are due to finely disseminated pyrite (3-7%) and lesser pyrrhotite and magnetite.

Based on the recent IP survey, there exists up to six separate IP (chargeability) anomalies in the northern and eastern parts of the property. Individual IP anomalies can be traced over strike lengths of up to 2,000 meters. All are untested by diamond drilling and no outcrops are present in the area of the anomalies.

IP surveying has proven to be the most useful geophysical technique in the Urban-Barry Volcanic Belt. It works well in identifying and locating the disseminated style of the sulphide mineralization associated with the gold mineralization.

- Litho-geochemistry results

Systematic core sampling at 30 meters intervals, for 160 samples, was completed on all drillholes. The samples were analyzed for 10 major oxides, loss on ignition and a 32 elements package by ICP. Alteration trends were appraised through bulk chemistry methods designed to monitor relative enrichment-depletion patterns of mobile elements typical of gold deposits.

The basaltic rocks are of tholeiitic to transitional affinity as defined by immobile element plots. Three populations of chemically different rock units were identified from various X-Y plots using AL_2O_3, $Ti0_2$, and Zr concentrations. These included quartz-feldspar porphyry, basalts and plagioclase-phyric basalts or feldspar porphyries. No significant geochemical difference could be established amongst the various subunits of basalts and gabbros.

Though the most significant gold intersections were hosted within the basalts, the quartz-feldspar-porphyry unit commonly showed a higher background concentration of gold. Median gold levels in the basalts are of 6 ppb while, in the quartz-feldspar-porphyry, the values were almost four times higher at 23 ppb. The mineralized zones within the basalts do not show any significantly large alteration haloes identifiable by geochemical anomalous gold values or associated pathfinder elements. The gold mineralization is restricted to the quartz veins and their borders.

- The conclusions on the work done by Teck option during 1997 are the following:

The mineralized corridors do however remain open in all directions. The continuity and size of these individual higher-grade zones are difficult to establish and appears erratic. No significant increase in the gold grade was observed along strike or at depth.

The Murgor property covers iron rich basalts intruded by quartz-feldspar porphyry, both of which are favourable hosts for gold mineralization. Mineralization at the Barry I Main consists mainly of sheeted auriferous quartz-carbonate-albite veins aligned parallel to the regional foliation at 060°. A second set of contemporaneous quartz-carbonate-albite veins is also present, oriented at 020° parallel to the Milner Shear Zone.

6.2.9 Work done by Osisko option during 2004-2005

A total of 61 drillholes, for 2,580 meters, were drilled mainly on the Barry I Main Zone Area by Osisko Resources Inc. during the June 2004 and February 2005 periods. A partial survey of the drillhole collars was carried out during this period. Only the computerized version of the drill logs was available for this study. One database including all the computerized data on the Barry property was prepared and kept up to date. No other document prepared by Osisko was given to Murgor.

The staff of Osisko described a new interpretation of the mineralized deposit according to the information retrieved from the new drillholes. Following their study of the gold potential for that

deposit, they released their option to concentrate their efforts on another deposit of larger tonnage. The size of the Barry deposit does not fulfill their requirement for a large deposit to exploit.

6.2.10 Work done by Murgor during 2005-2006

Six drillholes totalling 225 meters were drilled mostly on the Barry I Main Zone by Murgor during December 2005. A new geological model interpretation was developed according to the new data and tested by three drillholes, as required by Geostat Systems International. These drillholes confirmed the presence of gold mineralization. The three others aimed to add tonnage to the Barry I Main and to test a high-grade target in the southwest part of the Barry I Main Zone. One database was created and verified by Geostat's staff. The position of the collars had to be surveyed. The data of five of the previously drillholes were not found. All the assays greater than 1 g/t Au were checked when the assay certificates were available. A new resource estimate was calculated from the new geological interpretation and aimed at defining resources possibly mined by open-pit. They were estimated by inverse distance using a maximum of 10 composites of 1.5 meters of length.

The Barry I Main Zone Area property, as per February 6, 2006 and including holes drilled in December 2005, i.e. 162-167, contained a total of 27,800 ounces in the indicated category and 18,700 ounces in the inferred category, at a cut-off grade of 2 g/t Au.

6.2.11 Work done by Murgor during 2006

A second drilling campaign was executed in the first months of 2006. A total of 32 holes were drilled (totalling 1,409 m) on the Main Zone and tested the SW extension of the Main Zone Area and the Zone 43.

This new drilling campaign permitted to better define the extension of the mineralized zone inside the Main Zone Area and to verify the southwest and northwest extensions of the Main Zone. Some of the holes drilled tested the extension of the Zone 43 located southwest of the Main Zone. They intersected this zone at a depth of up to 50 meters and the known southwest - northeast extension is 130 meters long.

A new interpretation of the mineralized zones and an update of the previously estimated resources were performed. The resource estimate aimed to define mineralization exploitable by open-pit mining.

This new design included the mineralized zones from the Main Zone, the zones 43 and 45, and the southwest extension of the Main Zone.

6.2.12 Work done during 2006-2007

A new drilling campaign was completed with a total of 58 holes (total of 5,076 m) drilled on the Main Zone and tested the east, north and south deeper extensions of the Main Zone Area and the Zone 43. A total of 4,988 samples were sent to the lab for gold analysis.

This new drilling campaign permitted to better define the extension of the mineralized zone inside the Main Zone Area and to verify the extensions of the Main Zone.

A new interpretation of the mineralized zones and an update of the previously estimated resources were performed. The resource estimate aimed to define mineralization exploitable by open-pit mining. This design comprised of the mineralized zones from the Main Zone, the zones 43 and 45, and the southwest extension of the Main Zone.

6.2.13 Work done during 2008-2009

In 2008, Metanor completed a drilling campaign of 79 holes (MB-08-258 to MB-08-337) for a total of 9,412 m on the property in order to increase the geological resources of the main mineralized zone and to evaluate the potential at shallow depth of mineralized zones located in the extension towards west of the open pit (Main zone). The majority of those diamond drillholes intersected the extensions of the gold bearing zones of the East zone and the West zone. A total of 5954 samples was taken and analyzed for gold.

Metanor also extended the stripped zone towards the west over a distance towards west of approximately 270 m and over a width of approximately 80 m, between the sections 1015 E and 745 E, allowing to expose on surface approximately 21,500 m^2 of volcanic rocks and an intrusive granitic unit which host the known gold bearing zones. A systematic channel sampling of the new exposed area with spacing of 5m of the north-south lines resulted in a total of 2280 samples taken and analyzed for gold.

In 2009, 167 holes (MB-09-338 to MB-09-504) were drilled for a total of 19,557 m. This drilling program investigated certain sectors of the Main zone, particularly in the extensions at depth of the

Main zone, of the Center zone which represents the extension towards the west of zone 43, the extension of the mineralized zones occurring to the south and between the Main zone (current Pit) and the West zone.

A total of 14,336 samples were sent to the lab for gold assay. In this program, 62 holes were drilled (MB-09-344 with MB-09-399) for a total of 6,550m. This allowed to extend the West zone up to the surface and to consider its extraction by mining with open pit, and also allowed to extend the Main zone of several tens of meters towards the west in the direction of the granitic intrusion.

Then, a bulk sample of 50,000 tonnes was completed in 2007-2008 and a stage of pre-production began on the East zone of the Barry deposit with an aim of evaluating certain mining parameters of the mineralized zones and the profitability of mining these zones according with the choice of mining methods. Given the lack of information at a shallow depth on many sections, the advance in the open pit continued towards the west on several benches at the same time in order to check the continuity at depth of mineralized zones.

6.2.14 Work done during 2009-2011

Metanor has mandated Abitibi Geophysique in 2009 to carry out an Induced Polarization (IP) survey covering parts of the Barry United claims, the Barry Center claims & the Barry West Extension claims of the Barry property. This allowed to detect several anomalies which may coincide with gold bearing zones similar to the Barry deposit.

Between October and December 2009, a complementary resistivity/induced polarization survey was carried out by Abitibi Géophysique on parts of the Barry property. Fifty-two (52) kilometres of IP survey (dipole-dipole, a=25m, n=1 to 6) were carried out to cover extensions of the preceding IP surveys on parts of the Barry United, Barry Center and on the northern block of the Barry Extension West properties. In this area, the Urban volcanic formation is northeast trending and contains several N030° to N045° trending anomalies which are characteristic of disseminated to massive sulphide mineralization.

Magnetic and resistivity/induced polarization surveys were carried out by TMC Géophysique of Val-d'Or on parts of the Barry property. Two hundred twenty-three (223) kilometers of magnetic survey and one hundred ninety-five (195) kilometers of IP survey (dipole-dipole, a=25m, n=1 to 6) were carried out to cover extensions of the preceding IP surveys on parts of the Barry United and Barry

Extension East properties. In this area, the Urban volcanic formation is northeast trending and contains several 30o to 45o trending anomalies which are characteristic of disseminated to massive sulphide mineralization.

A total of eighty-nine (89) IP anomalies were detected as new anomalies or like extensions of the anomalies were detected during preceding surveys bringing the total to over 150 anomalies on the property to date. They were correlated with the magnetic pattern oriented WSW-ENE and are numbered BU-1 to BU-23 on the west block and BU-24 to BU-89 on the east block.

On the Barry property surrounding the mining concession, several IP anomalies characteristics of gold bearing mineralization of the vein type were localized on the edge of a resistive zone located to the south-west of the Barry deposit. This resistive zone has the signature of a series of quartz and feldspar porphyry intrusions (QFP) which hosts the various gold bearing bodies constituting the Barry mine (Main zone, zone 43, Center zone and zone 48). These mineralized zones are located to the east of a porphyritic intrusion and in a major deformation corridor (Mazère fault), oriented N060°. Several IP anomalies with strong intensity, similar to those defining the gold bearing zones of the Barry mine, are within or at the edge of the western resistive zone which represents a very promising environment for the search of gold bearing zones of the same type and in the prolongation of those of the Barry mine.

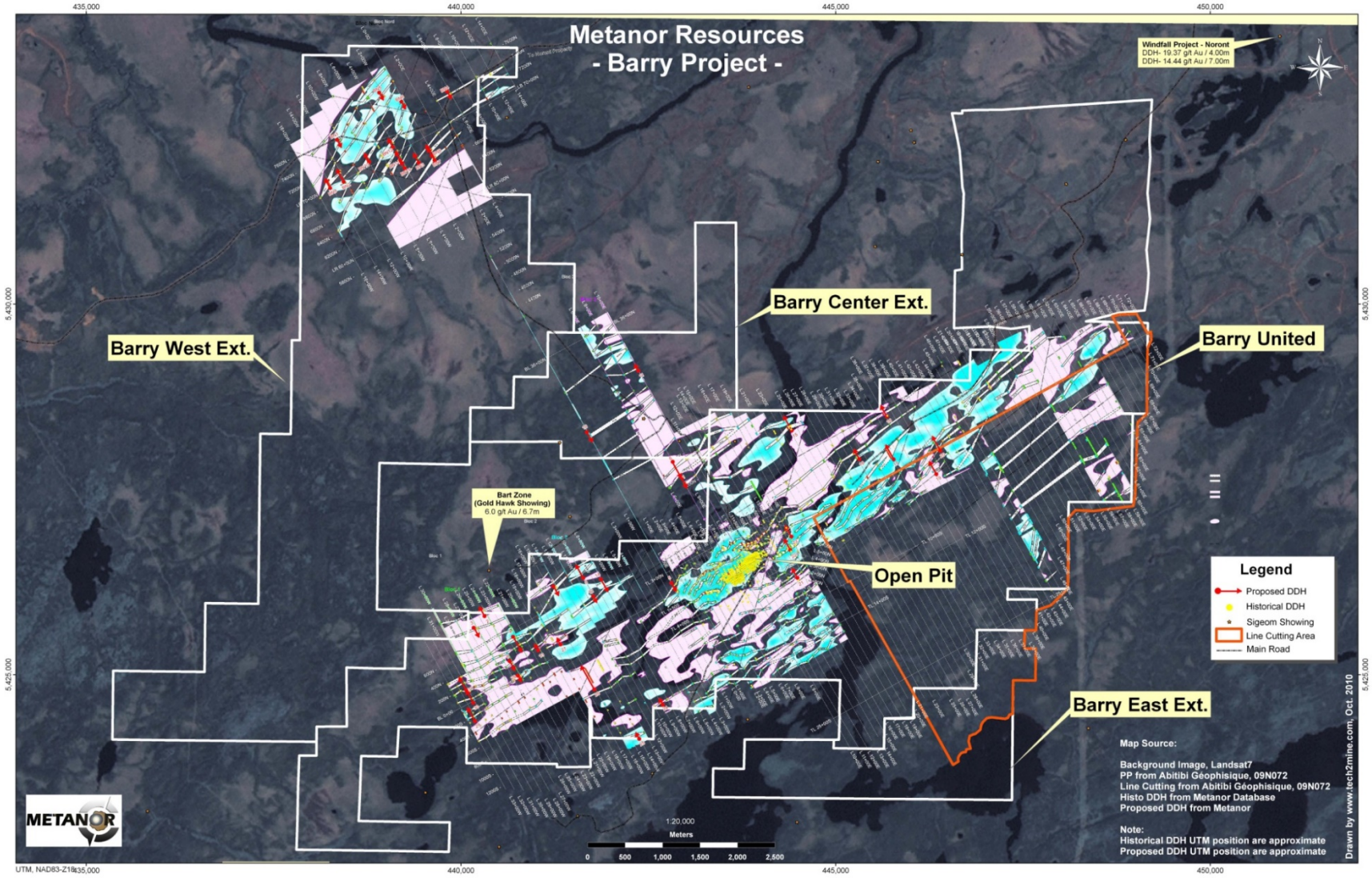


Figure 7: Landsat map of PP from Abitibi Géophysique (November 2009) on the Barry property

6.2.15 Work done during 2013-2014

In 2013-2014, Metanor completed a drilling campaign of 38 diamond drillholes totalling 12,197 meters on the property in order to investigate some of the 153 IP anomalies detected between 2009 and 2013. The holes have been drilled at distances ranging from more than 1 km up to 7 km from the Barry deposit. The drilling campaign enabled Metanor to investigate two known gold areas (Goldhawk and Moss) to confirm their extension laterally and at depth. It also enabled them to discover 5 new sectors with gold mineralization.

- NW Extension block

A series of subparallel IP anomalies, often with a strong intensity and oriented to the northeast, have been detected in a large deformation corridor of approximately 1.5 km in width. These IP anomalies extend over large distances and coincide with deformation zones containing disseminated to massive sulphides in volcanic units and associated intrusive sills. Five (5) diamond drillholes totalling 1,967 m have intersected many fractured zones containing variable amounts of pyrrhotite and chalcopyrite. A mineralized fault zone has returned anomalous gold values over 16.6m, including an intersection of 0.5 g/t Au over 3.0m (BE-13-03). This mineralized zone has returned several anomalous gold values including an intersection of 3.16 g/t Au over 0.4m (BE-13-04) approximately 750m towards the south-west and an anomalous gold intersection of 0.20 g/t over 8.10m (BE-13-06) approximately 1km further southwest. These results are encouraging and guarantee the continuation of exploration work in this area.

- Goldhawk-Oracle Block

The Bart zone has been investigated to the west and to a vertical depth of 160m with diamond drillhole MB-13-01 which has intersected an heavily mineralized pyrite zone with a gold-bearing intersection of 25.80 g/t Au over 5.6m. The future exploration works should allow the extension of the mineralized gold zone located approximately 3.5 km west of the Barry mine even further to the west. A series of strong IP anomalies have been investigated to the east end of the property and coincides with several subparallel mineralized zones containing pyrite-pyrrhotite and having returned anomalous gold values over widths reaching 10.7 m. A strong IP anomaly oriented east-west located at the south end of the property has been investigated and corresponds to a pyrite rich zone that has returned a gold-bearing intersection of 1.96 g/t in over 2m, including 3.39 g/t Au on 1.0 m.

- Block Moss

A series of IP anomalies crossing the whole claim block over a width of 500 m and located immediately to the west of the Eagle Hill Exploration property have been investigated on a lateral distance of 2 km. In this deformation corridor, several mineralized zones associated with felsic units are altered, fractured and injected with pyrite-quartz veins which have returned anomalous gold intersections over widths of up to 9.5 m at the north-eastern end and up to 300m along the south-west extensions. The longest gold intersection has been obtained in diamond drillhole MB-14-22 which intersected to a vertical depth of 30 m, a mineralized zone returning 2.14 g/t Au over 19.4m, including 5.28 g/t Au over 7.8 m. Approximately 500 m further to the south-west along the deformation corridor, diamond drillhole MB-14-21 has also intersected significant gold mineralization returning anomalous values over a width of 300m including gold intersections of 18.20 g/t Au on 0.5m and 3.39 g/t Au on 1.2m.

- Barry SE Extension

At the east end of this claims block in contact with the Bonterra property, a section of several diamond drillholes was designed to investigate a series of very strong IP anomalies which extend toward the northeast in a large deformation corridor of nearly 1 km in width. These anomalies coincide with sericite-carbonate-quartz mineralized zones containing variable amounts of pyrite-pyrrhotite and chalcopyrite. All These diamond drillholes have all returned at least one gold intersection with anomalous values over widths of up to 9.9 m (MB-13-04) and the best intersection was obtained in the diamond drillhole MB-13-10, which returned 2.38 g/t Au over 3.0 m. The type of alteration observed in this fractured and mineralized belt is similar to the one that found at the Barry mine and this mineralized zone may represent the northeast extension of the mine displaced towards the south by a north-west striking fault.

- Barry United SW Block

A series of IP anomalies extends in a northeast direction over a width of approximately 500 m up to the south-west limit of the property situated approximately 6 km away from the Barry deposit. In this area diamond drillholes have all intersected fractured locally sheared and mineralized pyrite-rich zones. The best gold intersections have been obtained in hole MB-13-14 which returned 14.8 g/t in over 0.5 m 1 km to the south-west of the Barry deposit, in the hole MB-13-16 which returned an intersection of 2.94 g/t in over 0.5 m 1.5 km to the south-west of the Barry mine and in the hole MB-13-19 which

has returned an intersection of 11.75 g/t Au over 0.9m approximately 5 km south-west of the Barry mine. These really spaced gold intersections were obtained along the south-west extension of the Barry deposit and indicate the possibility of finding significant gold mineralization in those areas which certainly require additional exploration work.

7. Geological Setting

Most of the information in this section was taken from the report RG 2001- 14: Geologie de la region des lacs Piquet et Mesplet, (32G/04 and 32B/13) and from the 2010 NI43-101 report realized by SGS Geostat.

7.1. Regional Geology

The Barry project is located in the Urban-Barry belt in the Northern Volcanic Zone (NVZ) of the Abitibi greenstone belt. The Urban-Barry belt is an E-W trending band of mafic to felsic volcanic and volcanoclastic rocks. The belt extends one hundred thirty five (135) kilometres along strike and has a maximum thickness of twenty (20) kilometers, the belt is bounded to the north, south and west by granitoid batholiths and towards the east by the Grenville geological province. The geology of the Urban-Barry belt and Lac aux Loutres region has been described by Milner (1939 and 1943), Joly (1990) and Bandyayera et al. (2002, 2003, 2004a, 2004b).

The geology of the property is composed of mafic volcanic flows, co-magmatic gabbro sills, local felsic flows, lapilli and welded tuffs, sedimentary rocks intruded by tonalite to granodiorite plutons, diorite dykes and feldspar and/or quartz porphyry dykes (Figure 8). These rocks were deformed during the Kenoran orogeny (Card, 1990; Goldfarb et al., 2001), giving them a dominant east-west trend (Chown et al., 1992). The regional foliation generally strikes NE to ENE with a variable dip from 30 to 85º SE (Hocq, 1989; Joly, 1990).

The rocks on the property are overprinted by a weak to moderate NE-SW trending foliation (S2) that is parallel to the regional shearing and the contacts of the large granitic intrusions (Chown et al., 2002).

Regional metamorphism is typically in the lower greenschist facies except for the easternmost part of the belt, where a lower amphibolite facies is encountered and related to the Grenville Front.

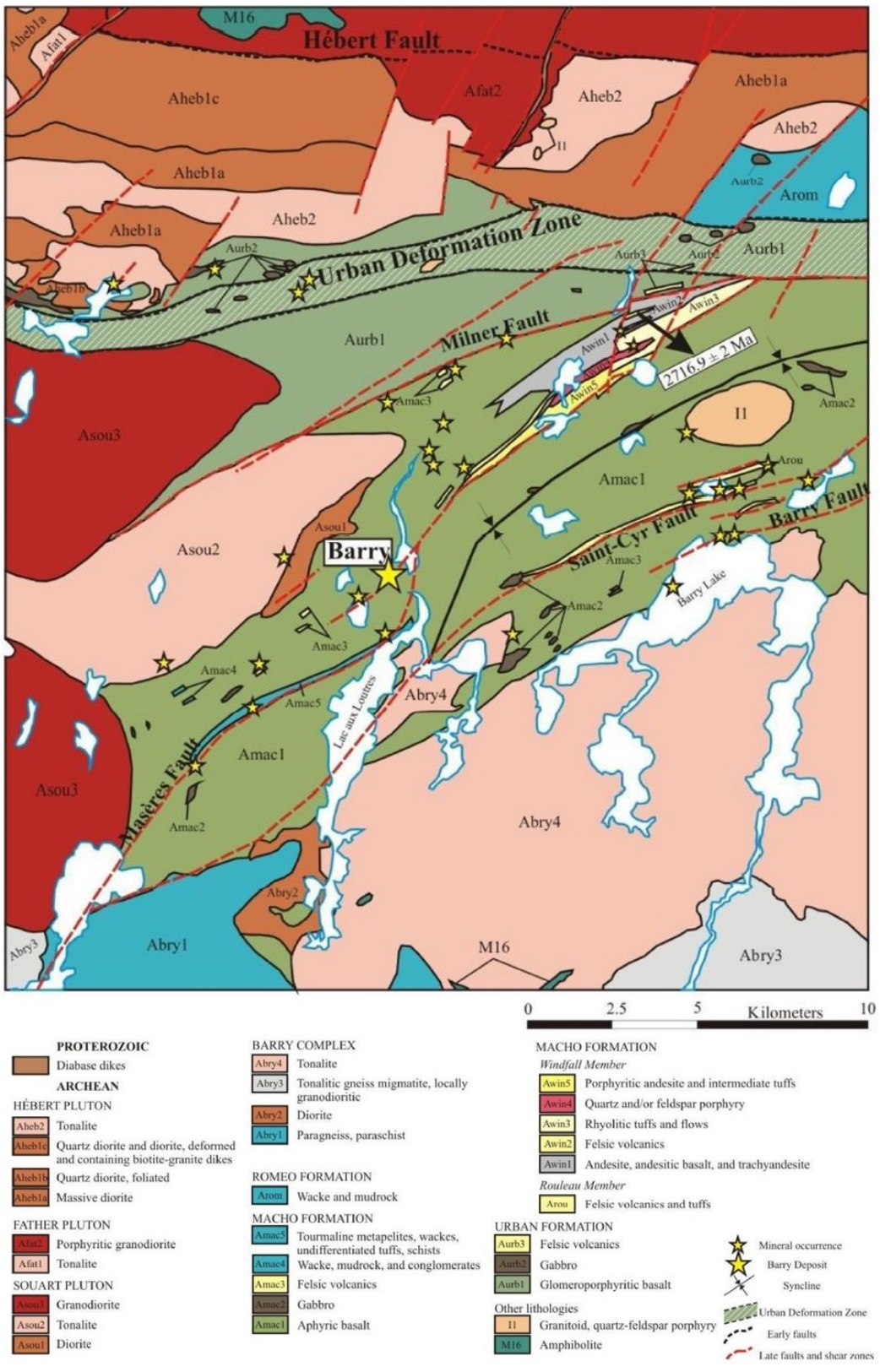


Figure 8: Geological map of the Urban-Barry belt (SNRC 32G/04 and 32B/13), map (Bandyayera et al., 2002)

7.2. Property Geology

- Geology

The Urban-Barry belt mainly comprises of mafic volcanic rocks and isolated felsic volcanic rocks with ages ranging from 2791 Ma to 2707 Ma (Rhéaume and Bandyayera, 2006) interbedded with, or overlain by, volcanoclastic sedimentary rocks (Figure 8).

Geological mapping and diamond drilling identified a series of basaltic flows that are interpreted to cover over 90% of the property. The only intrusive bodies identified on the property were the quartz-feldspar porphyry in the area of the Barry I Main Zone Area and a series of gabbro sills to the north. An outcrop of siltstone was identified approximately 300 meters northeast of the Barry I Main Zone. Stratigraphic tops are to the southeast, as indicated by pillow facing directions.

The mafic volcanic rocks are the most common rocks on the property and consist of dark green, fine-grained, iron-rich tholeiitic basalts. The mafic volcanic rocks in the area of the Barry I Main Zone Area vary from generally non-magnetic to locally strongly magnetic with up to 5% disseminated magnetite crystals and less commonly stringers of magnetite. These rocks are intruded by a series of porphyritic to granitic felsic dykes or sills. They are grey to pink in colour and contain up to 50% white feldspars, 15% blue quartz and 10% biotite phenocrysts ranging in size from 2 to l0 mm. The quartz-feldspar porphyry varies in colour from a fresh looking medium grey, to a reddish tint (due to hematization), to a bleached light grey (due to strong silicification, Figure 9). The quartz-feldspar-porphyry is “sill like”, maintaining a general stratigraphic position within the volcanic pile, while, at the same time, it can be seen crosscutting the volcanic stratigraphy on surface. The thickness of this unit varies from several meters to over 125 meters.

The volcanic rock units are locally intruded by a series of quartz feldspar porphyry (QFP, Figure 9) dykes and minor altered mafic dykes and sills (Figure 9). During 2006, Murgor has identified three (3) different phases of porphyry intrusions within the Main Zone of the Barry gold deposit. The different phases are distinguished by their grain size and by their percentage of quartz and plagioclase.

a) The first porphyry intrusion, called "crowded", contains 40% quartz, up to 50% plagioclase, and 10% mafic minerals (biotite, hornblende and chlorite) with a grain size generally smaller than 1.5 millimetres. It varies from a porphyritic texture to an equigranular texture. This porphyry intrusion phase forms a sill-like body dipping between 20 and 40 degrees to the

southeast and reaches a maximum thickness of 70 meters around section 900 E, where it splits the main Barry gold zone.

b) The second porphyry intrusion, called QFP 1, contains 10-15% quartz and 15- 35% plagioclase. Its texture is clearly porphyritic with a grain size reaching up to 3 millimetres. It forms a 5-15 meters thick sill-like body, sub-parallel to but deeper than, the "crowded" porphyry intrusion.

c) The third porphyry intrusion, called QFP 2, is characterized by less than 5% quartz and 10-25% plagioclase with a grain size of 2 millimetres This intrusion phase is characterized by narrow dykes oriented N060 degrees and dipping at 50 to 60 degrees to the southeast. No clear cross-cutting relationships between the different phases have been observed but it is interpreted that the crowded porphyry and the QFP 1 are older than the QFP 2.

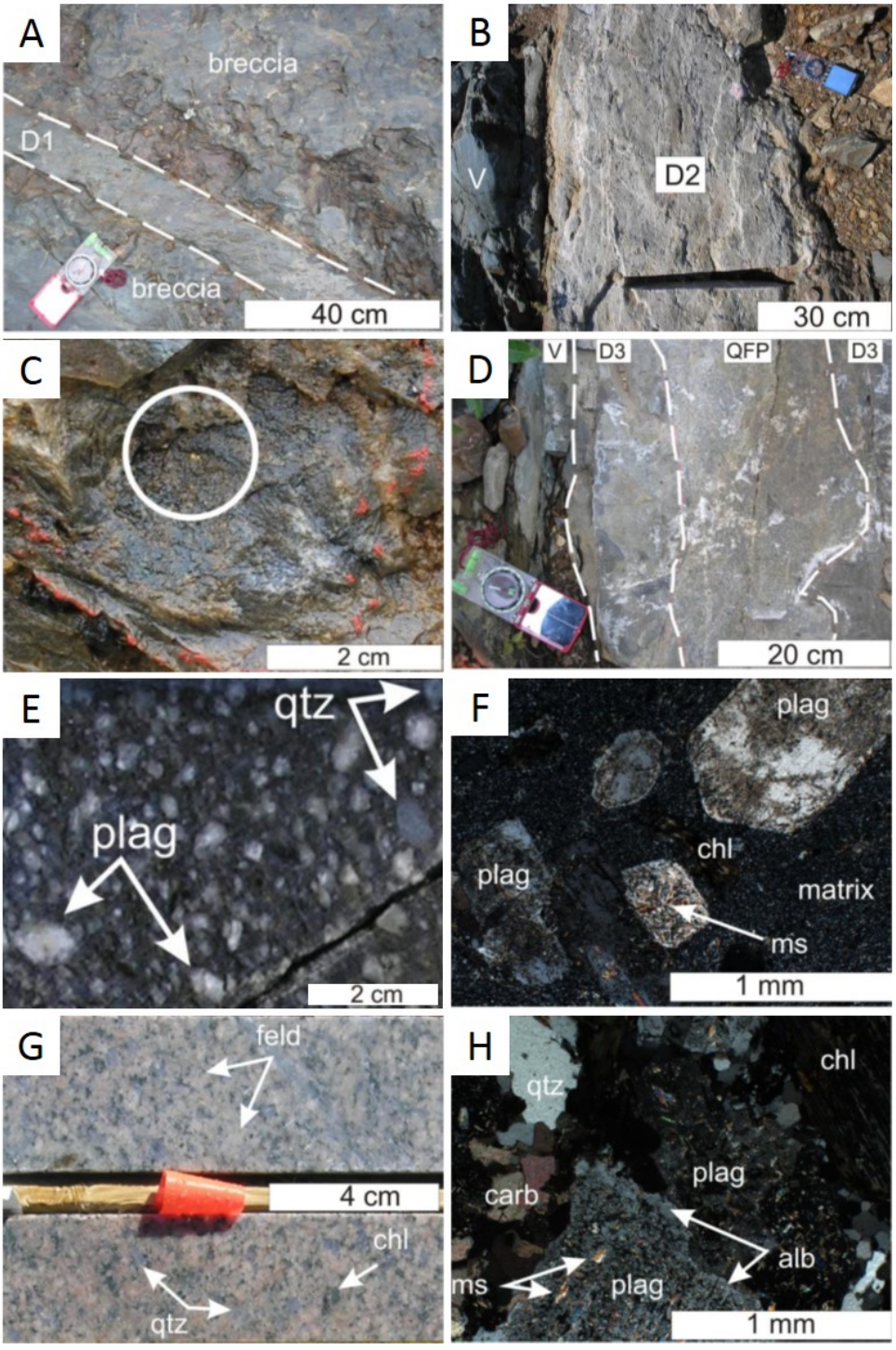


Figure 9: A) Diorite 1 (D1) dyke cutting brecciated volcanic rock. B) Diorite 2 (D2) dyke cutting mafic volcanic rocks. C) Visible gold grain within diorite. D) Diorite 3 (D3) dyke along a QFP margin cutting mafic volcanic rocks. E) Photography of QFP core sample showing plagioclase and quartz phenocrysts in fine grained groundmass; F) Photomicrography of (E) in cross-polarized transmitted light. G) Quartz monzonite drill core sample, light pink K-feldspar, quartz, and chlorite crystals are coarse-grained with little to no groundmass in between; H) Photomicrography of (G) in crossed-polarized light (Photomicrography taken from Kitney, 2009)

- Structural geology

Rocks in the region were deformed during the 2.71-2.66 Ga Kenoran orogeny (Card, 1990; Goldfarb et al., 2001), giving them a dominant east-west trend (Chown et al., 1992).

The mafic volcanics at the Barry deposit are locally folded along the S0 planes between volcanic facies. Their fold axes commonly trend N60-75ºE and plunge 20º-40º to the NE. Limbs of folds are cut by minor shear zones, shear fractures, and veinlets (Hocq, 1989; Joly, 1990).

The Barry property is transected by the NE to E trending (Figure 10), gold-bearing Mazere deformation zone which is synchronous with major regional east-trending faults (Diop et al., 2003). Deformation associated with the Mazere fault is characterized by a penetrative ENE-trending schistosity moderately dipping towards the southeast. The regional foliation generally strikes NE to ENE with a variable dip from 30º to 85º SE, characterized by the planar orientation of phyllosilicates on sub-millimetre schistosity planes and breccia fragments.

Two fault systems are observed at the Barry deposit (Kitney, 2009): an earlier one oriented at N55-60ºE, dipping 40º-58º SE, and a later one with two fault orientations: N3ºW strike with moderate to steep dip (66º-90º W); and N9ºW strike with moderate to steep dip (70º-90º E). The NE trending faults corresponds to brittle-ductile structures, obliquely cut by late N trending faults that record evidence of minor apparent sinistral and dextral displacements. These late structures are barren and only slightly distorted and reorient previously developed fabrics. This set of structures is cross-cut by E-trending shear zones.

The presence of deformed albite-carbonate-quartz veins (associated with gold mineralization) within the early fault indicates that gold mineralization occurred pre- to syn-ductile deformation (D2) of this fault. The northernmost early fault has most recently offset mafic volcanic facies, intrusive dykes, and the mineralized zone to the north, indicating that it has undergone brittle deformation post-mineralization (Kitney, 2009).

The second fault system comprises brittle structures, ranges in width from <10cm to 1m, and is continuous for at least 50m along strike. The offsets caused by their displacement controls the topography of the trenched region with differences of 0.5 to 3m in elevation across a fault. These late faults offset lithologic units and mineralization, with faults dipping to the west appearing to have a sinistral sense of offset, while faults dipping to the east appear to have a dextral offset.

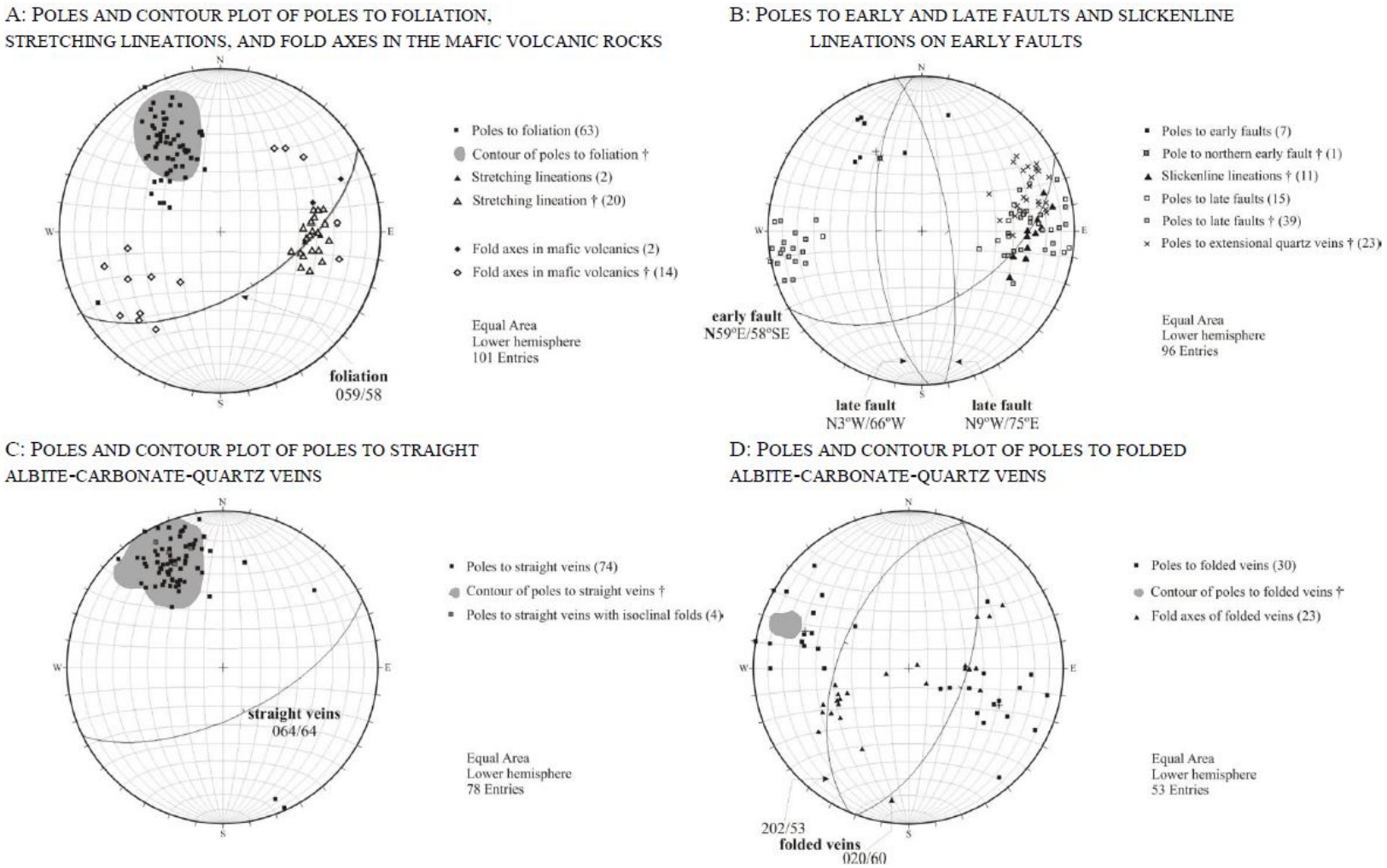


Figure 10: Stereographic representation of the structural features of the Barry deposit, surface trench. A) Poles and contour plot of poles to foliation, stretching lineations, and fold axes in the mafic volcanic rocks. B: Poles to early and late faults and slickenline lineations on early faults. C) Poles and contour plot of poles to straight albite-carbonate-quartz veins. D) Poles and contour plot of poles to folded albite-carbonate-quartz vein (source Kitney 2009). † indicates data collected by Tessier during mapping in 1996

Three main vein types have been identified in the Barry deposit main zone based on their mineralogical composition (Figure 10, Figure 11 and Figure 12):

a) Auriferous albite-carbonate-quartz, that exhibit three main geometries (straight, planar veins oriented N64ºE dipping to the SE; straight veins with rootless isoclinal folding and/or transposition along the isoclinal fold hinge; folded veins oriented N20ºE dipping 60º to the SE; and locally shallow veins).

b) Barren quartz-carbonate and carbonate veins with different geometry (straight, folded, or sinuous) and irregular orientation. These veins are composed primarily of calcite and/or quartz, and locally contain traces of biotite and chlorite.

c) Locally extensional quartz veins mainly filled by vitreous quartz. These veins locally crosscut the mafic volcanic rocks and the mineralized albite-carbonate-quartz veins but are generally found within the more competent early QFP dykes.

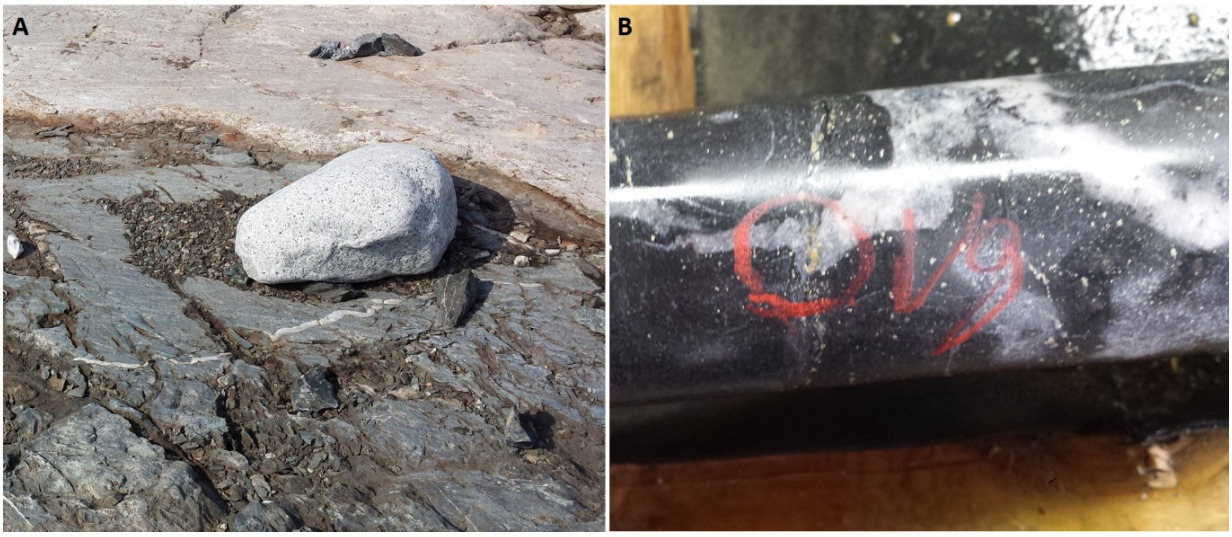


Figure 11: A) Folded auriferous albite-carbonate-quartz veins at the Barry deposit. B) Carbonate-quartz vein with visible gold (hole MB16-05)

Figure 12: Veins cross-cut QFP dykes filled by quartz cements (mainly vitreous quartz)

8. Deposit Model

The gold mineralization at the Barry property is structurally controlled. The gold mineralization is contained in a system of quartz-carbonate-albite-pyrite veins associated with sheared zones included in a wide deformation corridor at 60°/55 SE. The gold mineralization is mainly associated with 4 main mineralized zones: Main Zone (Figure 13), Zone 45, Zone 48 and Zone 43 being located 80m south of the Main Zone. All these zones coincide with IP anomalies.

A geological model of the deposit was built by Metanor geologist using vertical sections and which indicates that the main zone is continuous over a distance of 200 m, with a true thickness of approximately 30 m, and that in this sector the gold mineralization associated with the main zone (on the footwall corridor strain) is mostly located between the surface and a vertical depth of 20 - 25 m.

The information acquired from the holes drilled between 2004 and 2006 offers a new perspective and a better understanding of the Barry I Main Zone Area mineralization and the Zones 43 and 45. The hanging wall of this principal E-W structure (southern part of the stripped area) comprises several mineralized areas (Figure 13, Figure 14, Figure 15 and Figure 16). The mineralization in the hanging wall is composed of smaller irregular and cross-cutting veins and veinlets. These veins are mostly quartz-carbonate and pyrite. The alteration halo for these vein swarms is broader that the one observed around the major veins. These vein swarms were initially interpreted as flat lying mineralized envelops at the top of a dome-shaped fold.

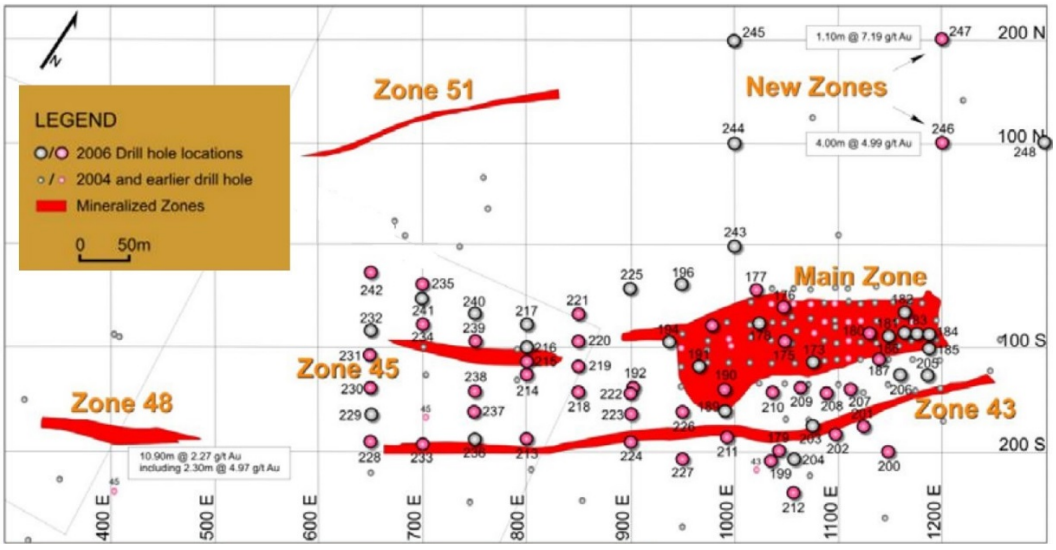


Figure 13: Localization of the mineralized zones at the Barry property (Source Metanor)

The hanging wall of this principal E-W structure (southern part of the stripped area) comprises several mineralized areas (Figure 13, Figure 14, Figure 15 and Figure 16). The mineralization in the hanging wall is composed of smaller irregular and cross-cutting veins and veinlets. These veins are mostly quartz-carbonate and pyrite. The alteration halo for these vein swarms is broader that the one observed around the major veins. These vein swarms were initially interpreted as flat lying mineralized envelops at the top of a dome-shaped fold.

All the mineralized zones and structures are cut by the quartz-feldspar intrusions.

The presumed sequence leading to the presence of gold mineralization is the following:

1. Lava deposition in a volcano-sedimentary environment;
2. First hydrothermal event during first deformation period: first sequence of quartz-carbonate-fuschite veins with ankerite alteration and silification. The gold was distributed within the quartz veins and in the host rocks. The gold is disseminated in fine-grained pyrite and coarse nuggets in quartz. The nuggets can reach up to 1 mm;
3. Intrusive event: quartz-porphyry complexes;
4. Second deformation event: shearing and set-up of the currently visible foliation. Deformation and folding of the first set of veins;
5. Second hydrothermal event: Silicification and set-up of the second set of milky quartz veins, none neither folded nor sheared, with possible remobilization of the gold.

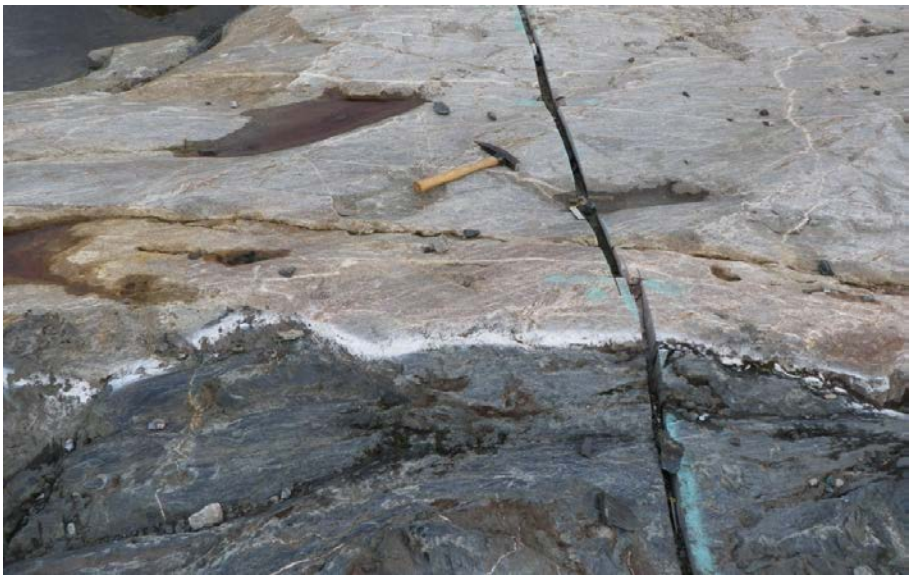


Figure 14: QFP cutting the volcanic units

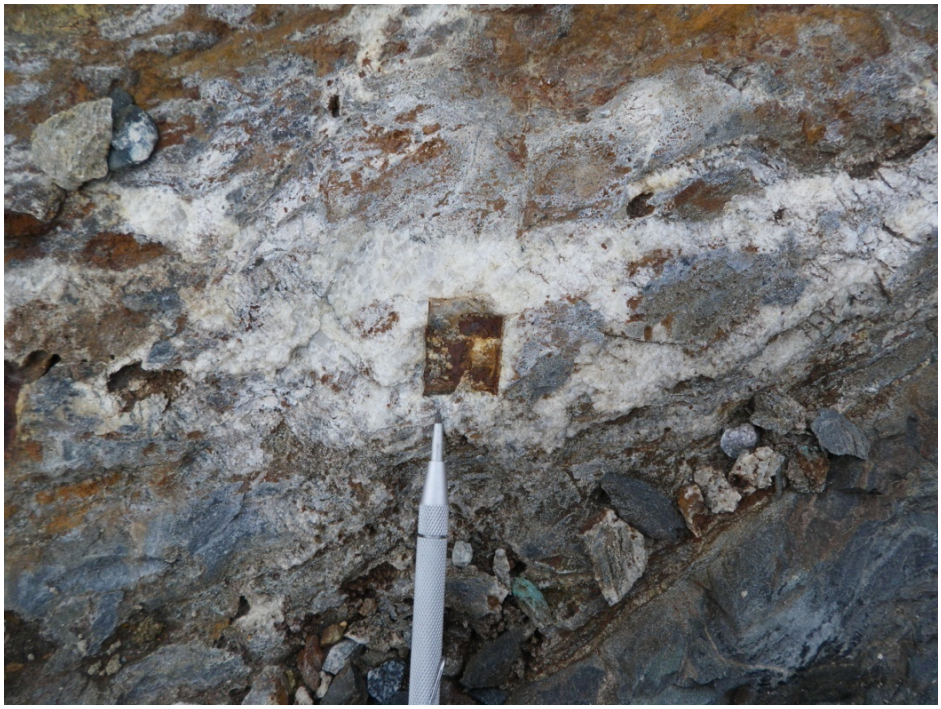


Figure 15: Oxidized mineralization in the main E-W shear Zone, with coarse to fine-grained pyrite boxwork

Figure 16: Main E-W subvertical structure with sheeted Quartz-Carbonate veins with fine-grained pyrite stringers

9. Mineralization

Gold mineralization at the Barry property is constrained to zones containing 5-15% albite-carbonate-quartz veins and their associated hydrothermally altered wall rocks. In addition to albite, carbonate, and quartz, these veins locally contain trace biotite +/- sericite, chlorite (fine-grained anhedral), pyrite (fine-grained anhedral, or coarse-grained euhedral), pyrrhotite, rare euhedral magnetite, and fine-grained visible gold (Kitney, 2009).

The mineralized zones coincide with strong IP anomalies occurring in volcanic units throughout the property. These IP anomalies were detected in the eastern and western extensions of the Barry deposit, as well as in parallel volcanic units that are highly prospective for gold mineralization similar to the mineralization exposed in the Barry pit.

- The Barry I Main Zone Area type mineralization

Gold mineralization on the property occurs for the most part in a system of veins and veinlets filled by quartz-carbonate (ankerite) - albite cements and with proximal alteration haloes of biotite-carbonate and disseminated pyrite. The gold occurs as inclusions or fracture infill in pyrite, or in sharp contact with carbonate crystals within veins and altered wall rocks, as well as along micro fractures in fine-grained pyrite (Lariviere, 1997; Kitney, 2009).

- Quartz Veining

At the Barry property, gold-bearing veins consist of sheeted veins. Locally extensional quartz veins with free gold cut the pre-mineralization QFP dykes and auriferous albite-carbonate-quartz veins in the volcanic rocks. The dominant veins are oriented at 040° to 060°, parallel to the region foliation, and dip 62° to the SE (Tessier, 1996). The veins are frequently continuous in their thickness, which generally does not exceed 5 cm, yet at times, they extend for over 50 meters along strike.

- Timing of gold mineralization

The timing of gold mineralization at the Barry deposit was documented by Kitney (2009). The timing of gold mineralization at the Barry deposit is therefore well constrained by U-Pb zircon dating of pre-mineralization diorite and post-mineralization QFP dykes. Analyses of single zircon grains by thermal ionization mass spectrometry (TIMS) give concordant and overlapping data with indistinguishable ages, yielding an average age of 2697 ± 0.6 Ma that is interpreted as the age of gold mineralization at

the Barry deposit (Kitney, 2009). This age shows that gold mineralization formed pre- to syn deformation (foliation and faulting), as well as coeval with arc-related, syn-collisional intermediate to felsic magmatism. The Barry gold mineralization is both spatially and temporally related to arc-type, intermediate to felsic intrusions and was probably at the same time as regional deformation and magmatism. The source of the mineralizing fluids can be deep-seated fluids transported along the regional and local shear zones/fractures, or hydrothermal magmatic fluids.

The majority of the mineralized zones are located within the silicified-carbonated basalts close to the contacts with the quartz-feldspar-porphyry (Figure 17). It is supposed that the emplacement of the quartz- feldspar-porphyry is significant in the ground preparation. The emplacement of the porphyry body is thought to have increased the fracture-induced permeability of the basalts and created the conducts necessary for gold bearing hydrothermal fluids to circulate (Lariviere, 1997).

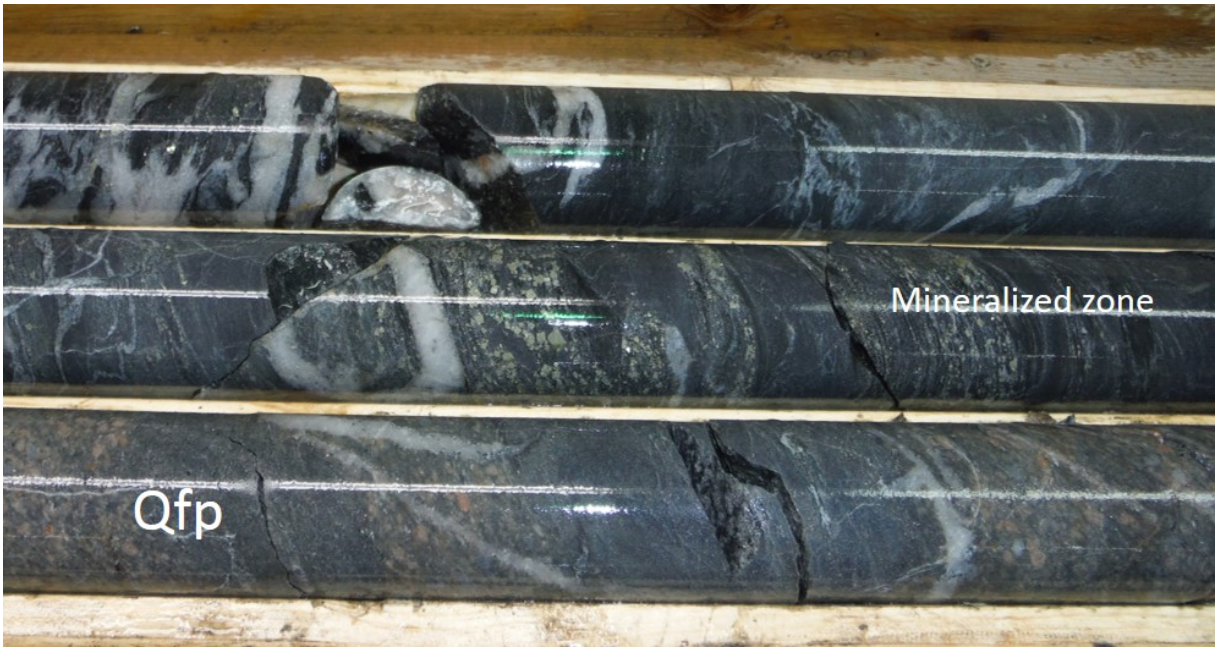


Figure 17: Core sample showing mineralized zone above the QFP unit

The interpreted paragenetic sequence was established to illustrate the timing of gold mineralization for the mafic volcanic rocks (Figure 18). The petrographic study and field observation indicates that gold mineralization is synchronous to pyrite and quartz precipitation.

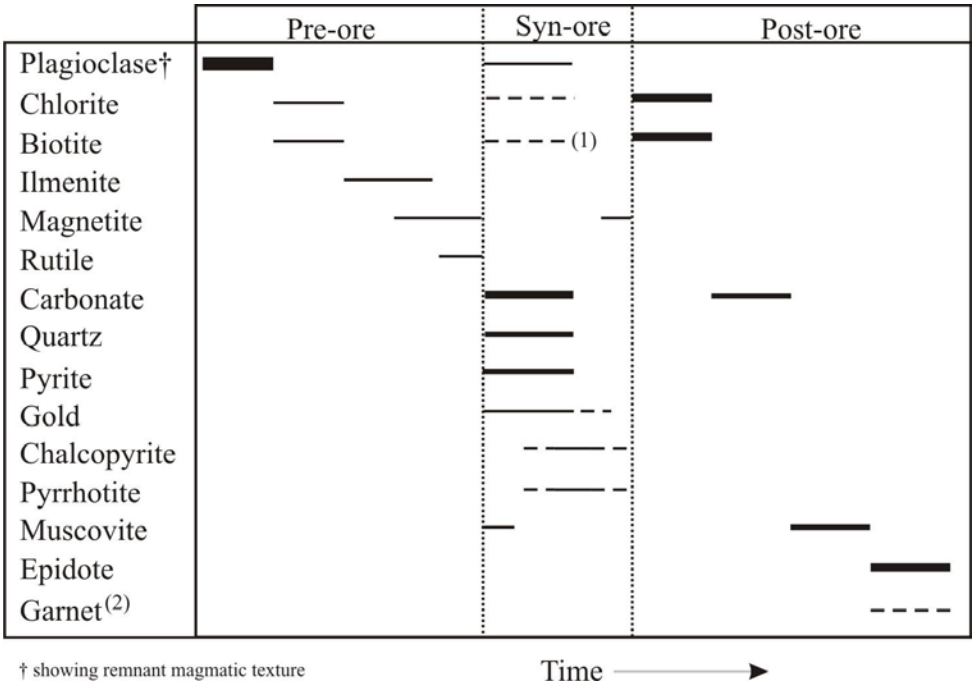


Figure 18: Paragenesis of the minerals that have undergone pre ore, syn-ore, and post-ore alteration at the Barry deposit. (1) abundant in zones of high strain, (2) at depth greater than 30m (Kitney, 2009)

2016: The diorite controls the mineralization, it has been found and modelled that mineralization of higher grade is at the contact and near contact in the basalt/diorite interface (Figure 19 and Figure 20). The intrusive Diorite and FP have played a major role in the 3D positioning of the mineralized zones. The validation drilling has confirmed GMG new model associated with Diorite where mineralisation is better developed near its contact and most of the diorite is dry in terms of economic gold grades.

In addition to the diorite intrusion into the basalts, a structural pattern of veining (tension gashes) in corridor having up to 225m long exist and has been identified and confirmed by recent drilling as shown in next section. Hence the mineralization is either on top or bottom and/or aside of diorite and FP intrusions contact. The following figures present the diorite in green with mineralization around small sills and little to none in the massive intrusion. View is looking down South East.

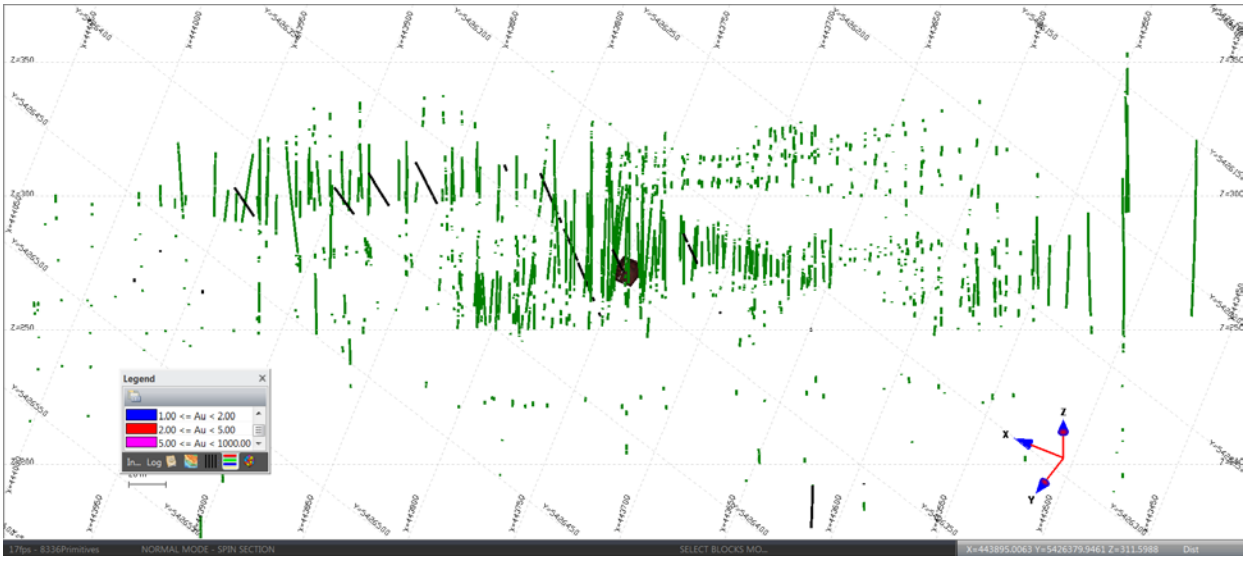


Figure 19: The distribution of the diorite (Green color) within the Barry property

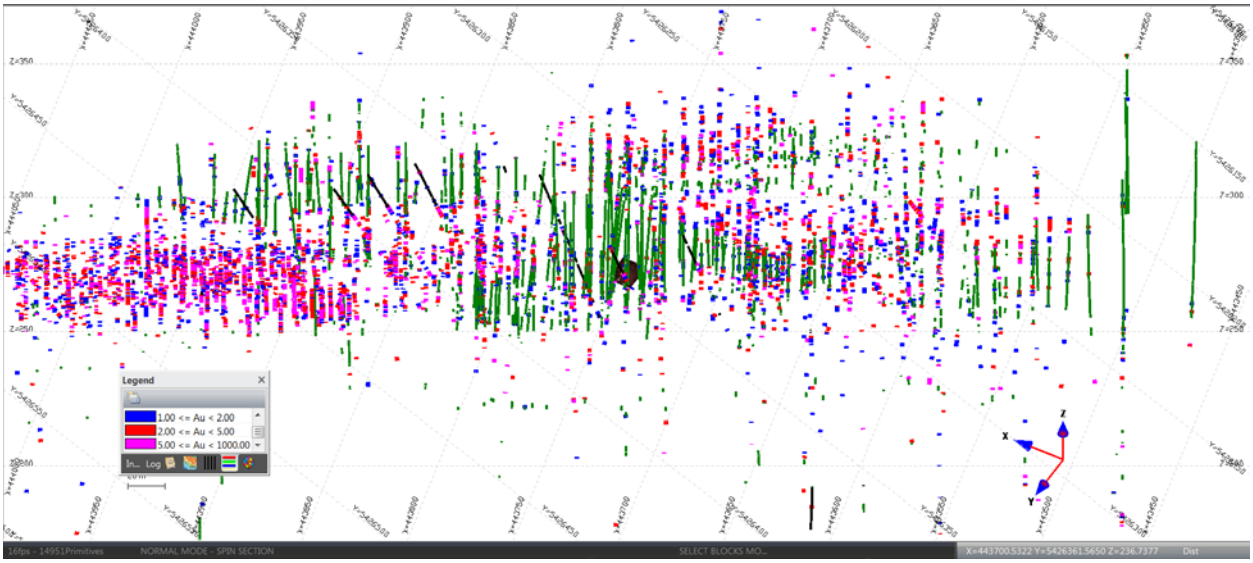


Figure 20: The distribution of the Diorite (Green color) and the Assays color coded by Au (g/t). The gold mineralization in between and upper the Diorite units

10. Recent drilling works (2016)

Metanor retained GoldMinds Geoservices Inc. to provide a mineral resource update of Barry project. The mandate includes the identification of the drilling targets, the drilling supervision and the validation drilling of the high-grade zones with the study of the extensions of certain mineralized zones, for eventual open-pit mining.

The drilling campaign of 1,370 meters started on the 12th of April, 2016. The focus of this drilling program was to test the new mineralization model proposed by Claude Duplessis, Eng. GMG using GENESIS © software identify 3 stacked oreshoots plunging east at 19 degrees over 225 m strike length (open) inclined to the south at 49 degrees. These high grade zones are located in the south of the principal pit and also connect the center and south pits with the principal pit.

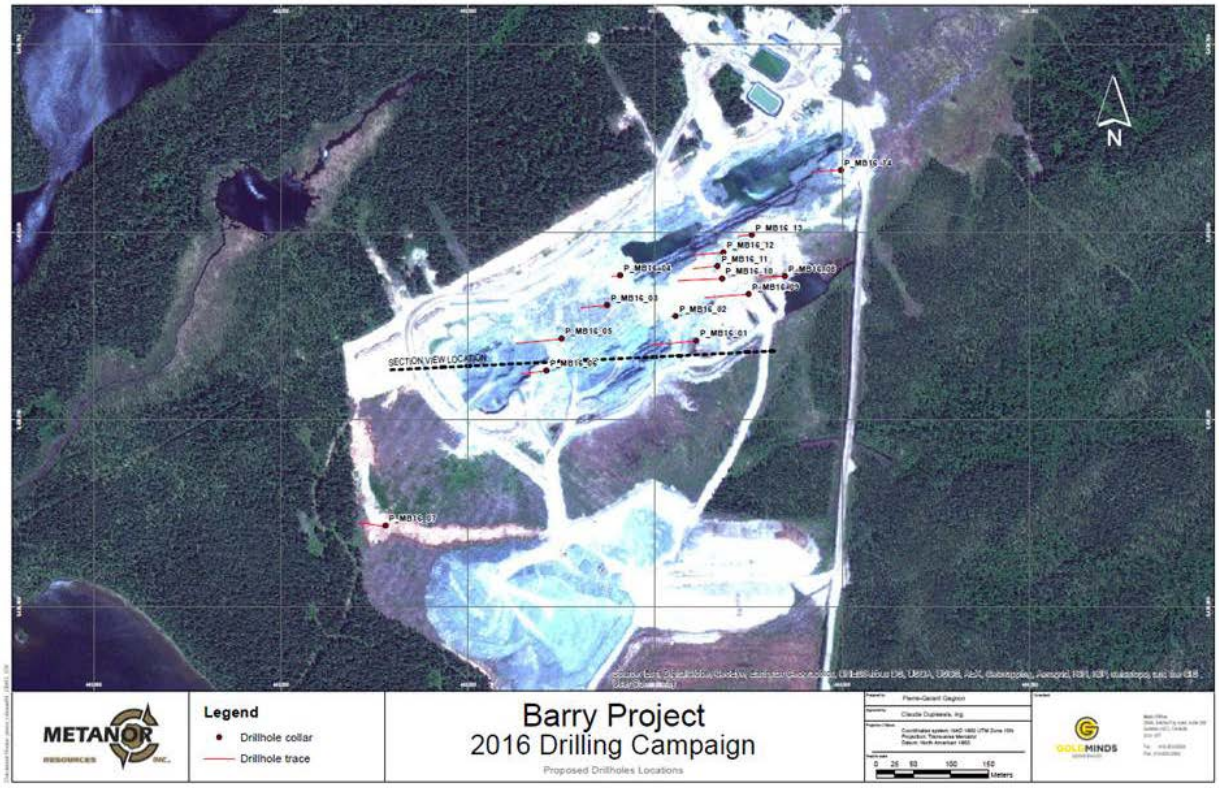


Figure 21: Localisation of the 2016 new drillholes, Barry property

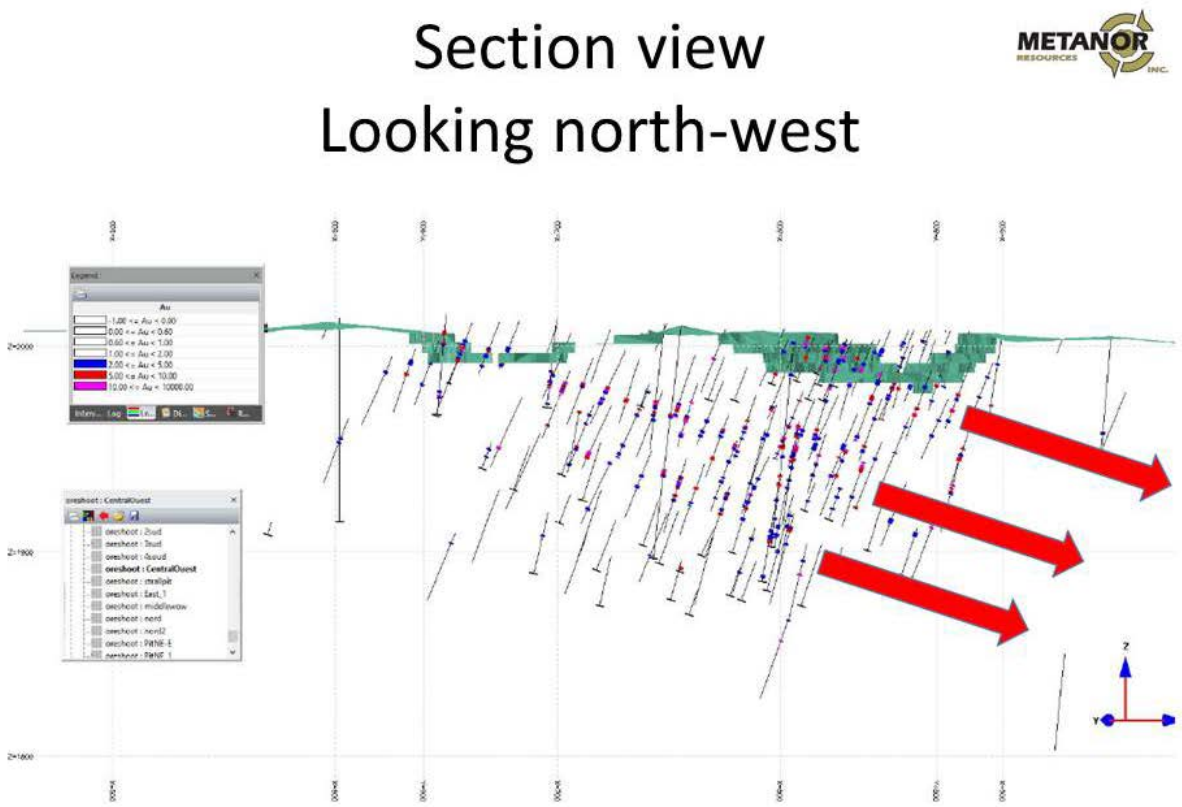


Figure 22: Section view showing the three mineralized zones dipping to the south east

Claude Duplessis Eng. and Merouane Rachidi, Ph.D., P. Geo., were present during the whole campaign to supervise the drilling, logging and sampling. The program originally consisted of 1,200 m of diamond drillholes. One drillhole was added at the end of the program on the West zone to test the depth of gold mineralization and to measure the real angle of intersected veins and fractures.

A total of 15 holes were drilled over the Barry property totalling 1370 meters (Table 9 and Figure 24). A total of 1316 samples, not including blanks and standards (63 blank, 61 standards and 120 duplicates), were analyzed at Bachelor laboratory and the first 48 samples were also sent also to ALS laboratory for the QA/QC program. The drilling contractor for the 2016 drilling campaign was Forage Orbit Garant.

Drill collar sites were located using a total station (Figure 24). The orientation, of front and back posts for each drillhole were put in place by the geologist. The drill site preparation and the alignment of the drill were done by the geologist (Figure 23). Drillholes inclinations were set by the geologist and the drillers with an inclinometer on the drill casing. A geologist visited the drill site daily to check the

cores (Figure 25, Figure 26 and Figure 27). Drillholes were stopped once the planned depth was reached. At the end of the drilling program, the exact position of the collar was resurveyed with DGPS.

Table 9: Locations and details of Diamond drillholes (2016 drilling campaign)

Hole name	UTM - East	UTM - North	UTM - Elevation	Azimuth	Dip	Depth
MB16_01	443820.10	5426357.32	396.81	271	-68	186
MB16_02	443820.09	5426376.41	395.85	261	-76	51
MB16_03	443689.20	5426401.96	405.25	271	-66	87
MB16_04	443705.27	5426441.85	404.72	272	-63	27
MB16_05	443626.33	5426357.78	400.60	268	-50	99
MB16_06	443606.72	5426315.18	401.05	262	-55	60
MB16_07	443390.13	5426099.33	403.81	284	-59	78
MB16_08	443928.65	5426445.28	395.16	265	-70	102
MB16_09	443886.94	5426412.68	397.13	273	-70	171
MB16_10	443828.53	5426436.85	401.17	263	-65	95
MB16_11	443848.74	5426454.67	400.27	265	-60	90
MB16_12	443859.70	5426473.05	400.04	264	-56	75
MB16_13	443907.16	5426498.02	397.56	261	-60	54
MB16_14	444002.64	5426588.23	393.54	267	-53	63
MB16_15	443394.38	5426020.44	401.67	354	-50	132

Figure 23: Diamond drill set-up

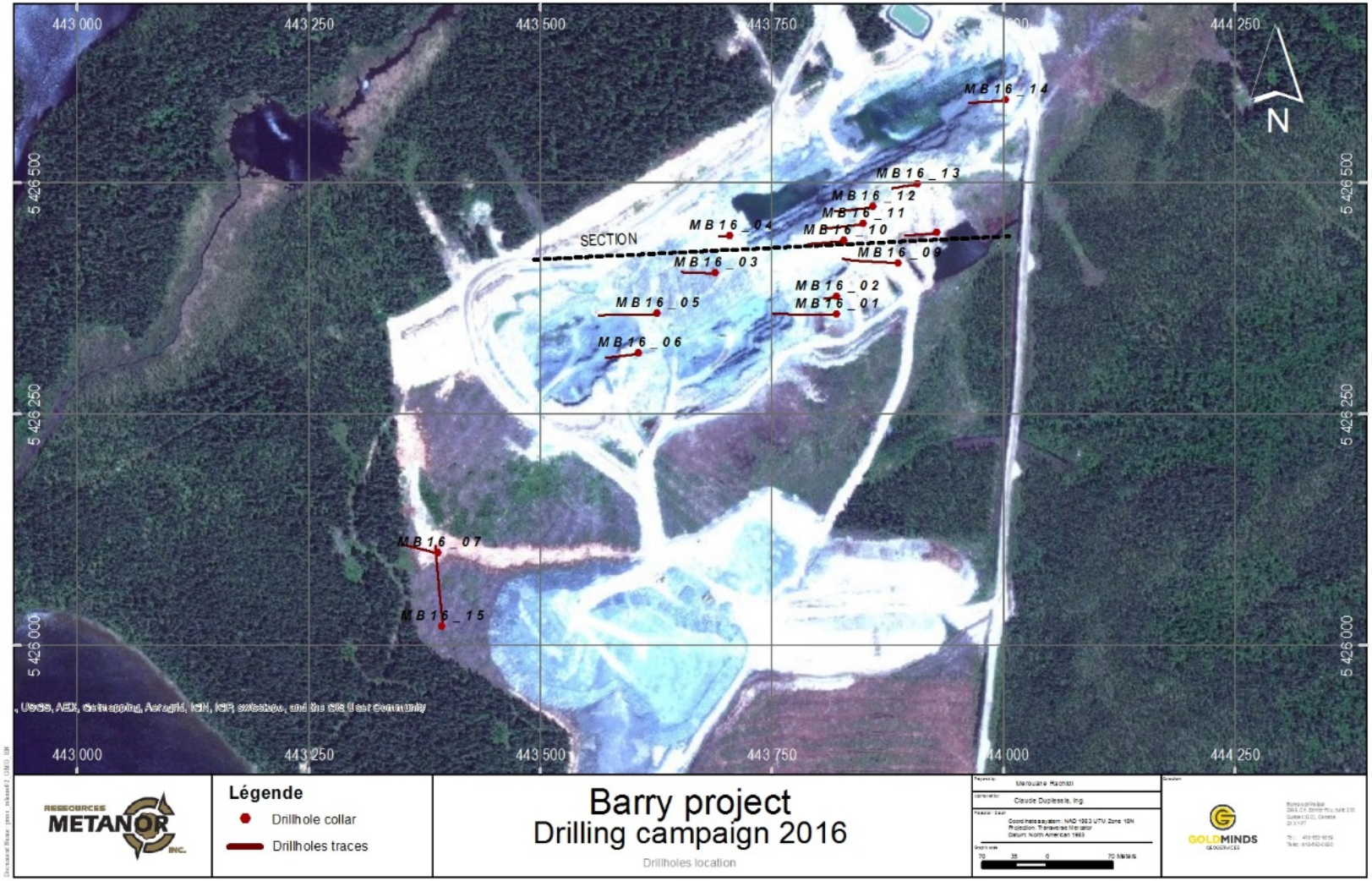


Figure 24: Drillholes locations at the Barry property

Down hole dip and magnetic tests were taken using a Reflex multi-shot instrument (EZ-TRAC). The instrument was used and manipulated by the drillers. Reflex measurements were given at every end of the holes to the geologist using a program for automatic uploading of the data from the Reflex instrument to a computer. A magnetic deviation correction of -13° was set on the Reflex measurements data.

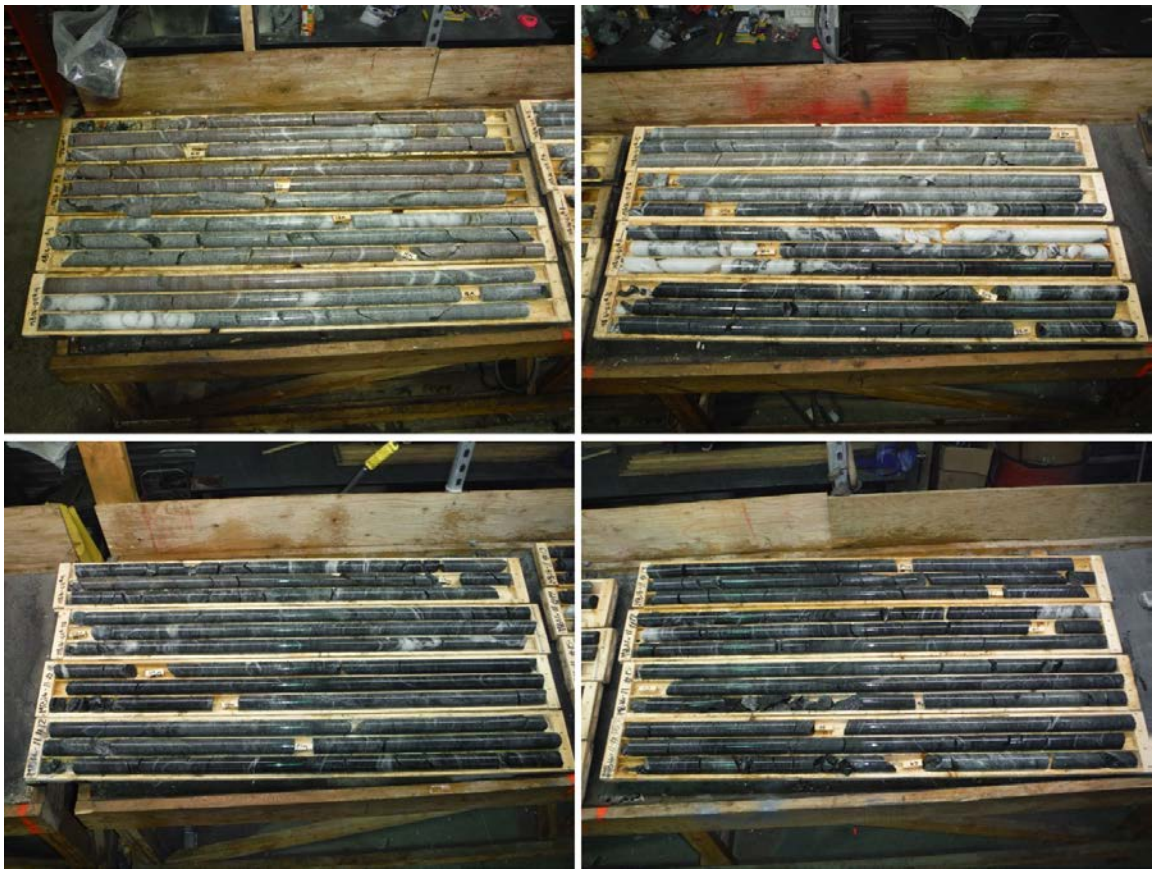


Figure 25: Photos of cores taken from hole MB-16-11

Figure 26: Photos of cores taken from hole MB-16-14

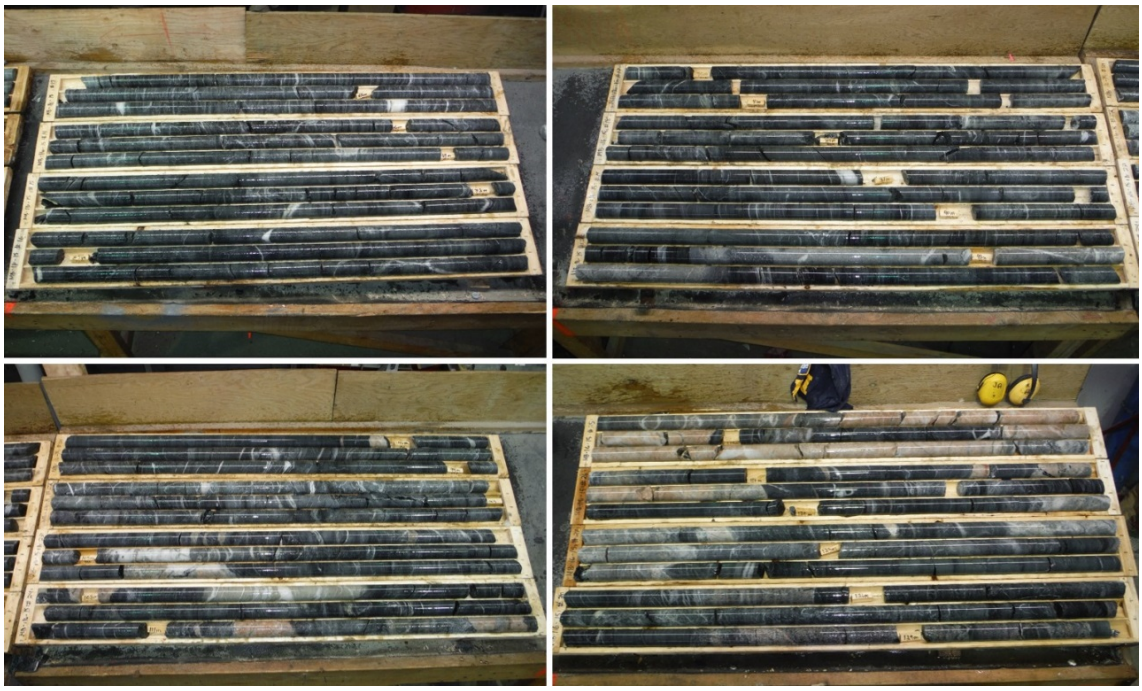


Figure 27: Photos of cores taken from hole MB-16-15

11. Sample preparation, analyses and security

Several holes were diamond drilled on the Barry site and a rigorous QA/QC program was in place during the 2016 drilling campaign. This procedure includes the systematic addition of certified standards, blanks and duplicates. The sampling preparation described in the next section was done under the supervision of GMG (Figure 28 and Figure 29). The independent quality control program of the assay results (QA/QC) adopted by GoldMinds consists of controlled core & assays (48 samples) being conducted by an independent ALS-certified assay laboratory in Val-d'Or, Québec.

11.1. Sampling approach and methodology

During the 2016 drilling campaign, a consistent methodology was used for the preparation of the samples. The core sampling protocol was established by GoldMinds Geoservices and is described below.

Once the drilling core was extracted, the sampling method was as follows:

a) The geologist takes photos of dry and wet core boxes;
b) If the core is oriented, the geologist matches the different pieces of the core to determine the direction of veins and faults;
c) Once the geology is described, the geologist marks the beginning and the end of the sample directly onto the core with a yellow-colored wax crayon;
d) The core is sampled over regular intervals of 1 m;
e) A GoldMinds tag is placed at the beginning of each sample interval and the tag number is integrated within the database;
f) Blanks and standards tags were inserted for each batch of 10 samples;
g) Samples were cut or split into two parts at the Barry Mine site, one part of each sample was sent for analysis by fire-assay and the other part was stored on site for the archives.
h) The half-core meter-long samples were placed in a plastic bags with there tag and closed (Figure 28). The remaining half of the cores were kept at the company's core-shack for future assay verification or any other further investigation;
i) The plastic bags were placed into 25kg rice bags. Each rice bag was then sealed with a tie-wrap and identified prior to being transported to the laboratory (Figure 29);

Figure 28: Samples placed in plastic bags with tag

Figure 29: Rice bags filled by samples ready to be shipped to the laboratory

11.2. Sample preparation at Bachelor laboratory

The procedure for samples processing at Bachelor laboratory to assay the gold content of each sample consists of:

+ Reception logging

+ Drying of samples

+ Crushing and grinding of the half core at 60% passing 8 mesh

+ Splitting

+ Pulverisation of 250 g to 400 g at 80% passing 200 mesh.

+ Split to take 30 grams for gold Fire Assay

+ Detection limit for the gold assay was established at 0.01ppm.

11.3. Quality assurance and Quality control

A total of 63 blank samples were inserted for each batch of 10 samples and consist of coarse pure white quartz sand (Figure 30).

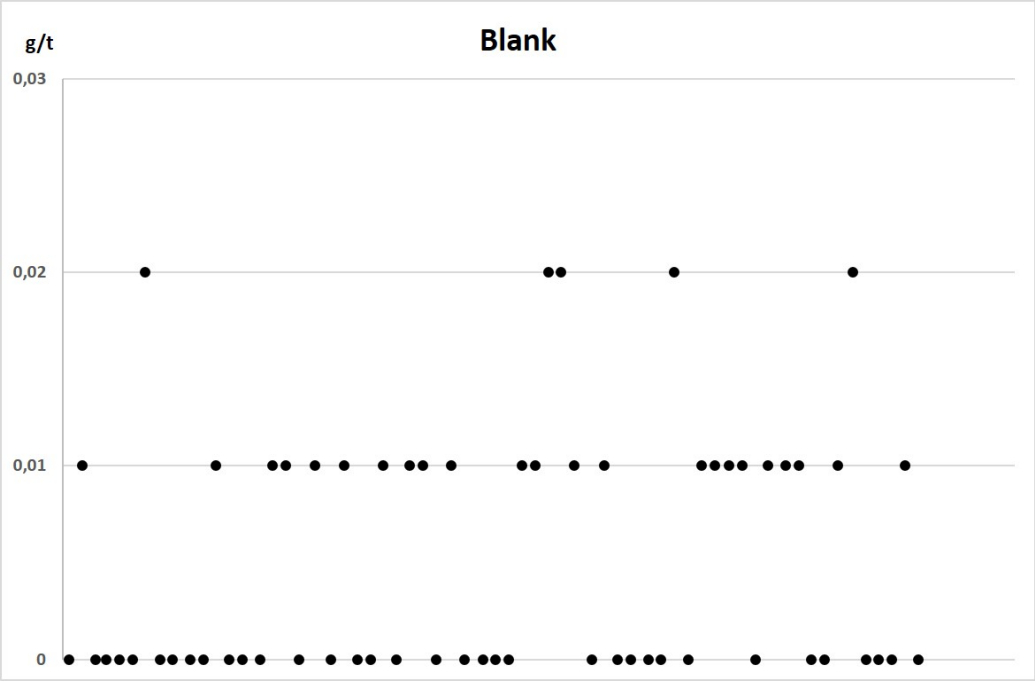


Figure 30: Distribution of blank samples used for the 2016 drilling campaign (Au ppm)

The results of assay blank samples showed that there are no anomalous values with values equal or less than 0.02 ppm (Figure 30).

Three types of standards were used (STDI, STDII and STDIII), (Figure 31). The author has sent a total of 61 standard samples to the Bachelor laboratory (Figure 31). STDI show a minimum value of 3.38 ppm and a maximum of 3.59 ppm Au with an average of 3.48 ppm. STDII show a minimum value of 0.71 ppm and a maximum of 0.80 ppm Au with an average of 0.75 ppm. STDIII show a minimum value of 1.73 ppm and a maximum of 1.84 ppm Au with an average of 1.78 ppm.

Figure 31: Distribution of standards (Au ppm) used for the 2016 drilling campaign

In addition to blanks and standards, GMG has added an independent quality control program of the assay results (QA/QC) that consists of controlled core & assays (48 samples) carried out by an independent ALS-certified assay laboratory in Val-d'Or, Québec (Figure 32).

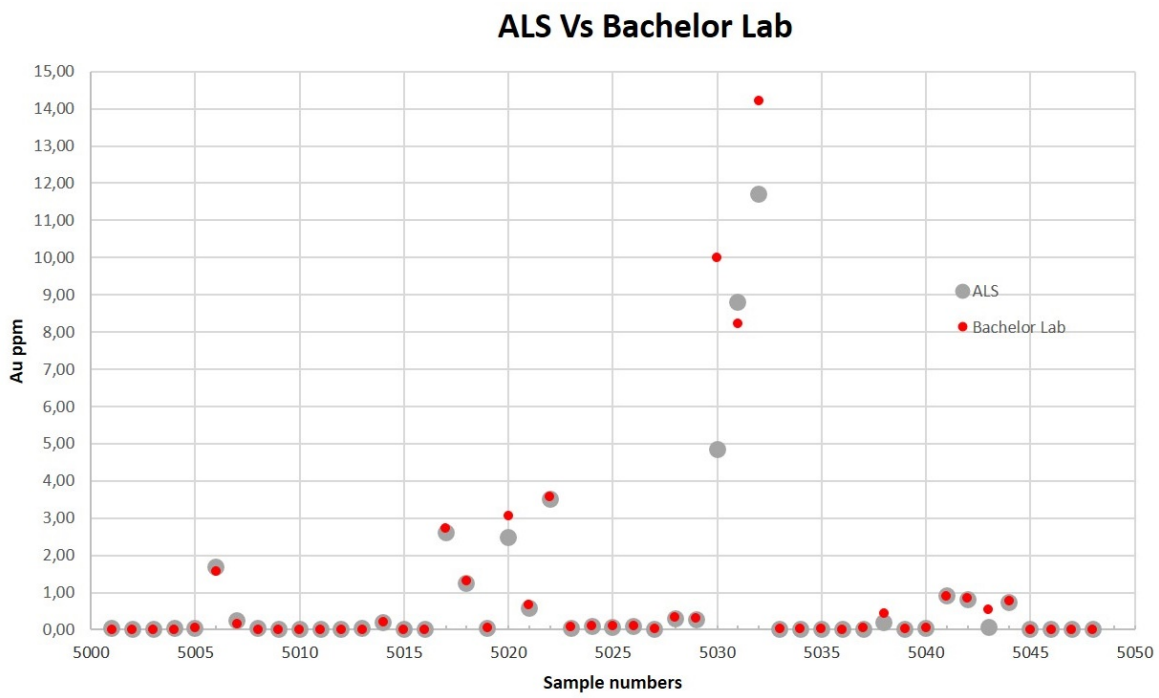


Figure 32: Controlled assays in ALS laboratory versus Bachelor laboratory (Au ppm)

Two samples (5030 (ΔAu 5.15) and 5032 (ΔAu 2.5)) show a significant difference between the assay results obtained from ALS and Bachelor laboratory (Table 10). GMG requested bachelor's laboratory team to reanalyze these two samples. The table below shows the results of this analysis. The reanalysis of the two samples (5030 and 5032) shows that there is a difference of 1.9 g/t for sample 5030 and 0.8 g/t for sample 5032.

Table 10: Assay results (Au g/t) ALS versus Bachelor laboratory

		ALS	Bachelor Lab			
Hole name	**Sample N**	**ALS_Au (g/t)**	**Dup1**	**Dup2**	**Dup3**	**Average**
MB16_14	5030	4.85	8.05	6.07	6.31	6.81
MB16_14	5032	11.70	12.5	12.4	11.8	12.23

Sixty samples were also reanalyzed at SGS Lakefield laboratory to compare with the Bachelor and ALS laboratory. The results are shown in the table below (Table 11). Figure 32 show the comparison between SGS Lakefield and Bachelor laboratory. Three samples have shown a difference of more than 1 g/t (samples 5030, 5031 and 6054).

Table 11: Comparative table of the assay results (Au g/t) SGS (Lakefield laboratory), Bachelor laboratory (MTO) and ALS laboratory (ALS)

Sample ID	MR_ID	SGS	MTO	ALS	Sample ID	MR_ID	SGS	MTO
5016	1	0,00	0,00	0,01	**6035**	28	0,56	0,37
5017	2	2,85	2,73	2,62	**6036**	29	0,11	0,15
5018	3	1,03	1,30	1,25	**6037**	30	3,26	2,43
5019	4	0,06	0,04	0,05	**6038**	31	0,54	0,51
5020	5	2,75	3,05	2,47	**6039**	32	0,34	0,21
5021	6	0,48	0,66	0,57	**6040**	33	0,16	0,13
5023	7	0,06	0,08	0,05	**6042**	34	0,84	0,39
5024	8	0,07	0,09	0,09	**6043**	35	0,08	0,07
5025	9	0,10	0,10	0,07	**6044**	36	0,38	0,25
5026	10	0,07	0,09	0,08	**6045**	37	0,61	0,74
5027	11	0,02	0,03	0,02	**6046**	38	0,08	0,08
5028	12	0,35	0,33	0,29	**6047**	39	0,38	0,16
5029	13	0,26	0,31	0,27	**6048**	40	1,04	0,43
5030	14	6,16	10,00	4,85	**6049**	41	1,07	0,42
5031	15	9,51	8,21	8,79	**6050**	42	0,35	0,22
5032	16	14,60	14,20	11,70	**6051**	43	1,54	1,70
5034	17	0,00	0,03	0,02	**6053**	44	4,77	5,60
5035	18	0,00	0,02	0,01	**6054**	45	11,30	8,25
5036	19	0,00	0,01	0,01	**6055**	46	7,56	6,89
5037	20	0,02	0,04	0,01	**6056**	47	1,31	0,82
5038	21	0,17	0,44	0,18	**6057**	48	0,30	0,27
5039	22	0,00	0,03	0,01	**6058**	49	8,74	8,68
5040	23	0,00	0,04	0,04	**6059**	50	2,63	2,71
5041	24	0,84	0,90	0,92	**6060**	51	0,02	0,04
5042	25	0,89	0,84	0,80	**6061**	52	0,16	0,13
5043	26	0,06	0,53	0,07	**6062**	53	0,04	0,08
5045	27	0,00	0,01	0,01	**6064**	54	0,03	0,04
					6065	55	0,00	0,02
					6066	56	3,38	3,16
					6067	57	2,62	2,29
					6068	58	6,11	6,02
					6069	59	8,76	7,92
					6070	60	0,73	0,87

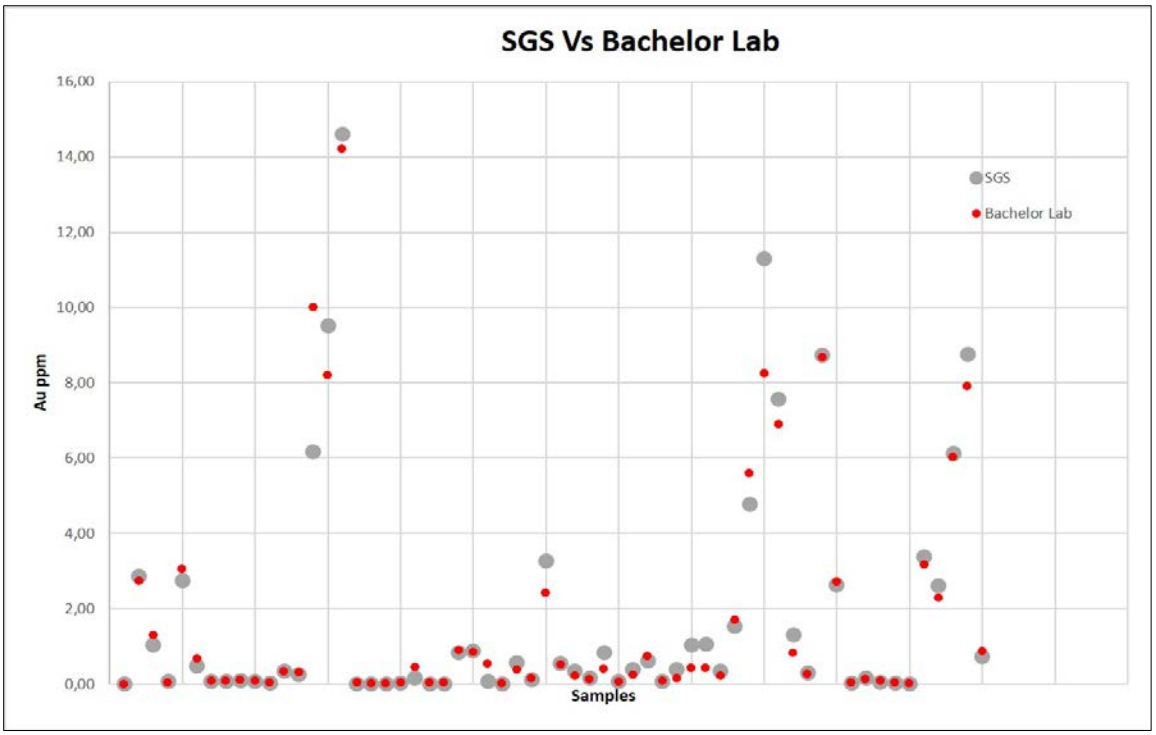


Figure 33: Controlled assays SGS Lakefield laboratory versus Bachelor laboratory (Au ppm)

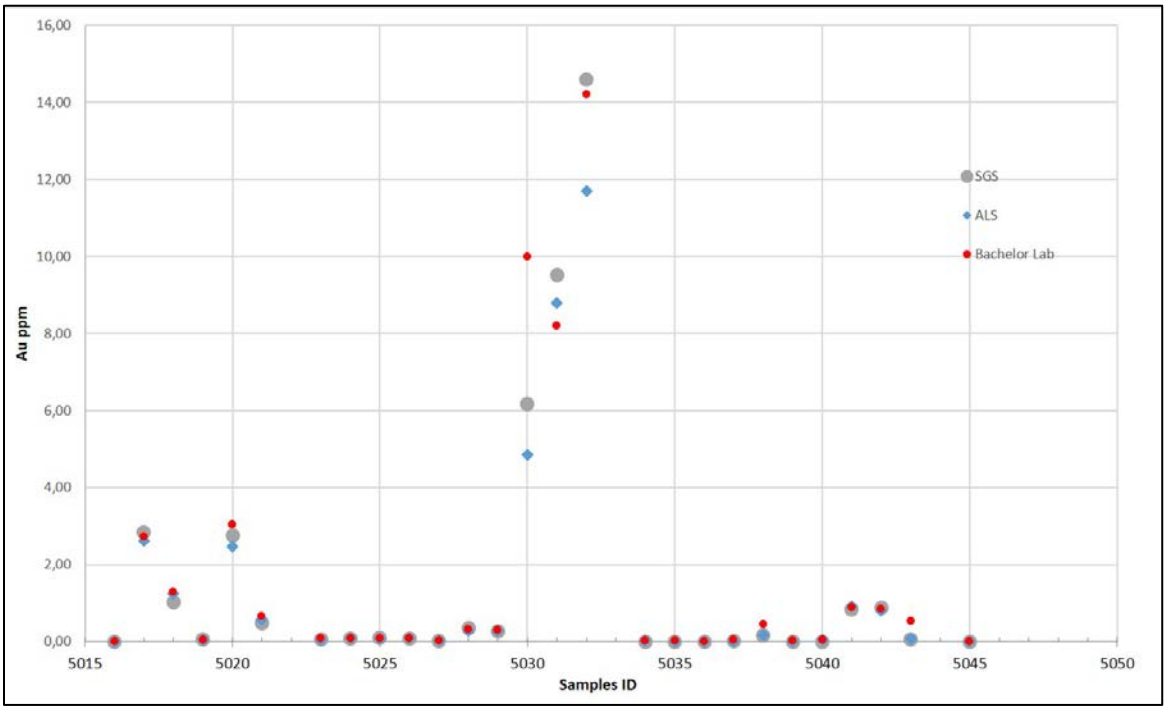


Figure 34: Controlled assays SGS Lakefield laboratory, Bachelor laboratory and ALS laboratory (Au ppm)

Figure 34, compares 27 samples analyzed within the three laboratories (SGS, Bachelor and ALS). This figure shows that samples with a gold content of more than 4 g/t displays more difference of the assay results (sample number 5030, 5031 and 6054). These assay differences from the same pulp can be related to the presence of coarse gold. For this reason, 39 samples were analyzed for metallic screen assay at SGS Lakefield laboratory.

A total of 39 samples from 4 drillholes (MB16_14, MB16_07, MB16_05 and MB16_12) were the subject of screen metallic (or pulp metallic) on 1 kg from each individual sample at SGS Lakefield laboratory. The table below shows the results.

Table 12: Screen metallic results, SGS laboratory

Hole name	From	To	Sample	Bachelor Lab	Au met (g/t)	Au -150 Av. (g/t)	Au +150 Av. (g/t)	total wt (g)	wt +150 Av. (g)
MB16_14	52	53	5051	4.71	3.38	3.32	8.28	1938	24.8
MB16_14	53	54	5052	33.40	40.5	39.8	357	1849.7	4.26
MB16_14	54	55	5053	0.71	0.48	0.48	0.96	2143.7	22.87
MB16_14	55	56	5054	1.05	0.76	0.75	2.18	2171.5	19.46
MB16_14	56	57	5056	0.87	0.96	0.94	2.84	2065	20.14
MB16_14	57	58	5057	0.06	0.08	0.08	0.04	2078.2	18.7
MB16_14	58	59	5058	3.99	3.18	3.06	15.4	2078.2	18.75
MB16_14	59	60	5059	2.28	2.53	2.52	3.49	2025.4	29.76
MB16_14	60	61	5060	1.77	2.59	2.52	12.2	2013.8	13.77
MB16_14	61	62	5061	0.03	0.01	0.02	0.01	1941	29.3
MB16_07	58	59	5120	1.51	2.46	2.13	85.3	1690.7	6.6
MB16_07	59	60	5121	0.02	0	0.02	0	2358	19.28
MB16_07	60	61	5122	0.06	0.06	0.06	0.04	2236	29.88
MB16_07	61	62	5123	0.01	0	0	0	2128.7	10.32
MB16_07	62	63	5124	0.76	0.54	0.54	0.25	1973.8	1.0117
MB16_07	63	64	5125	2.25	2.18	2.18	1.53	2216.8	25.4
MB16_07	64	65	5126	0.06	0.04	0.04	0.02	2273.5	28.34
MB16_07	65	66	5127	0.08	0.06	0.06	0.02	2128.2	11.3
MB16_07	66	67	5129	0.02	0	0	0.01	2279.9	15.72
MB16_07	67	68	5130	0.68	0.8	0.79	1.36	2048.3	24.14
MB16_07	68	69	5131	0.40	0.39	0.39	0.62	2139.5	25.52
MB16_07	69	70	5132	1.29	1.25	1.24	3.26	2055.6	3.44
MB16_07	70	71	5133	1.05	1.02	1.01	1.46	2115.3	29.07

MB16_05	63	64	5271	1.76	1.69	1.65	4.42	1842.3	29.24
MB16_05	64	65	5272	0.03	0	0.02	0.01	1974	13.62
MB16_05	65	66	5273	0.97	0.84	0.83	1.44	2060.5	28.32
MB16_05	66	67	5274	0.01	0	0.01	0	2076.8	9.04
MB16_05	67	68	5275	0.02	0	0	0.02	2450.2	12.54
MB16_05	68	69	5276	0.01	0	0.01	0.02	1957.8	6.58
MB16_05	69	70	5277	0.40	0.53	0.51	3.32	2283.3	15.18
MB16_05	70	71	5278	10.50	12.6	12.26	529	2004.3	1.2935
MB16_12	22	23	6051	1.70	2.06	2.03	4.7	1842.7	21.96
MB16_12	23	24	6053	5.60	4.41	4.04	267	2210.2	3.18
MB16_12	24	25	6054	8.25	11.2	11	26.4	1607	21.82
MB16_12	25	26	6055	6.89	7.89	7.7	21	1969.9	27.82
MB16_12	26	27	6056	0.82	0.79	0.74	3.93	1676.6	25.51
MB16_12	27	28	6057	0.27	0.37	0.37	0.68	2160.6	26.07
MB16_12	28	29	6058	8.68	9.51	8.55	279	1772.2	6.26
MB16_12	29	30	6059	2.71	1.98	1.98	1.91	2215	9.84

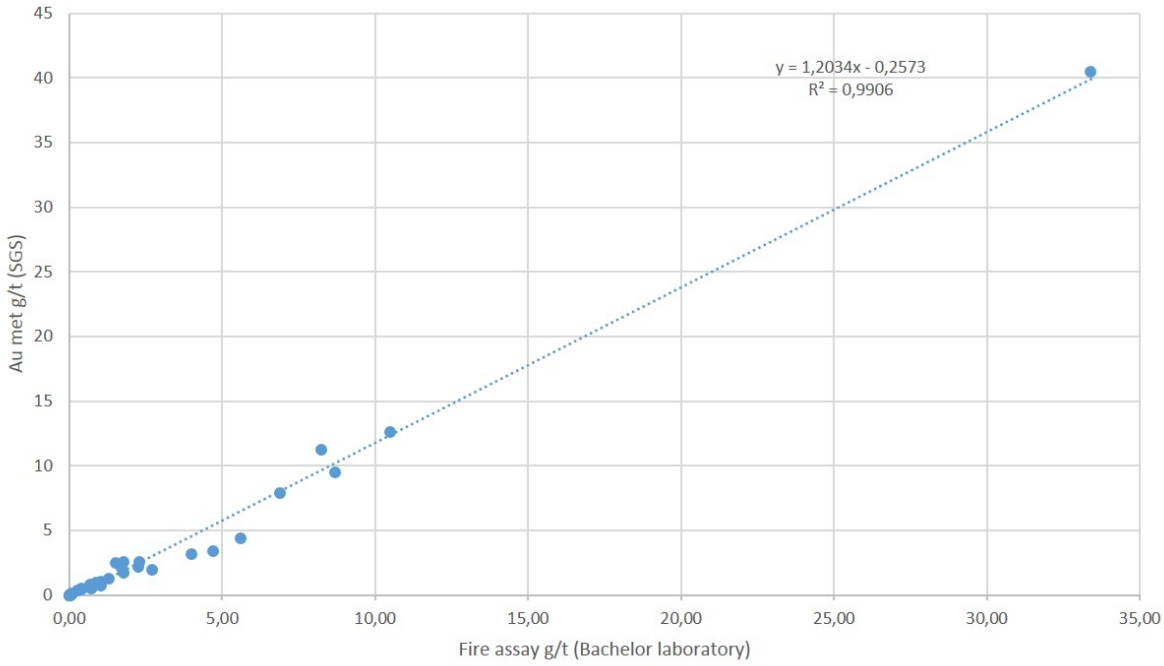


Figure 35: Correlation between Au met (SGS) versus Fire assay (Bachelor laboratory)

The correlation between Screen Metallic (Au met) and fire assay results has also been done. The slope of the regression lines is around 1 (Figure 35).

The table below shows the average of fire assay results and the metallic gold results (Au met) for each analyzed interval. The results from the metallic gold (Au met) are higher than the fire assay results with a minimum of 7.45% for MB16_07 and a maximum of 14.31% for hole MB16_05.

Table 13: Average of fire assay results and Screen Metallic for the analyzed intervals

Hole name	Average Fire assay g/t	Average Au met g/t	Difference in %
MB16_14	4,887	5,45	11,46
MB16_07	0,63	0,68	7,45
MB16_05	1,7125	1,96	14,31
MB16_12	4,365	4,78	9,42

Based on these comparisons, it appears that the current Barry gold grade is underestimated and it could be 10% higher. GMG requires additional investigations for a better understanding of the mineral treatment of the Barry deposit.

In addition to the independent quality control program a duplicates analysis was added to the QA/QC program. A total of 28 duplicates were used for the QA/QC program during the 2016 drilling campaign (Figure 36). The slope of the regression lines and the correlation coefficient are very close to one, indicating a good reproducibility of the results (Figure 37).

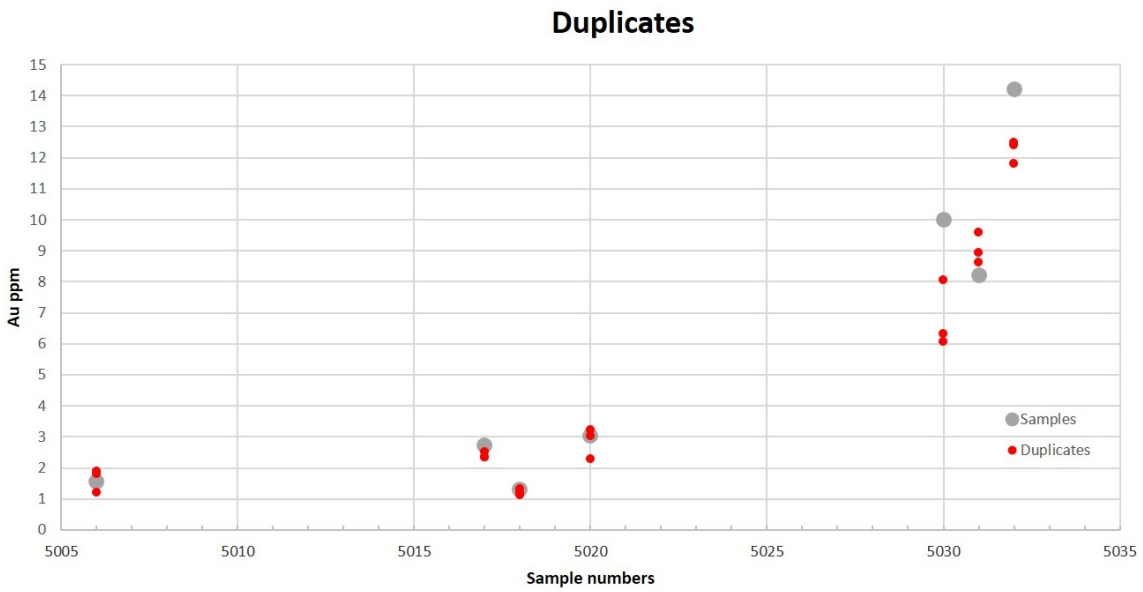


Figure 36: Distribution of duplicates (Au ppm) used for the 2016 drilling campaign (ALS laboratory)

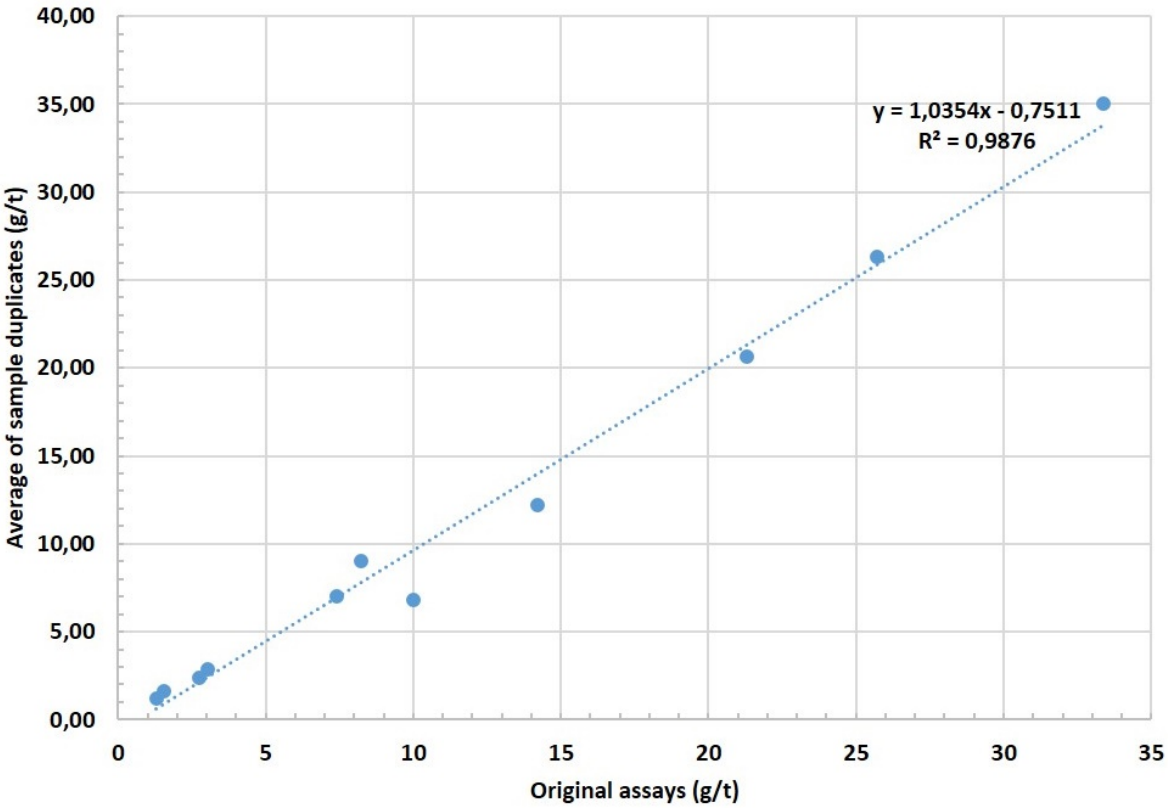


Figure 37: Average of sample duplicates versus original assays (Au ppm)

11.4. Security

The integration of blank and standard samples by GMG allowed the verification of these fire assay analyses and no problems are reported for this component. The author has visited the Bachelor laboratory but did not visit the ALS laboratory in Val d'Or or SGS Lakefield laboratory. These laboratories have a good reputation and the work has been done in a professional way. The compilation of the blanks, standards, field duplicates and ALS QA/QC samples shows that Metanor Resources can rely on the provided results.

The GMG Geologist has taken all possible actions to ensure the integrity and security of the samples from the drill sites to the Bachelor laboratory. The samples and methods used by GMG's technical team, the laboratory analytical procedures and the management of the data are adequate and reliable.

GMG is satisfied with the drilling operations and no incidents or errors related to his responsibilities have been identified.

12. Data verification

12.1. Previous data verification (2009-2010)

In 2009, SGS conducted an independent sampling program from 5 drillholes. A total of 59 control samples were assayed for the Barry I project. Mineralized intervals have been chosen by SGS and the sampling has been prepared by Metanor. These samples were sent to SGS Minerals services in Toronto, assayed with ICP-AES finish of 30 g (SGS code FAI323), (Figure 38).

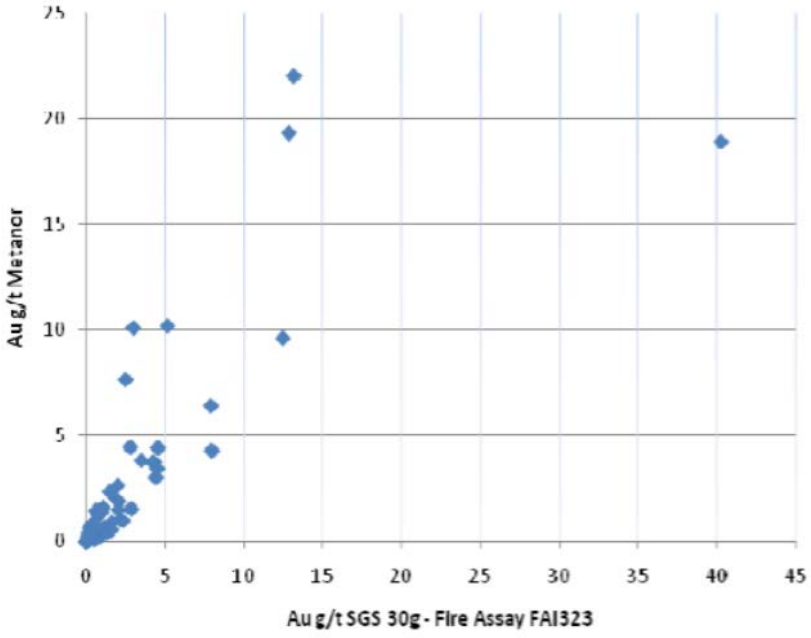


Figure 38: Correlation of the gold values between Metanor and SGS laboratories (SGS Geostat, 2010)

The correlation between the results from the Metanor and the SGS laboratories is 0.635 (Figure 38). In September 2010, MRB and Associates Geological Consultants (Martin Bourgoin, B.Sc., P.Geo) has been mandated by Metanor to carry out a resource estimation of the Barry 1 deposit. The study was not completed by MRB but the results of their data verification are discussed here.

The mineralized intervals have been chosen by Martin Bourgoin, B.Sc., P.Geo and Alex Horvat, P.Geo. and the sampling has been prepared by MRB. The 148 samples from twelve drillholes of 2008 and 2009 were sent to ALS Minerals in Val d'Or, Qc, to be analysed by fire assay.

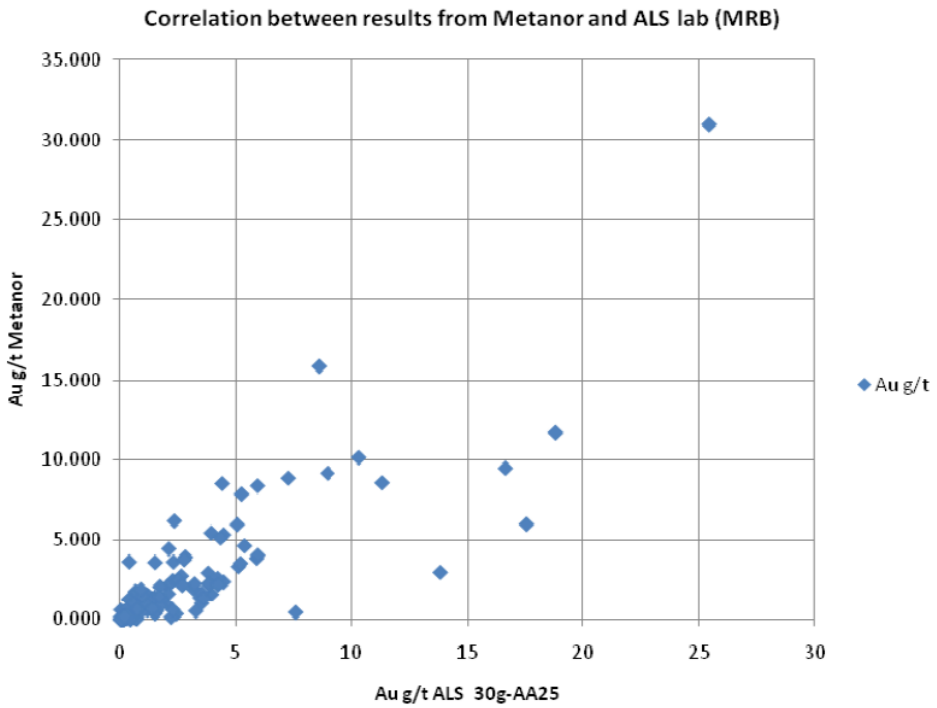


Figure 39: Correlation of the gold values between Metanor and MRB (ALS laboratory), (SGS Geostat, 2010)

The correlation between the results from the Metanor and the ALS laboratories (sampled by MRB) is 0.704 (Figure 39).

On these 148 samples analyses by fire assay with atomic absorption finish (AA) of 30 g (ALS code AA25), 30 samples have been also analysed by fire assay with a gravimetric finish for 30g (ALS code GRAV21) and 6 samples analysed by a 1000 g screen fire assay of 100 µm and fire assay with atomic absorption finish (AA) of 30 g (ALS codes SCR21 and AA25). The results are presented in the next tables (Table 14 and Table 15). The Sign Test for the 30 analyses between the fire assays and the gravimetric finish concludes that the gravimetric finish gives bigger gold assays. The Test is: n+ 8, n- 22, p <= 0.0161.

The sign test for the 6 analyses between the fire assays and the screen metallics is not conclusive but very close to be. We cannot prove that screen metallics fire assay gives bigger gold values from this test. Nevertheless, since the test is close to being conclusive and with such a limited number of pairs, we believe that more pairs would have shown that screen metallics fire assay gives bigger gold values than straight fire assays. The test is: n+ 1, n- 5, p <= 0.219.

Table 14: Assay results of core sampling From Metanor and MRB for data verification (part1)

Hole Name	From	To	Length	Metanor		ALS			
				Sample No	Au g/t	Sample No	Au g/t AA25	Au g/t GRA21	Au g/t SCR21
MB-08-265	37.5	39	1.5	243374	0.06	H678851	0.005		
MB-08-265	39	40.5	1.5	243376	1.37	H678852	1.4		
MB-08-265	40.5	42	1.5	243377	1.13	H678853	1.64		
MB-08-265	42	43.5	1.5	243378	8.93	H678854	9.18	8.61	
MB-08-265	43.5	45	1.5	243379	13.8	H678855	3.01		3.09
MB-08-265	45	46.5	1.5	243380	2.26	H678856	2.5		
MB-08-265	46.5	48	1.5	243381	0.35	H678857	0.44		
MB-08-265	48	49.5	1.5	243382	0.96	H678858	0.96		
MB-08-265	49.5	50.7	1.2	243383	3.15	H678859	1.98	2.59	
MB-08-265	50.7	51.5	0.8	243384	0.72	H678860	0.06		
MB-08-265	51.5	52.8	1.25	243386	17.5	H678861	6.01		8.6
MB-08-265	52.8	54	1.25	243387	2.63	H678862	2.78		
MB-08-265	54	55.5	1.5	243388	0.04	H678863	0.02		
MB-09-385	98	99.5	1.5	896004	0.06	H678864	0.06		
MB-09-385	99.5	101	1.5	896006	1.01	H678865	1.03		
MB-09-385	101	103	1.5	896007	1.48	H678866	1.46		
MB-09-385	103	104	1.5	896008	18.8	H678867	11.7		17.2
MB-09-385	104	106	1.5	896009	25.4	H678868	31		
MB-09-385	106	107	1.5	896010	4.44	H678869	2.41	3.4	
MB-09-385	107	108	0.9	896011	0.64	H678870	0.14		
MB-09-385	108	109	0.85	896012	0.29	H678871	0.64		
MB-09-385	109	110	1.4	896013	4.19	H678872	2.63	3.26	
MB-09-385	110	112	1.35	896014	0.03	H678873	0.03		
MB-08-261	39	40.5	1.5	242759	0.03	H678874	0.02		
MB-08-261	40.5	42	1.5	242761	0.14	H678875	0.01		
MB-08-261	42	43.5	1.5	242762	5.08	H678876	3.37	3.79	
MB-08-261	43.5	45	1.5	242763	2.04	H678877	2.17		
MB-08-261	45	46.5	1.5	242764	4.44	H678878	5.36	5.68	
MB-08-261	46.5	48	1.5	242766	1.19	H678879	1.58		
MB-08-261	48	49.5	1.5	242767	1.23	H678880	1.52		
MB-08-261	49.5	51	1.5	242768	0.41	H678881	0.19		
MB-08-261	51	52.5	1.5	242769	0.26	H678882	0.1		
MB-08-261	52.5	54	1.5	242770	0.07	H678883	0.005		
MB-09-368	33.5	35	1.5	7227	0.36	H678884	0.41		
MB-09-368	35	36.5	1.5	7228	5.34	H678885	4.66	5.78	
MB-09-368	36.5	38	1.5	7229	1.99	H678886	1.03		
MB-09-368	38	39.3	1.25	7230	3.79	H678887	2.97	3.82	

Hole Name	From	To	Length	Metanor		ALS			
				Sample No	Au g/t	Sample No	Au g/t AA25	Au g/t GRA21	Au g/t SCR21
MB-09-368	39.3	40.3	1	7231	5.17	H678888	3.58	3.37	
MB-09-368	40.3	41.5	1.2	7232	0.31	H678889	0.11		
MB-09-368	41.5	42.5	1.05	7233	0.02	H678890	0.16		
MB-09-368	42.5	43.9	1.4	7234	0.12	H678891	0.18		
MB-09-368	43.9	45	1.1	7236	2.07	H678892	1.68		
MB-09-368	45	45.8	0.83	7237	10.3	H678893	10.15		9.5
MB-09-368	45.8	47.3	1.5	7238	2.8	H678894	3.97		
MB-09-368	47.3	48.5	1.16	7239	1.76	H678895	1.33		
MB-09-368	48.5	50	1.51	7240	0.05	H678896	0.03		
MB-09-372	31	32	1	8817	0.35	H678897	0.28		
MB-09-372	32	32.9	0.9	8818	1.48	H678898	1.35		
MB-09-372	32.9	33.8	0.88	8819	0.27	H678899	0.38		
MB-09-372	33.8	35	1.22	8820	0.45	H678900	0.85		
MB-09-372	35	36.5	1.5	8821	7.22	H678901	8.87	6.92	
MB-09-372	36.5	38	1.5	8822	2.09	H678902	4.48		
MB-09-372	38	39.1	1.06	8823	3.92	H678903	1.64	2.52	
MB-09-372	39.1	39.9	0.85	8824	0.17	H678904	0.01		
MB-09-372	39.9	41	1.05	8826	5.03	H678905	5.99	6.45	
MB-09-372	41	42	1.04	8827	0.13	H678906	0.06		
MB-09-372	42	43	1	8828	0.67	H678907	0.08		
MB-09-372	43	44.5	1.5	8829	0.29	H678908	0.27		
MB-08-297	5	6.5	1.5	753303	0.44	H678909	0.005		
MB-08-297	6.5	7.5	1	753304	0.61	H678910	0.56		
MB-08-297	7.5	9	1.5	753306	3.84	H678911	2.27	2.99	
MB-08-297	9	10.5	1.5	753307	3.43	H678912	1.44	1.5	
MB-08-297	10.5	12	1.5	753308	3.19	H678913	2.29	2.55	
MB-08-297	12	13.5	1.5	753309	0.94	H678914	1.06		
MB-08-297	13.5	15.1	1.55	753310	0.16	H678915	0.51		
MB-08-297	15.1	16.5	1.45	753311	2.5	H678916	2.53		
MB-08-297	16.5	18	1.5	753312	0.04	H678917	0.04		
MB-08-301	28.5	30	1.5	241236	0.03	H678918	0.61		
MB-08-301	30	31.5	1.5	241237	7.54	H678919	0.46	0.47	
MB-08-301	31.5	33	1.5	241238	1.5	H678920	3.63		
MB-08-301	33	34.5	1.5	241239	0.39	H678921	3.67		
MB-08-301	34.5	36	1.5	241241	0.48	H678922	1.39		
MB-08-301	36	37.5	1.5	241242	3.91	H678923	5.47	6.03	
MB-08-301	37.5	39	1.5	241243	0.03	H678924	0.02		

Table 15: Assay results of core sampling From Metanor and MRB for data verification (part 2)

Hole Name	From	To	Length	Metanor		ALS			
				Sample No	Au g/t	Sample No	Au g/t AA25	Au g/t GRA21	Au g/t SCR21
MB-09-355	45	46.5	1.5	896228	0.27	H678925	0.45		
MB-09-355	46.5	47.4	0.85	896229	1.17	H678926	0.59		
MB-09-355	47.4	48.2	0.8	896230	0.65	H678927	1.83		
MB-09-355	48.2	49.5	1.35	896231	0.37	H678928	0.16		
MB-09-355	49.5	51	1.5	896232	2.33	H678929	6.21		
MB-09-355	51	52.5	1.5	896233	0.11	H678930	0.04		
MB-09-355	52.5	54	1.5	896234	8.55	H678931	15.9	14.45	
MB-09-355	54	55.5	1.5	896236	0.19	H678932	0.3		
MB-09-355	55.5	57	1.5	896237	1.5	H678933	0.38		
MB-09-355	57	58.5	1.5	896238	0.09	H678934	0.11		
MB-09-355	58.5	60	1.5	896239	0.81	H678935	0.57		
MB-09-355	60	61.5	1.5	896240	0.15	H678936	0.06		
MB-09-355	61.5	63	1.5	896241	0.02	H678937	0.02		
MB-09-355	63	64.5	1.5	896242	2.41	H678938	0.36		
MB-09-355	64.5	65.6	1.05	896243	0.37	H678939	1.32		
MB-09-355	65.6	67.1	1.5	896244	5.86	H678940	3.9	5.09	
MB-09-355	67.1	68	0.95	896246	0.09	H678941	0.1		
MB-08-308	60	61.5	1.5	759258	0.16	H678942	0.29		
MB-08-308	61.5	63	1.5	759259	0.95	H678943	0.55		
MB-08-308	63	64.5	1.5	759260	0.28	H678944	0.5		
MB-08-308	64.5	66	1.5	759261	2.19	H678945	0.16		
MB-08-308	66	67	1	759262	2.67	H678946	2.21		
MB-08-308	67	67.5	0.5	759263	2.29	H678947	3.66		
MB-08-308	67.5	69	1.5	759264	3.8	H678948	2.3	2.34	
MB-08-308	69	70.5	1.5	759266	0.67	H678949	1		
MB-08-308	70.5	71.3	0.75	759267	0.83	H678950	0.74		
MB-08-308	71.3	72	0.75	759268	0.36	H678951	0.41		
MB-08-308	72	73.2	1.2	759269	1.71	H678952	2.13		
MB-08-308	73.2	74	0.8	759271	0.07	H678953	0.06		
MB-08-308	74	75	1	759272	0.02	H678954	0.04		
MB-08-308	75	76.5	1.5	759273	0.19	H678955	0.08		
MB-08-308	76.5	78	1.5	759274	0.02	H678956	0.01		
MB-09-349	20.5	22	1.5	6926	0.15	H678957	0.48		
MB-09-349	22	23.1	1.1	6927	0.45	H678958	0.23		
MB-09-349	23.1	24.1	1	6928	0.34	H678959	0.74		
MB-09-349	24.1	25.5	1.35	6929	5.9	H678960	8.39	8.55	
MB-09-349	25.5	26.4	0.9	6931	11.3	H678961	8.58		10.9
MB-09-349	26.4	27.3	0.9	6932	0.97	H678962	1.16		
MB-09-349	27.3	28	0.75	6933	1.57	H678963	0.56		
MB-09-349	28	29.5	1.5	6934	4.2	H678964	2.25	2.01	
MB-09-349	29.5	31	1.5	6936	4.31	H678965	5.16	5.12	
MB-09-349	31	32.5	1.5	6937	1.3	H678966	1.25		
MB-09-349	32.5	34	1.5	6938	0.18	H678967	0.09		
MB-09-349	34	35.5	1.5	6939	0.14	H678968	0.09		
MB-09-349	35.5	37	1.5	6940	0.69	H678969	1.78		
MB-09-349	37	38.5	1.5	6941	0.27	H678970	0.1		
MB-09-349	38.5	40	1.5	6942	0.02	H678971	0.04		
MB-08-271	30	31.5	1.5	240628	0.25	H678972	0.15		
MB-08-271	33	34.5	1.5	240629	1.13	H678973	1.03		
MB-08-271	34.5	36	1.5	240630	0.57	H678974	1.07		
MB-08-271	36	36.7	0.7	240631	3.5	H678975	1.04	1.19	
MB-08-271	36.7	37.5	0.8	240632	5.91	H678976	4.08	4.02	
MB-08-271	37.5	39	1.5	240633	3.51	H678977	1.72	1.78	
MB-08-271	39	40.5	1.5	240634	2.27	H678978	0.61		
MB-08-271	40.5	42	1.5	240636	0.05	H678981	0.02		
MB-08-271	42	43.5	1.5	240637	0.96	H678982	1.53		
MB-08-271	43.5	45	1.5	240638	0.04	H678983	0.02		
MB-08-271	45	46.5	1.5	240639	0.12	H678984	0.22		
MB-08-271	46.5	48	1.5	240641	0.04	H678985	0.02		
MB-08-271	48	49.5	1.5	240642	1.7	H678986	0.87		
MB-08-271	49.5	50.2	0.7	240643	0.73	H678987	0.65		
MB-08-271	50.2	51	0.8	240644	16.6	H678988	9.49		10.25
MB-08-271	51	52.5	1.5	240646	2.75	H678989	3.81		
MB-09-384	109	110	1	10422	0.41	H678992	0.06		
MB-09-384	110	110	0.88	10423	0.9	H678993	1.94		
MB-09-384	110	111	0.71	10424	4.38	H678994	8.53	10.2	
MB-09-384	111	112	1.35	10426	5.21	H678995	7.88	8.04	
MB-09-384	112	113	1	10427	1.67	H678996	1.49		
MB-09-384	113	115	1.46	10428	1.38	H678997	0.68		
MB-09-384	115	116	1.1	10429	0.22	H678998	0.27		
MB-09-384	125	127	1.5	10437	0.33	H678999	0.26		
MB-09-384	127	128	1.5	10438	3.25	H679000	0.54	0.6	
MB-09-384	128	130	1.5	10439	3.58	H679001	1.39	1.36	
MB-09-384	130	131	1.5	10440	0.19	H679002	0.2		

On September 2010, SGS (by Claude Duplessis Eng.) carried out an independent sampling program and an analytical check of the samples for the holes drilled in 2009. A total of 22 control samples from 3 drillholes (MB-09-373, MB-09-440, MB-09-444) were assayed for the Barry I project. Mineralized intervals have been chosen by Claude Duplessis Eng., and the sampling has been prepared by SGS Geostat. The 22 samples were sent to ALS Minerals in Val d'Or, Qc, to be analysed by screen fire assay (Table 16).

Table 16: Assay results of the core sampling by SGS Geostat from the 2009 drilling campaign

				Metanor (fire assay 30 g)		SGS Au-SCR21	
Hole Name	From	To	Length	Sample No	Au_g/t	Sample No	Au_g/t
MB-09-440	36.8	37.6	0.8	178604	0.59	14551	0.48
MB-09-440	37.6	38.5	0.9	178606	0.03	14552	0.03
MB-09-440	38.5	40	1.5	178607	6.83	14553	12.3
MB-09-440	40	41.5	1.5	178608	6.63	14554	7.18
MB-09-440	41.5	42	0.45	178609	19.8	14555	8.42
MB-09-440	42	43.3	1.3	178610	0.88	14556	0.32
MB-09-440	43.3	44.5	1.25	178611	2.93	14557	1.31
MB-09-440	44.5	46	1.5	178612	0.07	14558	0.03
MB-09-440	46	47.5	1.5	178613	0.03	14559	0.03
MB-09-440	47.5	49.2	1.65	178614	0.13	14560	0.03
MB-09-440	49.2	50.2	1.03	178616	0.41	14561	0.22
MB-09-440	50.2	50.5	0.32	178617	0.02	14562	0.06
MB-09-444	31.5	32.4	0.9	178986	1.54	14563	1.1
MB-09-444	32.4	33	0.6	178987	2.35	14564	3.45
MB-09-444	33	34.5	1.5	178988	26.2	14565	20.8
MB-09-444	34.5	36	1.5	178989	0.13	14566	0.16
MB-09-373	19	20.5	1.5	8712	0.005	14567	0.03
MB-09-373	20.5	21.5	1	8713	14	14568	16.05
MB-09-373	21.5	22.4	0.88	8714	2.58	14569	3.81
MB-09-373	22.4	23.2	0.84	8716	4.19	14570	3.96
MB-09-373	23.2	24	0.73	8717	1.34	14571	1.09
MB-09-373	24	25	1.05	8718	0.37	14572	0.31

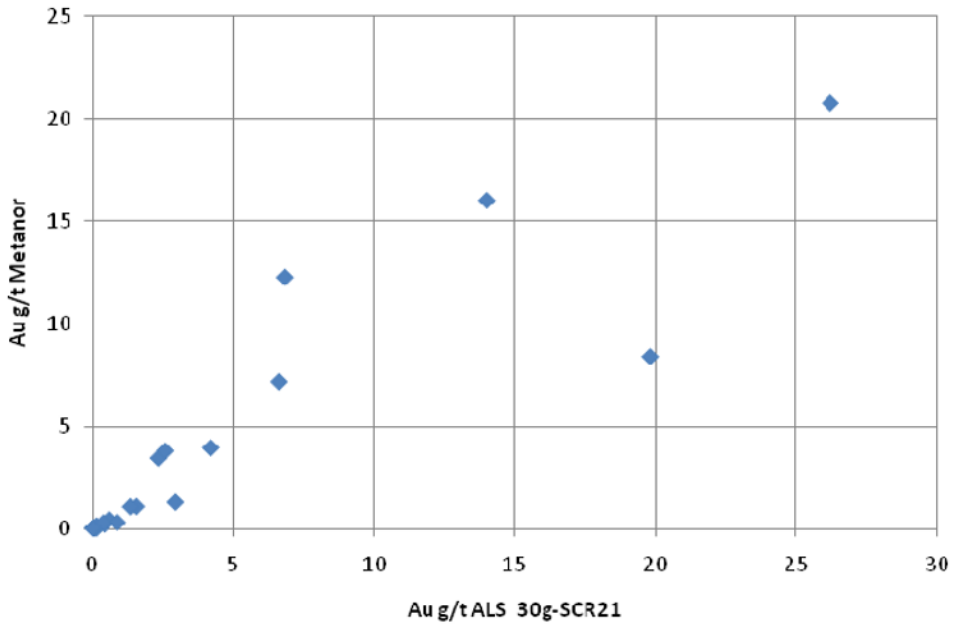


Figure 40: Correlation between Metanor and ALS laboratories (SGS Geostat, 2010)

The correlation between the results from the Metanor and the ALS laboratories (sampled by SGS) is 0.816 (Figure 40). There are 12 differences where Metanor>ALS, 2 null results, and 8 differences where ALS>Metanor, so the result is 59%.

12.2. Historical database verification

The historical database is composed by surface channels, trenches and diamond drillholes. All were compiled by Metanor resources Inc.

The GMG geologist verified the database assay table and did not find any major errors. Extensive verification by colleagues of the Author also took place.

The collar locations, azimuths, dips, holes lengths, assay values, and assay lengths were checked. Available historical cross sections were reviewed and compared with on-screen equivalent cross sections.

Independent core samples (48 samples) were taken at the beginning of the drilling campaign by the Author and QP, Mr. Claude Duplessis. He supervised with Mr. Rachidi P Geo., the preparation and sampling protocol and sent the samples to the ALS Laboratory in Val d'Or.

12.3. Goldminds Geoservices Database (2016 drilling campaign 2016)

The GMG has verified and integrated assay table results of ALS/Bachelor analyses and created a database of the 2016 drilling campaign.

The diamond drillholes collar locations, were surveyed by Corriveau JL & Assoc Inc. using Total-station. Azimuths and holes dips were measured by the GMG geologist during the drilling campaign.

Geotic Log software was used to create individual log databases. Geology, sampling and coordinates data were entered in individual Geotic log database tables by the geologist logging a specific drillhole. A master database was created which combined all of the 15 drillholes into one file. Results from the laboratory were only entered into the master database by the GMG geologist (Merouane Rachidi P. Geo. Ph. D.).

13. Mineral Processing and Metallurgical Testing

In 2009, SGS Geostat was mandated by Metanor to carry out a prefeasibility study on the Barry deposit and the Bachelor mill. The study was not completed. During the autumn of 2009, the needs of Metanor have changed since it was declared an exploration company by the Autorité des Marchés Financiers (AMF). Metanor has completed an exploration drilling program on the Barry property while continuing mining and processing the mineralized material at the Bachelor Lake's mill.

Previous metallurgical tests made on the Barry deposit samples have given a recovery rate of 94%[1].

13.1. Milling Operation 2008 - 2010

From February 2008 to October 10th, 2010 a total of 617,489 tonnes of mineralized material have been processed at the Bachelor mill. Because Goldminds could not get reliable operation data for the whole period, only the milling operation from July 2008 to June, 2010 has been considered in this report. During that period, a total of 487,971 tonnes of mineralized material have been processed. The average grade for that period was of 2.38 g/t Au while the average gold recovery was 92.52%. Average feed rate was 29.7 t/h.

At that time, milling at Bachelor was via a Merril Crowe type circuit and there was no gravity machinery. The grinding circuit had a total electric power of 578 kW and the cyanide leaching tanks had a capacity of 1,292 m^3 for a total leaching time of approximately 42 hours without counting the leaching that took place directly in the ball mills.

Even if it is not clear cut, it would seem that gold recovery is somewhat inversely proportional to the mill feed rate and consequently proportional to the leaching time and fineness of the grind. In January 2010, the average feed rate to the mill was 24.7 t/h. The gold recovery for that month was 95.4%. On the other hand, in April 2010 average mill feed rate was 40.1 t/h and the gold recovery dropped to 89.4%. (Flowsheet of the mill circuit as it was in 2009-2010 is shown in Appendix A)

13.2. Leach Test Work – Innovat Method (December 2011)

The main objective of the test was to investigate alternative means of leaching the mineralized material directly at the Barry deposit, which is restrained by the remote location of resources from any power grid and which is characterized by low grades. Innovat's Continuous Vat Leaching method (CVL) was

[1] This information was provided by Metanor and was not verified by Goldminds

suggested as an alternative to conventional cyanidation methods, i.e., heap and/or tank leaching, primarily for the purpose of minimizing power and heavy transportation costs to the Bachelor mill. The test was conducted at SGS Canada Inc. in Lakefield, On.

- Test work observation

Two samples, identified as Sample A and B, were fire assayed to 1.45 g/t and 1.24 g/t Au grades respectively. Size distribution analysis gave the following results.

Table 17: Barry's Material, Size Distribution Analysis

PRODUCT	CUM WEIGHT RETAINED	CUM ANALYSIS CALCULATED Au g/t	CUM DISTRIBUTION RETAINED Au %	CUM WEIGHT RETAINED	CUM ANALYSIS CALCULATED Au g/t	CUM DISTRIBUTION RETAINED Au %
Plus 10 m	49.99	1.21	41.4	45.99	0.71	26.4
Plus 48 m	78.71	1.35	73.0	74.95	1.08	65.6
Plus 200 m	87.99	1.41	85.6	86.42	1.16	80.9
Minus 200 m	12.01	1.75	14.4	13.58	1.74	19.1
TOTAL	100.00	1.45	100.00	100.00	1.24	100.00

Leaching of both samples was tried at a crush size of -1/4" for 48 hours. Although reagent consumption was very low, recovery achieved in both samples was 55%, with the leach curves showing that the leaching had ceased at the end of the time period.

As expected, analysis of the recovery by size fraction has shown that the losses occur in the coarse fractions and that the gold particles, though fine, are more or less evenly scattered.

Because the crushing method was conventional coarse particles were impervious to the cyanide solution. For this reason, why high pressure grind rolling (HPGR) was tried. HPGR is reputed to be of lower cost than SAG milling. In some case, it has been proven to induce micro cracks in the mineral particles, permitting the cyanide solution to have capillarity accesses to the gold trapped inside the ore.

An HPGR preparation of Sample A was crushed to 2.59 mm (versus 6.35 mm with standard jaw crushing) yielding a jump in recovery to 69.4% at 48 hours leach time.

Further HPGR crushing to 0.75 mm brought the recovery to 83.3% after 96 hours leaching time[2].

[2] It is the opinion of Goldminds that the increase in gold recovery had less to do with the crushing-grinding machinery than with the fineness of the mineralized material coupled to the leaching time

13.3. Grindability Characteristics and Grinding Simulations of Samples from the Barry Deposit (SGS Canada inc. February 2013)

The main purpose of the test was to assess the Bachelor mill optimal grinding capability for the Barry deposit mineralized material before adding to the grinding capacity.

The grinding circuit configuration consists of a primary ball mill, which is actually a tricone ball mill, operated in open circuit, followed by two secondary ball mills operated in parallel and closed with a single nest of cyclones. The tricone ball mill is 10.5' x 10.0' and has a motor of 525 HP. The secondary ball mill dimensions are 6' x 10' and 5' x 10' and are fitted with 150 HP and 100 HP motors, respectively. Flowsheet is shown in Figure 41 below.

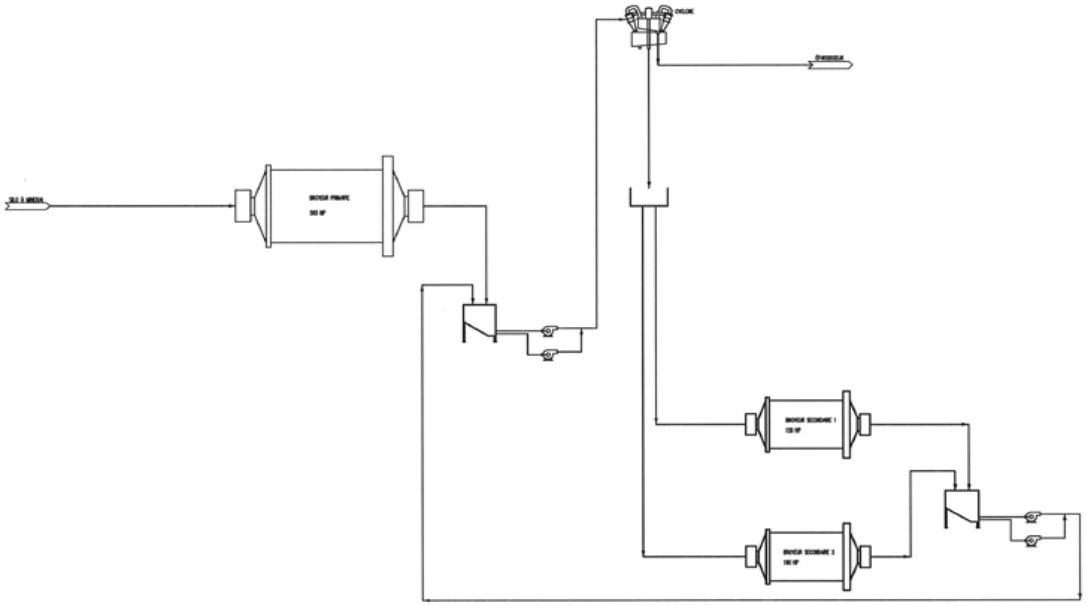


Figure 41: Grinding Circuit Configuration

A composite retrieved from the Barry deposit by Mrs. Nicole Rioux of Genivar assisted by Mr. André Tremblay of Metanor, made from eight individual samples was submitted for the Bond rod mill and ball mill grindability tests. The eight individual samples, along with the composite sample, were submitted for the comparative Bond ball mill grindability test, in order to estimate the BWI variability amongst the samples. The results are summarized in Table 18.

Table 18: Grindability Test Summary

SAMPLE NAME	METRAGE	WORK INDICES (kWh/t)		COMPARATIVE
		RWI	BWI	BWI (KWh/t)
BARRY COMPOSITE		16.4	12.6	
MB 95-35	0.0 - 3.0 m			11.4
MB 95-24	0.3 - 2.4 M			10.7
MB 95-24	2.4 - 4 M			14.8
MB 06-175	3.0 - 7.0 M			12.4
MB 95-19	1.0 - 4.0 M			15.3
MB 06-175	7.0 - 10.0 m			13.5
MB 06-180	1.0 - 5.0 m			14.8
MB 19	4.0 - 5.5 m			14.0
STRAIGHTAVERAGE*				13.3
WEIGHED AVERAGE*				13.1

*Exclude the composites

The composite was categorized as moderately hard with respect to RWI and as moderately soft in terms of BWI. The RWI/BWI ratio was 1.3, which is very high, indicating that the ore is harder at coarse size, or competent. The comparative BWI's varied from 10.7 kWh/t to 15.3 kWh/t, which positions the samples from the soft to the medium range of the SGS database. The comparative BWI's averaged 13.3 kWh/t.

The grindability test results were used to simulate the maximum throughput rate of the conventional circuit, from a feed F_{80} of 3,127 microns down to a final P_{80} of 78 microns. The simulated throughput rate estimated with the comparative indices and a fixed RWI value varied from 28.0 to 38.5 t/h and the weighted average was 32.5 t/h.

13.4. An Investigation into the Determination of Total Gold in Three Composite Samples from the Barry Deposit (SGS Canada inc. July 2016)

The purpose of the metallurgical test program was to determine the head grade of three composite samples from Ressources Métanor Inc.'s Barry project and incidentally determine the possible gold recovery. The samples were processed using gravity separation followed by cyanide leaching of the

gravity tailings. An overall gravity separation plus cyanidation metallurgical gold balance was performed to calculate the head grade of each sample. A summary of the testwork results is shown in Table 19 below.

Table 19: Overall Results Summary

Sample	Overall Gold Recovery (%)			CN Residue Au Assay (g/t)	Calculated Heas Grade Au (g/T)
	Gravity	Cyanidation	Gravity + CN		
Comp A	30.4	63.4	93.8	0.20	3.22
Comp B	17.7	77.2	94.8	0.11	2.13
Comp C	22.8	71.4	94.2	0.04	0.69

Metallurgical testwork

The objective of the metallurgical testwork program was to determine the head grade of each sample by subjecting the entire sample to gravity concentration of the coarse gold followed by cyanide leaching of the gravity tailings.

This test protocol was used in order to avoid the potential discrepancies in the calculation of the head grades due to the coarse gold "nugget" effect. An overall (gravity + cyanidation) gold metallurgical balance was performed to calculate the head grade of each sample.

a) Gravity separation testwork

Each sample was ground in a laboratory rod mill to a target grind size of 80% passing 75 microns. The mill discharge was processed through a Falcon laboratory concentrator operating under standard lab conditions. The Falcon concentrate produced was upgraded on a Mozley (C-800) Laboratory Mineral Separator. The target Mozley concentrate weight percentage, based on the feed weight, was 0.05 – 0.1%. The Mozley concentrate was assayed to extinction for gold. The Mozley and Falcon tailings were combined, subsampled for duplicate assays, and a 1 kg subsample was submitted for cyanide leaching. The feed sizes (P_{80}, µm) ranged from 67 to 75 microns.

b) Gravity tailing cyanidation testwork

Each 1 kg of the subsamples of combined Falcon/Mozley tailings was subjected to cyanide leaching under the following conditions:

- Pulp density: 40% solids (w/w)
- Pulp pH: 10.5 – 11.0 (maintained with lime)
- Cyanide concentration: 1.0 g/L as NaCN (maintained)
- Lead nitrate addition: 0.1 kg/t
- Retention time: 72 hours
- Cyanide consumption range: 0.08 to 0.20 kg/t
- Lime consumption range: 0.49 to 0.55 kg/t

Upon completion of the test, the pulp was filtered and the final pregnant leach solution (PLS) was collected and assayed for gold. The filter cake was washed with distilled water and dried. Duplicate 30 gram cuts per sample were riffled out for a determination of gold content by fire assay.

13.5. Conclusion to the Previous Mill Run and to the Testworks

In January 2010, in order to increase the mill feed rate from +/- 750 tpd to 1,200 tpd, Metanor added a 10' x 14', 400 HP rod mill to the grinding circuit and at the end of the operation in October 2010, changed the Merril Crowe circuit for a carbon in pulp while adding some 436 m^3 of cyanidation volume. Because of the Merril Crowe circuit and especially filtration problems, between February and October 2010, the mill experienced many shutdowns and the expected feed target was never reached.

Now with the new CIP circuit, Goldminds is of the opinion that if all the available electrical energy for the grinding is used and the short head cone crusher is set at 0.25", 2010 Metanor's target is reachable and some 1,200 tonnes of the Barry material could be ground per day (50 tph) at a fineness of 75 µm at an overall efficiency of 90%. Therefore, there is no need to add more grinding capacity.

On the other hand, Goldminds is also of the opinion that even if Metanor install a gravity circuit ahead of the cyanidation, the actual cyanidation-CIP circuit does not have the capacity to leach 1,200 tonnes per day of the Barry's gravity tailings since this tonnage would imply a leaching time of only 33 hours at a density of 60% solid (see Article 13.1 above, last paragraph). This is not counting that the 40' thickener may also prove to be too small.

It is always possible to cheat on the pulp density of the thickener underflow and accept a lower percentage of solid, but it would add a heavier burden on the leaching time.

New Work Index and gravity-cyanidation tests are pending but for the time being and for the needs of this report, at a 1,200 tpd mill feed rate and a thickener underflow density of 50% solid, to ensure a leaching time of 48 hours and obtain 95% gold recovery, Goldminds recommends the installation of three new 30' x 30' leaching tanks.

14. Mineral Resources Estimates

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

Metanor Resources Inc. engaged Goldminds Geoservices Inc. to prepare an updated Mineral Resource Estimation with the integration of the new drilling data from the 2016 drilling campaign.

This mineral resources update was carried out using existing drilling data (561 holes totalling 73,317 meters, and 524 of sampling channels totalling 4367 meters). The new drilling campaign of 2016 is located on the Barry property (15 holes, totalling 1,370 meters).

GMG carried out the update of the resources estimation of the Barry project. This section presents the methodology used and the results of the mineral resources estimation. Two resources models were produced by GMG (Claude Duplessis, Eng., and Isabelle Hébert, Jr. Eng.) using model with blocks dimensions of 05 m (EW) x 05 m (NS) x 05 m (Z) and 03 m (EW) x 03 m (NS) x 03 m (Z).

14.1. Previous Mineral Resource Estimate

Metanor was exploiting gold from the Barry property until 2009. On September 21st 2010, SGS Geostat have publicly disclosed the resource statement of the Barry property (Table 20).

Table 20: Mineral resources of Barry property published in 2010 by SGS Geostat

Class	Tonnes	Au g/t	Ounces Au
Indicated	7,701,000	1.25	309,500
Inferred	10,411,000	1.41	471,950

The resources reported are compliant with current standards as outlined in the National Instrument 43-101. The reported resources above with a cut-off grade of 0.5 g/t, and capping at 35 g/t Au on assays. No pit optimization was applied in the above mineral resources.

SGS Geostat decided to keep only indicated and inferred resources due to some difficulties to verify the location of drillholes and the uncertainties about the precision of the topographic surface.

14.2. Exploration Database

The database used for this report is composed by Metanor database compiled until 2010. This database was delivered by SGS as Access database named 'Barry_New2010_7 (Isa1)'. The database of the 2010 and 2014 drilling campaigns was delivered by Mr. Claude Gobeil, P. Geo. (Director of Geology and Exploration at Metanor Resources Inc.). The last modification/correction of the database took place at the office of Geoservices Goldminds on May 17th 2016.

The database until 2009

- 504 drillholes and 524 sampling channels;
- Total drilled length 54162 meters with 4367 meters of trenches;
- 42 391 assays (Au g/t) ;
- 2 938 deviation data ;
- 6 071 lithological descriptions;

The database (2010-2014 drilling campaign)

- 57 drillholes;
- Total drilled length is 19 155 meters;
- 7 732 assay results (Au g/t) ;
- 199 deviation data;
- 907 lithological description records;

The new database (2016 drilling campaign)

- 15 drillholes;
- Total drilled length is 1 370 meters;
- 1 316 assay results (Au g/t) ;
- 307 deviation data;

- 171 lithological description records;

All coordinates (Figure 42) are given in UTM (NAD83). The surface used in this resource calculation is not a topography surface but rather the top of the bedrock.

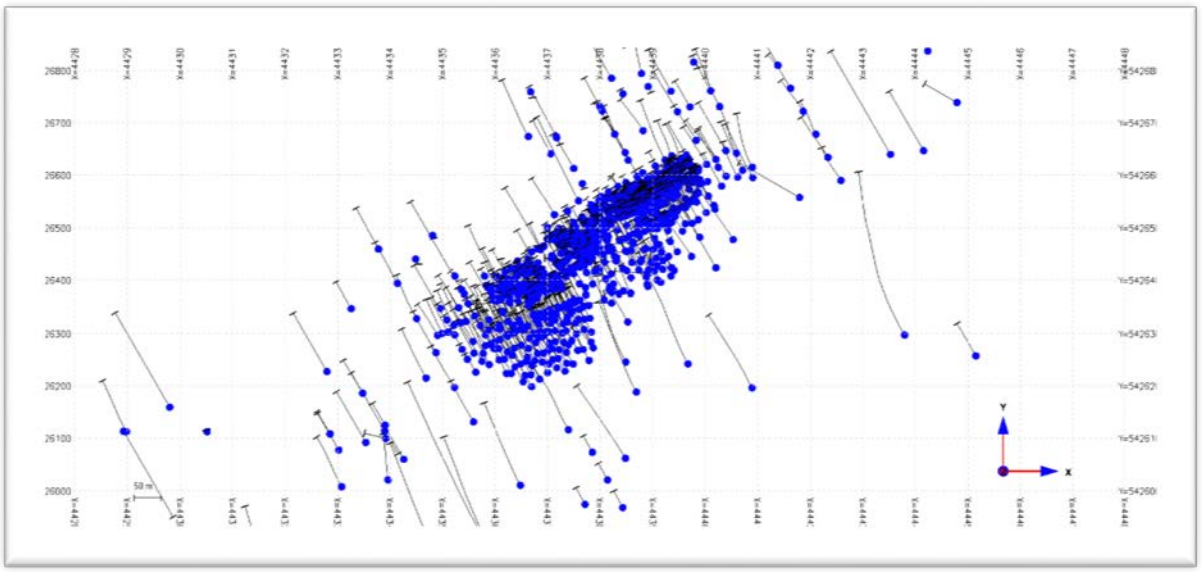


Figure 42: Localization of drillholes and sampling channels collars on the Barry property

14.3. Specific gravity data

Specific gravity measurements were taken from the NI 43-101 report published on November 2010 on the Barry property by SGS Geostat. The specific gravity measurements were performed on drill cores. In this calculation of the mineral resource estimate, a fixed specific gravity of 2.8 t/m^3 is used to convert volume into tonnage.

14.4. Resource model 1 (block size of 3x3x3) final for public disclosure

- Introduction

The first model corresponds to a mass model including low grade material using block dimensions of 3 (E) x 3 (N) x 3 (Z)m. The envelopes of waste were built around specific lithology and subtracted from the mass envelope.

- Modeling

After the verification/validation of the Barry database. GoldMinds Geoservices conducted mineralization interpretation and modelling of the 3D wireframe envelopes of the gold mineralization.

The first step was to create the mass envelope. Several sections (36 sections, azimuth 60 and 8 sections, azimuth 70; both facing northeast) were created using all drilling results (Figure 43). The interpretation was first completed on sections to define mineralized vertical projection contours called prisms (polygon interpretation) in Genesis© software using assays (Figure 44 and Figure 45).

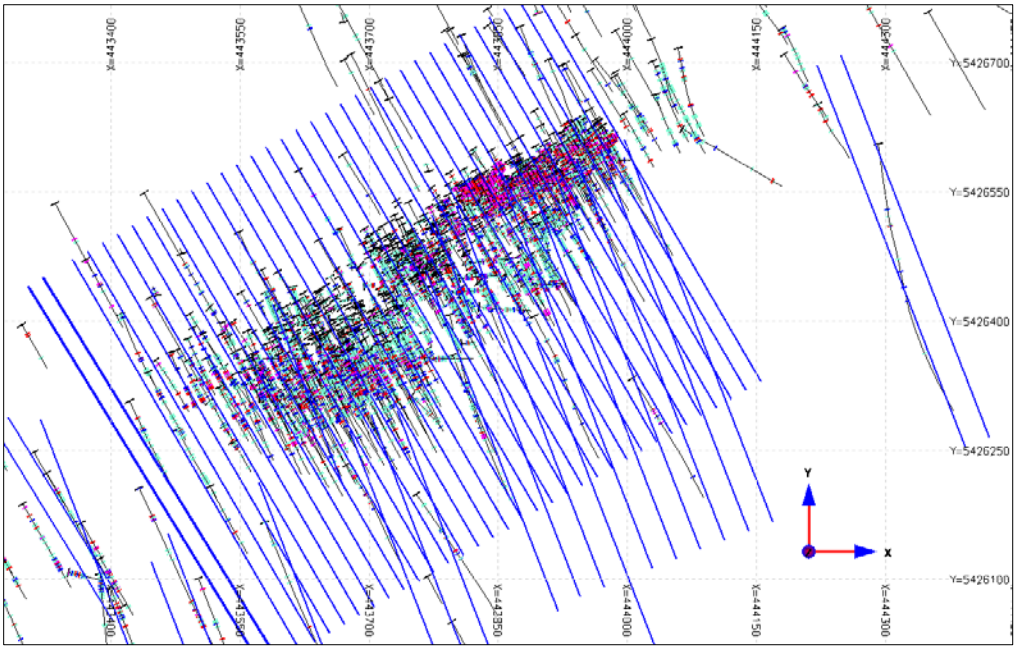


Figure 43: Plan view of the sections and localization of prism and collars, Barry property (color coded by Au ppm)

A total of three envelopes were created following the behavior of two specific lithologies presenting no mineralization from the rest of the deposit. These envelopes were constructed by connecting defined lithology prisms from each section (Figure 44 and Figure 45). The first envelope is focused on the unmineralized quartz and feldspar porphyry intrusions (QFP) lithology, it is present throughout five (5) sections from 0.50 to 3.50. The other two envelopes were created in order to delimit the unmineralized granodiorite (Figure 46 and Figure 47). They are visible on eleven (11) sections, from section -02 to 07 and on twenty (20) sections from 12 to 31.

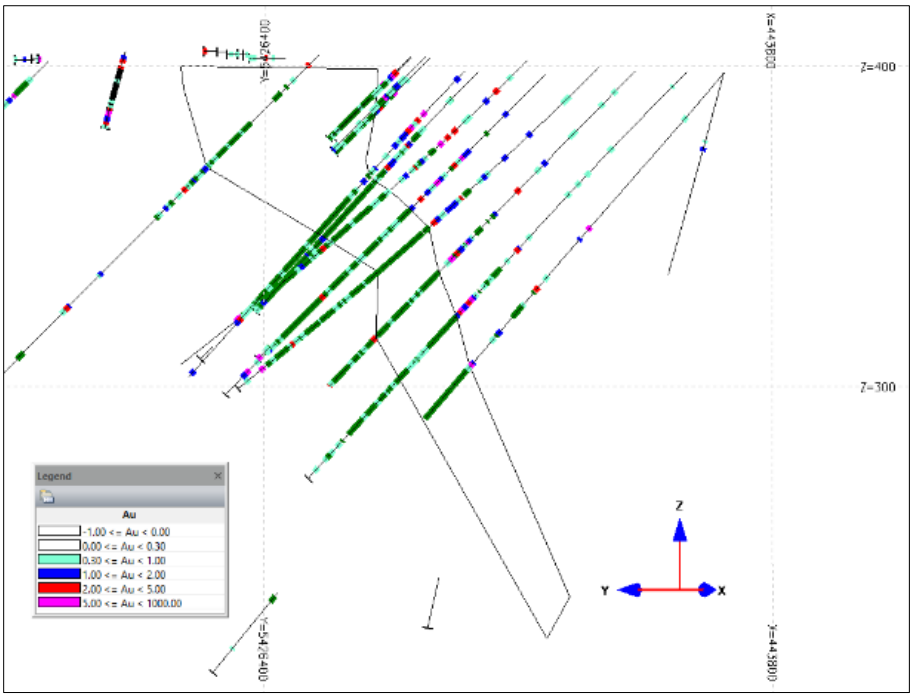


Figure 44: Section (IH: 15) NW-SE showing prism and envelope built around unmineralized granodiorite/diorite

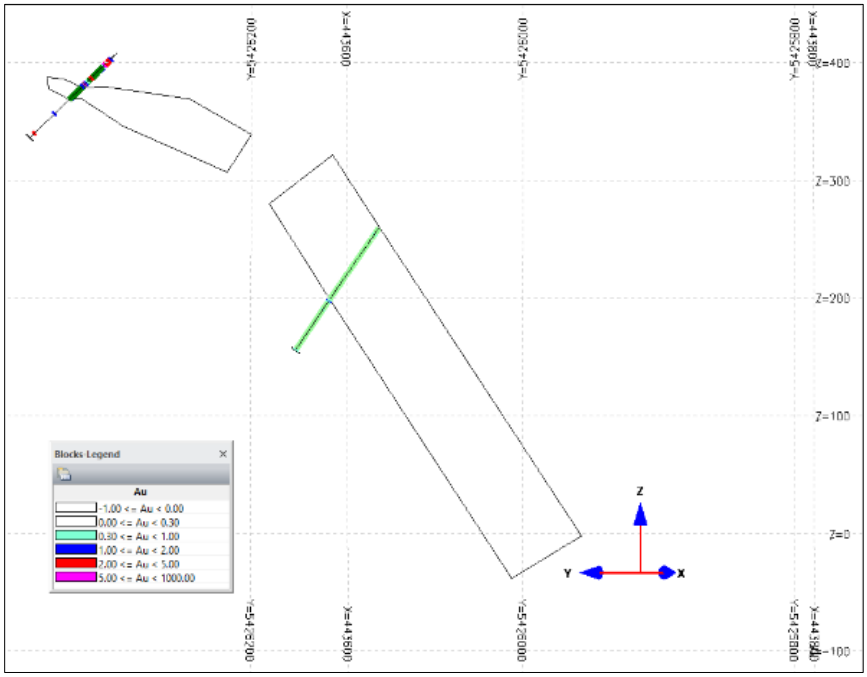


Figure 45: Section (IH: 03) NW-SE showing prism and envelope built around unmineralized QFP

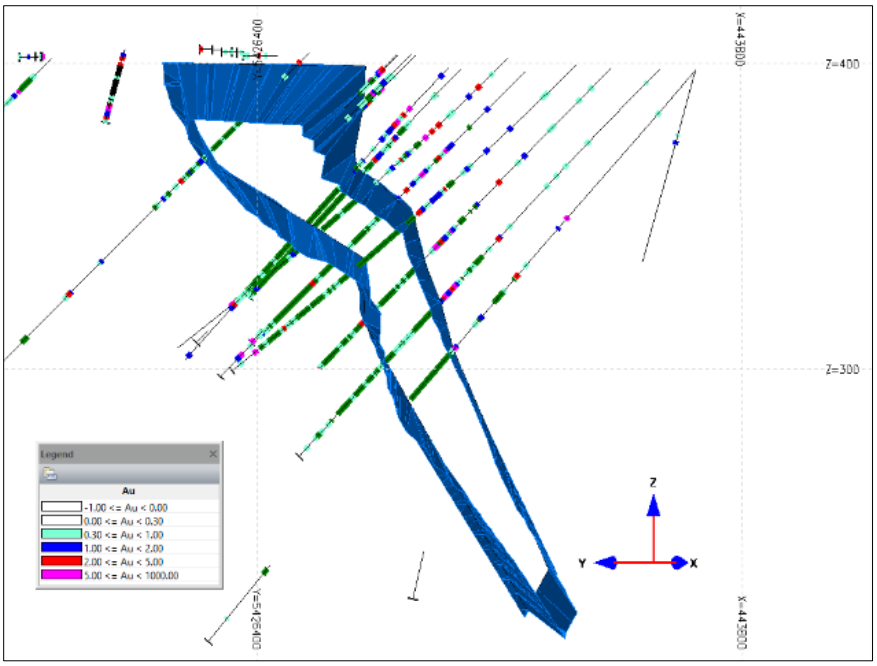


Figure 46: Section (IH: 15) NW-SE showing prism and envelope built around unmineralized diorite

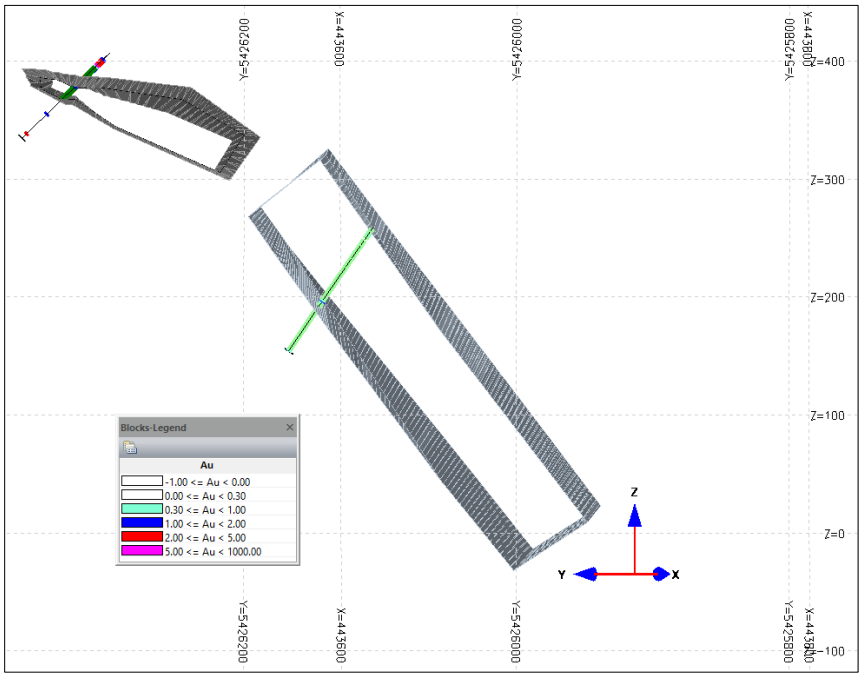


Figure 47: Section (IH: 03) NW-SE showing prism and envelope built around sterile granodiorite and granodiorite and QFP

At last, the three lithology envelopes were subtracted one at a time from the mineralized envelope (Figure 48) before generating the blocks model.

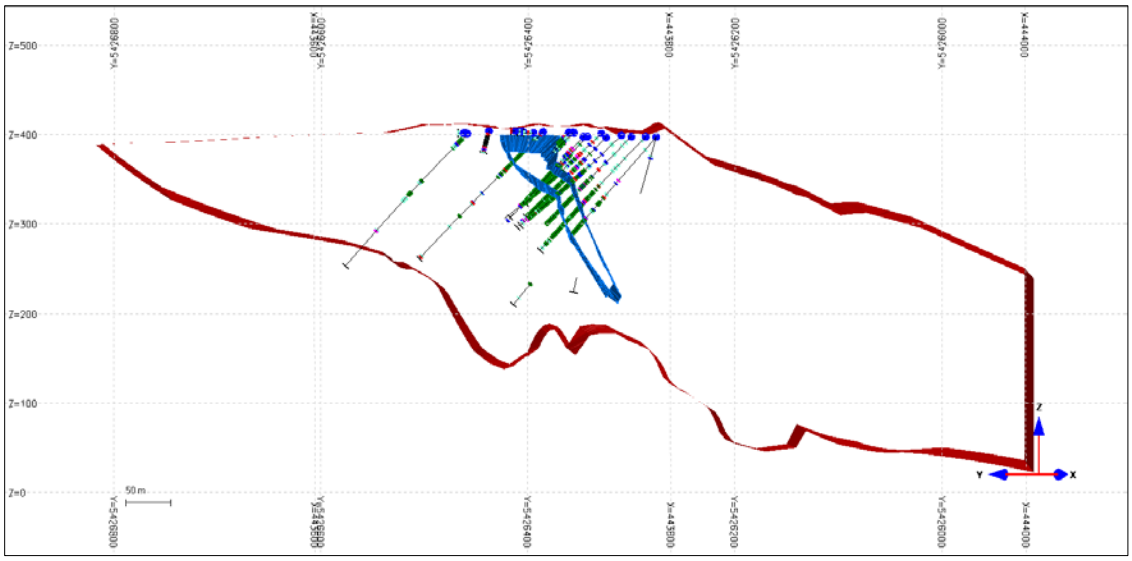


Figure 48: Section (IH: 15) NW-SE showing mass envelope and one granodiorite envelope to be subtracted

- Compositing of assay intervals

Before assigning grades to dimensionless "points" in the 3D space (the composite centers) in the block grade interpolation, it is necessary to standardize the length of the grade "support" through numerical compositing.

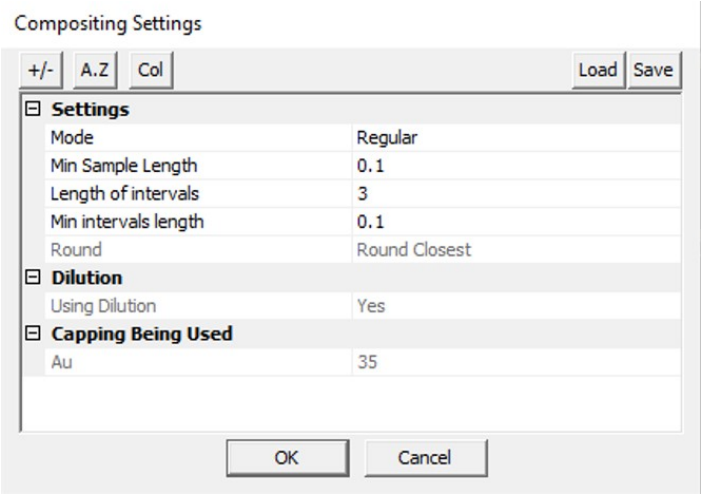


Figure 49: Compositing parameters

Each composite has a length of 3 meters, created from the beginning of each mineralized interval (Figure 49). Compositing is done downhole from the start of the mineralized intersection. Missing assays and unsampled length are assumed to be zero grade. At the end of the mineralized intersection, the last retained composite is the last with a minimum length of 0.1 meters. It is important to mention

that only composites within the mineralized envelopes have been used to estimate the mineral resources. A capping of 35 Au g/t on assays was applied (Figure 49).

- The block model

Block model definition

Estimations of block grades were performed with the software Genesis for the modeling and the interpolation.

The origin of the block model is located in the lower left corner of the mine (442950E, 5425800N, -60Z). The block size has been defined in order to respect the complex geometry of the envelopes. The mineral resource estimate was carried out with a block size of twenty-seven cubic meters (03 m (EW) x 03 m (NS) x 03 m (Z)), (Figure 50).

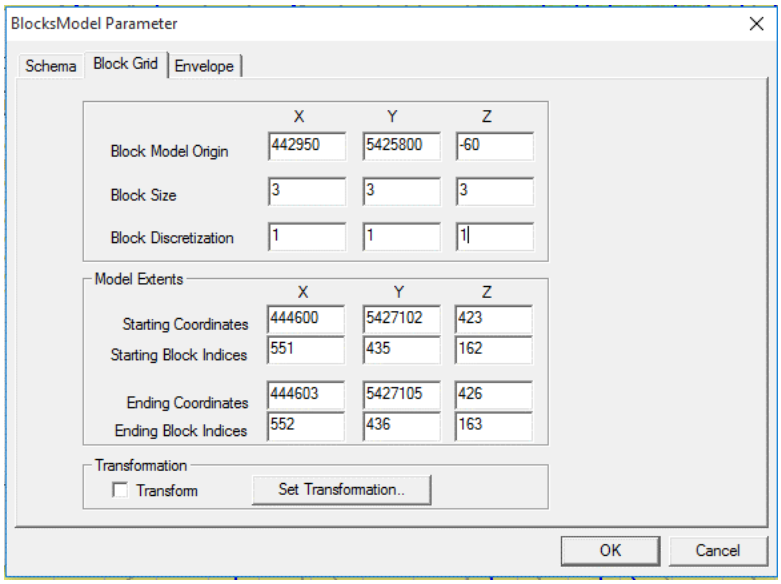


Figure 50: BlockModel settings

One block model was generated from the mass Envelope (Figure 51). The main envelopes (lithologies envelopes subtracted) were filled by regular blocks and only the composites within envelopes were used to estimate the block grades. A total of 14850 composites were created.

The average Au ppm grades is computed for each block using interpolation according to the inverse of the distance from the nearest composites. Interpolation parameters were based on drill spacing, envelope extension and orientation.

The blocks model was then cut by overburden/rock surface and the topography prior to estimation.

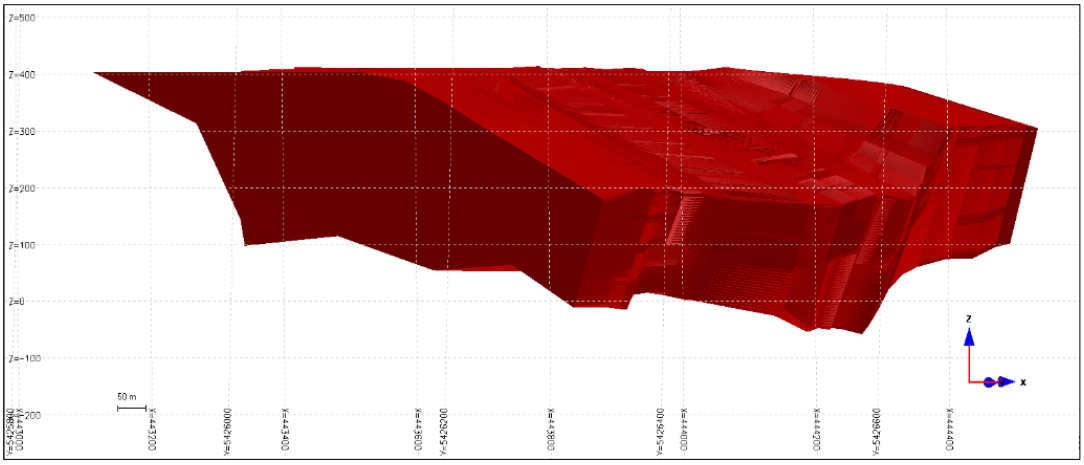


Figure 51: Mass envelope, Barry property

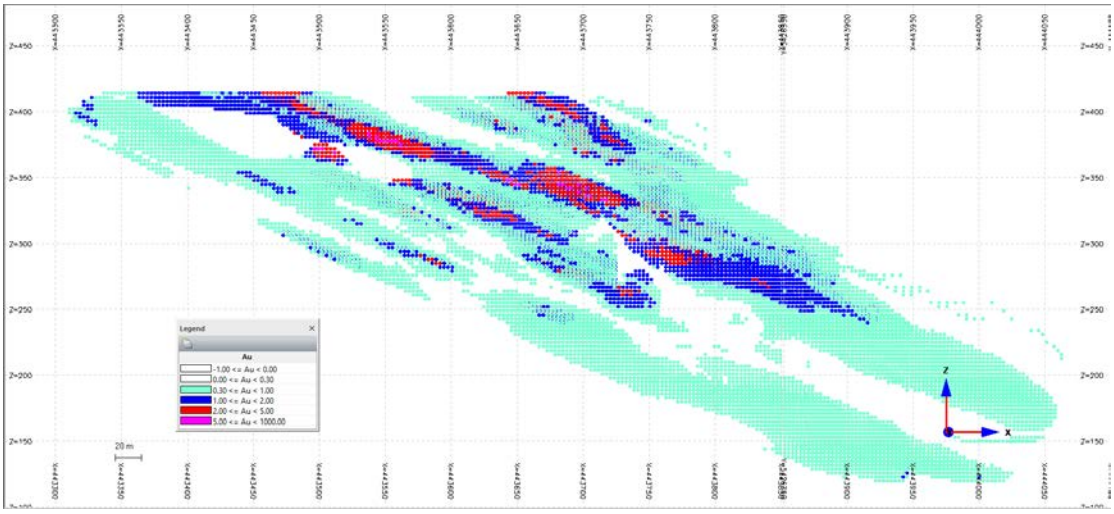


Figure 52: Blocks Model (3m x 3m x 3m)

Ellipsoid parameters and interpolation

For the interpolation, three runs were used. For runs one (1) and two (2), a number of composites limited to twelve (12) with a minimum of six (6) and a maximum of three (3) composites from the same drillhole were used. For run three (3), a number of composites limited to twelve (12) with a minimum of one (1) and a maximum of three (3) composite per drillhole were established.

A search ellipsoid following the geological interpretation trends was used for the grade estimation. The subsequent table shows the size of the variable ellipsoid used to generate the block model estimation.

Table 21: Search ellipsoid parameters and estimation parameters

Run	Azimuth	Dip	Spin	X (m)	Y (m)	Z (m)	Minimum Samples per Block	Maximum Samples per Block	Maximum per Drillhole
1	84	-19	45	50	10	5	6	12	3
2	84	-19	45	75	15	10	6	12	3
3	84	-19	45	150	50	25	1	12	3

- Mineral resources classification

The classical method was used to classify the deposit where one defined class is used by ellipsoid. A total of three ellipsoids and three runs were used. In run one (measured) and run two (indicated), a maximum of twelve (12) and a minimum of six (6) composites were established per block and a limit of three (3) composites per drillhole. In the third run (inferred) a maximum of twelve (12) and a minimum of one (1) composites were established per block and the limit of three (3) composites per drillhole was also used. The parameters are listed in the following table.

Table 22: Search ellipsoids parameters for mineral resource classification

Resources classification	Azimuth	Dip	Spin	X (m)	Y (m)	Z (m)	Minimum Samples per Block	Maximum Samples per Block	Maximum per Drillhole
Measured	84	-19	45	50	10	5	6	12	3
Indicated	84	-19	45	75	15	10	6	12	3
Inferred	84	-19	45	150	50	25	1	12	3

These estimations include Metanor's 2016 drilling campaign as well as the historical drillholes and excludes the pit excavation updated in July 2015.

14.5. Resource model 2 (block size of 5x5x5)

- Introduction

This model is the replica of the first model in regards to the dimension and the position of the envelopes. The differences between them are the block dimensions and the estimation parameters. This model was created in order to evaluate the effect of block size dimension on the estimation

- Modeling

The model 2 was established using the same database and envelopes as model 1.

- Compositing of assay intervals

The same compositing parameters used in model 1 were used in this model. Each composite has a length of 3 meters, created from the beginning of each mineralized interval. A capping of 35 Au g/t on assays was applied.

- The block model

Block model definition

Estimations were performed with the software Genesis for the modeling and the resource estimation using the same origin as model 1 (Figure 53).

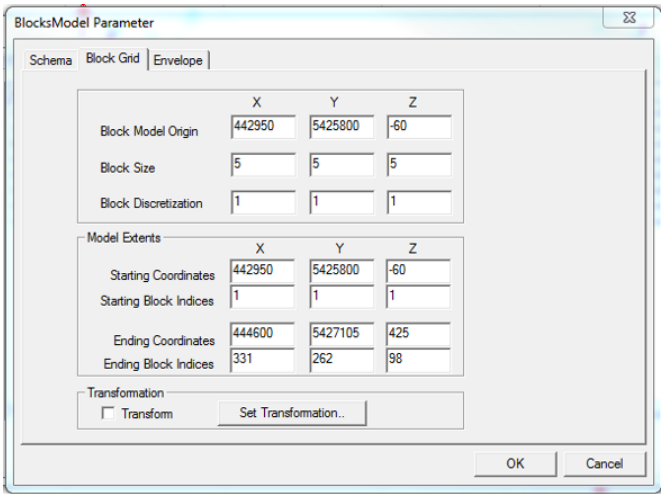


Figure 53: Blocks model settings

Ellipsoid parameters and interpolation

Three runs were used to estimate the mineral resource. In runs one (1) and two (2), a number of composites limited to ten (10) with a minimum of five (5) and a maximum of two (2) composites from the same drillhole were used. For run three (3), a number of composites limited to ten (10) with a

minimum of two (2) and a maximum of two (2) composite from the same drillhole were established as parameters.

A search ellipsoid following the geological interpretation trends was used for the grade estimation. The subsequent table shows the selected parameters (Table 23) of the ellipsoid used to generate the mineral resource estimation.

Table 23: Search ellipsoids and estimation parameters

Pass	Azimut	Dip	Spin	X (m)	Y (m)	Z (m)	Minimum Samples per Block	Maximum Samples per Block	Maximum per Drillhole
1	84	-19	45	50	15	10	5	10	2
2	84	-19	45	75	25	15	5	10	2
3	84	-19	45	150	50	25	2	10	2

- Mineral resources classification

The classical method was used to classify the deposit where one defined class is used by ellipsoid. A total of three ellipsoids and three runs were used. In run one (measured) and run two (indicated), a maximum of ten (10) and a minimum of five (5) composites per block and a limit of two (2) composites per drillhole were established. In the third run (inferred), a maximum of ten (10) and a minimum of two (2) composites were established per block and the limit of two (2) composites per drillhole was also used. These parameters are listed in the table below.

Table 24: Search ellipsoids and classification parameters

Resource category	Azimut	Dip	Spin	X (m)	Y (m)	Z (m)	Minimum Samples per Block	Maximum Samples per Block	Maximum per Drillhole
Measured	84	-19	45	50	15	10	5	10	2
Indicated	84	-19	45	75	25	15	5	10	2
Inferred	84	-19	45	150	50	25	2	10	2

14.6. Pit Optimization Procedure and Parameters

This section presents the mineral resources for public disclosure with pit optimization results with different parameters (Gold price, mineralized material mining cost, waste mining cost, processing cost and different types of resources included). The parameters were estimated by GoldMinds Geoservices based on the knowledge of similar operations. No economic study was produced for this project, therefore the resources presented below have not shown economic viability but present a reasonable prospect of economic extraction as per CIM definition. Only mineral resources within a pit shell are presented as official mineral resources in the context of open pit mining.

A base case with a possible on-site mill has been done followed by different scenarios. The difference between optimizations relies in the type of resource included in the economic parameters. The price of gold in Can$ is increased from 1460 $/t to 1650 $/t. The following table present the base case mineral resources and is followed by parameters selected for each pit optimization (Table 25 and Table 26).

Table 25: Base Case resources with in-pit resource sensitivity (block model used 3m x 3m x 3m)

Optimization #	Resource classification	Mineral Resources			Waste		Total	
		Tonnage	Grade Au	Au content	Tonnage	Grade Au	Tonnage	Stripping ratio
		t	g/t	oz	t	g/t	t	
Base case	Measured	5 880 000	1,04	197 000	7 835 000	0,13	13 715 000	
	Indicated	3 020 000	0,87	85 000	5 795 000	0,12	8 815 000	
	Measured + indicated	**8 900 000**	**0,98**	282 000	**13 630 000**	**0,13**	**22 530 000**	
	Inferred	20 705 000	0,99	659 000	118 505 000	0,05	139 210 000	
								4,46
Pit 1	Measured	2 840 000	1,49	136 000	5 905 000	0,25	8 745 000	
	Indicated	630 000	1,35	27 000	1 265 000	0,21	1 895 000	
	Measured + indicated	**3 470 000**	**1,47**	163 000	**7 170 000**	**0,25**	**10 640 000**	
	Inferred	1 375 000	2,43	108 000	3 745 000	0,05	5 120 000	
								2,25
Pit 2	Measured	2 790 000	1,50	134 000	5 760 000	0,26	8 550 000	
	Indicated	535 000	1,35	23 000	950 000	0,22	1 485 000	
	Measured + indicated	**3 325 000**	**1,47**	157 000	**6 710 000**	**0,25**	**10 035 000**	
	Inferred as waste	0	0,00	-	2 215 000	0,06	2 215 000	
								2,68
Pit 3	Measured	3 455 000	1,37	152 000	6 465 000	0,22	9 920 000	
	Indicated	910 000	1,24	36 000	1 845 000	0,20	2 755 000	
	Measured + indicated	**4 365 000**	**1,34**	188 000	**8 310 000**	**0,22**	**12 675 000**	
	Inferred	1 670 000	2,17	116 000	4 865 000	0,05	6 535 000	
								2,18
Pit 4	Measured	2 175 000	1,63	114 000	4 870 000	0,28	7 045 000	
	Indicated	375 000	1,50	18 000	670 000	0,22	1 045 000	
	Measured + indicated	**2 550 000**	**1,61**	132 000	**5 540 000**	**0,27**	**8 090 000**	
	Inferred	1 170 000	2,68	101 000	2 735 000	0,05	3 905 000	
								2,22
Pit 5	Measured	2 060 000	1,68	111 000	4 885 000	0,29	6 945 000	
	Indicated	350 000	1,53	17 000	655 000	0,23	1 005 000	
	Measured + indicated	**2 410 000**	**1,66**	128 000	**5 540 000**	**0,28**	**7 950 000**	
	Inferred	1 140 000	2,72	100 000	2 705 000	0,05	3 845 000	
								2,32

*The sum of the tonnages may not equal the total amounts due to rounding

Table 26: Pit Optimization parameters with Cut-Off grades

Base case for mineral resource disclosure parameters scenario for an on-site mill

- Gold price: 1650 $/Oz
- Mineralized material mining cost: 3.25 $/$t_{mined}$
- Waste mining cost: 3.25 $/$t_{mined}$
- Processing cost: 18 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.36 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred

Optimisation 1

- Gold price: 1460$/Oz (3-year trailing average)
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.68 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred

Optimisation 2

- Gold price: 1460$/Oz (3-year trailing average)
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.68 g/t
- Mining recovery: 90%
- Resource included: Measured and indicated

Optimisation 3 (scenario of using Bachelor Mill)

- Gold price: 1650$/Oz
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.60 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred

Optimisation 4

- Gold price: 1300$/Oz
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.76 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred

Optimisation 5

- Gold price: 1250$/Oz
- Mineralized material mining cost: 5.17 $/$t_{mined}$
- Waste mining cost: 4.81 $/$t_{mined}$
- Processing cost: 20 $/$t_{milled}$
- Material Loading: 1.5 $/ t_{milled}
- Road maintenance: 1.5 $/$t_{milled}$
- Transport: 7.35 $/$t_{milled}$
- Slope angle: 50°
- Processing recovery: 95%
- Mill cut-off grade: 0.80 g/t
- Mining recovery: 90%
- Resource included: Measured, indicated and inferred

The next figures show the pit optimization generated by MineSight software. Figure 54 regroups the five pit optimisations in one plan where each color represents the outline of the pit. Then Figure 55 and Figure 56 illustrates the longitudinal cross section A-A' looking southeast of the deposit without and with the block model. Figure 57 and Figure 58 represents the vertical section B-B' looking northeast without and with the block model, in those figures, the same color code as the one used in Figure 56 is used to identify each optimization.

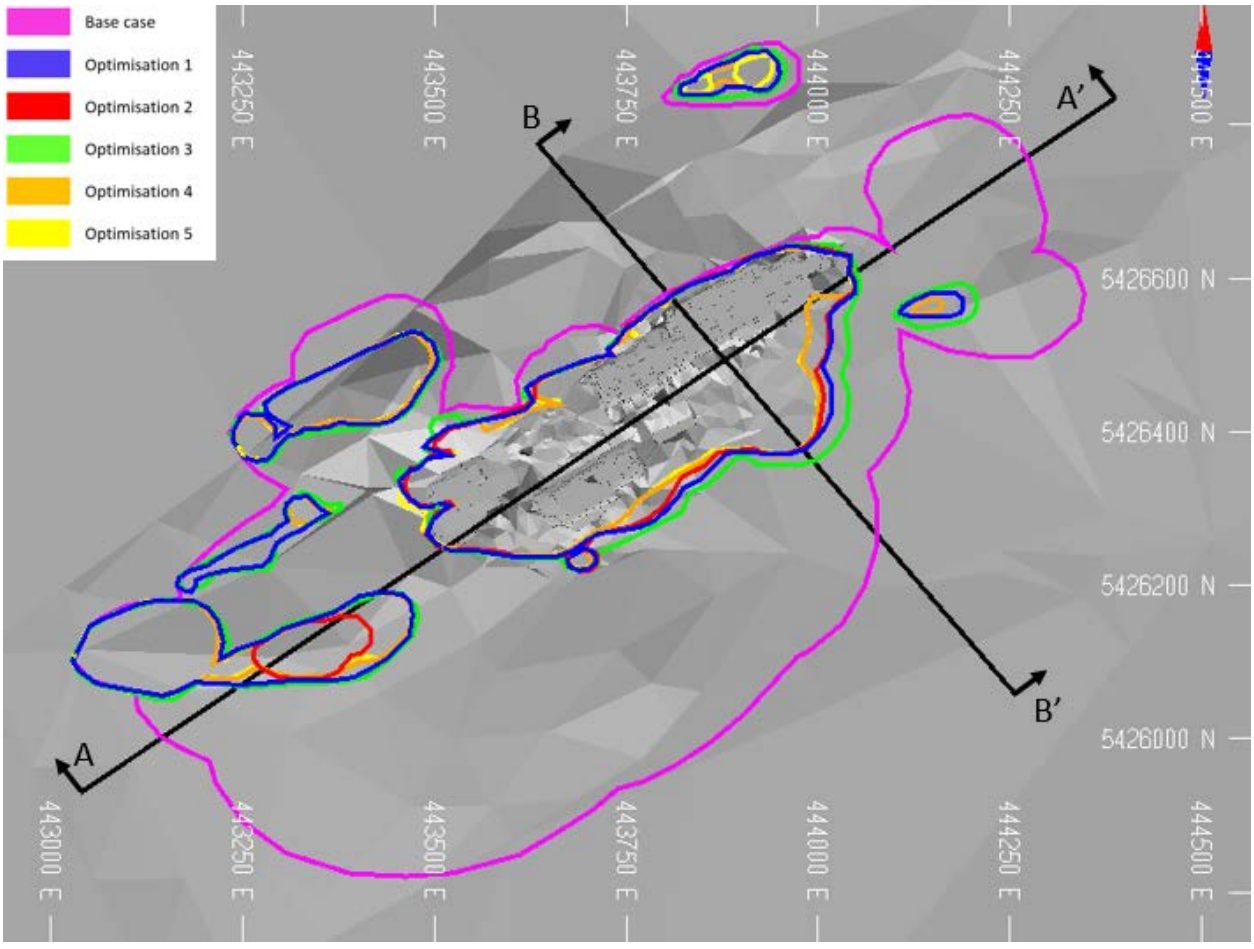


Figure 54: Optimization daylight

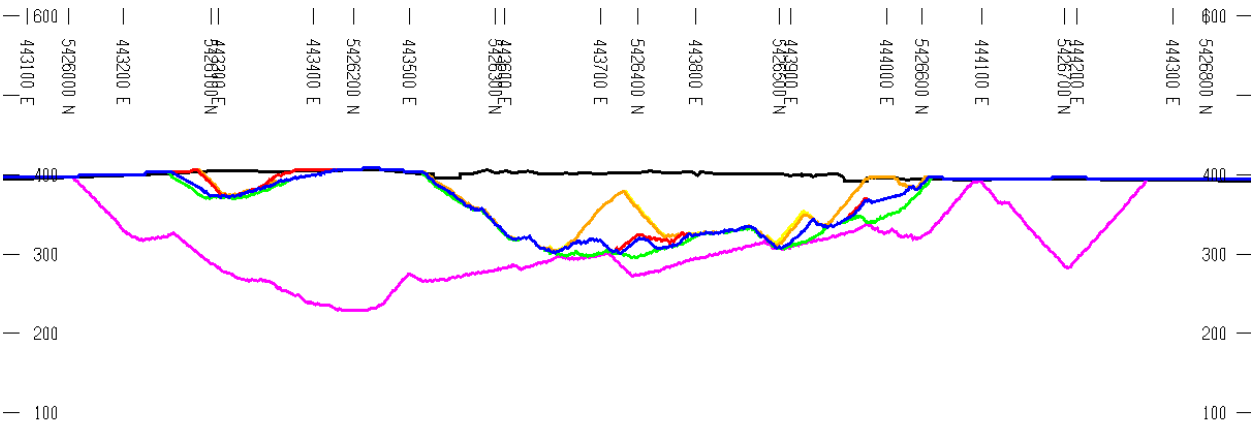


Figure 55: Longitudinal A-A', looking southeast

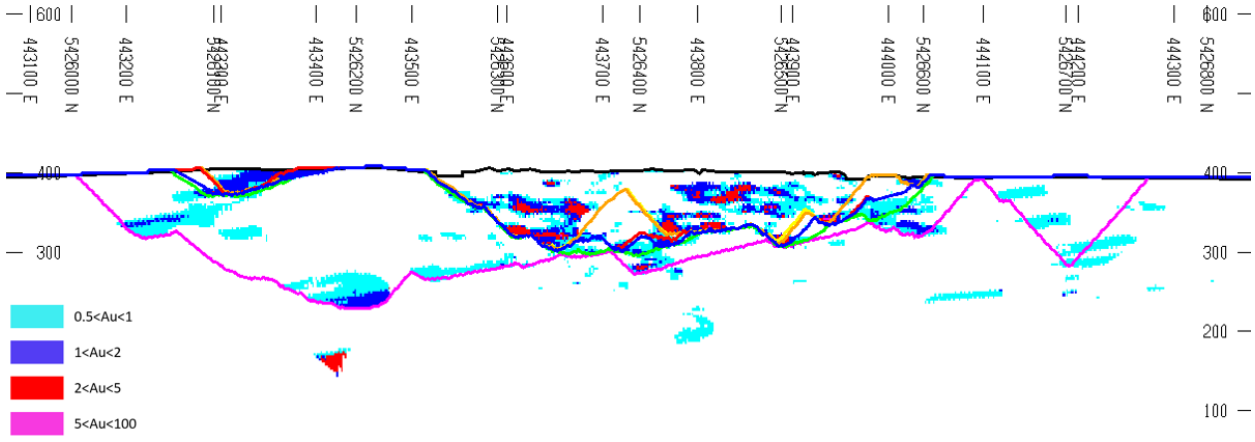


Figure 56: Longitudinal A-A', looking southeast with block models (Au g/t)

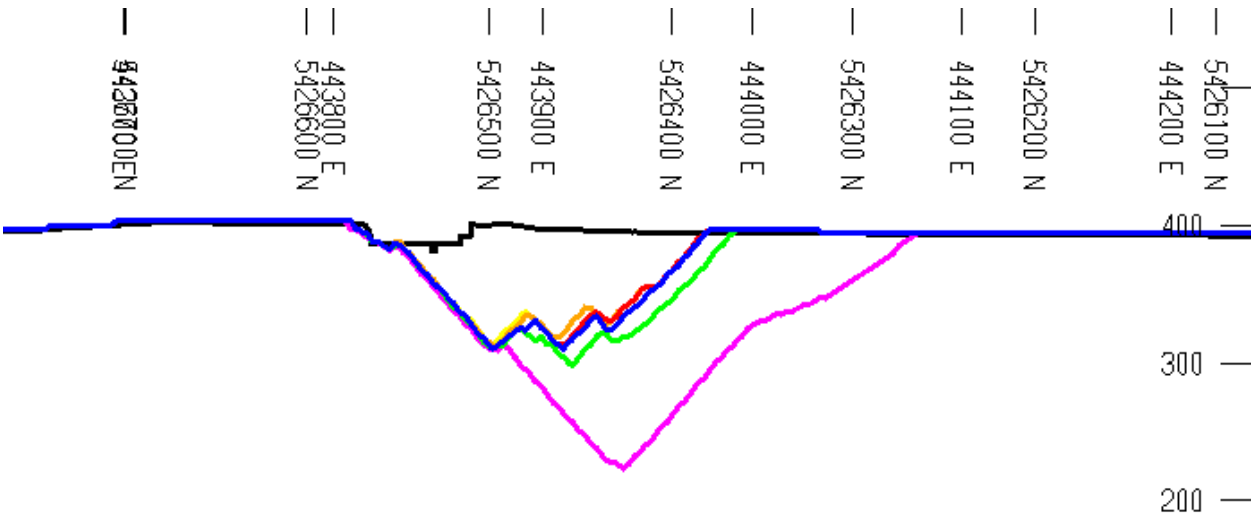


Figure 57: Section B-B', looking northeast

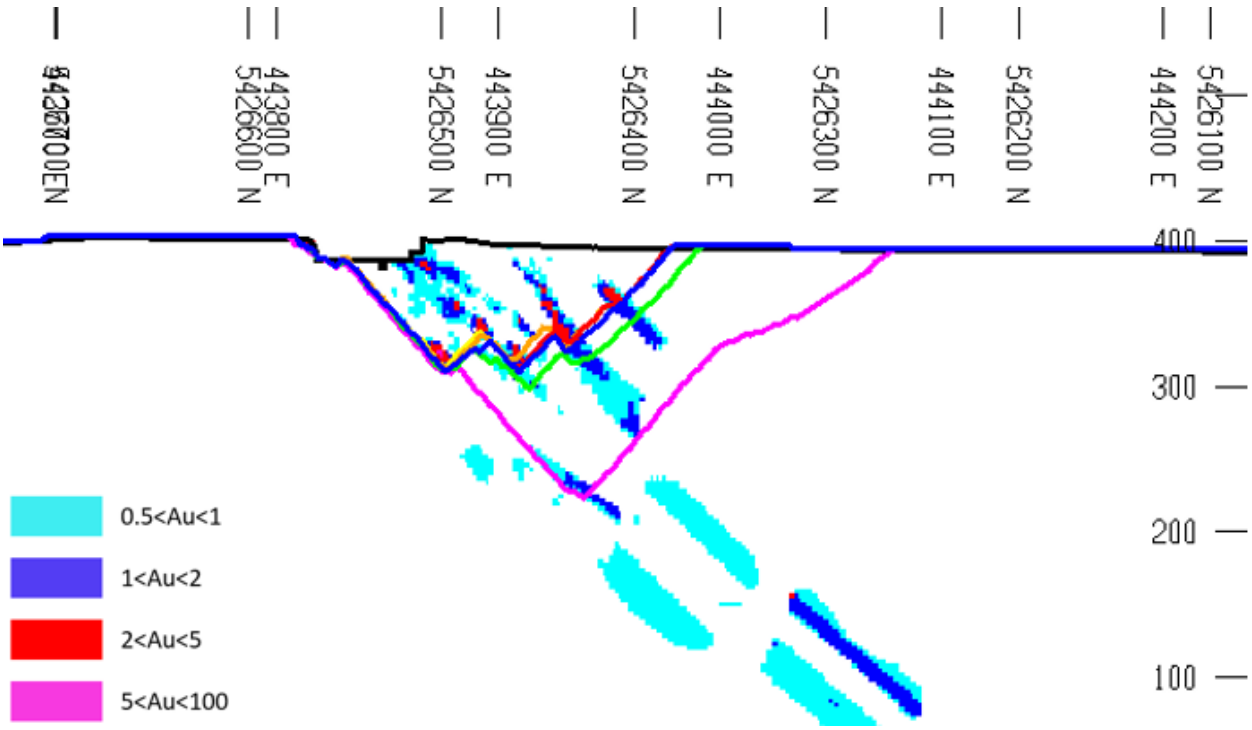


Figure 58: Section B-B', looking northeast

- Pit results

The pit design was produced in MineSight with the parameter established for each pit optimization. The following figures present the plan view of the actual pit topography surface and present the Base Case with five other pit optimizations mentioned above.

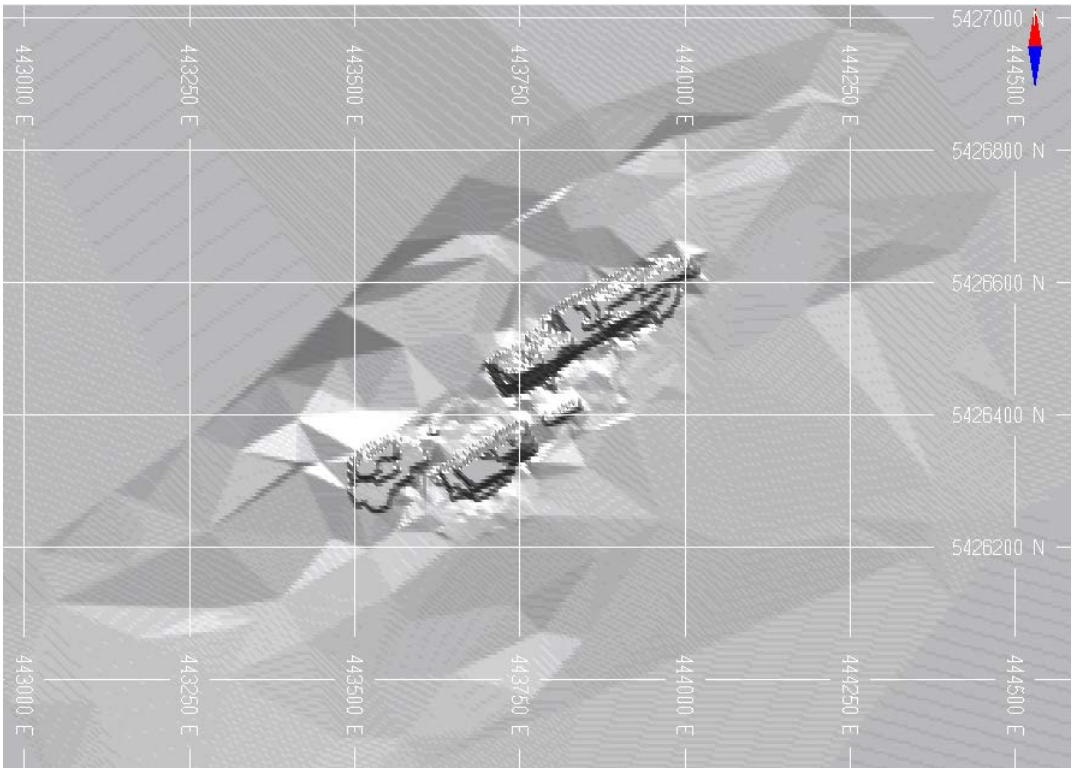


Figure 59: Actual pits

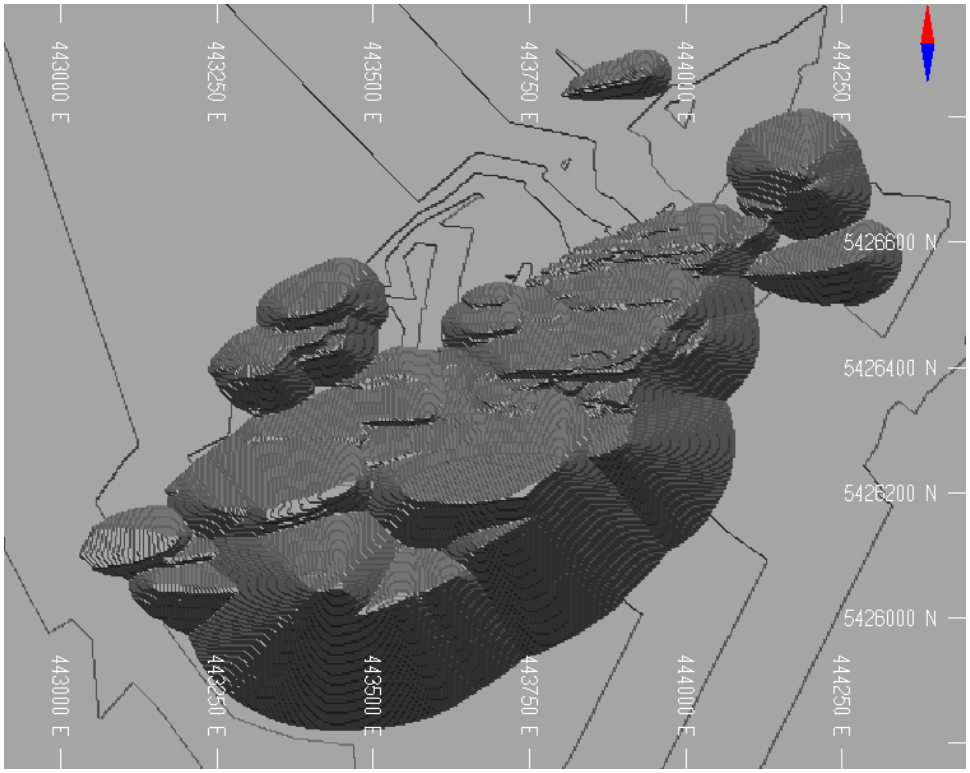


Figure 60: Optimization Base Case

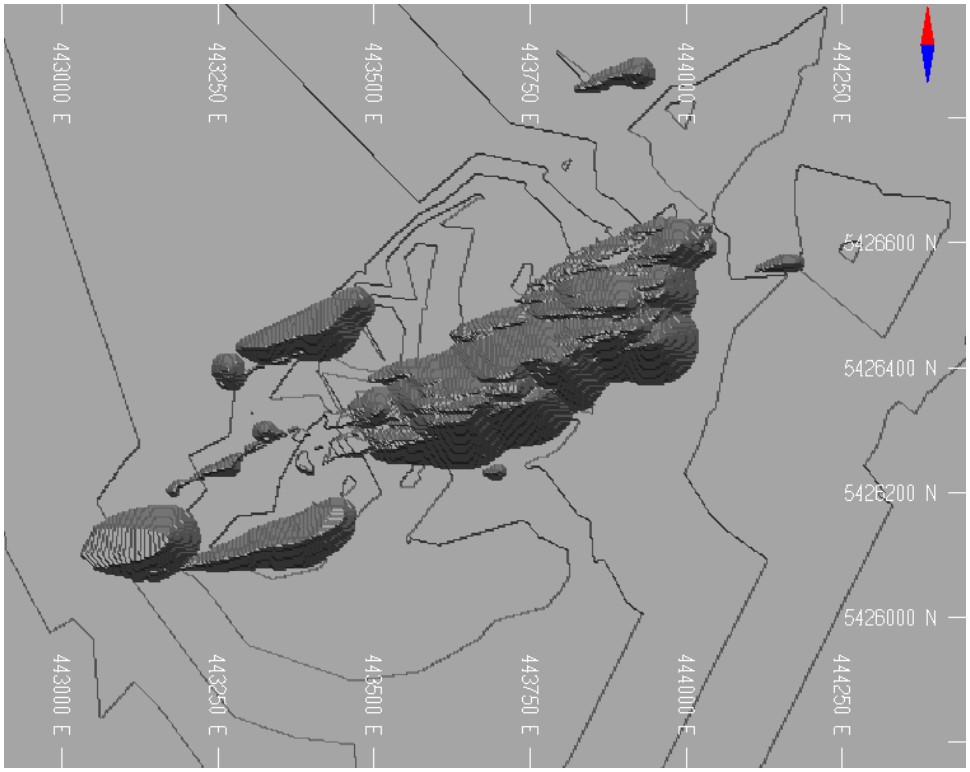


Figure 61: Optimization #1

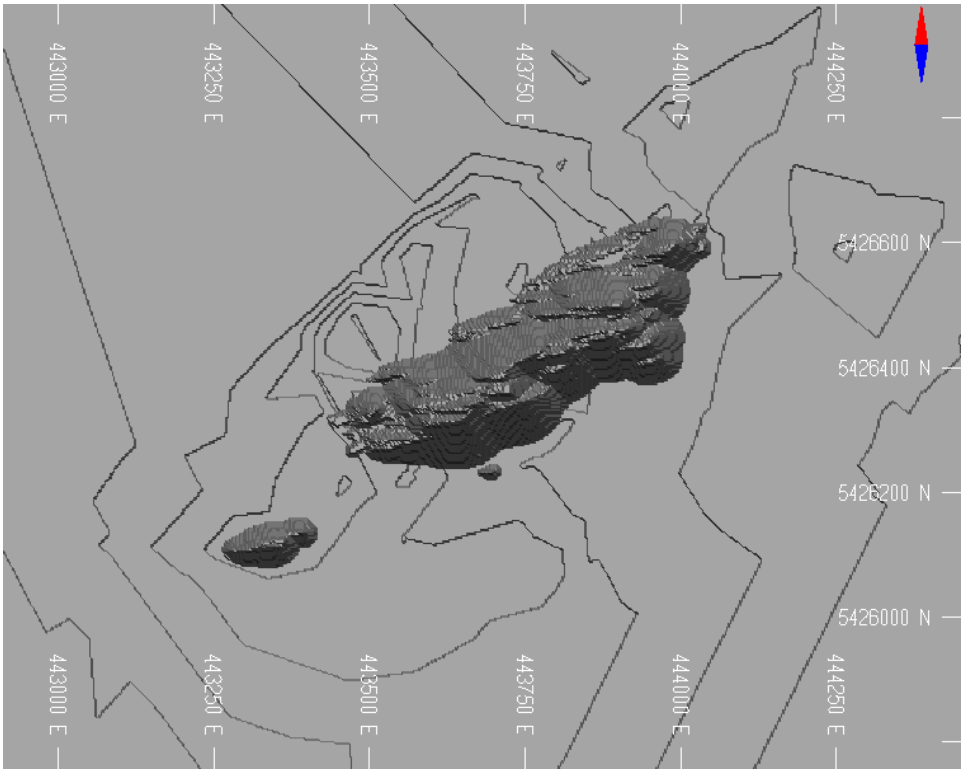


Figure 62: Optimization #2

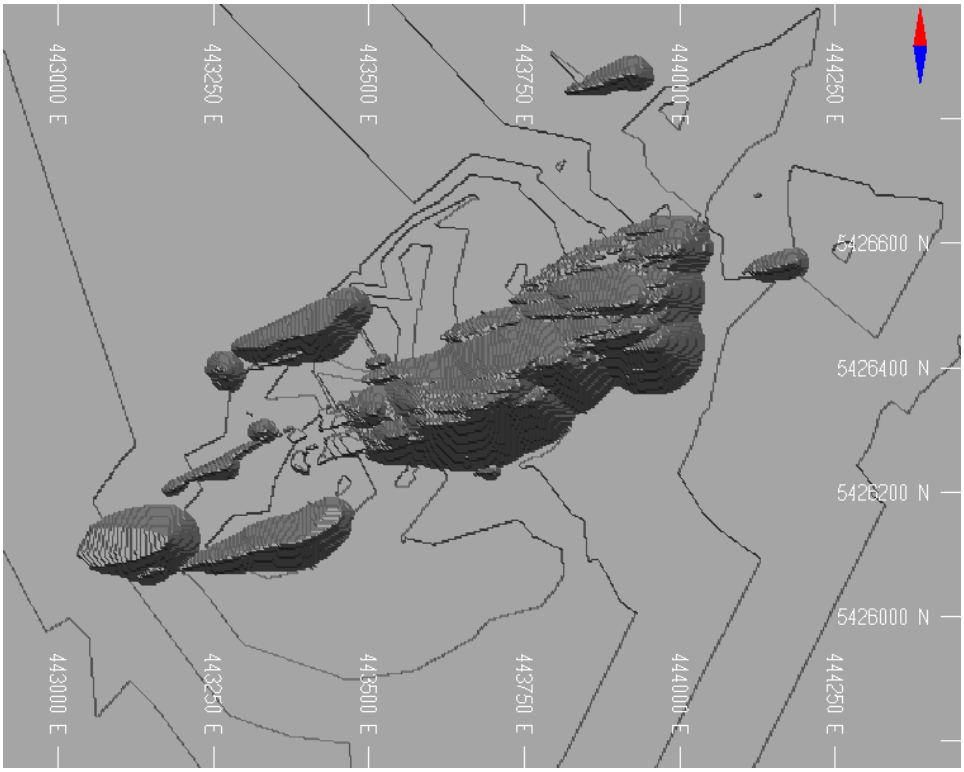


Figure 63: Optimization #3

Figure 64: Optimization #4

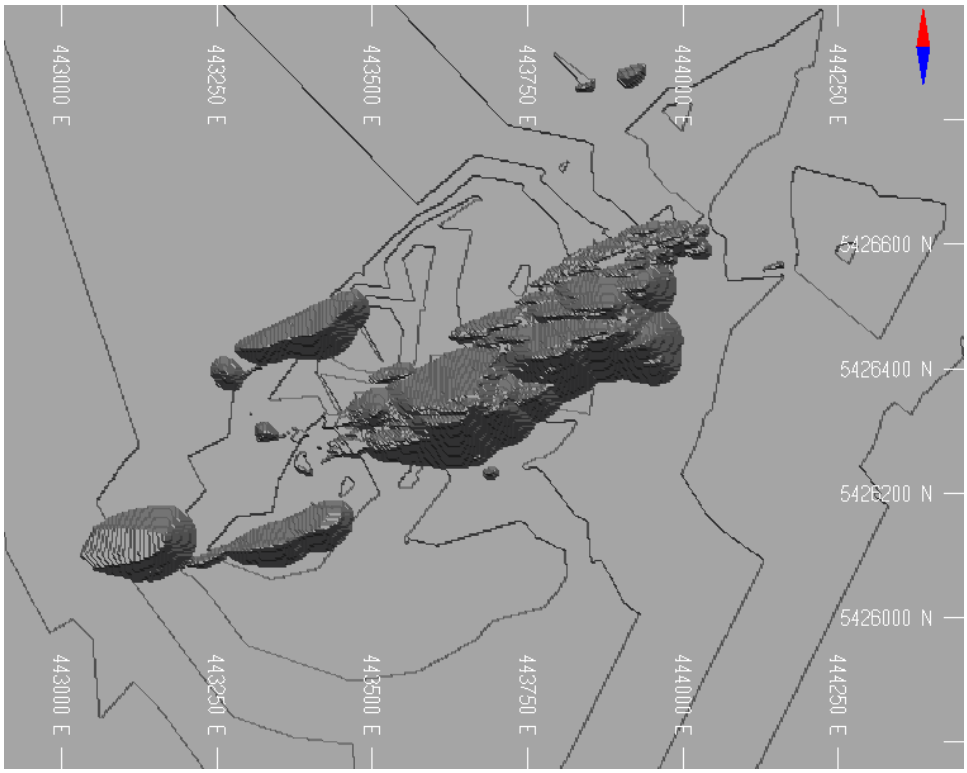


Figure 62: Optimization #5

15. Mineral Reserve Estimates

There are no NI 43-101 compliant reserves at Barry, a Feasibility Study or Preliminary Feasibility Study is required to define mineral reserves. The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

16. Mining Methods

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors.

16.1. Open-pit Mining

The near surface mineralized material will be mined by a series of open pits. Almost no stripping is required to start production since the site was in activity in the recent past years. Surface mining will follow standard practice of an open-pit operation, with drill, blast, load and haul using a drill, truck and shovel fleet. The waste material will be hauled to a waste storage area. The mineralized material will be stockpiled at the mine site before being send to Bachelor mill with 150 tonnes trucks.

16.2. Detailed Mine Design

Using optimization #1, an open-pit was designed by adding benches, safety berms and ramps. These additions reduce the overall slope angle and therefore increases the amount of waste material that have to be extracted from the pit. The last benches use single lane ramp where double lane traffic is not required.

The parameters used to design the pit are presented below and in Figure 65 and Figure 66:

- Bench height: 5m
- Safety berm: 5m (double bench)
- Ramp grade: 15%
- Ramp width: single lane 11.4m and two-lane 17.1m
- Batter angle: 80°
- Inter-Ramp angle: 55.9°
- Overall slope angle: 50°
- Road berm height: 0.9m

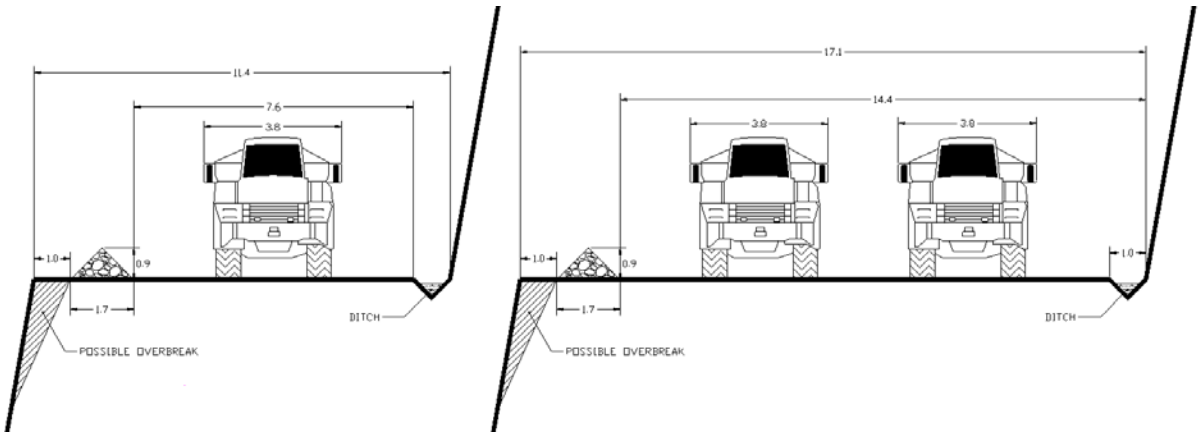


Figure 65: Typical 1-lane and 2-lane ramp section

To be in compliance to the regulation respecting occupational health and safety in mines the design of the rolling surface of the haulage ramp shall be twice the size of the largest trucks using the ramp for single-lane section and 3.5 times for double-lane sections. The service road shall be edged by a pile of fill or a ridge having a height equal to at least the size of the radius of the largest wheel of any vehicle travelling the road, which translates to 1.0 m high, from the 2.1 m wheel loader tire diameter.

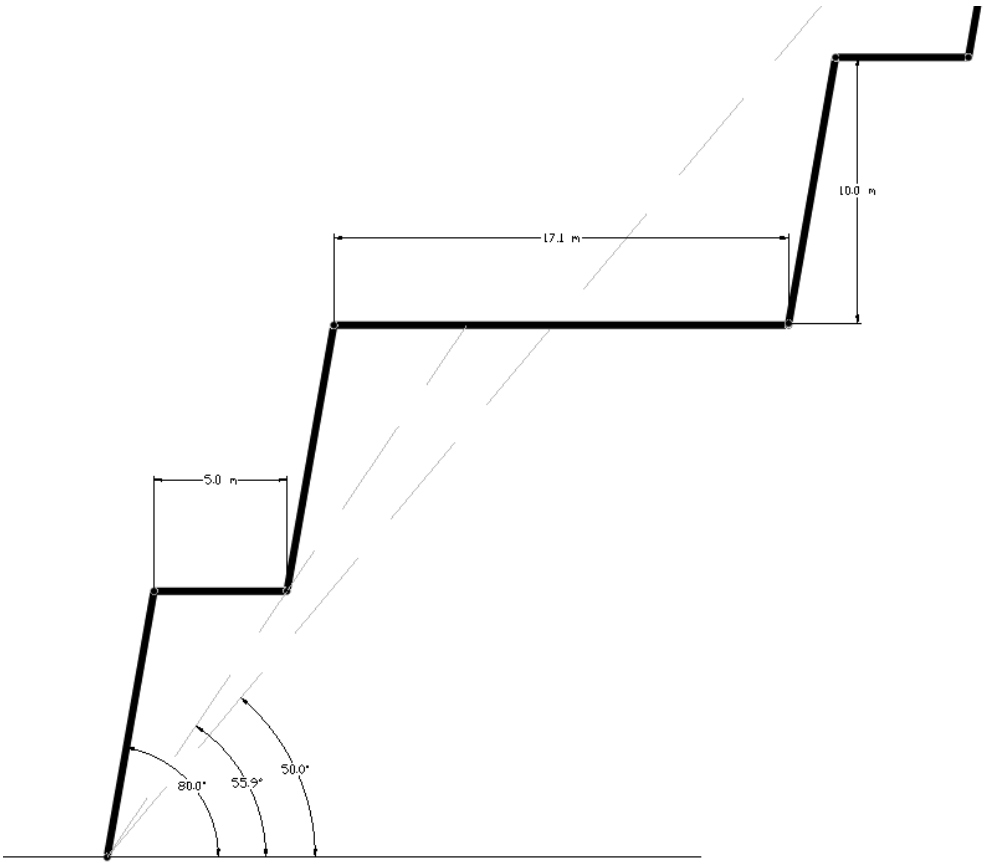


Figure 66: Slope and bench configuration

Final pit design produced within MineSight is presented in Figure 67.

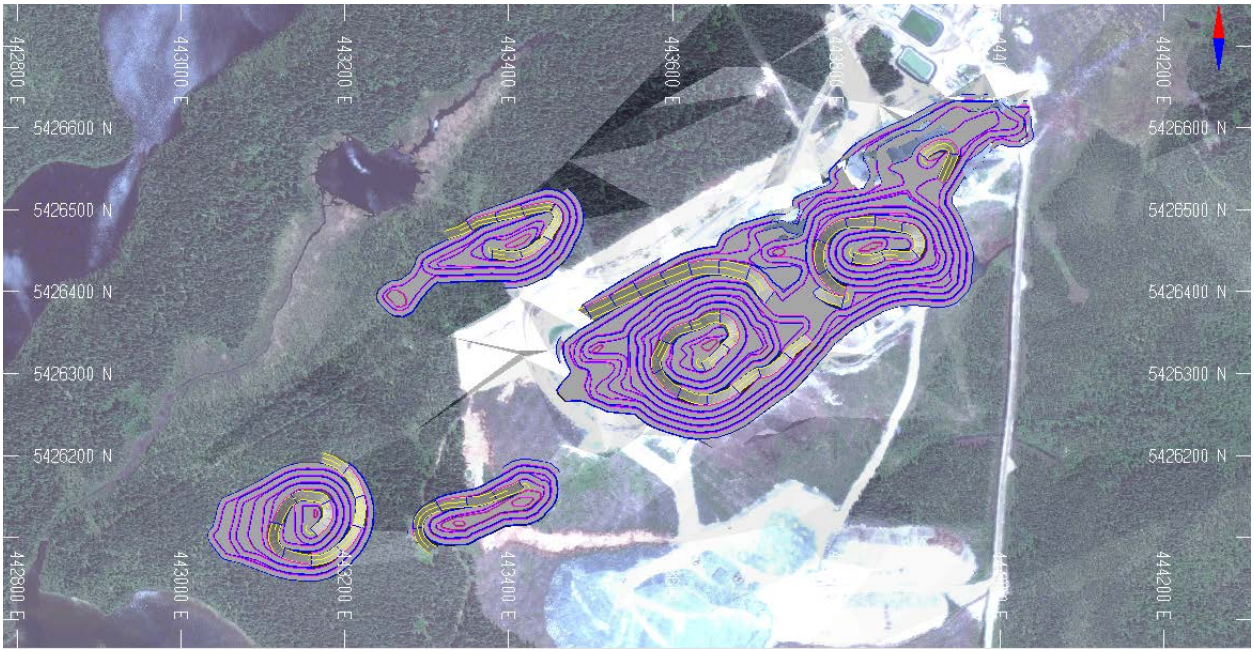


Figure 67: Plan view of the pit design

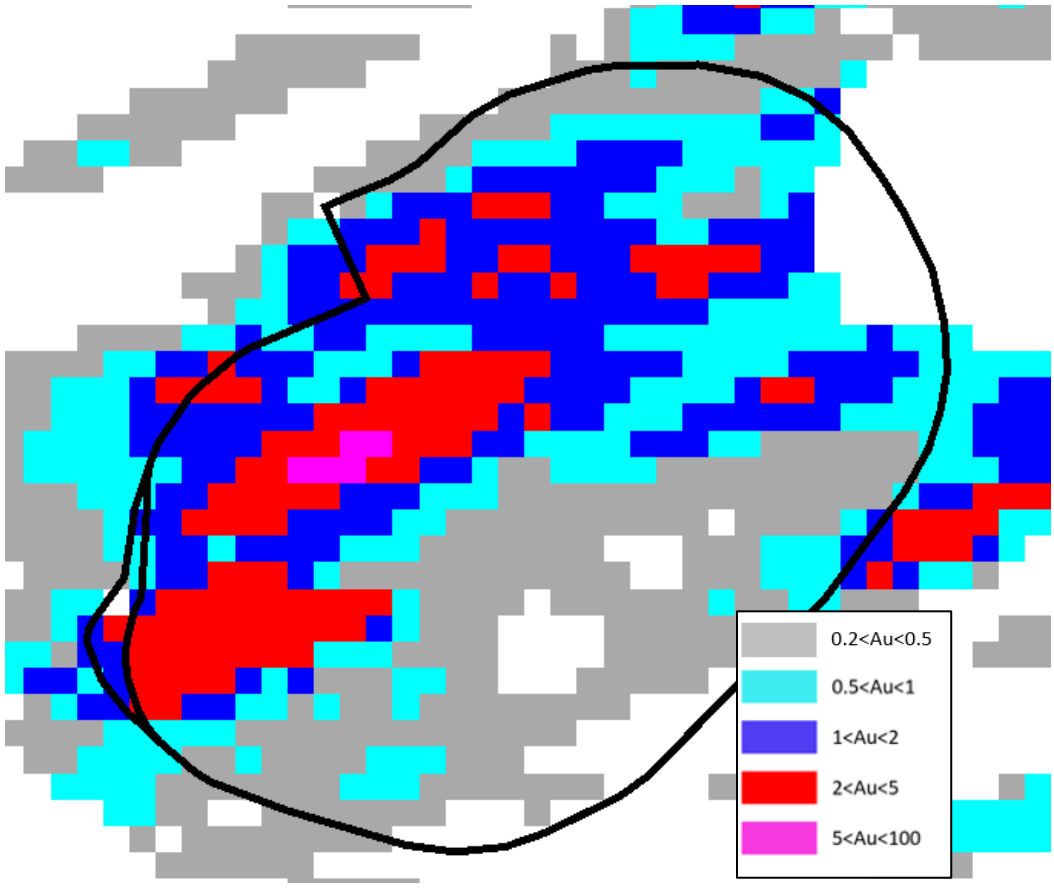


Figure 68: Elevation 330

16.3. Marginal Cut-Off Grade

The marginal cut-off grade, or mill cut-off grade, is used to divide the in-pit material between mineralized material and waste. Since every block within the pit design shell must be mined, only the processing, G&A, mineralized material transportation and road maintenance cost are used to calculate the marginal cut-off grade. The resulting marginal cut-off grade is 0.66 g/t.

16.4. Tonnage within Pit Design Shell

Tonnage contained within the pit design is presented in Table 27. The mining dilution and processing recovery are not applied to the following table.

Table 27 : In-pit resources

Mineralized material classification	Mineralized Material			Waste			Total	
	Tonnage	Grade Au	Au content	Tonnage	Grade Au	Au content	Tonnage	Stripping ratio
	t	g/t	oz	t	g/t	oz	t	
Measured	2,225,000	1.54	101,000	4,175,000	0.24	33,000	6,400,000	
Indicated	270,000	1.40	12,000	515,000	0.21	3,400	785,000	
Measured + Indicated	**2,495,000**	**1.52**	**113,000**	**4,690,000**	**0.24**	**36,400**	**7,185,000**	
Inferred	1,170,000	2.69	101,000	2,660,000	0.07	6,000	3,830,000	
								2.01

*The sum of the tonnages may not equal the total amounts due to rounding

16.5. Dilution and Ore Loss

A mining recovery of 95% and a mining dilution of 10% were applied to the material located within the pit shell. The grade used for the dilution is two times the average grade of the waste contained within the pit shell. This value was used since taking only the average grade of the waste blocks would unfairly lower the grade of the mineralized blocks. As shown in Figure 68, a belt of progressively lower grade mineralized material surrounds the higher grade mineralization. Furthermore, the small size of the production fleet allows for a lower dilution.

16.6. Mine Development and Production Schedule

A mine plan was prepared for the operation of the mine. Since virtually no stripping is required to start production, a pre-production period of five months is dedicated to building or upgrading the necessary infrastructure. The production period starts after the first five months and lasts for nine years. The mine plan summary is presented in Table 28. Key findings include:

- Life-of-mine (LOM) of 9 years at a processing rate of 1,200 tonnes per day;
- 3.6 Mt Run-of-Mine (ROM) at 1.75 g/t (diluted);
- Gold production of 194 koz.

Table 28: Mine Plan Summary

Years of production		1	2	3	4	5	6	7	8	9	
Operation days/y	0	210	350	350	350	350	350	350	350	350	
Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total**
Tonnes mined/year	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
Au grade (diluted) - g/t	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
Strip ratio		2.17	2.17	2.17	2.17	1.93	2.17	2.17	1.93	1.58	2.17
Tonnes of waste		546,400	910,667	910,667	910,667	810,667	910,667	910,667	810,667	663,973	7,385,040

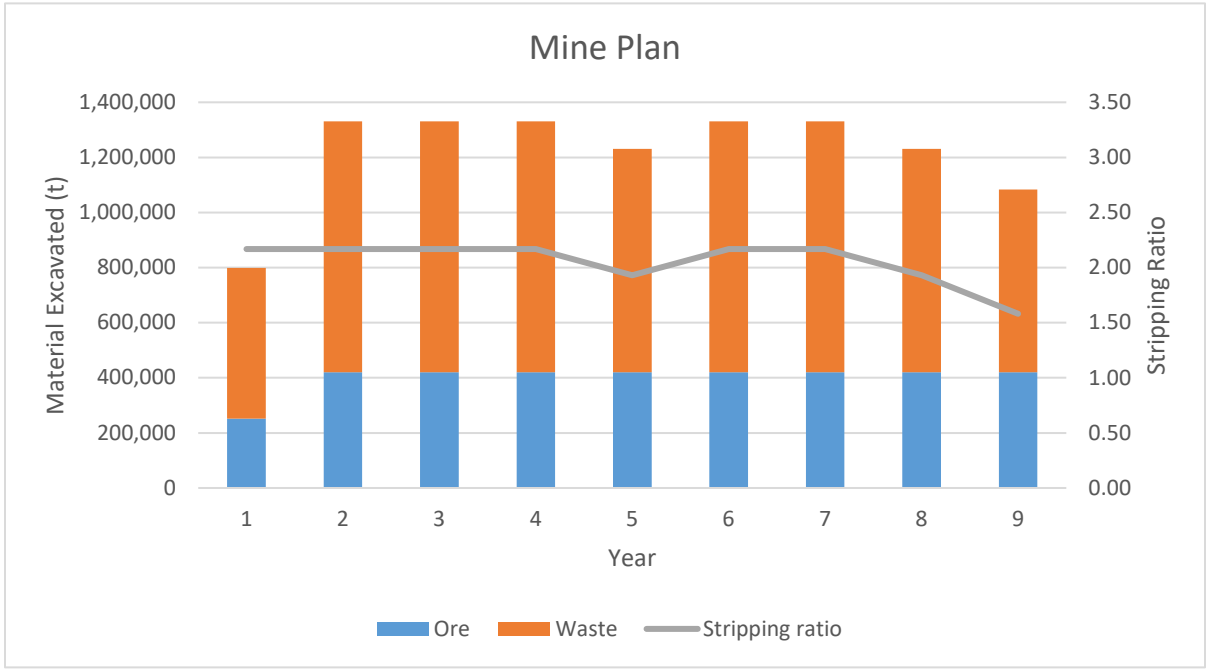


Figure 69: Material Output Throughout the LoM

The above production schedule is based on working periods of seven days per week and two twelve-hour shift per day utilising medium size equipment. Considering that the mineralization is of variable dip and thickness, it was decided to limit the size of equipment and the production rate to better control the dilution and the selectivity of the mineralization**.**

A second production schedule including costs estimate known as 4-3 (4 days of work followed by 3 days off) was prepared involving a much faster production rate and relying on larger excavators and larger and more mining trucks, the cash flow of that schedule is presented in appendix B. In that 4-3 schedule the production costs are lower but the leasing costs are higher resulting in global similar overall costs, even if overall costs are similar, it is GMG opinion that for the time being the 7-7 schedule will generate better sensitivity control and better mill feed grade, and this study is presenting only that schedule. Figure 70 to Figure 74 presents the five phases that were used in the cash flow to maximise the value of the project by targeting the high grade zones in priority.

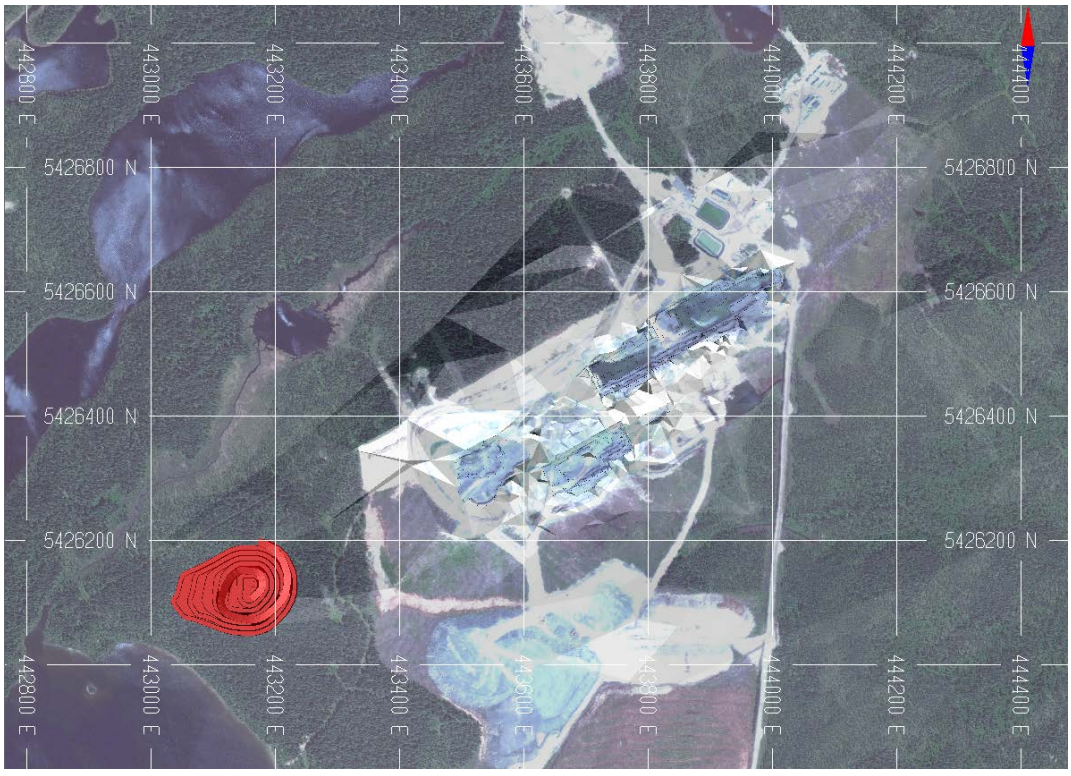


Figure 70: Mine plan phase 1

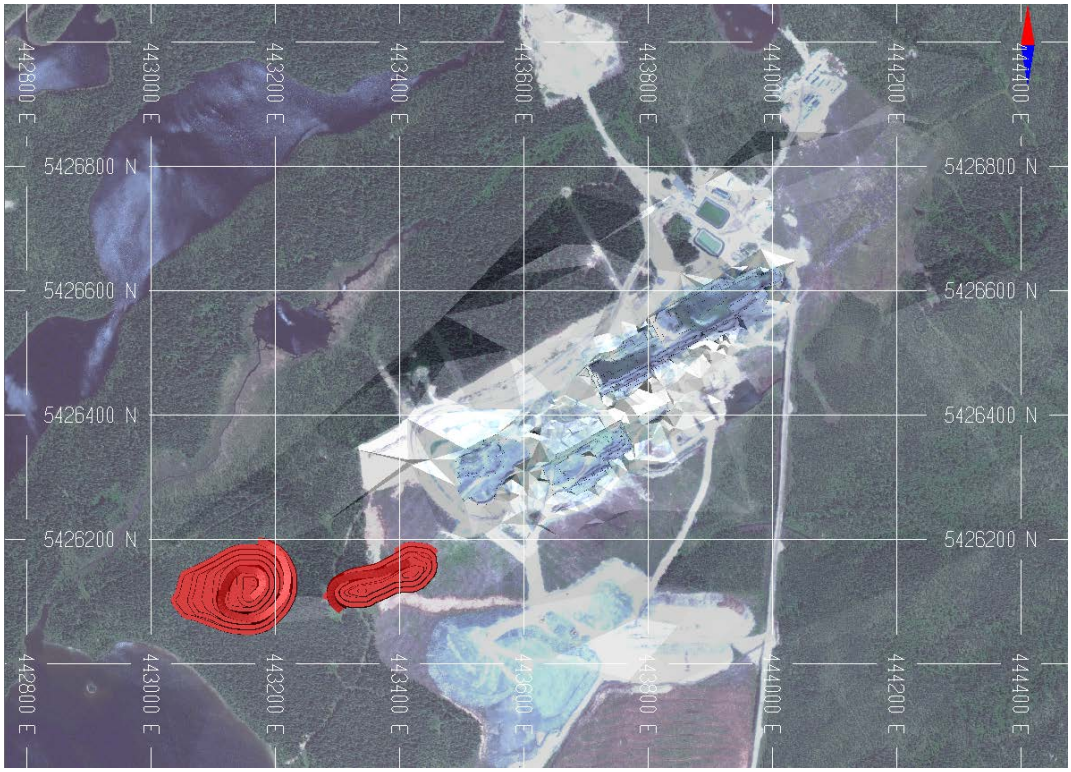


Figure 71: Mine plan phase 2

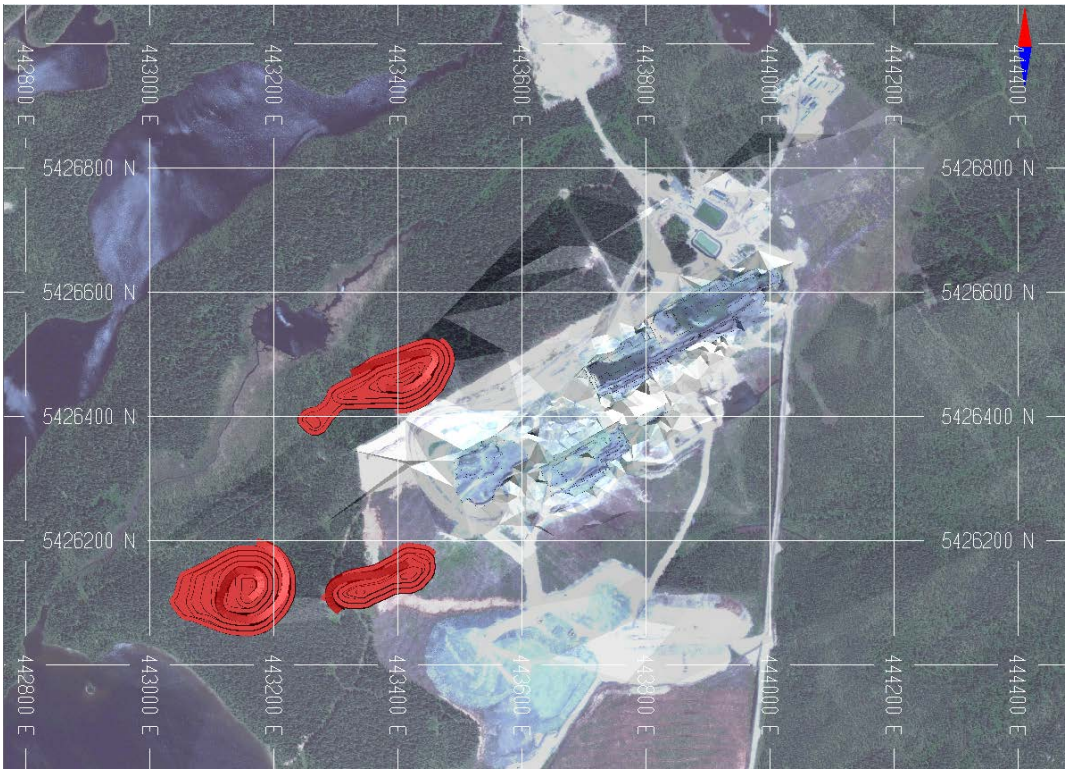


Figure 72: Mine plan phase 3

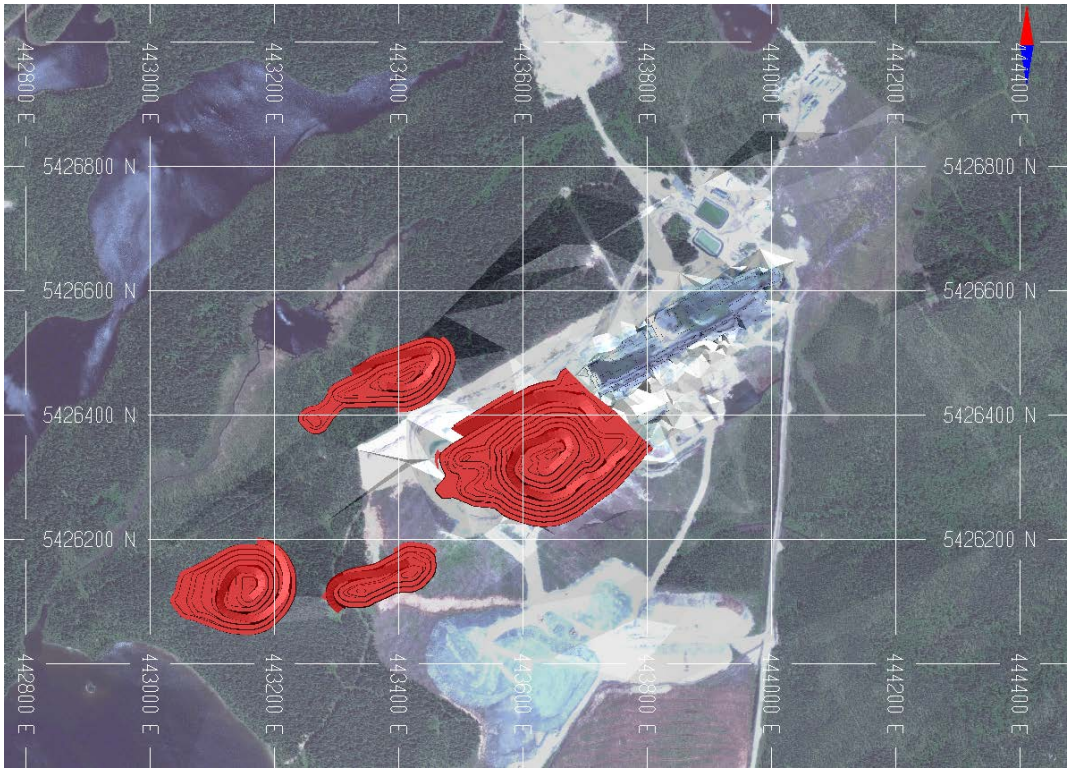


Figure 73: Mine plan phase 4

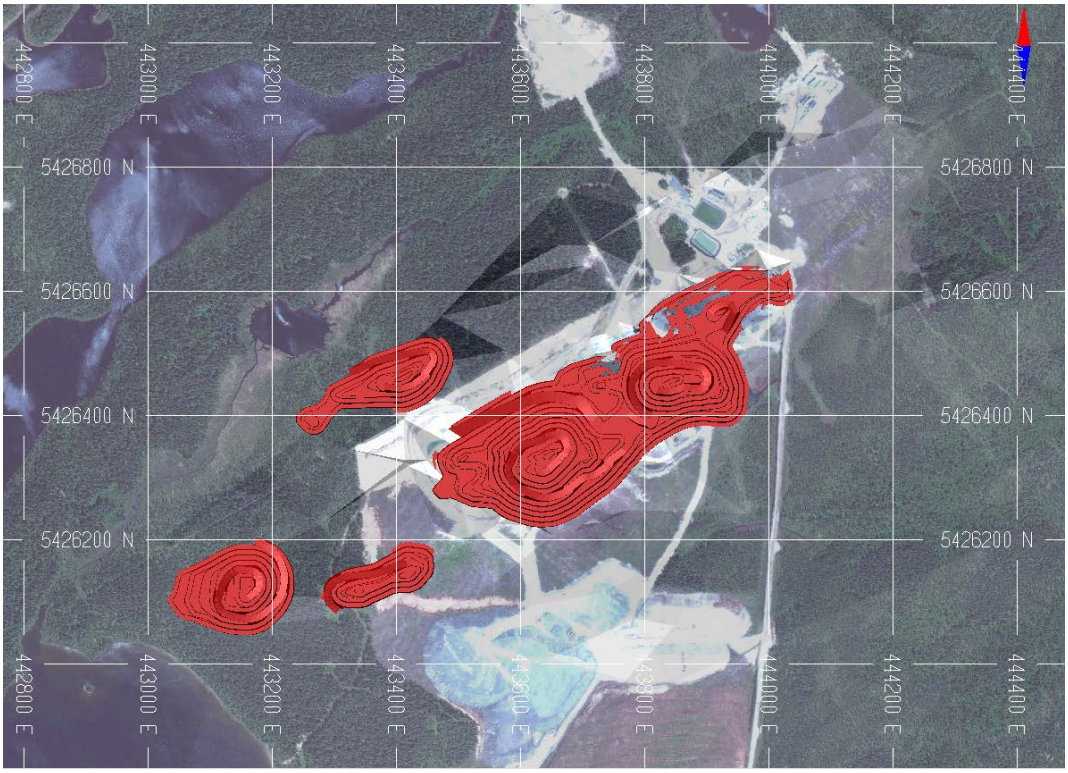


Figure 74: Mine plan phase 5

16.7. Waste storage

The waste material stockpile design presented in this section is conceptual in nature as additional geotechnical studies are needed to guarantee the slopes stability. Slopes are determined by experience and existing observed ground conditions. Two small waste dumps are present on the site but additional space is needed to stockpile the waste material planned to be excavated in this PEA. The stockpiles should sit directly on bedrock or on a small thickness of overburden. The waste stockpile parameters are presented in Table 29 and the results are shown in Figure 75 and Figure 76. Condemnation holes are required at waste dump site.

Table 29: Waste material stockpile parameters

Parameters	Unit	
Overall Slope	°	24
Face angle	°	38
Bench height	m	5
Berm width	m	5
Average height	m	30
Footprint area	m^2	167,000
Top area	m^2	85,000
Width	m	340
Length	m	560
Capacity	m^3	3,300,000

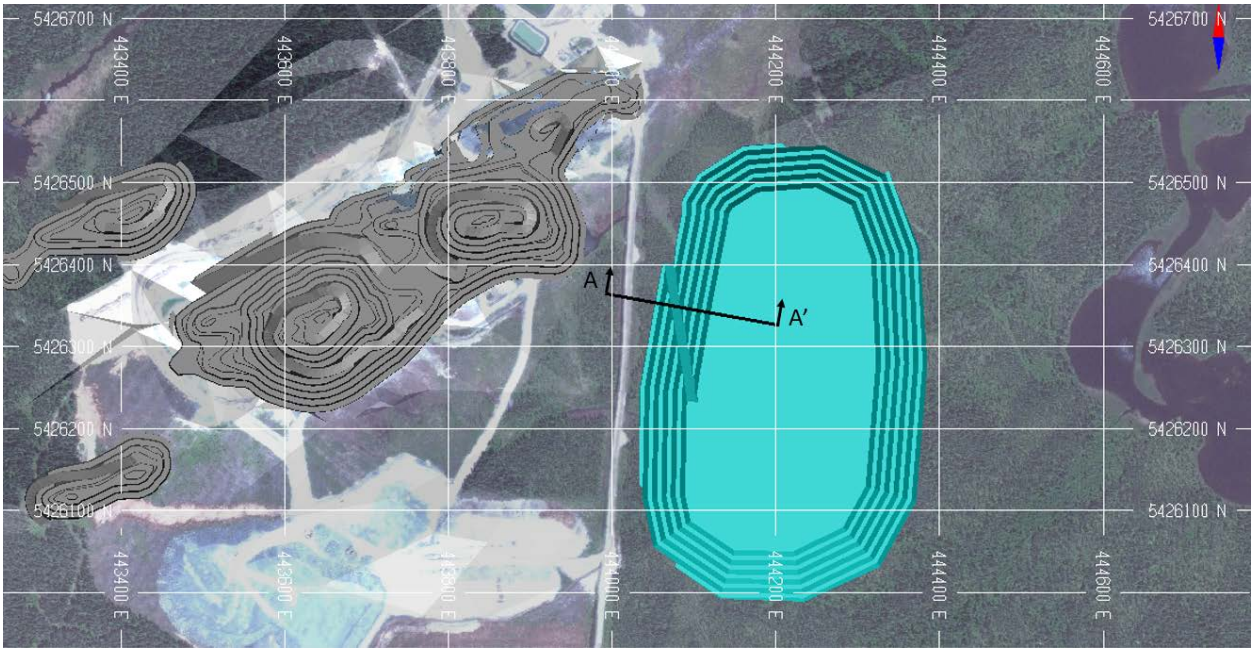


Figure 75: Stockpile design

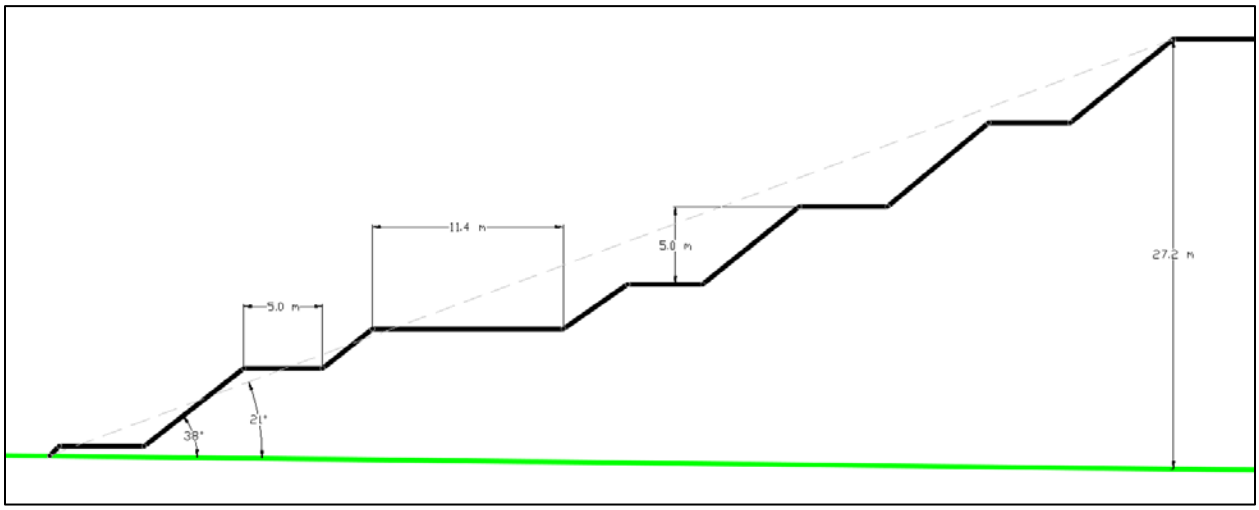


Figure 76: Waste stockpile parameters A-A' looking north

16.8. Pit dewatering

As of now, no hydrological studies have been done to estimate the quantity of water from the pits. Relying of the past operation it is understood that there was no major water inflow as pumping was done occasionally with a 30-kW pump. The same pumps sizes are retained for the present study.

16.9. Fleet Estimate

The main mining and transportation fleet is summarized in the following Table 30.

Table 30: Main mining fleet

Equipment	Reference (model)	Payload, or Capacity	Power kW	Q
Hydraulic excavator	CAT 345D	4.0 m^3 bucket	283	1
Articulated truck	CAT 735	33 t payload	324	3
Wheel loader	WA600	6.0 m^3 bucket	357	1
Blashole drill	AtlasCopco PowerRocT45	Top hammer	194	1
Dozer	CAT D6		150	1
Service boom truck	Barry maintenance crew		100	1
Roadtrains		150 tonnes	450	3
Grader	CAT 160	5.0 m blade	200	1
Maintenance truck	Snow plow & water tanker		300	1
Pick-up	4 x 4			5
Bus	25 passengers			1

16.10. Drilling

The blast hole drilling is expected to be done with a top hammer diesel drill capable of drilling holes from 75 to 130 mm in diameter, the unit proposed is an Atlas Copco PowerRoc T45, or equivalent, as shown in Figure 77. As already mentioned above the selectivity has to be monitored carefully: the PEA study was prepared using 75 mm blast holes for mineralization and 130 mm for waste material.

Figure 77: Diesel top hammer drill

The average drilling rates for both materials were estimated from the parameters shown in the following Table 31.

Table 31: Design parameters for blast hole drilling

Penetration and Drilling			
Parameters	**Units**	**Mineralization**	**Waste**
Holes depth	m	6,0	6,0
Hole diameter	cm	8,89	12,7
Penetration rate	m/min	0,8	0,6
Grade control sampling time	min	2,0	1,0
Move and align time	min	5,0	5,0
Total time per hole	min	14,5	16,9
Holes per hour	holes	4,1	3,5
Average drilling rate	m/h	24,8	21,3

As seen in the above Figure, the drilling diameter in mineralization is proposed to be smaller compared to the waste one to facilitate the selectivity. All blast hole drilling has been designed with 5 m benches, but in waste material it is very probable that 10 m benches could be recommended to lower the unit cost.

16.11. Blasting

Blasting is assumed to be conducted by the owner using water proof emulsion, explosive and detonators magazines have been added to the Barry infrastructure. The powder factors estimated are summarized in the following Figure 33.

Table 32: Blasting powder factor

BLASTING accessories & powder factor			
Daily data (mineralization + waste)	**Tonnes**	**Mineralization**	**Waste**
Tonnes per hole	tonnes	105,0	238,0
Hole depth	m	6,0	6,0
Collar	m	1,5	2,0
Active column	m	4,5	4,0
Hole diameter	"	3,5	5,0
Hole diameter	cm	8,89	12,7
Hole area	cm^2	62,07	126,68
Emulsion density	g/cc	1,28	1,28
Qty emulsion per hole	kg/hole	30	54
Qty emulsion per day	kg/day	340,51	591,36
Powder factor	**kg/tonne**	**0,28**	**0,23**

16.12. Load and haul

The average daily total loading and in-pit hauling quantity is around 3,800 tonnes per day. In order to reduce the waste tonnage, a pit design was done with a ramp at 15% requiring articulated trucks. The proposed loading and hauling fleet match is composed of 35 tonnes trucks and excavators being able to load with 5 or 6 buckets per pass, as the CAT 345D. The loading output (tonnes per hour), of one excavator of this capacity is more than needed for the tonnage required as shown below, see Table 33.

Table 33: Loading Capacity of a CAT 345D Excavator

Loading Production - CAT Excavator 345D		
Description	**Units**	**Data**
Excavator bucket capacity	m^3	3,4
Bucket filling capacity	%	0,95
Bucket working volume	m^3	3,23
Tonnes per bucket (1.65 t/m^3)	tonnes	5,3
Loading cycle	min	0,4
Trucks replacement	min	0,7
35 t Truck volume	m^3	21
Maximum truck load	tonnes	33
Average truck load (95% of max.)	tonnes	31,35
Buckets per truck load	units	5,9
Load of 6 buckets	tonnes	32,0
First bucket load time	min	0,05
Next 5 buckets loading time	min	2,40
Loading and trucks change	min	3,15
Maximum loading tonnage (50 min hour)	**tonnes/h**	**508**
CAT 345D & CAT 735 Trucks		

In case of the excavator breakdown, the in-pit loading will be done by the wheel loader that has been selected to load the trucks affected to the transportation of the mineralized material from Barry to Bachelor. The proposed wheel loader is a Komatsu WA 600 with a 6 m^3 bucket capacity as presented in Figure 78.

Figure 78: Komatsu 6.0 m3 Bucket Wheel Loader

Truck hauling for the open pit production will be realized at rather short distances that are in an average range of 3.5 km per trip, with an expected cycle time which is less than 20 minutes. Three 35 tonnes truck trucks are needed as illustrated in Table 34.

Table 34: 35 t articulated truck hauling capacity

Hauling Schedule			
		Mineralization	Waste
Hours per shift	h	12	12
Mechanical availability	%	90	90
Work efficiency	%	80	80
Real availability	h	8,64	8,64
Capacity per truck	t	33	33
Working capacity - 95%	t	31,35	31,35
Capacity per truck per shift	t/shift	989	1131
Required production	t/shift	1200	2604
Required hours of operation	hours/day	10,5	19,9
Trucks required		**1**	**2**

16.13. Hauling from Barry to Bachelor mill

The trucking operation from Barry to Bachelor is done over a distance of 115 km and represents an important expense, it was decided in collaboration with the owners to contact the large trucks suppliers and obtain a proposal to minimize the unit costs. The retained proposal is to have three 150 tonnes trucks working on a seven-days schedule that will be loaded by the truck operators using the wheel loader Komatsu WA600 shown above.

The following Figure 79 illustrates a road train similar to the ones proposed in this study.

Figure 79: Road train similar to those proposed for hauling from Barry to Bachelor

17. Recovery Method

17.1. Acknowledgment

This part of the report written by Gilbert Rousseau Eng. is essentially a description of the present Bachelor mill operation along with what is proposed to process 1200 tpd of the Barry mineralized material. The report generally follows the terms of the discussion held between Metanor and Goldminds and the March 4th proposal for the preparation of a Preliminary Assessment Report (PEA) for the mining and milling of some 1200 to 1300 tonnes of mineralized material per day from the Barry deposit. This section is written in accordance with the Canadian National Instrument 43-101.

The idea at the time of the proposal was first, to remove the two small 150 and 100 HP ball mills, and install at their places a single 500-550 HP ball mill to work in parallel with the actual tricone 525 HP mill. Second, because of the large gold nuggets found within the Barry mineralized material, at the suggestion of Goldminds, Metanor elected to add some gravity concentration ahead of the cyanidation circuit. It was felt that the rest of the circuit (thickener, leaching and CIP) would have the capacity or have enough retention time to process the target 1200 to 1300 tpd mill feed rate.

17.2. Present Milling Operation

Presently, Metanor mines and mills some 750 tpd of the Bachelor mine ore. In a nut shell, the mill circuit comprises a 24" x 36" KueKen jaw crusher followed by a 4¼' Simons standard cone crusher which itself is followed by a 5½' Simons short head cone crusher. Material crushed and screened to 3/8" is stored in a 1200 tonne fine ore bin.

From the fine ore bin, the mineralized material is ground in a conventional grinding circuit comprising a primary 10' x 14', 400 HP rod mill followed by a 10½' x 9' x 10', 525 HP tricone ball mill in parallel with two secondary 6' x 10', 150 HP and a 5' x 10', 100 HP ball mills, from a feed F_{80} of 9,525 microns to a final grind P_{80} of 75 µm. Classification is by a set of 4-15 inch cyclones.

Cyclone overflow reports to a wood chips screen prior to flow by gravity into a 40-foot single tray thickener. Thickener underflow is pumped to a bank of four 22' x 22' leaching tanks followed by four 22' x 22' CIP reservoirs for a total leaching time of some 50 hours. The tanks interconnected with launders allow slurry to flow by gravity from one tank to the next. Each tank is fitted with impeller mechanical agitators to ensure uniform mixing and dispersion. Oxygen required for leaching is

provided by air sparging through the bottom of the agitator shaft into the slurry. The adsorption tanks are each fitted with a woven wire inter-tank screen to retain the carbon. All tanks are provided with bypass facilities to allow any tank to be removed from service for maintenance.

Sodium cyanide solution is metered into the leach feed distribution box as required to maintain the desired cyanide concentration in the circuit. Compressed air is distributed to the circuit and sparged down the shafts of the agitators to allow a high dissolved oxygen profile to be maintained in the circuit. Fresh and regenerated carbon are returned to the circuit at CIP tank 4 and allowed to advance counter-current to the slurry flow by pumping slurry and carbon from tank 4 to tank 3 to tank 2, and so on. The inter-tank screen in each CIP tank retains the carbon and allows the slurry to gravity flow to the next CIP tank. This counter-current process is repeated until the carbon eventually reaches CIP tank No 1 at which point an air lift is used to transfer loaded carbon to the loaded carbon recovery screen. Loaded carbon is screened and reports to the carbon wash tank. Leached tails pass through a safety screen before being pumped to the tailings pond.

The carbon elution – refining circuit comprises mainly a loaded carbon tank, an acid wash tank, a carbon strip vessel, a bank of electrowinning cells and two Wabi type gold bullion furnaces. Stripped carbon is reactivated in a horizontal kiln, quenched and classified. Classifier oversize is ready to be reused while very fine carbon particles are filtered in a filter press and kept aside to be eventually shipped to a copper-gold smelter.

Tailings from the undersize of the safety screen coupled to other miscellaneous waste streams from the process plant are combined in the tailings collection pump box and pumped to the tailings pond to settle. Supernatant water is allowed to flow by gravity to the polishing pond. Clear water from the polishing pond is finally pumped back to the process water reservoir.

17.3. Proposed Change and/or Addition to the Actual Mill Machinery to Process the Barry Mineralized Material and Increase the Mill Feed Rate from 750 tpd to 1200 tpd

Essentially the flowsheet will remain the same except that a new 90 tonne or so hopper and a 12” x 12” grizzly will be installed above the outside feeder to accept the incoming material from the Barry deposit. Material will be brought to the ore hopper with the actual front end loader and big chunks not passing through the grizzly will be broken with a stationary hydraulic rock breaker. Because of the coarse gold particles within the mineralized material, two new 40” Knelson concentrators (one in operation, one spare) and a shaking table will be added to the circuit at the grinding, prior to the

cyanide leaching section. Both 3 x 6 - 75 HP tricone mill discharge pumps will have to be changed for two 6 x 6 x 15" SRL pumps with 100 HP motors. Also, to obtain some 40+ hour retention time in the leaching-CIP tanks, three new 30' x 30' tanks will be added to the leaching circuit. (See actual and proposed flowsheet in Appendix A).

17.4. Anticipated Gold Recovery

Based on previous metallurgical testing (See Chapter 13) it is anticipated that 24% of the gold will be recovered at the gravity circuit and out of the remaining 76%, another 71% will be recovered from the leaching of the gravity tailings for a total gold recovery of 95%.

17.5. Estimation of the Mill Operation Costs (OPEX)

The mill operating costs presented in this section are strictly for the processing of some 420,000 tonnes per year of the Barry mineralized material. The limits for the cost estimation start at the RoM storage and end at the polishing pond.

Milling costs are mainly based on salaries, consumption of reagents and other consumables, supplies and power. The manpower costs presented include 35% fringe benefits and contingency allowances. The mill operation costs are considered to have an accuracy range of +/-35%. The breakdown of the mill operation costs in CAD $ per tonne milled is as follows:

Table 35: Mill Operation Costs per Tonne

Consumables and spare parts:	$9.00
Electric power:	$3.18
Salaries:	$5.91
Miscellaneous ≈ 10%:	$1.81
TOTAL	**$19.90**

Man Power and Salaries

The mill work force will remain essentially the same as it is now (August 2016) except that 4 loader operators - yard men and two Knelson concentrator - table operators were added. The loader operators will service around the mill and when required feed the jaw crusher with the Barry ore which will be stockpiled nearby the Bachelor mill on a dedicated pad. The two Knelson – table operators will work day shift only and will take good care of the gravity concentrate. Working schedule will be

set in such a way that there is at least one concentrator-table operator every day in the mill, left to change working schedule from time to time.

Salaries include vacations and are based on 2,080 working hours per year for all employees. Fringe benefits were set at 35% of the base salary.

Table 36: Man Power and Salaries

MILL OCCUPATION	NUMBER OF EMPLOYEES	SALARY PER HOUR	SALARY PER YEAR	FRINGE BENEFIT	TOTAL SAL. PER YEAR	COST PER TONNE
Supervision	2	44.63	185660.80	35%	250642.08	0.60
Metallurgist	1	36.06	75004.80	35%	101256.48	0.24
Crusher operators	4	26.76	222643.20	35%	300568.32	0.72
Grinding operators	4	26.76	222643.20	35%	300568.32	0.72
Solution operators	4	31.00	257920.00	35%	348192.00	0.83
Knelson-Table operators	2	31.00	128960.00	35%	174096.00	0.41
Millwrights	4	30.00	249600.00	35%	336960.00	0.80
Yard - Loader operators	4	30.00	249600.00	35%	336960.00	0.80
General laborers	2	19.28	80204.80	35%	108276.48	0.26
SUB-TOTAL	27		1672236.80		**2257519.68**	5.38
OVERTIME 10%			167223.68		**225751.97**	0.54
TOTAL			1839460.48		**2483271.65**	5.91

17.6. Consumables and Spare Parts

Consumables are limited to the electrical power, grinding media, flocculent for the thickener, sodium cyanide, lime and activated carbon for the leaching – CIP circuit, sodium hydroxide for the elution circuit, silica sand and other fluxes for the refinery, fuel oil for the loader and the refinery, gasoline for the service light vehicles and different lubricants for the mill machinery.

Spare parts are all those parts remove from the warehouse or the salvage yard to repair, change or replace failed pieces of machinery: nuts, bolts, electric motors, v-belts, bearings, pump impellers and casings, light bulbs, bowl and mantle for the cone crushers, jaw plates and mill liners, electric motors, Victaulic couplings, piping, etc.

.

Table 37: Spare Parts and Consumables Costs per Tonne

CONSUMABLES	COST PER TONNE
Electric power	3.18
Grinding media - rod mill	1.00
Grinding media - ball mills	1.22
Lime	0.42
Cyanide	3.74
Spare parts	1.50
SUB-TOTAL	11.06
Others ≈10 % of above	1.11
TOTAL	12.17

17.7. Capital Expenditure (CAPEX)

The capital cost to bring the Bachelor mill capacity from 800 tpd to 1200 tpd is estimated at CAD $1.1 million and is considered at a conceptual level with a +/-30% level of accuracy.

Main costs are for the purchase and installation of a new rock breaker, two Knelson concentrators, a shaking table, two new SRL pumps at the tricone mill discharge and three leaching tanks. Also, a grizzly and an ore hopper will be shop fabricated. To prevent any heating of the frozen rocky material in the fine ore bin during winter season and thus avoiding to induce some condensation, the bin will be isolated from the main mill building to ensure free rock flowing. Mill compressed air system is considered sufficient to aerate the new leaching tanks.

Table 38: Estimated Capital Expenditure

EQUIPMENT	QUANTITY REQUIRED	DIMENSION IMP, UNITS	SUPPLIER	TYPE PROPOSED	ESTIMATED COST*
Rock breaker	1	Reach 14'	Rock-Tech	NT/16BX15	$ 110,000
Grizzly	1	12" x 12"	Shop fabricated		$ 25,000
Hopper and ramp	1	90 t cap.	Shop fabricated		$ 50,000
Knelson conc.	2	40"	FLSmidth	KC-QS40	$ 400,000
Shaking table	1		Deister	No 14	$ 40,000
Tricone mill discharge pumps	2	6 x 6 x 15	Legault M.	SRL - 100 HP	$ 40,000
Leach tanks	3	30' x 30'	MixPro	666TH-40 25	$ 300,000
Isolation of FOB from mill					$ 20,000
Others ≈ 10%					$ 100,000
TOTAL					$ 1,085,000

*Budget cost includes transportation and installation

18. Project Infrastructure

18.1. On-Site Infrastructure

A number of buildings and equipment are still present at Barry. Additional infrastructures are needed, a gross description and cost estimation will be given in this section as the study is at a preliminary economic level. No detailed engineering was carried out.

Power Plant

The electricity need of the Barry site are relatively limited since there is no processing plant on-site. Two 200 kW generating sets are needed to power the camp and other infrastructures like the warehouse and mechanical workshop. The second generator set will be use as a back-up in case in case of a failure of the primary generator set during maintenance.

Hydrocarbon Fuel Storage

Four different energy sources are stored on site, diesel fuel, colored diesel fuel, petrol and propane. A 27,000 litres clear diesel, a 22,500 and a 4,500 litres colored diesel and a 4,500 litres petrol tanks are located near the mechanical workshop. The propane is stored in different tanks with size varying from 100 to 420 litres. Finally, a 4,500 used oil tank is located by the mechanical workshop.

Core Racks

Diamond drilling core boxes are located in racks near the camp and are protected from the element by a tin roof.

Core Shack

The membrane-covered steel structure mechanical workshop was used as core shack during the 2016 exploration campaign. The structure is fitted with an enclosed room for sawing cores.

Mineralized Material Stockpile Pad

Mineralized material hauled out of the pit will be stored on a stockpile. Another loading equipment will take this material and load the long-distance haul trucks. A pad will be constructed with crushed

waste covering a geo-textile membrane. The pad will contain a minimum of one-week worth of material ready to be shipped to the mill to be used as a buffer.

Water management

A 1,700 square meters polishing pond and a 1,500 square meters settling basin was built for the prior exploitation. They will be reused for the planned exploitation.

Warehouse

A smaller membrane-covered steel structure is located near the camp and is used as warehouse.

18.2. Needed Infrastructure

Camp

A 10-bedrooms camp is still present on the mine site. The camp is in good condition as it is used continuously by the security guards. However, a new camp will be constructed further from the pit. The new camp is planned to have seven dormitories that can each house six persons. The camp will be able to house 42 employees, managerial staff, contractors and visitors. Offices and kitchen trailers will also be installed. The older camp can be used as a construction camp while the new camp is being built and will be added to the new camp site later on. A 929,500 CAD provision was allocated to the construction of the new camp. The cost breakdown is presented in Table 39.

Table 39: New Camp Capital cost

Description	Q	Unit cost $	Total cost $
Site preparation - sewers and all	1	75,000	75,000
Power supply - 200 kw	2	35,000	70,000
Trailers			
Dormitories for 6 employees	7	40,000	280,000
Office	1	60,000	60,000
Kitchen	1	60,000	60,000
Appliances & furniture	1	100,000	100,000
Storage room	1	25,000	25,000
Internet and communications	1	75,000	75,000
Services installations	1	100,000	100,000
Sub-total			845,000
Contingencies - 10%			84,500
Total			**929,500**

Service Buildings & Administration Building

Four additional trailers will be needed to provide enough space for offices and a meeting room (3 trailers) and the worker's dry.

Mine Maintenance Shop

A mine maintenance shop will need to be constructed to maintain the mobile equipment fleet. This building will also need to contain a wash bay complete with drains for used water.

Explosive magazines

Two modular explosive magazines are needed. One of the magazines will house detonators and detonating cord while the second will house packaged explosives and boosters. The magazines will be located to meet provincial and federal regulations.

Road to Bachelor Mill Upgrade

An extensive network of roads already exists due to the history of forestry exploitation in the region as shown in Figure 80. Some sections of the road must be upgraded to allow the safe usage of 150t trucks. Two segments of the road must be upgraded. Between the Barry mine site and road 6000, 10

km must be widened by cutting down trees and building a sturdy foundation, see Figure 81, another segment of 30 km must also be upgraded between Bachelor mill and road 4000, see Figure 84. The remaining sections of the road between Barry and Bachelor mill can already safely accommodate 150t trucks, see Figure 82. Only one bridge must be crossed to reach the mill and it is rated for 150t trucks, as shown in Figure 83. The waste material already extracted from Barry and Bachelor can be used as material to upgrade the road. A crusher will be necessary to reduce the material to the proper dimension to build the road, or material will have to be transported from Bachelor mill site. A 50,000$ per kilometer provision was allocated for the sections that must be upgraded.

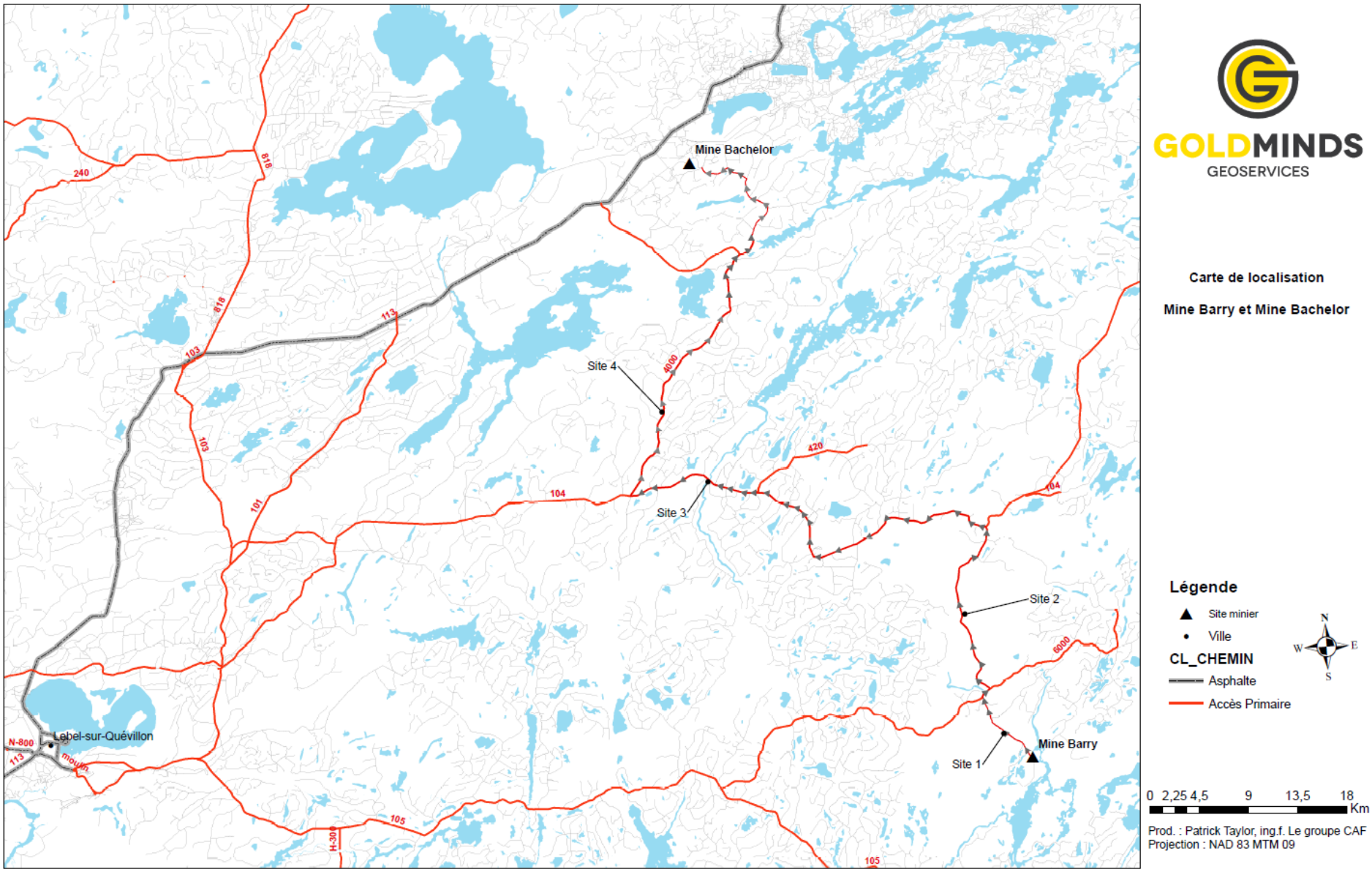


Figure 80: Planned haulage path

Figure 81: Site 1 - Mine site to road 6000

Figure 82: Site2 - Road 3000-road 6000 junction

Figure 83: Site 3 - Bridge over Wetetnagami river

Figure 84: Site 4 - Road 4000

19. Market Studies and Contracts

19.1. Gold price

The ore produced from the Barry mine site will be processed at Metanor's Bachelor Lake mill. For this study, GoldMinds Geoservices made the assumptions that Metanor will sell its gold at spot price. After a dip in the gold price during the last 3 years, gold is regularly traded above 1,600 CAD$/oz.

Figure 85 : 10-year gold price in CAD/oz (goldprice.org)

A common practice in the gold mining industry is to use as gold price the 3-year trailing average of gold spot price. However, since Metanor could start production in a very short amount of time because of the little need for construction, GoldMinds Geoservices opted for a 1-year trailing average as presented in Table 40.

Table 40: Gold price and Conversion rate average

USD to CAD	Gold price USD	Gold price CAD
1.31	1,117.47	1,468.71
1.33	1,124.53	1,491.86
1.31	1,159.25	1,515.49
1.33	1,085.70	1,441.28
1.37	1,068.28	1,463.92
1.42	1,097.37	1,561.06
1.38	1,199.91	1,654.48
1.32	1,246.34	1,646.47
1.28	1,242.26	1,592.28
1.29	1,259.40	1,629.98
1.29	1,276.40	1,644.90
1.30	1,337.33	1,744.65
	Average	1,571.26

GoldMinds Geoservices opted to used 1,560 CAD/oz as gold price to produce the project cash flow. Figure 86 shows the gold price in CAD/oz and the 1-year trailing average in red.

Figure 86 : Gold price in CAD/oz (www.kitco.com)

20. Environmental Studies, Permitting and Social or Community Impact

20.1. Environmental Studies

There is currently no environmental study available from Metanor on the Barry property. However, a PEA was done in 2015 for the Windfall Lake gold property owned by Eagle Hill Exploration Corp. Since the Windfall property is located directly to the northeast of the Barry property, the information in the Windfall PEA is applicable on the Barry property.

Physical environment

As mentioned in the Windfall PEA, the climate is humid continental. Summers are warm and slightly humid, and winters are long and cold. There is a big thermal amplitude, and precipitations are regular throughout the year. The climate region number is 13 and is characterized by sub-polar temperatures and sub-humid precipitations. The growing season lasts between 150 and 179 days.

The project is located at the divide of the watersheds of the Waswanipi river to the north and the Bell river to the south. There are several small lakes, creeks, rivers and wetlands in this region. The topography is mostly flat.

The overburden on the project site is composed of fairly permeable sand and gravel. The rock is considered impervious to moderately pervious. Local faults associated with gold-bearing deposits are more pervious when compared to the bedrock. The thickness of the overburden is between 0 and 39 m according to the 2014 Eagle Hill drillhole database. An esker crosses the Windfall property and is surrounded by till and pro-glacial sediments. Organic deposits of glaciolacustrine origins can also be found with a thickness of 0.5 to 5 m.

Groundwater levels vary between 0.4 and 18.6 m below ground surface, but are generally between 1 and 4 m below ground surface (Genivar 2008, taken from Windfall Lake PEA 2015).

Biological environment

The Windfall property is located in the Continuous Boreal Forest sub-zone and is entirely covered y the Spruce-Moss bioclimatic domain. It is dominated by black spruce (Picea mariana) accompanied by Balsam fir (Abies balsamea), White birch (Betula papyrifera), Trembling aspen (Populus tremuloides) and Balsam poplar (Populus balsamifera). There is a relatively dense shrub layer of

ericaceous species and a scarce layer of herbaceous species. A layer of hypnaceous moss, sphagnum and lichen completely covers the ground.

Approximately 42% of the Windfall project study area is terrestrial vegetation and 51% is wetland. Four vegetation communities comprise 87.3% of the total area:

- 30.4% Black spruce-sphagnum (wetland)
- 29.6% Black spruce-moss or ericaceous shrubs
- 15.6% Bog (wetland)
- 11.7% Balsam fir-black spruce

The ecoregion is of the Rupert plateau within the Boreal shield eco-zone. Mammals include the black bear (Ursus americanus), grey wolf (Canis lupus), moose (Alces alces), Canada lynx (Lynx canadensis), snowshoe hare (Lepus americanus) and woodland caribou (Rangifer tarandus caribou). Given the fact that the typical woodland caribou distribution zone is located about 30 km west of the Barry property, the potential for the presence of caribou near the project is low.

There are eight species of amphibians that have distribution overlapping the study area. These species are the spotted salamander (Ambystoma laterale), the American toad (Anaxyrus americanus americanus), the northern spring peeper (Pseudacris crucifer), the mink frog (Lithobates (Rana) septentrionalis), the wood frog (lithobates (Rana) sylvaticus), and the leopard frog (Rana pipiens).

There are three potential species of reptiles; the common gartersnake (Thamnophis sirtalis), the wood turtle (Glyptemys insculpta) and the Blanding's turtle (Emydoiedea blandingii). The turtles have a low likelihood of occurring on the site since it is located on the north limit of their distribution zone.

Nesting sites for the bald eagle (Haliaeetus leucocephalus) has been identified approximately 10 km south of the Barry Project facilities, according to MFFP data. Common species include the Canada goose (Brante Canadensis), the ruffed grouse (Bonasa umbellus) and the American black duck (Anas rubripes), as listed in the Étude des populations d'oiseaux du Québec (EPOQ) data.

Confirmed species of fish in lakes and streams in the Project vicinity are the northern pike (Esox Lucius), the brook stickleback (Culaea inconstans) and the yellow perch (Perca flavescens). There are also spawning areas for walleye (Stizostdeio vitreum) and a potential spawning area for northern pike, as well as confirmed lake sturgeon (Acipenser fulvescens) and brook trout (Salvelinus fontinalis) habitats within a 25 km radius of the project site, according to the MFFP and the CDPNQ.

Based on a desktop study (Golder 2014), species likely to be found within a 25-km radius of the Windfall Project site (located northeast of the Barry site), and listed as threatened, vulnerable, or likely to be designated under the Act respecting threatened or vulnerable species and/or listed as endangered, threatened or of special concern under the Species at Risk Act, include: 24 plant species, 10 species of mammals, eight species of birds, two species of reptiles, and one species of fish. The closest protected area is the Réserve de biodiversité projetée du lac Saint-Cyr (provisional name) (Windfall Lake PEA, 2015).

Social environment

The closest towns are Lebel-sur-Quévillon and Chapais, and there is the Cree community of Waswanipi nearby. The closest outfitter is WeteNagami (Les Pourvoiries du Québec, 2016). Forestry and mining exploration have occurred and are still occurring in the projected area.

The land tenure and organization of the Project site is governed under the James Bay and Northern Quebec Agreement. The Property is located on Category III lands on which the Aboriginal have the exclusive right to harvest some aquatic species and some fur-bearing animals. The nearby Windfall Project site falls within the Traditional territory of the Waswanipi Cree First Nation, including parts of two traplines (lots W-25A and W-25B) (Windfall PEA, 2015).

Potential issues

Potential impacts will be assessed in the environmental and social impact assessment that Metanor should conduct in order to advance the Project. At this time, it is safe to assume that water quality will be a big potential issue, as well as modifications to the current land and resource uses by aboriginal and non-aboriginal users.

20.2. Regulatory Context and Permitting Constraints

All mining developments automatically trigger the provincial process (northern process), and plans to construct a gold mine with a material production capacity of 600 t/d or more is a federal trigger. After the issuance of a decree, other provincial permits and authorizations will be required (Windfall Lake PEA, 2015).

The James Bay and Northern Québec Agreement

The James Bay and Northern Québec Agreement (JBNQA) governs the territory covered by the Project. This agreement was signed in 1975 by the Government of Québec, the Government of Canada, the Grand Council of the Crees, the Northern Quebec Inuit Association and other parties. The JBNQA defines the land regime applicable in the territory as well as rights related to issues such as resource management, economic development, policing, administration of justice, health and social services, and environmental protection. It has also defined a management system of the fauna resources, such as hunting, fishing and trapping subsistence activities of the Cree and Inuit.

A land regime was instituted, dividing the territory in three categories of land (Category I, II and III). The Project site is on Category III lands, therefore the aboriginals have exclusive rights for the harvesting of certain wildlife species and trapping. They are not required to have permits and do not have limits to their catches. Category III lands are open for hunting for Aboriginals and non-Aboriginals.

The environmental protection regime dictates specific ESIA processes. In Québec, Chapter II of the EQA integrates provincial requirements concerning the impact assessment provided in Chapter 22 of the JBNQA.

Permitting and Environmental Protection Standards

In addition to the ESIA process mentioned above, other environmental permits and authorizations will be required. The section below is a list of regulations that could be applicable to the Project. Not all possible regulations are mentioned in the list below, and it should be reviewed as the project design progresses.

Federal:

- Canadian Environmental Assessment Act, 2012 (S.C 2012, C. 19, s.52):

EIA required under sections 13 and 14;

- Fisheries Act (R.S.C., 1985, c. F-14), authorization under Section 35;
- Navigation Protection Act (R.S.C., 1985, c. N-22) approval under Section 6;
- Migratory Birds Regulation Act (C.R.C., c. 1035) permit under Section 4;
- Species at Risk Act (S.C. 2002, c. 29), permit under Section 73.

Provincial

- Environment Quality Act (c. Q-2), ESIA required under Section 154;
- Environment Quality Act (c. Q-2), certificate of authorization under Section 22;
- Environment Quality Act (c. Q-2), depollution attestation under Section 31.10 and its subsections;
- Environment Quality Act (c. Q-2), authorization under Section 31.75;
- Environment Quality Act (c. Q-2), authorization under Sections 32 and 32.1;
- Environment Quality Act (c. Q-2), authorization under Section 48;
- Sustainable Forest Development Act (c. A-18.1), permit under Section 73;
- Act respecting Threatened or Vulnerable Species (c. E-12.01), authorization under Section 18;
- Act respecting the Conservation and Development of Wildlife (c. C-61.1), authorizations under Sections 26 and 128.7;
- Mining Act (c. M-13.1), Section 232.2 and 232.6;
- Cultural Property Act (c. B-4, replaced 2011, c.21, s. 262), permit under Section 35.

20.3 Social or Community Impacts

The following aspects should be monitored in order to insure the health and safety of the mine workers, and to reduce the environmental consequences.

- Air quality: Dust control from the roads and tailings ponds
- Sound characterization and protection: for miners and operators of heavy machinery
- Storm water runoff
- Groundwater control: Tanks and reservoirs containing chemical products, oil, grease or combustibles must be secured and protected from all leaks or spills by installing basins or protective devices.
- Soil protection: In order to limit erosion, unused spaces should be revegetated
- Fauna and Flora: It is suggested to have a comprehensive vision for planting forest species in order to protect the surrounding environment.

Closure Plan

It is important to have a study to redevelop the site and emphasize the importance of consultation of key stakeholders, the government, local authorities, the promoter, etc. and choose a final restoration plan. Key criteria are the change in the local ecosystem, the stabilization of the soil, the rehabilitation, the reforestation, the visual impact, the simplicity of implementation and the efficiency and cost.

21. Capital and Operating Costs

21.1. Capital Cost Estimates

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

The total capital expenditures cost (CAPEX) estimate stands at 20,545,000 CAD. The different capital costs presented in this section came from supplier quotation, Mine and Mill Equipment Costs Estimator's Guide and in-house database.

Table 41: Total capital cost estimation

Description	Capital Cost
Diamond drilling - $/y	5,750,000
Mill upgrade	1,100,000
Tailing dyke maintenance	550,000
Infrastructure	2,000,000
Barry-Bachelor road upgrade: 40 km	2,000,000
Mine initial & ongoing Capex	3,145,000
Closing bond	4,000,000
NSR buyback*	2,000,000
Total	20,545,000

- The NSR buyback cost has to be validate, as depending of interpretation could be lower than the amount GMG has identify as an assumption for this PEA.

Mine Capital Cost

The estimated capital costs of mine equipment are shown in Table 42. No production equipment is presented in this table as all equipment in this category are leased and included in the operating cost.

Table 42: Mine capital cost estimation

Mine Equipment	Unit Q	Power kW	Purchase $/unit	Purchase $ total
Grader - CAT 160, in road maintenance				
Bulldozer - CAT D6 rating	1	150	450,000	450,000
Wheel loader - WA600, in ore loading				
Service boom truck	1	60	150,000	150,000
Pick-up	5		60,000	300,000
Tower light	6	6	15,000	90,000
Pumps	4	30	15,000	60,000
Tools & miscellaneous	1		100,000	100,000
40 places bus for employees' transportation	1		75,000	75,000
First Aid Station	1		25,000	25,000
Dispatch system - 20 units	1		600,000	600,000
			Total	**1,850,000**

Process Capital Cost

The capital cost for upgrading the mill to the appropriate capacity is estimated at 1,100,000 CAD. The cost described in Table 43 include procurement, shipping and installation. The upgraded mill will be able to process 1,200 tpd. Furthermore, 500,000 CAD is allocated to increasing the tailing pond volume.

Table 43: Mill capital cost estimation

MILL EQUIPMENT	Quantity needed	Dimension units	Supplier	Type proposed	Estimated cost - $
Rock Breaker	1	14 ft	Rock-tech	NT/16BX15	110,000
Grizzly	1	15 x 20 inches	Shop fabricated		25,000
Hopper & ramp	1	90 t	Shop fabricated		50,000
Knelson concentrator	2	40 inches	FLSmidth	KC-QS40	400,000
Shaking table	1		Deister	No 14	40,000
Tricone mill discharge pumps	2	6x6x15	Legeault M.	SRL - 100 HP	40,000
Leach tanks	3	30' x 30'	Mixpro	666TH-40 25	300,000
Isolation of FOB from mill					20,000
Others, 10%					100,000
				Total	1,085,000
				Rounded	**1,100,000**

Tailing Dyke

Tailing dyke maintenance - 2017	**50,000**
Tailing dyke volume increase - 2020	**500,000**

Infrastructure Capital Cost

Table 44 shows the infrastructure capital cost estimation. A new living camp must be constructed to house the mine's worker and managerial staff. Furthermore, a 2,000,000 CAD provision was allocated to upgrading the haulage road between Barry mine and Bachelor mill.

Table 44: Infrastructure capital cost estimation

INFRASTRUCTURE - BARRY	Capital Cost $CDN
Energy: Complete generator set of 200 kw for stand-by	35,000
New camp: mobile trailers addition and services installation	929,500
Office and equipment (computers, telephone, etc.,)	75,000
Garage and tools	200,000
Core shack	50,000
Diesel tanks & dispenser	35,000
Emulsion (20 t), ANFO & primer magazines	60,000
Dewatering existing pits	275,000
Crushed stone facility for road maintenance	200,000
Camp communications set-up	65,500
Total surveying station	75,000
Total	**2,000,000**

21.2. Operating Cost Estimates

Mine Operating Cost

Operating costs presented in this section are based on a daily mineralized material production of 1,200 tpd and 350 operating days per year. Table 45 presents the operating costs summary for both mineralized material and waste.

Table 45: Waste and mineralized material mining operating cost

Description - Waste	Unit cost $/t
Drill & Blast	0.84
Truck loading	0.43
Truck hauling	0.95
Direct waste cost	2.22
Mine services cost	1.47
Site overhead (Admin)	1.49
Total cost	**5.17**

Description – Mineralized material	Unit cost $/t
Drill & Blast	1.18
Truck loading	0.53
Truck hauling	1.09
Direct waste cost	2.80
Mine services cost	1.47
Site overhead (Admin)	1.49
Total cost	**5.76**

Process Operating Cost

Table 46 presents the processing plant operating cost.

Table 46: Process operating cost

Description	$/t
Consumables & spare parts	9.00
Electric power	3.18
Salaries	5.91
Miscellaneous ≈ 10%	1.81
TOTAL	19.90

22. Economic Analysis

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

22.1. Principal assumptions

GMG made a number of assumptions to produce the Barry project financial model shown below:

- Price of gold: 1,560 CAD/oz (1-year trailing average)
- Royalty: 1.5% NSR
- Mill feed: 1,200 tpd
- Discount rate: 6%
- Cash-flow is presented as pre-finance and pre-tax
- Sunk cost and owner's costs are not included in the model
- Construction period: 1 year
- LOM: 9 years
- Production equipment is leased; costs are included in operating costs.

22.2. Cash flow Forecasts

Table 47 shows the principal findings of the Barry economic model. Table 48 presents the detailed cash flow.

Table 47: Cash flow summary

Description	Value	Units
Mill Feed Mined	3,612,000	t
Waste Mined	7,385,040	t
Total Material Mined	10,997,040	t
Waste to ore ratio	2.04	
Average Au Grade	1.75	g/t
Gold Produced	203,639	oz
Total Revenue	297,265,373	CAD
Total Operating Cost	215,571,919	CAD
LOM Capital Cost	20,545,000	CAD
Undiscounted Cumulative Cash Flow	61,148,000	CAD
NPV Discounted 6%	53,500,000	CAD
Internal Rate of Return	198%	CAD
Payback Period	0.58	years

Table 48: Annual Pre-tax Cash Flow Forecast

	Years of production		1	2	3	4	5	6	7	8	9	
	Operation days/y	0	210	350	350	350	350	350	350	350	350	
	Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total**
	Tonnes of ore mined/year	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
	Au grade (diluted) - g/t	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
	Strip ratio		2.17	2.17	2.17	2.17	1.93	2.17	2.17	1.93	1.58	2.17
	Tonnes of waste		546,400	910,667	910,667	910,667	810,667	910,667	910,667	810,667	663,973	7,385,040
Fill-in and exploration	Diamond drilling	8,000	10,000	20,000	20,000							58,000
Revenues	Tonnes milled	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
	Grade	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
	Oz (Au) contained	0	25,320	39,550	26,786	19,564	17,838	17,899	22,297	16,713	17,671	203,639
	Mill recovery	0	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
	Oz (Au) sold	0	24,054	37,573	25,447	18,586	16,946	17,004	21,182	15,878	16,788	193,457
	Au price - $/oz	0	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560
	Au total sold	0	37,524,561	58,613,711	39,697,031	28,994,024	26,435,299	26,525,738	33,044,304	24,769,064	26,188,525	301,792,257
	Royalties to be paid	0	-562,868	-879,206	-595,455	-434,910	-396,529	-397,886	-495,665	-371,536	-392,828	-4,526,884
	Net revenues	**0**	**36,961,692**	**57,734,506**	**39,101,576**	**28,559,114**	**26,038,770**	**26,127,852**	**32,548,639**	**24,397,528**	**25,795,698**	**297,265,373**
Operating costs	Ore mining - $/t mined	0	1,450,602	2,417,670	2,417,670	2,417,670	2,417,670	2,417,670	2,417,670	2,417,670	2,417,670	20,791,959
	Waste mining - $/t mined	0	2,827,599	4,712,664	4,712,664	4,712,664	4,195,168	4,712,664	4,712,664	4,195,168	3,436,033	38,217,291
	Power (generator) - $/year	83,400	166,800	278,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	2,390,800
	Ore loading - $/t milled	0	243,986	406,643	406,643	406,643	406,643	406,643	406,643	406,643	406,643	3,497,133
	Road maintenance - $/t milled	0	495,360	825,600	825,600	825,600	825,600	825,600	825,600	825,600	825,600	7,100,160
	Ore trucking to mill -$/t	0	1,852,200	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	26,548,200
	Ore milling - $/t	0	5,014,800	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	71,878,800
	G & A - $/year	0	1,703,255	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	24,413,319
	Room & Board plus men transport		473,238	788,730	788,730	788,730	788,730	788,730	788,730	788,730	788,730	6,783,078
	Leasing costs - $/year	0	720,490	720,490	720,490	720,490	720,490					3,602,450
	Sub-total	83,400	14,948,329	24,433,555	24,433,555	24,433,555	23,916,059	23,713,065	23,713,065	23,195,569	22,436,434	205,306,590
	Contingencies - $/year	4,170	747,416	1,221,678	1,221,678	1,221,678	1,195,803	1,185,653	1,185,653	1,159,778	1,121,822	10,265,329
	Total operation cost	**87,570**	**15,695,746**	**25,655,233**	**25,655,233**	**25,655,233**	**25,111,862**	**24,898,719**	**24,898,719**	**24,355,348**	**23,558,256**	**215,571,919**
	$/oz (Au) sold		653	683	1,008	1,380	1,482	1,464	1,175	1,534	1,403	1114
	$/t milled		62	61	61	61	60	59	59	58	56	60
	EBITDA - $/y	**-87,570**	**21,265,946**	**32,079,272**	**13,446,342**	**2,903,880**	**926,907**	**1,229,133**	**7,649,920**	**42,180**	**2,237,442**	**81,693,454**
Capital Costs	Diamond drilling - $/y		750,000	2,500,000	2,500,000							5,750,000
	Working capital		3,000,000								-3,000,000	0
	Mill upgrade	1,100,000										1,100,000
	Tailing dyke maintenance	50,000			500,000							550,000
	Infrastructure	2,000,000										2,000,000
	Barry-Bachelor road upgrade: 40 km	2,000,000										2,000,000
	Mine initial & ongoing Capex	1,850,000	185,000	185,000	185,000	185,000	185,000	185,000	185,000			3,145,000
	Closing bond		2,000,000	1,000,000	1,000,000							4,000,000
	NSR buyback	1,500,000	500,000									2,000,000
	Total capital costs	**8,500,000**	**6,435,000**	**3,685,000**	**4,185,000**	**185,000**	**185,000**	**185,000**	**185,000**	**0**	**-3,000,000**	**20,545,000**
Net operating cash flow		**(8,587,570)**	**14,830,946**	**28,394,272**	**9,261,342**	**2,718,880**	**741,907**	**1,044,133**	**7,464,920**	**42,180**	**5,237,442**	**61,148,000**
Cumulative cash flow		(8,587,570)	6,243,376	34,637,649	43,898,991	46,617,871	47,359,779	48,403,912	55,868,833	55,911,012	61,148,454	

22.3. Net present value, internal rate of return and payback period

The financial analysis results of the Barry project are:

- 53.5 M$ net present value;
- 198% internal rate of return;
- 0.58-year payback periods.

22.4. Taxes, royalties and interests

Taxes

Information presented in this section was prepared by Raymond Chabot Grant Thornton. A cash flow was produced which takes into account taxes. The applicable tax rates are:

- Federal corporate tax rate: 15%
- Quebec provincial tax rate: 11.9%
- Minimum mining tax: 1% for the first 80 M$ of production value
  4% for additional revenue
- Mining tax on profits: Profits are taxed at a rate of 16%, 22% or 28%

The availability of different tax credits was also studied and depreciable property was taken into account. Taxes paid by Metanor for Barry project are presented in Table 49. The after-tax financial analysis results for the Barry project are presented below.

- 25.9M$ net present value;
- 94% internal rate of return;
- 0.71-year payback periods.

Table 49: Tax-adjusted cash flow

Years of production		1	2	3	4	5	6	7	8	9	
Operation days/y	0	210	350	350	350	350	350	350	350	350	
Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total**
Before tax cash flow	**(8,587,570)**	**14,830,946**	**28,394,272**	**9,261,342**	**2,718,880**	**741,907**	**1,044,133**	**7,464,920**	**42,180**	**5,237,442**	**61,148,000**
Cumulative cash flow	(8,587,570)	6,243,376	34,637,649	43,898,991	46,617,871	47,359,779	48,403,912	55,868,833	55,911,012	61,148,454	
Quebec mining tax	0	(3,259,063)	(5,114,325)	(1,627,468)	(366,593)	(103,158)	(131,223)	(1,214,792)	(87,712)	(280,479)	(12,184,813)
Federal income tax	0	(2,645,194)	(4,241,398)	(1,475,496)	(291,100)	(20,615)	(85,702)	(1,063,838)	0	(219,352)	(10,042,695)
Quebec income tax	0	(2,098,521)	(3,364,842)	(1,170,560)	(230,939)	(16,355)	(67,990)	(843,978)	0	(174,019)	(7,967,204)
Total tax	0	(8,002,778)	(12,720,565)	(4,273,524)	(888,632)	(140,128)	(284,915)	(3,122,608)	(87,712)	(673,850)	(30,194,712)
Net after tax cash flow	**(8,587,570)**	**6,828,168**	**15,673,707**	**4,987,818**	**1,830,248**	**601,779**	**759,218**	**4,342,312**	**(45,532)**	**4,563,592**	**30,953,742**
Cumulative net cash flow	(8,587,570)	(1,759,402)	13,914,306	18,902,124	20,732,372	21,334,152	22,093,370	26,435,683	26,390,150	30,953,742	

Royalties

An average royalty of 1.5% was applied to the material extracted from the Barry deposit for the financial model in this study. Refer to section 4.2, Property Description, Ownership and Agreements, for a detailed description of the royalties.

Interests

No financing fees or interests were applied to the current financial analysis.

Sensitivity analysis

The sensitivity analysis of the Net Present Value and of the Internal Rate of Return was evaluated for changes in the following parameters:

- Gold price;
- Capital expenditures;
- Operation cost; and
- NSR buyback.

The sensitivity analysis was prepared using the pre-tax financial analysis. The results are presented in Figure 87, Table 50 and Table 51.

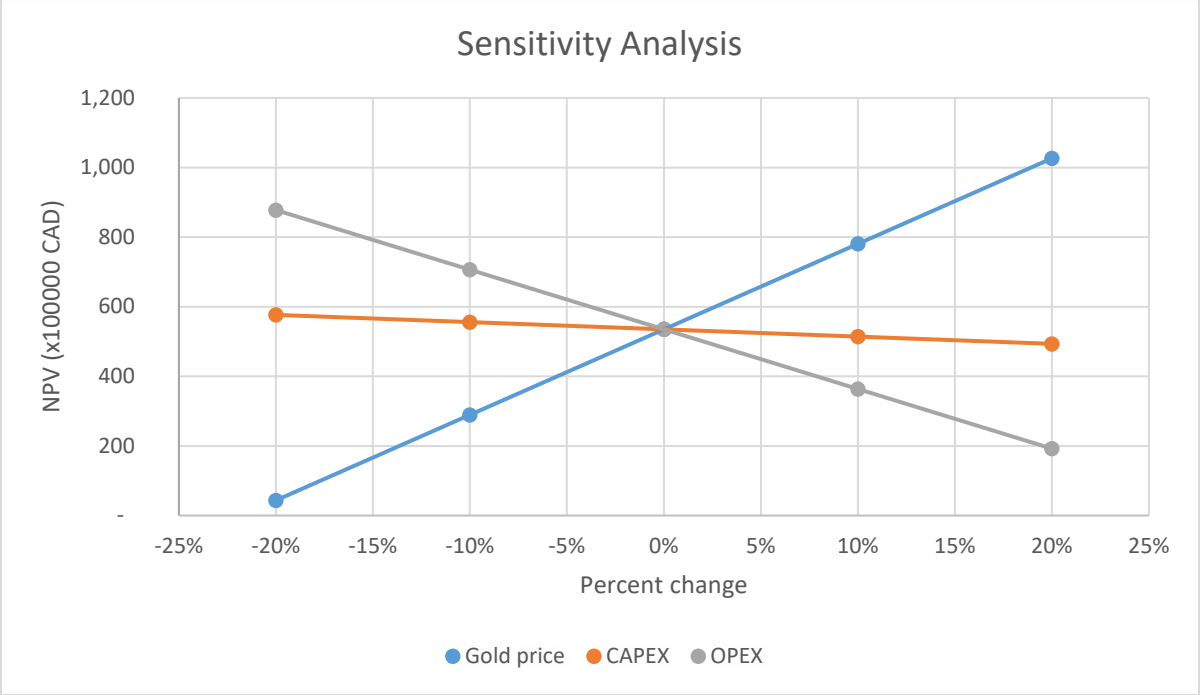


Figure 87: Sensitivity analysis graph

Table 50: Sensitivity analysis results

Gold price	-20%	-10%	0%	10%	20%
NPV ($)	4,358,000	28,929,000	53,500,000	78,072,000	102,643,000
IRR	-3%	146%	198%	246%	292%
CAPEX	-20%	-10%	0%	10%	20%
NPV ($)	57,665,000	55,583,000	53,500,000	51,418,000	49,335,000
IRR	263%	227%	198%	173%	153%
OPEX	-20%	-10%	0%	10%	20%
NPV ($)	87,778,000	70,639,000	53,500,000	36,361,000	19,223,000
IRR	242%	220%	198%	174%	149%

It can be seen that the gold price has a major impact on project NPV and IRR. The project net present value becomes negative at a gold price of 1,220 $/oz or a 22% reduction of the gold price from the 1,560 $/oz price used in this study.

Table 51 presents the possible scenarios concerning NSR buyback on Barry mining lease.

Table 51 : NSR buyback sensitivity analysis pre-tax

Scenario	CAPEX	NPV (6%) ($)	IRR	NSR Weighted average
SDBJ buyback (1%)	500,000.00	52,875,553	236%	2.41%
Duval buyback (1%)	500,000.00	52,137,101	232%	2.59%
Both buyback (2%)	1,000,000.00	53,253,000	221%	2.00%
No buyback (0%)	-	51,758,458	190%	3.00%
1.5% Press release	2,000,000.00	53,500,271	248%	1.50%

23. Adjacent Properties

The Urban-Barry sector has been gaining interest since 2006 after the publication of the spectacular drill results published by Noront Resources (now Oban Mining, OBM) on the Windfall project with 800.1 to 1,792.9 g/t Au over 4.8 m and 27.3 g/t Au over 14.4m. Oban mining is currently starting a drilling campaign of 55,000m drilling campaign. Figure 88 show the adjacent properties to the Barry gold deposit.

Osisko Mining Corporation is located at the northeast of the Barry property. Ressources Beaufield and Urbana Corporation are located at the north of the Barry property. Beaufield is currently conducting a drilling campaign of 4,000m on their Urban property.

Bonterra Resources has discovered on the property immediately to the east of Barry, a wide gold bearing zone which returned an intersection of 0.73 g/t Au over 169.10m including 2.84 g/t Au over 31m (PR August 08, 2011). In 2015, the company drilled 4 holes totalling 1,707 m. BonTerra Resources is highly invested in the exploration of its property. BonTerra resources declared 4,337,000 tonnes grading 3.53 g/t. BonTerra Resources planned a multi-phase drill programs in 2016, totalling up to 25,000 meters.

Golden Valley entered in an agreement with BonTerra Resources granting BonTerra 85% interest in the Lac Barry Prospect property.

The Urban-Barry area has seen a wave of acquisition and merger in the last year. Notably, Oban mining corporation, now Osisko Mining merged or acquired stakes in Eagle Hill Exploration and Bonterra Resources.

It is important to note that company transaction in the region are evolving fast and the technical information may not be up to date at the moment of reading this technical report.

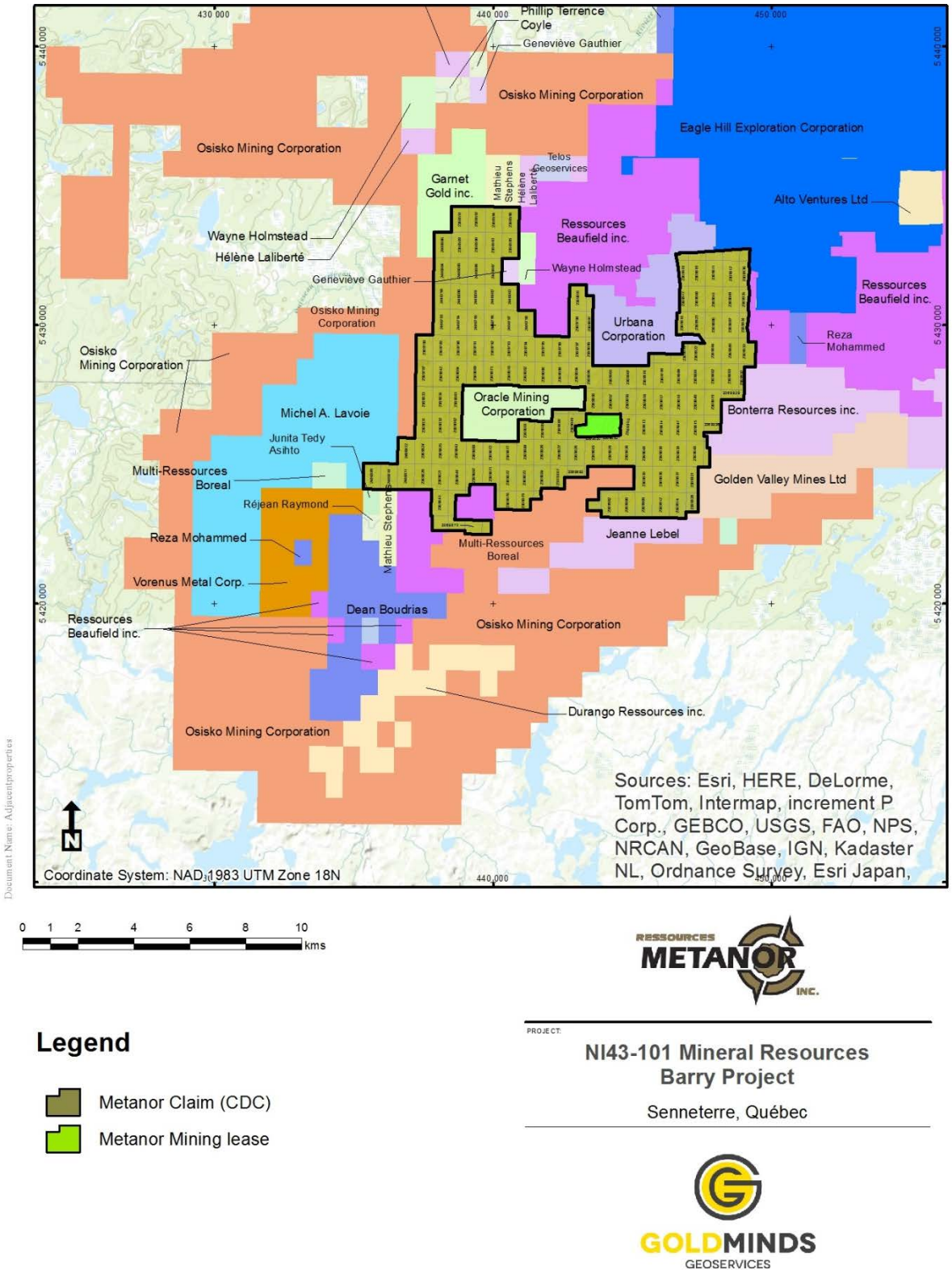


Figure 88: Adjacent properties

24. Other Relevant Data and Information

The author is aware that ongoing trench works on the western portion are on-going and have uncovered quartz veins and typical alteration similar to the main deposit zone.

Diamond drilling program is on-going as part of the recommendations of the mineral resources report.

The author is also aware of positive drill results on the Barry property to the NE Moss zone which are not included here as done after the Effective date of the technical report.

25. Interpretation and Conclusions

Cautionary note: The PEA completed for Metanor is preliminary in nature and includes inferred resources, considered too speculative in nature to be categorized as mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert inferred mineral resources to indicated or measured mineral resources. There is no certainty that the resources development, production, and economic forecasts on which this PEA is based will be realized.

25.1. Geology

GoldMinds Geoservices has conducted an extensive validation of the historical database and the supervision of the new drilling campaign. GoldMinds Geoservices has updated the mineral resources for the Barry gold property. Metanor resources has within the Barry property, the potential for the discovery of additional resources and may, with further study, be potentially economic.

GoldMinds Geoservices considers the resource estimate to have been reasonably prepared and conform to the current CIM standards and definitions for estimating resources, as required under NI 43-101 "Standards of Disclosure for Mineral Projects". Therefore, GoldMinds accepts the public disclosure of the resource estimate as the basis for ongoing exploration at the Barry property. However, the reader should be cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability.

GoldMinds believes that the Barry property is highly prospective. The new drilling campaign (holes MB-16-07 and 15) confirmed a new mineralized zone located a further 250m west from the existing western pit. The mineralization in this sector is located in the basalt, above the quartz feldspar porphyry (QFP). An old channel sample from trench (141.7E) located near 500m to the west reveals gold at surface and could be the extension of this zone, additional works needs to be done in the sector to confirm mineralization extension. This western new zone deserves additional drilling to define its size and increase its level of confidence as well as extension of mineralization around the existing pit and other targets on the property.

At the Barry property, the mineralized fluids have circulated in the major shear. Additional exploration and geological works are required to increase level of knowledge of the mineralization model in order to better define the high grade zone laterally in association to the latest geophysical survey. A proposed

drilling program for further exploration on the Barry project has been submitted in the mineral resource report for the discovery of additional resources. Metanor is currently drilling on the Barry project.

25.2. Mining

The mining costs have been estimated by taking in consideration that the mineralization selectivity might be in certain areas an issue, therefore the fleet selection was done with medium size equipment – excavators of 3.4 m^3 and articulated 32 tonne trucks- operating at a limited daily tonnage rate to facilitate the grade control, the resulting direct unit mining cost (drilling, loading and in-pit trucking) is then $2.22/t for waste and $2.80/t for mineralization material. As previously mentioned in item 16.6 another mining scenario was preliminary estimated based on larger equipment's – excavators of 4.7 m^3 and articulated trucks of 55 tonnes- that would generate an estimated direct mining cost of 1.79 $/t for waste and 2.10 $/t of mineralized material.

To estimate the possible production cost saving, it is assumed that the unit cost of the mineralized material will stay the same, and that saving would apply to 75% of the estimated waste total tonnage, in other words, the saving would apply only in areas where waste is clearly defined. The unit cost saving would then be 0.43 $/t, and the global saving is then 2.5 M$ for the whole project when applied to 75% of the total project waste amounting to 7.8 Mt.

26. Recommendations

26.1. Geology and Mineral Resources

There is potential in the Barry deposit to increase the mineral resource in addition to the increase of its lateral extension.

The recent drilling at the Barry property has significantly increased the inferred resources and in order to convert these inferred mineral resources to indicated or measured it is necessary to plan a surface drilling campaign on the property.

GMG has proposed a drilling program to Metanor director of exploration (Mr. Claude Gobeil). Thirty-three (33) sections were created, each fifty (50) meters in the north and south axes facing west through the deposit. On those sections, fifty-eight (58) drill holes are proposed for a total of 4773 meters.

The proposed drillholes are localised in two zones and a priority number (from 1 to 4) has been assigned for each drillhole depending on the order of importance (Figure 89 and Figure 90). The first zone corresponds to the Barry deposit within the lease mining. A total of 55 drillholes are proposed, totalling 4128 meters. These proposed holes will help for the validation of the optimized pits (Section 14) and provide more information on their dimensions.

The second zone is considered as an exploration zone, located NNE from the Barry lease mining with 3 proposed drillholes (Explo_2016_01NNE, Explo_2016_02NNE and Explo_2016_01NNE) totalling 645 meters (Figure 89 and Figure 91). This zone is located seven (7) kilometers north-northeast of the central pit. GoldMinds Geoservices proposes to use the same collar as the existing holes: MB-14-22, M13-03 and M13-0221. These new drilling holes will help validate the continuity of the mineralization and its direction.

GMG proposed drilling program on the Barry property can be subject to change depending on the access on the field and the funding.

A very limited area of the whole Metanor Barry property has been explored in details with supportive diamond drilling, the author is in the opinion it deserves additional; exploration and drilling works.

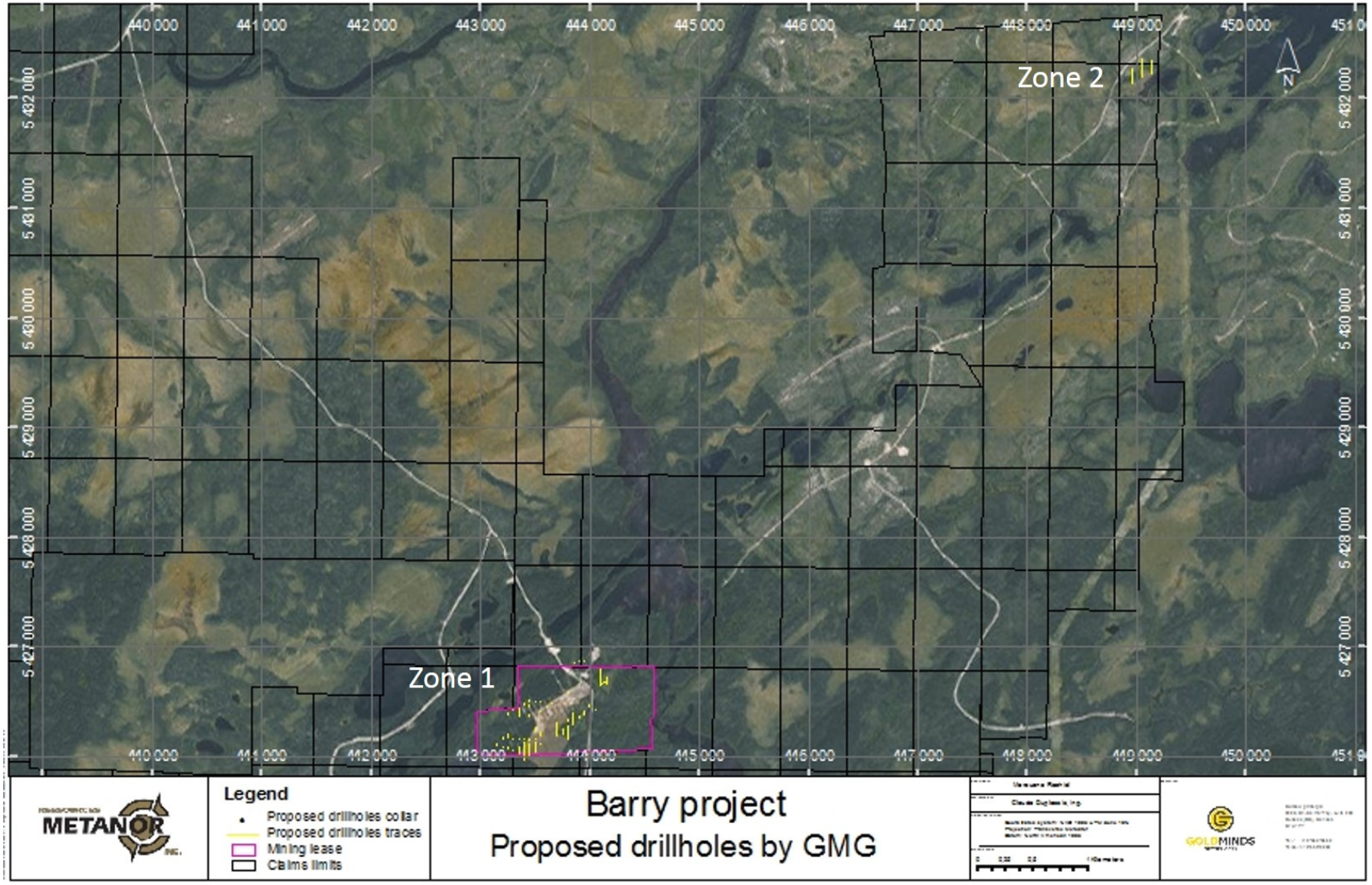


Figure 89: Localization of the proposed drillholes by GMG

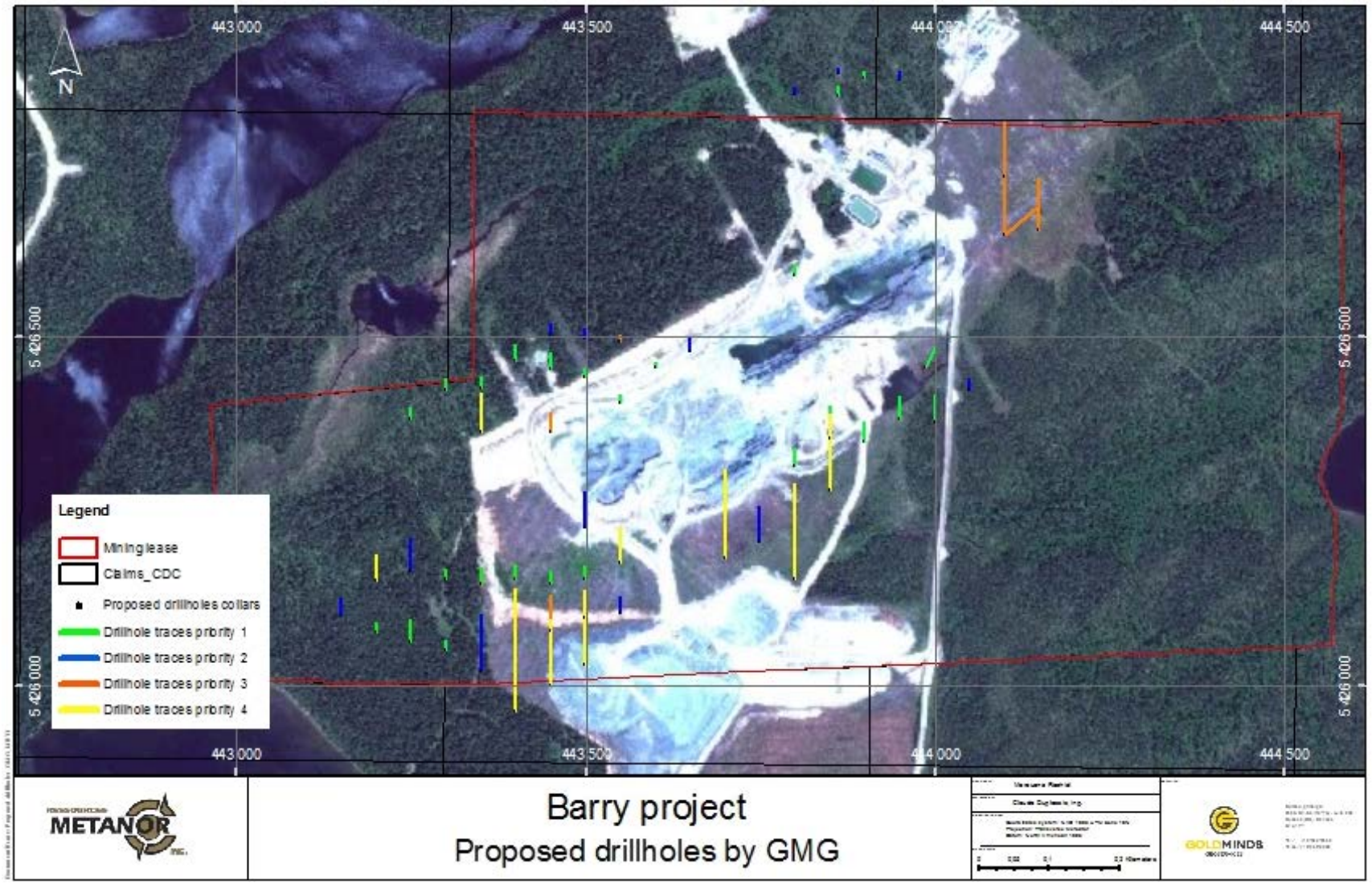


Figure 90: proposed drillholes within zone 1 (Barry property)

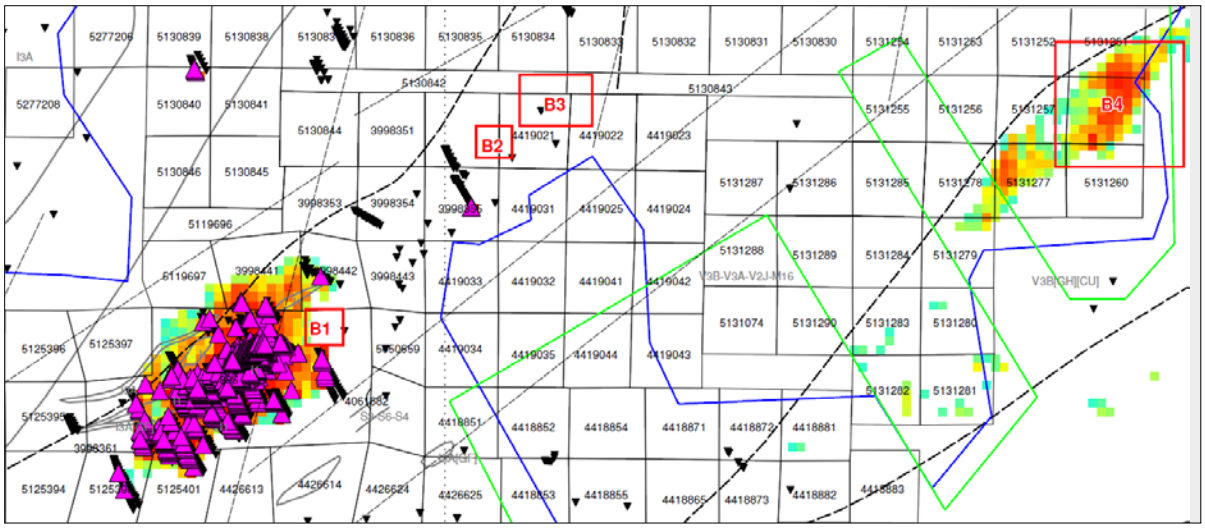


Figure 91: Diagnos map showing two zones with high potential of gold mineralization. The first one fits with the main pit and the second one is located at the NE of the main pit and corresponds to zone 2 in Figure 65

The drilling program expenditure is estimated as follows:

- Diamond drilling 4800 m for	$1,150,000 (all included)
- Consulting fees	$250,000
- Manpower	$75,000
- Other project expenses	$100,000
- Total costs estimated	**$1,575,000**

GMG has prepared the current resource estimate update for the Barry project and makes the following additional recommendations:

- A topographic surface survey (Airborne LIDAR survey) on the entire Barry property;

- Dewater the pits in order to carry out a detailed survey of the pit bottom topography;

- Geological and detailed structural mapping of the Barry property with a focus on the IP anomalies for a better understanding of the structural system bearing gold;

- Conduct further specific gravity testing to define the specific gravity for the various mineralized lithologies to a greater degree;

- The author also recommends to carry out an update mineral resources followed by a Preliminary Feasibility Study for the Barry property. The PFS should target an open-pit scenario with the mineralized material shipped to the Bachelor mill.

26.2. Mineral Processing and Metallurgical Testing

If the Barry mineralized material is shipped to the Bachelor mill, no additional laboratory study is needed because the mill already processed this material achieving an average recovery of 92.54%. However, the mill will need to be upgraded to receive this additional material as the current capacity is 1,200 tpd.

Furthermore, the possibility to build a new mill at the Barry site should be studied to allow a well-informed decision between the haulage of material to the Bachelor mill, and the construction of a new mill.

26.3. Mining

In order to benefit from the estimated mining savings as shown in item 25.2 it is recommended to select the larger equipment's fleet for the waste removal.

Another recommendation is to plan 10 meter benches in waste instead of the 5 meter as estimated in this study.

27. References

Lariviere, J.M., 1997, Petrographic Analysis of Alteration and Gold Mineralization at the Barry Gold Property, Barry Township, Québec, MinEx Master‟s Thesis, Queen‟s University, Kingston, 52 pp.

Tessier, A.C., Jan. 1996. The Barry I gold showing: Geology of the surface trench and structural controls of the gold mineralization. MURGOR Resources Inc Internal Report by A.C. Tessier Consulting.

Tessier, A.C., June 1996. Barry I Property: Report on the winter 1996 drilling program: Results, assessment, recommendations and drilling proposal for June to December 1996. MURGOR Resources Inc. Internal Report by A.C. Tessier Consulting.

Bandyayera, D., Theberge, L., Fallara, F., 2002, Géologie de la région des lacs Piquet et Mesplet (32G/04 et 32B/13), Ministère des Ressources Naturelles, Québec, RG 2001-14, 56 p., 8 maps.

Bandyayera, D., Daigneault, R., Sharma, K., 2003, Géologie de la région du lac de la Ligne (32F/01), Ministère des Ressources Naturelles, de la Faune et des Parcs, Québec, RG 2004-02, 31 p., 4 maps.

Bandyayera, D., Rheaume, P., Doyon, J., Sharma, K., 2004a, Géologie de la région du lac Hébert (32G/03), Ministère des Ressources Naturelles, de la Faune et des Parcs, Québec, RG 2003-07, 57 p., 4 maps.

Bandyayera, D., Rheaume, P., Caderon, S., Giguere, E., Sharma, K., 2004b, Géologie de la région du Lac Lagacé (32B/14), Ministère des Ressources Naturelles, de la Faune et des Parcs, Québec, RG 2004-02, 32 p., 4 maps.

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

Chown, E.H., Harrap, R., and Moukhsil, A., 2002, The role of granitic intrusions in the evolution of the Abitibi belt, Canada: Precambrian Research, v. 115, p. 291-310.

Card, K.D., 1990, A review of the Superior Province of the Canadian Shield, a product of Archean accretion, Precambrian Research, v. 48, p. 99-156.

Hocq, M., 1989, Carte Lithotectonique des sous-provinces de l'Abitibi et du Pontiac, 1:500,000, Ministère de l'énergie et des Ressources (Mines), Gouvernement du Québec, DV 89-04.

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

Milner, R., L., 1939, Barry Lake area, Abitibi County and Abitibi Territory, Department of Mines, Québec, RP 143, 9 p.

Milner, R.L., 1943, Barry Lake area, Abitibi County and Abitibi Territory, Department of Mines, Québec, RG 014, 28 p.

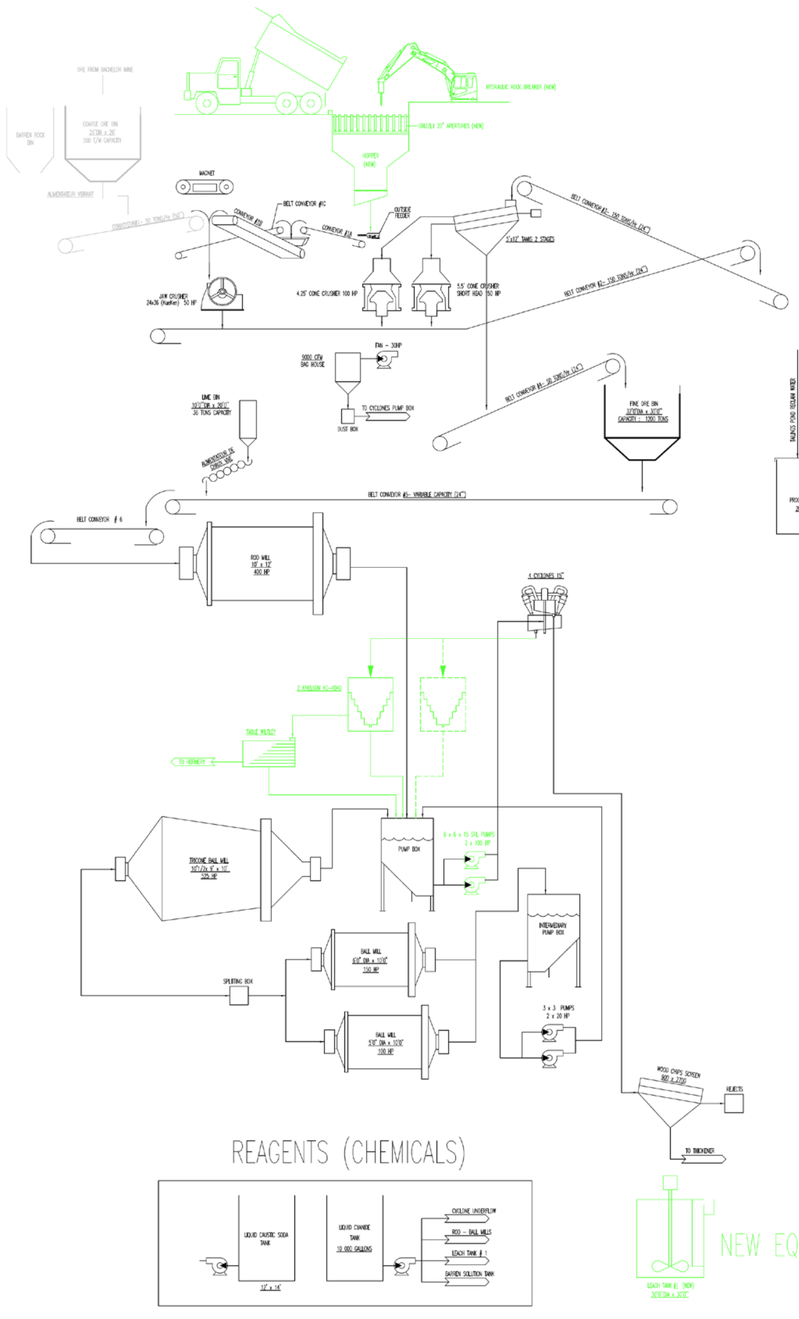
Joly, M., 1990, Géologie de la region du lac aux Loutres et du lac Lacroix, Ministère de l'Énergie et des Ressources, Gouvernement du Québec, MB 90-42, 55 pp.

Rhéaume, P. and Bandyayera, D., 2006, Révision stratigraphique de la Ceinture d"Urban-Barry: Ministère des Ressources naturelles et de la Faune, Québec, RP 2006-08, 11p.

Kitney, K.K., 2009. Structural, mineralogical, geochemical and geochronological investigation of the Barry gold deposit, Abitibi subprovince, Canada. 436pp.

SGS Geostat, Technical Report of September 2010. C. Duplessis, Y. Camus co-authors.

Appendix A



BARRY MINE

BACHELOR MILL – PROPOSED FLOWSHEET 2016

DRAWN	AUGUST 15. 2016
METANOR – GOLDMINDS	

GOLDMINDS GEOSERVICES

METANOR RESOURCES INC.

Appendix B

Option 4-3		Years of production		1	2	3	4	5	6	7	8	9	
		Operation days/y	0	210	350	350	350	350	350	350	350	350	
		Years	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	**Total**
Production (mined)	3,478,171	Tonnes of ore mined/year	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
	1.75	Au grade (diluted) - g/t	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
	2.17	Strip ratio		2.17	2.17	2.17	2.17	1.93	2.17	2.17	1.93	1.58	2.17
	7,385,040	Tonnes of waste		546,400	910,667	910,667	910,667	810,667	910,667	910,667	810,667	663,973	7,385,040
Fill-in and exploration	meters/y	Diamond drilling	8,000	10,000	20,000	20,000							58,000
Revenues	t	Tonnes milled	0	252,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	3,612,000
	g/t	Grade (mill feed)	0	3.13	2.93	1.98	1.45	1.32	1.33	1.65	1.24	1.31	1.75
	oz	Oz (Au) contained	0	25,320	39,550	26,786	19,564	17,838	17,899	22,297	16,713	17,671	203,639
	%	Mill recovery	0	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
	oz	Oz (Au) sold	0	24,054	37,573	25,447	18,586	16,946	17,004	21,182	15,878	16,788	193,457
	1560	Au price - $/oz	0	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560	1,560
	$CDN	Au total sold	0	37,524,561	58,613,711	39,697,031	28,994,024	26,435,299	26,525,738	33,044,304	24,769,064	26,188,525	301,792,257
	1.5	Royalties to be paid	0	-562,868	-879,206	-595,455	-434,910	-396,529	-397,886	-495,665	-371,536	-392,828	-4,526,884
Net Revenues	**$CDN**		**0**	**36,961,692**	**57,734,506**	**39,101,576**	**28,559,114**	**26,038,770**	**26,127,852**	**32,548,639**	**24,397,528**	**25,795,698**	**297,265,373**
Operating costs	4.71	Ore mining - $/t mined	0	1,187,352	1,978,921	1,978,921	1,978,921	1,978,921	1,978,921	1,978,921	1,978,921	1,978,921	17,018,717
	4.40	Waste mining - $/t mined	0	2,402,541	4,004,236	4,004,236	4,004,236	3,564,532	4,004,236	4,004,236	3,564,532	2,919,513	32,472,296
		Power (generator) - $/year	83,400	166,800	278,000	278,000	278,000	278,000	278,000	278,000	278,000	278,000	2,390,800
	0.97	Ore loading - $/t milled		243,986	406,643	406,643	406,643	406,643	406,643	406,643	406,643	406,643	3,497,133
	1.97	Road maintenance - $/t milled		495,360	825,600	825,600	825,600	825,600	825,600	825,600	825,600	825,600	7,100,160
	7.35	Ore trucking to mill -$/t		1,852,200	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	3,087,000	26,548,200
	19.90	Ore milling - $/t		5,014,800	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	8,358,000	71,878,800
		Tailing dyke maintenance		50,000		500,000							550,000
		G & A - $/year		1,703,255	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	2,838,758	24,413,319
		Room & Board and men transport		385,200	642,000	642,000	642,000	642,000	642,000	642,000	642,000	642,000	5,521,200
		Leasing costs - $/year		2,001,140	2,001,140	2,001,140	2,001,140	2,001,140					10,005,700
Sub-total operating costs			83,400	15,502,635	24,420,297	24,920,297	24,420,297	23,980,594	22,419,157	22,419,157	21,979,454	21,334,435	201,479,724
	5%	Contingencies - $/year	4,170	775,132	1,221,015	1,246,015	1,221,015	1,199,030	1,120,958	1,120,958	1,098,973	1,066,722	10,073,986
Total operating costs			**87,570**	**16,277,766**	**25,641,312**	**26,166,312**	**25,641,312**	**25,179,623**	**23,540,115**	**23,540,115**	**23,078,426**	**22,401,157**	**211,553,710**
		$/oz (Au) sold		677	682	1,028	1,380	1,486	1,384	1,111	1,454	1,334	1094
		$/t milled		65	61	62	61	60	56	56	55	53	59
Net cash income		**EBITDA - $/y**	**-87,570**	**20,683,926**	**32,093,193**	**12,935,263**	**2,917,801**	**859,146**	**2,587,737**	**9,008,524**	**1,319,101**	**3,394,541**	**85,711,663**
Capital Costs	125	Diamond drilling - $/y	0	750,000	2,500,000	2,500,000							5,750,000
		Working capital	0	3,000,000								-3,000,000	0
		Mill upgrade (G. Rousseau)	1,100,000										1,100,000
		Tailing dyke maintenance	50,000			500,000							550,000
		Infrastructure	2,000,000										2,000,000
		Barry-Bachelor road upgrade: 40 km	2,000,000										2,000,000
		Equipment & ongoing Capex	1,850,000	185000	185,000	185,000	185,000	185,000	185,000	185,000			3,145,000
		Closing bond	0	2,000,000	1,000,000	1,000,000							4,000,000
		NSR buyback	1,500,000	500,000									
		Total	**8,500,000**	**6,435,000**	**3,685,000**	**4,185,000**	**185,000**	**185,000**	**185,000**	**185,000**	**0**	**-3,000,000**	**20,545,000**
Net operating cash flow			**(8,587,570)**	**14,248,926**	**28,408,193**	**8,750,263**	**2,732,801**	**674,146**	**2,402,737**	**8,823,524**	**1,319,101**	**6,394,541**	**65,167,000**
Cumulative cash flow			(8,587,570)	5,661,356	34,069,549	42,819,813	45,552,614	46,226,760	48,629,497	57,453,021	58,772,122	65,166,663	
Pre-tax NPV(6%)		**56,000,000**											
IRR		**193%**											