

# Independent Technical Report Yellowknife Gold Project Northwest Territories, Canada

Effective Date: March 1, 2019  
Report Date: April 16, 2019  
Amended Report: June 9, 2021

Report Prepared for

## GoldMining Inc.

1030 West Georgia Street  
Suite 1830  
Vancouver, BC V6E 2Y3 Canada

Report Prepared by



SRK Consulting (U.S.), Inc.  
1125 Seventeenth Street, Suite 600  
Denver, CO 80202

SRK Project Number: 536100.020

### Signed by Qualified Persons:

Ben Parsons, MAusIMM (CP)  
Dominic Chartier, PGeo  
Eric Olin, SME-RM, MAusIMM (CP)

### Reviewed by:

Matthew Hastings, MAusIMM (CP)

# Table of Contents

<b>1</b>	<b>Summary</b>	<b>1</b>
1.1	Property Description and Ownership	1
1.2	Geology and Mineralization	2
1.3	Status of Exploration, Development and Operations	2
1.4	Mineral Processing and Metallurgical Testing	3
1.5	Mineral Resource Estimate	3
1.6	Mineral Reserve Estimate	6
1.7	Conclusions and Recommendations	6
<b>2</b>	<b>Introduction</b>	<b>7</b>
2.1	Terms of Reference and Purpose of the Report	7
2.2	Scope of Work	7
2.3	Work Program	8
2.4	Basis of Technical Report	8
2.5	Qualifications of Consultants (SRK)	9
2.6	Site Visit	10
2.7	Declaration	10
2.8	Units of Measure	10
<b>3</b>	<b>Reliance on Other Experts</b>	<b>11</b>
<b>4</b>	<b>Property Description and Location</b>	<b>12</b>
4.1	Property Location	12
4.2	Mineral Titles	13
4.3	Underlying Agreements	18
4.4	Permits and Authorization	18
4.5	Environmental Considerations	19
4.6	Mining Rights in Northwest Territories	19
<b>5</b>	<b>Accessibility, Climate, Local Resources, Infrastructure and Physiography</b>	<b>20</b>
5.1	Accessibility and Transportation to the Property	20
5.2	Local Resources and Infrastructure	20
5.3	Climate	20
5.4	Physiography	20
5.5	Sufficiency of Surface Rights	22
5.6	Infrastructure Availability and Sources	22
5.6.1	Site Access	22
5.6.2	Required Infrastructure	22
5.6.3	Power	22

5.6.4	Water .....	22
5.6.5	Mining Personnel.....	22
5.6.6	Potential Tailings Storage Areas.....	22
5.6.7	Potential Waste Disposal Areas.....	23
<b>6</b>	<b>History.....</b>	<b>24</b>
6.1	Prior Ownership and Exploration Work.....	24
6.1.1	The Discovery Mine Property (Ormsby and Bruce Zones) .....	24
6.1.2	Nicholas Lake Property .....	25
6.1.3	Goodwin Lake Property.....	26
6.1.4	Clan Lake Property.....	26
6.1.5	Big Sky Property.....	27
6.2	Historic Mineral Resource and Reserve Estimates .....	27
6.3	Historic Production.....	31
<b>7</b>	<b>Geological Setting and Mineralization .....</b>	<b>33</b>
7.1	Regional Geology.....	33
7.2	Local Geology .....	34
7.3	Property Geology .....	35
7.3.1	Ormsby Property Geology.....	35
7.3.2	Nicholas Lake Property Geology.....	36
7.3.3	Goodwin Lake Property Geology .....	38
7.3.4	Clan Lake Property Geology .....	38
7.3.5	Big Sky Property Geology .....	40
7.4	Mineralization .....	43
7.4.1	Ormsby and Bruce Zones .....	43
7.4.2	Nicholas Lake Zone.....	44
7.4.3	Goodwin Lake Zones .....	44
7.4.4	Clan Lake Zone .....	44
7.4.5	Big Sky Zone .....	45
<b>8</b>	<b>Deposit Type .....</b>	<b>46</b>
<b>9</b>	<b>Exploration .....</b>	<b>47</b>
9.1	Relevant Exploration Work .....	47
9.2	Exploration 1987-1997 .....	47
9.3	Exploration 1997-2012.....	47
9.4	Exploration 2013-2018.....	48
9.5	Significant Results and Interpretation .....	48
<b>10</b>	<b>Drilling.....</b>	<b>49</b>
10.1.1	Collar Location .....	49

10.1.2 Downhole Survey .....	49
10.1.3 Drilling Methods.....	49
10.1.4 Drilling Orientations .....	49
10.2 Ormsby and Bruce Zones .....	50
10.3 Nicholas Lake Zone .....	52
10.4 Goodwin Lake Zone.....	54
10.5 Clan Lake Zone.....	55
10.6 Qualified Persons Opinion and Comments.....	56
<b>11 Sample Preparation, Analysis and Security .....</b>	<b>57</b>
11.1 Sample Preparation and Analyses (Pre-2003) .....	57
11.2 Sample Preparation and Analyses (2003-2011).....	57
11.3 Quality Assurance and Quality Control Programs (2004-2011) .....	58
11.3.1 Blanks.....	58
11.3.2 Pulp Duplicate Assays.....	60
11.3.3 Coarse Reject Duplicate Assays.....	60
11.3.4 Repeat Assays .....	61
11.3.5 Laboratory Standards.....	63
11.3.6 External Laboratory Checks .....	67
11.4 Qualified Persons Opinion and Comments.....	68
<b>12 Data Verification.....</b>	<b>69</b>
12.1 Site Visit .....	69
12.2 Database Verifications .....	69
12.2.1 Previous Laboratory Certificate Checks.....	69
12.2.2 Database Verification Process 2018/2019.....	70
12.2.3 Verifications of Analytical Quality Control Data.....	71
12.3 Limitations .....	72
12.4 Qualified Persons Comment and Opinion on Data Adequacy.....	72
<b>13 Mineral Processing and Metallurgical Testing .....</b>	<b>73</b>
13.1 Testing and Procedures.....	73
13.2 Relevant Results .....	74
13.2.1 Ball Mill Grindability Testwork .....	74
13.2.2 Flotation Testwork.....	74
13.2.3 Concentrate Cyanidation.....	78
13.2.4 Detoxification Studies.....	83
13.3 Recovery Estimate Assumptions .....	83
13.4 Sample Representativeness .....	84
<b>14 Mineral Resource Estimate .....</b>	<b>85</b>

14.1 Geological Database.....	85
14.2 Topography.....	86
14.3 Geology Modeling.....	86
14.3.1 Ormsby and Bruce.....	86
14.3.2 Nicholas Lake.....	90
14.3.3 Clan Lake.....	92
14.3.4 Goodwin Lake.....	95
14.4 Assay Capping and Composite Analysis.....	97
14.4.1 Composite Analysis.....	97
14.4.2 Outlier Analysis.....	99
14.5 Variography.....	103
14.6 Block Model Setup.....	106
14.7 Specific Gravity Analysis.....	107
14.8 Estimation Methodology.....	108
14.9 Model Validation.....	111
14.9.1 Visual Inspection.....	111
14.9.2 Block Composite Statistical Comparisons.....	121
14.9.3 Comparison of Different Estimation Methods.....	122
14.9.4 Swath Analysis.....	122
14.10 Classification.....	130
14.10.1 Ormsby and Bruce.....	130
14.10.2 Nicholas Lake.....	130
14.10.3 Clan Lake.....	131
14.10.4 Goodwin Lake.....	131
14.11 Mineral Resource Statement.....	135
14.12 Mineral Resource Sensitivity.....	138
<b>15 Mineral Reserve Estimate.....</b>	<b>147</b>
<b>16 Mining Methods.....</b>	<b>148</b>
<b>17 Recovery Methods.....</b>	<b>149</b>
<b>18 Project Infrastructure.....</b>	<b>150</b>
<b>19 Market Studies and Contracts.....</b>	<b>151</b>
<b>20 Environmental Studies, Permitting and Social or Community Impact.....</b>	<b>152</b>
<b>21 Capital and Operating Costs.....</b>	<b>153</b>
<b>22 Economic Analysis.....</b>	<b>154</b>
<b>23 Adjacent Properties.....</b>	<b>155</b>
<b>24 Other Relevant Data and Information.....</b>	<b>156</b>

<b>25 Interpretation and Conclusions .....</b>	<b>157</b>
<b>26 Recommendations .....</b>	<b>159</b>
<b>27 References.....</b>	<b>160</b>
<b>28 Glossary.....</b>	<b>162</b>
28.1 Mineral Resources .....	162
28.2 Mineral Reserves .....	162
28.3 Definition of Terms .....	163
28.4 Abbreviations .....	164

## List of Tables

Table 1-1: Mineral Resource Statement for GoldMining Inc. Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., March 1, 2019 (1)(5)(6)(7)(8) Open Pit Cut-off of 0.5 g/t and a UG Cut-off 1.5 g/t.....	5
Table 4-1: Mining Leases and Mineral Claims Registered to 507140 N.W.T. Ltd. (100%).....	13
Table 6-1: 2008 Historical Mineral Resource Statement.....	28
Table 6-2: 2010 Historical Mineral Resource Statement (EBA 2010).....	28
Table 6-3: 2012 Historical Mineral Resource Statement for the Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., July 1, 2012 <sup>(1)(5)(6)(7)(8)</sup> .....	30
Table 6-4: Reserve Statement for Tyhee’s Yellowknife Gold Project, Northwest Territories, Canada, SRK Consulting (U.S.), Inc., July 28, 2012 .....	31
Table 10-1: Summary of Drilling by Operator, Year and Deposit Area .....	50
Table 11-1: Comparison of Original versus Repeat Assays at Yellowknife .....	62
Table 11-2: Summary Statistics of Standard Performance – 2004-2011.....	64
Table 11-3: 2019 review of CRM data.....	66
Table 12-1: Summary of Data Validation Entry Errors – All Zones .....	70
Table 13-1: Summary of Ormsby, Nicholas Lake and Clan Lake Composite Head Assays.....	73
Table 13-2: Bond Ball Mill Work Index Results .....	74
Table 13-3: Gold and Silver Recoveries for Ormsby Master Composite Locked-Cycled Test – Last 3 Cycles .....	75
Table 13-4: Summary of Bulk Gravity Concentration, Rougher, Flotation and Cleaner Flotation on Each of the Ormsby Variability Composites .....	77
Table 13-5: Gold and Silver Recoveries for Nicholas Lake Master Composite Locked Cycle Test – Last 3 Cycles .....	78
Table 13-6: Gold and Silver Recoveries for the Clan Lake Master Composite Locked-Cycle test.....	78
Table 13-7: Flotation Concentrate Cyanidation Tests on Ormsby Master Composite .....	79
Table 13-8: Cyanidation Test Results Versus Grind Size on Cleaner-1 Flotation Concentrates from the Nicholas Lake Master Composite.....	80
Table 13-9: Cyanidation Test Results Versus Grind Size on Cleaner-1 Flotation Concentrates from the Clan Lake Master Composite.....	82

Table 13-10: Cyanide Detoxification Results on Ormsby Master and Variability Composite.....	83
Table 13-11: Projected Gold Recoveries for Ormsby, Nicholas Lake and Clan Lake .....	83
Table 14-1: Summary of Estimation Domains at Ormsby .....	87
Table 14-2: Summary of Estimation Domains at Ormsby .....	87
Table 14-3: Summary of Estimation Domains at Nicholas Lake .....	90
Table 14-4: Summary of Estimation Domains at Clan Lake.....	93
Table 14-5: Summary of Estimation Domains Used at Goodwin Lake .....	96
Table 14-6: Example of Statistical Analysis for Gold Grams Per Tonne Within the Ormsby KZONE=3 – Indicator 0.3g/t Au Domain .....	99
Table 14-7: Summary of Selected Capping Values per Deposit, Domain and Search Volume.....	103
Table 14-8: Summary of Semi-Variogram Parameters Used Per Domain at Yellowknife .....	104
Table 14-9: Block Model Origin and Extents - Ormsby .....	106
Table 14-10:Block Model Origin and Extents – Bruce.....	106
Table 14-11: Block Model Origin and Extents - Nicholas Lake .....	106
Table 14-12:Block Model Origin and Extents –Goodwin Lake .....	107
Table 14-13: Block Model Origin and Extents - Clan Lake.....	107
Table 14-14: Summary Statistics – Specific Gravity Determinations by Zone .....	108
Table 14-15: Summary of Search Ranges used in Estimation of Gold Grades at Yellowknife.....	110
Table 14-16: Summary of Capping Levels Per Domain (KZONE) and Interpolation Methods .....	111
Table 14-17: Summary of Statistical Comparison Between Composite Means and Grade Estimates (Key Domains) .....	123
Table 14-18: Comparison of OK Versus ID2 Estimated Grades Per Deposit, By Confidence at A 0 g/t Au Cut- Off Grade .....	124
Table 14-19: Projected Gold Recoveries for Ormsby, Nicholas Lake and Clan Lake .....	136
Table 14-20: Mineral Resource Statement for GoldMining Inc. Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., March 1, 2019 <sup>(1)</sup> / <sub>(5)</sub> / <sub>(6)</sub> / <sub>(7)</sub> / <sub>(8)</sub> Open Pit Cut-off of 0.5 g/t and a UG Cut-off 1.5 g/t.....	137
Table 14-21: Grade Tonnage Table of Measured and Indicated Material within Ormsby limiting shell Pit ...	138
Table 14-22: Grade Tonnage Table of Inferred Material Within Ormsby Limiting Shell Pit .....	139
Table 14-23: Grade Tonnage Table of Measured and Indicated Material Below Ormsby Limiting Shell Pit .	139
Table 14-24: Grade Tonnage Table of Inferred Material Below Ormsby Limiting Shell Pit .....	140
Table 14-25: Grade Tonnage Table of Indicated Material Within Bruce Limiting Shell Pit .....	140
Table 14-26: Grade Tonnage Table of Inferred Material Within Bruce Limiting Shell Pit .....	141
Table 14-27: Grade Tonnage Table of Indicated Material Below Bruce Limiting Shell Pit .....	141
Table 14-28: Grade Tonnage Table of Inferred Material Below Bruce Limiting Shell Pit.....	142
Table 14-29: Grade Tonnage Table of Indicated Material Within Nicholas Lake Limiting Shell Pit.....	142
Table 14-30: Grade Tonnage Table of Inferred Material Within Nicholas Lake Limiting Shell Pit .....	143
Table 14-31: Grade Tonnage Table of Indicated Material Below Nicholas Lake Limiting Shell Pit .....	143
Table 14-32: Grade Tonnage Table of Inferred Material below Nicholas Lake Limiting Shell Pit.....	144

Table 14-33: Grade Tonnage Table of Inferred Material Within Clan Lake Limiting Shell Pit.....	144
Table 14-34: Grade Tonnage Table of Inferred Material Below Clan Lake Limiting Shell Pit.....	145
Table 14-35: Grade Tonnage Table of Inferred Material Within Goodwin Limiting Shell Pit.....	145
Table 14-36: Grade Tonnage Table of Inferred Material Below Goodwin Limiting Shell Pit.....	146
Table 26-1: Recommended Exploration Program for the Yellowknife Gold Project.....	159
Table 28-1: Definition of Terms .....	163
Table 28-2: Abbreviations.....	164

## List of Figures

Figure 4-1: Yellowknife Gold Project Location Map .....	12
Figure 4-2: Ormsby-Bruce-Nicholas Lake Land Tenure Map.....	14
Figure 4-3: Goodwin Lake Land Tenure Map.....	15
Figure 4-4: Clan Lake Land Tenure Map.....	16
Figure 4-5: Big Sky Land Tenure Map.....	17
Figure 5-1: Infrastructure and Typical Landscape in the Project Area .....	21
Figure 7-1: Regional Geology Setting .....	34
Figure 7-2: Ormsby Property Geology Map.....	36
Figure 7-3: Nicholas Lake Property Geology Map .....	37
Figure 7-4: Goodwin Lake Property Geology Map .....	39
Figure 7-5: Clan Lake Property Geology Map .....	40
Figure 7-6: Big Sky Property Geology Map .....	42
Figure 10-1: Plan Map Showing the Distribution of Drilling on the Ormsby and Bruce Zones.....	51
Figure 10-2: Cross-Section Showing the Distribution of Drilling on the Ormsby and Bruce Zones .....	52
Figure 10-3: Plan Map Showing the Distribution of Drilling on the Nicholas Lake Main Zone .....	53
Figure 10-4: Cross-Section Showing the Distribution of Drilling on the Nicholas Lake Main Zone.....	53
Figure 10-5: Plan Map Showing the Distribution of Drilling on the Goodwin Lake Vad Zone .....	54
Figure 10-6: Plan Map Showing the Distribution of Drilling on the Clan Lake Main Zone .....	55
Figure 11-1: Blank Sample Assay Results – 2005-2006 Drill Programs.....	59
Figure 11-2: Blank Sample Assay Results – 2007-2011 Drill Programs.....	59
Figure 11-3: Pulp Duplicate Assay Results – All Drill Programs .....	60
Figure 11-4: Coarse Reject Duplicate Assay Results – All Drill Programs .....	61
Figure 11-5: Analysis of Repeat Assays at Yellowknife .....	63
Figure 11-6: Analysis of CRM Submissions (ACME) .....	65
Figure 11-7: Comparison Between Original Acme Assay Results and Chemex Check Assay Results – 2005-2007 .....	67
Figure 13-1: Locked-Cycle Test Flowsheet.....	75
Figure 14-1: Plan View of Ormsby Mineralization Model .....	88



Figure 14-2: Typical Cross-Sections of Ormsby Geological and Mineralization Models ..... 89

Figure 14-3: Plan View of Nicholas Lake Mineralization Model ..... 91

Figure 14-4: Cross Section Nicholas Lake Mineralization Model, Looking Northwest..... 92

Figure 14-5: Plan View of Clan Lake Mineralization Model..... 94

Figure 14-6: Cross Sectional View of Clan Lake Mineralization Model, Looking Northwest..... 95

Figure 14-7: Plan View of the Goodwin Deposit..... 96

Figure 14-8: Example of Log-Probability Analysis of Sample Lengths at the Ormsby Deposit ..... 98

Figure 14-9: Example of the A Log-Probability Plot Used During the Capping Analysis for Gold Grams Per Tonne Within the Ormsby (Indicator >0.3 g/t Au) Domain ..... 100

Figure 14-10: Example of Comparison Between Raw and Capped Composites at Ormsby (Indicator >0.3 g/t Au Domain)..... 101

Figure 14-11: Example of Comparison Between Raw and Capped Composites at Nicholas Lake (KZONE=11) ..... 101

Figure 14-12: Example of Comparison Between Raw and Capped Composites at Clan Lake (KZONE=11) ..... 102

Figure 14-13: Model Semi-Variogram and Correlogram Used for Nicholas Lake ..... 105

Figure 14-14: Directional Semi-Variogram Models Used for Ormsby Indicator >0.3 g/t Au Domain ..... 105

Figure 14-15: Example of Validation Plots Showing Plan View of Ormsby Deposit ..... 112

Figure 14-16: Example of Validation Plots Showing Cross-Section of Ormsby Deposit, Looking Northeast 113

Figure 14-17: Example of Validation Plots Showing Plan View of Bruce Deposit..... 114

Figure 14-18: Example of Validation Plots Showing Cross Section View of Bruce Deposit, Looking Northeast ..... 115

Figure 14-19: Example of Validation Plots Showing Plan View of Nicholas Lake Deposit ..... 116

Figure 14-20: Example of Validation Plots Showing Cross Section View of Nicholas Lake Deposit, Looking West..... 117

Figure 14-21: Example of Validation Plots Showing Plan View of Clan Lake Deposit..... 118

Figure 14-22: Example of Validation Plots Showing Cross Section View of Clan Lake Deposit, Looking Northeast ..... 119

Figure 14-23: Example of Validation Plots Showing Plan View of Goodwin Deposit..... 120

Figure 14-24: Example of Validation Plots Showing Cross Section View of Goodwin Deposit, Looking Northwest..... 121

Figure 14-25: Swath Analysis (Au g/t) for Grade Indicator (>0.3 g/t Au) at the Ormsby Deposit..... 125

Figure 14-26: Swath Analysis (Au g/t) for Grade Indicator (>0.3 g/t Au) at the Bruce Deposit..... 126

Figure 14-27: Swath Analysis (Au g/t) for Grade Indicator (>0.5 g/t Au) at the Nicholas Lake Deposit..... 127

Figure 14-28: Swath Analysis (Au g/t) for Quartz Factor Indicator Domain at the Clan Lake Deposit..... 128

Figure 14-29: Swath Analysis (Au g/t) for Grade Indicator (>0.2 g/t Au) at the Goodwin Deposit ..... 129

Figure 14-30: Oblique View Showing Classification Systems at Ormsby ..... 131

Figure 14-31: Oblique View Showing Classification Systems at Bruce ..... 132

Figure 14-32: Oblique View Showing Classification Systems at Nicholas Lake ..... 133

Figure 14-33: Oblique Views Showing Classification Systems at Clan Lake ..... 134

Figure 14-34: Oblique Showing Classification Systems at Goodwin ..... 135

## Appendices

Appendix A: Certificates

# 1 Summary

GoldMining Inc's (GoldMining) Yellowknife gold project is a gold exploration project located in Northwest Territories, Canada. This technical report documents an updated Mineral Resource Statement for the project prepared by SRK Consulting (U.S.), Inc. (SRK) as disclosed by GoldMining on March 4, 2019.

This report is based on information collected by SRK during a site visit performed on September 25 and 26, 2018, and on additional information provided by GoldMining throughout the course of SRK's investigations. The report is also based on information acquired by GoldMining from the previous owner (Tyhee) and access provided to SRK. No additional exploration activities have been conducted on the Yellowknife gold project since 2012. Based on their review, the Qualified Persons (QP) have no reason to doubt the reliability of the information so provided.

The authors, by virtue of their education, experience, and professional association, are considered QPs as defined in the Canadian National Instrument 43-101 (NI 43-101) standard, for this report, and are members in good standing of appropriate professional institutions. The QPs for each section are defined in Section 2.5 of this report, and QP certificates of authors are provided in Appendix A.

## 1.1 Property Description and Ownership

The Yellowknife gold project is located in the sub-arctic, approximately 90 kilometres (km) north of the city of Yellowknife. GoldMining wholly owns 100% of the Ormsby, Bruce, Nicholas Lake, Goodwin Lake and Clan Lake gold deposits. The property measures approximately 12,120 hectares (ha) comprising of 26 mining leases and 10 mineral claims to which 507140 N.W.T. Ltd. has title, a wholly-owned subsidiary of GoldMining. The mining leases and mineral claims are grouped into the Ormsby-Bruce-Nicholas Lake, Goodwin Lake, Clan Lake, and Big Sky Properties.

GoldMining acquired 100% interest in Yellowknife property and the nearby Big Sky property (Big Sky) now all grouped together under the Yellowknife gold project, from Tyhee NWT Corp. (Tyhee NWT), a subsidiary of Tyhee Gold Corp, under an agreement with a receiver, RMB Australia Holdings Limited (RMB), appointed in respect of the assets and undertaking of Tyhee under the Bankruptcy and Insolvency Act. The acquisition was completed on July 20, 2017. Based on prior underlying agreements, net smelter return (NSR) royalty of ranging between 2% and 2.25% exist on the Goodwin Lake and Ormsby-Bruce-Nicholas Lake Properties, respectively.

Access to the Discovery camp from Yellowknife is possible by small aircraft to a year-round 1,100 metre (m) long gravel airstrip. A winter road can provide access for fuel and other heavy or bulky materials from Yellowknife. The Discovery mine produced gold between 1950 and 1969. The old townsite and mine buildings were demolished in the summer of 2005 during a cleanup project managed by Indigenous and Northern Affairs Canada (INAC). Total production from the Discovery Mine is estimated to be 1,023,550 ounces (oz) of gold from 1,018,800 short tons (st) of ore.

There are no legislated environmental liabilities for the Yellowknife gold project, there is however procedural issues that must be communicated with governmental agencies for the disturbance of the discovery tailings cap and rehabilitated areas of the old Discovery Mine site.

## 1.2 Geology and Mineralization

The Yellowknife gold project properties are located within the Archean aged Yellowknife Basin in southern Slave Province of the Precambrian Shield. The geological units of the Yellowknife Basin pertinent to the gold deposits are, from north to south, the Nicholas Lake granodiorite-quartz diorite intrusion, the mafic volcanic rocks of the Giauque Lake Formation, the gabbro sill at Goodwin Lake, and the bimodal mafic-intermediate volcanic rocks of the Clan Lake Complex.

The gold deposits in the Yellowknife gold project can be considered Archean Lode Gold deposits within an orogenic gold environment. The presence of gold mineralization at the Ormsby and Bruce gold deposits can be recognized visually by the coincidence of 1 to 10% pyrrhotite in laminated amphibolite and within irregular smoky grey quartz veins. The Ormsby zone generally strikes 350° (+/-15°) and dips vertically. The Ormsby zone varies from 75 to 150 m wide, has a strike length of approximately 1,000 m and is open at the current explored depth of 550 m below surface.

The Nicholas Lake zone gold deposit is interpreted to be an intrusion hosted shear zone deposit comprised of multiple auriferous sulphide bearing quartz veins and veinlets located within the granodiorite or within the Burwash sediments in close proximity of the granodiorite. The east-west trending zone is approximately 125 m wide, has a strike length of 225 m and is open at the current explored depth of 450 m below surface.

The Goodwin Lake gold deposit is hosted within a gabbro unit and is interpreted as a brittle shear zone quartz stockwork lode gold deposit. Gold mineralization is seen principally within quartz veins and to a much lesser extent at vein contacts and thin halos.

The Clan Lake main zone deposit is situated within the Clan Lake Volcanic Complex and is interpreted as a brittle shear zone quartz stockwork lode gold deposit hosted within intermediate volcanic flows and related tuff.

## 1.3 Status of Exploration, Development and Operations

GoldMining has not conducted exploration work since acquiring the property in 2017. The exploration data informing the updated mineral resource model consist of drilling conducted from 1987 to 2011 by previous operators as described in Section 9 of this technical report. Within this time frame, 1,061 boreholes have been drilled for 231,609 m.

The authors reviewed the procedures and results for core logging, sampling, sample preparation, security and analytical procedures used by the previous operator, Tyhee, as described in Section 11 of this technical report. Based on a review of the documentation dating back to active drilling, the procedures used are mostly consistent with generally accepted industry best practices and are, therefore, adequate for an exploration project.

The QP notes that the sole reliance on the laboratory's standard analyses is not considered industry accepted practice and recommends that blind standards with appropriate expected grade values be inserted into the sample stream for all future drilling campaigns. However, based on a review of the results of the QA/QC programs implemented by Tyhee during the period 2004 through 2011, including duplicates and umpire laboratory checks, it is the QP's opinion that the data provided is reliable, does not demonstrate any bias, and is suitable for use in resource estimation.

The previous owner disclosed the results detailing exploration, drilling, geological modeling, and mineral resources estimate and mine engineering studies (mineral reserves) for the project, a metallurgical program. The 2012 mineral resource evaluation is now obsolete and is replaced by the mineral resource evaluation reported herein. The authors have reviewed this historical information as part of the source information for the current study, but the QPs have updated the geological interpretation and mineral resource estimates.

## 1.4 Mineral Processing and Metallurgical Testing

The QP designed and supervised a metallurgical development program for the project in 2012. Metallurgical studies were conducted on master composites and variability composites from the Ormsby, Nicholas Lake and Clan Lake gold deposits.

Gold recoveries have been developed from the results of both locked-cycle test work and from bulk gravity/flotation tests that were conducted on each of the test composites to produce flotation concentrates for regrind and cyanidation test work. Gold recoveries for Ormsby and Clan Lake are projected at 92% and gold recovery for Nicholas Lake is projected at 82%. The QP has used gold extraction results from standard cyanidation tests instead of CIL cyanidation tests to project overall gold recovery due to concerns that the carbon may have been over-attributed during the CIL cyanidation tests, resulting in gold losses in the carbon fines that report in the leach residue.

## 1.5 Mineral Resource Estimate

The Mineral Resource model presented herein represents an updated resource evaluation prepared for the Yellowknife Project. The resource estimation methodology involved the following procedures:

- Database compilation and verification;
- Construction of wireframe geological models;
- Definition of resource domains;
- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis;
- Variography;
- Block modeling and grade interpolation;
- Resource classification and validation;
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades; and
- Preparation of the Mineral Resource Statement.

To determine reasonable prospects for eventual economic extraction, SRK mining engineers under the guidance of the QP for Mineral Resources completed initial pit optimization based on parameters below:

- An assumed gold price of US\$1,500/oz;
- Metallurgical recovery of 90% (averaged for the different deposits); minor differences would likely be noted if run at variable recoveries, with some reduction at Nicholas Lake, which had lower projected recoveries;
- Open-pit mining cost of US\$2.00/tonne (t); and
- Processing and general and administrative (G&A) cost of US\$23.00/t.

The QP has defined the proportions of Mineral Resource to have potential for economic extraction for the Mineral Resource based on a single cut-off grade for open pit of 0.5 grams per tonne (g/t) gold.

The historic Mineral Resource and Mineral Reserve estimates at Yellowknife included the declaration of underground Mineral Resources and Mineral Reserves. No further detailed economic analysis has been completed on the current Mineral Resources, and therefore the Mineral Reserves are no longer considered to be valid. While Mineral Reserves are not stated in this report, after reviewing the underlying models in detail, the QP determined that the assumption for potential underground mining scenarios to be reasonable. The QP has therefore defined Mineral Resources below the current limiting pit shell as to have potential for economic extraction using a higher cut-off grade for underground potential.

The remaining Mineral Resources have then been reviewed for potential for extraction via underground mining methods. To complete the assessment, the underground mining cut-off has been based on parameters taken from the previous study (after a detailed review thereof, with the authors having determined that they were reasonable) and benchmarked against current pricing as of the effective date of this report:

- An assumed gold price of US\$1,500/oz;
- Metallurgical recovery of 90% (averaged for the different deposits); minor differences would likely be noted if run at variable recoveries, with some reduction at Nicholas Lake, which had lower projected recoveries;
- Underground mining cost of US\$40.00/t;
- Processing cost of US\$23.00/t; and
- G&A cost of US\$4.00/t.

Using the applied cut-off and filtering for blocks below the open pit, the QP completed a visual assessment of the continuity of grade and noted the mineralization formed reasonable mining targets. Isolated blocks of higher grades do exist, but in the opinion of the QP are not considered to be material within the Mineral Resource.

The QP highlights, with the exception of Ormsby, the majority of the underground Mineral Resources are currently classified as Inferred, reflecting the level of uncertainty in the estimates. Further drilling to improve understanding of mineralization and additional engineering is required to optimize the underground mining parameters. While there is reasonable expectation that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with additional exploration, there is no certainty that all or any part of the Inferred mineral resources will be converted into mineral reserves.

The QP has defined the proportions of Mineral Resource to have potential for economic extraction for the Mineral Resource based on a single cut-off grade for open-pit of 0.5 g/t gold and 1.5 g/t gold for underground potential (Table 1-1).

**Table 1-1: Mineral Resource Statement for GoldMining Inc. Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., March 1, 2019 (1)(5)(6)(7)(8) Open Pit Cut-off of 0.5 g/t and a UG Cut-off 1.5 g/t**

Deposit Type	Deposit Area		Quantity	Average	Contained Metal	
		Resource	000's	Grade	000's	
		Category	Tonnes	Au g/t	Au Oz	
Open Pit	Ormsby <sup>(2)(3)</sup>	Measured	1,176	2.12	80	
	<b>Subtotal Measured</b>		<b>1,176</b>	<b>2.12</b>	<b>80</b>	
	Ormsby <sup>(2)(3)</sup>	Indicated	10,568	2.25	766	
	Bruce <sup>(2)(3)</sup>		244	1.85	15	
	Clan Lake <sup>(2)(3)</sup>		0	0.00	0	
	Nicholas Lake <sup>(2)(3)</sup>		1,550	2.72	137	
	<b>Subtotal Indicated</b>		<b>12,362</b>	<b>2.31</b>	<b>917</b>	
	<b>Subtotal Measured and Indicated</b>		<b>13,538</b>	<b>2.29</b>	<b>997</b>	
	Ormsby <sup>(2)(3)</sup>	Inferred	1,382	2.30	102	
	Bruce <sup>(2)(3)</sup>		591	1.80	34	
	Clan Lake <sup>(2)(3)</sup>		1,548	1.82	91	
	Goodwin Lake <sup>(2)(3)</sup>		870	1.18	33	
	Nicholas Lake <sup>(2)(3)</sup>		1,073	2.15	74	
	<b>Subtotal Inferred</b>		<b>5,464</b>	<b>1.90</b>	<b>334</b>	
	Underground	Ormsby <sup>(4)</sup>	Indicated	524	3.41	57
		Bruce <sup>(4)</sup>		37	2.87	3
		Clan Lake <sup>(4)</sup>		0	0.00	0
Nicholas Lake <sup>(4)</sup>		10		2.95	1	
<b>Subtotal Indicated</b>		<b>571</b>	<b>3.36</b>	<b>62</b>		
Ormsby <sup>(4)</sup>		Inferred	1,423	3.69	169	
Bruce <sup>(4)</sup>			502	2.94	48	
Clan Lake <sup>(4)</sup>			1,226	2.74	108	
Nicholas Lake <sup>(4)</sup>			687	3.59	80	
<b>Subtotal Inferred</b>		<b>3,838</b>	<b>3.28</b>	<b>405</b>		
<b>All</b>	<b>Total Measured and Indicated</b>		<b>14,108</b>	<b>2.33</b>	<b>1,059</b>	
	<b>Total Inferred</b>		<b>9,302</b>	<b>2.47</b>	<b>739</b>	

(1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, sociopolitical, marketing or other relevant issues.

(2) All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

(3) Pit constrained resources with reasonable prospects of eventual economic extraction stated above a 0.50 g/t Au cut-off.

(4) Pit optimization is based on an assumed gold price of US\$1,500/oz, metallurgical recovery of 90%, mining cost of US\$2.00/t and processing and G&A cost of US\$23.00/t.

(5) Underground resources with reasonable prospects of eventual economic extraction stated as contained within gold grade shapes above a 1.50 g/t Au cut-off based on a visual assessment of the continuity of grade, an assumed gold price of US\$1,500/oz, metallurgical recovery of 90%, mining cost of US\$2.00/t and processing and G&A cost of US\$27.00/t.

(6) Mineral resource tonnage and grade with reasonable prospects of eventual economic extraction are reported as undiluted and reflect a bench height of 3.0 m

The QP completed a comparison of the latest Mineral Resource to the SRK 2012 historical estimate and noted a number of differences, which are a direct result of the new geological interpretation and methodology applied and to reflect a degree of uncertainty in the key geological models at some of the deposits. There is an overall reduction in the combined Measured and Indicated Mineral Resource of approximately 204,000 ounces (koz) or 17% in terms of contained metal within the open pit defined Mineral Resources. Conversely, there is an overall increase in the Inferred Mineral Resources for both the Open Pit and Underground defined portions of the Mineral Resources

## 1.6 Mineral Reserve Estimate

In September 2012, Tyhee disclosed the results of a feasibility study declaring Mineral Resources and Mineral Reserves. The 2012 mineral resource evaluation is now obsolete and is replaced by the Mineral Resource evaluation reported herein.

## 1.7 Conclusions and Recommendations

The QP geologist recognizes that the structural controls on mineralization are complex and the search criteria for resource estimation are largely based on field observations. It is the QP's recommendation that GoldMining geologists continue to collect detailed structural data with continued drilling and project implementation in order to better understand the detailed controls on gold mineralization and to use as a basis for creating 3D structural models.

The potential for the development of additional mineral resources exists for the Ormsby, Bruce, Nicholas Lake, Goodwin Lake and Clan Lake properties. The deposits are open laterally or vertically and additional core drilling has the potential to develop significant new gold resources.

The resource potential of the Ormsby deposit is limited laterally but unbounded vertically. Drilling that defines the Ormsby gold resource demonstrates geological continuity to the bottom of the known gold resource, approximately 400 m below surface. Two deep core boreholes show the amphibolite and gold mineralization occur 650 m below the surface. The nearby Discovery Mine deposit, which produced 1,000,000 oz of gold from stopes as deep as 1,240 m below surface, suggests a possible vertical extent to the Ormsby deposit.

The Goodwin Lake property has some potential for drilling to expand the Vad zone resource and the property hosts a prospective metavolcanic unit with historical gold showings.

The Clan Lake main zone gold deposit is unbounded both laterally and vertically. Considering only the immediate vicinity of the Clan Lake main zone gold deposit, drill programs have been conducted on only 25% to 30% of the area that surface prospecting has demonstrated to contain gold mineralization. The Clan Lake property hosts highly prospective metavolcanic units and numerous gold showings over a 7 km north-south trend.

In the opinion of the QP, the results of the exploration work completed on the Yellowknife gold project are of enough merit to recommend additional exploration expenditures. The proposed work program recommended by the QPs includes oriented core drilling to investigate the gold mineralization intersected to date, to test its lateral continuity, and to better define the structural controls of gold mineralization at the Nicholas Lake and Ormsby deposits. Including 5,000 m of drilling, re-sampling of historical core, structural geology studies, environmental studies, and an updated mineral resource estimate, the total costs for the proposed exploration program are estimated at C\$3,300,000.



## 2 Introduction

### 2.1 Terms of Reference and Purpose of the Report

This technical report was prepared for GoldMining Inc. (“GoldMining”), a corporation under the laws of Canada, which owns the Yellowknife Project through its wholly owned subsidiary 507140 N.W.T. Ltd and considered the “Issuer” for this report. The Yellowknife gold project is a gold exploration project, located in Northwest Territories, Canada. It is located approximately 90 km north of the city of Yellowknife. GoldMining wholly owns 100% of the Ormsby, Bruce, Nicholas Lake, Goodwin Lake and Clan Lake deposits, which are part of the Yellowknife gold project acquired by GoldMining in 2017.

In September 2018, GoldMining, commissioned SRK to have a QP visit the property and prepare a geological and mineral resource model for the Yellowknife gold project. The services were rendered between September 2018 and February 2019 leading to the preparation of the mineral resource statement reported herein, with an effective date of March 1, 2019, that was disclosed publicly by GoldMining in a news release on March 4, 2019.

The report was prepared following the guidelines of the NI 43-101 and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines. This technical report documents the updated Mineral Resource Statement for the Yellowknife gold project prepared by SRK geologists and metallurgical engineers who have acted as QPs for the relevant sections (as detailed in Section 2.5).

On August 15, 2012, the previous owner of the project (Tyhee), released a feasibility study prepared by SRK for the Yellowknife gold project. The results of that study are now considered obsolete and are superseded by the results of the mineral resource update described herein. Hence, this technical report solely updates technical information relevant to support the new Mineral Resource Statement that was disclosed by GoldMining on March 4, 2019.

### 2.2 Scope of Work

The scope of work, as defined in a letter of engagement executed on September 14, 2018 between GoldMining and SRK includes the update of a mineral resource model for the gold mineralization delineated by drilling on the Yellowknife gold project and the preparation of an independent technical report in compliance with NI 43-101 and Form 43-101F1 guidelines. This work typically involves the assessment of the following aspects of this project:

- Topography, landscape, access;
- Regional and local geology;
- Exploration history;
- Audit of exploration work carried out on the project;
- Geological modelling;
- Mineral resource estimation and validation;
- Preparation of a Mineral Resource Statement; and
- Recommendations for additional work.

## 2.3 Work Program

The mineral resource statement reported herein has been generated by the QPs. The QPs obtained the drill hole databases from archived files obtained by GoldMining during the purchase of the Project, which were compiled by the previous owner.

The exploration database was audited by the QPs. The geological model and outlines for the gold mineralization were constructed by Dominic Chartier and reviewed by Ben Parsons for each deposit based on surface mapping, core logging, and historical records using three-dimensional implicit and explicit modelling along identified historical mineralization trends. The QPs reviewed the geological model with a GoldMining geologist for validation of the conceptual model.

In the QP's opinion, the geological model is a reasonable representation of the distribution of the targeted mineralization at the current level of sampling. The geostatistical analysis, variography and grade models for each deposit were completed by SRK between October 2018 and February 2019. The mineral resource update reported herein was presented to GoldMining in a memorandum report on March 1, 2019 and disclosed publicly in a news release dated March 4, 2019.

The Mineral Resource Statement reported herein was prepared in conformity with the generally accepted *CIM Exploration Best Practices Guidelines* and *CIM Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines*. This technical report was prepared following the guidelines of the NI 43-101 and Form 43-101F1.

The technical report was assembled between Toronto and Denver during the months of October 2018 to April 2019.

## 2.4 Basis of Technical Report

This report is based on information collected by the QPs during a site visit performed on September 25 and 26, 2018 and on additional information provided by GoldMining throughout the course of their investigations. The report is also based on information acquired by GoldMining from the previous owner (Tyhee) and access provided to the QPs. No additional exploration activities have been conducted on the Yellowknife gold project since 2012. Based on its review, the QPs have no reason to doubt the reliability of the information so provided. Other information was obtained from the public domain. This technical report is based on the following sources of information:

- Discussions with GoldMining personnel;
- Inspection of the Yellowknife gold project area, including outcrop and drill core;
- Review of exploration data collected by previous project operators;
- Previous technical report by Tyhee (SRK, 2012); and
- Additional information from public domain sources.

Data for the Ormsby, Bruce, and Nicholas Lake properties was provided in UTM NAD83, Zone 12 North. Data for the Goodwin Lake and Clan Lake properties was provided to SRK in UTM NAD83, Zone 11 North. These coordinate systems form the basis for both block model construction and subsequent grade estimation.

## 2.5 Qualifications of Consultants (SRK)

The SRK Group comprises more than 1,300 professionals, offering expertise in a wide range of resource engineering disciplines. The independence of the SRK Group is ensured by the fact that it holds no equity in any project it investigates and that its ownership rests solely with its staff. These facts permit SRK to provide its clients with conflict-free and objective recommendations. SRK has a proven track record in undertaking independent assessments of mineral resources and mineral reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies, and financial institutions worldwide. Through its work with a large number of major international mining companies, the SRK Group has established a reputation for providing valuable consultancy services to the global mining industry.

None of the Consultants or any associates employed in the preparation of this report has any beneficial interest in GoldMining. The Consultants are not insiders, associates, or affiliates of GoldMining. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between GoldMining and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience and professional association, are considered QPs as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions. QP certificates of authors are provided in Appendix A. The QPs are responsible for specific sections.

The resource evaluation work of this technical report was completed by the following QPs at SRK and should be referred to as QP in the relevant sections:

- Ben Parsons, BSc, MSc, MAusIMM (CP), Practice Leader/Principal Resource Geologist, is the QP responsible for property, geology, and mineral resources, and authoring Sections 1 through 6, (except for 2.6), 7.1, 8, 9, 10, 11, 12 (except for 12.1), 14 (except for 14.3.1), and 15 through 28;
- Dominic Chartier, PGeo (NAPEG#L4161, OGQ#874, APGO#2775), Senior Consultant (Geology), is the QP responsible for the site inspection, verification, geological review, and geological model and authoring Sections 2.6, 7.2, 7.3, 7.4, 12.1, and 14.3.1; and
- Eric Olin, MSc Metallurgy, MBA, SME-RM, MAusIMM, Principal Metallurgist, is the QP responsible for mineral processing, metallurgical testing, and recovery and authoring Sections 1.4 and 13.

Additional contributions through the compilation of this technical report were provided by Joycelyn Smith, PGeo (APGO#2963).

Mr. Matt Hastings, MSc Geology, MAusIMM (CP), a Principal Geologist with SRK, reviewed the mineral resource estimation procedures and results, and drafts of this technical report prior to their delivery to GoldMining as per SRK internal quality management procedures. Mr. Hastings did not visit the project.

SRK QPs were given full access to relevant data and conducted interviews with GoldMining personnel to understand procedures used to collect, record, store and analyze historical exploration data.

## 2.6 Site Visit

In accordance with National Instrument 43-101 guidelines, Mr. Chartier visited the Yellowknife gold project on September 25 and 26, 2018 accompanied by Garnet Dawson, PGeo (APEGBC#19237) of GoldMining.

The purpose of the site visit was to examine drill core, define geological modelling procedures, and collect all relevant information for the preparation of a revised geology and mineral resource model and the compilation of a technical report. During the visit, a particular attention was given to investigating the geological and structural controls on the distribution of the gold mineralization in order to aid the construction of three-dimensional gold mineralization domains.

SRK QPs were given full access to relevant data and conducted interviews with GoldMining personnel to understand procedures used to collect, record, store and analyze historical exploration data.

## 2.7 Declaration

The QP's opinions contained herein and effective March 1, 2019 is based on information collected by the QPs throughout the course of their investigations. The information in turn reflects various technical and economic conditions at the time of writing this report. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QPs do not consider them to be material.

SRK and the QP's are not an insider, associate or an affiliate of GoldMining, and neither SRK nor any affiliate has acted as advisor to GoldMining, its subsidiaries or its affiliates in connection with this project. The results of the technical review by SRK QPs are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

## 2.8 Units of Measure

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US\$) unless otherwise stated.

### 3 Reliance on Other Experts

This report has been prepared by the QPs for GoldMining. The information, conclusions, opinions, and estimates contained were made in reliance on the following sources for certain legal matters as follows:

- The QPs have not performed an independent verification of land title and tenure information as summarized in Section 3 of this report. They did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties but has relied on McLennan Ross LLP as expressed in a legal opinion provided to GoldMining on April 10, 2017 (Opinion Letter from McLennan Ross LLP is entitled “GoldMining Inc. Due Diligence re: Tyhee N.W.T. Corp. and dated April 10 2017 by Edward W. Gullberg’). The reliance applies solely to the legal status of the rights disclosed in Section 4.2.
- The QPs were informed by GoldMining that there are no known litigations potentially affecting the Yellowknife Gold project. The QPs have not conducted any legal review or the project/company legal status.

## 4 Property Description and Location

### 4.1 Property Location

The project is located in the South Mackenzie Mining District of the Northwest Territories, Canada, situated approximately 90 km north of the City of Yellowknife (Figure 4-1). The Discovery Camp is located on the Ormsby-Nicholas Lake property at latitude 63° 11' North, longitude 113° 55' West.

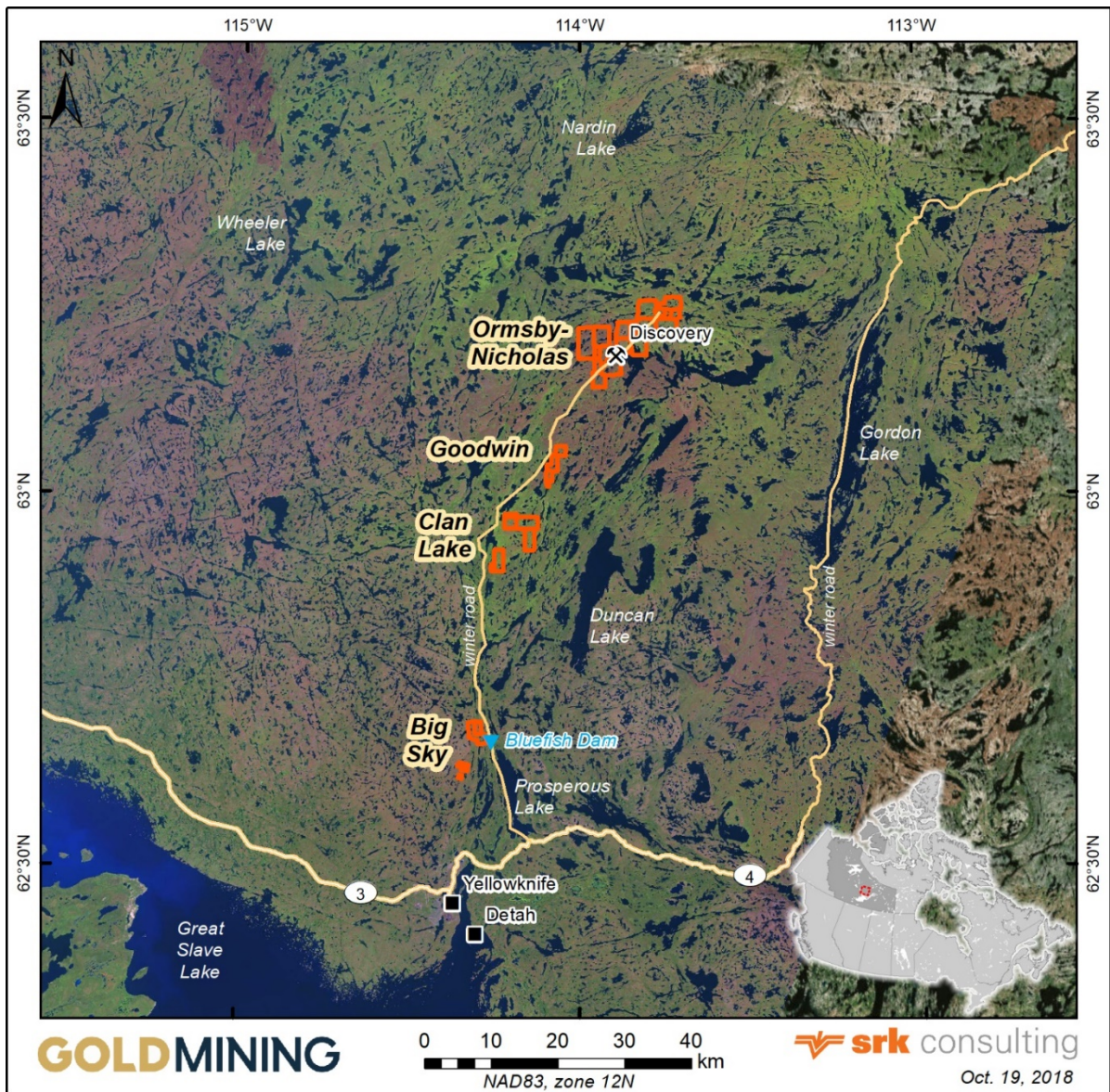


Figure 4-1: Yellowknife Gold Project Location Map

Source: SRK, 2018

## 4.2 Mineral Titles

The Yellowknife gold project measures approximately 12,120 ha comprising of 26 mining leases and 10 mineral claims to which 507140 N.W.T. Ltd., a wholly-owned subsidiary of GoldMining, has title (Table 4-1). The mining leases and mineral claims are grouped into the Ormsby-Bruce- Nicholas Lake, Goodwin Lake, Clan Lake, and Big Sky Properties (Figure 4-2 to Figure 4-5). GoldMining, together with 507140 N.W.T. Ltd, owns all the mineral tenures, and holds land use permits and water licenses that allow the company to conduct exploration (both surface and underground) and to use water and discharge waste.

**Table 4-1: Mining Leases and Mineral Claims Registered to 507140 N.W.T. Ltd. (100%)**

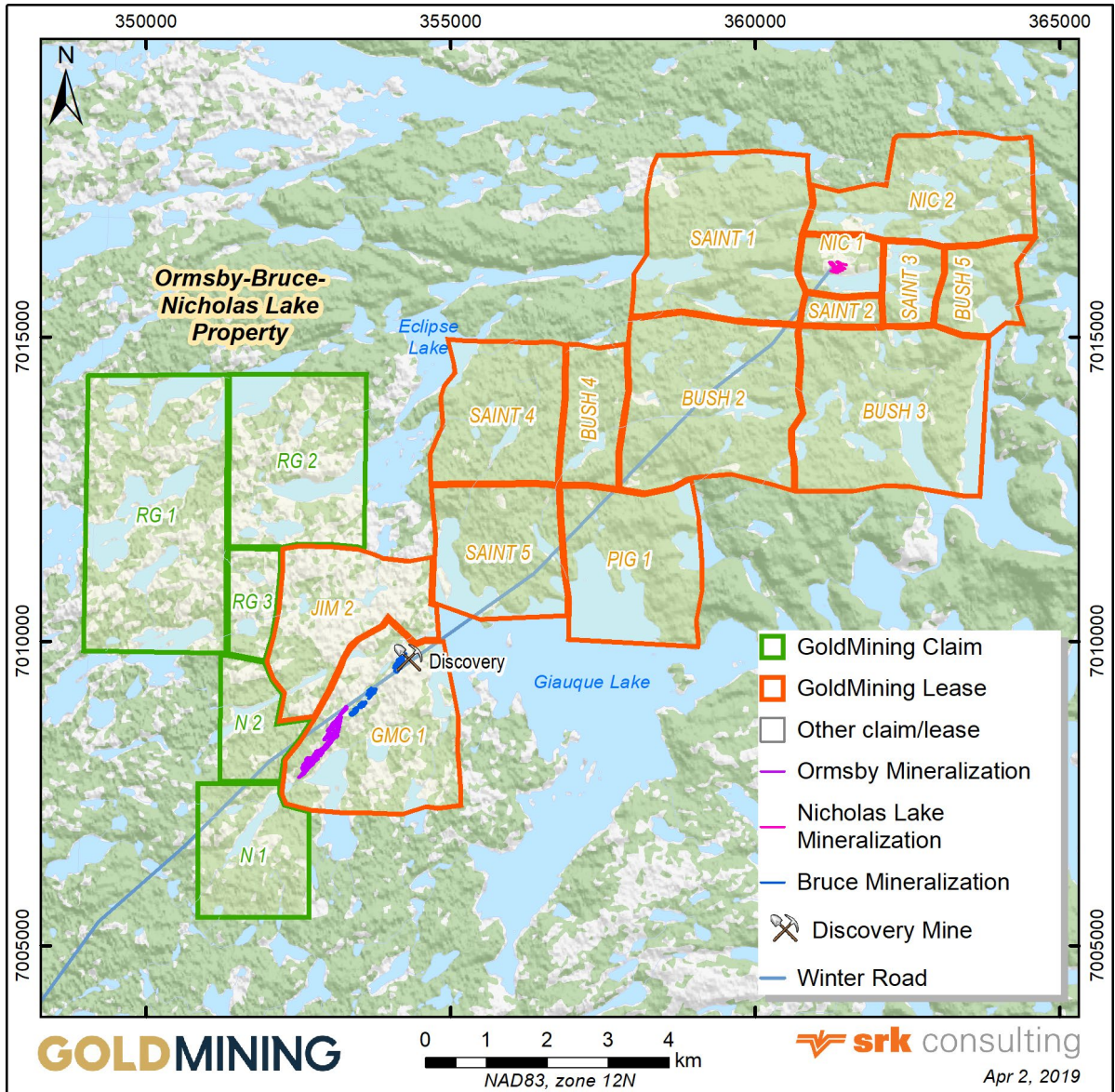
Property	Name	Mineral Claim No.	Mining Lease No.	Govt*	Agreement*	Issue Date	Expiry Date	Area (Ha)	Resource Location
Ormsby-Nicholas	NIC 1		3542	AANDC	Tyhee	9/3/1996	9/2/2038	133.1	Nicholas
Ormsby-Nicholas	NIC 2		3543	AANDC	Tyhee	9/3/1996	9/2/2017 <sup>#</sup>	531.0	
Ormsby-Nicholas	SAINT 1		3774	AANDC	Tyhee	2/27/1998	2/26/2040	732.1	
Ormsby-Nicholas	SAINT 2		3775	AANDC	Tyhee	2/27/1998	2/26/2040	67.6	
Ormsby-Nicholas	SAINT 3		3776	AANDC	Tyhee	2/27/1998	2/26/2040	129.9	
Ormsby-Nicholas	BUSH 2		3926	AANDC	Tyhee	12/7/1998	12/6/2019	774.2	
Ormsby-Nicholas	BUSH 3		3927	AANDC	Tyhee	12/7/1998	12/6/2019	833.3	
Ormsby-Nicholas	BUSH 4		3928	AANDC	Tyhee	12/7/1998	12/6/2019	234.3	
Ormsby-Nicholas	BUSH 5		3929	AANDC	Tyhee	12/7/1998	12/6/2019	196.7	
Ormsby-Nicholas	PIG 1		3930	AANDC	Tyhee	3/23/1999	3/22/2020	575.9	
Ormsby-Nicholas	JIM 2		4239	AANDC	Tyhee	12/27/2001	12/26/2022	491.3	
Ormsby-Nicholas	SAINT 4		4547	AANDC	Tyhee	1/21/2003	1/20/2024	476.7	
Ormsby-Nicholas	SAINT 5		4548	AANDC	Tyhee	1/21/2003	1/20/2024	467.0	
Ormsby-Nicholas	GMC-1		4236	AANDC	Tyhee	12/2/2002	12/1/2023	690.4	Ormsby/Bruce
Ormsby-Nicholas	RG1	K03835		GNWT	Viking	5/4/2009	5/4/2019	1,024.2	
Ormsby-Nicholas	RG2	K03836		GNWT	Viking	5/4/2009	5/4/2019	627.1	
Ormsby-Nicholas	RG3	K03837		GNWT	Viking	5/4/2009	5/4/2019	146.3	
Ormsby-Nicholas	N1	F85954		GNWT	Webb	2/18/2013	2/18/2023	418.0	
Ormsby-Nicholas	N2	M10920		GNWT	Webb	9/28/2017	9/28/2019	200.0	
Clan Lake	CL 7	F97883		GNWT		8/31/2009	8/31/2019	41.8	
Clan Lake	CL 8	F97884		GNWT		8/31/2009	8/31/2019	334.4	
Clan Lake	CL 6	K12403		GNWT		9/22/2008	9/22/2019	438.9	
Clan Lake	CL 9	K13789		GNWT		9/12/2011	9/12/2021	585.3	
Clan Lake	CL 10	K13790		GNWT		9/12/2011	9/12/2021	83.6	
Clan Lake			NT-5465	GNWT		11/28/2016	11/27/2037	441.0	Clan
Big Sky			NT-2709	GNWT		5/11/1954	5/10/2038	31.1	
Big Sky			NT-2722	GNWT		5/11/1954	5/10/2038	22.5	
Big Sky			NT-2723	GNWT		5/11/1954	5/10/2038	27.8	
Big Sky			NT-2724	GNWT		5/11/1954	5/10/2038	26.7	
Big Sky			NT-2729	GNWT		5/11/1954	5/10/2038	28.5	
Big Sky			NT-5111	GNWT		1/23/2009	1/22/2030	460.0	
Big Sky			NT-5220	GNWT		10/12/2011	10/11/2032	173.0	
Goodwin Lake	NAK 1		NT-5125	GNWT	Dewar	11/26/2009	11/25/2030	135.6	
Goodwin Lake	NAK 2		NT-5126	GNWT	Dewar	11/26/2009	11/25/2030	42.5	
Goodwin Lake	NAK4		NT-5127	GNWT	Dewar	11/26/2009	11/25/2030	283.3	
Goodwin Lake			NT-5466	GNWT	Dewar	11/21/2016	11/20/2037	215.3	Goodwin
							Total	12,120.5	

Source: SRK, 2018

\*AANDC: Aboriginal Affairs and Northern Development Canada, GNWT: Government of Northwest Territories

\*Tyhee: 2.25% NSR; Viking: No Royalty; Webb: 1.0% NSR; Dewar: 2.0% NSR.

<sup>#</sup>Lease renewal in progress



**Figure 4-2: Ormsby-Bruce-Nicholas Lake Land Tenure Map**

Source: SRK, 2019



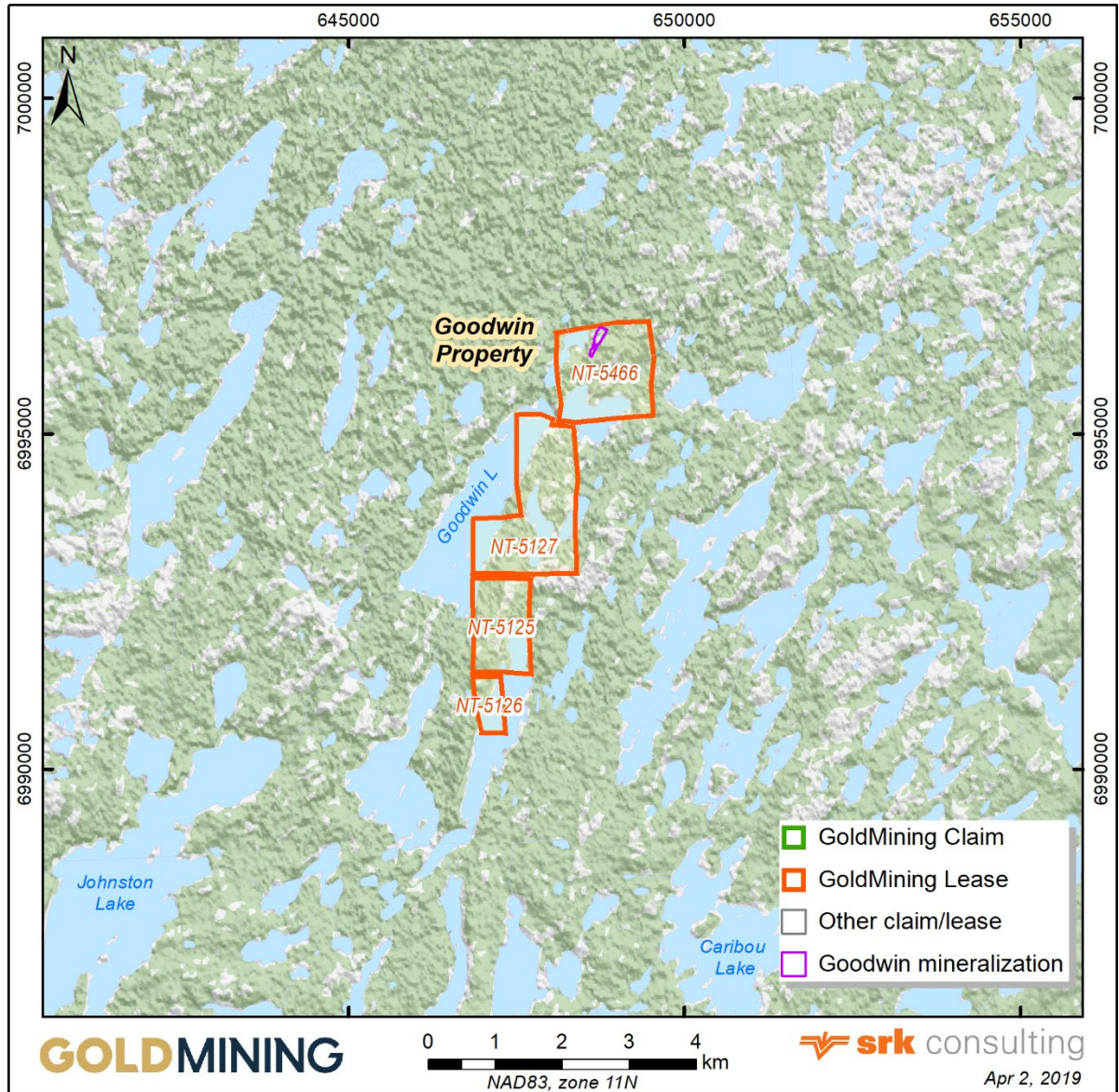
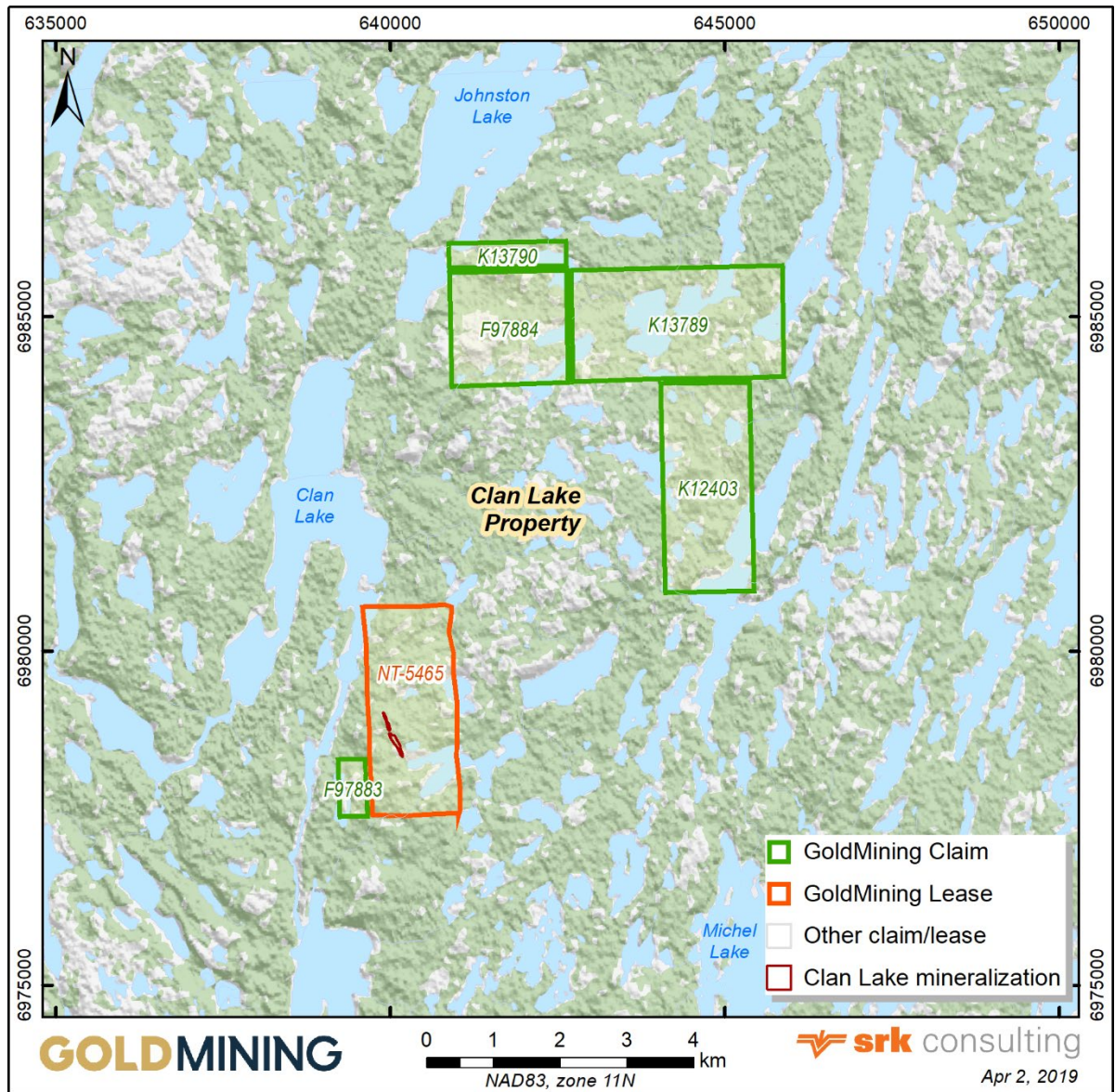


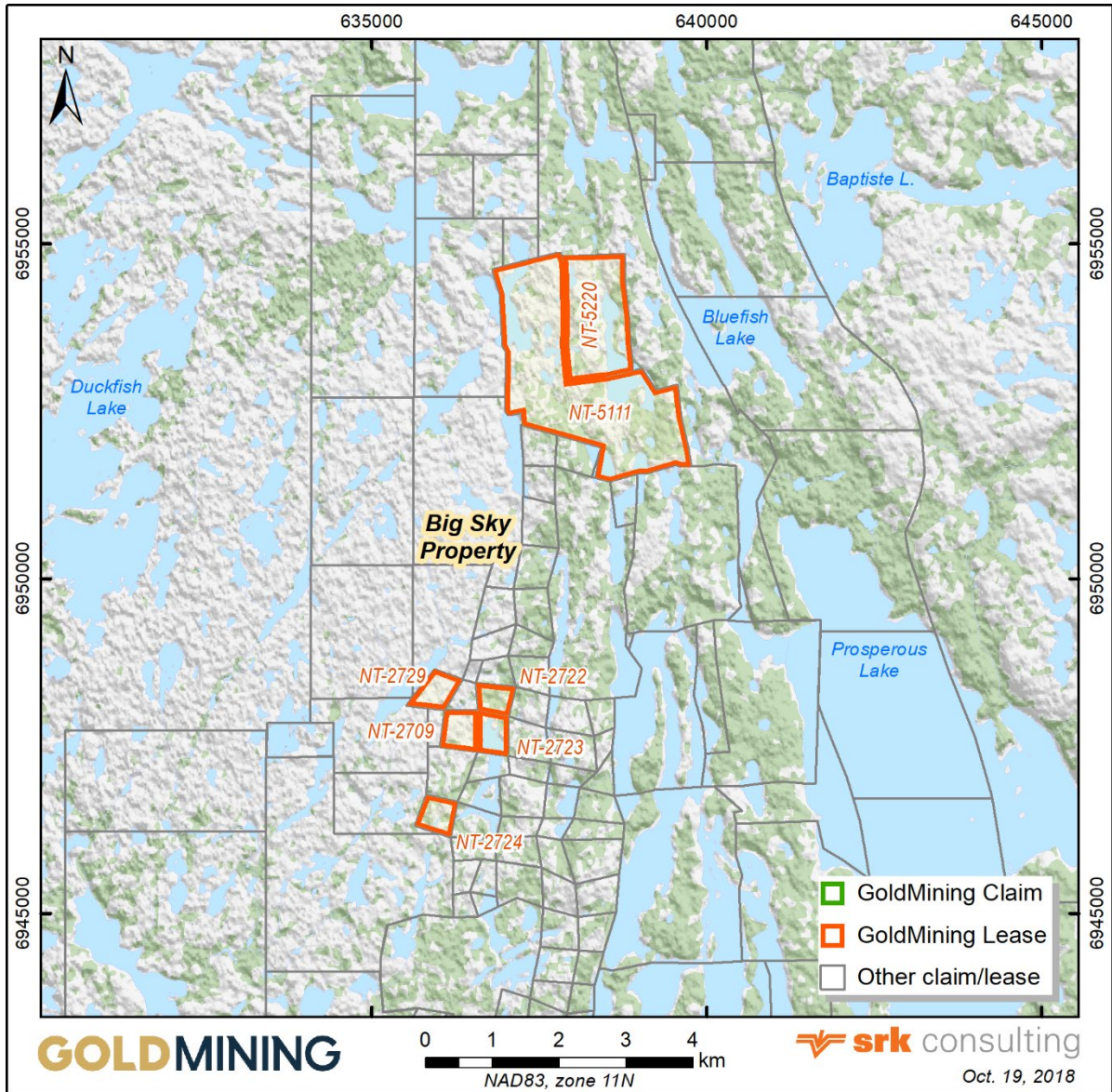
Figure 4-3: Goodwin Lake Land Tenure Map

Source: SRK, 2019



**Figure 4-4: Clan Lake Land Tenure Map**

Source: SRK, 2019



**Figure 4-5: Big Sky Land Tenure Map**

Source: SRK, 2018

Lease Nic-2 in the Nicholas Lake area are currently in the process of being renewed. The QPs have been advised by GoldMining and their independent lands management consultant that no issue is expected with the renewal of the leases.

Historic mine sites in the Northwest Territories, such as the Discovery Mine, were not turned over to the territorial government in the Northwest Territories Lands and Resources Devolution Agreement signed on April 1, 2014. The leases covering the Ormsby-Bruce-Nicholas property are thus managed by Aboriginal Affairs and Northern Development Canada (AANDC)/Indigenous and Northern Affairs Canada (INAC). INAC was responsible for the clean-up and environmental liabilities associated with the Discovery Mine in 2005 (buildings, cementing of shafts/vent raises and tailings). Leases and claims

on the other properties comprising the Yellowknife gold project (Goodwin Lake, Clan Lake and Big Sky) are administered by the Government of the Northwest Territories.

Annual canon fees payable to Canada and Northwest Territories Governments are current to the anniversary date for all the mineral claims. The required work expenditures for all the mineral claims are current.

### **4.3 Underlying Agreements**

GoldMining acquired a 100% interest in the Yellowknife property and the nearby Big Sky property (Big Sky) now all grouped together under the Yellowknife gold project, from Tyhee NWT Corp. (Tyhee NWT), a subsidiary of Tyhee, under an agreement with a receiver, RMB Australia Holdings Limited (RMB), appointed in respect of the assets and undertaking of Tyhee under the Bankruptcy and Insolvency Act. The acquisition was completed on July 20, 2017.

For the most part, Tyhee purchased the mineral rights in transactions with individuals and a public company for value payable either in cash or common stock of Tyhee and royalty interest.

The Ormsby-Nicholas Lake property was purchased by Tyhee in 2001 from David R. Webb and GMD Resources Corporation (GMD) for cash consideration and 2.25% NSR royalty payable to each of the vendors on the entire property. In 2003 the royalty obligation to GMD was eliminated by mutual agreement. The remaining royalty consists of 2.25% and a non-refundable advance royalty in the amount of US\$20,000 paid annually to David R. Webb (referred to as the Tyhee agreement in Table 4-1).

The Goodwin Lake Property was purchased in 2006 from Lane Dewar, an independent prospector; the consideration was Tyhee common stock and 2% NSR royalty interest (referred to as the Dewar agreement in Table 4-1). GoldMining has the option of reducing the royalty interest by a half for a one-time payment of C\$1,000,000.

A third royalty exists for the N1 and N2 claims located in the Ormsby-Nicholas property. The N1 and N2 claims were acquired by GoldMining in 2018 from David R. Webb including a 1% NSR with an option for GoldMining to purchase 0.25% of the NSR for C\$250,000 in cash or shares at GoldMining's discretion (referred to as the Webb agreement in Table 4-1).

GoldMining acquired from Viking Gold Exploration Inc. (Viking) the RG1, RG2, and RG3 claims contiguous with the Ormsby property (referred to as the Viking agreement in Table 4-1). GoldMining issued 60,000 common shares of the company in consideration for the claims. No royalty payment is attached to the agreement.

### **4.4 Permits and Authorization**

The Canada Mining Regulations of the Territorial Lands Act govern the administration and dispositions of minerals belonging to Her Majesty in right of Canada under all lands forming part of the Northwest Territories

GoldMining's wholly owned subsidiary, 507140 N.W.T. Ltd., holds Land Use Permits and Water Licenses that allow the company to conduct exploration (both surface and underground) and to use water and discharge waste. Subsurface rights are limited to the extent of the mining leases and mineral claims. Surface rights for the purpose of operation are more extensive but limited by the INAC

Discovery Mine cleanup area. These limitations do not affect the exploration activities of the project. GoldMining has no rights to timber or aggregate under these licenses.

To the extent known, there are no other permits required to conduct the proposed exploration work on the property.

## 4.5 Environmental Considerations

There are no legislated environmental liabilities for the Yellowknife gold project, there is however procedural issues that must be communicated with governmental agencies for the disturbance of the discovery tailings cap and rehabilitated areas of the old Discovery Mine site.

To the extent known, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property

## 4.6 Mining Rights in Northwest Territories

Until the early 1900's, surface rights and mineral rights in Canada came with the purchase of land. Since then, mineral rights have been government-owned and are not available for purchase, however they can be leased. As a result, the mineral rights on more than 90% of Canada's land are currently owned by governments. Where mineral rights are privately owned, they can be sold independently of surface rights.

As per the Canadian Constitution, the regulation of mining activities on publicly owned mineral leases falls under provincial/territorial government jurisdiction. In the Northwest Territories a person must obtain a prospector's license before engaging in exploration for minerals. The Prospector may then stake mineral claims, generally in rectangular forms. While there is limit of 1,250 ha per claim, units are normally 16 to 25 square ha. Upon staking the claim, such claim must be registered with the territorial Mining Recorder. Upon mineral claim being obtained, there is minimum work requirement per acre per year during the first ten years. Generally, after ten years, mineral claim may be converted into a mining lease after the subject area has been surveyed by a Registered Land Surveyor, the proper map and related fee are filed. The mining lease is for a term of 21 years and renewable thereafter, lease fee at the rate of US\$1 per acre per year is required to be paid.

In the Northwest Territories, the Territorial Lands Act (R.S.C., 1985, c.T-7) is the enabling legislation, accessible at the Department of Justice website <http://laws-lois.justice.gc.ca/eng/acts/T-7/FullText.html>. Pursuant to the enabling act, Northwest Territories and Nunavut Mining Regulations govern all mineral tenure matters, these are accessible at Department of Justice website [http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,\\_c.\\_1516/page-1.html](http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1516/page-1.html) authorizing the Minister of Indian Affairs and Northern Development as the competent authority with regards to mineral tenure in the Northwest Territories, Canada. Until 2007, the regulations were cited as *Canada Mining Regulations*. From May 2011, usage of '*Indian Affairs*' was replaced by '*Aboriginal Affairs*' and the working title has been adopted as the Minister of Aboriginal Affairs and Northern Development and the Department of Indian Affairs and Northern Development also been rebranded as Aboriginal Affairs and Northern Development Canada.

## **5 Accessibility, Climate, Local Resources, Infrastructure and Physiography**

### **5.1 Accessibility and Transportation to the Property**

Yellowknife is the nearest town to the project, located approximately 90 km south of the Ormsby gold deposit (Figure 4-1). Access to the Discovery camp from Yellowknife is possible by small aircraft to a year-round 1,100 m long gravel airstrip. Giauque Lake provides float plane access in the summer months, and the wharf is connected to the Discovery camp, Bruce zone and the Ormsby zone by an all-weather gravel road. Access to the Nicholas Lake, Goodwin Lake, and Clan Lake main zones is possible by helicopter.

### **5.2 Local Resources and Infrastructure**

Personnel, food and materials are transported to the Discovery camp by aircraft via the gravel airstrip or Giauque Lake for float planes, and by helicopter from the city of Yellowknife, about one-half hour flying time to the south. A winter road can provide access for fuel and other heavy or bulky materials from Yellowknife via the Bluefish Hydro-Electric Dam, 55 km south of the Ormsby-Bruce-Nicholas Lake property.

The Discovery mine produced gold between 1950 and 1969. The old townsite and mine buildings were demolished in the summer of 2005 during a cleanup project managed by Indigenous and Northern Affairs Canada (INAC) (Silke, 2009).

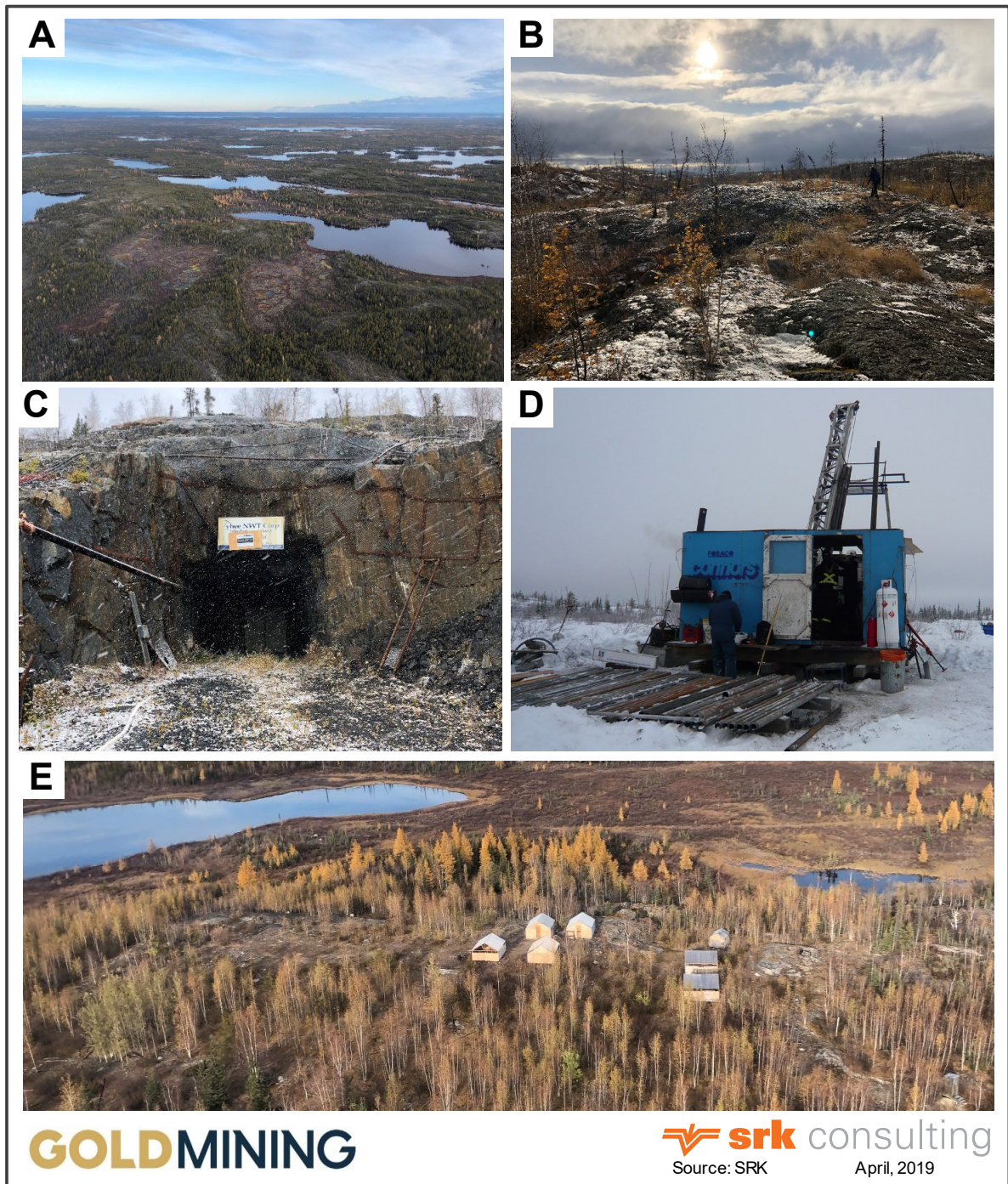
### **5.3 Climate**

The climate of the region is typical sub-arctic with precipitation mostly in the form of snow. Cold winters with moderate snowfalls and short warm summers with modest amounts of rain characterize the region. Lakes are frozen from October until June. Daily average temperatures range over the year from approximately +30° Celsius to -50° Celsius. Exploration activities can generally be conducted year-round.

### **5.4 Physiography**

The regional terrain is typical of the Canadian Shield within the northern boreal forest characterized by elongate, rounded rocky hills and ridges with abundant outcrop exposures separated by numerous lakes, ponds, rivers, creeks, and swamps. Cliffs and steep bluffs up to a few tens of m in height commonly occur along the side of these hills. Strong linear features several km long defined by depressions between ridges are common. Topographic relief ranges approximately 90 m with broad flat hills over 350 m above sea level near Nicolas Lake.

Overburden is typically a thin sandy layer of till. Small sandy eskers occur locally. The upland areas are generally moss and lichen-covered rounded rock outcrops with scattered to dense pine, birch, tamarack and spruce trees. The many low-lying areas are covered with a combination of water and muskeg swamp with local spruce trees and deciduous underbrush. Drainages are generally slow-moving being clogged with glacial debris and vegetation.



**Figure 5-1: Infrastructure and Typical Landscape in the Project Area**

Source: SRK, 2019

- A: Typical landscape and topography of the project area
- B: Rocky terrain typical at Ormsby gold deposit
- C: Entrance to the Ormsby decline underground adit
- D: Connors core drill rig in operation (SRK, 2010)
- E: View of non-permanent lodging at Clan Lake property

## **5.5 Sufficiency of Surface Rights**

GoldMining Inc owns all the mineral tenures, holds land use permits and water licenses that allow the company to conduct exploration (both surface and underground) and to use water and discharge waste. No private lands exist that require purchase from individuals.

## **5.6 Infrastructure Availability and Sources**

### **5.6.1 Site Access**

The Ormsby site is only accessible by air either by landing at the current air strip or float dock or by land through use of a winter ice road which begins at Prosperous Lake North of Yellowknife and crosses roughly 90 kilometer (km) of frozen land and lakes. The winter ice road is constructed and operated for approximately 3 to 5 months per year beginning in December and depending on ice conditions allows actual transport of materials and supplies for about 2 to 3 months.

### **5.6.2 Required Infrastructure**

All infrastructures required for the continuous operation of the mine have been included in the cost estimate. These include the crusher building, mill concentrator building, power generation, warehousing, administrative offices, workshops, mobile equipment maintenance facility, diesel and reagent storage, spares laydown area, and personnel camp.

### **5.6.3 Power**

Independent power generation has been assumed (generators). Adequate fuel storage and a backup generator will likely be required to ensure that electrical power is able to meet the demand for the site.

### **5.6.4 Water**

Raw water can potentially be drawn from nearby lakes, which could be pumped to a raw water service tank for storage. Water purification will likely be required for potable water for use within the personnel camp and other areas of operation.

### **5.6.5 Mining Personnel**

The closest city of Yellowknife has a mining history, and with other operations in the area, access to potential skilled workers is assumed. Given the remote location of the Project, it is assumed mining personnel will work on a rotational basis.

### **5.6.6 Potential Tailings Storage Areas**

Previous studies (SRK, 2012) proposed the use of the existing Winter Lake basin south of the Ormsby Pit as a potential location for tailings. The QP has done insufficient work to confirm this remains a viable option but would consider tailings to be a key factor, and the investigation of alternative options should be completed in any future mining studies.



### **5.6.7 Potential Waste Disposal Areas**

Waste will be stored at the potential open pit mine sites and is used productively throughout the operation. Adequate space exists to manage the waste for the life of operations, but further engineering work will be required to optimize the location and design of these disposal areas.

## 6 History

The QP has reviewed the relevant historical reports and information, and the below provides a summary of the history of the Project.

### 6.1 Prior Ownership and Exploration Work

The Yellowknife gold project commenced with acquisition by Tyhee NWT Corp. of the Discovery Mine property (ML GMC1) from GMD Resource Corporation and the Nicholas Lake property from David R. Webb. The Discovery Mine property was acquired for staged payments totaling US\$265,000 and Nicholas Lake property was purchased for payments totaling US\$225,000. Both properties have been paid in full. Each previous owner initially retained a sliding scale net smelter royalty. Tyhee purchased the royalty held by GMD for US\$75,000 in August 2003. The purchases marked the first-ever consolidated ownership of the two properties despite exploration and development since the 1940's. Subsequently, Tyhee acquired the Clan Lake, Goodwin Lake and Big Sky properties.

GoldMining acquired the Yellowknife gold project from Tyhee under an agreement with a receiver, RMB, appointed in respect of the assets and undertaking of Tyhee under the Bankruptcy and Insolvency Act.

#### 6.1.1 The Discovery Mine Property (Ormsby and Bruce Zones)

Prospector A.V. (Fred) Giauque staked claims near the west shore of the since-named Giauque Lake following his discovery in the summer of 1944 of visible gold in quartz veins in rusty mafic volcanic rocks (now known as the Bruce zone). Subsequent prospecting and exploration in 1945 discovered more spectacular visible gold in a folded, thick quartz vein hosted by metasedimentary rocks approximately 100 m northeast of the Bruce zone, in what came to be known as the North Vein of the Main Zone. Mr. Giauque and sons optioned the claims to Discovery Yellowknife Mines Limited in 1945.

Discovery Yellowknife Gold Mines Limited was renamed Consolidated Discovery Yellowknife Gold Mines Limited in 1952 upon closure of the Mine.

In 1944, Mr. Giauque also discovered gold mineralization (now termed the Ormsby zone) approximately 2 km to the southwest of the Main Zone. They shortly sold the claims to LaSalle Yellowknife Gold Mines Limited (Trembley, 1952).

Surface exploration, including core drilling, was conducted intermittently on the Ormsby Property during the early 1950's, first by LaSalle Yellowknife Gold Mines Limited and then by Discovery Yellowknife Gold Mines Limited under an option agreement with the former. Although this option subsequently lapsed, following a second agreement with the then-owner Ormsby Mines Limited, an exploration drift was driven south onto the Ormsby property from the 290 m level of the Discovery Mine. However, no economic concentration of gold was encountered. Ormsby Mines Limited later amalgamated with Discovery Yellowknife Gold Mines Limited. The latter was consolidated and renamed Discovery Mines Ltd. in 1964.

The Discovery Mine remained on care and maintenance until the mid-1970's when some of the materials on site were salvaged. In December 1980, the Discovery Property was optioned to Newmont Exploration Limited who added six adjoining claims. Newmont conducted line-cutting, litho-geochemical mapping, geological mapping, and magnetometer, VLF, HLEM and induced polarization surveys in 1981. Further work recommended on the basis of a litho-geochemical anomaly in the

volcanic rocks hosting the Ormsby zone was not conducted. Canamax Resources Corporation optioned the property in the mid 1980's but only a single borehole was drilled in the Ormsby zone after geological mapping, and Canamax subsequently allowed the option to lapse. Results of the borehole are currently unknown, but are not deemed material.

The Discovery property claims and leases were permitted to lapse with the final leases expiring in November 1992. The GMC-1 claim, containing the former Discovery Mine and the Ormsby zone, was staked by New Discovery Mines Ltd. in December 1992. The historical data was compiled, and GMD signed an option agreement to earn a 50% interest in the claims in 1994. GMD drilled 15 boreholes for 975 m that tested the west limb of the Main Zone, the West zone and the Ormsby zone in 1994. GMD subsequently acquired a 100% interest in the property, subject to a series of deferred payments, and between 1995 and 1998, the company completed detailed geological mapping (Stubbley, 1997), magnetic and horizontal loop electromagnetic ground surveys, over 53,938 m of core drilling in 203 boreholes that tested the Discovery and Ormsby zones and metallurgical testing of the potential ores. The Ormsby portal, decline and 215 m of ramp development was also commissioned by GMD to explore and bulk sample the Ormsby zone during this period.

### 6.1.2 Nicholas Lake Property

The Nicholas Lake property was first staked in 1941 by Cominco Ltd. Trenching exposed gold-bearing quartz veins hosted by a small granodiorite intrusion in Burwash Formation metasedimentary rocks. Although core drilling by Cominco in 1947 intersected mineralized veins beneath the trenches, Cominco stopped exploration and the claims lapsed in 1952.

The Nicholas Lake prospect was staked by individuals and explored with additional trenches intermittently from the late 1950's to mid-1970's, but records of the work are not available, and the claims were allowed to lapse in each case.

David R. Webb staked the Nicholas Lake prospect in September 1986 and optioned the claims to Chevron Minerals Ltd (Chevron) in April 1987. Chevron in turn re-optioned the property to IGF Metal Inc. Following a compilation of historical data, mapping and sampling in 1987 identified the Main Zone (now known as the Nicholas Lake zone) to be at least 35 m long, 1 m to 2 m wide on surface with an average grade between 13.7 and 17.1 g/t gold.

IGF Metals withdrew from the option in 1988 and Athabaska Gold Resources Ltd signed an agreement with Chevron to earn a 60% interest in the property for exploration expenditures of US\$750,000. Additional claims expanded the property and core drilling on the Nicholas Lake zone commenced in early 1988. By the end of 1990, 15,373 m of core drilling in 71 boreholes, an airborne magnetometer/VLF-EM survey of the entire property, plus detailed prospecting, geological mapping, trenching, and ground geophysical surveys had been completed. Athabaska Gold also initiated resource estimates, metallurgical studies and environment studies during this period.

Athabaska Gold Resources Ltd acquired 100% interest in the property in 1991 to 1992 for a payment of US\$300,000 plus US\$40,000 in expenditures and subsequently optioned a 35% interest to Royal Oak Mines Inc. for an exploration commitment of US\$855,000 to US\$1,166,000. Limited drilling of the Nicholas Lake zone from 1991 to 1992 totaled about 1,700 m. Regional prospecting and mapping in 1991 identified several other prospective areas on the property (Nicholas Lake East, Nicholas Lake North, MacAskill, Eastern Volcanic, Western Volcanic, and Teapot prospects) that were explored in 1992 by gridding, detailed geological and geophysical surveys and trenching (only at Teapot). One to

three holes were reportedly drilled at the Nicholas Lake East, Nicholas Lake West, West Volcanic and MacAskill prospects (Dupre and Kirkham, 2004). Results are currently unavailable.

The underground program initiated in March 1994 with the Nicholas Lake portal and decline resulted in 820 m of underground development into the Nicholas Lake zone to a depth of 90 m by October. Detailed rock chip sampling and 2,972 m in 36 underground boreholes were completed that year. Following further regional prospecting, sampling and mapping, 13 boreholes totaling 1,209 m tested the Teapot prospect and one other hole of 294.74 m tested the Nicholas Lake North prospect in 1994. Athabaska Gold commissioned a resource estimate of Nicholas Lake zone based on the new underground data. Resources were estimated to be 461,000 tons grading 13.32 g/t gold. The reader is cautioned that this historical mineral resource estimate is superseded by the resource detailed in this report and should not be relied upon.

Athabaska Gold sold the Nicholas Lake property to Royal Oak Mines Inc. for US\$3,800,000 in October 1995. Royal Oak completed a legal land survey of the NIC 1 and NIC 2 mineral claims for conversion to mining leases in 1996. Legal surveys were also completed on the BUSH, PIG and SAINT claims. When Royal Oak filed for creditor protection in April, 1999, the Nicholas Lake property was listed as a Royal Oak asset. However, the Superior Court of Ontario awarded the Nicholas Lake property to the original owner, David R. Webb in December 1999. The Court ordered all data, files, information and material to be returned.

### **6.1.3 Goodwin Lake Property**

The Goodwin Lake showing was initially prospected in 1965 by trenching. The showing was staked in 1972 by C. Vaydik as the GOD claim and subsequently re-staked as the Goodwin Lake claim.

In 1989 the property was optioned by Aber Resources Ltd and Continental Pacific Resources Ltd. Geological mapping, prospecting, trenching and sampling of unknown amount and quantity were conducted that year. Sampling resulted in anomalous gold values from 2.46 grams per ton (g/t) to 292 g/t associated with sulphide mineralization noted.

GMD optioned the property in 1996 from C. Vaydik and conducted geological mapping, prospecting and sampling. Sample results confirmed gold values found previously.

The current mineral claims were staked in 1999 and 2000. Tyhee optioned the mineral claims in November 2006 from an arm's length, Yellowknife-based prospector for 85,000 shares issuable over two years and a 2% NSR, half of which may be purchased by the Company for US\$1 million. A fourth mineral claim was staked in 2006 and included under the terms of the option.

### **6.1.4 Clan Lake Property**

The surface gold showings of the Clan Lake main zone were discovered by the Earl-Jack Syndicate in 1964. The Syndicate conducted an exploration program consisting of trenching, sampling, magnetometer survey and geological mapping. Gunnex optioned the property in 1964 and drilled the first boreholes. The amount, quantity, and general results of the exploration program are unknown.

The property was held by Precambrian Shield Resources in 1967 when an 1,150-ton bulk sample was excavated from the main zone pit. The muck was trucked to the Discovery Mine for processing. The calculated head grade was reported to be 14.5 g/t gold. Precambrian Shield Resources conducted further drilling in 1974 and 1980 to explore the main zone and nearby showings. The amount and quantity of exploration is unclear. However, no new zones were found, and work was discontinued. During this period Precambrian Shield Resources took the claims to lease.

Canamax Exploration optioned the property from Precambrian Shield Resources in 1987. Canamax conducted a helicopter-borne magnetic and EM survey followed by core drilling. The 330 zone was discovered in 1989 and tested by 15 boreholes. Canamax terminated its option in 1989. The details of the Canamax drill programs are unknown.

Tremenco Resources Ltd. (Tremenco) acquired the leases in 1992 and explored the main zone. Drilling for a possible northwest extension of the main zone led to the discovery of the Pond zone in 1996. Tremenco continued work on the main zone until 1998 and the leases were cancelled June 20, 2001. The details of the Tremenco exploration programs are unknown.

Tyhee acquired the property by staking the Nose mineral claim in 2006 and subsequently staking additional contiguous claims in 2007, 2008, 2009 and 2011. Much of the old core from the various previous owners was reported to be destroyed by a forest fire. Tyhee researched drill collar locations and drill logs with old core partially re-logged and re-sampled where necessary enabling the data for 62 boreholes totaling 5,986 m to be incorporated in the drill database.

### **6.1.5 Big Sky Property**

In March 2012 Tyhee announced an option agreement with Williams Creek Gold Limited, under which Williams Creek had the option to earn up to a 50% interest in the Big Sky property by spending 100,000 dollars per year on the property for five years. At the time, the property comprised five mining leases covering 137 hectares and 20 claims totalling 1,853 hectares, located approximately 17 km north of Yellowknife.

Mineralization at Big Sky typically occurs along vertical quartz-sulphide-bearing shear zones of variable width oriented dominantly north-south in the northern part of the property, and both northeast-southwest and northwest-southeast in the southern part of the property. In 2012, Williams Creek ran an exploration campaign involving helicopter-supported geologic mapping and sampling targeting 8 of the 13 recognized mineralized zones. Samples were collected at the Oro Lake Main Shear Zone, Chan Lake Vein set, Hutter Shear, Slippery Slope Shear, Greyling Lake Gossan, Dwyer Main Shear, Kendrick zone, Havoc zone, and at random locations throughout the property. Further details can be found in Section 9. Williams Creek Gold Mines Limited allowed the option to lapse. The Big Sky Property is now comprised of seven leases for a total area of 769.6 hectares and owned 100% by GoldMining.

## **6.2 Historic Mineral Resource and Reserve Estimates**

Several historical mineral resource estimates have been prepared for the gold deposits on the Yellowknife gold project prior to the mineral resources presented in Section 14. The reader is cautioned that the historical mineral resource estimates are being treated by GoldMining as historical in nature, and should not be relied upon, and are superseded by the resource estimate detailed in this report. Neither the QPs or GoldMining has done sufficient work to classify the historical estimates as current

mineral resources or reserves and are not treating these historic estimates as current mineral resources or reserves. The following section provides a brief history of the development of the project by the previous owners including the now historical 2012 Mineral Resource and Mineral Reserves.

Table 6-1 is the 2008 historical resource statement published by EBA in the report titled “NI 43-101 Technical Report on Preliminary Assessment of The Yellowknife Gold Project, Northwest Territories, Canada.”

**Table 6-1: 2008 Historical Mineral Resource Statement**

Category	Ormsby Zone	Nicholas Lake Main Zone	Bruce Zone	Total Resource
<b>Measured</b>				
Tonnes	2,617,000	1,249,000	-	3,866,000
Grams Gold per Tonne	3.38	3.81	-	3.52
Ounces, Gold	284,000	153,000	-	437,000
<b>Indicated</b>				
Tonnes	5,620,000	1,484,000	252,000	7,356,000
Grams Gold per Tonne	3.61	3.32	2.67	3.52
Ounces, Gold	652,000	158,000	22,000	832,000
<b>Inferred</b>				
Tonnes	2,004,000	955,000	661,000	3,620,000
Grams Gold per Tonne	3.02	3.92	2.79	3.21
Ounces, Gold	195,000	120,000	59,000	374,000

Source: EBA, 2008

Table 6-2 is the historical 2010 resource statement published by EBA in 2010 contained in “NI 43-101 technical report on pre-feasibility of the Yellowknife Gold Project, Northwest Territories, Canada”

**Table 6-2: 2010 Historical Mineral Resource Statement (EBA 2010)**

Category	Ormsby Zone	Nicholas Lake Main Zone	Bruce Zone	Clan Lake	Goodwin Lake	Total Resource
<b>Measured</b>						
Tonnes	3,003,000	1,249,000				4,252,000
Grams Gold per Tonne	3.41	3.81				3.53
Troy Ounces, Gold	329,000	153,000				482,000
<b>Indicated</b>						
Tonnes	7,898,000	1,484,000	791,000	3,021,000		13,194,000
Grams Gold per Tonne	3.42	3.32	3.31	3.64		3.45
Troy Ounces, Gold	869,000	158,000	84,000	354,000		1,465,000
<b>Measure + Indicated</b>						
Tonnes	10,901,000	2,733,000	791,000	3,021,000		17,446,000
Grams Gold per Tonne	3.42	3.54	3.31	3.64		3.47
Troy Ounces, Gold	1,198,000	311,000	84,000	654,000		1,947,000
<b>Inferred</b>						
Tonnes	223,000	955,000	396,000		971,000	2,545,000
Grams Gold per Tonne	3.14	3.92	2.76		2.91	3.29
Troy Ounces, Gold	23,000	12,000	35,000		91,000	269,000

Source: EBA, 2010

Other than the historical EBA estimates published in 2008 and 2010, previously filed NI 43-101 reports include:

- Dupre, D.G., Kirkham, G.D., 2004: An Estimate of the Gold Resource of the Yellowknife Gold Project; Tyhee Development Corp.

- Report on the Resource Estimate of the Yellowknife Gold Project January 26, 2007 by V.V. Pratico, P. Geol.
- Report on the Resource Estimate of the Yellowknife Gold Project August 1, 2007 by V.V. Pratico, P. Geol.
- Report on the Resource Estimate of the Nicholas Main Zone Deposit June 17, 2008 by Valmar Pratico, P. Geol.
- Report on the Resource Estimate of the Yellowknife Gold Project December 12, 2008 by Valmar Pratico, P. Geol.
- Report on the Resource Estimate of the Yellowknife Gold Project March 4, 2009 by Valmar Pratico, P. Geol.
- Report on the Resource Estimate of the Yellowknife Gold Project December 23, 2009 by Valmar Pratico, P. Geol.

In September 2012, Tyhee disclosed the results of a feasibility study detailing additional exploration, updated mineral resources and mineral reserves, metallurgical program, and mine engineering studies to design open pit and underground mines and a mill complex targeting the mineral resources (SRK, 2012). This feasibility study is not treated as current by the authors or GoldMining. Neither the authors nor GoldMining have completed the work necessary to treat this study as a current reserve estimate, and it is considered historical in the same context as the above reports/studies.

The QP completed a high-level review of the previous estimate (2012). The review noted:

*The Mineral Resource was generated by initially reviewing and verification of the database, followed by interpretation and available data. The block dimensions selected for the open pit models were 3.0 m x 3.0 m x 3.0 m, and are based on the existing drilling pattern, spatial distribution and mine planning considerations. The Nicholas Lake model, which is considered amenable to underground mining, was constructed using a block size of 1.5 m x 1.5 m x 1.5 m. The resource estimate was interpolated using Maptrek Vulcan™ (Vulcan™) software, the inverse distance weighting method (ID2) and nearest neighbor (NN) methods for model validation. No significant discrepancies exist between the methods and values obtained from ID2 have been used for the resource tabulation.*

*The ID2 block models for Ormsby, Bruce, Clan Lake, and Goodwin Lake were exported to Gemcom Whittle™ (Whittle™) software for pit optimization, based on the Lerchs-Grossman 3D algorithm. The optimized pit shells were generated by SRK using Measured, Indicated and Inferred resources. Various economic parameters, such as mining and processing, General and Administrative (G&A) costs, gold recovery and pit slope angle, were used as input parameters for the resource pit shells. All open pit resources are stated above a 0.50 grams per tonne (g/t) gold cut-off. Additional potentially mineable resources are also stated at the Ormsby, Bruce, Clan Lake and Nicholas Lake deposits. The underground resources are stated above a 1.50 g/t gold cut-off.*

Table 6-3 shows the 2012 historical mineral resource statement published by SRK in July 2012 and contained in “NI 43-101 Technical Report on the Yellowknife Gold Project, Northwest Territories, Canada”

Since the results of the feasibility study disclosed in September 2012 are no longer valid or current, this section is not required to support the updated mineral resource statement.

**Table 6-3: 2012 Historical Mineral Resource Statement for the Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., July 1, 2012<sup>(1)(5)(6)(7)(8)</sup>**

Deposit Type	Deposit Area	Resource Category	Quantity 000's	Average Grade	Contained 000's Metal
			Tonnes	Au g/t	Au Oz
Open Pit	Ormsby <sup>(2)(3)</sup>	Measured	7,339	1.59	376
	Subtotal Measured		7,339	1.59	376
	Ormsby <sup>(2)(3)</sup>	Indicated	13,295	1.68	718
	Bruce <sup>(2)(3)</sup>		749	1.59	38
	Clan Lake <sup>(2)(3)</sup>		1,266	1.68	69
	Subtotal Indicated		15,310	1.68	825
	Subtotal Measured and Indicated		22,649	1.65	1,201
	Ormsby <sup>(2)(3)</sup>	Inferred	218	1.23	9
	Bruce <sup>(2)(3)</sup>		60	1.56	3
	Clan Lake <sup>(2)(3)</sup>		1,964	2.46	155
	Goodwin Lake <sup>(2)(3)</sup>		875	1.15	32
	Subtotal Inferred		3,117	1.99	199
	Underground	Ormsby <sup>(4)</sup>	Indicated	1,662	3.3
Bruce <sup>(4)</sup>		440		3.17	45
Clan Lake <sup>(4)</sup>		110		2.77	10
Nicholas Lake <sup>(4)</sup>		2,255		3.91	283
Subtotal Indicated		4,466	3.58	514	
Ormsby <sup>(4)</sup>		Inferred	113	2.89	11
Bruce <sup>(4)</sup>			71	2.47	6
Clan Lake <sup>(4)</sup>			1,784	2.8	161
Nicholas Lake <sup>(4)</sup>			689	5	111
Subtotal Inferred		2,658	3.37	288	
Total Measured and Indicated		27,115	1.97	1,715	
All	Total Inferred		5,774	2.62	487

Source: SRK, 2012

(1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.

(2) Open pit resources stated as contained within a potentially economically minable open pit above a 0.50 g/t Au cut-off.

(3) Pit optimization is based on an assumed gold price of US\$1,500/oz, metallurgical recovery of 90%, mining cost of US\$2.00/t and processing and G&A cost of US\$23.00/t.

(4) Underground resources stated as contained within potentially economically minable gold grade shapes above a 1.50 g/t Au cut-off.

(5) Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.

(6) Mineral resource tonnage and grade are reported as undiluted and reflect a potentially minable bench height of 3.0 m.

(7) Contained Au oz are in-situ and do not include metallurgical recovery losses.

The 2012 FS study defined Mineral Reserves for the Project. Mining will be a combination of traditional open pit truck and shovel operations at Ormsby, Bruce, and Clan Lake, combined with underground operations at Nicholas Lake and Ormsby.

The Mineral Reserves were estimated based on a gold price of US\$1,400/oz and are shown in Table 6-4.



**Table 6-4: Reserve Statement for Tyhee’s Yellowknife Gold Project, Northwest Territories, Canada, SRK Consulting (U.S.), Inc., July 28, 2012**

Deposit Type	Deposit Area	Resource Category	Quantity (000s) Tonnes	Average Grade Au (g/t)	Contained Metal (000s) Au (oz)
Open Pit	Ormsby	Proven	6,347	1.75	357
	<b>Subtotal Proven</b>		<b>6,347</b>	<b>1.75</b>	<b>357</b>
	Ormsby	Probable	10,502	1.86	627
	Bruce		390	1.70	21
	Clan Lake		394	2.93	37
<b>Subtotal Probable</b>		<b>11,286</b>	<b>1.68</b>	<b>685</b>	
Underground	Ormsby	Probable	772	3.49	87
	Nicholas Lake		2,029	3.14	205
	<b>Subtotal Probable</b>		<b>2,801</b>	<b>3.24</b>	<b>291</b>
<b>Total Proven and Probable</b>			<b>20,433</b>	<b>2.03</b>	<b>1,334</b>

- Reserves are inclusive of mineral resources;
- Reserves are based on a gold price of US\$1,400/oz;
- Open pit reserves assume full mine recovery;
- Open pit reserves are not diluted (Further to dilution inherent in the resource model and assume selective mining unit of 3 m x 3 m x 3 m.);
- Underground reserves assume planned dilution, 5% unplanned dilution at Nicholas Lake and 9% at Ormsby;
- In-situ Au Ounces do not include metallurgical recovery of 92% for Ormsby, Clan Lake and Bruce or 82% for Nicholas Lake;
- An open pit CoG of 0.6g/t-Au was applied to open pit resources constrained by the final pit design;
- An underground CoG of 2.0 g/t-Au was applied to underground resources constrained by a final underground design;
- Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding; and
- The mineral reserve estimate for the YPG was calculated by Bret C Swanson, BE (Min) MMSAQP #04418QP of SRK, in accordance to CSA, NI 43-101 standards and generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines.

The QP’s initial review of the 2012 work supporting the FS noted possible improvements to the geological model based on review of the drilling core indicating sharper contacts between mineralization styles than reflected in the 2012 block model. The QP therefore considers the 2012 mineral resource and reserve evaluation to now be obsolete and is replaced by the mineral resource evaluation reported herein.

### 6.3 Historic Production

Total production from the Discovery Mine, from 1950 to 1969, is estimated to be 1,023,550 oz of gold from 1,018,800 short tons (st) of ore. The average production grade of slightly more than one oz of gold per st is generally considered the highest average grade of produced gold in the Yellowknife gold district.

Sufficient high-grade ore had been Indicated in the Main Zone to warrant initiation of shaft sinking and underground development in November 1946. Surface exploration and underground development continued in 1948 and 1949 while surface buildings, including a 90 st per day (st/d) mill with amalgamation and cyanide circuits, were installed. Production commenced in January 1950 from the 112 m deep shaft.

With the discovery of deeper ores below the North Vein (No. 4 and No. 16 Veins) in the Main Zone, the mill capacity was increased incrementally to 225 tons per day (t/d) and the shaft ultimately deepened to 1,237 m by 1960. The mine produced continuously until the mill was destroyed by fire in

1968. Ore was trucked to Yellowknife for milling on the winter road the following year, but the mine closed later in 1969.

## 7 Geological Setting and Mineralization

The QP has reviewed the relevant historical geological reports and information, and the below provides a summary of the Project.

The Yellowknife gold project properties are located within the southern Slave Province of the Precambrian Shield, specifically within the Archean aged Yellowknife Basin. The Slave Province is described as an Archean craton which covers a major portion of the northwest Canadian Shield and consists of variable amounts of granitic-gneissic, metasedimentary and metavolcanic lithologies. The Slave province is bounded by Paleoproterozoic orogenic belts to the east and west. Development of the Slave Province is a result of the tectonic evolution of northern Canada which involved a series of accretionary events alternating with periods of continental extension.

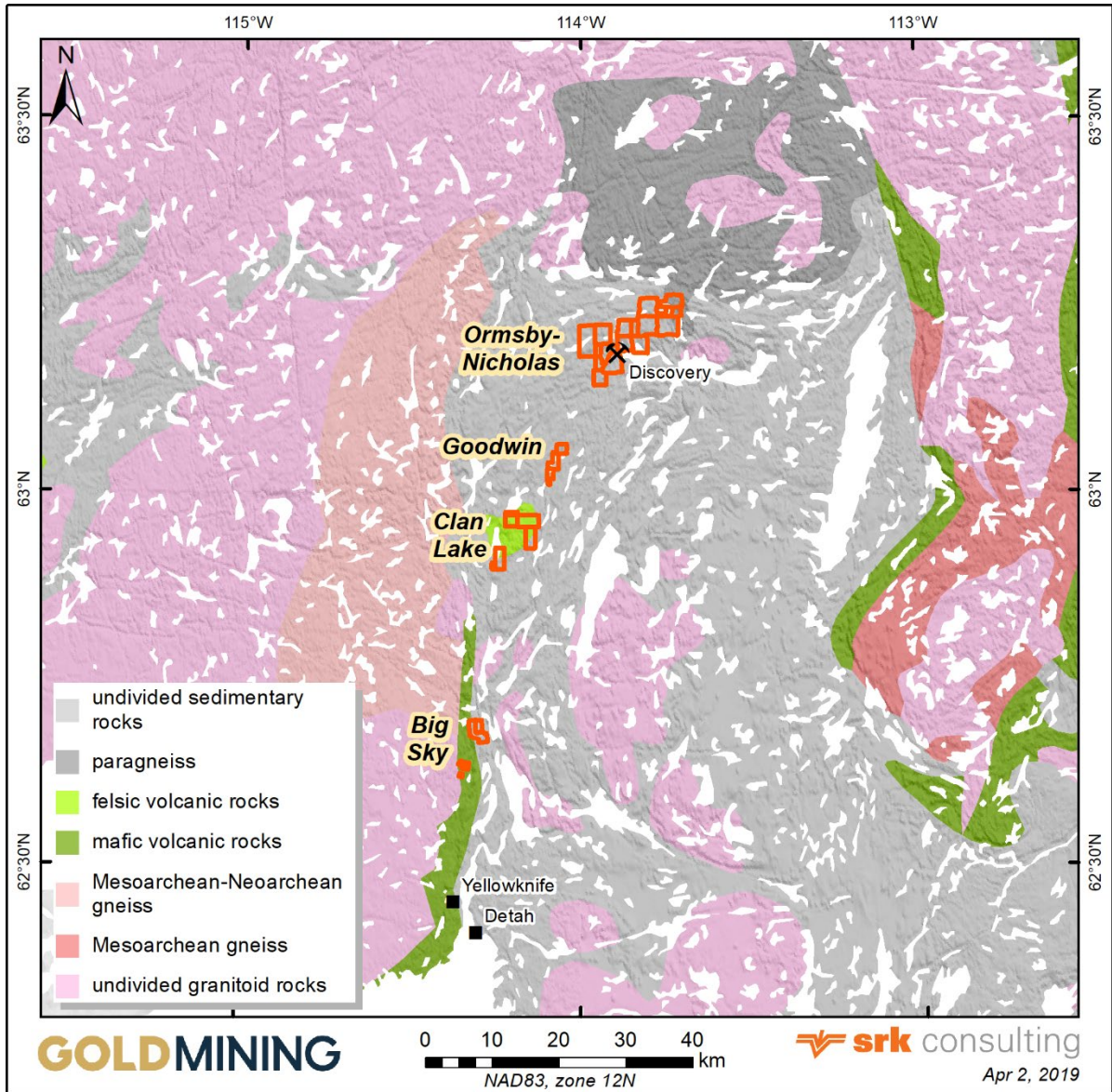
### 7.1 Regional Geology

Regional geology is largely summarized from Whitty (2007).

The south-central Slave Province is underlain primarily by supracrustal crystalline basement rocks of the Central Slave Basement Complex, which consist of granodioritic to tonalitic gneisses. The basement complex is overlain by the Central Slave Cover Group, which consists of a highly deformed and locally imbricated autochthonous sequence of ultramafic, mafic and minor intermediate to felsic volcanic assemblages along with conglomerate, chromite bearing quartzite and banded iron formation.

The Yellowknife Greenstone Belt is the southernmost exposed greenstone belt of those that occur throughout the Slave Province. The Yellowknife Greenstone Belt trends to north-north-easterly from Yellowknife Bay for approximately 100 km. Southern portions of the greenstone belt are continuously exposed and well researched whereas more northern extents are less well exposed and studied. Lithologies within the belt define a homocline which dips steeply to the east. These sequences of greenstone consist of greenschist to amphibole facies metamorphosed mafic to felsic volcanic rocks below a thick sequence of related metasedimentary rocks termed the Yellowknife Basin.

The Yellowknife Basin lies within the southern Slave Structural Province's Late Archean Yellowknife Supergroup. The basin is structurally bounded by the Anton Complex basement gneisses to the west, by the Sleepy Dragon Complex to the north and east and disappears under Great Slave Lake and post-Archean cover to the south. The basin occurs over an area crudely 120 km wide and at least 180 km long. The basin contains lithologies of the Yellowknife Supergroup which can be partially divided into the well exposed southern volcanic components which are the 2.73 to 2.70 Ga Kam Group metavolcanics, the 2.69 to 2.66 Ga Banting Group metavolcanics and the Duncan Lake Group. Both the Banting Group and Kam Group are considered basal strata of the Yellowknife Supergroup which are overlain by and intercalated with the Burwash Formation metasedimentary lithologies. The Burwash Formation is composed chiefly of thickly bedded and metamorphosed greywacke, siltstone and mudstone deposited in a turbiditic submarine facies and forms the bulk of exposure in northern portions of the Yellowknife Basin. Volcanic belts that extend into the northern portions of the basin are rare and tend to be dominated by bimodal mafic to felsic volcanic rocks such as those of the Clan Lake Volcanic Complex (Figure 7-1).



**Figure 7-1: Regional Geology Setting**

Source: SRK, 2019

## 7.2 Local Geology

The geological units of the Yellowknife Basin that are the subject of this report include; from north to south, the Nicholas Lake granodiorite-quartz diorite intrusion, the mafic volcanic rocks of the Giauque Lake Formation, the gabbro sill at Goodwin Lake, and the bimodal mafic-intermediate volcanic rocks of the Clan Lake Complex. All these lithologies are hosted and deposited within and/or subsequently buried by the metasedimentary rocks of the Burwash Formation (Figure 7-1).

Burwash Formation lithologies consist predominantly of variably laminated and interbedded greywacke-mudstone turbidite sequences with syn-formational volcanic vent sequences such as those seen at Clan Lake and Giauque Lake among others. Bedding thickness ranges from the millimetre (mm) scale to over 8 m. With regional tectonic activity, the lithologies of the Burwash

Formation were compressed, thickened, and complexly folded between ca. 2650 and 2580 Ma, with a peak in crustal anatexis between 2595 and 2585 Ma that resulted in numerous granitoid intrusive and diabase dike swarms. It is postulated that the various gold deposits were formed during these periods of orogenesis. Hydrothermal alteration including silicification, sericitization and other alteration assemblages can be seen throughout the Burwash Formation. Quartz veining and ductile shearing are common in areas of significant large scale regional tectonic structural trends. Gold mineralization within the Burwash Formation is typically associated with ductile to brittle shear zones and replacement deposits with variable proportions of sulphides including arsenopyrite, pyrrhotite, pyrite, sphalerite, chalcopyrite, and galena. Gold deposits identified to date occur near the greenschist to amphibolite isograd.

## 7.3 Property Geology

### 7.3.1 Ormsby Property Geology

The Ormsby property is underlain by mafic metavolcanic flows and related tuffaceous rocks of the Giauque Lake Volcanic unit, a lithological and stratigraphic sub-component of the Banting Group within the Yellowknife Supergroup.

Principle lithologies observed can be divided into three units which represent:

- The Giauque Lake metavolcanic lithologies;
- The surrounding Burwash metasedimentary rocks; and
- A transitional phase of intercalated volcanic and sedimentary rocks that occurs between both end members.

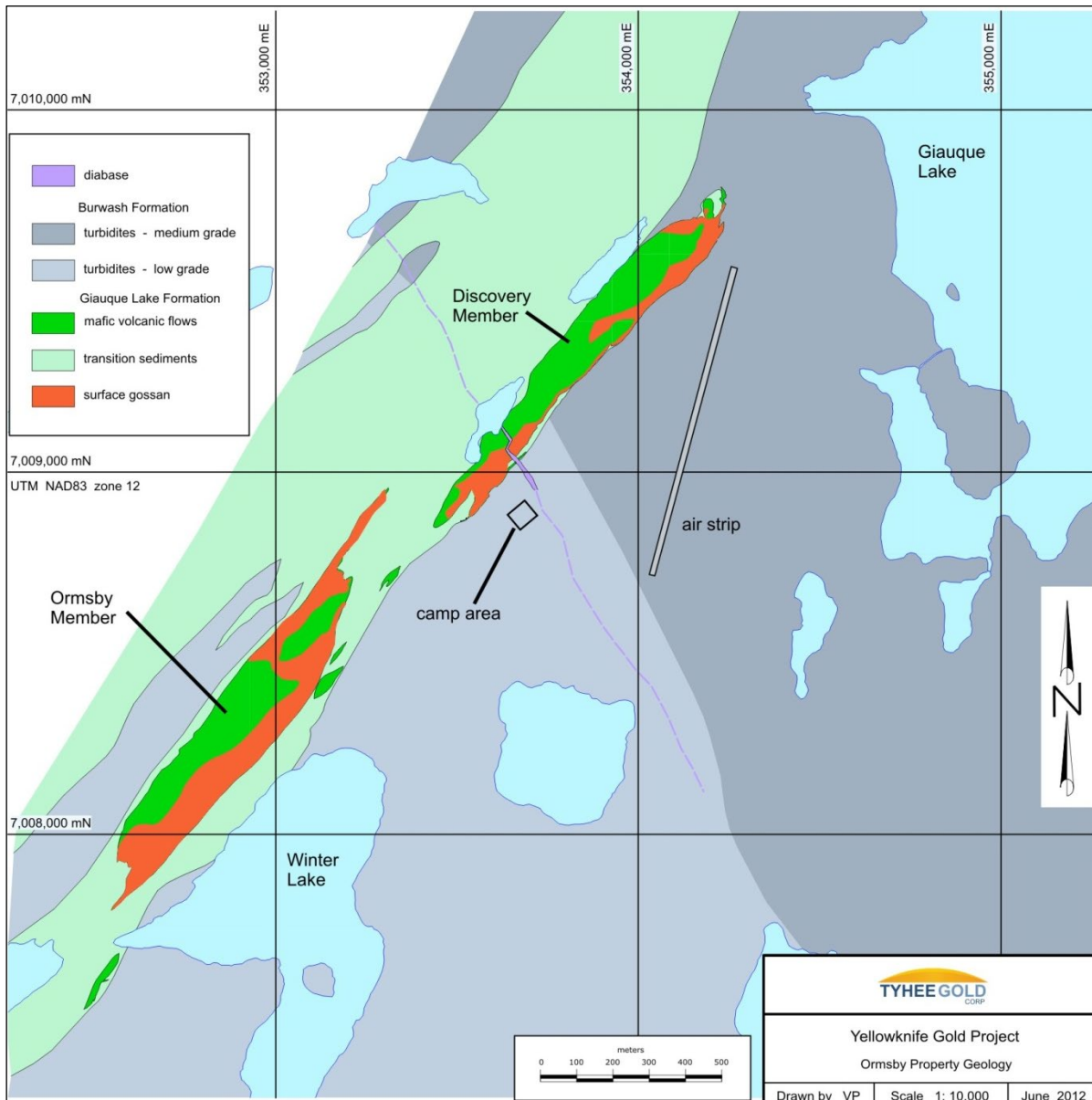
The Giauque Lake metavolcanic unit consists of pillowed and massive mafic flows and related, abundant tuffaceous rocks. The mafic metavolcanic rocks are considered a thin submarine volcanic pile likely a discrete volcanic vent horizon. The Burwash Formation consists of interbedded sandstone, siltstone and minor mudstone deposited in a turbidite environment. The third unit, termed the Transition Sediments, consists of disrupted sandstone, siltstone and increased mudstone with a moderate to abundant tuff component and intercalated tuff horizons. The Transition Sediments likely represents periods of deposition leading up to the volcanic event and subsequent extinction and erosion of the volcanic pile.

The two largest metavolcanic bodies are referred to as the Ormsby and Discovery members. The Discovery member contains proportionately more pillow and massive mafic flows with only minor to moderate tuff component versus the predominantly tuffaceous Ormsby Member.

Lithologies on the property have been undergone greenschist to amphibolite grade metamorphism. Retrograde metamorphism is well documented with both retrograded garnet in metavolcanics and retrograded cordierite within adjacent metasedimentary rock. Locally a second more euhedral cordierite porphyroblastic texture is noted within adjacent metasediments. Preserved textures within the metavolcanic lithologies allow for original protolith recognition. Deformation includes ductile to brittle deformation and associated folding. Small scale faults and joints are the youngest deformational features identified on the property.

The Ormsby member is host to the Ormsby gold mineralized zone and the Discovery member is host to the Bruce mineralized zone. Gold in both zones is associated with fine grained lamination parallel

pyrrhotite bands within amphibolite and within irregular smoky grey quartz veins. Sulphide mineralization includes pyrrhotite, pyrite, arsenopyrite, and trace amounts of galena, sphalerite and chalcocopyrite. The Ormsby property geology is shown in Figure 7-2.



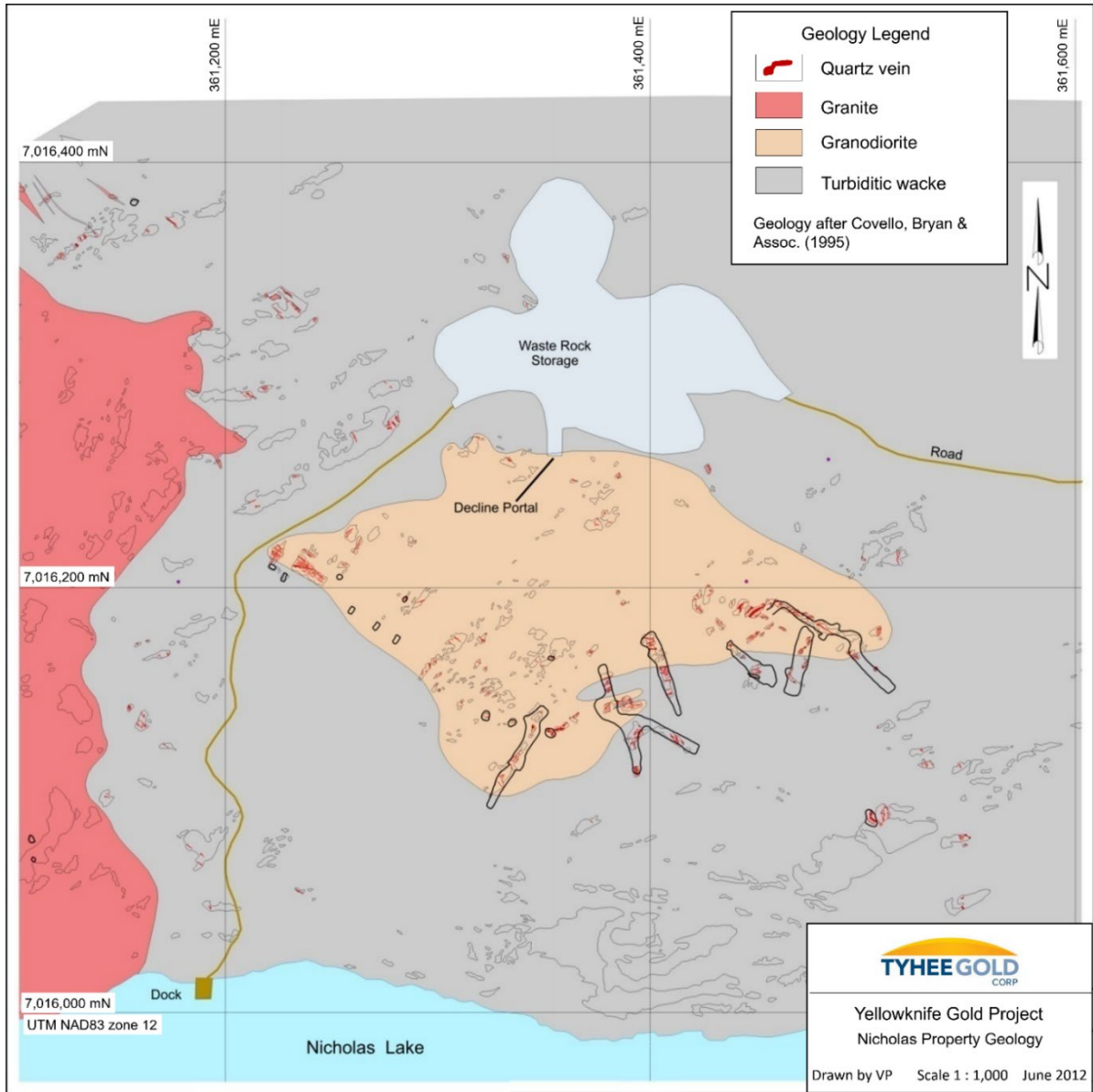
**Figure 7-2: Ormsby Property Geology Map**

Source: SRK, 2012

### 7.3.2 Nicholas Lake Property Geology

The Nicholas Lake property is underlain by a sheared intrusive plug of granodiorite to quartz-diorite composition, which has intruded meta-turbidites of the Burwash Formation at the northern end of the Yellowknife Basin of the Yellowknife Supergroup. The 200 m by 300 m intrusive body has been informally named the Nicholas Lake Granodiorite and is likely related to other granitoid intrusive bodies in the area.

Gold mineralization at Nicholas Lake occurs in a subvertical shear zone that extends across the southern half of the granitoid body in an east-west trend. The shear zone comprises a series of near vertical quartz-sulphide veins and veinlets in a zone of sericitization and silicification in the granodiorite plug and in the meta-sedimentary rocks in close proximity to the intrusive contact. Gold is associated with quartz veining, pyrrhotite, pyrite, and arsenopyrite and with lesser sphalerite, galena and scheelite. The Nicholas Lake property geology is shown in Figure 7-3.



**Figure 7-3: Nicholas Lake Property Geology Map**

Source: SRK, 2012

### 7.3.3 Goodwin Lake Property Geology

The Goodwin Lake property is underlain by a thick sequence of Burwash Formation turbiditic sedimentary rocks that are intruded by gabbro. Intermediate to mafic extrusive volcanic rocks are associated with the gabbro units.

The Burwash Formation consists of well bedded, fine grained to medium grained sequence of silty to sandy wackes and arkose. This sequence contains interbedded units of argillite and tuff horizons. The sequence contains localized occurrences of subrounded to subangular, medium to coarse grain, retrograde cordierite porphyroblasts within fine grained beds. Alteration is observed as weak semi-pervasive silicification with weakly developed foliation subparallel to bedding. Quartz-carbonate veins less than 20 centimetres (cm) in width are associated with the silica alteration. Pyrite and lesser pyrrhotite are noted along fractures with carbonate and within some veins. Bedding orientations are relatively consistent at azimuth 015 to 040° with subvertical to eastern dips.

The Goodwin Lake gold mineralized zone is located on a ridge north and east of Goodwin Lake. The gabbro unit, host to gold mineralization at the Goodwin Lake zone, is medium to dark grey, fine to medium grain, equigranular to weakly plagioclase porphyritic, gabbro with equal amounts of plagioclase and hornblende. The gabbro has undergone moderate pervasive silica alteration. Decreased grain size are noted near contacts with turbidite units suggesting an intrusive contact. Samples submitted for petrographic description have identified the gabbro as leucocratic hornblende-biotite tonalite gneiss with minor localized garnet and epidote. Moderate to abundant silicification occurs as subhedral to anhedral strained quartz within submillimetre micro-shear zones. This suggests a greater amount of silicification than what was identified from core and surface sampling. Core drilling suggests the gabbro body dips vertically to 80° east. Sinuous quartz veins with multiple orientation occur throughout the gabbro body. The Goodwin Lake property geology is shown in Figure 7-4.

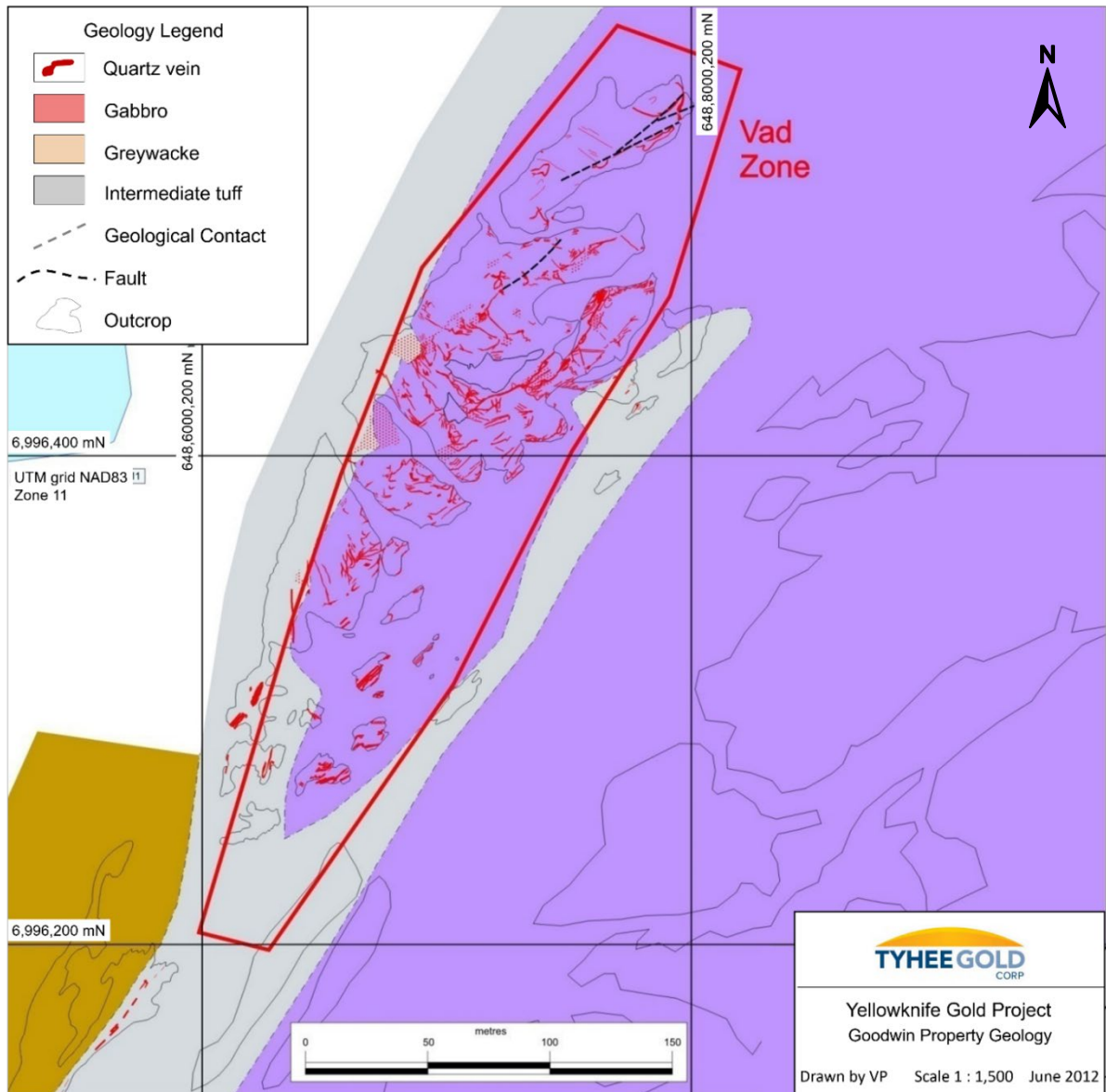
### 7.3.4 Clan Lake Property Geology

The Clan Lake property is underlain by metavolcanics of the Clan Lake Volcanic Complex, a component of the Banting Group and metaturbidites of the Burwash Formation. The complex is interpreted to have formed in a submarine to sub-aerial environment and is comprised of metamorphosed felsic to mafic flows, and intermediate volcanoclastic units. The metavolcanics are intruded by small gabbroic bodies.

Exploration activity has focused on the southern portion of the complex, a semi-circular exposure of metavolcanic rocks. The outer most unit of volcanic rocks is comprised of submarine pillow to massive mafic flows, which surround a band of metasedimentary rocks consisting of sandstone, siltstone and mudstone. The central area is a highly variable sequence of generally intermediate volcanic flows, tuffs, metasedimentary rocks and minor units of mafic volcanic rocks. The central area is intruded by a small gabbroic plug.

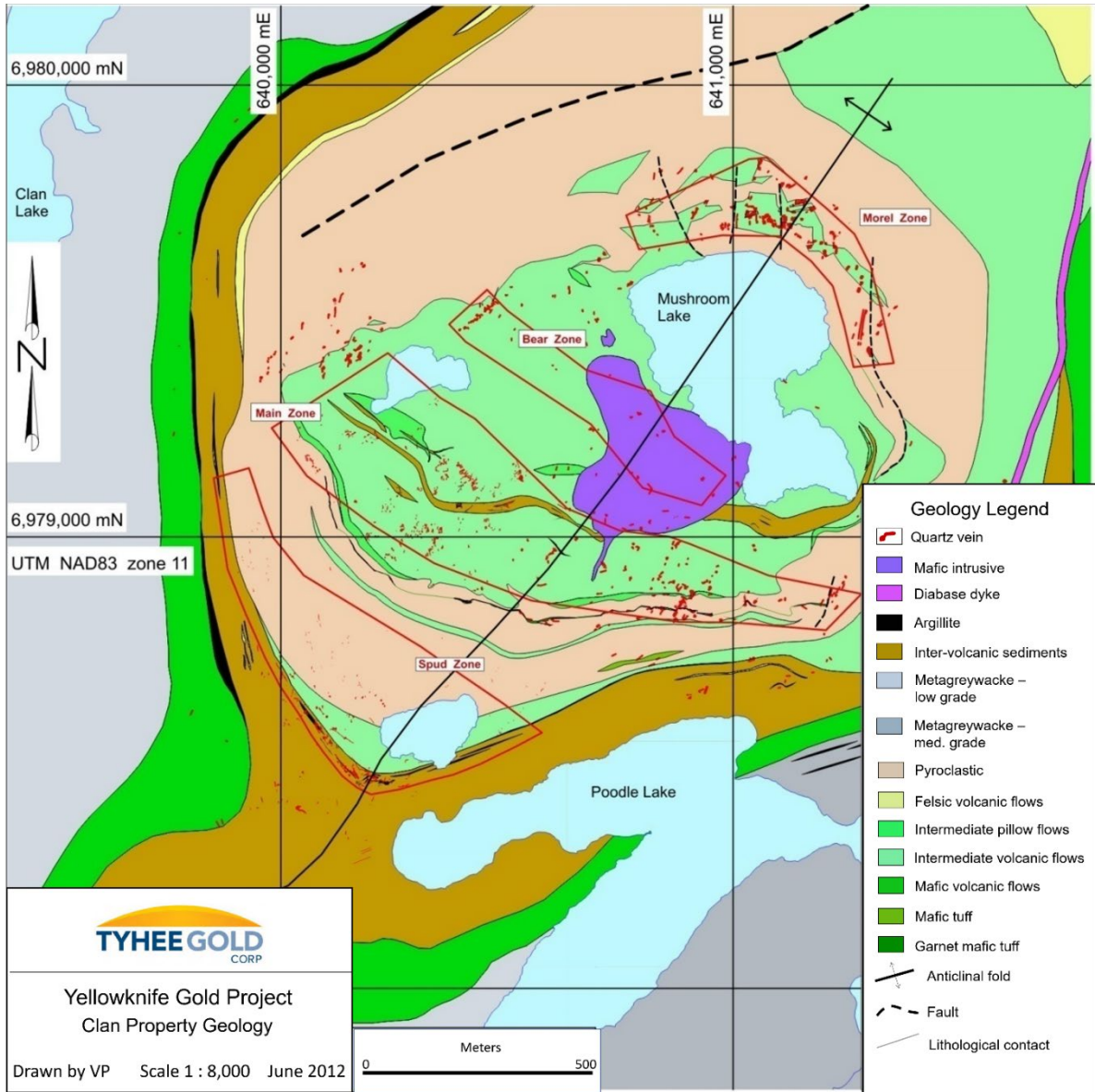
Gold mineralization at the Clan Lake main zone occurs as abundant quartz veins transecting the central area intermediate volcanic units in parallel northwest to south-east trends. The quartz veins occur with envelopes of sericite and silica containing arsenopyrite. The Clan Lake property geology is shown in Figure 7-5.





**Figure 7-4: Goodwin Lake Property Geology Map**

Source: SRK, 2012



**Figure 7-5: Clan Lake Property Geology Map**

Source: SRK, 2012

### 7.3.5 Big Sky Property Geology

The Big Sky property is located within the Yellowknife greenstone belt to the north and along strike of the Yellowknife gold district. The Yellowknife greenstone belt hosts the majority of the mineralized zones of the Big Sky property and is situated in the southwestern part of the Slave structural province composed of metavolcanic rocks of the Chan Lake volcanic complex, Yellowknife Supergroup. The Clan Lake volcanic complex is typically represented by pillowed and massive tholeiitic basalts containing thin intercalated intervals of rhyolite tuff. The volcanic complex is crosscut by syn- to post-volcanic gabbroic dikes as well as quartz-feldspar porphyry dikes.

The Slave craton is located to the north of the greenstone belt and is composed of a Mesoarchean gneissic basement overlain by a Neoproterozoic supracrustal assemblage of the Yellowknife Supergroup. These supracrustal assemblages were deformed prior to being overlain by late orogenic, Timiskaming-like conglomerates of the Jackson Lake assemblage.

The Big Sky property geology is shown in Figure 7-6.

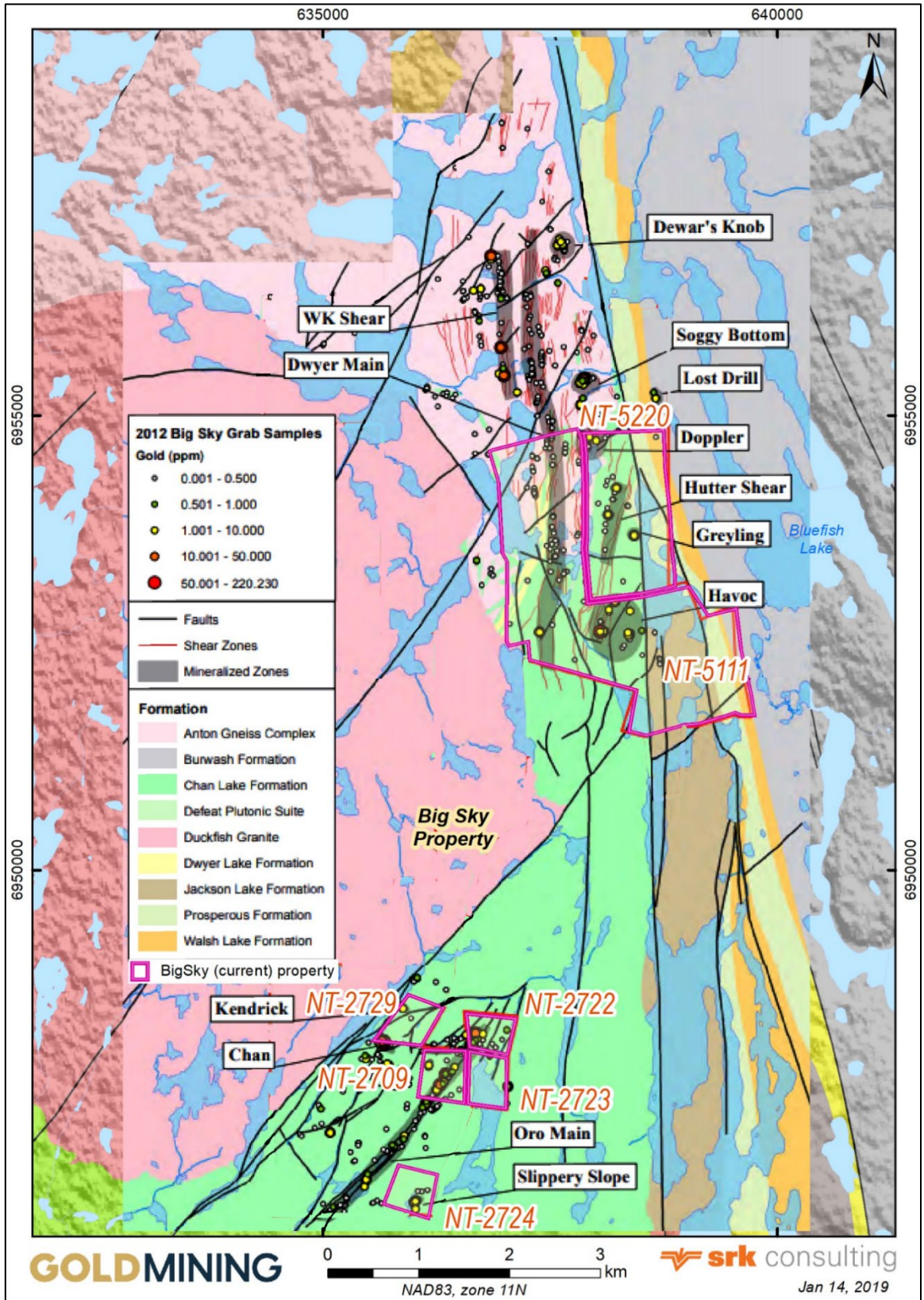


Figure 7-6: Big Sky Property Geology Map

Source: SRK, 2019

## 7.4 Mineralization

### 7.4.1 Ormsby and Bruce Zones

The Ormsby and Bruce gold deposits are interpreted as mesothermal Archean lode gold style deposit hosted by brecciated mafic metavolcanics rocks. Alteration, deformation and metamorphism has resulted in irregular banded to laminated textures with bands of alternating amphibolite, biotite and plagioclase pseudo-gneiss with abundant garnet. The two gold deposits are located in the Ormsby and Discovery metavolcanic members, respectively.

Gold mineralization in drill core ranges from a few cm to several m in length. The presence of gold mineralization can be recognized visually by the coincidence of 1 to 10% pyrrhotite and silicification in brecciated and laminated amphibolite. Pyrrhotite is dominant and occurs with lesser pyrite in variable proportions as disseminations, veinlets, semi-continuous streaks and irregular clots in amphibolite and as a minor constituent of quartz veinlets. Lesser arsenopyrite, subhedral to euhedral, occurs as disseminations, blebs and streaks in amphibolite breccia proximal to quartz veins, in narrow quartz veins and in quartz blebs. Chalcopyrite, sphalerite and galena have been observed, but are rare.

Gold is associated with fine grained lamination parallel pyrrhotite bands within silicified amphibolite and within irregular smoky grey quartz veins. Sulphide mineralization includes arsenopyrite, pyrite and trace amounts of galena, sphalerite and chalcopyrite. Visible gold occurs as isolated grains proximal to sulphide clots in quartz veins or alone in quartz veins. Similar gold mineralization has been intersected in drill core over the 2.5 km extent of the Ormsby and Discovery member amphibolites.

Quartz veining is an important but minor component by volume of the mineralized zones. Silicification occurs as discrete, discontinuous light to dark gray quartz veins, pods, or disseminations. The quartz veins, usually only a few cm in width, have variable orientations typically striking 320° to 340° azimuth and dipping 10° to 50° to the southwest. Lesser veinlets dip to the northeast suggesting an asymmetric conjugate pair. The quartz veins have sharp but irregular wall-rock contacts and exhibit significant changes of orientation over short distances. Folded quartz veins locally demonstrate a reverse sense of shear displacement.

Biotite alteration is evident as irregular brownish bands and patches in green-black amphibolite. The temporal relationship of biotite alteration to brecciation of the amphibolite is unknown. In addition to biotite alteration, variable retrogression/alteration of hornblende-rich amphibolite to pale green and colorless amphibole and local chlorite ± epidote occurs locally. The genetic and temporal relationships of this alteration to gold mineralization have not yet been defined.

The Ormsby zone generally strikes 350° (+/-150) and dips vertically. The Ormsby zone varies from 75 to 150 m wide, has a strike length of approximately 1,000 m and is open at the current explored depth of 550 m below surface.

The historic Discovery Mine is located approximately 1,500 m north of the Ormsby deposit, near the Bruce zone. The Discovery deposit is a classic lode gold quartz vein hosted in Burwash metasedimentary rock adjacent to the Discovery metavolcanic member. Gold occurs in a folded grey-white quartz vein hosting minor amounts of pyrite, arsenopyrite, pyrrhotite and trace base metal sulphides. No other similar veins have been located on the property, but the potential does exist. The Discovery Mine was developed to a depth of 1,200 m before ceasing operations following the loss of

the mill complex to fire. Production from 1949 to 1969 totaled one million oz of gold produced from one million tons of ore.

## 7.4.2 Nicholas Lake Zone

The Nicholas Lake zone gold deposit is interpreted to be an intrusion hosted shear zone deposit comprised of multiple auriferous sulphide bearing quartz veins and veinlets located within the granodiorite or within the Burwash sediments in close proximity of the granodiorite. Gold is closely associated with fractures and open space fillings in sulphides or alone within quartz in the sericitized and silicified shear zone. The quartz veins are generally vertical but can dip as much as 80° to the north or south. The quartz veins are sub-parallel to a variably intense foliation. Sulphide minerals include arsenopyrite, pyrite, pyrrhotite, sphalerite, galena and chalcopyrite. Scheelite occurs throughout the granodiorite.

The Nicholas Lake zone is approximately 125 m wide, has a strike length of 225 m and is open at the current explored depth of 450 m below surface. The zone trends approximately east-west and is sinusoidal in shape both vertically and horizontally.

## 7.4.3 Goodwin Lake Zones

The Goodwin Lake zone deposit is hosted within a gabbro unit and is interpreted as a brittle shear zone quartz stockwork lode gold deposit.

Quartz veins are extensive within the gabbro with abundant sinuous and multi-direction veins seen over the outcrop exposures. Vein widths on surface are generally greater than 1.5 m and rarely over 20 m with lengths of 10 to 15 m and locally greater than 35 m. Quartz veins, typically a light smoky grey to blue grey to near white in color, are generally irregular in shape with sinuous and local boudinaged forms. Vein orientations vary greatly from flat to vertical and locally folded. Dips where indicated suggest north-northeast dips with more common strikes at 115° to 125° east of north and 10° to 20° east of north. Gangue minerals are minor amounts of chlorite, amphibole and biotite with weak carbonate. The Goodwin Lake zone ranges from approximately 30 m to 100 m wide and has a known strike length of 450 m and is open at the current explored depth of 325 m below surface.

Gold mineralization is seen principally within quartz veins and to a much lesser extent at vein contacts and thin halos. Gold appears to be essentially free in nature and occurs as very fine grained to local fine grained less than 1 mm blebs along vein fractures and contacts with sulphide or chlorite mineralization. The presence of visible gold is not widespread with good gold grades occurring where no visual expression is indicated. Sulphide mineralization consists of pyrrhotite and pyrite with trace galena, sphalerite, chalcopyrite and arsenopyrite. Pyrrhotite and pyrite are the most abundant sulphides at trace to 2% with galena and lesser sphalerite and chalcopyrite apparent in better gold bearing veins. Sulphides are typically fine grained and occur along contacts and within vein fractures with chlorite and biotite.

## 7.4.4 Clan Lake Zone

The Clan Lake main zone deposit is situated within the Clan Lake Volcanic Complex and is interpreted as a brittle shear zone quartz stockwork lode gold deposit hosted within intermediate volcanic flows and related tuff.

Mineralized quartz veining is best documented at an excavated pit within the Clan Lake main zone. The exposure hosts a sinuous veining system which displays strong structural evidence for a progressive deformation sequence. Vein orientations within the Clan Lake zone vary greatly in strike and dip. Vein widths on surface are generally greater than 1.0 to 2 m with lengths of 8 to 12 m and rarely greater than 25 m visible. In core, veining occurs as irregular, approximately 5 cm to 3 m wide veins with upper and lower contacts at differing angles. Contacts are sharp with a locally very weakly foliated margin where semi-pervasive sericite alteration is noted. Gangue minerals typically include minor amounts of chlorite, amphibole and biotite with weak carbonate.

Moderate to abundant sericitization and silicification form haloes around the vein. Gold mineralization occurs within smoky grey to grey-white quartz-carbonate veins, quartz breccias zones and the alteration haloes surrounding the veins. Gold occurs as very fine grained to local fine grained less than 1 mm blebs along vein fractures and contacts with sulphide or chlorite mineralization. The presence of visible gold is common with many gold assay results greater than 10 g/t. Pyrrhotite and arsenopyrite are the most abundant sulphides from trace to 12% with pyrite, galena and trace sphalerite and chalcopyrite. Arsenopyrite is a common halo component and replaces pyrrhotite locally. The main zone, open horizontally and at depth, currently measures 1,200 m long and ranges in width from 125 to 250 m wide with a north-west to south-east trend. The current deepest intersection is 400 m below the surface, but remains open at depth.

Mapping and prospecting have identified similar sub-parallel gold mineralization zones in proximity to the Clan Lake main zone. The property contains many other gold occurrences that are similar in nature.

#### **7.4.5 Big Sky Zone**

The Big Sky zones are interpreted to be a series of brittle vertical shear zones hosting auriferous quartz vein mineralization (Tyhee, 2012d). There is a total of 13 recognized mineralized zones of variable widths and sulphide content within the Big Sky property. The shear zones are commonly trend north in the northern part of the property, and northwest and northeast trending in the south. The extent of the mineralized zones is yet to be determined.

## 8 Deposit Type

The Yellowknife gold project deposits can be considered Archean Lode Gold deposits within an orogenic gold environment. These deposit types are well documented throughout the Canadian Shield. Gold deposition typically post-dates peak metamorphism and can be accompanied by retrograde metamorphism in the greenschist to amphibolite grade lithologies. Favorable structural settings include areas of contrasting lithological competency, where brittle and ductile shearing provides the fluid pathways for deposition of quartz-carbonate veining as stockwork and lode gold quartz veining.

Exploration completed to date has focused on these favorable settings, which is considered standard for this style of deposit, using core drilling. In the QP's opinion there are some limitations in terms of the detailed understanding of the overall structural controls on gold mineralization, especially at Clan Lake. The QP recommends some select follow-up investigations using orientated core and structural mapping to increase confidence in the current geological model which forms the basis for the current mineral resource estimate.



## 9 Exploration

Exploration work was conducted from 1987 to 2012 by previous operators. The QP has reviewed the relevant historical reports and information, and the below provides a summary of the exploration completed at the Project. GoldMining has not conducted exploration work since acquiring the property.

### 9.1 Relevant Exploration Work

Core drilling is the primary exploration data used in the estimation of mineral resources at the Yellowknife gold project as described in Section 10. Poorly developed soils make soil sampling an ineffective exploration tool in the area. Channel sampling and trenching of bedrock and underground sampling has been completed on the property, however this data was not used in the estimation of mineral resources.

Geophysical surveys (airborne magnetometer and electromagnetic (EM)) have been completed across the property. The surveys were useful in mapping geology and major faults across the property, which are often hosts to gold mineralization on the property.

### 9.2 Exploration 1987-1997

In 1994, Athabaska Gold developed the Nicholas Lake decline for 820 m of underground development with a 3,000 t bulk sample excavated which is stored on surface. The Nicholas Lake portal is currently flooded, and the portal barricaded.

Ground magnetic and EM surveys conducted by a previous operator were reviewed by Associated Mining Consultants Ltd. A helicopter-borne magnetic and EM survey was conducted by a previous operator over the Clan property in 1987. The details of the survey are currently unavailable.

### 9.3 Exploration 1997-2012

Between 2003 and 2011, total underground development by Tyhee at Ormsby is 959 m of decline, 531 m of level development and 89 m of raise. The decline is currently flooded. A bulk sample of approximately 7,000 t was excavated from two subdrifts and stored on surface.

Airborne magnetic and EM surveys by Fugro were completed over the Ormsby and Nicholas properties in 2005 and over the Clan Lake property in 2008. The surveys were commissioned by Tyhee and were useful for mapping geology and identifying structures/lineaments across the properties.

In 1994, a previous operator developed the Nicholas Lake decline for 820 m of underground development with a 3,000 t bulk sample excavated which is stored on surface. The Nicholas Lake portal is currently flooded, and the portal barricaded.

During 2007 and 2008, Tyhee conducted mapping and sampling programs at the Goodwin Lake deposit.

In July 2010, LiDAR Services International Inc. conducted a 356 km<sup>2</sup> LiDAR survey for Tyhee which collected topographic data and digital orthophotos. The topographic data is sufficiently detailed to allow construction of contour maps with 0.5 m contour intervals.

Tyhee also conducted a high resolution airborne aeromagnetic survey and detailed mapping and channel sampling programs across the Clan Lake property.

In 2012, Williams Creek conducted a helicopter supported geologic mapping and grab sampling program for the Big Sky Property. The samples collected targeted the Oro Lake Main Shear Zone, Chan Lake Vein set, Hutter Shear, Slippery Slope Shear, Greyling Lake Gossan, Dwyer Main Shear, Kendrick zone, Havoc zone. The season's highest assay value at 220.23 g/t gold was returned from the Chan Lake Vein set. A summary of the grab sample results is presented in Figure 7-6.

## **9.4 Exploration 2013-2018**

No exploration activities have been conducted on GoldMining's Yellowknife property after 2012.

## **9.5 Significant Results and Interpretation**

In addition to the exploration defined above the QPs highlight there has also been preliminary underground exploration development at Ormsby. The total underground development was completed by Tyhee and includes 959 m of decline, 531 m of level development and 89 m of raise. The decline is currently flooded. A bulk sample of approximately 7,000 tonnes was excavated from two sub-drifts and stored on surface.

The QPs have used the information from the compiled geological maps to validate and generate the current geological models which in the opinion of the QP are reasonable to form the basis of the mineral resource models. The QP has not reviewed in detail the information from the geophysical surveys but considers these to be useful for the basis on any future structural reviews of the project areas. GoldMining should attempt to find the results of these surveys where possible.

## 10 Drilling

GoldMining has not conducted a drilling program since acquiring the property. The information in this section, drilling from 1987 to 2011 conducted by previous operators. The QP has reviewed the relevant historical reports and information, and the below provides a summary of the drilling completed at the Project. A summary of drilling by operator, year and deposit area is provided in Table 10-1. Borehole plans are presented in Figure 10-1 to Figure 10-6.

### 10.1.1 Collar Location

All core drilling performed between 1988 to 2012 was conducted by Connors Drilling, later rebranded as Foraco Drilling. During winter months covered rigs were used (Figure 5-1D). Original drillhole collar locations were laid out using GPS and survey lines for all historical drilling (pre-2003) with GPS used on all holes post 2003. Drill collar locations were surveyed by Sub-Arctic Surveys Ltd. of Yellowknife using a differential GPS system.

### 10.1.2 Downhole Survey

All boreholes were surveyed with Sperry-Sun single shot camera downhole survey tools and subsequently a FlexIT magnetic-based tool. Downhole survey data was typically collected at 30 m intervals.

### 10.1.3 Drilling Methods

Core was produced in 3 m core runs with recovered core lengths measured while encased in the barrel to ensure accurate measurement then placed by hand and re-orientated if required before being transported to logging facility. At the core facility, geologists logged the drill core for key lithological and geotechnical criteria following defined protocols. A chain of custody was adhered to ensure quality control in line with generally accepted industry best practice.

### 10.1.4 Drilling Orientations

Drilling orientations have been defined to intersect the mineralization at favorable angles to produce representative samples. Given the multiple orientations at the different deposits typically more than one drilling direction has been used. The QP reviewed the drilling orientations are notes in the QP's opinion the intersection angles are reasonable and are not likely to generate any bias. Representative cross sections are shown in Section 14.

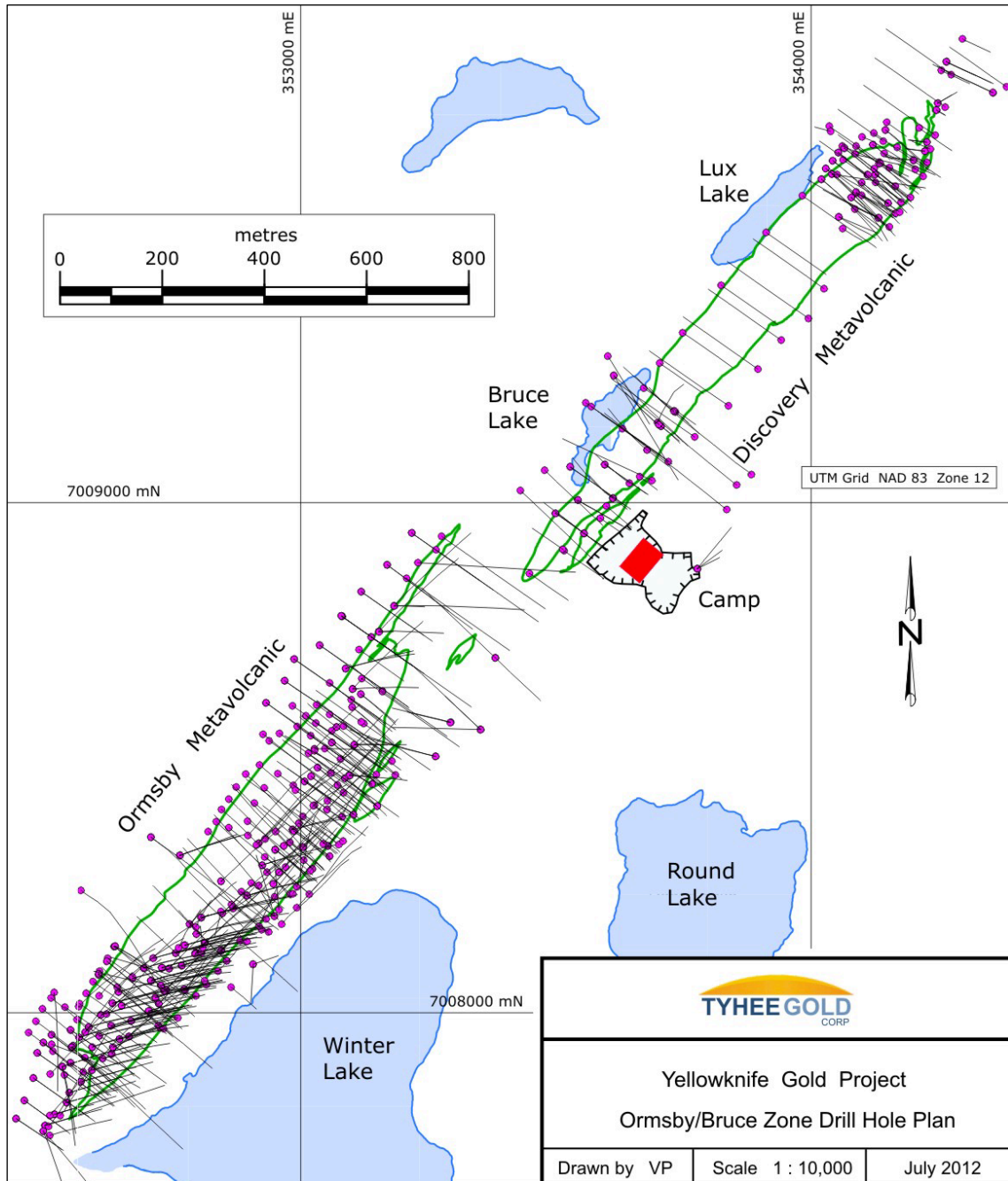
**Table 10-1: Summary of Drilling by Operator, Year and Deposit Area**

Target	Number of Boreholes	Metres Drilled	Year	Company
Ormsby	194	51,435	1994-1997	GMD Resource Corp.
Ormsby	18	5,880	2003	Tyhee Gold Corp.
Ormsby	22	9,003	2004	
Ormsby	13	5,455	2005	
Ormsby (Underground)	66	4,839	2005	
Ormsby	85	19,761	2006	
Ormsby	58	14,288	2007	
Ormsby	16	5,413	2008	
Ormsby	4	211	2009	
Ormsby	15	1,446	2010	
Ormsby	19	4,028	2011	
<i>Ormsby Subtotal</i>	<i>510</i>	<i>121759</i>		
Bruce	20	3,133	1994-1997	GMD Resource Corp.
Bruce	9	2,068	2003	Tyhee Gold Corp.
Bruce	54	9,337	2006	
Bruce	112	20,840	2007	
Bruce	1	421	2008	
Bruce	1	11	2010	
<i>Bruce Subtotal</i>	<i>197</i>	<i>35810</i>		
Nicholas Lake	79	17,346	1988-1994	Previous Operators.
Nicholas Lake (Underground)	36	2987	1988-1994	
Nicholas Lake	14	4,468	2007	Tyhee Gold Corp
Nicholas Lake	6	1,998	2008	
Nicholas Lake	6	792	2009	
<i>Nicholas Lake Subtotal</i>	<i>141</i>	<i>27591</i>		
Goodwin Lake	4	768	2007	Tyhee Gold Corp.
Goodwin Lake	24	5,166	2008	
<i>Goodwin Lake Subtotal</i>	<i>28</i>	<i>5934</i>		
Clan Lake	62	5,986	1987-1996	Previous Operators
Clan Lake	43	13,034	2008	Tyhee Gold Corp.
Clan Lake	42	13,437	2010	
Clan Lake	38	8,058	2011	
<i>Clan Lake Subtotal</i>	<i>185</i>	<i>40515</i>		
<b>Total</b>	<b>1,061</b>	<b>231,609</b>		

Source: SRK, 2019

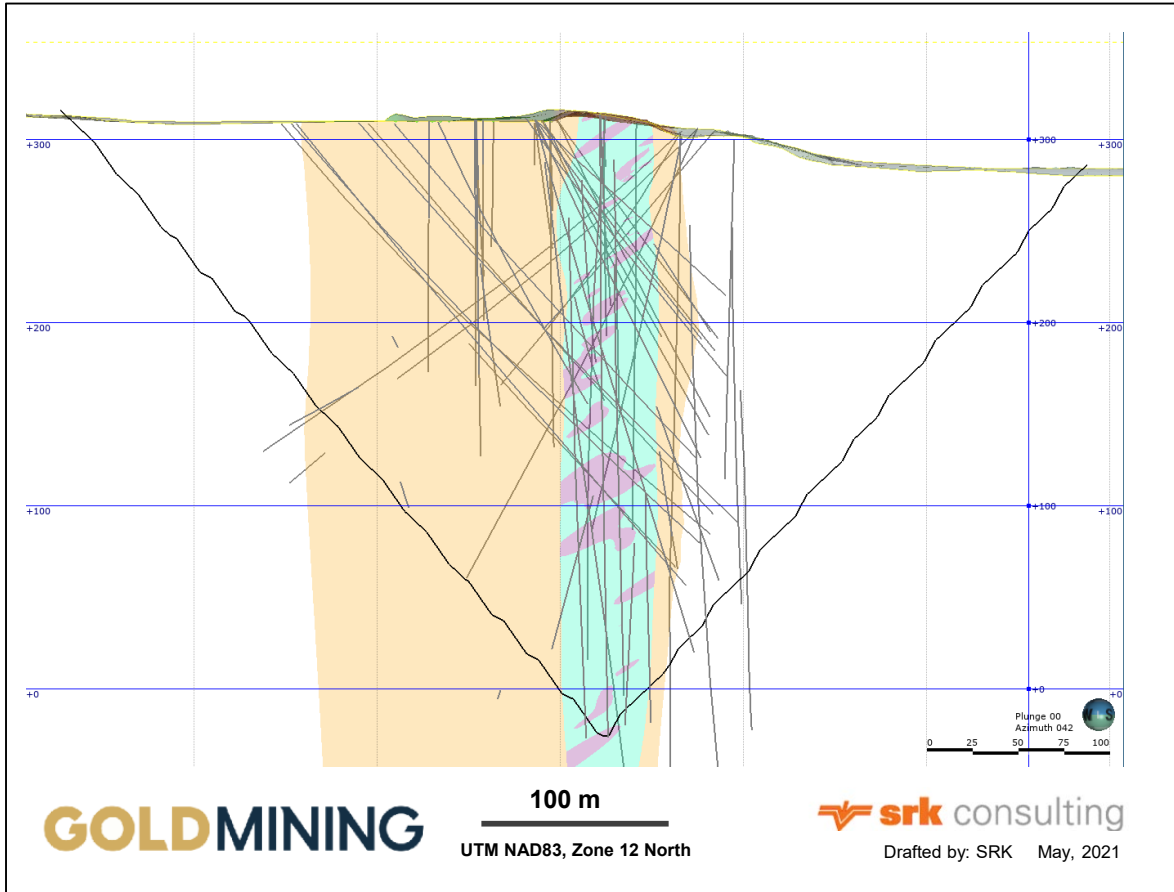
## 10.2 Ormsby and Bruce Zones

Core drilling programs on the Ormsby and Bruce deposits total 157,570 m in 707 boreholes, from both surface and underground (Figure 10-1). Prior to property acquisition by Tyhee, previous operators drilled 54,568 m in 214 boreholes. Between 2003 and 2011, Tyhee drilled 103,002 m in 493 boreholes. Drilling has been orientated predominately to the northwest of southeast provides reasonable intersection angles with the revised geological model (Figure 10-2). A second series of holes drilled at an average azimuth of 10° to the northeast. This series of holes provides a useful check on the continuity of the grades along strike but is considered less favorable for the geological modeling.



**Figure 10-1: Plan Map Showing the Distribution of Drilling on the Ormsby and Bruce Zones**

Source: SRK, 2012



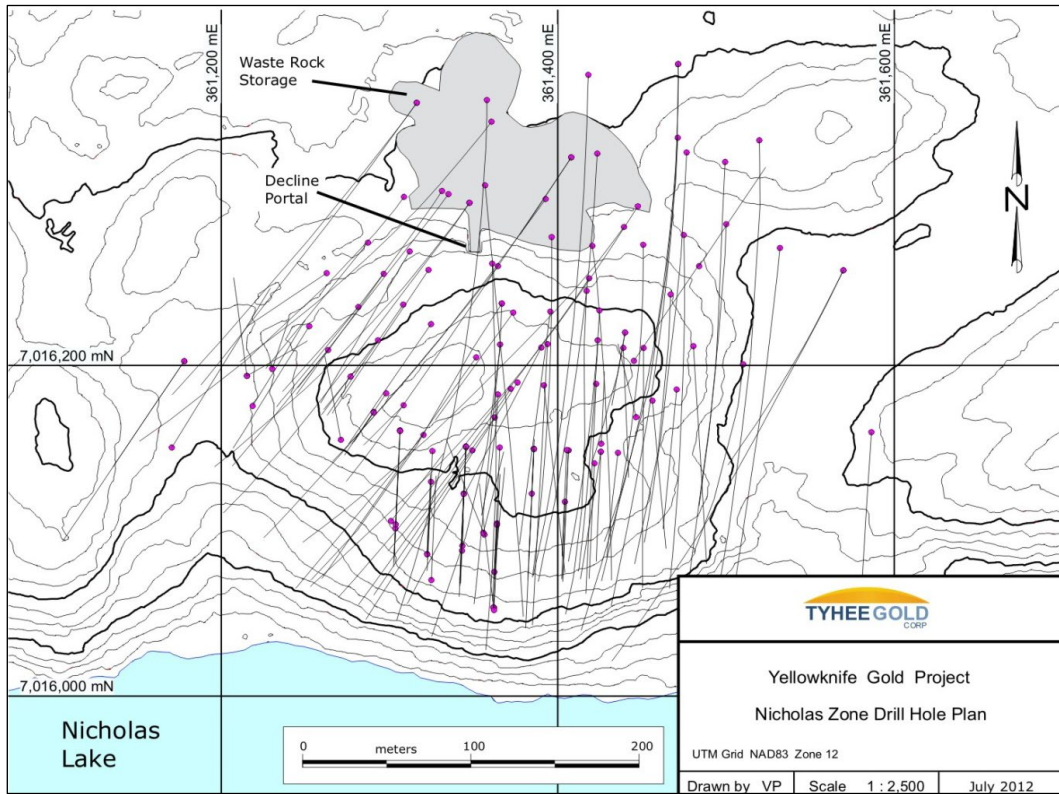
**Figure 10-2: Cross-Section Showing the Distribution of Drilling on the Ormsby and Bruce Zones**

Source: SRK, 2021

### 10.3 Nicholas Lake Zone

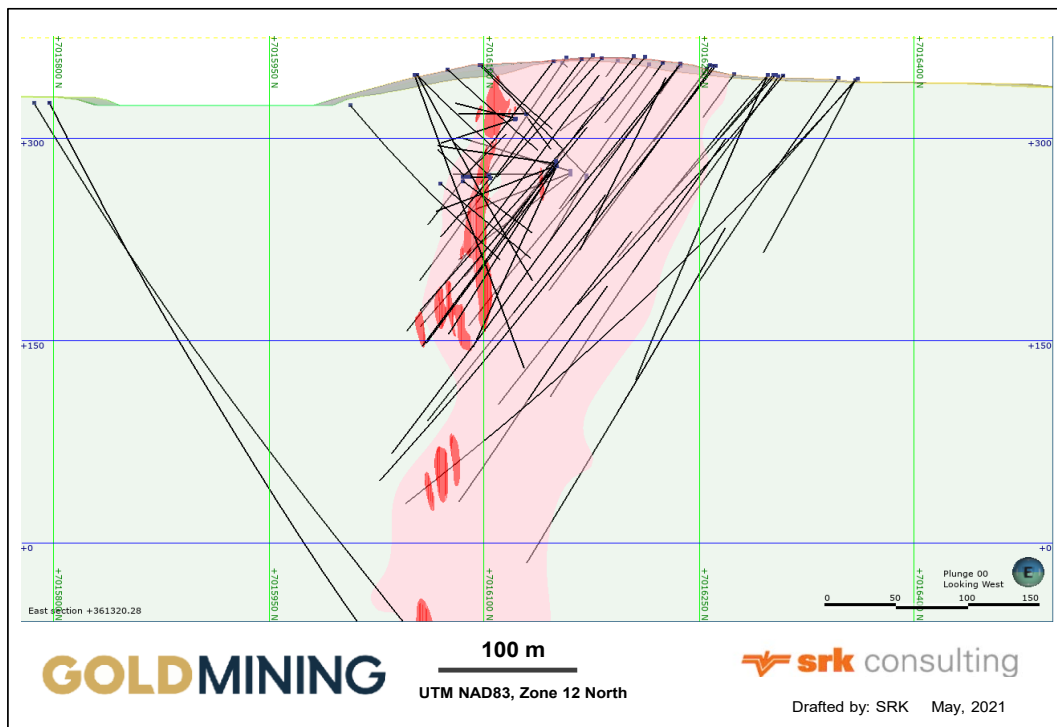
Core drilling programs on the Nicholas Lake deposit totals 27,590 m in 141 boreholes (Figure 10-3). Previous operators drilled 20,333 m in 115 boreholes both surface and underground.

Between 2007 and 2009, Tyhee drilled 7,257 m in 26 boreholes. This drill program included the re-sampling of all pre-existing drill core at the Nicholas Lake gold deposit. Drilling has been completed in two primary orientations; on the eastern side of the deposit the drilling has been completed in a general southerly direction, while in the west it is to the southwest. The different azimuths reflect the geological interpretation of a flex in the mineralization orientation around an easting of approximately 361300 E. A review of the cross-section shows the granodiorite unit dips away to the south but given its relatively steep dip provides reasonable intersections, while the change in orientations have provided more favorable intersection angles with the steep dipping mineralization within the unit (Figure 10-4).



**Figure 10-3: Plan Map Showing the Distribution of Drilling on the Nicholas Lake Main Zone**

Source: SRK, 2012

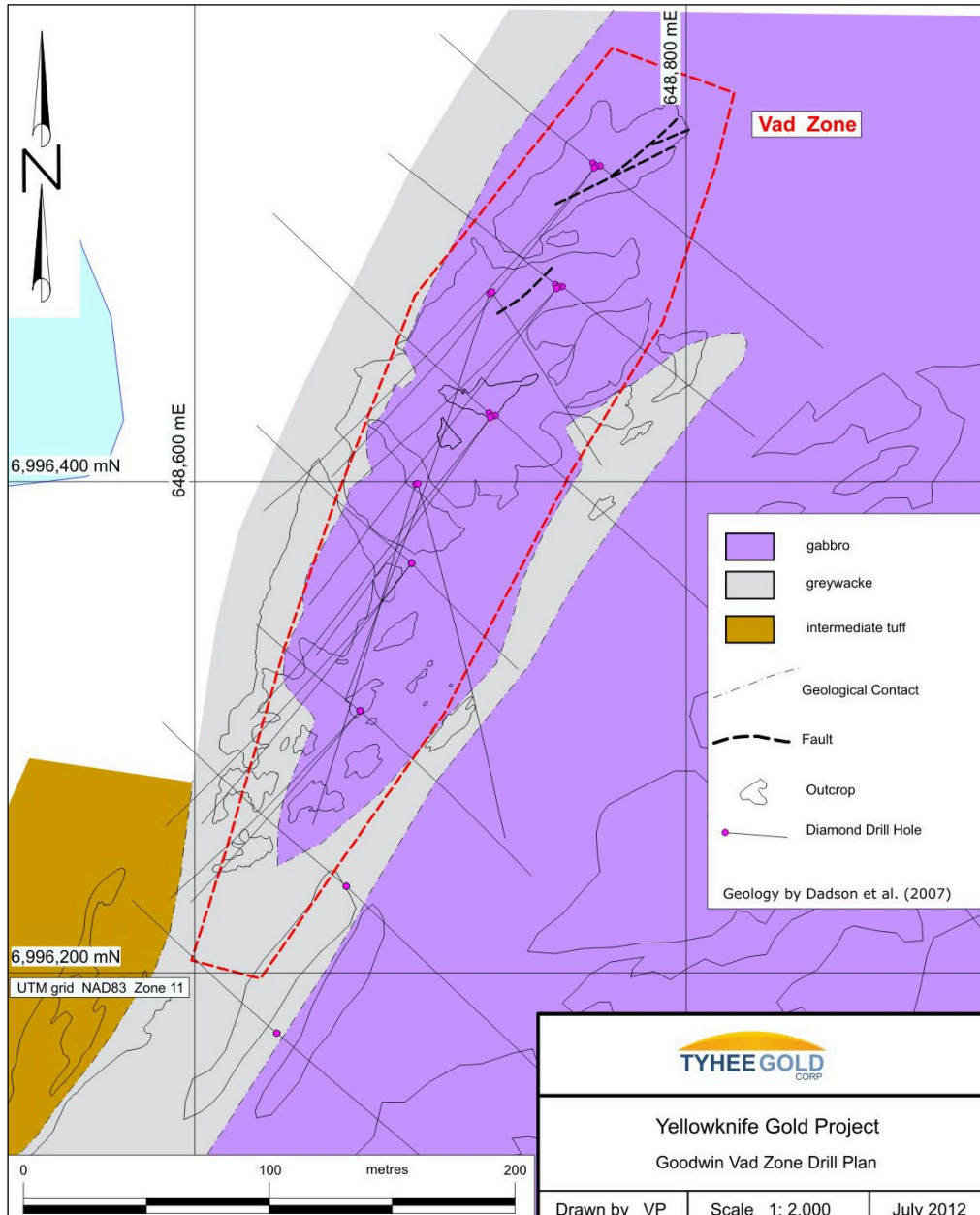


**Figure 10-4: Cross-Section Showing the Distribution of Drilling on the Nicholas Lake Main Zone**

Source: SRK, 2021

## 10.4 Goodwin Lake Zone

During 2007 and 2008, 28 surface core boreholes were completed totaling 5,934 m (Figure 10-5) at the Goodwin Lake property. Two series of drilling orientations have been completed at the project; the initial phase on a NE-SW orientation grid was completed at section lines of 60 to 70 m, which has been used to define the gabbro unit. The mineralization is assumed to have a different orientation, so a second series of holes has been drilled to the southwest to optimize the proposed intersections. It is the QP’s view this intersection angles may not be optimized and therefore the decision was taken to apply a lower confidence in the geological model. Further drilling will be required to confirm continuity.



**Figure 10-5: Plan Map Showing the Distribution of Drilling on the Goodwin Lake Vad Zone**

Source: SRK, 2012

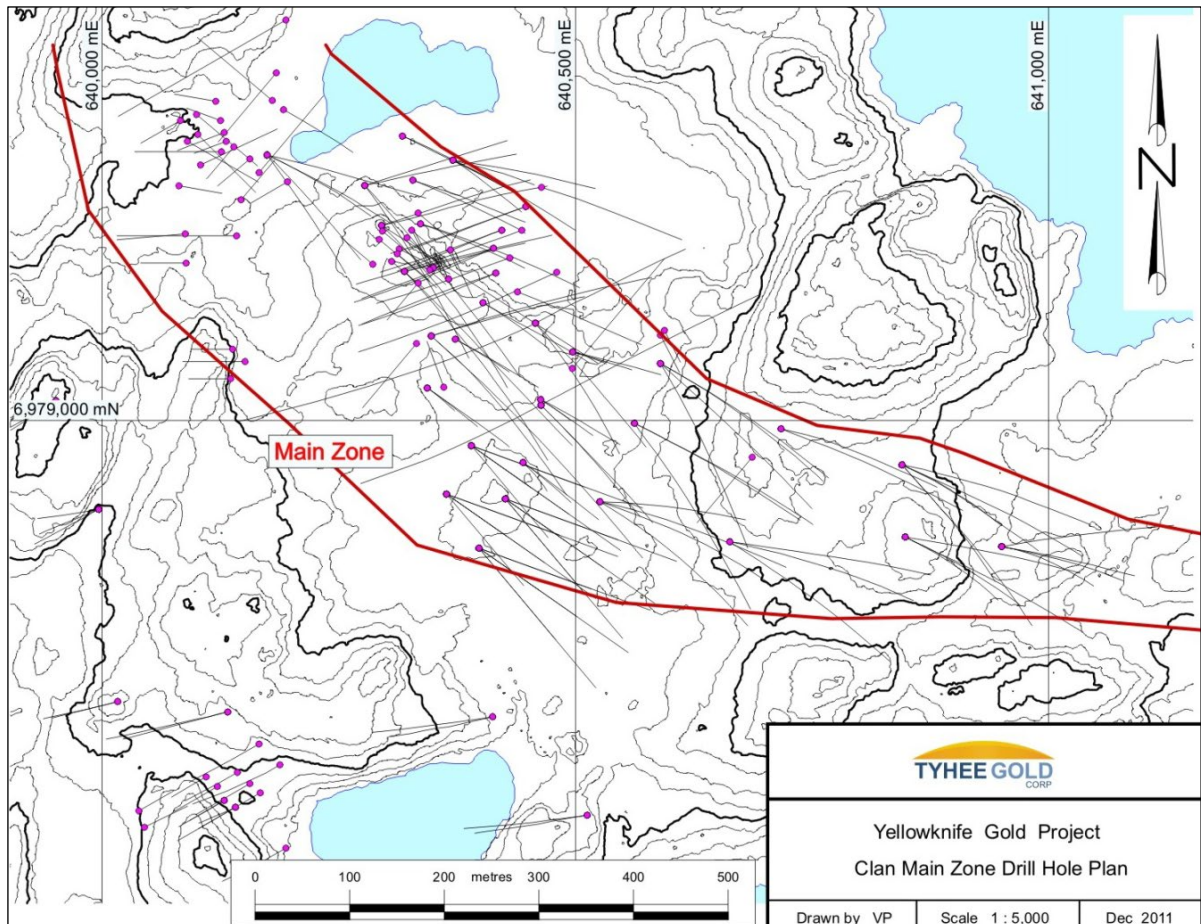


## 10.5 Clan Lake Zone

Prior to Tyhee acquiring the Clan Lake property, core drilling was conducted by previous operators on several exploration targets. Tyhee researched drill collar locations and drill logs with old core partially re-logged and re-sampled where necessary enabling the data for 62 boreholes totaling 5,986 m to be incorporated in the drill database. Much of the old core was destroyed by a forest fire. Between 2008 and 2011, Tyhee drilled 34,529 m in 123 boreholes. Drilling on the Clan Lake Main zone is shown in Figure 10-6.

Drilling has been orientated to the southeast to intersect the mineralization at the most favorable angles on the eastern side of the project, with a second group of holes has been drilled to the southwest in the core of the deposit to test grade continuity in alternative directions. The QP considers the confidence in the intersection angles is lower given the two orientations which has been reflected in the classification systems.

In the southwest of the Project the 330 domain is located which strikes northwest-southeast, and drilling has been completed to the southwest to produce good intersection angles.



**Figure 10-6: Plan Map Showing the Distribution of Drilling on the Clan Lake Main Zone**

Source: SRK, 2012

## 10.6 Qualified Persons Opinion and Comments

The QPs reviewed the core logging and sampling procedures used by the previous operator. No drilling was completed subsequent to 2012. Thus, the qualified persons of this technical report have not reviewed the drilling and logging procedures while active drilling was ongoing. Based on a review of the documentation dating back to active drilling, in the opinion of the QP, the core logging and sampling procedures used are consistent with generally accepted industry best practices and are, therefore, adequate for an exploration project at this stage.

Analysis of exploration data, drilling, core logging and sampling procedures followed by the previous operator revealed that historical data are sufficiently reliable to inform geology and mineral resource models.

## **11 Sample Preparation, Analysis and Security**

GoldMining has not conducted an exploration program since acquiring the property. Sample preparation, analyses, and security procedures by previous operators have been reviewed by the QP.

All exploration samples collected by Tyhee were submitted to Acme Analytical Laboratories Ltd (Acme) in Vancouver, Canada. In 1996, Acme became registered under ISO 9001 by the Standards Council of Canada (SCC). Acme, now operating under the name Bureau Veritas Commodities Canada Ltd (Bureau Veritas), has been accredited to ISO/IEC 17025 for geochemical analyses by the SCC since 2011, including those used by Tyhee.

Umpire testing of samples was conducted through ALS Chemex (ALS) of North Vancouver, Canada. ALS is accredited to ISO/IEC 17025 for geochemical analysis by the SCC.

Acme and ALS are autonomous, commercial geochemical laboratories that operate independently of GoldMining Inc.

### **11.1 Sample Preparation and Analyses (Pre-2003)**

Some of the assay samples from Ormsby were collected prior to 2003 by a previous operator. Sampling procedures for those programs before 2003 are not available. Core that was drilled prior to 2003 at Nicholas Lake was re-sampled by Tyhee for resource estimations. All samples from Clan Lake were collected by Tyhee.

### **11.2 Sample Preparation and Analyses (2003-2011)**

Tyhee geologists logged the drill core and sample intervals were marked on the core. The drill core was cut into halves by diamond saw with one half of the core for each interval collected as a sample. The remaining core was placed into permanent storage on site. The drill core was sampled almost continuously in lengths ranging from several cm to 2 m. Core recovery was excellent with no significant core losses observed. Each hole was surveyed by downhole instrument.

Core was placed in boxes at the drill, covered with a lid secured by nails, transported to camp by the drillers. Core was moved into the core shack as soon as possible by geologists, logged and sample intervals are marked on core, with a sample tag placed in the box, by Tyhee geologists. Core cutters move core into the cutting shack and saw the core and place half into sample bags with the corresponding sample tag. All samples were sealed in shipping sacks immediately after collection and shipped directly to the Acme Laboratories Yellowknife sample preparation facility at regular intervals as soon as practical. During 2007, Acme constructed and equipped a preparation facility on site. This facility was operated by Acme Laboratories personnel. The sample preparation facility crushed the entire sample with a 500 g split sealed in a barcoded envelope. Acme shipped the prepared samples to their Vancouver lab for assaying.

Since Tyhee began exploration on the Yellowknife gold project, Acme conducted all sample preparation and analytical work. All samples were crushed to 80% passing 10 mesh, split to a 500 g sub-sample by riffle splitter and pulverized to a pulp 85% passing 200 mesh. The remaining crushed material, termed the “coarse reject” is stored for future use.

All assays were conducted by a lead-collection fire-assay fusion for total sample (30-gram aliquot) decomposition, digestion of the silver doré bead and ICP-ES analysis.

### **11.3 Quality Assurance and Quality Control Programs (2004-2011)**

Quality control procedures and results made available to the QPs from the previous explorer, which included documentation of inter-laboratory check assay results, blank sample assay results, standard sample results, duplicate pulp assay results and duplicate coarse reject assay results. Pulps from samples were regularly submitted to ALS Chemex of North Vancouver, Canada, to verify Acme Laboratories’ assay results.

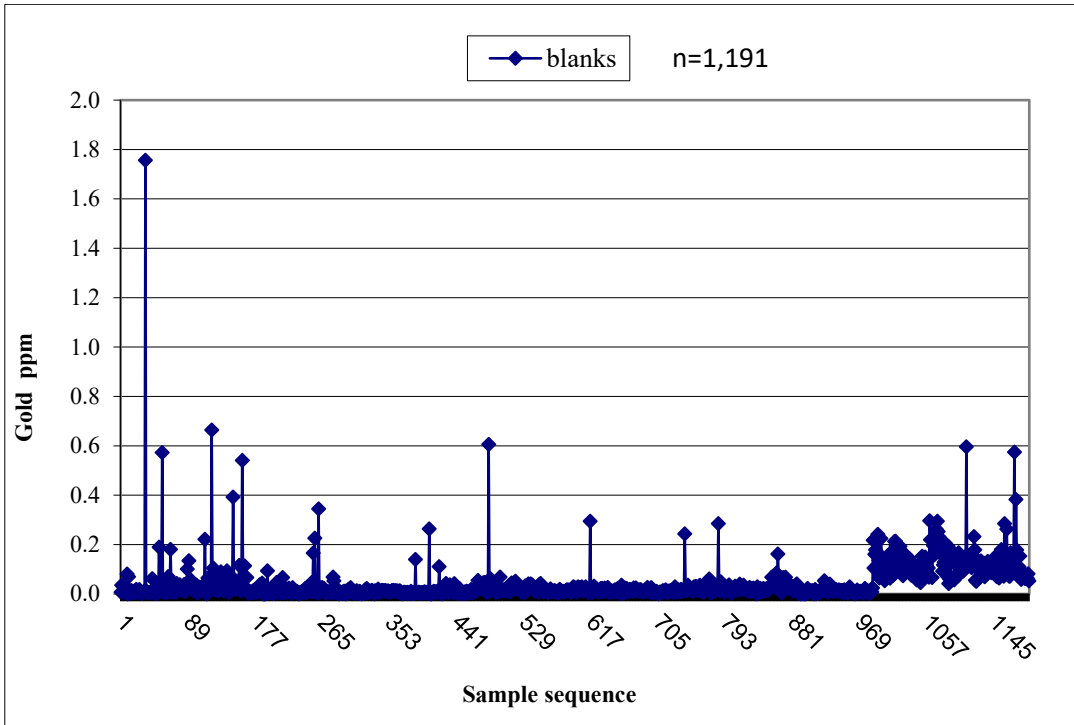
Tyhee maintained a separate series of spreadsheets containing sample information for each drill hole. Records of blanks, standards and duplicates are kept as part of those spreadsheets. The sample interval data and coded geological data are compiled into a master Microsoft Access database for each deposit for the purpose of quality control monitoring. The quality control data was compiled into a separate database for analysis. Quality control samples (blanks, repeats and lab standards) were inserted into the sample stream approximately every 20 to 50 m. Tyhee compiled and analyzed quality control data for all assays conducted from 2004 to 2012. Statistics, graphs and results of selected Ormsby analyses were audited by SRK in 2012. Quality control samples (blanks, repeats and lab standards) were inserted by the laboratory into the sample stream approximately every 20 to 50 m. Tyhee requested specific pulp repeats and reject repeats in addition to the normal laboratory repeats. Raw data, statistics, graphs and results of analyses compiled by the previous owners were reviewed by the QP and independent analysis of the raw data completed.

#### **11.3.1 Blanks**

Since 2003, un-mineralized rock samples were regularly inserted by Tyhee into the sample stream as blind analytical blanks. Typically, blanks were inserted after samples that were suspected of being high grade. A summary of the assay results of 1,191 blanks inserted into the sample stream for the 2005 and 2006 drilling programs is presented in Figure 11-1.

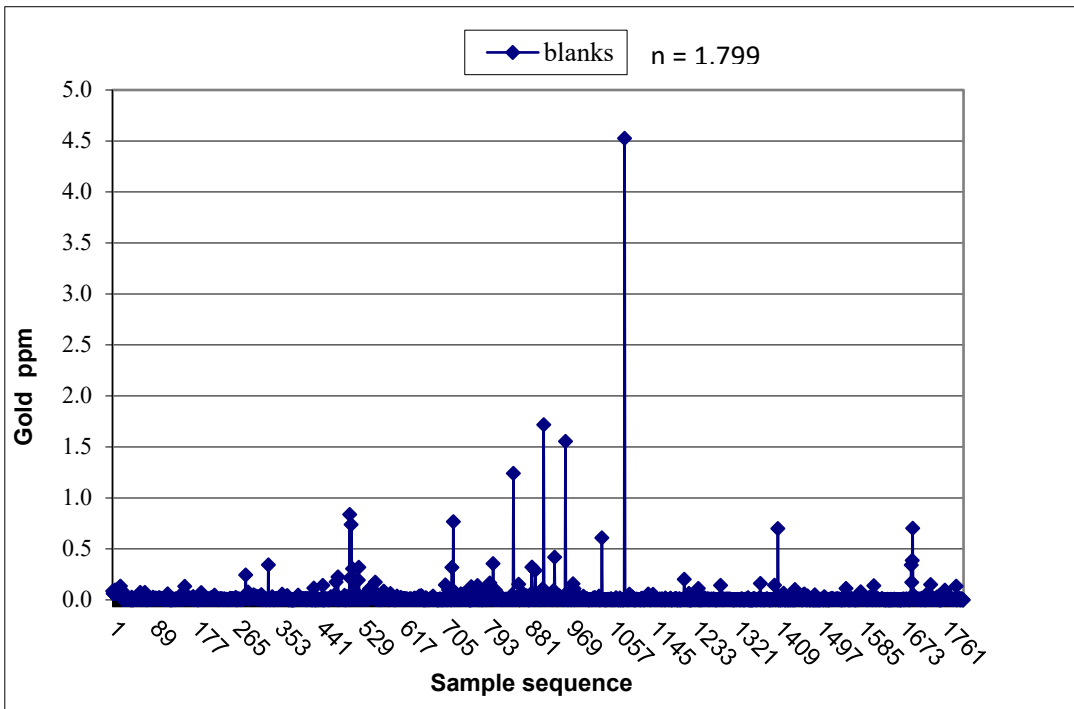
The graph shows a period of elevated base values within the blank samples, indicating that the blanks contained elevated values of gold. Initial analysis of the blank material prior to submission to the lab as a blank indicated no elevated gold values and suitable for use as blanks. Upon discovery of the elevated gold values in the blanks the material was discontinued, and new blank material was acquired from the laboratory.

During the 2007 to 2011 drill program 1,799 unmineralized blank samples were submitted for analysis and are plotted in Figure 11-2. These samples and related data were acquired by GoldMining when it acquired the project. The QP reviewed the original source data to confirm and conducted an independent check of the blanks and noted that the first five samples reported grades consistent with the certified standard reference materials, but then typically reported results less than five times the detection limit.



**Figure 11-1: Blank Sample Assay Results – 2005-2006 Drill Programs**

Source: Modified from SRK (2012)



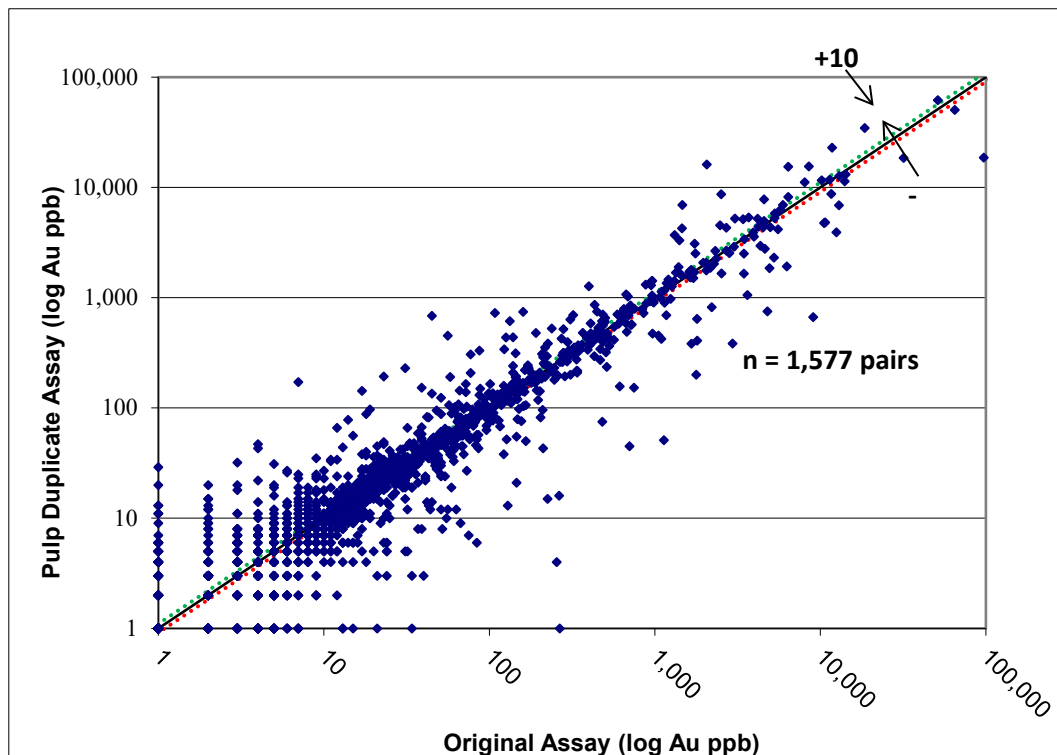
**Figure 11-2: Blank Sample Assay Results – 2007-2011 Drill Programs**

Source: Modified from SRK (2012)

### 11.3.2 Pulp Duplicate Assays

Repeat assay analyses from pulp duplicate samples prepared from drill core were regularly conducted since 2003. Repeat analyses were conducted on pairs of pulps from samples collected from drill core every 20 m to 40 m. Duplicate analyses conducted on 1,577 pairs of pulps are plotted on Figure 11-3. Duplicates are used to monitor sample batches for sample mix-ups, data variability due to laboratory error and sample homogeneity at each step of preparation. Sample duplicates should be inserted at every sample split during sample preparation and they should not be placed in sequential order. When original and duplicates samples are plotted in a scatterplot, perfect analytical precision will plot on  $x=y$  (45°) slope. Pulp duplicates are expected to perform within  $\pm 10\%$  of the  $x=y$  slope on a scatterplot.

Numerous paired results fall outside of the  $\pm 10\%$  threshold, however, the failures are evenly distributed both positively and negatively, and repeat assays in nuggety gold deposits such as these typically show poor reproducibility.



**Figure 11-3: Pulp Duplicate Assay Results – All Drill Programs**

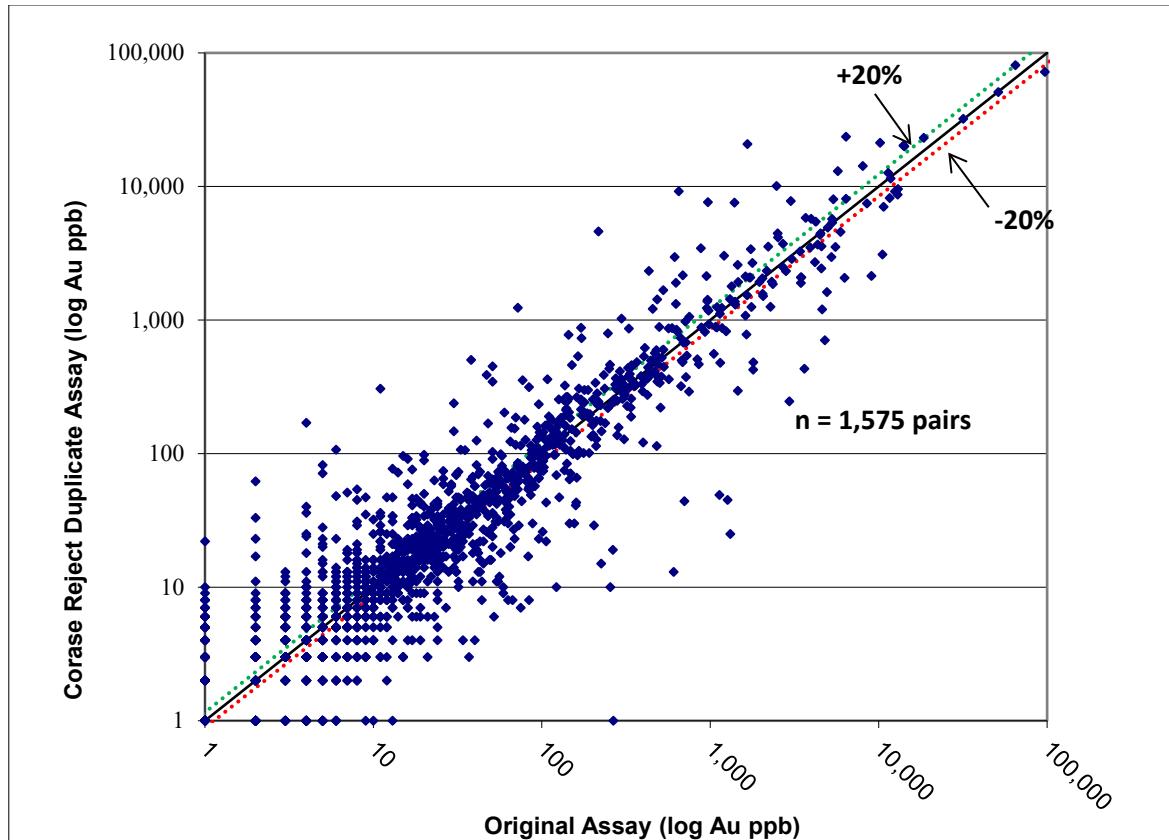
Source: Modified from SRK (2012)

### 11.3.3 Coarse Reject Duplicate Assays

Repeat assay analyses from coarse reject samples prepared from drill core were regularly conducted since 2003. Repeat analyses were conducted on pairs of coarse reject, from samples collected from drill core every 20 to 40 m. Duplicate analyses conducted on 1,575 pairs of coarse rejects are plotted on Figure 11-4. Coarse reject duplicates are used to monitor sample batches for sample mix-ups, data variability due to laboratory error and sample homogeneity at the sample preparation stage. Sample duplicates should be inserted at every sample split during sample preparation and they should not be placed in sequential order. When original and duplicates samples are plotted in a scatterplot, perfect analytical precision will plot on  $x=y$  (45°) slope.

analytical precision will plot on x=y (45°) slope. Coarse reject duplicates are expected to perform within ±20% of the x=y slope on a scatterplot.

Numerous paired results fall outside of the +/-20% threshold, however, the failures are evenly distributed both positively and negatively, and repeat assays in nuggety gold deposits such as Yellowknife project typically show poor reproducibility. The QP conducted a review of the duplicates and supports the conclusions, while noting a number of cases at lower values with wider dispersion than planned. The QP does not consider this to be material to the estimates. Above a grade of 500 ppb or 0.5 g/t, the results are more consistent.



**Figure 11-4: Coarse Reject Duplicate Assay Results – All Drill Programs**

Source: Modified from SRK (2012)

### 11.3.4 Repeat Assays

The QP completed a review of repeat analysis completed on the assay database from information provided in the historical dataroom. The results consistent of an original assay which has been re-assayed in duplicate and reported in ppb. The results for the original versus first re-assay demonstrated a strong correlation  $R^2 > 0.95$ , with a re-assay reporting slightly higher in the order of 12.3%. The QP notes that only 850 samples out of 928 provided results for the re-assay. In comparison the results from the second re-assay a complete database was included with the results reporting lower than the original by 9.4%. A summary of the results is shown in Table 11-1 and Figure 11-5. It is the QP’s opinion that the results are consistent with the expected repeatability for the style of

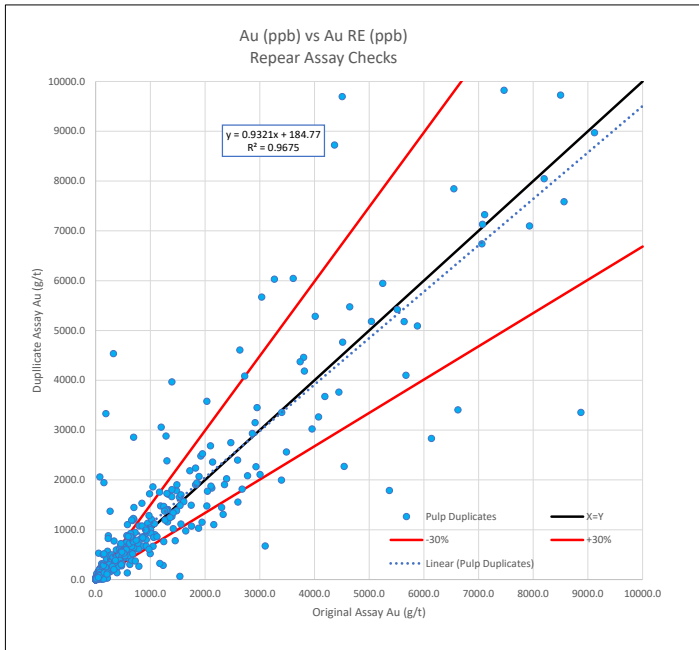
mineralization, but it is not clear if the repeats have been completed on pulps or coarse duplicates from the database provided.

**Table 11-1: Comparison of Original versus Repeat Assays at Yellowknife**

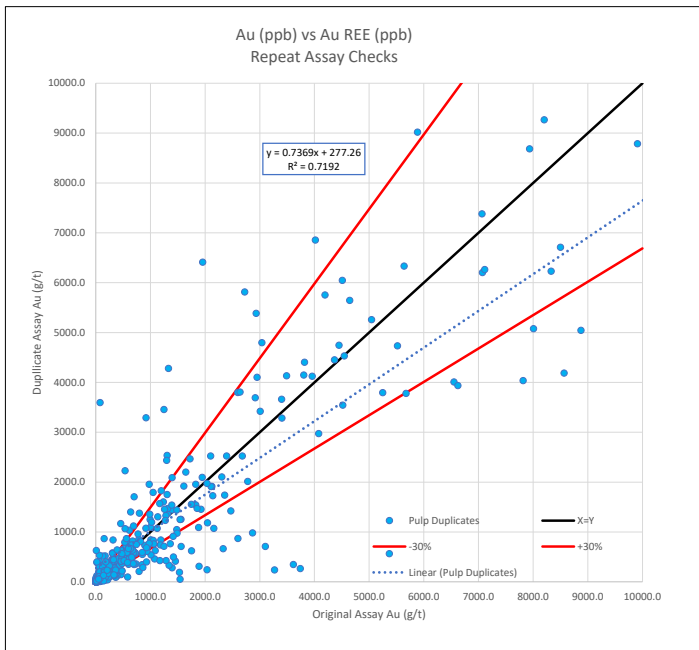
<b>All Data</b>	<b>Au Original (ppb)</b>	<b>Au Repeat 1 (RE) (ppb)</b>	
Mean	1,644.07	1,846.94	12.3%
Standard Error	326.94	337.90	
Median	45.00	52.50	
Mode	1.00	1.00	
Standard Deviation	9,959.73	9,851.30	
Sample Variance	99,196,212.37	97,048,166.86	
Kurtosis	229.99	182.48	
Skewness	14.31	12.53	
Range	176,379.00	162,739.00	
Minimum	1.00	1.00	
Maximum	176,380.00	162,740.00	
Sum	1,525,698.00	1,569,895.00	
Count	928	850	
<b>All Data</b>	<b>Au Original (ppb)</b>	<b>Au Repeat 2 (REE) (ppb)</b>	
Mean	1,644.07	1,488.79	-9.4%
Standard Error	326.94	284.10	
Median	45.00	45.00	
Mode	1.00	1.00	
Standard Deviation	9,959.73	8,654.45	
Sample Variance	99,196,212.37	74,899,425.76	
Kurtosis	229.99	318.39	
Skewness	14.31	16.02	
Range	176,379.00	197,059.00	
Minimum	1.00	1.00	
Maximum	176,380.00	197,060.00	
Sum	1,525,698.00	1,381,599.00	
Count	928	928	

Source: SRK, 2019





original versus repeat 1



original versus repeat 2

Source: SRK, 2019

**Figure 11-5: Analysis of Repeat Assays at Yellowknife**

### 11.3.5 Laboratory Standards

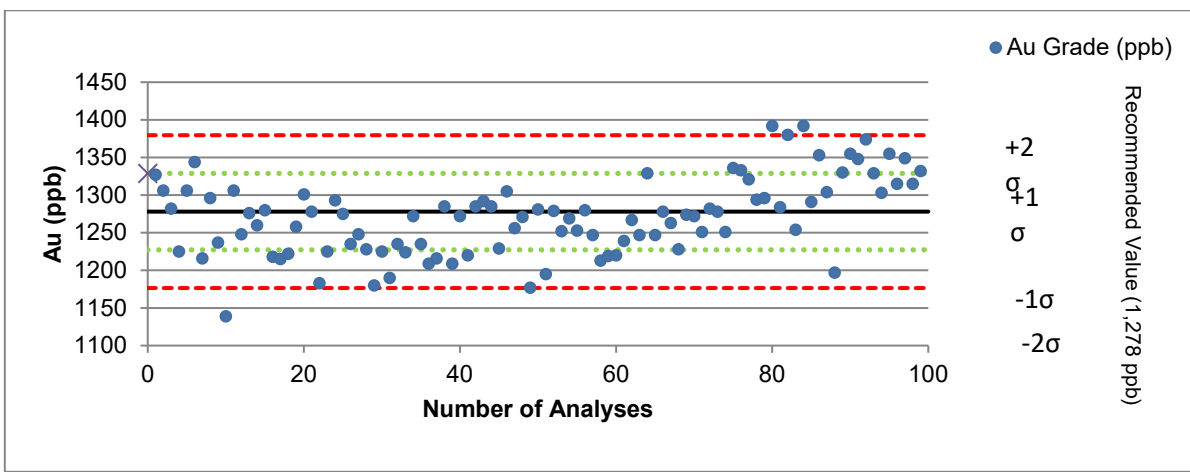
The QP has reviewed the analysis conducted by EBA (2010) on the pre-2010 standard performance and concurs with the conclusions that the results reported are within acceptable levels of error, made by EBA with regard to the pre-2010 QC standard performance.

Summary standard performance statistics for the 2004-2011 drilling campaigns are presented in Table 11-2. The QP has reviewed the performance of standards (certified reference materials or CRM's), for the period 2009-2011 which were regularly inserted into the sample stream by the lab (Acme). Acme have utilized CRM's during the period of 2009 to 2011, as summarized in Table 9.5.1. All CRM's utilized by Acme were purchased from Rocklabs, Australia. Additionally, the QP reviewed the performance of the four most used standards. Performance charts of these standards are provided in Figure 11-6. The QP has independently plotted and reviewed all the CRM data provided in the dataroom to confirm the analysis presented and is satisfied that the results are representative of the analysis.

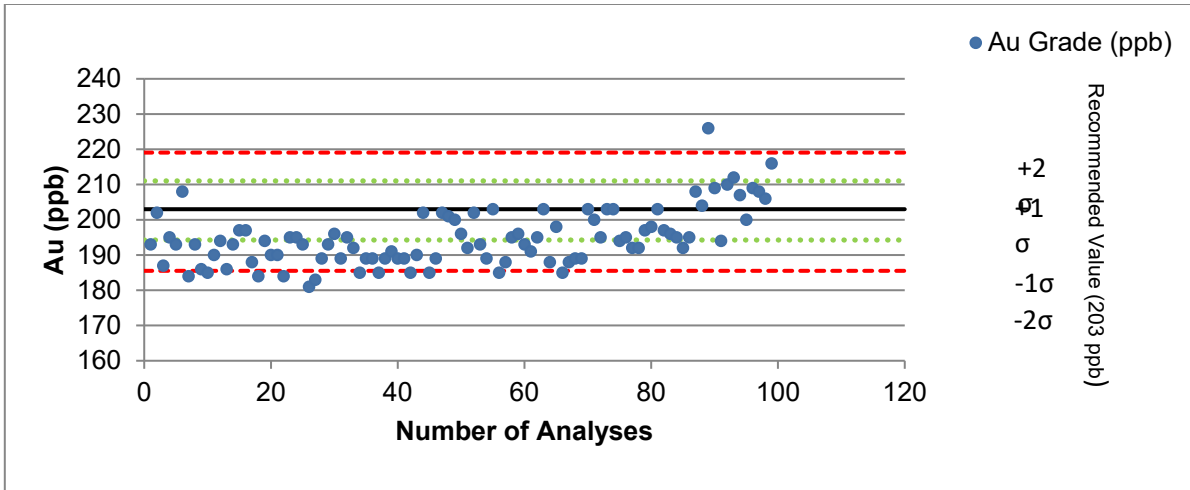
**Table 11-2: Summary Statistics of Standard Performance – 2004-2011**

Year	Standard	Number	Mean Au ppb	Std. Dev.	Error of Mean	Recommended Value Au ppb
2004	AU-1	16	3.35	0.03	1%	unknown
	AU-R	123	489.70	7.23	1%	unknown
	AU-R1	5	547.40	13.79	3%	unknown
	AU-R2	102	601.20	9.60	2%	unknown
	CDN-GS-9 Pulp	28	1,778.40	92.35	5%	unknown
	CDN-GS-6 Pulp	22	1909.10	466.52	5%	unknown
	CDN-GS-5 Pulp	27	19,318.50	2,998.00	16%	unknown
2005-2006	DS-5/AU-R	15	491.20	5.75	1%	unknown
	AU-R	77	848.10	9.70	2%	unknown
2006-2007	OxF41	201	808.00	8.03	1%	815
	G-1	568	2.30	4.84	209%	unknown
2007-2008	OxF41	702	809.60	11.15	1%	815
	G-1	6	2.80	0.98	35%	unknown
	OxD57	1,431	414.30	13.99	3%	413
2009-2011	OxH82	99	1,271.16	50.77	4%	1,278
	OxC88	117	196.16	8.74	4%	203
	OxD73	29	401.52	19.74	5%	416
	OxH66	12	1,283.17	84.11	7%	1,285
	OxG70	6	974.83	43.11	4%	1,007
	OxH55	4	1261.00	45.22	4%	1,282

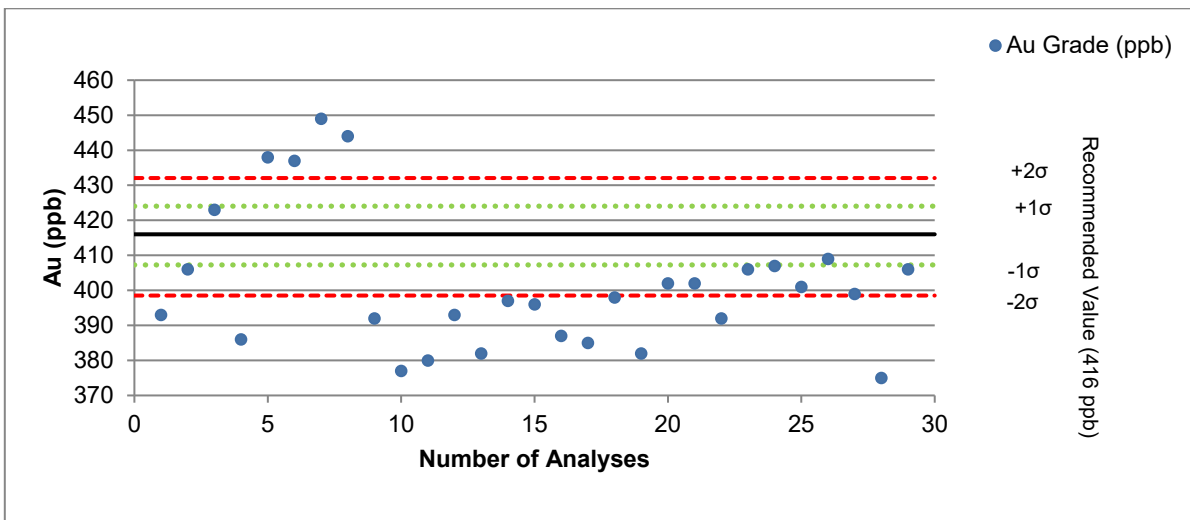
Source: Modified from EBA, 2010



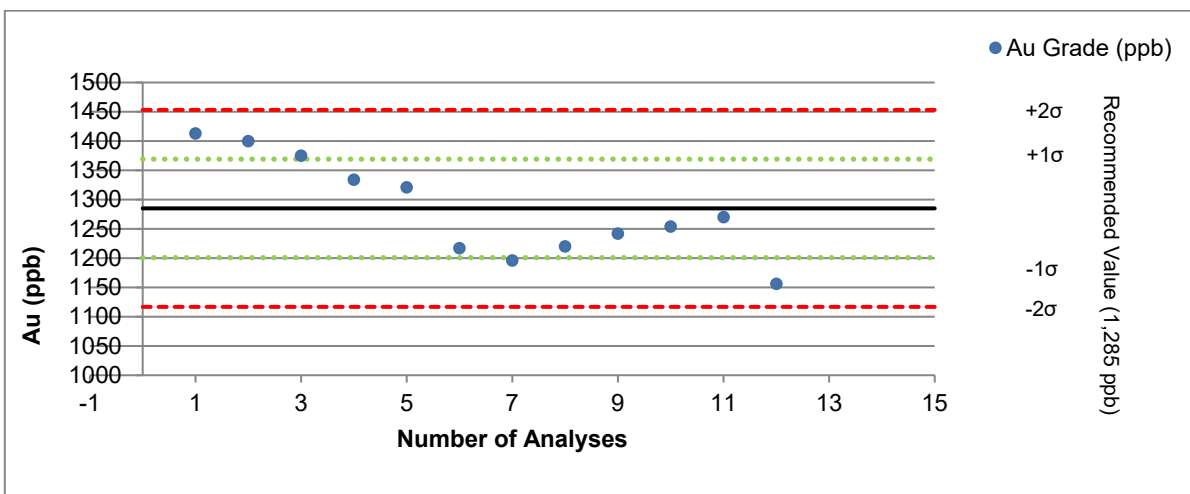
Acme Analytical Results for Rocklabs Standard OxH82 – 2009-2011



Acme Analytical Results for Rocklabs Standard OxC88 – 2009-2011



Acme Analytical Results for Rocklabs Standard OxD73 – 2009-2011



Acme Analytical Results for Rocklabs Standard OxH66 – 2009-2011

**Figure 11-6: Analysis of CRM Submissions (ACME)**

During the review of the QA/QC as part of the validation process. The QP also has completed an independent analysis of CRM material presented in the database as 2011 submissions, which focused on Clan Lake submissions. The results summarized in Table 11-3 indicated no material issues.

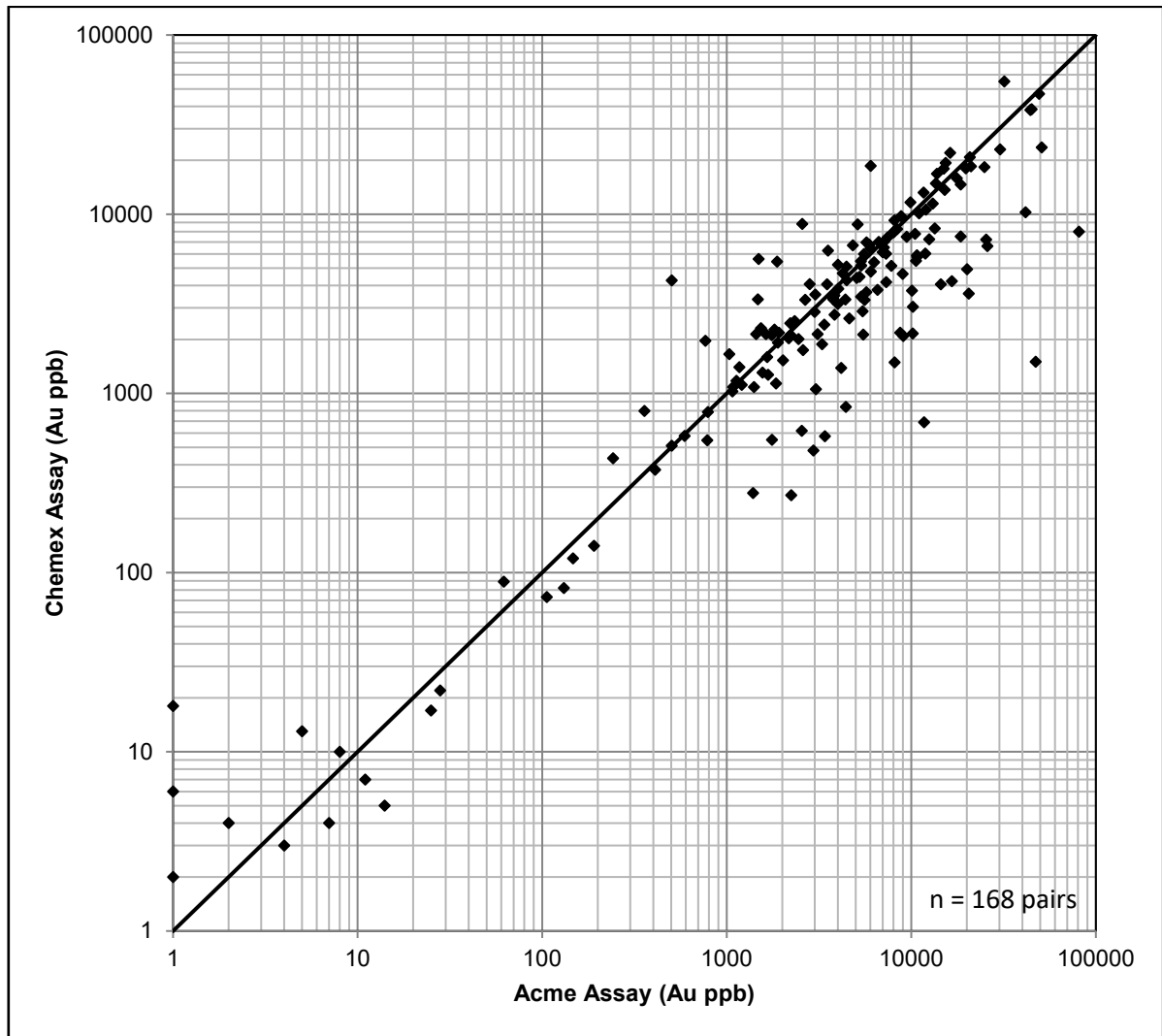
**Table 11-3: 2019 review of CRM data**

CRM	Data	Number of results	Average Au (g/t)	Accuracy: (% Difference of Avg vs Assigned)	Precision: Relative Standard deviation	Number of Outlying Results	Percentage of Outlying Results
OXD57	All results	361	0.42	2.53%	1.93%	0	
	Gross Outliers Excluded	360	0.41	0.32%	0.05%	1	
	User Outliers Excluded	360	0.41	0.32%	0.05%	1	0.28%
	Comments				Good		Good
OXD73	All results	171	0.40	-2.86%	0.08%	0	
	Gross Outliers Excluded	171	0.40	-2.86%	0.08%	0	
	User Outliers Excluded	171	0.40	-2.86%	0.08%	0	0.00%
	Comments				Good		Good
OXE56	All results	380	0.61	-0.86%	0.14%	0	
	Gross Outliers Excluded	379	0.60	-0.99%	0.05%	1	
	User Outliers Excluded	379	0.60	-0.99%	0.05%	1	0.26%
	Comments				Good		Good
OXG70	All results	33	0.99	-1.58%	0.39%	0	
	Gross Outliers Excluded	33	0.99	-1.58%	0.39%	0	
	User Outliers Excluded	33	0.99	-1.58%	0.39%	0	0.00%
	Comments				Good		Good
OXH55	All results	347	1.27	-0.60%	0.07%	0	
	Gross Outliers Excluded	347	1.27	-0.60%	0.07%	0	
	User Outliers Excluded	347	1.27	-0.60%	0.07%	0	0.00%
	Comments				Good		Good
OXH66	All results	274	1.28	-0.53%	1.27%	0	
	Gross Outliers Excluded	274	1.28	-0.53%	1.27%	0	
	User Outliers Excluded	274	1.28	-0.53%	1.27%	0	0.00%
	Comments				Good		Good
OXC72	All results	98	0.20	-3.46%	3.96%	0	
	Gross Outliers Excluded	98	0.20	-3.46%	3.96%	0	
	User Outliers Excluded	98	0.20	-3.46%	3.96%	0	0.00%
	Comments				Good		Good
OXC88	All results	109	0.20	-3.82%	3.65%	0	
	Gross Outliers Excluded	109	0.20	-3.82%	3.65%	0	
	User Outliers Excluded	109	0.20	-3.82%	3.65%	0	0.00%
	Comments				Good		Good
OXH82	All results	92	1.26	-1.31%	3.18%	0	
	Gross Outliers Excluded	92	1.26	-1.31%	3.18%	0	
	User Outliers Excluded	92	1.26	-1.31%	3.18%	0	0.00%
	Comments				Good		Good

Source: SRK, 2019

### 11.3.6 External Laboratory Checks

Since 2003, a check sample program has been undertaken by Tyhee to verify the results of Acme, which has been considered as the main form of check on the laboratory performance. Pulp sample rejects from Acme analyses were submitted to ALS Chemex of North Vancouver, BC. Fire assays were carried out on a 30 g pulp with either an ICP or AA finish depending on the grade of each sample. Results from this check assay program are provided in Figure 11-7 for the 2005-2007 drilling programs. No external lab check data was completed by Tyhee during 2008-2011 core drilling programs. The QP recommends that external lab checks continue to be incorporated as part of the quality analysis and quality control protocols for all future drilling campaigns.



**Figure 11-7: Comparison Between Original Acme Assay Results and Chemex Check Assay Results – 2005-2007**

Source: Modified from SRK (2012)

## 11.4 Qualified Persons Opinion and Comments

In the opinion of the QP, the sampling preparation, security and analytical procedures used by Tyhee between 2003 and 2011 are mostly consistent with generally accepted industry best practices at the time but the QP notes that the sole reliance on the laboratory's standard analyses is not considered industry accepted practice and recommends that blind standards with appropriate expected grade values be inserted into the sample stream for all future drilling campaigns.

It is the QP's opinion that while the lack of control on the accuracy during the routine submissions existed, the results of the external laboratory checks supports the conclusion that the original laboratory reported within acceptable levels and has therefore accepted the database as provided for use in the Mineral Resource Estimate.

## 12 Data Verification

No drilling was conducted by GoldMining or previous operators on the property since the release of the prior technical report (SRK, 2012) by Tyhee on October 12, 2012. The QP has completed sufficient validation of the historical information to be satisfied with the quality of the information for use in the current estimates.

### 12.1 Site Visit

In accordance with NI 43-101 guidelines, Dominic Chartier, PGeo (NAPEG#L4161, OGQ#874, APGO#2775) visited the Yellowknife gold project on September 25 and 26, 2018 accompanied by Garnet Dawson, PGeo (APEGBC#19327) of GoldMining.

The purpose of the site visit was to:

- Inspect the current status of core storage;
- Examine available drill core compared to drilling logs;
- Review the geological interpretation compared to the 2012 geological models;
- Ground proof location of selected drilling collars; and
- Define geological modeling procedures and collect all relevant information for the preparation of a revised geology and mineral resource model and the compilation of a technical report.

During the visit, attention was given to investigating the geological and structural controls on the distribution of the gold mineralization in order to aid the construction of three-dimensional gold mineralization domains.

During the site visit, it was observed that the core storage yard near the Discovery camp sustained considerable damage due to wild fires that occurred since the previous technical report and the last drilling program. Approximately a third to half of the core is unavailable for verification.

The QP was given full access to relevant data and conducted interviews with GoldMining personnel to understand procedures used to collect, record, store and analyze historical exploration data.

### 12.2 Database Verifications

#### 12.2.1 Previous Laboratory Certificate Checks

A validation of the data for the five deposit areas was performed in 2012 by random manual checks of 10% of the database against the original laboratory certificates provided by Tyhee to the QPs. The 10% random assay comparisons were conducted for gold for 13,503 sample intervals.

##### Ormsby and Bruce

The QP notes that during 1996, some of the gold assay results reported below detection were recorded in the provided database at the detection limit. Subsequent to 1996, all gold assay results reported below detection were recorded in the provided database at half the detection limit. Customary procedure is to use half the detection limit.

An error rate of 0.66% was observed in the 10% of the borehole samples checked (9,828 total checks) for gold (Table 12-1). The QP is of the opinion that the error rate is not material and concludes that the data from this drilling campaign as provided are suitable for the use in resource estimation.

**Nicholas Lake**

The QP notes that all gold results reported below detection were recorded in the provided database at half detection limit, which is customary procedure.

An error rate of 0.23% was observed in the 10% of the borehole samples checked (1,309 total checks) for gold (Table 12-1). The QP is of the opinion that the error rate is not material and concludes that the data from this drilling campaign as provided are suitable for the use in resource estimation.

**Table 12-1: Summary of Data Validation Entry Errors – All Zones**

<b>Zone</b>	<b>Data Entry Errors</b>	<b>Total Errors</b>	<b>Total Assays Checked</b>
Ormsby and Bruce Lake	0.66%	65	9,828
Lake	0.23%	3	1,309
Clan Lake	0.15%	3	2,030
Goodwin Lake	0.30%	1	336
<b>Total</b>	<b>0.53%</b>	<b>72</b>	<b>13,503</b>

Source: SRK, 2019

**Clan Lake**

The QP notes that all gold assay results reported below detection were recorded in the provided database at half detection limit, which is customary procedure.

An error rate of 0.15% was observed in the 10% of the borehole samples checked (2,030 total checks) for gold (Table 12-1). The QP is of the opinion that the error rate is not material and concludes that the data from the drilling campaign as provided are suitable for the use in resource estimation.

**Goodwin Lake**

The QP notes that all gold results reported below detection were recorded in the provided database at half detection limit, which is customary procedure.

An error rate 0.30% was observed in the 10% of the borehole samples checked (336 total checks) for gold (Table 12-1). The QP is of the opinion that the error rate is not material and concludes that the data from the drilling campaign as provided are suitable for the use in resource estimation.

Detection limit variations are considered non-material because all of the detection limits are significantly lower than the resource cut-off grade. Missing certificates from the historic data resulted in a small number of analytical certificates being unavailable.

Data entry errors are those where the database contains a different value than the assay certificate. These are considered material to a database and are discussed below. Most of these errors occur in the Ormsby zone; however, the error rates overall are low, and not considered material.

Based on the above comparisons, The QP is of the opinion that the error rates of the data checked are very low, and that the data are suitable for use in resource estimation.

**12.2.2 Database Verification Process 2018/2019**

The QPs completed a detailed review of the sampling database in conjunction with a site inspection (detailed in Section 12.1) to verify the data during the latest model. The database validation included:



- Reviewing collar locations, downhole surveys, and cross checks of original ACME reports to selected assays in the database;
- All information has been imported from raw csv formats to check for any potential from and to errors and to identify any potential erroneous values;
- The generated files have been compared to the previous model to confirm any material differences; and
- Visual review for collar location above or below topographic surface and for drill hole traces with unreasonable directions.

The QPs consider the resource database reliable and appropriate to prepare a Mineral Resource estimate.

### **12.2.3 Verifications of Analytical Quality Control Data**

The QP has reviewed the results for the QA/QC programs for the 2003 through 2011 drilling programs, and notes the following observations:

#### **Blank Analyses**

A number of blank failures were observed in the 2005 to 2006 and 2007 to 2011 analytical results. The QP notes that during that time period, Tyhee were inserting blank samples that returned above detection limit gold values and addressed this issue by acquiring new blank material. The QP also notes that out of a total of 2,990 blank sample submissions, only 17 returned values greater than 0.5 g/t gold, which is the lowest effective resource cut-off grade used in the resource estimation. The QP is of the opinion that the blank sample analyses demonstrate an overall lack of sample preparation contamination, and that the data is suitable for use in resource estimation.

#### **Duplicate Analyses**

Duplicate analyses were conducted on both pulp and coarse reject samples. Both datasets show a high degree of variability, which is to be expected given the nuggety distribution of gold in the deposit areas. The failures observed in the data provided to the QP do not appear to exhibit either a positive or negative bias, and the QP is of the opinion that the duplicate sample analytical results are typical of Archean orogenic gold deposits, and that the resulting assay data is suitable for use in resource estimation.

#### **Certified Reference Material Analyses**

The QP has analyzed the performance of four of the six standards utilized during the 2009 to 2011 drilling campaigns. The QP notes that overall, Acme results returned lower than recommended values as determined by Rocklabs. The QP also notes that an apparent positive drift through time in assay values has occurred in standards OxH82 and OxC88 results with respect to recommended values. However, no drift issues were identified with the other two standards analyzed by the QP, and the QP is of the opinion that the primary lab has performed well in terms of accuracy of grade determination, and that resulting assay data is suitable for use in resource estimation.

The QP recommended that for future drilling campaigns by GoldMining, they should include a set of standards with appropriate expected grade values for blind insertion into the sample stream so as to not rely on the internal laboratory standards.

### **External Laboratory Checks**

The QP has reviewed external assays conducted on original Acme pulp duplicates by Chemex for the period 2005 through 2007. While the check assays show high variability, as would be expected for this deposit type, no discernible bias was observed between the two laboratories, although the Acme data is on average higher than the Chemex check assays. Given the relative paucity of check assay data, The QP believes that this bias is not material, and is of the opinion that the results of this limited check assay data confirm that the data is suitable for use in resource estimation.

## **12.3 Limitations**

During the current estimate, no active exploration or drilling has been completed, so SRK's QPs have not been able to witness the drilling, sampling, and logging procedures first hand as part of the current study. To supplement this, the QP has reviewed historical reports which document the processes used at the time of sampling, which were deemed in the QP's opinion to be in line with industry standard practice.

## **12.4 Qualified Persons Comment and Opinion on Data Adequacy**

The QP notes that the sole reliance on the laboratory's standard analyses is not considered industry accepted practice and recommends that blind standards with appropriate expected grade values be inserted into the sample stream for all future drilling campaigns.

The QP recommends that a re-sampling program be completed on select core not affected by wildfires at the core storage yard so that GoldMining can further validate the historical database. However, based on a review of the results of the QA/QC programs implemented during the period 2003 through 2011, and the database validation, The QP is of the opinion that the data provided is reliable, and suitable for use in resource estimation.

## 13 Mineral Processing and Metallurgical Testing

During 2011 the QP designed and supervised a metallurgical development program for the project. Metallurgical studies were conducted on master composites and variability composites from the Ormsby, Nicholas Lake and Clan Lake gold deposits, which were the focus of the feasibility study. The Bruce and Goodwin deposits were not part of the main testwork due to lower confidence in the mineral resource estimates. The QP considers the close proximity of the Bruce to the Ormsby deposit to be reasonable for assuming similar conditions, but variability testwork would need to be completed prior to any detailed mining study.

The metallurgical program was conducted by Inspectorate Exploration and Mining Services (Inspectorate), which is now known as Bureau Veritas Minerals and Metallurgical Division, and was designed to evaluate a process flowsheet that included:

- Three-stage crushing;
- Ball mill grinding;
- Gravity concentration of the coarse gold;
- Gold flotation from the gravity tailing;
- Cyanide leaching of the gold flotation concentrate;
- Cyanide detoxification of the cyanidation residue; and
- Tailing thickening.

### 13.1 Testing and Procedures

The Ormsby master composite was formulated from a split of a large bulk composite that had been used for pilot plant testing at Inspectorate in 2007. The Ormsby variability composites, as well as the Nicholas Lake and Clan Lake master composites and variability composites, were formulated from drill core. The Nicholas Lake and Clan Lake master composite samples were formulated from their respective variability composites after removal of 20-kilogram sub-samples for variability testing. The master composites and variability composites, and associated head analyses are shown in Table 13-1.

**Table 13-1: Summary of Ormsby, Nicholas Lake and Clan Lake Composite Head Assays**

Deposit	Sample ID	Zone/Section ID	Au	Ag	Total S	Fe	Total As	Soluble As
			g/t	ppm	%	%	ppm	ppm
Ormsby	OM-105 Comp.	Section 105	4.39	1.83	1.79	12.87	490	<5
	OM-417 Comp.	Section 417	1.71	1.7	1.09	11.5	893	<5
	OM-559 Comp.	Section 559	3.40	2.4	1.56	10.93	7,739	138
	OM-723 Comp.	Section 723	4.99	1.77	1.11	10.82	147	<5
	Bruce Zone Comp.	Bruce Zone	4.68	2.13	0.96	12.43	360	<5
	Master Comp.		1.78	<1	1.21	13.64	545	<5
Nicholas Lake	NL-West Comp.	West NL	1.91	<1	0.93	4.23	6,420	135
	NL-Central Comp.	Central NL	4.48	6.7	1.66	4.05	13,522	205
	NL-East Comp.	East NL	2.50	<1	0.38	1.66	6,568	121
	Master Comp.		2.32	1.87	1.00	3.4	8,151	88
Clan Lake	CL-North Comp.	North Main Zone	6.05	1.57	0.72	2.69	2,822	38
	CL-Central Comp.	Central Main Zone	1.63	2.4	1.05	3.72	8,952	144
	CL-SE Comp.	Southeast Main Zone	2.27	1.3	1.02	3.94	2,476	18
	Master Comp.		1.92	1.87	0.96	3.28	4,456	47

Source: Inspectorate

## 13.2 Relevant Results

### 13.2.1 Ball Mill Grindability Testwork

Bond ball mill work index tests were conducted on the Ormsby, Nicholas Lake and Clan Lake master composites and the five Ormsby variability composites at a closing screen size of 100 Tyler mesh (149 µm), close to the target grind of P<sub>80</sub> 120 µm. A duplicate test was performed on the Ormsby Master composite as quality control. The test results are summarized in Table 13-2.

The Bond ball mill work index (BWi) for the Ormsby master composite was found to be 14.6 kWh/t and the Ormsby variability composites ranged from 13.8 to 15.4 kWh/t, with an average of 14.7 kWh/t. The Nicholas Lake master composite was somewhat harder with a BWi of 16.2 kWh/t and the Clan Lake master composite was somewhat softer with a BWi of 13.6 kWh/t.

**Table 13-2: Bond Ball Mill Work Index Results**

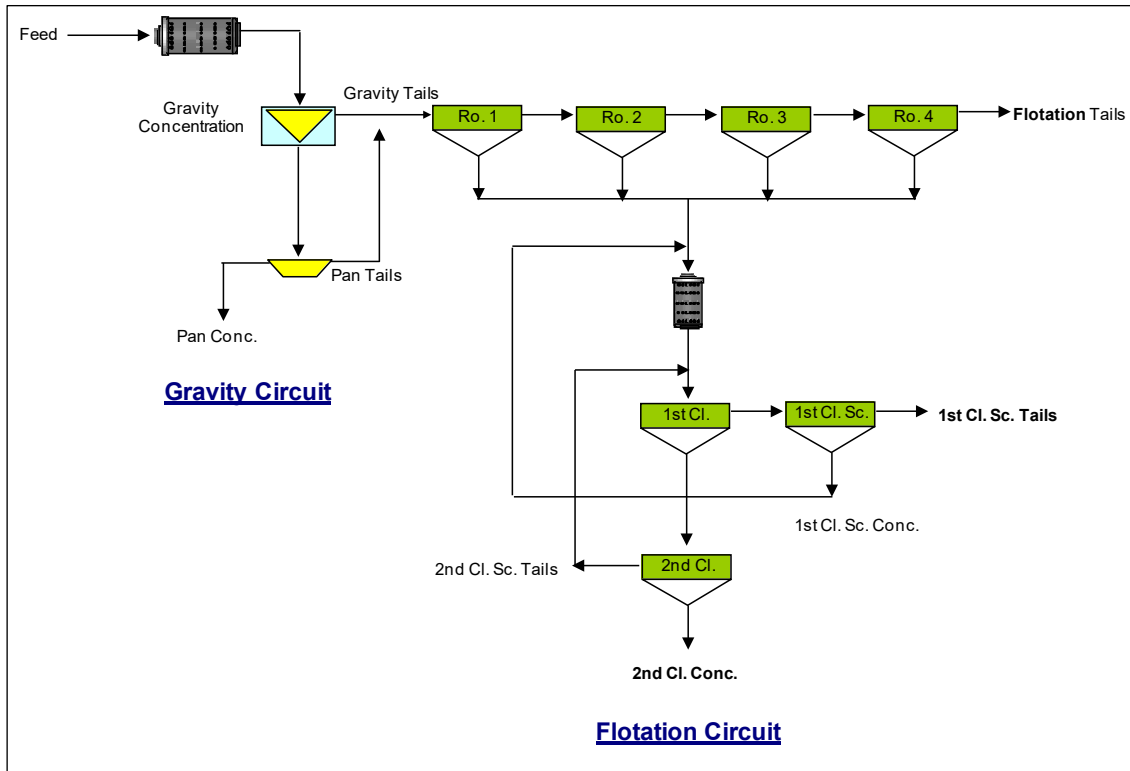
Test No.	Sample ID	Bond Ball Mill	Bulk
		Wi	Density*
		kWh/t	g/cm <sup>3</sup>
BI-1	Ormsby Master Comp.	14.6	2.04
BI-1R	Ormsby Master Comp.	14.7	2.05
BI-2	Nicholas Lake Master Comp.	16.2	1.82
BI-3	Clan Lake Master Comp.	13.6	1.83
BI-4	OM - 105 Comp. (Ormsby Section 105)	14.2	2.01
BI-5	OM - 417 Comp. (Ormsby Section 417)	15.4	2.00
BI-6	OM -559 Comp. (Ormsby Section 559)	13.8	1.94
BI-7	OM -723 Comp. (Ormsby Section 723)	15.3	1.97
BI-8	Bruce Zone Comp.	14.8	2.03

\* At the nominal 6-Tyler mesh crush size  
 Source: Inspectorate

### 13.2.2 Flotation Testwork

#### Ormsby Master Composite Locked-Cycle Testwork

The optimum process conditions developed for the Ormsby master composite were tested in an eight-cycle locked-cycle test designed to demonstrate the impact of recycling intermediate process streams on overall gold recovery. The overall test flowsheet is shown in Figure 13-1, which includes primary grinding to P<sub>80</sub> 120 µm, gravity concentration with a Falcon centrifugal concentrator, gravity cleaner concentration followed by rougher flotation of the combined Falcon gravity tailing and gravity cleaner tailing. The rougher flotation concentrate was reground to P<sub>80</sub> 30 to 40 µm and subjected to two stages of cleaner flotation and one stage of cleaner scavenger flotation, with the cleaner-2 tailing recycled to cleaner-1 flotation feed and the cleaner scavenger concentrate recycled to regrind. Results are summarized in Table 13-3, which summarizes the results of the last three cycles, an overall gold recovery of 92.3% and an overall silver recovery of 89.9% were achieved.



Source: Inspectorate

**Figure 13-1: Locked-Cycle Test Flowsheet**

**Table 13-3: Gold and Silver Recoveries for Ormsby Master Composite Locked-Cycled Test – Last 3 Cycles**

Product	Weight		Assay		Distribution	
	(g)	(%)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)
Gravity Conc.	6	0.11	907.9	190.3	56.5	42.1
Cl 2 Conc.	166	2.88	21.1	7.9	35.8	47.8
Cl Scav Tail	617	10.68	0.23	0.05	1.4	1.1
Ro. Tailing	4,991	86.34	0.12	0.05	6.3	9.0
Feed	5,781	100	1.7	0.48	100	100
Gravity + Cl 2 Conc.					92.3	89.9
<b>Unit Recoveries</b>						
Flotation Feed Cleaner Recovery					82.2	82.5
Flotation Feed Rougher Recovery					85.5	84.4
Cleaner Flotation Recovery					96.1	97.7

Source: Inspectorate

### **Ormsby Variability Composites**

Bulk flotation tests were conducted on 20-kilogram test charges at a primary P<sub>80</sub> grind of 120 µm and rougher flotation regrind to P<sub>80</sub> 35~40 µm. The test results are summarized in Table 13-4. With an exception of the variability composite from Section 723, centrifugal gravity concentration recovered over 50% of the gold from the Ormsby variability composites. Flotation of gravity tailings efficiently recovered the rest of the gold associated with sulphide minerals, resulting in overall gravity+flotation gold recovery of over 95% into gravity concentrates that ranged from 9,946 to 32,232 g/t gold and cleaner flotation concentrates that ranged between 27.2 to 111.2 g/t gold.

**Table 13-4: Summary of Bulk Gravity Concentration, Rougher, Flotation and Cleaner Flotation on Each of the Ormsby Variability Composites**

Test No.	Sample ID	Assay Head	Calc. Head	Gold Grade (g/t Au)					Gold Recovery (%)				Overall Recovery	
				Gravity Conc.	2nd Cl. Conc.	Flotation		Tails	Gravity Conc.	Flotation			Mass %	Au %
						1st Cl. Conc.	Total Conc.			2nd Cl. Conc.	1st Cl. Conc.	Total Conc.		
GF50	OM-105 Comp.	4.39	6.07	32,232	111.2	58.2	18.7	0.17	50.8	44.2	44.8	46.8	15.2	97.6
GF51	OM-417 Comp.	1.71	2.34	14,611	28.4	17.3	4.8	0.13	65.1	28.4	28.7	30.2	14.8	95.3
GF52	OM-559 Comp.	3.40	3.76	23,329	44.9	28	8.4	0.11	56.1	38.9	39.3	41.5	18.5	97.6
GF53	OM-723 Comp.	4.99	2.94	9,946	44.9	29.3	9.8	0.58	31.6	49.1	49.5	51.7	15.5	83.3
GF54	Bruce Zone Comp.	4.68	3.34	18,594	27.2	16.4	4.9	0.17	64.8	29.2	29.7	31.2	21.5	96.0

Source: Inspectorate

**Nicholas Lake Master Composite Locked Cycle Testwork**

An eight cycle Locked-cycle test was conducted on the Nicholas Lake master composite using the test flowsheet shown in Figure 13-1. The results of the last three cycles of this test are summarized in Table 13-5 which shows that an overall gold recovery of 87.6% and an overall silver recovery of 72.4% were achieved.

**Table 13-5: Gold and Silver Recoveries for Nicholas Lake Master Composite Locked Cycle Test – Last 3 Cycles**

Product	Weight		Assay		Distribution	
	(g)	(%)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)
Gravity Conc.	5.4	0.09	440.1	116.4	21.3	4.6
Cl 2 Conc.	300.7	5.17	24.5	30.8	66.3	67.8
Cl Scav Tail	638.5	10.98	0.45	1.06	2.6	5
Ro. Tailing	4,872	83.76	0.22	0.63	9.8	22.7
Feed	5,816	100	1.91	2.35	100	100
Gravity + Cl 2 Conc.					87.6	72.4
<b>Unit Recoveries</b>						
Flotation Feed Cleaner Recovery					84.2	71.1
Flotation Feed Rougher Recovery					87.5	76.3
Cleaner Flotation Recovery					96.2	93.2

Source: Inspectorate

**Clan Lake Master Composite Locked-Cycle Testwork**

An eight cycle Locked-cycle test was conducted on the Clan Lake master composite using the test flowsheet shown in Figure 13-1. The results of the last three cycles of this test are summarized in Table 13-6, which shows that an overall gold recovery of 93.8% was achieved.

**Table 13-6: Gold and Silver Recoveries for the Clan Lake Master Composite Locked-Cycle test**

Product	Weight		Assay		Distribution	
	(g)	(%)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)
Gravity Conc.	7.9	0.1	677		42.9	
Cl 2 Conc.	133	2.3	47.9	59.8	50.9	75.1
Cl Scav Tail	319.2	5.5	0.6	2.1	1.5	6.3
Ro. Tailing	5,348	92.1	0.1	0.4	4.7	18.6
Feed	5,808	100	2.2	1.8	100	100
Gravity + Cl 2 Conc.					93.8	
<b>Unit Recoveries</b>						
Flotation Feed Cleaner Recovery					89.2	
Flotation Feed Rougher Recovery					91.8	
Cleaner Flotation Recovery					97.2	

Source: Inspectorate

**13.2.3 Concentrate Cyanidation**

**Ormsby Master Composite**

A series of cyanidation tests were conducted on the final cleaner flotation concentrate produced after two stages of cleaner flotation to evaluate NaCN concentrations, retention times, aeration rates and slurry densities in order to optimize leach parameters. The results of these tests are summarized in Table 13-7. Excellent gold extractions of about 98% were achieved, however, cyanide consumption increased from 18 kg/t of concentrate to 46.4 kg/t of concentrate as the cyanide concentration was increased from 2 to 5 g/L NaCN. It can be concluded that the Ormsby cleaner concentrate responded



very well to gold extraction by cyanide leaching. A retention time of 48 hours in 2 g/L NaCN at 30% solids and a regrind size of 35 to 40 µm appears to be suitable as safe design criteria.

**Table 13-7: Flotation Concentrate Cyanidation Tests on Ormsby Master Composite**

Test No.	Test Conditions					Assay Head	Cal. Head	Extraction	Residue	Consumption (kg/t Conc)	
	P <sub>80</sub> Size (µm)	Aeration	% Solids	NaCN (g/L)	Retention	Au (g/t)	Au (g/t)	Au (%)	Au (g/t)	NaCN	Lime
C5	26	(1 L/min)	35	2	72 hours	25	22.2	98.0	0.44	18.0	1.31
C6	26	(1 L/min)	35	3	72 hours	25	22.1	98.2	0.40	26.9	1.34
C7	26	(1 L/min)	35	5	72 hours	25	22.5	98.2	0.40	46.4	0.93
C11	26	(0.2 L/min)	30	2	72 hours	25	23.6	98.3	0.41	23.7	2.83
C12	26	(0.4 L/min)	30	2	72 hours	25	23.5	98.4	0.37	24.2	3.68

Sample ID: Ormsby 2<sup>nd</sup> Cl, Conc.  
 Source: Inspectorate

**Nicholas Lake Master Composite**

Rougher flotation concentrates produced from the Nicholas Lake master composite were subjected to one stage of cleaner flotation followed by cyanidation of the cleaner-1 flotation concentrate at regrind sizes ranging from P<sub>80</sub> 117 mm (no regrinding) to P<sub>80</sub> 36 mm. The results of this test series are summarized in Table 13-8, and show that 86% to 96% of the gold was extracted as the regrind size became finer. At a regrind size of P<sub>80</sub> 69 mm 93.9% of the gold was extracted, and this regrind size was selected for all cleaner flotation and concentrate cyanidation tests on the Nicholas Lake composite.

**Table 13-8: Cyanidation Test Results Versus Grind Size on Cleaner-1 Flotation Concentrates from the Nicholas Lake Master Composite**

Test No.	Test Conditions				Assay Head		Calculated Head		Extraction		Residue Grade		Consumption (kg/t Conc)	
	P80 Size* (mm)	% Solids	NaCN (g/L)	Retention	Au (g/t)	Au (g/t)	Au (g/t)	Au (g/t)	Au (%)	Au (%)	Au (g/t)	Au (g/t)	NaCN	Lime
C17	117	30	2	48 hours	23.5	29	26.5	33.0	86.0	65.1	3.71	11.5	5.26	0.53
C18	69	30	2	48 hours	46.4	51	52.1	59.6	93.9	68.1	3.16	19.0	4.91	0.68
C19	54	30	2	48 hours	62.6	77	53.4	61.1	92.9	71.0	3.81	17.7	4.88	0.49
C20	36	30	2	48 hours	71.1	71	78.5	85.2	96.3	73.5	2.89	22.6	5.26	0.93

Source: Inspectorate

### **Clan Lake Master Composite**

Rougher flotation concentrates produced from the Clan Lake master composite were subjected to one stage of cleaner flotation followed by cyanidation of the cleaner-1 flotation concentrate at regrind sizes ranging from  $P_{80}$  193  $\mu\text{m}$  (no regrinding) to  $P_{80}$  26  $\mu\text{m}$ . The results of this test series are summarized in Table 13-9 and show that 97% of the gold was extracted over the range of regrind sizes tested. A regrind size of  $P_{80}$  120  $\mu\text{m}$  was selected for Clan Lake due to the incremental improvement in cleaner flotation recovery that was achieved.

**Table 13-9: Cyanidation Test Results Versus Grind Size on Cleaner-1 Flotation Concentrates from the Clan Lake Master Composite**

Test No.	Test Conditions				Measured Head		Calculated Head		Extraction		Residue Grade		Consumption (kg/t Conc.)	
	Regrind P80 Size (µm)	% Solids	NaCN (g/L)	Retention Time	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (%)	Ag (%)	Au (g/t)	Ag (g/t)	NaCN	Lime
C13	193	30	2	48 hours	26.49	41.6	27.80	43.9	97.0	90.9	0.83	4.0	9.3	1.22
C14	133	30	2	48 hours	31.37	42.7	29.36	46.2	97.3	91.8	0.80	3.8	9.9	1.12
C15	60	30	2	48 hours	30.66	39.2	28.40	46.0	97.3	92.2	0.77	3.6	10.3	1.08
C16	26	30	2	48 hours	31.02	48.7	30.77	47.9	97.4	91.4	0.81	4.1	9.6	1.16

Source: Inspectorate

### 13.2.4 Detoxification Studies

#### Ormsby Master and Variability Composites

The SO<sub>2</sub>/air cyanide destruction process was simulated in a continuous mode on the Ormsby master composite and in batch mode on the Ormsby variability samples. As shown in Table 13-10, detoxification to less than 1ppm CN<sub>total</sub> in the effluent was achieved on four of the variability composite residues; however, detoxification to only 6.43 ppm CN<sub>total</sub> was achieved on the Ormsby OM-105 variability composite residue.

**Table 13-10: Cyanide Detoxification Results on Ormsby Master and Variability Composite**

Composite	CN <sub>WAD</sub> , mg/L	CN <sub>Total</sub> , mg/L
Ormsby Master	1.61	2.88
OM-105	4.9	6.43
OM-417	0.28	0.35
OM-559	0.07	0.15
OM-723	0.06	0.08
Bruce Zone	<0.05	<0.05

Source: Inspectorate

#### Nicholas Lake and Clan Lake Composites

The SO<sub>2</sub>/air cyanide destruction process was simulated in a batch mode on leach residues from the Nicholas Lake master and variability composites and from leach residues from the Clan Lake master composite. The detoxification test work was performed on the residues from CIL cyanidation of bulk cleaner flotation concentrates. Cyanide detoxification to 0.06 ppm CN<sub>total</sub> was achieved on the Nicholas Lake master composite, and detoxification to less than 0.005 ppm CN<sub>total</sub> in the effluent was achieved on the three Nicholas Lake variability composite residues. Cyanide detoxification to 0.08 ppm CN<sub>total</sub> was achieved on the Clan Lake master composite.

### 13.3 Recovery Estimate Assumptions

Gold recoveries for Ormsby, Nicholas Lake and Clan Lake have been developed from the results of both locked-cycle test work and from bulk gravity/flotation tests that were conducted on each of the test composites to produce flotation concentrates for regrind and cyanidation test work. As summarized in Table 13-11, gold recoveries for Ormsby and Clan Lake are projected at 92% and gold recovery for Nicholas Lake is projected at 82%. The QP has used gold extraction results from standard cyanidation tests instead of CIL cyanidation tests to project overall gold recovery due to concerns that the carbon may have been over-attritioned during the CIL cyanidation tests, resulting in gold losses in the carbon fines that report in the leach residue.

**Table 13-11: Projected Gold Recoveries for Ormsby, Nicholas Lake and Clan Lake**

Composite	Gravity	Flotation	Cyanidation	Overall Lab	Projected
	Recovery (%)	Recovery (%)	Extraction (%)	Recovery (%)	Recovery (%)
Ormsby	52.3	41.0	98	92.5	92
Nicholas Lake	15.5	72.6	93	83.0	82
Clan Lake	46.3	48.4	97	93.3	92

Source: Inspectorate

## 13.4 Sample Representativeness

The Ormsby master composite was formulated from a split of a large bulk composite that had been used for pilot plant testing at Inspectorate in 2007. The Ormsby variability composites, as well as the Nicholas Lake and Clan Lake master composites and variability composites, were formulated from drill core and designed to provide spatial variability along the length of the respective deposits. The Nicholas Lake and Clan Lake master composite samples were formulated from their respective variability composites after removal of 20-kg sub-samples for variability testing. It is the QP's opinion that the test composites reasonably represent the respective mineralization types both with respect to gold grade and mineral character.

The QP has no knowledge from the testwork completed to date of any processing factors or deleterious elements that could have a significant effect on potential economic extraction.

## 14 Mineral Resource Estimate

This section describes the Mineral Resource estimation methodology and summarizes the key assumptions considered by the QPs during the geological modeling and Mineral Resource Estimate. In the opinion of the QP, the Mineral Resource estimate reported herein is a reasonable representation of the global Mineral Resources found at the project with the current level of sampling. The Mineral Resources have been estimated and conform to generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines. Resources are reported in accordance with NI 43-101. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve.

The Mineral Resource Statement presented herein represents the latest Mineral Resource evaluation prepared for the project. The Mineral Resource estimate was completed by Mr. Benjamin Parsons, MAusIMM (CP) an appropriate “independent qualified person” as this term is defined in NI 43-101. The effective date of the resource statement is March 1, 2019.

The Mineral Resource model presented herein represents an updated resource evaluation prepared for the Yellowknife gold project. The resource estimation methodology involved the following procedures:

- Database compilation and verification;
- Construction of wireframe models for the fault networks and centerlines of mining development per vein;
- Definition of resource domains;
- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis;
- Variography;
- Block modeling and grade interpolation;
- Resource classification and validation;
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting CoGs; and
- Preparation of the Mineral Resource Statement.

### 14.1 Geological Database

The database used to estimate the project Mineral Resources has previously been audited in detail by the QP, with additional checks completed as required as part of the current update. The QP noted during the previous database audits that the previous owners’ sole reliance on the laboratory’s standard analyses is not considered industry accepted practice and recommended that blind standards with appropriate expected grade values be inserted into the sample stream for all future drilling campaigns.

The risk associated with the lack of independent blind standards pertains to the precision and accuracy of the analytical values reported from the laboratory. Uncertainty due to lack of independent third-party standards relates to the fact that analytical laboratories commonly do not report failure of their internal standards and have various methods for handling failures which may not be consistent with common industry practice that usually requires re-runs of batches of samples to ensure that the failure causing the standard to miss a targeted value did not also impact the samples. The QP recommends that any

future sampling/analytical programs completed by GoldMining feature independent blind standards submitted to any external labs in accordance with industry standards. To increase the confidence in the historical assays a re-assay program on the sub-set of the mineralized material across a range of grades would be beneficial.

It is the QP's opinion that the current drilling information is sufficiently reliable to interpret, with confidence, the boundaries for gold mineralization and that the assay data is sufficiently reliable to support Mineral Resource estimation. Notwithstanding these comments above as it pertains to the use of laboratory standards, it is QP's opinion that the historical laboratory test work shows satisfactory correlation between two independent laboratory's and therefore the assays have been accepted for use in the Mineral Resource estimation process.

## 14.2 Topography

The QPs have been provided with the topographic data in .dxf format for each of the five deposit areas. The source of this topography is an aerial LiDAR survey conducted by LiDAR Services International Inc. on behalf of Tyhee Development Corp in July 2010. The survey covered an area of 355.9 square kilometre (km<sup>2</sup>), and post processing of the flight data resulted in the construction of 0.5 m interval contour data for all areas. These contours were then used to produce surface triangulations for each of the five deposit areas. The QP manually compared several borehole collar elevations with the provided topography surfaces and found generally close agreement.

No updates to the topography have been completed since the previous Mineral Resource estimate and no mining activities have been completed; therefore, the QP considers the LiDAR survey to be reasonable for use in the current project.

## 14.3 Geology Modeling

The mineral resource model of the Yellowknife gold project is based on the drilling databases from archived files used in the 2012. No new exploration or drilling information has been obtained by GoldMining or the previous operator since that time. Domains were constructed by SRK QPs as a geological model in Seequent Leapfrog Geo™ and were constrained below the LIDAR topography. Geological and mineralized domains (wireframes) were constructed for each deposit based on surface mapping, core logging and historical records.

### 14.3.1 Ormsby and Bruce

Geological and gold grade domains were constructed using three-dimensional implicit and explicit modelling along identified historical mineralization trends. The use of implicit and explicit geological modelling to provide a framework for controls on the mineralization represents the most significant change between the 2012 and 2019 Mineral Resource estimation process at Yellowknife. The previous model had attempted to provide a basic framework but noted that the geological controls were difficult to define and therefore, an indicator approach to define the edges of the mineralization was used. Upon review in 2018 by SRK's QP geologist, after completion of the site visit and reviewing the core, it was assumed that the geological contacts could be sharper than reflected in the previous estimate. The QP concluded that the previous estimate (SRK, 2012) may have resulted in dilution or smoothing of the high and low-grade material. The QP has therefore undertaken geological modelling using the existing database, but highlights that additional work including a structural review of each deposit is



recommended. Given the change in methodology and the change to reflect the geological limits, the QPs have reflected upon the risk and confidence in the geological controls in the resource classification accordingly.

At Ormsby and Bruce, a geological model was created to define the lithological domains (amphibolite and the adjoining metasedimentary rocks) and gold mineralization domains (Figure 14-1 and Figure 14-2). Gold mineralization at Ormsby is associated with pyrrhotite and silicification in brecciated and laminated amphibolite. A broad low-grade envelope was defined within the amphibolite to constrain gold mineralization domaining. Quartz veins, usually only a few cm in width, have variable orientations typically striking 320° to 340° azimuth and dipping 10° to 50° to the southwest. As such, gold grade domains were modelled along that trend as an indicator interpolant above 0.3 g/t gold.

A summary of the final domain coding (KZONE) used in the Ormsby and Bruce block models is shown in Table 14-1 and Table 14-2 respectively.

**Table 14-1: Summary of Estimation Domains at Ormsby**

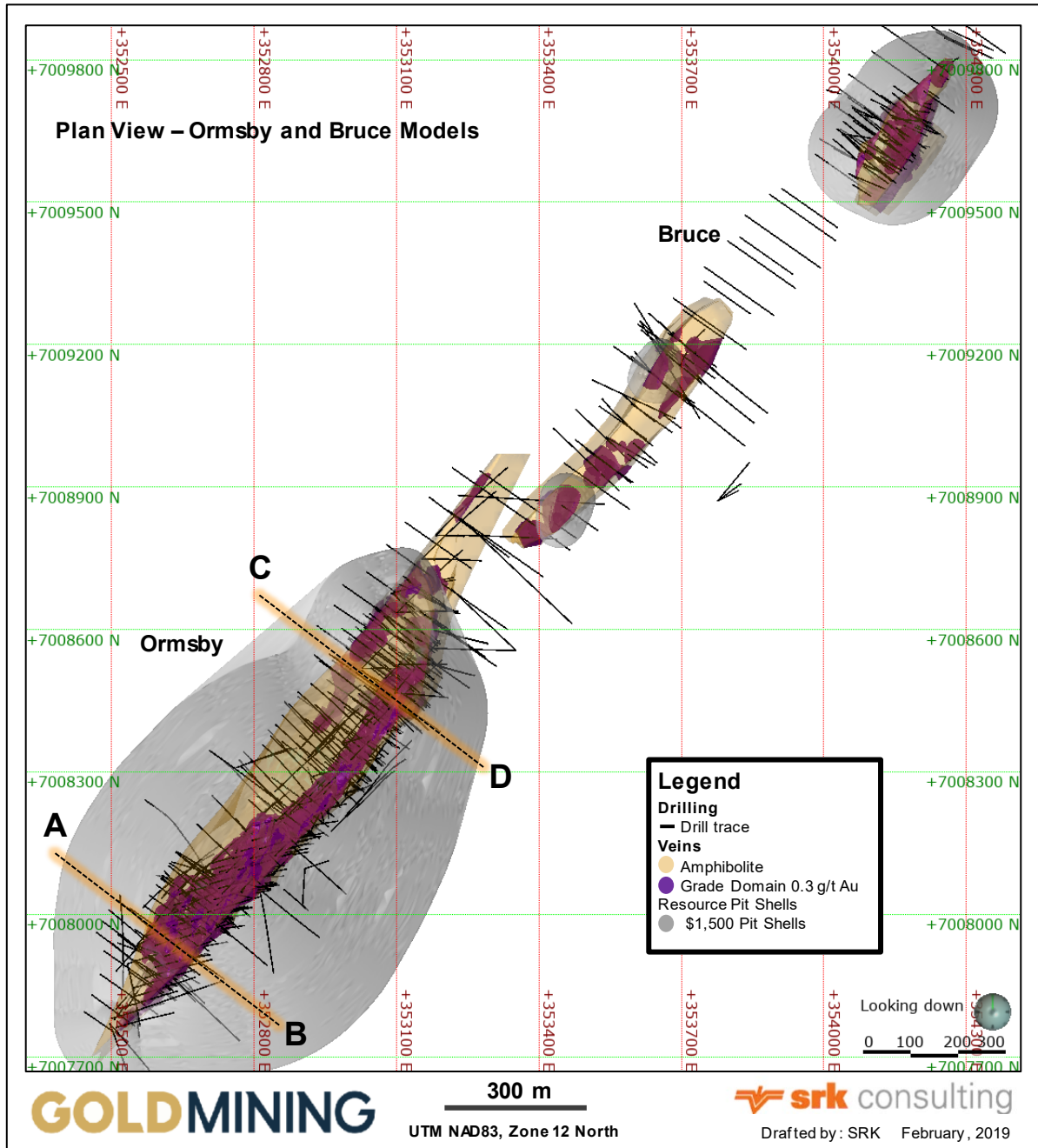
KZONE	Wireframe/Coding	Description
0	None	Background/County Rock
1	amph_cut03_pt/tr	Amphibolite unit
2	lowgrade_03_pt/tr	Broad low-grade envelope
3	grade_03_pt/tr	0.3 g/t Au Indicator Model

Source: SRK, 2019

**Table 14-2: Summary of Estimation Domains at Ormsby**

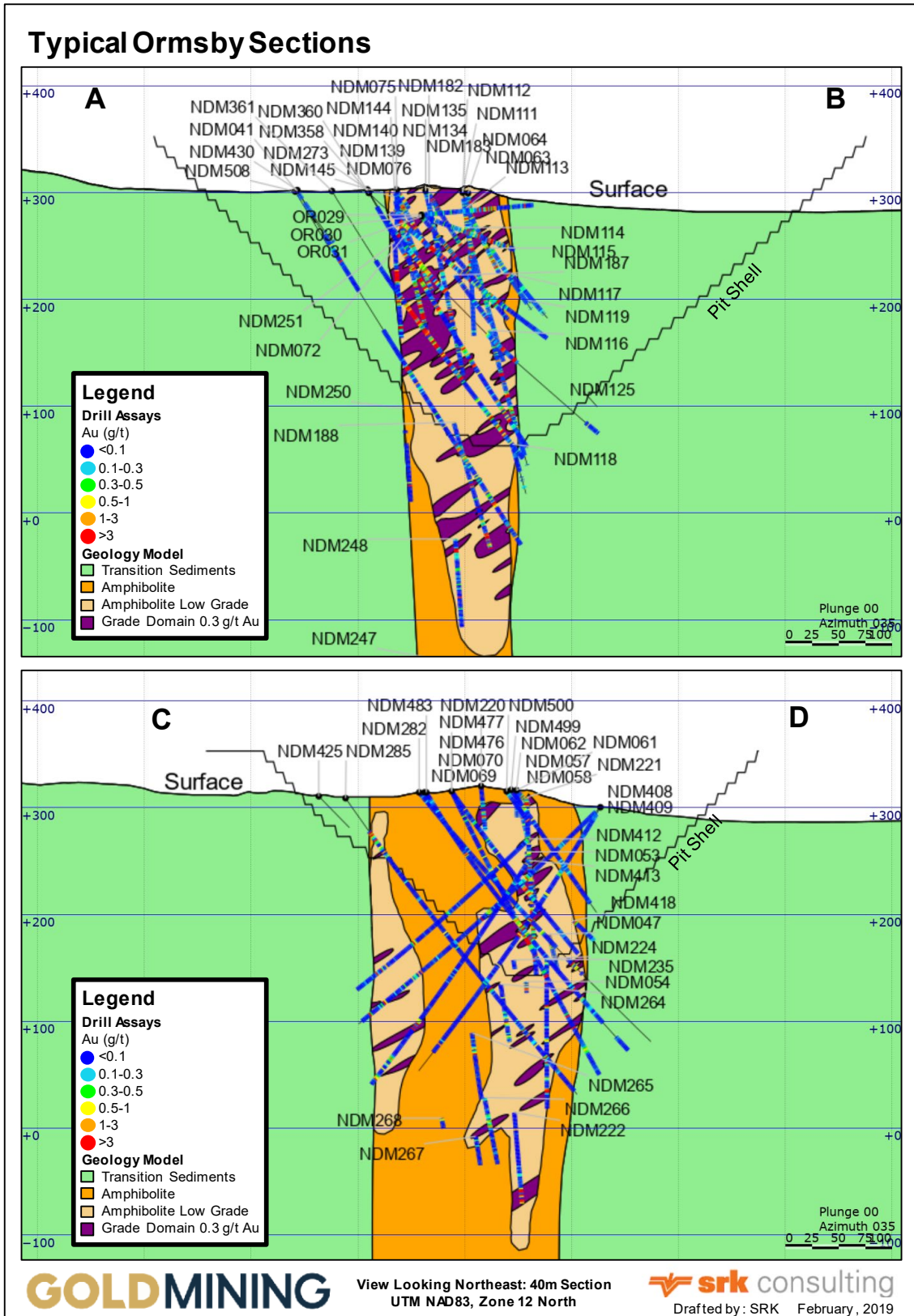
KZONE	Wireframe/Coding	Description
0	None	Background/County Rock
1	bruceamph_pt/tr	Amphibolite unit
2	bruce03_pt/tr	0.3 g/t Au Indicator Model

Source: SRK, 2019



**Figure 14-1: Plan View of Ormsby Mineralization Model**

Source: SRK, 2019



**Figure 14-2: Typical Cross-Sections of Ormsby Geological and Mineralization Models**

Source: SRK, 2019

### 14.3.2 Nicholas Lake

In the 2012 geological model, the Nicholas Lake deposit was divided into two domains referred to as the East and West domains. These domains were defined by two separate three dimensional solids (3D), but the basis for the interaction between the two is not clearly defined, and no evidence of significant faulting is noted. The East and West interpolation domains were used to control search orientations during the grade estimation process. No other geologic domains have been constructed for the Nicholas Lake zone.

Gold mineralization of the Nicholas Lake zone occurs in a subvertical shear zone that extends across the southern half of the granitoid body in an east-west trend. The shear zone comprises a series of near vertical quartz-sulphide veins and veinlets in a zone of sericitization and silicification in the vertical granodiorite plug and in the metasedimentary rocks near the intrusive.

At Nicholas Lake, a geological model was created to define the limit of the granodiorite lithological domain using the logged lithology. Using gold grades and logged codes, SRK has defined individual veins using a lithological vein model within Leapfrog (Figure 14-3 and Figure 14-4).

In addition to the lithological wireframes, the QP has used an indicator grade envelope using a CoG of 0.5 g/t, which represented approximately 13.5% of the database. The QP has used a structural trend to reflect the two main orientation of the vein in the east and west of the deposit. The structural trend was generated by creating polyline interpretations from level plans following the key mineralization intersections. The indicator has been run using a spherical model with a range of 35 m and a nugget of approximately 25%. The selected isovalue (probability) has been based on visual review and a statistical summary of the number of values inside and outside the final volumes above and below the CoG. The QP noted that the final volume included approximately 3% of samples inside the volume below the CoG of 0.5 g/t gold.

The QP considers the 2019 modelling approach to be reasonable as the basis for the estimation and is preferred to the 2012 geological modelling which had two defined orientations with a sharp contact between the East and West units.

A summary of the final domain coding (KZONE) used in the Nicholas Lake block model is shown in Table 14-3.

**Table 14-3: Summary of Estimation Domains at Nicholas Lake**

KZONE	Wireframe/Coding	Description
-1	none	Background/County Rock
0	granodiorite_pt/tr	Granodiorite unit
1 - 10	vn_01_pt/tr – vn_11_pt/tr	Broad low-grade envelope
11	grade_05_v2_pt/tr	0.5 g/t Au Indicator Model

Source: SRK, 2019

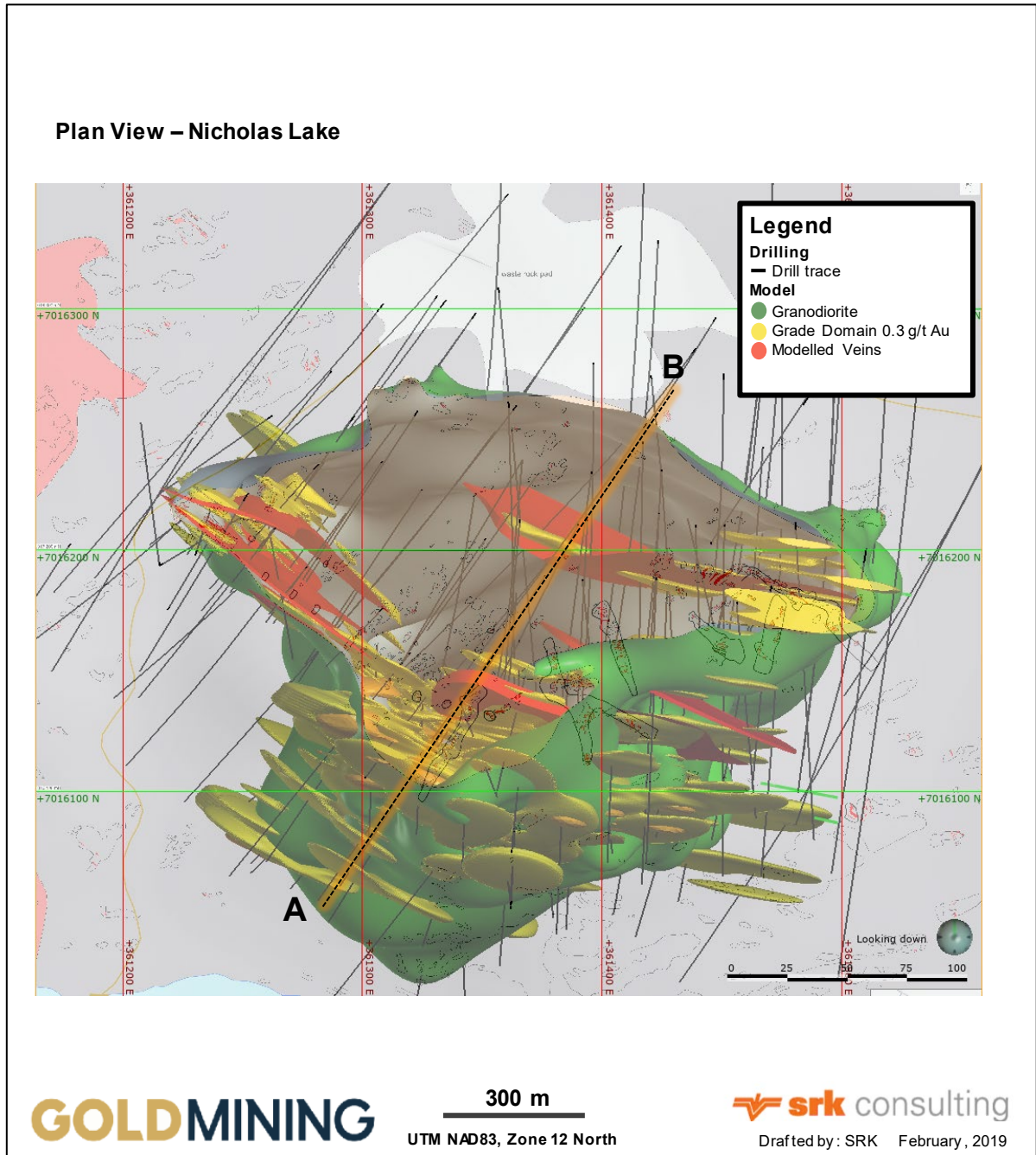
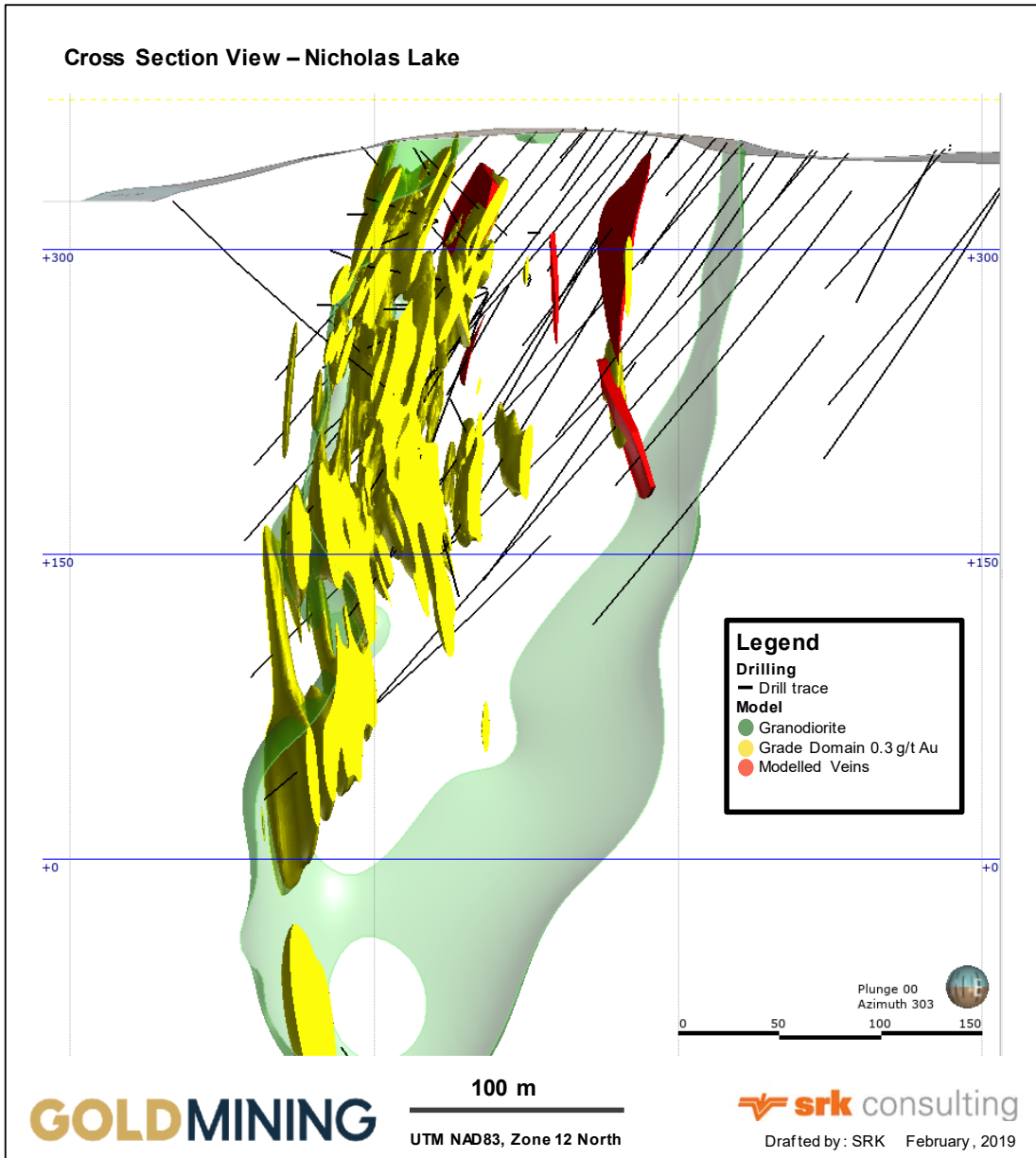


Figure 14-3: Plan View of Nicholas Lake Mineralization Model

Source: SRK, 2019



**Figure 14-4: Cross Section Nicholas Lake Mineralization Model, Looking Northwest**

Source: SRK, 2019

### 14.3.3 Clan Lake

The QP geologist reviewed the geology at Clan Lake for the basis of the construction of the 2019 Mineral Resource. Exploration activity to date has focused on the southern portion of the complex, a semi-circular exposure of metavolcanics rocks. The review of the geological information indicates veins in multiple orientations. Gold mineralization of the Clan Lake main zone occurs as abundant quartz veins transecting the central area intermediate volcanic units in parallel northwest to south-east trends. Surface exposure of quartz veining at the Clan Lake main zone displayed abundant sinuous and multi-oriented veins with evidence of progressive shear deformation suggested.

During the review, the QP noted the presence of a series of faults on the regional geological map which are assumed to impact the mineralization. Further work will be needed to confirm the revised interpretation, but the QP is concerned that within this area the lack of potential fault controls could overstate the geological continuity, and therefore adjusted the confidence in the estimates accordingly.

The QP has created a basic fault network, which has divided the deposit into four fault blocks, with an indicator used to define the limits of the mineralization. In the 2012 model at Clan Lake, the frequency of the quartz veins was deemed the main indicator for mineralization. In the estimate the QP used composited Quartz Factor (QF) values to estimate the variable QF in the block models using IDW (power = 2). Blocks with QF values greater than or equal to five were then populated with gold grades using IDW (power = 2). The QP reviewed the historical approach and deemed in the QP’s opinion that the pure indicator methodology did not provide tight geological controls and potential diluted the high-grades and overstated the lower grade.

The QP has used a similar basis to this in the 2019 Mineral Resource using an implicit modelling method for borehole intervals logged with a QF>5 but added geological controls where appropriate. The resultant shapes have been clipped to the faults to limit any potential blow-outs. The QP has applied additional controls on the intrusive models in areas of limited drilling where the intrusion algorithm was deemed to generating excessive volumes (Figure 14-5 and Figure 14-6).

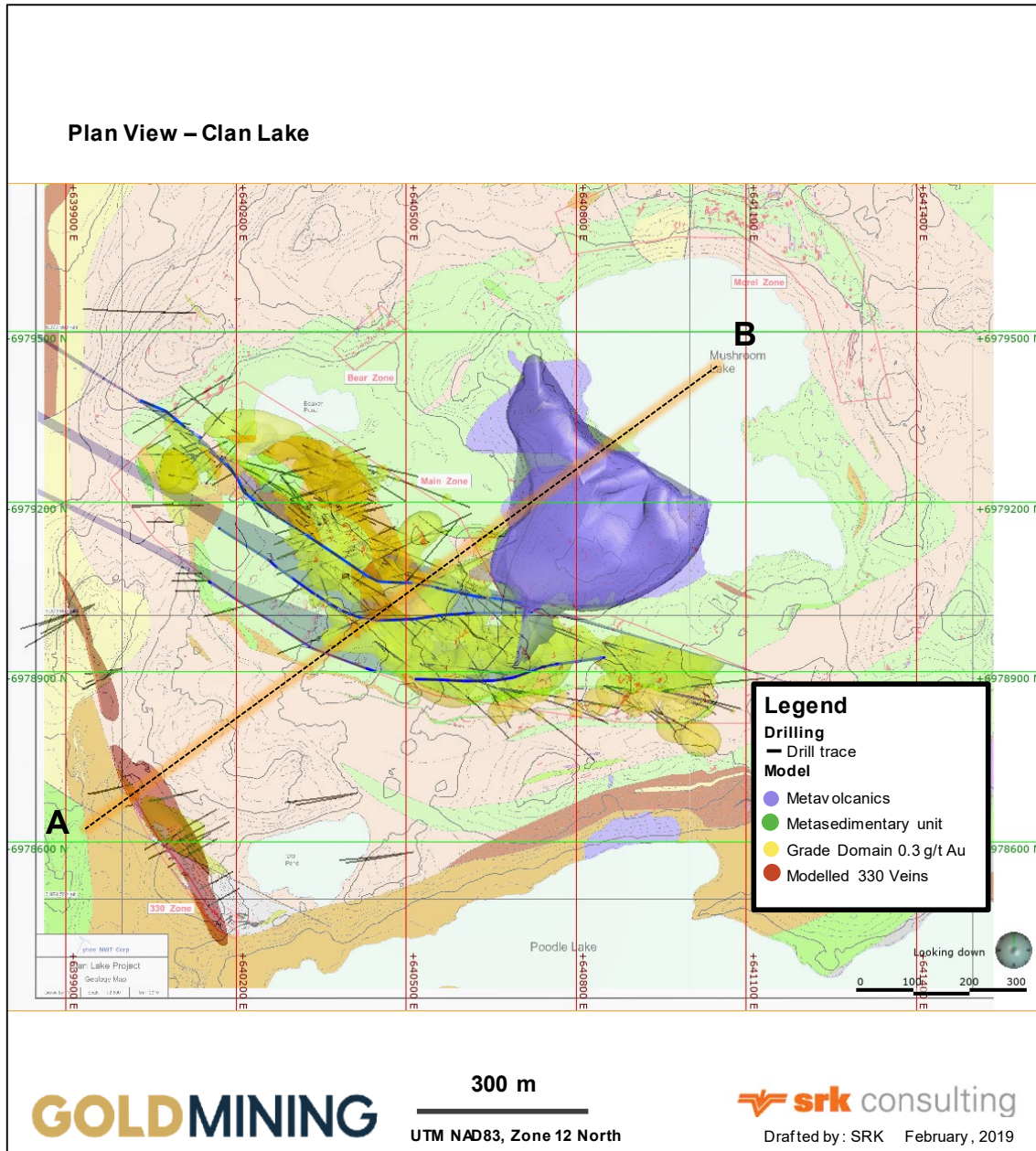
In the Southwest of the Clan Lake area SRK QP noted the previously defined “330 domains” by Tyhee runs parallel to one of the main lithological contacts. The QP has used the vein modelling tools within Leapfrog to identify intersections which are logged with quartz or have grade assays above 0.5 g/t. These were modelled along strike and then cropped to a limit of 75 m from the drilling. The 330 zone has been extended to the northwest to include all the drilling.

A summary of the final domain coding (KZONE) used in the Clan Lake block model is shown in Table 14-4.

**Table 14-4: Summary of Estimation Domains at Clan Lake**

KZONE	Wireframe/Coding	Description
0	none	Background/County Rock
1	fb_all_qtz5_pt/tr	Indicator model using quartz factor greater than 5, for all fault blocks
2	330_combined_pt/tr	330 north and south domain
3	330splay_pt/tr	Minor splays of the 330 domain

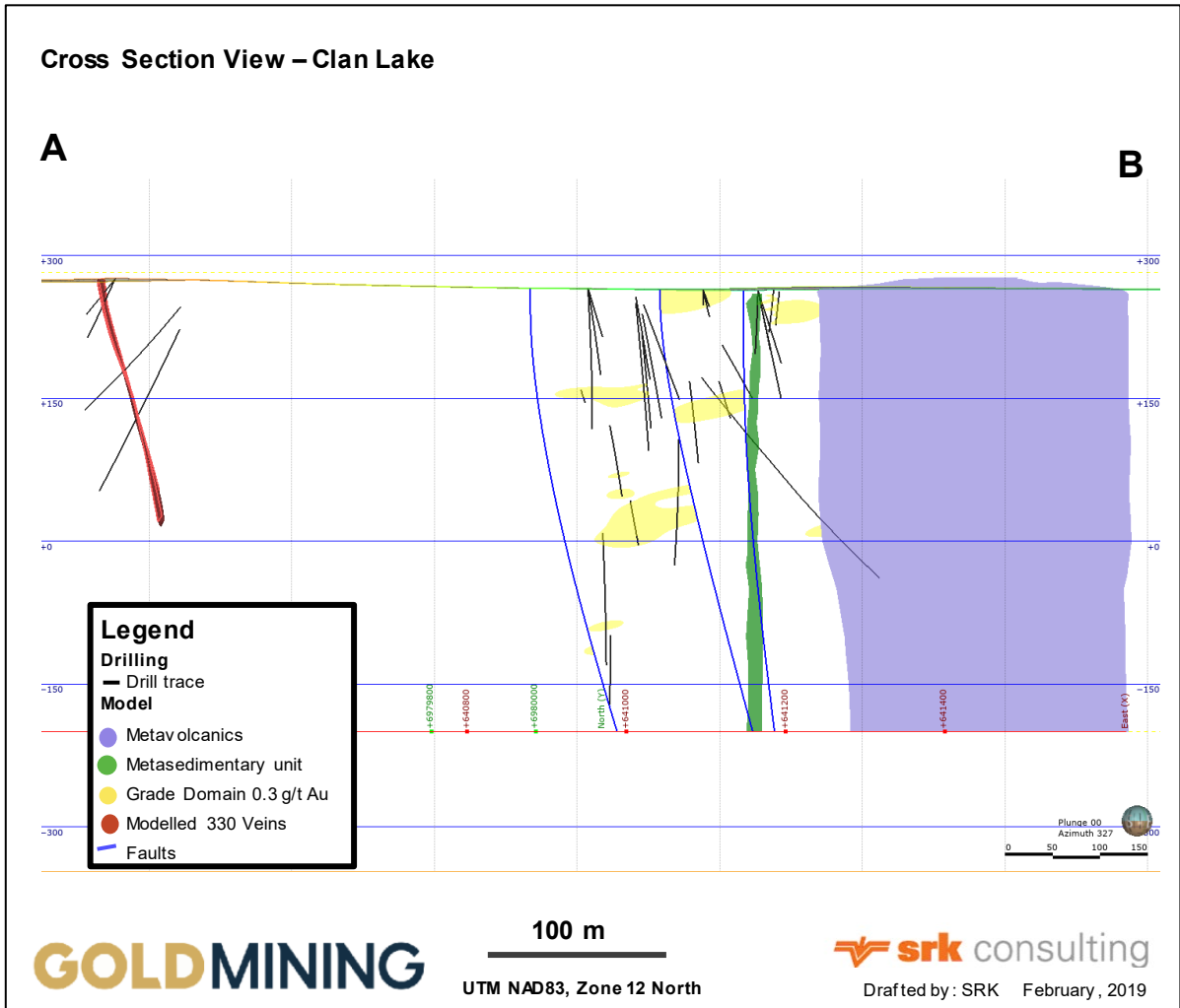
Source: SRK, 2019



**Figure 14-5: Plan View of Clan Lake Mineralization Model**

Source: SRK, 2019





**Figure 14-6: Cross Sectional View of Clan Lake Mineralization Model, Looking Northwest**

Source: SRK, 2019

### 14.3.4 Goodwin Lake

At Goodwin, a geological model was created to define the key lithological domain which is described as a gabbro unit. Diamond drilling suggests the unit dips sub-vertically to 80° east. Quartz veins are extensive within the gabbro with abundant sinuous and multi-direction veins seen over the outcrop exposures.

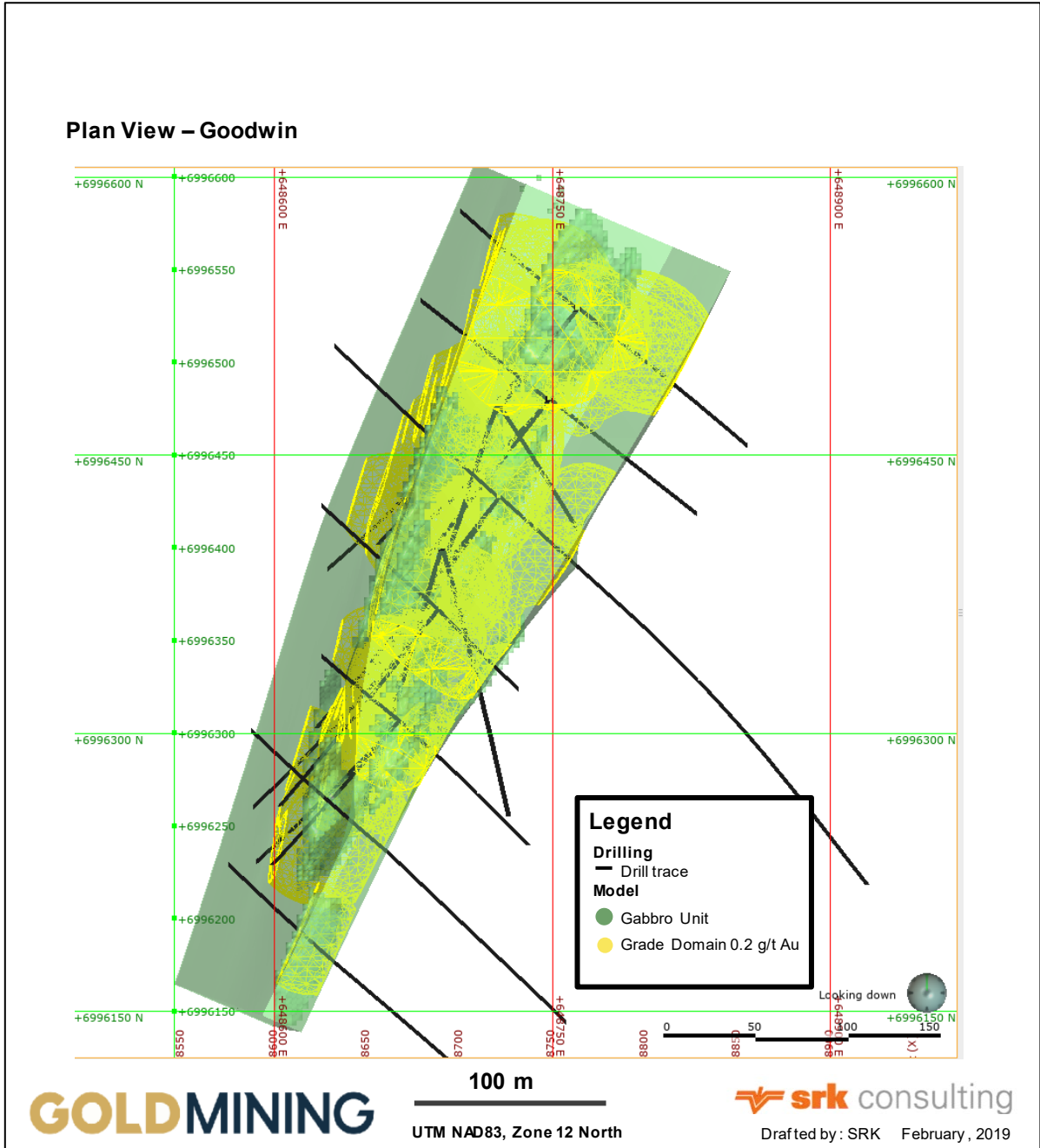
A broad low-grade envelope was defined within the gabbro to constrain gold mineralization domaining of what is known as the Vad zone. Internally, quartz veins are usually only a few cm in width, have locally variable orientations but the QP has assigned a regional trend of 25° to 28° (NNE). As such, gold grade domains were modelled along that trend as an indicator interpolant above 0.2 g/t gold (Figure 14-7). No estimation has been completed outside of the gabbro unit.

A summary of the final domain coding (KZONE) used in the Nicholas Lake block model is shown in Table 14-5.

**Table 14-5: Summary of Estimation Domains Used at Goodwin Lake**

KZONE	Wireframe/Coding	Description
0	none	Background/County Rock
1	good_diorite_pt/tr	Limit of dioritic (gabbro) unit
2	au_ppm_ind025_pt/tr	0.2 g/t Au Indicator Model

Source: SRK, 2019



**Figure 14-7: Plan View of the Goodwin Deposit**

Source: SRK, 2019

## **14.4 Assay Capping and Composite Analysis**

### **14.4.1 Composite Analysis**

The QP analyzed the mean length of the core drilling samples in order to determine appropriate composite lengths. Samples have been composited per domain within the key lithological or mineralization units as described in Sections 0 and 8. The QP noted the presence of absent values in the databases and therefore the QP assigned background grades (half detection limit) to these intervals prior to compositing to ensure high-grades were not smoothed across gaps in the data. Several holes were randomly selected, and the composited values were checked manually for accuracy. No errors were detected.

At Ormsby, Bruce, Clan Lake and Nicholas Lake the mean length of the sample data approximates to (or is less than) 0.5 to 2.0 m, with a significant number of samples being at a sample length of 1.5 m. The QP considers any composite length of greater than 1.5 m is appropriate, but has elected to use a composite length of 3.0 m at Ormsby and Bruce deposits, in order to avoid alternative samples being split (Figure 14-8). A composite length of 1.5 m has been selected at Nicholas Lake, Clan Lake and Goodwin.

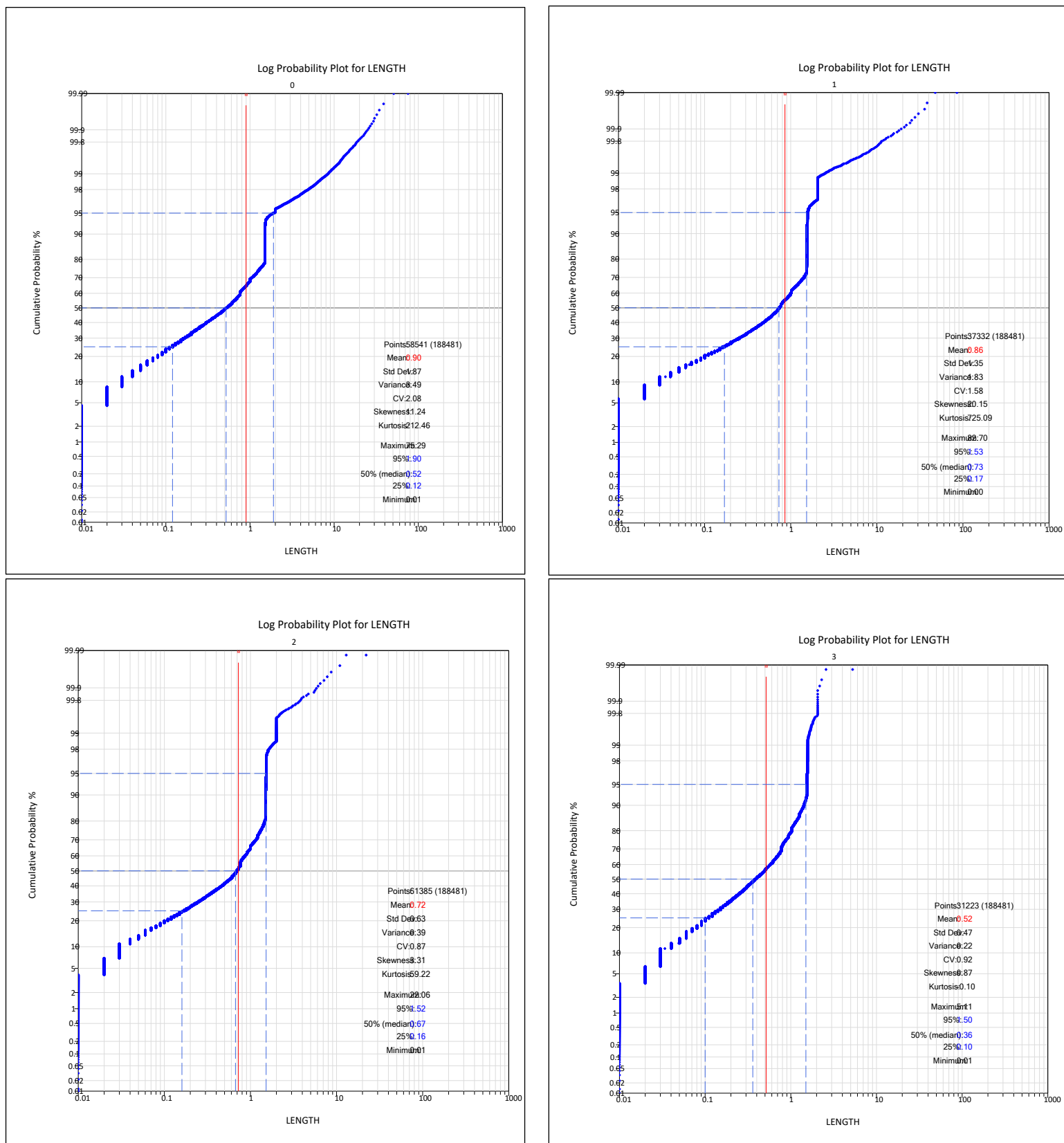


Figure 14-8: Example of Log-Probability Analysis of Sample Lengths at the Ormsby Deposit

Source: SRK, 2019

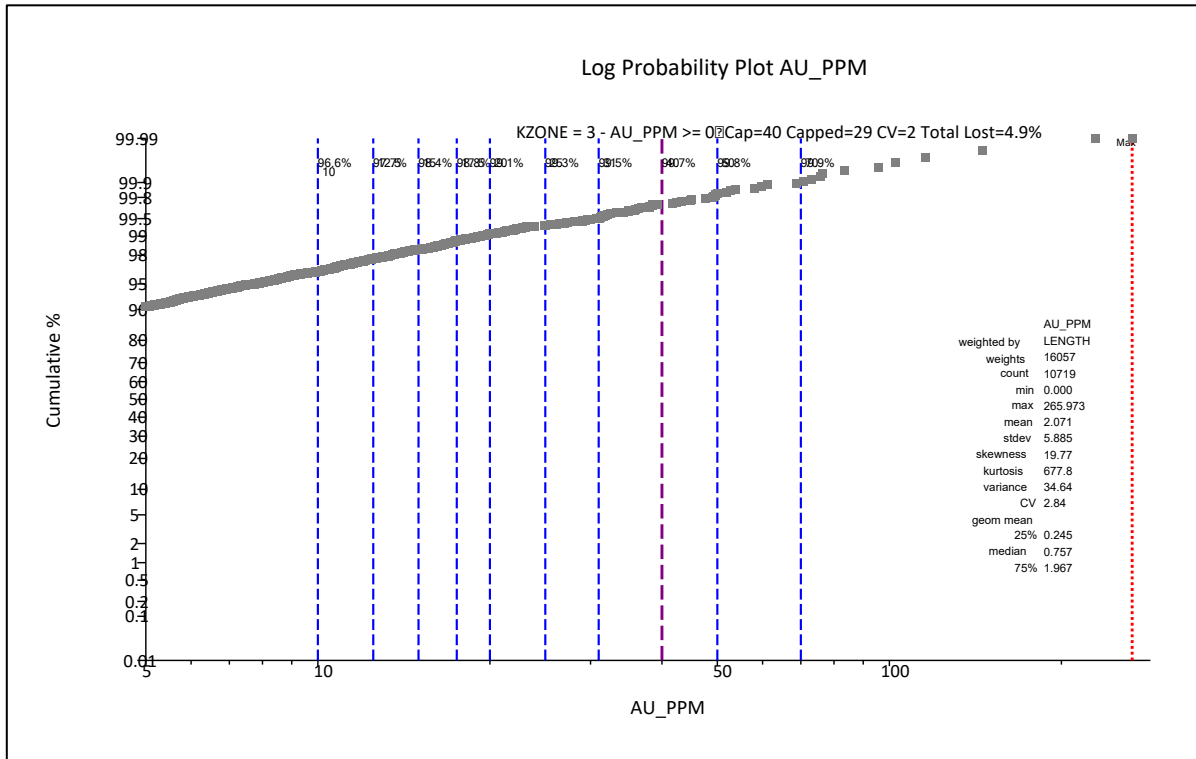
### 14.4.2 Outlier Analysis

The QP has used Phinar X10 Geo (X10) software to complete a detailed capping analysis at each of the veins, within each of the deposits. To complete the assessment of the capping levels the software enables the QP to assign up to 10 levels of capping which can then be analyzed both visually and statistically for breaks in trend. When completing the analysis, the QP has looked at the key breaks in the database using the control charts, rounded to appropriate levels, and then noted the percentage of samples capped, impact on the mean grades, and the reduction in the co-efficient of variation. An example of the analysis is shown in Table 14-6 and Figure 14-9.

**Table 14-6: Example of Statistical Analysis for Gold Grams Per Tonne Within the Ormsby KZONE=3 – Indicator 0.3g/t Au Domain**

Cap	Capped	Percentile	Capped%	Lost Total%	Lost CV%	Count	Min	Max	Mean	Variance	CV
						10719	0	266	2.071	34.64	2.84
70	11	99.9%	0.1%	2.5%	21%	10719	0	70	2.017	20.38	2.24
50	19	99.8%	0.2%	3.8%	26%	10719	0	50	1.991	17.43	2.10
40	29	99.7%	0.3%	4.9%	30%	10719	0	40	1.968	15.42	2.00
31	54	99.5%	0.5%	6.5%	34%	10719	0	31	1.936	13.3	1.88
25	71	99.3%	0.7%	8.2%	37%	10719	0	25	1.901	11.5	1.78
20	100	99.1%	0.9%	10%	40%	10719	0	20	1.863	9.92	1.69
17.5	129	98.8%	1.2%	11%	42%	10719	0	17.5	1.836	9.03	1.64
15	176	98.4%	1.6%	13%	45%	10719	0	15	1.8	8.00	1.57
12.5	242	97.5%	2.3%	15%	47%	10719	0	12.5	1.752	6.86	1.49
10	366	96.6%	3.4%	19%	51%	10719	0	10	1.683	5.54	1.40
AU PPM > 40						29	41.69	266	78.23	2885	0.69
AU PPM <= 40						10690	0	39.33	1.865	11.55	1.82

Source: SRK, 2019



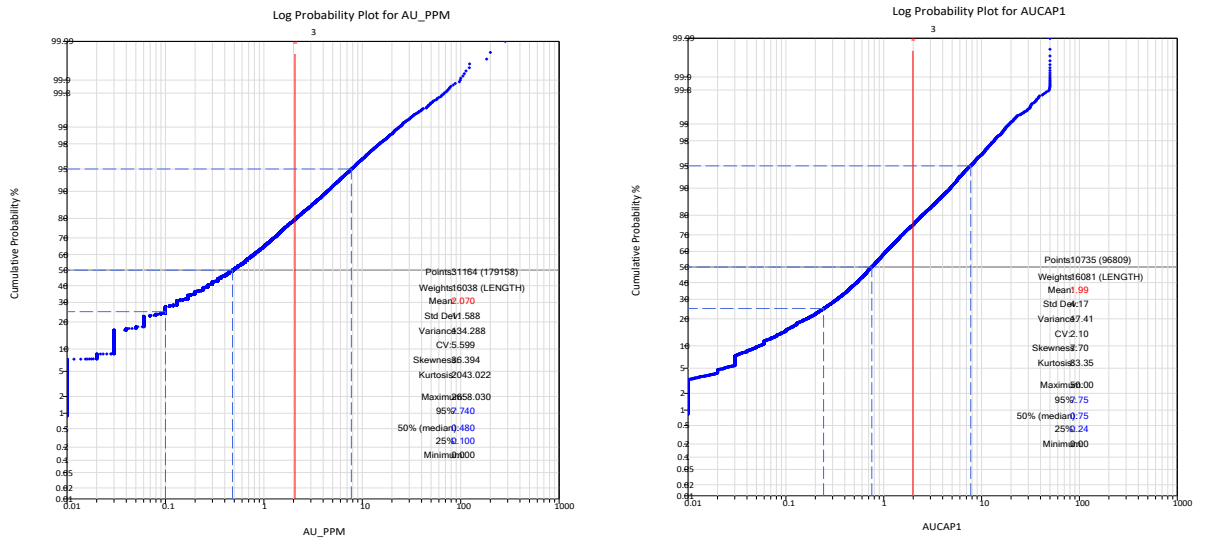
**Figure 14-9: Example of the A Log-Probability Plot Used During the Capping Analysis for Gold Grams Per Tonne Within the Ormsby (Indicator >0.3 g/t Au) Domain**

Source: SRK, 2019

To assess the impact on sampling the following statistical parameters have been considered, cap value, percentage of samples capped per domain, total metal reduction from capped values, percentage change in the coefficient of variation (CV), Mean grade and the CV. These results are tabulated for ease of comparison with the aim to reduce the CV below a value of 1.5 where reasonable

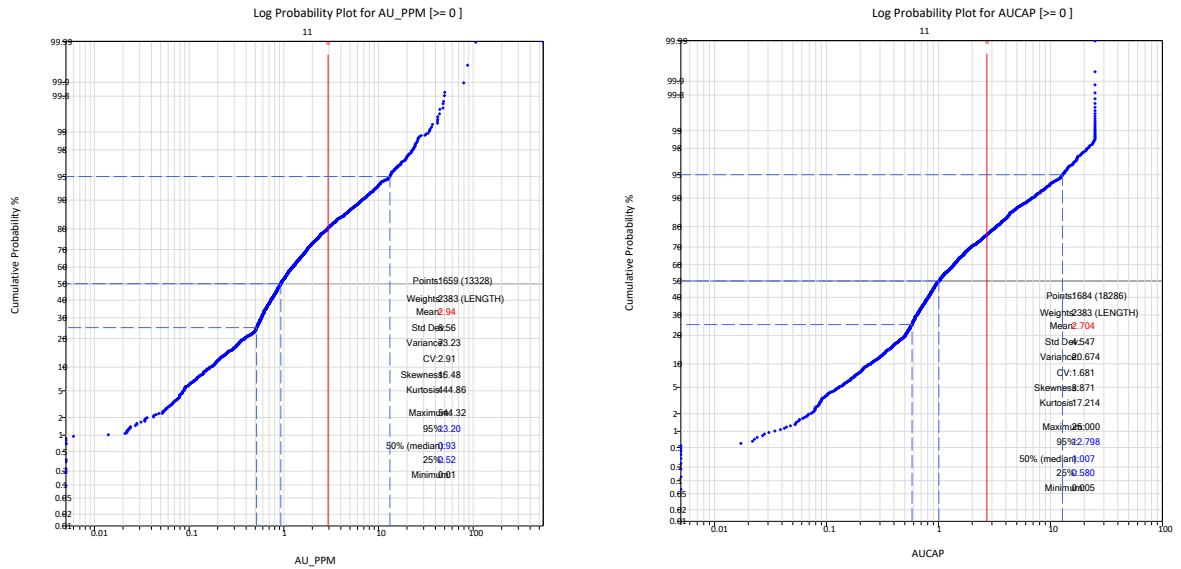
At Nicholas Lake, the QP noted a number of the individual veins had highly skewed sample populations with as a result of relatively isolated high-grades, where it was felt capping these excessively might result in underestimating the grades, but applying no cap would over-estimate. In such situations the QP elected to use a sliding cap away from the high-grade samples, whereby the initial cap was set to the desired level (in the first estimation pass), dropping to half the capped value for the second and third search ranges.

An example of the raw and log probability plots for the main domain are shown in Figure 14-10 to Figure 14-12. A summary of the final capping levels is shown in Table 14-7.

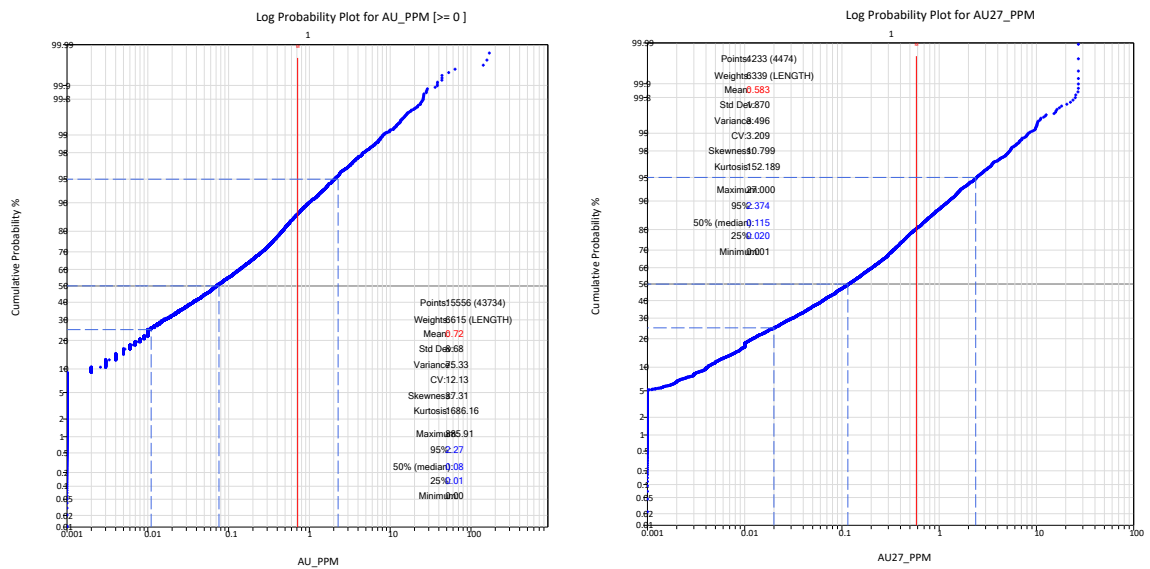


**Figure 14-10: Example of Comparison Between Raw and Capped Composites at Ormsby (Indicator >0.3 g/t Au Domain)**

Source: SRK, 2019



**Figure 14-11: Example of Comparison Between Raw and Capped Composites at Nicholas Lake (KZONE=11)**



**Figure 14-12: Example of Comparison Between Raw and Capped Composites at Clan Lake (KZONE=11)**



**Table 14-7: Summary of Selected Capping Values per Deposit, Domain and Search Volume**

DEPOSIT	KZONE	Search Volume		
		1	2	3
Ormsby	1	1.0	1.0	0.5
	2	2.5	2.5	2.5
	3	50.0	50.0	50.0
Nicholas Lake	-1	2.5	2.5	2.5
	0	4.5	4.5	4.5
	1	11.4	11.4	11.4
	2	0.95	0.95	0.95
	3	18.0	18.0	18.0
	4	3.5	3.5	3.5
	5	21.0	21.0	21.0
	6	62.0	62.0	62.0
	7	12.5	12.5	12.5
	8	9.5	9.5	9.5
	9	11.0	11.0	11.0
Clan Lake	10	7.6	7.6	7.6
	11	25.0	25.0	25.0
	1	45.0	27.0	27.0
Bruce	2	35.0	35.0	35.0
	3	35.0	35.0	35.0
Goodwin	1	0.5	0.5	0.5
	2	12.0	12.0	12.0
	0	0.1	0.1	0.1
	1	0.3	0.3	0.3
	2	6.5	6.5	6.5

Source: SRK, 2019

## 14.5 Variography

Variography is the study of the spatial variability of an attribute, in this case gold (Au) grade. The QP completed a variography study as part of the current Mineral Resource estimate, using the capped 3.0 m composite dataset. Snowden Supervisor Software (Supervisor™) was used for geostatistical analysis for the project. In completing the analysis, the following was considered:

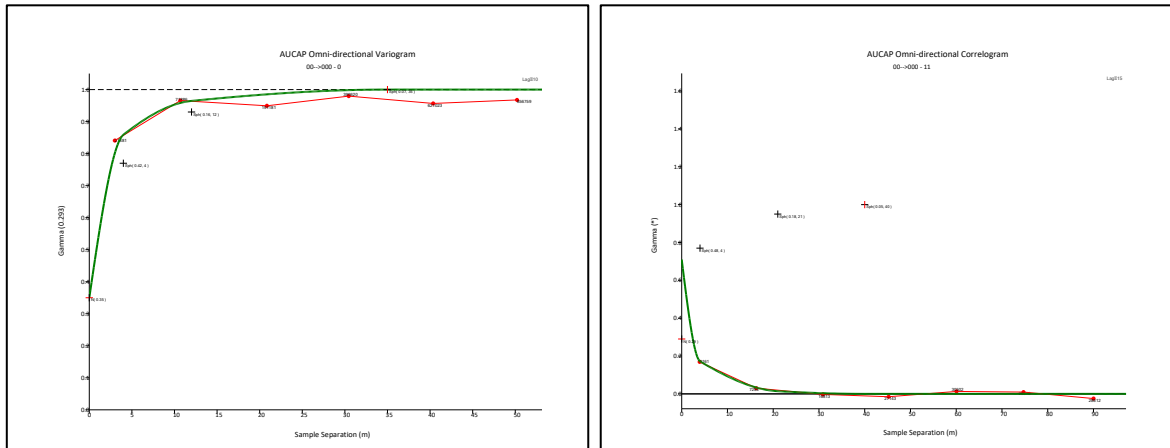
- Azimuth and dip of each zone was determined;
- The down-hole variogram was calculated and modeled to characterize the nugget effect;
- Experimental semi-variograms, were calculated to determine if directional variograms could be established for the along strike, cross strike and down-dip directions;
- If directional variograms were reasonable then the variogram was modeled accordingly using the nugget and sill defined in the down-hole variography, and the ranges for the along strike, cross strike and down-dip directions;
- If no directional variograms could be noted with confidence, the QP has utilised omni-directional variograms instead; and
- All variances (where relevant) were re-scaled for each mineralized lens to match the total variance for that zone.

A summary of the model semi-variogram parameters and examples from the key domains are shown in Table 14-8, Figure 14-13 and Figure 14-14. No variograms were obtained for the Goodwin deposit due to the limited sample population.

**Table 14-8: Summary of Semi-Variogram Parameters Used Per Domain at Yellowknife**

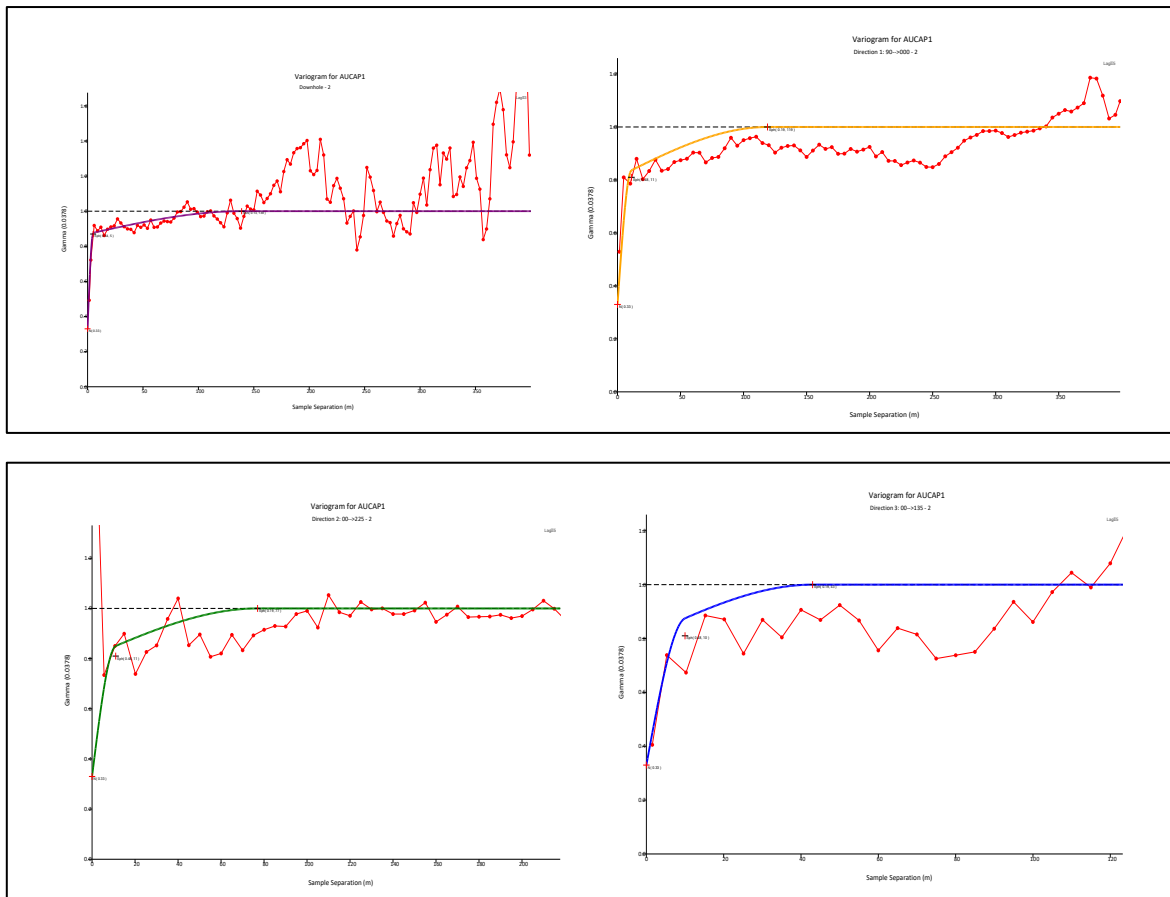
Variogram Parameter	Domain	Rotation			Co (%)	C1 (%)	A1 –			C2 (%)	A2 –			C3 (%)	A3 –			
							Along	Down	Across		Along	Down	Across		Along	Down	Across	
		Strike	Dip	Strike			Strike	Dip	Strike		Strike	Dip	Strike		Strike	Dip	Strike	
		(m)	(m)	(m)			(m)	(m)	(m)		(m)	(m)	(m)		(m)	(m)	(m)	
Orsmyby	1	45	90	0	33.0	48.0	11	11	10	19.0	120	75	43					
	2	45	90	0	50.7	35.3	11	11	10	14.0	120	75	43					
	3	30	35	0	42.0	35.0	12	18	21	23.0	48	35	35					
Bruce	1	Isotropic				65.0	29.0	29	29	29	6.0	310	310	310				
	2		69.0	22.0	19	19	19	9.0	155	155	155							
	3		71.0	20.0	20	20	20	9.0	175	175	175							
	4		80.0	21.0	6	6	6	5.0	15	15	15							
Nicholas Lake	1-10	Isotropic				35.0	42.0	4	4	4	16.0	12	12	12	7.0	35	35	35
	11		27.0	48.0	4	4	4	18.0	21	21	21	7.0	40	40	40			
Clan Lake	0-1	Isotropic				44.0	31.0	6	6	6	16.0	18	18	18	9.0	40	40	40
	2		32.0	65.0	6	6	6	9.0	30	30	30							

Source: SRK, 2019



**Figure 14-13: Model Semi-Variogram and Correlogram Used for Nicholas Lake**

Source: SRK, 2019



**Figure 14-14: Directional Semi-Variogram Models Used for Orsmbly Indicator >0.3 g/t Au Domain**

Source: SRK, 2019

## 14.6 Block Model Setup

The QP produced block models using Datamine™ Studio RM Software (Datamine™). The procedure involved construction of wireframe models for the fault networks, veins, definition of resource domains (high-grade sub-domains), data conditioning (compositing and capping) for statistical analysis, geostatistical analysis, variography, block modeling and grade interpolation followed by validation. Grade estimation was based on parent block dimensions of 3 m x 3 m x 3 m, for the current resource models.

Blocks were coded by the individual lithology solids (Ormsby, Bruce, Clan Lake and Goodwin Lake) and by estimation domain solids (Nicholas Lake and Clan Lake) as described in Section 14.3, for retrieval during grade estimation. The QP notes in the previous Mineral Resource Estimate a block size of 1.5 m x 1.5 m x 1.5 m blocks, was used at Nicholas Lake. In the 2019 estimates the QP elected to use a 3 x 3 x 3 m parent block dimension for all deposits. All models have made use of Datamine’s ability to apply sub-blocking to improve the accuracy between the geological wireframes and the block volumes. A minimum block size of between 1.0 x 1.0 x 1.0 m for most deposits with some areas where the domains are considered wider a minimum block size of 1.5 x 1.5 x 1.5 m has been used. The model origin, extent and rotation for each of the areas as shown in Table 14-9 to Table 14-13.

**Table 14-9: Block Model Origin and Extents - Ormsby**

Model Axis	Minimum (m)	Extent (m)	Block Size (m)	Number of Blocks
East	351,900	1,002	3.0	334
North	7,007,900	1,902	3.0	634
Elevation	-300	651	3.0	217

Source: SRK, 2019  
 Rotated 40° clockwise about the Z axis

**Table 14-10: Block Model Origin and Extents – Bruce**

Model Axis	Minimum (m)	Extent (m)	Block Size (m)	Number of Blocks
East	353,000	1,002	3.0	334
North	7,009,000	1,902	3.0	634
Elevation	-300	651	3.0	217

Source: SRK, 2019  
 Rotated 40° clockwise about the Z axis

**Table 14-11: Block Model Origin and Extents - Nicholas Lake**

Model Axis	Minimum (m)	Extent (m)	Block Size (m)	Number of Blocks
East	361,000	702	3.0	234
North	7,015,750	702	3.0	234
Elevation	-150	600	3.0	200

Source: SRK, 2019  
 No Rotation

**Table 14-12: Block Model Origin and Extents –Goodwin Lake**

Model Axis	Minimum (m)	Extent (m)	Block Size (m)	Number of Blocks
East	648,400	402	3.0	134
North	6,996,150	603	3.0	201
Elevation	-100	402	3.0	134

Source: SRK, 2019  
 Rotated 20° clockwise about the Z axis

**Table 14-13: Block Model Origin and Extents - Clan Lake**

Model Axis	Minimum (m)	Extent (m)	Block Size (m)	Number of Blocks
East	639,700	1,476	3.0	492
North	6,978,300	1,476	3.0	492
Elevation	-200	510	3.0	170

Source: SRK, 2019  
 No rotation

## 14.7 Specific Gravity Analysis

The QP notes that no new specific gravity testwork has been completed since the 2012 Mineral Resource update. The QP was provided with a database of 3,110 specific gravity determinations conducted by the previous owner’s geological staff. Specific gravity (SG) was determined using the water immersion method using drill core from all properties during 2005-2011 drilling programs.

The Company developed average SG assignments for each model area (Table 14-14). The QP at that time reviewed the data provided and is of the opinion that the average SG assignments as determined are reasonable given the range of lithologies observed, and that the data are suitable for use in resource tabulation.

During the current estimate the QP has completed a review of the density information and notes that the densities presented are reasonable for the underlying information. The QP would recommend further density testwork is completed during the next phase of exploration to confirm the information as presented.

**Table 14-14: Summary Statistics – Specific Gravity Determinations by Zone**

Zone	Rock Code	Lithology	No. of Samples	Avg SG	SG Used in Model
Ormsby/Bruce	1	Greenstone	608	3.05	3.05
	2	Transition Sediments	470	2.81	
	3	Burwash Sediments	114	2.77	
	6	Quartz Veining	240	2.72	
	9	Fault Zones	17	2.95	
Nicholas Lake	5	Metaturbidites	88	2.78	2.70
	6	Granitoid Dykes	5	2.66	
	7	Granodiorite	283	2.66	
	8	Quartz Veining	30	2.71	
Clan Lake	FI/FV	Felsic Intrusive/Volcanic	8	2.71	2.74
	IV	Intermediate Volcanic	899	2.75	
	MI	Mafic Intrusive	13	2.87	
	MV	Mafic Volcanic	81	2.86	
	SD	Metasediments	74	2.80	
	V	Quartz Veining	132	2.72	
Goodwin Lake	GAB	Metagabbro	21	2.80	2.93
	MTB	Metaturbidite	8	2.71	
	QV	Quartz Veining	19	2.66	
<b>Total</b>			<b>3,110</b>		

Source: Modified from Tyhee Internal Document

## 14.8 Estimation Methodology

The QP has produced block models using Datamine™ Studio RM Software (Datamine™). The procedure involved construction of wireframe models for the fault networks if applicable, coding key lithologies and veins, definition of resource domains, data conditioning (compositing and capping) for statistical analysis, geostatistical analysis, variography, block modelling and grade interpolation followed by validation.

Grade estimation was based on block dimensions of 3 x 3 x 3 m, for the updated models (based on the SMU size). The block size reflects the block size used in the 2012 estimates for consistency and the narrow nature of veins/stockwork mineralization. The QP notes this block size is considered relatively small compared to the current drill spacing, but use of larger blocks may result in changes in the selectivity in the current estimates.

The estimation parameters have been orientated in the direction of the geological wireframes with a two or three pass estimation being completed for all deposits. At Nicholas Lake, in the areas outside of the main wireframes, the QP has also completed a background estimate of the grades within the granodiorite unit. In the previous model, two sub-domains were used which defined the search orientations, but no clear geological features were logged or mapped, such a faults to define this split. The QP has therefore elected to make use of the Datamine Dynamic Anisotropy for this zone.

The QP interpolated grades using Ordinary Kriging (OK), Inverse Distance Squared (ID2), and Nearest Neighbor (NN) estimates on all models. OK is the primary estimation method for all models with the exception of Clan Lake and Goodwin Lake which had relatively poor geostatistical continuity and therefore ID2 was preferred. This poor apparent geostatistical continuity of Clan Lake was reflected in the application of an Inferred classification for the deposit.

The QP noted in Section 14.4.2, the presence of high-grades, which may be inappropriately smoothed or result in a high-bias within the deposit, were noted on a number of different domains. In cases where The QP considers this occurs, the use of a sliding cap (or clapping of high-grades) has been applied. The application of these high-grades is typically a restriction to the first search pass, with more aggressive capping occurring in the second and third passes accordingly.

A summary of the selected estimation methods and capping are shown in Table 14-15 and Table 14-16.

**Table 14-15: Summary of Search Ranges used in Estimation of Gold Grades at Yellowknife**

Deposit	Reference	Rotation			Range 1					Range 2			Range 3			Maxkey	Dynamic (TRDIPDIR)	Dynamic (TRDIP)
		Angle Z	Angle X	Angle Y	SDIST1	SDIST2	SDIST3	Minimum	Maximum	Range Multiple	Minimum	Maximum	Range Multiple	Minimum	Maximum			
Ormsby	1	45	90	0	60	35	20	3	10	1.5	2	10	2	1	8	2		
	2	45	90	0	60	35	20	3	10	1.5	2	10	2	1	8	2		
	3	30	35	0	30	20	12.5	3	10	1.5	2	10	2	1	8	2		
Nicholas Lake	-1	0	0	0	20	15	5	4	8	2	2	8	3	1	4	2	TRDIPDIR	TRDIP
	0	0	0	0	40	40	2.5	4	8	2	2	8	3	1	6	2	TRDIPDIR	TRDIP
	1	0	0	0	20	15	5	4	8	2	2	8	3	1	4	2	TRDIPDIR	TRDIP
Clan	1	25	22.5	0	40	30	10	4	12	2	4	12	3	1	8	3		
	2	65	70	0	40	50	20	5	16	2	4	12	2	1	4	10		
Bruce (SVol 1&2)	1	30	30	0	20	15	7.5	3	10	2	2	8	4	1	8	2		
	2	30	30	0	20	15	7.5	3	10	2	2	8	4	1	8	2		
	3	30	30	0	20	15	7.5	3	10	2	2	8	4	1	8	2		
	4	30	30	0	20	15	7.5	3	10	2	2	8	4	1	8	2		
Bruce (SVol 3)	1	30	30	0	30	20	12.5	3	10	1.5	2	10	2	1	8	2		
	2	30	30	0	30	20	12.5	3	10	1.5	2	10	2	1	8	2		
	3	30	30	0	30	20	12.5	3	10	1.5	2	10	2	1	8	2		
	4	30	30	0	30	20	12.5	3	10	1.5	2	8	2	1	8	2		
Goodwin	1	20	25	0	20	30	12.5	3	8	2	2	12	0	1	20	2		

Source: SRK, 2019



**Table 14-16: Summary of Capping Levels Per Domain (KZONE) and Interpolation Methods**

Deposit	KZONE	SVol =1		SVol =2		SVol =3	
		Method	Cap	Method	Cap	Method	Cap
Ormsby	1	OK	1	OK	1	OK	0.5
	2	OK	2.5	OK	2.5	OK	2.5
	3	OK	50	OK	50	OK	50
Nicholas Lake	-1	OK	2.5	OK	2.5	OK	2.5
	0	OK	4.5	OK	4.5	OK	4.5
	1	OK	11.4	OK	11.4	OK	11.4
	2	OK	0.95	OK	0.95	OK	0.95
	3	OK	18	OK	18	OK	18
	4	OK	3.5	OK	3.5	OK	3.5
	5	OK	21	OK	21	OK	21
	6	OK	62	OK	62	OK	62
	7	OK	12.5	OK	12.5	OK	12.5
	8	OK	9.5	OK	9.5	OK	9.5
	9	OK	11	OK	11	OK	11
Clan Lake	10	OK	7.6	OK	7.6	OK	7.6
	11	OK	25	OK	25	OK	25
	1	ID2	45	ID2	27	ID2	27
	2	ID2	35	ID2	35	ID2	35
Bruce	3	ID2	35	ID2	35	ID2	35
	1	OK	0.5	OK	0.5	OK	0.5
Goodwin	2	OK	12	OK	12	OK	12
	0	ID2	0.1	ID2	0.1	ID2	0.1
	1	ID2	0.3	ID2	0.3	ID2	0.3
	2	ID2	6.5	ID2	6.5	ID2	6.5

Source: SRK, 2019

## 14.9 Model Validation

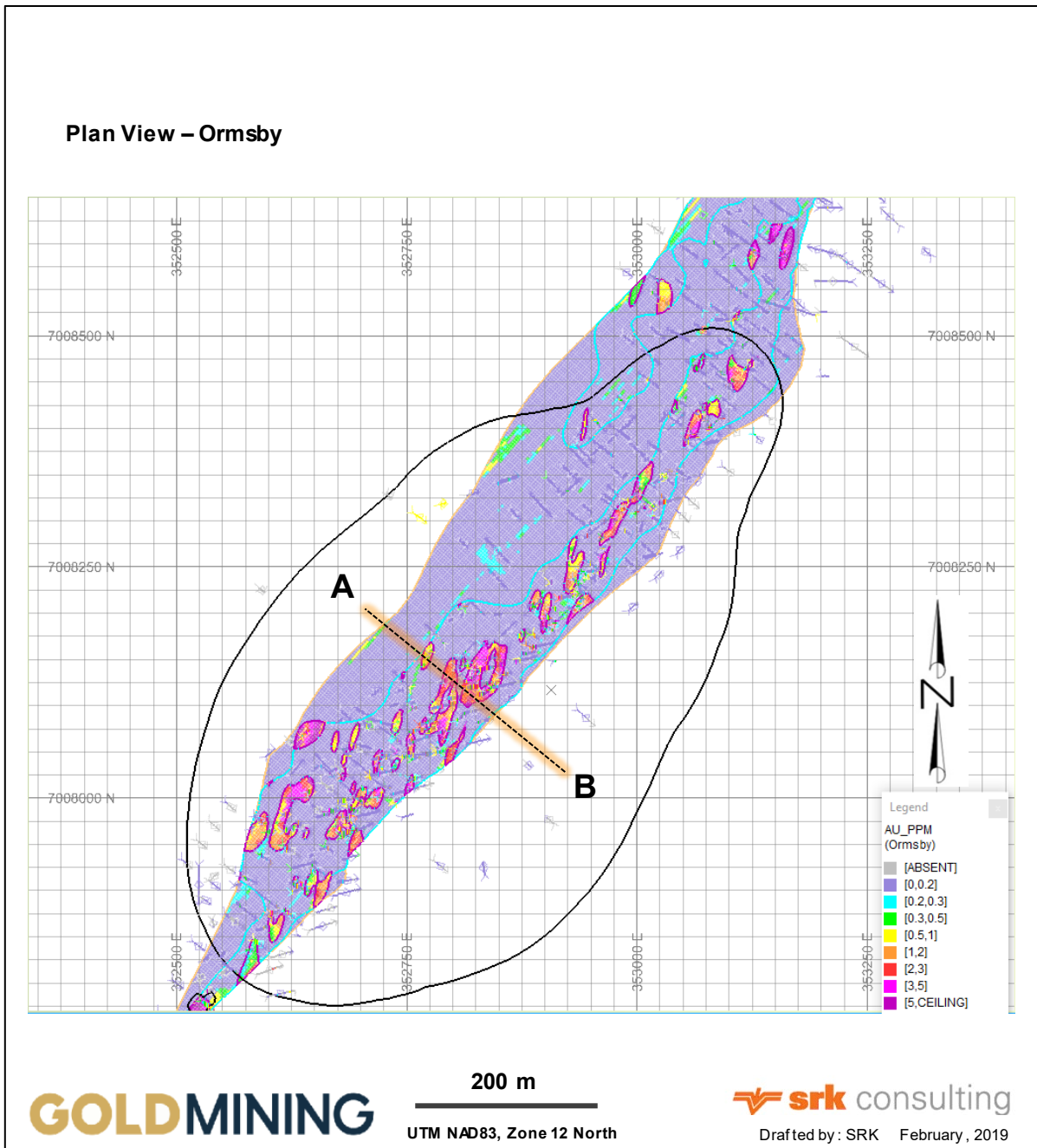
Various measures have been implemented to validate the resultant resource block estimate. These measures include the following:

- Comparison of borehole composites with resource block grade estimates by zone visually both in plan and section;
- Statistical comparisons between block and composite data using histogram and cumulative distribution analysis;
- Generation of comparative ID2 and NN models; and
- Swath plot analysis (drift analysis) comparing the ID2 models with the NN models

### 14.9.1 Visual Inspection

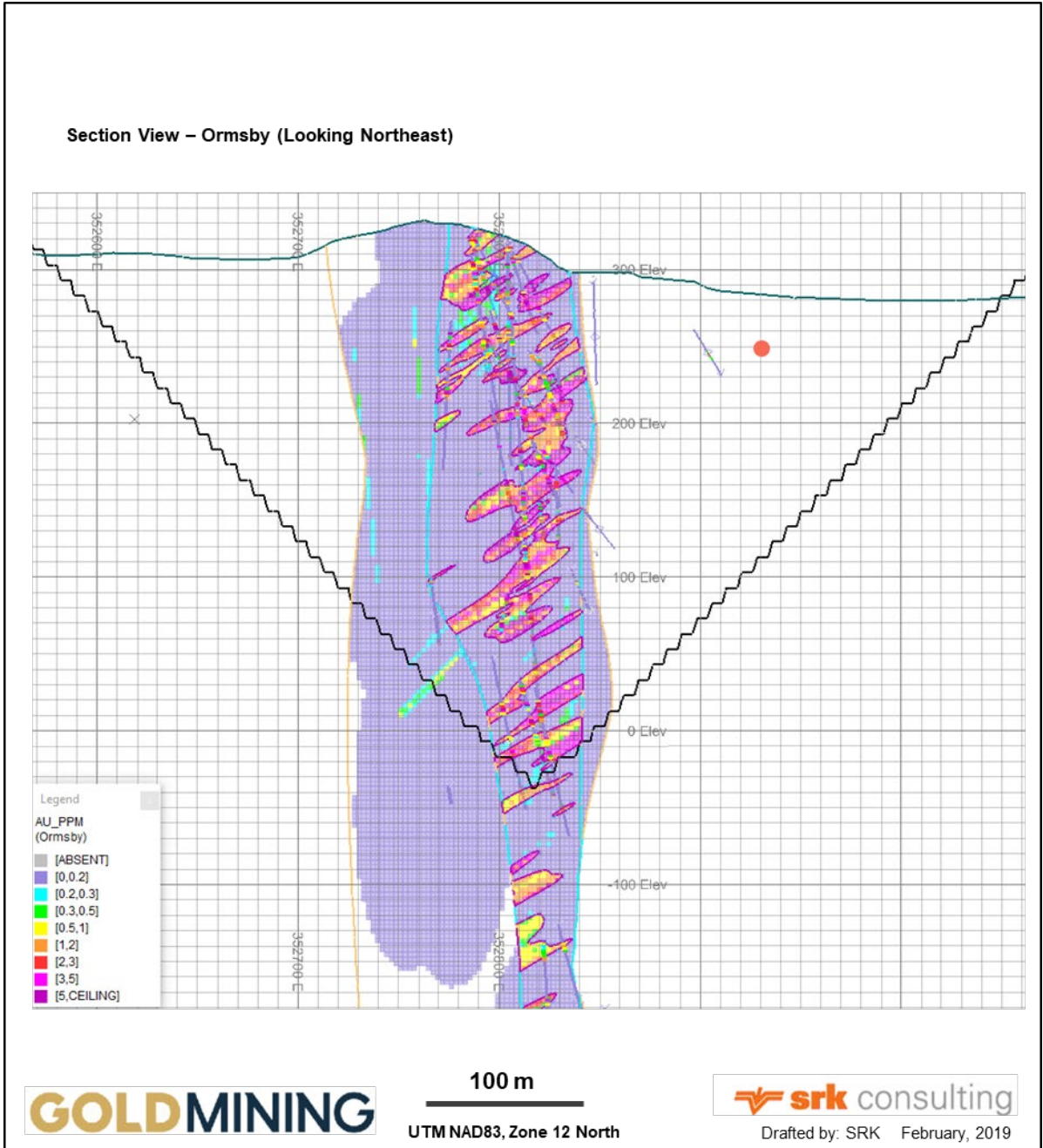
Visual validation provides a comparison of the interpolated block model on a local scale. A thorough visual inspection was undertaken in 3D, comparing the sample grades with the block grades, which demonstrates in general good comparison between local block estimates and nearby samples, without excessive smoothing in the block model. Figure 14-15 to Figure 14-24, show examples of the visual validation checks and highlights the overall block grades corresponding with composite sample grades of each mine.

The QP notes in a limited number of cases, within areas of low sample density and highly variable gold grade, local grade discrepancies occur between composite and block grades (as a result of smoothing). In these areas the QP verified the resulting grade distributions with the Company geological staff and made amendments where appropriate. In areas of greatest variability, the QP considered grade continuity as a factor during the classification process.



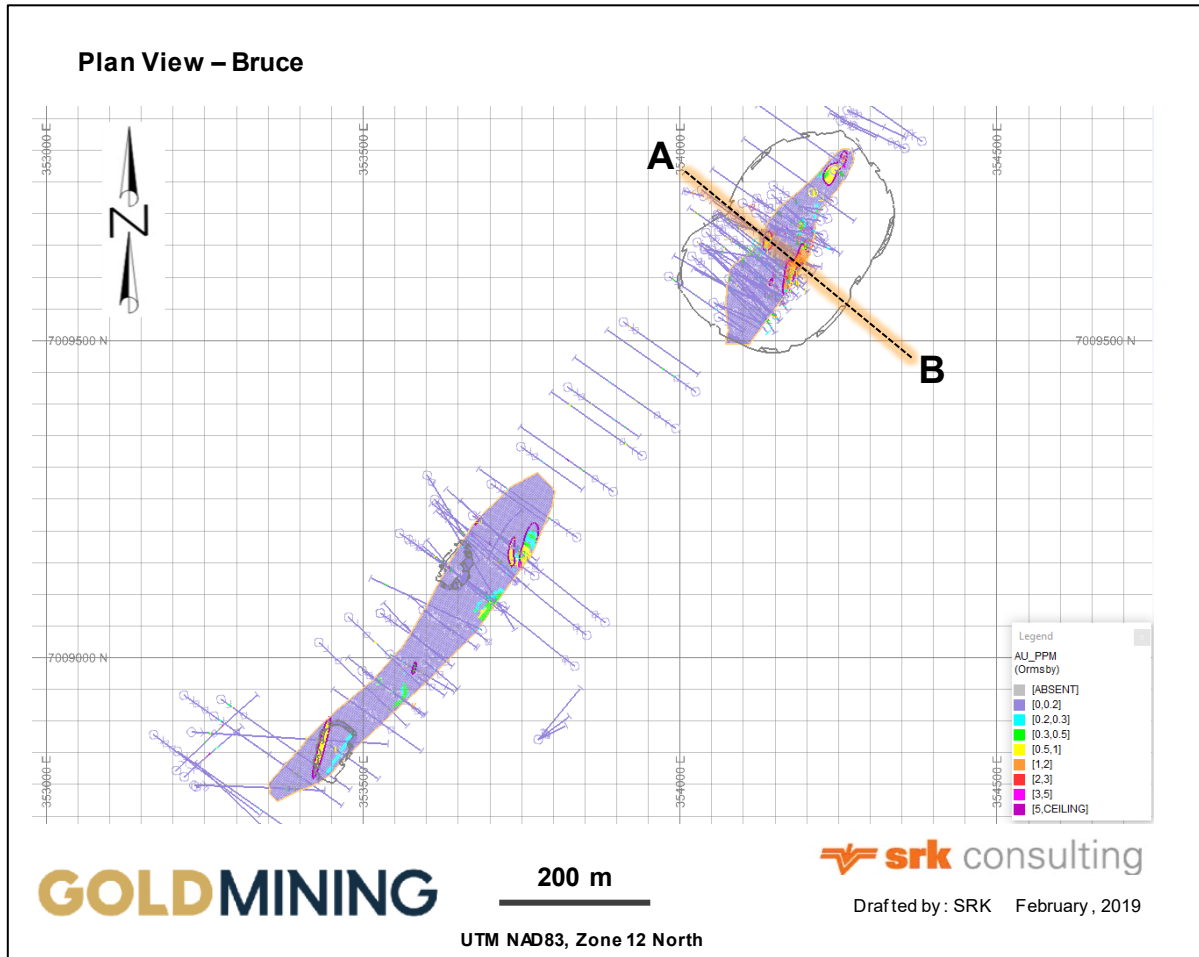
**Figure 14-15: Example of Validation Plots Showing Plan View of Ormsby Deposit**

Source: SRK, 2019



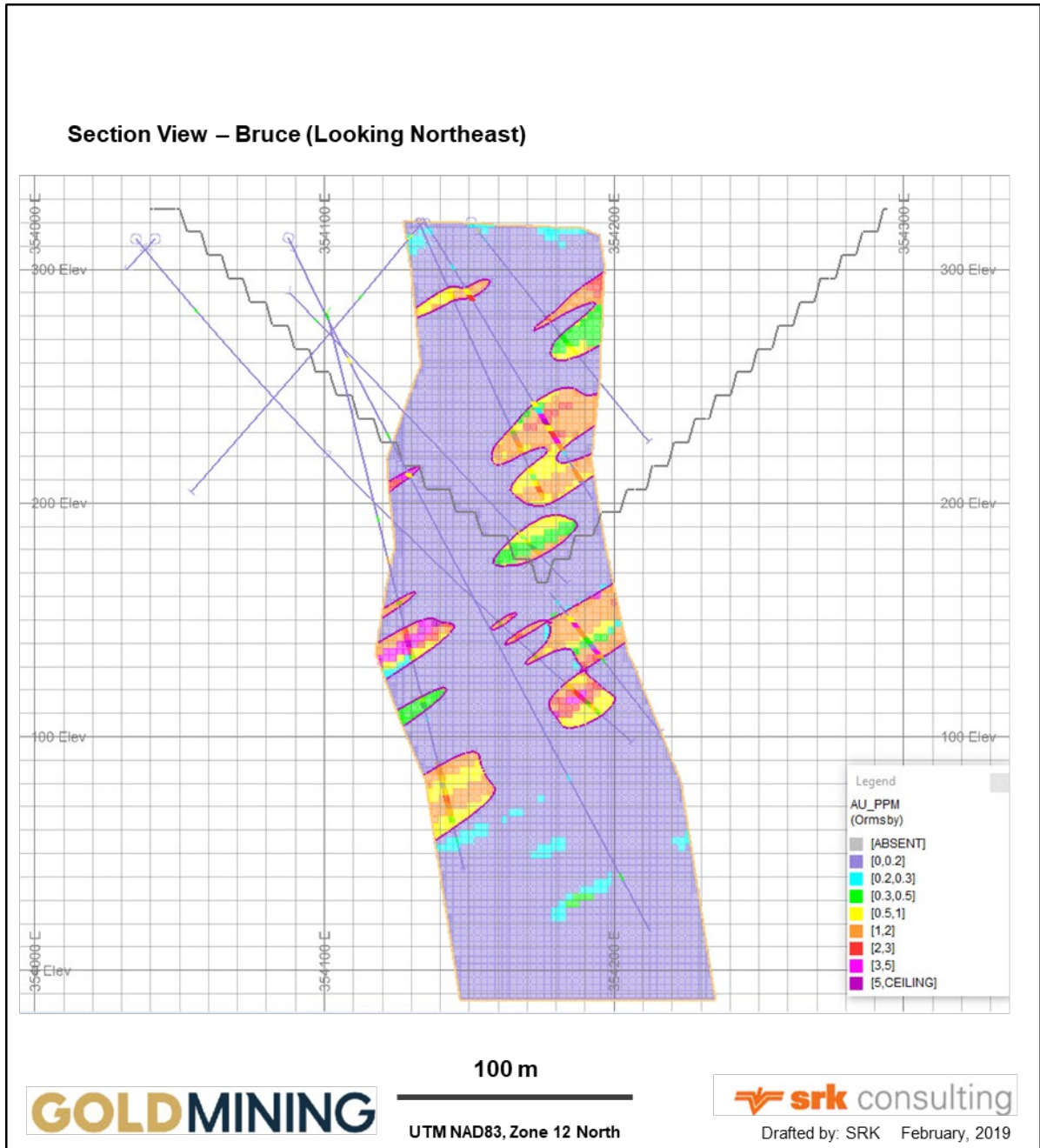
**Figure 14-16: Example of Validation Plots Showing Cross-Section of Ormsby Deposit, Looking Northeast**

Source: SRK, 2019



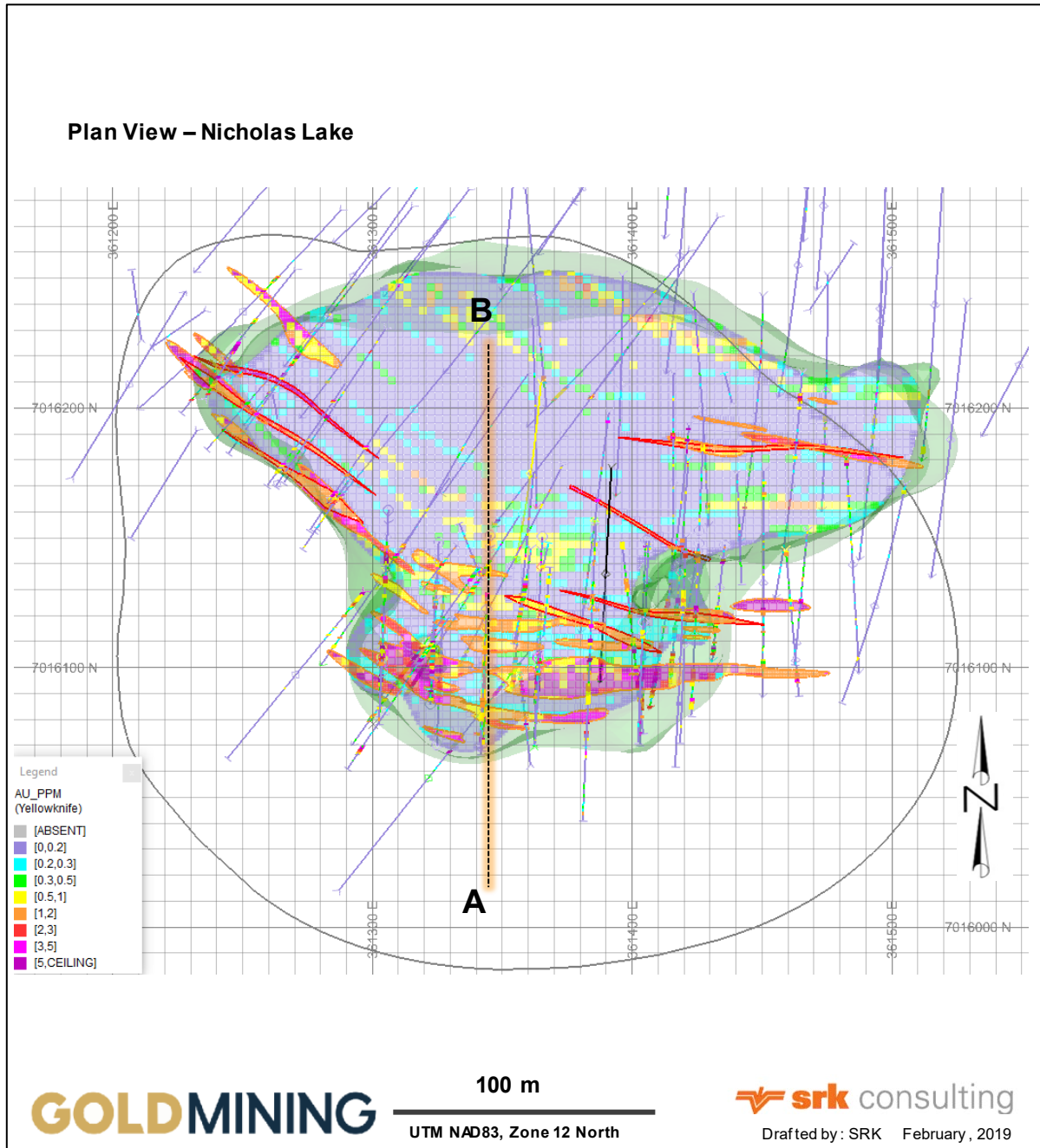
**Figure 14-17: Example of Validation Plots Showing Plan View of Bruce Deposit**

Source: SRK, 2019



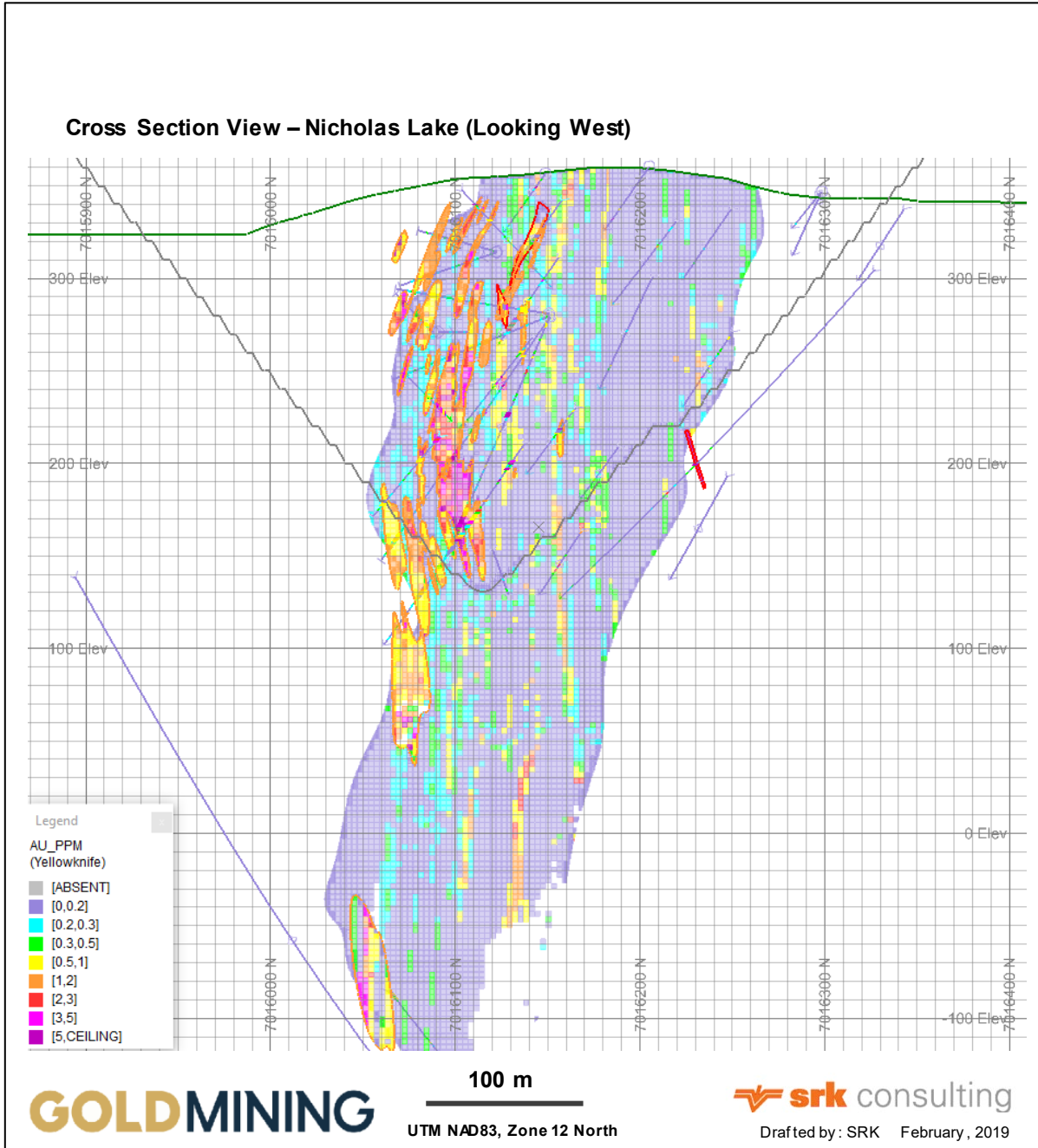
**Figure 14-18: Example of Validation Plots Showing Cross Section View of Bruce Deposit, Looking Northeast**

Source: SRK, 2019



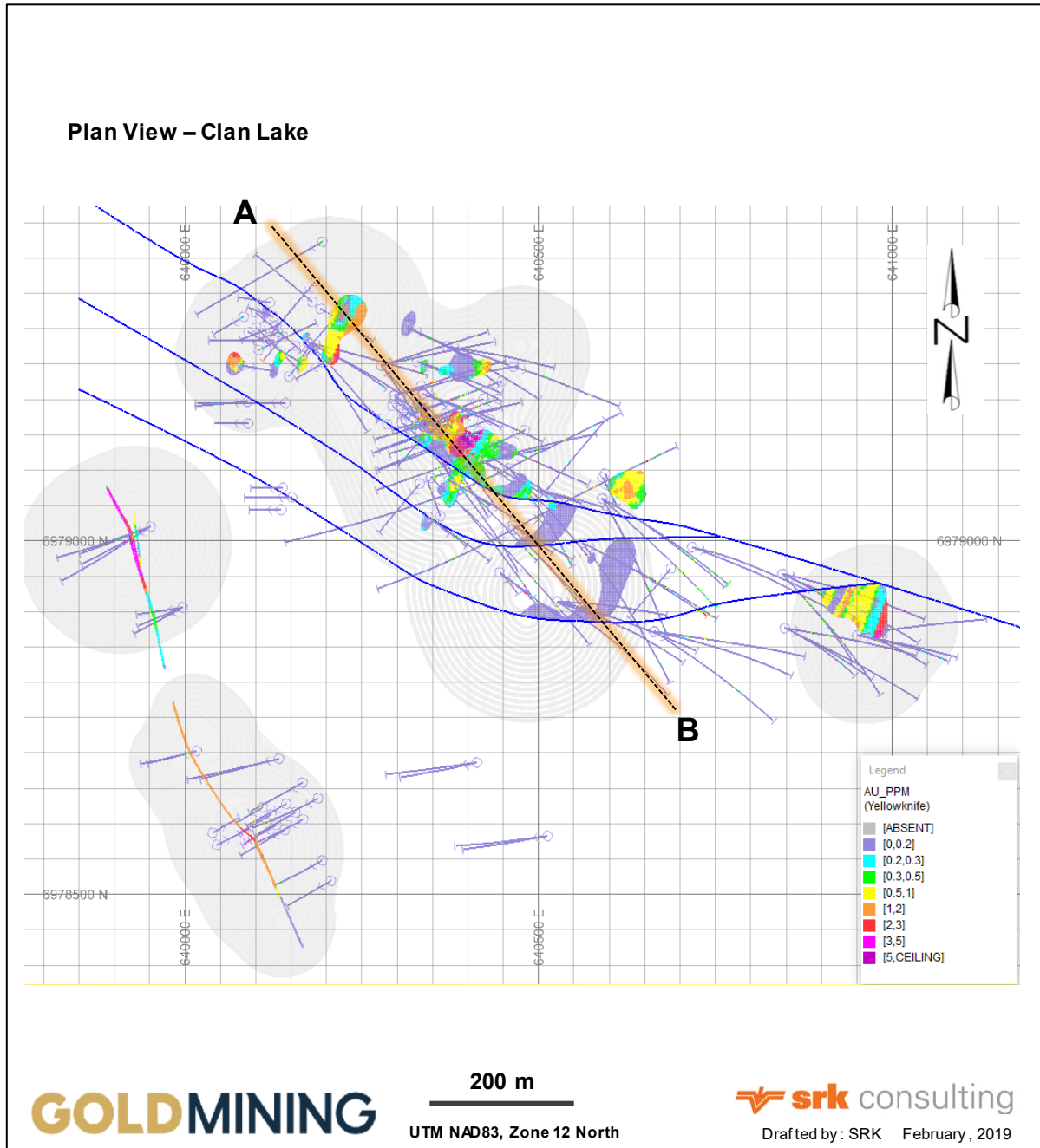
**Figure 14-19: Example of Validation Plots Showing Plan View of Nicholas Lake Deposit**

Source: SRK, 2019



**Figure 14-20: Example of Validation Plots Showing Cross Section View of Nicholas Lake Deposit, Looking West**

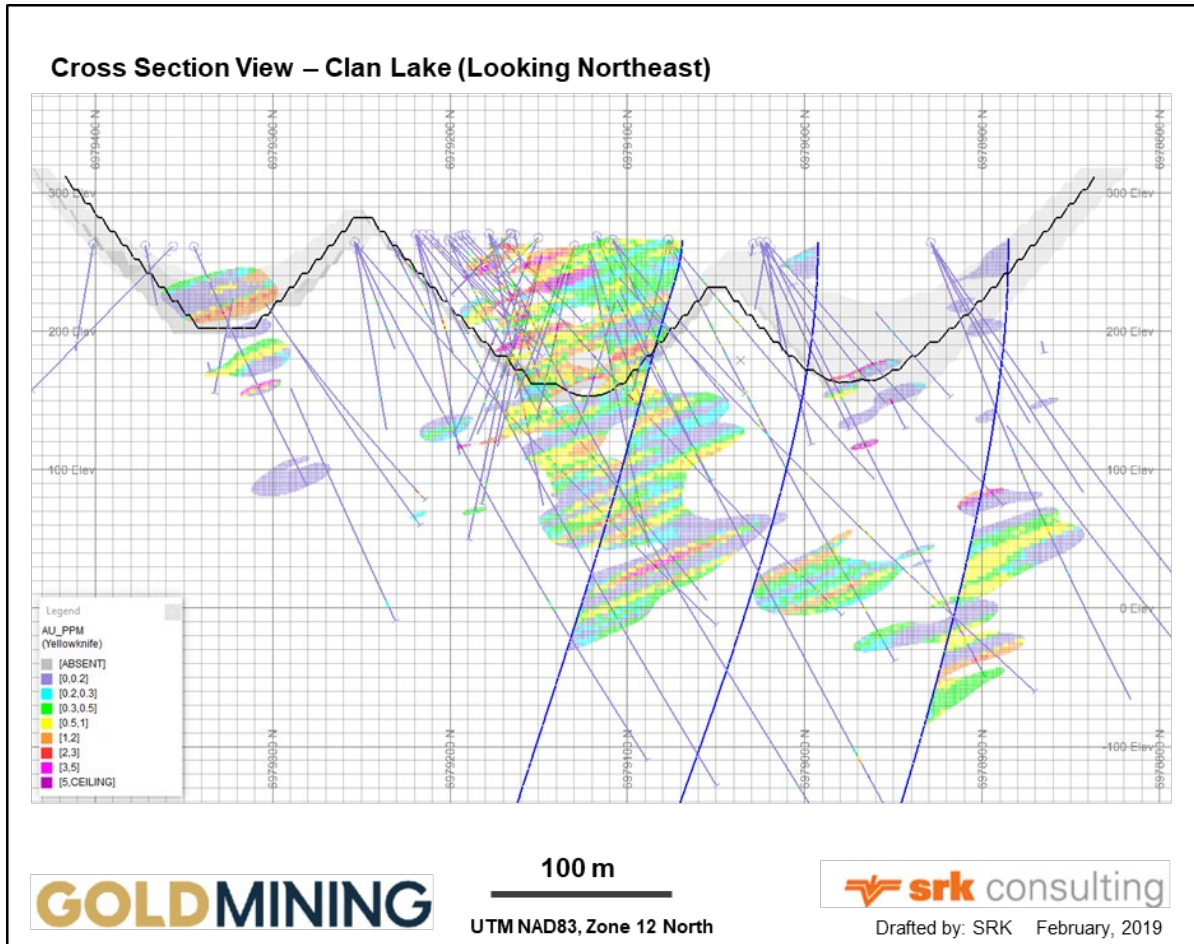
Source: SRK, 2019



**Figure 14-21: Example of Validation Plots Showing Plan View of Clan Lake Deposit**

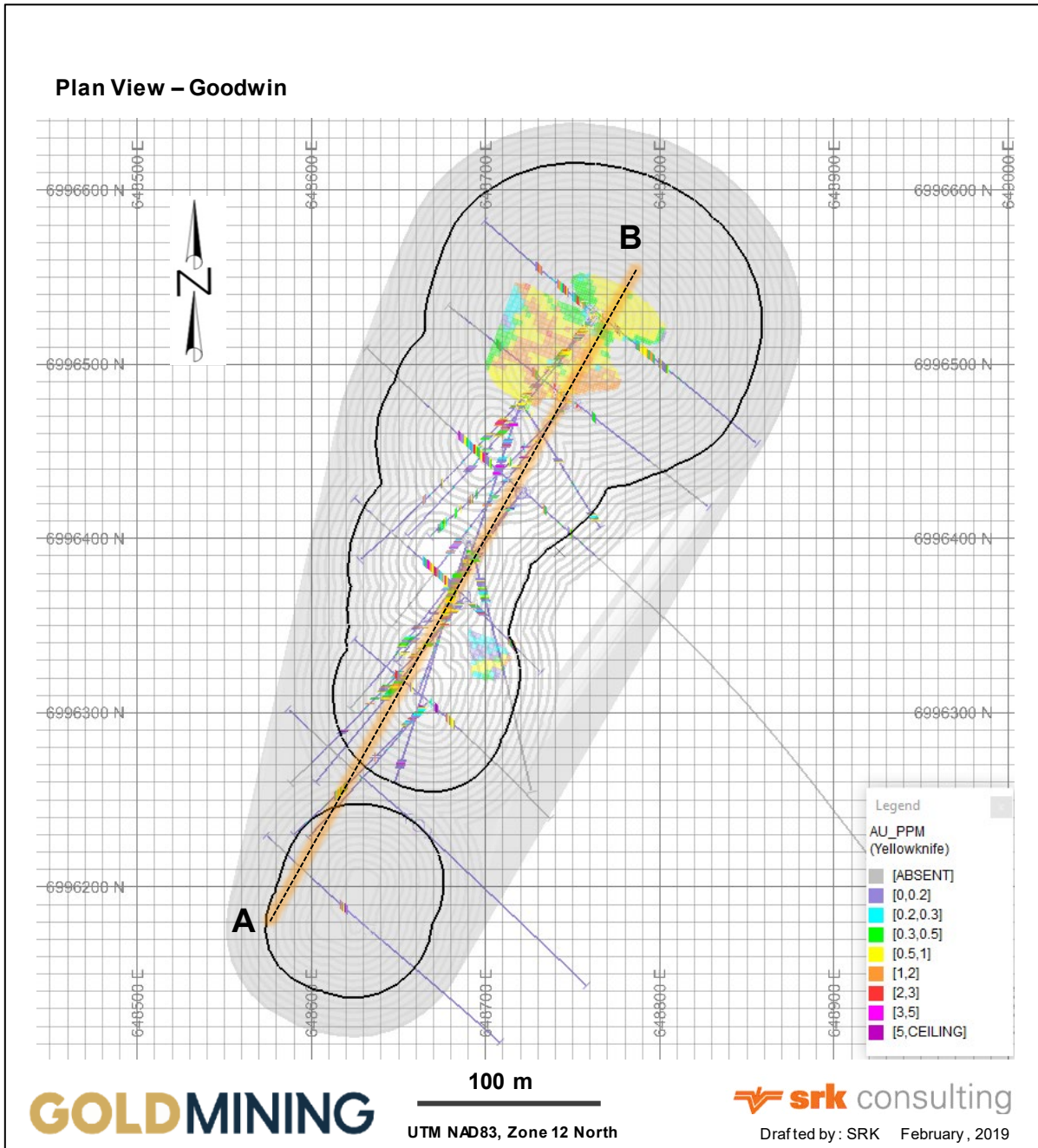
Source: SRK, 2019





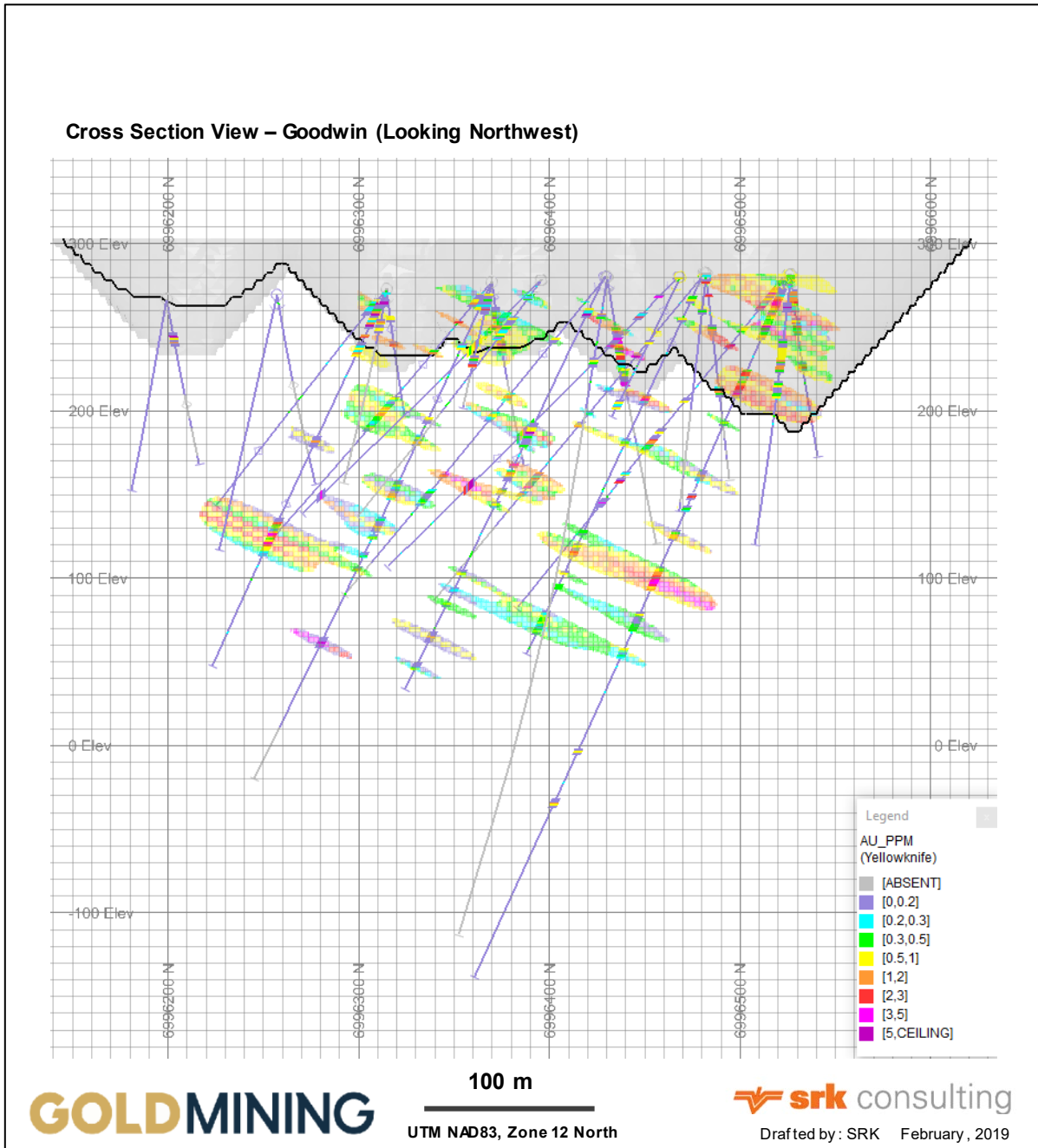
**Figure 14-22: Example of Validation Plots Showing Cross Section View of Clan Lake Deposit, Looking Northeast**

Source: SRK, 2019



**Figure 14-23: Example of Validation Plots Showing Plan View of Goodwin Deposit**

Source: SRK, 2019



**Figure 14-24: Example of Validation Plots Showing Cross Section View of Goodwin Deposit, Looking Northwest**

Source: SRK, 2019

### 14.9.2 Block Composite Statistical Comparisons

The QP completed a review of the statistics of the composites compared to the primary estimated field (OK or ID2) to assess any potential for bias in the estimation. The QP notes in general there is a strong correlation between the raw and estimated grades within satisfactory levels of errors ( $\pm 10\%$ ). The largest differences noted are within the veins at Nicholas Lake, where the grade estimates are

considered low compared to the raw means, the QP notes that this is a combination of multiple veins, with a relatively small sample population, which could be skewed in terms of the weighting for the average composite grades, that has no spatial consideration. The QP has therefore also completed a comparison of the estimated grades to the nearest neighbour assessment for each domain. The QP notes that even where the sample composites and the grade estimates show the highest variability the comparison between the estimate and the assigned nearest neighbour are typically within  $\pm 2.5\%$ , which in the QP's opinion is considered to be acceptable.

Summary tables of the main veins is shown in Table 14-17. The results indicate that in general the estimates report typically within 10% of the composite grades and less than 2.5% when compared to the nearest neighbour assigned grades.

### 14.9.3 Comparison of Different Estimation Methods

The QP also completed a comparison of the, mean grades between the estimated blocks using the different estimation methodology. The focus was on any key differences between the OK and the ID2 estimates which maybe a result in smoothing in the OK estimates. This was done for all models estimated with the exception of Goodwin which only used ID2 due to limited data. A breakdown of the comparison is shown in Table 14-18, which indicated a strong correlation between the different estimation methods, and further supports the correlation between the estimates grades and the nearest neighbour supported statistics discussed in Section 14.9.2.

### 14.9.4 Swath Analysis

A more local comparison between the blocks and the composites is made using swath plots. These plots shows both the varying means of the block and composites grades along slices through the model, as well as the amount of data supporting the estimate in each swath. Grade variations from the OK or ID2 models (primary estimation method) are compared (using the swath plot) to the distribution derived from the raw composite samples (shown in red) and the NN grade model.

On a local scale, the NN model does not provide reliable estimations of grade, but on a much larger scale it represents an unbiased estimation of the grade distribution based on the underlying data. Therefore, if the ID2 model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the NN distribution of grade.

Swath plots have been generated in three orthogonal directions (EW and NS sections and level plans) for distribution of gold in the five model areas.

Examples of the swath analysis for the key domains at each deposit are shown in Figure 14-25 to Figure 14-29. The swath plots show that there are no significant local biases in the estimation.

**Table 14-17: Summary of Statistical Comparison Between Composite Means and Grade Estimates (Key Domains)**

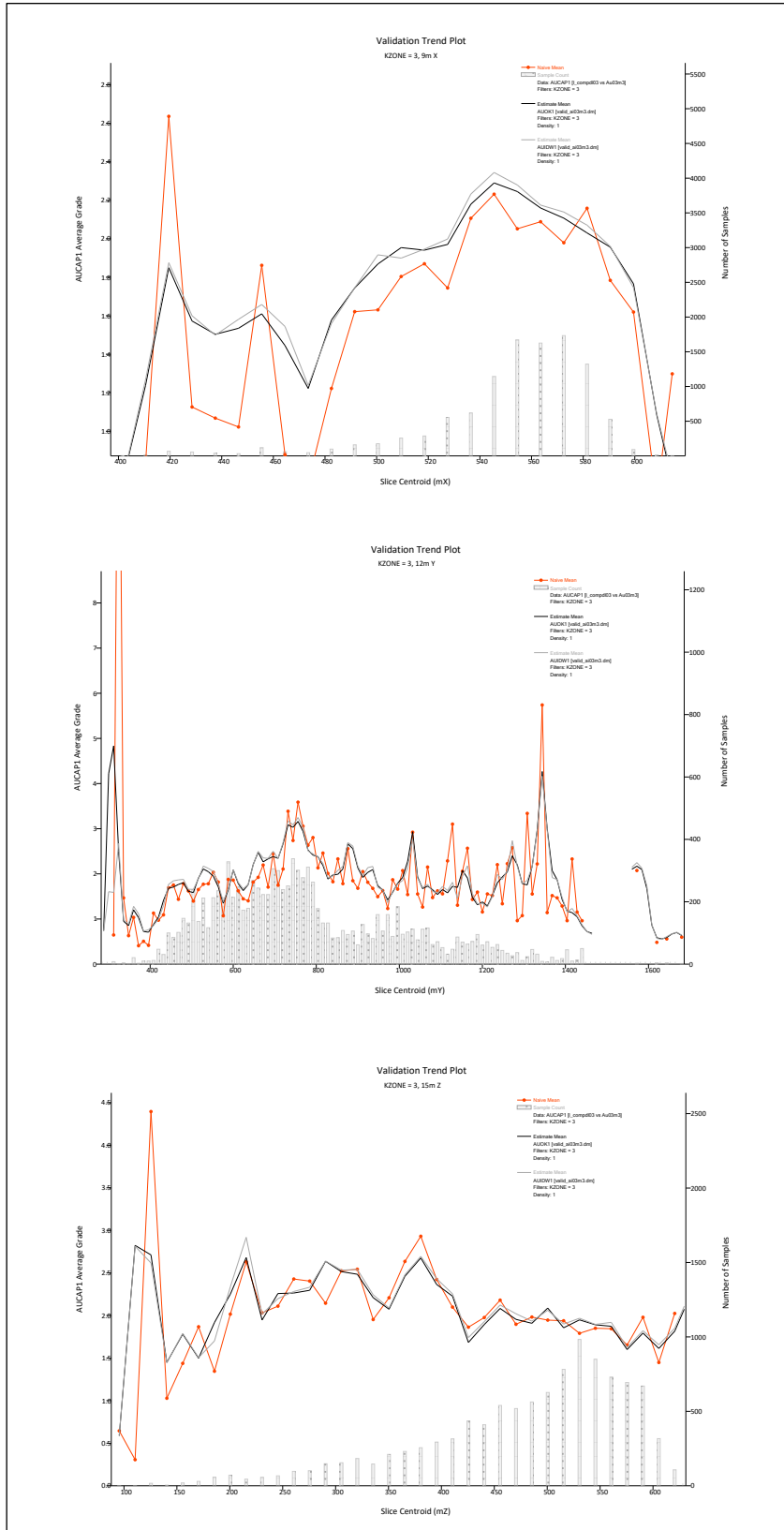
	Domain	Statistic	Mean	Block Data1		Block Data2		Block Data1
			Sample Data	(Tonnage Weighted)	vs.	(Tonnage Weighted)	vs.	(OK) vs.
			Au (g/t)	Au (g/t) OK/ID2	Sample % Diff	Au (g/t) NN	Sample % Diff	BlockData2 (NN)
Ormsby	KZ1	Mean	0.03	0.03	8.21	0.03	8.21	0.00
		Std Dev	0.05	0.04		0.04		
		Variance	0.00	0.00		0.00		
		CV	1.98	1.26		1.34		
	KZ2	Mean	0.08	0.08	6.51	0.08	5.37	1.08
		Std Dev	0.20	0.09		0.11		
		Variance	0.04	0.01		0.01		
		CV	2.49	1.10		1.33		
	KZ3	Mean	1.99	2.06	3.68	2.09	5.09	-1.34
		Std Dev	4.18	2.18		2.42		
		Variance	17.50	4.76		5.88		
		CV	2.10	1.06		1.16		
Bruce	KZ1	Mean	0.04	0.04	-0.44	0.04	-1.73	1.32
		Std	0.06	0.04		0.06		
		Variance	0.00	0.00		0.00		
		CV	1.46	1.00		1.49		
	KZ2	Mean	0.78	0.82	4.20	0.80	2.08	2.07
		Std	1.25	0.75		1.19		
		Variance	1.56	0.56		1.41		
		CV	1.59	0.92		1.48		
Nicholas Lake	KZ0	Mean	0.19	0.19	0.01	0.19	0.28	-0.27
		Std	0.46	0.26		0.47		
		Variance	0.21	0.07		0.22		
		CV	2.36	1.32		2.41		
	KZ1-10	Mean	4.09	2.47	-39.51	2.47	-39.48	-0.04
		Std	10.76	3.06		4.52		
		Variance	115.74	9.37		20.46		
		CV	2.63	1.24		1.83		
	KZ11	Mean	2.71	2.40	-11.18	2.42	-10.52	-0.73
		Std	4.56	2.53		4.08		
		Variance	20.83	6.39		16.68		
		CV	1.69	1.05		1.69		
Clan Lake	KZ1	Mean	0.59	0.53	-10.75	0.53	-9.46	-1.42
		Std	1.91	0.95		1.81		
		Variance	3.64	0.90		3.27		
		CV	3.24	1.80		3.39		
	KZ2	Mean	0.59	0.53	-10.75	0.53	-9.46	-1.42
		Std	1.91	0.95		1.81		
		Variance	3.64	0.90		3.27		
		CV	3.24	1.80		3.39		
Goodwin	KZ1	Mean	0.04	0.04	-0.44	0.04	-1.73	1.32
		Std	0.06	0.04		0.06		
		Variance	0.00	0.00		0.00		
		CV	1.46	1.00		1.49		
	KZ2	Mean	0.78	0.82	4.20	0.80	2.08	2.07
		Std	1.25	0.75		1.19		
		Variance	1.56	0.56		1.41		
		CV	1.59	0.92		1.48		

Source: SRK, 2019

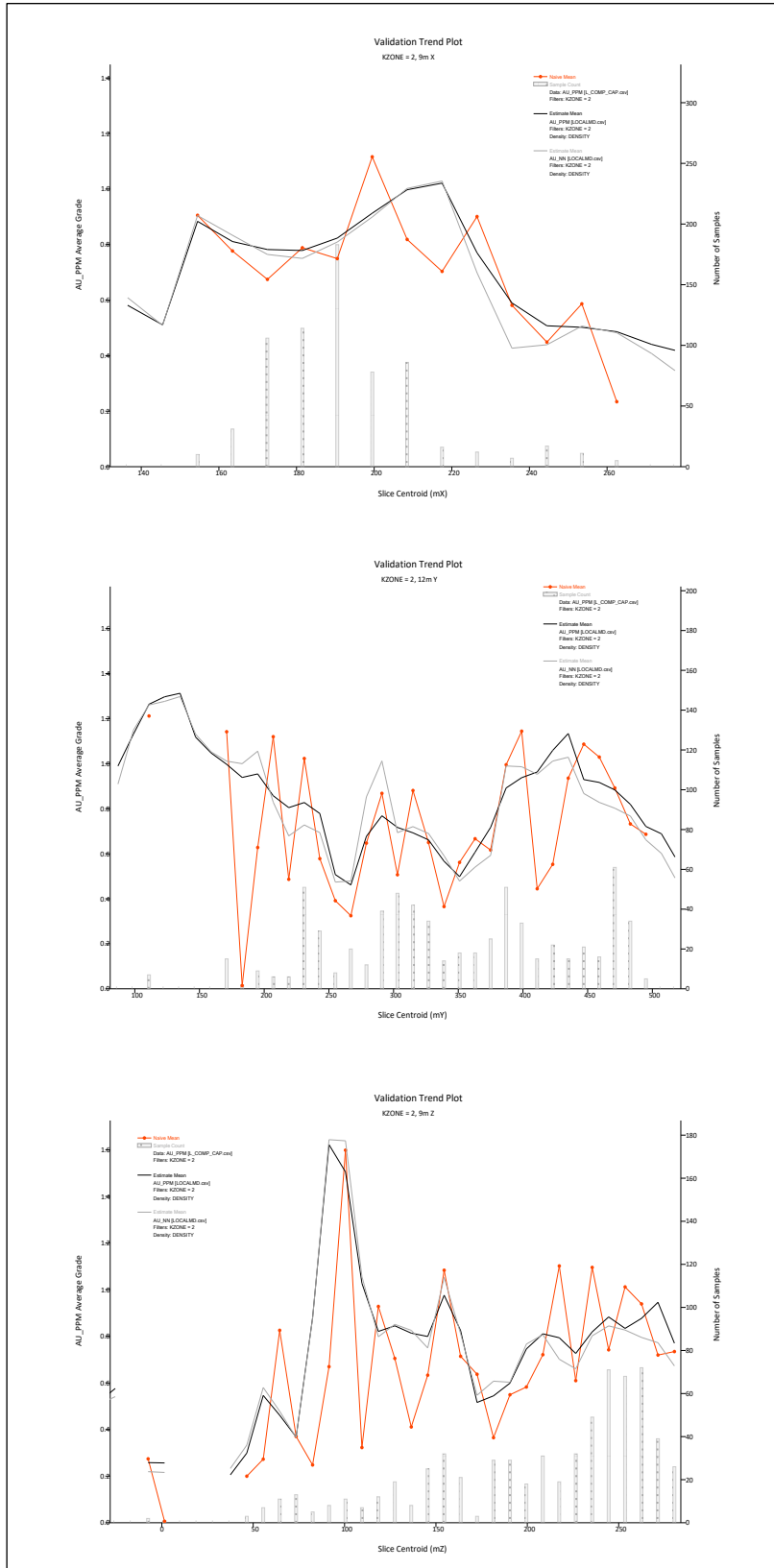
**Table 14-18: Comparison of OK Versus ID2 Estimated Grades Per Deposit, By Confidence at A 0 g/t Au Cut-Off Grade**

Deposit	K Zone	Classification														
		Measured					Indicated					Inferred				
		Tonnes (kt)	Au OK (koz)	Au OK (g/t)	Au ID2 (koz)	Au ID2 (g/t)	Tonnes (kt)	Au OK (koz)	Au OK (g/t)	Au ID2 (koz)	Au ID2 (g/t)	Tonnes (kt)	Au OK (koz)	Au OK (g/t)	Au ID2 (koz)	Au ID2 (g/t)
Ormsby	1	0		0		0	11,177	0.03	10	0.03	10	151,010	0.04	216	0.04	218
	2	1,970	0.10	7	0.10	6	37,762	0.08	95	0.08	92	35,569	0.08	88	0.08	88
	3	1,200	2.08	80	2.08	80	12,481	2.08	834	2.12	849	5,056	1.97	320	1.97	321
	<b>Subtotal</b>	<b>3,170</b>	<b>0.85</b>	<b>87</b>	<b>0.85</b>	<b>87</b>	<b>61,420</b>	<b>0.48</b>	<b>939</b>	<b>0.48</b>	<b>951</b>	<b>191,635</b>	<b>0.10</b>	<b>624</b>	<b>0.10</b>	<b>626</b>
Bruce	0															
	1						6,600	0.05	10	0.05	10	58,067	0.04	80	0.04	80
	2						350	1.72	19	1.73	19	2,599	1.37	114	1.38	116
	<b>Subtotal</b>						<b>6,950</b>	<b>0.13</b>	<b>29</b>	<b>0.13</b>	<b>29</b>	<b>60,665</b>	<b>0.10</b>	<b>195</b>	<b>0.10</b>	<b>195</b>
Nicholas	0						3,557	0.21	24	0.20	23	20,816	0.19	129	0.19	129
	1						23	0.91	1	0.83	0	0	0.09	0	0.09	0
	2						2	0.00	0	0.00	0	0		0		0
	3						32	1.22	1	1.16	1	0	1.22	0	1.23	0
	4						15	1.08	1	0.75	0	15	0.57	0	0.25	0
	5						36	2.16	3	2.21	3	10	2.18	1	2.18	1
	6						31	12.51	13	12.11	12	4	16.44	2	13.61	2
	7						0		0		0	31	5.72	6	5.86	6
	8						3	3.24	0	3.53	0	23	2.26	2	2.28	2
	9						35	1.47	2	1.42	2	7	1.49	0	1.50	0
	10						25	1.01	1	0.85	1	2	0.67	0	0.73	0
	<b>Subtotal</b>						<b>5,015</b>	<b>0.97</b>	<b>157</b>	<b>0.97</b>	<b>158</b>	<b>22,974</b>	<b>0.39</b>	<b>287</b>	<b>0.39</b>	<b>286</b>
Clan	0											249,826	0.01	80	0.01	80
	1											22,149	0.53	374	0.51	361
	2											968	0.93	29	0.89	28
	3											63	1.41	3	1.81	4
	<b>Subtotal</b>											<b>273,005</b>	<b>0.06</b>	<b>486</b>	<b>0.05</b>	<b>473</b>

Source: SRK, 2019



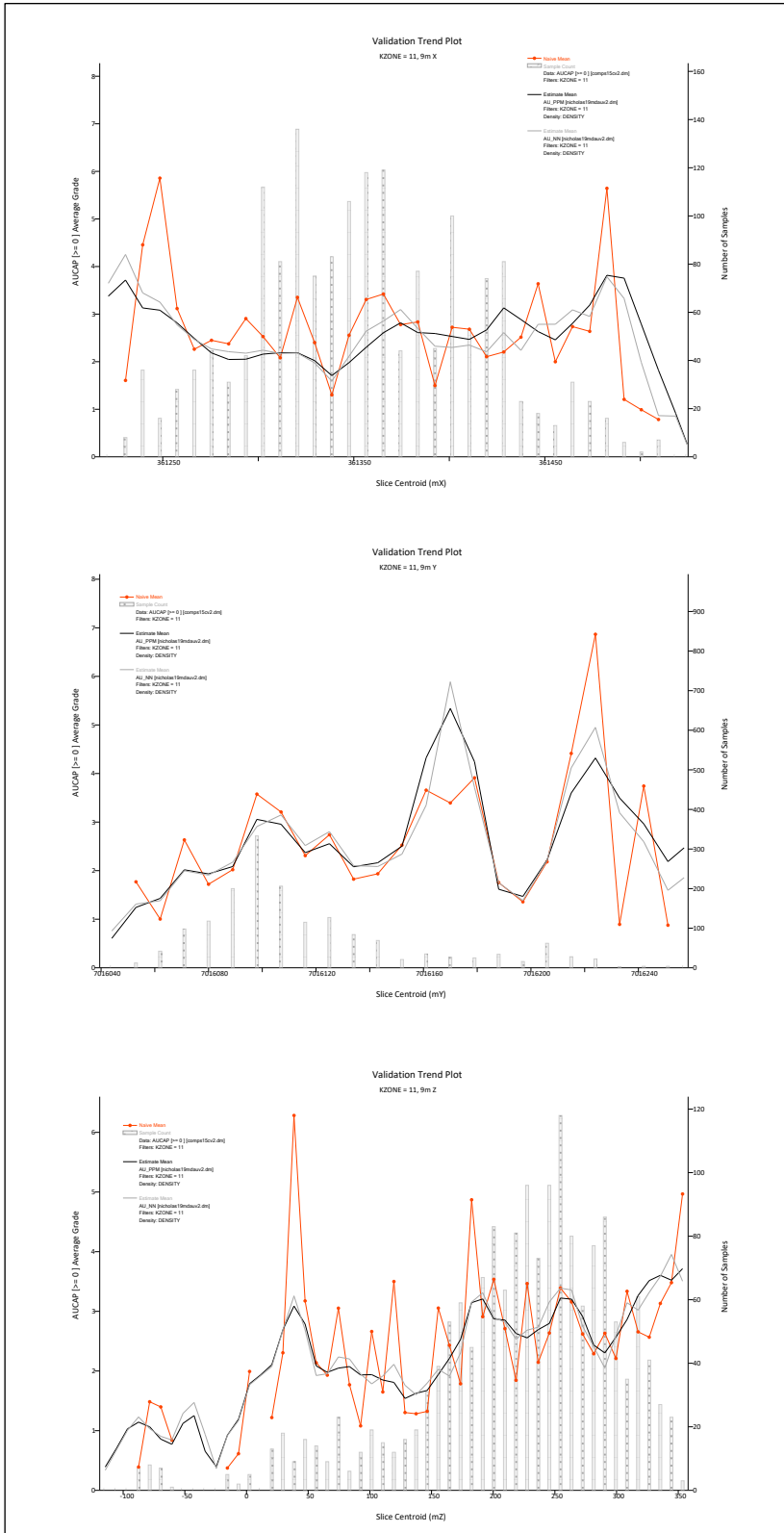
**Figure 14-25: Swath Analysis (Au g/t) for Grade Indicator (>0.3 g/t Au) at the Ormsby Deposit**  
 Source: SRK, 2019



**Figure 14-26: Swath Analysis (Au g/t) for Grade Indicator (>0.3 g/t Au) at the Bruce Deposit**

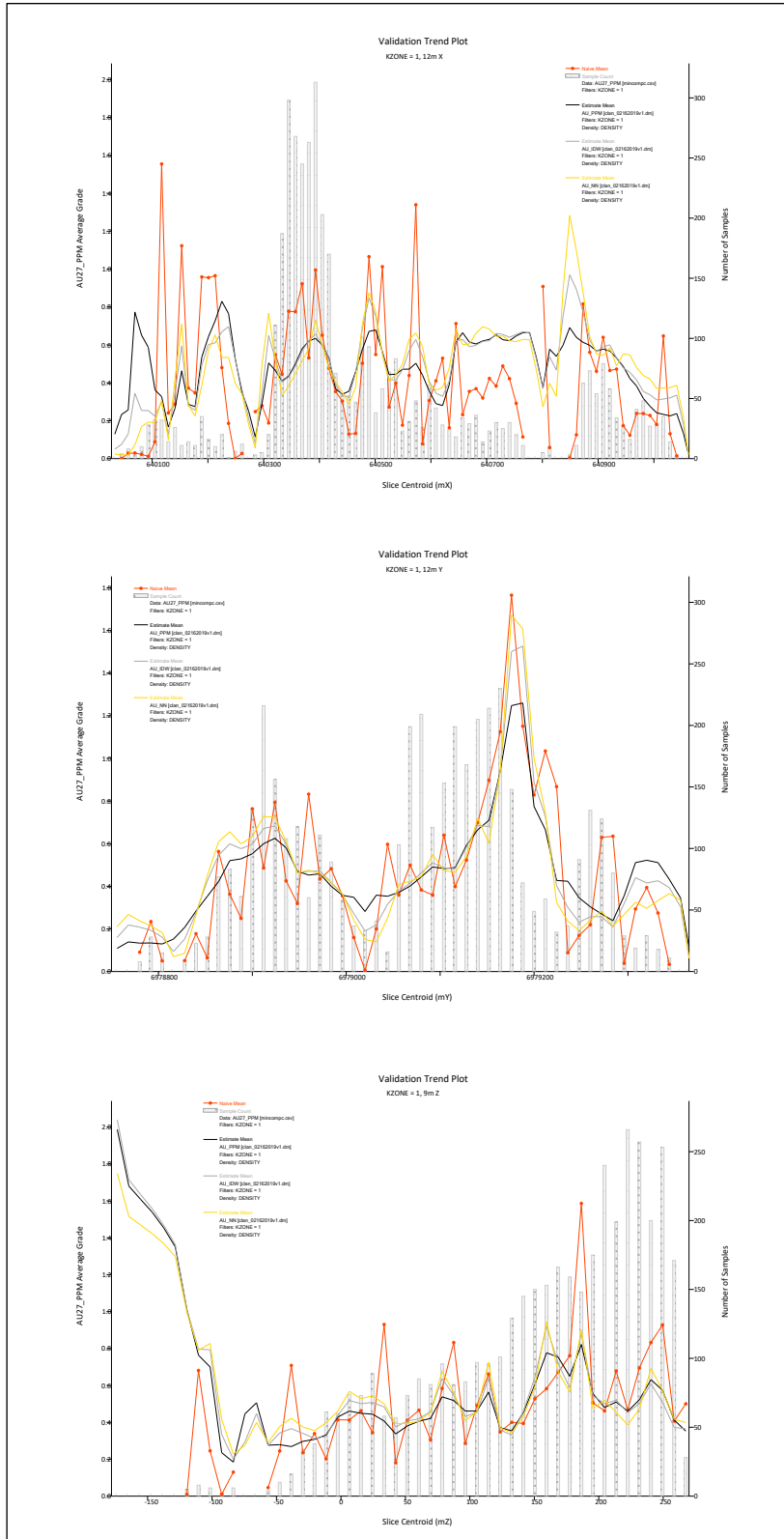
Source: SRK, 2019





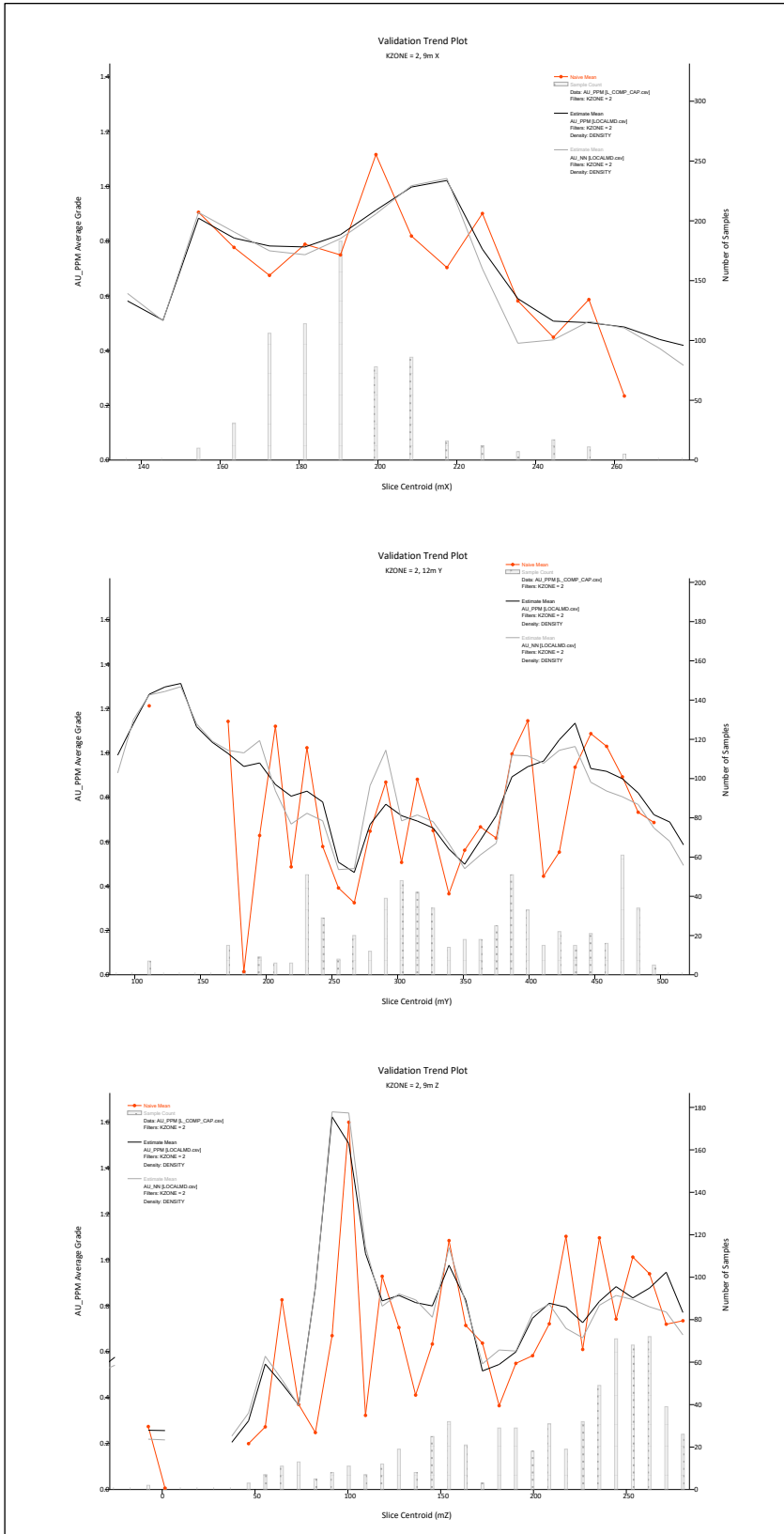
**Figure 14-27: Swath Analysis (Au g/t) for Grade Indicator (>0.5 g/t Au) at the Nicholas Lake Deposit**

Source: SRK, 2019



**Figure 14-28: Swath Analysis (Au g/t) for Quartz Factor Indicator Domain at the Clan Lake Deposit**

Source: SRK, 2019



**Figure 14-29: Swath Analysis (Au g/t) for Grade Indicator (>0.2 g/t Au) at the Goodwin Deposit**  
 Source: SRK, 2019

## 14.10 Classification

Block model quantities and grade estimates for the Yellowknife Project were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

Mineral Resource classification is typically a subjective concept. Industry best practices suggest that classification should consider the confidence in the geological continuity of the mineralized structures, the quality and quantity of exploration data supporting the estimates, and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should aim to integrate both concepts to delineate regular areas at similar resource classification.

The QP's classification system reflects the changes in the confidence in the geological constraints applied in the block model, with some adjustments based on uncertainty around the grade continuity from geostatistical analysis. To define the basis for the classification the QP has used Leapfrog to generate a series of distance interpolants at selected intervals to represent desired drilling coverages, these have been transferred to Datamine with sections used to define limiting wireframes for the various classification categories.

A summary of the classification within the main veins is shown in Figure 14-30 to Figure 14-34.

### 14.10.1 Ormsby and Bruce

The following classification parameters were applied to the Ormsby and Bruce block models:

- Measured Mineral Resources (Ormsby only)
  - Blocks in the model contained within the Measured classification solid, that were informed by a minimum of two boreholes within a drill spacing of less than 12.5 m.
- Indicated Mineral Resources
  - Blocks in the model informed by a minimum of two drillholes internal to the Indicated classification solids (but not classified as Measured) and estimated on either the first or second estimation pass.
- Inferred Mineral Resources
  - Blocks in the model that do not meet the criteria for Measured or Indicated resources and have been informed by a minimum of one borehole on the third estimation search pass.

### 14.10.2 Nicholas Lake

The following classification parameters were applied to the Nicholas Lake block model:

- Measured Mineral Resources:
  - No blocks were classified as Measured Mineral Resources
- Indicated Mineral Resources:
  - Blocks above the 150 m elevation (which is the base level of infill drilling coverage) that were informed by a minimum of two boreholes on either the first or second search pass.
- Inferred Mineral Resources:
  - Blocks in the model that do not meet the criteria for Indicated resources and have been informed by a minimum of one borehole on the second or third estimation search pass.

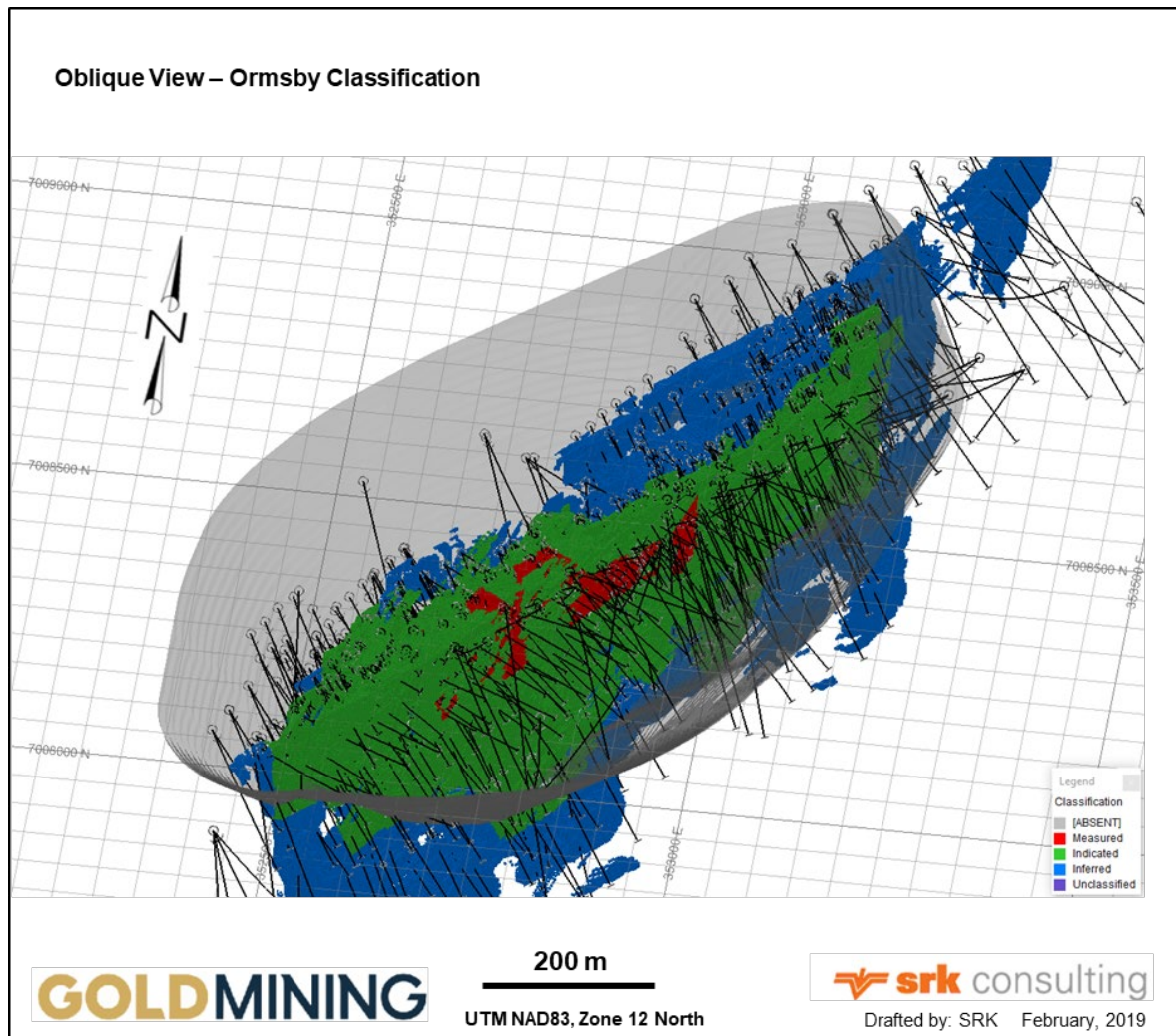
### 14.10.3 Clan Lake

The following classification parameters were applied to the Clan Lake block model:

- Measured Mineral Resources
  - No blocks were classified as Measured Mineral Resources
- Indicated Mineral Resources
  - No blocks were classified as Indicated Mineral Resources due to uncertainty in the geological continuity and the orientation of the mineralization. Further work including a more detailed structural review are required to increase the confidence in the estimates.
- Inferred Mineral Resources
  - All blocks in the model estimated have been assigned as Inferred.

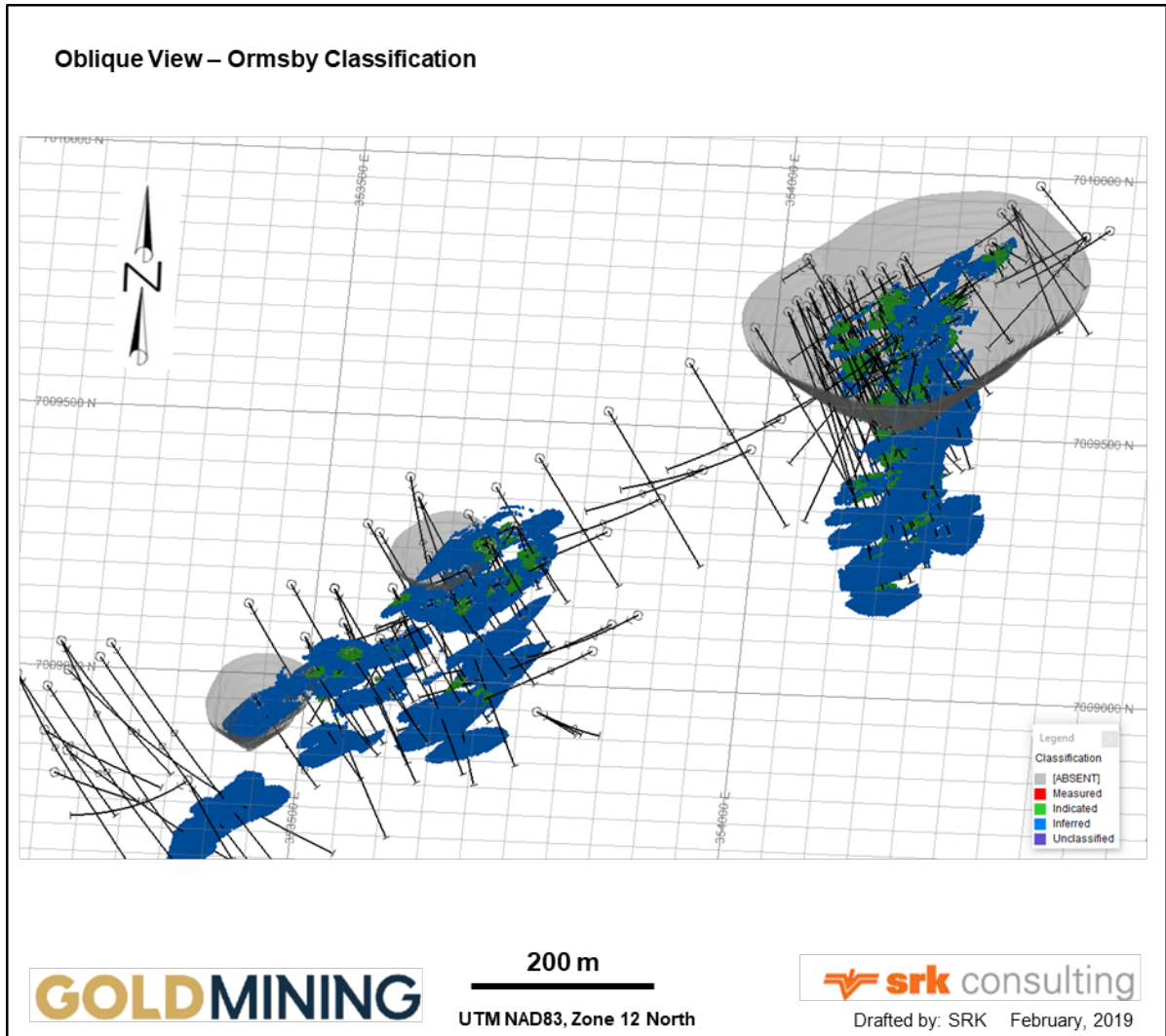
### 14.10.4 Goodwin Lake

All blocks have been classified as Inferred Mineral Resources due to the relatively wide borehole spacing.



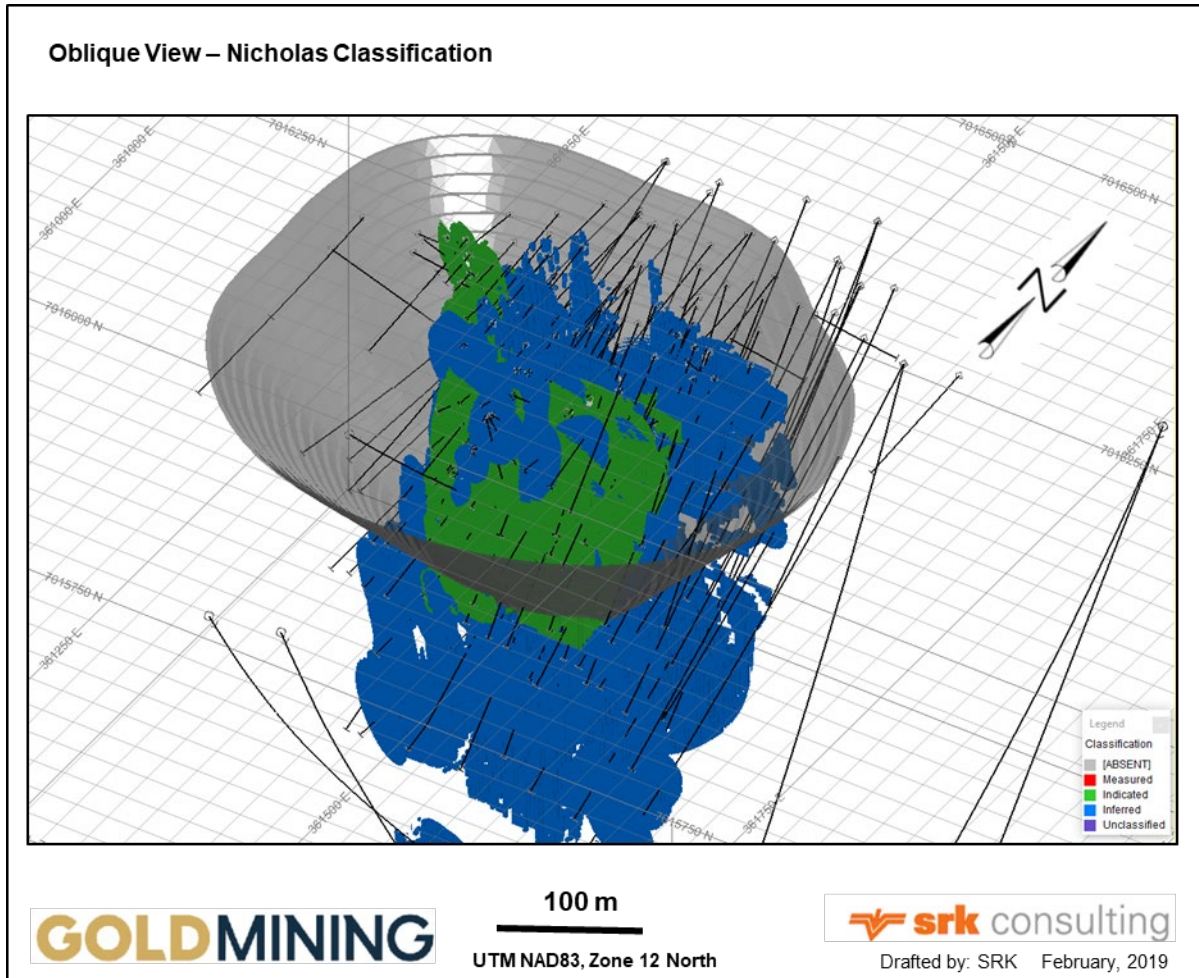
**Figure 14-30: Oblique View Showing Classification Systems at Ormsby**

Source: SRK, 2019



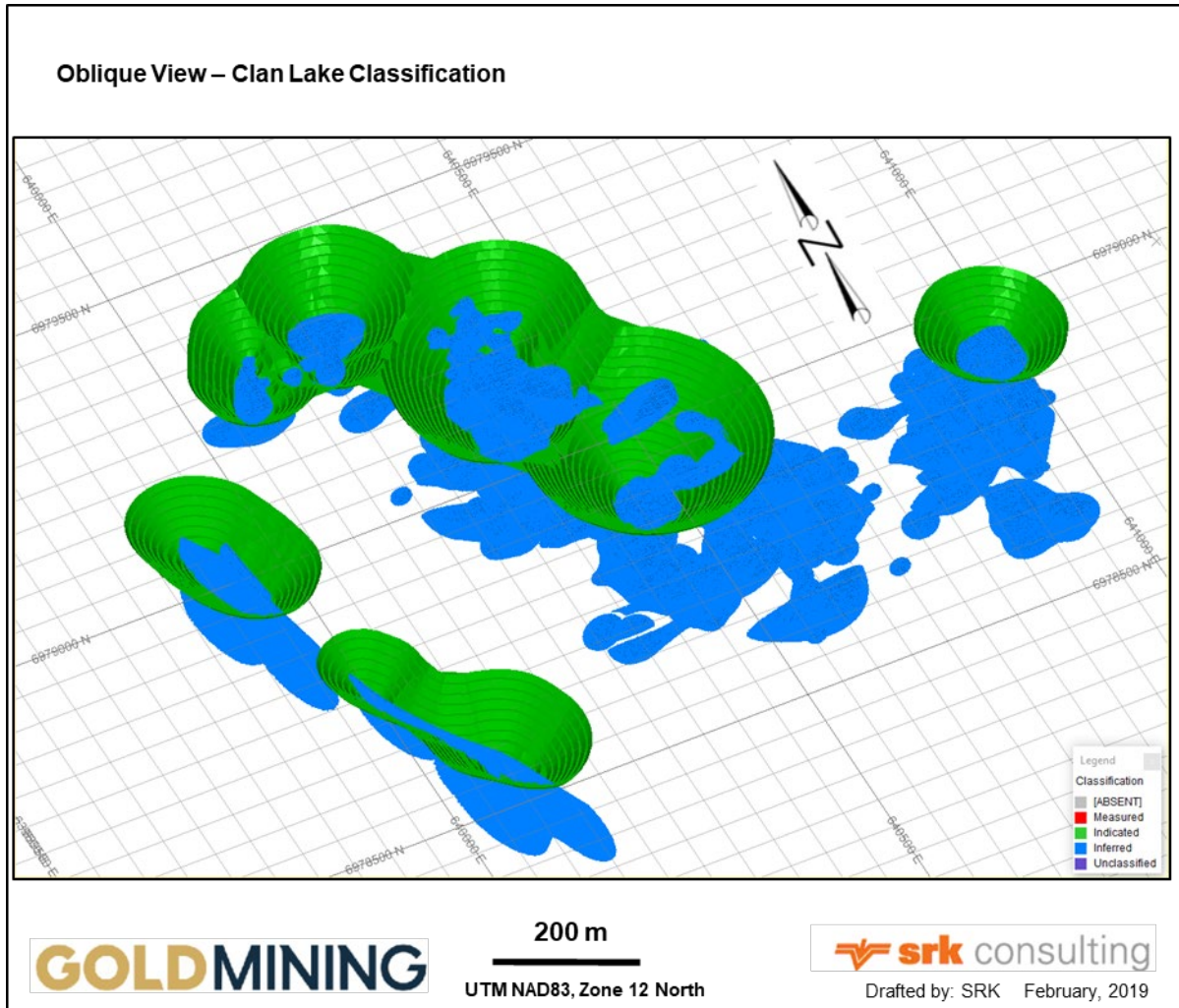
**Figure 14-31: Oblique View Showing Classification Systems at Bruce**

Source: SRK, 2019



**Figure 14-32: Oblique View Showing Classification Systems at Nicholas Lake**

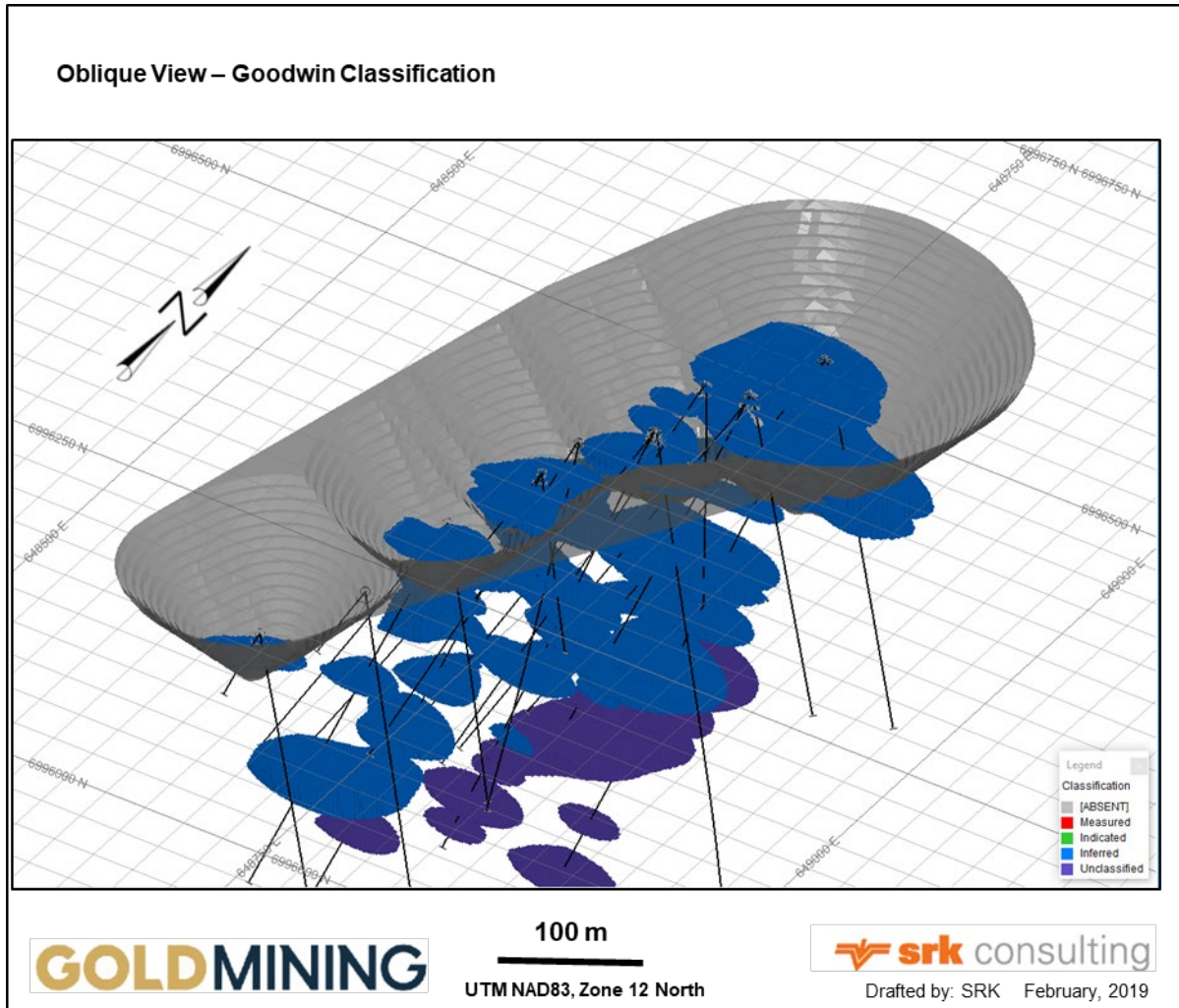
Source: SRK, 2019



**Figure 14-33: Oblique Views Showing Classification Systems at Clan Lake**

Source: SRK, 2019





**Figure 14-34: Oblique Showing Classification Systems at Goodwin**

Source: SRK, 2019

## 14.11 Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

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

The “reasonable prospects for eventual economic extraction” requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the Mineral Resources are reported at an appropriate cut-off grade, taking into account extraction scenarios and processing

recoveries. To meet this requirement, the QP considers that portions of the Ormsby, Bruce, Nicholas Lake, Clan Lake and Goodwin deposits to be amenable for open pit mining.

Gold recoveries for Ormsby, Nicholas Lake and Clan Lake have been developed from the results of both locked-cycle test work and from bulk gravity/flotation tests that were conducted on each of the test composites to produce flotation concentrates for regrind and cyanidation test work.

**Table 14-19: Projected Gold Recoveries for Ormsby, Nicholas Lake and Clan Lake**

Composite	Gravity	Flotation	Cyanidation	Overall Lab	Projected
	Recovery (%)	Recovery (%)	Extraction (%)	Recovery (%)	Recovery (%)
Ormsby	52.3	41	98	92.5	92
Nicholas Lake	15.5	72.6	93	83	82
Clan Lake	46.3	48.4	97	93.3	92

Source: SRK, 2019

To determine the potential for economic extraction, the QP completed initial pit optimization based on parameters below:

- An assumed gold price of US\$1,500/oz;
- Metallurgical recovery of 90% (averaged for the different deposits), minor differences would likely be noted if run at variable recoveries, with some reduction at Nicholas Lake, which had lower projected recoveries;
- Open-Pit Mining cost of US\$2.00/t; and
- Processing and G&A cost of US\$23.00/t.

The QP has defined the proportions of Mineral Resource to have potential for economic extraction for the Mineral Resource based on a single cut-off grade for open pit of 0.5 g/t gold and 1.5 g/t for underground potential.

The previous Mineral Resource and Mineral Reserves at Yellowknife included the declaration of underground Mineral Resources and Mineral Reserves. No further detailed economic analysis has been completed on the current Mineral Resources, and therefore the Mineral Reserves are no longer considered to be valid. While Mineral Reserves are not stated in this report, the QP does consider the assumption for potential underground mining scenarios to be reasonable and therefore has defined Mineral Resources below the current limiting pit shell as to have potential for economic extraction using a higher cut-off grade for underground potential.

The remaining Mineral Resources have then been reviewed for potential for extraction via underground mining methods. To complete the assessment the underground mining cut-off has been based on parameters taken from the previous study and bench marked against current pricing.

- An assumed gold price of US\$1,500/oz;
- Metallurgical recovery of 90% (averaged for the different deposits); minor differences would likely be noted if run at variable recoveries, with some reduction at Nicholas Lake, which had lower projected recoveries;
- Underground mining cost of US\$40.00/t;
- Processing cost of US\$23.00/t; and
- G&A cost of US\$4.00/t.

Using the applied cut-off and filtering for blocks below the open pit the QP completed a visual assessment of the continuity of grade and noted the mineralization formed reasonable mining targets

to ensure areas formed reasonable targets. Isolated block of higher grades do exist, but in the opinion of the QP are not considered to be material within the Mineral Resource. The QP highlights, with the exception of Ormsby, the majority of the underground Mineral Resources are currently classified as Inferred, reflecting the level of uncertainty in the estimates. Further drilling and engineering are required to optimize the underground mining parameters. There is no certainty that all or any part of the inferred mineral resources will be converted into mineral reserves.

The QP has defined the proportions of Mineral Resource to have potential for economic extraction for the Mineral Resource based on a single cut-off grade for open-pit of 0.5 g/t gold and 1.5 g/t gold for underground potential.

**Table 14-20: Mineral Resource Statement for GoldMining Inc. Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., March 1, 2019 <sup>(1)(5)(6)(7)(8)</sup> Open Pit Cut-off of 0.5 g/t and a UG Cut-off 1.5 g/t**

Deposit Type	Deposit Area	Resource Category	Quantity	Average	Contained Metal	
			000's Tonnes	Grade Au g/t	000's Au Oz	
Open Pit	Ormsby <sup>(2)(3)</sup>	Measured	1,176	2.12	80	
	<b>Subtotal Measured</b>			<b>1,176</b>	<b>2.12</b>	<b>80</b>
	Ormsby <sup>(2)(3)</sup>	Indicated	10,568	2.25	766	
	Bruce <sup>(2)(3)</sup>		244	1.85	15	
	Clan Lake <sup>(2)(3)</sup>		0	0.00	0	
	Nicholas Lake <sup>(2)(3)</sup>		1,550	2.72	137	
	<b>Subtotal Indicated</b>			<b>12,362</b>	<b>2.31</b>	<b>917</b>
	<b>Subtotal Measured and Indicated</b>			<b>13,538</b>	<b>2.29</b>	<b>997</b>
	Ormsby <sup>(2)(3)</sup>	Inferred	1,382	2.30	102	
	Bruce <sup>(2)(3)</sup>		591	1.80	34	
	Clan Lake <sup>(2)(3)</sup>		1,548	1.82	91	
	Goodwin Lake <sup>(2)(3)</sup>		870	1.18	33	
	Nicholas Lake <sup>(2)(3)</sup>		1,073	2.15	74	
	<b>Subtotal Inferred</b>			<b>5,464</b>	<b>1.90</b>	<b>334</b>
	Underground	Ormsby <sup>(4)</sup>	Indicated	524	3.41	57
Bruce <sup>(4)</sup>		37		2.87	3	
Clan Lake <sup>(4)</sup>		0		0.00	0	
Nicholas Lake <sup>(4)</sup>		10		2.95	1	
<b>Subtotal Indicated</b>			<b>571</b>	<b>3.36</b>	<b>62</b>	
Ormsby <sup>(4)</sup>		Inferred	1,423	3.69	169	
Bruce <sup>(4)</sup>			502	2.94	48	
Clan Lake <sup>(4)</sup>			1,226	2.74	108	
Nicholas Lake <sup>(4)</sup>			687	3.59	80	
<b>Subtotal Inferred</b>			<b>3,838</b>	<b>3.28</b>	<b>405</b>	
All	<b>Total Measured and Indicated</b>		<b>14,108</b>	<b>2.33</b>	<b>1,059</b>	
	<b>Total Inferred</b>		<b>9,302</b>	<b>2.47</b>	<b>739</b>	

Source: SRK, 2019

(1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, sociopolitical, marketing or other relevant issues.

(2) All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

(3) Pit constrained resources with reasonable prospects of eventual economic extraction stated above a 0.50 g/t Au cut-off.

(4) Pit optimization is based on an assumed gold price of US\$1,500/oz, metallurgical recovery of 90%, mining cost of US\$2.00/t and processing and G&A cost of US\$23.00/t.

(5) Underground resources with reasonable prospects of eventual economic extraction stated as contained within gold grade shapes above a 1.50 g/t Au cut-off based on a visual assessment of the continuity of grade, an assumed gold price of US\$1,500/oz, metallurgical recovery of 90%, mining cost of US\$2.00/t and processing and G&A cost of US\$27.00/t.

(6) Mineral resource tonnage and grade with reasonable prospects of eventual economic extraction are reported as undiluted and reflect a bench height of 3.0 m

The QP does caution readers that future economic assessment could result in a change in the cut-off grade which would potentially result in a change in the tonnage of material available. With the exception of these changes or potential cost or exchange rate assumptions impacts, the QP is not aware of any other factors to which the mineral resource estimates could be materially affected such as environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors.

## 14.12 Mineral Resource Sensitivity

The results of grade sensitivity analysis completed for each deposit are tabulated in the tables below to show the sensitivity to cut-off grade.

This is presented to illustrate the continuity of the grade estimates at various cut-off increments in each of the deposit areas and the sensitivity of the Mineral Resource to changes in cut-off grade.

The reader is cautioned that the figures in these tables should not be misconstrued with the Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of cut-off grade. All figures are rounded to reflect the relative accuracy of the estimates.

In order to assess the sensitivity of the resource to changes in gold cut-off grade, the QP summarized tonnage and grade above cut-off at a series of increasing gold cut-offs by resource area and category. The sensitivity analysis for Measured and Indicated blocks have been combined and the Inferred blocks separated for reporting. The results are shown in Table 14-21 to Table 14-36 and have been split into open pit and underground portions of the Mineral Resource with the declared pit constrained cut-off and potential for underground recovery cut-off in this report highlighted by the bolded font. The same limiting pit shells have been used in each case as part of the analysis, but the QP cautions that at lower cut-off grades the economics of the limiting pit shells would likely change.

**Table 14-21: Grade Tonnage Table of Measured and Indicated Material within Ormsby limiting shell Pit**

Cut-off (Au g/t)	Tonnes (Kt)	Au (g/t)	Ounces (Koz)
0.1	21,538	1.28	886
0.3	13,137	2.00	846
<b>0.5</b>	<b>11,743</b>	<b>2.19</b>	<b>829</b>
0.7	10,395	2.40	802
0.9	9,143	2.62	770
1.1	7,995	2.85	734
1.3	6,967	3.10	694
1.5	6,092	3.34	655
1.7	5,348	3.59	616
1.9	4,691	3.84	578
2.1	4,141	4.08	543
2.3	3,644	4.34	508
2.5	3,195	4.61	473
2.7	2,821	4.88	442
2.9	2,497	5.14	413
3.1	2,219	5.41	386
3.3	1,984	5.68	362
3.5	1,773	5.95	339

Source: SRK, 2019

**Table 14-22: Grade Tonnage Table of Inferred Material Within Ormsby Limiting Shell Pit**

Cut-off (Au g/t)	Tonnes (Kt)	Au (g/t)	Ounces (Koz)
0.1	5,627	0.71	128
0.3	2,156	1.58	110
<b>0.5</b>	<b>1,382</b>	<b>2.25</b>	<b>100</b>
0.7	1,065	2.75	94
0.9	875	3.17	89
1.1	768	3.48	86
1.3	695	3.71	83
1.5	629	3.96	80
1.7	564	4.23	77
1.9	513	4.47	74
2.1	462	4.75	70
2.3	421	5.00	68
2.5	381	5.27	64
2.7	349	5.51	62
2.9	315	5.80	59
3.1	273	6.24	55
3.3	251	6.51	52
3.5	227	6.83	50

Source: SRK, 2019

**Table 14-23: Grade Tonnage Table of Measured and Indicated Material Below Ormsby Limiting Shell Pit**

Cut-off (Au g/t)	Tonnes (Kt)	Au (g/t)	Ounces (Koz)
0.1	2,617	1.02	86
0.3	1,353	1.84	80
0.5	1,178	2.05	78
0.7	1,015	2.29	75
0.9	856	2.57	71
1.1	720	2.86	66
1.3	608	3.17	62
<b>1.5</b>	<b>524</b>	<b>3.46</b>	<b>58</b>
1.7	456	3.74	55
1.9	410	3.95	52
2.1	369	4.17	49
2.3	329	4.41	47
2.5	291	4.67	44
2.7	259	4.92	41
2.9	234	5.16	39
3.1	216	5.34	37
3.3	196	5.55	35
3.5	175	5.81	33

Source: SRK, 2019

**Table 14-24: Grade Tonnage Table of Inferred Material Below Ormsby Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	20,913	0.55	372
0.3	8,478	1.12	305
0.5	4,867	1.66	261
0.7	3,917	1.93	242
0.9	2,346	2.70	204
1.1	1,965	3.03	192
1.3	1,675	3.35	180
<b>1.5</b>	<b>1,423</b>	<b>3.69</b>	<b>169</b>
1.7	1,184	4.12	157
1.9	1,084	4.34	151
2.1	982	4.58	145
2.3	841	4.98	135
2.5	746	5.31	127
2.7	673	5.61	121
2.9	600	5.95	115
3.1	557	6.18	111
3.3	509	6.46	106
3.5	454	6.83	100

Source: SRK, 2019

**Table 14-25: Grade Tonnage Table of Indicated Material Within Bruce Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	570	0.90	17
0.3	306	1.55	15
<b>0.5</b>	<b>244</b>	<b>1.84</b>	<b>14</b>
0.7	208	2.06	14
0.9	180	2.25	13
1.1	160	2.41	12
1.3	130	2.68	11
1.5	114	2.86	11
1.7	98	3.08	10
1.9	83	3.31	9
2.1	70	3.56	8
2.3	61	3.75	7
2.5	52	3.98	7
2.7	46	4.17	6
2.9	39	4.40	6
3.1	34	4.61	5
3.3	28	4.89	4
3.5	25	5.09	4

Source: SRK, 2019

**Table 14-26: Grade Tonnage Table of Inferred Material Within Bruce Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	1,010	1.10	36
0.3	626	1.69	34
<b>0.5</b>	<b>591</b>	<b>1.76</b>	<b>33</b>
0.7	495	1.99	32
0.9	372	2.39	29
1.1	312	2.66	27
1.3	261	2.95	25
1.5	230	3.16	23
1.7	195	3.44	22
1.9	173	3.65	20
2.1	158	3.81	19
2.3	137	4.06	18
2.5	126	4.20	17
2.7	91	4.83	14
2.9	82	5.05	13
3.1	73	5.31	12
3.3	64	5.62	11
3.5	60	5.76	11

Source: SRK, 2019

**Table 14-27: Grade Tonnage Table of Indicated Material Below Bruce Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	500	0.45	7
0.3	143	1.18	5
0.5	86	1.69	5
0.7	67	2.02	4
0.9	57	2.24	4
1.1	48	2.46	4
1.3	43	2.61	4
<b>1.5</b>	<b>37</b>	<b>2.81</b>	<b>3</b>
1.7	32	3.00	3
1.9	28	3.15	3
2.1	25	3.27	3
2.3	23	3.37	3
2.5	21	3.48	2
2.7	17	3.69	2
2.9	13	3.95	2
3.1	12	4.07	2
3.3	10	4.25	1
3.5	8	4.40	1

Source: SRK, 2019

**Table 14-28: Grade Tonnage Table of Inferred Material Below Bruce Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	5,311	0.58	99
0.3	1,975	1.29	82
0.5	1,525	1.56	76
0.7	1,185	1.83	70
0.9	907	2.15	63
1.1	786	2.33	59
1.3	655	2.56	54
<b>1.5</b>	<b>502</b>	<b>2.91</b>	<b>47</b>
1.7	442	3.08	44
1.9	361	3.37	39
2.1	332	3.50	37
2.3	303	3.62	35
2.5	269	3.77	33
2.7	222	4.02	29
2.9	206	4.12	27
3.1	185	4.24	25
3.3	159	4.40	23
3.5	111	4.83	17

Source: SRK, 2019

**Table 14-29: Grade Tonnage Table of Indicated Material Within Nicholas Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	3,979	1.14	146
0.3	1,717	2.42	134
<b>0.5</b>	<b>1,472</b>	<b>2.76</b>	<b>131</b>
0.7	1,309	3.03	128
0.9	1,144	3.35	123
1.1	1,008	3.67	119
1.3	894	3.99	115
1.5	790	4.32	110
1.7	718	4.60	106
1.9	645	4.91	102
2.1	590	5.19	98
2.3	543	5.45	95
2.5	495	5.74	91
2.7	461	5.97	89
2.9	427	6.23	85
3.1	395	6.49	82
3.3	365	6.76	79
3.5	339	7.01	76

Source: SRK, 2019



**Table 14-30: Grade Tonnage Table of Inferred Material Within Nicholas Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	4,386	0.62	88
0.3	1,355	1.65	72
<b>0.5</b>	<b>974</b>	<b>2.15</b>	<b>67</b>
0.7	742	2.63	63
0.9	585	3.13	59
1.1	476	3.61	55
1.3	405	4.04	53
1.5	365	4.33	51
1.7	325	4.67	49
1.9	303	4.87	48
2.1	284	5.07	46
2.3	260	5.33	45
2.5	240	5.58	43
2.7	224	5.79	42
2.9	205	6.06	40
3.1	192	6.27	39
3.3	175	6.58	37
3.5	160	6.87	35

Source: SRK, 2019

**Table 14-31: Grade Tonnage Table of Indicated Material Below Nicholas Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	291	0.92	9
0.3	170	1.43	8
0.5	153	1.56	8
0.7	117	1.84	7
0.9	80	2.33	6
1.1	60	2.76	5
1.3	49	3.11	5
<b>1.5</b>	<b>40</b>	<b>3.51</b>	<b>5</b>
1.7	33	3.95	4
1.9	28	4.26	4
2.1	26	4.52	4
2.3	22	4.86	3
2.5	19	5.29	3
2.7	17	5.62	3
2.9	15	6.07	3
3.1	14	6.25	3
3.3	12	6.64	3
3.5	11	6.99	2

Source: SRK, 2019

**Table 14-32: Grade Tonnage Table of Inferred Material below Nicholas Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	9,988	0.57	184
0.3	3,706	1.25	149
0.5	2,451	1.70	134
0.7	1,829	2.07	122
0.9	1,398	2.47	111
1.1	1,118	2.83	102
1.3	894	3.24	93
<b>1.5</b>	<b>741</b>	<b>3.63</b>	<b>86</b>
1.7	637	3.95	81
1.9	545	4.32	76
2.1	468	4.70	71
2.3	422	4.97	67
2.5	384	5.22	65
2.7	352	5.47	62
2.9	321	5.72	59
3.1	277	6.15	55
3.3	264	6.30	53
3.5	240	6.58	51

Source: SRK, 2019

**Table 14-33: Grade Tonnage Table of Inferred Material Within Clan Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	2,915	1.10	103
0.3	2,140	1.43	98
<b>0.5</b>	<b>1,548</b>	<b>1.82</b>	<b>91</b>
0.7	1,229	2.14	85
0.9	1,023	2.41	79
1.1	831	2.75	73
1.3	703	3.03	68
1.5	597	3.32	64
1.7	515	3.59	59
1.9	445	3.87	55
2.1	387	4.16	52
2.3	348	4.37	49
2.5	310	4.62	46
2.7	265	4.96	42
2.9	233	5.26	39
3.1	202	5.60	36
3.3	171	6.04	33
3.5	152	6.36	31

Source: SRK, 2019

**Table 14-34: Grade Tonnage Table of Inferred Material Below Clan Lake Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	14,605	0.63	295
0.3	8,834	0.91	259
0.5	5,260	1.27	215
0.7	3,493	1.62	181
0.9	2,591	1.90	159
1.1	1,960	2.20	138
1.3	1,565	2.45	123
<b>1.5</b>	<b>1,226</b>	<b>2.74</b>	<b>108</b>
1.7	943	3.08	93
1.9	786	3.34	84
2.1	668	3.58	77
2.3	512	4.02	66
2.5	439	4.29	61
2.7	369	4.61	55
2.9	309	4.96	49
3.1	284	5.13	47
3.3	262	5.29	45
3.5	242	5.46	42

Source: SRK, 2019

**Table 14-35: Grade Tonnage Table of Inferred Material Within Goodwin Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	1,489	0.8	38
0.3	1,040	1.1	35
<b>0.5</b>	<b>870</b>	<b>1.2</b>	<b>33</b>
0.7	647	1.4	29
0.9	468	1.6	24
1.1	354	1.8	21
1.3	271	2.0	17
1.5	206	2.2	14
1.7	154	2.4	12
1.9	116	2.6	10
2.1	95	2.7	8
2.3	75	2.8	7
2.5	55	3.0	5
2.7	37	3.1	4
2.9	21	3.4	2
3.1	15	3.5	2
3.3	12	3.6	1
3.5	5	4.0	1

Source: SRK, 2019

**Table 14-36: Grade Tonnage Table of Inferred Material Below Goodwin Limiting Shell Pit**

<b>Cut-off (Au g/t)</b>	<b>Tonnes (Kt)</b>	<b>Au (g/t)</b>	<b>Ounces (Koz)</b>
0.1	3,689	0.5	59
0.3	1,531	1.0	48
0.5	1,048	1.2	42
0.7	696	1.6	35
0.9	517	1.8	30
1.1	413	2.0	27
1.3	326	2.3	24
<b>1.5</b>	<b>268</b>	<b>2.5</b>	<b>21</b>
1.7	212	2.7	18
1.9	190	2.8	17
2.1	164	2.9	15
2.3	130	3.1	13
2.5	105	3.2	11
2.7	86	3.4	9
2.9	68	3.5	8
3.1	61	3.6	7
3.3	39	3.8	5
3.5	23	4.1	3

Source: SRK, 2019

## **15 Mineral Reserve Estimate**

This section is not applicable to the current Mineral Resource Estimate.

## **16 Mining Methods**

This section is not applicable to the current Mineral Resource Estimate.

## **17 Recovery Methods**

This section is not applicable to the current Mineral Resource Estimate.

## 18 Project Infrastructure

This section is not applicable to the current Mineral Resource Estimate.



## **19 Market Studies and Contracts**

This section is not applicable to the current Mineral Resource Estimate.

## **20 Environmental Studies, Permitting and Social or Community Impact**

This section is not applicable to the current Mineral Resource Estimate.

## **21 Capital and Operating Costs**

This section is not applicable to the current Mineral Resource Estimate.

## **22 Economic Analysis**

No economic analyses has been conducted for the current Mineral Resource Estimate.

## **23 Adjacent Properties**

There are no adjacent properties that are relevant to this technical report.

## **24 Other Relevant Data and Information**

There are no other relevant data or information that are considered relevant to this technical report.

## 25 Interpretation and Conclusions

The Yellowknife gold project includes five gold deposits with resource estimates, being Nicholas Lake, Bruce, Ormsby, Goodwin Lake and Clan Lake, which are located 50 to 95 km north of the city of Yellowknife. GoldMining acquired 100% interest in the project in July 2017 from Tyhee, the previous owner of the property, under an agreement with a receiver.

During 2018 and 2019 SRK's QPs have reviewed the procedures in place during the past drilling campaigns up to 2012. SRK's QP has also independently verified the drilling database which has formed the basis for the current Mineral Resource Estimate produced by SRK.

During the validation process, the QP notes that the sole reliance on the laboratory's standard analyses in the historical procedures is not considered industry best accepted practice and recommends that blind standards with appropriate expected grade values be inserted into the sample stream for all future drilling campaigns. The QP has relied on the external laboratory checks to support the confidence in the database. Based on the site visit, the current understanding of controls on gold mineralization, and the review of analytical quality control programs and results, the QP is of the opinion that the underlying data and geologic interpretations provided are reliable and suitable for use in resource estimation, and any error would not be material. A small re-assay program of selected samples from all deposits with inclusion of certified standard material would increase the confidence in the historical data.

SRK's QP recognizes that the structural controls on mineralization are complex and the search criteria for resource estimation are largely based on field observations. The QP recommends that GoldMining geologists continue to collect detailed structural data with continued drilling and project implementation in order to better understand the detailed controls on gold mineralization and to use as a basis for creating 3D structural models.

The potential for the development of additional mineral resources exists for the Ormsby and Bruce, Nicholas Lake, Goodwin Lake and Clan Lake properties. The deposits are open laterally or vertically and additional core drilling has the potential to develop significant new gold resources.

The resource potential of the Ormsby and Bruce deposits are limited laterally but unbounded vertically. Drilling that defines the Ormsby gold resource demonstrates geological continuity to the bottom of the known gold resource, approximately 400 m below surface. Two deep core boreholes show the amphibolite and gold mineralization occur 650 m below the surface. The nearby Discovery Mine deposit, which produced 1,000,000 oz of gold from stopes as deep as 1,240 m below surface, suggests a possible vertical extent to the Ormsby deposit.

Drilling limits the lateral extent of the Nicholas Lake deposit, but the deposit is unbounded below the bottom of Nicholas Lake resource approximately 360 m below surface.

The Goodwin Lake property has some potential for drilling to expand the Vad zone resource and the property hosts a prospective metavolcanic unit with historical gold showings.

The Clan Lake main zone gold deposit is unbounded both laterally and vertically. Considering only the immediate vicinity of the Clan Lake main zone gold deposit, drill programs have been conducted on only 25% to 30% of the area that surface prospecting has demonstrated to contain gold mineralization. The 10,381-acre Clan Lake property hosts highly prospective metavolcanic units and numerous gold

showings over a 7 km north-south trend. All of the showings have geological and mineralogical similarities to the Clan Lake gold deposit.



## 26 Recommendations

In the opinion of the QP, the results of the exploration work completed on the Yellowknife gold project has sufficient merit to recommend additional exploration expenditures. The proposed work program recommended by the QP includes oriented core drilling to better define the structural controls of gold mineralization intersected to date at each deposit and to test their lateral continuity. The recommended program includes approximately 5,000 metres of oriented diamond drilling at the Ormsby and Nicholas Lake deposits. Depending on the success of this program, the oriented core drilling could be extended to the Goodwin and Clan Lake deposits in a Phase 2 Program.

The QP recommends that a re-sampling program be completed on select historical core not affected by wild fires at the core storage yard. This program would allow GoldMining to further validate the historical database informing the mineral resource model.

Detailed structural geology studies are recommended to improve the understanding of the controls on gold mineralization at Ormsby, Bruce, Clan Lake, Nicholas Lake, and Goodwin Lake gold deposits. These studies should include surface mapping, logging of proposed oriented drill core, re-logging of historic core and sub-surface exposure mapping if mine workings can be de-watered, and they are safe to access.

The QP considers that the implementation of the proposed work program, including an updated mineral resource model considering the structural geology studies, will allow for the Yellowknife gold project to advance towards a pre-development stage and will provide key inputs required to evaluate the economic viability of a mining project at a feasibility level, and support the disclosure of mineral reserves.

The total costs for the proposed exploration program are estimated at C\$3,300,000 (Table 26-1).

**Table 26-1: Recommended Exploration Program for the Yellowknife Gold Project**

Description	Quantity	Unit Cost (C\$)	Total (C\$)
Oriented Core Drilling (all-inclusive cost)	5,000 m	500	2,500,000
Re-Sampling of Historical Core	500 samples	100	50,000
Structural Geology Studies			200,000
Environmental Studies			150,000
Update Mineral Resource Model			100,000
<b>Subtotal</b>			<b>\$3,000,000</b>
Contingency (10%)			300,000
<b>Total</b>			<b>\$3,300,000</b>

Source: SRK, 2019

## 27 References

- CIM (2014). Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014.
- Bieniawski, Z.T., (1976). Rock Mass Classification in Rock Engineering, Proceedings of the Symposium on Exploration for Rock Engineering, Johannesburg. November 1-5, 1976.
- Dupre, D.G., Kirkham, G.D., (2004). An Estimate of the Gold Resource of the Yellowknife Gold Project; Tyhee Development Corp. Available at [www.sedar.com](http://www.sedar.com)
- EBA Engineering Consultants Ltd. (2007). Report on the Resource Estimate of the Yellowknife Gold Project January 26, 2007 by V.V. Pratico, P. Geol.
- EBA Engineering Consultants Ltd. (2007). Report on the Resource Estimate of the Yellowknife Gold Project August 1, 2007 by V.V. Pratico, P. Geol.
- EBA Engineering Consultants Ltd. (2008). Report on the Resource Estimate of the Nicholas Main Zone Deposit June 17, 2008 by Valmar Pratico, P. Geol.
- EBA Engineering Consultants Ltd. (2008). Report on the Resource Estimate of the Yellowknife Gold Project December 12, 2008 by Valmar Pratico, P. Geol.
- EBA Engineering Consultants Ltd. (2008). NI 43-101 Technical Report on Preliminary Assessment of the Yellowknife Gold Project as presented by EBA and other Independent Qualified Persons August 30, 2008.
- EBA Engineering Consultants Ltd. (2009). Report on the Resource Estimate of the Yellowknife Gold Project March 4, 2009 by Valmar Pratico, P. Geol.
- EBA Engineering Consultants Ltd. (2009). Report on the Resource Estimate of the Yellowknife Gold Project December 23, 2009 by Valmar Pratico, P. Geol.
- EBA Engineering Consultants Ltd, (2010). Geotechnical Site Investigation and Preliminary Geotechnical Assessment, Ormsby, Yellowknife Gold project, File No. V13101438.007, Prepared for Tyhee Development Corp., July 2010.
- EBA Engineering Consultants Ltd. (2010). NI 43-101 Technical Report on the Preliminary FS of the Yellowknife Gold Project as presented by EBA and other Independent Qualified Persons, Prepared for Tyhee Development Corp. July 22, 2010.
- Hoek E., Carranza-Torres CT, and Corkum B., Hoek-Brown Failure Criterion, (2002). In: Proceedings of the Fifth International North American Rock Mechanics Symposium, Toronto, Canada, Vol. 1, 2002 Edition. p. 267-273.
- LiDAR Data Collection Survey Report (2010). Report to Tyhee Development Corp by LiDAR Services International Inc., July 2010, Unpublished.
- M.W. Zerb, P.Geol., (1995). Gold Reserves on the Nicholas Lake Project Main., March 1995.
- SRK Consulting (U.S.), Inc, 2012: NI 43-101 Technical Report Yellowknife Gold Project Northwest Territories, Canada. NI 43-101 Technical Report prepared for Tyhee Gold Corp. by Bret Swanson, B., Volk, J., Olin, E.J., Tinucci, J. 339 pp. Effective Date September 12, 2012. Report Date October 1, 2012. Filed on SEDAR, [www.sedar.com](http://www.sedar.com).

- Shelton, K., A.D. Smith, L. Hill, and H. Falck, (2016). Ore petrography, fluid inclusion, and stable isotope studies of gold and base-metal sulphide mineralization in a northern portion of the Yellowknife greenstone belt, Northwest Territories Geological Survey; NWT Open File 2016-02, 38 p.
- Silke, R., (2009). The Operational History of Mines in the Northwest Territories, Canada. NWT & Nunavut Chamber of Mines website retrieved November 2018: [http://www.miningnorth.com/\\_rsc/site-content/library/NWT\\_Mines\\_History\\_RSilke2009.pdf](http://www.miningnorth.com/_rsc/site-content/library/NWT_Mines_History_RSilke2009.pdf)
- Stubley, M., (1997). Geology of the Discovery Property, a report to accompany a 1:2400 scale geological map; unpublished company report for GMD Resource Corp.
- Tremblay, L.P., (1952): Giauque Lake Map Area, Northwest Territories; Geological Survey of Canada, Memoir 266, 74 pp. and Map 1017A.
- Tremblay, L.P., 1952: Giauque Lake Map Area, Northwest Territories; Geological Survey of Canada, Memoir 266, 74 pp. and Map 1017A.
- Tyhee Gold Corp. (2012a). Tyhee Announces Joint Venture for Big Sky Property, March 29, 2012, Series 13, Release 5, 2 p. Available at [www.SEDAR.com](http://www.SEDAR.com)
- Tyhee Gold Corp. (2012b). Tyhee Reports Williams Creek Gold Receives TSX-Venture Exchange Approval for Big Sky Joint Venture, May 31, 2012, Series 13, Release 9, 2 p. Available at [www.SEDAR.com](http://www.SEDAR.com)
- Tyhee Gold Corp. (2012c). Tyhee Reports Results from JV Partner Williams Creek's Geological Reconnaissance and Sample Program at Big Sky Property, September 18, 2012, Series 13, Release 16, 5 p. Available at [www.SEDAR.com](http://www.SEDAR.com)
- Tyhee Gold Corp. (2012d). Tyhee Notes Final Results from 2012 Big Sky Geological Reconnaissance and Sampling Program Conducted by Williams Creek, October 15, 2012, Series 13, Release 19, 5 p. Available at [www.sedar.com](http://www.sedar.com)
- Williams Creek Gold Ltd. (2012). Williams Creek Announces Final Results From 2012 Big Sky Geological Reconnaissance and Sampling Program, October 15, 2012, News Release WCX12-13, 8 p. Available at [www.sedar.com](http://www.sedar.com)
- Whitty, W.H.R. 2007. Structural and Metamorphic Evolution of the Ormsby Zone and Relative Timing of Gold Mineralization: A Newly Defined Archean Orogenic Gold Prospect Hosted on the Discovery Property, Yellowknife Greenstone Belt, Slave Province, Canada. Unpublished M.Sc Thesis, The University of British Columbia, Vancouver BC, 113 pp. and accompanying 1:2,500 scale geological map.

## 28 Glossary

The Mineral Resources and Mineral Reserves have been classified according to CIM (CIM, 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

### 28.1 Mineral Resources

A **Mineral Resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

### 28.2 Mineral Reserves

A **Mineral Reserve** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

## 28.3 Definition of Terms

The following general mining terms may be used in this report.

**Table 28-1: Definition of Terms**

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of gold within mineralized rock.
Hangingwall	The overlying side of an orebody or stope.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.

<b>Term</b>	<b>Definition</b>
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

## 28.4 Abbreviations

The following abbreviations may be used in this report.

**Table 28-2: Abbreviations**

<b>Abbreviation</b>	<b>Unit or Term</b>
A	ampere
AA	atomic absorption
A/m <sup>2</sup>	amperes per square metre
ANFO	ammonium nitrate fuel oil
Ag	silver
Au	gold
AuEq	gold equivalent grade
°C	degrees Centigrade
CCD	counter-current decantation
CIL	carbon-in-leach
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CoG	cut-off grade
cm	centimetre
cm <sup>2</sup>	square centimetre
cm <sup>3</sup>	cubic centimetre
cfm	cubic feet per minute
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
ft	foot (feet)
ft <sup>2</sup>	square foot (feet)
ft <sup>3</sup>	cubic foot (feet)

<b>Abbreviation</b>	<b>Unit or Term</b>
G&A	general and administrative
g	gram
gal	gallon
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/t	grams per tonne
ha	hectares
HDPE	Height Density Polyethylene
hp	horsepower
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation
ILS	Intermediate Leach Solution
kA	kiloamperes
kg	kilograms
km	kilometre
km <sup>2</sup>	square kilometre
koz	thousand troy ounce
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter
L/sec	liters per second
L/sec/m	liters per second per metre
lb	pound
LHD	Long-Haul Dump truck
LLDDP	Linear Low Density Polyethylene Plastic
LOI	Loss On Ignition
LoM	Life-of-Mine
m	metre
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metre
masl	metres above sea level
MARN	Ministry of the Environment and Natural Resources
MDA	Mine Development Associates
mg/L	milligrams/liter
mm	millimetre
mm <sup>2</sup>	square millimetre
mm <sup>3</sup>	cubic millimetre
MME	Mine & Mill Engineering
Moz	million troy ounces
Mt	million tonnes
MTW	measured true width
MW	million watts
m.y.	million years
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
OSC	Ontario Securities Commission
oz	troy ounce
%	%
PLC	Programmable Logic Controller
PLS	Pregnant Leach Solution

<b>Abbreviation</b>	<b>Unit or Term</b>
PMF	probable maximum flood
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SPT	standard penetration testing
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
TSF	tailings storage facility
TSP	total suspended particulates
µm	micron or microns
V	volts
VFD	variable frequency drive
W	watt
XRD	x-ray diffraction
y	year



# Appendices

## **Appendix A: Certificates**

## CERTIFICATE OF QUALIFIED PERSON

I, Benjamin Parsons, MSc, MAusIMM (CP) do hereby certify that:

1. I am a Principal Consultant (Resource Geology) of SRK Consulting (U.S.), Inc., 1125 Seventeenth Street, Suite 600, Denver, CO, USA, 80202.
2. This certificate applies to the amended technical report titled "Independent Technical Report, Yellowknife Gold Project, Northwest Territories, Canada" with an Effective Date of March 1, 2019, and an amended date of June 9, 2021 (the "Technical Report").
3. I graduated with a degree in Exploration Geology from Cardiff University, UK in 1999. In addition, I have obtained a Masters degree (MSc) in Mineral Resources from Cardiff University, UK in 2000 and have worked as a geologist for a total of 16 years since my graduation from university. I am a member of the Australian Institution of Materials Mining and Metallurgy (Membership Number 222568) and I am a Chartered Professional.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I am responsible for property, geology, and mineral resources and authoring Sections 1 through 6, (except for 2.6), 7.1, 8, 9, 10, 11, 12 (except for 12.1), 14 (except for 14.3.1), and 15 through 28.
6. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
7. I have had prior involvement with the property that is the subject of the Technical Report. The nature of my prior involvement is as QP for the Mineral Resource estimates in the original disclosed report amended herein.
8. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
9. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 9th Day of June, 2021.

**Stamped**

**Signed**

Benjamin Parsons, MSc, MAusIMM  
Principal Consultant (Resource Geology)

### U.S. Offices:

Anchorage	907.677.3520
Clovis	559.452.0182
Denver	303.985.1333
Elko	775.753.4151
Fort Collins	970.407.8302
Reno	775.828.6800
Tucson	520.544.3688

### Canadian Offices:

Saskatoon	306.955.4778
Sudbury	705.682.3270
Toronto	416.601.1445
Vancouver	604.681.4196
Yellowknife	867.873.8670

### Group Offices:

Africa
Asia
Australia
Europe
North America
South America

## CERTIFICATE OF QUALIFIED PERSON

I, Eric Olin, MSc, MBA, RM-SME do hereby certify that:

1. I am a Principal Process Metallurgist of SRK Consulting (U.S.), Inc., 1125 Seventeenth Street, Suite 600, Denver, CO, USA, 80202.
2. This certificate applies to the amended technical report titled "Independent Technical Report, Yellowknife Gold Project, Northwest Territories, Canada" with an Effective Date of March 1, 2019, with an amended date of June 9, 2021 (the "Technical Report").
3. I graduated with a Master of Science degree in Metallurgical Engineering from the Colorado School of Mines in 1976. I am a Registered Member of The Society for Mining, Metallurgy and Exploration, Inc. I have worked as a Metallurgist for over 40 years since my graduation from the Colorado School of Mines. My relevant experience includes extensive consulting, plant operations, process development, project management and research & development experience with base metals, precious metals, ferrous metals and industrial minerals. I have served as the plant superintendent for several gold and base metal mining operations. Additionally, I have been involved with numerous third-party due diligence audits, and preparation of project conceptual, pre-feasibility and full-feasibility studies.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I am responsible for the preparation of Sections 1.4 and 13 of the Technical Report.
6. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
7. I have had prior involvement with the property that is the subject of the Technical Report. The nature of my prior involvement was to conduct a metallurgical development program that was used to support a feasibility study for the project that was issued in 2012.
8. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
9. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 9th Day of June, 2021.

**Stamped**

**Signed**

Eric Olin, MSc, MBA, RM-SME

**U.S. Offices:**

Anchorage	907.677.3520
Clovis	559.452.0182
Denver	303.985.1333
Elko	775.753.4151
Fort Collins	970.407.8302
Reno	775.828.6800
Tucson	520.544.3688

**Canadian Offices:**

Saskatoon	306.955.4778
Sudbury	705.682.3270
Toronto	416.601.1445
Vancouver	604.681.4196
Yellowknife	867.873.8670

**Group Offices:**

Africa
Asia
Australia
Europe
North America
South America

### CERTIFICATE OF QUALIFIED PERSON

I, Dominic Chartier, PGeo do hereby certify that:

1. I am a Senior Consultant (Geology) with the firm of SRK Consulting (Canada) Inc. (SRK) with an office at Suite 1500, 155 University Avenue, Toronto, Ontario, Canada;
2. This certificate applies to the technical report titled "Independent Technical Report, Yellowknife Gold Project, Northwest Territories, Canada" with an Effective Date of March 1, 2019, and an amended date of June 9, 2021 (the "Technical Report").
3. I am a graduate of McGill University in Montreal, Quebec, with a B.Sc. in Earth and Planetary Sciences in 2002. I have practiced my profession continuously since 2002. I have created geological and ore deposit 3D models, analyzed the geostatistics and variography of ore deposits, completed NI 43-101 compliant mineral resource estimations, evaluated the geotechnical and structural properties of ore deposits, reviewed analytical quality control sample results, and co-authored or contributed to numerous NI 43-101 technical reports focused on gold, base metal and precious metal projects in Canada, West Africa, and South America. I am a professional Geologist registered with the Ordre des Géologues du Québec (OGQ#874) and the Association of Professional Geoscientists of Ontario (APGO#2775). I was registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG# L4161) at the time of the site visit and the effective date of the Technical Report.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Yellowknife gold project property on September 25 and 26, 2018.
6. I am the co-author of this report and responsible for Sections 2.6, 7.2, 7.3, 7.4, 12.1, 14.3.1, and related disclosure in Sections 1, 25, and 26 of the Technical Report.
7. I am independent of the issuer as defined in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the Effective Date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 9th Day of June, 2021.

"Signed"

\_\_\_\_\_  
Dominic Chartier, PGeo  
Senior Consultant (Geology)

"Sealed"

#### U.S. Offices:

Anchorage	907.677.3520
Clovis	559.452.0182
Denver	303.985.1333
Elko	775.753.4151
Fort Collins	970.407.8302
Reno	775.828.6800
Tucson	520.544.3688

#### Canadian Offices:

Saskatoon	306.955.4778
Sudbury	705.682.3270
Toronto	416.601.1445
Vancouver	604.681.4196
Yellowknife	867.873.8670

#### Group Offices:

Africa
Asia
Australia
Europe
North America
South America