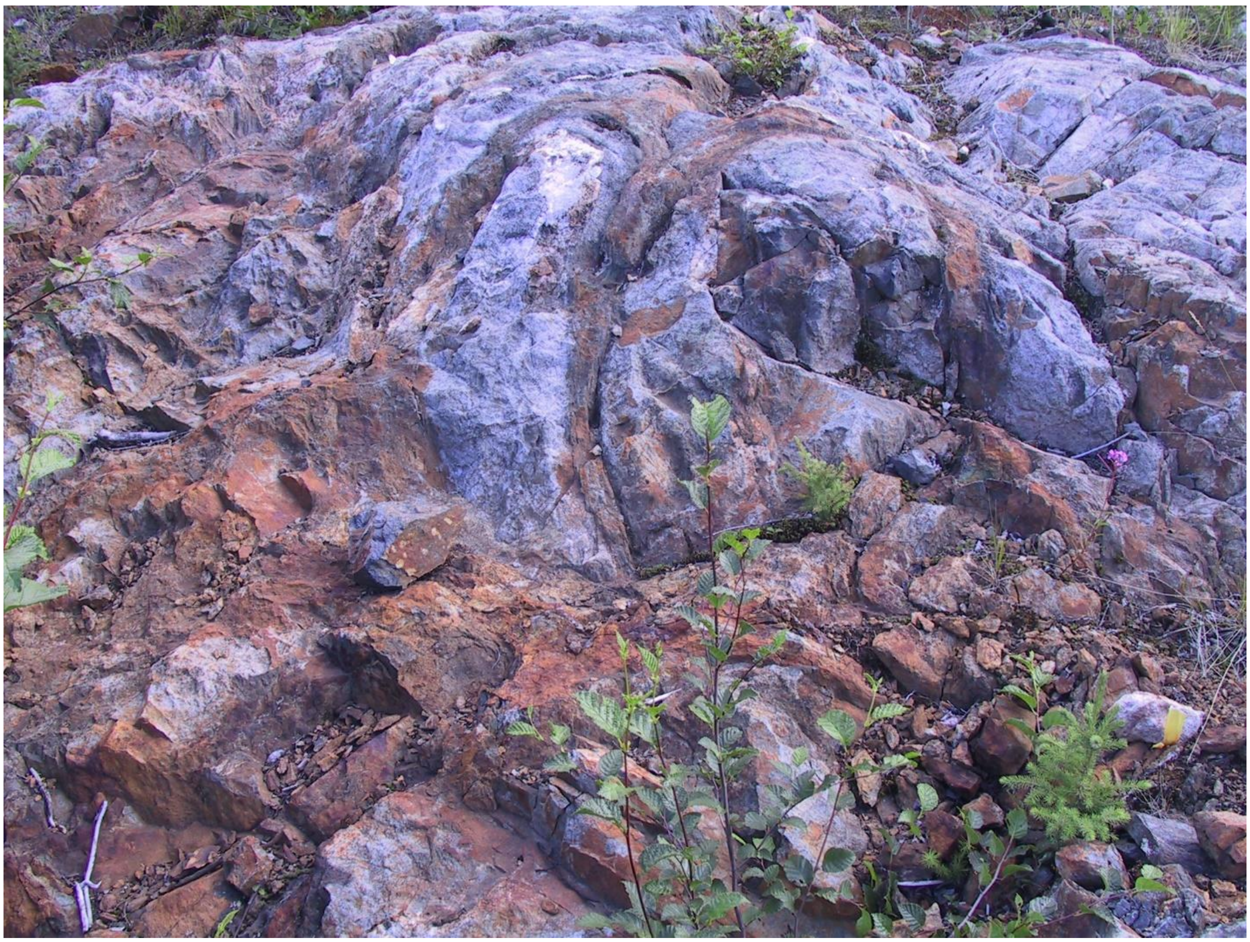
Thunderbird Gold Project

NI 43-101 Technical Report

Saskatchewan, Canada

Effective Date: November 2, 2020



Prepared for:

Matrixset Investment Corporation

Prepared By:

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Frank Hrdy, P.Geo. (CanMine Consultants)

Report Date: November 2, 2020

DATE AND SIGNATURE PAGE

The effective date of this NI 43-101 Technical report, entitled "NI 43-101 Technical Report, Thunderbird Gold Project" is November 2, 2020.

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Date: ____________.

Frank Hrdy, P.Geo.

Date: ____________.

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1.0 Summary

1.1 Introduction

Geosim Services Inc. ("Geosim") and CanMine Consultants ("CanMine") were retained by the Matrixset Investment Corporation ("Matrixset" or "the Company") to prepare a Technical Report on the Thunderbird Gold Project ("the Project") located in the La Ronge Mining District of Northern Saskatchewan. The claims are 100% owned by Golden Band Resources Inc. ("Golden Band").

Matrixset has signed a three-way Option Agreement with Procon and Golden Band back to 2018. Golden band as the company holds the Mineral Properties, the surface leases and the other Assets. Procon as the Optionor owns 100% of voting shares of the company. Matrixset as Optionee intends to receive the voting shares of the company on the terms set out in the Option Agreement by exploration.

The Project lies in the Waddy Lake district in northern Saskatchewan, approximately 130 km by air northeast of La Ronge, Saskatchewan.

The Project area comprises the Tower Lake, Memorial, and Birch Crossing properties. The claims cover a contiguous area of 5,473 hectares.

1.2 History

The Greater Waddy Lake area was first explored in the late 1930's by prospectors from Consolidated Mining and Smelting (now Teck Cominco Ltd.). After the World War II, other firms (Augustus Exploration) and individuals (Eric Partridge) also became active in the belt. Augustus Exploration first discovered gold mineralization at Tower Lake in 1959.

Golden Band began work in the area in 1996 and has carried out the bulk of the exploration work on the claims.

1.3 Geology and Mineralization

The Project area is located in the northern portion of the Central Metavolcanic Belt of the La Ronge Domain, a granite-greenstone belt in the Saskatchewan segment of the ca. 1.9-1.8 billion years (Ga) Trans-Hudson Orogen (Lafrance and Heaman 2004).

The Tower Lake property is situated along the northern margin of the Group 1 Brindson Lake Pluton (1.866 ±12 Ga, Bickford et al., 1986), a compositionally-zoned intrusive of Hudsonian age, which is in contact on the north with a sequence of mafic volcanics and sediments of Aphebian age. All lithologies were subjected to regional metamorphism of upper greenschist facies during the Hudson Orogen.

The east-west trending Byers Fault is the most dominant structural feature occurring both regionally and locally in the area of the Tower Lake property. The immediate hanging wall of the Byers Fault is characterized by a broad zone of deformation up to 200 m wide consisting of complex zones of intense brittle fracturing, granulation, and brecciation; termed the Byers Tectonic Zone (Fox 1988). Immediately adjacent to the Byers Fault, the footwall and hanging wall rocks are intensely stretched forming a mylonitic fabric that gives way to less foliated rocks in the footwall and to the intensely brecciated-granulated rocks in the hanging wall. The hanging wall deformation is interpreted to be critical to the emplacement, localization, and concentration of the widespread gold mineralization making up the Tower East gold deposit.

Gold mineralization occurs in the hanging wall rocks at the Tower East deposit as very fine-grained disseminated, “free” metallic gold, and as very fine grains contained within individual pyrite grains. Gold was introduced during a hydrothermal sulphidic-potassic alteration event.

The steeply south-dipping Byers Fault also forms the most prominent structural feature in the Birch Crossing area. Here, the fault demarcates the contact between a relatively homogenous diorite intrusive body to the south (hangingwall) and a mixture of pyroclastic and porphyritic dacitic rocks in the footwall of the fault to the north.

At Birch Crossing, gold mineralization, accompanied by minor chalcopyrite, was likely introduced in an epigenetic event related to hydrothermal sulphidic-potassic alteration. Brittle fracturing was an important precursor to the main mineralizing event, allowing passage of hydrothermal fluids and the injection of hydrothermal quartz veins. Most high-grade gold mineralization at Birch Crossing is found within hydrothermal quartz veins which have formed at the contact between intrusive and volcanic rocks.

The Memorial Gold Deposit is underlain by of metavolcanic and associated metasedimentary rocks which strike regionally from northeast to southwest. The volcanic sequence is dominated by massive to pillowed mafic flows and lesser intermediate to felsic flows and sediments. Sulfide-facies iron formation is common in the sequence and contains primary pyrite and/or pyrrhotite with occasional traces of chalcopyrite. Further towards the west, the volcanic succession is interfingered with a greywacke-argillite sequence of the Central Metavolcanic Belt.

Quartz vein zones host the majority of the high-grade gold mineralization within the Memorial deposit. These zones host numerous small-scale (cm to dm in width) quartz-carbonate veins which host pyrite and pyrrhotite, both disseminated and occurring as irregular clots and blobs of mineralization, as well as coatings on fractured surfaces. Basalt is the host rock of these veins.

Quartz stringer zones represent a smaller, but still significant, contribution to gold mineralization in the Memorial deposit. This mineralized zone occurs at a shallower depth generally than quartz vein zones and is comprised of quartz-carbonate veinlets.

1.4 Exploration

A considerable amount of historical exploration has been undertaken on the Project. At Tower Lake, diamond drilling activities since the first discovery, has resulted in the delineation of the Tower East gold deposit. Drilling since 1984 on the deposit amounts to 254 drill holes totalling 35,279.63 metres. Other work on the claims included geochemical sampling, geological mapping, and magnetic and VLF-EM surveys.

Golden Band discovered the Memorial Deposit in 1996 and has drilled 79 core holes in the deposit totalling 6,774.45 m.

The Birch Crossing deposit was discovered by Golden Band in 2003 by a gold-in-till anomaly identified through till sampling. Since that time Golden Band completed 89 core holes totalling 9,735.39 m.

1.5 Metallurgical Testwork

In 2005, a program at SGS Minerals Services (“SGS”) evaluated the general metallurgical response of composites from Tower East and Memorial to gravity separation, flotation, and cyanidation processes. In addition, general ore characterisation tests; including head analysis, bulk density determination, comminution testing, and general ore mineralogy were completed.

Overall gold recoveries ranged from about 86% to 93% from the Memorial composite.

Tower East gravity + cyanidation gold recoveries were rather similar in test completed at 81 μm (94.6% gold recovery) and 53 μm (95.8% gold recovery).

The generally very low cyanide consumptions indicated in this testwork should be verified through additional testing.

No metallurgical testwork has yet been conducted on Birch Crossing material.

1.6 Mineral Resource Estimations

Mineral Resource estimates of the gold mineralization at Tower East, Birch Crossing, and Memorial were carried out by R. Simpson, P. Geo. In September and October of 2020.

The Tower East estimate used samples from 244 core drill holes. Bulk insitu density is estimated from 16 specific gravity measurements.

The Tower East geological model consists of a low-grade envelope constructed using a gold indicator at a 0.1 g/t threshold constrained to the hangingwall of the Byers Fault Zone. Grades were interpolated within the envelope into 5 m x 5 m x 5 m blocks using inverse-distance weighting to the third power (ID3) and validated using Ordinary Kriging and the nearest neighbour methods.

Tower East Mineral Resources was classified into Measured, Indicated, and Inferred blocks based on drill hole spacing and constrained by an optimized pit shell.

The Birch Crossing estimate used samples from 89 core drill holes. Bulk density was assumed to be the same as Tower East as no measurements have been taken to date.

The Birch Crossing geological model consists of high-grade and low-grade envelopes constructed using gold indicator thresholds of 0.1 g/t and 0.5 g/t. Grades were interpolated separately within the envelopes into 5 m x 5 m x 5 m blocks using inverse-distance weighting to the third power (ID3) and validated using Ordinary Kriging and the nearest neighbour methods. Blocks located on the margins of both zones were assigned the volume-weighted average of the interpolated grades.

The Birch Crossing estimate was classified into Indicated, and Inferred blocks based on drill hole spacing and constrained by an optimized pit shell.

The Memorial estimate used samples from 79 core drill holes. Bulk density is estimated from 25 specific gravity measurements.

The Memorial geological model consists of high-grade and low-grade envelopes constructed using gold indicator thresholds of 0.1 g/t and 0.5 g/t. Grades were interpolated separately within the envelopes into 5 m x 5 m x 5 m blocks using inverse-distance weighting to the third power (ID3) and validated using Ordinary Kriging and the nearest neighbour methods. Blocks located on the margins of both zones were assigned the volume-weighted average of the interpolated grades.

The Memorial estimate was classified into Indicated, and Inferred blocks based on drill hole spacing and constrained by an optimized pit shell.

The tables below present the Mineral Resource estimates at a base case cut-off grade of 0.3 g/t Au.

Table 1-1 Tower East Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Measured	6,574,900	1.337	282,626
Indicated	8,649,600	0.934	259,737
Measured+Indicated	**15,224,500**	**1.110**	**542,363**
Inferred	13,828,800	0.689	306,334

Table 1-2 Birch Crossing Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Indicated	1,939,800	1.257	78,394
Inferred	1,658,100	1.051	56,028

Table 1-3 Memorial Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Indicated	791,700	1.390	35,381
Inferred	248,600	0.860	6,874

Notes:
1. Mineral resource estimate prepared by GeoSim Services Inc. with an effective date of November 2, 2020.
2. Totals may not sum due to rounding.
3. Mineral resources are constrained by an optimized pit shell using the following assumptions: US$1600/oz Au price; a 45° pit slope; assumed metallurgical recovery of 90%; mining costs of US$2.50 per tonne for ore and US$1.50 per tonne for waste and overburden; processing costs of US$9.50 per tonne; G&A of US$1.00/t.
4. A base case cut-off grade of 0.3 g/t Au represents an in-situ metal value of US$13.02 per tonne at a gold price of $1500/oz which is believed to provide a reasonable margin over operating and sustaining costs for open-pit mining and processing.
5. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

The resource estimates are based on information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Areas of uncertainty that may materially impact the Mineral Resource Estimate include:

- Bulk density for Birch Crossing is based solely on data from the Tower East deposit.

- Low-grade mineralization at Tower East appears to extend beyond the limits of drilling but has been confined within a low-grade envelope for the present estimate.
- The topographic base is of low resolution and not suitable for detailed mine planning.
- Commodity price assumptions.
- Pit slope angles.
- Metal recovery assumptions.
- Mining and Process cost assumptions.
- Assumptions that all required permits will be forthcoming.

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in the province of Saskatchewan in terms of environmental, permitting, taxation, socio economic, marketing, and political factors. Geosim is not aware of any known legal or title issues that would materially affect the Mineral Resource estimate.

1.7 Interpretation and Conclusions

The Project area hosts three significant shear-hosted, mesothermal gold deposits. The regional and deposit-scale geology and controls on mineralization are sufficiently well understood to permit the construction of geological models and estimation of Mineral Resources for the Tower East, Birch Crossing, and Memorial gold deposits.

The metallurgical testwork carried out in 2005 suggests gold recoveries in the range of 86 to 96% are achievable by a combination of gravity separation and cyanidation at Tower East and Memorial. However, the grade of the composites tested was significantly higher than the average grade of the updated mineral resources.

The resource estimates are based on information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Although the Birch Crossing and Memorial deposits are not of sufficient size to support stand-alone mining operations they could be mined as satellite deposits to the Tower East deposit.

The ultimate extents of the deposits have not been completely delineated by drilling. The Tower East deposit shows the highest potential for increasing the size of the deposit based on widely spaced drill intercepts in the Phantom Zone which extends south of Tower Lake.

1.8 Recommendations

Two phases of work are recommended.

The first work phase would consist of a drill program with following objectives:

- A LiDAR survey or high-resolution orthophotographic survey of the entire Project area.
- Resource expansion drilling in order to potentially expand the mineral resources within Tower East, Birch Crossing, and Memorial.
- Infill drilling to support potential upgrade in Mineral Resource confidence categories.
- Geotechnical drilling for open pit mine design.
- Additional bulk density testing of representative lithologies and mineralization styles.
- Metallurgical testing should be carried out using lower grade composites.
- Existing unsampled intervals from past Memorial drilling should be split and sampled if the core is identifiable and in reasonable condition.
- The creation of site-specific reference standards should be considered as purchased reference standards have proved problematic in the past.
- All drill data should be transferred to a secure relational database.

The second phase of work would consist of a Preliminary Economic Assessment (PEA) once the first-phase drilling is complete. The second phase work program is partly contingent on the results of the recommended drill program.

2.0 Introduction

Geosim Services Inc. (“Geosim”) and CanMine Consultants (“CanMine”) were retained by Matrixset Investment Corporation (“Matrixset” or “the Company”) to prepare a Technical Report on the Thunderbird Gold Project (“the Project” or “the Property”) located in the La Ronge Mining District of Northern Saskatchewan.

The claims are 100% owned by Golden Band Resources Inc. (“Golden Band”). In August 2016, Golden Band ceased to be a publicly traded company and became a wholly (100%) owned subsidiary of Procon Holdings Inc. (“Procon”).

Matrixset has signed a three-way Option Agreement with Procon and Golden Band back to 2018. Golden band as the company holds the Mineral Properties, the surface leases and the other Assets. Procon as the Optionor owns 100% of voting shares of the company. Matrixset as Optionee intends to receive the voting shares of the company on the terms set out in the Option Agreement by exploration.

The Thunderbird Gold Project comprises the Tower Lake, Memorial, and Birch Crossing properties. The claims cover a contiguous area of 5,473 hectares.

2.1 Terms of Reference

Geosim and CanMine are independent of Matrixset and Golden Band and have no beneficial interest in the Thunderbird Gold Project. Fees for this Technical Report are not dependent in whole or in part on any prior or future engagement or understanding resulting from the conclusions of this report.

All measurement units used in this report are metric, and currency is expressed in United States dollars unless stated otherwise.

The geographic projection used for the project maps and surveys is UTM Zone 8, NAD 13.

2.2 Qualified Persons

Ronald G. Simpson, P. Geo. Of Geosim Services Inc. and Frank Hrdy, P. Geo of CanMine Consultants served as the Qualified Persons (QPs) as defined in NI 43-101.

2.3 Site Visits and Scope of Personal Inspection

Qualified Persons involved in the preparation of this technical report conducted the following site visits:

Ronald Simpson:

- On October 7, 1997, R. Simpson visited the Tower Lake property as part of a property evaluation.
- On July 27, 2005, R. Simpson visited the Tower Lake and Memorial properties.
- On July 24, 2007 R. Simpson visited the Birch Crossing property.

Frank Hrdy:

On October 22, 2020, Frank Hrdy of CanMine Consultants visited the Tower Lake property. He also visited the Tower Lake and Birch Crossing properties between 2007 and 2009 while employed with Golden Band Resources as their Exploration V.P. and Mineral Resources Manager.

Details of the site visits are presented in Section 12.

2.4 Effective Dates

The effective date of this Technical Report is November 2, 2020.

2.5 Information Sources and References

Information used to support this Technical Report was derived from previous Technical Reports by the co-author (Simpson, 2006 and 2007). Other supplemental sources of information are cited in the text of this report and listed in Section 20 of this Report.

2.6 Previous Technical Reports

Previous NI43-101 Technical Reports on the project area are listed below:

Simpson, R., 2006: Technical Report and Mineral Resource Estimate - Tower East Gold Deposit, Greater Waddy Lake Project. Effective date: March 20, 2006

Simpson, R., 2006: Technical Report and Mineral Resource Estimate - Memorial Gold Deposit, Greater Waddy Lake Project. Effective date: March 22, 2006

Puritch, E, Davie, P., Hayden, A., Orava, D., Simpson, R., 2007: Technical Report and Preliminary Economic Assessment on The Waddy Lake – Jolu Central Mill Project, La Ronge Gold Belt: Effective date: June 1, 2007

Simpson, R, 2007: Technical report and Mineral Resource Estimate, Birch Crossing Gold Deposit, Greater Waddy Lake Project. Effective date: December 14, 2007

Puritch, E, Ewert, W., Hayden, A., Buck, M., Partsch, A., Simpson, R., Haywood, G., Hrdy, F., Kotowski, S., Ferguson, B., Clifton, W., 2008: Updated Technical Report and Preliminary Economic Assessment on The La Ronge Gold Project, Northern Saskatchewan, Canada for Golden Band Resources Inc.: Effective date April 10, 2008

These reports are filed on the SEDAR website (www.sedar.com). Background information and a portion of the technical data for this report were obtained from these reports. This technical report replaces and supersedes all prior technical reports on the Tower Lake, Birch Crossing, and Memorial Gold Deposits.

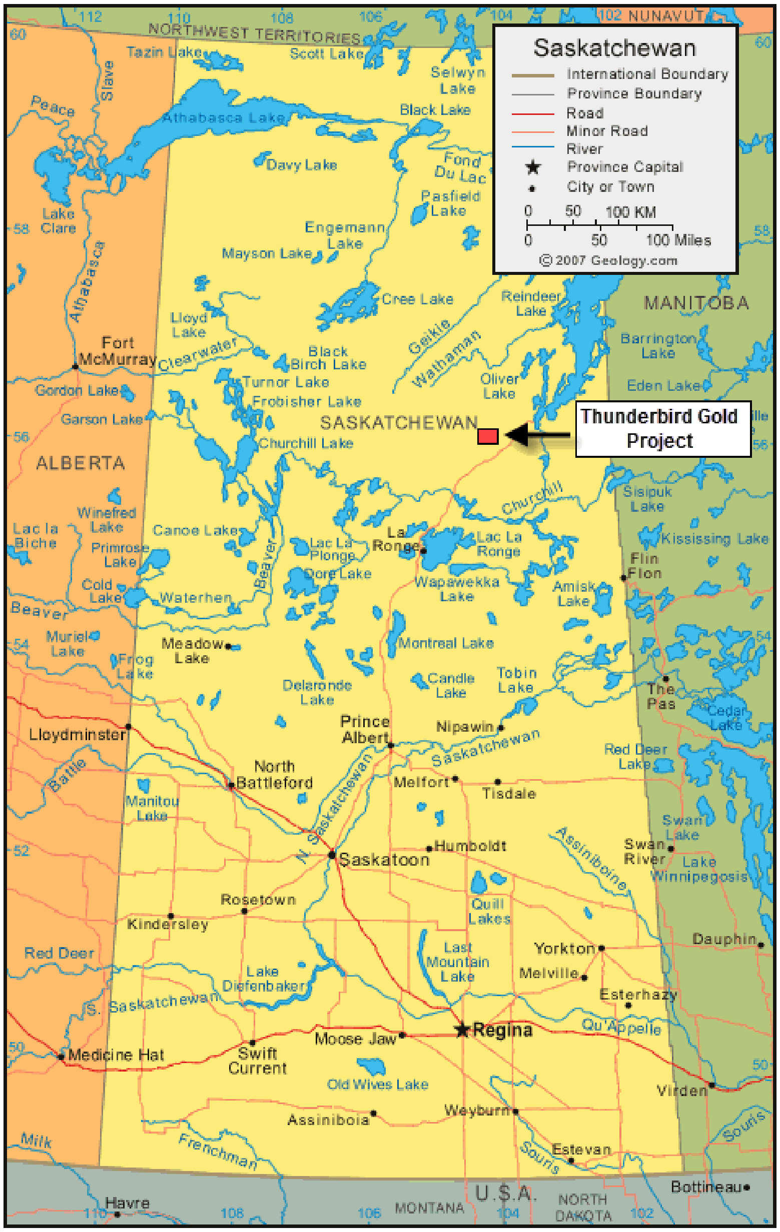
3.0 Reliance on Other Experts

The authors of this Report state that they are qualified persons for those areas as identified in the "Certificate of Qualified Person", as included in this Report. The authors have not conducted independent land status evaluations and have relied on, and believe there is a reasonable basis for this reliance, upon information from Matrixset, Golden Band, and the Mineral Administration Registry Saskatchewan ("MARS") regarding property status, and legal title for the Project (Section 4.2), which the authors believe to be accurate.

4.0 Property Description and Location

The Thunderbird Gold Project comprises the Tower Lake, Memorial, and Birch Crossing properties situated in the La Ronge Mining District of northern Saskatchewan (Figure 4-1). The claims cover a contiguous area of 5,473 hectares.

Figure 4-1 General Location Map



4.1 Project Ownership

All the mineral claims for the Project are fully owned by Golden Band Resources Inc. of Saskatoon, Saskatchewan and are in good standing. The claims are not legally surveyed.

Golden Band is a wholly owned subsidiary of Procon.

Matrixset has signed a three-way Option Agreement with Procon and Golden Band back to 2018. Golden band as the company holds the Mineral Properties, the surface leases and the other Assets. Procon as the Optionor owns 100% of voting shares of the company. Matrixset as Optionee intends to receive the voting shares of the company on the terms set out in the Option Agreement by exploration.

4.2 Mineral Tenure

All claims have had the Saskatchewan government assessment relief applied for their first year. The second-year credit is shown in the status as well, although officially, this won't be credited to the claims until 2021.

The Tower Lake Property consists of seven Crown mineral dispositions covering an area of 1,406 hectares (Table 4-1).

Table 4-1 Tower Lake Mineral Claims

Disposition	Hectares	Annual Assessment	Excess Credit	Net Work Applied	MARS Expiry Date	Years Protected
CBS 5496	421	$10,525	$21,050	15-Jun-21	11-Sep-23	2
CBS 6742	419	$10,475	$53,596	28-Jan-21	25-Apr-26	5
CBS 6743	502	$12,550	$98,017	28-Jan-21	26-Apr-28	7
S- 96833	16	$400	$1,200	05-Feb-21	06-May-24	3
S- 96834	16	$400	$1,200	05-Feb-21	06-May-24	2
S- 96835	16	$400	$1,200	15-Jun-21	12-Sep-24	3
S- 96836	16	$400	$1,200	15-Jun-21	12-Sep-24	3
Subtotal:	**1,406**	**$35,150**	**$177,463**			

The Birch Crossing Property consists of nine Crown mineral dispositions covering an area of 1,185 hectares (

Table 4-2).

Table 4-2 Birch Crossing Mineral Claims

Disposition	Hectares	Annual Assessment	Excess Credit	Net Work Applied	MARS Expiry Date	Years Protected
S- 98168	16	$400	$5,200	27-Feb-21	26-May-34	13
S- 98169	16	$400	$5,025	27-Feb-21	27-May-33	12
S- 98170	16	$400	$4,915	27-Feb-21	27-May-33	12
S- 98171	16	$400	$4,915	27-Feb-21	27-May-33	12
S- 98172	16	$400	$4,035	12-Mar-21	08-Jun-31	10
S- 98173	16	$400	$4,035	12-Mar-21	08-Jun-31	10
S-106202	534	$13,350	$44,940	19-Jan-21	19-Apr-24	3
S-108302	68	$1,700	$6,503	10-Sep-21	08-Dec-24	3.8
S-108303	487	$12,175	$24,350	20-Jan-21	20-Apr-23	2
Subtotal:	**1,185**	**$29,625**	**$103,918**			

The Memorial Property consists of two Crown mineral dispositions covering an area of 2,882 hectares (

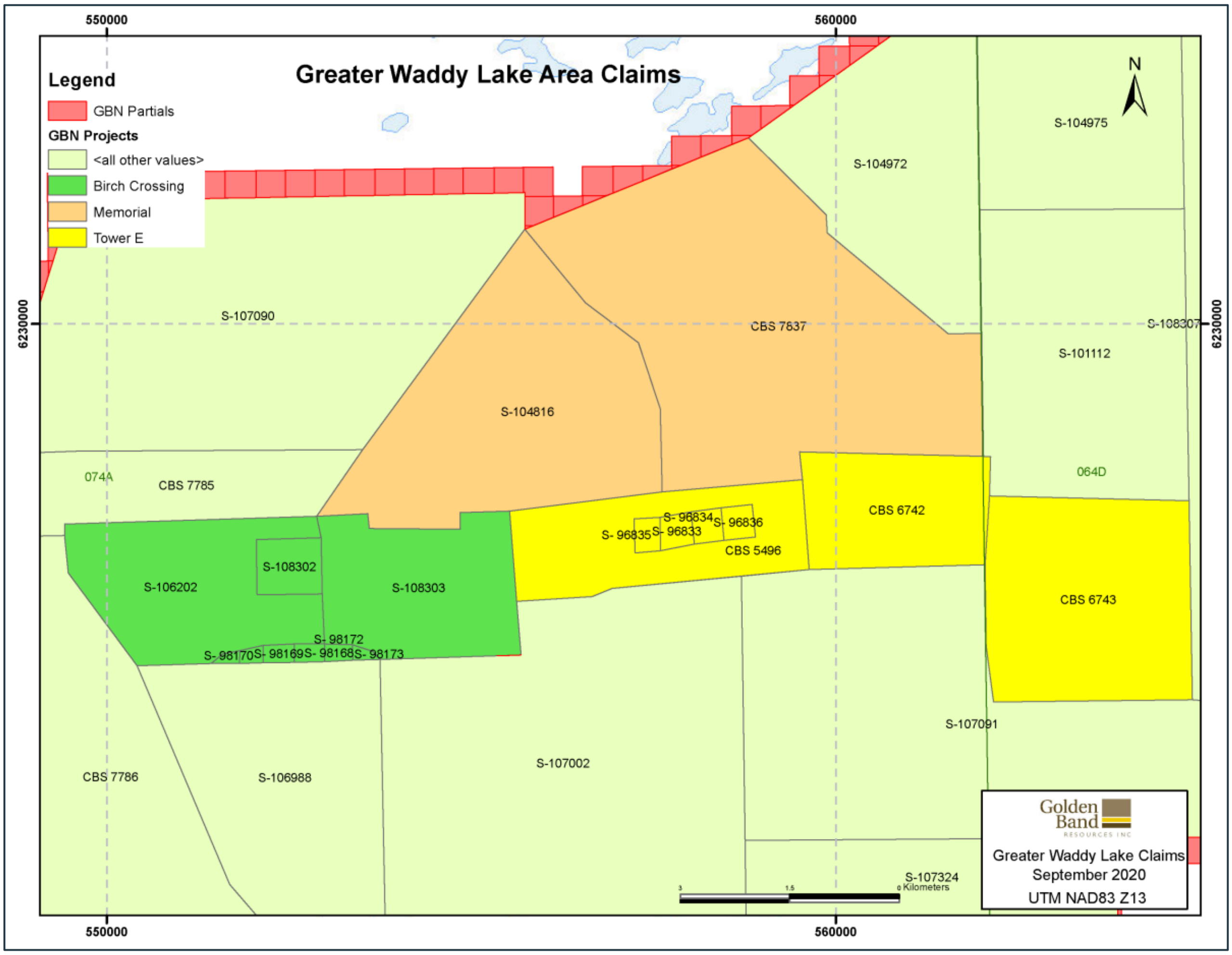
Table 4-2).

Table 4-3 Memorial Mineral Claims

Disposition	Hectares	Annual Assessment	Excess Credit	Net Work Applied	MARS Expiry Date	Years Protected
CBS 7837	1,717	$42,925	$85,850	04-Jul-21	01-Oct-23	2
S-104816	1,165	$29,125	$58,250	15-Apr-21	13-Jul-23	2
Subtotal:	**2,882**	**$72,050**	**$144,100**			

The claim extents are illustrated in Figure 4-2.

Figure 4-2 Claim Location Map



4.3 Surface Rights

Mineral claims in Saskatchewan do not give surface rights. In order to remove material from the site claims must be converted to leases. Mineral claims and leases in Saskatchewan are currently governed by the Mineral Tenure Registry Regulations which became effective December 1, 2012.

4.4 Royalties

No underlying royalties or encumbrances exist on the Memorial or Birch Crossing Properties.

Underlying royalties on the Tower Lake property are summarized in Table 4-4. The applicable royalty encumbrances are:

4.4.1 ERS Royalty Agreement: 2Oct85

Original Parties: Golden Rule Resources Ltd., SMDC, Goldsil Resources Ltd., Goldsil Mining & Milling Inc. (GM&M), & Energy Reserves Canada (Sask.) Ltd. (ERS).

Royalty holders: ERS (exclusive of SMDC) & SMDC (exclusive of ERS). Energy Reserves was subsequently acquired by BHP Petroleum (Americas) Inc. (now BHP Billiton Petroleum (Americas) Inc.).

The agreement fluctuates between being a 2% net smelter return (NSR) and, on realization of Net Proceeds, shall convert to a 12% Net Proceeds Interest (NPI) from operations, that reverts to the 2% NSR when there are no net proceeds.

Agreement is in force as long as any mineral dispositions (including extensions, renewals, leases, or substitutions) are held by a Party to, or a successor or an assignee. The NSR royalty and NPI are calculated on individual Project Areas unless more than one area is within an integrated operation, in which case the NSR and NPI are calculated on that basis.

4.4.2 SMDC (Cameco) Royalty: 2Oct85

Royalty holder: Cameco (the former SMDC).

Is on participating interests transferred by SMDC to Golden Rule and Goldsil (agreement of 29July83), SMDC retained a royalty that fluctuates between being a 2% net smelter return and a 12% net proceeds interest.

Cameco assumed all SMDC rights and obligations on 8Nov88.

9Apr81: Golden Rule entered into Weedy Lake JV Agreement. with SMDC to earn a 30% participating interest (PI);

Amended 27Sep86 such that, if Golden Rule acquired the 30% PI, the PI became encumbered by a gross royalty payable to SMDC at the rate of $10.00 per ounce of gold produced to a maximum of $350,000.

1Oct86: (Golden Rule, SMDC, Tyler Resources): Tyler option to earn-in 25% PI; if option is exercised and 25% PI earned, then Tyler's 25% PI is encumbered by a cash royalty payable to SMDC at the rate of $10.00 per ounce of gold produced to a maximum of $292,000. Tyler also had the option to earn another 25.1% PI and, if that option was exercised and the 25.1% PI earned, then Tyler's 25.1% PI became encumbered by a cash royalty payable to SMDC at the rate of $10.00 per ounce of gold produced to a maximum of $292,000. The agreement is binding upon successors and permitted assigns.

4.4.3 Comaplex Net Smelter Return (NSR): 25Nov81

Parties: Energy Reserves Canada (ERS), Golden Rule Resources Ltd. (GR), Comaplex Resources International Ltd.

Royalty holder: Comaplex Minerals Corp.

25Nov81: ERC, Comaplex & GR (Tower Lake JV Agreement) with ERC to earn 77% participating interest (PI), 18% GR, 5% Comaplex; lands: (i) Tower: S-96833, S-96834, S-96836, S-96836, CBS 5496, CBS 6417, CBS 6418. CBS 6742, CBS 6743; (ii) Waddy: CBS 6744; (iii) Windrum: CBS 6745. Comaplex 2% net smelter return encumbered PIs on Project Area Tower A.

29July82 Novation and Amending agreement: Tower Amending Agreement #1: SMDC, GR, ERC, & Comaplex: ERC assigned ½ of its PIs to SMDC; additional lands: S-98434, S-98435, S-98436, & S-98437; resulting PIs: (i) Tower "A" ERC 38.5%, GR 18%, Comaplex 5%, SMDC 38.5%; (ii) Tower "B" ERC 40%, GR 20%, SMDC 40%; (iii) Waddy ERC 38.5%, GR 18%, Comaplex 5%, SMDC 38.5%; (iv) Windrum ERC 38.5%, GR 18%, Comaplex 5%, SMDC 38.5%.

Historical Summary: CBS 5496 and S-96833 to S-96836 inclusive: 20.00% SMDC: encumbered 20.00% by Comaplex NSR; 37.50% GR: encumbered 10.25% by ERS royalty and 9.25% by SMDC royalty and 37.50% by Comaplex NSR; 37.50% Goldsil: encumbered 28.25% by ERS royalty and 9.25% by SMDC royalty and 37.50% by Comaplex NSR; 5.00% Comaplex. Exchange Agreement, 1Jan 1990: 57.76% GR: encumbered by 10.25% ERS royalty, 9.25% Cameco royalty and 57.76% Comaplex NSR; 42.24% Goldsil: encumbered by 28.25% ERS royalty, 9.25% Cameco royalty, and 42.24% Comaplex NSR.

Table 4-4 List of Underlying Royalties – Tower Lake Property

Claim Name	Disposition	Underlying Royalties
Tower Lake	CBS 5496	**ERS royalty:** 57.76% GR encumbered by 10.25% + 42.24% GR (was Goldsil) encumbered by 28.25% = 100% encumbrance = 17.85% **Cameco (SMDC) royalty:** 57.76% GR encumbered 9.25% + 42.24% (was Goldsil) encumbered 9.25%= 100% encumbrance = 9.25% **Comaplex NSR:** 57.76% GR encumbered 57.76% + 42.24% GR (was Goldsil) encumbered 42.24% = 100% encumbrance = 51.20%
T1	S-96833	**ERS royalty:** 57.76% GR encumbered 10.25% + 42.24% GR (was Goldsil} encumbered 28.25% = 100% encumbrance = 17.85% **Cameco (SMDC) royalty:** 57.76% GR encumbered 9.25% + 42.24% GR (was Goldsil) encumbered 9.25%= 100% encumbrance = 9.25% **Comaplex NSR:** 57.76% GR encumbered 57.76% + 42.24% GR (was Goldsil) encumbered 42.24% = 100% encumbrance = 51.20%
T2	S-96834	**ERS royalty:** 57.76% GR encumbered 10.25% + 42.24% GR (was Goldsil} encumbered 28.25% = 100% encumbrance = 17.85% **Cameco (SMDC) royalty:** 57.76% GR encumbered 9.25% + 42.24% GR (was Goldsil) encumbered 9.25%= 100% encumbrance = 9.25% **Comaplex NSR:** 57.76% GR encumbered 57.76% + 42.24% GR (was Goldsil) encumbered 42.24% = 100% encumbrance = 51.20%

Claim Name	Disposition	Underlying Royalties
T3	S-96835	**ERS royalty:** 57.76% GR encumbered 10.25% + 42.24% GR (was Goldsil} encumbered 28.25% = 100% encumbrance = 17.85% **Cameco (SMDC) royalty:** 57.76% GR encumbered 9.25% + 42.24% GR (was Goldsil) encumbered 9.25%= 100% encumbrance = 9.25% **Comaplex NSR:** 57.76% GR encumbered 57.76% + 42.24% GR (was Goldsil) encumbered 42.24% = 100% encumbrance = 51.20%
T4	S-96836	**ERS royalty:** 57.76% GR encumbered 10.25% + 42.24% GR (was Goldsil} encumbered 28.25% = 100% encumbrance = 17.85% **Cameco (SMDC) royalty:** 57.76% GR encumbered 9.25% + 42.24% GR (was Goldsil) encumbered 9.25%= 100% encumbrance = 9.25% **Comaplex NSR:** 57.76% GR encumbered 57.76% + 42.24% GR (was Goldsil) encumbered 42.24% = 100% encumbrance = 51.20%

4.5 Permits

Surface disturbance Permits are required for mineral exploration in Saskatchewan prior to any work starting. The permits that may be required are: Temporary Work Camp permit, Aquatic habitat Protection Permit, Forest Product permit, and Surface Exploration permit. Legislation includes the Provincial Lands Regulations, the Environmental Management & Protection Act, and the Forest Resources Management Act. Drilling programs normally require a Term right to Use Water licenses and a Notification Form may need to be submitted to the Department of Fisheries and Oceans Canada.

4.6 Social License

All of Golden Band's activities in the La Ronge Gold Belt are within the traditional lands of the Lac La Ronge Indian Band ("LLRIB") and Golden Band has signed a Memorandum of Understanding with the LLRIB. The Memorandum of Understanding encompasses the Company's commitment to work with the LLRIB to establish a mutually beneficial business relationship. To ensure that business and employment opportunities are available to the LLRIB within Golden Band's exploration and development projects, Golden Band has also signed a General Services Agreement with Kitsaki Management Limited Partnership.

4.7 Environmental Considerations

Canada North Environmental Services (CanNorth) completed environmental baseline studies in the Greater Waddy Lake area that includes the Tower Lake, Birch Crossing, and Memorial Properties (Canada North, 2005). The Komis area was also studied in 1993 to 1995 in support of the Komis underground mine operation.

The environmental baseline studies consisted of a terrestrial and aquatic habitat evaluation including the following detailed studies:

Aquatic environment

- Spring fish spawning
- Summer fish and plankton community structure, fish habitat assessment, water and fish chemistry survey, lake morphometry and stream crossing assessments
- Fall Spawning, sediment benthic invertebrate survey
- Desktop hydrology study including regional streamflow analysis, flood frequency and magnitude, low flow frequency and magnitude, flow durations, etc.

Terrestrial environment

- Winter wildlife tracking survey
- Spring raptor survey
- Spring ungulate pellet group/browse survey, habitat mapping and development of a caribou mitigation/protection plan
- Summer vegetation / rare plant survey
- Ungulate pellet group survey

This work adds to existing environmental baseline data which includes work initiated by the Terrestrial and Aquatic Environmental Managers (TAEM) now known as CanNorth. TAEM carried out environmental field work in 1988 which involved lake morphometry, fish community, and fish habitat assessments in Tower Lake, Island Lake, Bead Lake, Middle Lake and Unnamed Lake. TAEM also conducted a comprehensive study of the Komis project area in 1994 and 1995 that included aquatic and terrestrial assessments.

4.8 Comments on Section 4

Permits will be required for any future Project exploration or development. To the extent known, there are no other significant factors and risks that may affect access, title, or right or ability to perform work on the Project.

5.0 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

5.1 Accessibility

The Project is located in the Waddy Lake district in northern Saskatchewan, approximately 130 km by air northeast of La Ronge, Saskatchewan (NTS topographic map sheet 74A/1). Road access to the Project area is via the community of Brabant, located adjacent to Highway 102, which is 171 km north of La Ronge. Driving time from La Ronge to Brabant is approximately 2.5 hours. From Brabant, the Komis mine road heads northwest. At kilometre 12, an all-season bush trail connects with the Komis mine road and extends 18 km west to the camp at Tower Lake (Figure 5-2 to Figure 5-4).

Figure 5-1 Satellite Image of Project Area and Access

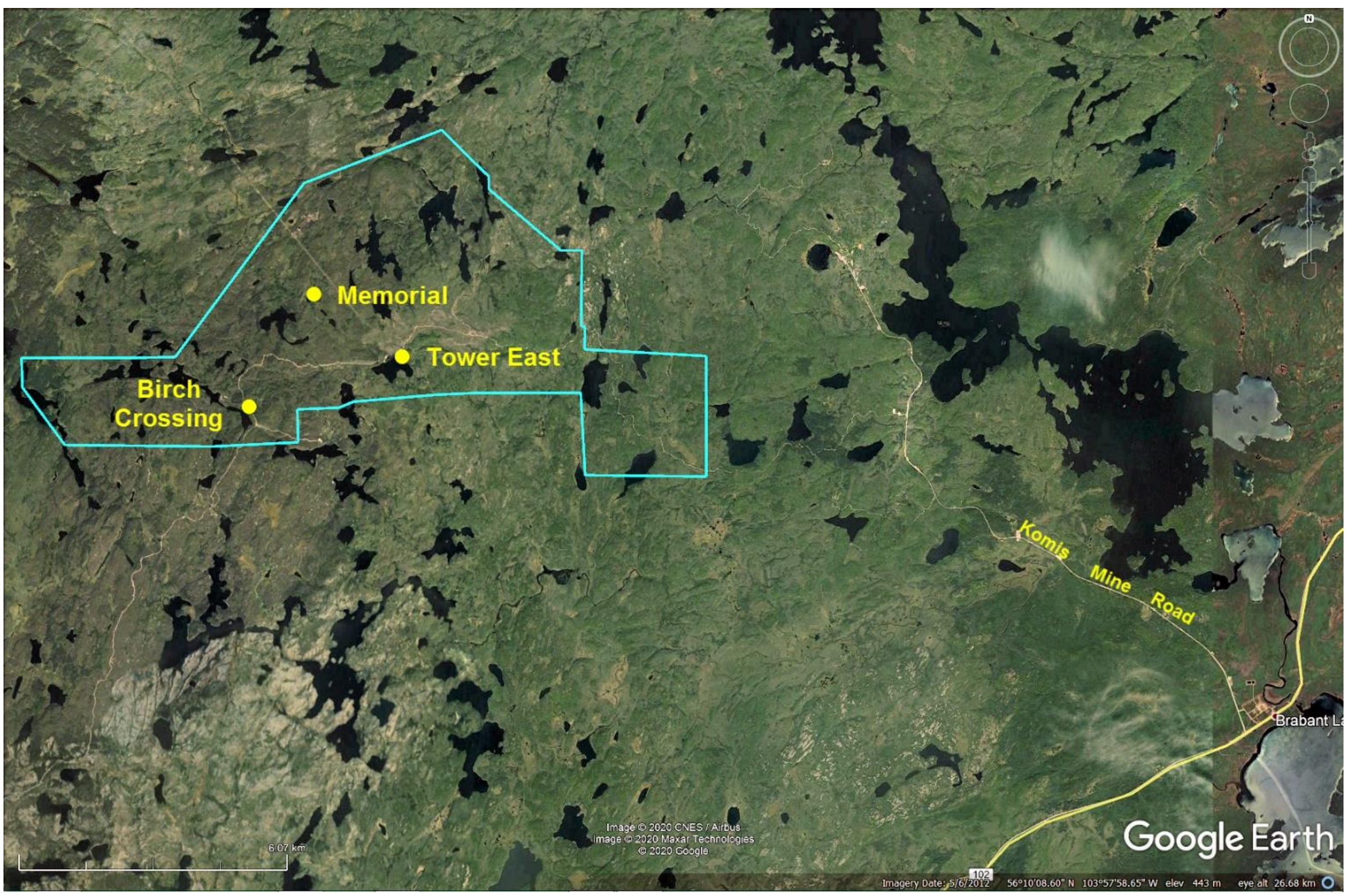


Figure 5-2 Access Road to the Project Area

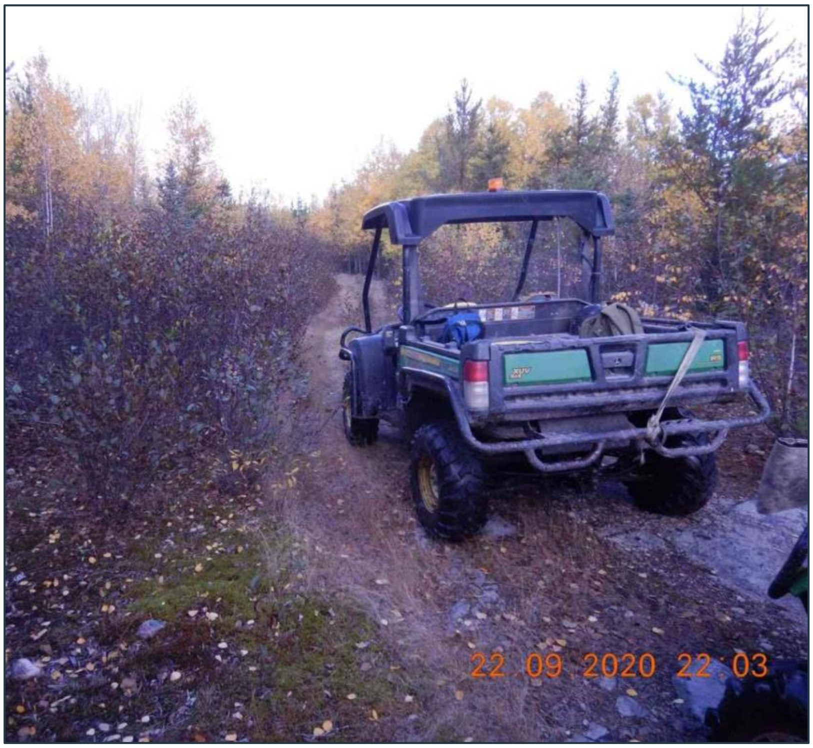


Figure 5-3 Bridge along Access Road to the Project Area

Figure 5-4 Stream Crossing along Access Road to the Project Area

5.2 Climate

The project area is within the boreal forest of the Canadian Shield, a district with cold winters and warm summers, and with annual temperatures ranging from -50°C to +35°C. The climate in the Tower Lake area is classified as cold temperate continental. Annual precipitation is from 40 to 60 centimetres (cm), falling mostly in the summers. Snow begins to accumulate during October and generally persists into April. Lakes in the region are generally frozen-over between December and April each year.

No weather statistics are available for the specifically for the Project area, but weather statistics are available for La Ronge, located 200 km to the southwest at the same approximate elevation. The average annual temperature is -0.1°C, with an average daily maximum of 23.0°C in July and an average daily minimum of -25.8°C in January. Average annual precipitation for La Ronge is 483.8 millimetres (mm), which is comprised of 348.8 mm of rainfall and 148.4 cm of snowfall.

Exploration work, specifically diamond drilling is best performed from mid-January to the end of March when ice conditions are suitable to allow diamond drilling on Tower Lake and the large swamp area to the east.

5.3 Local Resources and Infrastructure

The nearest large town is La Ronge, a major service centre for northern Saskatchewan. It has a population of approximately 2,700 (June 2017 Statistics Canada census) with a further 3,000 in outlying communities. It has a paved 1524 m runway offering scheduled and charter air services.

Access to La Ronge is via Highway 2 from Prince Albert. North of La Ronge, Highway 102 is paved for 30 km past the town and then continues as an all-weather, maintained gravel road to the uranium mines in the northern part of the province.

A 25 kV hydro distribution line, belonging to SaskPower, extends northward along Highway 102 from La Ronge to Missinipe (94 km southwest of Brabant). At present, there is no available commercial load from this line. Another major power line, the 138 kV Island Falls to Points North transmission line, extends from the Island Falls hydroelectric generation plant through the general project area, crossing Highway 102 at Lindsey Lake 12 km southwest of Brabant. This power line continues northwest through the Tower Lake property, passing directly over the Tower East gold deposit (Figure 5-5). Commercial distribution is available from this line from SaskPower.

A camp exists at the Tower Lake site close to the lakeshore (Figure 5-6) but it is starting to show significant deterioration and would require reconditioning if it were to be put back into commission.

Drill core from Tower East, Memorial and Birch Crossing (Figure 5-7) are located at the Tower Lake camp but are starting to show signs of age and require some maintenance.

Figure 5-5 Power Line beside Tower Lake

Figure 5-6 Tower Lake Camp

Figure 5-7 Drill Core at Tower Lake Camp

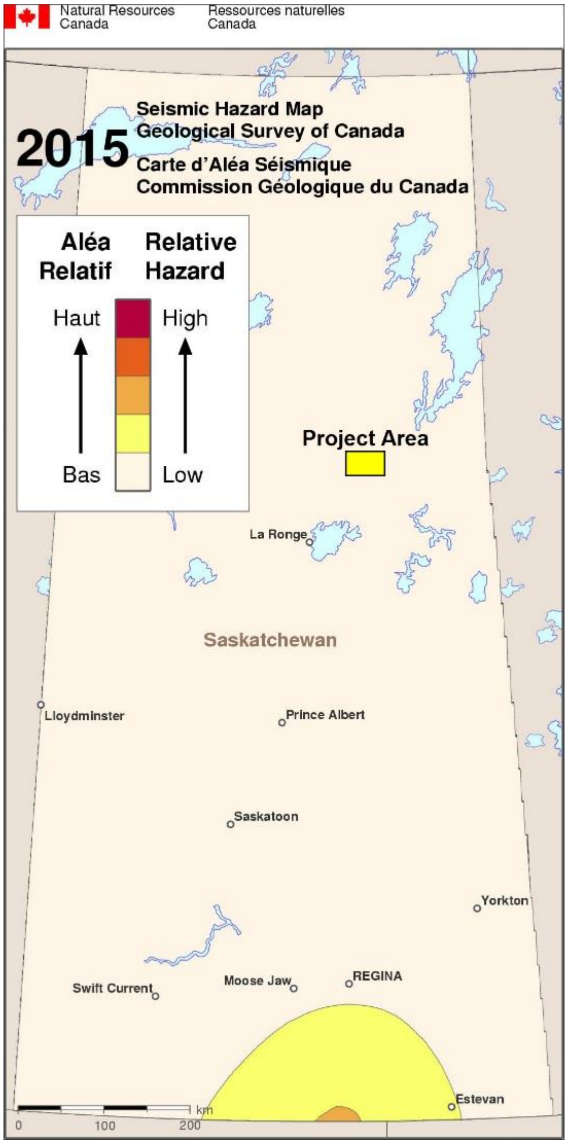
5.4 Physiography

The Project lies in a glaciated terrain with topography typical of that found elsewhere in the Canadian Shield. It is characterized by low rolling hills interspersed with numerous lakes and muskegs. Elevations in the Tower Lake area range from 475 to 515 m above mean sea level with local relief on the order of a few tens of metres.

5.5 Seismicity

The project area is located in central Saskatchewan, one of the least seismically active areas in Canada (Figure 5-8).

Figure 5-8 Seismic Hazard Map - Saskatchewan



5.6 Comments on Section 5

The accessibility, climate, physiography and seismic situation of the Thunderbird Project area are sufficiently well understood to allow for exploration and preliminary study engineering and project design.

6.0 History

The Greater Waddy Lake area was first explored in the late 1930's by prospectors from Consolidated Mining and Smelting (now Teck Cominco Ltd.). After World War II, other firms (Augustus Exploration) and individuals (Eric Partridge) also became active in the belt. Augustus Exploration first discovered gold mineralization at Tower Lake in 1959.

The most intensive period of gold exploration within the La Ronge gold belt was in the 1980s and early 1990s, triggered by an increase in the price of gold and the federal implementation of flow-through share financing. During this period, up to 80 senior and junior companies worked in the La Ronge gold belt. Several of the historic gold occurrences were significantly enhanced (Jojay, Wedge Lake, Twin Lake, Weedy Lake, Komis, and the EP zone). Other deposits discovered and mined during this period were: Star Lake, Jasper, and the Rod Zone (Jolu mine). The most active companies were SMDC (predecessor to Cameco), Royex, and Golden Rule Resources Ltd. ("Golden Rule"). The last discoveries during this period in the belt were the Contact Lake deposit and the Greywacke zone (both by Cameco in 1987-8) and the Bingo deposit (by Uranerz Exploration and Mining Ltd.) in 1991-2.

From the mid-1990s onward, less than a handful of exploration companies have continued gold exploration in the belt, most notably Golden Band Resources Inc.

6.1 Tower Lake Property History

Since the initial discovery of gold on the east shore of Tower Lake in 1959 by Augustus Exploration, work on the Tower Lake property, including the Tower East gold deposit, has taken place intermittently.

Exploration and specifically diamond drilling activities since the discovery of the gold occurrence, has resulted in the discovery of and delineation of, the Tower East gold deposit. Drilling since 1984 on the deposit amounts to 254 drill holes totalling 35,279.63 metres. The exploration activities to date are summarized below:

1961-1963 Augustus Exploration Ltd. prospected and completed 28 drill holes totalling 3,668 metres and identified the Tower East and Tower West gold occurrences. Results for these holes are not available and they are not included in the current drill database.

1982-1984 Energy Reserves Canada Ltd. (later Goldsil Mining and Milling Inc.), on behalf of a joint venture comprised of Goldsil-Golden Rule Resources Ltd.-SMDC-Comaplex Resources International Ltd., did grid emplacement, prospecting, mapping, soil geochemical surveying, ground geophysical surveying, and limited trenching. This was followed up with

	10 drill holes totalling 1,031 metres in the Tower East deposit.
1985	A mineral inventory of 1,500,000 tons grading 0.10 oz/ton gold was estimated by J. A. Kelly utilizing both the Augustus and Goldsil drilling results.
1986	Golden Rule Resources took over as operator of the joint venture and undertook three drill programs for a total of 40 holes (6,020 metres).
1986-1987	Detailed ground magnetic and VLF-EM surveys followed up by 23 drill holes totalling 4,048 metres.
1987	The property was geologically mapped and lithogeochemically sampled.
1988	25 drill holes totalling 4,918 metres were completed on the Tower East occurrence, and 7 holes totalling 1,348 metres were completed on the Tower West occurrence.
1989	33 drill holes totalling 5,745.74 metres were completed on the Tower East occurrence. One hole was abandoned.
1990	19 drill holes (3,386 m) were completed on the Tower East occurrence (one was abandoned). In addition to this definition drilling, 8 PQ-size holes totalling 970 m yielded a bulk sample for planned metallurgical testing.
1991	B.T. Evans wrote a Report entitled "Estimate of Global Geological Reserves for the Tower East Gold Deposit". The estimates are for an un-cut, un-diluted resource, using a cut-off of 0.100 oz/ton over a minimum true thickness of 1.5 metres and with a specific gravity of 2.98 tons per cubic metre. The deposit consists of eight mineralized zones whose geometry and dimensions are defined by 21 cross sections that are on either 12.5 or 25-metre centres (the differentiation between Tower East and Tower West zones has been dropped in favour of the eight named zones).
1996–1997	Golden Band optioned CBS 5496 with an objective of exploring a cluster of geochemical anomalies one to three km southwest of the Tower East Deposit. 691 bulk till samples were acquired and a 7 km-long gold-in-till dispersion fan was delineated. The up-ice portion of the anomaly was re-gridded and surveyed with magnetics, VLF-EM, and IP. In 1997, 5 holes totalling 462.7 m were targeted on the IP chargeability responses within the gold-in-till anomaly. Although the source of the IP anomaly was identified, no significant mineralization was intersected. In the summer of 1997, another 600 bulk till samples were acquired and processed. The results indicated that the dispersion train split into an east and west train. It was further concluded that "the trains are caused by several individual sources located within a structural corridor located just south of Tower Lake, where a flexure deviates the north-south striking grain of the plutonic rocks into a NW-SE direction" (Lehnert-Thiel, 1997). The eastern target was termed the Phantom Gold Anomalies, and the western train the Fortuna Gold Showing. Prospecting verified the Fortuna Showing in outcrop, some 50 m north of the Byers Fault, and 300 m west of Tower Lake. A shear zone trending 310° and oblique to the nearby east-west striking Byers Fault occurs in very altered metavolcanics over a zone which is at least

16 m wide (although subsequent work suggests a much wider zone). Trenching returned values of 80 to 3,000 ppb gold over the 16 m width of the trench. More detailed magnetic, VLF-EM, and IP surveys were completed, and this was followed up with 10 drill holes totalling 1,136.9 m (6 directed at the Fortuna Showing, and 4 at the Phantom Anomalies). The drilling results were generally disappointing. At Phantom, all 4 holes intersected structures as evidenced by shearing, brecciation, jointing, hematization, chloritization, and carbonatization of the core. Other than geochemically anomalous intercepts, no significant gold assays were obtained. The option was terminated in 1998.

2002: Golden Band acquired the Tower Lake property from Golden Rule in a share for property deal together with all other Golden Rule properties in the gold belt.

2003: Golden Band Resources Inc. completed diamond drilling on the frozen surface of Tower Lake to outline additional mineralization associated with the Byers Fault west of the Tower East gold deposit at the head of the Phantom gold-in-till dispersion train. Six diamond-drill holes were completed (PH-01 through PH-06; 733.5 m). Several intercepts of low to medium-grade gold mineralization were associated with wide intervals of sheared and potassic altered quartz diorite (Avery et al., 2003).

2004: Golden Band Resources Inc. drilled 11 vertical diamond-drill holes, T-143 through T-153; 910.9 m). The drill holes were spaced at 50 and 100 m centres parallel to the Byers Fault and the known east-northeasterly strike of the Tower East gold deposit for the purpose of outlining the grade and continuity of mineralization in the deposit at depths of 30 to 50 m below surface (Avery et al., 2004).

2004-2005: Golden Band Resources Inc. drilled 62 NQ-diameter diamond-drill holes (T04-154 through T05-215; 6,118 m). The program was designed to better-define the Tower East gold deposit boundaries, infill areas classified as inferred resources, and to expand the deposit along strike. Additional sampling of the 2003 and 2004 drill holes was completed on intervals (i.e., PH drill holes from 2003) that were previously not sampled. A reconnaissance-style IP survey was carried out over the eastern most section of the Tower East gold deposit without conclusive results.

2007: Golden Band completed nine vertical NQ coreholes (T-216 to 224: 1,024.1 m) during the 2007 winter drill program. An additional 4 NQ holes were drilled on the Phantom Zone gold-in-till anomaly that extends south of Tower Lake.

6.2 Memorial Property History

Many assessment file reports are registered with Saskatchewan Industry and Resources (formerly Energy and Mines) which detail earlier exploration activities in the region. Early periodic work in the area during the 1950’s, 60’s and 70’s focused on the area’s potential for base metal mineralization, whereas exploration during the 1980’s was largely concentrated on determining the gold mineralization potential of occurrences associated with the Byers Fault.

Previous investigations in the Memorial Showing area were largely focused on the search for gold in sulfide facies iron formation, which resulted in the discovery of several showings where quartz-carbonate veins in volcanic and sedimentary rocks contained high gold grades over narrow widths.

1952: Hudson Bay Mining and Smelting Co. conducted a ground EM survey and diamond-drilling of conductors for base metals; a total of 40 diamond drill holes were completed. (SEM Assessment Report 74A01-002 & 003)

1967: Sherrit Gordon carried out a limited ground EM survey. No follow-up work was reported. (SEM Assessment Report 74A01-020)

1973: Granges Exploration AB conducted follow-up investigation of HBM&S targets including comprehensive ground EM surveys and 30 core holes. Although the main objective was base metals, limited gold assays were completed on drill core. (SEM Assessment Report 74A01-031)

1976: W. Coombe (Saskatchewan Energy and Mines) conducted mapping and soil geochemistry on Granges gridlines in the Mushroom-Kirk-Hump Lake area. (SEM Assessment Report not filed and un-published. Available at SIR in Regina upon special request only.)

1977: SMDC carried out regional airborne mag and Questor Input EM surveys. The northern most map sheets cover the area of this project. (SEM Assessment Report 73P16-022)

1982-85: SMDC conducted 60 km of linecutting and reconnaissance prospecting resulting in the discovery of the Mushroom, Sheba, Blob and Rosetta Lake showings. (SEM Assessment Report 73P16-071)

1985: Claude Resources Ltd. conducted limited prospecting in the Hump Lake area. (SEM Assessment Report 74A1-075)

1986: SMDC carried out ground mag and VLF-EM surveys in the Rosetta-Mushroom-Kirk Lake area (SEM Assessment Report 73P16-014); Taiga Consultants Ltd. undertook prospecting, geological mapping, soil geochemistry and bulk till sampling in the Kirk Lake/Hump Lake area (SEM Assessment Report 74A1-084). Five soil anomalies (K-1 to 5) were outlined between Kirk and Mushroom Lake ranging from several tens to several thousand ppb Au. (SEM Assessment Report 73P16-097)

1987: Taiga Consultants Ltd. extended the grid in the Rosetta Lake area and discovered additional gold showings, some of which are hosted by mixed oxide-sulfide facies iron formation. Limited bulk till sampling was carried out to confirm soil anomalies. One 8 kg till sample within the K-2 soil anomaly returned 345 delicate gold grains (40 gg/kg) east of Mushroom Lake. (SEM Assessment Report 74A1-0119)

1988: Noranda Inc. optioned the Hump Lake claims and conducted prospecting, geological mapping and geochemical surveys (SEM Assessment Report 74A1-138); two core holes were drilled in the Fault Lake area confirming anomalous concentration of gold and strong hydrothermal alteration of the Crew Lake conglomerate in the Looney Lake Tectonic Zone. (SEM Assessment Report 74A1-139)

1988: Pamorex Minerals Inc. drilled 10 diamond drill holes in the Kirk Lake area on magnetic and EM targets with matching soil anomalies; The best assay interval graded 8.8 g/t Au over 0.6 m in DH KL 88-2 drilled in the contact zone between an iron formation and a basaltic flow near Mushroom Lake. (SEM Assessment Report 74A1-0137)

1989: Taiga Consultants (for Pamorex Minerals Inc.) completed limited soil sampling and geological mapping in the Rosetta-Mushroom Lake area and trenching on the Blob Vein; the property was allowed to lapse. (SEM Assessment Report 74A1-151)

1996: Golden Band Resources Inc. acquired the ground and discovered the Memorial showing. Exploration work carried out between 1996 and 2004 is described in section 10 of this report.

6.3 Birch Crossing Property History

Exploration in the Birch Crossing/Narrow Lake area has been undertaken on an intermittent basis by various companies and individuals since the early 1940's. The first sustained reconnaissance mapping and prospecting in the region during the early 1960's by Augustus Exploration Ltd. resulted in the discovery of several gold showings along the southern shore of West and Centre Lake which eventually became known as the Kaslo deposit. The most significant of these showings, the Niko occurrence, consists of a 1-3 m wide zone of subparallel quartz veining hosted among dacitic and metasedimentary rocks in the hangingwall of the Byers Fault.

1987: Golden Rule Resources completed four widely spaced reconnaissance core holes (K87-001 to 004: 624.2 m) on magnetic and VLF targets designed to test the hangingwall of the Byers Fault east of the Kaslo occurrence. These holes bracketed what would eventually become the Birch Crossing project area, with two holes east and two holes west of the deposit. The holes encountered elevated but sub-economic gold mineralization.

2002: Golden Band acquired the Narrow Lake property, within which the Birch Crossing deposit is hosted, from CDG Investments as part of a series of transactions along with several other advanced gold prospects.

2003: Regional till sampling by means of mechanical backhoe undertaken by Golden Band Resources discovers a 40 gold grain/kg gold-in-till anomaly (Birch Crossing Anomaly) approximately 700 m east-southeast of the Kaslo occurrence along strike of the Byers Fault. (GBN 03-22)

2004: Two diamond drill holes (185.9 m) completed by Golden Band test the Birch Crossing Anomaly just within the southern limit of the Byers tectonic zone in the area. The initial drill hole, K-61 encounters significant gold mineralization in the upper 30 to 40 m of the hole where successive samples in the hangingwall of a 2.0 m wide quartz vein returned an average assay of 3.73 g/t Au/3.9 m (31.3-35.2 m). The underlying translucent white quartz vein in the drillhole featuring coarse euhedral cubes of hematized pyrite returned successive assays of 45.85 and 7.39 g/t Au/1.0 m. A step-out drill hole, 70 m further to the north (K-62) encountered several discrete intervals of shearing characterized by strongly developed wispy hydrothermal biotite veinlets and flattened stringer-stockworks of chlorite-carbonate alteration hosting rare to trace quantities of finely disseminated pyrite (GBN 04-11).

2005: A compilation report of historic exploration work in the Byers Fault area between Narrow Lake and Tower Lake during the period 1960-2004 was prepared by Golden Band Resources, including the Birch Crossing property (GBN 05-05). Thirteen diamond drill holes (BC-01 to BC-13: 1,320.7 m) were completed by Golden Band to follow-up the results of DH's K-61 and K-62. This drilling encountered two distinct types of mineralization in the area: relatively wide (7-15 m) intervals of low grade (1-2 g/t Au) shear-hosted mineralization, in addition to high grade (17-20 g/t Au/1.0 m) intervals of mineralization hosted by the Red Cube quartz vein. (GBN 05-07).

2006: Thirty-five core holes (3,155.5 m) were completed in the Birch Crossing property area by Golden Band Resources between December 2005 and March 2006. Twenty holes were intended to test the continuity of the high-grade Red Cube quartz vein zone mineralization and to confirm the presence and continuity of the lower grade gold mineralization hosted in the Alder Zone. The Southern Red Cube Zone was successfully intersected by the drilling in five of six holes during the program. The drilling indicated the Red Cube mineralized zone which strikes 070°-250° is approximately 100 m in length. The northern Red Cube Zone was intersected in six holes. Broad intervals of lower grade mineralization characteristic of the Alder Zone were intersected in several other holes.

Seventeen drillholes (2,155.0 m) were completed on the Birch Crossing property in the late summer and fall. This drilling tested the western on-strike continuation of the Southern Red Cube Zone and indicated the presence of three subparallel vertically dipping quartz vein systems. The drilling also tested the on-strike extent of mylonite hosted mineralization in the Alder Zone. In addition, 5.5 line-km of grid mapping was carried out on the Fox Grid covering the Birch Crossing deposit, and two trenches were stripped, sluiced and channel sampled (GBN 06-30). Seventeen thin sections (8 regular and 9 polished) were submitted to Laramide Petrologic Services for petrographic analysis.

2007: Twenty-two drillholes (2,989.8 m) were completed between January and March at Birch Crossing. Most of the holes (16 of 22: 2,475.0 m) were drilled in order to provide further information on the structure and mineralization potential of the Red Cube quartz veins (South, North and North 2). This drilling also increased the on-strike length of these veins to between 160 and 260 m in length. The remaining holes targeted the Alder Zone. Six thin sections prepared from mineralized samples from BC-79 (3 regular and 3 polished) were submitted to Laramide Petrologic Services for petrographic analysis.

6.4 Production

There has been no production from any of the Project mineral deposits.

7.0 Geological Setting and Mineralization

7.1 Regional Geology

The greater Waddy Lake area was geologically mapped by C.T. Harper from the Saskatchewan Geological Survey in 1984-85. (Saskatchewan Geological Survey Summary of Investigations, 1985, Miscellaneous Report 85-4).

During the late Wisconsin-era glaciation (25,000 to 10,000 years before present), northern Saskatchewan was subjected to several continental ice advances. The most recent ice movement through this region during Quaternary glaciation was generally from northeast to southwest. Glacial deposits commonly comprise a thin veneer of till, generally less than three metres thick. Glacial Lake Agassiz formerly covered wide parts of the La Ronge Belt and, as a result, low-lying areas below 430 m are now likely to be covered with lacustrine clays and silts. Both the till and the lacustrine sediments have been eroded to fresh bedrock in places by glaciofluvial or fluvial channels. The Quaternary geology of the Waddy Lake district was mapped by Janet Campbell (Saskatchewan Geological Survey Summary of Investigations, 1985), and by B.T. Schreiner (Saskatchewan Energy & Mines, Report 221, 1984).

Bedrock exposure in the area, which varies from less than 1% to greater than 5%, is often masked by a thick cover of moss.

The greater Waddy Lake project area, shown in Figure 7-1, is located in the northern portion of the Central Metavolcanic Belt of the La Ronge Domain, a granite-greenstone belt in the Saskatchewan segment of the ca. 1.9-1.8 billion years (Ga) Trans-Hudson Orogen (Lafrance and Heaman 2004). The Saskatchewan segment of the Trans-Hudson Orogen comprises:

- ca. 2.1-1.9 Ga continental margin sequence (Wollaston Domain),
- ca. 1.91-1.87 Ga marginal sedimentary basin and arc-root complex (Rottenstone Domain),
- ca. 1.91-1.87 Ga granite-greenstone arcs (La Ronge, Glennie, Flin Flon domains),
- ca. 1.85-1.84 Ga oceanic metasedimentary basin (Kisseynew Domain) (Hoffman, 1988; Lewry et al., 1990; Andsell et al., 1995; Corrigan et al,. 1998).

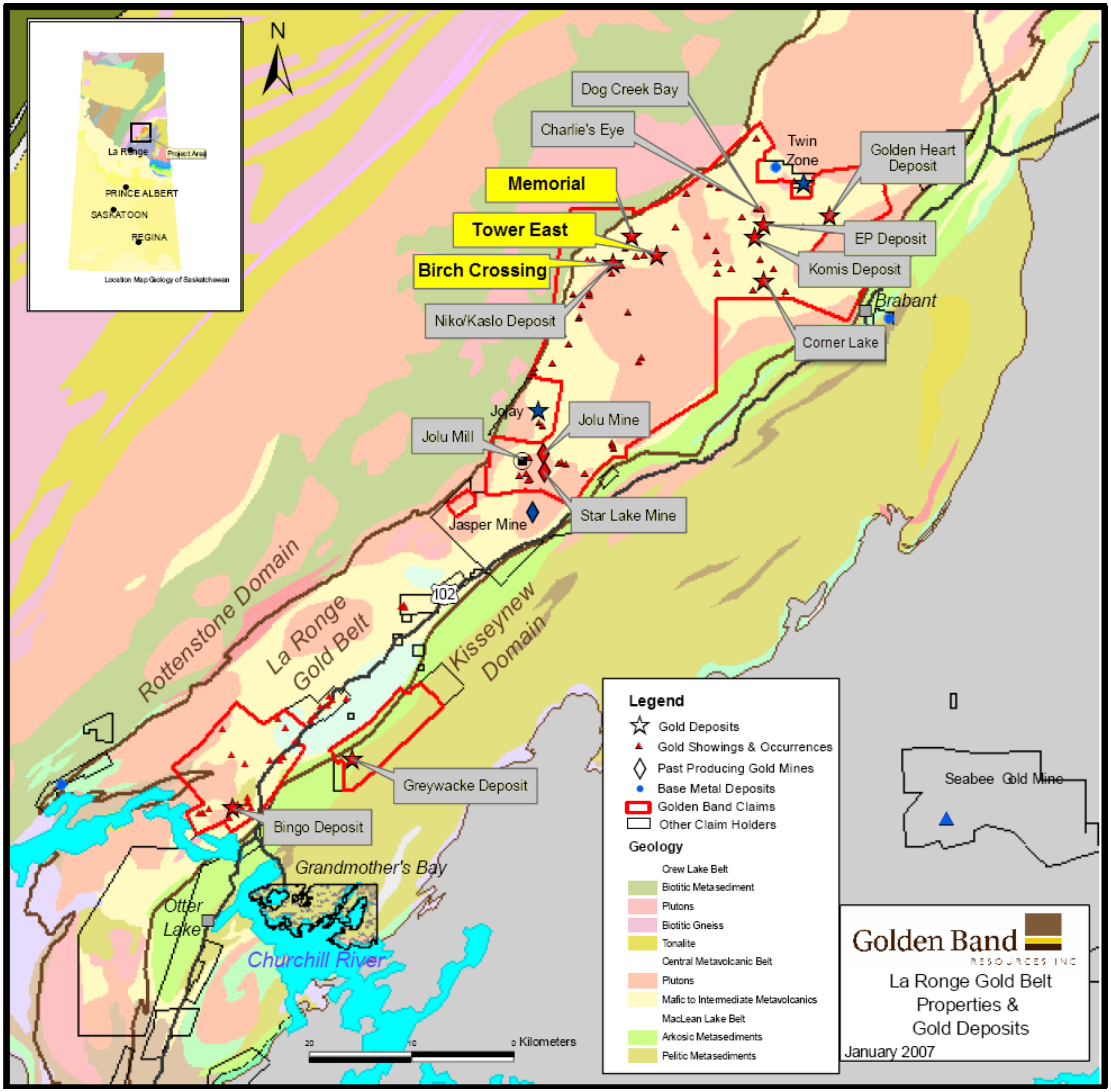
The La Ronge Domain consists of an older sequence of back-arc ultramafic and mafic volcanic rocks, the >1.88 Ga Lawrence Point Volcanic Assemblage (Maxeiner, 1997), and a younger sequence of juvenile arc volcanic rocks of intermediate to felsic composition, the ca. 1.882-1.876 Ga Reed Lake Volcanic Assemblage (Maxeiner, 1999; Maxeiner et al. 2001).

The younger Reed Lake Assemblage was deposited during intraoceanic subduction on the older Lawrence Point Assemblage substrate (Lafrance and Heaman 2004). Magmas generated above the subduction zone crystallized as ca. 1.87 Ga dioritic to granitic plutons in the root of the arc. Erosion of the arc began at approximately 1.87 Ga, supplying psammitic and pelitic sediments to the marginal basins flanking the arc-subduction zone to the north (Rottenstone Domain-Crew Lake Belt) and in the south to the Duck Lake Sedimentary Assemblage (Maxeiner, 1997, 1999; Maxeiner et al., 2001).

Subduction beneath the La Ronge arc ended by approximately 1.861 Ga and the arc was accreted to the Hearne Craton (Andsell et al., 1995). A new, west-dipping, subduction zone developed beneath the La Ronge-Hearne continental margin. This resulted in subduction-generated magmas that crystallized across the Rottenstone and Wathaman domain boundary, notably the 1.86-1.85 Ga Wathaman Batholith, and as cogenetic calc-alkaline dioritic to granitic plutons in the La Ronge Domain (e.g. Brindson Lake Pluton, Tower Lake property; Fumerton et al,. 1984; Meyer et al., 1992; Corrigan et al., 2001).

Continental-arc magmatism ended approximately 1.85 Ga and the arc was subsequently eroded from approximately 1.85-1.84 Ga. During the ca. 1.83-1.80 Ga collisional phase of the Trans Hudson Orogeny (Bickford et al., 1990), the La Ronge-Hearne craton collided with the Archean Saskatchewan and Superior cratons. This was the last significant event that influenced the introduction of gold within the La Ronge Domain and specifically within the Greater Waddy Lake project area. All lithotectonic domains of the Trans-Hudson Orogen were penetratively deformed during this final collisional event (Lafrance and Heaman, 2004).

Figure 7-1 Regional Geology



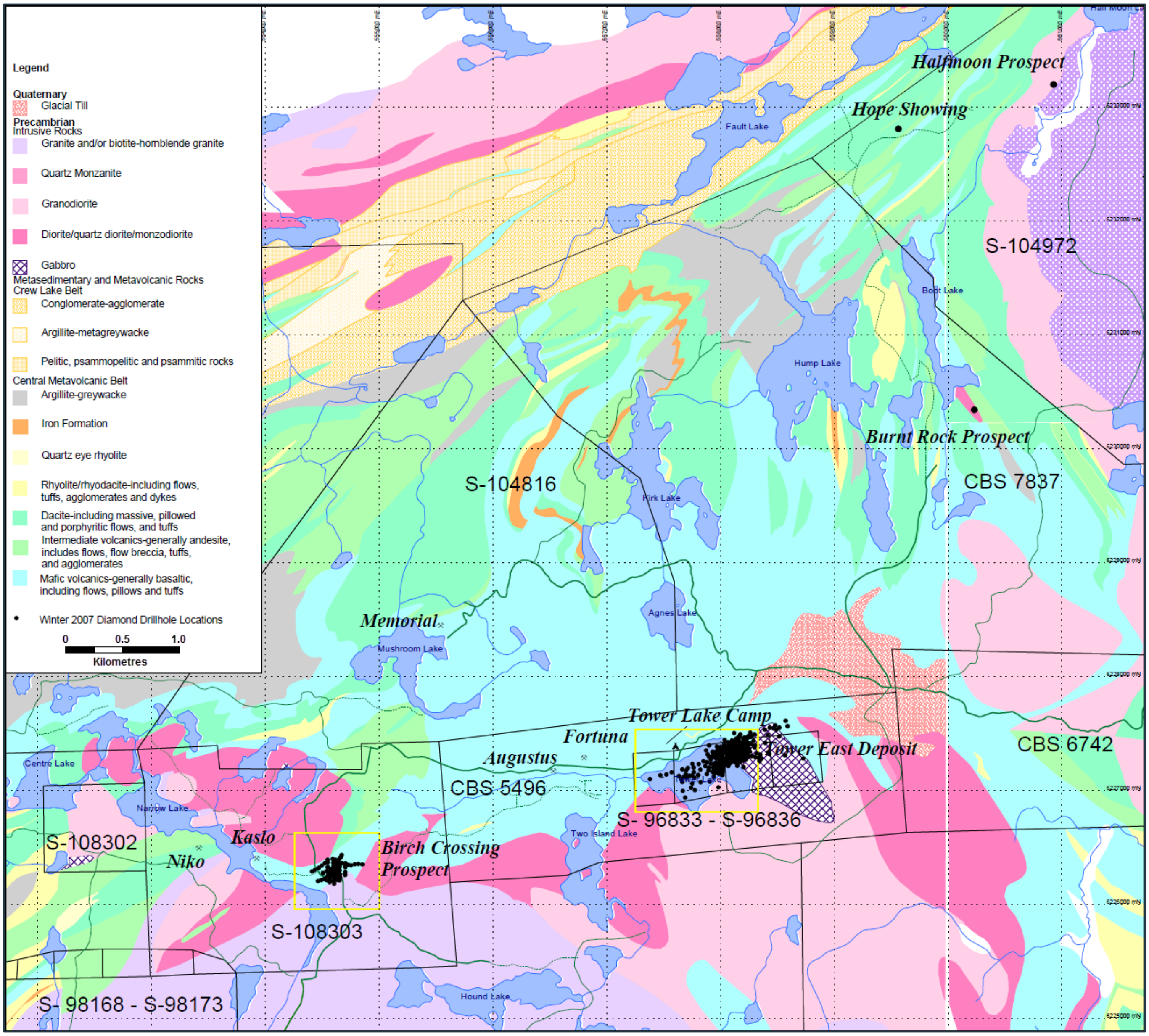
7.2 Property Geology

In the Greater Waddy Lake project area, the La Ronge Domain consists of mafic and felsic volcanic rocks intruded by dioritic to granodioritic plutons (Harper, 1984, 1985) (Figure 7-2). The mafic volcanic rocks consist of dark coloured, fine-medium grained flows with minor pillowed flows and flow breccias. The felsic volcanic rocks occur as light coloured, vitreous to fine-grained, massive flows, banded tuffs, and tuff breccias.

Harper (1984, 1985) divides the plutons in the Greater Waddy Lake area into three groups:

- Group 1 which includes the Brindson Lake Pluton, U-Pb zircon age of 1.866 ±12 Ga (Bickford et al., 1986) and 1874 ±1 Ma (Heaman et al., 1991), are zoned, medium to coarse-grained plutons with biotite-hornblende granitic cores surrounded by dioritic to granodioritic phases.
- Group 2 intrusions (Contact Lake Pluton; U-Pb zircon age of 1.853 ±16 Ga (Bickford et al., 1986) are homogeneous granites with narrow granodioritic to dioritic marginal zones.
- Group 3 intrusions (upper Waddy Lake stock, U-Pb zircon age of 1.834 ±13 Ga (Bickford et al., 1986), are fine to medium grained, light grey, tonalite stocks. Associated with these stocks are numerous feldspar porphyry, aplite, and tonalite dykes that can be seen cutting through the volcanic country rock surrounding the stocks. At the Komis deposit, aplite, tonalite, and feldspar porphyry dykes emanating from the Round Lake Stock (type 3?) cut through the host volcanics.

Figure 7-2 Local Geology



7.2.1 Tower Lake Geology

The Tower Lake property is situated along the northern margin of the Group 1 Brindson Lake Pluton (1.866 ±12 Ga, Bickford et al., 1986), a compositionally-zoned intrusive of Hudsonian age, which is in contact on the north with a sequence of mafic volcanics and sediments of Aphebian age. All lithologies were subjected to regional metamorphism of upper greenschist facies during the Hudson Orogen.

Diorite, quartz diorite, and minor melanodiorite/gabbroic and granodioritic phases of the Brindson Lake Pluton underlie approximately 50% of the Tower Lake area and occupy most of the southern portion of the property. To the west and south of Tower Lake, diorite phases of the Brindson Lake Pluton contain numerous inclusions and partly assimilated blocks of gabbro. Marginal contact phases of the pluton consist of an agmatitic-sheeted zone of altering panels or diorite and gabbro, and one or more large apophyses of diorite within the gabbro. Gabbroic phases of the pluton are seen to intrude a strongly deformed andesitic-dacitic volcanic unit that occupies an area between Island Lake and the western boundary of the property. These gabbroic rocks contain abundant inclusions and partly assimilated blocks of andesite, suggesting considerable magmatic stoping has occurred with the volcanic rocks (Fraser and Lahusen, 1990).

Mafic volcanics (basalts and associated tuffs) underlie an estimated 20% of the Tower Lake property along its northern margin and are in fault contact with all other lithologies described above along an east-northeasterly regional trending fault referred to as the Byers Fault (Harper, 1984).

The east-west trending Byers Fault (Figure 7-3) is the most dominant structural feature occurring both regionally and locally in the area of the Tower Lake property. In the area of the Tower East deposit, the Byers Fault strikes at approximately 070˚, dips south at 50˚-60˚ and is defined by a 1 to 3 m-wide discrete fault zone consisting of breccia fragments within a hematite-chlorite rich clay gouge. Typically, the gouge is recognizable and defines the contact between the intrusive rocks (fine-grained porphyritic diorites and porphyritic quartz diorites) of the hanging wall, and the mafic volcanic rocks (basalts, and associated tuffs) of the footwall.

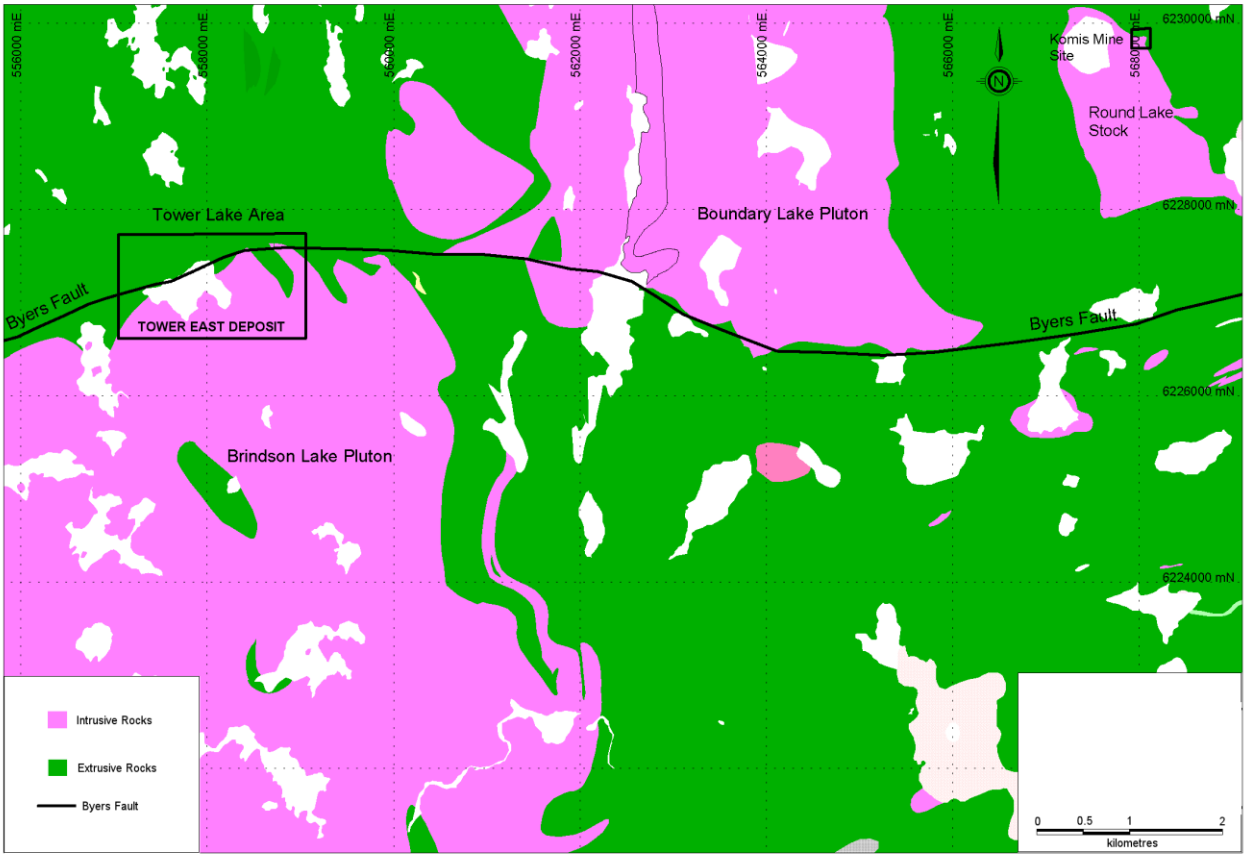
The immediate hanging wall of the Byers Fault is characterized by a broad zone of deformation up to 200 m wide consisting of complex zones of intense brittle fracturing, granulation, and brecciation; termed the Byers Tectonic Zone (Fox 1988). Immediately adjacent to the Byers Fault, the footwall and hanging wall rocks are intensely stretched forming a mylonitic fabric that gives way to less foliated rocks in the footwall and to the intensely brecciated-granulated rocks in the hanging wall. The hanging wall deformation is interpreted to be critical to the emplacement, localization, and concentration of the widespread gold mineralization making up the Tower East gold deposit.

Narrow, ENE-trending, shear zones such as the Byers Fault and Corner Lake Fault follow the contacts between plutonic intrusive rocks and volcanic rocks (Lafrance, 2002) throughout the Greater Waddy Lake area. The intrusive-volcanic contact on a regional scale provides a suitable environment for favourable deformation and ensuing gold mineralization to occur.

The dominant structural grain in rock units south of the Byers Fault zone ranges between northerly and northwesterly in dioritic, granodioritic and gabbroic rocks within the Brindson Lake pluton and gradually rotates in a westerly direction such that andesites exhibit a west-northwesterly structural fabric at the western boundary of the property. North of the Byers Fault, the volcanics display a predominantly easterly-trending foliation only slightly oblique to the structural grain of the deformation envelope associated with the Byers Tectonic Zone (Fox, 1988).

Regional deformation and static recrystallization during regional metamorphism (greenschist facies) that postdates the brittle fracturing-deformation and emplacement of gold in the hanging wall lithologies, led to the formation of a foliation fabric that is consistent throughout the hanging wall rocks. Locally, the foliation fabric resembles that of schist and is typically better developed in the more hydrothermally altered rocks (Hubregtse, 1990).

Figure 7-3 Tower Lake Property Geology



7.2.1.1 Lithology

Fine-Grained Porphyritic Diorites

Fine-grained porphyritic diorite forms a core within the hanging wall of the Tower East deposit and is enclosed by coarser grained porphyritic quartz diorite. The fine-grained porphyritic diorite core currently has a strike length of 250 m an approximate width of 100 m and a steep south dip of 80˚ as defined by drilling. The fine-grained porphyritic diorites are dark in colour, (dark green to grey-green) containing plagioclase, or albite phenocrysts in a plagioclase-rich, minor quartz groundmass. The major mafic constituent minerals are biotite, hornblende, actinolite, magnetite, and ilmenite.

Original igneous textures are difficult to recognize as the fine-grained porphyritic diorites typically show effects of strong foliation and brecciation. The aphanitic to fine-grained texture of this unit made it susceptible to intense micro-brecciation (fine brittle deformation) that has been subsequently annealed through hydrothermal sulphidic-potassic alteration and regional deformation. The foliated-brecciated diorite is typically well mineralized with up to 10% disseminated pyrite and, when well mineralized, is very auriferous.

Porphyritic Quartz Diorites

Porphyritic quartz diorite is the most dominant rock type in the hanging wall of the Tower East deposit and is the first rock type occurring in the immediate hanging wall of the Byers Fault. Directly adjacent to the fault, the porphyritic quartz diorite is weakly to strongly mylonitic and weakly to strongly brecciated.

Further into the hanging wall, the porphyritic quartz diorite is locally strongly foliated and becomes finer grained, highly deformed and micro-brecciated to brecciated. This type of brittle deformation (micro-breccia) is defined and developed in quartz diorites where plagioclase grains have been crushed and granulated to very fine grains yielding a crackled texture (Littlejohn, 1986).

The porphyritic quartz diorites are in sharp contact with, and completely enclose, the fine-grained porphyritic diorites described above, and are distinguishable by their coarser grained and more porphyritic-porphyroblastic texture. Although there are numerous compositional and textural variations within the porphyritic quartz diorites, typical porphyritic quartz diorites contain 10-20% quartz occurring as blue anhedral or shapeless aggregates between large subhedral pink-orange plagioclase grains (60% composition). Depending on the intensity of alteration, variable amounts of biotite and actinolite occur around the quartz and plagioclase grains as a patchy network (Littlejohn, 1986).

Common within the porphyritic quartz diorite, and the result of brittle deformation, is the occurrence of a quartz-carbonate stockwork with associated pyrite mineralization. Gold mineralization occurs within zones of brittle deformation and subsequent quartz-carbonate stockwork with associated disseminated pyrite (1-3%) and free gold. This mineralization forms a mineralized halo about the fine-grained porphyritic diorite unit discussed above.

Quartz-Feldspar Porphyry and Feldspar Porphyry

Quartz-feldspar porphyry and feldspar porphyry are lithological terms used to describe large, very distinguishable felsic porphyries (felsic dykes) that are continuous from drill profile to profile throughout the hanging wall of the Tower East deposit. Historically, terms such as dacite porphyry, felsic intrusive, and felsic dyke have been used to define the quartz-feldspar porphyry and feldspar porphyries. The quartz-feldspar porphyry is a distinguishable unit due to its well-developed blue quartz eyes. Feldspar porphyry is characterized by white stubby albite phenocrysts in an aphanitic-fine grained, quartz-albite matrix (Hubregtse, 1990).

However, feldspar porphyry is a liberal term that includes all felsic intrusives-dykes that do not have blue quartz eyes.

Detailed drilling suggests the felsic porphyries occur associated with one another over a strike length of 275 m to form a felsic intrusive stock (?) juxtaposed or in direct contact along the southern contact with the fine-grained porphyritic diorite described above. Like the fine-grained porphyritic diorite, the felsic porphyries are steeply dipping to near vertical to the south and attain true thickness of up to 40 m. The strike of the felsic porphyry stock is parallel to sub-parallel to the Byers Fault and coincidentally appears to strike along the base line used to control the location of the drilling at the project.

Both porphyries are light in colour (leucocratic, red-pink-orange to white coloured), aphanitic to fine grained, with minor amounts of biotite, occasionally hornblende, muscovite, magnetite, ilmenite, and minor pyrite occurring as disseminated grains in an albite-quartz groundmass.

Felsic dykes occur throughout the hanging wall and it can be speculated that the narrower intersections of felsic porphyries are apophyses emanating from the main felsic porphyry stock. Like the porphyritic diorite and porphyritic quartz diorite, the felsic porphyries have undergone brittle deformation and alteration and are locally auriferous. The proximity of the felsic porphyries to the well mineralized porphyritic diorites is considered very significant with respect to gold emplacement.

Albitites and Albitization

The occurrence of albitites and albitization within the hanging wall lithologies was not well recognized until a petrographic study of selected drill core following the 1990 drill program (Hubregtse, 1990). Hubregtse recognized albitites that had previously been misinterpreted in drill logs as fine grained feldspathized, silicified, “meta-andesites”. The term, “meta-andesite” was used through the 1984-1990 drill programs to describe strongly foliated, mineralized fine-grained porphyritic diorites.

Typically, an albitite is an albite aggregate composed of interlocking subhedral well-twinned equigranular grains, massive, green-brown to light grey-grey, with orange-pink domains. Magnetite and pyrite form very fine disseminated grains and the predominant alteration minerals are dolomite, magnesian chlorite, and pyrite.

In drill core, albitites tend to have a vuggy texture, are brecciated and, when broken, the edges of the core tend to be sharp. Hubregtse (1990) interprets that AL1-alteration assemblages present within albitites postdate the brecciation within the albitites suggesting that the albitization (AB) and brecciation (BXE) preceded the sulphidic-potassic hydrothermal AL1-alteration.

From this observation, it would appear that the early brecciation (BXE) gave rise to the formation of the conduit system for the ensuing potassic-hydrothermal AL1-alteration and introduction of gold. It is interesting to note that samples submitted for petrographic analyses following the 1990 drill program and interpreted in the field to be very well mineralized meta-andesite, were petrographically analyzed to be albitites (Hubregtse, 1990). Several of these samples had assay values ranging from 6.41 to 20.74 g/t gold so the albitite appears to be of significance with respect to gold content. Where recognized, the albitites are in close proximity to and in direct contact with the felsic stock and fine-grained porphyritic diorites discussed above.

Varying degrees of albitization have been recognized in the fine-grained porphyritic diorites and coarser grained porphyritic quartz diorites. However, it would appear that complete albitization is restricted to felsic porphyries (Hubregtse, 1990). A detailed exercise of relogging drill core would be required to properly map the occurrence of albitite within the hanging wall of the Tower East deposit. Such an exercise should ultimately attempt to differentiate and distinguish the occurrence of albitite from fine grain diorite porphyry and the felsic porphyries.

Mafic Dykes

Fine-grained hypabyssal mafic dykes interpreted to be diabase (Hubregtse, 1990), occur throughout the hanging wall of the Tower East deposit. The mafic dykes are texturally and compositionally identical to the footwall basalts; being dark green, massive, homogeneous fine-grained hornblende-rich rock lacking compositional banding and feldspar phenocrysts.

Hubregtse (1990) interprets that the mafic dykes show evidence of the regional D1-deformation and M1-metamorphism. However, the complete lack of gold mineralization within the mafic dykes would suggest the mafic dykes intruded the hanging wall lithologies after the emplacement of gold but before the D1 and M1 events as described by Hubregtse (1990).

Mafic dyke(s) occur in direct contact with the felsic dykes along the southern contact of the felsic stock that is in contact with the fine-grained porphyritic diorites to the north and coarser grained porphyritic quartz diorites to the south. The proximity to the felsic porphyries also suggests that the contact between the felsic porphyries and diorite porphyries provided a favourable locale for the intrusion of the mafic dykes suggesting possibly a fracture or fault filling mode of emplacement.

Hornblende diorite dykes also occur intermittently throughout the hanging wall but similarly to the mafic dykes, there appears to be an association with the felsic stock. Typically, the hornblende diorite is a coarse-grained fresher looking rock where the hornblende porphyroblast contrast with a bright plagioclase rich groundmass. It is questionable if this rock type is a dyke and it may be that the hornblende diorite is part of the porphyritic diorite suite, but similar to the mafic dykes. This unit is not mineralized suggesting it to be a younger intrusive phase.

Basalts

The footwall of the Byers Fault consists of a thick sequence of basalts and locally some tuffs and sedimentary / volcanoclastic sequences are present. For simplicity when interpreting the Tower East deposit and creating cross sections, the footwall lithologies are all classified as basalts. The basalt is very massive, fine grained, and relatively undeformed, unaltered, and is typically strongly foliated to mylonitic immediately adjacent to the Byers Fault.

No economic concentrations of gold have been encountered in the footwall of the Tower East deposit and hence it is common practice to terminate drill holes 10 to 15 m into the footwall basalts. Locally, semi-massive pyrrhotite with up to 5% associated chalcopyrite mineralization has been encountered. These isolated zones have been extensively sampled for gold and have yielded no significant results.

7.2.1.2 Alteration

The most significant alteration occurring at the Tower East deposit is that associated with the gold mineralization. Gold mineralization and associated alteration resulted from and followed the deformation that took place within the hanging wall rocks at the Tower East deposit. The alteration features observed in drill core samples are:

i. increased levels of pyritization, 3-10% fine disseminated pyrite, and pyrite filling micro fractures; localized very minor chalcopyrite mineralization ≤1% associated with pyrite;

ii. pervasive interstitial carbonatization up to 10% also associated with a quartz-carbonate stockwork;

iii. localized silicification;

iv. replacement assemblages (pervasive flooding) within the more mafic porphyritic diorites consisting of biotite, actinolite, sericite and chlorite;

v. in the more-felsic porphyries, muscovite and sericite is more common and biotite and actinolite is less common to absent; albitization (?) an alteration event occurring before the hanging wall deformation event.

Albitization and the formation of albitites occurred prior to the brittle fracturing deformation that took place in the hanging wall rocks of the Tower East deposit. This is supported by the occurrence of pyrite, magnesian chlorite, and dolomite in brecciated albitite (minerals associated with the hydrothermal potassic-sulphidic alteration event (AL1; Hubregtse, 1990).

7.2.1.3 Mineralization

Gold mineralization occurs in the hanging wall rocks at the Tower East deposit as very fine-grained (predominantly in 30 to 50 micron range) disseminated, “free” metallic gold, and as very fine grains contained within individual pyrite grains. Gold was introduced during the hydrothermal sulphidic-potassic alteration event (AL1) as described by Hubregtse (1990). Widespread brittle fracturing-brecciation and deformation within the hanging wall rocks at the Tower East deposit (D2 of Lafrance and Heaman, 2004), provided the impetus for the emplacement of auriferous veinlets with associated pyrite and alteration. The fine-grained hypabyssal mafic dykes and hornblende diorite dyke/sill described in Section 6.4.5, postdate the emplacement of gold, and hence are unmineralized.

Petrographic analyses of polished thin sections (Littlejohn, 1986 and Hubregtse, 1990) taken from Tower East mineralized intersections describe gold occurring as:

i. fine grained inclusions in pyrite (up to 56 microns, but generally <30 microns; Hubregtse, 1990),

ii. as fine disseminated equant, tabular metallic gold grains in calcite-quartz micro veining,

iii. in composite sulphide-silicate-carbonate (dolomite) veinlets, and (iv) in plutonic wall rock pervasively replaced by the potassic-sulphidic alteration.

In hand specimen, gold particles can be observed with the use of a hand lens as very fine grained “pin heads”. These occur individually or in clusters within quartz-carbonate stockwork or micro veinlets, in actinolite, hornblende, biotite, quartz or plagioclase porphyroblast, or closely associated to or within pyrite grains, and commonly adjacent to or within hematite blebs. Commonly, fine grains of gold are noticeable in micro fractures filled with and/or associated with any of the above noted minerals. In an actinolite-enriched porphyritic quartz diorite unit proximal to and conforming to the strike of the Byers Fault at the northeast margin of the Tower East deposit, visible gold has been observed as isolated very fine-grained disseminated grains within this unit with no apparent associated sulphide mineralization.

The level of pyrite (pyritization) mineralization resulting from the hydrothermal sulphidic-potassic event associated with economic concentrations of gold is variable. Pyrite mineralization occurs as pervasive, disseminated, fine-grained, subhedral to euhedral grains (generally <0.6 mm, but as large as 1.0 mm) and stringers in amounts up to 10% locally, but overall at levels ≤3%.

Hubregtse analyzed and compared 24 samples that had gold assays ranging from 70 parts per billion (ppb) to 49.78 g/t gold, with corresponding pyrite contents ranging from not observed (zero), to trace, moderate, abundant, to very abundant (3-7%). High-grade gold assays (9.81-49.78 g/t gold) contained very abundant to abundant pyrite contents. Intermediate gold assays (6.41-9.29 g/t gold) included samples with abundant to moderate pyrite contents. Samples with lower gold assays (1.5-6.41 g/t gold) contained very abundant to trace amounts of pyrite, and samples of very low gold contents (70-796 ppb gold) contained pyrite ranging from abundant quantities to trace.

The occurrence of magnetite and hematite in the hanging wall rocks creates a unique situation at the Tower East deposit. Mineralized zones are recognized associated with magnetic lows (occurrence of pyrite after magnetite) but also as magnetic highs (gold in magnetite bearing pyritic rocks).

Magnetite is interpreted to be part of the original igneous fabric of the regional plutons (at Tower East, the Brindson Lake Pluton). Pyrite replaced the magnetite within the confines of the hydrothermal potassic-sulphidic event that introduced gold at the Tower East deposit. Magnetite, occurring associated with gold mineralization, suggests that insufficient sulphur was in the hydrothermal system to completely replace all magnetite with pyrite. In addition, magnetite has been observed as a rim enclosing pyrite grains suggesting an association of magnetite with a post-gold alteration event.

The occurrence of oxides, notably hematite, goethite, ilmenite, and secondary magnetite is widespread throughout the hanging wall rocks and the immediate footwall rocks at the Tower East deposit. This feature is possibly associated with the formation of the Byers Fault and could be a late-retrograde alteration event that migrated through fractures associated with the formation of the Byers Fault. Gold mineralization was not introduced or remobilized during this late localized deformation-alteration event.

The occurrence of hematite, ferroan chlorite, and goethite – although widespread throughout the hanging wall rocks – is generally more concentrated and better developed adjacent to the Byers Fault and typically decreases in intensity further into the hanging wall. Within the hanging wall, it is not uncommon to encounter disseminated hematite up to 5% in various lithologies, but no disseminated pyrite. These zones are usually auriferous, the gold likely being associated with completely oxidized pyrite. Goethite, chlorite, and carbonate typically occur in brittle fractures giving drill core a pervasive yellow-gossaned appearance. This is very common in drill holes collared near the Byers Fault and in all drill holes that intersected the immediate lithologies adjacent to the Byers Fault.

7.2.2 Birch Crossing Geology

The steeply south dipping Byers Fault also forms the most prominent structural feature in the Birch Crossing area, 15 km west of Upper Waddy Lake. The fault demarcates the contact between a relatively homogenous diorite intrusive body to the south (hangingwall) and a mixture of pyroclastic and porphyritic dacitic rocks in the footwall of the fault to the north. The geology of the area is illustrated in Figure 7-4.

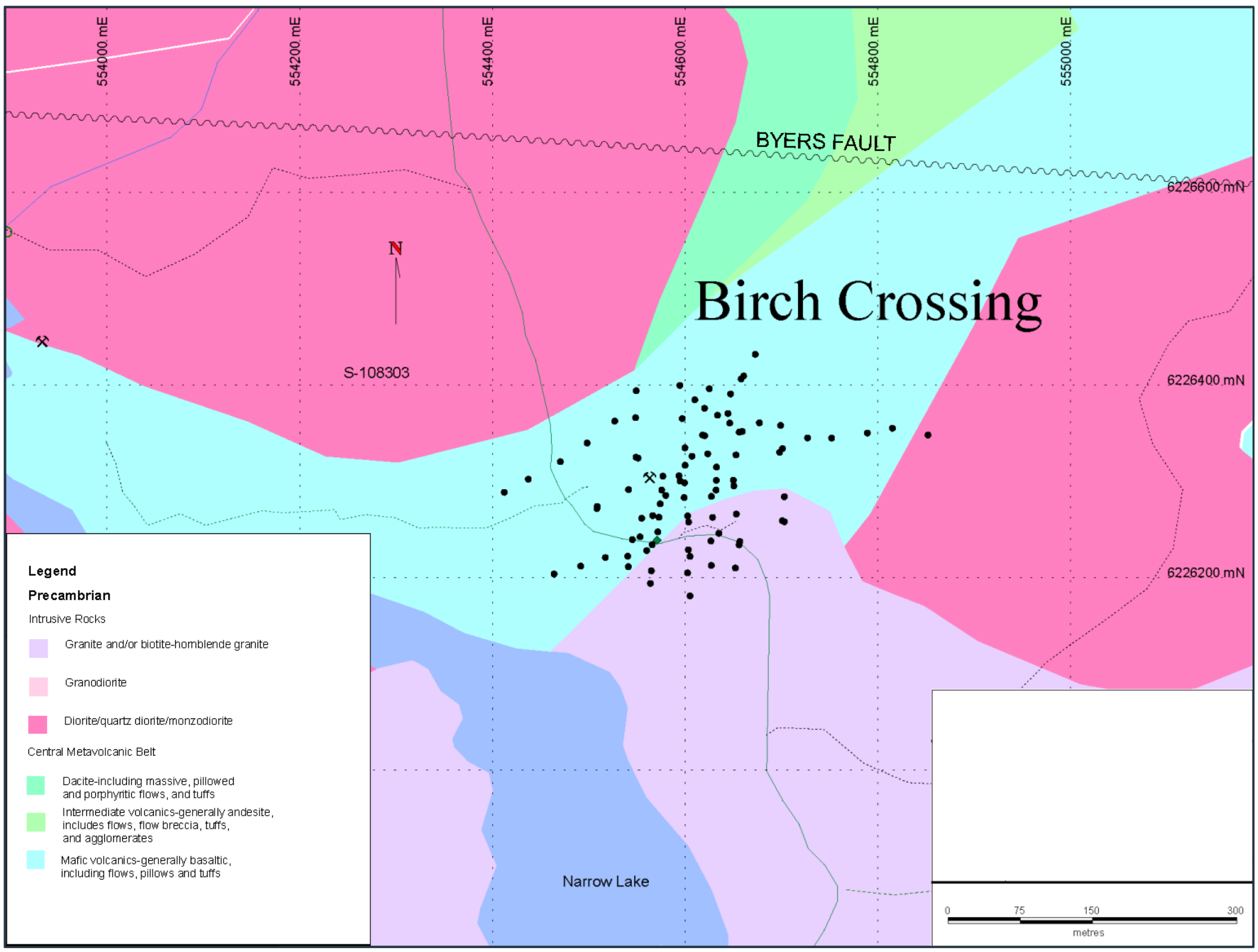
In drillholes testing both the Niko and Kaslo gold occurrences 1-2 km further to the west of Birch Crossing, the Byers Fault is seen to consist of a distinct zone of fault gouge within a broad alteration halo that extends across an interval of hangingwall metasediments into the adjacent footwall diorites. The fault itself consists of a zone of chloritic clayey gouge hosting angular to subangular fragments in a zone 0.1 to 2 m wide. Alteration associated with the fault consists of intense hematization and hairline fracturing which is more prominent among the brittle fracturing intrusive rocks than in the supracrustal hangingwall rocks.

Intrusive rocks of the Brindson Lake Pluton south of the Byers Fault in the Birch Crossing area consist of fine to medium grained, porphyroblastic diorite which is only locally moderately altered by hydrothermal alteration. The faulted diorite-volcanic contact however, is mylonitized, hematized, and moderately to strongly fractured over an interval of several hundred metres in width straddling the Byers Fault.

Rocks in the footwall of the Byers Fault at Birch Crossing consist primarily of intermediate mafic metavolcanics and lesser pyroclastic rocks. Within these rocks, a series of auriferous quartz veins contained within andesites and lesser fine grained, altered dacite porphyry rocks were originally discovered in 1961 by Augustus Exploration in a series of trenches at the Kaslo Showing, 700 m west-northwest of Birch Crossing.

Several diorite and felsic dykes of various widths and orientations which are also commonly seen in the footwall of the Byers Fault at Birch Crossing likely represent offshoots of the Brindson Lake Pluton located further to the south. Felsic to acid intrusive dykes were seen in several drillholes completed at Birch Crossing during the reporting period, although correlation of these units from drillhole to drillhole and section to section is difficult owing to the currently widely spaced drilling.

Figure 7-4 Birch Crossing Property Geology



7.2.2.1 Mineralization

Petrographic analysis of samples from the Birch Crossing project suggests that gold at Birch Crossing was not deposited syngenetically in a preferred rock type but was introduced in an epigenetic event related to hydrothermal sulphidic-potassic alteration. Brittle fracturing was an important precursor to the main mineralizing event, allowing passage of hydrothermal fluids and the injection of hydrothermal quartz veins. Most high-grade gold mineralization at Birch Crossing is found within hydrothermal quartz veins which have formed at the contact between intrusive and volcanic rocks, presumably because the brittle fracturing event had the greatest impact at this interface due to the differing competency of the rock types.

Study of thin and polished thin sections prepared from Birch Crossing suggest that gold and chalcopyrite are the only major ore minerals at the deposit. Both minerals occur primarily as very fine (<0.02 mm) grains disseminated mainly in the secondary very fine-grained albite. Gold-copper mineralization appears to be closely linked to albitization, given the common occurrence of gold and chalcopyrite in the very fine-grained secondary albite.

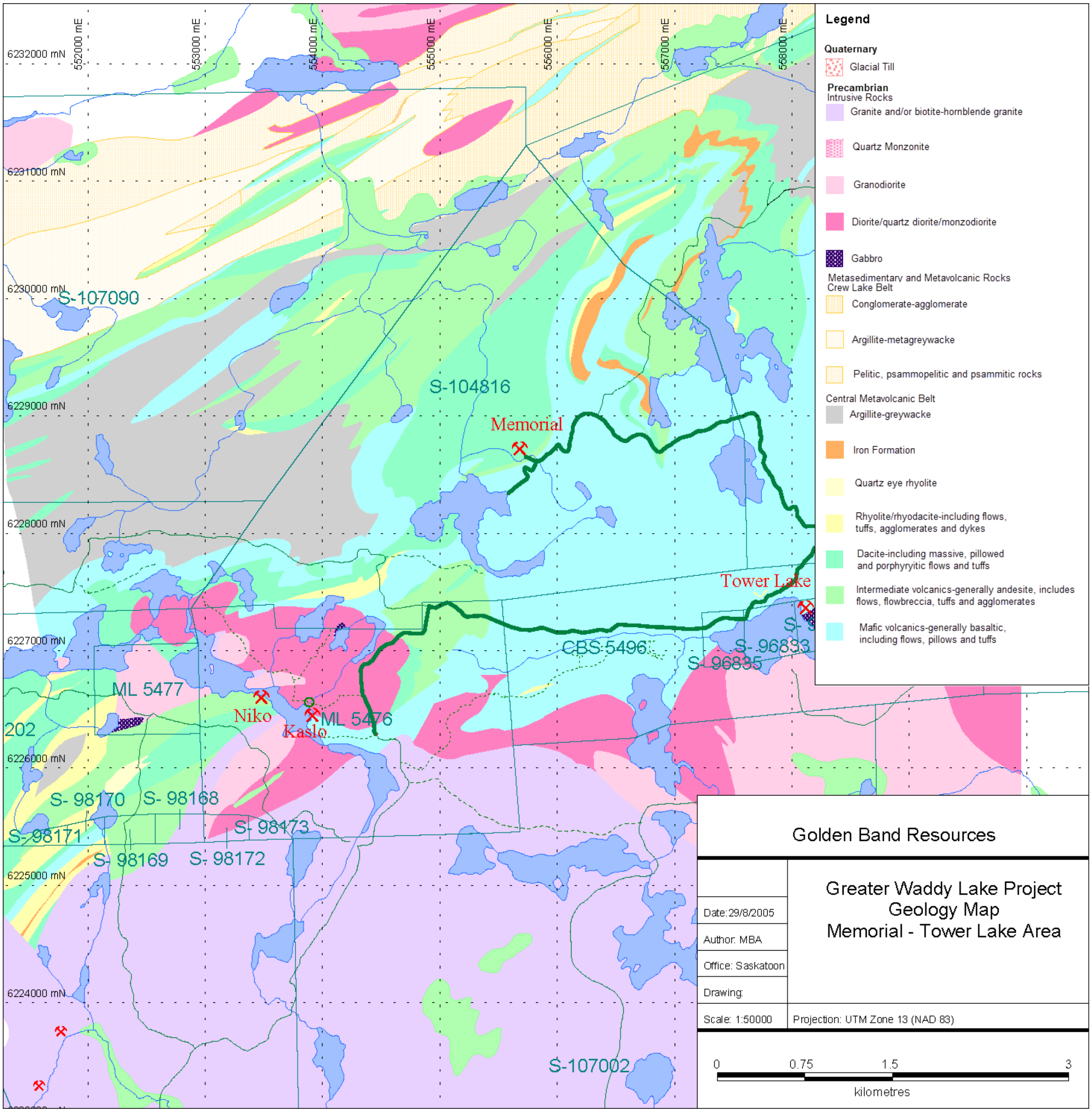
7.2.3 Memorial Geology

Rocks in the vicinity of the Memorial surface showing area consist of metavolcanic and associated metasedimentary rocks which strike regionally from northeast to southwest as presented in Figure 7-5. The southern half of the property (S-104816) is underlain by the compositionally zoned, polyphase Brindson Lake Pluton. In the vicinity of the Memorial Showing the volcanic sequence is dominated by massive to pillowed mafic flows and lesser intermediate to felsic flows and sediments. Sulfide-facies iron formation is common in the sequence and contains primary pyrite and/or pyrrhotite with occasional traces of chalcopyrite. Further towards the west, the volcanic succession is interfingered with a greywacke-argillite sequence of the Central Metavolcanic Belt. The tectonic boundary between the Central Metavolcanic Belt and the Crew Lake belt known as the Looney Lake Tectonic Zone is mapped by Harper (1986) to pass in a northeasterly direction across the northwest corner of the property.

In 1997, the immediate area surrounding the Memorial Showing was geologically mapped at a scale of 1:2,500 (Schwann). Although hindered by poor outcrop exposure (10% of area) and extensive till and muskeg cover, the mapping indicated most of the area was underlain by mafic volcanic flows, breccias and tuffs crosscut by occasional felsic and microdiorite dykes. Structural features which are best manifest among fragmental rocks in stripped outcrops of the Memorial Showing include an east-west foliation steeply dipping toward the north and a steeply plunging northwest lineation. Ground mag surveys and the projected intersections of iron formation in drillholes suggest a northeast fold closure in the region in addition to subordinate fold directions either towards the north and east. Detailed mapping of the Memorial Showing itself (LaFrance, 1998) indicates a variety of local foliation measurements which may be attributed to either fold direction. More obvious in the aeromagnetic coverage is a strong east-west overprint of the regional northeast trending magnetic fabric which maybe the result of strain development parallel to the axial plane of east-west folding.

Although the area has a regional northeasterly structural grain typical of the Central Metavolcanic Belt, folding is locally complex. Aeromagnetic and INPUT airborne surveys indicate tight isoclinal folding of local iron formation units, whereas arcuate to triangular fold interference patterns are seen where rock units are wrapped around intrusions. Late stage, regional northwest-southeast compression has also resulted in a series of small-scale northeast trending crenulation trends, kink folds and boudin necks, whereas a still later period of brittle deformation has resulted in a series of north-south and east-west trending faults and fractures.

Figure 7-5 Memorial Property Geology



Structure

The only major structure intersected by drilling within the deposit is a mylonite zone several metres in width which strikes approximately NNE-SSW and has a vertical dip (holes MM-14, MM-15, MM-28 and MM-34). If projected further to the SSW, then it should slice through the centre of the deposit, however, no mylonite was encountered in the drilling in this area. Considering the fact that most holes were drilled vertically, and vertical structures are difficult to intersect this is not conclusive. A mylonite zone was also encountered MM-34 and if this is the same structure then it must bend into a more E-W direction. If it is a separate structure, then the main mylonite zone probably curves into a more southwesterly direction paralleling the mineralized zone. The first scenario is the more likely one, because we see a different attitude in the shape of the deposit on either side of the mylonite. South of the mylonite, the mineralization strikes horizontal over the full width of 50 metres and plunges at flat angles north east. On the north side of the mylonite, the mineralization assumes a NW dip. It appears that the mineralization diminishes in both directions away from the mylonite.

The mylonite zone(s) and feeder dykes are likely different entities but where they overlap mineralization occurs. The feeder dykes are likely related to the late plutonic activity as evidenced by felsic and or granodiorite dykes in the vicinity of the Memorial deposit.

Lithology

The primary lithology observed in drill core from the Memorial deposit is pillowed mafic volcanic rock (basalt) which resembles fine grained, massive amphibolite. In and near the gold mineralized zone at Memorial, this host rock basalt contains disseminated pyrrhotite and may have undergone variable degrees of biotite alteration. In the less altered outlying portions of the mineralization this alteration is manifested simply by the presence of biotite, whereas more strongly altered rocks consist largely of quartz and feldspar with biotite, termed feldspar biotite gneiss based on thin section work conducted by McLeod (1998). Crosscutting quartz-calcite veinlets and fracture fillings also commonly have selvages rich in hydrothermal biotite within mineralized zones at Memorial as well.

Intervals of stockwork altered basalt are also present, as above but hosting a fine stockwork of carbonate-biotite veinlets. This alteration assemblage may be related to gold mineralization.

A mylonitic structure is observed in drill holes MM-14, 15, 28 and 34. This unit is comprised of highly sheared and microbrecciated mafic volcanics (basalt) and possesses a dark grey glassy matrix from attenuation and flattening of plagioclase and biotite.

Three groups of dykes are also recognized in drill core: Micro-diorite dykes are homogenous, fine-grained to aphanitic, massive, intermediate rock, hosting rare disseminated pyrrhotite. These dykes are virtually unaltered.

Plagioclase porphyry dykes are felsic to intermediate, very fine-grained to aphanitic, with plagioclase porphyroblasts and host fine grained, disseminated pyrite or pyrrhotite throughout. The likely parent rock of this unit is unaltered diorite.

Biotite porphyry dykes are frequently found adjacent to plagioclase porphyry dykes (above) and represent more highly metamorphosed plagioclase porphyry dykes. This unit is very fine grained to aphanitic, homogenous, well-foliated with porphyroblasts of biotite (and sometimes relict plagioclase).

Alteration and Mineralization

The alteration assemblages as seen in drill core are as follows:

- Isolated quartz veins of varying widths are present throughout the drill core at Memorial. These veins vary from milky to translucent white and have been observed to host disseminated pyrite, pyrrhotite and visible gold. These quartz veins have also been subject to various types of alteration, including limonitization, chloritization, carbonatization and potassic alteration.
- Quartz vein zones host the majority of mineralization within the Memorial deposit. These zones host numerous small-scale (cm to dm in width) quartz-carbonate veins which host pyrite and pyrrhotite, both disseminated and occurring as irregular clots and blobs of mineralization, as well as coatings on fractured surfaces. Basalt is the host rock of these veins.
- Quartz stringer zones represent a smaller, but still significant, contribution to gold mineralization in the Memorial deposit. This mineralized zone occurs at a shallower depth generally than quartz vein zones and is comprised of quartz-carbonate veinlets. These veinlets are typically associated with hydrothermal biotite and may possess biotite alteration haloes. Pyrrhotite is commonly found in small amounts (4-5%) within this unit.
- Hangingwall and footwall alteration zones are found in relation to the quartz vein and stringer zones and are characterized by carbonate veinlets with strong vein margin hydrothermal biotite alteration and/or chloritization, within fine-grained basalt. These units may host occasional quartz veinlets, and on occasion small amounts of sulfides are associated with these zones.

The massive sulfide zone is equivalent to the iron formation commonly observed in this area and consists of net textured, coarse, anhedral pyrrhotite stringers intergrown with pyrite in 10-30 vol% quantities, in basalt.

7.3 Comments on Section 7

The regional and deposit-scale geology and controls on mineralization of the Thunderbird gold deposit are sufficiently well understood to permit the construction of geological models and estimation of Mineral Resources.

8.0 Deposit Types

The Thunderbird gold deposits that comprise this study are generally classified as shear-hosted, mesothermal gold deposits.

8.1 Deposit Models

Two groups of gold occurrences have been noted in the La Ronge Domain and specifically in the Greater Waddy Lake district (Lafrance and Heaman, 2004).

Group I gold occurrences include the Komis gold deposit and consist of single quartz veins or swarms of quartz veins having extensive biotite-pyrite-carbonate alteration haloes that are up to 15 times as wide as the widths of the single quartz veins. At the Komis gold deposit, single quartz veins and swarms of quartz veins cut through mafic volcanic rocks and the east-striking dykes. It has been interpreted that the dykes and the northwest-striking volcanic host rocks were in the strain shadow of the Round Lake stock during the development of regional ENE-striking S2 foliation. Tensile fractures opened in the volcanic rocks and dykes, hydrothermal fluids flowed into the fractures and quartz crystallized, sealing the fractures.

Group II gold occurrences are shear-hosted mineralization including the Golden Heart and Corner Lake gold deposits. Quartz veins within the shears at both gold deposits have been classified as extensional veins that predate the shearing. Hence these veins are similar to the Group I veins discussed above but they have been overprinted by the shear zones.

Throughout the Greater Waddy Lake district, gold occurs in quartz veins and in pyritized wall rocks of the quartz veins. The similar mineralization style and upper greenschist to amphibolite grade metamorphism associated with the alteration of numerous gold occurrences throughout the Greater Waddy Lake district suggests gold was introduced during a regional, hypozonal, mineralizing event. Furthermore, the similarity of the Group I and Group II gold occurrences suggest they formed during the same deformation event, specifically the D2 fabrics that formed in the La Ronge Domain during the collision of the Rae-Hearne Craton with the Superior and Saskatchewan cratons (Lewry et al., 1990; Ansdell et al., 1995; Schwerdtner and Côté, 2001).

Lafrance and Heaman (2004) suggested during the collisional event, regional compression across the La Ronge Domain resulted in localized deformation producing reverse and dextral shear zones along lithological contacts between more competent and less competent rock units. Group I gold occurrences were deposited during the development during the regional

D2 fabrics, which are locally overprinted by late D2 shear zones that host the Group II gold occurrences.

The Tower East gold deposit does not immediately conform to either the Group I or Group II gold occurrences as it lacks well-developed quartz veins. However, the occurrence of quartz veinlets at a micro scale, the deformation resulting in a micro brecciation and micro stockwork of the quartz-carbonate veinlets within the host lithologies suggests that Tower East is similar to the Golden Heart deposit where original extensional Group I veins were overprinted by shearing that developed along the intrusive-volcanic contacts. At Tower East, this occurs along the Brindson Lake pluton-footwall basalt contact. Thus, the Tower East gold deposit is believed to be a Group II gold occurrence; specifically, a shear-hosted, mesothermal gold deposit occupying a broad zone of deformation (the Byers Fault Zone) within the hanging wall of the Byers Fault.

The Memorial gold mineralization most likely represents a structural dilation zone proximal to a major structure. This dilation zone was intersected by feeder dykes during its creation, prompting the interaction of the hydrothermal fluids with the host rocks and subsequently the precipitation of the metals, including gold. The Byers fault is located just two kilometres south of the Memorial deposit, but a direct structural connection with the Byers fault has not yet been established.

At Birch Crossing, gold mineralization appears to be structurally controlled and of two distinct types: a lower grade zone of disseminated pyrite with pervasive carbonatization, biotite, and magnetite alteration; and an overlying higher-grade zone of quartz veins with cm-size pyrite crystals. The deposit has similarities to iron-oxide-copper-gold (IOCG) deposits (Tourigny and Senkow, 2006).

8.1.1 Inferred Evolution of the Tower East Gold Deposit

The general sequence of geological events in the Tower East deposit area, as envisaged by Hubregtse (1990), follows:

a) Intrusion of porphyritic diorites suite; formation of igneous fabric (IG);

b) Intrusion of felsic porphyries suite; formation of igneous fabric (IG);

c) Albitization (AB) preceded by brittle fracturing (?); formation of albitite;

d) Brecciation and brittle fracturing (BXE);

e) Hydrothermal sulphidic-potassic alteration (AL1) and introduction of gold; emplacement of auriferous veinlets mainly composed of quartz, pyrite, and dolomite with minor biotite, muscovite, albite, chalcopyrite and pyrrhotite; accompanied by pyrite-biotite-actinolite-magnesian-chlorite-quartz-dolomite dominated wall rock alteration;

f) Regional deformation (D1); formation of foliation or mylonitic fabric (S1), main fabric of the mineralized zone;

g) Metamorphism (M1), lower amphibolite facies; static recrystallization of sulphides, gold, carbonates and most silicates except albitite;

h) Brittle deformation and fracturing (D2-BX2-FR-2); formation of the Byers Fault(?); introduction of fracture-controlled retrograde alteration assemblages and veinlets composed of hematite, goethite, bornite, covellite, ferroan chlorite and carbonate (AL2); retrograde greenschist facies metamorphism (M2); gold was not remobilized during these events.

The Brindson Lake Pluton, and specifically the intrusion of the porphyritic diorites and felsic porphyries of the Tower East deposit, was emplaced during widespread intrusive activity resulting from the accretion of the La Ronge continental volcanic arc to the Archean Hearne craton from ca. 1.87-1.86 Ga. (Lafrance and Heaman, 2004).

In the La Ronge Domain, a regional D1 fabric has been recognized resulting from the accretion of the La Ronge continental arc to the Hearne craton prior to the emplacement of the suite of ca. 1.86-1.85 Ga continental-arc Wathaman intrusions.

The subsequent collision of the Hearne craton with the Superior and Saskatchewan cratons produced regional compression across the La Ronge Domain resulting in a regional D2 fabric with a S2 and L2 component (Lewry et al., 1990; Ansdell et al., 1995; Schwerdtner and Côté, 2001).

At the Tower East gold deposit, hydrothermal activity resulted in pervasive replacement of the host plutonic rocks as well as the introduction of composite quartz-carbonate-pyrite veinlets. Gold is hosted in the composite veinlets and in the altered wall rock (Hubregtse, 1990). The age of the Brindson Lake Pluton and the introduction of gold in the La Ronge Domain, suggest that gold was introduced at Tower East during D2 deformation.

This differs from Hubregtse's sequence of events denoted above and would suggest that the brecciation and brittle fracturing (BXE) is part of the regional D2 that significantly deformed (brecciated-brittle fracturing and foliation) the Tower East host rocks prior to the introduction of hydrothermal activity and gold (AL1). Hence, Hubregtse's D1 (post gold deformation) would be more accurately reflected as a late regional deformation event (D3?) and Hubregtse's D1 would be better placed as part of the regional D2.

From this, it can be speculated that the Byers Tectonic Zone is the D2 deformation event at the Tower East deposit, thus explaining the broad deformation that occurs in the hanging wall of the Byers Fault. The location of the deformation, specifically the shearing and mylonitic fabric, was localized at the contact of the intrusive rocks (outer margins of Brindson Lake Pluton) and volcanic rocks (basalts and associated volcaniclastics). Furthermore, the brecciation-brittle fracturing (BXE) was concentrated within the hanging wall at the contacts between porphyritic diorites and felsic porphyries.

The actual Byers Fault is a narrow, late brittle fault that parallels and defines the outer margin (northern boundary) of the broad Byers Tectonic Zone. The timing of the Byers Fault would correspond to the retrograde alteration-deformation (D3?) defined by pervasive chlorite-hematite-calcite alteration that is prevalent throughout the hanging wall and immediate footwall rocks at the Tower East deposit. Hubregtse's (D2-BX2-FR2) noted above would possibly be more-accurately reflected as a D3 event.

8.1.2 Inferred Evolution of the Birch Crossing Gold Deposit

Based upon the petrographic analyses of thin and polished thin sections prepared from Birch Crossing drill core, Mysyk (2007) suggested the following paragenetic sequence of events at the Birch Crossing deposit.

Following deposition of supracrustal rocks, magnetite-bearing plagioclase porphyry rocks and diorite were intruded. A possible early brittle fracturing event prepared these intrusive rocks for albitization, followed by the intrusion of aplite and quartzofeldspathic dykes. A major albitization event with concurrent mineralization of disseminated gold, chalcopyrite and pyrite was then followed by tourmalinization of plagioclase and albite.

A second weak to moderate brittle/ductile fracturing event appears to be responsible for the main ore forming event, which was accompanied by actinolite-carbonate-biotite-quartz-pyrite-magnetite-chalcopyrite-gold. Thereafter, a regional deformation event was responsible for the formation of the primary S1 foliation within lithologies in the prospect area, followed by lower amphibolite facies metamorphism (M1) and later retrograde greenschist facies metamorphism (M2) resulting in the replacement of biotite/actinolite to Fe-chlorite and remobilization of gold into carbonate-hematite-Fe-chlorite veinlets.

8.2 Comments on Section 8

The authors consider that a shear-hosted, mesothermal deposit model is an appropriate model for exploration and mineral resource estimation.

9.0 Exploration

Since the initial discovery of gold on the Tower Lake property in 1959 by Augustus Exploration, the Project area has undergone various exploration activities including prospecting, geological mapping, geochemical sampling (including soils), outcrop, biogeochemical matter, glacial till, geophysical surveys, and extensive diamond drilling. Historical exploration in the Project area is described in Section 6.0.

Matrixset has not carried out any exploration work on the Project.

9.1 Grids and Surveys

9.1.1 Tower Lake

To maintain control and the location of drilling, a local diamond-drilling grid was established initially in 1986 on the Tower Lake property and was used for all drill programs through to the end of the 2005 drilling with the exception of the PH drill holes and drill holes T-143 through T-153. The baseline of the diamond-drilling grid has an azimuth of 070˚ from the baseline. Drilling cross-sections / profiles at 12.5 m and 25 m intervals were established at 90˚ (340˚ azimuth) utilizing a transit.

Tri-City Surveyors of Saskatoon, SK were contracted to survey all diamond drill holes upon completion of the 2004 – 2005 winter diamond drilling program to provide accurate collar locations and elevations utilizing real time GPS – UTM coordinates (NAD 27 and NAD 83). In September 2004, Tri-City Surveyors were contracted to pick up enough accurately identified historical drill collars and survey pins to enable transformation of survey points (drill collars and survey pins) from the historical regional survey grid (used to control drilling programs 1986 – 1990) reflected in northings and eastings, to real time GPS – UTM coordinates.

9.1.2 Birch Crossing

Tri-City Surveys Ltd. of Saskatoon, Saskatchewan surveyed the location of drillholes in 2007. A series of benchmarks and control points previously established by Tri-City in the vicinity of the Birch Crossing and Kaslo deposits were used to provide positional control for the survey work. The survey was completed as a real time GPS survey using a Trimble model SP850 modular GPS receiver serving as a base station. The base station receives data through the L2C code and L5/GLONASS carrier signals and incorporates an integrated 450 MHz radio frequency transmitter and receiver to a Trimble Zephyr model 12 handheld controller/rover unit which captures and records the survey data. Measured accuracies for the survey work are reportedly on the order of ±1 cm for x, z and z co-ordinates.

9.1.3 Memorial

In April 2004, a photogrammetric survey of the Memorial area and real-time GPS survey of drillhole locations was undertaken by Tri-City Surveys Ltd. of Saskatoon, Saskatchewan. The UTM coordinates (NAD 27 datum) and elevation of each Memorial drillhole collar were determined by the survey. The coordinates were converted to NAD 83 datum in 2005.

9.2 Geological Mapping

9.2.1 Tower East

In 1987, Golden Rule carried out property-wide detailed geological mapping along with outcrop lithogeochemical sampling (Fox, 1988).

9.2.2 Memorial

In 1997, the immediate area surrounding the Memorial Showing was geologically mapped at a scale of 1:2,500 (Schwann, 1997). Although hindered by poor outcrop exposure (10% of area) and extensive till and muskeg cover, the mapping indicated most of the area was underlain by mafic volcanic flows, breccias and tuffs crosscut by occasional felsic and microdiorite dykes.

9.3 Geochemical Sampling

9.3.1 Tower Lake

In 1996. while conducting a regional till sampling program, Golden Band discovered a significant gold-in-till dispersion train southwest of the Tower Lake that was interpreted as not originating from the Tower Lake East deposit. About 700 bulk till samples were taken which outlined a 7 km-long gold-in-till dispersion train (Lehnert–Thiel, 1996).

In the summer of 1997, another 600 bulk till samples were taken within CBS 5496. The results indicated that the dispersion train splits into an eastern train with the likely source at the Tower East deposit and western train with a likely source in the western part of Tower Lake, which was termed the “Phantom Train”.

9.3.2 Birch Crossing

2003 Birch Crossing: 235 bulk till samples were collected in the Narrow Lake-Tower Lake area, conducted primarily on east-west oriented traverses at 50 m spacing. This sampling included the discovery of the Birch Crossing anomaly.

9.3.3 Memorial

Golden Band Resources acquired the Memorial property in 1996 and carried out sampling to confirm previous soil and bulk till anomalies east of Mushroom Lake (35 tills in 12 backhoe pits). One pit returned two samples with 28 and 56 (predominantly delicate) gold grains/kg. Thirty-eight additional bulk tills were collected in reconnaissance investigations elsewhere on the property.

1999 Memorial: A total of 156 bulk till samples were collected in the Mushroom-Kirk-Hump Lake area to follow-up on historic geochemical gold anomalies.

9.4 Geophysics

9.4.1 Tower Lake

In 1986 Golden Rule carried out detailed ground magnetometer and VLF-EM surveys (107.4 line-km) conducted on 50 m-spaced grid lines with readings at every 10 m on the north-south regional grid covering the Tower East and Tower West gold occurrences (Patterson, 1987). An additional property-wide ground magnetometer and VLF-EM surveys on new cut and refurbished grid was carried out in 1987

In the 1996-97 field season, Golden Band established a grid south of Tower Lake and carried out magnetic, VLF-EM, and IP surveys and found several geophysical anomalies at the approximate apex of the dispersion train found by earlier till sampling.

In 2005, A reconnaissance-style IP survey was carried out over the eastern most section of the Tower East gold deposit without conclusive results.

9.4.2 Memorial

At Memorial ground magnetic and VLF-EM surveys were conducted along lines spaced 25 metres apart in 1997.

In 1999, Ten line-km MaxMin II horizontal loop EM surveying and 3 IP/Resistivity profiles across Memorial Showing detected a thickening of the conductive system over the showing area.

9.5 Petrology, Mineralogy, and Research Studies

9.5.1 Tower Lake

In 1986 Golden Rule submitted several core samples for petrographic analyses ((Littlejohn, 1986).

In 1990 an extensive and detailed petrographic study was performed on 26 thin sections prepared from several representative samples of the Tower East gold deposit lithologies (Hubregtse, 1990).

9.5.2 Memorial

Petrographic work was carried out on 6 core samples from Memorial in 1998 (McLeod, 1998). In 1999, Petrography was carried out on 3 core samples (2-SRC reports).

9.5.3 Birch Crossing

In 2006, 17 thins sections (8 regular and 9 polished) were submitted to Laramide Petrologic Services for petrographic analysis (Mysyk, 2006).

In 2007 an additions 6 thin sections were prepared from BC-79 (3 regular and 3 polished) were submitted to Laramide Petrologic Services for petrographic analysis (Mysyk, 2007).

9.6 Exploration Potential

The ultimate extents of the deposits have not been completely delineated by drilling. The Tower East deposit shows the highest potential for increasing the size of the deposit based on widely spaced drill intercepts in the Phantom Zone which extends south of Tower Lake.

9.7 Comments on Section 9

Exploration diamond drilling provides a suitable basis for the estimation of Mineral Resources.

Interpretation of the exploration data including mapping, petrography, geochemical sampling and geophysics, is sufficiently detailed to support the definition of shear-hosted gold targets on the Property.

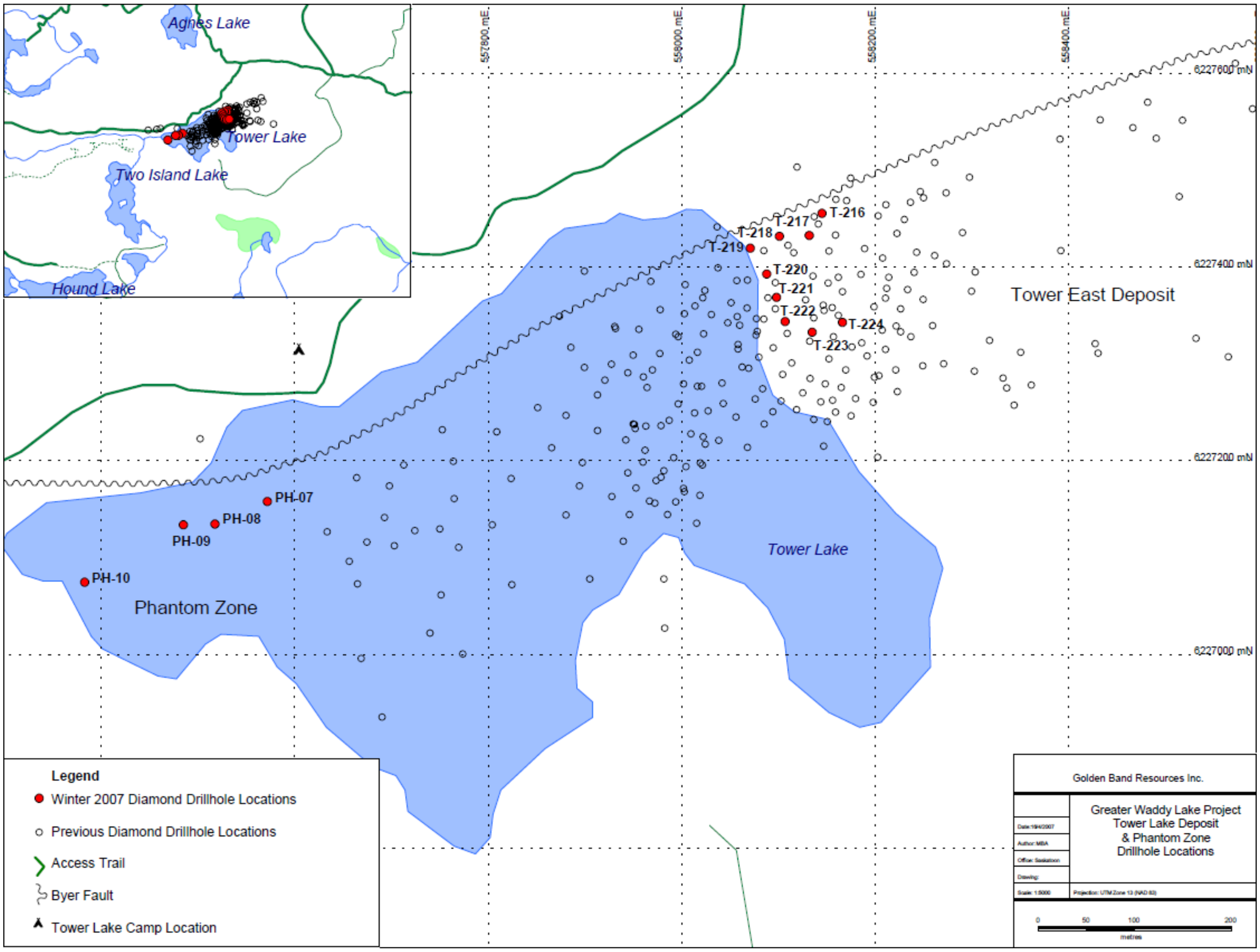
10.0 Drilling

Matrixset has not carried out any exploration work in the Project area.

10.1 Tower East

The Tower East gold deposit database consists of 244 diamond-drill holes completed between 1984 and 2007 (Figure 10-1). Ten holes from the 1986 program were excluded from the database due to uncertainty as to location and/or hole direction. The majority are NQ-diameter core, but some drill holes completed in 1986 were drilled with HQ-diameter drilling tools. Eight PQ-diameter holes were drilled in 1990 for the purpose of a metallurgical test that, due to a Golden Rule management decision, was not undertaken and that core was discarded. Prior to 1984, 17 drill holes were drilled between 1961-1963. These drill holes have not been included in the database.

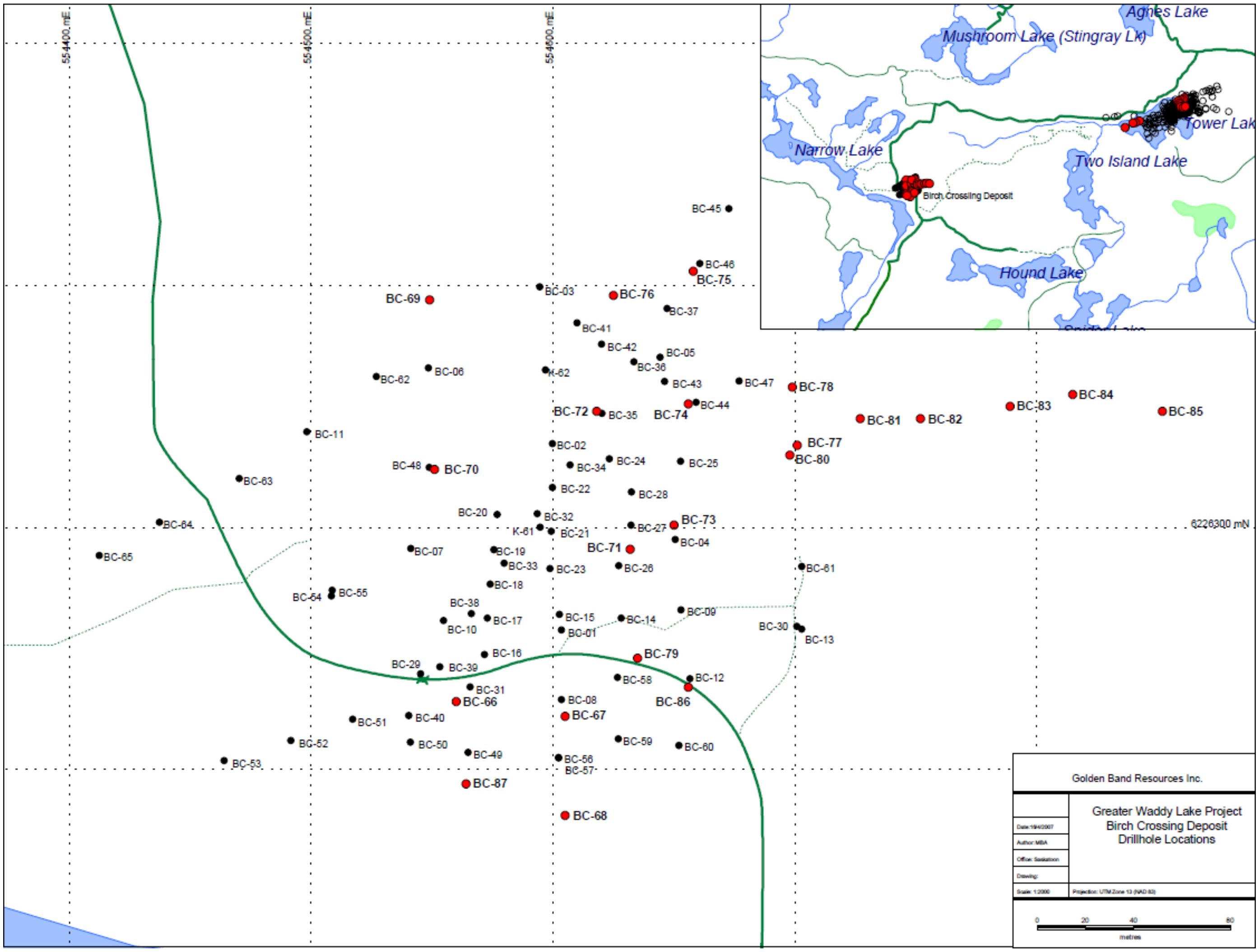
Figure 10-1 Tower East Drill Plan



10.2 Birch Crossing

The Birch Crossing gold deposit database consists of 89 NQ diameter core holes completed between 2004 and 2007 by Golden Band (Figure 10-2).

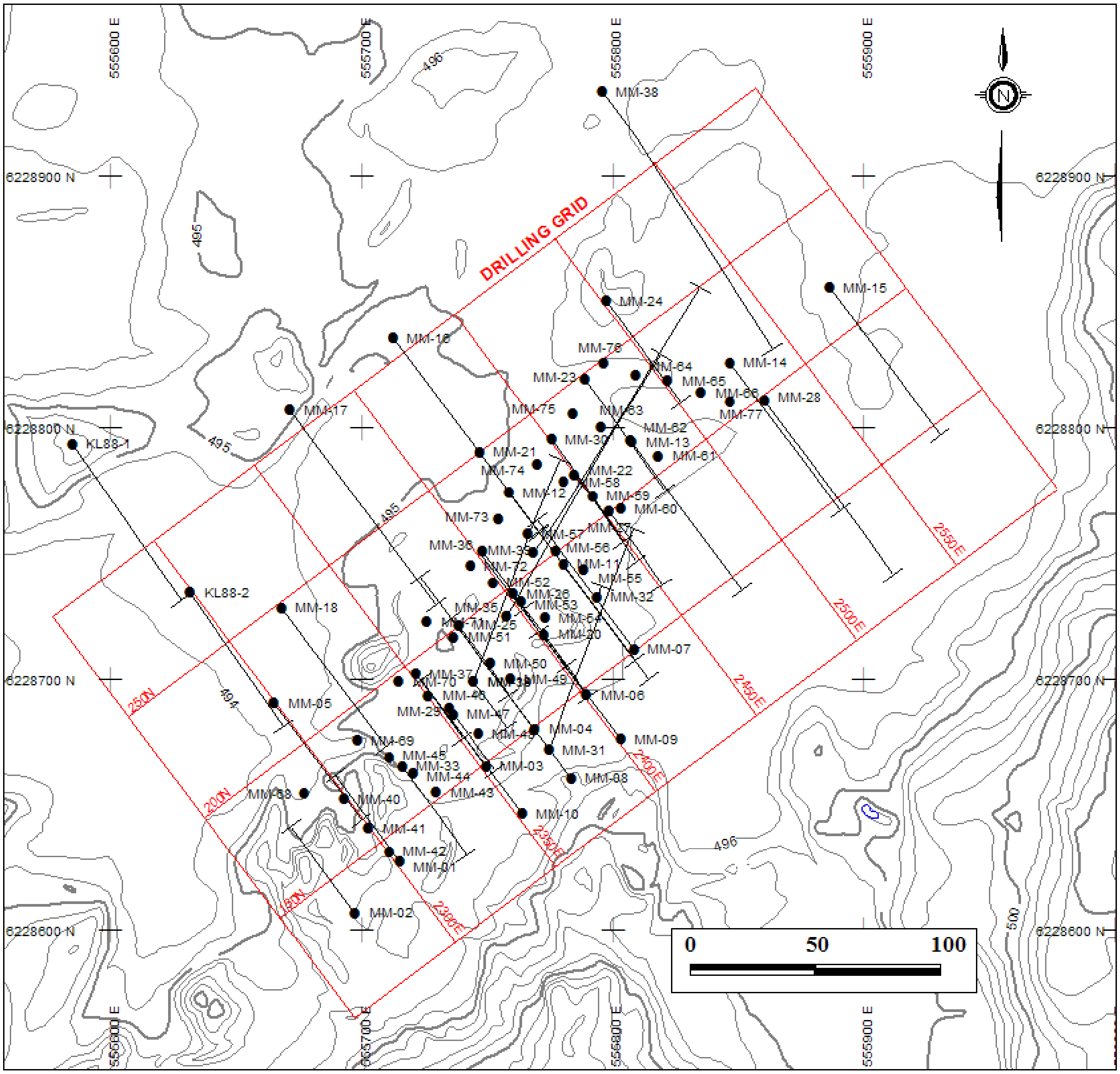
Figure 10-2 Birch Crossing Drill Plan



10.3 Memorial

Britton Bros. Drilling Ltd. of Smithers, British Columbia was contracted to complete BQ and NQ core drilling on the Memorial occurrence during drill programs carried out between 1997 and 2004 (DH's MM-01 to 77). A total of 79 drillholes (6,765.5 m) have been completed in the showing area to date. Included in the total are two holes, K-88-01 and 02, completed in the vicinity of the Memorial Showing in 1988 for Pamorex Minerals Inc. Drill hole locations are shown in Figure 10-3.

Figure 10-3 Memorial Drill Plan



10.4 Core Recovery

Core recovery was generally good to excellent. The most recent drill program in 2007 averaged 98.8% core recovery.

10.5 Drill Hole Location Surveys

From 1984 through 1990, contract surveyors located all drill holes typically in batches at the end of the seasons drill program. Tri-City Surveys Ltd. of Saskatoon, SK, surveyed all drill holes 1986-1990. It is unsure if the project geologist or a contractor did the surveying of the 1984 drill holes. Drill hole coordinates were presented in metres and derived from a regional grid oriented north-south whose 0+00 point was just east of the shore of Tower Lake. Assumed ice (water) level on Tower Lake was 475 metre ASL.

The collar locations of the PH-series of drilling performed in 2003 were surveyed by the project geologist R. Avery who is also a land surveyor. Geodetic survey points rather than the old grid system were used for this survey.

Drill hole collar locations for drill holes drilled during the 2004-2005 drilling programs were surveyed by a contractor (Tri-City Surveyors of Saskatoon) utilizing a Trimble GPS RTK (real-time kinematic) system. The exception being drill holes T-143 through T-146 because these holes were drilled on the ice in early 2004 and their locations were not available when the surveying of land-based drill holes T-147 through T-153 was performed in September of 2004.

In September of 2004, Tri-City was contracted to bring previous surveys performed on the Tower Lake property into a new UTM coordinate system. By identifying drill holes T-147 through T-153 in the field and establishing their UTM coordinates, plus the exact location of other survey monuments and the accurate location of several other drill holes drilled in 1986 through 1990; by a transformation process, Tri-City established NAD 27 UTM coordinates for all drill holes in the database to the end of drill hole T-153. The locations of drill holes T-143 through T-146 were established by extrapolating from drill hole T-147 the known distance and azimuth to drill hole T-146. This exercise was continued for the location of drill holes T-143-T145. Collar locations for drill holes T04-154 through T05-215 were surveyed in by GPS, again by Tri-City Surveyors in March 2005 upon completion of the winters drilling program.

10.6 Downhole Surveys

For all drill programs prior to 2006, the drill contractor provided acid tests at 50 m intervals or at depths as requested by project geologists to determine changes to drill hole inclination. Sperry Sun was experimented with but due to the high magnetite content in the rock it was considered unreliable. A light log survey that provided down hole dips and azimuths was used for part of the 1989-drilling program. The down hole dip data was consistent with the acid tests being provided as well and the tool suggested very little deviation in the drill hole azimuths in most of the holes surveyed. There were mechanical problems with the instrument, the tool did not travel well from drill hole to drill hole, and hence use of it was suspended.

During 2007 a Reflex single shot unit was used for all drill programs.

10.7 Sample Length/True Thickness

The Tower East deposit is a broad low to medium grade zone of gold mineralization and not truly tabular in nature so true thickness is not applicable.

The narrow, higher grade structures at Birch Crossing plunge steeply to the SSE while most drilling is oriented -45° to the north. Therefore, reported intercept widths are typically 20 to 25% longer than true width. Thirteen holes drilled at a -60° angle have reported intercepts approximately 35% longer than true widths.

The narrow, higher grade structures at Memorial plunge moderately to the northwest. A total of 28 holes were drilled at dips of either 45° or -60° to the southeast, 9 holes were drilled at -45° to the northwest and 30 holes were vertical. The intercepts of holes drilled to the southeast were very close to true width. Vertical hole intercepts are typically 18% greater than true width. Holes angled to the northwest are sub-parallel to the mineralization.

10.8 Selected Drill holes Intersections

10.8.1 Tower East

Significant intervals from the 2007 Tower East T-series holes are presented in Table 10-1.

Table 10-1 Tower East 2007 Drill Results

Hole_ID	From	To	Width	Au g/t
T-216	32.65	41.50	8.85	6.163
T-217	59.10	84.80	25.70	1.566
T-220	102.00	187.50	85.50	2.927
T-221	66.00	122.83	56.83	1.493
T-221	115.50	159.00	43.50	2.026
T-222	77.00	141.00	64.00	1.045
T-223	109.60	197.60	88.00	1.981
T-224	32.00	43.00	11.00	9.386
T-224	92.00	138.50	46.50	1.842

10.8.2 Birch Crossing

Significant intervals from the 2007 Birch Crossing drill holes are presented in Table 10-2. Reported widths are typically 20-25% greater than true widths.

Table 10-2 Birch Crossing 2007 Drill Results

Hole_ID	From	To	Width	True Width	Au g/t
BC-50	68.80	96.40	27.60	21.14	0.512
BC-56	129.30	154.90	25.60	19.61	13.168
BC-58	69.70	77.00	7.30	5.59	1.486
BC-58	108.10	139.60	31.50	24.13	1.923
BC-59	142.00	159.00	17.00	13.02	0.463
BC-60	168.00	176.90	8.90	6.82	0.693
BC-66	67.90	82.60	14.70	9.45	1.239
BC-66	102.50	114.30	11.80	7.59	7.431
BC-66	126.50	144.50	18.00	11.57	13.319
BC-67	111.20	120.40	9.20	5.92	3.990
BC-69	30.50	52.50	22.00	16.85	1.547
BC-70	129.80	162.60	32.80	21.09	3.419
BC-71	26.00	32.50	6.50	4.18	1.156
BC-73	24.00	44.10	20.10	12.92	3.004
BC-73	46.00	55.00	9.00	5.79	0.870
BC-73	67.50	76.00	8.50	5.47	3.094
BC-73	133.15	150.05	16.90	10.87	4.614
BC-74	28.90	37.20	8.30	5.34	2.193
BC-75	81.00	95.80	14.80	11.34	0.892
BC-76	50.10	59.70	9.60	7.35	2.235
BC-77	58.50	79.50	21.00	16.09	1.359
BC-78	40.50	47.30	6.80	5.21	2.431
BC-79	64.40	71.75	7.35	4.73	6.621
BC-79	205.00	213.50	8.50	5.47	5.682
BC-84	57.00	66.00	9.00	6.89	0.895
BC-87	160.10	200.20	40.10	25.78	0.885
BC-87	217.50	225.50	8.00	5.14	2.588

10.8.3 Memorial

Significant intervals from the 2004 Birch Crossing drill holes are presented in Table 10-3

Table 10-3 Memorial 2004 Drill Results

Hole_ID	From	To	Width	True Width	Au g/t
MM-40	10.20	19.30	9.10	7.46	0.743
MM-45	11.50	16.50	5.00	4.10	6.611
MM-46	13.00	18.70	5.70	4.67	0.669

Hole_ID	From	To	Width	True Width	Au g/t
MM-46	20.90	26.20	5.30	4.35	2.787
MM-47	22.50	31.70	9.20	7.54	6.724
MM-49	8.00	13.30	5.30	4.35	2.486
MM-50	17.00	28.70	11.70	9.59	1.768
MM-50	28.60	35.10	6.50	5.33	3.585
MM-51	12.80	20.70	7.90	6.48	1.154
MM-51	37.80	43.00	5.20	4.26	1.053
MM-52	45.00	55.80	10.80	8.86	0.851
MM-53	36.50	59.40	22.90	18.78	2.008
MM-54	17.90	26.10	8.20	6.72	2.378
MM-54	36.30	51.40	15.10	12.38	2.983
MM-55	9.00	14.00	5.00	4.10	3.019
MM-55	44.90	54.80	9.90	8.12	4.479
MM-56	7.50	12.60	5.10	4.18	1.152
MM-56	43.90	52.20	8.30	6.81	1.450
MM-57	46.55	59.55	13.00	10.66	3.558
MM-58	69.50	76.90	7.40	6.07	1.244
MM-59	56.20	62.30	6.10	5.00	1.912
MM-60	55.40	67.80	12.40	10.17	1.152
MM-61	40.60	49.10	8.50	6.97	0.813
MM-63	77.40	85.90	8.50	6.97	1.082
MM-65	95.20	102.20	7.00	5.74	1.217
MM-66	75.30	87.30	12.00	9.84	1.904
MM-69	9.40	18.00	8.60	7.05	0.814
MM-70	17.50	23.60	6.10	5.00	2.001
MM-72	46.00	53.40	7.40	6.07	0.343
MM-75	82.60	87.60	5.00	4.10	0.500
MM-76	82.30	89.30	7.00	5.74	0.796
MM-76	103.40	111.40	8.00	6.56	0.440

10.9 Comments on Section 10

Drilling methods and drill hole design are suitable for construction of a Mineral Resource model for the Tower East, Birch Crossing, and Memorial Deposits.

11.0 Sample Preparation, Analyses, and Security

11.1 Tower East

11.1.1 Drill Core Sampling and Analysis

It has been standard operating procedure to sample the entire drill hole from the 1984 through 1990 diamond drill programs as well as the more recent drill programs. The emphasis was to sample the entire hanging wall and the sampling of the footwall below the Byers Fault was left to the discretion of the geologist logging the drill hole. Typically, sampling was terminated when the drill hole was sufficiently through the Byers Fault.

Additional sampling has been performed on the PH series of drill holes drilled in 2003 and the T-143 through T-153 drilled in 2004 such that gaps in the sampling of the hanging wall not originally sampled have now been sampled. However, there are a few drill holes within the database where small sections of the hanging wall remain unsampled, notably a few holes from the 1987 drilling and minor gaps in the T-143 through T-153 series of drilling.

In the 1984 drilling program, a combination of 0.5 m and 1.0 m sample intervals were used to sample the hanging wall. Through the 1986 to 1990 drilling programs, the practice was to mark the drill core in 1-metre intervals from directly below the casing through to the end of the drill hole. This practice was modified slightly on occasion to make sampling intervals coincide with specific lithological contacts (veins, dykes, structures), but rarely would a sample interval be <0.5 m or >1.0 m.

During the 2003, 2004, and 2004-2005 drilling programs more emphasis was put on matching sample intervals with lithology and sample intervals typically were not <0.5 m or >1.5 m in length.

The geologist responsible for logging the drill hole marked the desired sample intervals on the drill core box with black marker and on the drill core with a china crayon indicating the start and end of an interval with a line perpendicular to the drill core and an arrow to define the from and to of each sample interval.

The geologist then gives each marked sample interval a sample number, marked the sample number on the core and core box, and recorded the sample interval and sample number in a sample book and later in an Excel® spreadsheet. The practice prior to the 2003 drilling was to record each sample interval in an assay-sample log sheet.

The marked drill core was split in half by manual core splitters (portion of 2004-2005 drilling by rock saw) with one half going into a sample bag (numbered with a marker, the corresponding sample tag inside), the bag was secured with a zip tie and then placed in a shipping pail. During the splitting of the drill core care was taken to ensure a representative split of the sample. The fines from each split sample were collected in bread pans below the splitter and included in the sample placed in the sample bag. The other half of the drill core was returned to the drill core box in its proper interval location.

Upon completion of sampling a drill hole, the entire hole was systematically placed in a core rack. Core boxes of split core are labelled with an aluminum tag indicating the drill hole number, box number and the measured from and to in metres of the core contained in each core box. All core recovered from the 1984 through 2004-2005 drill programs is stored sequentially in racks at the Tower Lake camp.

As operator of the Tower East project Golden Band, used SRC Geoanalytical Laboratories (Saskatoon) for assaying. For a brief period during the 2004-2005 drill program, TSL Laboratories (Saskatoon) was employed and their respective assay procedures are as follows:

At SRC, drill core samples were sorted and dried, jaw crushed to 60% minus 1.7 mm, riffled from which a 250 gram (g) aliquot split was obtained and pulverized to 90% minus 106 microns. A 30 g sample of rock pulp was then fire assayed followed by an ICP finish; results reported in ppb gold with a lower detection limit of 2 ppb gold. Repeat assays were performed at random; approximately every 37th sample; internal blanks and certified standards were analyzed with each sample consignment sent to the laboratory.

In 2005, 25 samples containing higher gold values were submitted for metallic gold assay at SRC. The metallic assay procedure consisted of jaw crushing the core sample to 60% minus 1.7 mm, riffling the sample, splitting the sample in half, pulverizing one half of the sample to 95% minus 106 microns and then screening the pulp at •106 microns. The •106-micron fractions are then weighed, and fire assays performed on all the +106 micron fraction and on the -106 micron fraction using two 30 g duplicates. Results for the plus and minus fractions are reported and, from this, the metallic gold assay is calculated and reported in grams/tonne as a weighted average of the -106 and +106 micron fractions.

Metallic assays were performed primarily to determine the relative contribution of fine and coarse gold fractions to the overall gold content in the high-grade samples. The metallic assays identified the gold to be primarily in the fine fraction and results compared favourably to the original fire assay.

At TSL Laboratories, drill core samples were sorted, dried, and then crushed in a jaw crusher to a minimum of 70% passing 1.7 mm (10 mesh). A representative split was obtained by passing the entire reject sample through a riffler. From this a 250 g split was obtained and pulverized to minimum 95% passing 106 micron (150 mesh) from which a 30 g charge was fire assayed with an atomic absorption finish and reported in ppb utilizing a lower detection limit of 5 ppb gold. Assay values 1,000 ppb gold or greater were re-assayed using FA/gravimetric finish (1 AT, short tons) and reported in g/t gold with a lower detection limit of 0.10 g/t gold. As part of TSL's protocol, repeat FA/AA assays were performed on every 10th sample and in-house standards were randomly inserted approximately every 20th sample for QC (quality control) purposes. At the end of assaying by TSL a brief QC report was supplied results of which suggest overall accuracy of assaying was good.

In the 2007 drill program, samples were submitted to Acurrassay Laboratories in Thunder Bay, Ontario for standard fire assay. Upon receipt in the lab, samples were dried and crushed in a jaw crusher so that 605 of the sample passed through a -1.77 mm square mesh aperture screen. The sample was then rifle split to obtain a 250 gram aliquot which was pulverized so that 90% of the sample passed through a 106 µm sieve. A fire assay was the carried out on a 30 gram representative sample split from the 106 µm fraction.

11.2 Assay Quality Assurance and Quality Control

Prior to Golden Band Resources Inc. involvement in the Tower East project, there were no QA/QC practices in place; as was the industry standard for the drilling that took place from 1984-1990. However, from 1986 through 1990 the operator of the project, Golden Rule Resources Ltd. was rigorous in their check assaying, sending numerous samples from each drill program for follow up check assaying at various laboratories. Golden Rule also used various assay techniques during the check assaying procedure including fire assay, metallic assays, 1 assay ton fire assay, 4-assay ton fire assay, assaying of the heavy mineral separates, assaying of pulps and coarse rejects, as well as assaying a second split of the original core retained in the core box.

Golden Band Resources Inc., as operator of the Tower East project, implemented a QA/QC program for the 2003, 2004 and 2004-2007 drilling programs.

As part of Golden Band Resources Inc. quality control procedures, a series of sample standards prepared by Rocklabs Ltd. of Auckland, New Zealand ("Rocklabs") are inserted during the sampling sequence. At every fifteenth sample in the sampling sequence a sample standard was inserted, given a number and recorded to provide an external check on the reproducibility of sample results. Internal checks at the laboratories used by Golden Band consisted of; at TSL of Saskatoon, SK, repeat FA/AA assays were performed on every 10th sample and commercial standards were randomly inserted approximately every 20th sample for QC (quality control) purposes; and at SRC of Saskatoon, SK, repeat assays were performed at random; approximately every 37th sample; internal blanks and certified standards were analyzed with each sample consignment sent to the laboratory. Both labs used for the 2004-2005 drill programs provided QC Reports.

In 2007, five reference standards and a sample blank prepared by Rocklabs with known gold values of 0.919, 1.315, 1.326, 2.643, and 8,367 were inserted at random into the sample sequence at the rate of approximately one in every eleven samples. Results were acceptable with no significant sample bias.

11.3 Sample Security

Samples collected at the Tower Lake project were placed in well-marked sample bags with the corresponding sample tag placed inside the bag, securely tied with a zip tie (staples were used 1988-1990 drill programs). A completed sample was then placed in a 20-litre sample pail. Once the pail was full, (approximately 7-10 samples per pail) the samples contained in each pail and the hole from which the samples were from, were recorded on a form.

Prior to shipping of sample consignments from the field the number of pails and contained samples were recorded. All pails were tightly secured with lids and reinforced with packing tape. A local expediter from La Ronge was used to transport the samples from the Tower Lake camp to La Ronge and then directly to a shipping outlet from where the samples were trucked to Saskatoon for assaying. Upon arrival both labs instructed Golden Band head office of their arrival and samples received were cross-referenced with samples listed on the shipping form that accompanied the sample consignment.

11.4 Density Determinations

Specific gravity measurements were performed on 16 core samples from the mineralized zone. Results are shown in Table 11-1.

Table 11-1 Tower East Density Measurements

Sample	Hole	Depth	Length (mm)	Diameter (mm)	Grade of assay interval (g/t Au)	Lithology	SG (g/cc)
7	T05-167	68.0	39.8	47.40	0.601	Foliated Diorite	2.63
11	T05-169	82.0	59.4	47.40	1.940	Foliated Diorite	2.78
15	T05-182	33.8	63.05	47.45	0.780	Foliated Diorite	2.68
16	T05-182	56.3	48.8	47.45	0.100	Foliated Diorite	2.86
19	T05-186	22.1	58.5	47.15	4.160	Foliated Diorite	2.73
22	T05-191	50.0	38.2	47.50	2.576	Foliated Feldspar Porphyry	2.62
6	T05-167	55.5	37.0	47.35	0.831	Foliated Quartz Diorite	2.67
10	T05-169	55.0	51.35	47.50	3.080	Foliated Quartz Diorite	2.83
14	T05-172	75.0	64.35	47.25	0.500	Foliated Quartz Diorite	2.70
17	T05-185	41.5	52.95	47.35	0.196	Foliated Quartz Diorite	2.96
12	T05-169	103.0	38.45	47.45	0.070	Foliated Quartz Diorite	2.68
2	T05-166	26.0	49.95	47.40	0.010	Massive Diorite	2.78
24	T05-192	61.0	18.35	47.65	0.094	Massive Diorite	2.87
4	T05-166	35.7	55.9	47.45	0.006	Massive Felsic Dyke	2.65
1	T05-166	11.0	62.15	47.40	0.002	Massive Quartz Diorite	2.69
3	T05-166	33.0	55.6	47.45	0.011	Massive Quartz Diorite	2.80

SGS Lakefield Research (2006) also carried out specific gravity and bulk density measurements on the Tower East metallurgical composite by gas pycnometer comparison. The in-situ bulk density was reported as 2.73.

11.5 Databases

Project exploration data has been compiled in spreadsheets. All digital laboratory certificates are available as well as the old hardcopy information. The data has been compiled into an Access database by Geosim for mineral resource estimation.

11.6 Memorial

11.6.1 Drill Core Sampling and Analysis

Potential mineralized intervals of Memorial drillcore were identified based on the visual identification of strong hydrothermal alteration and/or sulfide mineralization. These intervals were split on nominal one metre intervals and submitted to the Saskatchewan Research Council (SRC) in Saskatoon for standard fire assay with an atomic absorption finish (AA) for gold on representative 30 g sub-samples.

Golden Band used the Saskatchewan Research Council (SRC) Laboratory in Saskatoon as the primary assay lab for the Memorial project. The assay procedures are as follows:

At SRC, drill core samples were sorted and dried, jaw crushed to 60% minus 1.7 mm, riffled from which a 250 g aliquot split was obtained and pulverized to 90% minus 106 microns. A 30 g sample of rock pulp was then fire assayed followed by an ICP finish; results reported in ppb Au with a detection limit of 1 ppb Au. Repeat assays were performed at random; approximately every 37th sample; internal blanks and certified standards were analyzed with each sample consignment sent to the laboratory.

A total of 27 samples from 21 drill holes containing visible gold or assaying greater than 20 g/t Au were re-assayed by metallic screen assay at SRC. The Metallic Assay procedure used is as follows:

- Jaw crush sample to 60% -1.7 mm
- split sample in half
- pulverize one half sample to 95% -106 microns
- screen pulp ±106 microns.
- Weigh and fire assay the ±106 micron fractions in 30 g duplicates
- Calculate the Metallic gold assay and report in g/tonne.

Metallic assays were performed to determine the relative contribution of fine and coarse gold fractions to the overall gold content in the high-grade samples. Results indicated a variation of gold content in the sub 106 micron fraction ranging from 31 to 98% with a median content of 86% in the finer fraction.

11.6.2 Assay Quality Assurance and Quality Control

Commencing in 2003, Golden Band adopted rigorous quality control procedures including a series of purchased sample standards prepared by Rocklabs. The samples were provided as individually bagged pulps. A sample standard was inserted at every fifteenth sample in the sampling sequence, given a number and recorded to provide an external check on the reproducibility of sample results.

Although reference standards were routinely inserted in the sample stream, Golden Band did not have an established protocol for standard monitoring in place. This should have consisted of the examination of sample sequence plots (control charts) on a batch by batch and monthly basis to ensure that the results are unbiased and do not exhibit significant trends.

Examination of the sample sequence plots prepared by Simpson (2006) revealed that SRC had a consistent bias towards under-estimating the reference materials by 2.5 to 5%. The average values from the 2004/2005 drilling program were also 1-2% lower than those from 2003.

For standards, the accepted range should be the accepted value plus or minus two standard deviations and less than 5% of the results from the submitted standard material should fall outside these limits. Using Rocklab's statistics, the percent of SRC standards assaying outside these limits was between 29% and 57%. This is clearly unacceptable and should have been addressed early in the program. After adjusting for the low bias an average of 8% of the standard assays fell within 2 standard deviations of the adjusted means and only 2 samples were beyond 3 standard deviations.

In the author's opinion, these results do not preclude the use of the drill hole assays in a resource estimate. However, the low bias revealed by the reference standard assays will potentially result in a minor under-estimation of resource grade.

No regular check assays were performed other than the repeat analyses at SRC. For future programs it is recommended that regular checks of pulps or rejects be carried out at another laboratory.

Internal checks at the SRC laboratory used by Golden Band consisted of:

- Repeat assays were performed at random; approximately every 37th sample
- internal blanks and certified standards were analyzed with each sample consignment sent to the laboratory.

Twenty-two out of the 24 samples that assayed over 20 g/t Au from core drilled between 2003 and 2005 were re-analyzed using the metallic screening method for coarse gold. A further 17 samples assaying between 0 and 20 g/t were also analyzed using this procedure.

11.6.3 Sample Security

Samples collected at the Memorial project were placed in well-marked sample bags with the corresponding sample tag placed inside the bag, securely tied with a zip tie. A completed sample was then placed in a 5-gallon sample pail. Once the pail was full, approximately 7 - 10 samples per pail, the samples contained in each pail and the hole from which the samples were from were recorded on a form. Once there was a significant amount of sample pails that would justify a trip by the local expediter (minimum of approx. 24 sample pails), the sample consignment would be transported from camp. Prior to shipping of sample consignments from the field the number of pails and contained samples were recorded, all pails were tightly secured with lids and reinforced with packing tape. A local expediter from La Ronge was used to transport the samples from the Tower Lake camp to La Ronge and then directly to a shipping outlet from where the samples were trucked to Saskatoon for assaying. Upon arrival both labs instructed Golden Band head office of their arrival and samples received were cross-referenced with samples listed on the shipping form that accompanied the sample consignment.

11.6.4 Density Determinations

Bulk density measurements were performed on 25 core samples from the mineralized zone. The average value was 2.83. Results are shown in Table 11-2.

Table 11-2 Memorial Density Measurements

Hole	Interval / m	SG
MM-36	33.8 - 34.7	2.68
MM-37	21.7 - 22.7	2.72
MM-24	84.9 - 85.9	2.73
MM-35	52.8 - 53.8	2.74
MM-26	34.6 - 35.6	2.76
MM-35	134.0 - 135.0	2.76
MM-29	20.9 - 21.9	2.78
MM-35	51.8 - 52.8	2.78
MM-07	41.9	2.81
MM-19	12.8 - 13.8	2.82
MM-07	32.6	2.82
MM-34	44.9 - 45.7	2.83
MM-07	57.1	2.83
MM-19	11.8 - 12.8	2.84
MM-07	12.5	2.84
MM-07	38.4	2.86
MM-07	55.9	2.86
MM-20	31.1 - 32.1	2.87
MM-19	28.5 - 29.5	2.88
MM-30	69.1 - 69.9	2.88
MM-31	35.6 - 36.6	2.88
MM-07	66.6	2.88
MM-07	47.6	2.94
MM-07	88.5	2.99
MM-07	62.25	3.04

SGS Lakefield Research (2006) also carried out specific gravity and bulk density measurements on the Memorial metallurgical composite by gas pycnometer comparison. The in-situ bulk density was reported as 2.85.

11.7 Birch Crossing

11.7.1 Drill Core Sampling and Analysis

During the 2004 and the first half of the 2005 Birch Crossing drill program, the holes were sampled selectively based on a visual identification of favourable sulphide mineralization and alteration. These holes had additional sampling completed later. Since that time, it has become standard practice to sample the entire hole with nominal 1-1.5 m wide samples, breaking samples along lithological lines as much as possible.

During the 2007 drill program, 18 samples from nine Birch Crossing drill holes were re-assayed by metallic screen assay to determine the relative contribution of fine and coarse fractions to the overall gold content in high grade samples (>10 g/t Au).

Core to be sampled was marked with a vertical line perpendicular to the core axis. Each interval was assigned a sample number, which was marked on the core as well as on the box edge immediately adjacent to the sample. The sample numbers and intervals were recorded in a sample book, on the drill log, and later in an Excel® spreadsheet. Red lumber crayons or china markers were used to mark the sample intervals with arrows marking the start and end of each sample.

At the Saskatchewan Research Council (SRC) Laboratories, drill core samples were sorted and dried, jaw crushed so that 60% of the sample passes through a -1.7 mm mesh aperture screen. The sample was then riffle split to obtain a 250 gram aliquot which was pulverized so that 90% of the sample split passed through a 106 µm sieve. From the resulting 106 µm fraction a 30 gram sample of rock pulp was fire assayed followed by an ICP finish. The results were reported in parts per billion gold (ppb Au), with a lower detection limit of 2 ppb gold. Repeat assays were performed at random, approximately every 37th sample; internal blanks and certified standards were analyzed with each sample consignment sent to the laboratory.

Golden Band switched to Accurassay Laboratories beginning in January 2007. The sample preparation was similar to that of the SRC: samples were entered into Accurassay's Local Information system, dried and jaw crushed such that the sample could pass through a –8 mm mesh. The sample was then riffle split and pulverized to 90%-150 mesh and matted to ensure homogeneity. Silica sand was used to clean out the pulverizing dishes between each sample to prevent cross contamination. A 250-400 gram (g) aliquot split was obtained from the sample. From this, a ~30 g sample of rock pulp was fire assayed. As part of Acurassay's QA/QC procedures, repeat samples were routinely completed on every tenth assay sample submitted to the lab for analysis.

Seventy-eight samples have been re-assayed by metallic screen assay, to determine the relative contribution of fine and coarse fractions to the overall gold content in high grade samples (>10 g/t Au) and to confirm high gold values of up to 614 g/t Au obtained by earlier fire assays.

The metallic assays completed on samples from Birch Crossing have had very good correlation with the values obtained by fire assay, due to the very fine-grained nature of the gold from the deposit.

In the 2007 drill program, samples were submitted to Acurrassay Laboratories in Thunder Bay, Ontario for standard fire assay. Upon receipt in the lab, samples were dried and crushed in a jaw crusher so that 605 of the sample passed through a -1.77 mm square mesh aperture screen. The sample was then rifle split to obtain a 250 gram aliquot which was pulverized so that 90% of the sample passed through a 106 μm sieve. A fire assay was the carried out on a 30 gram representative sample split from the 106 μm fraction.

11.7.2 Assay Quality Assurance and Quality Control

To test the precision and accuracy of the assay lab, a sample standard with a known gold value, purchased from Rocklabs Ltd. (Auckland, New Zealand), was inserted into the sample stream for every fifteen samples sent to the laboratory for analysis. Five such standards were purchased with known assay values of 0.819, 1.315, 1.326, 2.643 and 8.367 ppm Au. Of the available selection of sample standards, one was randomly selected for each designated sample, and then a rotation of sample standards continued in this fashion such that a batch of seventy-five samples typically contained one of each of the five standards. These sample standards are reliable to +/-5%. When assay results were returned, the deviance between the reported and known value for each sample standard should be plotted on sample sequence charts. If values are consistently outside of the reliable range, or are being consistently under- or over-reported, the assay lab responsible should be consulted with, and samples batches re-run to check for possible error.

Starting with the summer and fall 2006 drilling, sample blanks, guaranteed to have less than 4 ppb Au, were inserted in rotation with the sample standards detailed above. A blank was also inserted whenever a sample was thought to be likely to carry significantly elevated gold to detect for sample contamination and test how well the sample lab cleans their apparatus after each sample.

During the 2005 drilling program there was no apparent monitoring of standard and blank analyses. Sample sequence charts generated by Simpson (2006) revealed a significant change between the SRC and the Accurassay results starting at hole BC-66. A considerable number of standard assays were beyond acceptable limits of 2 and even 3 standard deviations for all of the four main standards. Furthermore, 37% of the blank analyses were above the detection limit of 5ppb.

This appeared to be a laboratory performance problem except that standard SJ-10 showed a similar pattern with holes BC49 to BC-62. Golden Band personnel suggested that some of the standard/blank material used at this time may have been contaminated by mis-handling at the Saskatoon storage area. As a test of this hypothesis, 20 remaining standard from the Tower East camp were sent to 3 different laboratories for assay (SRC, ALS-Chemex and TSL). Five samples for each standard were represented and analyzed by conventional fire assay. None of the samples showed any consistent deviation from the proportional mean value and the test was deemed inconclusive.

In order to help resolve this issue, Simpson recommended that pulps from the Accurassay samples be sent to a second laboratory for re-checks. The 195 selected intervals were all those from the 2007 drill program used in the present resource estimate. Golden Band reported that the pulps were unavailable but that coarse rejects had been located for 130 (66%) of the intervals. These were sent to the ALS Chemex laboratory in Vancouver for assaying. Results showed a reasonable correlation considering the high nugget effect but 15% of the sample pairs showed considerable variation. In view of this, Simpson recommended that the resulting pulps from ALS be renumbered and sent back to Accurassay for re-checks in order to have a direct pulp comparison between laboratories. This suggestion was not adopted as, in the meantime, the original pulp samples had been located. These were subsequently renumbered and sent back to Accurassay (the primary lab) for analysis.

The pulp rechecks showed a good correlation with the original assays with an R^2 value of 0.96. One sample showed an extreme difference of 10.4 g/t in the original assay and 0.129 g/t in the recheck. A metallic screen assay for the same sample gave 3.755 g/t so this variation may have been due to a rare case of coarse gold. Unfortunately, the coarse reject for this sample was unavailable so it was not analyzed at ALS-Chemex.

In the author's opinion, the original Accurassay fire assays are very likely valid and the final gold grades used in the resource estimate were the averages of all available re-checks except where the metallic screen method was used and given precedence.

Simpson (2006) recommended that 5% of the samples be routinely assayed at a secondary analytical laboratory as part of the QA/QC program.

In 2007, five reference standards and a sample blank prepared by Rocklabs with known gold values of 0.919, 1.315, 1.326, 2.643, and 8,367 were inserted at random into the sample sequence at the rate of approximately one in every eleven samples. Results were acceptable with no significant sample bias.

11.7.3 Sample Security

Samples were divided in half, perpendicular to the axis of foliation, using a manual core splitter. An arbitrary but consistent half of the core was placed into a sample bag along with a sample tag with the sample number on it, with the remaining half of the sample being returned to the core box for future study. In the case of a manual core splitter being used to divide the sample, the fines from each split sample were collected in bread pans below the splitter and included with the sample placed in the sample bag. Sample bags had the sample number marked on them with a permanent marker.

The full bags were sealed with zip ties and placed in a 5-gallon pail. The pails were closed with lids that became tamper proof once sealed. A list of the samples contained within each pail was marked on the lids.

The samples were transported to La Ronge in consignments consisting of 20 to 40 pails, by an expediter or Golden Band employee. They were then shipped via a trucking company to the geoanalytical lab in use. This was the Saskatchewan Research Council lab in Saskatoon, Saskatchewan from 2004-2006, and in 2007 was the Accurassay Lab in Thunder Bay, Ontario. The assay lab notified the Golden Band Resources Inc. office upon receipt of a sample consignment and stated whether any pails had been damaged or tampered with.

All core boxes used were labeled on the front of the box with aluminum tags noting the hole number, box number and box interval (depth from and to). The boxes were then systematically placed in core racks or were stacked for future reference.

11.7.4 Density Determinations

No density measurements have been made on material from the Birch Crossing deposit.

11.8 Comments on Section 11

Sampling, sample preparation, analytical methods, data quality assurance and sample security protocols used on early exploration programs prior to 2003 are not up to current industry standards. However, beginning in 2003 and in subsequent work carried out by Golden Band modern practices have been employed, addressing gaps in legacy procedures. This involved assay data quality control protocols including the use of blanks, certified reference materials, and duplicate samples to control the quality of gold assaying.

A low bias issues with standard references noted in pre-2006 drilling was resolved by using new standards and switching analytical laboratories in 2007.

12.0 Data Verification

12.1 Data Verification by the QPs

12.1.1 Drill Hole Location

On July 27, 2005, R. Simpson verified the location of two drill holes collars at Tower East (T05-215 and T05-170) and one collar at Memorial (MM-06) by handheld GPS (Figure 12-1).

On July 24, 2007 R. Simpson verified the location of a single drill collar at Birch Crossing (BC-031) by handeld GPS.

On September 22, 2020, F. Hrdy verified the location of 2 drill hole collars at Tower East (T-218 and T-216) but there were no physical remains as these were drilled during the winter of 2007 and are located near the edge of Tower Lake.

Figure 12-1 Tower East Drill Collar T05-215

12.1.2 Drill Core Logging

R. Simpson visited the core storage site at Tower East which includes drill core from the Memorial and Birch Crossing deposits. Drill core was examined, and it was verified that:

- Drill logs compared reasonably well with core intervals

- Core recoveries were generally high through the mineralized zones

Drill core has been stored outside in wooden racks, some of which have collapsed or possibly been vandalized.

12.1.3 Database Validation

Tower East

R. Simpson checked a total of 2824 sample intervals (approximately 10% of the database) against assay certificates and found 9 data entry errors. The represents an average error of 0.32% and is within acceptable limits.

The entire drill hole database was also audited in Surpac© for interval errors or inconsistencies and several corrections were made.

Memorial

R. Simpson checked 675 sample intervals (approximately 15% of the database) against assay certificates and found 2 data entry errors, one of which was an omitted repeat value. The represents an average error of less than 0.05% and is well within acceptable limits.

The entire drill hole database was also audited in Surpac for interval errors or inconsistencies and several corrections were made.

Birch Crossing

R. Simpson checked 1,324 records (18% of the database) from the digital assay certificates against the database and found 1 misplaced repeat sample. This represents an error level of less than 0.1% and is considered acceptable.

Additional validation checks were performed when the data was imported to Surpac© software for modeling. This included detection of overlapping intervals and any inconsistencies between survey and sample depths. Visual checks were also used to check for errors in downhole surveys.

12.1.4 Independent Samples

R. Simpson collected 3 samples of Tower East drill core on July 25, 2005 and these were submitted to ACME Laboratories of Vancouver for fire assay. The results (Table 12-1) compared reasonably well with the intervals in the assay database.

Table 12-1 Independent Sample Results - Tower East

Sample #	Hole	Depth	Au (g/t)	Original Sample #	From	To	Au (g/t)	Repeat (g/t Au)
TE01	T05-190	70	0.87	35528	69	70	0.252	
				35529	70	71	3.64	
TE02	T88-69	82.5	0.46	35200	82	83	1.48	
TE03	T90-142	80	2.22	15130	79	80	1.52	2.33
				15131	80	81	1.6	1.29

R. Simpson collected 2 samples of Memorial drill core during a site visit on July 27, 2005 and these were submitted to ACME Laboratories of Vancouver for fire assay. The results are shown below:

Table 12-2 Memorial - Independent Sampling Results

Sample	Hole	Depth	Au g/t	Original Sample		
				From	To	Au (g/t)
MEM01	MM-03	48.0	10.35	47.00	48.00	4.84
MEM02	MM-20	9.0	0.50	8.60	9.60	0.87

12.2 Comments on Section 12

The process of data verification indicates that the data collected by Golden Band and previous operators adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposits, and adequately support the geological interpretations for the purpose of Mineral Resource estimation. The QPs are of the opinion that the analytical and database quality are adequate for the purposes of the estimation of Mineral Resources.

13.0 Mineral Processing and Metallurgical Testing

13.1 Metallurgical Sampling

In 2005 samples were collected for metallurgical testing from Tower East and Memorial and delivered to SGS Minerals Services("SGS") for testing. Details are presented in Table 13-1.

Table 13-1 Samples sent to SGS in 2005

Deposit	DH ID	From (m)	To (m)	Width (m)	Diam (cm)	Wt (kg)
Memorial	MM-19	3.7	7.0	3.3	4.763	7.9
	MM-20	18.7	25.1	6.4	4.763	16.4
	MM-30	52.5	67.3	14.8	4.763	35.6
	MM-44	8.1	14.8	6.7	4.763	16.1
	MM-47	17.4	22.5	5.1	4.763	12.3
	MM-53	28.6	35.5	6.9	4.763	16.6
	MM-55	6.0	10.0	4.0	4.763	9.6
	MM-66	67.3	74.3	7.0	4.763	16.9
Tower East	T-168	42.5	51.5	9.0	4.763	21.7
	T-169	51.0	58.0	7.0	4.763	16.9
	T-172	12.5	15.5	3.0	4.763	7.2
	T-172	37.0	40.2	3.2	4.763	7.7
	T-182	43.0	47.0	4.0	4.763	9.6
	T-186	16.9	21.0	4.1	4.763	9.9
	T-188	19.5	26.0	6.5	4.763	15.6
	T-190	47.0	56.0	9.0	4.763	21.7
	T-196	51.5	57.5	6.0	4.763	14.4

13.1.1 Tower East

Eight PQ-diameter drill holes (TBT90-1 through TBT90-8; 970 m) were drilled by Golden Rule Resources in 1990 into mineralized zones of the Tower East deposit. A 13.1 tonne bulk sample was recovered for metallurgical testing. The sample was subsequently deemed to be of insufficient grade, never underwent metallurgical testing, and was subsequently discarded (Fraser and Lahusen, 1990).

13.1.2 Memorial

In 1999, rejects from a 33 m long section of drill core from hole MM98-7 were submitted to the Saskatchewan Research Council for cyanide leach tests.

13.1.3 Birch Crossing

No metallurgical sampling or testwork has yet been carried out on material from the Birch Crossing deposit.

13.2 Metallurgical Testwork

13.2.1 Tower East and Memorial

In 2005, a program at SGS evaluated the general metallurgical response of the composites to gravity separation, flotation, and cyanidation processes. In addition, general ore characterisation tests; including head analysis, bulk density determination, comminution testing, and general ore mineralogy were completed.

13.2.2 Memorial

An ICP multi-element scan was performed on the composite sample used in the leach test. The products defined in larger quantities such as Al_2O_3, CaO and MgO suggest alkaline residue from treatment. There does not appear to be mineralization outlining another mineral of value. Base metals such as Cu, Pb, Ni and Zn have low values unsuitable for processing and insignificant in terms of environmental concern. As and Hg were very low as well.

Samples were crushed to minus 2mm then ground to 95% minus 200 mesh in a puck and ring grilder. Triplicate assays for Au by Fire Assay flame AA were initially done on the sample pulp. Weight of the final sample was 35.4 kg and assayed 2.22 g/t. A 40% slurry was made with deionized water and PH buffered with $Ca(OH)_2$. Once the pH was stabilized at pH = 11, 3 g/l NaCN was added to the slurry. Cyanide was determined by titration with 0.1 N $AgNO_3$ using 4 Dimethlaminobenzylidene rhodanine indicator. If the PH fell below PH: 10, more $Ca(OH)_2$ was added' If the NaCN concentrations fell below 2 g/l additional NaCN was added. Au was determined in the cyanide leach solutions by flame AA using background correction. Finally, the tails were analyzed by Fire Assay flame AA and a mass balance was done for gold.

13.3 Metallurgical Testwork Results

Testwork on the Tower East and Memorial deposits was undertaken on single composite samples. No testwork has been conducted to date on the Birch Crossing deposit.

13.3.1 Head Analysis

One kilogram charges of each composite were submitted for screened metallics analysis at ±150 mesh. Other samples were submitted for S analysis, semi-quantitative ICP scan analysis and specific gravity determination (by gas comparison pycnometer). The complete head analyses are presented in Table 13-2.

Table 13-2 Screened Metallics Analysis for Au

Composite	Calculated Head, g/t Au	+150 Mesh		-150 Mesh					% Au Distribution	
		% Mass	Au g/t	% Mass	A	B	C	D	+150 Mesh	-150 Mesh
Memorial	2.77	3.0	12.2	97.0	2.66	2.03	2.30	2.94	13.2	86.8
Tower East	2.27	2.4	6.84	97.6	2.25	2.07			7.2	92.8

The gold head grade variation (and calculated head grade averages) from the various tests is illustrated in Table 13-3.

Table 13-3 Calculated Gold Head Grades

Composite	Au Grade, g/t	
	Memorial	Tower East
Individual Test Head Grades	2.66	2.32
	2.21	2.37
	2.58	2.26
	2.42	2.22
	1.97	2.19
	2.61	2.21
		2.03
Testwork Average	2.41	2.23
Direct (Screened Metallics) Head	2.77	2.27

13.3.2 Comminution Testwork

Samples of each composite were submitted for standard Bond rod mill and ball mill grindability testing. The summarised results are presented in Table 13-4 and Table 13-5.

Table 13-4 Bond Rod Mill Grindability Results

Composite	Feed (F_{80}), µm	Product (P_{80}), µm	Closing Screen, µm	RMWI	
				Imperial	Metric
Memorial	9,106	896	1,180	15.0	16.5
Tower East	9,601	922	1,180	15.8	17.4

From the results is was concluded that the material would be considered to be generally harder than average in terms of rod mill grindability compared to the A.R. MacPherson Grinding Specialists database.

Table 13-5 Bond Ball Mill Grindability Results

Composite	Feed (F_{80}), µm	Product (P_{80}), µm	Closing Screen, µm	RMWI	
				Imperial	Metric
Memorial	2,405	1,119	150	16.6	15
Tower East	2,156	120	150	14.7	16.2

The ball mill work indices are considered to be medium in terms of grindability compared to the A.R. MacPherson Grinding Specialists database.

13.3.3 Gravity Separation Testwork

Gravity separation tests were conducted prior to cyanidation tests on the gravity tailings with results for Tower East shown in Table 13-6. At the tested head grade, between 27 and 43% of Memorial gold can be recovered by gravity while between 25 and 40% of Tower East gold can be recovered.

Table 13-6 Gravity Separation Results

Composite	Test	Feed Size K_{80}, µm	Product	Weight %	Assays g/t Au	% Au Distribution
Memorial	G-11	71.0	Concentrate	0.038	**1,879**	**29.4**
			Tailing	99.96	1.71	70.6
			Calculated Head	100.0	2.42	100.0
	G-12	68.0	Concentrate	0.069	**769**	**26.8**
			Tailing	99.93	1.44	73.2
			Calculated Head	100.0	1.97	100.0
	G-4	55.0	Concentrate	0.013	**8,742**	**43.2**
			Tailing	99.99	1.48	568.0
			Calculated Head	100.0	2.61	100.0
			Direct Head		2.77	
Tower East	G-7	81.0	Concentrate	0.088	**1,000**	**39.5**
			Tailing	99.91	1.35	60.5
			Calculated Head	100.0	2.22	100.0
	G-8	79.0	Concentrate	0.102	**782**	**36.3**
			Tailing	99.9	1.4	63.7
			Calculated Head	100.0	2.19	100.0
	G-14	76.0	Concentrate	0.012	**4,408**	**24.4**
			Tailing	99.99	1.67	75.6
			Calculated Head	100.0	2.21	100.0
	G-2	52.0	Concentrate	0.026	**2,496**	**32.2**
			Tailing	99.97	1.37	67.8
			Calculated Head	100.0	2.03	100.0
			Direct Head		2.27	

13.3.4 Cyanidation Testwork

Whole ore cyanidation tests were completed in order to determine optimum grind size and evaluate basic operating requirements such as retention time and reagent requirements. Primary grind sizes tested ranged from approximately 140 µm to about 60 µm (P_{80}). Results from the three tests completed are shown in (Table 13-7).

Table 13-7 Whole Ore Cyanidation Test Results

<table>
<tr><th rowspan="2">Composite</th><th rowspan="2">Test</th><th rowspan="2">Feed Size K80, µm</th><th colspan="2">Reagent Consumption kg/t of CN Feed</th><th colspan="4">% Gold Extraction / Recovery</th><th rowspan="2">Residue Grade, g/t Au</th><th colspan="2">Reagent Consumption kg/t of CN Feed</th></tr>
<tr><th>NaCN</th><th>CaO</th><th>3 h</th><th>7 h</th><th>24 h</th><th>48 h</th><th>Calc.</th><th>Direct</th></tr>
<tr><td rowspan="3">Memorial</td><td>CN-12</td><td>95</td><td>1.28</td><td>0.60</td><td>8</td><td>25</td><td>54</td><td>**85.1**</td><td>0.40</td><td>2.66</td><td rowspan="3">2.77</td></tr>
<tr><td>CN-11</td><td>75</td><td>1.52</td><td>0.70</td><td>8</td><td>28</td><td>53</td><td>**78.0**</td><td>0.49</td><td>2.21</td></tr>
<tr><td>CN-10</td><td>65</td><td>2.03</td><td>0.72</td><td>5</td><td>21</td><td>52</td><td>**69.9**</td><td>0.78</td><td>2.58</td></tr>
<tr><td rowspan="3">Tower East</td><td>CN-6</td><td>123</td><td>0.07</td><td>0.64</td><td>33</td><td>58</td><td>84</td><td>**91.8**</td><td>0.19</td><td>2.32</td><td rowspan="3">2.27</td></tr>
<tr><td>CN-5</td><td>99</td><td>0.17</td><td>0.61</td><td>31</td><td>57</td><td>90</td><td>**94.1**</td><td>0.14</td><td>2.37</td></tr>
<tr><td>CN-4</td><td>66</td><td>0.61</td><td>0.52</td><td>10</td><td>43</td><td>92</td><td>**95.8**</td><td>0.10</td><td>2.26</td></tr>
</table>

For the Tower East composite, gold recovery seems to have been positively impacted by finer grinding but for the Memorial sample there is less correlation between finer grinding and lower leach residue grade. The erratic recoveries and residue gold grades are primarily the result of the nugget effect. Low dissolved oxygen content in the finer ground Memorial testwork resulted in very slow initial extraction kinetics and likely reduced the ultimate extractions somewhat.

Due to the known presence of a nugget effect in the material, actual gold recoveries calculated for the various leach tests completed on a given composite tended to be somewhat erratic.

13.3.5 Gravity Tailing Cyanidation

Due to the somewhat erratic results generated from the whole ore leach testwork, subsequent cyanidation tests were conducted on samples after having been processed through a gravity circuit to remove problematic coarse gold. Pyrrhotite was also pacified by pre-aeration. Results are presented in Table 13-8.

Table 13-8 Gravity Tailings Cyanidation Test Results

Composite	Test	Feed Size K_{80}, µm	Preaer hrs	Reagent Consumption kg/t of CN Feed		% Gold Extraction / Recovery					
				NaCN	CaO	4 h	8 h	24 h	48 h	Grav +CN	Grav.
Memorial	CN-22	71	4	0.45	0.49	36	42	64	**80.7**	**86.4**	**29.4**
	CN-24	68	4	0.30	0.44	43	52	78	**84.4**	**88.6**	**26.8**
	CN-16	55	19	0.09	0.30	64	75	85	**87.5**	**92.9**	**43.2**
Tower East	CN-19	81	4	<0.02	0.26	51	64	88	**91.1**	**64.6**	**39.5**
	CN-20	79	4	0.02	0.27	51	62	88	**91.1**	**94.3**	**36.2**
	CN-14	52	19	0.08	0.22	56	76	91	**93.8**	**95.8**	**32.2**

Composite	Test	Residue Grade, g/t Au	Head Grade, g/t Au		
			Calc. CN	Cal Grav.	Direct
Memorial	CN-22	0.33	1.71	2.42	2.77
	CN-24	0.23	1.44	1.97	
	CN-16	0.19	1.48	2.61	
Tower East	CN-19	0.12	1.35	2.22	2.27
	CN-20	0.13	1.40	2.19	
	CN-14	0.09	1.37	2.03	

Of particular note in the gravity tailing cyanidation testwork was:

- Significantly faster initial leach kinetics
- Dissolve oxygen levels were well above the 4 mg/L level which is taken to be adequate for cyanide leaching under otherwise normal circumstances.
- Much lower cyanide consumptions than in the who9le ore testwork. This was also likely due to the pacifying of pyrrhotite through pre-aeration.

Overall gold recoveries ranged from about 86% to 93% from the Memorial composite.

Tower East gravity + cyanidation gold recoveries were rather similar in test completed at 81 µm (94.6% gold recovery) and 53 µm (95.8% gold recovery).

The generally very low cyanide consumptions indicated in this testwork should be verified through additional testing.

13.3.6 Memorial – 1999 Testwork

ICP Multi-Element Analysis

Results of the multi-element ICP scan of the composite sample are presented in Table 13-9.

Table 13-9 Memorial Metallurgical Composite ICP Results

Compound	Analysis (%)	Element	Analysis (ppm)	Element	Analysis (ppm)	Element	Analysis (ppm)
Al2O3	11.60	Pb	8	Zn	101	La	13
Fe2O3	11.18	U	2	Ni	37	Sr	335
CaO	7.92	Cd	0.2	As	2.9	W	20
P2O5	0.245	V	131	Bi	5.9	Sc	28
TiO2	0.914	Y	21	Te	2.5	Cu	46
MgO	3.955	Th	4	Li	19	Co	28
K2O	1.549	Ba	358	Mo	1	Ag	1.4
Na2O	2.6	Sn	1	Cr	221	Sb	0.2
MnO	0.172	Nb	2	Zr	101	Se	0.2
						Hg	0.02

Results yielded relatively high values of CaO and MgO which will neutralize the acid generation capabilities of the pyrrhotite and other sulphides. The base metal contents of Cu, Zn and Mo are quite low reducing the cyanide consumption. Hg and As levels are very low, reducing the potential of environmental contamination during waste treatment.

Cyanide Leach Test

Over the total length of the leach (66 hours) the sample consumed a total of 79.65 g NaCN or 2.25 g of NaCN/kg of material. The overall rate of NaCN consumption is approximately 1.21 g of NaCN/hour. Approximately 84% of the gold in the ore was cyanide extractable.

Table 13-10 Memorial Cyanide Leach Test Results

Time Hrs.	PH	NaCN	Au ppm slurry	Au ppm extracted	Au %** extracted
0	11.5	3	-	-	-
1	11.6	3	0.71	1.07	41.2
5	11.6	2.9	0.92	1.38	53.1
17	11.5	2.6	1.21	1.82	70
25	11.5	2.5	1.3	1.95	75
43	11.5	2.1	1.41	2.12	81.5
48	11.5	2	1.42	2.13	81.9
48.1	11.5	*3.0	-	-	-
66	11.5	2.5	1.45	2.18	83.8

* After 48 hours another 53.1 g of NaCN was added to increase the overall concentration 3 g/l

$$**\%Au = \frac{\text{cyanide extractable Au ppm}}{\text{cyanide extractable Ay ppm + Tails assay Au ppm}} \times 100$$

Head assay Au	2.22	± 0.07 ppm
Tails assay Au	0.42	± 0.10 ppm
Cyanide extractable Au	2.18	± 0.06 ppm

13.4 Recovery Estimates

13.4.1 SGS Testwork

SGS concluded that Tower East and Memorial contain some relatively coarse free gold which can be readily recovered by gravity concentration within the grinding circuit. The presence of this coarse gold adversely affected test reproducibility and precision, but the testwork nevertheless shows that relatively high extractions of gold can be obtained by 48 hour conventional cyanidation preceded by gravity concentration. For the expected mill feed, and assuming that the untested materials respond in a similar manner, combined gravity recovery and cyanidation extraction is expected to be in the range of 91 to 95% for Tower East at moderate levels of cyanide and lime consumption. For Memorial the range is 85 to 93%.

Estimates of recovery are not well established and additional metallurgical testwork is required to confirm metallurgical performance, including further cyanidation tests, thickening tests, cyanide destruction if required, and complete tailings characterization.

13.4.2 Memorial 1999 Testwork

Cron Metallurgical Engineering Ltd. carried out a metallurgical review on the Memorial test data in March 1999 (Cron, 1999). Cron concluded that there is low grade gold in the

Memorial showing that readily leached by cyanide solution when ground to 95% minus 200 mesh. The extraction of 84% gold from solids in this initial test indicates the gold is amenable to recovery by use of cyanide solution. ICP analysis indicated that the material in the samples tested was suitable to environmental disposal most likely requiring a minimal amount of treatment for cyanide destruction.

13.5 Comments on Section 13

Metallurgical testwork to date on Tower East and Memorial has been based on composite samples grading significantly higher than the average grade of the updated Mineral Resources. Additional testwork will be required to assess the true recovery that can be expected of lower grade material.

14.0 Mineral Resource Estimates

14.1 Tower East

14.1.1 Key Assumptions and Basis of Estimate

The database for the Tower East Mineral Resource estimate contains analytical and lithology data from 244 drill holes totaling 33,828.44 metres completed between 1984 and 2007 (Table 14-1). Ten holes from the 1986 program were excluded from the database due to uncertainty as to location and/or hole direction.

Table 14-1 Tower East Drilling Summary

Year	Operator	Series	Holes	Metres
1984	Goldsil	T84	10	1,031.05
1986*	Golden Rule	T86	30	4,568.81
1987	Golden Rule	T87	23	4,048.72
1988	Golden Rule	T88	25	4,915.10
1989	Golden Rule	T89 (T89-90 abandoned)	33	5,745.74
1990	Golden Rule	T90, TBT90 (T90-135 abandoned)	27	4,360.20
2003	Golden Band	PH-01 to PH-06 (Phantom Zone)	6	733.50
2004	Golden Band	T-143 to 153	22	1,760.90
2005	Golden Band	T05	51	5,268.34
2007	Golden Band	T-216 to T-224	13	1,396.08
2007	Golden Band	PH-07 to PH-10 (Phantom Zone)	4	371.80
	Total		**244**	**33,828.44**

* 10 holes from the 1986 program are not included in the total

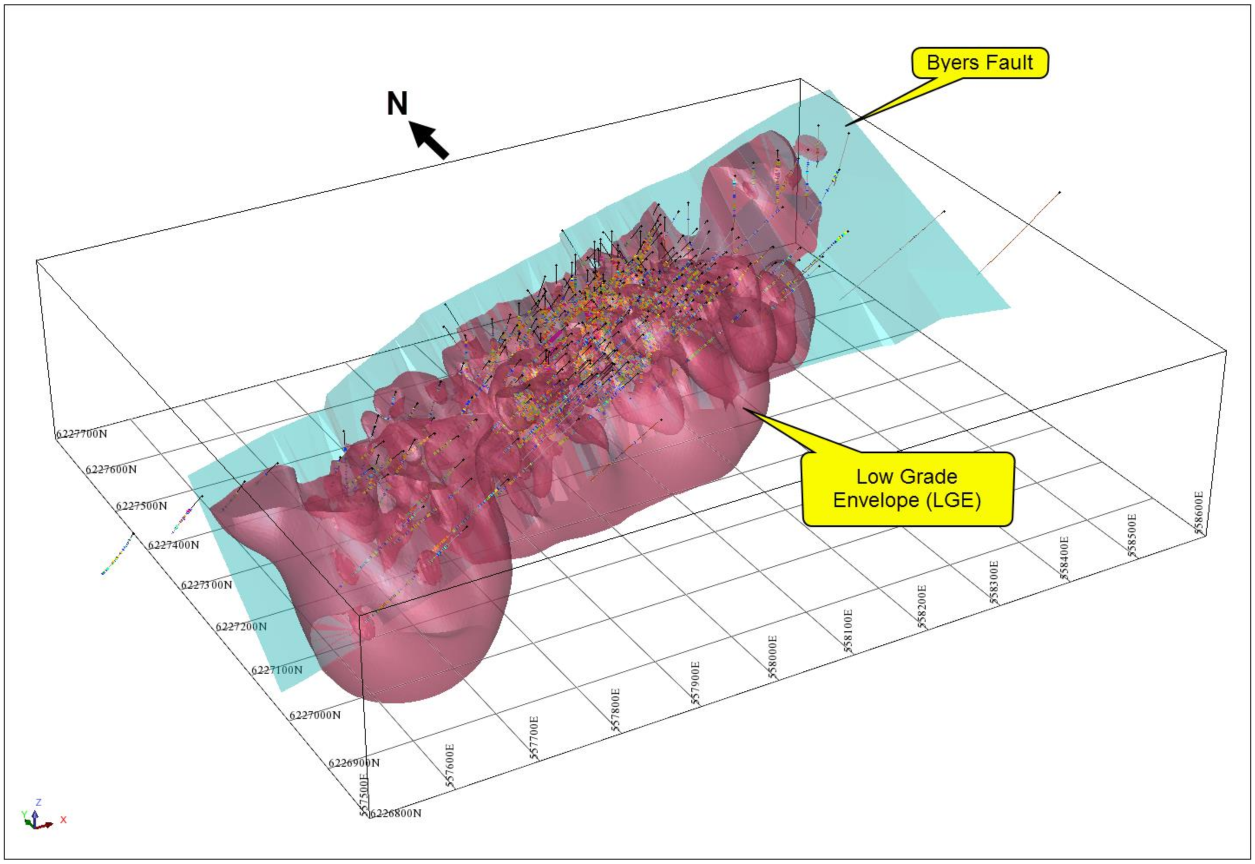
Unsampled intervals were added to the model database and assigned a grade value of 0 g/t Au. Since these intervals were not regarded as containing significant mineralization at the time of logging, it must be assumed that they contain no significant grades. At Tower East approximately 5.5% of the core was not sampled but most of this was on the footwall of the Byers Fault or on holes peripheral to the mineralized zone.

14.1.2 Geological Models

A geologic model of the byers fault zone was constructed and used as a boundary control to the mineralized zone which is confined to the hangingwall. Within the hangingwall there is no other clear geologic control to the mineralization and a low-grade envelope (“LGE”) was generated to constrain the interpolation of gold grades in the block model (Figure 14-1).

The grade envelope was developed in Leapfrog Mining software using an indicator value of 0.1 g/t Au. The data used for the generation of the low-grade envelope were 2m downhole composites from drill hole intercepts within the hangingwall of the byers fault. The intervals were assigned a value of 1 if they assayed above 0.1 g/t Au. Unsampled drill intervals were assigned grades of 0 g/t Au.

Figure 14-1 Tower East Low Grade Envelope



14.2 Exploratory Data Analysis

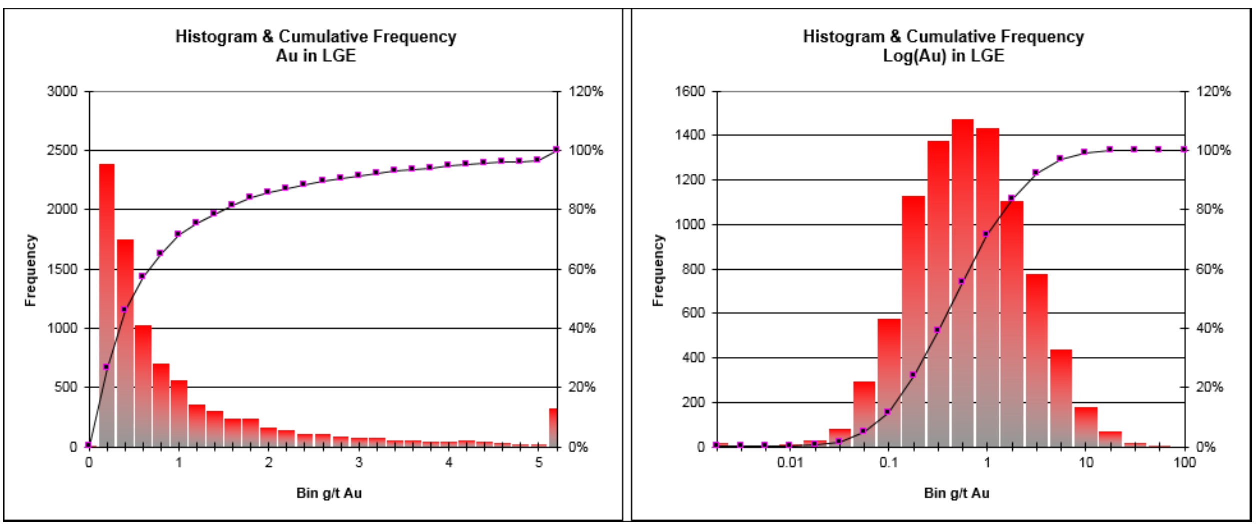
Sample widths for drilling were on nominal 1 metre intervals except for the 2007 program where they were increased to 1.5m. Overall, 9% of the sample intervals exceed 1 metre so it was decided to composite the grades to 2 metre downhole intervals prior to statistical analysis. Grades were composited using the best-fit method which produces composites of variable length but of equal length within a specified zone. This method has the advantage of avoiding partial composites at the beginning and end of the zone intercepts

Statistics for composites within the LGE are presented in Table 14-2. The sample populations are highly skewed approaching log-normal distribution with no significant bimodality evident as illustrated in the histograms of Figure 14-2.

Table 14-2 Composite Statistics - Tower East

	Au g/t
n	9017
Min	0.000
Max	45.734
Mean	1.108
Median	0.461
Variance	4.027
Std Dev	2.007
COV	1.811

Figure 14-2 Au Frequency Distribution – Tower East



14.3 Grade Capping and Outlier Restriction

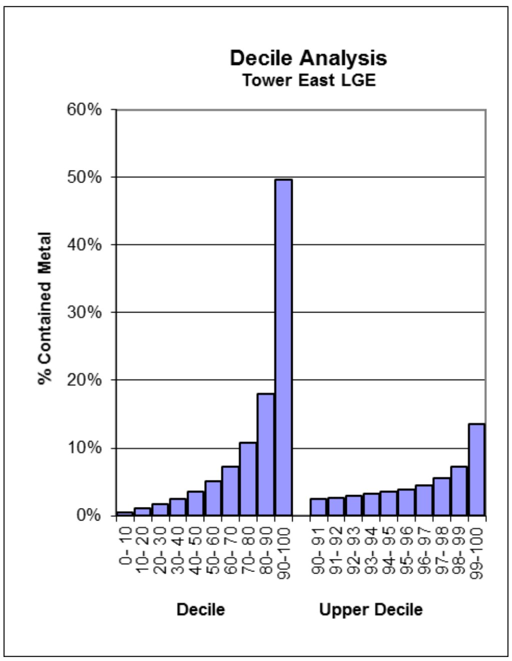
Grade distribution in the composited sample data was examined to determine if grade capping or special treatment of high outliers was warranted. A decile analyses was performed on the composites within the LGE and log probability plots examined. As a general rule, the cutting of high grades is warranted if:

- the last decile (upper 10% of samples) contains more than 40% of the metal; or

- the last decile contains more than 2.3 times the metal of the previous decile; or
- the last centile (upper 1%) contains more than 10% of the metal; or
- the last centile contains more than 1.75 times the next highest centile.

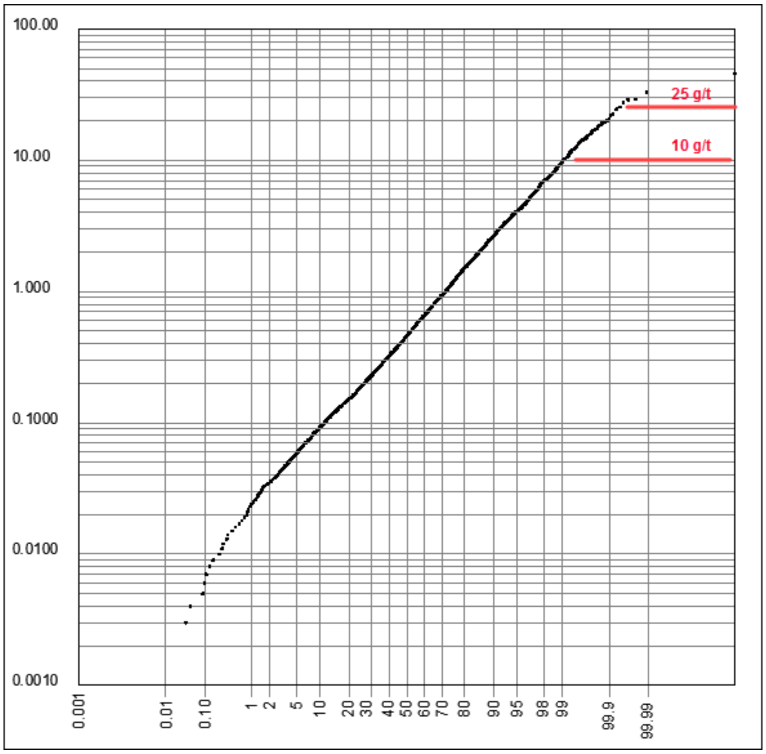
A decile analysis of the 1.5 m composites meets two of the requirements. The last decile contains almost 50% of the contained metal and the last centile contains over 10% (Figure 14-3). From this was concluded that capping and/or restriction of high-grade outliers was warranted. The suggested cap grade based on the decile analysis is the 99th percentile value of 9.5 g/t

Figure 14-3 Tower East Decile Analysis



A cumulative probability plot of the same composite data shows a break in slope at 25 g/t Au but no significant break at 9.5 g/t (Figure 14-4). Based on this it was decided to impose a topcut of 25 g/t Au and composites falling between 10 and 25 g/t were given a limited range of influence of 25 metres.

Figure 14-4 Cumulative Probability Plot - Tower East Composites



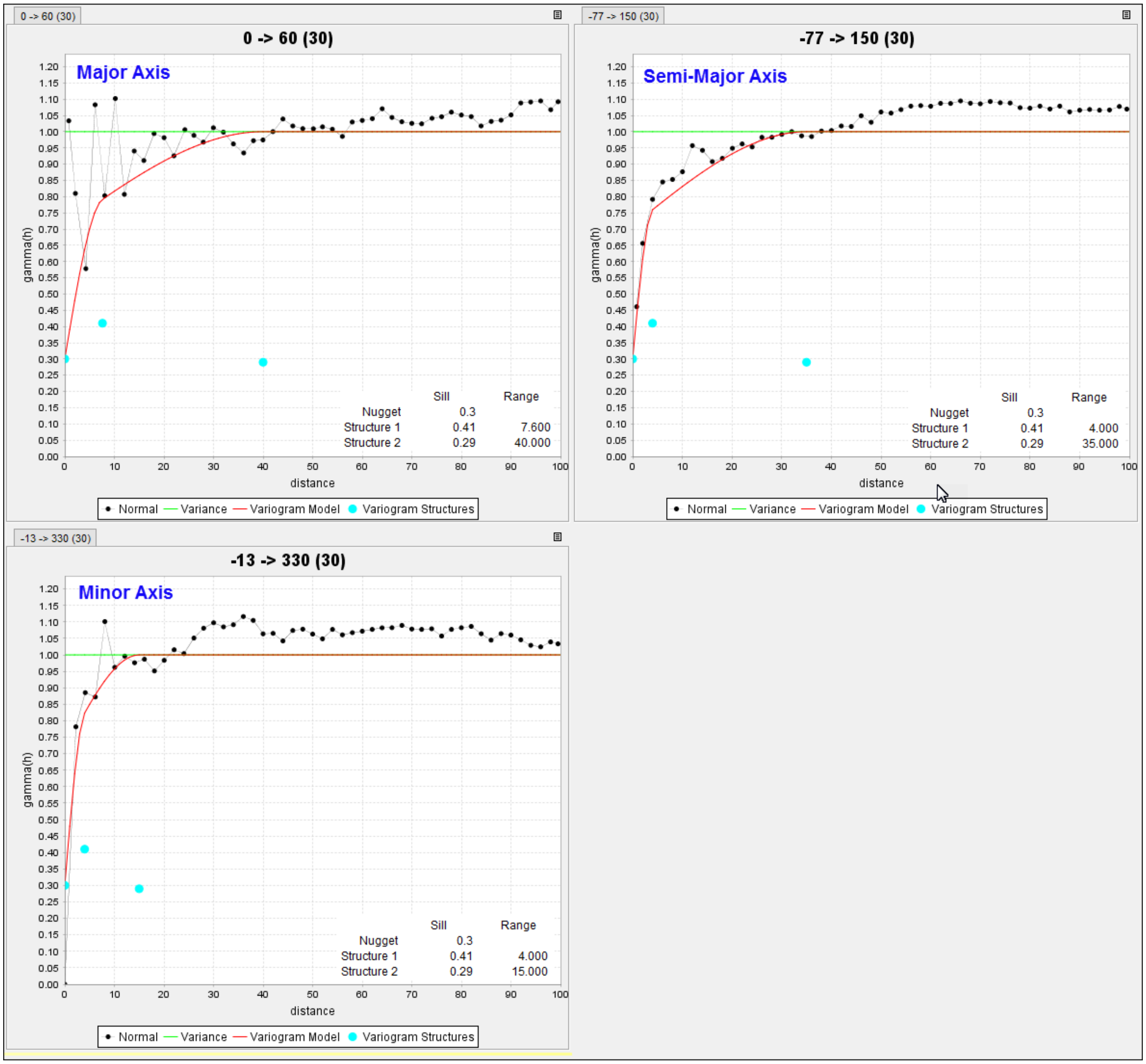
14.3.1 Density Assignment

Bulk density measurements were performed on 16 core samples from the mineralized zone. The specific gravity ranged from 2.62 to 2.96. The median value of 2.72 was used in this resource estimation.

14.3.2 Variography

Modeled variograms for the Tower East composites within the LGE showed a maximum range of 40m and moderate anisotropy (Figure 14-5). The principal axis is approximately parallel with the Byers Fault Zone and the semi-major axis plunges steeply to the southeast.

Figure 14-5 Tower East Variography



14.3.3 Estimation/Interpolation Methods

A block model with block dimensions of 5x5x5 m was created using Geovia-Surpac© software. Extents are shown in Table 14-3.

Table 14-3 Tower East Block Model Extents

	East	North	Elev
Minimum	557250	6226600	250
Maximum	558900	6227900	525
Extent	1650	1300	275
Block Size	5	5	5

Both Ordinary Kriging (OK) and Inverse-distance cubed weighting to the third power (ID3) interpolations were carried out within the LGE domain in three passes. A minimum of 6 and maximum of 24 composites were used for grade estimation and composites from at least two drill holes were required to estimate a block (Table 14-4). An anisotropic search ellipsoid was used with the principal axis trending 060° horizontal and the secondary axis dipping steeply to the southeast. The major to semi-major search ratio was 1.14:1 and the major to minor search ratio was 2.67:1.

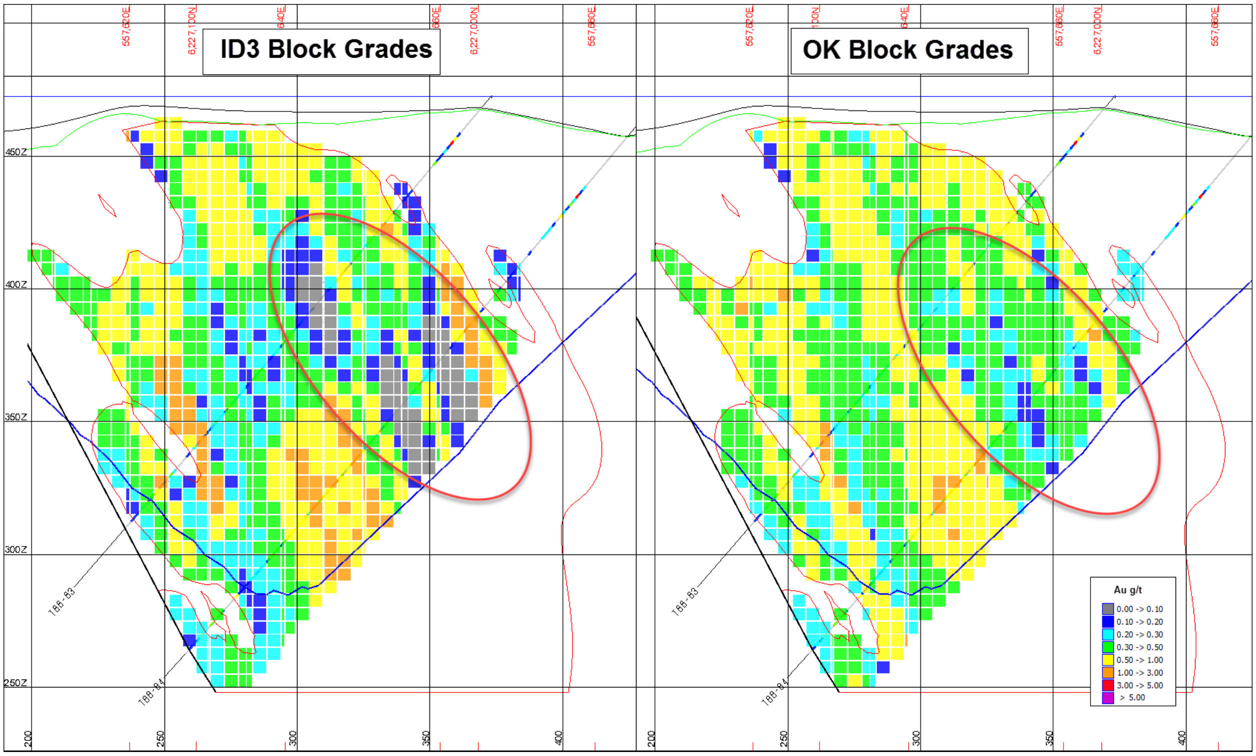
Table 14-4 Tower East Block Model Estimation Parameters

Pass	Cap Grade g/t Au	Composites Used			Search Distances		
		Min	Max	Max/Hole	0->060°	-77-150°	-13->330°
1	25	6	24	4	25	22	9
2	10	6	24	4	50	44	19
3	10	6	24	4	100	88	37

A Nearest Neighbour (NN) model was also estimated using 5m composites for validation purposes.

Although interpolation results were similar overall for OK and ID3, the OK model tended to over smear the composite grades resulting in poorer local grade estimation. In areas of wider spaced sampling this resulted in significant over-estimation of gold grades in blocks containing lower grade composites as illustrated in Figure 14-6. Overall, the ID3 model had 0.6% of the total blocks estimated at grades less than 0.1 g/t while the OK model had fewer than 0.03%. At the higher-grade end, the OK model had 58% of the blocks exceeding 0.5 g/t while the ID3 model had 55%. It was concluded that the ID3 model is a more realistic simulation and is used as the model for the updated Mineral Resource Estimate.

Figure 14-6 Comparison if ID3 and OK block grades – Tower East



Block model grade distribution is illustrated in level plans and sections in the following figures:

Figure 14-7 Tower East 450 Level Showing Drill Grid

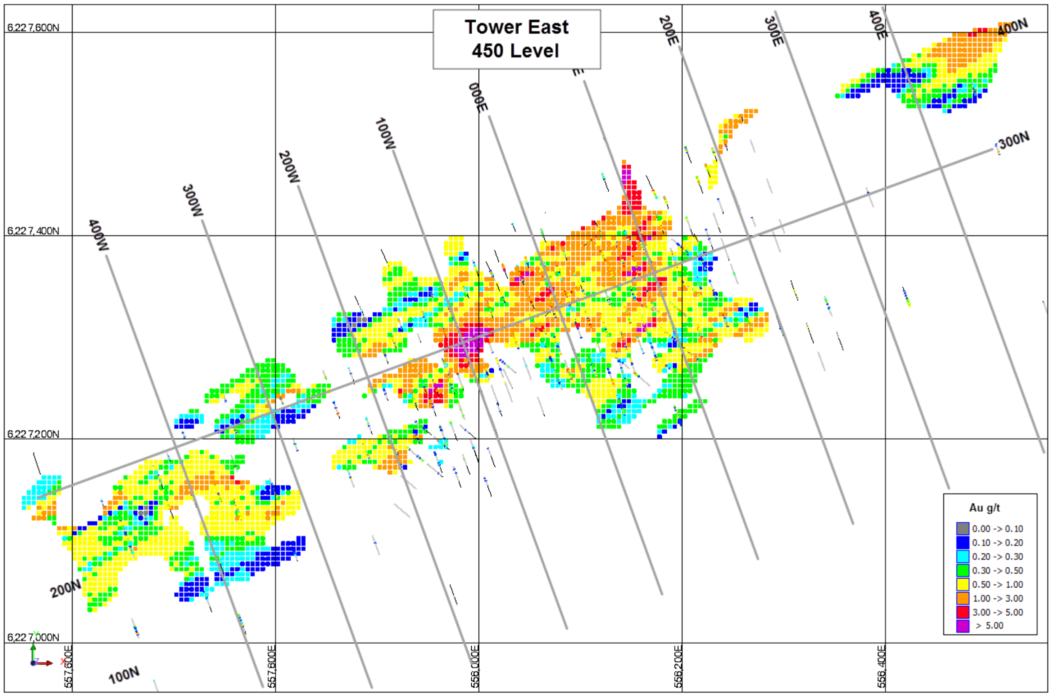


Figure 14-8 Tower East 400 Level

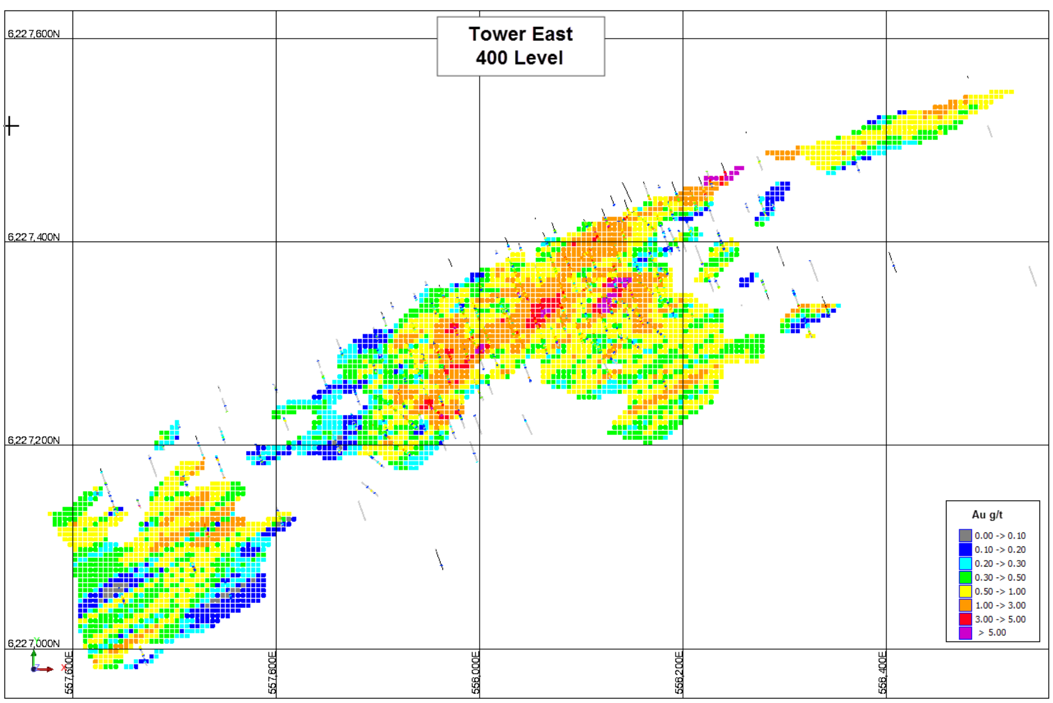


Figure 14-9 Tower East 350 level

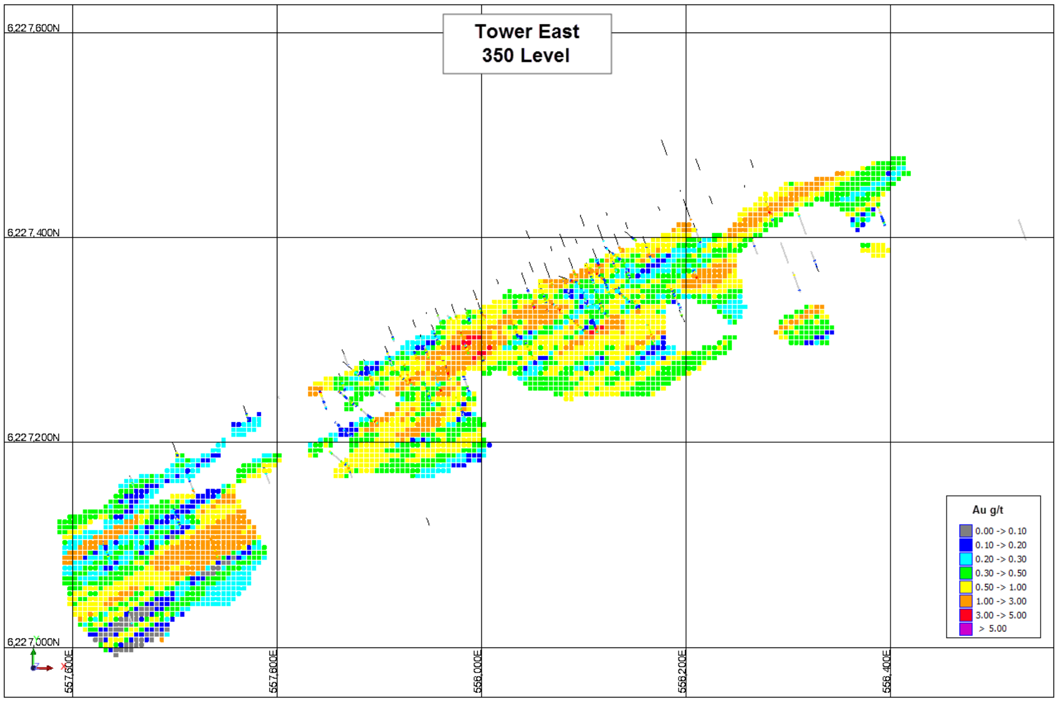


Figure 14-10 Tower East Section 100W

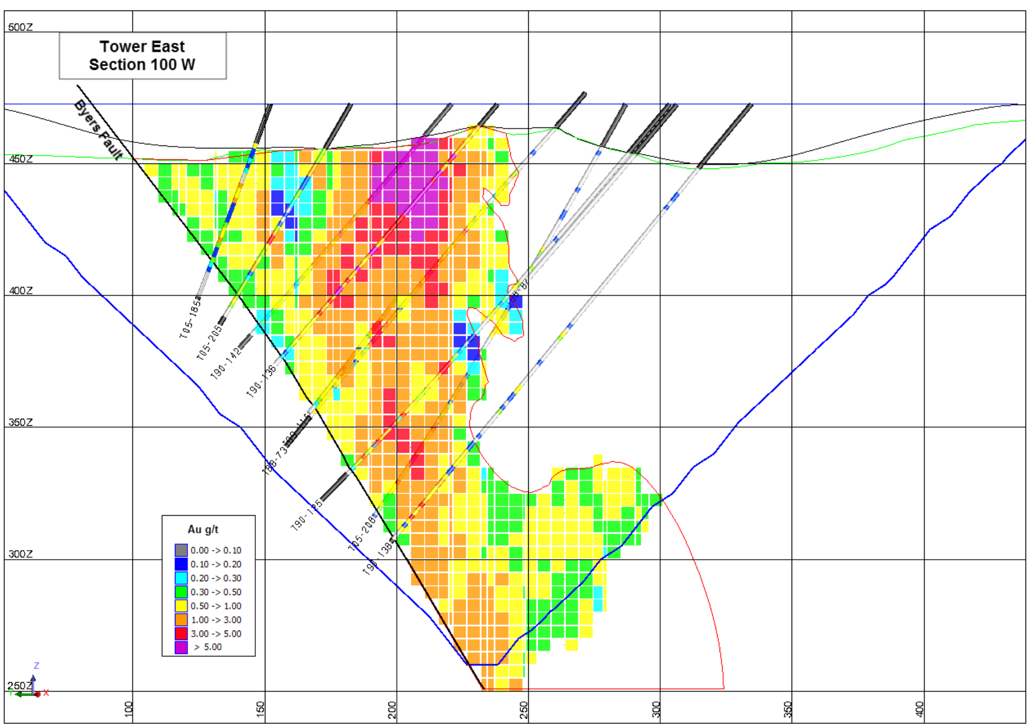


Figure 14-11 Tower East Section 000E

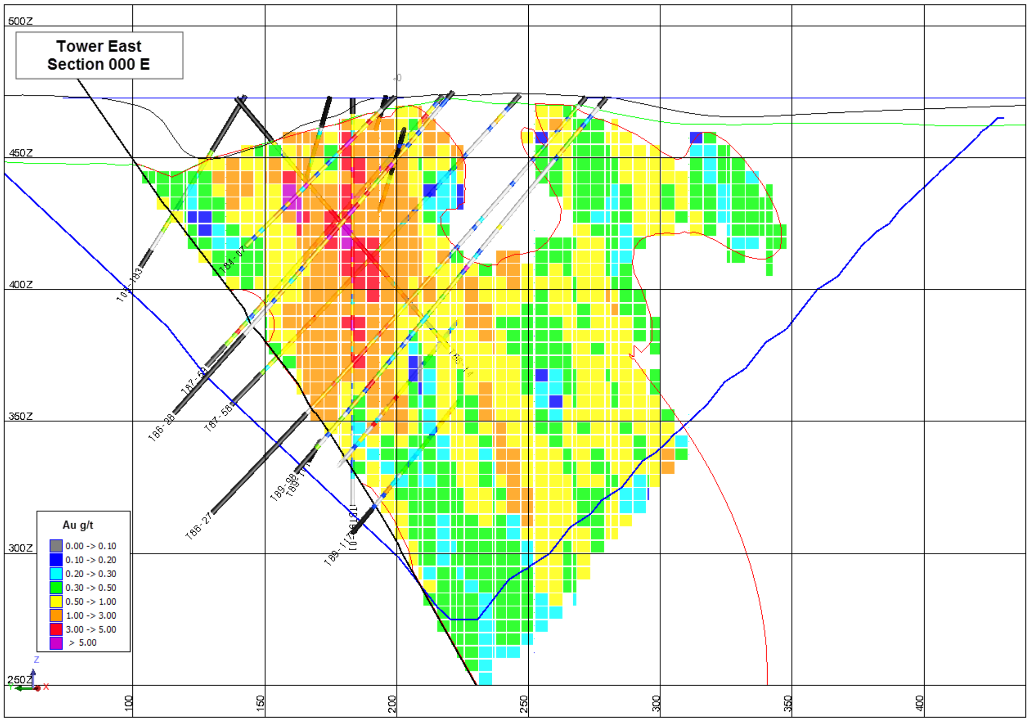
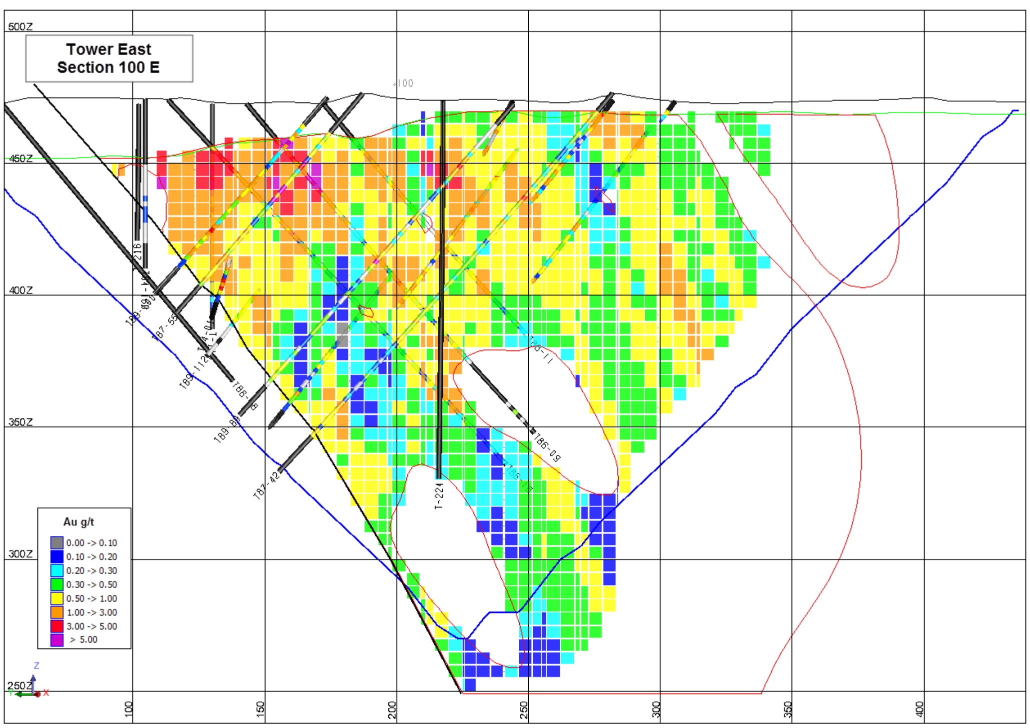


Figure 14-12 Tower East Section 100E



14.3.4 Block Model Validation

14.3.4.1 Visual Inspection

Model verification was initially carried out by visual comparison of blocks and composite grades in plan and section views. The estimated block grades showed reasonable correlation with adjacent composite grades.

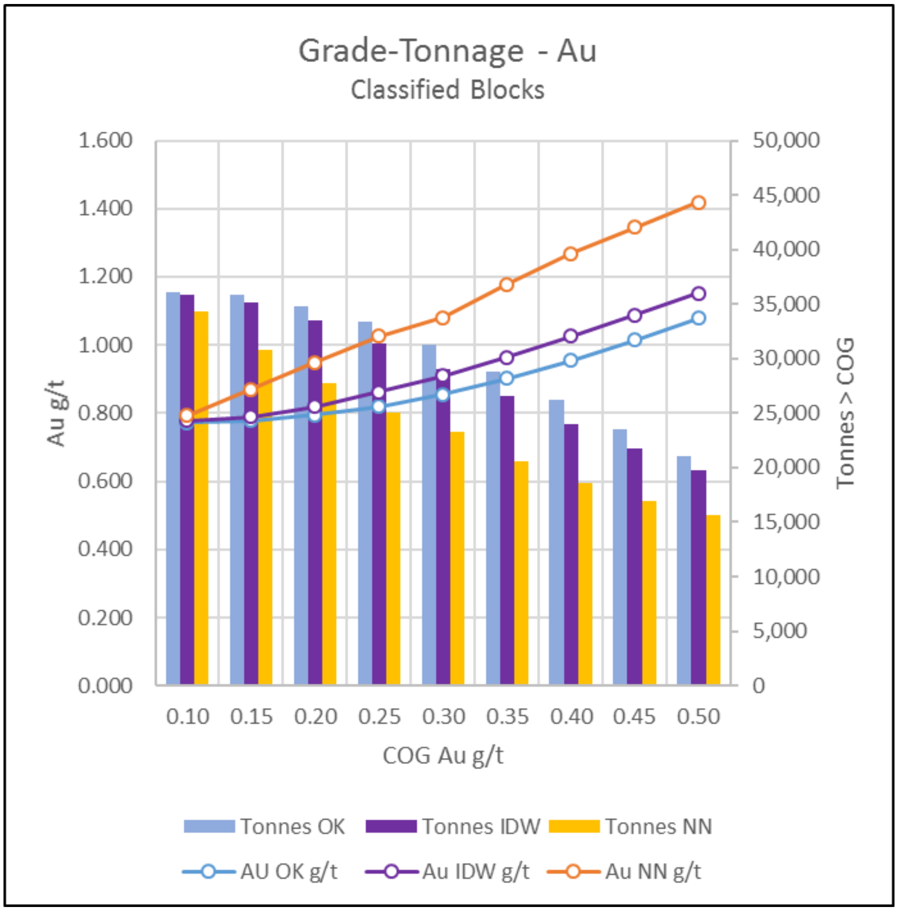
14.3.4.2 Global Bias Check

A comparison of global mean values between the various block estimates within the resource shows a reasonably close relationship between declustered composites and block model values (Table 14-5). Grade-tonnage charges comparing NN, OK, and ID3 models are presented in Figure 14-13.

Table 14-5 Tower East Global Mean Grade Comparison

Data	Au g/t
Composites	1.12
Capped Composites	1.07
Composites (Declustered)	0.79
Capped Composites (Declustered)	0.76
ID3 Block Estimate	0.77
ID3 Block Estimate uncapped	0.78
OK Block Estimate	0.77
OK Block Estimate uncapped	0.78
NN Block Estimate	0.76
NN Block Estimate uncapped	0.76

Figure 14-13 Tower East Grade and Tonnage Charts Comparing Estimation Methods



14.3.4.3 Local Bias Check

Swath plots were generated to assess the model for local bias by comparing ID3, NN and OK estimates on panels through the deposit. Results show a reasonable comparison between the methods, particularly in the main portions of the deposit indicated by the bar charts (Figure 14-14 and Figure 14-15).

Figure 14-14 Tower East Swath Plots (E-W)

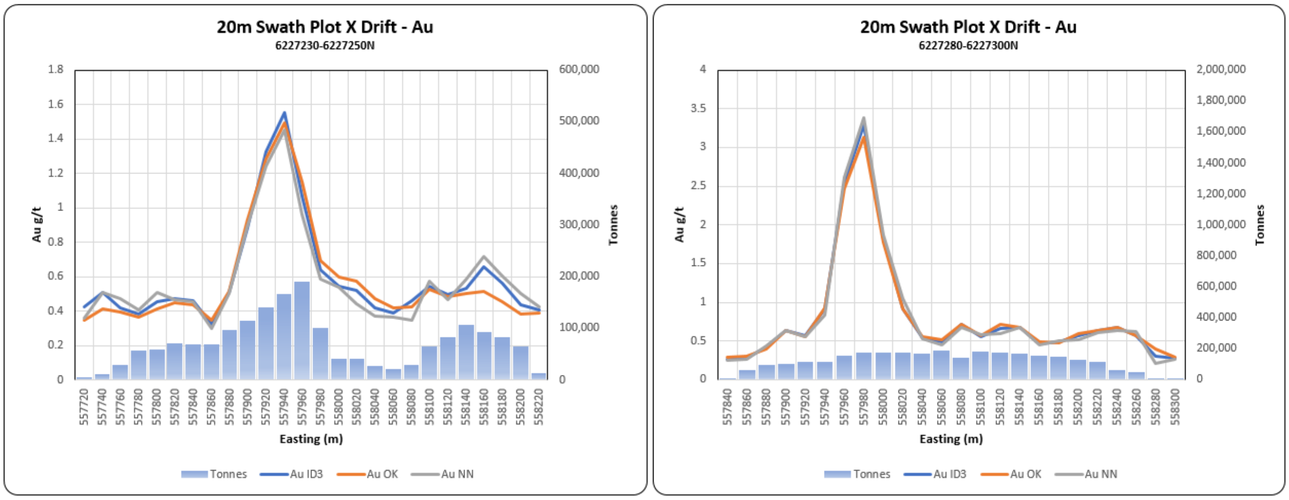
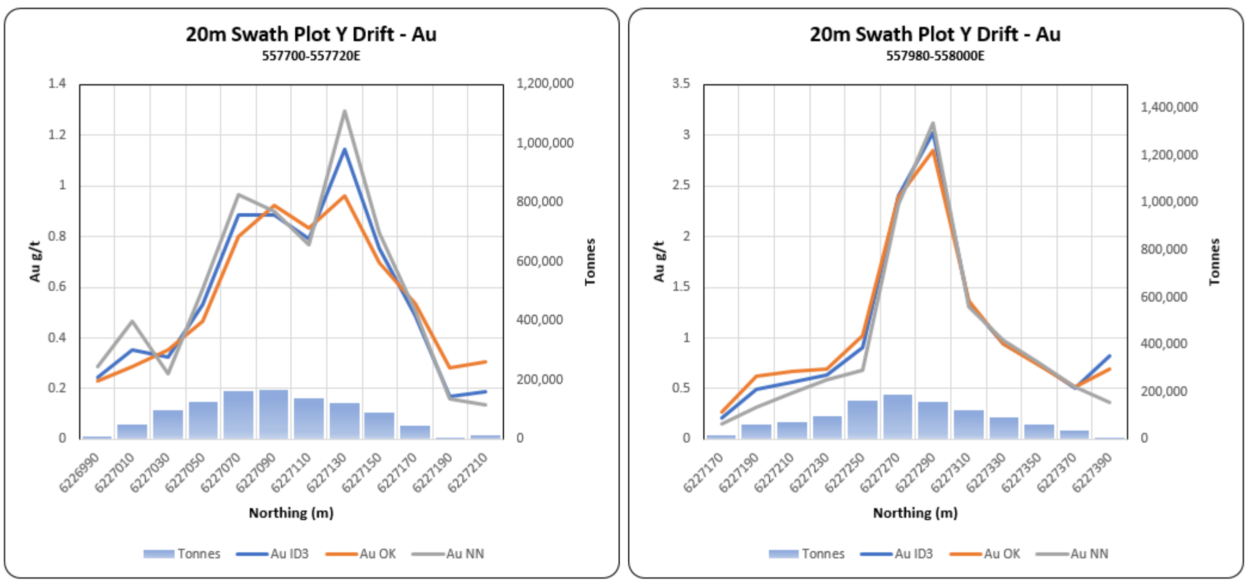


Figure 14-15 Tower East Swath Plots (S-N)



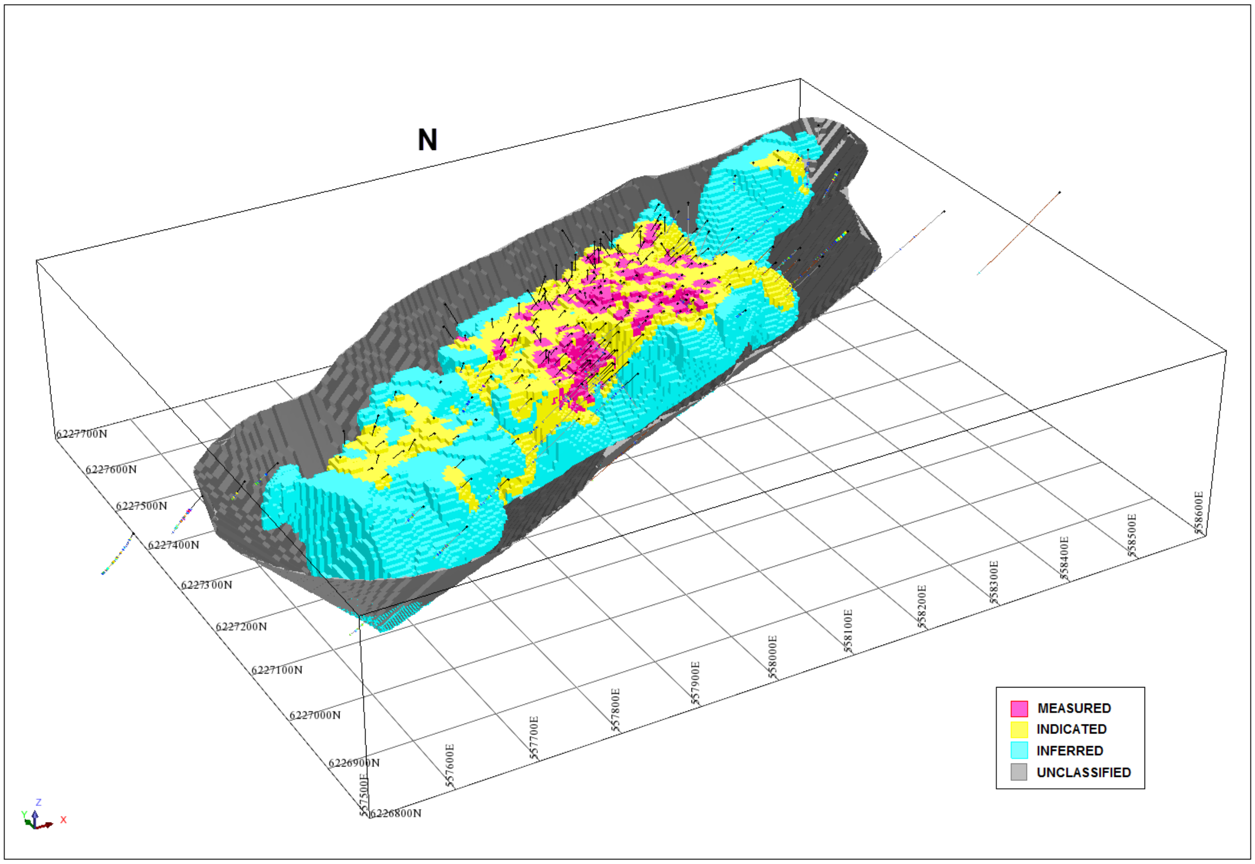
14.3.5 Classification of Mineral Resources

Resource classifications used in this study conform to the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014).

Blocks were assigned preliminary classifications based on drill hole spacing. Blocks falling within the 15 m x 15 m drill hole spacing pattern were assigned a tentative 'Measured' classification. Blocks not meeting these conditions were classified as 'Indicated' if they were within the area drilled with a 30 m x 30 m spacing. All other estimated blocks were assigned to the 'Inferred' category.

Some Measured and Indicated blocks were downgraded in classification to remove isolated Measured blocks within areas of Indicated/inferred blocks and isolated Indicated blocks within areas of Inferred. Block classification is illustrated in Figure 14-16.

Figure 14-16 Tower East Block Classification



14.3.6 Reasonable Prospects of Economic Extraction

The Mineral Resource has reasonable prospects for eventual economic extraction and its location, quantity, grade and continuity are known, estimated or interpreted from the Tower East gold Mineral Resource database consisting of diamond results. Mineral Resources were constrained by an optimized pit shell based on metal prices of US$1600/oz Au. Mining costs were assumed to be US$2.50/t for ore and US$1.50/tonne for waste and overburden. Processing costs were US$9.50/t and general and administrative (G&A) costs were US$1.00/t. Metal recovery of 90 % for Au was used in the optimization. The pit slope was set at 45˚. Pit profiles are illustrated in Figure 14-10 to Figure 14-12 as blue lines.

The cost and price assumptions used for the break-even cut-off grade determination are presented in Table 14-6

Table 14-6 Cost and Price Assumptions for Cut-off Grade Determination

Parameter	Value	Unit
Gold Price	$1,500	/oz gold
Recovery	90%	
Mining Cost Ore	$2.50	/tonne mined
Processing Cost	$9.50	/tonne mined
G&A	$1.00	/tonne mined
All-In Cost	$13.00	/tonne mined
Cut-off Grade	0.30	g/t Au

Eventual mining of the deposit would require the draining of Tower Lake. In 1988 TAEM, now CanNorth Environmental Services conducted a lake survey "Baseline Fisheries Investigations for the Proposed Tower Lake Project". In 1988 Tower Lake was found to have an average depth of 1.4 m, a maximum depth of 1.5 m, a surface area of 2.6 hectares and containing approximately 276,000 m3 of water. P&E (2008) estimated that the dewatering would require a time period of approximately 4 weeks.

14.3.7 Mineral Resource Statement

Table 14-7 presents the Mineral Resource estimate for the Tower East gold deposit at a base case cut-off grade of 0.3 g/t Au.

Table 14-7 Tower East Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Measured	6,574,900	1.337	282,626
Indicated	8,649,600	0.934	259,737
Measured+Indicated	**15,224,500**	**1.110**	**542,363**
Inferred	13,828,800	0.689	306,334

Notes:

1. Mineral resource estimate prepared by GeoSim Services Inc. with an effective date of November 2, 2020.
2. Totals may not sum due to rounding.
3. Mineral resources are constrained by an optimized pit shell using the following assumptions: US$1600/oz Au price; a 45° pit slope; assumed metallurgical recovery of 90%; mining costs of US$2.50 per tonne for ore and US$1.50 per tonne for waste and overburden; processing costs of US$9.50 per tonne; G&A of US$1.00/t.
4. A base case cut-off grade of 0.3 g/t Au represents an in-situ metal value of US$13.02 per tonne at a gold price of $1500/oz which is believed to provide a reasonable margin over operating and sustaining costs for open-pit mining and processing.
5. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

14.3.8 Factors That May Affect the Mineral Resource Estimate

The resource estimate is based on information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Areas of uncertainty that may materially impact the Mineral Resource Estimate include:

- Estimated global bulk tonnage is based on a limited number of density determinations
- Low-grade mineralization appears to extend beyond the limits of drilling, but has been confined within a low-grade envelope for the present estimate
- The topographic base is of low resolution and not suitable for detailed mine planning
- Commodity price assumptions
- Pit slope angles
- Metal recovery assumptions
- Mining and Process cost assumptions
- Assumptions that all required permits will be forthcoming

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in the province of Saskatchewan in terms of environmental, permitting, taxation, socio-economic, marketing, and political factors. Geosim is not aware of any known legal or title issues that would materially affect the Mineral Resource estimate.

14.4 Birch Crossing

14.4.1 Key Assumptions and Basis of Estimate

The database for the Birch Crossing Mineral Resource estimate contains analytical and lithology data from 89 drill holes totaling 9,735.39 metres completed between 2004 and 2007 (Table 14-1).

Table 14-8 Birch Crossing Drilling Summary

Year	Operator	Series	Holes	Metres
2004	Golden Band	K-61,62	2	185.90
2005	Golden Band	BC-01 to 13	13	1,320.75
2006	Golden Band	BC-14 to 48	35	3,144.61
2007	Golden Band	BC-49 to 87	39	5,084.13
		Total	**89**	**9,735.39**

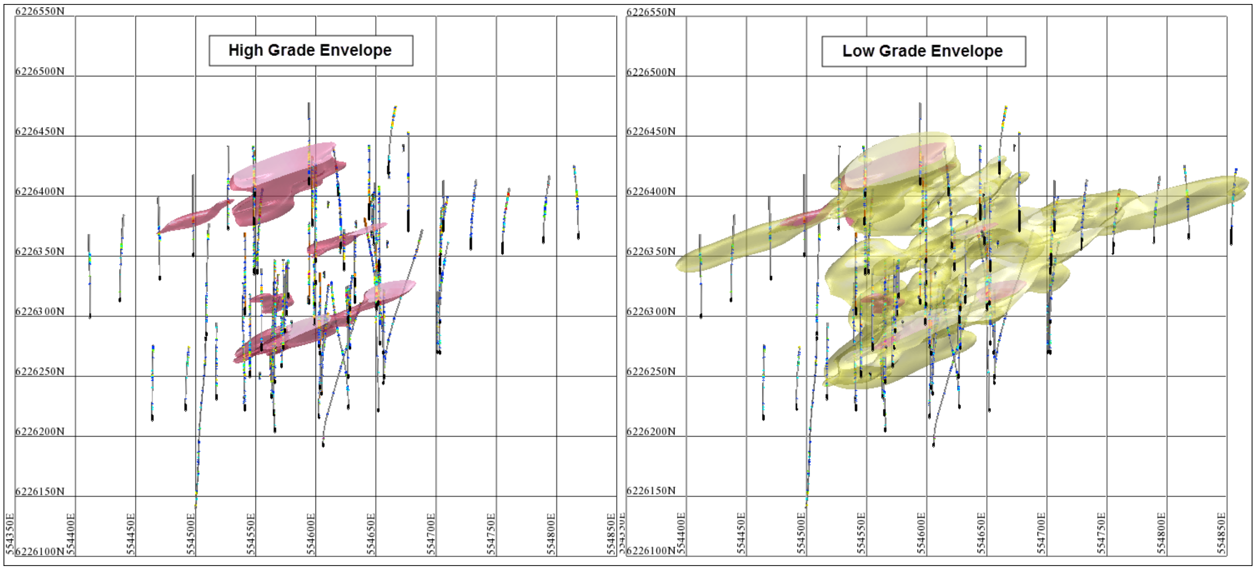
Unsampled intervals were added to the model database and assigned a grade value of 0 g/t Au. Since these intervals were not regarded as containing significant mineralization at the time of logging, it must be assumed that they contain no significant grades. At Birch Crossing only 2.7% of the core was not sampled.

14.4.2 Geological Models

At Birch Crossing, higher gold grades are concentrated in structural zones trending WSW-ENE with lower grades between them. In order to limit the influence of the higher-grade samples, a grade envelope (“HGE”) was created using a threshold indicator value of 0.5 g/t Au. A low grade envelope (“LGE”)was then created using a threshold of 0.1 g/t Au. Modeling was carried out using 1.5 m composites and an anisotropic search ellipse with major axis plunging 84° towards an azimuth of 162° (Figure 14-17).

A total of 9 holes ended in significant mineralization grading above 0.5 g/t Au. An additional 15 holes ended in lower grade mineralization between 0.1 and 0.5 g/t Au. In order to prevent these intervals from having a disproportionate affect on the generation of the grade envelopes, artificial composites were added below the last interval and assigned an indicator grade of 0.

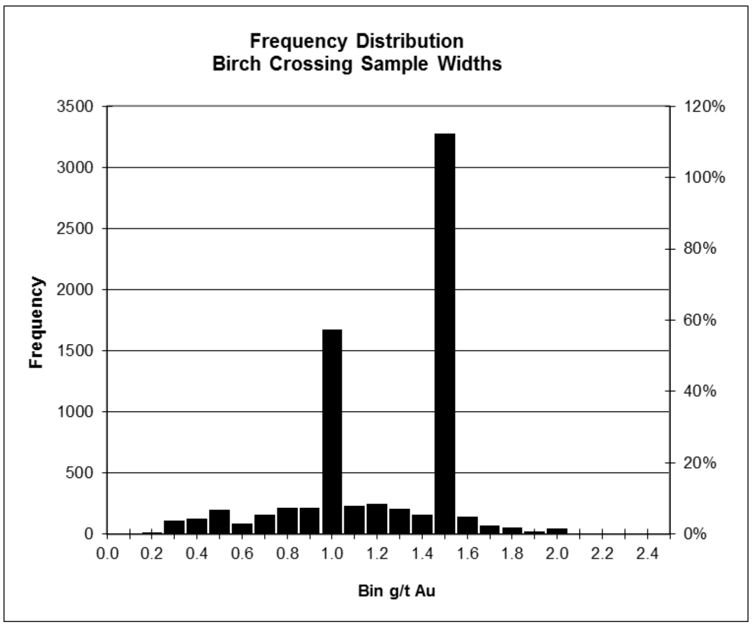
Figure 14-17 Birch Crossing Grade Envelopes



14.5 Exploratory Data Analysis

Sample widths for drilling were on normally 1 to 1.5 m intervals but 17% of the samples were less than 1 m. As only 5% of the sample intervals exceed 1.5 metre in length it was decided to composite the grades to 1.5 metre downhole intervals prior to statistical analysis. Grades were composited using the best-fit method which produces composites of variable length but of equal length within a specified zone. This method has the advantage of avoiding partial composites at the beginning and end of the zone intercepts.

Figure 14-18 Birch Crossing Sample Widths

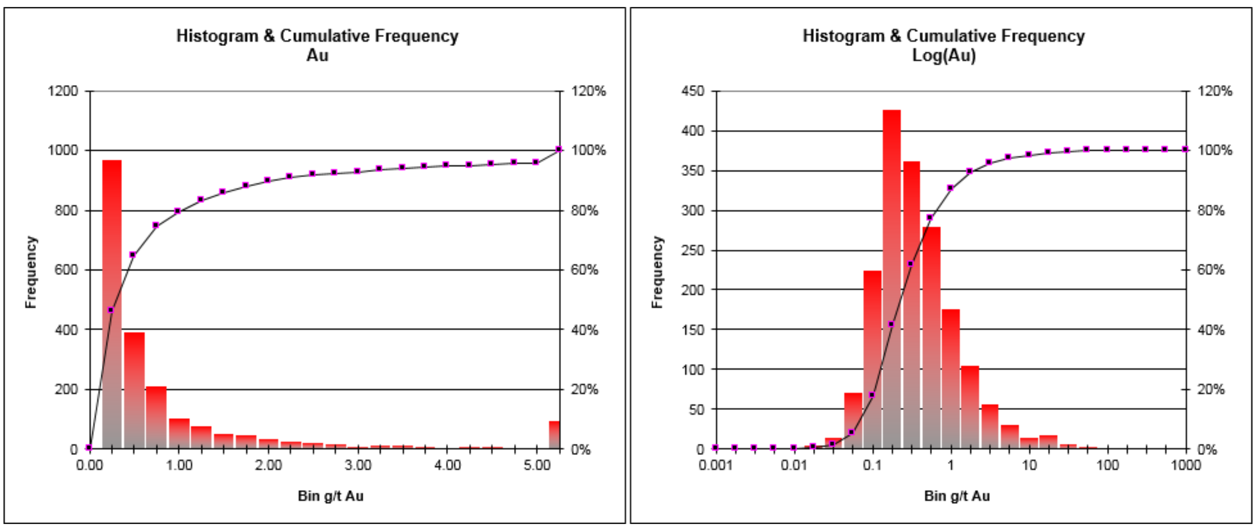


Statistics for composites within the LGE are presented in Table 14-9. The sample populations are highly skewed approaching log-normal distribution with no significant bimodality evident as illustrated in the histograms of Figure 14-19.

Table 14-9 Composite Statistics - Birch Crossing

	Au g/t
n	2102
Min	0.000
Max	220.408
Mean	1.594
Median	0.288
Variance	90.981
Std Dev	9.538
COV	5.985

Figure 14-19 Au Frequency Distribution - Birch Crossing



14.6 Grade Capping and Outlier Restriction

Grade distribution in the composited sample data was examined to determine if grade capping or special treatment of high outliers was warranted. A decile analyses was performed on the composites within the LGE and log probability plots examined. As a general rule, the cutting of high grades is warranted if:

- the last decile (upper 10% of samples) contains more than 40% of the metal; or
- the last decile contains more than 2.3 times the metal of the previous decile; or
- the last centile (upper 1%) contains more than 10% of the metal; or
- the last centile contains more than 1.75 times the next highest centile.

A decile analysis of the 1.5 m composites in both the high and low grade envelopes meets two of the requirements. The last decile contains over 65% of the contained metal and the last 2 centiles both exceed the 10% threshold (Figure 14-20). From this was concluded that capping and/or restriction of high-grade outliers was warranted.

Based on analysis of cumulative probability plots for both the grade envelopes it was decided to impose a topcut of 15 g/t for the HGE and 10 g/t for the LGE (Figure 14-21).

Figure 14-20 Birch Crossing Decile Analysis

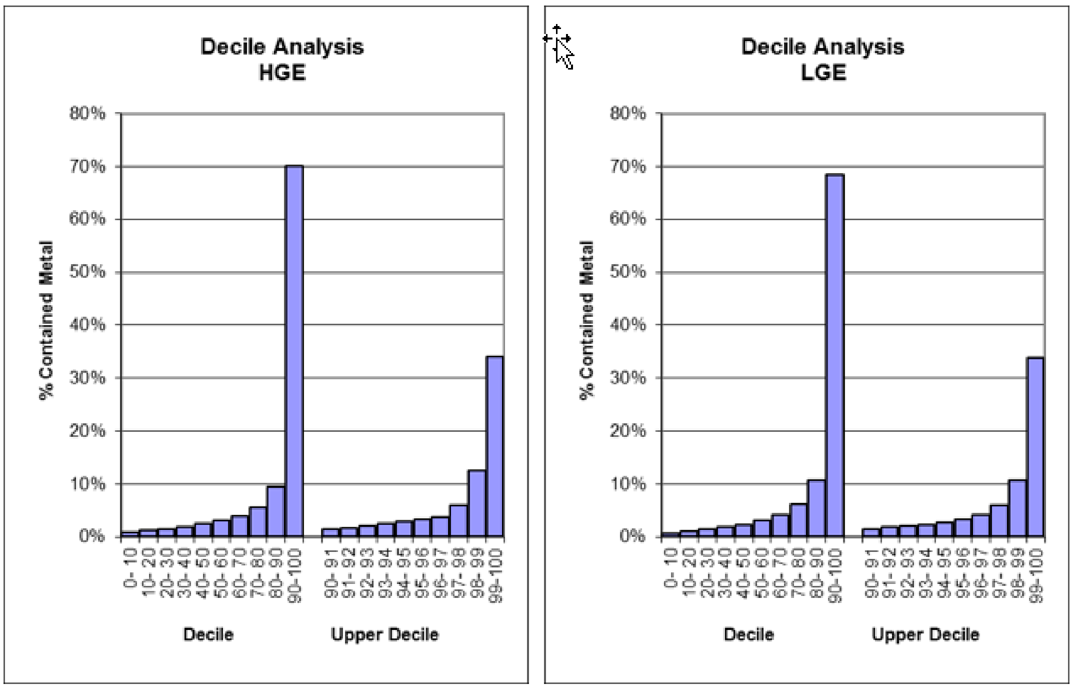
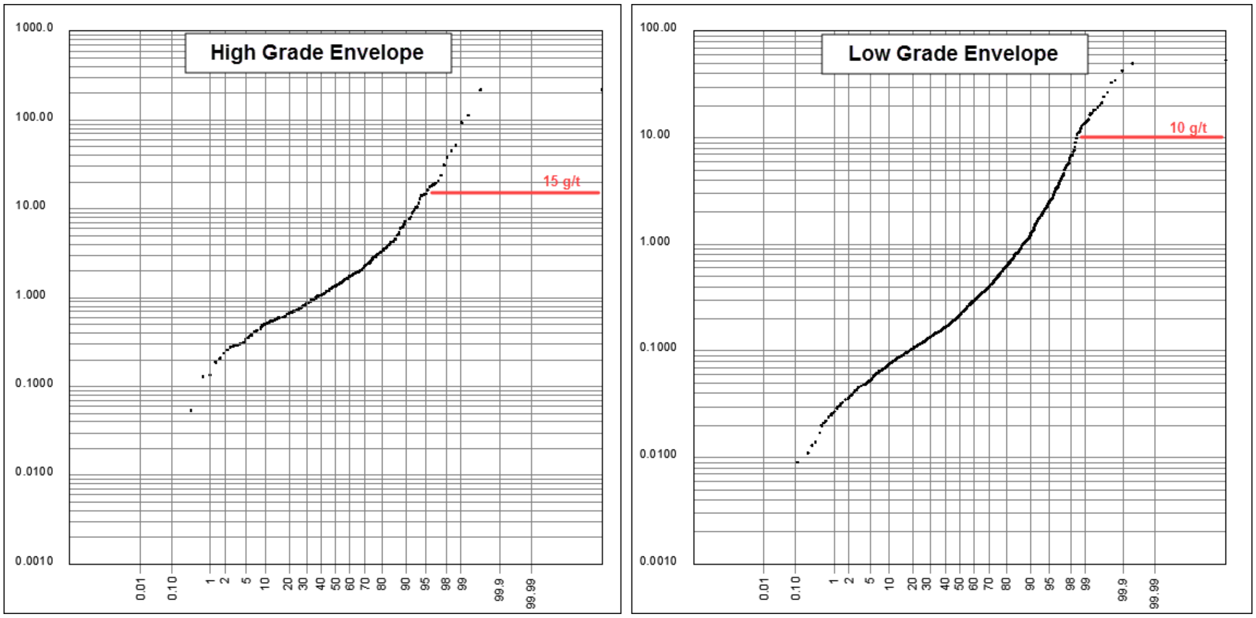


Figure 14-21 Cumulative Probability Plot - Birch Crossing Composites



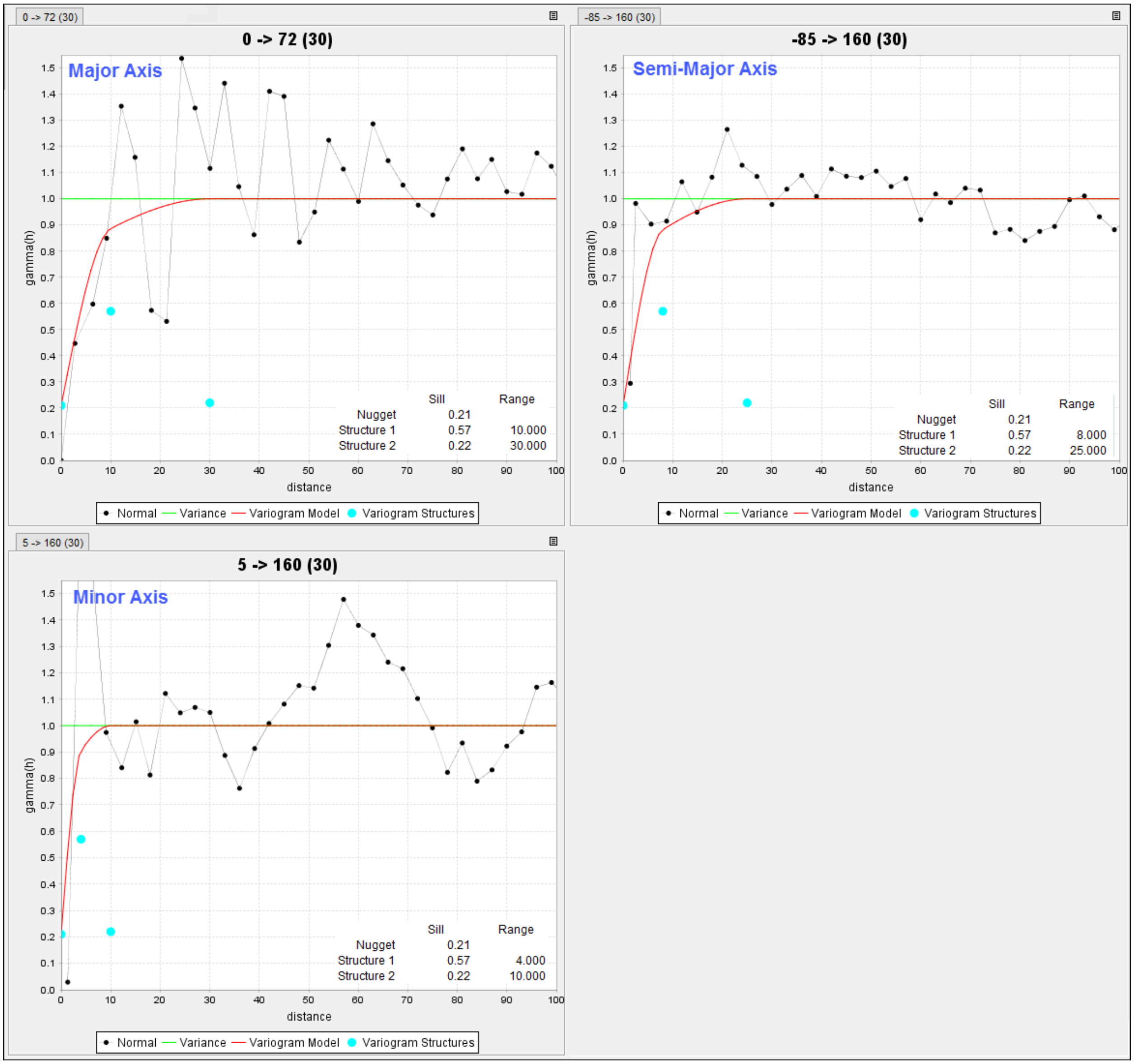
14.6.1 Density Assignment

No density measurements have been completed on any material from the Birch Crossing deposit. A value of 2.72 was assumed for the present resource estimate. This is the same as that used for the Tower East deposit and is based on measurements of 16 mineralized core samples.

14.6.2 Variography

Modeled variograms for the Birch Crossing composites within the LGE showed a maximum range of 30m and moderate to strong anisotropy (Figure 14-22). The principal axis trends ENE in the horizontal direction and the semi-major axis plunges steeply to the SSE.

Figure 14-22 Birch Crossing Variography



14.6.3 Estimation/Interpolation Methods

A block model with block dimensions of 5x5x5 m was created using Geovia-Surpac© software. Extents are shown in Table 14-10.

Table 14-10 Birch Crossing Block Model Extents

	East	North	Elev
Minimum	554300	6226100	275
Maximum	554950	6226600	525
Extent	650	500	250
Block Size	5	5	5

Both Ordinary Kriging (OK) and Inverse-distance cubed weighting to the third power (ID3) interpolations were carried out within the HGE and LGE domains in three passes with hard boundaries imposed. A minimum of 6 and maximum of 24 composites were used for grade estimation and composites from at least two drill holes were required to estimate a block (Table 14-11). An anisotropic search ellipsoid was used with the principal axis trending 072° horizontal and the secondary axis dipping steeply to the southeast. The major to semi-major search ratio was 1.2:1 and the major to minor search ratio was 3:1.

A Nearest Neighbour (NN) model was also estimated using 5m composites for validation purposes.

Table 14-11 Birch Crossing Block Model Estimation Parameters

Domain	Pass	Cap Grade	Composites Used			Search Distances		
			Min	Max	Max/Hole	0->072°	-85-160°	5->160°
HGE	1	15	6	24	5	50	42	17
	2	15	6	24	5	100	83	33
LGE	1	10	6	24	5	50	42	17
	2	10	6	24	5	100	83	33

The volume percent of the blocks within the two domains were calculated and the blocks that were partially within both domains were assigned the weighted average of the estimated HGE and LGE grades as illustrated in Figure 14-23.

Block grade distribution is illustrated in Figure 14-24.

Figure 14-23 Section 554600E Showing Block Grade Estimation

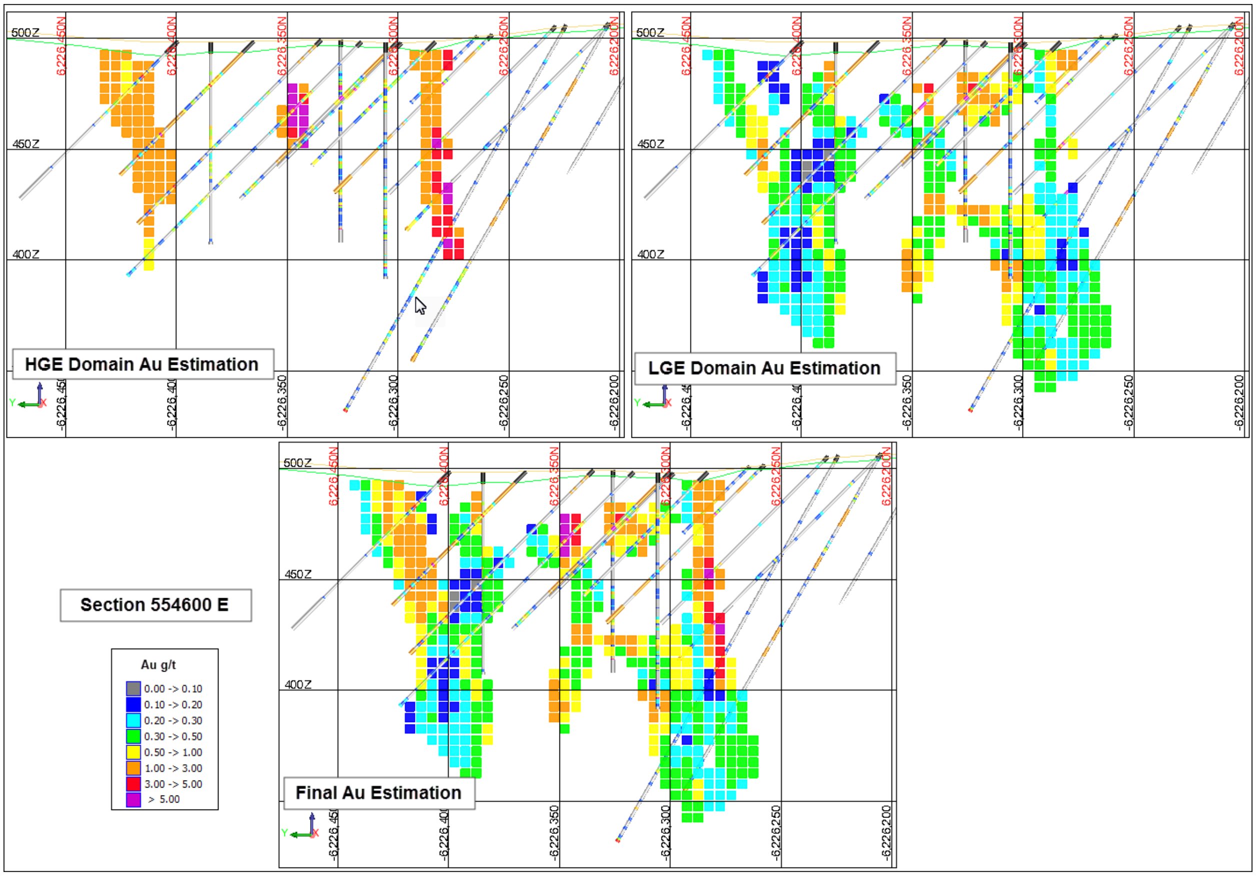
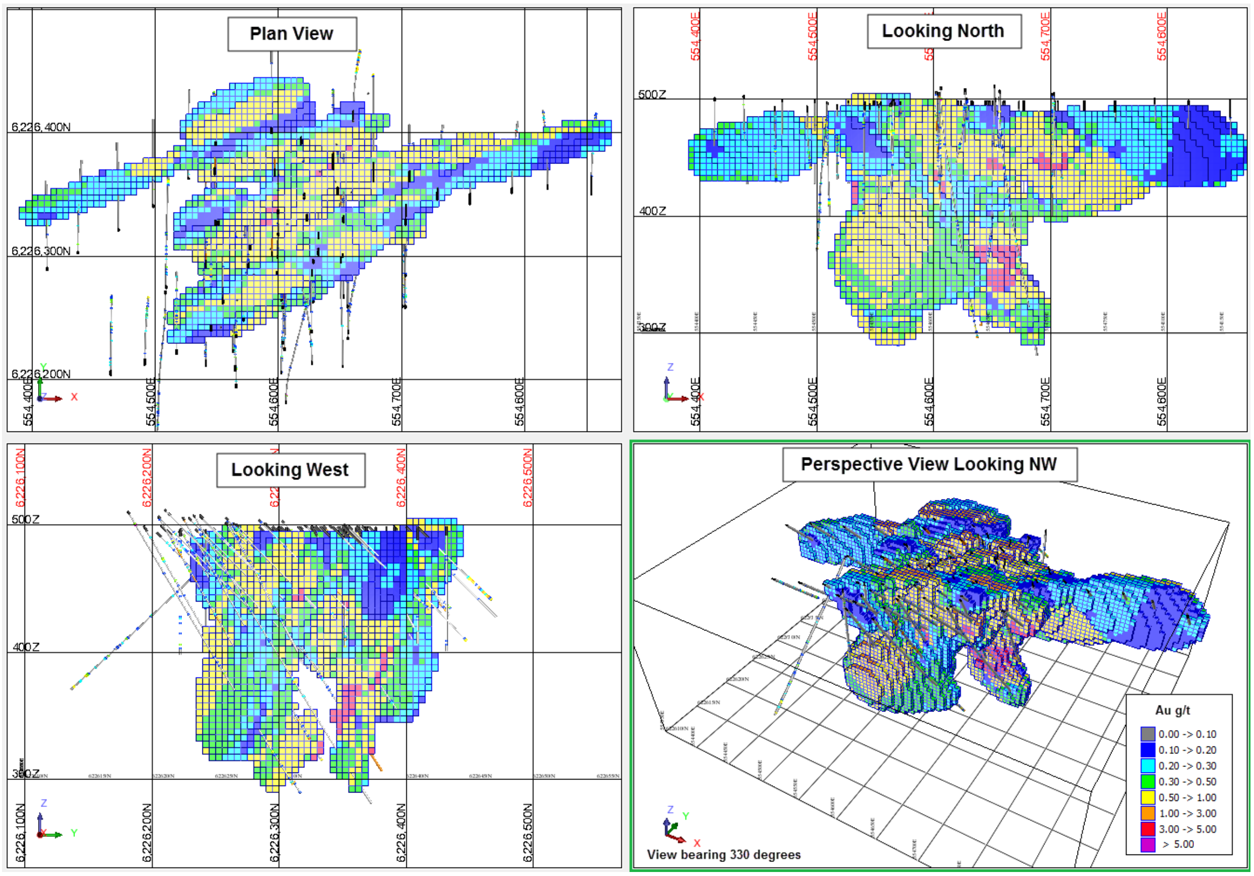


Figure 14-24 Birch Crossing Block Model Grades (ID3)



14.6.4 Block Model Validation

14.6.4.1 Visual Inspection

Model verification was initially carried out by visual comparison of blocks and composite grades in plan and section views. The estimated block grades showed reasonable correlation with adjacent composite grades. The ID3 estimation appeared to be superior to OK in local grade estimates.

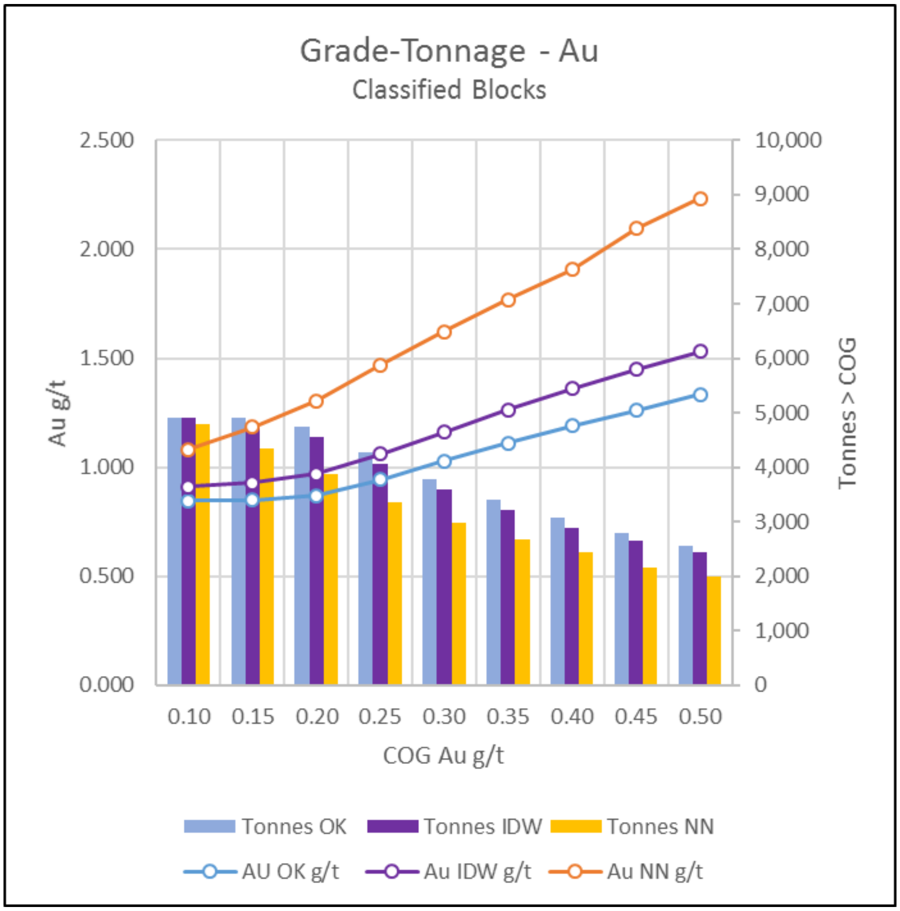
14.6.4.2 Global Bias Check

A comparison of global mean values between the various block estimates within the resource shows a reasonably close relationship between declustered composites and block model values (Table 14-12). Grade-tonnage charges comparing NN, OK, and ID3 models are presented in Figure 14-25.

Table 14-12 Birch Crossing Global Mean Grade Comparison

Data	Au g/t
Composites	1.63
Capped Composites	0.95
Composites (Declustered)	1.34
Capped Composites (Declustered)	0.87
ID3 Block Estimate	0.91
ID3 Block Estimate uncapped	1.36
OK Block Estimate	0.84
OK Block Estimate uncapped	1.28
NN Block Estimate	1.06
NN Block Estimate uncapped	1.38

Figure 14-25 Birch Crossing Grade and Tonnage Charts Comparing Estimation Methods



14.6.4.3 Local Bias Check

Swath plots were generated to assess the model for local bias by comparing ID3, NN and OK estimates on panels through the deposit. Results show a reasonable comparison between the methods, particularly in the main portions of the deposit indicated by the bar charts (Figure 14-26 and Figure 14-27).

Figure 14-26 Birch Crossing Swath Plots (E-W)

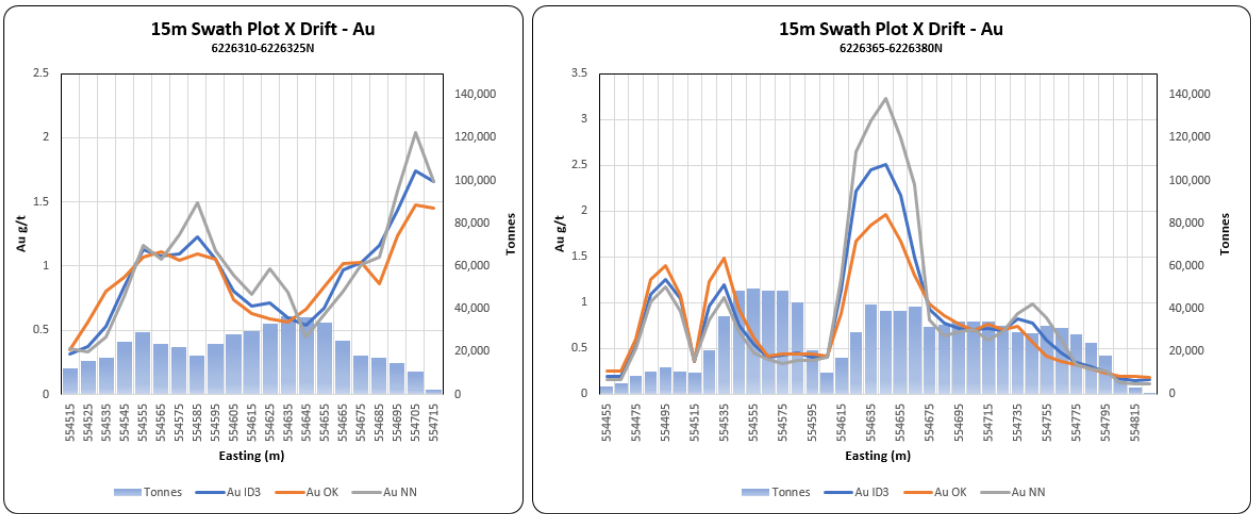
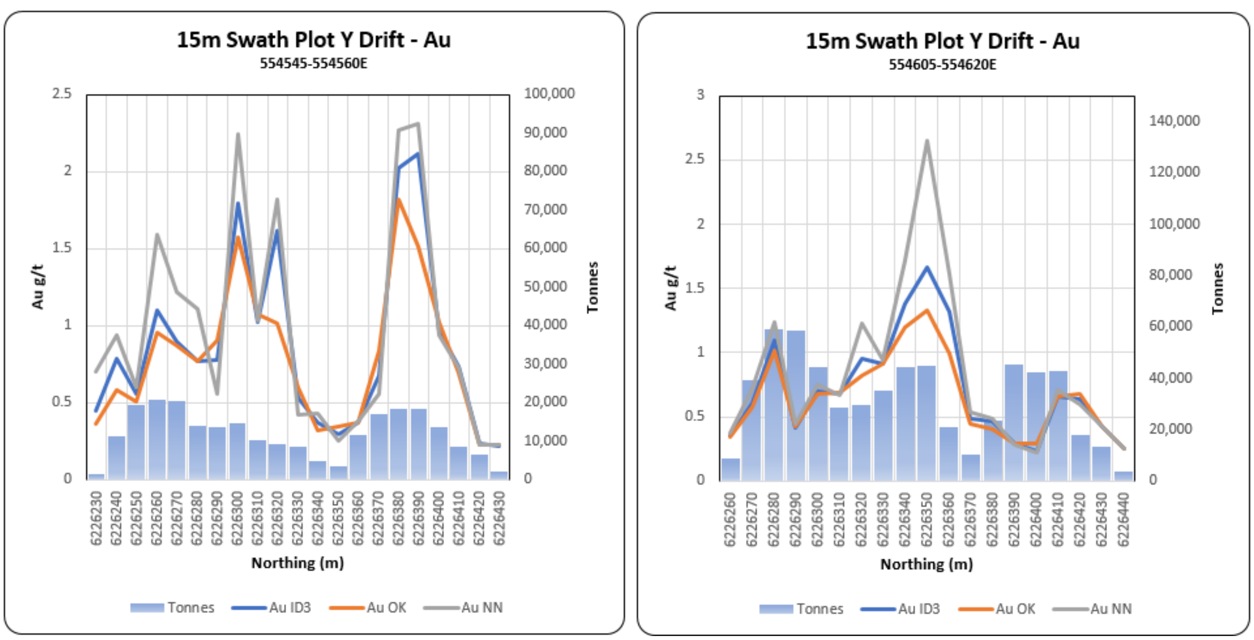


Figure 14-27 Birch Crossing Swath Plots (N-S)



14.6.5 Classification of Mineral Resources

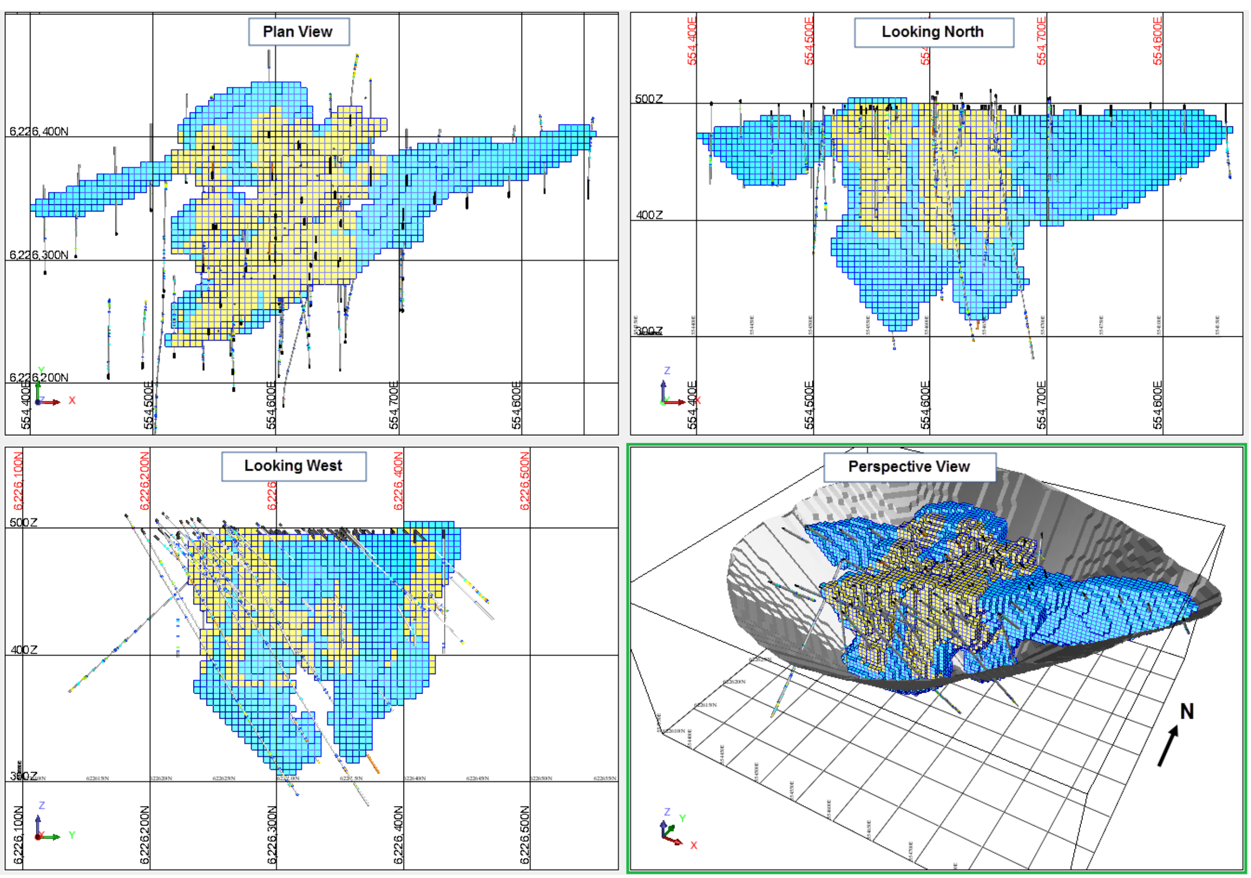
Resource classifications used in this study conform to the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014).

Due to the high nugget-effect and lack of closely spaced sampling along strike and down-dip, grade continuity has not been sufficiently established to assign any of this resource to a measured category.

Blocks were assigned preliminary classifications based on drill hole spacing. Blocks falling within the 20 m x 20 m drill hole spacing pattern were assigned a tentative 'Indicated' classification. All other estimated blocks were assigned to the 'Inferred' category.

Some Indicated blocks were downgraded in classification to remove isolated blocks within areas of inferred blocks. Block classification is illustrated in Figure 14-28.

Figure 14-28 Birch Cross Resource Classification



14.6.6 Reasonable Prospects of Economic Extraction

The Mineral Resource has reasonable prospects for eventual economic extraction and its location, quantity, grade and continuity are known, estimated or interpreted from the Birch Crossing Mineral Resource database consisting of diamond results. Mineral Resources were constrained by an optimized pit shell based on metal prices of US$1600/oz Au. Mining costs were assumed to be US$2.50/t for ore and US$1.50/tonne for waste and overburden. Processing costs were US$9.50/t and general and administrative (G&A) costs were US$1.00/t. Metal recovery of 90 % for Au was used in the optimization. The pit slope was set at 45˚.

The cost and price assumptions used for the break-even cut-off grade determination are presented in Table 14-6. The Birch Crossing optimized pit is shown in the lower right panel of Figure 14-28.

14.6.7 Mineral Resource Statement

Table 14-13 presents the Mineral Resource estimate for the Birch Crossing deposit at a base case cut-off grade of 0.3 g/t Au.

Table 14-13 Birch Crossing Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Indicated	1,939,800	1.257	78,394
Inferred	1,658,100	1.051	56,028

Notes:
1. Mineral resource estimate prepared by GeoSim Services Inc. with an effective date of November 2, 2020.
2. Totals may not sum due to rounding.
3. Mineral resources are constrained by an optimized pit shell using the following assumptions: US$1600/oz Au price; a 45° pit slope; assumed metallurgical recovery of 90%; mining costs of US$2.50 per tonne for ore and US$1.50 per tonne for waste and overburden; processing costs of US$9.50 per tonne; G&A of US$1.00/t.
4. A base case cut-off grade of 0.3 g/t Au represents an in-situ metal value of US$13.02 per tonne at a gold price of $1500/oz which is believed to provide a reasonable margin over operating and sustaining costs for open-pit mining and processing.
5. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

14.6.8 Factors That May Affect the Mineral Resource Estimate

The resource estimate is based on information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Areas of uncertainty that may materially impact the Mineral Resource Estimate include:

- Estimated global bulk tonnage is based solely on data from the Tower East deposit
- Low-grade mineralization appears to extend beyond the limits of drilling, but has been confined within a low-grade envelope for the present estimate
- The topographic base is of low resolution and not suitable for detailed mine planning
- Commodity price assumptions
- Pit slope angles
- Metal recovery assumptions
- Mining and Process cost assumptions
- Assumptions that all required permits will be forthcoming

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in the province of Saskatchewan in terms of environmental, permitting, taxation, socio economic, marketing, and political factors. Geosim is not aware of any known legal or title issues that would materially affect the Mineral Resource estimate.

14.7 Memorial

14.7.1 Key Assumptions and Basis of Estimate

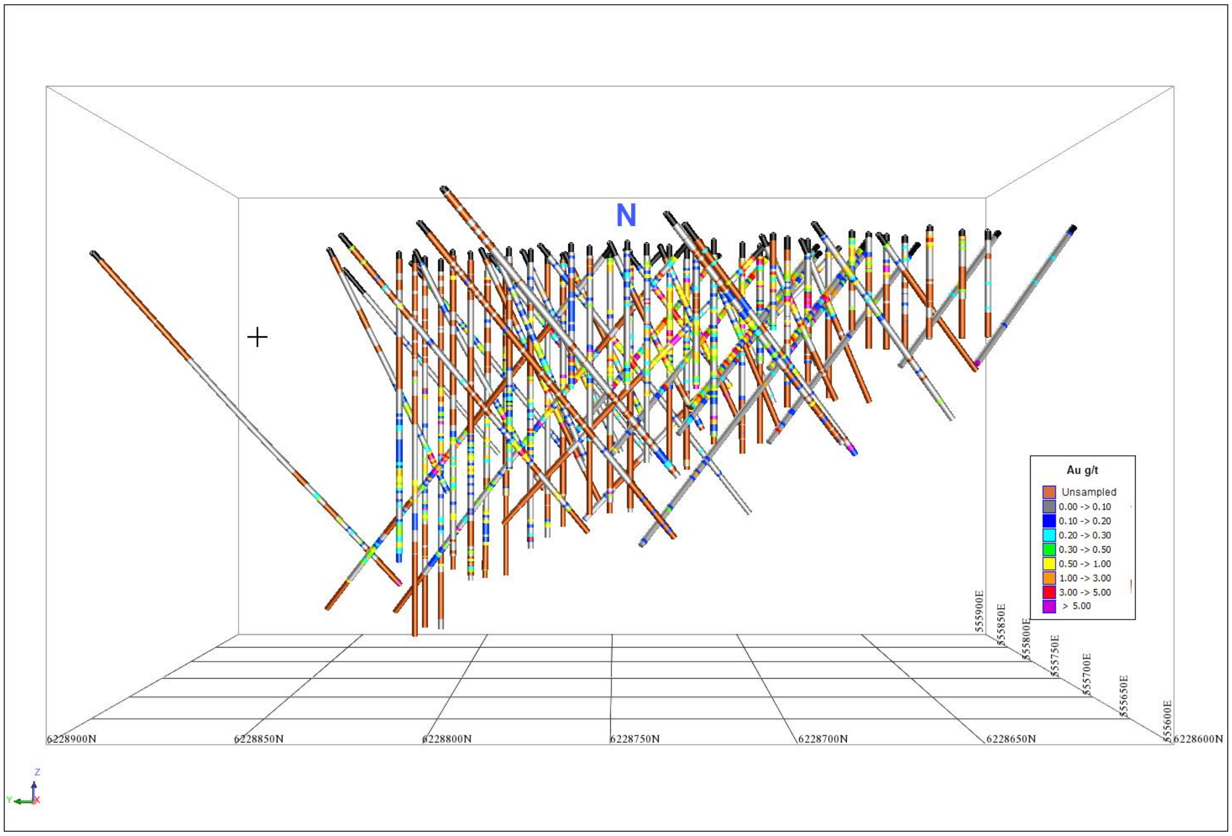
The database for the Memorial Mineral Resource estimate contains analytical and lithology data from 79 drill holes totaling 6774.45 metres completed between 1988 and 2004 (Table 14-1).

Table 14-14 Memorial Drilling Summary

Year	Operator	Series	Holes	Metres
1988	Pamorex	KL88	2	198.60
1997	Golden Band	MM_01 to 05	5	343.30
1998	Golden Band	MM-06 to 10	5	520.20
1999	Golden Band	MM-11 to 15	5	509.00
2002	Golden Band	MM-16 to 18	3	371.90
2003	Golden Band	MM-19 to 39	21	1,966.05
2004	Golden Band	MM-40 to 77	38	2,865.40
		Total	**79**	**6,774.45**

In 1998 and between 2002 and 2004 the core was selectively sampled as illustrated in Figure 14-29. These unsampled intervals were added to the model database and assigned a grade value of 0 g/t Au. Since these intervals were not regarded as containing significant mineralization at the time of logging, it must be assumed that they contain no significant grades. Overall, approximately 30% of the core was unsampled or not analyzed. The distribution and extent of unsampled intervals are illustrated in Figure 14-29.

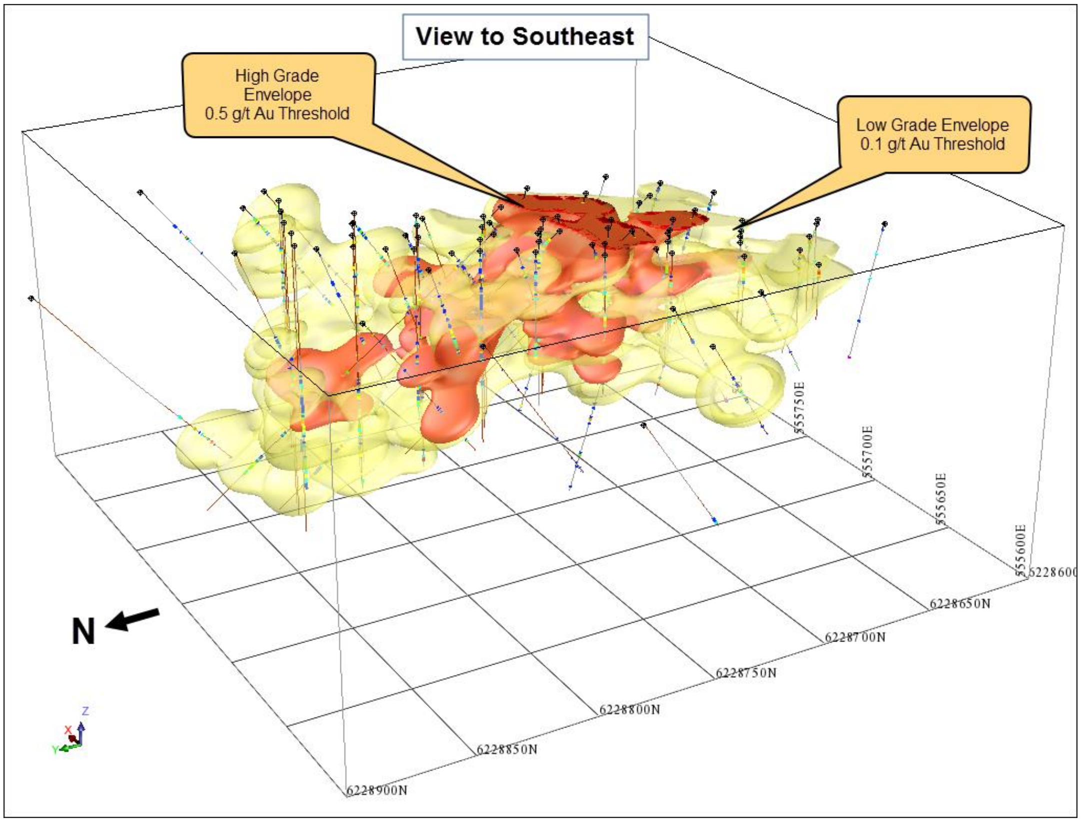
Figure 14-29 View of Memorial Drilling Showing Unsampled Intervals



14.7.2 Geological Models

At Memorial, higher gold grades are concentrated in structural zones trending WSW-ENE with lower grades between them. In order to limit the influence of the higher-grade samples, a high-grade envelope ("HGE") was created using a threshold indicator value of 0.5 g/t Au. A low grade envelope ("LGE") was then created using a threshold of 0.1 g/t Au. Modeling was carried out using 2 m composites and an anisotropic search ellipse with major axis plunging 38° towards an azimuth of 337° (Figure 14-30 Memorial Grade Envelopes).

Figure 14-30 Memorial Grade Envelopes



14.8 Exploratory Data Analysis

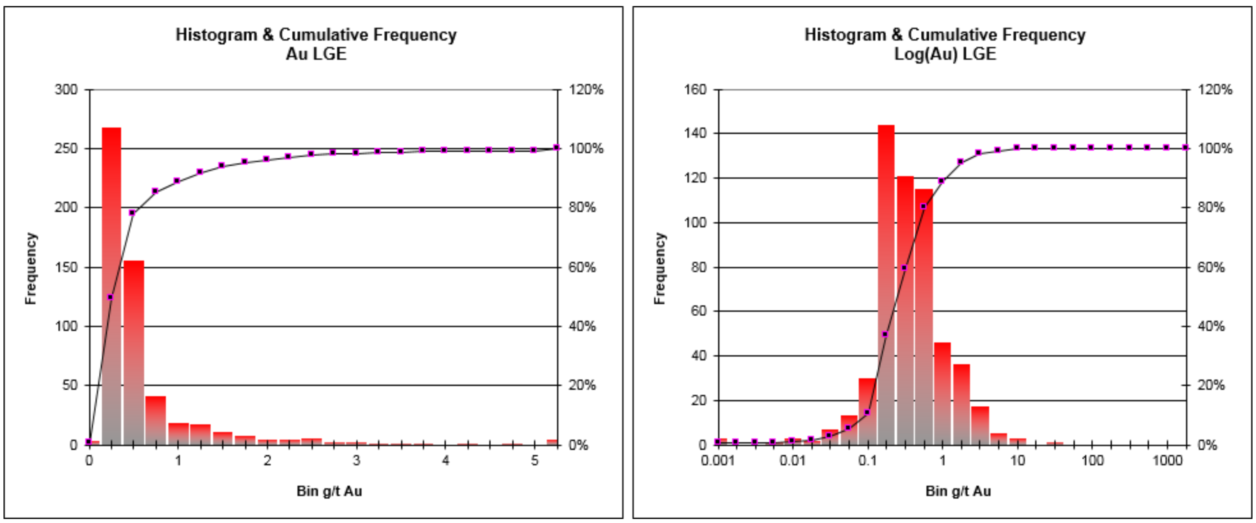
Sample widths for drilling were on nominal 1 m intervals but 12% of the samples were greater than 1 m. It was decided to composite the grades to 2 metre downhole intervals prior to statistical analysis. Grades were composited using the best-fit method which produces composites of variable length but of equal length within a specified zone. This method has the advantage of avoiding partial composites at the beginning and end of the zone intercepts.

Statistics for composites within the LGE are presented in Table 14-15. The sample population is highly skewed approaching log-normal distribution with no significant bimodality evident as illustrated in the histograms of Figure 14-31 Au Frequency Distribution – Memorial.

Table 14-15 Composite Statistics – Memorial LGE

	Au g/t
n	547
Min	0.000
Max	20.664
Mean	0.509
Median	0.255
Variance	1.315
Std Dev	1.147
COV	2.253

Figure 14-31 Au Frequency Distribution – Memorial LGE

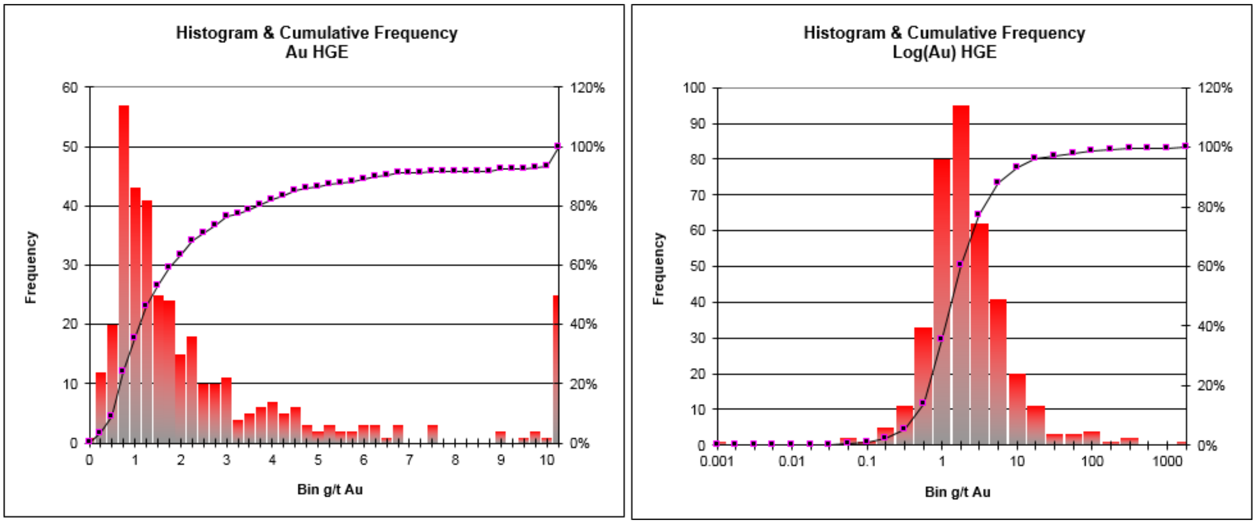


Statistics for composites within the HGE are presented in Table 14-16. The sample population is highly skewed approaching log-normal distribution with no significant bimodality evident as illustrated in the histograms of Figure 14-32. The coefficient of variation (COV) is mainly due to one extreme outlier.

Table 14-16 Composite Statistics – Memorial HGE

	Au g/t
n	376
Min	0.000
Max	1127.657
Mean	8.307
Median	1.371
Variance	3809.450
Std Dev	61.721
COV	7.430

Figure 14-32 Au Frequency Distribution – Memorial HGE



14.9 Grade Capping and Outlier Restriction

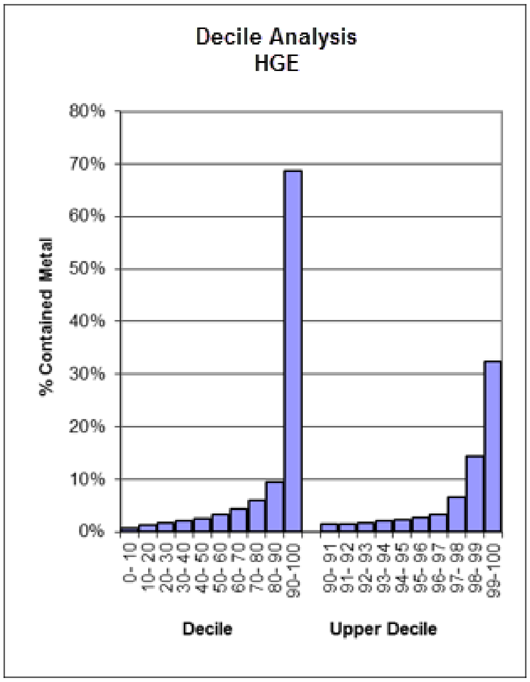
Grade distribution in the composited sample data was examined to determine if grade capping or special treatment of high outliers was warranted. A decile analyses was performed on the composites within the LGE and log probability plots examined. As a general rule, the cutting of high grades is warranted if:

- the last decile (upper 10% of samples) contains more than 40% of the metal; or
- the last decile contains more than 2.3 times the metal of the previous decile; or
- the last centile (upper 1%) contains more than 10% of the metal; or
- the last centile contains more than 1.75 times the next highest centile.

A decile analysis of the 2 m composites in both the high and low grade envelopes meets two of the requirements. The last decile contains over 50% of the contained metal and the last centiles both exceed the 10% threshold (Figure 14-33). From this was concluded that capping and/or restriction of high-grade outliers was warranted.

Based on analysis of cumulative probability plots for both the grade envelopes it was decided to impose a topcut of 30 g/t for the HGE and 5 g/t for the LGE (Figure 14-21).

Figure 14-33 Memorial Decile Analysis



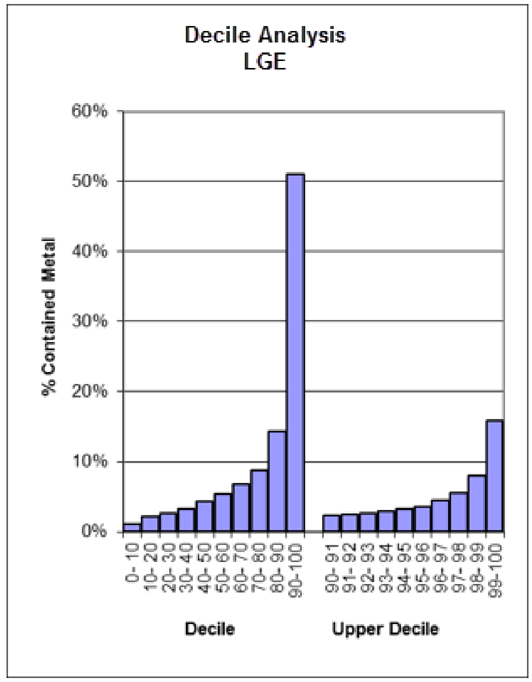
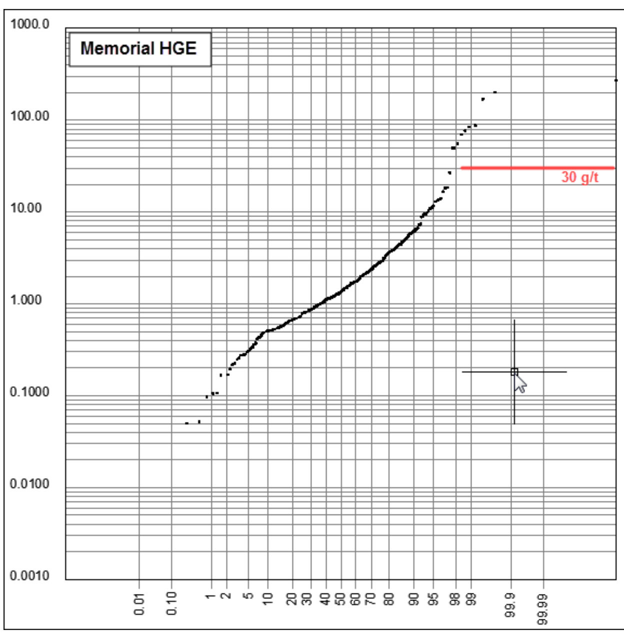
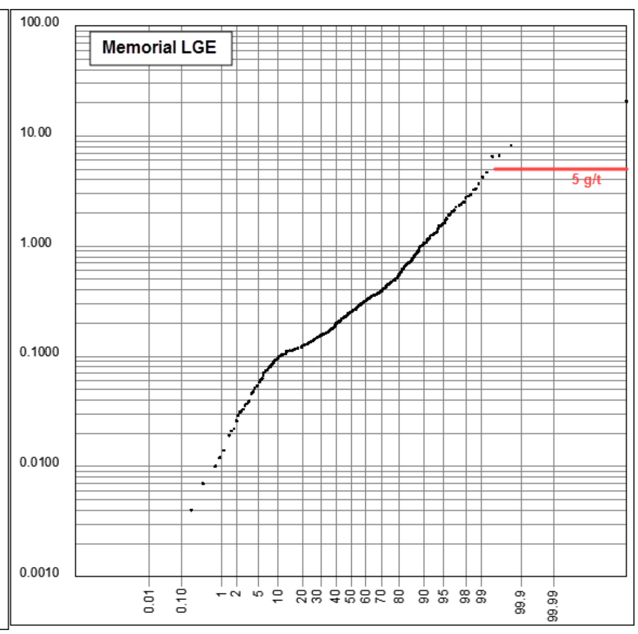


Figure 14-34 Cumulative Probability Plot - Memorial Composites





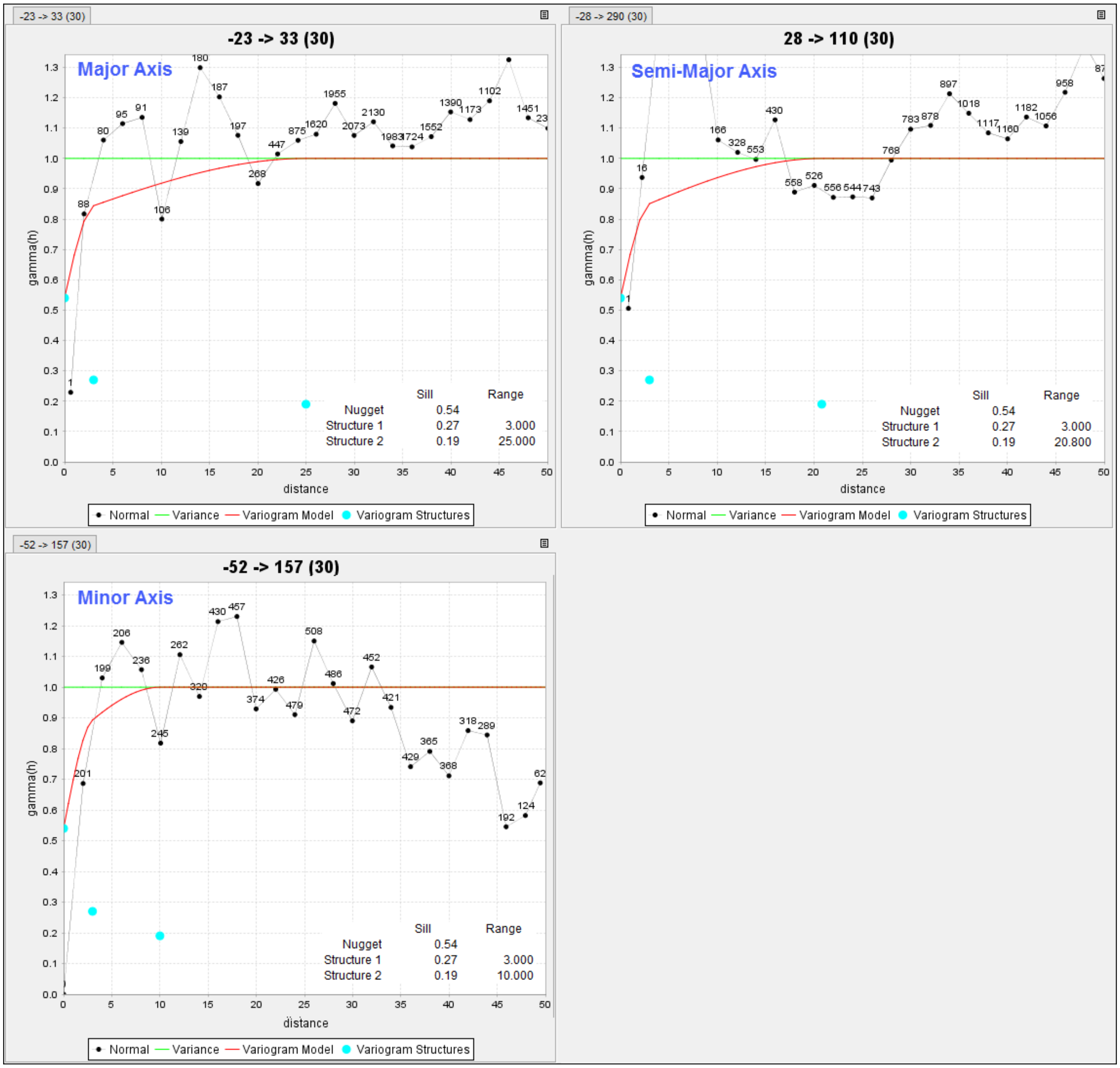
14.9.1 Density Assignment

Bulk density measurements were performed on 25 core samples from the mineralized zone. The specific gravity ranged from 2.68 to 3.04. The average value of 2.83 was used in this resource estimation.

14.9.2 Variography

Modeled variograms for the Memorial composites within the LGE showed a maximum range of 25m and moderate to strong anisotropy (Figure 14-35). The principal axis plunges 23° to the NE and the semi-major axis plunges 28° to the NW.

Figure 14-35 Memorial Variography



14.9.3 Estimation/Interpolation Methods

A block model with block dimensions of 2.5x2.5x2.5 m was created using Geovia-Surpac© software. Extents are shown in Table 14-17.

Table 14-17 Memorial Block Model Extents

	East	North	Elev
Min	555550	6228500	350
Max	556000	6228960	525
Extent	450	460	175
Block Size	2.5	2.5	2.5

Both Ordinary Kriging (OK) and Inverse-distance cubed weighting to the third power (ID3) interpolations were carried out within the HGE and LGE domains in two passes.

A minimum of 4 and maximum of 16 composites were used for grade estimation and composites from at least two drill holes were required to estimate a block (Table 14-18). The LGE search used all composites from both zones capped at 5 g/t. The HGE search used only composites falling within the zone capped at 30 g/t. The volume percent of the blocks within the two domains were calculated and the blocks that were partially within both domains were assigned the weighted average of the estimated HGE and LGE grades as illustrated in Figure 14-36.

An anisotropic search ellipsoid was used with the principal axis plunging 23° to the NE and the semi-major axis plunging 28° to the NW. The major to semi-major search ratio was 1.2:1 and the major to minor search ratio was 2.5:1.

Overall block grade distribution is illustrated in Figure 14-37.

A Nearest Neighbour (NN) model was also estimated using 2.5 m composites for validation purposes.

Table 14-18 Memorial Block Model Estimation Parameters

Zone	Pass	Cap Grade	Composites Used			Search Distances		
			Min	Max	Max/Hole	-23->033°	28->110°	-52->157°
HGE	1	30	4	16	3	25	21	10
	2	30	4	16	3	50	42	20
LGE	1	5	4	16	3	25	21	10
	2	5	4	16	3	50	42	20

Figure 14-36 Section 2425E Showing Block Grade Estimation

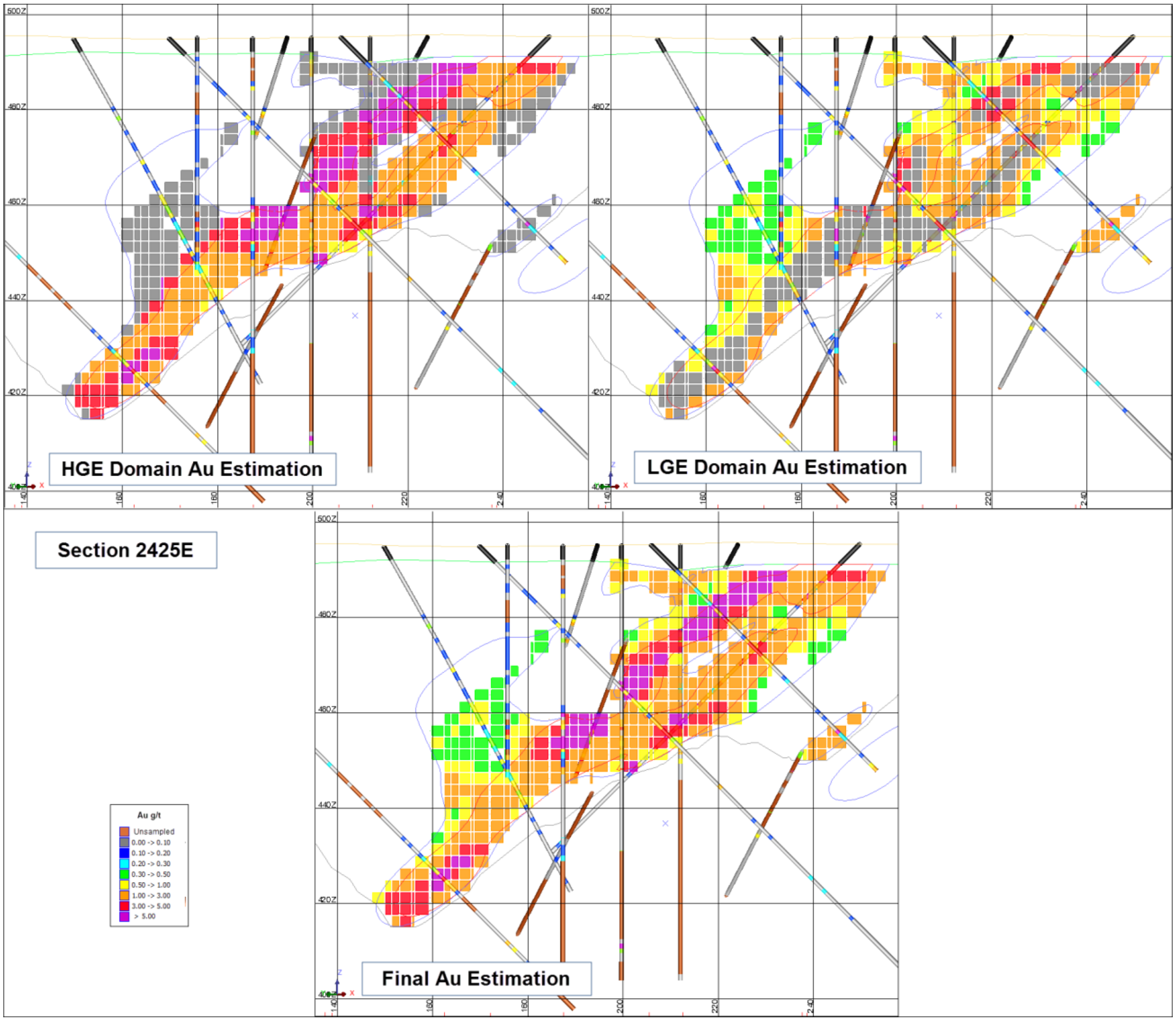
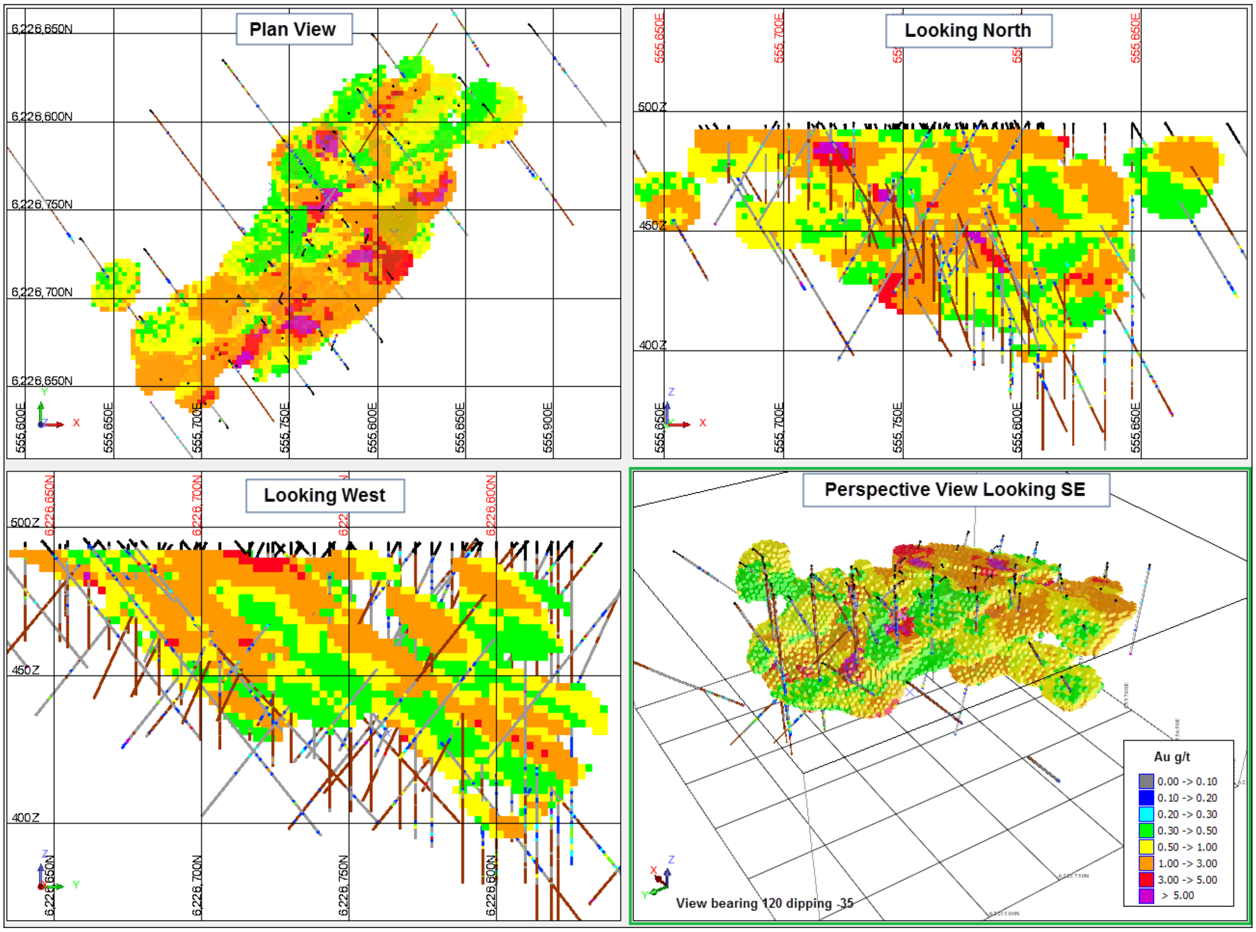


Figure 14-37 Memorial Block Model Grades (ID3)



14.9.4 Block Model Validation

14.9.4.1 Visual Inspection

Model verification was initially carried out by visual comparison of blocks and composite grades in plan and section views. The estimated block grades showed reasonable correlation with adjacent composite grades. The ID3 estimation appeared to be superior to OK in local grade estimates.

14.9.4.2 Global Bias Check

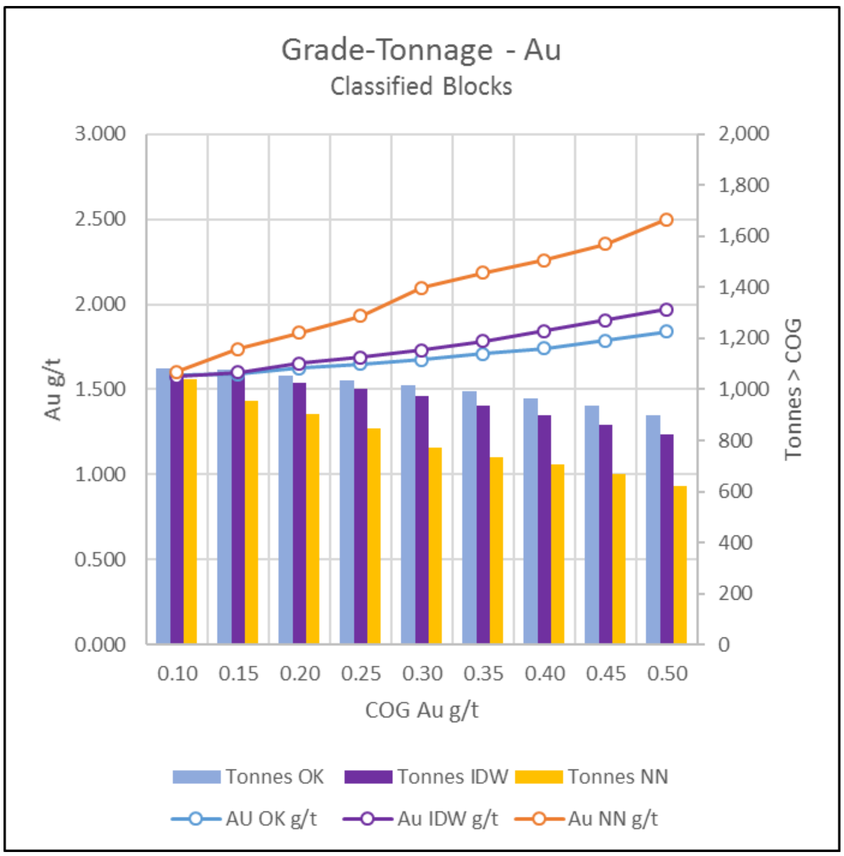
A comparison of global mean values between the various block estimates within the resource shows a reasonably close relationship between declustered composites and block model global mean values (Table 14-19). However, there is a considerable divergence in uncapped block model means due to the presence of extreme outliers.

Grade-tonnage charges comparing NN, OK, and ID3 models are presented in **Error! Reference source not found.**.

Table 14-19 Memorial Global Mean Grade Comparison

Data	Au g/t
Composites	4.01
Capped Composites	1.17
Composites (Declustered)	3.55
Capped Composites (Declustered)	1.56
ID3 Block Estimate	1.57
OK Block Estimate	1.58
NN Block Estimate	1.55
ID3 Block Estimate uncapped	2.22
OK Block Estimate uncapped	3.49
NN Block Estimate uncapped	2.14

Figure 14-38 Memorial Grade and Tonnage Charts Comparing Estimation Methods



14.9.4.3 Local Bias Check

Swath plots were generated to assess the model for local bias by comparing ID3, NN and OK estimates on panels through the deposit. Results show a reasonable comparison between the methods, particularly in the main portions of the deposit indicated by the bar charts (Figure 14-39 and Figure 14-40).

Figure 14-39 Memorial Swath Plots (E-W)

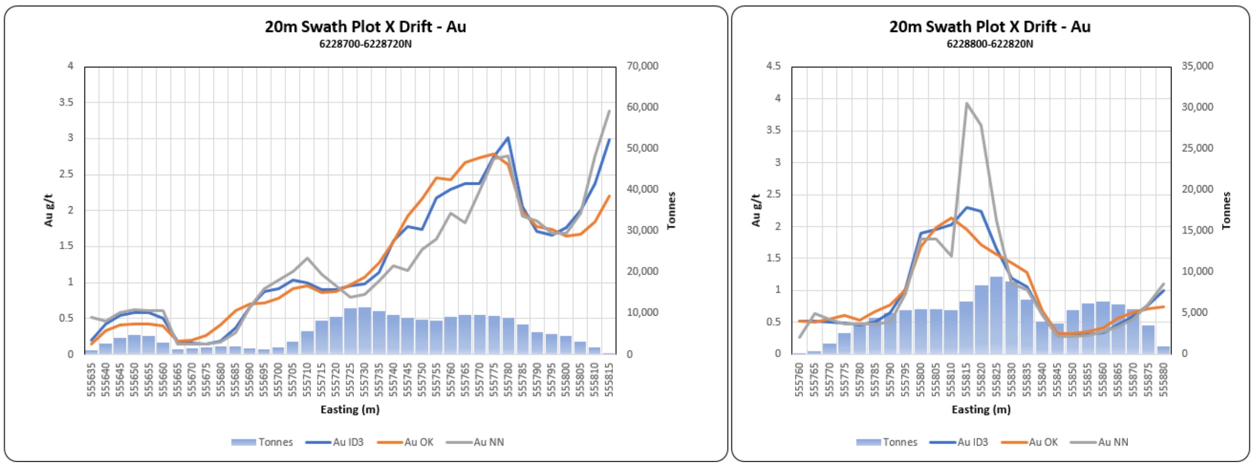
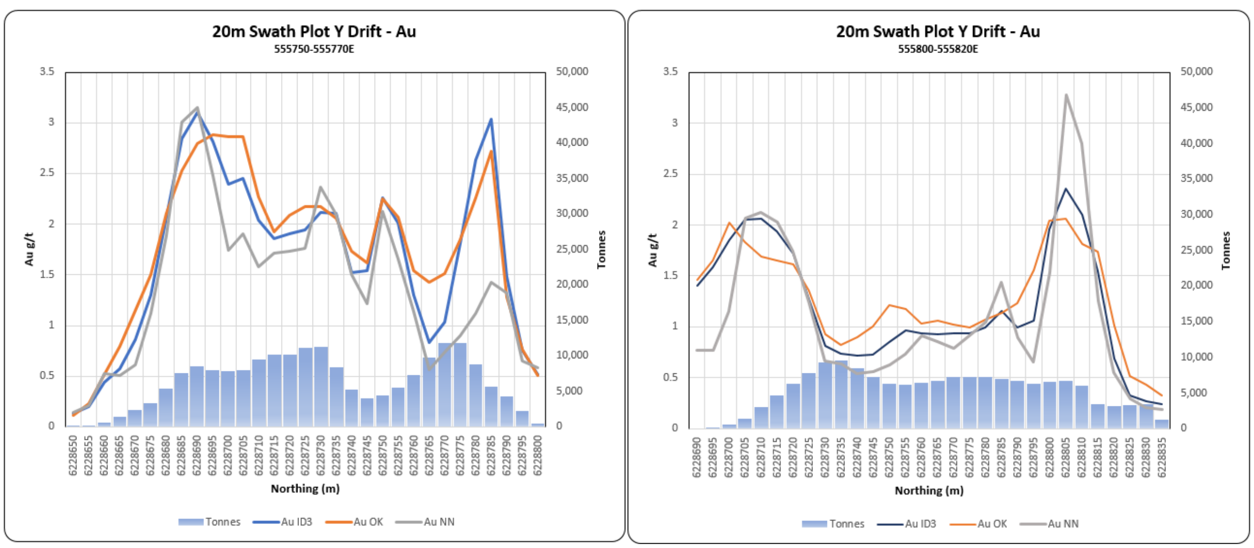


Figure 14-40 Memorial Swath Plots (N-S)



14.9.5 Classification of Mineral Resources

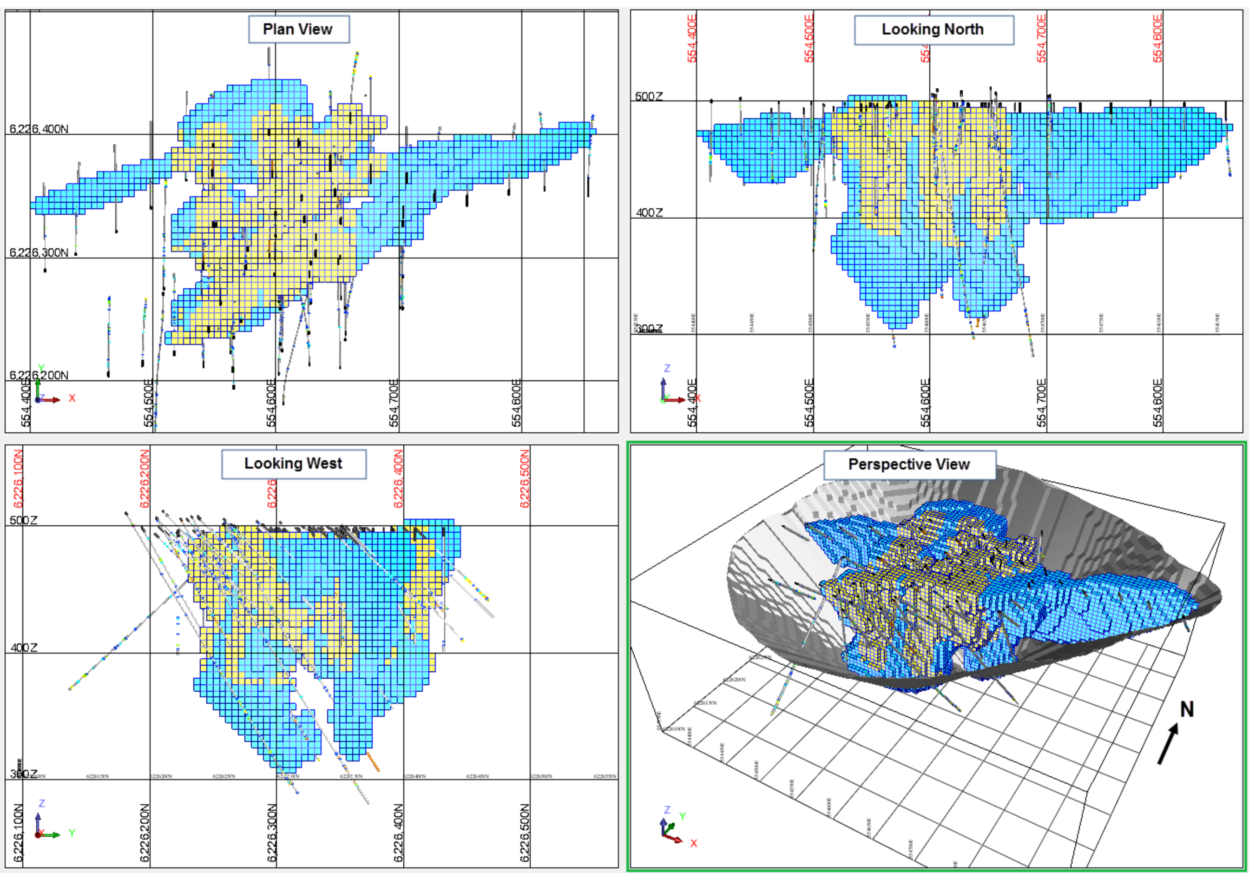
Resource classifications used in this study conform to the CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014).

Due to the high nugget-effect and lack of continuous sampling in many drill holes, grade continuity has not been sufficiently established to assign any of this resource to a measured category.

Blocks were assigned preliminary classifications based on drill hole spacing. Blocks falling within the 20 m x 20 m drill hole spacing pattern were assigned a tentative 'Indicated' classification. All other estimated blocks were assigned to the 'Inferred' category.

Some Indicated blocks were downgraded in classification to remove isolated blocks within areas of inferred blocks. Block classification is illustrated in Figure 14-41.

Figure 14-41 Memorial Resource Classification



14.9.6 Reasonable Prospects of Economic Extraction

The Mineral Resource has reasonable prospects for eventual economic extraction and its location, quantity, grade and continuity are known, estimated or interpreted from the Memorial Mineral Resource database consisting of diamond results. Mineral Resources were constrained by an optimized pit shell based on metal prices of US$1600/oz Au. Mining costs were assumed to be US$2.50/t for ore and US$1.50/tonne for waste and overburden. Processing costs were US$9.50/t and general and administrative (G&A) costs were US$1.00/t. Metal recovery of 90 % for Au was used in the optimization. The pit slope was set at 45˚.

The cost and price assumptions used for the break-even cut-off grade determination are presented in Table 14-6. The Memorial optimized pit is shown in the lower right panel of Figure 14-41.

14.9.7 Mineral Resource Statement

Table 14-20 presents the Mineral Resource estimate for the Memorial Deposit at a base case cut-off grade of 0.3 g/t Au.

Table 14-20 Memorial Mineral Resource Estimate

Class	Tonnes	Au g/t	Contained 0z Au
Indicated	791,700	1.390	35,381
Inferred	248,600	0.860	6,874

Notes:
1. Mineral resource estimate prepared by GeoSim Services Inc. with an effective date of November 2, 2020.
2. Totals may not sum due to rounding.
3. Mineral resources are constrained by an optimized pit shell using the following assumptions: US$1600/oz Au price; a 45° pit slope; assumed metallurgical recovery of 90%; mining costs of US$2.50 per tonne for ore and US$1.50 per tonne for waste and overburden; processing costs of US$9.50 per tonne; G&A of US$1.00/t.
4. A base case cut-off grade of 0.3 g/t Au represents an in-situ metal value of US$13.02 per tonne at a gold price of $1500/oz which is believed to provide a reasonable margin over operating and sustaining costs for open-pit mining and processing.
5. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

14.9.8 Factors That May Affect the Mineral Resource Estimate

The resource estimate is based on limited information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Areas of uncertainty that may materially impact the Mineral Resource Estimate include:

- Low-grade mineralization appears to extend beyond the limits of drilling, but has been confined within a low-grade envelope for the present estimate
- Approximately 30% of the drill core was not sampled or analyzed which limited the extent of the low grade zone interpretation.

- The topographic base is of low resolution and not suitable for detailed mine planning
- Commodity price assumptions
- Pit slope angles
- Metal recovery assumptions
- Mining and Process cost assumptions
- Assumptions that all required permits will be forthcoming

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in the province of Saskatchewan in terms of environmental, permitting, taxation, socio economic, marketing, and political factors. Geosim is not aware of any known legal or title issues that would materially affect the Mineral Resource estimate.

14.10 Comment on Section 14

The QP has estimated and classified the Mineral Resources in a manner consistent with the 2014 CIM Definition Standards. The risks of the Mineral Resources are presented in Sections 14.3.8, 14.6.8, and 14.9.8.

15.0 Mineral Reserves Statement

This section is not relevant to this Report as no Mineral Reserves have been estimated.

16.0 Adjacent Properties

This section is not relevant to this report.

17.0 Other Relevant Data and Information

There are no other data or information relevant to the Project that have not been presented in this Report.

18.0 Interpretation and Conclusions

18.1 Geology and Mineralization

The Project area hosts three significant shear-hosted, mesothermal gold deposits. The regional and deposit-scale geology and controls on mineralization are sufficiently well understood to permit the construction of geological models and estimation of Mineral Resources for the Tower East, Birch Crossing, and Memorial gold deposits.

18.2 Metallurgical Testwork

The metallurgical testwork carried out in 2005 suggests gold recoveries in the range of 86 to 96% are achievable by a combination of gravity separation and cyanidation at Tower East and Memorial. However, the grade of the composites tested was significantly higher than the average grade of the updated mineral resources.

18.3 Mineral Resource Estimates

The resource estimates are based on information and sampling gathered through appropriate techniques from diamond drill core holes. The estimate was prepared using industry standard techniques and has been validated for bias and acceptable grade-tonnage characteristics.

Areas of uncertainty that may materially impact the Mineral Resource Estimate include:

- Estimated global bulk tonnage for Birch Crossing is based solely on data from the Tower East deposit.
- Low-grade mineralization at Tower East appears to extend beyond the limits of drilling but has been confined within a low-grade envelope for the present estimate.
- The topographic base is of low resolution and not suitable for detailed mine planning.
- Commodity price assumptions.
- Pit slope angles.
- Metal recovery assumptions.
- Mining and Process cost assumptions.
- Assumptions that all required permits will be forthcoming.

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in the province of Saskatchewan in terms of environmental, permitting, taxation, socio economic, marketing, and political factors. Geosim is not aware of any known legal or title issues that would materially affect the Mineral Resource estimate.

Although the Birch Crossing and Memorial deposits are not of sufficient size to support stand-alone mining operations they could be mined as satellite deposits to the Tower East deposit.

The ultimate extents of the deposits have not been completely delineated by drilling. The Tower East deposit shows the highest potential for increasing the size of the deposit based on widely spaced drill intercepts in the Phantom Zone which extends south of Tower Lake.

19.0 Recommendations

Two phases of work are recommended.

The first work phase would consist of a drill program with following objectives:

- A LiDAR survey or high-resolution orthophotographic survey of the entire Project area.
- Resource expansion drilling in order to potentially expand the mineral resources within Tower East, Birch Crossing, and Memorial.
- Infill drilling to support potential upgrade in Mineral Resource confidence categories.
- Geotechnical drilling for open pit mine design.
- Additional bulk density testing of representative lithologies and mineralization styles.
- Metallurgical testing should be carried out using lower grade composites.
- Existing unsampled intervals from past Memorial drilling should be split and sampled if the core is identifiable and in reasonable condition.
- The creation of site-specific reference standards should be considered as purchased reference standards have proved problematic in the past.
- All drill data should be transferred to a secure relational database.

The second phase of work would consist of a Preliminary Economic Assessment (PEA) once the first-phase drilling is complete. The second phase work program is partly contingent on the results of the recommended drill program.

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I am a Professional Geoscientist (19513) with the Association of Professional Engineers and Geoscientists of British Columbia. I graduated with a Bachelor of Science in Geology from the University of British Columbia, May 1975.

I have practiced my profession continuously for 45 years. I have been directly involved in mineral exploration, mine geology and resource estimation with practical experience from feasibility studies.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects ("NI 43–101").

I visited the Tower Lake property on October 7, 1997, July 7, 2005, and July 24, 2007. I visited the Memorial property on July 27, 2005. I visited Birch Crossing property on July 24, 2007.

I am responsible for all sections of the technical report.

I am independent of Matrixset Investment Corporation and Golden Band Resources Inc. as independence is described by Section 1.5 of NI 43–101.

I prepared Technical Reports on the Tower Lake and Memorial Projects in 2006 and on the Birch Crossing Project in 2007. I also co-authored Preliminary Economic Assessments on the Waddy Lake Project in 2007 and 2008.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the Technical Report contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading

Dated: November 2, 2020

Ronald G. Simpson, P.Geo.

PROFESSIONAL PROVINCE OF R. G. SIMPSON BRITISH COLUMBIA GEOSCIENTIST

CERTIFICATE OF QUALIFIED PERSON

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I, Frank Hrdy, P.Geo., am employed as a Professional Geoscientist with Canmine Consultants.

This certificate applies to the technical report titled "NI43-101 Technical Report, Thunderbird Gold Project, Saskatchewan, Canada" with an effective date of November 2, 2020, the "Technical Report").

I am a Professional Geoscientist (10226) with the Association of Professional Engineers and Geoscientists of Saskatchewan. I graduated with a Bachelor of Science in Geology from the University of Saskatchewan, 1987 and Masters of Science in Geology (U of S) in 1994.

I have practiced my profession since 1984 with the exception of the years between 1998 and 2003 that were spent in business school and working as a manager in a heavy equipment and cyclotron manufacturing business. I have worked as a geologist (junior to senior, executive), in gold, silver and copper exploration, gold production and gold resource evaluation positions.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects ("NI 43–101").

The last time I visited the Tower Lake property was on October 22, 2020. I also visited the Tower Lake and Birch Crossing properties a couple of times between 2007 and 2010 while employed with Golden Band Resources as their Exploration V.P. and Mineral Resources manager.

I contributed to Sections 2.3 and 12 of this technical report.

I am independent of Matrixset Investment Corporation and Golden Band Resources Inc. as independence is described by Section 1.5 of NI 43–101.

I prepared a Resource Estimate Update and press release for the Tower Lake deposit on December 3, 2007. I also co-authored Preliminary Economic Assessments on the Waddy Lake Project in 2008 and 2009.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the Technical Report contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading

Dated: November 2, 2020

Frank Hrdy, P.Geo.

PROFESSIONAL GEOSCIENTIST
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