NI 43-101 Report & Preliminary Economic Assessment of the Tower Gold Project

Northeastern Ontario, Canada

Effective Date: September 7, 2022

Amended & Restated Report Date: November 29, 2022*

Prepared for: Moneta Gold Inc.
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*Notice to Reader:

This report replaces the "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada," filed on October 14, 2022 with edits for clarity to Table 1-6, Table 22-1, and Table 22-2, along with conforming changes to the certificates of the qualified persons who have authored the report.

CERTIFICATE OF QUALIFIED PERSON
Davood Hasanloo

I, Davood Hasanloo, P. Eng., certify that I am a Professional Engineer, currently employed as Senior Water Resources Engineer with Ausenco Sustainability Inc., 4515 Central Boulevard, Burnaby, BC, Canada.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated from the Chamran University with a Bachelor of Science in Civil engineering in 2006 and University of British Columbia with a Master of Applied Science degree in Hydrotechnical Engineering.
3. I am a Professional Engineer with Engineers and Geoscientists of British Columbia with the membership number of 42950.
4. I have practiced my profession continuously since 2009 and have been involved in hydrotechnical analysis and water resources engineering related to mining projects dealing with sitewide water management and water management design. Example of projects I've been involved with include: Wasamac Underground Project FS, Eskay Creek Mine FS, Teck Elkview Operations Drainage and Sediment Mitigation Design, Chvaletice Mine FS, Las Chispas Mine detailed design, New Polaris Mine FS.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not visited the Tower Gold Project property.
7. I am responsible for Sections 1.18, 1.19, 1.23.7, 1.23.8, 1.23.9, 18.7, 25.9, 26.8, 26.9 and 26.10 of the Technical Report
8. I am independent of Moneta Gold Inc. as independence is defined in Section 1.5 of NI 43-101.
9. I have not had prior involvement with the Tower Gold Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Davood Hasanloo, P.Eng.

CERTIFICATE OF QUALIFIED PERSON
Scott Cameron Elfen

I, Scott Cameron Elfen, P.E., as a co-author of the Technical Report, do hereby certify that I am currently employed as the Global Lead Geotechnical Services of Ausenco Engineering Canada Inc., 855 Homer Street, Vancouver, BC V6B 2W2, Canada.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated from the University of California, Davis with a Bachelor of Science degree in Civil Engineering (Geotechnical) in 1991.
3. I am a Registered Civil Engineer in the State of California (No. C56527) by exam since 1996 and am also a member of the American Society of Civil Engineers (ASCE), Society for Mining, Metallurgy & Exploration (SME) that are all in good standing.
4. I have practiced my profession continuously for over 26 years with experience in the development, design, construction and operations of mine waste storage facilities, such as waste rock storage facilities and tailings storage facilities ranging from slurry to dry stack facilities, focusing on precious and base metals, both domestic and internationally. In addition, developed geotechnical design parameters for pit slope design, plant foundation design, and other supporting infrastructure. Examples of projects I have worked on include: Skeena's Eskay Creek Project PEA, PFS and FS, O3 Mining's Marban Project PEA and PFS, First Mining Gold's Springpole PEA and PSF. SSR Mining's Puna Silver in-pit tailings disposal PFS and Detailing Engineering, Lumia Gold Corp's Cangrejos Project PEA and PSF, and Broden Mining's Vangorda PEA.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I visited the property on October 21, 2020.
7. I am responsible for Sections 1.16, 1.22.1.3, 1.22.2.5, 1.23.3, 1.23.6, 18.3, 18.4, 18.8, 25.8, 25.12.1.5, 25.12.2.5, 26.6 and 26.7 of the Technical Report
8. I am independent of Moneta Gold Inc. as independence is defined in Section 1.5 of NI 43-101.
9. I acted as a qualified person for the N.I. 43-101 Technical Report & Preliminary Economic Assessment of the Garrison Project, January 27, 2021. The Garrison Project is now included in the Tower Gold Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Scott Cameron Elfen, P.E.

CERTIFICATE OF QUALIFIED PERSON
Tommaso Roberto Raponi

I, Tommaso Roberto Raponi, P. Eng., certify that I am employed as a Principal Metallurgist with Ausenco Engineering Canada Inc. ("Ausenco"), with an office address of Suite 1550 - 11 King St West, Toronto, ON M5H 4C7.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated from the University of Toronto with a Bachelor of Applied Science degree in Geological Engineering, with specialization in Mineral Processing in 1984.
3. I am a Professional Engineer registered with the Professional Engineers Ontario (No. 90225970), Engineers and Geoscientists British Columbia (No. 23536) and NWT and Nunavut Association of Professional Engineers and Geoscientists (No. L4508) and with Professional Engineers and Geoscientists Newfoundland & Labrador (Permit No. 10968).
4. I have practiced my profession continuously for over 38 years with experience in the development, design, operation and commissioning of mineral processing plants, focusing on gold projects, both domestic and internationally. Examples of projects I have worked on include: Treasury Metals Goliath Gold Complex PEA, O3 Mining Marban Project PEA, Generation Mining Marathon Project FS, Equinox Gold Santa Luz Project FS, Equinox Gold Hardrock Project Technical Report and the Wasamac Underground Project FS.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not visited the Tower Gold Project property.
7. I am responsible for Sections 1.1, 1.2, 1.11, 1.14, 1.15, 1.20, 1.21, 1.22.1.4, 1.22.2.3, 1.22.2.4, 1.23.2, 1.24, 2, 3, 13, 17, 18.1, 18.2, 18.5, 18.6, 19, 21.1, 21.2.1, 21.2.2, 21.2.2.2, 21.2.2.3, 21.2.3, 21.2.4, 21.2.5, 21.2.6, 21.3.1, 21.3.3, 22, 24, 25.6, 25.7, 25.10, 25.11, 25.12.1.2, 25.12.2.3, 25.12.2.4, 25.13, 26.1, 26.3 and 27 of the Technical Report.
8. I am independent of Moneta Gold Inc. as independence is defined in Section 1.5 of NI 43-101.
9. I acted as a qualified person for the N.I. 43-101 Technical Report & Preliminary Economic Assessment of the Garrison Project, January 27, 2021. The Garrison Project is now included in the Tower Gold Project. I acted as a qualified person for the N.I. 43-101 Report & Mineral Resource Estimate for the Tower Gold Project, May 11, 2022.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Tommaso Roberto Raponi, P. Eng.

CERTIFICATE OF QUALIFIED PERSON
Scott Weston

I, Scott Weston, P.Geo., as a co-author of the Technical Report, do hereby certify that I am currently employed as Vice President, Business Development and Strategy of Ausenco Sustainability Inc., 4515 Central Boulevard, Burnaby, BC, Canada.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated from University of British Columbia, Vancouver, BC, Canada, in 1995 with a B.Sc. in Physical Geography, and from Royal Roads University, Victoria, BC, Canada, in 2003 with a Masters of Science, Environment and Management.
3. I am a Professional Geoscientist of Engineers and Geoscientists, British Columbia (#124888).
4. I have worked as a geoscientist continuously for 25 years, leading or working on teams advancing multidisciplinary environmental projects related to natural resource development. Example of projects I've been involved with include: Wasamac Project FS, Eskay Creek Mine PFS, Las Chispas Mine FS, and Casino Project FS.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not visited the property.
7. I am responsible for Sections 1.17, 1.22.1.5, 1.23.10, 20, 25.12.1.4 and 26.11 of the Technical Report
8. I am independent of Moneta Gold Inc. as independence is defined in Section 1.5 of NI 43-101.
9. I acted as a qualified person for the N.I. 43-101 Technical Report & Preliminary Economic Assessment of the Garrison Project, January 27, 2021. The Garrison Project is now included in the Tower Gold Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Scott Weston, P.Geo.

CERTIFICATE OF QUALIFIED PERSON
James Lill, P. Eng.

I, James Lill, P. Eng., as a co-author of the Technical Report, do hereby certify that I am employed as Director – Canada with Mining Plus Canada Consulting Ltd. (Mining Plus), with an office address of 77 King St W, Suite 3740, Toronto, ON, M5K 2A1.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated with a Bachelor of Science degree in Mining Engineering from Queen's University, Kinston, ON, Canada in 2004.
3. I am a registered Professional Engineer of Ontario with Licence Number 100097482.
4. I have practiced my profession for 18 continuous years. Over this time, I have been directly involved in 12 operating mines and projects in both North America and Australia with extensive industry experience in the areas of underground production, mine planning, consulting and project evaluations.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not visited the Tower Gold Project.
7. I am responsible for Sections 1.13.1, 1.20, 1.22.1.2, 1.22.2.2, 1.23.4, 1.23.5, 16.1, 16.2, 16.3, 16.4, 16.6, 16.7.1, 21.2.2.1, 21.3.2.1, 25.5, 25.10, 25.12.1.3, 25.12.2.2, 26.4, 26.4.2 and 26.5 of the Technical Report.
8. I am independent of Moneta Gold with as defined in Section 1.5 of NI 43-101.
9. I have had no prior involvement with Tower Gold Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

James Lill, P. Eng.

Mining Plus Canada Consulting Ltd

CERTIFICATE OF QUALIFIED PERSON
Neda Farmer, P. Eng.

I, Neda Farmer, P. Eng., as a co-author of the Technical Report, do hereby certify that I am employed as Principal Mining Engineer – Canada with Mining Plus Canada Consulting Ltd. (Mining Plus), with an office address of Suite 504,999 Canada Place, Vancouver BC V6C 3E1.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated with a Bachelor of Applied Science degree in Mining and Mineral Processing Engineering from University of British Columbia, Vancouver ,BC, Canada in 1998.
3. I am a registered Professional Engineer of British Columbia.
4. I have practiced my profession for 24 continuous years. Over this time, I have been directly involved in 4 operating mines in North America with extensive industry experience in the areas of open pit production, mine planning, consulting and project evaluations.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I have not visited the Tower Gold Project.
7. I am responsible for the preparation of Sections 1.13.2, 1.20, 16.5, 16.7.2, 21.3.2.2, 25.10 and 26.4.1 of the Technical Report.
8. I am independent of Moneta Gold with as defined in Section 1.5 of NI 43-101.
9. I have had no prior involvement with Tower Gold Project.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Neda Farmer, P. Eng.

Mining Plus Canada Consulting Ltd

CERTIFICATE OF QUALIFIED PERSON
Michael B. Dufresne

I, Michael B. Dufresne, M.Sc., P.Geol., P.Geo., certify that I am employed as a President and Principal Consultant with APEX Geoscience Ltd. ("APEX"), with an office address of 100, 11450 – 160th Street NW, Edmonton, Alberta T5M 3Y7.

1. This certificate applies to the technical report titled "NI 43-101 Report & Preliminary Economic Analysis of the Tower Gold Project, Northeastern Ontario, Canada" that has an effective date of September 7, 2022 (the "Technical Report"), and an amended and restated report date of November 29, 2022.
2. I graduated with a B.Sc. in Geology from the University of North Carolina at Wilmington in 1983 and with a M.Sc. in Economic Geology from the University of Alberta in 1987.
3. I am and have been registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists ("APEGA") of Alberta since 1989. I have been registered as a Professional Geologist with the association of Professional Engineers and Geoscientists of BC since 2012.
4. I have worked as a geologist for more than 35 years since my graduation from University and have extensive experience with exploration for, and the evaluation of, gold deposits of various types, including structurally-controlled, greenstone and sediment-hosted, quartz vein related gold mineralization including mineral resource estimation.
5. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
6. I visited the Tower Gold Project, including Golden Highway and Garrison properties and their associated core facilities, on June 21st, 2022.
7. I am responsible for Sections 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.12, 1.22.1.1, 1.22.2.1, 1.23.1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 23, 25.1, 25.2, 25.3, 25.4, 25.12.1.1, 25.12.2.1 and 26.2 of the Technical Report.
8. I am independent of Moneta Gold Inc. and the Tower Gold properties as independence is defined in Section 1.5 of NI 43-101.
9. I acted as a qualified person for the N.I. 43-101 Report & Mineral Resource Estimate for the Tower Gold Project, May 11, 2022.
10. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: November 29, 2022

"Signed and sealed"

Michael B. Dufresne, M.Sc., P.Geol., P.Geo.

Important Notice

This report was prepared as National Instrument 43-101 Technical Report for Moneta Gold Inc. (Moneta) by Ausenco Engineering Canada Ltd. (Ausenco), APEX Geoscience Ltd. (APEX), and Mining Plus Canada Consulting Ltd. (Mining Plus) collectively the Report Authors. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in the Report Authors' services, based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by client abbreviation subject to terms and conditions of its contracts with each of the Report Authors. Except for the purposed legislated under Canadian provincial and territorial securities law, any other uses of this report by any third party is at that party's sole risk.

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APPENDIX A – CLAIMS LIST

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1 SUMMARY

1.1 Introduction

Moneta Gold Inc. (Moneta Gold) commissioned Ausenco Engineering Canada Inc. (Ausenco) to compile a preliminary economic assessment (PEA) of the Tower Gold Project. The PEA was prepared in accordance with the Canadian disclosure requirements of National Instrument 43-101 (NI 43-101) and the requirements of Form 43-101 F1.

The responsibilities of the engineering consultants and firms who are providing qualified persons are as follows:

- Ausenco managed and coordinated the work related to the report. Ausenco also developed the PEA-level design and cost estimate for the process plant, general site infrastructure, site water management infrastructure, environmental planning, assessment, licensing and permitting. Ausenco conducted the economic analysis

- Mining Plus Canada Consulting Ltd. (Mining Plus) designed the open pit (OP) and underground (UG) mine production schedules, and mine capital and operating costs

- APEX Geoscience Ltd. (APEX) completed the work related to property description, accessibility, local resources, geological setting, deposit type, exploration work, drilling, exploration works, sample preparation and analysis, data verification, and mineral resource estimate.

Readers are cautioned that the PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

1.2 Terms of Service

The report supports disclosures by Moneta Gold in a news release dated September 7, 2022, entitled, “Moneta Delivers Positive PEA for Tower Gold”.

All measurement units used in this report are International System units (SI) and all currencies are expressed in Canadian dollars (C$ or CAD) unless otherwise stated.

Mineral resources and mineral reserves are reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019).

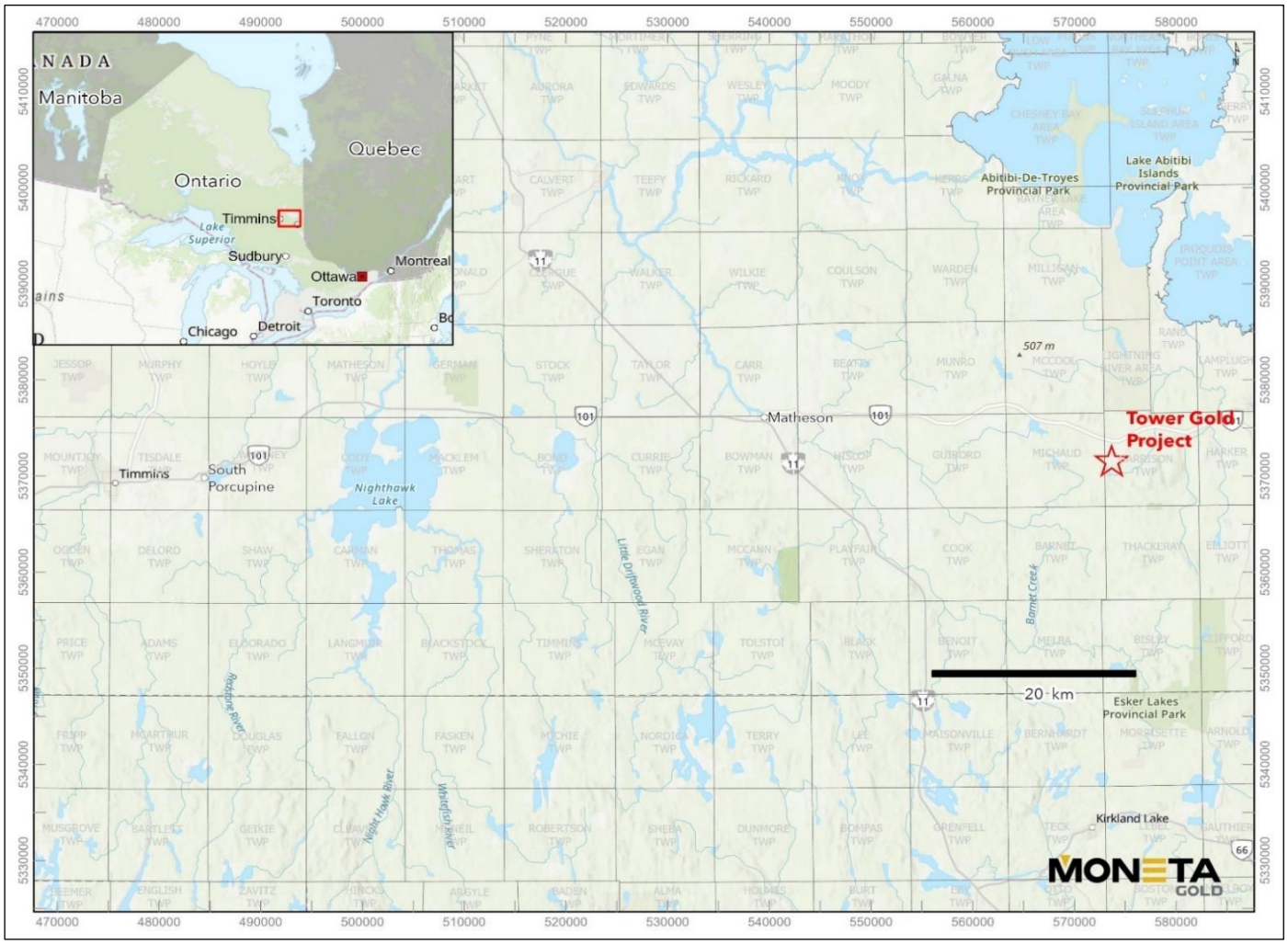
The Tower Gold Project consist of two properties, Golden Highway and Garrison. No historical mining has occurred on the Golden Highway property, whereas the Garrison property contains one past-producing mine (Jonpol), which produced 9,476 ounces of gold between 1996 and 1997. Moneta Gold owns 100% of the Tower Gold Project.

1.3 Property Description and Location

The Tower Gold Project is located in Guibord, McCool, Michaud, Barnet, and Garrison townships, Larder Lake Mining Division in northeastern Ontario, Canada, approximately 540 km north of Toronto, 90 km east of Timmins and 40 km north of the municipality of Kirkland Lake (Figure 1-1). It is centred approximately 5371620N and 573677E in Zone 17N of the NAD 83 UTM coordinate system (48° 29' 36.20" N latitude and 080° 00' 09.92" W longitude).

The property comprises 85 patented mineral claims, 4 leased mineral claims, and 318 unpatented mineral claims (consisting of 221 single cell mining claims and 97 boundary cell claims). These contiguous claims total 7,705.54 ha in area and are owned 100% by Moneta.

Figure 1-1: Property Location Map



Source: Moneta, 2022.

1.4 Project Setting

The property is accessed by logging and drilling roads that extend south from Highway 101, east of Matheson, Ontario. The intersection for the main logging access road (Tower Road) is 32 km east of Matheson. The mineral deposits are located approximately 4 km south of Highway 101 and accessed locally by a network of forestry logging and drilling roads of varying quality.

Regional-scale, poorly drained swamp dominates much of the property area. The topography is relatively flat with an elevation of approximately 330 m above sea level. Relief is generally only a few metres, with drier sandy esker ridges and dunes rising up to 25 m above open and forested swampy areas in western parts. The property has very limited outcrop. All streams and rivers in the project area are part of the Arctic watershed.

Mineral exploration can be conducted year-round. However, because of the swampy ground conditions on much of the project area, exploration activities such as geophysical surveys and diamond drilling are more easily conducted in the winter due to better accessibility after freeze-up. Drilling at other times is possible on a large portion of the property.

Mining equipment and personnel are readily available from the towns of Matheson, Kirkland Lake and Timmins. Timmins and Kirkland Lake are major supply and service centres for the mining industry. They are serviced by modern telecommunications, commercial airlines or rail service and truck transportation.

Communications and power are available along Highway 101 and Highway 672. Water resources are locally available. Cell phone coverage extends to the property. Electrical power is supplied to various mining and mineral exploration projects along Highway 101 from west of Matheson to the Quebec border.

1.5 Geology and Mineralization

The property is situated in the Abitibi Greenstone Belt (AGB). The AGB consists of Neoarchean supracrustal rocks divided into tectonic-stratigraphic assemblages that include metavolcanic rocks, synvolcanic intrusions, metasedimentary rocks, calc-alkaline and alkaline intrusive rocks, and late Proterozoic dykes. The dominant regional structures of interest are the Destor Porcupine Fault Zone (DPFZ) and Pipestone Fault Zone with their associated gold deposits and mineralization.

The central portion of the Golden Highway property has been the focus of exploration work and is divided into a North Corridor and South Corridor that together define the DPFZ, as it crosses Michaud and western Garrison townships. These distinct geological corridors contain the bulk of the known gold mineralization discovered at the property to date. The North Corridor contains the DPFZ (north branch) trace in a sequence of Tisdale mafic and ultramafic metavolcanics. The Timiskaming metasedimentary rocks, iron formation and associated rocks are contained in the South Corridor.

The Garrison property geology is underlain by rocks of the Kidd-Munro and Timiskaming Assemblages and about 4 km of the regionally significant DPFZ and a major associated splay, the Munro Fault Zone. Both fault zones comprise a variably altered and deformed sequence of metavolcanic rocks that include komatiites and tholeiitic basalts. The Kidd-Munro Assemblage is composed of massive to pillowed, mafic (high magnesium and iron tholeiites) and ultramafic (komatiite) metavolcanic rocks. The metavolcanic flows strike in a general east-west direction and dip steeply to the south. The Timiskaming Assemblage is composed of clastic metasedimentary rocks, consisting of conglomerate, wacke-sandstone, siltstone, argillite and schist, and is closely associated with the DPFZ.

The Tower Gold Project to date is host to nine gold deposits, six from the Golden Highway property and three from the Garrison property. Most of the gold occurrences are found within a corridor parallel to the DPFZ. The nine gold deposits include South West, Westaway, Windjammer South, Windjammer Central, Discovery, 55 Zone, Garrcon, 903 and Jonpol.

These deposits have been classified as structurally controlled orogenic gold deposits in an Archean greenstone belt setting. Gold mineralization is greenstone- and sediment-hosted and generally spatially related to quartz-carbonate veins. These veins are hosted by moderately to steeply dipping, compressional, brittle-ductile shear zones and faults with locally associated extensional veins and hydrothermal breccias.

1.6 History

Exploration in the area dates back to the beginning of the 20th century with production recorded from the mines in the area in 1911. Staking of the Golden Highway property commenced in 1939 and known exploration work commenced in 1945. Since 1945 exploration on the Golden Highway Property has included geochemical soil surveys, airborne and ground geophysical surveys and drilling completed by Moneta and various other companies. From the late 1980's onwards Moneta has actively expanded their tenure in the area.

Exploration conducted on the Garrison property dates back to 1935. The mining claims that make up the property are patented and as a result very little of the exploration work carried out on the property has been filed with the government; hence the data are not available in government assessment work files. Historically, extensive diamond drilling has been completed and minor underground development has occurred at the Garrison and Jonpol deposits.

Various historical resource estimates on gold mineralization in the Jonpol and Garrcon deposits have been provided by various authors since the mid 1980s. These resource estimates are historical in nature. The historical estimates that pre-date this report have been superseded by the Mineral Resource in this report.

1.7 Deposit Types

The deposits located on the Garrison and Golden Highway Properties are interpreted to be structurally-controlled orogenic gold deposits in an Archean greenstone belt setting. This deposit type is a significant source of gold mined in the Superior and Slave provinces of the Canadian Shield. These deposits are typically quartz-carbonate vein hosted and are distributed along crustal-scale fault zones that mark convergent margins between major lithological boundaries such as those between volcano-plutonic and sedimentary domains. The greenstone- and sediment-hosted quartz-carbonate vein deposits are structurally controlled, epigenetic deposits characterized by simple to complex networks of gold-bearing, laminated quartz-carbonate structure-fill veins. These veins are hosted by moderately to steeply dipping, compressional, brittle-ductile shear zones and faults with locally associated extensional veins and hydrothermal breccias.

1.8 Exploration

The Golden Highway property has been explored since the 1940s. Historical exploration included geological mapping, geophysical surveying and drilling including diamond drilling and a small amount of RC drilling. Moneta has conducted exploration on the Golden Highway property since 1986. Since the end of 2012, exploration has included primarily diamond drilling has focused on the expansion and better definition of known gold mineralization areas. Historical mineral resources have been estimated using multiple series of narrow vein interpretations grouped in seven mineralization areas, Windjammer North Zone (WJN), Windjammer South Zone (WJS), Discovery (DIS), South West Zone (SW), West Block (WB), Westaway (WA) and 55 Zone (55). A significant portion of this drilling has been completed by Moneta. The mineral resource estimate (MRE) published in this technical report supersedes all historical resources. This is described in more detail in Section 14. Historical activities are described in Section 6.

Minor underground development has occurred at the Garrison and Jonpol deposits. The most important historical data relating to the Garrison Property are from the exploration work completed since 1985 by Jonpol Explorations Ltd. (and its partners, Cominco, Lac Minerals, and Hillsborough Resources), ValGold, Northern Gold, Osisko, O3 and Moneta. This is described in Sections 6 and 9 of the report.

1.9 Drilling and Sampling

All current and most historical drill hole data have been compiled into Moneta's drill hole database.

For the Golden Highway property, Moneta's current drill hole database includes holes completed between 1946 and the present and includes 1,316 drill holes totalling 434,480 m across all seven mineralization areas: Windjammer North Zone (WJN), Windjammer South Zone (WJS), Discovery (DIS), South West Zone (SW), West Block (WB), Westaway (WA) and 55 Zone (55). The Golden Highway drill hole database used in the MRE consists of 797 drill holes that intersected the interpreted mineralization.

For the Garrison property Moneta's current drill hole database includes holes completed between 1939 and the present and includes 1,388 drill holes totalling 359,927 m. The majority of work has concentrated on the Jonpol deposit, Garrcon deposit and the 903 Zone areas within the Garrison Property. The true thickness of the mineralized zones identified from previous drilling are 60% to 95% of the sample lengths. Mineralization at the Garrcon deposit was previously interpreted to be striking approximately 075° and dipping 50° to the south; mineralization for Jonpol was previously interpreted to be striking approximately 070° and dipping 75°-85° to the south. The Garrison drill hole database used in the MRE consists of 1,015 drill holes that intersect the interpreted mineralization.

The QP has examined the logging, sampling and analytical procedures for both historical and modern drilling utilized by Moneta. In the opinion of the QP, Moneta and laboratory personnel have used industry standard best practices in the collection, handling, management and analysis of drill core and assay samples.

The QP is not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results presented in this report.

1.10 Data Verification

The QP has reviewed the adequacy of the exploration information and the property's physical, visual, and geological characteristics. No significant issues or inconsistencies were discovered that would call into question the validity of the data. In the QP's opinion, the Tower Gold data is adequate and suitable for use in this technical report.

1.11 Metallurgical Testwork

Several historical and one current metallurgical testing campaigns have been conducted on the Garrison and Golden Highway properties to quantify metallurgical performance. With the exception of a portion of the Jonpol property, all deposits exhibited free milling gold recoveries amenable to gravity concentration and cyanide leaching. Testing has largely focused on cyanide leach testing with some comminution testing completed in the historical work. Results for historical Bond Ball Mill Work Index testing indicated ore hardness varied from 16.0 kWh/t to 12.9 kWh/t, which is generally considered to be hard material in ball milling.

In recent metallurgical testing, using standard gravity concentration and cyanide gold processing there is no evidence from the metallurgical test results of any deleterious elements that would impair recovery or result in low quality doré. Gold recoveries are expected to be in the range of 89% to 96% for all deposits with the exception of the refractory portions of the Jonpol deposit. The refractory portions of the Jonpol deposit have an estimated gold recovery of 56%. Operating plant recoveries were estimated based on a review of the available metallurgical recovery data by zone of the deposits, and summarized below in Table 1-1.

Table 1-1: Tower Gold Project Estimated Gold Recoveries

Property	Estimated Gold Recovery for PEA (excl. losses)
903	99.3% - 0.0828* Au Head g/t)^0.4854/Au Head (g/t)
Garrcon	96.1%
Jonpol Non-Refractory	92.5%
Jonpol Refractory	56.2%
Windjammer South	94.1%
55 and Westaway	92.5%
Southwest	93.4%
Discovery and Windjammer, excl. WJS	91.5%

Source: Ausenco, 2022.

1.12 Mineral Resource Estimation

The Mineral Resource Estimate (MRE) herein is based upon historical drilling and drilling conducted by Moneta between 2013 and 2021 and supersedes all the prior resource estimates for the Tower Gold Project. The MRE herein is an update to, and supersedes, the MRE in the technical report filed by Moneta on June 24, 2022, whereby the current MRE reflects changes in the resource estimation domains and open pit block model size versus the June 24, 2022 model. The Tower Gold Project MRE is reported in accordance with the CSA's NI 43-101 rules for disclosure and has been estimated using the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014. The effective date of the Mineral Resource Estimate is September 7, 2022.

Modelling was conducted in the UTM coordinate space relative to the North American Datum (NAD) 1983, and UTM zone 17N (EPSG:26917). The mineral resource block model utilized a block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) to honor the mineralization wireframes. The percentage of the volume of each block below the bare earth surface, below the modeled waste overburden surface and within each mineralization domain was calculated using the 3D geological models and a 3D surface model. For the potentially open pittable Garrison resources, the block model was block-averaged up to a 5 m (X) by 5 m (Y) by 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted using a nominal waste value half of the detection limit. For the potentially open pittable South West, Windjammer South, Windjammer Central, Westaway, Discovery, and Iron Formation resources, the block model was block-averaged up to a 2.5 m (X) by 5 m (Y) by 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted with a nominal waste value half of the detection limit. The gold grade was estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells utilizing only the percentage of each block below overburden and within each domain. The mineral resources defined in this section are not mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market or other relevant issues.

The calculated open pit cut-off of 0.30 g/t Au was selected in reporting the open pit mineral resources in the 2022 resource estimates using the SMU block size model (Table 1-2).

The calculated cut-off of 2.60 g/t Au was selected in reporting the underground mineral resources in the 2022 resource estimates (Table 1-2). Underground mineral resources below the resource open pit are constrained by wireframe solids that encapsulate contiguous 2.5 m x 2.5 m x 2.5 m underground blocks that are above the 2.60 g/t Au cut-off with a volume greater than 1,400 m^3.

Table 1-2: NI 43-101 Mineral Resource Estimate by Deposit – Tower Gold Project

September 2022 Resource	Category	Indicated			Inferred		
	Category	Tonnes (t)	Grade (g/t Au)	Ounces (oz)	Tonnes (t)	Grade (g/t Au)	Ounces (oz)
Total	Open Pit	149,773,000	0.90	4,338,000	223,910,000	0.92	6,652,000
	Underground	801,000	4.75	122,000	11,719,000	4.35	1,640,000
Total Open Pit + Underground		**150,574,000**	**0.92**	**4,460,000**	**235,629,000**	**1.09**	**8,292,000**
Breakdown by Deposit							
Southwest	Open Pit	16,676,000	0.90	481,000	45,470,000	1.01	1,472,000
	Underground	211,000	4.53	31,000	6,725,000	4.26	920,000
Windjammer South	Open Pit	42,049,000	0.78	1,058,000	29,101,000	0.96	897,000
	Underground	-	-	-	704,000	4.16	94,000
Westaway	Open Pit	750,000	2.20	53,000	22,106,000	1.95	1,383,000
	Underground	-	-	-	2,349,000	4.23	320,000
Windjammer Central	Open Pit	28,498,000	0.63	581,000	77,834,000	0.64	1,595,000
	Underground	-	-	-	-	-	-
55 Zone	Open Pit	4,780,000	1.30	199,000	4,266,000	1.01	139,000
	Underground	-	-	-	150,000	3.95	19,000
Discovery	Open Pit	3,244,000	1.20	125,000	5,767,000	0.85	158,000
	Underground	-	-	-	326,000	3.97	42,000
Southwest North	Open Pit	-	-	-	3,945,000	0.58	73,000
	Underground	-	-	-	-	-	-
Golden Highway Iron Formation	Open Pit	-	-	-	5,360,000	1.03	177,000
	Underground	-	-	-	-	-	-
Garrcon	Open Pit	26,787,000	1.01	872,000	971,000	0.83	26,000
	Underground	590,000	4.82	91,000	1,466,000	5.22	246,000
903	Open Pit	18,090,000	1.01	585,000	24,127,000	0.75	581,000
	Underground	-	-	-	-	-	-
Jonpol	Open Pit	8,898,000	1.34	383,000	4,962,000	0.94	151,000
	Underground	-	-	-	-	-	-

Notes: **1.** Mineral resource estimates are reported at two different cut-off grades; 0.3 g/t Au for the surface mining scenario and 2.6 g/t Au for the underground mining scenario. **2.** The cut-off grade was determined at a gold price of US$1,750 per ounce and a USD/CAD exchange rate of 0.78. **3.** The resource estimate is supported by statistical analysis with different high-grade capping applied to each of the deposits ranging from 0.6 g/t Au to 79.0 g/t Au applied on assays composited into 1 m composites. **4.** The mineral resources presented here were estimated with a block size of 2.5 m x 2.5 m x 2.5 m utilizing percent blocks and constrained within geological wireframes with a minimum width of 1.50 m. Gold was estimated by ordinary kriging using locally varying anisotropy variogram models. Block grade estimation employed locally varying anisotropy, which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. The maximum range of the variogram models generally are between 65 m x 25 m x 2.5 m and 80 m x 45 m x 5 m. The search ellipse was constrained to selecting composites flagged within each domain. **5.** The mineral resources presented here were estimated by APEX Geoscience Ltd. Using the CIM Standards on Mineral Resources and Reserves definitions and guidelines. **6.** The historical underground voids from mining in any of the deposit areas have been removed. **7.** Tonnage estimates are based on bulk densities individually measured and calculated for each of the deposit areas. Resources are presented as undiluted and in situ. **8.** This mineral resource estimate is dated September 7, 2022. The effective date for the drill-hole database used to produce this updated mineral resource estimate is March 15, 2022. Tonnages and ounces in the tables are rounded to the nearest thousand and hundred, respectively. Numbers may not total due to rounding. **9.** Discovery includes the Windjammer North resource. **10.** Mr. Mike Dufresne, P.Geol., P.Geo. of APEX Geoscience Ltd., who is deemed a qualified persons as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation. Source: APEX, 2022.

1.13 Mining Methods

The Tower Gold project consists of seven mineral deposits (Southwest, Westaway, 55, Windjammer, Garrcon, 903 and Jonpol). The overall steady state production rate is 7.0 Mt/a at 0.94 g/t over the 24-year Life of Mine (LOM). Extraction of the economic mineable inventory is proposed through a combination of open pit and underground mining as this presented the best case from an economic, environmental, and sustainable development perspective, with open pit mining occurring over two phases.

The selected underground mining method is longhole with the use of paste backfill. The underground mine will be responsible for a steady state production of 900ktpa at an average grade of 3.42 g/t, with an estimated underground mine life of 12 years. Primary materials handling fleet for the underground will encompass 17 tonne load-haul-dump (LHD) units and 50 tonne haul trucks. Stopes will be mucked with a fleet of smaller 10 tonne LHDs.

For the first 11 years of the project, the open pit mine will be responsible for a steady state production of 6.1Mt/a at an average grade of 1.03 g/t. Once the underground mine is complete, the open pit will be responsible for a steady state production of 7Mt/a at an average grade of 0.75g/t until pit depletion in Year 20, followed by 4 years of low-grade stockpile feed at an average grade of 0.38g/t. The Tower Gold project will employ a conventional truck shovel open pit mining method comprising separate waste and mineralized material equipment fleets to improve on selectivity and reduce waste removal costs. The mineralized material fleet consists of 12 m³ excavators and 92 tonne trucks while the waste fleet consists of 29 m³ excavators and 227 tonne trucks.

1.13.1 Underground Mine Design

The underground mine will be accessed via a portal and a 1:7 decline ramp sized to 5.5mW x 5.8mH. A ventilation raise will be established after about 800m of initial ramp development to aide in driving of the ramp.

An underground mining method trade-off study was conducted to compare four suitable mining methods, Sub-Level Open Stoping (Longhole), Modified Avoca, Overhand Cut and Fill, and Sub-Level Caving. The study considered criteria such as the characteristics of the mineralization, expected production rate, capital and operating expenditure burden, safety concerns, etc. Top-down longhole stoping was chosen as the most suitable method for underground extraction to allow for reliable and early bulk-production. This method involves driving a single undercut along the mineralized material, which will serve as both the drilling and mucking horizon for production stopes. Once empty, the stopes are backfilled via a pastefill hole from the undercut. Level accesses are typically centered in mineralized zones to allow simultaneous mining of stopes at either end of the mineralization. The average stope dimensions are planned to 20mL x 25mH with a 3m minimum mining width, predominantly retreating longitudinally with occasional transverse mining as required.

1.13.2 Open Pit Mine Design

The open pit Mine will encompass a total of seven pits mined in two phases at an ultimate pit angle of 46 degrees. Surface mining will extract material from two areas of the property: Garrison and Golden Highway with Golden Highway providing the bulk of the PEA mine plan. The open pit operations are planned to run for twenty years to pit depletion, followed by four years of low-grade stockpile feed to the mill. Grade control drilling will be carried out to better delineate recoverable resource grades and locations in the “near-term” benches to be mined. A grade control system is planned to provide field control for the loading equipment to selectively mine resource material separately from the waste.

Ultimate pit limits are split into pushbacks to target higher economic margin material earlier in the mine life. When resources are mined from the pit, they will either be delivered straight to the crusher at the processing plant, to the ROM

stockpile, or to the low-grade mineralized material stockpiles. Waste rock and overburden/topsoil storage facilities are planned for all waste materials from the open pits.

1.14 Recovery Methods

The process flowsheet was designed based on metallurgical test-work carried out for both the Garrison and Golden Highway deposits. Based on a mine to mill analysis, the processing plant capacity was selected as 7.0 million tpa, or 19,200 tpd.

The process design for the Project consists of:

- Two-stage crushing, consisting of a primary jaw crusher and a secondary cone crusher with screen classification and material handling equipment
- Grinding of crushed material to 80% (P80) passing size of 75 µm (micron) with a 9.1 m diameter by 5.2 m length SAG (semi-autogenous grind) mill and an 8.2 m diameter by 12.8 m length ball mill in closed circuit with hydrocyclones. The SAG mill and ball mill are equipped with 8.0 MW (megawatt) and twin 9.0 MW motors, respectively
- A gravity concentration circuit included in the grinding area. Gravity concentrate will feed intensive cyanidation and will be recovered by electrowinning independently of the primary leach circuit
- Leaching and adsorption circuit including two leach tanks and six carbon-in-leach (CIL) tanks, for a total leach and adsorption circuit retention time of 24 hours which will feed loaded carbon to twin 9 t carbon elution systems
- Cyanide destruction using an SO2/air system on the final tailings slurry
- Final tails from the cyanide destruction circuit will be thickened prior to deposition in either a management facility or in exhausted open pits. A portion of the tailings will be filtered to produce paste backfill suitable for use in the underground mine workings.

Select process design criteria are described in Table 1-3. The overall process flow diagram in presented in Figure 1-2.

Table 1-3: Process Design Criteria

Design Parameter	Units	Value
Plant Feed Characteristics		
Mill Throughput	t/d	19,178
Total Material Milled	t/a	7,000,000
Gold Head Grade – Design	g/t	1.59
Crushing Plant Availability	%	70
Mill Availability	%	92
Comminution Circuit		
Primary Crusher Product Size	mm	100
SAG Mill Ball Charge	%v/v	12
SAG Recirculating Load (nominal)	% SAG new feed	22
Ball Mill Ball Charge	%v/v	30
Cyclone Recirculating Load - Design	%	350
Primary Grind size (P_{80})	µm	75
Gravity Circuit		
Feed Source for Gravity Circuit		Ball mill discharge
Recovery to Gravity Concentrate - Design	%	25.0
Extraction from Intensive Leach Reactor	%	98
Design Parameter	**Units**	**Value**
Leach Circuit		
Total Leach + CIL Residence Time - Design	h	24
Leach-Feed Pulp Density	% w/w solids	42.5
Leach+CIL Tanks	#	2+6
Desorption, Regen, Goldroom Circuit		
Tonnes of Carbon per Column	t	9 x 2 elution columns
Carbon Elution Method		Pressure Zadra
Cyanide Destruct Circuit		
Detox Residence Time - Design	h	1.5
Detox WAD Cyanide Discharge Target	mg/L CN_{WAD}	< 5
Thickener Underflow Density	%w/w solids	65

Source: Ausenco, 2022.

Figure 1-2: Overall Process Flowsheet

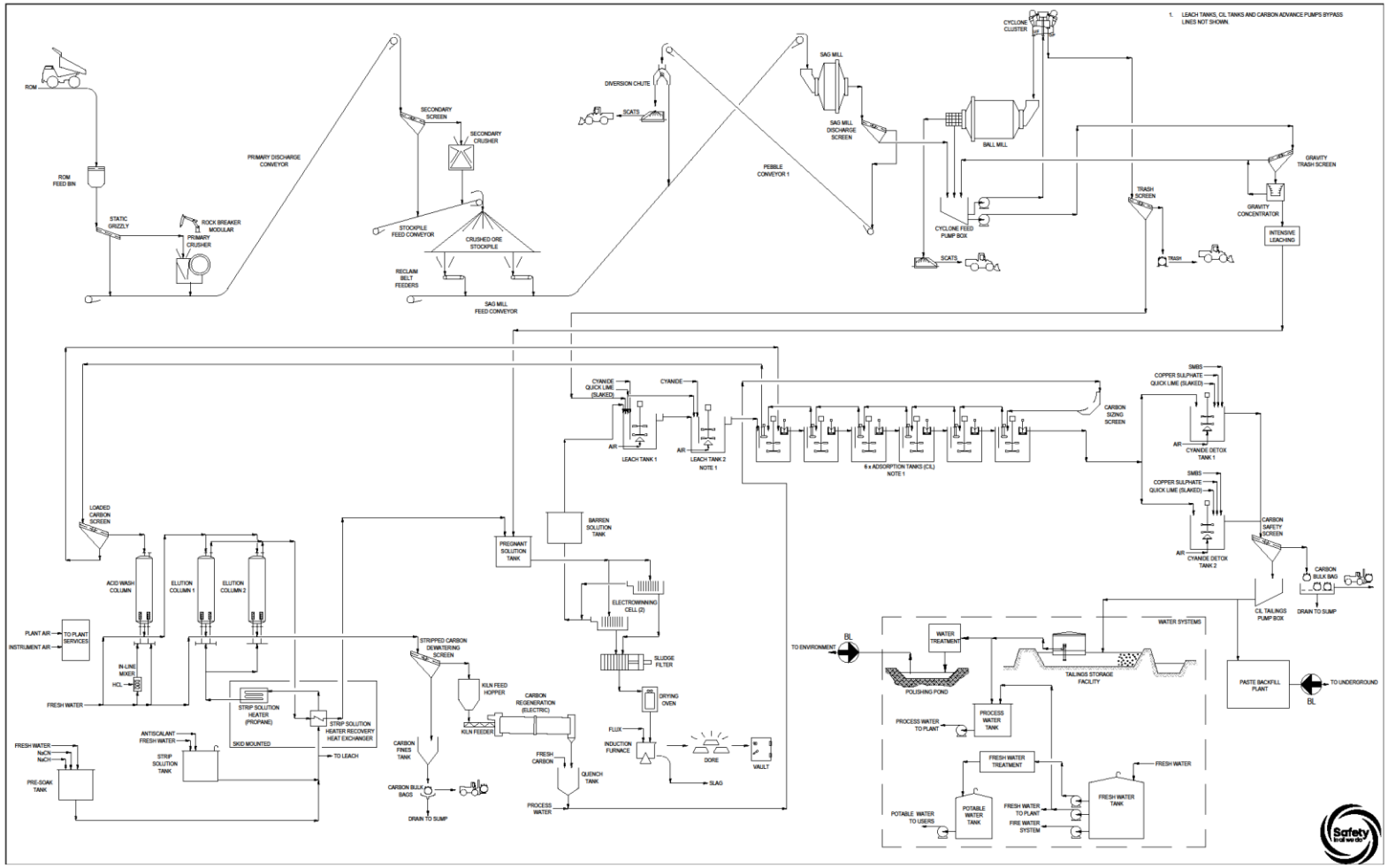


Figure prepared by Ausenco, 2022.

1.15 Project Infrastructure

Infrastructure to support Tower Gold will consist of site civil work, buildings, water management systems, and site electrical power. Site facilities will include both mine facilities and process facilities, including:

- mine facilities include offices, truckshop, warehouse, and washbay
- process facilities include the process plant, crusher facilities, process plant workshop, assay laboratory, and tailings storage facilities (TSFs)
- common facilities include a gatehouse and administration building
- HV power line and on-site electrical substation
- diversions, ditches, ponds and an effluent treatment plant for management of contact water and redrection of non-contact water
- mine facilities and process facilities will be serviced with potable water, fire water, compressed air, power, diesel, communication, and sanitary systems.

The Garrison and Golden Highway properties may provide sufficient area to establish mine infrastructure such as tailings and waste storage areas and a processing plant site. More detailed engineering is required to confirm the suitability and sufficiency of the current property area for final mine and processing facilities, should they be constructed.

The overall site plan is shown in Figure 1-3.

Figure 1-3: Overall Site Plan

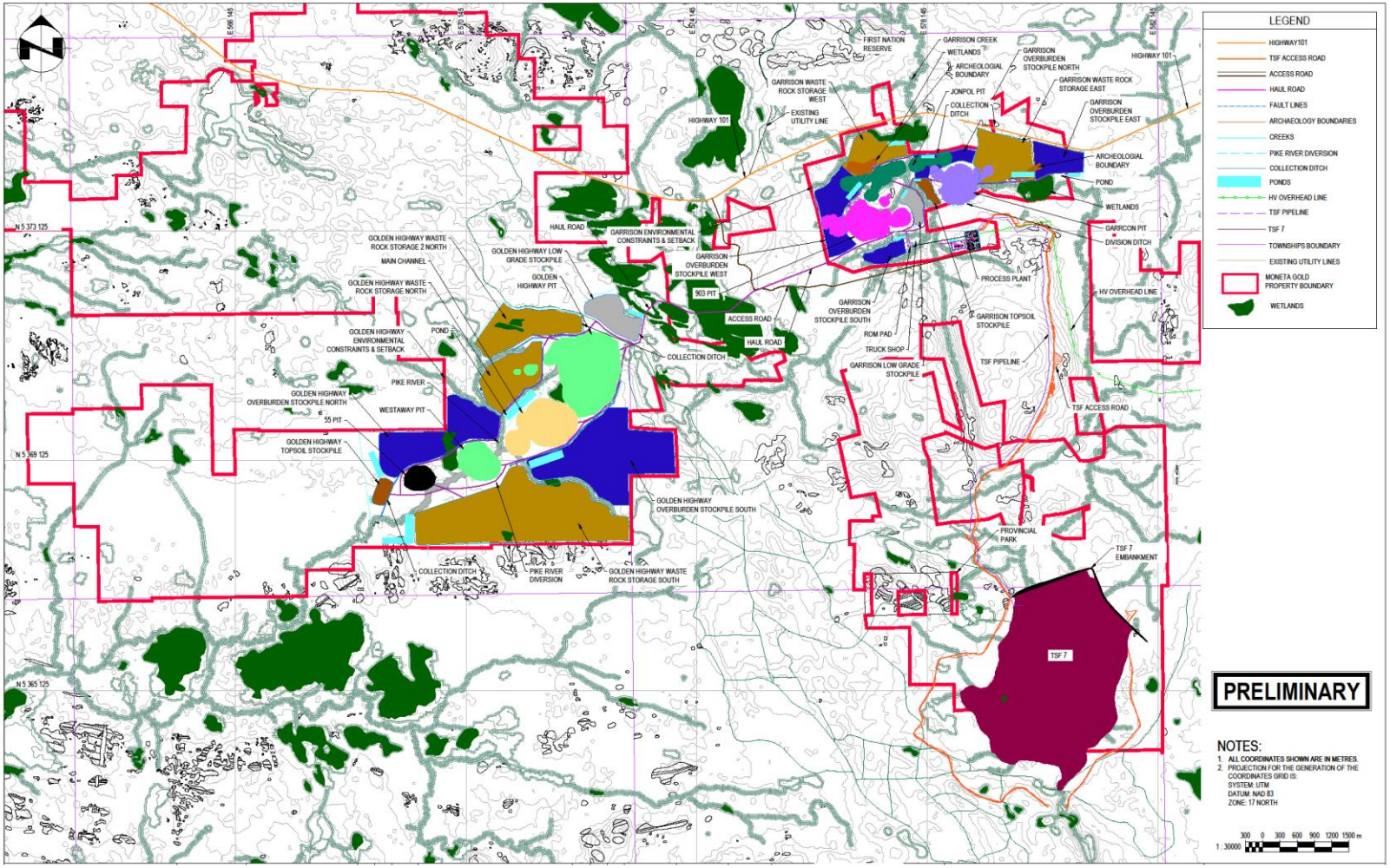


Figure prepared by Ausenco, 2022.

1.16 Tailings Storage Facilities

Ore processing will produce 164 Mt of tailings at 7 Mt/a, according to the mine plan, which will be stored within four tailings facilities:

- 90.12 Mt in a conventional tailings storage facility (TSF 1), between Years 1 through 6 and Years 17 through 24; and
- 29.4 Mt in in-pit storage (TSF Garrcon), after the Garrcon pit is fully mined out after Year 6 between Years 7 through 11;
- 3.9 Mt in in-pit storage (TFS Jonpol), after the Jonpol pit is fully mined out after Year 10 in Year 11 only; and
- 40.6 Mt in in-pit storage (TSF 903), after the 903 pit is fully mined out after year 10 between Years 11 through 17.

Seepage through the TSF 1 embankment will primarily be controlled by the geomembrane, low permeability soil, filter zone on the upstream face of the embankment, and the seepage cut-off structures along the upstream toe of TSF 1. The tailings facility water management includes underdrain, underdrain pond, diversion channel and sediment ponds. TSF 1 will be placed into operation in Year 1 through 6, where in-pit tailings disposal will commence from Year 7 through a portion of Year 17, then tailings disposal in TSF 1 will recommence in Year 17 through Year 24.

TSF Garrcon will be placed into operation in Year 7, which is in-pit tailings disposal into the Garrcon open pit that has a capacity for 29.4 Mt. A tailings pipeline and water reclaim pipeline will be constructed at the beginning of Year 6 so operations can commence approximately in Year 7. The tailings pipeline will be constructed around the pit with multiple spigots to evenly discharge tailings into the facility. There are no berms or diversion channel required since all surface runoff structure were constructed for development of the open pit. Similarly, TSF Jonpol and TSF 903 will be placed in operation after TSF Garrcon is filled in Year 11, which have a combined capacity of 44.5 Mt through year 11 through 17.

A start-up water pond volume was designed to be sufficient for the thickened tailings operation based on Ausenco's design criteria of a minimum 180 days of make-up water. As tailings are deposited into the facility, water will be released from the tailings stream during deposition and subsequent consolidation and will eventually report as supernatant water to the main tailings operations pond. A portion of the supernatant water will be lost due to evaporation, interstitial voids, and from seepage into the foundation. The remaining water will be available as recycle to the plant site or released to the environment and treated if required. The TSF 1 water management consists of diverting non-contact surface water from the surrounding area around the facility in trapezoidal diversion channels lined with riprap to existing drainages. The channels are design to convey the 1:100-year storm event. TSF 1 is designed to contain and then pass the Probable Maximum Precipitation (PMP). The TSFs Garrcon, Jonpol and 903 water management consists of diversion channels constructed during mining operations to convey surface runoff around the Garrcon, Jonpol and 903 Pits. These structures are designed to convey the 1:100 year storm event around the pits. TSF Garrcon, Jonpol and 903 are designed to contain and then pass the PMP. The water from large storm events can be used for makeup water or be pumped downstream into creeks and treated if required.

The Tower Gold project has multiple open pits; the Garrison pits (903, Garrcon and Jonpool) are exhausted prior to the end of the project mine life and are therefore available for in-pit tailings storage during operations. This reduces the need to place 100 percent of the tailings in a traditional TSF where the tailings are stored behind an embankment(s).

The primary design objectives for the TSFs are secure confinement of tailings and protection of the regional groundwater and surface water during both mine operations and in the long-term (after closure). The design of the TSFs and associated water management facilities has accounted for the following:

- No geosynthetic lining of the bottom of the facility to limit seepage
- Staged development of the facility over the life of the Project
- Flexibility to accommodate additional tailings if the resource increases, and
- Control, collection, and removal of water from the facility during operations for recycle as process water to the maximum practical extent.

Approximately 164.0 Mt of tailings will be stored within the four tailings facilities, including 90.1 Mt in a conventional tailings storage facility (TSF 1) and 73.9 Mt in in-pit storage facilities (TSFs Garrcon, Jonpol, and 903).

1.17 Environmental, Permitting and Social Considerations

The Project site is located within the Abitibi (3E) Ecoregion. Within this ecoregion, the mixed forest habitat is generally comprised of stands of white spruce, balsam fir, white birch and trembling aspen. Depending on soil moisture, drier groupings may have pure stands of jack pine or mixtures of jack pine, white birch, and trembling aspen, whilst more humid groupings are characterized by black spruce and balsam fir, with an understorey of moss and lichen (Golder, 2016). The Project site is located within the Upper Abitibi Watershed and the main water courses draining it are the Garrison Creek and the Pike River which comprise fish habitat. A number of species of plants and animals of conservation concern have been found within the Project site. More detailed inventories will provide additional information that will assist in permitting.

The Project will be subject to a Federal Impact Assessment as well as a Provincial Environmental Assessment. A number of Federal and Provincial permits and authorization will need to be obtained for the Project.

An Exploration Agreement was signed between Moneta and Apitipi Anicinapek Nation, formerly Wahgoshig First Nation, in 2019. Moneta has hired members of the First Nation to assist Moneta's drilling program, with contracts to deliver core from the drill sites to Moneta's core logging and storage area in Timmins, as well as to clear snow during the winter months. Moneta has undertaken engagement activities with Apitipi Anicinapek Nation (formerly Wahgoshig First Nation) from 2018 to present.

1.18 Geochemistry

The geochemistry study aims to investigate the requirements for the water treatment plant. Review of Garrison data indicates the previous static testing is spatially limited to the Garrcon deposit. There has been no geochemical testing done at Golden Highway. In absence of test data at Golden Highway areas and data gap at Garrison, a sampling plan is proposed accordingly. Many of the current and historic gold mines located in the vicinity of the Project exploited gold mineralization located close to the Destor-Porcupine Fault, the Pipestone Fault Zone and the Cadillac-Larder Shear Zone (Golder, 2013). An online search was completed for Environmental Compliance Approval documents for nearby mines to consider the methods of mine water treatment employed. Environment Compliance Approval (ECA) documents available online were reviewed to review methods, if any, that was used or is being used at historic or currently operating gold mines in the vicinity of the Project.

1.19 Water Management

1.19.1 Contact and Non-Contact Water

The water management plan was developed to collect contact runoff/seepage from any facilities and to divert any clean catchment runoff away from the facilities. Collection ditches were designed to convey contact runoff to collection ponds. The proposed water management structures for the Project will include a series of diversion channels and ditches, as well as collection ditches and ponds. Non-contact water will be conveyed around mine facilities in diversion ditches where possible. The contact runoff from the plant site, rock storage facilities, and overburden storage areas will be stored in collection ponds to be either treated and released to the environment or reused for process purposes. An estimate of excavation volumes was completed using the proposed geometries of the structures and elevation profile along the alignment of channels and ditches.

1.19.2 Hydrogeological Considerations

This work aims to provide preliminary estimates of maximum groundwater inflows to the proposed pits: Garrcon, Jonpol, 903 Zone, Golden Highway, Westaway, and 55 Zone. The estimates are based on simple analytical equations (Marrinelli and Niccoli, 2000) to which site-specific data have been applied, including local precipitation and estimate of recharge, pit depth and equivalent radius. The hydraulic conductivity estimates from previous work (e.g., Golder 2016 for Garrcon and Schlumberger 2013 for Jonpol) were used in this study. It should be noted that hydraulic conductivity estimates at the Garrison site were assumed to be applicable at the Golden Highway site, as the Golden Highway site does not have sufficient data to support pit groundwater flow estimation. The estimates were used for water balance modelling as the maximum values for the purpose of preliminary design.

1.19.3 Site-Wide Water Balance

A site-wide water balance analysis was performed. In this analysis, a comparison between the process plant water requirements and the available water from various sources was made to determine the site-wide water balance. Freshwater make up for the plant supplies will be sourced from surface water ponds if ponds' water quality satisfies process plant requirements; otherwise, usage of groundwater flow should be explored. Water pumped from the mine will meet the bulk of processing needs, with any process water deficiency being recycled from TSF. The water components that are considered in the site-wide water balance model are (a) decant water from TSF impoundment, (b) ore processing water, (c) freshwater usage, (d) groundwater and surface runoff from pits, (e) the Waste Rock Dumps (WRDs), Overburdens (OVBs), and stockpiles, and (g) water demand for dust control for Haul Roads.

1.20 Capital and Operating Costs

1.20.1 Capital Cost Estimate

The capital cost estimate conforms to Class 5 guidelines for a PEA-level estimate with a ±50% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International). The capital cost estimate was developed in Q3 2022 Canadian dollars based on Ausenco's in-house database of projects and studies as well as experience from similar operations.

The capital cost estimate includes the following:

- Golden Highway and Garrison open pit mining development;
- Golden Highway underground development;
- construction of process plant, on-site and off-site infrastructure;
- construction of associated tailing storage and management facilities; and
- indirect costs, Owner's costs, and provisions.

The total initial capital cost for the Tower Gold Project is C$517.0 million and the life-of-mine sustaining cost is C$886.4 million. The initial capital cost summary is presented in Table 1-4.

Table 1-4: Summary of Capital Costs

WBS	WBS Description	Initial Capital Cost (C$M)	Sustaining Capital Cost (C$M)	Total Capital Cost (C$M)
1100	Golden Highway Open Pit Deposit	0.0	406.2	406.2
1200	Golden Highway Underground Deposit	0.0	241.5	241.5
2000	Mining Garrison	63.7	174.7	238.4
3000	Process Plant	203.0	0.0	203.0
4000	On-site Infrastructure	96.2	60.9	157.2
5000	Off-site Infrastructure	0.5	0.0	0.5
	Total Directs	**363.4**	**883.3**	**1,246.8**
6000	Project Indirects	21.8	0.0	21.8
7000	Project Delivery	36.3	0.0	36.3
8000	Owner's Costs	14.5	0.0	14.5
	Total Indirects	**72.7**	**0.0**	**72.7**
9000	**Contingency**	**80.9**	**3.0**	**83.9**
	Project Total	**517.0**	**886.4**	**1,403.4**

Source: Ausenco, 2022.

1.20.2 Operating Costs

The process plant operating cost estimate was developed to a level of accuracy of ±50% and with a base date of Q3 2022 using Ausenco's in-house database of projects and studies and experience from similar operations. The estimate includes processing, tailings disposal, and general and administration (G&A). Mine operating costs are built up from first principles and applied to the Tower Gold PEA mine production schedule. Cost inputs are derived from historical data collected by Mining Plus.

The overall life-of-mine operating cost is C$5,290 million over the 24-year mine life, or C$31.78/t of mineralized material milled. The operating cost estimates for the life of mine are provided in Table 1-5.

Table 1-5: Tower Gold Process Operating Cost Summary (LOM Averages)

Description	Unit	Value
Mining Costs (Golden Highway Open Pit)	$/t mined	3.11
Mining Costs (Garrison Open Pit)	$/t mined	2.56
Mining Costs (Underground)	$/t mined	87.43
Processing Costs	$/t milled	10.07
G&A Costs	$/t milled	0.94
Total Site Operating Costs	**$/t milled**	**31.78**

Source: Ausenco, 2022.

1.21 Economic Analysis

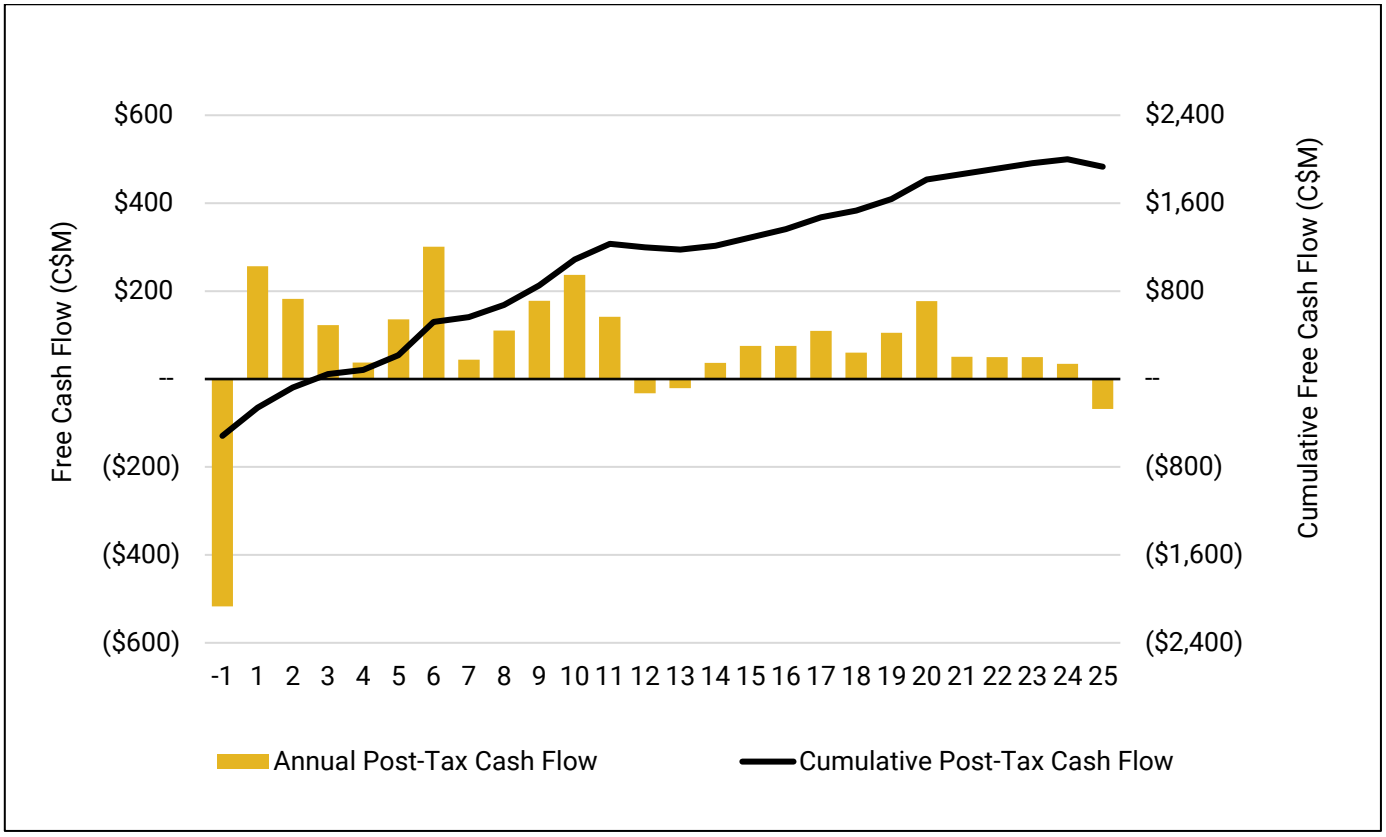
The economic analysis was performed assuming a 5% discount rate. Cash flows have been discounted to the start of construction, assuming that the project execution decision will be made, and major project financing will be carried out at this time.

The pre-tax net present value (NPV) discounted at 5% is $1,459 million; the internal rate of return (IRR) is 38.9%, and payback period is 2.2 years. On a post-tax basis, the NPV discounted at 5% is $1,066 million, the IRR is 31.7%, and the payback period is 2.6 years.

Readers are cautioned that the PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized.

A summary of the post-tax project economics is shown graphically in Figure 1-4 and listed in Table 1-6.

Figure 1-4: Post-Tax Project Economics



Source: Ausenco, 2022.

Table 1-6: Economic Analysis Summary

Description	Unit	LOM Total / Avg.
General Assumptions		
Gold Price	US$/oz	$1,600
Exchange Rate	$C:$US	0.78
Mine Life	years	23.8
Production		
Total Mill Feed Tonnes	kt	166,436
Mill Head Grade	g/t	0.94
Mill Recovery Rate	%	91.3%
Average Annual Gold Production	koz	193
Average Annual Gold Production (years 1- 11)	koz	261
Peak Annual Gold Production (year 6)	koz	369
Total Mill Ounces Recovered	koz	4,581
Operating Costs		
Mining + Reclaim Cost	C$/t Mined	$3.7
Mining + Reclaim Cost	C$/t Milled	$20.8
Processing Cost	C$/t Milled	$10.1
G&A Cost	C$/t Milled	$0.9
Refining & Transport Cost	C$/oz	$4.7
Total Operating Costs	C$/t Milled	$31.8
Cash Costs*	US$/oz Au	$910
AISC**	US$/oz Au	$1,073
Capital Costs		
Initial Capital	C$M	$517
Sustaining Capital	C$M	$886
Closure Costs	C$M	$78
Salvage Costs	C$M	$10
Economics - Pre-tax		
NPV (5%)	C$M	$1,459
IRR	%	38.9%
Payback	years	2.2
LOM Average Annual Cash Flow	C$M	$132
LOM Cumulative Annual Cash Flow	C$M	$2,579
Economics - Post-tax		
NPV (5%)	C$M	$1,066
IRR	%	31.7%
Payback	years	2.6
LOM Average Annual Cash Flow	C$M	$105
LOM Cumulative Annual Cash Flow	C$M	$1,932
Profitability Index (NPV/Initial Capital)	ratio	2.1
Peak Investment	C$M	$517

Notes: * Cash costs consist of mining costs, processing costs, G&A and refining charges and royalties. ** AISC includes cash costs plus sustaining capital, closure cost and salvage value. Sources: Ausenco, 2022.

A sensitivity analysis was conducted on the base case post-tax NPV and IRR of the project using the following variables: metal prices, discount rate, foreign exchange rates, operating cost, and initial capital cost. Table 1-7 summarizes the post-tax sensitivity analysis results.

Table 1-7: Post-Tax Sensitivity Summary

Gold Price US$/oz	Post-Tax NPV 5% (C$M) Base Case	Foreign Exchange		Operating Cost		Initial Capital Cost	
		(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)
$1,350	**$385**	$794	$48	$623	$145	$425	$344
$1,500	**$794**	$1,248	$422	$1,032	$555	$833	$754
$1,600	**$1,066**	$1,550	$670	$1,304	$828	$1,106	$1,026
$1,700	**$1,339**	$1,853	$917	$1,577	$1,101	$1,378	$1,299
$1,950	**$2,019**	$2,609	$1,537	$2,257	$1,781	$2,059	$1,980
Gold Price US$/oz	**Post-Tax IRR (%) Base Case**	**Foreign Exchange**		**Operating Cost**		**Initial Capital Cost**	
		(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)
$1,350	**15.8%**	25.6%	6.5%	21.1%	9.6%	18.2%	13.9%
$1,500	**25.6%**	35.8%	16.8%	30.3%	20.5%	28.9%	22.9%
$1,600	**31.7%**	42.3%	22.7%	36.2%	27.0%	35.8%	28.5%
$1,700	**37.8%**	48.6%	28.4%	42.1%	33.2%	42.3%	34.0%
$1,950	**52.0%**	63.9%	42.0%	56.0%	47.9%	58.0%	47.1%

Source: Ausenco, 2022.

1.22 Risks and Opportunities

1.22.1 Risks

1.22.1.1 Mineral Resources

There are some risks and uncertainties centered around the sheer size of the project and the number of mineralized zones and the current geological understanding of these zones in an area with poor outcrop exposure and a reliance on significant amounts of drilling and interpretation of the structures controlling the mineralization. Other than the normal risks associated with exploration projects at this stage of exploration, the QPs have identified a few specific risks and areas of uncertainty based upon the level of work to date. These include the following:

- This early stage of resource development with a number of deposits and complex mineralization domain interpretations that may change with additional drilling.
- Uncertainty in the mineralization models and continuity of mineralization associated with wide spaced drilling and large amounts of exploration targets and inferred mineral resources in large portions of the deposits.
- Uncertainty in the recovery model that will need to be updated with modern metallurgical characterization of all the mineralization types and styles within all the nine deposit areas.

1.22.1.2 Mining

The mine plan is partly based on inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no

certainty that the PEA based on these mineral resources will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Risks to the mine plan include changes to the following factors and assumptions:

- metal prices
- interpretations of mineralization geometry and continuity in mineralized zones
- geotechnical and hydrogeological assumptions
- ability of the mining operation to meet the annual production rate and anticipated grade
- operating cost assumptions
- dilution, mine operation and process plant recoveries.

1.22.1.3 Tailings Storage Facility

The following risks are noted with regards to the tailings storage facility:

- If additional resource is discovered in Garrcon deposit, then TSF Garrcon may not be available for tailings disposal in Year 7. There is the ability to raise TSF 1, which would add sustaining capital to the project. Similarly, if additional resource is discovered in Jonpol and/or 903 deposits, then TSF Jonpol and 903 may not be available for tailings disposal in Year 11. Again, TSF 1 could be expanded until these pits become available.
- There is no geochemical data for the Golden Highway deposits. There are plans for a geochemical program to be executed in the next phase. If the result of the program show the deposit is PAG then addtional design measures will be included, such as deposition of PAG materials subaquiously and the NAG tailings placed over the PAG materials to prevent acid generation and metal leaching.

1.22.1.4 Recovery Methods

This study was performed with limited metallurgical testing, potentially resulting in the following:

- recoveries may not be representative of the complete resources included in this technical report
- grinding equipment selected is based on limited comminution test data and may be undersized
- the selected gold recovery flowsheet may not be optimal.

Further work is recommended to determine the optimal flowsheet and design criteria, with the potential to improve project economics as part of a pre-feasibility study. Recommendations are included in this report.

1.22.1.5 Environmental Studies, Permitting and Social or Community Impact

Additional inventories related to species of potential conservation concern as well as fish habitat will provide more detailed information on permitting risks. Reducing layout impacts on fish habitat as well as on habitat for species discussed in this report will contribute to reducing permitting risks.

Continued engagement with First Nations will also contribute to risk reduction and minimization of impacts.

1.22.2 Opportunities

1.22.2.1 Mineral Resources

The current mineralization domain interpretations are well-founded and supported by modern drilling, often in several differing orientations based upon significant structural modelling using orientated core. However, there are some areas with wider spaced drilling and with mineralization domain interpretations that have incorporated a significant amount of internal low grade to waste dilution. As additional drilling is completed, continued updating of the mineralization domains on an ongoing basis and working to remove internal dilution as much as possible could increase the confidence in the interpretation and work to improve overall grade in a number of the domains and deposits.

As part of this process, it has been observed that there is a significant amount of unsampled intervals in historical and some more recent drilling within mineralization domains that provide a source of uncertainty. There are instances where Moneta's drilling has illustrated that previous issuers selectively sampled core and often did not sample the entire length of mineralization, creating unsampled intervals within mineralization zones. For the purposes of mineral resource estimation, a nominal waste value of 0.0025 ppm Au was applied to the unsampled intervals to calculate the MRE detailed in this report. Many of the drillholes with these unsampled intervals exist in Moneta's core yards. If possible, all unsampled intervals within mineralization zones in historical and modern drill holes should be sampled.

1.22.2.2 Mining

The following opportunities have been identified as they relate to underground and open pit mining:

- Improved pit wall slope design when additional geotechnical data is available from geotechnical drilling.
- Reduced truck hours by conducting a trade-off study for an optimal plant location.
- Increase underground production rate with larger 60t haul trucks
- Increase production rate with mine automation such as automated truck hauling and mucking between shifts.
- Utilize the Westaway or Southwest open pit for underground portal access and eliminate the boxcut excavation.
- Expansion of underground resources through additional exploration drilling, notably at Westaway and Garrcon. Currently 12 years of underground mining are proposed.

1.22.2.3 Metallurgy

Metallurgical testing should be conducted to further refine the process design selected for the project. This should include testing for comminution properties as well as metallurgical response at varying grind size and leach conditions. This work may determine that there are improved flowsheets and process operating conditions that improve project economics.

Studies to achieve a more detailed understanding of the underlying mineralogical conditions that are causing the refractory nature areas within JonPol should be formed. This may allow for a more targeted operating strategy in both the mine and process plant to further improve project economics.

1.22.2.4 Recovery methods

Further opportunities exist to confirm that the gold recovery circuit selected in this process design is optimal for the life of mine with respect to both capital and operating costs, as well as maximizing gold recovery to doré. Specific opportunities include reduction in leaching retention time which may be supported with additional cyanide bottle rolls at shorter durations, and optimizing grind size by zone rather than as a whole.

The refractory nature of portions of JonPol may be mitigated through selectively treating these zones with alternative processes. This may include the use of more oxidative cyanide leaching conditions, selectively grinding this zone finer through the use of variable speed mills and/or regrind systems. Each of these technologies will also likely improve the recovery for the other mineralized zones within the deposit, but the increase in operating costs should be investigated as this may offset the increased revenue generated.

1.22.2.5 Tailings Storage Facility

Conservative foundation conditions were assumed in the area of TSF 1. Future geotechnical investigation in this area may show better foundation conditions, which could reduce both capital and sustaining capital costs by the elimination or reduction of the stability buttress.

1.23 Recommendations

1.23.1 Geology

The following work is recommended:

- Exploration drilling program to test mineralized targets already identified
- Exploration drilling to expand the current mineral resources
- Exploration drilling to test new exploration drill targets
- Infill drilling within the current resource where drilling gaps occur or to upgrade resource confidence categories
- Further geological interpretation and modelling
- Updating mineral resource estimates upon completion of drill campaigns

- Updated resource and preliminary economic assessment (PEA) of the project to include new and expanded resource areas, to determine the focus, direction and plans for further resource development.

1.23.1.1 Infill Drilling and Exploration Decline

An infill drilling program of 200,000 m is recommended to infill portions of the resource where drill spacing is not sufficient within the interpreted wireframes to fully interpolate grade between more widely spaced drill holes and to connect shallower structures with extensions at depth. A total of 110,000 m of infill drilling is recommended to convert exploration mineralization and inferred open pit resources to either measured or indicated resources and improve the understanding of the geological and mineralization models. The budgeted amount for this surface drilling is $24,200,000.

As part of the infill drilling to develop increased M&I mineral resources, in particular for the underground portion of the resources, an exploration decline is recommended to successfully complete significant underground drilling. Currently much of the inferred mineral resources for Westway and Southwest exist at a vertical depth from 700 m to as deep as 1,100 m. Surface drilling to infill high grade underground resources at those kinds of depths would be both expensive and technically difficult. The estimated cost for the exploration decline for infill drilling is budgeted at $27,500,000. A total of 90,000 m of infill drilling that will be from surface and underground but targeting the underground resources is recommended and budgeted at $19,800,000. Additional permitting will be required to construct the underground drilling decline. The additional permitting is budgeted at $450,000.

1.23.1.2 Resource Expansion Drilling

A 60,000 m resource expansion drilling program is recommended to expand the currently modelled or pending resources. Drilling should be allocated to the following target areas: down dip and strike extensions of the 55, Westaway at depth, SouthWest underground and northern areas, Garrcon underground, 903 extensions and Windjammer Central (to the east and West) and east of the Windjammer South deposit area. as well as the Discovery and Windjammer North deposits and associated zones along the northern splay of the DPFZ.

A 60,000 m exploration drilling program is recommended to test untested new targets to poorly drilled targets. A number of new targets not included in the current resource have been identified and found to host gold mineralization, notably along the southern contact of the regional banded iron formation (BIF) and the southern margins of the sedimentary basin where a repeat of the BIF unit has been discovered associated with mineralization. The Halfway, South Basin, Garrcon East, 903 extensions, Dyment 3, 55 extensions and Western Zones should all be drilled tested. A number of zones including LC, Landing Zone and Twin Creeks occur along the northern splay of the DPFZ within the Tisdale and Kidd-Munro Formations which warrant additional drill testing. A large portion of this structure east of Windjammer North has not been tested. Along the regional BIF, approximately 8 km of strike length is untested. Historical holes have also been identified with gold mineralization along the Arrow Fault to the north.

The estimated cost to conduct the respective programs are $13,200,000 each, for a total of $26,400,000.

1.23.1.3 Mineral Resource Estimate

Upon completion of the proposed additional drilling, updated mineral resource estimates and an updated PEA should be completed to first determine the overall size of the project, then determine the potential economics and outline the best program to advance the project prior to commencing a full pre-feasibility study covering all resource areas. The estimated cost to complete this work is $200,000.

1.23.2 Metallurgy

Work should be conducted to determine the optimal flowsheet and design criteria to potentially improve project economics as part of a pre-feasibility study. Pre-feasibility level metallurgical testwork focusing on the major deposits including the following is recommended:

- samples reflecting the different styles and geological settings of mineralization to test recoveries near cut-off grade, the new higher average grade, as well as higher-grade areas of the resources; samples need to also reflect spatial distribution of each deposit and potential underground mineable mineralization
- bulk mineralogy studies and gold deportment studies of major lithological units in the larger deposits
- Comprehensive comminution testing including Bond rod and ball mill work indices, SMC testing and abrasion index tests
- extended gravity recovery gold tests of the major deposits to determine amenability of deposits to gravity concentration
- leach tests commencing with grind size optimization
- cyanide detoxification testing
- acid/base accounting and kinetic testing of detoxified tailings including trace element background data collection for environmental base line studies
- solids liquid separation testing
- the Jonpol deposit contains a portion of mineralized material that is refractory to conventional cyanide leaching. This portion of the deposit should be further explored and defined to determine what, if any, correlations exist to predict this refractory nature to a higher degree of confidence.

Recommended budget for these works is $475,000.

1.23.3 Infrastructure Geotechnical

The following recommendations are made for geotechnical site investigation work.

- Completion of 35 (1,440-m) geotechnical boreholes, 65 test pits, and geophysics in the areas of the TSFs, WRSFs, plant site, haul roads, and ancillary roads to investigate and confirm foundation conditions, specifically the extent of the overburden along with depth to groundwater and to bedrock.
- Perform a geotechnical laboratory program including index testing, compaction tests, mechanical strength tests, consolidation tests and permeability tests on foundation soils, potential borrow materials and tailings.
- Preform geomechanical laboratory program to confirm the physical and mechanical characteristics of bedrock.
- Using the new data to develop recommendation for designs for foundations, borrow sources, construction materials for infrastructure, and tailings and waste rock storage facility exterior slope configurations.

- Perform deterministic and probabilistic local seismic hazard study for the development of design seismic values for infrastructure.

Recommended budget for these works is $700,000.

1.23.4 Geotechnical Studies – Mining

A geotechnical assessment of the open pits and waste dump/stockpile foundations has not been undertaken for any of the deposits. A targeted program of geotechnical borehole drilling and analysis is recommended for the next phase of project development to better understand potential bench configurations and overall pit slope angles in all sectors of each deposit.

It is recommended additional geotechnical assessments of the golden highway are performed to support pre-feasibility level designs, as detailed in section 16.2.4. Underpinning these studies is an objective to establish a statistically relevant geotechnical domain model which incorporates the following key parameters:

1. Primary structural features: fault zones, shear zones, larger scale zones of weak rock mass quality
2. Induced stress: area where the rock mass may be compromised by high induced stresses brought on by the development of diminishing pillars and areas of extensive extraction
3. Rock mass quality: the overall competency of the rock mass on a larger scale to relate to optimization of the both the extraction methodology and stope, development sizing and support systems employed.
4. Geology: relating the structural and alteration characteristics of the geology and mineralized material contacts
5. Geotechnical data collection (rock mass classification data, structural data, and rock property data testing) to improve the understanding of geotechnical constraints influencing the mining of the economic deposits.

It will also be important to establish a statistically relevant rock property database for the deposits mined to support mine optimization studies of ground support systems for development and production extraction, numerical modelling studies of mine pillars and crown pillar stability, dilution estimates, etc.

Systems for collection geotechnical data should be established to apply to proposed exploration drilling programs as well as rock sample collection to support rock property testing campaigns.

The recommended budget for these studies is $100,000. A drilling budget of $5,500,000 is recommended to support the necessary test work.

1.23.5 Mine Engineering

The following work is recommended:

- A study to better understand and quantify the pit internal dilution.
- A material handling trade-off study should be conducted to determine the optimal plant location based on haul route cycle time analysis for the Golden Highway and Garrison deposits.

- A study of the underground mine services to include backfill delivery systems, electrical distribution, mine dewatering and ventilation systems.
- Expansion of underground resources through additional exploration drilling, notably at Westaway and Garrcon.
- It is also recommended that inspections of portal and surface raise breakthrough locations to ascertain potential risks to construction/development and/or identify more appropriate locations if necessary. These inspections will also support the planning of a dedicated secondary egress at the pre-feasibility stage of the design.
- A study to confirm backfill selection with testwork and hydrological studies to support pre-feasibility stage of the design.
- As much of the mineralized material is considered inferred it is recommended to continue infill drill programs to convert areas that are targeted early in the mine life, confirm potential underground resources below the Garrison pits, as well as better quantify mineralized material outside of the designed wireframes to support future design analyses.

Recommended budget for these works is $450,000.

1.23.6 Tailings Storage Facility

The following work is recommended to be executed during a PFS:

- Review and update meteorological and hydrology information, updating surface water and sediment management for the tailings storage facilities.
- Confirm geochemical characterization of tailings and waste rock from additional waste characterization studies.
- Develop seepage predictions and seepage control measures for the TSFs.
- Update the tailings and waste rock deposition strategy to optimize material handling for tailings facilities.
- The stability model should be reviewed and updated, as required, with consideration of the final deposition plan using updated data about the material properties of the waste rock, tailings, and the foundations for both the TSF 1.
- Perform a liquefaction assessment with consideration of updated information on material properties and the updated stacking plan for the TSF 1.

The estimated cost for the recommended work is approximately $ 145,000. This budget is considered to be included in the PFS budget.

1.23.7 Surface Water Management

1.23.7.1 Water Management Structures

The water management plan was developed to collect contact runoff/seepage from any facilities and any clean catchment runoff to be diverted away from the facilities. Collection ditches were designed to convey contact runoff and were considered to collect and convey the contact runoff to collection ponds. With modifications to the diversion profiles and riprap armour modification there is potential to reduce the excavation volumes. These can be reviewed further in the next phase of the Project. For the next phase of the work, a trade-off study should be completed for each pond volume versus its treatment costs. The ponds should also be designed such that particles of less than 10 microns settle within each pond. The cost of the next phase of the Project is estimated at C$40,000 (C$20,000 for each site); this estimate does not include any baseline work for the environmental assessment. This estimate is considered to be included in the PFS budget.

1.23.7.2 Garrison Creek Flood Boundary

Garrison Creek flood modelling results indicate that the Jonpol pit overlaps with both 1:1000-year and 1:100-year flood boundaries. Three engineering options can be explored to address the flood issue: (1) Divert Garrison creek to the east. This option can also address the space limitation issue at the Garrison site as well as eliminate the cost of Haul Road bridges and culverts where it crosses the garrison creek; (2) Reduce the Jonpol pit footprint, which requires an economic trade-off study compared to option #1; and (3) Build a berm around the Jonpol pit and divert the creek around the pit. This option requires a detailed 2D flood study as the resulting backwater will impact other facilities upstream of the pit. The cost of flood study option is estimated at C$80,000. This estimate is considered to be included in the PFS budget.

1.23.7.3 Water Balance Modeling

The water balance analysis shows excess water averaged over the life of mine (Yr1 to Yr24). It should be noted that during the early stage of the mining operation, the amount of available water is less than the estimated available water from various sources. A detailed integrated GoldSIM water balance model is needed to integrate daily/monthly water balance from the TSF impoundment, ponds for various facilities and process plant for every single year of LOM. The inputs and assumptions used in the current study should also be further narrowed down and investigated. A detailed rainfall runoff model for on-site streams is needed for future phases of the work. The cost of the rainfall runoff model is estimated at C$30,000; this estimate does not include any baseline work for the environmental assessment. This estimate is considered to be included in the PFS budget.

1.23.8 Hydrogeological for Surface Water Management

The following work is recommended:

- This study estimated groundwater discharge into the Golden Highway, Westaway, and 55 Zone pits based on hydraulic conductivity parameters at the Garrison site. Therefore, hydrogeological investigation at the Tower Gold site is needed in the later stages of the work.

- In this study, it is assumed that surface runoffs collected in ponds can satisfy the freshwater requirement for the process plant. If the water quality of surface runoffs can not fulfill the process plant's requirement, then a study to use groundwater flow would be needed.

The cost of the hydrogeology study is estimated at C$200,000. A drilling budget of $1,575,000 is recommended to support the necessary test work.

1.23.9 Geochemistry

The total estimated cost for the recommended static testing analysis on Golden Highway samples; and trace metal analysis, mineralogical analysis and humidity testing on Garrison property is $62,000. This does not include drilling and logistics.

Kinetic testing is recommended to determine the long-term leachate behaviour of the ore, Low Grade Stockpiles, 903 & Jonpol Waste Stockpile, Garrcon Waste Stockpile. The type of test work and number of samples collected are provided below:

- Trace metal analysis will be conducted on 20 waste rock samples.
- Kinetic testing will be conducted on 3 waste rocks, 1 Low Grade ore samples.
- Select mineralogical analysis of 2 Low Grade ore and 3 waste rock, and 1 tailings sample (if available) will be completed.

The type of test work and number of samples collected from Golden Highway is provided below:

- Acid Base Accounting will be conducted on 15 waste rocks, 3 tailings, 10 Low-Grade and Ores samples.
- Shake flask testing will be completed on 3 tailings (if available), 15 waste rock and 5 Low-Grade and Ores samples.
- Mineralogical (XRD) analysis is recommended for 3 waste rock, 1 Low Grade Ore sample.

Samples eligible for kinetic testing will be assessed after reviewing the static data results. All static and kinetic tests will be completed as per the Draft Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Mine sites in British Columbia (Price, 1997).

1.23.10 Environmental Studies, Permitting, and Social or Community Impact

The following is recommended:

- Additional inventories related to species of potential conservation concern as well as fish habitat to provide more detailed information on permitting risks.
- Reducing layout impacts on fish habitat as well as on habitat for species aforementioned will contribute to reducing permitting risks.
- Continued engagement with First Nations to contribute to the minimization of impacts.

The recommended budget to proceed environmental baseline studies through a PFS is $500,00, and archaeological studies and First Nations engagement $900,000.

1.24 Summary of Conclusions and Recommendations

Based on the assumptions and parameters presented in this report, the PEA shows positive economics (i.e., C$1,066 million post-tax NPV (5%) and 31.7% post-tax IRR). The PEA supports a decision to carry out additional detailed studies. There is a recommended work program totalling $110,300,000 including recommendations pertaining to geological investigations, metallurgical testwork, geotechnical studies, mining engineering, environmental and community impact studies, and execution of a pre-feasibility study.

2 INTRODUCTION

Moneta Gold Inc. (Moneta Gold) commissioned Ausenco Engineering Canada Inc. (Ausenco) to compile a preliminary economic assessment (PEA) of the Tower Gold Project. The PEA was prepared in accordance with the Canadian disclosure requirements of National Instrument 43-101 (NI 43-101) and the requirements of Form 43-101 F1.

The responsibilities of the engineering consultants and firms who are providing qualified persons are as follows:

- Ausenco managed and coordinated the work related to the report. Ausenco also developed the PEA-level design and cost estimate for the process plant, general site infrastructure, site water management infrastructure, compiled the overall cost estimate and completed the economic analysis.
- Mining Plus Canada Consulting Ltd. (Mining Plus) designed the open pit (OP) and underground (UG) mine production schedules, and mine capital and operating costs.
- APEX Geoscience Ltd. (APEX) completed the work related to property description, accessibility, local resources, geological setting, deposit type, exploration work, drilling, exploration works, sample preparation and analysis, data verification, and mineral resource estimate.

2.1 Terms of Reference

The report supports disclosures by Moneta Gold in a news release dated September 7, 2022, entitled, “Moneta Delivers Positive PEA for Tower Gold”.

Readers are cautioned that the PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

2.2 Qualified Persons

Those presented in Table 2-1 serve as the qualified persons for this Technical Report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1.

The authors are not experts with respect to legal, socio-economic, land title, or political issues, and are therefore not qualified to comment on issues related to the status of permitting, legal agreements, and royalties. Information related to these matters has been provided directly by Moneta and include, without limitation, validity of mineral tenure, status of environmental and other liabilities, and permitting to allow completion of environmental assessment work. These matters were not independently verified by the QPs but appear to be reasonable representations that are suitable for inclusion in Chapter 4, 14, 20 and 22 of this report.

Table 2-1: Report Contributors

Qualified Person	Professional Designation	Position	Employer	Independent of Moneta Gold	Report Section
Tommaso Roberto Raponi	P. Eng.	Principal Metallurgist	Ausenco Engineering Canada Ltd.	Yes	1.1, 1.2, 1.11, 1.14, 1.15, 1.20, 1.21, 1.22.1.4, 1.22.2.3, 1.22.2.4, 1.23.2, 1.24, 2, 3, 13, 17, 18.1, 18.2, 18.5, 18.6, 19, 21.1, 21.2.1, 21.2.2, 21.2.2.2, 21.2.2.3, 21.2.3, 21.2.4, 21.2.5, 21.2.6, 21.3.1, 21.3.3, 22, 24, 25.6, 25.7, 25.10, 25.11, 25.12.1.2, 25.12.2.3, 25.12.2.4, 25.13, 26.1, 26.3, 27
Scott Elfen	P.E.	Global Lead, Geotechnical Services	Ausenco Engineering Canada Inc.	Yes	1.16, 1.22.1.3, 1.22.2.5, 1.23.3, 1.23.6, 18.3, 18.4, 18.8, 25.8, 25.12.1.5, 25.12.2.5, 26.6, 26.7
Scott Weston	P. Geo	Vice President, Business Development and Strategy	Ausenco Sustainability Inc.	Yes	1.17, 1.22.1.5, 1.23.10, 20, 25.12.1.4, 26.11
Davood Hasanloo	P. Eng.	Senior Water Resources Engineer	Ausenco Sustainability Inc.	Yes	1.18, 1.19, 1.23.7, 1.23.8, 1.23.9, 18.7, 25.9, 26.8, 26.9, 26.10
Michael Dufresne	P.Geo.	President	APEX Geoscience Ltd.	Yes	1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.12, 1.22.1.1, 1.22.2.1, 1.23.1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 23, 25.1, 25.2, 25.3, 25.4, 25.12.1.1, 25.12.2.1, 26.2
James Lill	P. Eng.	Director, Canada	Mining Plus Canada Consulting Ltd.	Yes	1.13.1, 1.20, 1.22.1.2, 1.22.2.2, 1.23.4, 1.23.5, 16.1, 16.2, 16.3, 16.4, 16.6, 16.7.1, 21.2.2.1, 21.3.2.1, 25.5, 25.12.1.3, 25.10, 25.12.2.2, 26.4, 26.4.2, 26.5
Neda Farmer	P.Eng.	Principal Mining Consultant	Mining Plus Canada Consulting Ltd.	Yes	1.13.2, 1.20, 16.5, 16.7.2, 21.3.2.2, 25.10, 26.4.1

Source: Ausenco, 2022.

2.3 Site Visits and Scope of Personal Inspection

The co-author of this technical report, Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo., a QP and principal of APEX. Mr. Dufresne conducted a site inspection of the property on June 21, 2022. The objectives of the site visit included the following:

- verification of the geology of the property;

- verification of selected Moneta drill hole collar locations;
- observation and sampling of potential mineralization in outcrop;
- examination of drill core and observation of mineralized intercepts; and
- collection of three verification rock grab samples from outcrop that have been submitted for geochemistry.

During the site visit, Mr. Dufresne reviewed Moneta drill core and drill logs from recent drill programs completed at the Golden Highway and Garrison properties. The lithology, mineralization and structural orientations observed in the drill core were consistent with the original drill logs.

The tailings Qualified Person, Mr. Scott Elfen, P.E., visited the property on October 20, 2020. He viewed the general topography, site conditions and streams, and identified potential tailings storage facility site locations.

2.4 Effective Dates

This technical report has a number of significant dates as follows:

- Tower Gold Project mineral resource estimate: September 7, 2022; and
- Financial analysis: September 7, 2022.

The effective date of this report is based on the date of the financial analysis, which is September 7, 2022.

2.5 Information Sources & References

This technical report is based on internal company reports, maps, published government reports, and public information as listed in Section 27. Additionally, it is based on information cited in Section 3.

2.6 Previous Technical Reports

The Tower Gold Project has been the subject of previous technical reports, as summarized in Table 2-2.

Table 2-2: Summary of Previous Technical Reports

Reference	Company	Effective Date	Name
Ausenco & APEX, 2022	Moneta Gold	May 11, 2022	NI 43-101 Report & Mineral Resource Estimate for Tower Gold Project, Northeastern Ontario, Canada
Ausenco, 2021	O3 Mining Inc.	November 25, 2020	NI 43-101 Technical Report & Preliminary Economic Assessment of the Garrison Project
Micon International Limited, 2021	Moneta Porcupine Mines Inc.	September 9, 2020	A Second Updated Mineral Resource Estimate and Preliminary Economic Assessment for the South West Deposit at the Golden Highway Project, Michaud and Garrison Townships, Black River – Matheson Area, Northeastern Ontario

Source: Ausenco, 2022.

2.7 Currency, Units, Abbreviations and Definitions

All units of measurement in this report are metric and all currencies are expressed in Canadian dollars (C$) unless otherwise stated. Contained gold metal is expressed as troy ounces (oz), where 1 oz = 31.1035 g. All material tonnes are expressed as dry tonnes (t) unless stated otherwise. A list of abbreviations and acronyms is provided in Table 2-3, and units of measurement in Table 2-4.

Table 2-3: Acronyms and Abbreviations

Acronym/Abbreviation	Definition
Au	gold
ARD	acid rock drainage
BIF	Banded Iron Formation
BWi	Ball Mill Work Index
CIL	carbon-in-leach
COG	Cut-off grade
CWi	Crusher Work Index
DCF	discounted cash flow
DFO	Fisheries and Oceans Canada
DGPS	differential global positioning system
DI	Discovery
DPFZ	Destor Porcupine Fault Zone
DSO	direct shipping ore
EA	Environmental Assessment
EAA	*Environmental Assessment Act*
EIS	Environmental Impact Statement
ELOS	equivalent linear overbreak/slough
EMS	Environmental Management System
EPCM	Engineering, Procurement, and Construction Management
ESA	*Endangered Species Act*
G&A	General and Administration
GME	General Mining Expenses
GVW	gross vehicle weight
IA	impact assessment
IAA	*Impact Assessment Act*
IBA	Impact and Benefits Agreement
ILR	Intensive leach reactor
IP	Induced Polarization
IRR	internal rate of return
JV	joint venture
LOM	Life-of-Mine
MECP	Ministry of Environment, Conservation and Parks

Acronym/Abbreviation	Definition
MDMER	Metal and Diamond Mining Effluent Regulations
ML/ARD	metal leaching/acid rock drainage
MLAS	Mining Lands Administration System
MOU	Memorandum of Understand
MRE	Mineral Resource Estimate
MTO	Ministry of Transportation
MTO	Material take-off
NAD	North American Datum
NOx	nitrogen oxide gases produced by diesel vehicles
NPI	net profits interest
NPV	net present value
NSR	net smelter royalty
OEAA	*Ontario Environmental Assessment Act*
OP	open pit
PAG	potentially acid generating
PEA	Preliminary Economic Assessment
PGA	Peak ground acceleration
PWQO	Provincial Water Quality Objectives
QA/QC	Quality Assurance/Quality Control
QFP	quartz-feldspar-syenite porphyry
QFP	quartz-feldspar-syenite porphyry
QP	Qualified Person
QP	Qualified Person
RMSP	Resource Modeling Solutions Platform
ROM	Run-of-mine
RQD	rock quality designation
RWi	Rod Mill Work Index
Sa	Spectral acceleration
SAG	Semi-Autogenous Grinding
SAR	species at risk
SEDAR	System for Electronic Document Analysis and Retrieval
SI	International System
TOR	Terms of Reference
TSF	tailings storage facility
UG	Underground
UTM	Universal Transverse Mercator
VMS	volcanogenic massive sulphide
WA	Westway
WBS	Work Breakdown Structure
WRST	waste rock storage facilities

Table 2-4: Units of Measurements

Unit of Measure	Definition	Unit of Measure	Definition
%	percent	m	metre
˚C	degree Celsius	M	mega (million)
µg	microgram	m^2	square metre
µm	micron	m^2	square meters
a	annum	m^3	cubic metre
C$	Canadian dollars	masl	meters above sea level
US$	United States dollar	min	minute
cm	centimetre	mg/L	milligram per litre
d	day	mm	millimetre
ft	foot or feet	Mt	metric tonne
g	gram	Mt/a	million tonnes per annum
G	giga (billion)	oz	Troy ounce (31.1035 g)
g/L	gram per litre	ppb	parts per billion
g/t	gram per tonne	ppm	part per million
h	hour	s	second
ha	hectare	t	tonne (metric tonne)
in	inch or inches	ton, st	short ton
kg	kilogram	µm	micrometer
kg/t	kilogram per tonne	yr	year
km	kilometer	w/w (%w/w)	weight concentration
km^2	square kilometre	% v/v	volume concentration
kt	metric kiloton		
ktpa	Kilo-tonnes per annum		
kWh/t	Kilowatt-hour per tonne		
L	litre		

3 RELIANCE ON OTHER EXPERTS

The authors have reviewed, within the scope of their technical expertise, all the available information presented to them by others however, they cannot guarantee its accuracy and completeness. The authors reserve the right, but will not be obligated to, revise the technical report and its conclusions if additional information becomes known to them subsequent to the effective date of this report.

The QPs have relied upon the following for tax advice and tax calculations:

- "RE: Updated PEA press release" email sent by Moneta Gold on September 5, 2022.
- "106483-GX -00000-00000-002 (Draft Sep2 COB) - updated tax JRM HP Linked.xlsx" received by email sent by Moneta Gold on September 3, 2022.

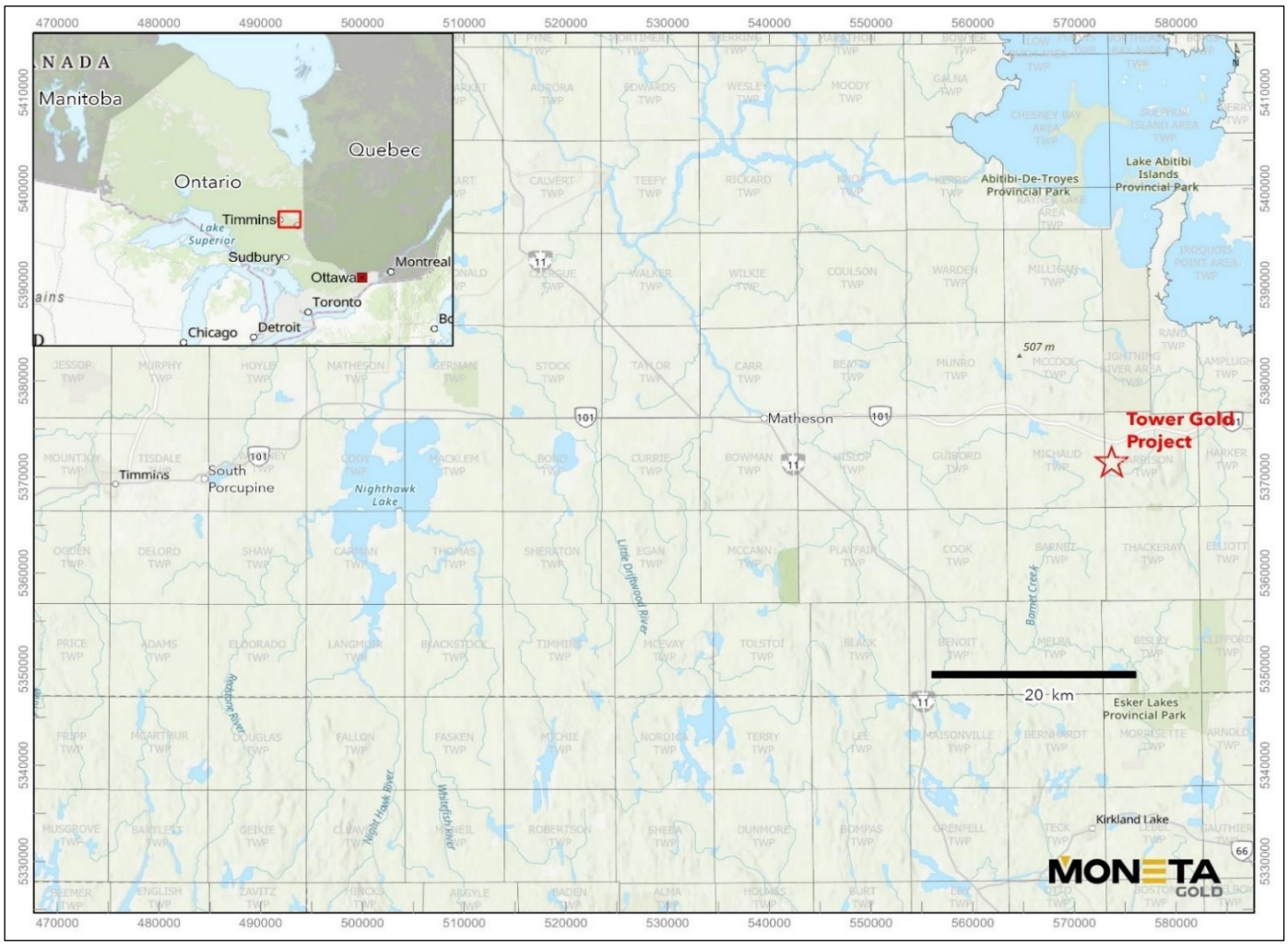
The information has been relied upon in Section 1, 22 and 25.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Tower Gold Project is located in Guibord, McCool, Michaud, Barnet, and Garrison townships, in the Larder Lake Mining Division in northeastern Ontario, Canada. It is centred approximately 5371620N and 573677E in Zone 17N of the NAD 83 UTM coordinate system (48° 29' 36.20" N latitude and 080° 00' 09.92" W longitude). The property is located approximately 540 km north of Toronto, 90 km east of Timmins, and 40 km north of the municipality of Kirkland Lake (Figure 4-1). For the purposes of this report, the project is composed primarily of two major properties, Golden Highway and Garrison.

Figure 4-1: Property Location Map

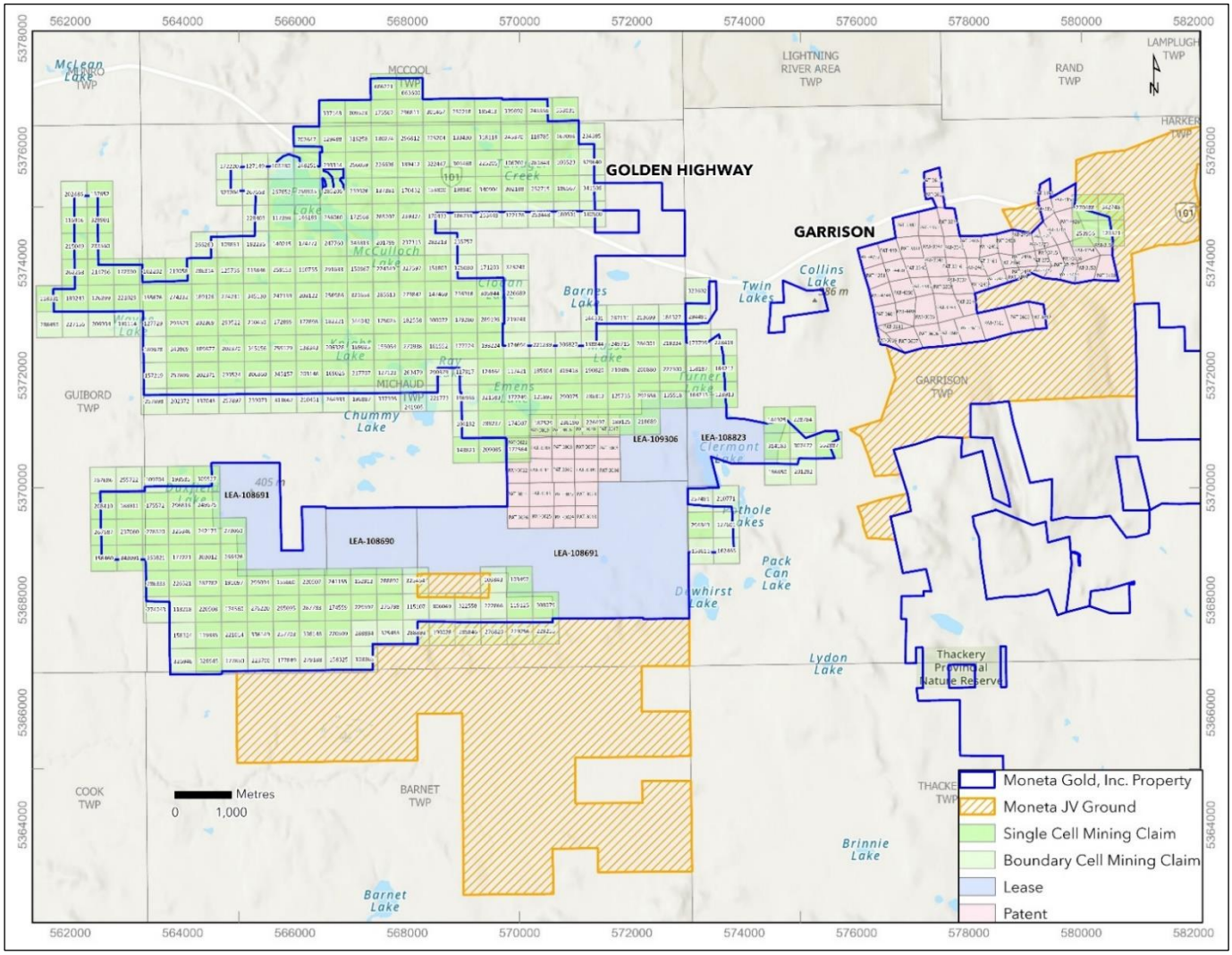


Source: Moneta, 2022.

4.2 Mineral Tenure and Permits

The Golden Highway and Garrison properties, together with the contiguous joint venture (JV) grounds are a large package of mining claims totalling 11,517.6 ha. For the purposes of this report, only the main Golden Highway and Garrison properties are detailed and are referred to as the "Tower Gold Project". The claims and patents under JV with Agnico Eagle Mines Limited located east of Matheson in a number of claim blocks, some adjacent to the Golden Highway and Garrison properties, including the Dyment 3 cell claims, are not included in the scope of this report. The Tower Gold Project comprises 85 patented mineral claims, 4 leased mineral claims, and 318 unpatented mineral claims (consisting of 221 single cell mining claims and 97 boundary cell claims) located in Guibord, McCool, Michaud, Barnet, and Garrison Townships (Figure 4-2). These contiguous claims total 7,705.54 ha in area and are owned 100% by Moneta Gold Inc. (Moneta). The surface rights of the patented mining claims and leases are owned 100% by Moneta. The surface rights of the staked mining claims are owned by the crown.

Figure 4-2: Property Claim Map



Source: Moneta, 2022.

On April 10, 2018, Ontario launched a new electronic Mining Lands Administration System (MLAS) replacing the province's century-old traditional ground staking methods. It marked the completion of the modernization of the *Mining Act*. For purposes of this report, the new MLAS system of claims and leases references and numbering system is used. The mineral resource estimate is located entirely on the patented claims and leased mineral claims for which Moneta owns the surface and underlying mineral rights.

In Ontario, annual assessment work requirements for Boundary Cell and Single Cell mining claims are $200 and $400 per claim. Moneta submits regular assessment work activity reports to maintain the claims in good standing and maintains a work assessment credit on all of the claims on the Golden Highway property covering a number of years.

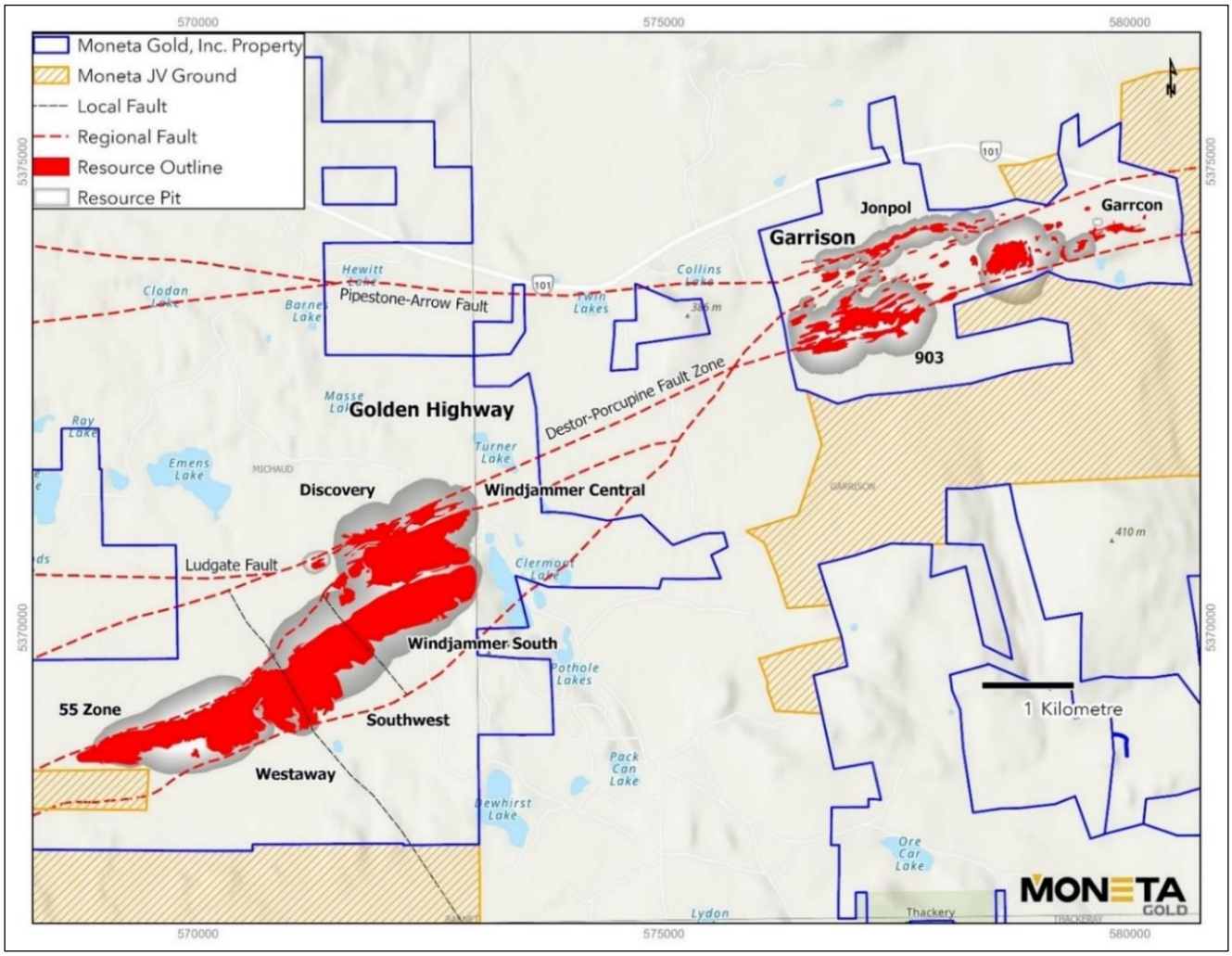
The mining leases are subject to renewal every 21 years and require the reporting of ongoing exploration activities to extend the lease periods. There is no minimum work expenditure requirement. The Ontario Mining Act requires companies to apply for a three-year exploration permit prior to undertaking any exploration activities involving heavy equipment. The process includes First Nations consultation. Moneta submitted and obtained exploration permits for Golden Highway for its 2013 to 2019 drilling programs. Moneta's current exploration permit PR-22-000191 has been renewed and is valid until August 01, 2025.

4.3 Mineral Concessions

The patented mineral claims at the Golden Highway property are a contiguous block of 22 with a total area of 355.97 ha while the patented mineral claims at the Garrison property are a contiguous block of 63 with a total area of 764.83 ha. Each patent covers approximately 13 ha, as listed in Appendix A and shown on Figure 4-2. They are subject to annual mining taxes and are owned 100% by Moneta with no underlying royalty agreements. The surface rights are subject to annual land taxes.

The four leased mineral claims on the property consist of three in Michaud Township (LEA-109306, 108690, and 108691) and one in Garrison Township (LEA-108823) covering a total of 1,653.20 ha. Mining leases LEA-108690 and 108691 include surface rights and all are subject to mining taxes. These leases are also listed in Appendix A and shown in Figure 4-2. All leases are 100% owned by Moneta and have no underlying royalty agreements. The location of the principal mineralized zones within property boundary is shown in Figure 4-3.

Figure 4-3: Location of Mineral Zones Relative to Property Boundaries



Source: Moneta, 2022.

4.3.1 Access Agreements

The Tower Gold Project is currently at an early development stage. No people reside full-time within the project area; however, the project falls within the traditional territory, but not the actual Indian Reserve, of the Wahgoshig First Nation (Wahgoshig). The Wahgoshig were formally known as Abitibi Band of Abitibi Indians or Abitibi #70. Its people are of Algonquin or Cree descent and the main community is approximately 10 km northeast of the project area. The community is a political member of the Algonquin Anishinabeg Nation Treaty Council. An Exploration Agreement, sometimes referred to as a Memorandum of Understand (MOU), was signed between Moneta and Wahgoshig in 2019. Moneta has hired members of the Wahgoshig (Wahgoshig Resources LP) to assist Moneta's drilling program, with contracts to deliver core from the drill sites to Moneta's core logging and storage area in Timmins and Garrison, as well as to clear snow during the winter months. Moneta has continued consultation with the Wahgoshig and has documented the correspondence with the First Nation from 2018 to 2022. It is anticipated that Moneta will continue community and government meetings into the

future, as a requirement of Ontario's Environment Assessment Act. On August 15, 2013, Moneta announced that it had entered into an exploration agreement with the Wahgoshig First Nation community (Wahgoshig) near Garrison Township, Ontario. The agreement establishes a commitment by Moneta to develop an ongoing relationship with Wahgoshig in the areas of the Tower Gold Project and provides Wahgoshig with an opportunity to participate in the benefits of Moneta's projects through training, ongoing communication, and business development.

The company has also agreed to negotiate an Impact and Benefits Agreement (IBA) with Wahgoshig should construction or mining operations commence on any of Moneta's properties located on Wahgoshig traditional territory. In addition to Moneta's commitments to training, communication, community funding and business development, Moneta issued Wahgoshig common shares of Moneta and share purchase warrants. Further, 2% of all monies spent in undertaking exploration activities on the Project (other than shaft dewatering and rehabilitation, construction of new exploration infrastructure, and upgrades to existing exploration infrastructure) is paid annually to Wahgoshig.

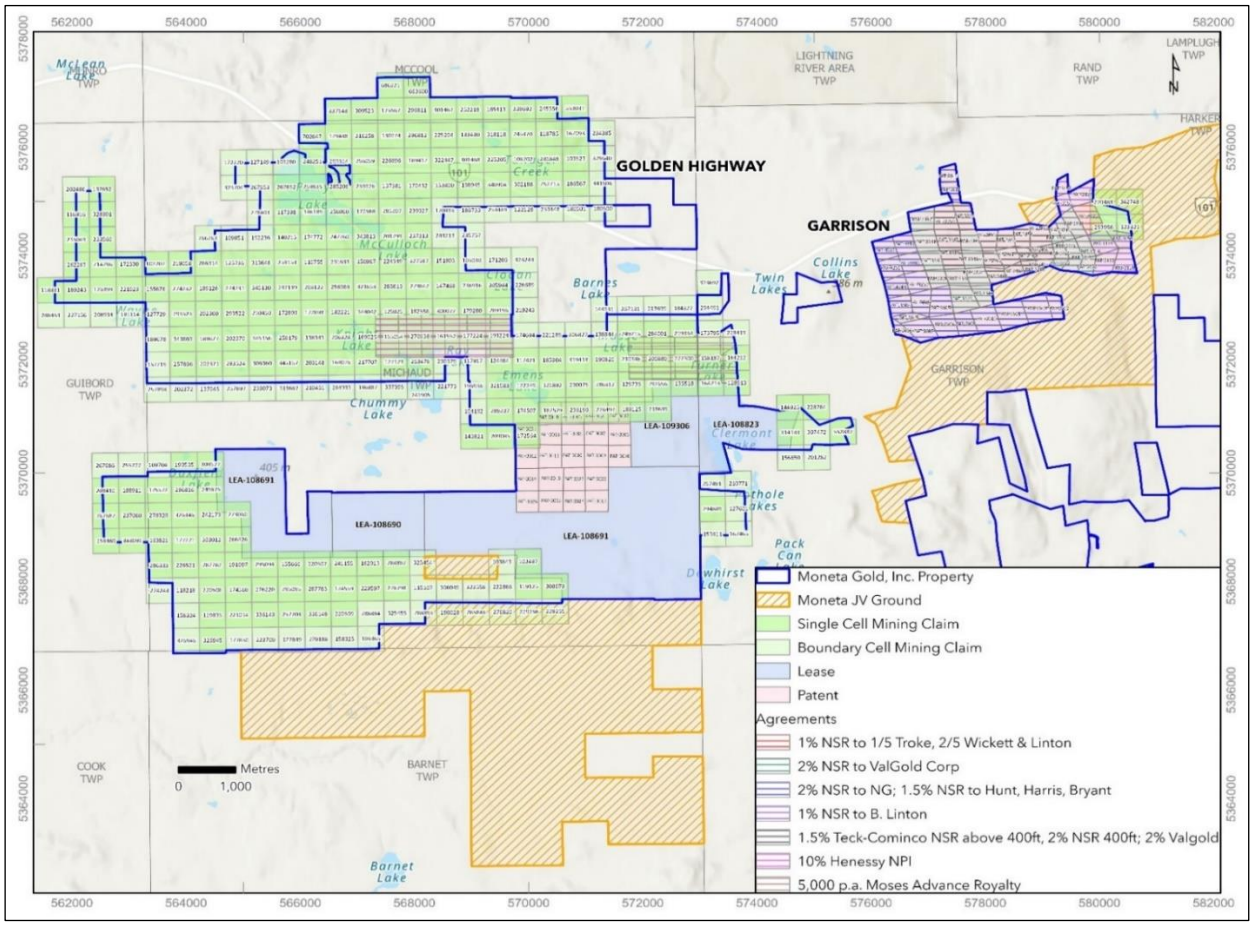
4.4 Royalties and Agreements

4.4.1 Golden Highway

The 22 patented and 4 leased claims are owned 100% by Moneta. None of the 22 patented or 4 leased mineral claims containing the mineral resource estimate are subject to any underlying royalty agreements.

Within the 314 unpatented mining claims making up Golden Highway, a total of 10 legacy claim units referred to as the "Moses block" are subject to a $5,000 per annum advance royalty. The Moses block is located to the north and east of the mineral resource estimate, within Michaud and Garrison townships. In addition, 12 legacy mineral claim units referred to as the "Hennesy block" are subject to a 10% net profits interest (NPI). The block is located to the north and west of the mineral resource estimate within Michaud Township. The locations of the unpatented claims subject to underlying royalty agreements are shown in Figure 4-4.

Figure 4-4: Claims Subject to Underlying Royalty Agreements



Source: Moneta, 2022.

4.4.2 Garrison

The Garrison property comprises 63 patented mining claims and four cell claims covering an area of approximately 785 ha. Moneta holds a 100% interest in 56 of the patents and a 95% interest in the remaining 7 patents. Moneta holds a 100% interest in all four of the cell claims. Moneta owns 100% of the surface rights of all of the patented mining claims on the Garrison property, which are subject to annual land taxes and annual mining fees.

On September 9, 2009, Northern Gold entered into an option agreement with ValGold Resources Ltd. (ValGold) covering 35 claims of its 100% owned Garrison Project (Newfield, Garrcon, and Brydges Groups). Under the terms of the agreement, Northern Gold could earn up to an undivided 80% interest in the property in two phases. Subsequently, under the terms of a sales agreement executed on April 7, 2011, Northern Gold purchased ValGold's 100% interest in the Garrison Project with TSX Venture approval of the transaction granted on April 14, 2011.

In consideration for this sale, ValGold received:

- A cash payment of C$325,000 and a promissory note for an additional C$325,000 to be paid on or before August 13, 2011.

- 16 million common shares in Northern Gold (Northern Gold Shares), giving ValGold an aggregate holding of 17,437,500 common shares of Northern Gold, representing ownership of approximately 14.8% of the issued and outstanding shares on a non- diluted basis.

- A 2.0% net smelter return royalty (NSR royalty) of which (i) half (i.e., 1.0%) can be acquired by Northern Gold for C$5 million paid to ValGold at any time upon the earlier of 36 months following the date of closing and the commencement of commercial production, and (ii) the remaining 1.0% can be acquired for a further payment of C$10 million at any time upon the earlier of 72 months following the date of closing and the commencement of commercial production.

On May 10, 2018, Metalla Royalty & Streaming announced the friendly acquisition of ValGold and, as a result, acquired the 2.0% NSR royalty on the 35 claims as described above.

In addition, 12 of the 35 acquired patented claims (the Garrcon Group) are subject to a prior NSR royalty held by Osisko Gold Royalties, which acquired the royalty as part of its royalty portfolio acquisition from Teck Resources (formally Cominco) announced on October 19, 2015 (Figure 4-4). The royalty is comprised of a 1.5% NSR above the 400 ft level and 2.0% NSR below the 400 ft level on the Garrcon claim group (claims L26120 to -22, L26341 to -46, and L38949 to -51), which cover both the Jonpol East Zone and the Garrcon Zone. The NSR royalty agreement was originally made between previous property holder Jonpol Explorations Ltd. and Cominco.

On April 12, 2011, Northern Gold announced that it reached a definitive agreement with June Linton, Lynn Troke, and Karen Wickett to acquire a 96.4% interest in the Linton Claim Group consisting of eight patented mining claims contiguous to the eastern boundary of the historic Brydges Group. The acquisition of this strategic group of patented claims increased the size of the Garrison property to 476.1 ha.

The patented claims were purchased in two transactions. The first transaction consisted of the purchase of a 100% interest in seven of the claims (26075 to 26076, 26116, 26384 to 26386 and 30576). They were purchased for a cash payment of C$91,000 plus 107,692 common shares of Northern Gold, and a 1.0% NSR royalty, with TSX Venture approval of the first transaction granted on April 25, 2011 (Figure 4-4). The second transaction was the March 23 and May 2, 2012, purchase of five-sevenths (71.4%) interest in the eighth patent (26074) for a cash consideration of C$20,000 and a 1.0% NSR royalty, to be apportioned to the vendors on a pro rata basis (Figure 4-4).

In a third transaction on April 30, 2012, Northern Gold purchased the remaining two-sevenths (28.6%) interest in patent 26074 for a cash payment of C$8,000 from Carol Linton Whelpdale, with no stock or royalty payments.

On April 11, 2013, Northern Gold acquired two unpatented claims (4259530 and 4259531) from Mhakari Gold Corporation on the eastern edge of the Linton Group in consideration for C$25,000 cash payment to Mhakari, 25,000 common shares of Northern Gold Mines Inc., and 1.0% NSR royalty, of which the entire 1.0% can be bought back for C$250,000 (Figure 4-4).

On November 27, 2012, Northern Gold acquired one unpatented claim (4264611) from Jacques Robert and Randall Salo on the eastern edge of the Linto Group in consideration for C$15,000 cash payment (equally split among Robert and Salo), 20,000 common shares of Northern Gold Mines Inc. (equally split among Robert and Salo), and a 1.0% NSR royalty, of which 0.5% can be bought back for C$250,000 (Figure 4-4). On February 24, 2021, Moneta Porcupine Mines Inc. acquired O3 Mining's Great Bear properties, including the Garrison properties, hence transferring ownership of all these unpatented and patented cell claims to Moneta Porcupine Mines. Moneta Porcupine Mines Inc. officially changed its name to Moneta Gold Inc. on June 24, 2021.

4.5 Environmental Liabilities, Factors and Risks Affecting Ability to Perform Work

Moneta has advised the QP that it is not aware of any environmental liabilities within the Tower Gold area or of any restrictions beyond those covered by existing legislation and regulation with respect to potential mine sites and tailings and disposal sites should future development take place. During the site visit, the QP did not notice any significant environmental liabilities on the property. Some of the property has been logged for timber.

There are no significant risk factors regarding the ability of Moneta to perform work on the 100%-owned patented mining claims and mining leases of the Tower Gold Project, where Moneta owns 100% of both the mining claims and the surface rights. Moneta's current exploration permit PR19-000171 was valid until September 05, 2022. Moneta is currently renewing their permits to perform work on the 100%-owned staked mining claims on the Tower Gold Project and sees no risk in performing work in these areas, where the surface rights are owned 100% by the Crown.

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

5.1 Accessibility

The Tower Gold Project is accessed by logging and drilling roads that extend south from Highway 101, east of Matheson, Ontario. The intersection for the main logging access road (Tower Road) is 32 km east of Matheson at 570730E and 5374755N UTM NAD 83. The mineral deposits are located approximately 4 km south of Highway 101 and accessed locally by a network of forestry logging and drilling roads of varying quality (Figure 4-1).

Mineral exploration can be conducted year-round. However, because of the swampy ground conditions on much of the project area, exploration activities such as geophysical surveys and diamond drilling are more easily conducted in the winter due to better accessibility after freeze-up. Drilling at other times is possible on a large portion of the property.

5.2 Climate

The climate is typical of northern boreal forest areas with the project area experiencing four distinct seasons. There are extended periods of sub-zero temperatures during the months of November through March. The daily average winter temperature in January is -6.2°C with daily average maximum and minimum of -10°C and -22.8°C, respectively, and an extreme daily minimum of -45°C. The daily average summer temperature in July is 18.3°C with daily average maximum and minimum of 24.8°C and 11.8°C, respectively, and an extreme daily maximum of 38.3°C. The region has average annual precipitation of approximately 78.6 cm including approximately 57 cm of rain, largely during the months of April to October and up to 22 cm of winter snow accumulation, occurring largely between the months of November and April (Environment Canada website, 1981 to 2010 data).

5.3 Local Resources

There are numerous operating gold and base metal mines in the region, and the necessary infrastructure for mining and mineral exploration, including skilled labour, is available locally. The project is located about 100 km east of the City of Timmins, Ontario (2016 population: 41,788), a major mining centre with a skilled and educated work force. Timmins also has a commercial airport and rail service. Other population centres in the area include Matheson (2011 population: 2,410) and Kirkland Lake (2016 population: 7,981); the latter is an active mineral exploration and mining town with rail service.

Existing surface site infrastructure at the Garrison property consists of the following:

- gravelled site access road from Highway 101 allowing two-wheel drive vehicle access;
- core shack and office facility (completed in early 2013 and located near the Jonpol deposit project site, it hosts separate core logging, cutting, and sampling rooms, several offices and a meeting room);
- secured maintenance shed/garage for storing tools and outdoor equipment;

- a 200-kW, diesel-powered electric generator for the office and core shack facility (in 2014, Northern Gold completed a 3-km-long, single-phase electrical transmission line to connect the facility with the grid at Wahgoshig First Nation);
- decommissioned railway boxcars for storage of sample rejects and pulps;
- historical and Moneta drill core (this has been palletized or placed on core racks at the core storage facility); and
- weather-recording station.

A 115 kV power transmission line of unknown capacity is located approximately 10 km southeast of the property along Highway 672 and water is readily available in the vicinity of the property.

The Tower Gold project may provide sufficient area to establish mine infrastructure such as tailings and waste storage areas, heap leach pads, and a processing plant site. More detailed site engineering is required to confirm the suitability and sufficiency of the current property area for final mine and processing facilities, should they be constructed.

Many of the Garrison property mining claims are patented, with Moneta owning the surface rights.

5.4 Infrastructure

There is excellent infrastructure to support exploration and mining activities in the region, which has a long history of both activities. Mining equipment and personnel are readily available from the towns of Matheson, Kirkland Lake, and Timmins. Timmins and Kirkland Lake are major supply and service centres for the mining industry. They are serviced by modern telecommunications, commercial airlines or rail service, and truck transportation.

Communications and power are available along Highway 101 and Highway 672. Water resources are locally available. Cell phone coverage extends to the property. Electrical power is supplied to various mining and mineral exploration projects along Highway 101 from west of Matheson to the Quebec border.

Moneta maintains secure and well-equipped core logging and storage facilities in north Timmins at 2679 Highway 655 and at Garrison Township, as well as an office in downtown Timmins at 65 Third Avenue.

Moneta holds sufficient surface rights for potential future mining operations (e.g., tailings storage areas, waste disposal areas, and a processing plant).

5.5 Physiography

Regionally a poorly drained swamp dominates much of the Project area. The Project topography is relatively flat with an elevation of approximately 330 m above sea level. Relief is generally only a few metres, with drier sandy esker ridges and dunes rising up to 25 m above open and forested swampy areas in western parts. The project area has very limited outcrop. There are areas of swamp in the southern and western parts.

All streams and rivers in the Project area are part of the Arctic watershed. The Pike River meanders through the centre of the Golden Highway property. It is a potential source of water for mining operations but provides little drainage for the low-lying terrain. Drainage patterns are poorly developed due to the low topographic relief and the extensive clay cover

immediately below the vegetation layer. Several small lakes occur on the Golden Highway property. Perry Lake, the largest, is situated in the northwest corner of the property. Some of the diamond drill holes form natural wells.

Overburden depths on the property are variable and generally deep, with depths up to 80 m. There are isolated areas of bedrock exposure located in the centre of the Michaud Parcel and to the southeast marking the southern limit of the Pike River valley.

Vegetation consists of low stands of black spruce and alder in the wetter areas, with stands of birch, poplar, and jack pine in the higher drier sandy areas.

5.6 Seismicity

Spectral acceleration (Sa) and peak ground acceleration (PGA) for various return periods were obtained for the project site using the Natural Resources Canada Seismic Hazard Calculator (NRCAN, 2015). The calculator provides these parameters for events up to a 1:2475-year seismic event. Based on NRCAN 2015 calculator the site has very low seismic events for various return periods (NRCAN, 2016).

The PGA for various return periods is summarized in Table 5-1.

Table 5-1: Peak Ground Acceleration

Return Period (Years)	Probability of Annual Exceedance Per Year	PGA (g)
100	0.01	0.009
475	0.0021	0.031
1000	0.001	0.050
2,475	0.000404	0.088

6 HISTORY

The area between Matheson and the Quebec border has a long history of prospecting, mineral exploration, and gold mining that dates back to the beginning of the 20th Century. Production from mines in the area began in 1911. No mineral production has occurred from the Golden Highway Property. Limited trial production from the Garrcon deposit was completed between 2014 and 2015.

6.1 Golden Highway Property

6.1.1 Historical Mining

No historical mining has occurred on the Golden Highway property.

6.1.2 Recent History of Mineral Tenure

Claim staking in the area increased in 1944 as a consequence of an Ontario Department of Mines report which suggested that the Destor Porcupine Fault Zone (DPFZ) passed through the original Moneta patented claims in the Township of Michaud. These patents had been staked as claims in 1939 and optioned to Moneta Porcupine Mines Ltd. (a predecessor company) in 1945. Since that time, various portions of the property have been held and explored by a succession of companies. Moneta's current land position was primarily acquired through staking and by a series of joint venture agreements dating from the late 1980's onward.

In 1986, Moneta activated exploration on its patents in Michaud Township and optioned the immediately adjacent Nahanni Mines claim group. This claim group was taken to lease and later became known as the Nufort leases (LEA-108690 and LEA-108691). From 1988 to 1989, Unocal Canada Ltd. optioned the property and completed the Nahanni (Nufort) 50% earn-in on behalf of Moneta for total expenditures of $1 million and payments of $100,000. Unocal dropped its option in 1989 due to a corporate decision to terminate exploration in Canada and the property was returned to Moneta.

Independence Mining Company Inc. optioned the property in 1991 and completed its minimum expenditure commitment of $400,000 before returning it. The agreement called for exploration expenditures of $4 million and payments of $290,000 for a 50% property interest.

Lac North America Ltd. (acquired by Barrick Gold Inc. in August, 1994) optioned the property from Moneta in 1994 including Moneta's interest in the Nufort Leases. The agreement called for total expenditures of $3.5 million including payments of $225,000 for a 60% interest on the 100% Moneta ground. Lac North America also optioned the Nufort lease interests in 1995 under a separate agreement that required total expenditures of $3.0 million and payments of $200,000 for an overall 70% interest. The combined property was returned to Moneta in 1998 following the downsizing of Barrick's exploration activities.

In 1998, Moneta acquired the remaining 50% interest in the Nufort leases for a 100% interest, extinguishing all underlying encumbrances.

In 2001, an option agreement was entered into with Acrex Ventures Ltd. covering a significant portion of the southern staked claims and larger Nufort lease, as well as several patents. Acrex vested in a portion of the option in 2004 by meeting earn-

in requirements and both companies formed the Michaud Joint Venture. In 2009, Moneta acquired the 50% Acrex ownership interest in the Michaud Joint Venture ground for $1 million, terminating the joint venture.

St Andrew Goldfields Ltd., optioned the southern portion of the property in Barnet and southeastern Michaud Township in 2001 with a 50% earn-in expenditure level of $200,000 and staged option payments, satisfied in 2009 as part of a property exchange agreement. In this property exchange Moneta was granted a 100% interest in 29 claim units in Cody Township, a 100% interest in three claim units in Guibord Township, and a $50,000 cash payment from St Andrew Goldfields Ltd. In return, and, in order to address expenditure commitments, the Agreement granted St Andrew Goldfields Ltd. a 75% vested interest in the Guibord property and 50% vested interest and operatorship in the Barnet Joint Venture.

In 2004, the Perry Lake property was staked (68 claim units) and the Turner Lake (10 claim units) and Dyment 3 (three claim units) properties were optioned. In 2006, an additional ten claim units were staked adjoining the Perry Lake block to the north.

In November 2007, Moneta entered into an agreement with a subsidiary of Newmont Mining Corporation to acquire Newmont's 50% interest and operatorship in a joint venture known as the Windjammer property comprised of two mining leases (22 claim units) in Garrison and Michaud Townships. Moneta issued 4,380,000 common shares to Newmont as consideration for the acquisition. A subsequent February 2009 vesting order from the Mining Commissioner increased Moneta's interest to 100% in the Windjammer property.

Moneta also staked three claim units in 2008. A total of eight claim units were acquired in Michaud Township by purchase (four claims) and staking (four claims) in 2010. In 2011, Moneta staked an additional two claim units in Michaud Township and successfully renewed three mining leases within the Golden Highway property for a further 21 years. A fourth mining lease was renewed in 2012, also for 21 years.

In August 2019, Moneta acquired three single (64.2 ha) and three boundary cell mining claims (64.2 ha) contiguous with the eastern edge of the Golden Highway property, within Garrison Township, covering a total of 128.4 ha. Moneta also staked one single cell claim (21.4 ha) in the northeast area of the property in 2019.

6.1.3 Property Results – Previous Owners

This section summarizes the historical exploration in the immediate area of the 55, South West, Windjammer and Discovery deposits, for which the resource estimation has been undertaken.

From 1947 to 1948, Wright-Hargreaves Mines Ltd. drilled four holes totalling 1,346 m on the Windjammer property (WH series). This program completed a section across the main iron formation east of the current Windjammer South deposit. The highest assay from the drill program returned 6.9 g/t Au over 0.32 m.

In 1966, also on Windjammer, Dalhousie Oil and Gas completed two drill holes in the northern part of the property with no assays reported.

In 1980, Windjammer Power and Gas completed two diamond drill holes in iron formation on the Windjammer property (WJMPH series). The highest assay from the drill program returned 36.6 g/t Au over 0.32 m.

From 1983 to 1989, after optioning the Windjammer portion of the property, Noranda Exploration Co. Ltd. carried out considerable work. One diamond drill hole was completed in 1983 in the southeast section. The highest assay from the drill program returned 1.38 g/t Au over 1.23 m. In 1985, two holes were drilled through the DPFZ intersecting green carbonate, felsic tuff and basalt. The highest assay from these holes was 4.3 g/t Au over 0.60 m. The 1987 program included a 41 km

grid with magnetometer and IP surveys, followed by a Phase 1 drill hole program with 30 holes totalling 9,626.70 m. Phase 2 was completed in 1988 with five holes (2,404.50 m) in the South Zone and 11 holes (4,287.30 m) in the North Zone. Later that year, two additional holes were drilled in the South Zone (823.20 m) and one hole in the North Zone (395.67 m). This program was continued into 1989 with two holes each in the South Zone (958.90 m) and North Zone (1,019 m). These drill holes comprise the WJ series in the database.

6.1.4 Previous Exploration History

Table 6-1 summarizes the known exploration history of the property. It provides a general listing of exploration records available for the Golden Highway property, primarily sourced from government assessment files and reports (Puritch et al., 2012).

Table 6-1: Golden Highway – Summary of Historical Exploration and Development Activities

Year	Company	Exploration	Township
1945	Koulomzine	Mag survey, hole 6, 8, 9, 12	Michaud
1946	Clodan	Mag survey	Michaud
1946	Moneta	Holes 1 to 18, geological report	Michaud
1966	Dalhousie Oil and Gas	DM66-1 and 2	Michaud
1967	Amax	MR/H/W-1 to 40, overburden drilling	Michaud
1968	Amax	KX25-67 and KX26-68	Michaud
1970	Renzy Mines	Holes 1 to 12	Michaud
1972	Hollinger Mines	Mag survey	Guibord, Michaud
1979	Amax	Geological survey	Michaud
1980	Redstone	Mag survey, horizontal loop	Michaud
1980	Windjammer Power	Summary report, Holes 1 & 2	Michaud, Garrison
1981	Lacana	Geophysical surveys	Michaud
1981	Nahanni	Mag and VLF survey	Michaud
1981	Redstone	Mag survey	Michaud
1981	Tesluk	Drill hole 81-1	Michaud
1982	Gold Fields	Mag and VLF survey	Michaud, Guibord
1982	Nahanni	Drill holes M-82-1 to 4 & Geological mapping	Michaud
1982	Selco	Geophysical surveys (IP and Mag)	Michaud
1983	Moses	Drill holes JM-3 and 4	Michaud, Garrison
1983	Nahanni	Mag and VLF survey	Michaud
1983	Nahanni	Drill holes M-83-5 to 7, Mag and VLF survey, Geological mapping, R83-1 series, Overburden drilling, exploration report	Michaud
1983	OGS - Abitibi Project	Airborne Mag Survey	Michaud, Barnet
1984	Asarco	Geological mapping, Drill hole DPL-1	Michaud
1985	Falconbridge	Drill holes 659-04 to 6 , IP survey	Michaud
1985	Meunier	Geological report	Michaud
1985	Noranda	Mag and VLF survey, drill holes WJ-85-1 and 2	Barnet, Michaud
1985	St Joe	Drill holes PR85-05 to 11	Guibord, Michaud
1986	Hennessey	Mag survey	Michaud
1986	Kidd Creek	Mag and VLF survey	Michaud
1987	Goldfields/Lacana	MPH Ground Mag Survey, IP	Michaud
1986	Lacana	Drill holes MD-1-86 and 2	Michaud
1986	Nahanni	Drill holes NM-86-8 to 13	Michaud
1986	Noranda	Geological mapping, drill holes GR-86-01 and 2	Michaud
1986	St Joe	Mag survey	Guibord, Michaud
1987	Asarco	Drill holes PL87-01 to PL87-11	Michaud

Year	Company	Exploration	Township
1987	Falconbridge	Mag and VLF survey	Michaud
1987	Nahanni	IP survey	Michaud
1987	Noranda	NBR87-01 to 29, drill holes BT-87-01 and 2	Barnet, Michaud
1988	Asarco	Drill holes PL87-12 to PL88-16	Michaud
1988	Falconbridge	Drill hole MI54-01	Michaud
1988	Golden Range	Drill holes GRM-88-1 to 4B	Michaud
1988	Lacana	Drill holes MD-88-3 to 7	Michaud
1988	Mid-North	Drill holes PT88-1 to 3	Michaud
1988	Noranda	Drill hole WJ-88-44	Michaud, Garrison
1988	Stellar	Mag and VLF survey	Michaud
1989	Corona	Mag survey	Michaud
1989	Falconbridge	Drill holes MI55-01 and 2	Michaud
1989	Golden Range	Mag survey	Michaud
1989	Moneta/Unocal	MU89 drill holes series	Michaud
1989	Moneta	Drill hole MPM-89-01	Michaud
1990	Corona	Drill hole PL-90-1B	Michaud
1990	Lacana	Drill holes MD-90-08 to 11	Michaud
1991	Independence	Ground Mag Survey, IP, drill holes MI-91-139 to 150	Michaud, Guibord
1993	Moses	Drill hole JM-5	Michaud
1994	Hawley	Mag and VLF survey	Michaud
1994	Lac Minerals	IP survey	Michaud, Barnet, Guibord
1994	Noranda	Geophysical survey	Guibord
1994	Tandem	TM series, Overburden drilling	Michaud, Guibord
1995	Battle Mountain	Ground Mag / IP Survey,	Michaud, Guibord
1995	Lac Minerals	Drill holes PR-95-01 to 04	Michaud, Barnet
1995	St Andrew Goldfields Ltd.	Airborne Mag Survey	Michaud, McCool
1996	Barrick	MN96 series drill holes, Geophysical interp, Mag survey	Michaud
1996	Battle Mountain	Geophysical surveys (IP and Mag), geological report, prelim, drill holes PL96-1 and 2	Michaud
1996	Lac Exploration	Drill hole MM94 and MM95 series	Michaud
1996	Tandem	Drill holes 96-01 to 96-04	Michaud
1997	Battle Mountain	Drill holes PL96-1-2, PL97-3 to 5	Michaud
1997	Beagan	Mag and VLF survey	Michaud
1997	Lac Exploration	Drilling report, MN97 series	Michaud
1998	Totem	Exploration summary	Michaud, Garrison
1999	Hagen	IP survey	Michaud
1999	Kidston	Mag survey	Michaud

Source: adapted from Puritch et al., 2012.

6.1.5 Production History

No mineral production has occurred on the Golden Highway property.

6.1.6 Historical Resource Estimates

Initial preliminary internal historical resource estimates were prepared by Barrick Gold Inc. (Barrick) in 1996 and 1997.

Seven mineral resources have been completed on the Golden Highway property. Four of the mineral resource estimates have been completed since the implementation of the current standards set forth in NI 43-101 and CIM standards for the mineral resource estimation (as defined by CIM Definition Standard on Mineral Resources and Mineral Reserves dated May 10, 2014). The authors of this technical report have reviewed the MRE's and determined that the MRE's were prepared by

QPs in accordance with the standards set forth in NI 43-101 and Canadian Institute of Mining ("CIM") current at the time of publication of each resource and are considered reliable. The authors of this technical report have not done sufficient work to classify these historical estimates as a current mineral reserves or mineral resources and consider these estimates as "historical resources" and the issuer is not treating the historical estimates as current mineral resources. The mineral resource estimate reported herein supersedes all previously published MREs for the Golden Highway property and therefore all the MREs for the Golden Highway property discussed in this section (Section 6.1.6) are considered historical in nature.

In 2008, updated in 2009, a near-surface resource estimate was completed on the Windjammer South Zone by D. George Cargill, Ph.D., P.Eng., of Cargill Consulting Geologists Limited. This resource included an estimate of indicated and inferred resources. This resource was based on 26 drill holes (8,875 m) completed by Noranda (1983 to 1989) and 21 drill holes (7,097 m) drilled by Moneta from 2007 to 2008 (Cargill, 2008, 2009).

An NI 43-101 mineral resource estimate was prepared by P&E Mining Consultants Inc. for the Golden Highway property (December 01, 2011) which comprised both underground and surface resources totalling 33,533,000 tonnes at 0.99 g/t Au in indicated resources for 1,071,000 contained ounces and 47,837,000 tonnes at 1.35 g/t Au in inferred resources for 2,069,000 contained ounces (Puritch et al., 2012a).

An updated NI 43-101 mineral resource estimate and preliminary economic assessment (PEA) was conducted by P&E Mining Consultants Inc. (P&E) on the Golden Highway property in late 2012. The updated mineral resource was reported by way of a press release on October 25, 2012. It was based on 349 surface diamond drill holes completed on the Windjammer (South/Central/North), Gap, South West, and 55 Zones. P&E's updated NI 43-101 mineral resource estimate included indicated and inferred resources with an open pit cut-off grade of 0.37 g/t Au, and an underground cut-off grade of 2.00 g/t gold. The PEA considered the development of the Windjammer (South/Central/North), Gap, South West, and 55 Zone pits, and the underground resources on the South West Zone. The PEA results released on November 1, 2012, estimated potentially economic portions of the mineral resources before dilution and mine extraction that included combined open-pit and underground indicated resources at cut-off grades of 0.40 g/t Au and 2.0 g/t Au for open-pit and underground resources, respectively (Putrich et al., 2012b).

An updated NI 43-101 mineral resource estimate was conducted by Micon International Limited (Micon) and reported in a technical report dated February 28, 2019, on the underground resources of the Golden Highway property. The resource estimate was conducted on the South West, 55, West Block, Windjammer South, Discovery and Windjammer North areas and was reported at a 3.0 g/t Au cut-off grade. An open pit resource was unable to be developed on the Windjammer Central area (at various cut-off grades) (Hennessey and Gowans, 2019).

An updated NI 43-101 mineral resource estimate was conducted by Micon and reported by way of a press release on November 26, 2019 on the underground resources of the South West Zone of the Golden Highway property. The resource estimate reported at a 3.0 g/t Au cut-off grade. An updated NI 43-101 mineral resource estimate and PEA was completed by Micon on the Golden Highway property and reported on October 21, 2020. The resource estimate was calculated for the South West, 55, West Block, Windjammer South, Discovery and Windjammer North areas and was reported at a 3.0 g/t Au cut-off grade, except for the South West Zone which used a 2.6 g/t Au cut-off grade (Hennessey et al., 2020).

An updated NI 43-101 mineral resource estimate and PEA was conducted by Micon on the Golden Highway property and reported on January 22, 2021. The resource estimate was conducted on the South West, 55, Westaway, West Block, Windjammer South, Discovery and Windjammer North areas and was reported at a 0.30 g/t Au and 3.0 g/t Au for open-pit and underground resources, respectively. Open pit indicated resources of 50,478,000 tonnes containing 1,511,900 gold ounces at a grade of 0.93 g/t Au and open pit inferred resources of 34,035,000 tonnes containing 1,207,200 gold ounces at grade of 1.10 g/t Au were reported. Underground indicated resources of 4,859,000 tonnes containing 632,300 gold ounces at a grade of 4.05 g/t Au and an inferred underground resource of 15,711,000 tonnes containing 2,128,100 gold ounces at a grade of 4.21 g/t Au were reported. A total Golden Highway underground and open pit combined indicated resource of

55,337,000 tonnes containing 2,144,200 gold ounces at an average grade of 1.21 g/t Au was reported and a total Golden Highway underground and open pit combined inferred resource of 49,746,000 tonnes containing 3,335,300 gold ounces at an average grade of 2.09 g/t Au was reported (Hennessey et al., 2021). The 2021 mineral resource is superseded by this report.

6.2 Garrison Property

The information in this section has been derived from a 2019 NI43-101 report for the Garrison property by Micon International Ltd. (Hennessey, 2019).

Exploration on the property began in 1935 (Satterly, 1949). The mining claims that make up the property are patented and as a result, very little of the exploration work carried out on the property has been filed, so the data are not in the government assessment work files.

Initial drilling on the property was carried out from 1935 to 1946 on the historical Newfield, Garrcon, Brydges, Linton, Hastings and Wright-Hargreaves claim groups. Additional drilling was completed in 1983 by Long Lac Mineral Exploration Ltd. on the former Wright- Hargreaves claim L43903 (the 903 Zone) and by Kerr Addison Mines on the former Garrcon claim group claims L26344 and L26343. This drilling is not in the drill hole database nor presented in this report.

All current and most historical drill hole data have been compiled into Moneta's drill hole database. The most important historical data relating to the property are from the exploration work completed since 1985 by Jonpol Explorations Ltd. (and its partners, Cominco, Lac Minerals, and Hillsborough Resources), ValGold, Northern Gold, Osisko, O3 and Moneta. Moneta's current drill hole database includes holes completed from 1985 up to the present. The majority of work has concentrated on the Jonpol deposit, Garrcon deposit and the 903 Zone areas within the property. The true thickness of the mineralized zones identified from previous drilling are 60% to 95% of the sample lengths. Mineralization at the Garrcon deposit was previously interpreted to be striking approximately 075° and dipping 50° to the south; mineralization for Jonpol was previously interpreted to be striking approximately 070° and dipping 75°-85° to the south. Both mineralization models were used as a base for current interpretation.

Bath (1990) summarized the exploration and development from 1935 to 1989 for the area within and surrounding the present property. Squair (2000) further summarized exploration conducted up to 1997 (Table 6-2). General and deposit specific exploration history is presented in the following subsections.

Moneta acquired the Garrison property in 2021.

Table 6-2: Summary of Moneta Exploration and Development Activities at Garrison Property

Year	Company	Exploration	Township
1935	The Consolidated Mining and Smelting Company of Canada Ltd.	3,216 m of underground and surface diamond drilling	Garrison
1936	Garrcon Mines Ltd	532 m of lateral underground exploration and additional underground diamond drilling	Garrison
1937	Garrcon Mines Ltd.	3,362 m of underground diamond drilling. 158 m of trenching	Garrison
1941	The Consolidated Mining and Smelting Company of Canada Ltd.	One 89 m diamond drill hole.	Garrison
1945-1947	Wright- Hargreaves Mines Ltd.	8 diamond drill holes totalling 593 m	Garrison
Pre-1946	Wright- Hargreaves Mines Ltd.	4 diamond drill holes totalling 836 m	Garrison

Year	Company	Exploration	Township
1946	The Consolidated Mining and Smelting Company of Canada Ltd.	Mag survey	Garrison
1946-1947	Dome Exploration (Canada) Ltd.	20 diamond drill holes totalling 4,927 m	Garrison
1949	The Consolidated Mining and Smelting Company of Canada Ltd.	Trenching and 643 m of diamond drilling	Garrison
1983	Kerr Addison Mines Ltd.	10 diamond drill holes.	Garrison
1985-1992	Jonpol Exploration Ltd. & partners	80,604 m of BQ drilling from surface in Jonpol, Garrcon, and 903 Deposits	Garrison
1986-1988	Cominco / Jonpol Explorations	79 diamond drill holes totalling 21,387 m.	Garrison
1987	T&H Resources Ltd.	Magnetic and VLF electromagnetic surveys. 38 diamond drill holes totalling 8,927 m	Garrison
1988	Lac Minerals	17 diamond drill holes totalling 4,823 m	Garrison
1989	T&H resources / Jonpol Explorations	Sinking 148 m shaft with two levels	Garrison
1990	T&H resources / Jonpol Explorations	42 holes of AXT drilling totalling 4,747.2 m. 22 holes of Bazooka AXT drilling totalling 182.2 m. Bulk Sample, 79 rounds.	Garrison
1990	Jonpol Exploration Ltd. / T&H Resources Limited / Lac Minerals Ltd.	Underground exploration at Jonpol deposit	Garrison
1991	Jonpol Explorations	7 diamond drill holes totalling 796 m	Garrison
1994	Jonpol Explorations	3 diamond drill holes totalling 1,563 m. Four-line Mise-a-la-Masse geophysical survey	Garrison
1995	Jonpol Explorations	6 BQ sized diamond drill holes totalling 1,082 m. 4 diamond drill holes totalling 2,804 m. Six-line Mise-a-la-Masse geophysical survey	Garrison
1995-1996	Moneta / Jonpol Exploration Ltd. / T&H Resources Limited / Alto Minerals Inc.	Lithogeochemical sampling, sampling, mapping, real section IP geophysics	Garrison
2006-2009	ValGold	Garrcon: 3 BQ and 11 NQ diamond drill holes totalling 5,709 m; Jonpol: 63 NQ sized diamond drill holes totalling 26,646.3 m	Garrison
2009	ValGold	Satellite imagery, 11 NQ diamond drill holes totalling 2,330 m	Garrison
2009-2015	Northern Gold	Diamond drilling, geophysical surveys, metallurgical work, surface sampling, hyperspectral core mapping, bulk sample	Garrison
2010-2013	Northern Gold	Magnetic/VLF/EM geophysical surveys	Garrison
2010	Northern Gold	Stripping and surface sampling, metallurgical testing. Petrographic study	Garrison
2011-2012	Northern Gold	4,900 m of hyperspectral core scanning	Garrison
2012	Northern Gold	Structural mapping	Garrison
2010-2012	Northern Gold	269 diamond drill holes totalling 91,493.1 m	Garrison
2013	Northern Gold	Outcrop mapping, sampling, and stripping over an area of 2,802 m^2 at Garrison. Metallurgical test work at Jonpol	Garrison
2013-2014	Northern Gold	Leach testing	Garrison
2009-2015	Northern Gold	Jonpol: 75 diamond drill holes totalling 20,827.4 m, 44,000 m of relogging and resampling	Garrison
2016	Osisko	32 diamond drill holes totalling of 20,971 m	Garrison
2017	Osisko	154 diamond drill holes totalling of 60,844 m; geological mapping	Garrison
2018	Osisko	10 diamond drill holes totalling 5,074 m	Garrison

Source: updated from Hennessey 2019.

6.2.1 Exploration Overview and Mineral Tenure Summary

In 1985, the current property was acquired by Jonpol Explorations Ltd. (Jonpol). From 1985 to 1992, Jonpol and its partners completed 80,604 m of surface BQ diamond drilling in 300 holes, of which:

- 237 holes (65,637.5 m) were focused on the Jonpol deposit and its strike extents. The drilling defined five zones, JD, JP, RP, Garrcon West and Garrcon East. The latter two zones are now collectively referred to as the East Zone to avoid confusion with the Garrcon deposit.
- 48 holes (10,628.0 m) were focused on the Garrcon deposit and its strike extents.
- 15 holes (4,338.6 m) were focused on the eastern extension of the 903 Zone on claim L29734.

In 1990, Jonpol and T&H Resources Limited (T&H) concluded an option agreement with Lac Minerals Ltd. (Lac Minerals) which expanded the existing property and allowed Jonpol and T&H the opportunity to conduct underground exploration on the Jonpol Zone, investigate the westward extension of the JD Zone onto the Hastings ground (specifically claims L39876 and 43863), and to investigate the 903 Zone (specifically claims L43903 of the Wright-Hargreaves Group and L43862 of the Hastings Group) which extends eastward onto the southeast corner of the Garrison property (claim L29734) (Squair, 2000).

In 1991, the Lac Minerals agreement was terminated and the Hastings and Wright-Hargreaves properties along with five peripheral claims south of the Garrcon were returned to Lac Minerals (Squair, 2000).

In October 1995, Jonpol and T&H optioned the Linton and Brydges claim groups to Moneta Porcupine Mines Inc. (Moneta). Under the agreement Moneta could earn an undivided 50% interest in the 16 claims by tendering 80,000 Moneta shares, a $7,000 payment and expending $500,000 in surface exploration on the property before October 26, 1998. A further 25% interest in the claims could be earned by Moneta by expending an additional $1.0 million on surface exploration before October 26, 2000, the exploration program was joint ventured with Alto Minerals Inc., who conducted lithogeochemical sampling, mapping and real section IP geophysics to assess gold-bearing sulphide zones in this part of the property. The joint venture completed 10.7 line-km of real section IP on lines 100 m apart over the claims and tested selected anomalous sections with four BQ diamond drill holes (MG-96-1 to 4) totalling 1,080 m (3,544 ft.).

On July 26, 1996, Jonpol and T&H signed an agreement with Hillsborough Resources Limited (Hillsborough) whereby Hillsborough was granted an option to carry out an advanced exploration program at the JP Zone. The option agreement was terminated in 1997.

In June 2005 ValGold Resources Inc. (ValGold) secured 100% ownership of the property's Newfield, Garrcon and Brydges claim groups (subject to the Cominco NSR royalty on the Garrcon claim blocks). Initial work consisted of data review and preliminary data compilation as part of the planning process for a diamond drilling program.

In September 2009, Northern Gold entered into an Option Agreement with ValGold covering the Garrison Gold property (historical Newfield, Garrcon and Brydges claim blocks).

Under the terms of an agreement announced on April 7, 2011, Northern Gold purchased ValGold's 100% interest in the Garrison Gold property. On April 12, 2011, Northern Gold announced that it reached a definitive agreement with June Linton, Lynn Troke and Karen Wickett to acquire a 96.4% interest in the Linton Claim Group which has now been incorporated into the Garrison property. On April 30, 2012, Northern Gold purchased the remaining 3.6% interest in the Linton Claim Group (two sevenths (or 28.6%) interest in claim 26074) from Carol Linton Whelpdale.

On September 10, 2013, an additional 20 patented claims, including the historical Hastings and Wright-Hargreaves claim blocks, were acquired by the company from a subsidiary of Barrick Gold Inc. These are referred to as the "Lac Group".

On November 6, 2015, Oban Mining announced the acquisition of Northern Gold including the Garrison property and the entirety of the Golden Bear Property Group. Northern Gold became a 100% owned subsidiary of Oban. On June 14, 2016 Oban changed its name to Osisko Mining Inc. and later transferred Northern Gold properties into a wholly owned subsidiary O3 Mining Inc.

Moneta announced on February 24, 2021, the purchase of O3 Mining's Great Bear properties.

6.2.2 Garrcon Deposit Exploration History

The exploration and development history from 1935 to 1988 has been extracted from Bath (1990) with metric equivalents inserted by Howe (2014). In the discussion of historical exploration in this section the reader is cautioned that the use of the term "reserve" is simply a reproduction of the original terminology and does not reflect the current definition of the term "reserve" or imply that there are current reserves defined within the property. The historical mineral reserve estimates were calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation (as defined by the CIM Definition Standard on Mineral Resources and Ore Reserves dated May 10, 2014). The authors of this Technical Report have not done sufficient work to classify these historical estimates as current mineral reserves. The authors treat all the estimates discussed in this section as "historical reserves" and the reader is cautioned not to treat them, or any part of them, as a current mineral reserve. There is insufficient information available to properly assess the data quality, estimation parameters and standards by which the estimate were categorized. All historical estimates are superseded by the MRE disclosed in this report.

1935: The Consolidated Mining and Smelting Company of Canada Ltd. optioned 9 claims from a Mr. McKenzie, sank a 256 foot (78 metre) deep inclined (to the south at 62 degrees) shaft, performed about 1,033 feet (315 metres) of lateral exploration work on the 120 and 240 foot (36.5 and 73 metre) levels, and hoisted about 7,612 tons (6,920 tonnes) of waste material. By year end, about 10,550 feet (3,216 metres) of underground and surface diamond drilling had been completed (Young 1937, Sinclair et al. 1937, Sinclair et al. 1938).

1936: Garrcon Mines Ltd. was incorporated in May with Consolidated Mining and Smelting controlling the company and acting as operator on the Garrcon Mines property. 1,745 feet (532 metres) of lateral underground exploration work and additional underground diamond drilling were completed (Sinclair et al. 1938).

1937: 4 feet (1.2 metres) of shaft sinking, 1,542 feet (470 metres) of lateral underground exploration work, 21 surface holes totalling 5,070 feet (1,545 metres), and 33 underground holes totalling about 5, 905 feet (1,800 metres) were diamond drilled. Before operations were suspended at year end, aggregate lateral underground exploration work amounted to 636 feet (194 metres) on the 120 foot (36.5 metre) and 3,655 feet (1,114 metres) on the 240 foot (73 metre) levels (Sinclair et al. 1939), aggregate diamond drilling totalled 16,099 feet (4,907 metres) (of which 11,029 feet (3,362 metres) were drilled underground) and about 520 feet (158 metres) of trenching had been completed (Satterly 1949).

1941: Consolidated Mining and Smelting diamond drilled one 293-foot (89 metre) hole near the northeast corner of claim 38950.

1946: Consolidated Mining and Smelting completed a magnetic survey.

1949: By this time, Consolidated Mining and Smelting controlled in addition to the Garrcon property, 3 contiguous patented claims to the west (claim Nos. 39949-51). Before 1949, trenching and 4 holes totalling 2,110 feet (643 metres) were diamond drilled on these claims (Satterly 1949).

1983: Kerr Addison Mines Ltd. diamond drilled 10 holes on the 12 Consolidated Mining and Smelting/Garrcon Mines (by this time, optioned by Cominco Ltd.) claims (Jonpol Explorations Ltd. 1987 Annual Report).

1985: Jonpol Explorations Ltd. acquired the right to earn a 49% interest in the 12 Cominco/Garrcon Mines claims.

1986: Diamond drilling by Cominco was financed by Jonpol Explorations and delineated 2 additional auriferous zones (the North and South Zones). These were described (The Northern Miner, February 10, 1986) to be stratabound and not vein type. By July, Jonpol had earned a 49% interest in the property (The Northern Miner, July 21, 1986). By September, the South Zone was reported (The Northern Miner, September 29, 1986) to be hosted by altered sediment, to average 6 feet (1.8 metres) in width, and to have been traced by diamond drilling to the (vertical) 500 foot (152 metre) level along about l,300 feet (396 metres) of strike. The North Zone had by this time been traced along strike for about 200 feet (61 metres), to the (vertical) 500 foot (152 metre) level, averaged 10.7 feet (3.3 metres) in width, and was reported to be hosted by a wide shear.

1987: By midyear, drilling funded by Jonpol Explorations and supervised by Cominco had established reserves of 1.5 million tons (1.36 million tonnes) of material averaging 0.04 ounce of gold per ton (1.37 grams gold per tonne) above the 200 foot (61 metre) level near the shaft. The South Zone was indicated to average 0.15 ounce of gold per ton (5.14 grams gold per tonne) across 3.8 feet (1.2 metres) along l,400 feet (427 metres) of strike. The North Zone was reported to have been drill defined along 300 feet (91 metres) of strike. A new auriferous zone within the "Munro Shear" was reported to average 10 feet (3 metres) in width, to be drill defined along 250 feet (76 metres) of strike, with a mineralized drill core length of 36.9 feet (11.3 metres) averaging 0.30 (cut) ounce of gold per ton (10.28 grams gold per tonne - cut) intersected within it (Jonpol Explorations Ltd. 1987 Annual Report). By July, Jonpol Explorations/Cominco were reported (The Northern Miner, July 27, 1987) to have spent $500,000 and that an additional $2 million was budgeted for additional exploration during the next 2 years.

1988: Jonpol Explorations announced in a news release dated February 2, 1988 that aggregate drill defined reserves were estimated to be 350,900 tons (319,000 tonnes) of material averaging 0.191 ounce of gold per ton (6.55 grams gold per tonne) above the (vertical) 500 foot (152 metre) level in three distinct zones. Later, Jonpol Explorations acquired a 100% interest in the property following Cominco's having diamond drilled 79 holes totalling about 70,168 feet (21,387 metres) since 1983 (A. D. Drummond, project engineer, Jonpol Explorations, pers. comm. 1988). In July, Lac Minerals obtained the right to acquire a 50% interest in the (Jonpol Explorations) properties (The Kirkland Lake Northern Daily News, July 7, 1988; The Northern Miner, July 11, 1988), and in November, Lac Minerals optioned the property (The Northern Miner, November 21, 1988).

1991: The Lac Minerals agreement was terminated.

2006 to 2009: ValGold completed three BQ-sized and 11 NQ-sized diamond drill holes on the Garrcon Zone, totalling 5,709 m.

2009 to 2015: Starting in 2009, Northern Gold completed a variety of exploration work on the property, focused on the Garrcon Zone. The work included diamond drilling, geophysical surveys, metallurgical work, surface sampling, hyperspectral core mapping, and a bulk sample.

2009: Satellite imagery covering 25 km2 over the entire Garrison property was acquired; a due diligence review was conducted of the ValGold data to identify errors and omissions; and 11 NQ diamond drill holes were drilled on the Garrcon deposit totalling 2,330 m.

2010 and 2013: Garrison surface grid and magnetics/VLF EM geophysics were carried out.

2010: Garrcon drill hole collar survey – Between January 26 and May 30, 2010, Northern Gold used a differential global positioning system (DGPS) to identify multiple drill holes and historical grid lines on the "Cominco Grid" and reposition these holes and grid lines to fit the ground-truthed model. The overall repositioning resulted in a roughly 10 m shift to the west for all "Cominco Grid" drill holes.

Garrison rehabilitation – Construction of new core storage pads, purchase of new storage racks as well as expansion of core shack building.

Garrcon surface stripping/sampling – Four areas were stripped of overburden with an excavator and washed using a Wajax fire pump. The total surface area exposed in all four areas is roughly 5,000 m2. The stripped areas focused on multiple high-grade veins found east of the core shack along the Garrcon Shaft Zone. Channel samples (150 m) were cut on the newly exposed outcrops.

Garrcon metallurgical testing – Northern Gold submitted two composite samples of Garrcon mineralization to SGS Mineral Services of Lakefield, Ontario for preliminary metallurgical testwork.

Garrcon petrographic study – Northern Gold submitted fourteen drill core samples for petrographic study in 2010, in order to classify the rock types on the property based on petrographic textures.

2010 to 2014: Garrison Environmental Baseline Study/Permitting

2011 to 2014: Environmental baseline study/permitting: Activities included water quality sampling of the creeks, profile water sampling of the Jonpol vertical shaft and rock dump sampling at Jonpol for acid rock drainage (ARD) and metal leaching analyses. In 2013 Northern Gold began working on an advanced exploration closure plan for a bulk sample on the Garrcon deposit.

2011: A Garrison IP geophysical survey was carried out. Northern Gold continued a surface stripping program in the Garrcon deposit area in 2011. Five areas were stripped of overburden with an excavator and washed using a Wajax fire pump. In 2011, A.C.A. Howe reviewed the Garrcon deposit at the level of a Preliminary Economic Assessment (PEA) (Hannon et al., 2011). As this PEA is not current for the Issuer (Monetta), disclosure of the results herein is not allowed under N.I. 43-101.

2011 to 2012: Hyperspectral core mapping: In 2011, 4,900 m of Garrcon core was mapped using a Core MapperTM hyperspectral imaging system and a property specific spectral library was generated.

2012: Garrison structural mapping: Terrane Geoscience Inc. was contracted to conduct mapping and an initial structural analysis on the Garrison property from October 10 to 21, 2012. The JP Zone was interpreted to occur in a possible trans-tensional zone (southward jog) related to D3 left lateral movement along the Munro Fault Zone potentially representing a dilational zone that acted as a control on gold mineralization. In the Garrcon area, the majority of the visible gold observed occurs in the (VJ2) flat lying extensional vein set. Pyrite enrichment in the axial planes of F3 folds was observed.

2010, 2011 and 2012: Garrcon diamond drill programs: Northern Gold's 2010, 2011 and 2012 Garrcon diamond drill programs focused on in-fill drilling and expanding the Garrcon deposit. A total of 91,493.1 m was drilled in 269 drill holes.

2013: Infrastructure changes: Construction of a new core shack and office facility located near the Jonpol deposit project site. The facility contains core cutting room, core logging and sample preparation areas, several offices and a meeting room.

2013: Northern Gold focused on surface mapping, grab sampling, surface stripping and channel sampling on the Hastings property. Three outcrops totalling 2,802 m2 in area were stripped and channel sampled.

2013 to 2014: In late 2013, Northern Gold submitted a composite drill core sample from the Garrcon deposit to Kappes, Cassiday & Associates of Reno, Nevada for preliminary column leach testing of 100% minus 9.5 mm crushed material.

2014 to 2015: In 2014 and 2015, Northern Gold obtained a trial production mining permit through the MNDM, allowing for the extraction of up to 150,000 tonnes. Commencing in 2014, Northern Gold ultimately mined 73,534 dry tonnes which was processed at the nearby Holt Mill facility, recovering 3,516.3 ounces at a calculated average head grade of 1.55 g/t Au and recovery of 95.69%.

2017: In September 2017, Osisko obtained a permit to take water (PTTW) from the Ministry of the Environment and Climate Change (MOECC) in order to de-water the bulk sample pits at Garrcon for a structural mapping project conducted by Orix Geosciences. This mapping program was designed to better understand the structural controls on mineralization and alteration within the bulk sample pits and assist with generating future exploration targets.

The Orix mapping program consisted of approximately thirty 5 to 50 m traverses through the de-watered pits. Structural measurements of veins, shears, faults, tension gashes, bedding, and dikes were recorded and plotted on stereo-nets and maps. No sampling was done. The program confirmed much of the interpreted geology at the time and informed the current geological model.

6.2.3 Jonpol Deposit Exploration History

The exploration and development history from 1935 to 1989 has been extracted from Bath (1990) with metric equivalents inserted by Howe (2014).

> *Pre-1946: The claim group was staked by G. Adams and was later optioned to Wright- Hargreaves Mines Ltd. Wright-Hargreaves Mines diamond drilled 4 holes totalling 2,742 feet (Satterly 1949).*
>
> *1946-1947: Dome Exploration (Canada) Ltd. acquired the property and formed Newfield Mines Ltd. to explore it. Newfield Mines diamond drilled 20 holes totalling 16,164 feet (Satterly 1949), most of which were drilled in the south part of the property in an attempt to locate an eastern extension of an auriferous zone which had been intersected via diamond drilling by Wright-Hargreaves Mines on patented claim no. 43903. Results of the Newfield Mines drilling included auriferous intersections of 0.22, 0.17, 0.27, and 0.45 oz/ton Au across core lengths of 1.4, 4.8, 2.8, and 2.0 m, respectively, and additional "commercial" values in pyritic syenitic or feldspar porphyry.*
>
> *1987: T&H Resources Ltd. (a member of the Jonpol group of companies) optioned the northernmost block of 9 claims (nos. 26435-37, 39428-29, 43702-03, and 44331-32) from Newfield Mines (The Northern Miner, July 6, 1987). Newfield Mines retained a 30% net profit interest. Jonpol Explorations Ltd. (a member of the Jonpol group) later earned a 50% interest in the T&H Resources property interest. T&H Resources and Jonpol Explorations completed magnetic and VLF electromagnetic surveys (T&H Resources Ltd. 1987 Annual Report) and diamond drilled 38 holes totalling 29,289 feet.*

1988: Findore Resources Inc. optioned from Newfield Mines the southernmost block of 5 patented claims. Coastoro Resources Ltd. (a member of the Jonpol group) acquired a 20% interest of the T&H Resources X Jonpol Explorations interest in the northern 9 claims, and the Jonpol group raised $3 million to be spent in the area during 1988 (The Northern Miner, January 18, 1988). In February, Findore Resources optioned its Newfield Mines claims to Morgain Minerals Inc. and Orcana Resources Inc. (The Northern Miner, February 15, 1988). By March, gold mineralization on the Jonpol group controlled ground was reported (T&H Resources 1987 Annual Report) to consist of three mineralized Zones (the JP, the RP, and the JD) extending with breaks along about 2,200 feet of strike. By May, T&H Resources agreed to "... arrange a pooled interest merger with Coastoro..." (The Northern Miner, May 9, 1988). […] By June 30, aggregate drilling on the property totalled about 105,000 feet in 103 holes (A. D. Drummond, project engineer, Jonpol group of companies, pers. comm., July 15, 1988). In July, Lac Minerals obtained a right to acquire a 50% interest in the Jonpol group controlled part of the property (The Kirkland Lake Northern Daily News, July 7, 1988; The Northern Miner July 11, 1988). As of August 25, 1988, aggregate drilling by the Jonpol group totalled 132,697 feet in 136 holes (A. D. Drummond, pers. comm. August 1988). […] The Garrison Township assets of T&H Resources and Coastoro Resources were consolidated under the name T&H Resources (The Northern Miner, October 10, 1988). Lac Minerals optioned the property in November (The Northern Miner, November 21, 1988).

1989: T&H Resources and Jonpol Explorations began underground exploration, including the sinking of a 500 foot deep 3 compartment vertical exploration shaft (Jonpol Explorations Ltd. 1989 Annual Report; The Northern Miner, June 19, 1989). By September, the shaft had reached the 485 foot level and stations had been established on the 250 and 475 foot levels (Jonpol Explorations Ltd. / T&H Resources Ltd. Interim Report dated September 30, 1989).

1990: T&H Resources and Jonpol Explorations underground program was completed in March 1990. Work included the following:

- 184 m (605 ft) vertical 6.7 x 2.7 m compartment shaft
- 185 m of 1.5 x 2.1 m cross-cut and drill stations
- 4,747.2 m (15,575 ft) of AXT drilling in 42 holes
- 182.2 m of Bazooka (AXT) drilling in 22 holes into walls of the 476 ft (150 m) level drift
- 147.8 m of drifting in the JP Main Zone on the 476 ft (150 m) below surface level
- bulk sampling, 79 rounds.

Metallurgical testing at Lakefield Research in November 1990 indicated that the material from the JP Main Zone in the Munro Fault Zone gives 50% recovery with direct cyanidation. Flotation concentrates contained 95% of the gold in the rougher concentrate which, when cleaned, could produce cleaner concentrates in the 4 to 8 oz/ton Au range. Pressure oxidation cyanide leach tests of the concentrate recovered 99% of the contained gold suggesting a potential gold recovery of 95% using that system. The underground bulk sample rounds contained 0.3 to 1.4 oz/ton As (Squair, 2000).

Jonpol and T&H concluded an option agreement with Lac Minerals which expanded the existing property and allowed Jonpol and T&H the opportunity to conduct underground exploration on the JP Zone, investigate the westward extension of the JD Zone onto the Hastings ground (specifically claims L39876 and 43863) (Squair, 2000).

1991: The Lac Minerals agreement was terminated and the Hastings and Wright-Hargreaves properties along with five peripheral claims south of the Garrcon were returned to Lac Minerals (Squair, 2000).

1992: Jonpol completed seven drill holes totalling 796 m.

1994: Jonpol drilled three diamond drill holes (N-94-1, 2 and 3), with a northwest azimuth, on claims P-26435 and P-26434 to test for the western down-plunge extension of the JP Zone (Squair, 2000). Total footage drilled was 5,128 ft between September 24 and October 22, 1994.

A four-line (3800W to 4400W) Mise-a-la-Masse geophysical survey was then completed to determine the near surface conductivity of the auriferous sulphide in drill hole N-94-1.

1995: Jonpol completed a follow-up diamond drilling program (Phase 2) to test strata and shear zones down dip and on strike from drill hole N-94-1 on claims 43703, 26433, 26434 and 26435. During the period from January 26 to February 16, 1995, six BQ-sized diamond drill holes totalling 3,550 ft were completed (N-95-1 to N-95-6).

A four-hole, 9,200 ft, Phase 3 drill program was planned to test the potential for possible gold concentrations at the basal basalt/ultramafic contact and within felsic volcanic and intrusive rocks above the upper thrust of the Munro Fault to the east of the JP deposit and down plunge from the Garrcon West (now Jonpol East) Zone. Two drill holes of the four-hole program, N-95-7 and N-95-8, were laid out on claims 38950 and 39429. Drill hole N-95-7 was completed September 16, 1995. Hole N-95-8 was lost at 1,270 ft in sheared ultramafic near the top of the Munro Fault. Repeated efforts to cement and drill through the zone were unsuccessful, and the hole plus the remainder of the program was abandoned on October 22, 1995. The two holes totalled 3,767 ft. Gold and silver assays for 269 samples from 30 sulphide intersections within the two holes were of geochemical interest only, but the program demonstrated that anomalous gold values occur within non-refractory sulphides (pyrite) south of the Munro Fault.

A six-line Mise-a-la-Masse survey was conducted to determine near surface conductivity around hole N-95-7.

1996 to 1997: On May 29, 1995, Jonpol Explorations Ltd. and T&H signed a letter of intent with Hillsborough Resources Limited (Hillsborough) to complete a Joint Venture agreement whereby Hillsborough would be granted an option to carry out an advanced exploration program at the JP Zone.

Under the agreement Hillsborough would undertake to develop and mine the known gold-bearing albite-sericite-pyrite zones and ship ore to a custom mill and smelter at Noranda, Quebec.

After recovery of Hillsborough's initial costs, the parties would share net smelter proceeds, if any, from the advanced mine program. The Hillsborough option encompassed all known gold- bearing zones on the Newfield and Garrcon Group of claims, to a vertical depth of 305 m (1,000 ft) from the shaft collar on patented claim 43703. Work was carried out on claims 43702 and 43703. Canadian Mine Development, a wholly owned subsidiary of Hillsborough Resources conducted the permitting and development work.

Permitting for the advanced exploration program began June 12, 1995. The mine closure plan was accepted by the Ontario Ministry of Natural Resources (MNR) on August 24, 1995, and site operations began in mid-October 1995, with the excavation of the decline portal and the establishment of ore and waste pads. At the beginning of the test program, Hillsborough established an on-site fire assay laboratory to ensure that sample and assay results kept pace with mine development.

The mineralized zone was developed from a 12 ft x 14 ft (3.7 m x 4.3 m), 18°-20° decline excavated to the 476 Level. A ventilation raise connected the 350 Level to surface. Mineralized material was removed by drifting and benching on 6 levels between 80 and 150 m below surface.

The first gold-albite-sericite-pyrite-arsenopyrite test samples were shipped to the Noranda custom mill and smelter complex in September 1996. Between September 1996 and April 1997, 55,751 short wet tons or 54,109 short dry tons of mineralized rock were shipped to the Noranda custom mill and smelter complex.

Choi (1997) reports that the total recovered gold was 9,476 ounces and total gold lost to tailings was 1,100 ounces for total available gold of 10,576 ounces, a recovery of 89.60% and a calculated feed grade of 0.1955 oz/ton Au. The calculated feed grade of 6.70 g/t (0.1955 oz/ton) Au was much lower than the estimated grade of 8.33 g/t (0.243 oz/ton) Au (Squair, 2000). The advanced underground exploration program was terminated on March 29, 1997. Mine closure and environmental clean-up procedures were completed and the Hillsborough option was terminated in 1997 (Squair, 2000).

2005 to 2008: ValGold completed 63 NQ-sized diamond drill holes on the Jonpol deposit totalling 26,646.3 m.

2009 to 2015: Northern Gold completed three years of drilling: 2011, 2012 and 2013. In the Jonpol deposit, diamond drill programs focused on infill drilling and expanding the mineralization. A total of 20,827.4 m was drilled in 75 drill holes. Northern Gold also completed re-logging of approximately 44,000 m of historical core with some sampling of previously unassayed portions.

In 2013, Northern Gold announced preliminary metallurgical testwork results on samples taken from the Jonpol deposit. Three composite drill core samples were selected by Northern Gold from the Company's drilling on the JD, RP and East Zones of the Jonpol deposit. The 2011 IP geophysical survey also covered the Jonpol area, as did the 2010 and 2013 magnetic and VLF/EM survey.

6.2.4 903 Zone Exploration History

1945 to 1947: Wright-Hargreaves diamond drilled eight holes totalling 1,944 ft on claim no. 43903 (now patented), part of a contiguous 10 claim group in north central Garrison Township (Satterly 1949).

1988: By this date, Lac Minerals had acquired the (now patented) claims formerly held by Wright-Hargreaves Mines and adjacent Hastings claims. Lac Minerals completed 17 drill holes totalling 4,823 m on the 903 Zone.

1990: Jonpol and T&H concluded an option agreement with Lac Minerals which expanded the existing property and allowed Jonpol and T&H the opportunity to investigate the 903 and Hastings gold zones (specifically claims L43903 of the Wright-Hargreaves Group and L43862 of the Hastings Group) which extend eastward onto the southeast corner of the Garrison property (claim L29734) (Squair, 2000).

1991: The Lac Minerals agreement was terminated and the Hastings and Wright-Hargreaves properties along with five peripheral claims south of the Garrcon were returned to Lac Minerals (Squair, 2000).

2004 to 2008: ValGold completed no work on the 903 Zone.

2009 to 2015: Northern Gold completed six drill holes totalling 1,914 m during its 2013 903 Zone diamond drill program. The 2011 IP geophysical survey also covered the 903 area, as did the 2010 and 2013 magnetic and VLF/EM survey.

2017: Between August and November 2017, Osisko geologists participated in re-logging the 2016 to 2017 drill holes intersecting the 903 Zone to better understand the mineralization and alteration styles of the gold-bearing syenite dikes within the 903 deposit, and plan future exploration targets. This worked contributed to the refinement of the geological model used for both the 2019 and current mineral resource estimate. There was no significant change to the geological model because of this work.

6.2.5 Garrison Historical Drilling Summary

6.2.5.1 Garrcon Deposit

Initial drilling on the Garrcon deposit occurred in the period 1935 to 1946 with additional drilling completed during 1983. Data from this drilling are not available in sufficient detail to be included in Moneta's current drill hole database. The most important historical data relating to the Garrcon deposit came from the exploration work completed since 1985 by Cominco/Jonpol and ValGold.

Historical drilling at Garrcon from 1985 to 2012 is summarized in Table 6-3.

Prior to initiating the bulk sample in 2014, a definition drilling program was undertaken by Northern Gold utilizing a blast hole drill to better define the mineralized zones previously encountered in diamond drilling (Figure 6-1 and Figure 6-2). The company reports that the nominal spacing of diamond drill holes in the area of the bulk sample was 25 m and this was deemed insufficient for pit design in order to optimize recovery of mineralized material.

Table 6-3: Historical Drilling on the Garrcon Deposit

Company	Year	No. of Drill Holes	No. of Drill Hole Extensions	Length (m)
Cominco/Jonpol	1985	5		612.2
Cominco/Jonpol	1986	14		2,696.5
Cominco/Jonpol	1986 to 1987	6		1,417.3
Cominco/Jonpol	1987	11		3,481.4
Cominco/Jonpol	1988	3		592.3
ValGold	2006	10		3,393.0
ValGold	2007	5		2,361.0
	Total	**54**		**14,560.7**
Northern Gold	2009	10		2,336.0
Northern Gold	2010	48	1	11,480
Northern Gold	2011	118	7	39,849.8
Northern Gold	2012	84	12	40,514.3
	Total	**260**	**20**	**94,180.1**
Garrcon Historical Drilling Total		**314**	**20**	**108,740.8**

Source: Hennessey, 2019.

The definition drilling program utilized the same percussion blast hole drill that was later utilized in the open pit production drilling. At times two drill rigs were operating to complete the work. The drilling program was conducted on a nominal 5 x

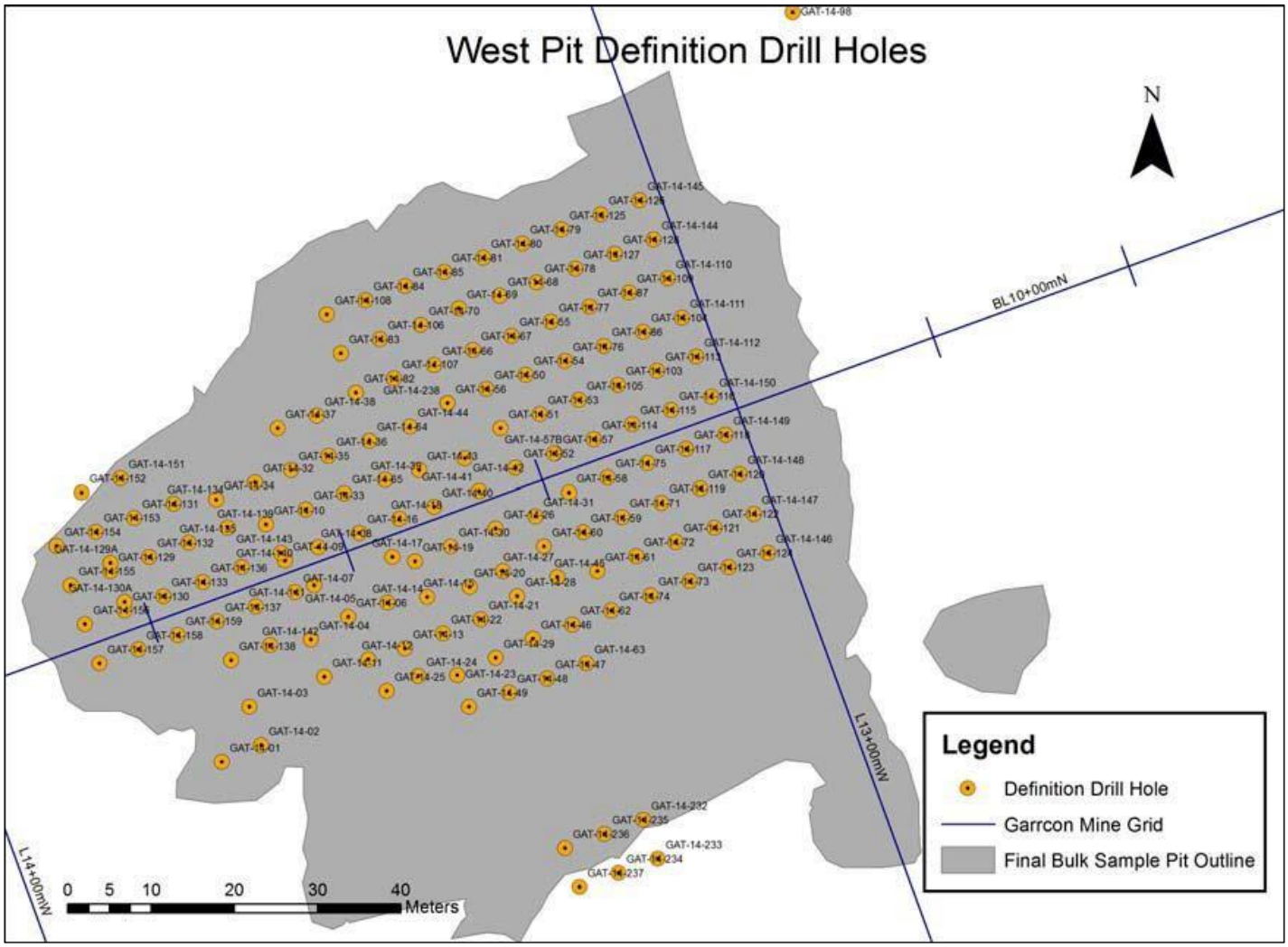
5 m grid utilizing a 3.5-inch percussion blast hole. Holes were drilled to a nominal 20 m depth, the rod capacity of the drilling rig.

Northern Gold reports that each drill rig was equipped with a cutting recovery vacuum and dust collector system. Each drill hole was paused at 1.0 m intervals to allow for discreet sample collection over that distance. Workers used five-gallon pails to collect as much of the sample as possible from both the coarse cutting collector and dust collector. The coarse and fine material was then moved to a sample processing shack and weighed to estimate a percentage recovery for each sample based on its sample length and estimated total mass. Then, utilizing a three-tier jones-type splitter workers would reduce the overall mass of the sample to approximately 2 to 3 kg to be prepared for assaying.

At roughly every 40 samples, two splits would be taken as a coarse field duplicate to be referenced for quality assurance/quality control (QA/QC) purposes. For each sample a small (~50 g) sample of rock chips was retained for geologic reference purposes. The average sample recovery was calculated to be 93% for definition drill samples.

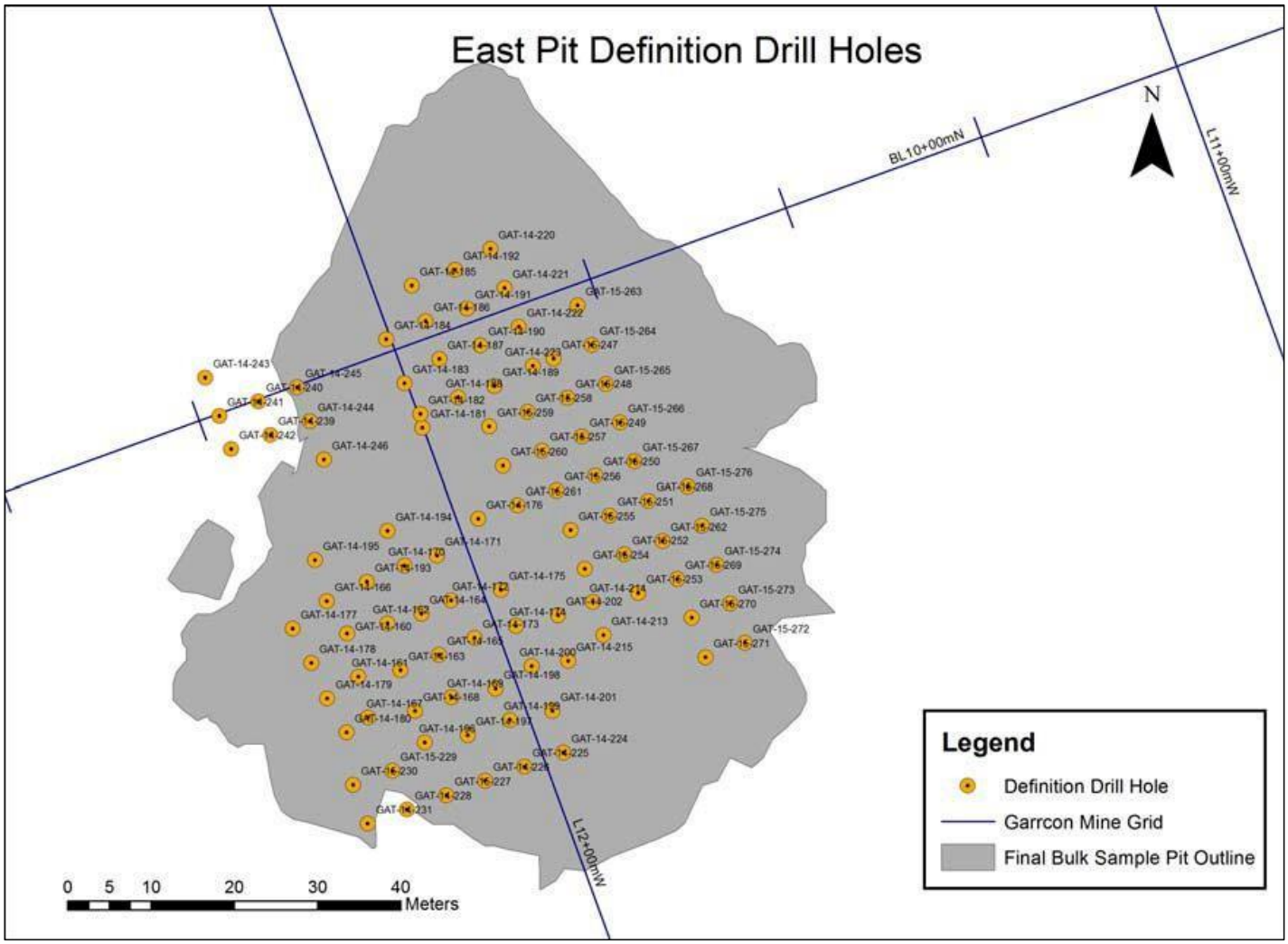
After comparison with results from the neighbouring diamond drill holes, it was decided to use these samples in the mineral resource estimate presented herein. The production blast holes were not used as they were sampled over much wider intervals and resulted in poorer recoveries.

Figure 6-1: West Pit Definition Drill Holes



Source: Matheson, 2016.

Figure 6-2: East Pit Definition Drill Hole



Source: Matheson, 2016.

6.2.5.2 Jonpol Deposit

In 2010 to 2013, Northern Gold's diamond drill program focused on infill and step-out drilling on the Jonpol deposit. In 2011, six Garrcon drill holes were extended into the Jonpol deposit area totalling 2,262 m. In 2012 (March to May and September to December), 39 drill holes were drilled in the Jonpol deposit area, totalling 8,765.1 m. Of these 39 drill holes, six holes were geotechnical holes totalling 1,042.5 m. Three drill hole extensions were also completed in 2012, totalling 1,064 m. Two 2012 holes required restarts. An additional 26 holes were completed in 2013 (January to May), totalling 7,982.3 m. One drill hole wedge (JP13-16A) totalling 771 m was also completed in 2013.

6.2.5.3 903 Zone

Exploration in the 903 Zone dates back to the 1940s, and to date over 331 drill holes, including 118 Osisko drill holes, have traced the zone along 800 m of strike length. In 2013, Northern Gold completed six drill holes (903-13-01 to 06) totalling 1,986 m on the 903 Zone, including 72 m in the failed hole 903-12-02.

6.2.6 Garrison Historical Resource Estimates

Various historical resource estimates on gold mineralization in the Jonpol and Garrcon deposits have been provided by various authors since the mid-1980s. These historical resources are summarized and reported by Bath (1990), and by Squair (2000) who referred to historical reports by DDH Geomanagement Ltd. (1989) and R. J. Bradshaw (1989). A.C.A. Howe prepared mineral resource estimates in 2010, 2011, 2012, and 2014 (Roy and Trinder, 2010; Hannon et al., 2011; Hannon et al., 2012, McGarry et al., 2014). These historical mineral resource estimates ("MRE's") were calculated prior to the implementation of the standards set forth in NI 43-101 and Canadian Institute of Mining ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May, 2014) and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (November, 2019). The authors of this technical report have not done sufficient work to classify these historical estimates as a current mineral reserves or mineral resources and consider these estimates as "historical resources" and the issuer is not treating the historical estimates as current mineral resources.

Two of the mineral resource estimates for the Garrison property have been completed since the implementation of the current standards set forth in NI 43-101 and current CIM standards for mineral resource estimation (as defined by CIM Definition Standard on Mineral Resources and Mineral Reserves dated May 10, 2014). The authors of this technical report have reviewed the 2019 and 2021 MRE's and determined that the MRE's were prepared by QPs in accordance with the standards set forth in NI 43-101 and Canadian Institute of Mining ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (May, 2014) and are considered reliable. The mineral resource estimate reported herein supersedes all previously published MREs for the Garrison property and therefore the MREs for the Garrison property discussed in this section (Section 6.2.6) are considered historical in nature.

B. Hennessey prepared an NI 43-101 mineral resource estimate for the Garrcon, Jonpol and 903 Zones in 2019 (Hennessey, 2019).

An NI 43-101 mineral resource estimate and PEA was conducted by Ausenco on the Garrison property and reported in January 2021. The open pit resource estimate was conducted on the 903, Jonpol and Garrcon areas and was reported at a 0.30 g/t Au cut-off grade. A total Garrison open pit combined indicated resource of 66,268,000 tonnes containing 1,822,000 gold ounces at an average grade of 0.855 g/t Au and a total Garrison open pit combined inferred resource of 45,537,000 tonnes containing 1,062,000 gold ounces at an average grade of 0.729 g/t Au was reported (Raponi et al., 2021).

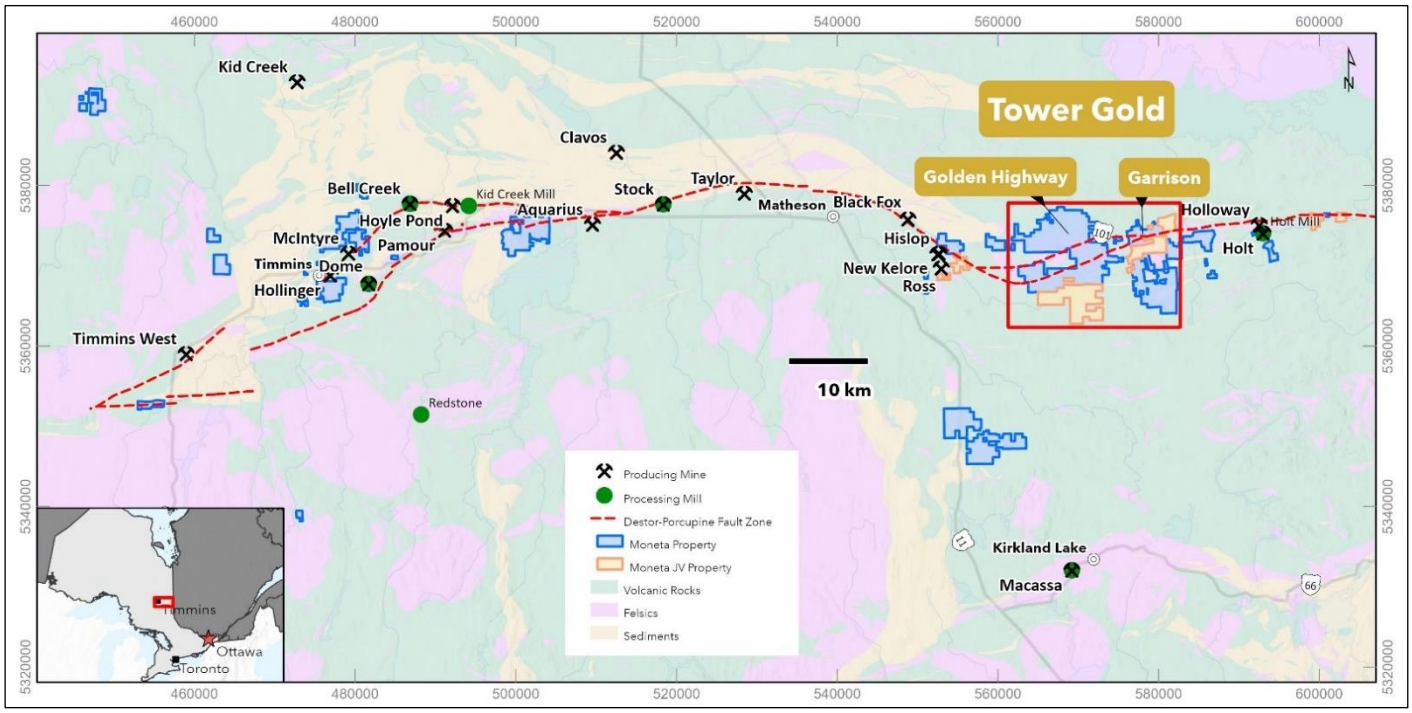
The 2021 mineral resource estimate for the Garrison Property is superseded by the MRE disclosed in this report and is therefore considered historical.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Tower Gold Project is the amalgamation of Moneta's former Golden Highway Project, and O3 Mining's Garrison Project. Moneta's Tower Gold Project (Figure 7-1) is located within the southern part of the Archean (ca. 2.7 Ga) Abitibi greenstone belt of the Superior Province of the Canadian Shield in northeastern Ontario. The Abitibi greenstone belt consists of Neoarchean supracrustal rocks divided into tectonic-stratigraphic assemblages that include metavolcanic rocks, synvolcanic intrusions, metasedimentary rocks, calc-alkaline and alkaline intrusive rocks, and late Proterozoic dykes. The dominant regional structures of interest are the Destor Porcupine Fault Zone (DPFZ) and Pipestone Fault Zone with their associated gold deposits and mineralization. More thorough discussions of the Superior Province Archean geology are provided by Jackson and Fyon (1991), as well as Ayer et al. (2001, 2005).

Figure 7-1: Regional Geology, Tower Gold Project



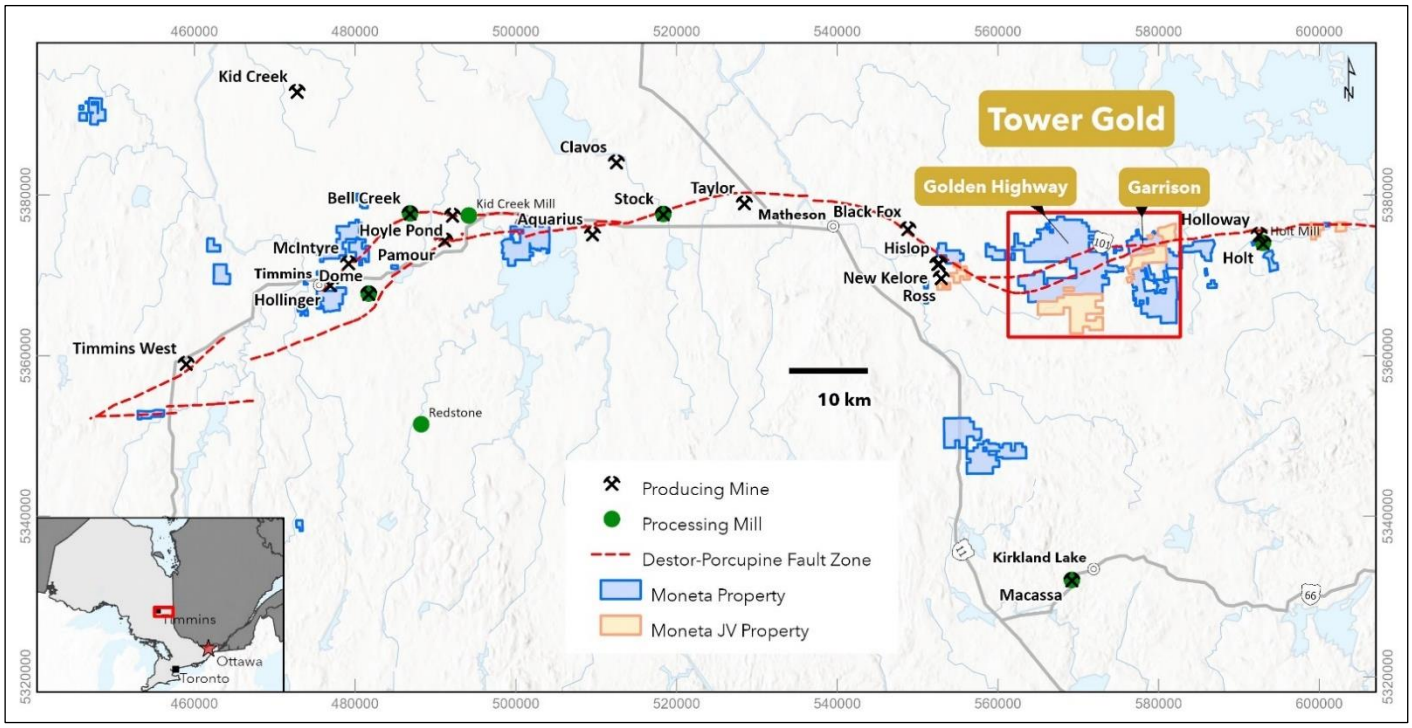
Source: Moneta, 2022.

The Tower Gold Project is located on the DPFZ, a major gold-mineralized regional fault structure. Several other gold deposits are located on or adjacent to the DPFZ and within a ~25 km radius of the Tower Gold Project. These deposits include the Black Fox Mine, Ross Mine, Holloway Mine, and Holt-McDermott Mine.

More specific to the local geology of the Tower Gold Project is Berger's (2002) geological synthesis of the Highway 101 corridor from Matheson east to the Province of Quebec's provincial boundary. He subdivides the geology into five litho-tectonic assemblages (Ayers and Trowell, 2001) as follows: Kidd-Munro (2,719 to 2,711 Ma), Tisdale (2,710 to 2,703 Ma),

Blake River (2,697 to 2,701 Ma), Porcupine (2,696 to 2,690 Ma) and Timiskaming (2,687 to 2,675 Ma). The distribution of gold deposits in relation to major faults and the Timiskaming assemblage is shown in (Figure 7-2).

Figure 7-2: Gold Deposits in the Matheson Area along the Destor-Porcupine Fault Zone



Source: Moneta, 2022.

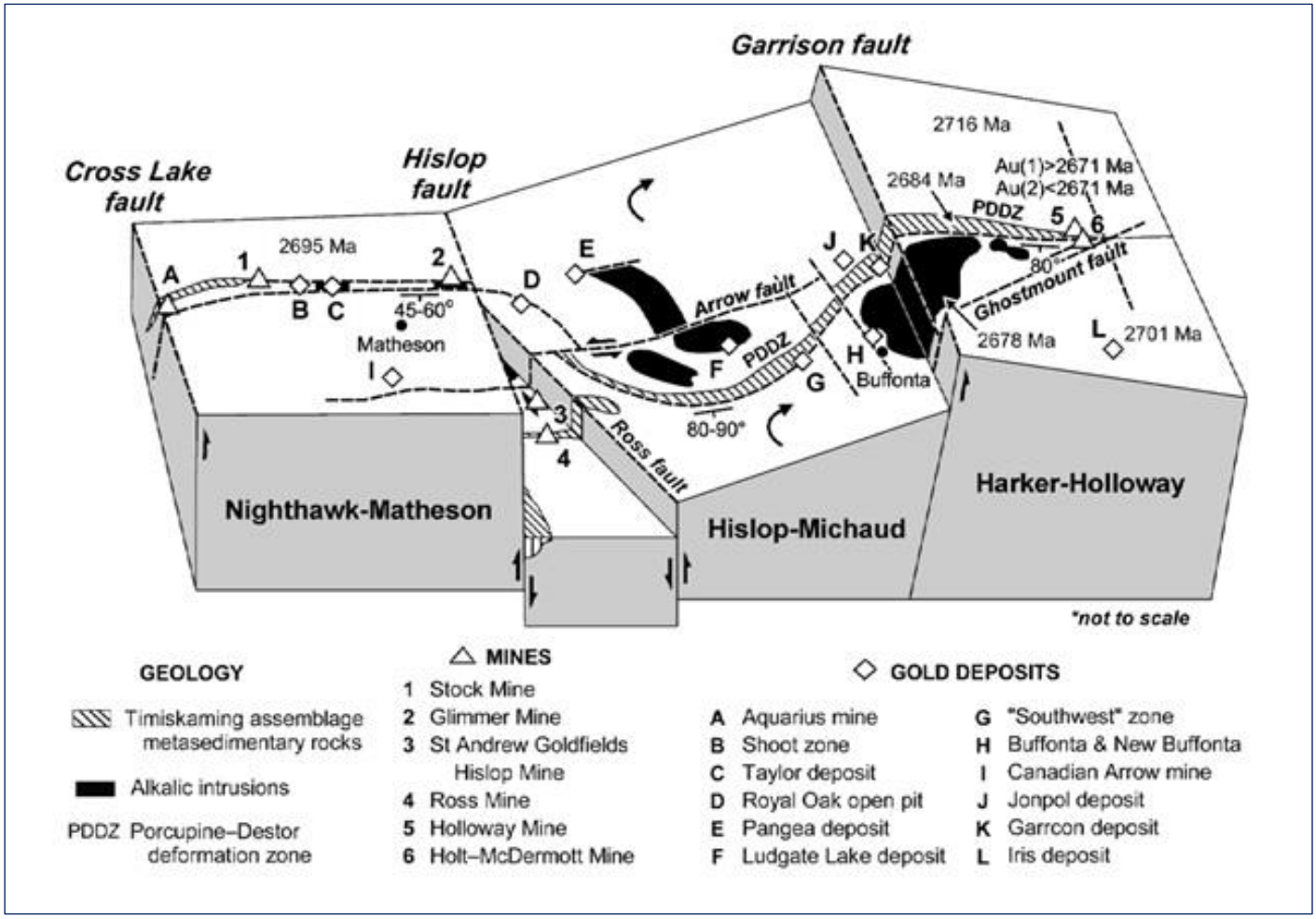
Berger's (2002) description of the geology of the Golden Highway property area is as follows:

> *The Kidd-Munro assemblage underlies the north part of the study area and is composed of a tholeiitic metavolcanic member and a calc-alkalic metavolcanic member. Ultramafic to mafic layered sills intrude the metavolcanic rocks. The Tisdale assemblage is composed of tholeiitic metavolcanic rocks and subordinate amounts of calc-alkalic metavolcanic rocks. The distribution of the assemblage is poorly constrained because of the Porcupine-Destor deformation zone and related splay faults transect the assemblage in several places. The Blake River assemblage underlies the south part of the study area and is composed of predominantly mafic tholeiitic metavolcanic rocks that are intercalated with thin units of tholeiitic rhyolite and calc-alkalic metavolcanic rocks. The Porcupine assemblage underlies the northwest part of the study area and is composed of greywacke, argillite, and rare conglomerate that are intruded by small alkalic intrusions. The Timiskaming assemblage is composed of clastic and chemical metasedimentary rocks and rare alkalic metavolcanic rocks that are distributed within and near to the Porcupine-Destor deformation zone. Ultramafic to felsic alkalic intrusive rocks are also correlated with the Timiskaming assemblage and occur as dikes, small single-phase intrusions and large multi-phase intrusions throughout the area. Paleoproterozoic quartz-diabase dikes, Keweenawan-age olivine diabase dikes and Jurassic kimberlite dikes and diatremes intrude the Neoarchean rocks.*
>
> *The Porcupine-Destor deformation zone is a crustal-scale structure that transects the study area and is characterized by south-side-up vertical movement. The fault zone and related northeast striking splay faults such as the Ghostmount fault and McKenna fault, are the loci for gold mineralization. Northeast-striking faults with dominant vertical*

displacement transect the Porcupine-Destor deformation zone. Two of these faults, the Hislop fault and Garrison fault, are major structural features that act as the boundaries to different metallogenic segments. Gold mineralization occurs in different structural settings, different styles, and different types of alteration patterns in each segment.

The DPFZ remains a most prolific gold-bearing structure with several gold deposits discovered along its strike length and within splays and extensive alteration zones. Producing mines, gold prospects, former producers, and more significant gold occurrences in various stages of exploration are also present including, from west to east, the Ross Mine, and Fenn-Gib, Ludgate, 55/Westaway/South West/Windjammer South/Discovery/Windjammer North, Jonpol, 903 and Garrcon deposits (Figure 7-3).

Figure 7-3: Regional Schematic Model Showing Distribution of Gold Deposits in Relation to Major Structures and the Distribution of Timiskaming Assemblage Rocks



Source: Moneta, 2022.

7.2 Property Geology

Holocene organic deposits of peat and black muck cover much of the map area. Underlying the organic deposits are extensive Quaternary glacio-lacustrine deep water varved silts and clays of the Barlow-Ojibway Formation and/or sands associated with the Munro Esker complex. They are up to several metres thick, overlying the Matheson Till.

The geology of the area was mapped by Satterly (1949) with a more recent refinement by Berger (2002). The Tower Gold Project's bedrock geology is mainly determined from drill core observations, geophysical interpretations, and local rock outcrop areas. The area is largely covered with overburden consisting mainly of sands associated with the Munro Esker complex. A few outcrops are fond in the centre of the property south of Emens Lake and more extensively south of the Pike River valley.

7.2.1 Golden Highway Geology

The central portion of the property is the main area of exploration work and can be divided into a North Corridor and South Corridor that together define the DPFZ as it crosses Michaud and western Garrison townships. These distinct geological corridors contain the bulk of the known gold mineralization discovered to date. The North Corridor contains the historical DPFZ (north branch) trace in a sequence of Tisdale mafic and ultramafic metavolcanics. The Timiskaming metasedimentary rocks, iron formation, and associated rocks are contained in the South Corridor (Figure 7-3).

The North Corridor on the eastern portion of the property consists of a 4.5-km-long, variably altered and deformed/sheared sequence of Tisdale intercalated komatiitic ultramafic rocks and tholeiitic basalts, generally bounded by talc-chlorite schists. The basalts are traceable along most of the north branch of the DPFZ across the property, and, generally, when altered and quartz carbonate veined, host numerous gold zones such as Twin Creek, Landing, and the Discovery and Windjammer North deposits as well as scattered higher-grade gold intercepts. These North Corridor volcanics continue in the western portion of the property, widening substantially and include gold zones associated with pyritic syenites such as the Last Chance Zone.

In the northern portion of the property, the Kidd-Munro metavolcanic rocks are associated with the Arrow, Pipestone, and Munro Faults. Limited drilling has established a sequence of tholeiitic mafic volcanics in contact to the south by phases of the Emens Lake (Central Michaud) syenite complex. The Arrow, and a portion of the Pipestone Faults, a regional east-west structure, follow this contact. Only minor and scattered gold mineralization has been discovered to date.

The South Corridor is well defined by the belt of Timiskaming sediments that parallels the DPFZ and includes the main gold deposits/zones discovered to date on the property. This corridor has a strike length of approximately 12 km crossing Michaud Township and continuing north-easterly into Garrison Township. This corridor hosts the Western Zone, Dyment 3 Zone, 55 deposit, Westaway/West Block deposit, Southwest deposit (including the former Gap Zone), and Windjammer (including former Windjammer Central Zone and Windjammer South deposit) (Figure 7-3).

The Timiskaming metasediments consist of a series of alternating fine to coarse greywacke units with subordinate argillite, and conglomerate and possible rare sandstone. Greywacke is generally fine to medium grained with minor sections of very fine and coarser grained conglomeratic material. The greywacke is typically green-grey, massive to well-bedded, chloritized and can be locally pyritic.

Conglomerate typically consists of a grey to pink-grey and medium to coarse grained sandstone matrix containing pebble to cobble sized angular to sub-rounded clasts ranging in size from several millimetres to rarely greater than 10 cm long. Clasts include greenish black to grey mafic volcanics, less common iron formation and rare massive sulphide fragments. Conglomerate is typically found along the south contact of iron formation where it may represent a disconformity.

The oxide facies iron formation (bedded jasper, magnetite, or hematite) ranges in thickness from 10 to 100 m, generally strikes 070° with a steep 80° southeast dip. It is much more magnetite-rich and massive to the east, while to the west it thins quickly and is dominated by hematite. The iron formation is well bedded, shows locally changing dips and soft sediment deformation and displacement features. Fracturing and deformation are usually parallel to the bedding. Pyrite is present from trace to 0.5 % both along bedding and in fractures. Fractures contain calcite and locally traces of specular hematite. Local variations in thickness are attributed to overall thickening and thinning, facies changes, and poorly defined isoclinal folding.

The metasediments are bounded to the north by the dominantly ultramafic volcanic sequence of the Tisdale assemblage (Northern Corridor) and to the south by the Blake River metavolcanics. The sedimentary sequence is from 500 to 900 m thick. It is crosscut by a major vertical gabbro dyke, the Golden Highway Gabbro trending 050°. The dyke is 10 to 40 m wide and has been traced for 2.3 km from west of the Southwest deposit to the Windjammer North deposit.

In addition to the importance of the DPFZ and its associated splays and similar oriented structures, interpretive work has identified northwest- to north-striking southwest- to west-dipping cross structures believed to play a significant role in localizing gold mineralizing systems. Many of the recently drilled significant quartz carbonate veins and vein zones reflect similar orientations to these higher angle cross structures/faults.

7.2.2 Garrison Geology

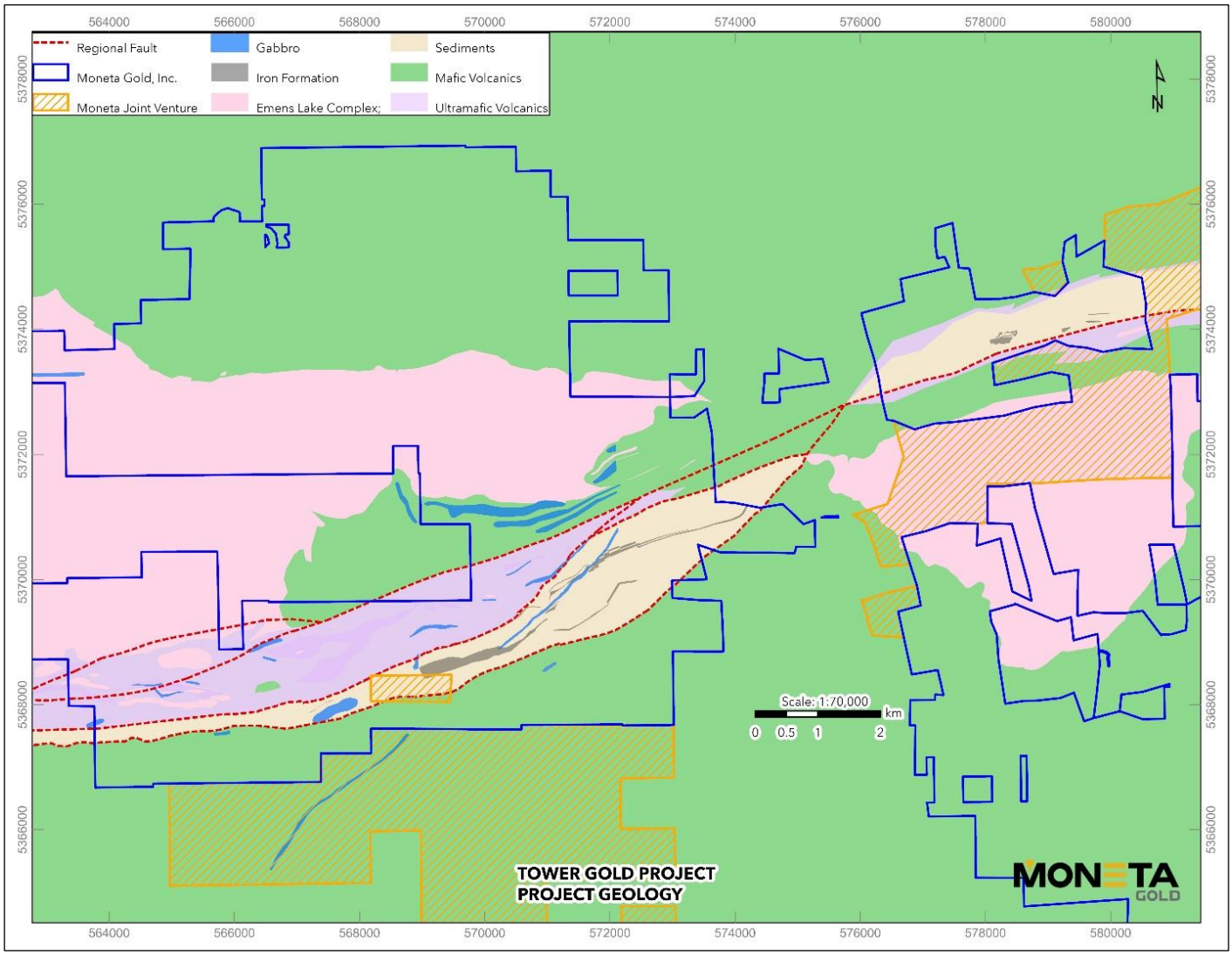
The Garrison geology is underlain by rocks of the Kidd-Munro and Timiskaming Assemblages and about 4 km of the regionally significant DPFZ and a major splay, the Munro Fault Zone. Both fault zones comprise a variably altered and deformed sequence of metavolcanic rocks that include komatiites and tholeiitic basalts (Figure 7-4).

The Kidd-Munro Assemblage is composed of massive to pillowed, mafic (high magnesium and iron tholeiites), and ultramafic (komatiite) metavolcanic rocks. The metavolcanic flows strike in a general east-west direction and dip steeply to the south. However, outcrop is limited and there is probably significant local folding, particularly in the vicinity of the major fault zones that cross the property. No surface exposures of ultramafic (komatiitic) metavolcanics have been identified; however, in drill core there are abundant occurrences of talc schists, talc- carbonate schists, and carbonate-mariposite schists that are indicative of the presence of ultramafic or high magnesium tholeiites in the metavolcanic sequence. It is a clear possibility that the Munro fault and DPFZ are focused within the ultramafic rock units because of their high ductility compared to the more brittle mafic metavolcanic, felsic metavolcanic, and metasedimentary assemblages. The Munro fault hosts the Jonpol deposit.

The Timiskaming Assemblage is composed of clastic metasedimentary rocks, consisting of conglomerate, wacke-sandstone, siltstone, argillite, and schist, and is closely associated with the Porcupine-Destor deformation zone from the Quebec border to Hislop Township, a distance of approximately 65 km (Berger, 2002). Banded magnetite-hematite iron formation is complexly interbedded and structurally interleaved with clastic metasedimentary rocks.

The Timiskaming Assemblage is younger than the Kidd-Munro Assemblage and, in the absence of faults, the contact between the assemblages is an angular unconformity. On the property, the Timiskaming Assemblage is fault bounded, on the north side by the Munro fault and on the south side by the Porcupine-Destor fault. The metasedimentary beds strike in a general east-west direction and dip steeply to the south. In general, along the Munro fault zone the bedding tops are facing to the north, whereas to the south, along the DPFZ, the bedding tops are facing to the south. The Timiskaming metasediments host the Garrcon deposit immediately north of the DPFZ, and to the east of the Garrison fault.

Figure 7-4: Tower Project Geology Map



Source: Moneta, 2022.

The Timiskaming Assemblage to the west of the Garrison fault hosts three magmatic groups: syenites, lamprophyres, and diabase dykes in albite-sericite-chlorite altered ultramafic to mafic volcanics. The syenites are likely associated with the Timiskaming magmatic event, recognized along the Abitibi as having occurred approximately between 2680 and 2672 Ma (Corfu et al, 2001) and alteration is primarily albite-hematite-specularite.

Immediately to the south of the property is a large, metamorphosed, alkalic intrusive stock with a plan view diameter of 4 to 4.5 km. The intrusive varies in composition from granite to monzonite.

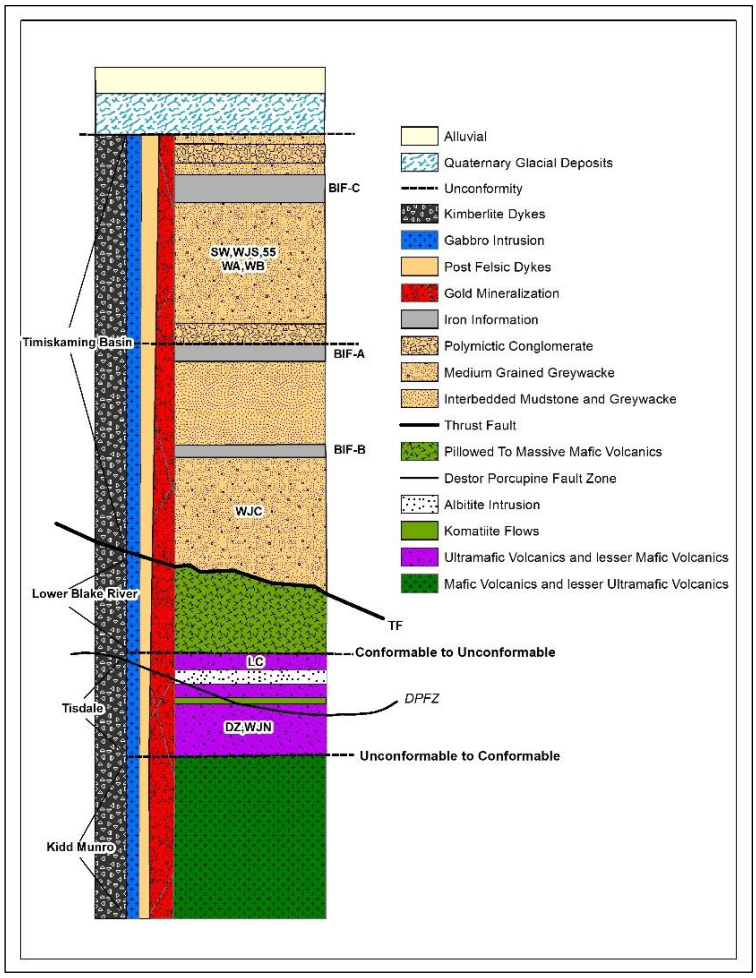
7.3 Deposit Geology and Mineralization

7.3.1 General

The Tower Gold Project to date hosts nine gold deposits: six on the Golden Highway property, and three on the Garrison property. Most of the gold occurrences are found within a corridor parallel to the DPFZ. This corridor contains two highly prospective geological settings: a North Corridor with sheared mafic and ultramafic volcanic units and syenitic intrusive complexes, and a South Corridor defined by Timiskaming sediments containing banded iron formation (BIF).

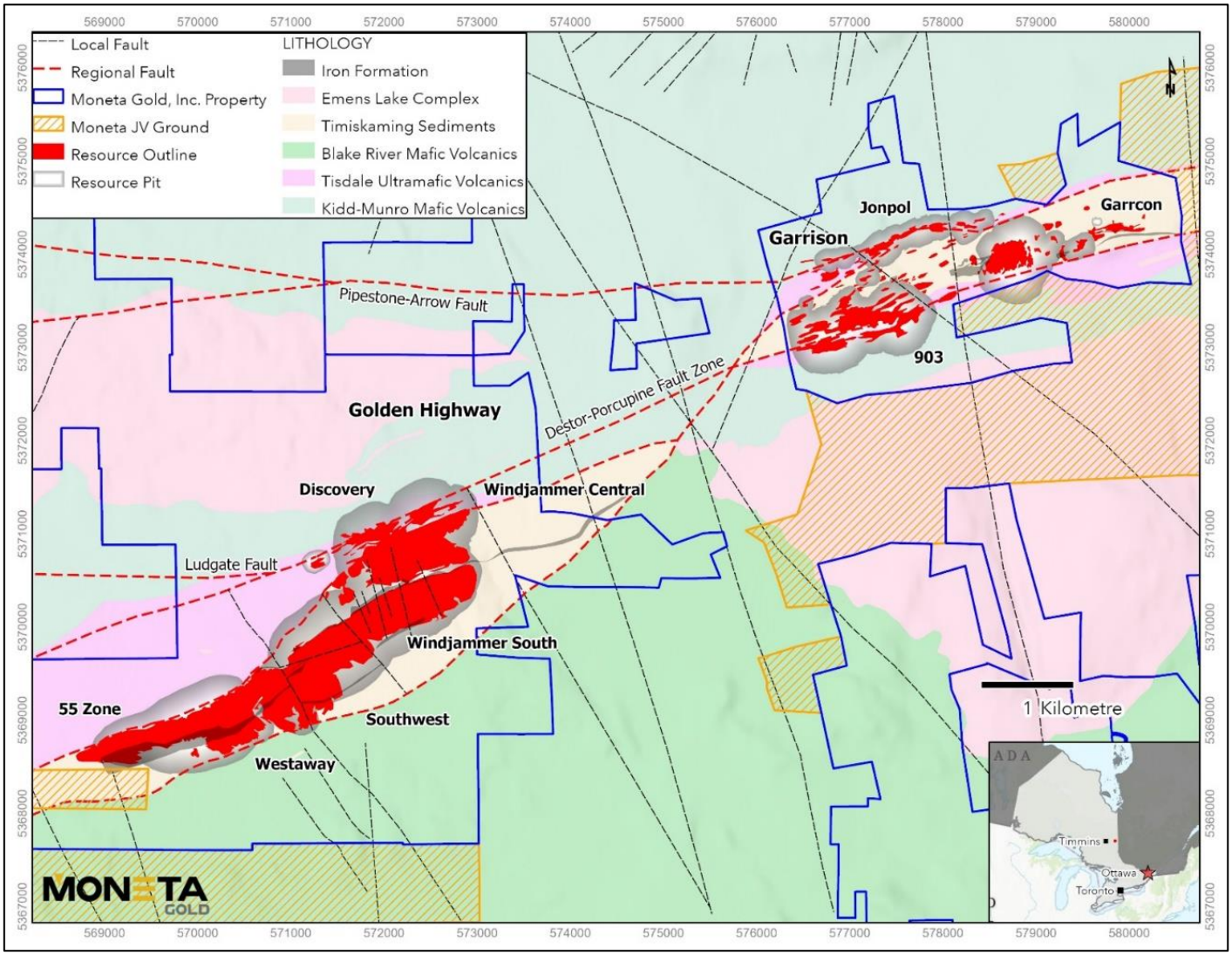
This section describes the geology and gold mineralization of the following deposits: Southwest, 55, Westaway/West Block, Windjammer, Windjammer North, Discovery (Figure 7-5), Garrcon, Jonpol, and 903 (Figure 7-6) which were examined in the current mineral resource estimation. Five additional gold zones on the property—namely, Western, Dyment 3, LC, Twin Creeks, and Landing—are also briefly discussed, although no resources have been estimated for them.

Figure 7-5: Tower Project Stratigraphic Column



Source: Moneta, 2022.

Figure 7-6: Tower Project Geology and Deposit Locations



Source: Moneta, 2022.

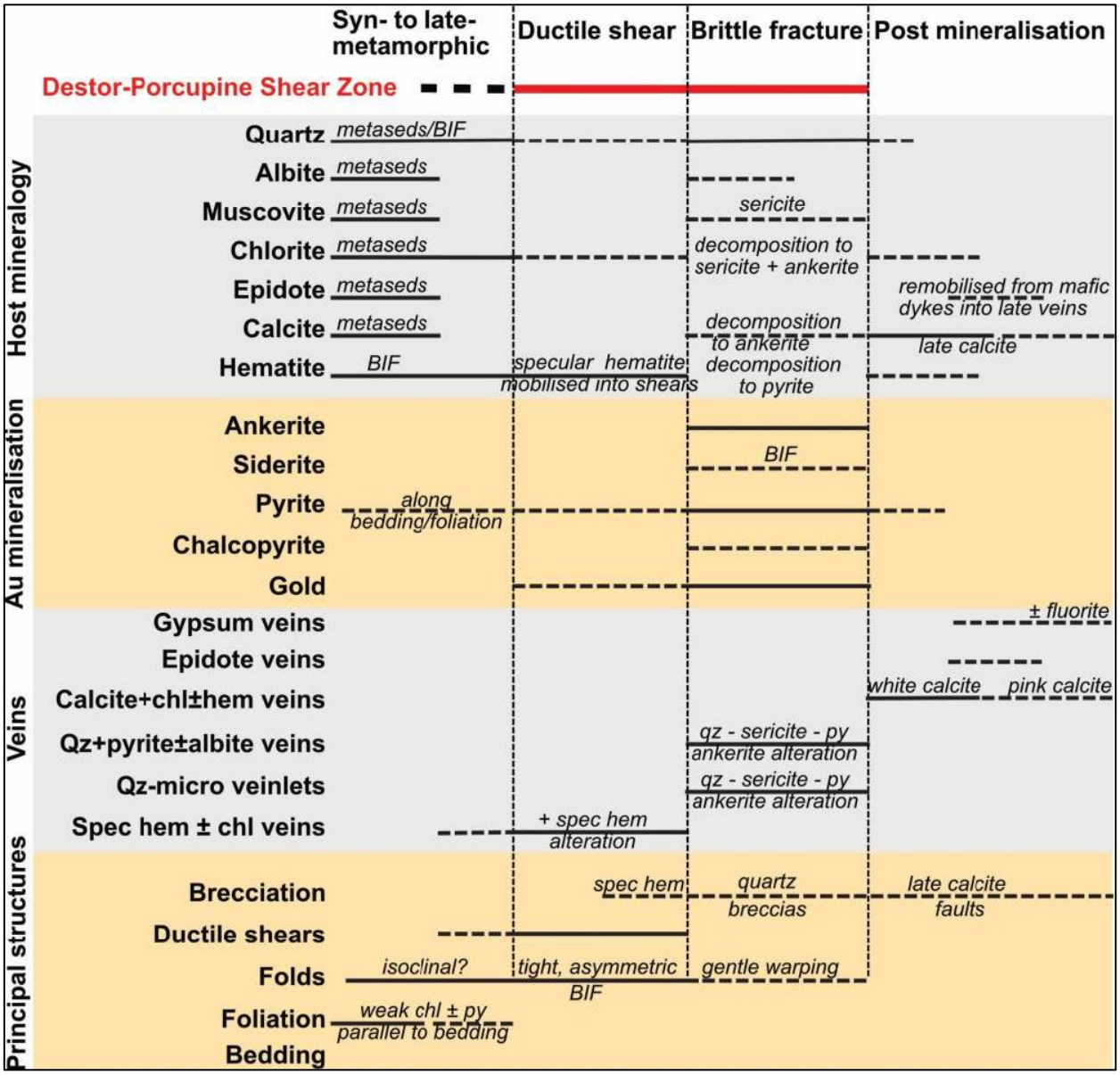
Gold mineralization at the at the Tower Gold Project is hosted in a variety of metasedimentary zones (with minor metavolcanic sequences) with the predominant host rock being Timiskaming-age metasedimentary rock sequences that include greywacke, arkose, and iron formation cut by narrow lamprophyre and syenite dikes, occurring adjacent to the DPFZ. These metasedimentary and minor metavolcanic sequences have been hydrothermally altered and mineralized in distinct zones persisting to depths greater than 700 m vertically.

Gold occurs in a complex system of lode veins, stockwork veins, microfractures, and breccias hosted in a zone of brecciated and silicified metasediments, metavolcanics, and in some cases syenitic intrusions. The main sedimentary host package shows little variation, mainly including fine- to coarse-grained sandstones, siltstones, as well as minor mudstone layers. The veins are composed predominately of quartz-carbonate (calcite, dolomite and ankerite) with and without albite. The stockwork veins are normally less than one centimetre in width with many being only a half centimetre wide or less.

Alteration typically is a mixture of silicification with fine to coarse grained pyrite, sericite-ankerite and in some cases chlorite. Paragenesis of host rocks, alteration, mineralization, and principal structures are presented in Figure 7-7.

Gold occurs primarily as native gold within the stockwork veins with minor dissemination into the vein walls. The principal minerals are native gold, pyrite, magnetite, specularite, and pyrrhotite with subordinate chalcopyrite, sphalerite, galena and arsenopyrite. Pervasive wall rock alteration is common adjacent to the veins, usually consisting of carbonatization (ankerite or ferroan dolomite), sericite and minor sulphides (pyrite and pyrrhotite).

Figure 7-7: Tower Gold Project Mineralization Paragenesis



Source: Moneta, 2022.

7.3.2 Southwest Deposit

The Southwest deposit (including the former Gap area) comprises a series of mineralized extensional veins and stockwork veins. The vein arrays and associated stockwork veining occur as stacked vein structures within Timiskaming sediments, south of the southern contact of a regional BIF.

The regional BIF at the Southwest deposit is a banded jasperoid-hematite-magnetite formation varying in thickness from 1 m up to 25 m. It has been traced for approximately 5 km, from the 55 deposit to the eastern boundary of the property.

In the Southwest deposit area, the regional BIF consists of two iron formations, where the southern, termed BIF-A is in contact with a conglomerate unit and the northern BIF-B lacks a conglomerate unit. The Timiskaming sediments consist of a polymictic conglomerate unit, coarse lithic greywackes with occasional sericitic argillite fragments, weakly bedded, medium to fine greywackes, bedded greywackes, and argillites (from the south contact of the BIF towards the Blake River mafic volcanics to the south). The sediments overall fine towards the south. In the centre of the Timiskaming sediments, a narrow horizon of weakly magnetic hematitic greywacke units interbedded with fine greywackes (termed IF-C) is present.

The sedimentary bedding generally strikes northeast or southwest and dips steeply to the northwest or southeast. The Timiskaming sediments are pervasively chloritized and in the vicinity of the BIF, hematization overprints the chloritization. Local sericitization occurs within the coarse greywackes as bands and the argillite units are often strongly sericitized.

The Southwest deposit stratigraphy is cut by two major cross faults. The Main (West) Fault is a dip slip fault that displaces the BIF, and the north Timiskaming sediment-Tisdale ultramafic volcanics contact. The Main Fault strikes 155° and dips 60° to the southwest. The second in the east portion of the Southwest deposit, the Gap Fault strikes 135° and dips 65° to the southwest. Both faults are crosscut by the Golden Highway gabbro that trends 050°.

Drilling to date has outlined southeast-trending extensional veins and associated stockwork vein zones. These tension vein arrays are continuous from the Gap area to the Main Fault over a distance of 1.2 km along a northeast strike.

The vein arrays and stockwork dip shallow to moderately to the southwest at 30° to 40°. The veins and associated stockwork zones generally have an average width of approximately 2.8 m and up to 25 m in proximity to the regional BIF. These mineralized structures generally occur 25 m to 30 m apart. The vein arrays and stockwork zones can be traced for 300 m to 400 m southeast from the southern regional BIF contact.

The vein structures have been intersected at depths up to 1,200 m below surface and remain open down dip. The vein arrays are extensional quartz-carbonate-pyrite veins and/or quartz-carbonate stockwork style veining with distinct narrow (millimetres to centimetres in size) ankerite-silica alteration halos. Gold mineralization occurs associated with 1% to 3% pyrite in the veins and vein alteration halos, as well as visible gold. In some cases, a zone of quartz-pyrite veinlets occurs adjacent to the veins and hosts mineralization. The veins can be brecciated and occur as quartz matrix-supported breccia zones.

In proximity to the southern contact of the BIF, the vein arrays expand into stockwork zones and are up to 25 m wide in the porous coarse greywackes. The stockwork of quartz-carbonate-pyrite veins (3% to 20% veining) occurs within a distinct ankerite-silica alteration halo occasionally with sericite. Gold mineralization occurs associated with pyrite in the veins and vein alteration halos, as well as visible gold.

7.3.3 Westaway Deposit

The Westaway deposit (formerly the Westaway/West Block deposit) is located between the Southwest deposit and the 55 deposit, south of the south branch of the DPFZ. It is essentially a continuation of the Southwest deposit west of the Main Fault.

In the deposit area, the regional BIF units (BIF-A and BIF-B) form discontinuous lenses along the northern contact between the ultramafic volcanic and the sedimentary sequence. They also pinch and swell vertically. The ultramafic contact at Westaway/West Block is generally striking at 050° to 060° and is dipping steeply to the south. The Timiskaming sediments consist of a polymictic conglomerate unit, coarse lithic greywackes with occasional sericitic argillite fragments, weakly bedded, medium to fine greywackes, bedded greywackes, and argillites (from the south contact of the BIF toward the Blake River mafic volcanics to the south). In the centre of the Timiskaming sediments, a horizon of weakly magnetic hematitic greywacke units interbedded with fine greywackes (termed IF-C) is present. This horizon is narrow near the Main Fault and widens in the deposit area west towards the 55 deposit.

Gold mineralization is associated with quartz carbonate veining and breccias within Timiskaming sediments. They form vein corridors with associated ankerite alteration, silicification, and pyritization of the wall rock sediments. Drilling to date has outlined over 29 southeast striking (135° to 145°) extensional vein corridors at Westaway. These tension vein arrays are continuous from the Main Fault over a distance of 1.4 km along a southwest strike.

In the West Block area, a set of twelve vein corridors (WB1-WB12) have been outlined, dipping at 60° to 70° southwest. The easternmost corridors have been terminated by the slightly steeper southwest dipping (50° to 60°) Main Fault. The West Block vein corridors are generally open below a vertical depth of 600 m. They currently strike a distance of 200 m southeast from the regional BIF units to the Golden Highway gabbro and are open south of the gabbro.

Contiguous to the west of the West Block area, 18 vein corridors have been defined to date at Westaway (WA-1 to WA-18). They dip 60° to 70° to the southwest and strike southeast over a distance of 350 m, from the regional BIF units to the Golden Highway gabbro. They are open along strike southeast of the Golden Highway gabbro and at depth below 600 m vertically.

7.3.4 55 Deposit

The 55 deposit is located 2 km along strike, west-southwest of the Southwest deposit. It hosts gold mineralization in a similar geological setting to Southwest, within Timiskaming clastic sediments between two iron formation horizons, the northern one being the regional BIF-B along the ultramafic to mafic volcanic contact and the southern being the haematitic IF-C horizon. The central portion of the 55 deposit consists of a thick sequence (150 to 180 m) of fine- to medium-grained greywacke hosting gold mineralization. South of the greywacke is a package of iron formations. This southern IF complex consists of several grey hematitic magnetite iron formations (same as the IF-C type at Southwest, and Westaway) interbedded with greywackes. The sedimentary stratigraphy is cut by at least four northwest-trending cross-faults. A major north-south trending diabase dyke occurs in the western portion of the 55 deposit area.

Gold mineralization is associated with quartz-carbonate veining within structural corridors associated with ankerite-sericite-silica-pyrite alteration. Sulphides are dominantly finely disseminated pyrite and scattered coarser-grained subhedral aggregates in veins. Visible gold and rare accessory molybdenite and chalcopyrite have been observed. Additional high-grade gold mineralization occurs when these veins intersect the northern iron formation and cause extensive sulphidization.

The 55 deposit is host to two main sets of quartz-carbonate veins resulting in a set of steep zone wireframes and shallower (flat) zone wireframes. The steep zone wireframes trend 255° and dip 60° to 70° to the north. The shallow (flat) zone

wireframes trend 255° and dip 20° to 30° to the north. These shallow zone wireframes outlined at the 55 deposit are amendable to open pit mining.

The zones have been traced for up to 1 km in strike length and drilled to depths of up to 450 m. The 55 mineralized system is currently known to extend for 1 km along the northeast strike, with possibly significant untested potential west of the diabase dyke and to depth.

7.3.5 Windjammer Deposit

The Windjammer deposit (comprising the Windjammer South, Windjammer Central deposits, and the Halfway Zone) is located within Timiskaming sediments centred on the regional oxide facies BIF. The mineralized stockwork zones and vein structures at Windjammer occur in the fine to coarse grained greywackes both north and south of the central BIF units

The regional BIF units (BIF-A and BIF-B) extend from the Southwest deposit and are separated by a greywacke unit <12 m in thickness. As at Southwest, the southern BIF-A unit is in unconformable contact to the south with a polymictic conglomeratic unit 1 to 10 m in true thickness. Medium to coarse grained greywacke units conformably overlie the conglomerate and they are commonly 100 to 150 m thick. These grade southward into medium-fine to fine grained greywackes toward the centre of the Timiskaming basin. To the north of the regional BIF, greywackes are more commonly fine- to medium-grained.

Gold mineralization at the Windjammer deposit is also spatially associated with the southern contact of BIF-A and is dominantly hosted within medium- to coarse-grained greywackes. Mineralization within this corridor is associated with extensional quartz-carbonate veining with accompanying widespread silica-ankerite-sericite-pyrite and lesser hematite-chlorite related alteration products. Gold mineralization has been intersected up to 300 m south of the BIF-A unconformity but tends to be narrower and lower grade within the finer grained greywackes.

Interpreted gold mineralized zones to date occur as two main orientations: southeast striking shallow southwest dipping thick stacked extensional quartz-carbonate vein and vein breccia zones, and regularly spaced narrow north-south trending steeply west dipping, extensional quartz-carbonate vein and vein breccia zones. Mineralized zones contain 1% to 3% secondary pyrite. The shallow (flat) zone wireframes strike 310° and dip 20° to the southwest; they are wide but with highly variable widths up to 64 m but pinching to nothing at the extremities. In the main portion of the deposit they probably average 15 m in true thickness but can be stacked very closely together to form larger combined thicknesses. The steep zone wireframes strike 174o to 187o, dip 77o to 86o to the west and have true thickness that typically range from 1 to 3 m

7.3.6 Discovery Deposit

The Discovery deposit includes a mineralized DZ Main Zone (formerly Upper Zone) and a DZ5 Zone (formerly Contact Zone). It is located on a southern splay of the DPFZ and hosted within altered komatiitic ultramafic rocks of the Kidd-Munro assemblage to the north and the sheared fault contact with conglomerate and greywacke units of the Timiskaming sedimentary rocks to the south.

The Main Zone ultramafic host rocks have been intruded by a series of roughly east-northeast-trending (070°) steeply south-dipping quartz-feldspar-syenite porphyry (QFP) to lamprophyre porphyry dykes spatially associated with quartz carbonate vein-hosted gold mineralization. The Main Zone is comprised of four parallel stacked mineralized lenses that have been traced for over 500 m in strike length and to a vertical depth of 400 m. The south-dipping lenses of mineralization occur over an aggregate width of 175 m. Each lens is 5 to 15 m wide. The individual mineral lenses trend 070° and dip very steeply (80° to 85°) to the south, like the orientation of the DPFZ. They are noted by chlorite-pyrite alteration.

The deeper zone to the south dips steeply to the north (approximately 80°). It occurs with, and parallel to, the sediment-ultramafic contact trending ~070° (east-northeast) north of the Golden Highway gabbro. The DZ5 Zone is comprised of three mineralized lenses. The gold mineralization in the three lenses is characterized by quartz carbonate veining, stockwork and breccias often with altered QFP clasts. The mineralization is associated with pyrite-chlorite and ankerite alteration within the sediments. These lenses are narrower (5 m to 10 m) and potentially higher grade. The deeper lenses have been intersected for 200 m along strike and remain open to depth and on strike.

7.3.7 Windjammer North Deposit

The Windjammer North deposit is located within the North Corridor volcanics of the northern branch of the DPFZ. The deposit consists of three subparallel zones trending 065° and plunging 80° to 85° to the west. The zones vary in width from 5 to 15 m and are up to 25 m thick. They have been traced down plunge for over 600 m and tested to depths up to 450 m below surface. Gold mineralization is hosted by massive to brecciated ultramafic metavolcanics that have been altered to a green fuchsite-carbonate assemblage in the western and central portion of the zone with more mafic metavolcanics to the east displaying albite bleaching and sericite alteration. Fracture filling chlorite and specular hematite are common. The mineralization is associated with pyrite-rich white to light grey quartz carbonate veining. The structural corridor has been intruded by variably altered felsic intrusive dykes.

7.3.8 Garrcon Deposit

The Garrcon deposit, located in Garrison Township, comprises a broad zone of low-grade gold mineralization that includes local higher-grade areas. It occurs within the Timiskaming Assemblage adjacent to and north of the DPFZ and to the east of the north-south trending Garrison fault. It is a zone of brecciated, silicified metasediments with stockwork type quartz-carbonate veins and veinlets and minor disseminated sulphides cut by narrow variably altered lamprophyre and syenite dikes.

Gold mineralization in the Garrcon metasedimentary zones is hosted by Timiskaming-age metasedimentary rock sequences that include greywacke, arkose, and iron formation cut by narrow lamprophyre and syenite dikes, occurring adjacent to the DPFZ (Figure 7-8). These metasedimentary sequences have been hydrothermally altered and mineralized in distinct zones persisting to depths greater than 650 m vertically. The intrusive dikes are variably altered. Gold occurs in a complex system of stockwork veins hosted in a zone of brecciated and silicified metasediments.

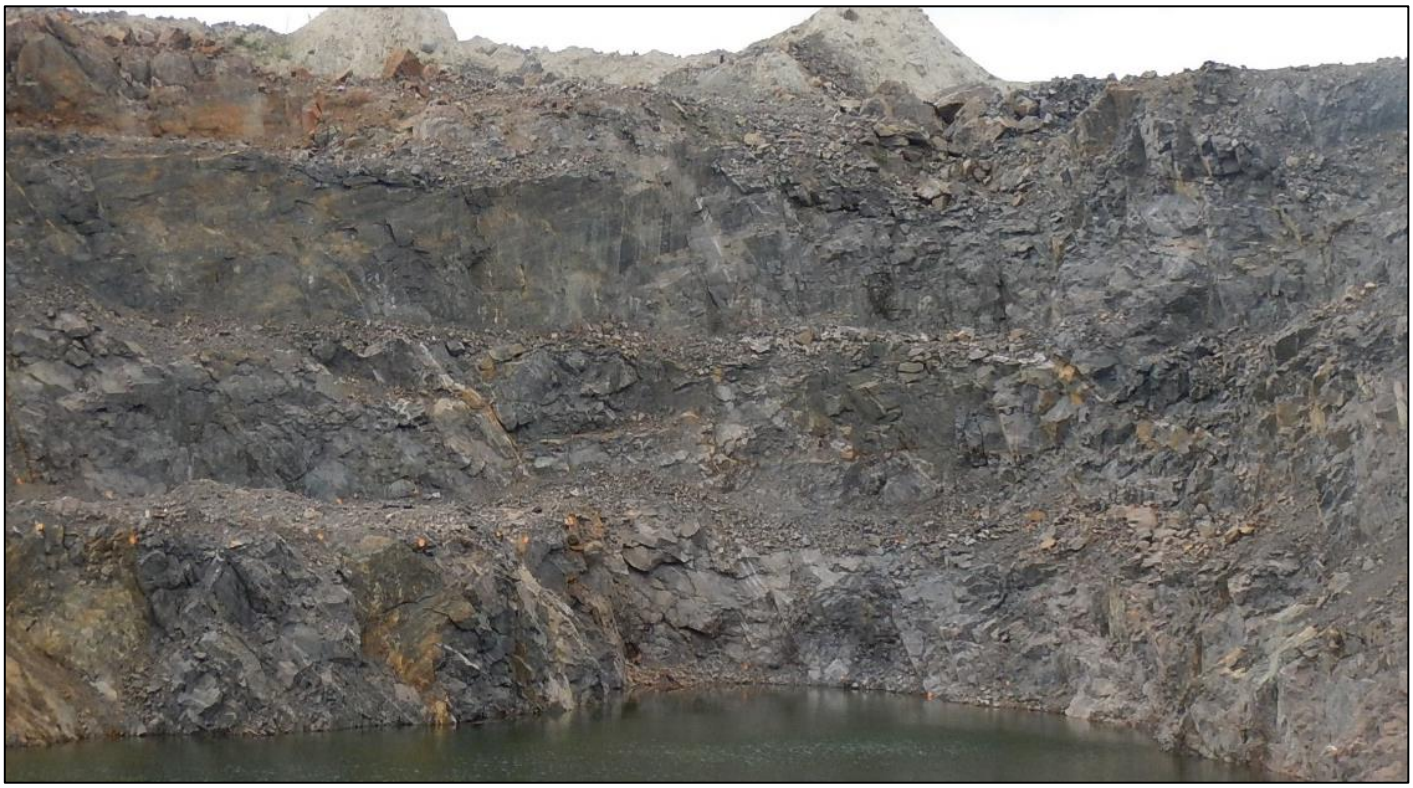
The sedimentary package shows little variation, mainly including fine- to coarse-grained sandstones as well as minor mudstone layers. The veins are composed predominately of quartz-carbonate (calcite, dolomite, and ankerite) with and without albite. The stockwork veins are normally less than 1 cm in width with many being only 0.5 cm wide or less.

Gold occurs primarily as native gold within the stockwork veins with minor dissemination into the vein walls. Higher grade intersections (above 10 g/t) are frequently intersected in intervals where pyrite makes up much less than 1% of the total rock. The principal minerals are native gold, pyrite, magnetite, specularite, and pyrrhotite with subordinate chalcopyrite, sphalerite, galena, and arsenopyrite. Pervasive wall rock alteration is common adjacent to the veins, usually consisting of carbonatization (ankerite or ferroan dolomite) and minor sulphides (pyrite and pyrrhotite).

The lithology used for the deposit model is similar to that developed by Rockridge for the 2019 resource estimate (Hennessey, 2019) and was developed around a pervasive metasedimentary unit located between the Munro and DPFZ and to the east of the Garrison fault. Mineralized domains bounded by faults lie within a broad zone of high and lower grade mineralization that extends over an east-west distance of 2,400 m.

Combined, the mineralization within the metasedimentary units averages approximately 400 m in width, with the narrowest widths located on the more sparsely drilled eastern end of the zone. A maximum width of main mineralization of about 450 m occurs in the more densely drilled western portion. Two distinct shear zones split the metasedimentary rocks into North, Main, and South units, while a north-south fault, parallel to the Garrison Fault, further splits the Main Zone into the Main West and Main East zones.

Figure 7-8: Garrcon Open Pit – Garrison Area



Source: Moneta, 2022.

7.3.9 Jonpol Deposit

The Jonpol deposit is located in the Garrison township (Figure 7-6). The Jonpol Deposit was the primary exploration target on the property in the 1980s and 1990s.

The Jonpol deposit is a zone of gold mineralization hosted in structurally controlled alteration zones within mafic to ultramafic (tholeiitic to komatiitic) rocks along the north contact of the Munro Fault, which crosses the north-central part of the property. Jonpol gold mineralization is generally associated with pervasive carbonate alteration with late stage silicification, sulphidization (pyrite and arsenopyrite) and sericitization, giving the altered rock a pale beige to pale purple-grey hue.

Previously, the Jonpol deposit was modelled as four contiguous mineralized zones (JD, JP, RP, and East Zone), along the Munro Fault, which is a splay from the regional PDFZ. The mineralized structures strike approximately 070° (true north) and dip steeply to the south. The Jonpol deposit has a combined strike length of 2,000 m. The mineralized structures have

been intersected from surface to a maximum vertical depth of approximately 750 m below surface. True widths of mineralized structures vary from 1.5 m to greater than 10 m. The zones remain open at depth.

7.3.10 903 Deposit

The 903 deposit is located in Garrison township; 903 was drill tested by previous operators in the mid-1940s and late 1980s.

Extensive drilling by Osisko from 2016 to 2018 has helped classify the mineralization style at the 903 deposit as primarily a traditional "syenite associated deposit". Although no geochronology has been conducted, the syenites are likely associated with the Timiskaming magmatic event, recognized along the Abitibi, with alkaline characteristics, which occurred approximately between 2,680 and 2,672 Ma (Corfu et al., 2001).

Three different magmatic groups are identified at the 903 deposit. The syenites are typically hosted by deformed ultramafic rocks, although they less commonly occur within the mafic volcanics. Although most of the primary textures in the syenites have been totally or partially destroyed by alteration, three families of syenite dykes were identified at the 903 deposit (Hennessey, 2019), as follows:

- Fine-grained "crowded" porphyritic syenite: These syenite intrusions occur most abundantly in the eastern part of the 903 Zone. The syenites are generally fine-grained, with less than 25% of matrix visible and with phenocrysts less than 4 mm. Despite increased intensity of alteration, feldspar phenocrysts are still visible. This helps with identification during logging.

- Fine- to medium-grained porphyritic syenite: Generally, with a greater percentage of matrix (>25%), with more separation of phenocrysts. This phase appears to be least preserved in terms of texture.

- Coarse-grained porphyritic syenite: These syenites are coarse-grained with euhedral feldspar phenocrysts up to 3 to 4 cm long. This family of syenites is more dominant in the western part of the 903 deposit.

Accessory sulphide minerals associated with anomalous gold grades are reported to include pyrite, hematite, chalcopyrite, molybdenite and galena. The presence in hornblende altered mafic volcanic rocks and quartz-biotite-cordierite schists and/or gneisses may be a contact metamorphic aureole around the Garrison Stock, located several hundred metres south of the 903 deposit.

Fractured and/or pyritic and/or quartz vein bearing syenite dikes within the 903 deposit are anomalously auriferous along significant core lengths (ranging from about 30 cm to about 10 m). Historical and current drilling has traced the zone along 1,840 m of strike length. The zone remains open at depth and along strike.

7.3.11 Other Gold Zones

In addition to the above nine gold deposits, the Tower Gold property currently hosts multiple distinct gold-bearing zones (including Landing, Twin Creeks, LC, Dyment 3, and Western from east to west) in the Michaud Township. At present, there is insufficient drilling in the zone areas to complete an interpretation and resource estimate on them.

The Landing and Twin Creeks zones host gold mineralization in quartz-carbonate veins, breccia zones and stockworks often with 2% to 5% fine disseminated pyrite and occasional visible gold. Mineralization is often associated with deformed syenite dykes within a wide deformation zone of highly altered, ultramafic, and mafic volcanics. Mafic volcanics show pervasive carbonate (ankerite) and sericite alteration with varying silicification.

The LC Zone is approximately 2.5 km west of the Landing Zone along the DPFZ. This gold mineralization occurs within the lower of two southwest-dipping porphyritic syenitic intrusions in the immediate hanging wall of the DPFZ. The syenitic intrusives cover approximately 1,000 m along strike and up to 200 m in width with limited drill testing to a vertical depth of 500 m. Gold occurs in quartz-carbonate-chlorite stringers within highly fractured silicified and hematitic alteration zones containing pyrite. The gold mineralization is associated with the upper intrusive contact and volcanics of the DPFZ as well as the centre of the lower syenitic porphyry.

The Dyment 3 Zone is located 1 km southwest of the 55 deposit in a similar sedimentary geological setting. Mineralization is hosted in discrete quartz-carbonate veins and stringers of varying widths and orientations, accompanied by sericite/ankerite alteration. Several syenitic and quartz feldspar porphyry dykes have been intersected. Pervasively hematized, moderately sericitized and blocky intervals (fault zones) were also intersected close to the Tisdale ultramafic volcanic/Timiskaming sediment contact. Drill hole intercepts from ten historical holes (2,568 m) include 3.07 g/t Au over 1.50 m and 5.49 g/t Au over 0.40 m.

The Western Zone was discovered 1.5 km west-southwest of the Dyment 3 Zone along the volcanic-sedimentary contact and has only been tested with 14 drill holes (4,760 m). The drilling on the Western Zone has indicated gold mineralization that currently extends over 650 m of strike along the volcanic contact and to a depth of less than 200 m. Untested potential remains both east towards the Dyment 3 Zone and west for 3 km to the western limits of the Golden Highway property.

8 DEPOSIT TYPES

8.1 Tower Gold Deposit Types

The Southwest, Westaway, Windjammer, Discovery, and 55 deposits of the Golden Highway property, and the Garrcon, Jonpol, and 903 of the Garrison Property can be classified as structurally-controlled orogenic gold deposits in an Archean greenstone belt setting. The Abitibi greenstone belt of Ontario and Quebec is located in the southeastern portion of the Superior Province (Nassif et al., 2018) of the Canadian Shield. This deposit type is a significant source of gold mined in the Superior and Slave provinces. Dubè and Gosselin (2007) published an overview of greenstone-hosted gold deposits in Canada. These deposits are typically quartz vein hosted and are distributed along crustal-scale fault zones that mark convergent margins between major lithological boundaries such as those between volcano-plutonic and sedimentary domains. The Golden Highway property is located on the DPFZ, a major regional structure. Several geological styles of deposits can be distinguished:

- quartz-carbonate veins in shear zones, faults, and folds, and related extensional structures;
- zones of stockwork veinlets and disseminated sulphides associated with small porphyry intrusions;
- sulphide-rich veins and vein arrays; and
- rare carbonate-rich veins and siliceous replacements.

The DPFZ in northeastern Ontario, hosts the largest Archean orogenic gold camp in the world and has produced over 75 Moz of gold from the Timmins Camp alone. When combined with the adjacent Larder Lake-Cadillac Fault Zone and associated splays, this region has hosted over 200 Moz of gold (Dubé, B et al. 2017). The greenstone-hosted quartz vein deposits are structurally controlled, epigenetic deposits characterized by simple to complex networks of gold-bearing, laminated quartz structure-fill veins. These veins are associated with moderately to steeply dipping, compressional, brittle-ductile shear zones and faults with locally associated extensional veins and hydrothermal breccias. The later structures are the main host for mineralization on the Golden Highway property.

Quartz vein deposits consist of networks of quartz veins in moderately to steeply dipping brittle-ductile shear zones and related extensional veins and vein arrays and breccia veins in relatively competent lithologic units. The deposits are spatially associated with major shear zones but have a tendency to be hosted by second and third order structures and splays on the Garrison Property.

Along the DPFZ the main host rocks are greenschist facies metamorphic rocks of dominantly mafic to ultramafic metavolcanic rocks intruded by intermediate to felsic porphyry. In the Timmins area, larger deposits are spatially associated with fluvio-alluvial conglomerate (Timiskaming conglomerate) distributed along major and deep-seated crustal fault zones such as the DPFZ. On the Tower Gold Project, a banded iron formation transects the Timiskaming sedimentary basin and is spatially associated with gold mineralization.

The deposits are typically associated with iron-carbonate (ankerite) and sericite alteration with gold usually occurring in the quartz-pyrite vein network. Significant gold can also occur associated with the iron-rich, sulphidized, wall rock selvages or within silicified and pyrite-rich replacement zones.

In the Superior Province, orogenic gold deposits are spatially associated with large-scale regional deformation zones such as the DPFZ, primarily hosted in second order associated structures. These large-scale structures and the associated Timiskaming-type sediments are interpreted as zones of transgressive terrain accretion (Kerrich and Wyman 1990; Nassif et al. 2018). Colvine et al.'s (1988) study of gold deposits in Ontario concluded that Archean lode gold deposits are formed at deeper crustal levels (2 to 10 km) than younger epithermal deposits.

There is a general consensus that greenstone-hosted quartz vein deposits are related to metamorphic fluids and generated by prograde metamorphism with fluid channelling along major crustal deformation zones and thermal re-equilibration of subducted volcano-sedimentary terranes.

Auriferous quartz veins cut many different rock types in the Timmins-Kirkland Lake area, including late intrusive rocks and late deformation zones such as the DPFZ. Therefore, it is likely that gold mineralization formed late in the Archean geological history of the Timmins area (Fyon and Green, 1991). In the Timmins area, Corfu et al. (1989) have documented auriferous quartz veins cutting 2,691 to 2,688 Ma quartz-feldspar porphyry intrusions and 2,673 +6/-2 Ma albitite dikes. At the adjacent Garrison property, Nassif et al. (2018) have concluded that north-northwest-trending extensional gold-bearing quartz veins post-dated earlier sinistral trans-tensional northeast-trending shear zones hosting hydrothermal mineralization dated 2,657 ±15 Ma.

9 EXPLORATION

9.1 Golden Highway Property 1986-2022

Exploration on the Golden Highway Property accelerated by staking in the area through the late 1980s as discussed in Section 6.1. From 1986 to 2000, Moneta and other companies undertook various geophysical work (magnetic, IP, and VLF surveys), overburden and diamond drilling campaigns, as well as geological mapping exercises.

After 2002 the Golden Highway Property was well consolidated, and mostly owned by Moneta. A joint venture between Moneta and Acrex drilled 50 diamond drill holes between 2002 and 2008. During this time, Moneta also conducted other drill campaigns totalling 28 diamond drill holes.

After 2008 Moneta was the sole explorer on the Golden Highway Property, preforming geophysical surveys in 2008 and 2010, and diamond drill campaigns from 2009-2014 focusing on deep the South West deposit, and the Windjammer deposit.

Little exploration activity occurred between 2015 to mid 2016. Since fall 2016, Moneta has been actively exploring the Golden Highway Property with: diamond drill campaigns, interpretive studies, relogging and resampling programs, and LIDAR surveys.

A detailed table of the Moneta exploration activities is presented in Table 9-1. A more detailed discussion of drilling completed by Moneta is presented in Section 10.

Table 9-1: Moneta Exploration on the Golden Highway Property 1986-2021

Year	Company	Exploration	Township
1986	Moneta	MPH Ground Mag survey, IP various interpretations over time, drill hole M-86-01	Michaud
1987	Moneta	Mag and VLF survey, drill holes M-87-02 to 8,15, M-87-17 to 26, M-87-50 and MJB87-01 to 27, overburden drilling	Michaud
1990	Moneta	Mag survey, geological mapping	Michaud
1996	Moneta	IP survey	Michaud
1997-1998	Moneta	IP surveys	Michaud
2000	Moneta	IP survey	Michaud
2000	Moses	OPAP, Soil geochemistry survey	Michaud
2002	Moneta	Ground mag (26.3 line-km) and IP survey (6.1 ine km)	Michaud
2001	Moneta	Drill holes M-01-225 and 226	Michaud
2002	Moneta/Acrex	Drill holes MA02-01 to 09	Michaud
2003	Moneta/Acrex	Drill holes MA03-10X to 14	Michaud
2003	Moneta	Drill holes M-03-236 to 239	Michaud
2004	Moneta/Acrex	Drill holes MA04-15 to 26	Michaud
2004	Moneta	Drill holes M-04-257 and 258	Michaud
2005	Moneta/Acrex	Drill holes MA05-27 to 32	Michaud
2006	Moneta/Acrex	Drill holes MA06-33 to 37A	Michaud
2007	Moneta/Acrex	Drill holes MA07-38 to 42	Michaud

Year	Company	Exploration	Township
2007	Moneta	Drill holes MWJ07-01 to 03	Garrison
2008	Moneta	Drill holes MWJ08-05 to 22	Michaud
2008	Moneta/Acrex	Drill holes MA08-43 to 50	Michaud
2008	Moneta	Drill holes M-08-259	Michaud
2009	Moneta	Tuned gradient IP survey	Michaud
2009	Moneta	Drill holes MWJ09-23 to 31	Michaud
2010	Moneta	Borehole 3D Resistivity/IP and Infinity TEM	Michaud
2010	Moneta	Drill holes MSW10-162 A, B, D, G, MM97-203X and MSW10-260 to 276	Michaud
2010	Moneta	Drill holes M55-10-01 to 36 and MWJ10-32 to 33	Michaud
2011	Moneta	Drill holes MPL11-01 to 09, MWJ11-34 to 59 and MSW11-277 to 294	Michaud
2012	Moneta	Drill holes MSW295, 296, 299 to 309, M55-12-37 to 39, MWJ12-60 to 79	Michaud
2016	Moneta	Drill holes MGH16-001 to 011; Geophysical Mag Targeting	Michaud
2017	Moneta	Drill holes MGH17-012 to 100; Geophysical Mag Inversion	Michaud
2018	Moneta	Drill holes MGH18-101 to 108	Michaud
2019	Moneta	Drill holes MGH19-123 to 157	Michaud
2020	Moneta	Drill holes MGH20-158 to 173,	Michaud
2021	Moneta	Drill holes MGH21-174 to 277; Magnetic Data re-processing	Michaud
2022	Moneta	Drill holes MGH22-278 to 343	Michaud

9.2 Garrison Property 2021-2022

From the mid 1980s through 2018, many companies undertook exploration programs at the Garrison property that consisted primarily of diamond drill programs, geophysical surveys, with some bulk samples and underground development and exploration. A detailed discussion of historical exploration is presented in Section 6.2.

The vast majority of the exploration work completed at the Garrison property by Moneta included in-fill and exploration drilling of the three zones completed in 2021 and 2022 (Table 9-2). Moneta's drill programs are discussed in further detail in Section 10.

Table 9-2: Moneta Exploration on the Garrison Property

Year	Company	Exploration	Township
2021	Moneta	11 diamond drill holes for a total of 6,802 metres	Garrison
2022	Moneta	74 diamond drill holes (including 2 extension holes) for a total of 23,087 metres as of September 28th, 2022	Garrison

10 DRILLING

10.1 Golden Highway Drilling

After the 1986 initiation of exploration by Moneta and the completion of the magnetometer, induced polarization and VLF-EM surveys, diamond drilling and reverse-circulation (RC) drilling commenced. Between 1986 and1988, 179 diamond drill holes (M-87 series) and 132 RC holes had been completed. All drilling since 1988 has been diamond drill holes.

In 1989, Unocal Canada Ltd. (Unocal) optioned the property and completed two phases of core drilling comprising 12,570.87 m in 52 holes primarily along the DPFZ (MU series). Five drill holes (1,178.20 m) were completed on the South West Zone as part of this drill program. Unocal dropped its option in the same year.

From December 1994 to April 1995, Lac North America Ltd. (a subsidiary of Barrick Gold Inc.) drilled 4,641.95 m in 12 holes (MM series holes). Three were drilled on mineralized zones (North Zone) associated with the DPFZ, and eight were drilled on the South West Zone.

In 1995 to 1996, additional drilling took place for a total of 17,794.25 m in 43 drill holes. Ten holes were drilled on the South West Zone, nine holes on the Last Chance Zone, and four holes were exploration holes on what is now the Far West Block (former the 04 Extension Zone). In 1997 and 1998, Lac North America drilled an additional 66 holes (28,276.95 m) on the greater South West Zone (MN series holes). The property was returned to Moneta in 1998.

In 2002, the Moneta/Acrex drill program consisted of nine drill holes for a total of 3,038.5 m. Holes were drilled into several zones: four into three blocks of the South West Zone, one into the Far West block area, two into the 55 Zone, and two north of the South West Zone Central Block.

In late 2003 and continuing into 2004, Moneta and or Moneta/Acrex JV completed 24 diamond drill holes totalling 8,002.60 m. Three drill holes were completed by Moneta/Acrex in the 55 Zone and one was deepened. An additional 13 holes were drilled approximately 2 km to the west. In total, 4,940 m were drilled by the JV; 793 m were drilled in the 55 Zone, and the remaining 4,147 m were drilled on the newly discovered Western Zone.

From 2005 to 2006, the Moneta/Acrex JV completed 13 drill holes totalling 4,298.00 m mostly at the 55 Zone, including an 800 m westerly step-out.

In 2007, Moneta acquired Newmont's operating interest the Windjammer property and completed eight drill holes totalling 2,474 m on Windjammer South.

In 2008, a drill program totalling 7,288.86 m in 20 holes was completed by Moneta on the Windjammer South Zone. Also in 2008, the Moneta/Acrex Joint Venture completed an eight-hole 2,449 m drill program on the 55 Zone, increasing drill data density for potential resource modelling.

In 2009, Moneta completed a nine-hole drill program totalling 4,472.00 m, two drill holes were extended (281 m) in the Windjammer South, Central, and North zone areas. There was a significant increase in the drilling program in 2010, with drilling taking place in all three known zones totalling 72 drill holes for 40,175.16 m. In the 55 Zone drill holes M55-01 to -36 were completed. In Windjammer South holes MWJ10-25 and -29 to -32 were completed for a total of 1,475 m. Drill holes MWJ10-29 and -30, as well as the extension of MWJ10-25, profiled the area that is now part of Windjammer Central. Holes

MWJ10-26 to -28 were drilled in the Windjammer North area. South West Zone drilling included holes MSW10-260 to -273 for a total of 7,375 m and included numerous wedges from several deeper mother holes.

Drilling in 2011 focused on Windjammer South and the eastern and deeper portions of the South West Zone totalling 56 drill holes for 25,160.36 m.

The 2013 drilling program included advancing the 2012 NI 43-101 mineral resource areas to higher confidence categories, drilling Windjammer Central to the west and establishing a better linkage to Windjammer South, advancing the Gap area, and better defining its linkage to both the South West and Windjammer South (Puritch et al., 2012). The program totalled 78 drill holes for 31,349.86 m.

The 2014 exploration activities were successful in identifying and expanding the Discovery Zone immediately adjacent to the modelled Windjammer North open pit, totalling 34 drill holes for 17,274.00 m.

The 2016 drill program was conducted from October 2016 through early January 2017. A total of 12 drill holes were completed totalling 6,051.91 m. The drilling was focused on the Destor West zone, northwest of the 55 deposit, and Last Chance zone North of the 55 deposit.

The 2017 to 2018 winter drill program was conducted from September 2017 through to the end of April 2018. It focused on the South West deposit, where 65 drill holes for 28,608.77 m were completed. The remainder of the program tested the Discovery, Gap, 55, Windjammer North and LC areas. The drill program was designed to verify and extend newly interpreted zones of higher-grade gold mineralization which had been identified after a technical review of all property drill targets was completed over the summer of 2017. The 2019 drill program primarily tested the extensions of the South West deposit.

An additional eight drill holes for 3,551 m were drilled on the South West and Windjammer South deposit areas during the summer of 2018. This included seven holes for 2,903 m at South West and one hole of 648 m at Windjammer South. The drilling was conducted as infill drilling on newly discovered vein and stockwork zones to enable the zones to be included in the new resource estimate. The holes were drilled from July 31, 2018 to September 04, 2018. In winter 2018, 41 more drill holes were completed totalling 22,283.94 m.

During 2019, 16,811.99 m of drilling was completed in 28 holes on the Golden Highway property. This consisted mostly of drilling at South West, expansion exploration drilling at Westaway/Westblock, and one hole for 465 m of drilling on the 55 deposit. The South West drilling was conducted to test the down dip and strike extensions of new veins identified in the Gap area on the eastern part of South West. The drilling also infilled and confirmed some of the main South West mineralized structures.

During 2020 winter program, 19 holes were drilled for 11,878.79 m of drilling on the Golden Highway property. This consisted of 5 holes and 2,804.74 m at Windjammer South, 13 holes for 6,808.65 m at Westaway/West Block, 6 holes for 2,265.4 m at the 55 deposit. The drilling was conducted at Windjammer South and 55 to confirm the new geological interpretation and test the extensions of near surface gold mineralization for resource definition. At Westaway, drilling was conducted to drill define a new underground resource and was conducted at Halfway and Westaway to test for new zones of gold mineralization.

From September 2020 through December 2021, Forage SMP drilled 113 drill holes totalling 62,974.41 m on the Golden Highway property. The primary focus was to expand the drilling footprint across nearly all deposits to help define their spatial limitations. This consisted of 12 holes and 6,818.19 m at Windjammer South, of 18 holes and 9,683.73 m at Windjammer Central, 24 holes for 15,929.01 m at Westaway/West Block, 10 holes for 3,672.15 m at the 55, 14 holes for 9,410.17 m at South West / Gap, 24 holes 12,098.4 m for at the new Halfway target, 4 holes at Discovery for 1,606.33 m, and 2 holes at each Eastern Fold, Landing, and Twin Creeks zones for 1,335.05 m, 813.18 m, and 855.2 m respectively and

one hole for 753 m on the South Basin target. The program was a success, revitalizing potential on the Windjammer Central deposit with help of oriented drill core. Survey equipment used during this drilling was provided by Devico, included the devisight, and devialigner for drill alignment prior to starting a drill hole. Overshot and continuous North seeking gyro tools were used to survey the deviation of the drill hole, for ongoing and post drilling respectively.

Since 2018 there have been ongoing resampling programs across nearly all deposits, with a focus on South West, Windjammer South, Windjammer Central, and Westaway deposits. Core from the 1980s through mid-2010s has been relogged and resampled to support geological interpretation, and modelling. These programs have been integral to creating a robust geological model.

Drilling at Golden Highway is summarized in Table 10-1. Additionally, a table of all drill holes included in the database is provided in Appendix B. Not all of the holes in the database were used in the resource estimate. As discussed above, only the drill holes after 1987, for which Moneta has the remaining core, were used in grade estimation for the mineral resource reported herein. A total of 797 drill holes were included in the MRE.

Drill hole collar locations are shown in Figure 10-1. Cross-sections of the Golden Highway resources are found in Section 14.

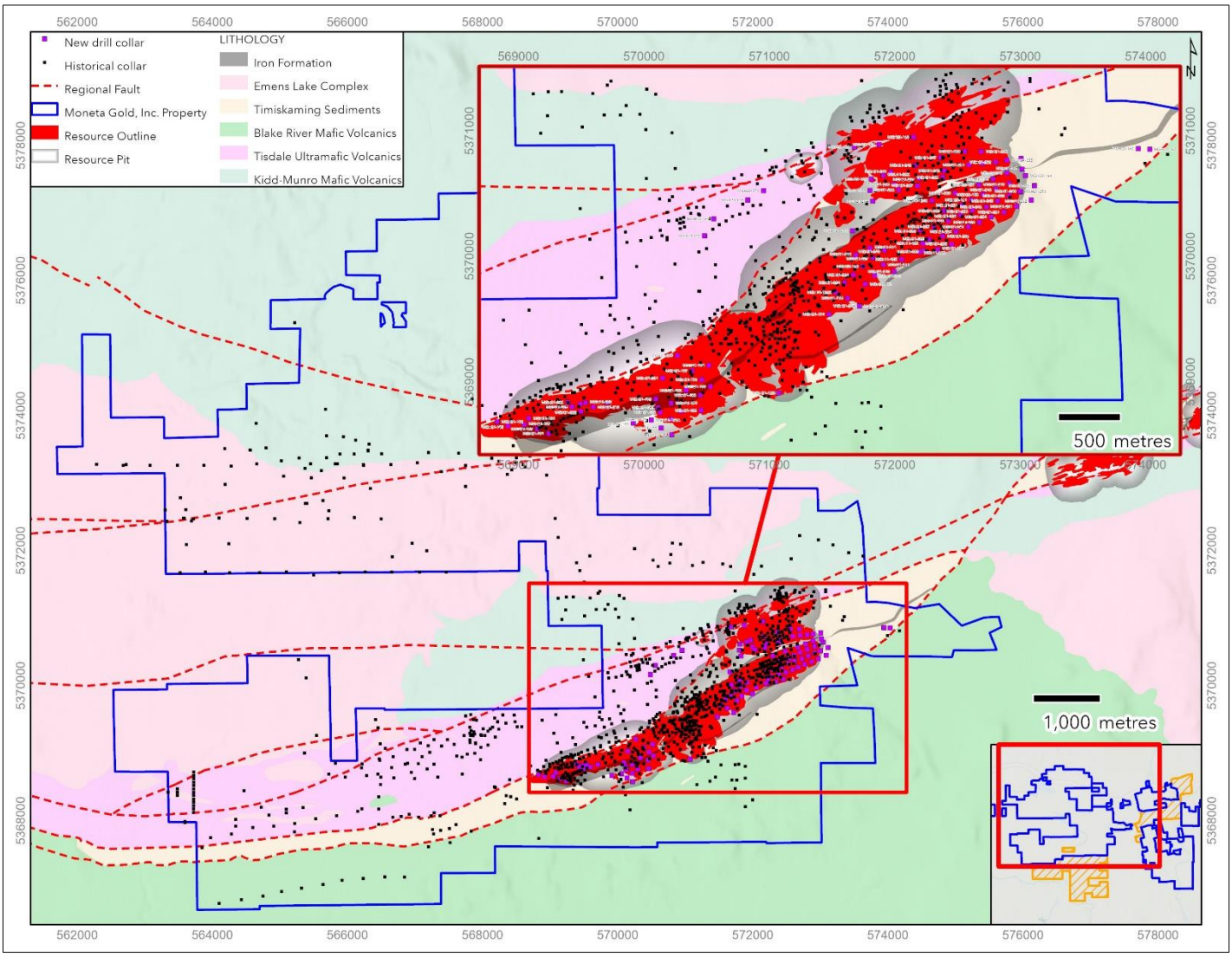
Table 10-1: Diamond Core Drilling Golden Highway Property

Year	Total No of Drill Holes*	Total Metres	Total Assayed Samples	Assay Certificates	Bulk Density Measurements
Pre-1986**	162	9,535.97	572	829	26,523
1986**	33	1,933.94	209	462	10,225
1987**	208	28,724.15	10,156	1,859	19,156
1988	70	17,961.55	6,148	213	7,833
1989	52	12,570.87	5,834	0	1,665
1990	5	1160.25	173	0	221
1991	12	3,649.58	1,288	0	121
1993	1	334.00	0	0	0
1994	1	419.7	176	0	0
1995	11	4,222.25	1,626	0	0
1996	32	13,572.00	4,127	123	562
1997	59	25,451.95	9,783	6	1,312
1998	7	2,825.00	688	2	502
2001	2	384.60	164	0	78
2002	9	3,038.50	1313	2	634
2003	10	3,132.00	1,299	0	1,069
2004	14	4,870.60	2,115	0	825
2005	8	3,181.00	1,024	0	8
2006	5	1,117.00	367	0	4
2007	8	2,474.00	1,299	0	159
2008	28	9,737.86	7,013	13	3,605
2009	9	4,472.00	3,052	1	930
2010	72	40,175.16	12,264	62	12,512
2011	56	25,160.36	12,669	766	12,049

Year	Total No of Drill Holes*	Total Metres	Total Assayed Samples	Assay Certificates	Bulk Density Measurements
2012	39	12,591.78	7,156	1,859	10,093
2013	78	31,349.86	17,868	657	8,570
2014	34	17,274.00	7,822	1,003	8,138
2016	12	6,051.91	1,794	327	3,584
2017	65	28,608.77	14,535	399	17,503
2018	49	25,834.94	12,288	873	15,632
2019	28	16,811.99	8,515	33	1,363
2020	40	19,924.55	12,576	456	4,747
2021	97	54,928.67	31,486	97	26,611
Total	1,316	434,480.80	197,399	10,042	196,234

Notes: *Includes abandoned and extended drill holes. **Includes reverse-circulation (RC) drilling.

Figure 10-1: Drill Collar Locations at Golden Highway



Source: Moneta, 2022.

10.2 Garrison Property

A detailed pre-Moneta history of work on the property is discussed in Section 6.

Between 1985 and 1992 a total of 93,146 m of BQ diamond drilling was completed by Jonpol Explations and partners totalling 422 amount of diamond drilling, focused on the 903, Jonpol, and Garrcon deposits.

Between 2006 and 2009 ValGold drilled a total of 83 holes for 33,812.05 m of drilling on the Garrcon, and Jonpol zones.

Between 2009 and 2015 Northern Gold drilled a total of 604 drill holes for 123,844.60 m of drilling across the Garrcon, Jonpol and 903 deposits.

In 2016, Osisko's diamond drill program totalled 32 holes for 20,971.85 m focused on step-out drilling in the 903 Zone, aiming to expand the deposit along strike and at depth. In 2017, Osisko proceeded with infill and more step-out drilling along strike of the deposit. A total of 154 drill holes was completed, and one extension hole, totalling 60,844.91 m, including two drill holes that were cancelled in overburden (OSK-G17-384A and -371A). In 2018, the company focused on expanding the northwestern portion of the 903 Zone, while targeting the Jonpol Zone at depth. Ten drill holes were completed, totalling 5,074.00 m.

Moneta contracted Forage SMP between September through November 2021 to complete 11 diamond drilled holes totalling 6,802.68 m at the Garrcon deposit to test new geological models.

Drilling at Garrison property is summarized in Table 10-2 by year. Not all of the historical drill holes were used in the resource estimate. A total of 1,015 drill holes were included in the MRE. Survey equipment used during this drilling was provided by Devico, included the devisight, and devialigner for drill alignment prior to starting a drill hole. Overshot and continuous North seeking gyro tools were used to survey the deviation of the drill hole, for ongoing and post drilling respectively.

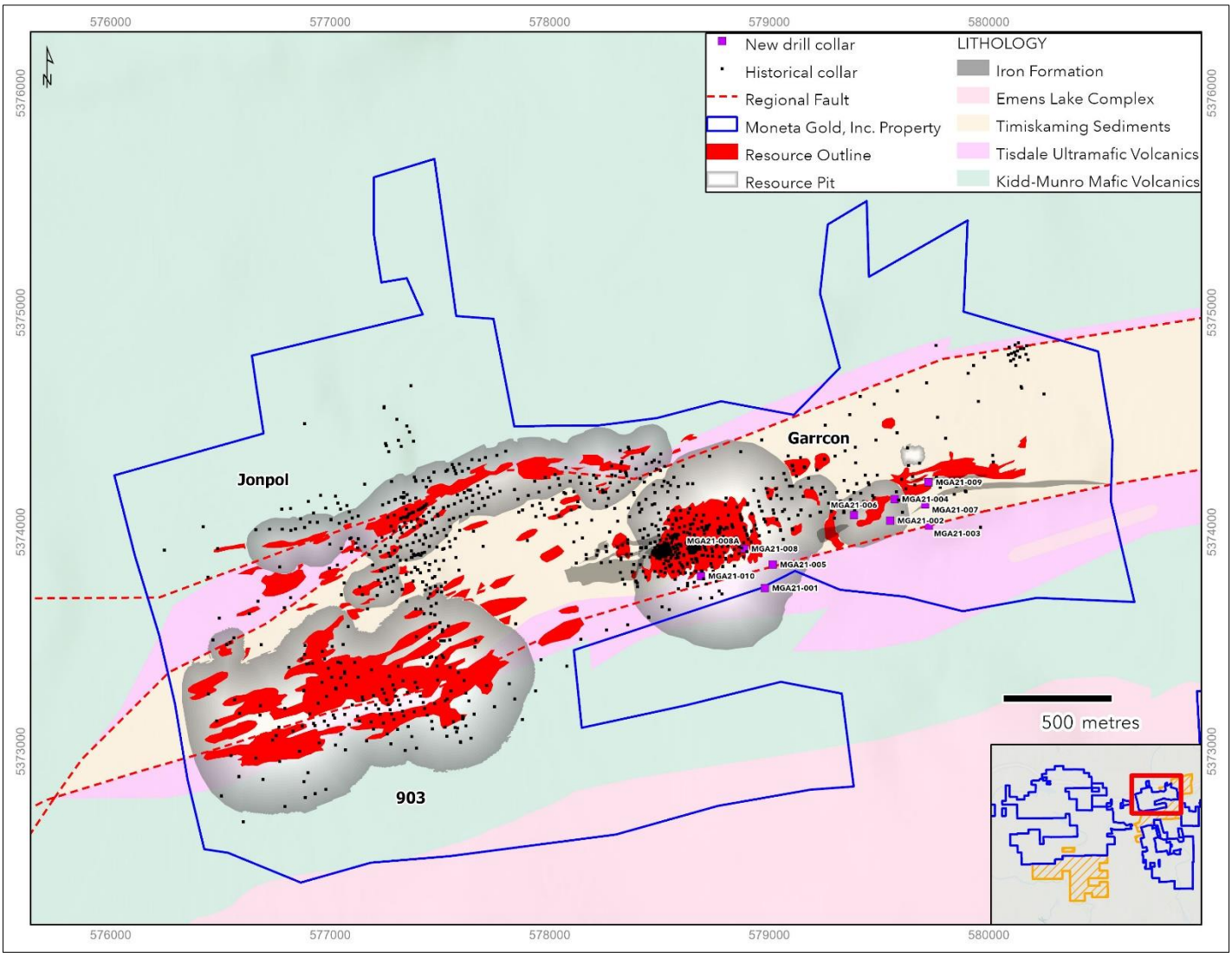
Table 10-2: Summary of Garrison Diamond Core Drilling by Year

Year	Total No of Drill Holes*	Total Metres	Total Assayed Samples	Assay Certificates	Bulk Density Measurements
pre-1986	52	10,318.17	2,815	2,815	0
1986	30	5,151.62	4,401	4,400	0
1987	125	30,647.14	13,149	12,914	40
1988	133	41,290.21	13,091	12,988	0
1989	56	3,426.85	1,063	1,063	0
1990	59	5,139.76	1,151	1,151	0
1991	10	6,459.22	770	770	0
1992	9	1,031.32	57	57	0
1994	3	1,563.02	107	107	0
1995	6	1,082.04	67	67	0
1996	4	882.00	196	196	0
2005	7	1,585.60	1,467	1,467	0
2006	58	24,121.05	18,305	18,297	14
2007	14	7,355.00	5,017	4,973	0
2009	11	2,336.00	2,570	2,568	0
2010	50	12,338.86	10,554	10,492	12
2011	130	44,699.51	40,488	40,041	1,778
2012	130	51,297.33	48,108	47,422	1,358
2013	36	10,732.10	9,098	8,282	0
2014	226	4,135.80	4,123	4,123	0
2015	32	641.00	641	641	0
2016	32	20,971.85	21,076	21,073	0
2017	154	60,844.91	56,974	56,974	55
2018	10	5,074.00	5,195	5,195	0
2021	11	6,802.68	4,717	4,717	966
Total	**1,388**	**359,927.04**	**265,200**	**262,793**	**4,223**

Note: *Includes abandoned and extended drill holes.

Figure 10-2 is a plan map of all drilling used in the resource estimate, with Moneta drilling shown in purple. Cross-sections of the Garrison resource can be found in Section 14.

Figure 10-2: Drill Collar Locations at Garrison Property



Source: Moneta, 2022.

10.3 Drilling Overview

A brief overview of drilling procedures used by Moneta during their drill programs is included below.

10.3.1 Drill Hole Planning

Proposed drill holes are designed by a Moneta geologist. Drillhole numbering is alpha-numeric and includes the abbreviation for the deposit area, year of drilling and hole number.

10.3.2 Drill Hole Set-Up

Proposed drill hole collars are positioned by the field foreman or Moneta personnel with a hand-held GPS unit. All diamond drill holes are aligned by drilling crews employing either an azimuth pointing system (APS) rented from Reflex Instruments of Timmins, ON, or a DeviSight pointing system instrument rented from SurveyTECH Instruments & Surveys of Timmins, ON. Both drill rig aligning instruments employ a GPS-based compass that provides a true north azimuth measurement and position. The instrument surveys the drill hole collar coordinates and elevation in UTM coordinates (NAD83 Zone 17N) utilizing total station GPS instrumentation. These data are sent to the Moneta geologist for approval and to Moneta database personnel, where they are entered into the database.

10.3.3 Drill Hole Operation

Drill core is placed into wooden tray boxes and oriented by the drilling contractor personnel. The orientation involves using a Reflex Act III instrument or Devico DeviHead instrument, with the orientation mark indicated at the end of a core run (3 or 6 m interval), on the end and bottom of the core.

If a drill hole is abandoned due to excessive deviation or due to drilling problems, the drill will have to back up two meters and collar again. The failed drill hole is renamed to the original hole number followed by an “a”. After two failed attempts, the hole is renamed with a “b” attached to the end of the original hole number. The successful drill hole will take the official drill hole ID bearing the original hole number without letter suffixes.

Down hole surveying is completed on each hole. Prior to hole MGH19-123, the Moneta drill contractor utilized a Reflex EZ-Shot®, an electronic single-shot instrument rented from Reflex Instruments of Timmins, ON. It accurately measures six parameters in one single shot: azimuth, inclination, magnetic tool face angle, gravity roll angle, magnetic field strength and temperature. Single-shot tests were taken 15 m or so below the casing and every 60 m down the drill hole. Upon completion of a drill hole, a gyroscopic survey of the hole was completed by the drill crew. The gyroscopic survey utilized a Reflex IQ Logger structural EZ-Gyro instrument and azimuth/inclination readings were taken every 10 m downhole. The gyroscopic survey results superseded the Reflex single-shot results for drill hole orientation and the Talbot surveyed collar azimuth/inclination in the computer database.

Since hole MGH19-123, the downhole survey instrument utilized by the drill contractor is a Champion gyroscope (Champ Gyro™). The Champ Gyro™ is an innovative north-seeking solid-state gyroscopic system that allows users to take high accuracy single-shot, multi-shot or orientation measurements. It requires no starting azimuth. It is run with the Champ OSA™ (overshot assembly) in wireline coring applications to take a gyroscopic survey simultaneously with retrieval of inner tube and core. Downhole, single-shot or multi-shot measurements are taken at desired depths. Upon return to surface, data are downloaded via highspeed wireless communication and are immediately accessible without any need for processing or interpretation. Gyroscopic survey readings were collected every 24 metres down the hole. Readings in the upper casing are taken after bedrock has been reached and the casing is firmly sunk.

Drill core is collected by Moneta technicians at the drill sites or the drill core is transported by contrators to Moneta’s core logging and storage facilities on a daily basis.

10.3.4 Drill Hole Completion

When the drill hole has reached its planned depth it is shut down by the Moneta geologist. The NQ and/or HQ casing in the overburden is left in each hole completed and the top of the casing at surface is capped. Upon completion of the drilling program, every drill site is re-inspected by Moneta personnel to ensure all is environmentally clean for natural revegetation. As a verification of the initial GPS collar coordinates after demobilization of the drill rig, a survey contractor (e.g., Surveyors

Onsite) surveys the top of the drill hole casing with a Leica global navigation satellite system (GNSS) base (Leica GS15) and rover (Leica GS14) setup that has a relative horizontal accuracy of 0.015 m and a relative vertical accuracy of 0.030 m. The UTM NAD83 Zone 17N northing, easting, and elevation coordinates recorded by the survey instrument are the final location coordinates of the hole.

10.4 Conclusion

In general, based upon the QP's review of drill core, review of drill logs and sample sheets, the Golden Highway diamond drilling has yielded excellent core recovery likely over the history of the project and certainly since the early 2000's, as would be expected in Archean Shield type settings. It has been Moneta's policy to target their drilling with high incidence angles to mineralization, however, there are a number of different orientations of mineralization along with complex stockwork zones with a number of drill holes that have been completed at different azimuths and dips in this very complex geological and mineralization setting. In general, much of the drilling has intersected mineralization with true thicknesses on the order of 60 to 90%, however, there are many exceptions to this and there are zones of mineralization with poorly known orientation and each drill hole intersection must be evaluated for each mineralization zone and on a case by case basis at Golden Highway.

Based upon the QP's review of drill core, the drill hole database and the modelling conducted for Garrison, a similar conclusion can be arrived at for Garrison on core recovery and the true thickness of mineralization. However, in general mineralization appears to be more predictable than for Golden Highway, with apparently less oblique mineralization zones and therefore less variability in true thicknesses.

Based upon a review of Moneta's drilling information and data, it is the opinion of the author and QP that they are appropriate for the type of mineralization that is being evaluated and the stage of the project. The QP considers the drilling data appropriate for use in the resource modelling and estimation work discussed in Section 14.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

A master assay database compiled by Moneta incorporating all available records has been used to develop the resource estimate presented in this report. The data used for resource estimation for Golden Highway do not include any assays from before 1987 and for Garrison do not include any assays from before 1986. Moneta has the entire core, pulp rejects, and coarse rejects dating from 1986 catalogued and stored in the company's secure core logging and sampling facilities located in Timmins and Garrison. Data entries have been verified and scans of paper drill logs and most assay certificates are available.

11.1 Drilling Sample Preparation and Analysis

11.1.1 Golden Highway Property Area

The information in this sub-section has been sourced from a previous technical report on the Golden Highway property by Hennessey et al. (2021). The QP has reviewed and taken responsibility for the information herein.

Historical drilling and geological data were sourced from government assessment and company files and are considered to be indicative of geology and mineralization. Pre-1986 drill programs used core sizes ranging from AQ to NQ. Older (pre-1980) assay results may not be reliable and the pre-1986 assay data were not included in the resource estimation. However, the logging information may be used for drill hole planning.

Drill programs since 1986 have primarily used BQ- and NQ-sized core with some holes completed using HQ-sized core. These programs included the use of extensive duplicates and screen metallic analyses when warranted. Results from drill programs from 1986 onwards programs are considered to be reliable. Moneta drill results from 1986 to 1987 have been tested and confirmed by Lac Minerals (Barrick from 1994 to 1995) resampling. Noranda drill results up to 1989 have also been verified by resampling and twinning of two drill holes as detailed by Cargill (2008). Significant more recent drilling completed within the historical drill patterns in the mineralized zones has returned assays confirming historical results. Recent sampling conducted in 2017 and 2018 of 1980's core has continued to validate the historical data.

A variety of analytical laboratories have been used over the course of the various drill programs. The following laboratories are independent of the issuer and the authors of this technical report. Lac North America Ltd. used Swastika Laboratories Ltd. in Kirkland Lake, ON. Moneta has used numerous labs over the years including: 1986 - 1987 Bell-White Analytical Laboratories Ltd. (Haileybury, ON); 2002 - 2004 Bondar Clegg (Ottawa, ON); 2007 - 2009 Swastika Laboratories Ltd. (Kirkland Lake, ON); 2011 to 2012 Laboratoire Expert (Rouyn-Noranda, QU); 2016 - 2017 Activation Laboratories (Timmins, ON) and SGS Laboratories; 2017 - 2019 ALS-Chemex (Timmins, ON) and 2020-2021 AGAT Laboratories (Timmins, ON). All laboratories used for analysis are independent of Moneta and the authors of this technical report. The laboratories have the following accreditation:

- Bell-White Analytical Laboratories Ltd. (Haileybury, ON): unknown accreditation
- Bondar Clegg (Ottawa, ON): ISO/IEC 9002:1994
- Swastika Laboratories Ltd.: ISO/IEC 17025

- SGS Canada: ISO/IEC 17025 and ISO/IEC 9001
- Laboratoire Expert (Rouyn-Noranda, QU): unknow accreditation ISO/IEC 43-1
- Activation Laboratories (Timmins, ON) ISO/IEC 17025.
- ALS-Chemex now ALS Global (Timmins, ON): ISO/IEC 17025.
- AGAT Laboratories (Timmins, ON): ISO 9001:2015 and ISO/IEC 17025

Past programs, in particular the Lac North America and Unocal drill programs, used off-site facilities to log and process core. Lac Minerals used the Holt-McDermott mine site located approximately 20 km to the east along Highway 101. Unocal used the Perry Lake Lodge on Highway 101 adjacent to the current Property.

Moneta's drill core samples have routinely been collected at the company's core logging and storage facility, a gated area in Timmins, ON, where all core, pulps and rejects from post-1986 drilling are stored (Figure 11-1). A permanent insulated building, suitable for winter operations, is available for core logging and sampling, including diamond saws, office area and core logging and display areas.

During drilling drill core was collected by Moneta technicians at the drill sites or transported by contractors to Moneta's core logging and storage facilities on an as-needed basis, but generally daily or after two productive drill shifts. Each hole was logged at the core logging facility by a trained geologist. All mineralized sections of drill core considered significant were marked and tagged to be split using a diamond saw with continuous fresh water flushing. One-half of the core was retained as a reference sample while the other was bagged and prepared for shipping to an analytical laboratory as directed by the project geologist and qualified person. Sample intervals and corresponding sample numbers were entered into the standardized core logging sheets by computer. Sample lengths were determined by the geologist logging the core. The samples selected for assay were batched, with CRMs and blanks included. Drill core samples were picked up by laboratory personnel, delivered directly to the laboratory for preparation and analysis, or delivered to a secure lockup to be shipped by bus, as required. This procedure was used for all the Moneta drilling programs described below.

Figure 11-1: Moneta Core Logging and Storage Facility in Timmins

Source: Moneta, 2019.

11.1.1.1 2001-2019 Moneta Drilling Sample Preparation and Analysis

11.1.1.1.1 2001

In 2001, Moneta core samples were cut, and sent to Bondar-Clegg Laboratory for analysis.

11.1.1.1.2 2002 to 2004

From 2002 to 2004, Moneta core samples were assayed at Swastika Laboratories Ltd. (Swastika) using a 30 g aliquot for NQ core and two 30 g aliquots for HQ core, giving a representative one assay ton sample portion.

At Swastika, the samples were dried and crushed to approximately six mesh. A Jones riffle splitter was used to collect a 400 g sub-sample for pulverizing. The remaining reject portion of the sample was bagged and stored. After reducing the 400 g sub-sample to 80% passing minus 100 mesh, the sample was thoroughly homogenized, and a 29.166 g portion (one

assay ton) was used for fire assay. Repeat or check assays were run by the laboratory on at least one in every 10 samples on the original pulp or on a second pulp prepared from the reject. Additional checks were completed in a number of instances when an assay was greater than 2 g/t. Samples were analysed by fire assay with an atomic absorption spectrometry (AAS) finish with a 2 ppb Au detection limit. Gold values greater than 1.0 g/t Au were re-assayed by standard gravimetric fire assay with a detection limit of 0.03 g/t Au from the same prepared pulp. Screen metallics assays were completed on any samples with visible gold observed in core.

A random selection of 41 samples was sent to Bondar Clegg to complete third-party checks using the same primary pulp. In 2004, additional duplicate assays from coarse reject material were completed on all samples that assayed over 5 g/t Au at the primary laboratory. Later, screen metallics fire assays were completed on select samples that were derived from specific zones identified based on geological and gold content considerations. Adjacent flanking or low gold grade samples were also included in the screen metallics analysis. An internal pulp repeat analysis on the same original pulp was completed by Swastika on a regular basis. Up to 15% of the pulps representing a range of results were submitted to ALS Chemex (now ALS Global) as checks for third-party quality control.

A quality assurance/quality control (QA/QC) program was conducted, with analytical standards (also known as certified standard materials or CRMs) and blank samples inserted into the sample stream at a rate of 1 in every 20 samples. Samples containing visible gold may have been additional processed for screen metallics assays and a check assay if repeated check samples showed significant variability

11.1.1.1.3 2005 to 2006

Moneta/Acrex used core logging, data entry and sampling procedures as described in section 11.1.1.

For the 2005-2006 drilling programs the Moneta/Acrex core samples were sent to Swastika for analysis. At Swastika, the samples were dried and crushed to approximately six mesh. A Jones riffle splitter was used to collect a 400 g sub-sample for pulverizing. The remaining reject portion of the sample was bagged and stored. After reducing the 400 g sub-sample to 80% passing minus 100 mesh, the sample was thoroughly homogenized, and a 29.166 g portion (one assay ton) was used for fire assay. The samples were analysed using AAS. Samples that returned a value of greater than 2 g/t Au were re-assayed and analysed gravimetrically. Repeat or check assays were run by the laboratory on at least one in every 10 samples on the original pulp or on a second pulp prepared from the reject. Additional checks were completed in a number of instances when an assay was greater than 2 g/t.

11.1.1.1.4 2007 to 2013

Sample lengths for the 2007-2013 program ranged from 0.20 m to 1.50 m in length. Typical sample lengths were 0.50 m to 1.00 m. Moneta inserted QA/QC samples included one CRM and one blank inserted into the sample stream at a rate of 1 in every 24 samples. The blank samples consisted of commercial landscaping marble. Independent certified CRMs were sourced from OREAS through Analytical Solutions Ltd.

Swastika, Laboratoire Expert, and Activation Laboratories completed the analyses. From 2007 to 2009, Swastika was the primary laboratory that was used for analysis with third-party check analyses conducted by Laboratoire Expert. From 2010 to 2013 Laboratoire Expert (Rouyn-Noranda, Quebec) was the primary laboratory for analytical work, with third-party check analyses conducted by Activation Laboratories (Timmins/Ancaster). Assay results were received electronically for direct database entry, subsequently certified assay certificates were provided.

At Swastika, the samples were dried and crushed to approximately six mesh. A Jones riffle splitter was used to collect a 400 g sub-sample for pulverizing. The remaining reject portion of the sample was bagged and stored. After reducing the

400 g sub-sample to 80% passing minus 100 mesh, the sample was thoroughly homogenized, and a 29.166 g portion (one assay ton) was used for fire assay. The samples were analysed using AAS. Samples that returned a value of greater than 2 g/t Au were re-assayed and analysed gravimetrically. Repeat or check assays were run by the laboratory on at least one in every 10 samples on the original pulp or on a second pulp prepared from the reject. Additional checks were completed in a number of instances when an assay was greater than 2 g/t.

At Laboratoire Expert, core samples were typically dried, crushed by a jaw crusher and further reduced to approximately 6 to 10 mesh using a roll crusher. The jaws and rolls were cleaned with a wire brush, an air jet and the processing of barren material. A Jones riffle splitter was used to collect a 300 g to 400 g sub-sample for pulverizing. The remaining reject portion of the sample was bagged and stored. After reducing the sub-sample to a nominal -100 or -200 mesh with a pulverizer, the sample was thoroughly homogenized and a 29.166 g portion (one assay ton) was used for fire assay with a gravimetric finish.

For screen metallics gold assays, the total sample was dried (as necessary), crushed and pulverized, then screened using a 100 mesh screen. The minus 100 mesh portion is mixed and assayed in duplicate by fire assay with a gravimetric finish, as well as a complete digestion of the plus 100 mesh portion. All individual assays were reported including the final calculated value. For geochemical analysis or where lower detection limits were required, the gold was dissolved and analysed by AAS.

Third-party checks and pulp repeat analyses were conducted regularly on the same original pulp. Duplicate samples were occasionally collected from a second pulp prepared from the stored coarse reject. Analytical standards and blanks were used for QA/QC. A subset of samples was selected for reprocessing using screen metallics assay. The samples were selected based on several factors: showing significant variability (low to high grade), defining mineralized zones, or having noted visible gold during logging. Up to 15% of all pulps collected using a range of values were re-assayed by the second third-party check laboratory (Activation Laboratories or Swastika) using internal standards. Results were monitored and repeat analyses were completed when required. Coarse rejects and all prepared pulps are stored at Moneta's core facility.

Samples with assays greater than 1.0 g/t Au were automatically re-analysed using gravimetric fire assay methods; samples with assays greater than 10 g/t Au were re-assayed using second cuts from the reject portion; and samples with assays greater than 20 g/t Au were subject to screen metallics gold assays. Assay results were reported over the drilled width interval using either the first primary analysis or what was considered to be the most complete and accurate method (the gravimetric fire assay or the screen metallics assay if conducted).

11.1.1.1.5 2016 to August 2017

For the 2016 to August 2017 drill program, Moneta insertedthree standards and two blanks with every batch of 74 samples. Independent CRMs were sourced from OREAS through Analytical Solutions Ltd. Samples were submitted to the primary laboratory of SGS Laboratories (SGS) in Cochrane, ON. Sample batches were collected by SGS personnel from the secured Moneta core logging and storage facility in Timmins, ON (Figure 11-2 and Figure 11-3) and driven directly to the laboratory.

At the laboratory core samples were typically dried, crushed by jaw crusher and further reduced to approximately 75% passing 10 mesh (2 mm) using a roll crusher. The jaw crusher and roll crusher were cleaned with a wire brush and air jet as well as barren material flush. A Jones riffle splitter was used to collect a 250 g sub-sample for pulverizing. The remaining reject portion of the sample was bagged and stored. After reducing the sub-sample to a nominal 85% passing minus 200 mesh (-75 µm) with a disc pulverizer, the sample was thoroughly homogenized and submitted for fire assay.

A 29.166 g portion (one assay ton) was used for fire assay with an inductively coupled plasma atomic emission spectroscopy (ICP-AES) finish. The ICP-AES is an analytical technique based on the principles of atomic spectroscopy for

the determination of more than 70 elements with detection limits in the parts per billion to parts per million range. For gold the lower detection limit was 0.001 g/t Au and the upper detection limit was 10 g/t Au. Samples returning above 3 g/t Au were re-analysed by fire assay with a gravimetric finish. This final assay was determined by weighing the final prill (gravimetric).

Figure 11-2: Moneta Core Storage Facility at Garrison

Source: Moneta, 2021.

Figure 11-3: Moneta Core Logging Facility and Office at Garrison

Source: Moneta, 2021.

Samples returning greater than 20 g/t Au from the gravimetric assay were subjected to a screen metallics fire assay of the total sample. The total sample was dried crushed and pulverized, then screened using a 100 mesh screen. The minus100 mesh portion was mixed and assayed in duplicate using two 30 g fire assay charges with a gravimetric finish. The entire plus 100 mesh portion was analysed by fire assay with a gravimetric finish. All individual assays were reported, as well as the final calculated (weight averaged) value.

Assay results were reported using drilled widths and gold values. The reported value is the first ICP-AES result, replaced by the first gravimetric result if that was run, or replaced by the metallic screen assay result if that was undertaken.

Repeat or check assays were conducted regularly (every 90 days when pulps were returned from the laboratory) on the same original pulps, at a third-party check (umpire) laboratory. The third-party check laboratory used for the 2016-2017 samples was Activation Laboratories in Timmins, ON. Standards and blanks were also inserted in the third-party repeat batches as control samples.

Check samples were selected by collecting 9 samples per batch of 74 (~12%) based on three assay value points: ~100 ppb, ~1 g/t and ~3 g/t, or 3 ppb, 100 ppb and 500 ppb for low result batches. For every batch of 35 samples sent for third-party checks, four standards/blanks were inserted, one from each original certificate. The list was printed and provided to the technician with the certificate and sample numbers. The pulps were retrieved from each box to make new batches. The batches were delivered directly to Activation Laboratories in Timmins, ON by Moneta personnel in sealed bags, including a digital chain of custody and a sample list.

At Activation Laboratories analysis was performed by 30 g fire assay with AAS finish for samples less than 3 g/t and a 30 g charge with a gravimetric finish for samples above 3 g/t Au.

All coarse rejects and pulps are stored at Moneta's core facility.

11.1.1.1.6 September 2017 to 2019

For the September 2017 to 2019 drilling programs, samples were collected using a minimum sampling interval of 0.30 m and a maximum interval of 1.50 m, from the same right-hand side of the oriented and marked-up core. In most cases, a 1.00 m sample was used unless geological contacts indicated a shorter sample length was required. The primary laboratory for the 2017-2019 program was ALS-Chemex (now ALS Global) located in Timmins, ON and the secondary check (umpire) laboratory used was Activation Laboratories in Timmins, ON.

Samples were collected directly from the secured Moneta core facility in Timmins, ON by ALS-Chemex staff and were delivered directly in sealed rice sacks to the sample preparation facility. Activation Laboratories staff collected the third-party check assay samples directly from the Moneta core facility.

Samples were prepared at the at the ALS-Chemex sample preparation facility in Timmins, ON. Drill core samples were dried and crushed to 85% passing ~2 mm (~10 mesh). A 1 kg split sample was collected using a Jones riffle splitter, this split sample was pulverized to 85% passing 75 µm (~200 mesh). A 250 g split of this pulp was sent directly to the ALS-Chemex assay facility in Vancouver, BC by ALS-Chemex staff. At the Vancouver facility the sample was homogenized and a 50 g charge was analyzed by fire assay with an AAS finish. The lower detection limit of this procedure is 0.001 g/t Au and the upper detection limit is 10 g/t Au.

All samples that assayed over 10 g/t Au were re-analysed using fire assay with a gravimetric finish on a 50 g charge. Screen metallics assays were completed on all samples that had been identified by the logging geologist as containing coarse gold or considered to be potentially high grade. This was requested by the geologist upon samples submission. The screen

metallics fire assays were completed on the same initial 1 kg prepared pulp with total analysis of the plus 100 mesh fraction and duplicate 50 g fire assays with an AAS finish on the minus 100 mesh fraction. All fire assays were completed with an AAS finish.

Samples with identified coarse visible gold or high grade were flagged for the laboratory with "VG" written on the sample tag and a clean quartz flush was requested of the crushing and grinding equipment after preparation of this sample, so as not to contaminate the following sample. Blanks were submitted after potentially high-grade samples as a test for contamination.

Multi-element ICP analysis was conducted across mineralized zones and alteration haloes and into wall rock on a regular basis. This involved an ICP-AES analysis of the same prepared pulp at the primary laboratory using a four-acid digestion and an analysis for 61 elements. The results were monitored to determine if pathfinder or deleterious elements exist.

CRMs were inserted at a frequency of ~1 in 20 (5%) into the drill sample batches by the logging geologists (3 standards per batch of 70 samples). The standards used covered three grade ranges: near cut-off (~0.3 g/t Au), average grade of mineralization in the area (~1.0 g/t Au), and higher grade (3 to 6 g/t Au). Independent certified CRMs were sourced from OREAS through Analytical Solutions Ltd. Blanks were inserted at a frequency of 2 per batch of 70 into the drill sample batches. Where possible blanks were inserted immediately after high-grade samples. Blank material was sourced from clean commercially available landscaping marble.

Moneta requested that the laboratory produce a second sample repeat from the same prepared pulp twice per batch of 70 samples. This pulp was submitted using a unique sample number and assayed using the same method as the primary sample.

Repeat samples (third-party check samples) were selected from 5% of prepared sample pulps and sent to an independent third-party laboratory upon receipt of the returned pulps from the primary laboratory. The check samples were sent to Activation Laboratories in Timmins, ON. Samples were randomly selected to cover the grade range of interest. The check sample batches contained new CRMs inserted at a frequency of ~1 in 20 and blanks inserted at a frequency of ~1 in 20 (5%).

Upon return of the coarse rejects from the primary laboratory, field duplicate samples were collected from the samples which returned a range of assays (low, medium and high) within all drill sample batches at a frequency of ~1 in 20 (5%) samples. The field duplicate sample was submitted to the same primary laboratory (ALS-Chemex Laboratories, Timmins) that had performed the initial assay and a second pulp was prepared and assayed by fire assay in the same manner as the primary sample.

11.1.2 Garrison Property Area

The information in this sub-section has been sourced from previous technical reports on the Garrison property by George (2008), McGarry (2014), Matheson (2016) and Hennessey (2019). The QP has reviewed this information and takes responsibility for the information herein.

11.1.2.1 2006-2007 ValGold Drilling Sampling Preparation and Analysis

Sampling and assaying methods used by ValGold during their 2005 to 2007 drill programs have been described by A.C.A. Howe in a 2008 technical report and are summarized below.

Diamond drillcore was logged by an experienced contract geologist prior to selecting samples for analyses. Selected portions of the core were marked and measured for sampling and identified with one part of a three-part assay tag, placed at the end of the sample interval. To obtain a sample, the core was sawed perpendicular to the foliation, with one half of the core returned to the core box and the other half placed in a clean plastic bag along with part two of the three-part assay tag. Information on the third part of the assay tag was entered into the database and on the drill log, at which time accuracy and consistency were reviewed by ValGold personnel. ValGold personnel transported the sealed sample bags to Swastika for preparation and analyses. Swastika is an ISO/IEC 17025 accredited laboratory and is independent of Moneta and the authors of this Technical Report.

For samples without visible native gold sample preparation procedures involved jaw crushing to minus 1/2 inch, with further size reduction to minus 10 mesh by a roller mill. A 350 g sample was riffle split from the minus 10 mesh sample and pulverised to greater than 90% passing minus 200 mesh. The gold concentration was determined for a homogenized 30 g sample using fire assay and AAS. Every 10th pulp sample was re-assayed to check laboratory precision.

Samples with visible native gold were subjected to screen metallics analysis. The sample was screened through a minus 100 mesh sieve and the plus 100 mesh portion was analysed via fire assay to determine the coarse gold content. A weighted average was calculated to determine the overall gold content of the submitted sample.

ValGold inserted CRMs and blanks at a rate of approximately 1 blank or CRM per 10 samples during their 2005 to 2007 drill program (George, 2009).

11.1.2.2 2009-2013 Northern Gold Drilling Sampling Preparation and Analysis

Sampling and assaying methods used by Northern Gold for their 2009-2013 drill programs are described in a 2014 technical report by McGarry et al. (2014) and are summarized in the following text.

Diamond drillcore was logged and photographed by a Northern Gold geologist prior to selecting samples for analyses. Sample intervals were identified by the logging geologist. The selected portions were marked and measured for sampling and were identified with one part of a three-part assay tag, placed at the downhole end of the sample interval. The core was cut using a water-cooled core saw with a 14-inch diamond blade and a mounted jig to ensure an equal split. The core was cut longitudinally, perpendicular to the foliation with one half placed into plastic sample bags along with part two of the three-part assay tag and sealed. The other half core was returned to the core box. Each sample bag was labelled with the sample number. Information on the third part of the assay tag was entered into the database and the drill log. The core logging and sampling was completed by, or under the supervision of, a Northern Gold geologist. CRMs, blanks and duplicates were inserted into each sample batch. The sealed sample bags were placed into rice bags and transported to the analytical laboratory by Northern Gold personnel.

The core samples from Northern Gold's 2009 drill program and holes GAR-10-11 and part of GAR-10-12 from the 2010 drill program were delivered to Swastika for preparation and analyses. Sample preparation at Swastika included drying, crushing, splitting and pulverizing. The sample was passed through a crusher producing material of approximately minus ½ inch, with further size reduction to minus 10 mesh by a roller mill. A 300 g sample was riffle split from the minus 10 mesh sample and pulverised to >90% minus 200 mesh using a ring and puck pulveriser. Gold was analysed via fire assay with an atomic absorption spectroscopy (AAS) finish. All samples returning over 1 g/t Au were re-assayed using fire assay with a gravimetric finish. Swastika completed re-assays on every 10th pulp to check laboratory precision.

Samples from part of hole GAR-10-12 and drill hole GAR-10-14 from the 2010 drill program were sent to Polymet Resources Inc. (Polymet) of Cobalt, ON. Polymet is independent of the issuer and the authors of this technical report and is certified to ISO 9001:2008. Upon comparison of check samples between Swastika and Polymet it was determined that the Polymet

was under-reporting gold at lower grades. All pulps from Polymet were submitted to Laboratoire Expert of Rouyn-Noranda, QC, and SGS Canada Inc. (SGS) in Toronto and Lakefield, ON, for re-analysis. Following the re-analysis of the Polymet samples, Northern Gold deleted all the Polymet assays from its database.

Northern Gold submitted core samples to Laboratoire Expert from 2010 to 2012. At Laboratoire Expert the samples were dried and crushed to 90% passing through a minus 10 mesh. A 300 g sample was split using a Jones riffle splitter. The sample was then pulverized and analysed using fire assay with an AAS finish. All samples returning greater than 1 g/t Au were re-assayed using fire assay with a gravimetric finish. In July 2010, Northern Gold implemented the screen metallics lead fire assay analysis for sample intervals with visible gold. For this procedure, the entire sample was dried, crushed and pulverized, and screened by hand on a 100 mesh screen. The minus 100 mesh portion was homogenized and lead fire assayed in triplicate using a gravimetric finish. The total plus 100 mesh portion was lead fire assayed using a gravimetric finish. The assay results were combined using a weighted average calculation to determine an assay value for the entire sample. Check assays were completed on approximately 5% of the samples submitted to Laboratoire Expert. The check samples were sent to SGS and were analysed using fire assay procedures.

Northern Gold submitted core samples to SGS from 2010 to 2013. SGS Toronto was and SGS Lakefield is ISO/IEC 17025 accredited and are independent of the issuer and the authors of this technical report. At SGS, the samples were dried, crushed, split and pulverized. The sample was then passed through a primary oscillating jaw crusher producing material of 75% passing a 2 mm screen. A 250 g sub-sample was split from the crushed material using a stainless-steel riffle splitter.

The split fraction was ground to 85% passing 75 µm or better using a ring pulveriser. The samples were analysed using fire assay with an inductively coupled plasma (ICP-MS) finish. All samples assaying greater than 3.0 g/t Au were re-assayed using a gravimetric finish. The screen metallics lead fire assay analysis was implemented for all sample intervals with visible gold. In 2010 and 2011, all Garrcon sample pulps were analysed using SGS BLE653 cyanide leach procedure with a geochemical finish using a 30 g sample. In 2012, SGS BLE653 analysis was completed on a selective basis, on samples assaying greater than 100 ppb Au, up to the final hole GAR-12-270.

Northern Gold utilized Accurassay Laboratories (Accurassay) of Thunder Bay, ON, as its primary laboratory in 2013. Accurassay is an accredited (CAN P-4E – ISO/IEC 17025 and CAN-P-1579) laboratory and is independent of the issuer and the authors of this technical report. At Accurassay, the core samples were dried, crushed, split and pulverized. After drying, the <5 kg sample was passed through a primary oscillating jaw crusher producing material of 90% passing a 2 mm screen. A 1,000 g subsample was split from the crushed material and then ground to 90% passing 106 µm or better using a ring pulveriser. The samples were analysed using fire assay with an AAS finish. All samples returning greater than 3.0 g/t Au were re-assayed using a gravimetric finish. The screen metallics lead fire assay analysis was implemented for all sample intervals with visible gold. Multi-element analysis for 33 elements was completed on selected sample pulps using aqua regia digestion followed by ICP-AES (McGarry et al., 2014).

11.1.2.3 2014 Northern Gold Garrcon Bulk Sampling Sample Preparation and Analysis

In 2014, a total of 280 blastholes were drilled on a 5x5 m grid at the Garrcon Zone. Assay analyses were completed at Swastika. The assay method used was a standard 30 g fire assay with laser ablation finish. High-grade results were not re-assayed using gravimetric or screen metallics methods. Swastika was responsible for assaying all sample types generated during the bulk sample project including definition drill samples, blast hole samples, crusher samples and mill head comparison samples.

The sampling procedure included the insertion of blank and standard samples by Swastika on behalf of Norther Gold, as well as the use of check assaying and field duplicate sampling conducted by Norther Gold. Sample collection, assaying and QA/QC sample insertion in the blast hole definition project are described in the report by Matheson (2016).

11.1.2.4 2015-2018 Osisko Drilling Sample Preparation and Analysis

Drilling and sampling by Osisko from 2015 through 2018 are described in a technical report by Hennessey (2019) and summarized in the following text.

The diamond core was logged by an experienced contract geologist prior to selecting samples for analyses. The sample intervals ranged in size from 50 cm to 1 m in length, measured to the nearest 10 cm increment. Three of four sample tags were placed at the end of the sample interval. One tag was kept in the sample tag book. The core was cut using a water-cooled core saw with a 14-inch diamond blade with a mounted jig to ensure equal splits. The core was sawed in half longitudinally, perpendicular to the foliation, with one half placed into the plastic sample bags along with part two of the four-part assay tag and sealed. The other half of the core was returned to the core box and the two remaining sample tags were stapled to the box at the end of the sample interval. The samples were placed into a clearly labelled rice bag and picked up each week by SGS personnel.

Osisko used SGS of Cochrane and Lakefield, ON, as its primary sample preparation and analytical laboratory. SGS is independent of Osisko, the issuer and the authors of this technical report. The laboratory is accredited (number 841) by the Standards Council of Canada to both ISO 17025 and ISO 9001 standards.

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

Primary core samples and preparation samples were prepared and assayed using lead fire assay with ICP-AES finish on a 30 g nominal sample (SGS Code GE FAI323) with a detection limit of 0.005 g/t. The screen metallics lead fire assay analysis procedure (SGS Code FAS35V) was implemented for all primary core sample intervals where visible gold or metallic minerals identified as visible gold were observed. Samples displaying gold initial fire assay values greater than 3 g/t were also analyzed using the screen metallics lead fire assay method. For the screen metallic analysis the entire sample is dried, if necessary, then crushed and pulverized. The pulverized material is screened by hand on a 150 mesh screen. The minus 150 mesh portion is homogenized and lead fire assayed in triplicate (three individual 30 g charges) using a gravimetric finish. The total screen plus 150 mesh portion is lead fire assayed using a gravimetric finish. All assay results are combined using a weighted average calculation to determine an assay value for the entire sample.

All sample pulps were assayed for multi-elements using the SGS ICP40B analytical procedure. The ICP40B procedure uses four-acid digestion followed by inductively coupled plasma optical emission spectroscopy (ICP-OES) and reports results for 32 elements at a variety of concentration limits.

SGS has its own internal QA/QC protocols including standards, blanks, and duplicates. Following verification from Osisko that the SGS results were acceptable, SGS packaged all remaining unused pulps and shipped them back to Osisko at the Garrison property to be catalogued and placed in long-term dry and secure storage.

As a secondary laboratory, Osisko used Bureau Veritas Commodities Canada Ltd. (BV) in Timmins, ON. BV is independent of Osisko, the issuer and the authors of this technical report. The laboratory is registered under the corporate ISO 9001 registration. The Timmins laboratory is in the process of seeking ISO 17025 accreditation for fire assay procedures and is listed on the Vancouver laboratory's ISO 17025 scope of accreditation (number 720) as a qualified sample preparation facility.

Off-site sample preparation and analytical procedures at Timmins follow those of Vancouver and are monitored regularly for QA/QC practices. The management systems of all BV sites are registered with the ISO 9001 Model for Quality Assurance and compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories.

Core samples received at BV were prepared using its sample preparation package PRP70. Each sample was crushed to 75% passing 2 mm and a 250 g split was pulverized to better than 85% passing 75 µm mesh.

Core samples were assayed using lead fire assay with an AAS finish on a 30 g nominal sample (BV Code FA430) with a detection limit of 0.005 g/t. The screen metallics lead fire assay analysis procedure (BV Code FS633) was implemented for all primary core sample intervals where visible gold or metallic minerals identified as visible gold were observed. Samples displaying initial gold fire assay values greater than 3 g/t were also analyzed using the screen metallicas lead fire assay method.

Osisko's QA/QC program included the insertion of one CRM and one blank at a rate of 1 in every 18 drill core samples. Additionally, Osisko designated one in 20 samples as a duplicate where the laboratory created a second 250 g split of the reject (-2 mm materials) and that was assigned the next consecutive sample number. Gold check assays on pulps were completed at BV.

11.1.3 2020 to 2021 Moneta Drilling Sample Preparation and Analyses

In 2020 and 2021 Moneta completed oriented drill programs on the Golden Highway and Garrison Properties, respectively. The sample Preparation, Processing and analysis used during both 2020 and 2021 programs was the same for drill core samples collected from both Properties. The procedures are described below.

Drill core was collected by Moneta technicians from the drill sites or the drill and transported to Moneta's core logging and storage facilities everyday. A Moneta geologist logged and photographed the core.

For the 2020 and 2021 drill programs, mineralized sections of drill core considered significant were marked and tagged to be split using a diamond saw with continuous fresh water flushing. One half of the core was retained as a reference sample while the other was bagged and shipped for assay as directed by the project geologist and qualified person. Sample intervals and corresponding sample numbers were entered into the standardized core log sheets by computer. Sample lengths were determined by the geologist logging the core with samples ranging from 0.30 to 1.50 m in length. Typical sample lengths were 0.50 to 1.00 m. The samples selected for assay were batched, with standards and blanks included, to be shipped to appropriate laboratories by bonded commercial carrier from secure lockups.

The same core processing and sampling protocols were followed with a minimum sampling interval of 0.30 m and a maximum interval of 1.50 m, collected from the same right-hand side of the oriented and marked-up core. In most cases, a 1.00 m sample was used unless geological contacts meant that a shorter sample length was required.

Standards (CRMs) and blanks were inserted sequentially into the drill sample batches at a frequency of ~1 in 25 (4%) by the logging geologists. A total of 3 standards per batch of 72 samples were inserted for Golden Highway holes and 2 standards per sub-batch of 36 samples were inserted for Garrcon holes. The standards cover three grade ranges: near cut-off (~0.3 g/t Au), average grade of "mineralization" in the area (~0.9 g/t Au) and higher grade (3 to 5 g/t Au). Standard aliquot sizes of 50 g were ordered for one fire assay charge. Blanks were inserted at a frequency of 2 per batch of 72 samples for Golden Highway holes and 1 per sub-batch of 36 samples for Garrcon holes. Where possible, blanks were inserted immediately after high-grade samples.

Samples were submitted to AGAT Laboratories (AGAT Labs) for analysis. AGAT is independent of the issuer and the authors of this technical report and is certified to the standards of ISO 9001:2015 and ISO/IEC 17025 accredited. AGAT Labs personnel transported Golden Highway samples from Moneta's Timmins core facility to AGAT Labs in Timmins, ON.

The 2020-2021 drill core samples were weighed, dried, and crushed to 85% passing ~2 mm (~10 mesh), a 1 kg split then pulverised to 90% passing 75 µm (~200 mesh). A 250 g split of homogenized pulp from the 1 kg prepared pulp was prepared. The 250 g pulp samples were shipped to the Mississauga AGAT Labs facility. Pulp samples of 750 g were stored at the AGAT Labs in Timmins for 90 days. The sample was homogenized and a 50 g charge was analyzed by fire assay with an AAS finish. All samples that returned assays over 10 g/t Au were analysed using fire assay with a gravimetric finish on a 50 g charge. This was the final assay result for the overlimit samples.

Screen metallics screen fire assays were conducted on samples that were identified by the logging geologist as containing abundant coarse gold or being potentially high grade. The screen metallic fire assay was performed on the 1 kg prepared pulp with total analysis of the plus 100 mesh fraction and duplicate (2x) 50 g fire assays with an AAS finish on the minus 100 mesh fraction.

Samples with identified coarse visible gold or high grade were flagged for the laboratory with "VG" written on the sample tag and a clean quartz flush was completed after preparation of this sample so as not to contaminate the following sample.

Multi-element ICP analysis was conducted across mineralized vein zones and alteration haloes and into wall rock on a regular basis. This involved an ICP-OES analysis of the same prepared pulp at the primary laboratory using a four-acid digestion. This was monitored to determine if pathfinder or deleterious elements exist.

Moneta requested the laboratory to produce a second sample repeat from the sample prepared pulp twice per batch of 72 samples for Golden Highway holes and 1 per sub-batch of 36 samples for Garrcon holes. This pulp was assayed in the same manner as the original samples. An empty sample bag with sample tag was inserted into the sample stream; recorded as a repeat analysis of the same pulp of the preceding sample.

Upon return of the coarse rejects from the primary laboratory, field duplicate samples were collected from samples that returned a range of assays (low, medium, and high) within all drill and rock channel sample batches at the same frequency as above. The field duplicate samples were sent to the same primary laboratory that performed the initial assay and prepared and assayed in the same manner.

A selection of 5% of prepared sample pulps were sent to an independent third-party laboratory (Activation Laboratories) upon receipt of the returned pulps from the primary laboratory. Activation Laboratories is independent of the issuer and the authors of this technical report. Samples were selected over the grade range of interest. These sample batches contained standards and previously prepared pulps of blanks at the same frequency as the initial analysis. The third-party laboratory collected batches of 72 (including 3 standards and 2 blanks per batch) with no pulp repeats.

11.2 Quality Assurance/Quality Control Data Monitoring

The information in this section details the QA/QC monitoring program for Moneta's 2020 to 2022 drill programs. Refer to George (2008), McGarry (2014), Matheson (2016) and Hennessey et al. (2019; 2021) for a summary of the QA/QC data analyses and results of previous Moneta drill programs. The QP has reviewed and taken responsibility for the information herein.

The assay results for CRMs are plotted upon receipt of the initial assays. Any CRM that falls above or below the mean certified 2x Standard Deviation (2xSD) is recorded as a failure. Discretion is used to determine if it is necessary to re-run a

failed CRM within non-mineralized zones. However, a re-assay is requested if the failure occurs within mineralization. Re-assay requests submitted to the Lab require that the samples halfway between the CRMs before and after the failure are re-analyzed. Moreover, a different CRM type is provided to the Lab in place of the failed CRM. This methodology is repeated until the CRM within the re-assay batch passes. Secondarily, if more than four consecutive assays of the same CRM fall above or below the mean but within 2xSD, this is also considered a failure.

For blanks any reported assay >0.010 g/t Au is considered a failure. Failures are noted and significant failures or continued failures result in batch re-assaying. Blanks that reported assays between 0.005 to 0.010 g/t Au are considered a warning. Blank results <0.005 g/t Au are considered a pass.

If there are no CRM or blank failures, the assays and QA/QC samples are imported into the MX deposit database. If a failure has occurred, the QP may request a re-assay or override the failure.

Routine visits are made to the sample preparation facility to check that samples are being crushed and pulverized to the required size in the correct percentage. The general cleanliness of the facility and the handing of samples is also reviewed.

To determine bulk density the method used is the water immersion method which records the dry weight immediately followed by the weight in water. The results are entered into the database.

The quality control regime outlined above provides effective monitoring of the sampling error, the milling and splitting error and the analytical error. In addition, the laboratory's own internal quality control data (generally repeat pulp assays and standard reference assays) is requested, compiled, and entered into the quality control database. Assay precision and accuracy (bias) can then be quantified regularly, and the laboratory notified immediately of any concerns or fails.

11.3 2020 to 2022 Drill Program QA/QC Results

From October 2020 to February 2022, a total of 51,671 samples were sent to AGAT Labs for analysis, along with 5,859 inserted QA/QC samples. In addition, 2,368 pulp rejects from AGAT Labs were sent to Activation Laboratories for third-party checks (Table 11-1).

Table 11-1: Summary of QA/QC Samples Analysed

QAQC Sample Type	Certified Au Value (ppm)	No. QAQC Samples Analysed
OREAS 216B	6.66	260
OREAS 231	0.542	556
OREAS 237	2.21	657
OREAS 240	5.51	286
OREAS 251	0.504	169
OREAS 279	6.55	170
OREAS 296	2.19	73
OREAS 217	0.338	15
Blank	< 0.0025	1,525
Coarse Reject Duplicate	-	1,176
Pulp Reject Duplicate	-	972
Third-Party Pulp Duplicate	-	2,368

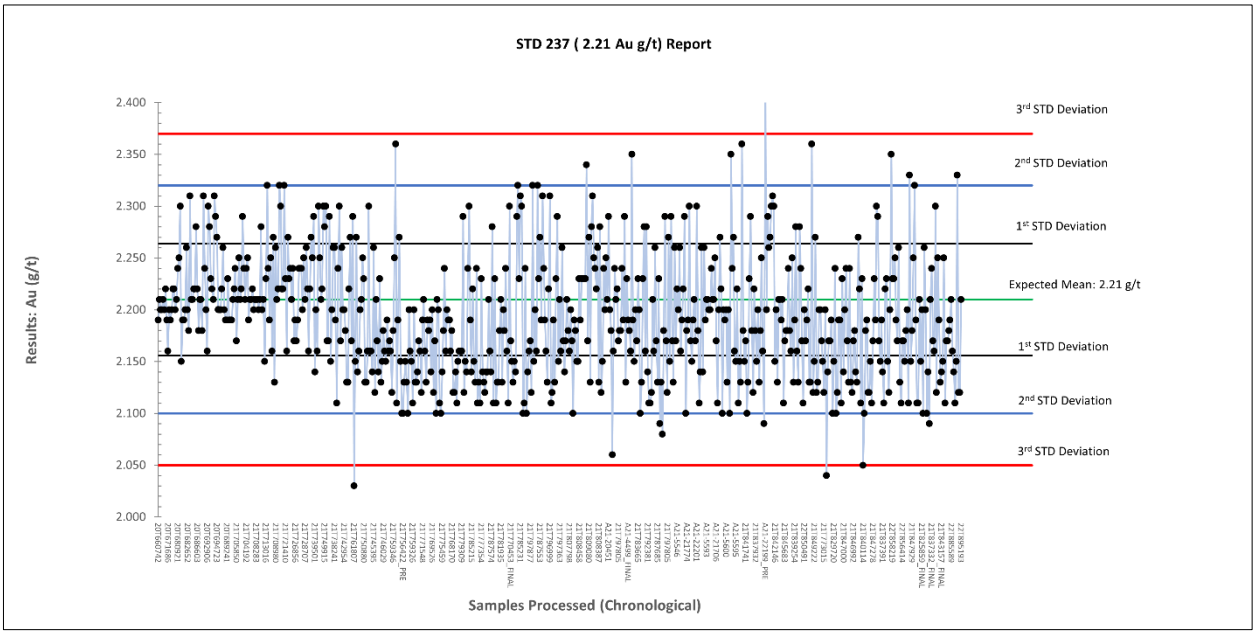
Source: Moneta, 2022.

11.3.1 Standards (Certified Reference Material)

A total of 2,186 (4.23% of total samples) standards were inserted and received by AGAT Labs. Standards used include seven different certified reference materials from OREAS (Table 11-1).

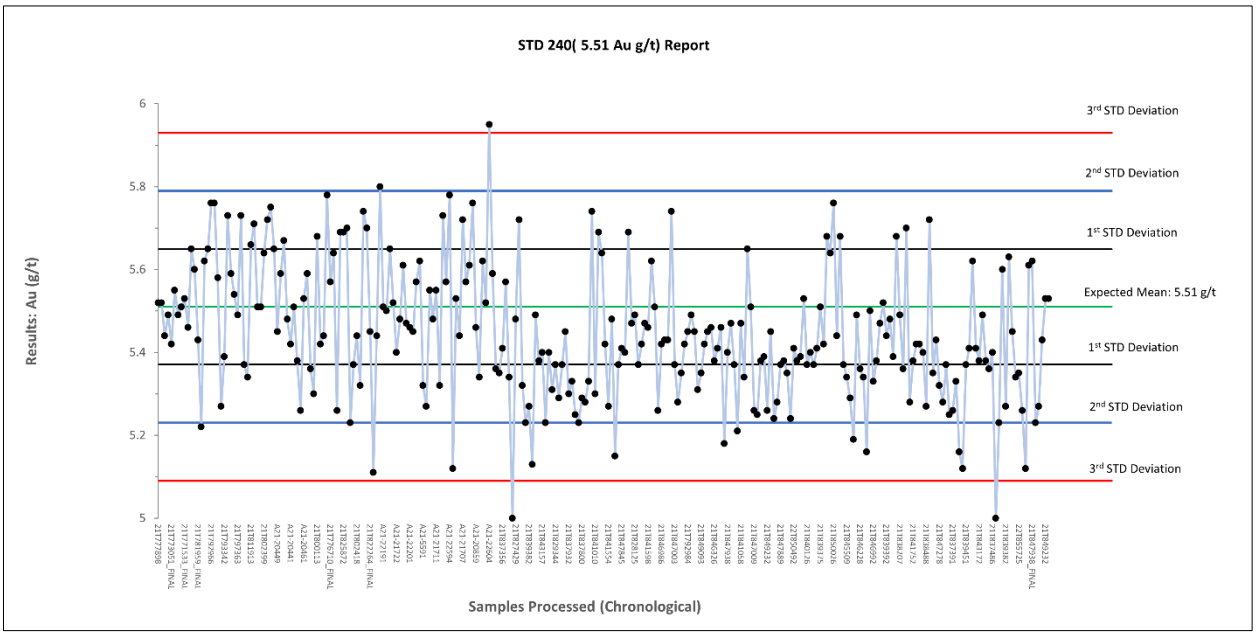
The results of the fire assay analyses for all standards are illustrated in Figure 11-4 to Figure 11-11. Any failures within a mineralized zone triggered a re-assay request to verify the results. After re-assay, 14 standards did not pass (0.64%); however, these CRMs were outside of mineralization and not material to the resource assessment. In the opinion of the QP, Mr. Dufresne, these results are considered acceptable and there are no significant issues to report regarding the 2020-2021 Moneta CRM analyses.

Figure 11-4: CRM Control Chart – OREAS 237



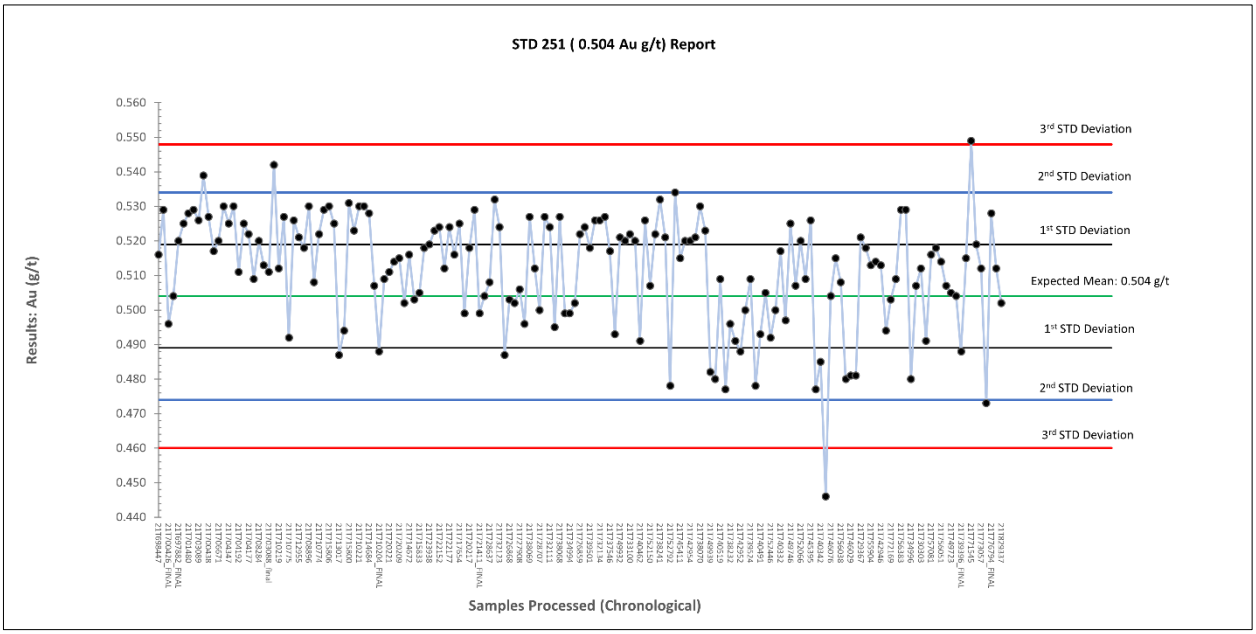
Source: Moneta, 2022.

Figure 11-5: CRM Control Chart – OREAS 240



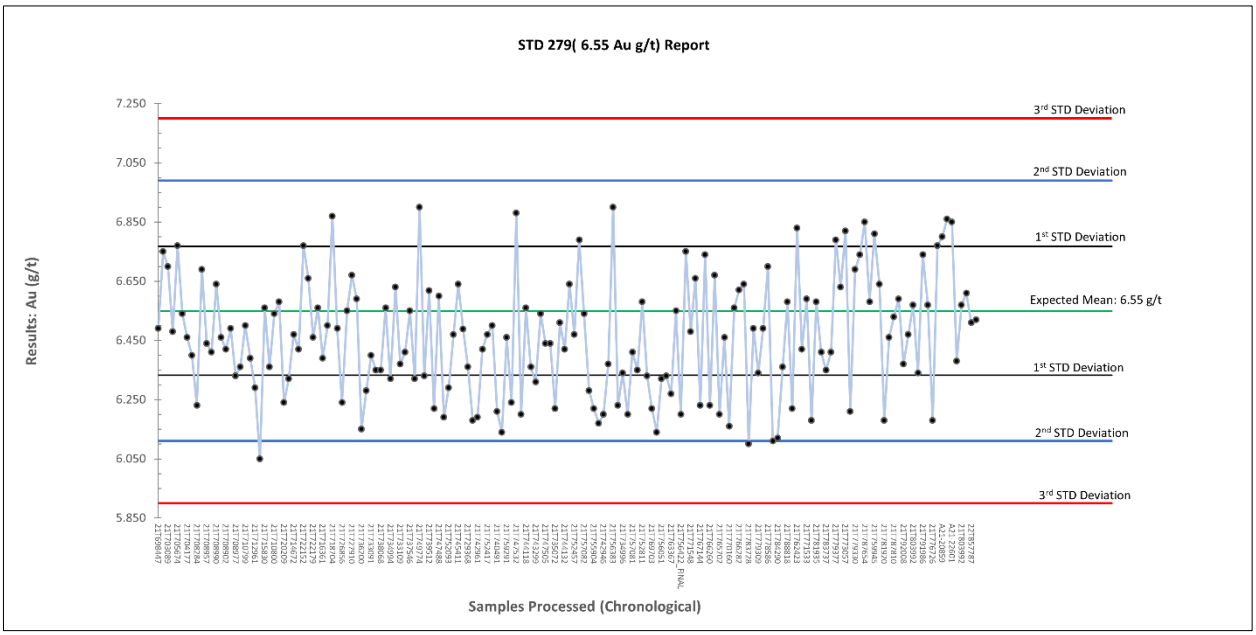
Source: Moneta, 2022.

Figure 11-6: CRM Control Chart – OREAS 251



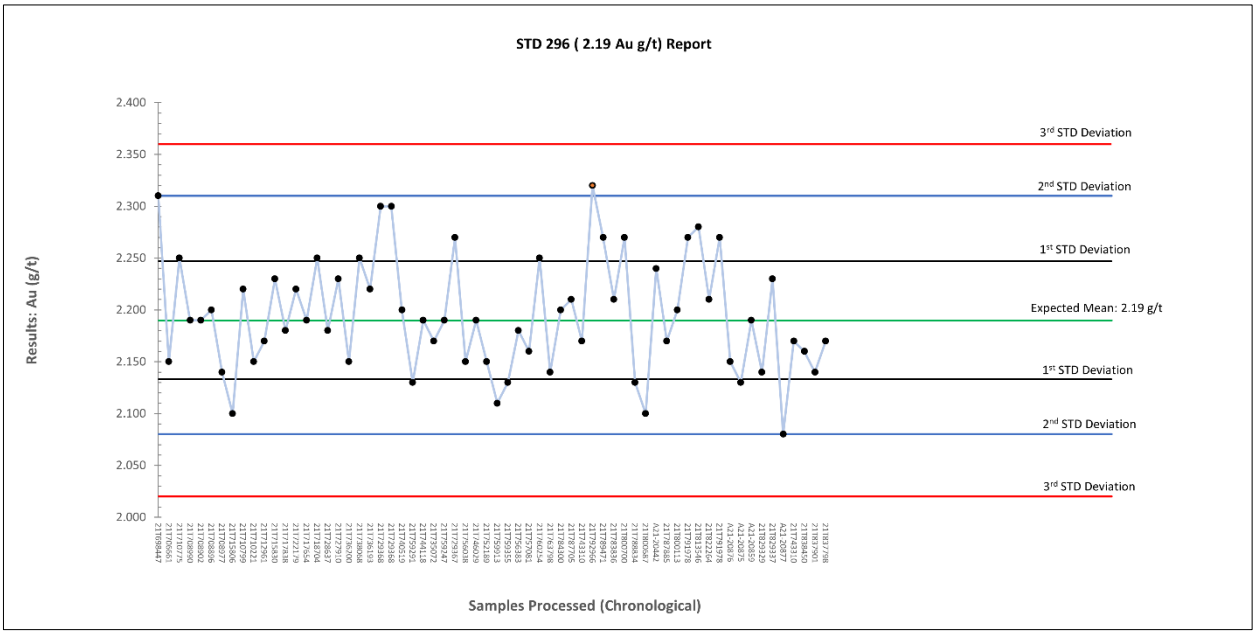
Source: Moneta, 2022.

Figure 11-7: CRM Control Chart – OREAS 279



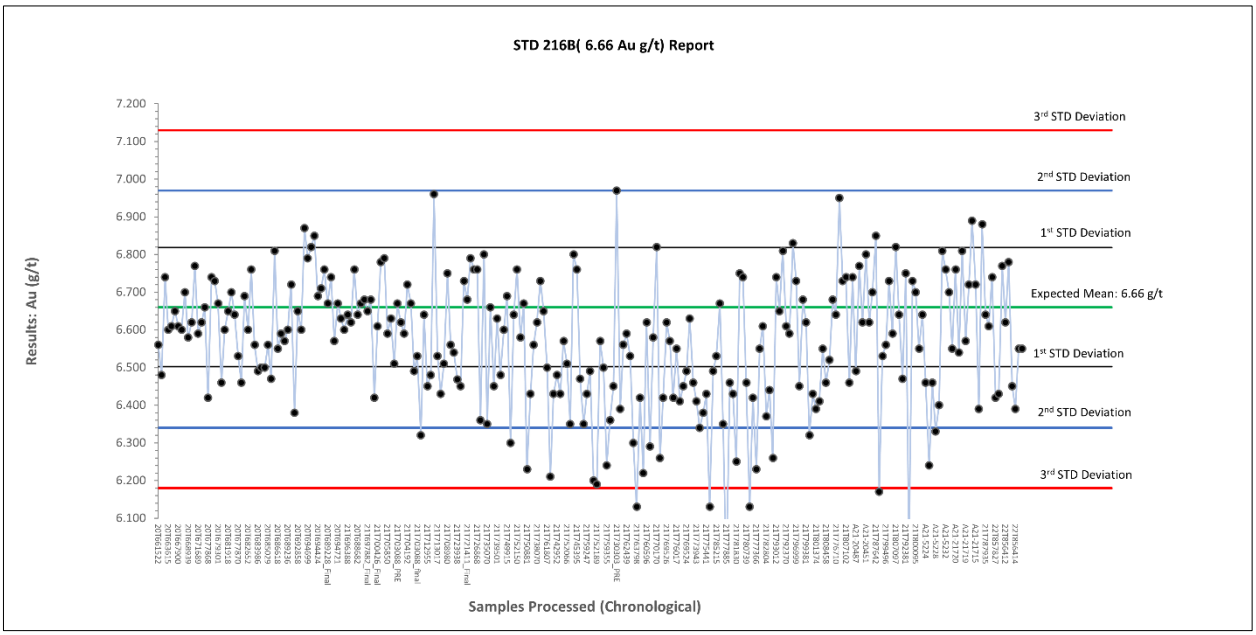
Source: Moneta, 2022.

Figure 11-8: CRM Control Chart – OREAS 296



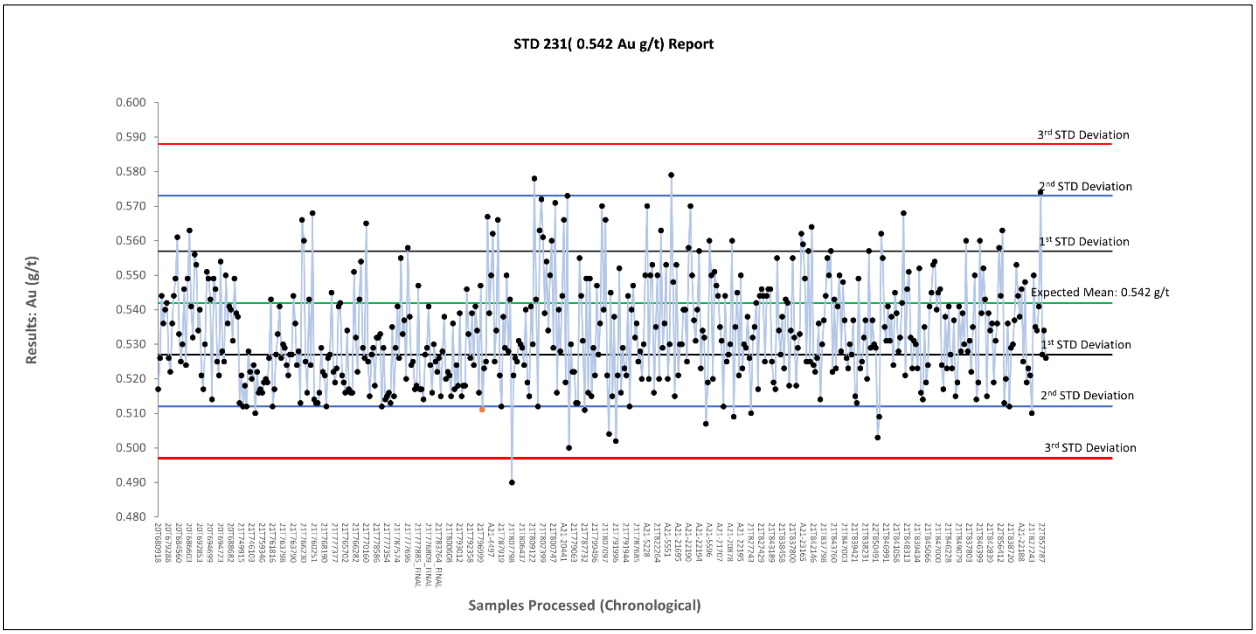
Source: Moneta, 2022.

Figure 11-9: CRM Control Chart – OREAS 216B



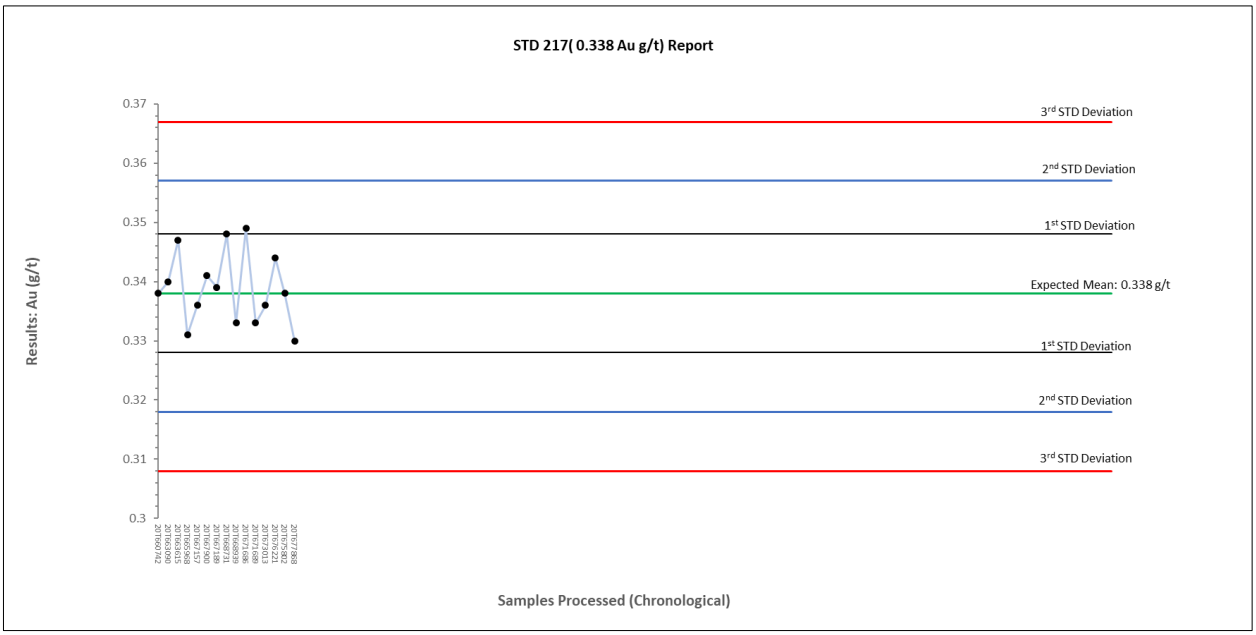
Source: Moneta, 2022.

Figure 11-10: CRM Control Chart – OREAS 231



Source: Moneta, 2022.

Figure 11-11: CRM Control Chart – OREAS 217



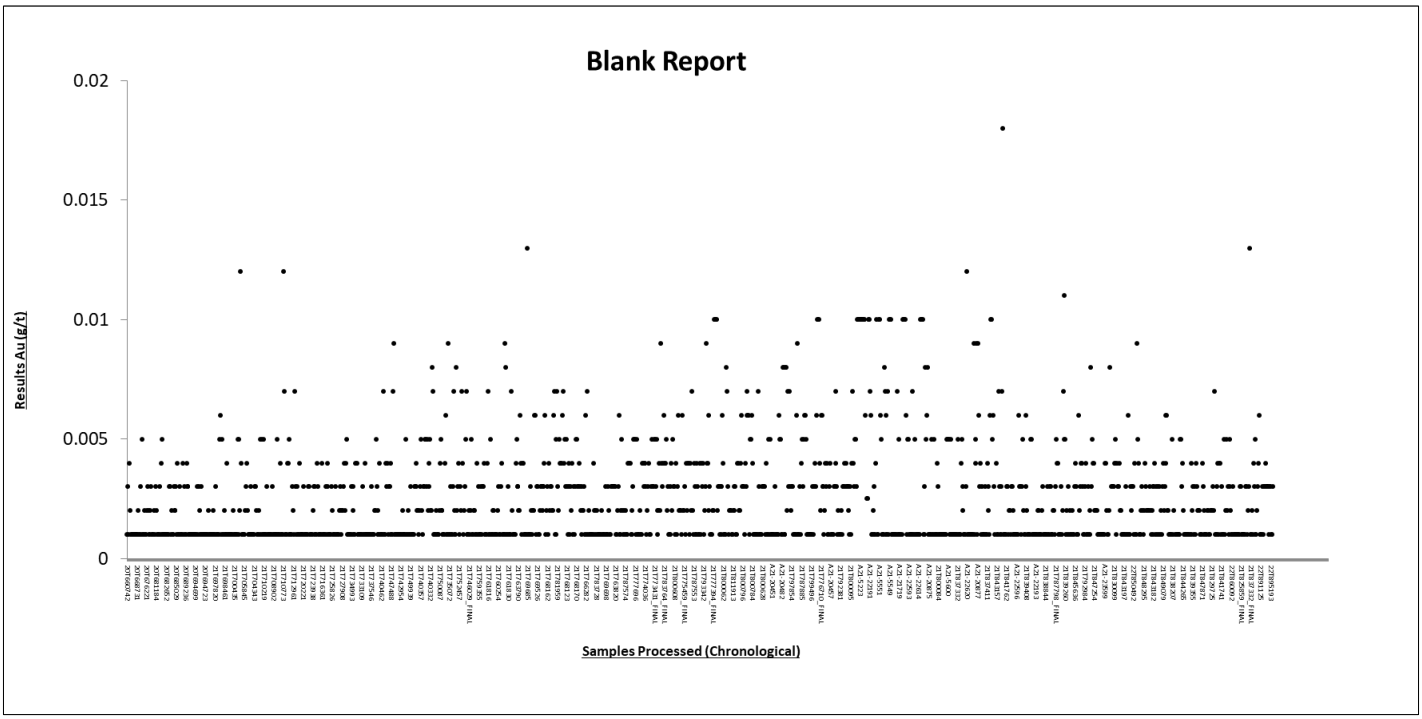
Source: Moneta, 2022.

11.3.2 Blank Material

A total of 1,525 (2.95% of total samples) standard pulp blanks were inserted and received by AGAT Labs.

The results of the fire assay analyses for all blank material are illustrated in Figure 11-12. Any failures within mineralization triggered a re-assay request to verify the results. After re-assay, 8 blanks did not pass (0.52%); however, they are outside of mineralization and not material to the resource assessment. In the opinion of the QP, Mr. Dufresne, these results are considered acceptable and there are no significant issues to report regarding the 2021 Moneta standard reference blank material analyses.

Figure 11-12: Blank Material Control Chart



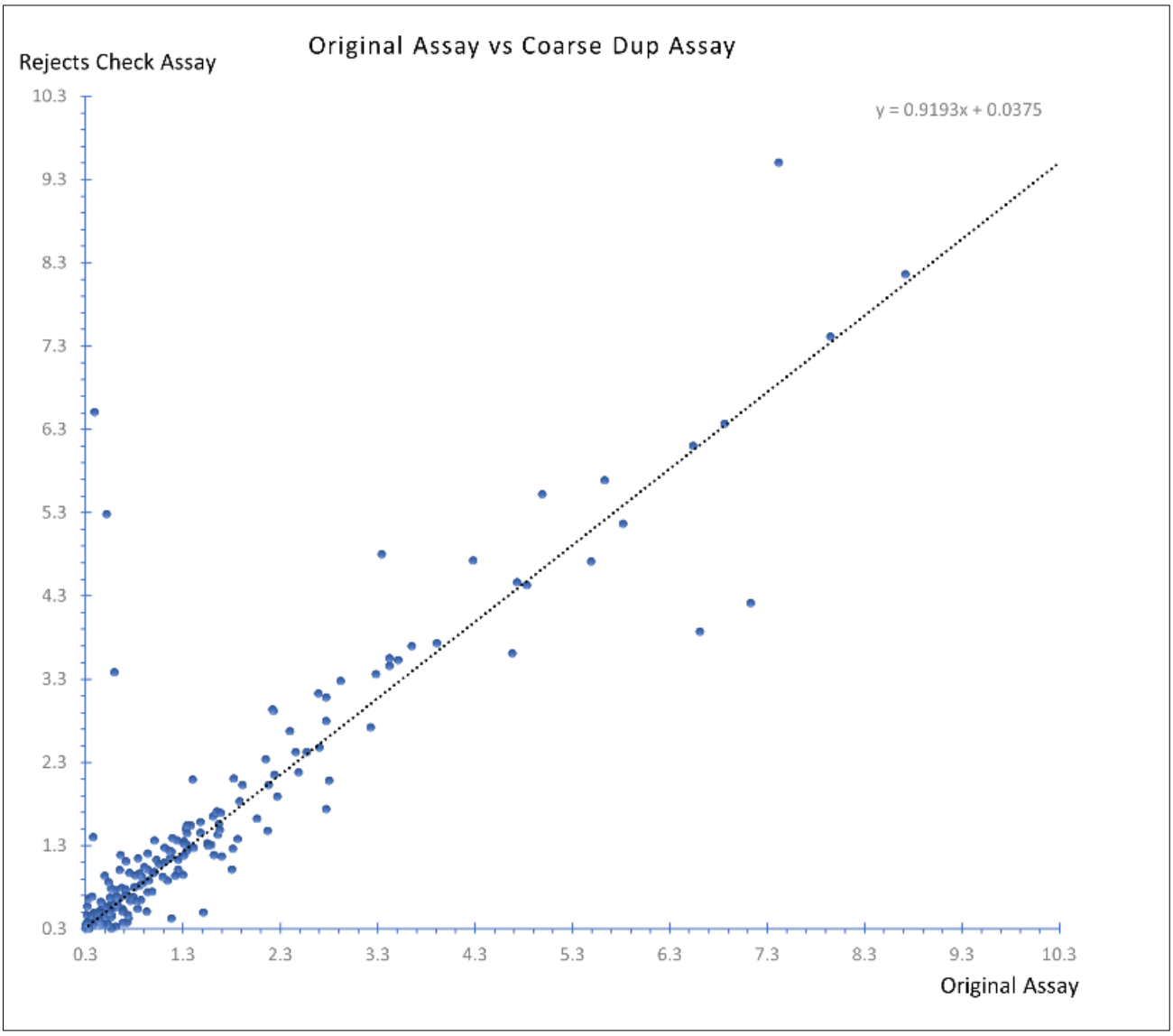
Source: Moneta, 2022.

11.3.3 Coarse Reject Duplicates

A total of 1,176 (2.28% of total samples) coarse reject duplicate samples were submitted to and received by AGAT Labs.

The results of the fire assay analyses for the reject duplicates are illustrated in Figure 11-13. In the opinion of the QP Mr. Dufresne these results are considered acceptable and there are no significant issues to report regarding the 2020-2021 Moneta reject duplicate analyses.

Figure 11-13: Cross-Plot of Coarse Reject Duplicates



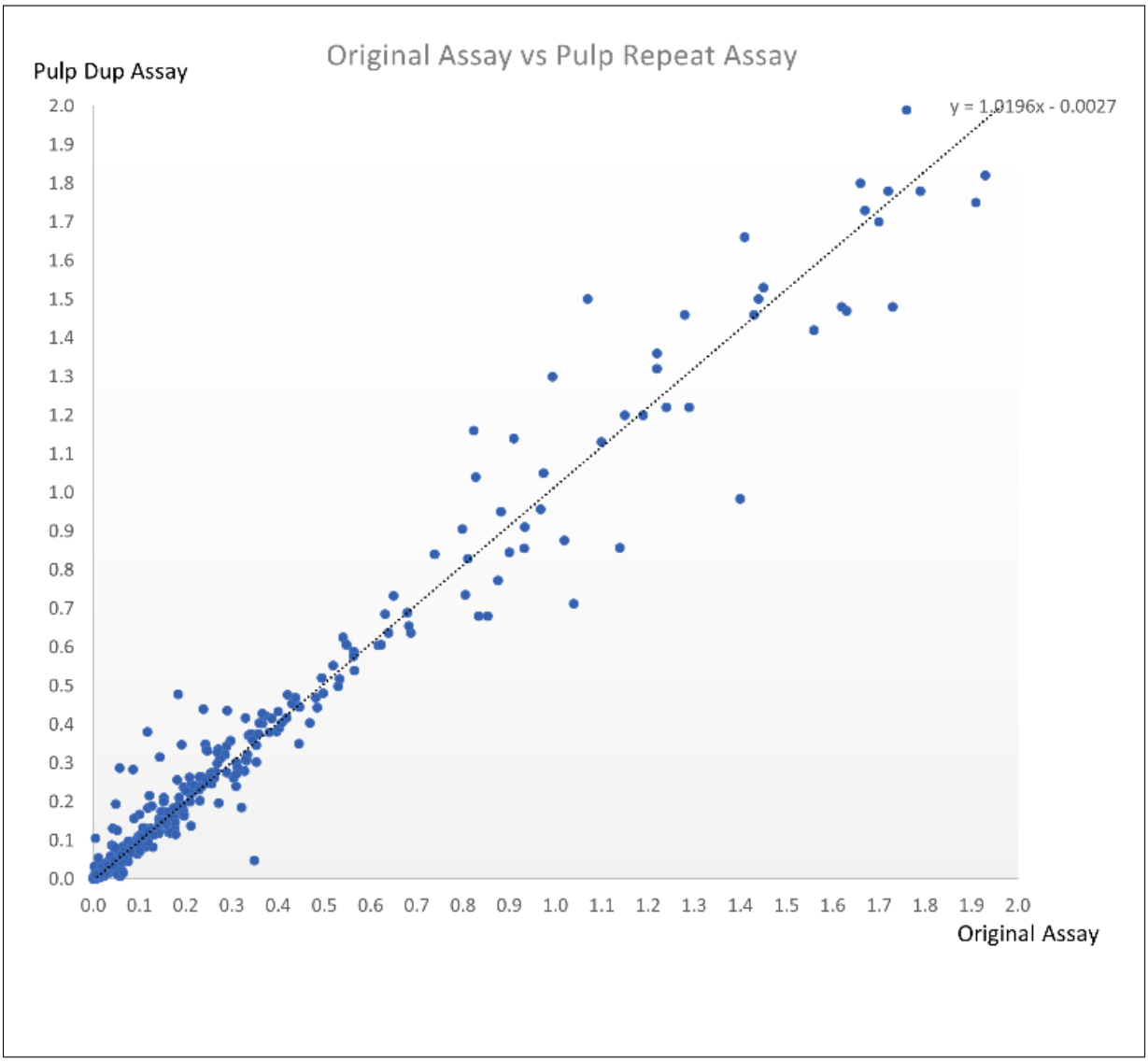
Source: Moneta, 2022.

11.3.4 Pulp Reject Duplicates

A total of 972 (1.88% of total samples) pulp reject duplicates were analysed AGAT Labs.

The results of the fire assay analyses for all pulp reject duplicates are illustrated in Figure 11-14. In the opinion of the QP, Mr. Dufresne, these results are considered acceptable and there are no significant issues to report regarding the 2020-2021 Moneta pulp reject duplicate analyses.

Figure 11-14: Cross-Plot of Pulp Reject Duplicates



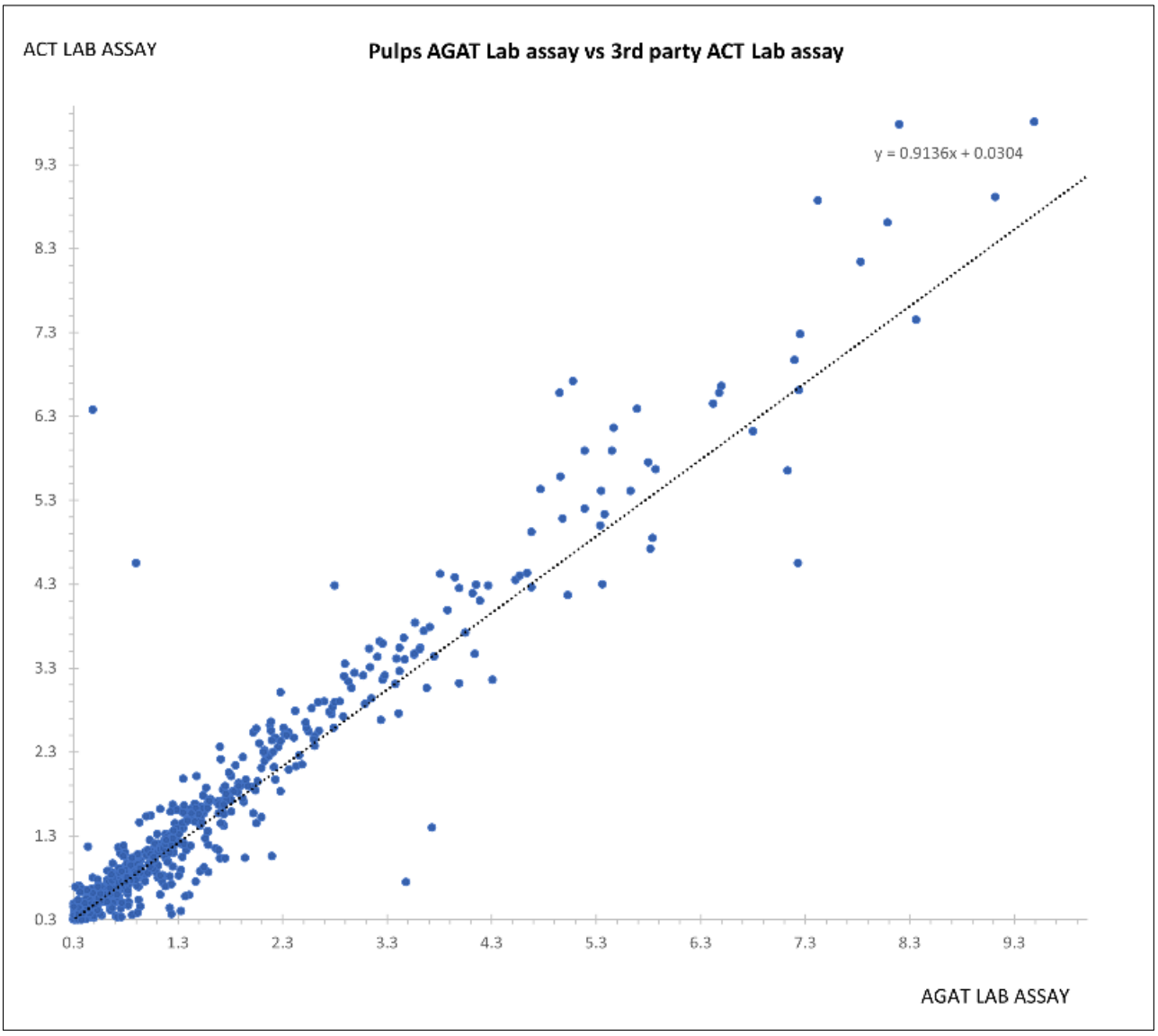
Source: Moneta, 2022.

11.3.5 Third Party Pulp Duplicates (Umpire Checks)

A total of 2,368 (4.58% of total samples) pulp duplicates were collected, and sent to a third-party laboratory, Activation Laboratories, for analysis.

The results of the fire assay analyses for all third-party pulp duplicates (umpire checks) are illustrated in Figure 11-15. In the opinion of the QP, Mr. Dufresne, these results are considered acceptable and there are no significant issues to report regarding the 2020-2021 Moneta pulp duplicate (umpire check) analyses.

Figure 11-15: Cross-Plot of Third-Party Pulp Duplicates



Source: Moneta, 2022.

11.4 Adequacy of Sample Collection, Preparation, Security and Analytical Procedures

Based upon a review of Moneta and other company's 1986 to 2021 sample collection, sample preparation, security, analytical procedures, and QA/QC procedures used at the Tower Gold Project, it is the opinion of the author and QP that they are appropriate for the type of mineralization that is being evaluated and the stage of the project. The QA/QC measures, including the insertion rates and performance of blanks, standards, and duplicates, particularly since 2000, which represents the vast majority of the drilling, indicate the observed failure rates are within expected ranges and no significant assay biases were apparent. Based upon the evaluation of the drilling, sampling and QA/QC programs completed by Moneta and

reviewed by APEX personnel, it is Mr. Dufresne's opinion that the Tower Gold Project's drill and assay data are appropriate for use in the resource modelling and estimation work discussed in Section 14.

12 DATA VERIFICATION

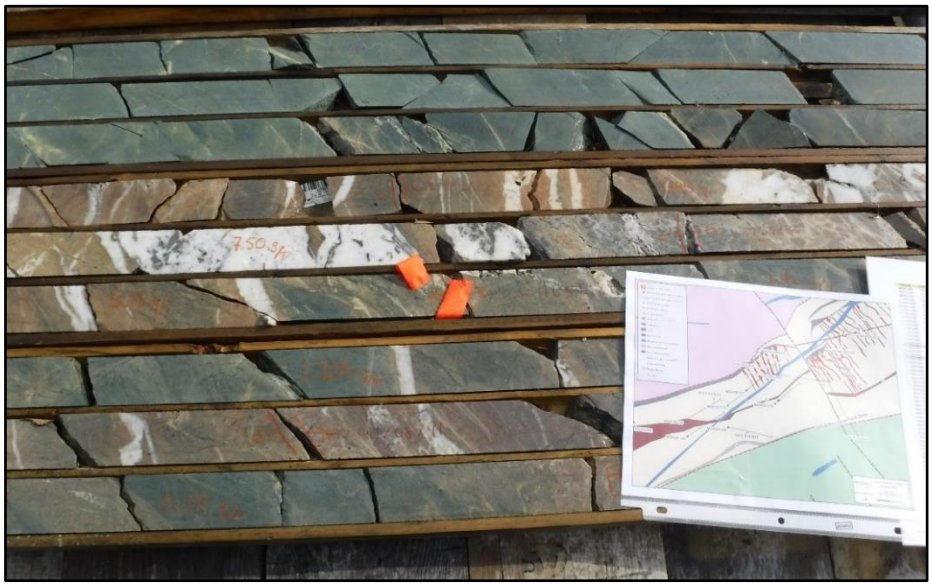
12.1 Site Visit

The co-author of this technical report, Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo., a QP and principal of APEX, conducted a site inspection of the property on June 21, 2022. The objectives of the site visit included the following:

- verification of the geology of the property
- verification of selected Moneta drill hole collar locations
- observation and sampling of potential mineralization in outcrop
- examination of drill core and observation of mineralized intercepts
- collection of three verification rock grab samples.

During the site visit, Mr. Dufresne reviewed Moneta drill core and drill logs from recent drill programs completed at the Golden Highway and Garrison properties. The lithology, mineralization and structural orientations observed in the drill core were consistent with the original drill logs. Figure 12-1 shows drill core from drill hole MGH17-051 completed in 2017 at the Southwest property

Figure 12-1: Core from Drill Hole MGH17-051 Drilled in 2017 at the Southwest Property showing Quartz-Carbonate Veining and Sericite-Chlorite-Ankerite Alternation



Source: Apex, 2022.

Mr. Dufresne reviewed drill core from across the project area from a variety of drilling campaigns and from each zone of gold mineralization including drillholes MA08-49, MSW10-162G, WJ12-70, MGH13-077, MGH13-089, MGH17-051, MGH18-108, MGH19-116, MGH19-126, MGH20-150 and MGH21-242 from the Golden Highway property area and OSK-G16-300, OSK-G16-306, OSK-G17-326, OSK-G17-380, OSK-G17-381 and OSK-G17-390 from the Garrison property area.

During his visit to the Tower Gold property, Mr. Dufresne located 12 drill hole collars and recorded the coordinates using a handheld GPS in the field. These coordinates were compared against the original collar coordinates in Moneta's database to validate the drill hole locations on the property. In general, and appreciating the limited precision of a handheld GPS, the comparison of selected field-verified drill collars with database values did not yield any significant discrepancies with a maximum variance of 5 m. Table 12-1 shows a comparison of drill collar coordinates.

Table 12-1: Drill Collar Coordinate Comparison

Waypoint	East_GPS	North_GPS	Elev_m	ID	Zone	DB East	DB North	DB Elev	X_diff_m	Y_diff_m	Z_diff_m
478	572182	5370740	331	MGH13-045	WJ Central	572182.6	5370739	330.7	-0.6	1.0	0.3
479	572164	5370651	331	MGH13-052	WJ Central	572167.3	5370648	330.0	-3.3	2.9	1.0
480	572244	5370647	339	MGH22-314	WJ Central						
481	572189	5370627	335	MGH21-237	WJ Central	572193.8	5370622	330.0	-4.8	5.5	5.0
482	572237	5370606	336	MGH13-050	WJ Central	572241.1	5370610	330.9	-4.1	-4.2	5.1
483	572352	5370144	333	MGH13-060	WJ South	572354.9	5370142	331.7	-2.9	2.2	1.3
484	572385	5370165	340	MGH21-236	WJ South	572388.6	5370165	332.9	-3.6	0.4	7.1
485	572379	5370213	335	MGH13-055	WJ South	572380.2	5370212	332.5	-1.2	1.1	2.5
486	572365	5370245	338	MGH18-108	WJ South	572368.1	5370243	331.3	-3.1	2.3	6.7
487	572343	5370265	339	MWJ08-16	WJ South	572347.6	5370262	331.9	-4.6	3.0	7.1
488	572316	5370243	338	MGH21-227	WJ South	572318.4	5370241	331.2	-2.4	2.2	6.8
489	572199	5370363	332	WJ88-21	WJ South	572201.8	5370361	330.8	-2.8	2.5	1.2

Source: Apex, 2022.

Mr. Dufresne collected 3 rock grab samples from quartz-veined rusty sediments inside the Garrcon pit (Figure 12-2). The rock grab verification samples were shipped by Mr. Dufresne to AGAT Laboratories (AGAT) in Mississauga, ON, for preparation and analysis. AGAT is an International Standard ISO/IEC 17025:2005 certified laboratory and is independent of the Moneta and the authors of this technical report. At AGAT, the rock grab samples were crushed and pulverized, and a 50 g aliquot was analysed for gold using fire assay with AAS finish. Multi-element geochemical analysis were completed using four-acid digestion with an ICP-OES finish.

Results for the verification samples collected by Mr. Dufresne confirmed the presence of gold mineralization on the Property (Table 12-2). Based on the review of outcrop exposures and drill core, Mr. Dufresne can verify the geological observations, mineralization, results and conclusions of the most recent exploration work completed at the property by Moneta.

Figure 12-2: Quartz-Veined Rusty Sediments Inside The Garrison Pit

Source: Apex, 2022.

Table 12-2: 2022 Rock Grab Sample Results

Sample	East_GPS	North_GPS	Weight (kg)	Au (ppm)
E5939101	577275	5374229	0.97	2.42
E5939103	578521	5373877	1.17	0.117
E5939104	578523	5373870	1.43	0.598

12.2 Data Verification Procedures

The Tower Gold property has been the site of numerous historical and recent exploration and drilling programs dating back to the late 1980s. A large volume of geological data has been acquired over time. Some of the data and information relating to the geology and mineralization of the property is historical in nature and was collected prior to the adoption of NI 43-101.

Data verification was conducted on historical and Moneta drill hole data, assay results, density data and laboratory certificates. The data verification was completed by APEX personnel under the supervision of Mr. Dufresne.

The original data, including collar coordinates, downhole survey information, geological interval data and assay information, were provided as Microsoft Excel™ files. Laboratory analytical certificates were provided in portable document format (PDF). Data verification procedures included compiling all digital drilling data and importing the data into Micromine to create a drill hole database. A brief and concise check program was completed by comparing data in the compiled Micromine database to original drill (geological) logs, assay certificates and collar coordinates for the various generations of drill programs. Micromine software includes database verification tools that were used to complete the verification of the drill hole data. Checks were conducted to ensure that the original data were adequately digitized and properly imported into the Micromine database. Approximately 10% of drill hole data, including collars, and downhole surveys were checked

against certificates to verify the data in the Micromine database. Assay results were checked at the proportions discussed below.

Following initial review of the database some uncertainties were identified concerning the collar information, analytical results and missing laboratory certificates. As a result, Moneta provided additional information and documentation as requested by APEX to resolve selected issues within the database. The Golden Highway and Garrison data review and verification are discussed in the following sub-sections.

12.2.1 Golden Highway Database

Following the initial review of the Golden Highway database, several errors were flagged, including missing data or errors in the collar information, missing downhole surveys, mismatched sample intervals, errors in the analytical data, and missing laboratory certificates (n=864). Through correspondence with Moneta, a large majority of the errors were resolved and updated in the database. Most of the missing certificates for diamond drilling completed within the resource area were located.

Excluding QA/QC and lost core samples, the Golden Highway database contains 212,985 samples. Of these samples, the analytical data of 3,659 samples (1.7%) were selected for review. During the review, 142 assay certificates containing 841 samples could not be located. Five samples had incorrectly recorded assay certificates numbers. Of the 2,818 samples with available certificates, 2,806 (or 99.6%) of the gold assay results in the database were consistent with the laboratory certificates. The entire Golden Highway database contains 16,269 samples with no certificate number (7.6% of the total samples). The samples with missing certificates are from historical drilling completed prior to 1997 for RC drill holes or drill holes completed outside of the resource area.

12.2.2 Garrison Database

Following the initial review of the Garrison database, several errors were flagged, including missing data or errors in the collar information, missing downhole surveys, mismatched sample intervals, errors in the analytical data, errors in the density data, and missing laboratory certificates (n=710). Through correspondence with Moneta, all the errors related to collar information, downhole surveys and sample intervals were resolved. In addition, most of the laboratory assay certificates (n=463) were located.

The Garrison database contains 265,223 samples. Of these samples, the analytical data of 16,461 samples (6%) were selected for review. During the review, 260 assay certificates containing 1,398 samples could not be located. A total of 47 samples had incorrectly recorded assay certificates numbers. For the 15,063 samples where certificates were available the assay value in the database was cross-checked against the original laboratory certificates. A total of 14,135 (or 93.8%) of the gold values in the database were consistent with the laboratory certificates.

From the inconsistent assay results 432 discrepancies were from the 2013 drilling program. These discrepancies in the database were previously identified by Moose Mountain Technical Services (MMST) following a data verification program completed in 2020 (Raponi et al., 2021) and have not been corrected in the database. Some of these errors were due to a conversion issue stemming from the double conversion of grams per tonne to ounces per tonne and then back to grams per tonne. For most of these discrepancies the error was in the second decimal place and is considered to be not material. Additionally, for some of the samples bulk leach extractable gold results were preferentially included in the database. These inconsistencies are summarized by Raponi et al., (2021):

> *"The analysis results on the original certificates are reported in parts per million or parts per billion. In many cases, Accurassay Laboratories has provided another certificate with results converted from parts per million to ounces*

per ton and reported to the thousandths place. The ounces per ton results appear to have been preferentially imported over the parts per million results into the DATAMINE database and converted again for export into grams per tonne. An assay value below detection limit, such as <0.005 ppm is imported as <0.001 oz/ton and after conversion again, a value below detection limit that would normally be reported as 0.0025 g/t becomes 0.0171 g/ton. Similarly, a value of 0.561 becomes 0.549."

The inclusion and use of the bulk leach extractable results should be replaced with the certified fire assay values wherever they are available. However, the bulk leach extractable gold values are a very minor component of the database and should report slightly lower values than fire assays and therefore, should not materially affect or bias the MRE studies.

Verification data of the specific gravity data for Garrison was completed with a total of 1,552 certificates located and cross-checked against the database. A total of 1,258 (81%) values were found to be consistent with the laboratory certificates.

In the opinion of Mr. Dufresne, these errors are not material to the MRE presented in Section 14; however, to avoid future confusion, the database should be updated to include the certified analytical assay value presented in the original laboratory certificates.

12.3 Validation Limitations

Some laboratory certificates for historical drillholes are missing for both Golden Highway and Garrison.

Minor gold discrepancies due to a conversion issue were observed during the validation process. This error is not material to the resource presented in Section 14; however, to avoid future confusion, the database should be updated to include the certified value of the original analytical results.

Based on the property inspection, verification sampling, and data review, the QP has no reason to doubt the reported geology, exploration results and MRE reported herein.

12.4 Adequacy of Data

Although some of the data pertaining to the property was collected prior to the adoption of NI 43-101, this information appears to meet the technical standards that were employed by the Canadian exploration industry at the time it was collected. The Authors are satisfied, and take responsibility, to include the historical and recent exploration data including drill information as background information for this Technical Report.

The QP has reviewed the adequacy of the exploration information and the property's physical, visual, and geological characteristics. Based on the data review along with the review of the historical drill core, the Author's have no reason to doubt the reported exploration results from historical drilling programs. No significant issues or inconsistencies were discovered that would call into question the validity of the data. In the QP's opinion, the Tower Gold data is adequate and suitable for use in this technical report and the MRE reported herein.

It is the Author's opinion that the data verification methods and steps completed by Moneta and previous operators of the Tower Gold Property were adequate for the purposes of this Technical Report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

The Tower Gold Project combines the properties of the projects previously known as Garrison and Golden Highway. Separate historical metallurgical campaigns have been conducted to quantify metallurgical performance, most recently in 2021.

The testwork programs investigated different processing options to develop a potential flowsheet, including the following:

- head analysis and minerology;
- comminution testing;
- gravity separation testing;
- flotation;
- leach tests,;
- column leach tests; and
- bulk sample processing campaign

13.2 Historical Metallurgical Testing

Historical metallurgical test reports previously completed for other studies on properties applicable to the Tower Gold Project are shown in Table 13-1. The following documents were referenced for testwork data, drill hole data, and Project information to develop the process plant design for the preliminary economic assessment. The origin of the samples was not validated to determine if they are included in resources outlined in this report.

- Technical Report and Resource Estimates on the Windjammer South, Southwest Zone and 55 Zone Golden Highway Project Michaud and Garrison Townships North-Eastern Ontario, Canada, January 13, 2012.
- Technical Report, Updated Mineral Resource Estimate and Preliminary Economic Assessment of The Golden Highway Project Windjammer, Southwest, Gap and 55 Zones Michaud and Garrison Townships North-Eastern Ontario, Canada, December 11, 2012.
- Mineral Resource Estimate for the Golden Highway Project, Michaud and Garrison Townships, Black River - Matheson Area, Northeastern Ontario, February 28, 2019.

- Updated Mineral Resource Estimate and Preliminary Economic Assessment for the Southwest Deposit at the Golden Highway Project Michaud and Garrison Townships, Black River – Matheson Area Northeastern Ontario, October 21, 2020.

- Updated Mineral Resource Estimate and Preliminary Economic Assessment for the Southwest Deposit at the Golden Highway Project, Michaud and Garrison Townships, Black River - Matheson Area, Northeastern Ontario, January 22, 2021.

- NI 43-101 Technical Report and Preliminary Economic Assessment of The Garrison Project, Ontario Canada, January 27, 2021.

Table 13-1: Tower Gold Metallurgical Testing Programs

No.	Document Title	Deposits	Technical Content	Date
1	Barrick Gold Corp.	Southwest	Leach tests	1996
2	Newmont Gold Corp.	Windjammer	Leach tests	2001
3	An Investigation into The Recovery of Gold from the Garrcon Gold Deposit Located on the Garrison Gold Property – SGS Canada Inc.	Garrcon	Comminution, rougher flotation, gravity separation, and cyanidation	31-Jan-11
4	Scoping Level Study on Samples from The Golden Highway Project. Project 50286-001 – Final Report– SGS Canada Inc.	Southwest, Gap, 55, Windjammer (North, Central and South)	Comminution, leach tests	15-Jun-18
5	Preliminary Metallurgical Scoping – Northern Gold – XPS Process Support	Jonpol	Comminution, flotation, gravity separation, cyanidation	5-Sep-13
6	Garrcon Project: Report of Metallurgical Testwork – Kappes, Cassiday & Associates	Garrcon	Column leach tests	22-Aug-14
7	Bulk Sample Report – Garrcon Zone Bulk Sample – G. Matheson, P.Geo.	Garrcon	Bulk sample	1-Apr-16
8	Report on Cyanidation Testing – Garrison Drill Core Composites – McClelland Laboratories, Inc.	Garrcon, 903, Jonpol	Cyanidation	06-Nov-18
9	An Investigation into Scoping Level Study on Samples from the Golden Highway Project; Project 50286-001 – Final Report – SGS Canada Inc.	Southwest, Gap, 55, Windjammer (North, Central and South)	Comminution, cyanidation	15-Jun -18
10	An Investigation into Metallurgical Testwork on Master Composite from the Golden Highway Project; Project 16874-01 – Final Report – SGS Canada Inc.	Gap	Comminution, gravity separation, cyanidation	26-Aug-20

Source: Ausenco, 2022.

13.3 Historical Metallurgical Programs

A summary of the historical metallurgical testing programs carried out on properties applicable to the Tower Gold Project is provided below:

- The 1996 Barrick program included very high-grade samples and is not relevant to the current Project.

- The 2001 Newmont program focused amenability to heap leach processing and is not relevant to the current Project.

- The 2011 program included two Garrcon composite samples. Gold recoveries ranged from 92.7% to 97.9% using gravity concentration followed by leaching of gravity tailings. Samples were ground from 80% passing (k80) 43 µm to 112 µm. The samples assayed 1.06 g/t Au and 1.73 g/t Au. The results were used for Garrcon recovery estimates.

- The 2018 SGS program on samples from six deposits in the Golden Highway property. Sample grades ranged from 0.83 g/t Au to 1.21 g/t Au, typical of open pit mining. Samples were very finely ground with k80 ranging from 18 µm to 42 µm. Recoveries with leaching ranged from 86.8% Au to 96.4% Au. The results were included in recovery estimates but with reduced weighting due to the fine grinds.

- The 2013 program included three samples from the Jonpol deposit. The samples were high-grade ranging from 4.77 g/t Au to 8.49 g/t Au, typical from potential underground mining. Leach recoveries ranged from 56.2% Au (RP Zone) to 94.2% Au. The RP Zone recoveries indicate parts of this zone are refractory to cyanide leaching. These results were included in recovery estimates.

- The 2014 Garrcon column leach test program evaluated potential heap leach processing and the results were not used in recovery estimates.

- In 2015, a bulk sample of Garrcon production was processed through the Holt Mill (fine grinding followed by carbon-in-leach processing) with the results reported in 2016. A total of 75,534 t was processed. Gold recovery ranged from 94.2% to 97.0%, with an average of 95.7% and an average head grade of 1.55 g/t Au. These results were used in recovery estimates.

- The 2018 Garrcon, 903 and Jonpol column leach test program evaluated potential heap leach processing and the results were not used in recovery estimates.

- The 2020 SGS program included one composite sample from the Gap deposit in the Golden Highway property. Gold recoveries ranged from 91.9% to 95.5% using gravity concentration followed by leaching of gravity tailings. Samples were ground to k80 59 µm to 79 µm. The average head assay was 2.27 g/t Au. The results were used for recovery estimates.

13.4 2021 SGS Metallurgical Program

In 2021, a metallurgical testing program was completed at SGS Lakefield on samples from the Westaway (WA) and Discovery (DI) deposits. These deposits were selected to supplement the available body of historical testing on other deposits within the project resource. The program included the following testwork:

- Bond Ball Mill Work Index;

- Gravity concentration; and

- Leach test.

13.4.1 Westway and Discovery Samples

WA samples were selected from intervals taken from five drill holes and are representative of underground mineralization and grades. DI samples were selected from intervals taken from six drill holes and are representative of underground mineralization and grades. The samples were composited into two master composite samples (WA and DI). No deleterious elements are evident from the assays. Analysis for the WA and DI composites are shown in Table 13-2 and Table 13-3.

Table 13-2: Westway and Discovery Master Composite Samples Multi-Element Analyses

Element	Unit	Westaway	Discovery
Au	g/t	5	4.38
S	%	1	1.55
C(t)	%	1	2.55
Ag	g/t	< 2	< 2
Al	`	58,600	68200
As	g/t	< 30	< 30
Ba	g/t	675	111
Be	g/t	1	2.24
Bi	g/t	< 20	< 20
Ca	g/t	25,000	38600
Cd	g/t	< 2	< 2
Co	g/t	19	38
Cr	g/t	87	130
Cu	g/t	28	40
Fe	g/t	29,700	54400
K	g/t	8,340	18100
Li	g/t	< 10	33
Mg	g/t	11,300	40800
Mn	g/t	401	791
Mo	g/t	73	31
Na	g/t	32,900	25500
Ni	g/t	51	148
P	g/t	412	499
Pb	g/t	< 20	< 20
Sb	g/t	< 20	< 20
Se	g/t	< 30	< 30
Sn	g/t	< 20	< 20
Sr	g/t	132	162
Ti	g/t	2,920	2600

Element	Unit	Westaway	Discovery
Tl	g/t	< 30	< 30
U	g/t	< 20	< 20
V	g/t	80	147
Y	g/t	8	7.1
Zn	g/t	56	44

Source: Ausenco, 2022.

13.4.2 Gravity Concentration and Leach Test Results

A series of standard cyanide leach bottle roll tests with and without gravity concentration were completed by SGS Lakefield in 2021 on Golden Highway DI and WA samples. One test per sample was conducted using whole ore leach while leach tests on gravity tailings were conducted at different grind sizes, cyanide concentrations with/without pre-aeration and oxygen in place of air.

All leach tests were 72 hours in leaching duration with solution samples taken periodically as leaching progressed. The results are summarized in Table 13-3. The overall recoveries shown are based on the calculated gravity head grade. The results from this program align with historical results from tests on samples from these deposits.

Table 13-3: Summary of SGS Bottle Roll Leach Test Results

Composite	Grind (k_{80}, µm)	Gravity Recovery (Au %)	NaCN Consumptions (kg/t)	CaO Consumptions (kg/t)	Overall Recovery (Au %)	Calculated Head Grade (g/t Au)
DI	101	7.4	0.39	1.48	86.8	3.93
	78	7.0	0.35	1.31	88.6	3.82
	58	11.3	0.26	1.45	91.0	3.76
	62	-	0.49	1.34	90.5	3.83
WA	140	28.3	0.38	1.4	87.2	4.83
	74	35.4	0.46	1.17	93.6	4.96
	63	45.7	0.38	1.39	94.1	5.12
	70	-	0.52	1.19	92.4	4.79

Source: SGS & Ausenco, 2022.

Key points to consider from this program are as follows:

- The results for the DI 78 µm grind and the WA 74 µm grind are averages from several tests.
- All leach tests were 72 hours in length. Kinetic samples were taken during the leach tests to estimate intermediate recoveries. For most samples, gold extraction reached its maximum between 24 and 48 hours.
- Pre-aeration did not improve recoveries or reduce cyanide consumption for both samples.

- Use of oxygen in place of air reduced cyanide consumption for both samples but did not improve recoveries.
- Whole ore leach provides comparable recoveries to gravity/leach.
- No deleterious elements to bullion quality are present in the composite head assays.

13.5 Comminution Testing

Ball mill grindability tests have been completed using the composite samples from the 2012, 2019 and 2021 testwork programs (formerly Golden Highway) and in 2011 and 2013 (formerly Garrison).

The Bond ball mill work index results are shown in Table 13-4. The results are classified as hard in ball milling.

Table 13-4: Bond Ball Mill Work Index Test Results

Program	Zone	Bond Ball Mill Work Index (kWh/t)
2011	Garrcon (Composite A)	21.9
	Garrcon (Composite B)	21.6
2012	Golden Highway Composite	17.4
2013	JonPol East	16.0
	JonPol JD	16.1
	JonPol RP	16.5
2019	SW	19.7
2021	WA	20.2
	DIS	18.8

Source: Ausenco, 2022.

13.6 Recovery Estimates

The proposed flowsheet selected from the testwork includes standard gravity concentration and cyanide gold processing plant to produce doré. There is no evidence from the metallurgical test results of any deleterious elements that would impair recovery or result in low quality doré. Recoveries were estimated based on the database of available testwork for each major deposit within the resource as extracted from the reports described in Table 13-1.

A solution loss of 0.7% is applied in financial modelling, not considered in the recoveries presented in Table 13-5. This loss occurs due to gold dissolved in the leach circuit that is not recovered to carbon, as well as gold lost to fine carbon that is not caught by the screens. The estimated recoveries excluding solution losses are shown in Table 13-5.

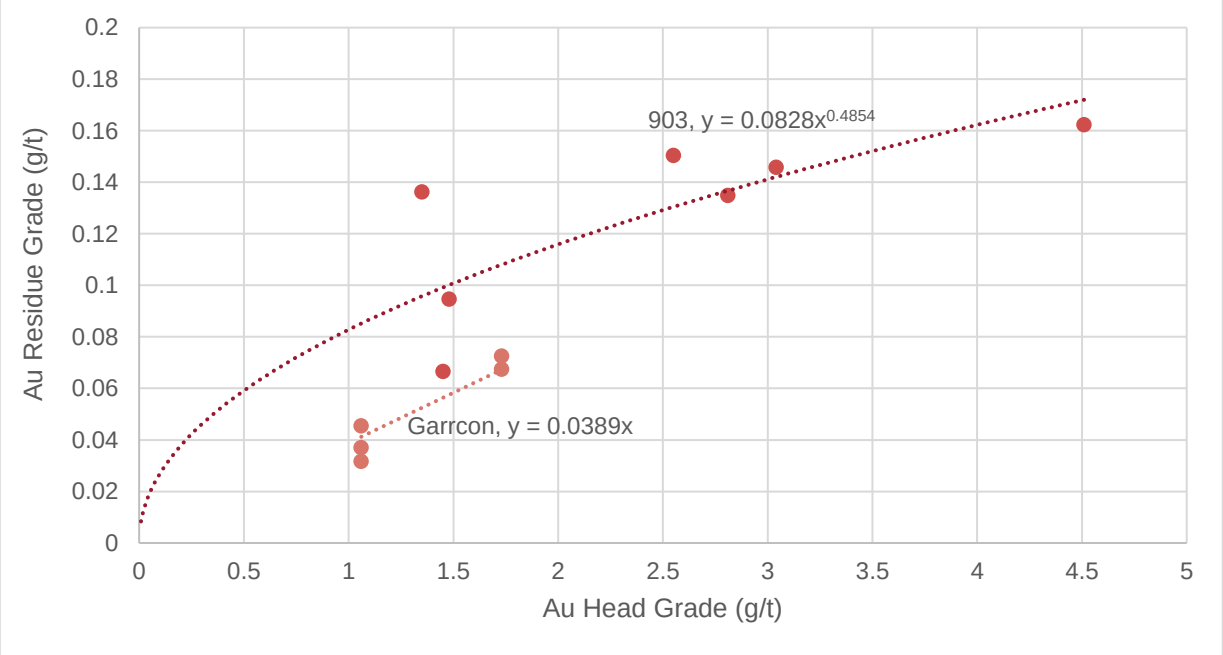
Table 13-5: Tower Gold Project Estimated Gold Recoveries

Property	Estimated Gold Recovery for PEA (excl. losses)
903	99.3% - 0.0828* Au Head g/t)^0.4854/Au Head (g/t)
Garrcon	96.1%
Jonpol Non-Refractory	92.5%
Jonpol Refractory	56.2%
Windjammer South	94.1%
55 and Westaway	92.5%
Southwest	93.4%
Discovery and Windjammer, excl. WJS	91.5%

Source: Ausenco, 2022.

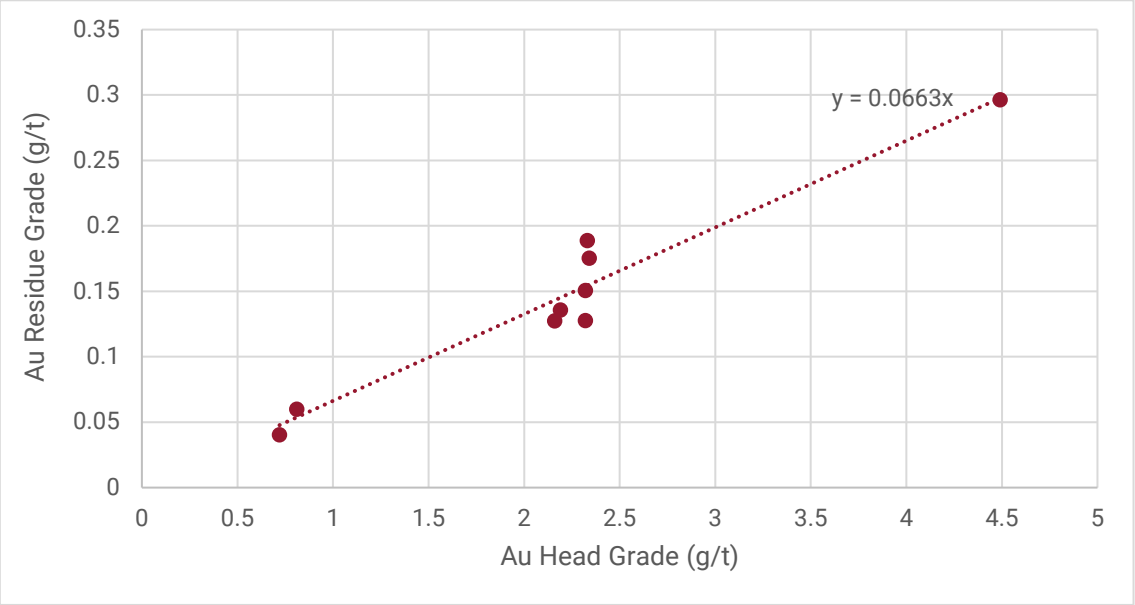
The recovery models were developed as according to the regression models presented in Figure 13-1 to Figure 13-4.

Figure 13-1: 903 and Garrcon Residue Grade Regression



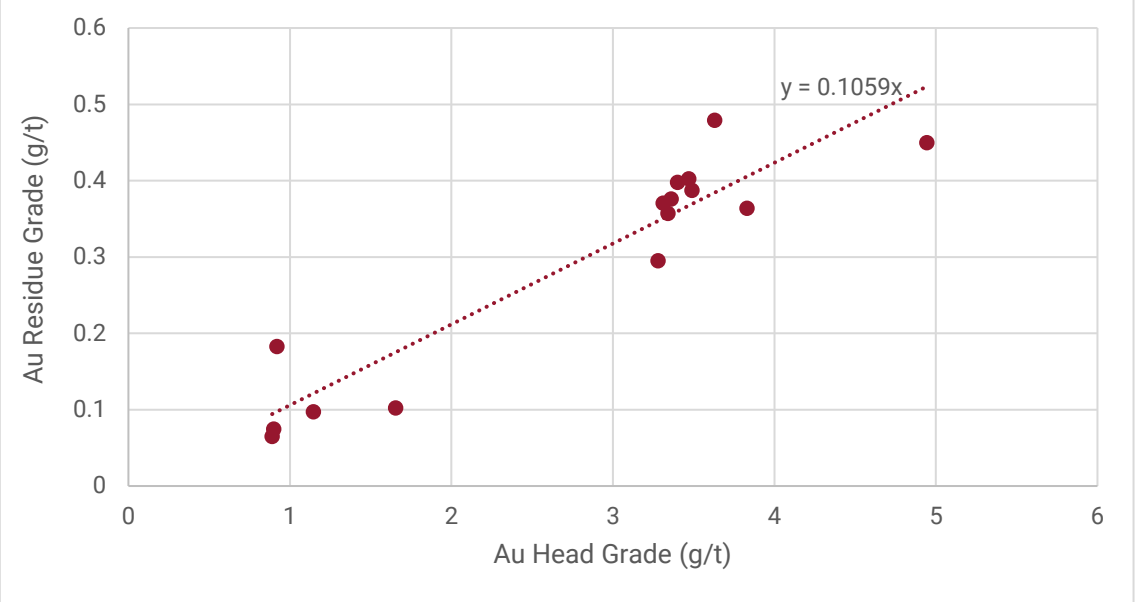
Source: Ausenco, 2022.

Figure 13-2: Southwest Zone Residue Grade Regression



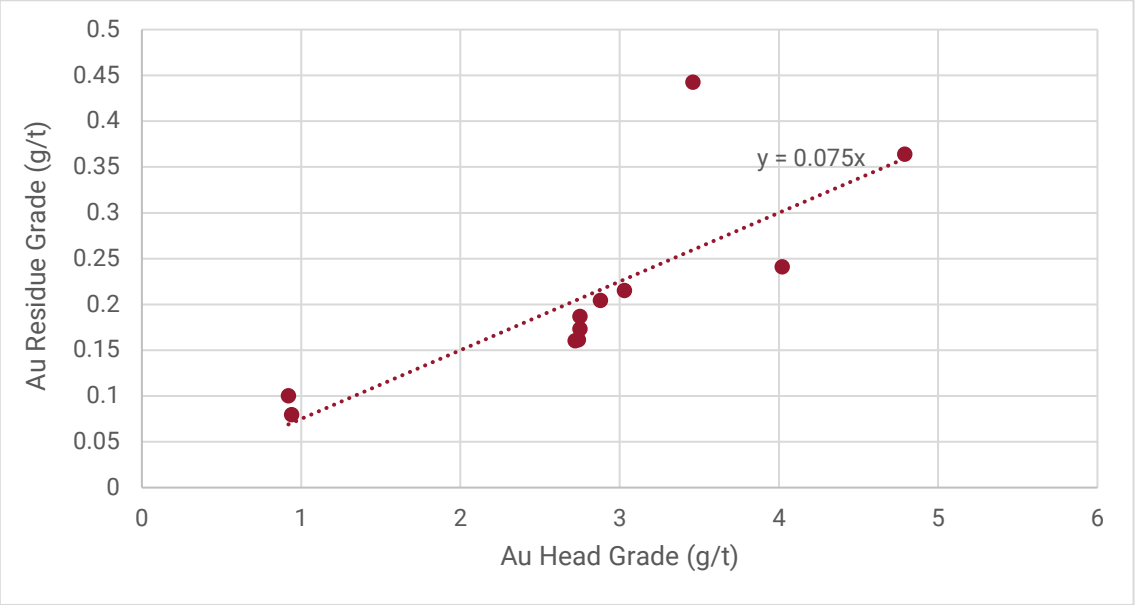
Source: Ausenco, 2022.

Figure 13-3: Discovery and Windjammer Residue Grade Regression



Source: Ausenco, 2022.

Figure 13-4: 55 and Westaway Residue Grade Regression



Source: Ausenco, 2022.

14 MINERAL RESOURCE ESTIMATES

14.1 Introduction

The mineral resource estimate (MRE) herein is based upon the historical drilling and that conducted by Moneta between 2013 and 2021 and supersedes all prior resource estimates for the Tower Gold Project. It is an update to, and supersedes, the MRE in the technical report filed by Moneta on June 24, 2022. The current MRE reflects changes in the resource estimation domains and open pit block model size from the June 24, 2022 model. The previous historical resource estimates are discussed in the Section 6 of this report and are all considered historical in nature.

This section details an updated NI 43-101 MRE completed for the Tower Gold Project by APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada. Mr. Warren Black, M.Sc., P.Geo. and Mr. Tyler Acorn, M.Sc. completed the mineral resource estimate under the direct supervision of Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo. Mr. Dufresne is an independent QP with APEX and takes responsibility for the MRE and Section 14 herein. Mr. Dufresne visited the property on June 21, 2022, and reviewed core from the 2020 to 2021 drill program completed by Moneta, as discussed in Section 12.1.

The workflow implemented for the calculation of the 2022 Tower Gold Project MRE was completed using the commercial mine planning software Micromine (v.22.0) and Resource Modeling Solutions Platform (RMSP, v.1.8.10). Supplementary data analysis was completed using the Anaconda Python distribution and a custom Python package developed by Mr. Black and Mr. Acorn.

The drill hole database was validated by APEX geologists under the supervision of Mr. Dufresne, as summarized in Section 12. In the opinion of Mr. Dufresne, the current Tower Gold Project drill hole database is deemed to be in good condition and suitable for use in ongoing resource estimation studies.

Modelling was conducted in the UTM coordinate space relative to the North American Datum (NAD) 1983, and UTM zone 17N (EPSG:26917) The mineral resource block model utilized a block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) to honor the mineralization wireframes. The percentage of the volume of each block below the bare earth surface, below the modeled waste overburden surface and within each mineralization domain was calculated using the 3D geological models and a 3D surface model. For the open pit Garrcon, Jonpol, and 903 resources, the block model was block-averaged up to a 5 m (X) x 5 m (Y) x 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted using a nominal waste value of half detection for the purposes of conducting pit optimization. The mineral resources are reported as undiluted and only include the percentage of the block with the mineralization domain. For the open pit optimization of. For the open pit South West, Windjammer South, Windjammer Central, Westaway, Discovery, and Iron Formation resources, the block model was block-averaged up to a 2.5 m (X) x 5 m (Y) x 5 m (Z) SMU block size with the outer blocks on the boundaries of the domains diluted using a nominal waste value of half detection for the purposes of conducting pit optimization. The mineral resources are reported as undiluted and only include the percentage of the block with the mineralization domain. The gold grade was estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells. Details regarding the methodology used to calculate the MRE are documented in this section. The mineral resources defined in this section are not mineral reserves.

Definitions used in this section are consistent with those adopted by CIM's "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014 and prescribed by the Canadian Securities Administrators' NI 43-101 and Form 43-101F1,

Standards of Disclosure for Mineral Projects. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.2 Drill Hole Data Description

The Garrison drill hole database consists of 1015 drill holes that intersect the interpreted mineralization wireframes. The gold assays were composited to 1 m composites lengths and the estimation utilized 171,568 composited samples. A total of 12.8% of the total drilled meters inside the interpreted mineralization wireframes were not sampled, assumed to be waste, and assigned a nominal waste value of half the detection limit of modern assay methods (0.0025 g/t)

The Golden Highway drill hole database consists of 797 drill holes that intersected the interpreted mineralization wireframes. The gold assays were composited to 1 m composites lengths and the estimation utilized 85,119 composited samples. A total of 12.2% of the total drilled meters inside the interpreted mineralization wireframes were not sampled, assumed to be waste, and assigned a nominal waste value of half the detection limit of modern assay methods (0.0025 g/t).

14.3 Estimation Domain Interpretation

Moneta provided APEX with wireframes of the 231 interpreted mineralization zones and vein zones reviewed extensively by APEX for all resource areas except for Jonpol and 903. Multiple iterations were completed based on feedback from APEX to Moneta before the final approval of the wireframes for resource estimation. For the MRE herein, new domains were constructed and a number of the older domains used in the June, 2022 MRE were modified and updated.

APEX created 13 estimation domains to constrain the Jonpol and 903 resources, comprising a series of high-grade domains that generally follow the syenite/metasediment contact and surrounding low-grade domains. Both the high- and low-grade domains are constrained within a set of fault blocks. APEX created one high-grade estimation domain to constrain additional resources at Garrcon.

14.3.1 Bulk Density

A total of 11,252 bulk density sample measurements are available from the Golden Highway drill hole database. APEX performed exploratory data analysis (EDA) of the bulk density sample measurements available and the density was assigned for each deposit in the Golden Highway area. The density of the deposits ranged from 2.7 g/cm to 2.84 g/cm. The non-mineralized zones were assigned density based on lithological unit. The modeled overburden was assigned a density of 1.8 g/cm^3. Table 14-1 summarizes the density values assigned to the Golden Highway area.

A total of 4,228 bulk density sample measurements were available from the Garrison area drill hole database. APEX performed EDA of the bulk density samples available and density was assigned based on lithological unit. The density of the lithological units ranged from 2.77 g/cm^3 to 3.1 g/cm^3. The modeled overburden was assigned a density of 1.8 g/cm^3. Table 14-1 summarizes the density values assigned to the Garrison area.

Table 14-1: Summary of Specific Gravity Values Applied to MRE

Area	Ore/Waste	Domain/Lithology Group	Specific Gravity (g/cm³)
Garrison	Ore and Waste	Country Rock	2.80
		Overburden	1.80
		Ultra Mafic	2.93
		Mafic Volcanic	2.80
		Meta Sed	2.77
		BIF	3.10
Golden Highway	Waste	Country Rock – Ultra Mafic	2.84
		Country Rock – Metasediments	2.73
		Overburden	1.80
		BIF A	3.10
		BIF B	2.81
		BIF C	2.77
		Dyke	2.98
	Ore	Discovery	2.83
		Windjammer North	2.84
		Windjammer Central	2.73
		Windjammer South	2.71
		South West	2.71
		Westaway	2.7
		55	2.72

Source: APEX, 2022.

14.3.2 Raw Analytical Data

Cumulative histograms and summary statistics for the raw (uncomposited) assays from sample intervals contained within the estimation domains are presented in Table 14-2 to Table 14-4. The assays within each estimation domain appear to exhibit a single coherent statistical population. Cumulative frequency plot of raw gold assays (in ppm) from sample intervals flagged within the estimation domain are provided in Appendix C.1.

Table 14-2: Raw Gold (ppm) Assay Statistics for Golden Highway – West Area Resources

Description	55	Westaway	Southwest	Southwest North	Iron Formations
Count	5417	3124	21434	538	10834
Mean	0.914	2.492	0.820	0.410	0.321
Standard Deviation	3.829	62.820	2.995	0.913	4.160
Coefficient of Variation	4.191	25.213	3.654	2.225	12.967
Min.	0.001	0.001	0.001	0.003	0.001
10 Percentile	0.005	0.006	0.003	0.003	0.003
50 Percentile (Median)	0.090	0.410	0.124	0.100	0.012
90 Percentile	2.140	3.700	2.090	0.969	0.374
Max.	187.990	3510.000	206.000	11.350	391.840

Source: APEX, 2022.

Table 14-3: Raw Gold (ppm) Assay Statistics for Golden Highway – Windjammer Area Resources

Description	Discovery	Windjammer North	Windjammer Central	Windjammer South
Count	3183	3981	15114	21474
Mean	0.612	0.614	0.457	0.721
Standard Deviation	1.547	1.892	0.770	3.777
Coefficient of Variation	2.529	3.082	1.685	5.237
Min.	0.001	0.001	0.001	0.001
10 Percentile	0.006	0.010	0.033	0.020
50 Percentile (Median)	0.137	0.138	0.230	0.307
90 Percentile	1.670	1.510	1.130	1.500
Max.	42.103	65.000	35.860	391.840

Source: APEX, 2022.

Table 14-4: Raw Gold (ppm) Assay Statistics for Garrison Area Resources

Description	903	Jonpol	Garrcon
Count	47435	62156	35413
Mean	0.215	0.250	0.678
Standard Deviation	1.634	2.098	6.784
Coefficient of Variation	7.592	8.380	10.002
Min.	0.003	0.003	0.003
10 Percentile	0.003	0.003	0.018
50 Percentile (Median)	0.012	0.011	0.157
90 Percentile	0.360	0.284	1.230
Max.	203.000	195.000	601.820

Source: APEX, 2022.

14.3.3 Compositing Methodology

Downhole sample length analysis shows that the vast majority of sample lengths range from 0.5 m to 1.5 m, with the dominant sample length being 1 m. A composite length of 1 m is selected as it provides high enough resolution for underground mining. Cumulative distribution plots of raw sample lengths are provided in Appendix C.1.2.

The length-weighted compositing process starts from the drill hole collar and ends at the bottom of the hole. However, the final composite intervals along the drill hole cannot cross contacts between estimation domains. Therefore, composites extending downhole are truncated when one of these contacts are intersected. A new composite begins at these contacts and continues to extend downhole until the maximum composite interval length is reached, or another truncating contact is intersected. There are instances where the thickness of the modelled veins is very close to 1 m. Therefore, if a strict 1 m composite length was enforced, the number of composites less then half the composite length, also known as orphans, would be extremely large. To mitigate this, final composites lengths can be ±30% of 1 m.

14.3.4 Capping

To ensure metal grades are not overestimated by including outlier values during estimation, composites are capped to a specified maximum value. Probability plots illustrating each composite's values are used to identify outlier values that appear higher than expected relative to each estimation domain's gold distribution. Composites identified as potential outliers on the probability plots are evaluated in three dimensions (3D) to determine if they are part of a high-grade trend or not. If identified outliers are deemed part of a high-grade trend that still requires a capping level, the level used on them may not be as aggressive as the capping level used to control isolated high-grade outliers.

Capping was completed by assesses either groups of domains or individual domains depending on the nature of mineralization at the resource area. Table 14-5 indicates the capping levels determined using the probability plots. Visual inspection of the potential outliers revealed they have no spatial continuity with each other. Therefore, the capping levels detailed in Table 14-5 are applied to all composites used to calculate the MRE. Probability plots for all domain or domain groups are provided in Appendix C.2.

Table 14-5: Capping Levels Applied to Composites Before Estimation

Project	Resource Area	Domain or Group of Domains	Au Capping Level (ppm)	No. Composites	No. Capped Composites
Golden Highway	55	Flat Domains	3.5	3072	6
		Steep Domains	32	2977	3
	Discovery	Main	6.9	1695	6
		Low Grade Domains	0.83	182	1
		Secondary Domains	4.9	1839	8
	Southwest	Shallow Domains	10	12844	7
		Steep Domains	30	10257	5
		Underground Domains	15.1	5696	4
	Southwest North	Main Domains	2.9	325	5
		Secondary Domains	1.6	420	5
	Westaway	Main Domains	21.5	3000	1
		Secondary Domains	0.86	561	12
	Windjammer Central	All Domains	9	15994	4

Project	Resource Area	Domain or Group of Domains	Au Capping Level (ppm)	No. Composites	No. Capped Composites
	Windjammer North	Main Domains	12.8	1954	3
		Mid Domains	5.6	1121	6
		Secondary Domains	1.6	843	5
		Low-Grade Domains	0.9	248	7
	Windjammer South	Flat Domains	18.5	19972	4
		Steep Highgrade Domains	27.67	2102	7
		Steep Lowgrade Domains	4.21	153	5
	Iron Formations	A	11	5333	8
		B	12	4028	6
		C	3.9	5280	10
		SW_A	5.2	2196	9
		SW_B	0.6	564	2
		S	2.5	2591	6
Garrison	903	MetaSed-HG	9	1544	10
		MetaSed-LG	5.8	7861	6
		PDest-HG	6.7	2372	4
		PDest-LG	1.8	4800	2
		UltMaf-HG	26	8666	6
		UltMaf-LG	7.8	25593	5
	Garrcon	M	80	20398	6
		Remaining Domains	20	14874	15
	Jonpol	MetaSed1-LG	5.5	13182	3
		MetaSed2-LG	3.4	6023	3
		Munro1-HG	36.5	8501	11
		Munro1-LG	18.7	37836	4
		Munro2-HG	17.9	3862	10
		Munro2-LG	5.2	12560	2
		Munro3-LG	1.6	1441	3

Source: APEX, 2022.

14.3.5 Declustering

It is typical to collect data in a manner that preferentially samples high-value areas over low-value areas. This preferential sampling is an acceptable practice; however, it produces closely spaced measurements that are likely statistically redundant, which results in under-represented sparse data compared to the over-represented closer-spaced data. Therefore, it is desirable to have spatially representative (i.e., declustered) statistics for global resource assessment and to check estimated models. Declustering techniques calculate a weight for each datum that results in sparse data having a higher weight than closely spaced data. The calculated declustering weights allow spatially repetitive summary statistics to be calculated, such as a declustered mean.

Cell declustering is performed globally on all composites within the estimation domains, which calculates a declustering weight for each composite. Cell declustering works by discretizing a 3D volume into cells that are the same size. The sum of the weights of all the composites within the cell must equal 1. Therefore, the weight assigned to each composite is proportional to the number of composites within each cell. For example, if there are four composites within a cell, they are all assigned a declustering weight of 0.25.

As a rule of thumb, the cell size used to calculate declustering weights will ideally contain one composite per cell in the sparsely sampled areas. Visual evaluation of the sparsely sampled areas in a 3D visualization software gives a rough idea of this size. Additionally, a high-resolution block model populated with the distance to each block's nearest composite can help guide the declustering of the cell size. The 90-percentile of the distance block model, with a cell size much lower than the final declustering cell size, approximates the optimal cell size. Finally, plotting a series of declustered means for a range of declustering cell sizes will help determine the optimal cell size. The optimal cell size will likely be when the declustered mean in the plot is locally low or high at a cell size that is very close to the two potential cell sizes that were determined from the visual review and calculated 90-percentile distance. Preferential sampling in high-grade zones results in a declustered mean that is likely within a local minimum. In contrast, preferential sampling in low-grade zones results in a declustered mean that is expected within a local maximum.

Calculated declustering weights for the estimation domain were constructed. Visual evaluation of the sparsely sampled areas in Micromine suggests similar cell sizes as the 90-percentiles from the distance block model for each estimation domain. Plots comprised of a series of declustered means for a range of declustering cell sizes were utilized to inform the final cell sizes. Table 14-6 details the cell size used, which was very close to the size indicated by the visual evaluation and distance block model.

Table 14-6: Cell Sizes Used to Calculate Declustering Weights

Resource Area	Cell Declustering Size (m)
55	55
Westaway	40
South West	80
South West North	58
Windjammer-South	45
Windjammer-Central	45
Windjammer-North	28
Discovery	45
Jonpol	60
Garrcon	28
903	60

Source: APEX, 2022.

14.3.6 Final Composite Statistics

Cumulative histograms and summary statistics for the declustered and capped composites contained within the interpreted estimation domains, are presented in Table 14-7 to Table 14-9. The gold assays within the estimation domain generally exhibit a single coherent statistical population.

Table 14-7: Composite Gold (ppm) Assay Statistics for Golden Highway – West Area Resources

Description	55	Westaway	Southwest	Southwest North	Iron Formations
Count	5867	3561	28797	745	19992
Mean	0.449	0.900	0.460	0.235	0.105
Standard Deviation	0.020	0.170	0.014	0.033	0.003
Coefficient of Variation	1.341	1.831	1.321	0.398	0.566
Min.	1.799	3.352	1.745	0.158	0.320
10 Percentile	2.987	2.035	2.869	1.693	5.377
50 Percentile (Median)	0.001	0.001	0.001	0.003	0.001
90 Percentile	0.003	0.003	0.003	0.003	0.003
Max.	0.020	0.170	0.014	0.033	0.003

Note: Statistics consider declustering weights and capping. Source: APEX, 2022.

Table 14-8: Composite Gold (ppm) Assay Statistics for Golden Highway – Windjammer Area Resources

Description	Discovery	Windjammer North	Windjammer Central	Windjammer South
Count	3716	4166	15994	22227
Mean	0.457	0.375	0.373	0.660
Standard Deviation	0.858	0.878	0.546	1.640
Coefficient of Variation	1.878	2.342	1.465	2.485
Min.	0.001	0.003	0.001	0.001
10 Percentile	0.003	0.003	0.016	0.007
50 Percentile (Median)	0.118	0.079	0.209	0.233
90 Percentile	1.270	0.974	0.869	1.530
Max.	6.900	12.800	9.000	27.670

Note: Statistics consider declustering weights and capping. Source: APEX, 2022.

Table 14-9: Composite Gold (ppm) Assay Statistics for Garrison Area Resources

Description	903	Jonpol	Garrcon
Count	50836	83405	35272
Mean	0.244	0.203	0.518
Standard Deviation	0.902	1.067	2.060
Coefficient of Variation	3.694	5.265	3.973
Min.	0.002	0.001	0.003
10 Percentile	0.003	0.003	0.015
50 Percentile (Median)	0.021	0.010	0.153
90 Percentile	0.543	0.330	1.040
Max.	26.000	36.500	79.000

Note: Statistics consider declustering weights and capping. Source: APEX, 2022.

14.4 Variography and Grade Continuity

Experimental semi-variograms for each domain are calculated along the major, minor, and vertical principal directions of continuity that are defined by three Euler angles. Euler angles describe the orientation of anisotropy as a series of rotations (using a left-hand rule) that are as follows:

1. Angle 1: A rotation about the Z-axis (azimuth) with positive angles being clockwise rotation and negative representing counter-clockwise rotation;

2. Angle 2: A rotation about the X-axis (dip) with positive angles being counter-clockwise rotation and negative representing clockwise rotation; and

3. Angle 3: A rotation about the Y-axis (tilt) with positive angles being clockwise rotation and negative representing counter-clockwise rotation.

APEX personnel calculated standardized experimental correlograms using composites for each resource area. Within each resource area, the orientation of the primary geological controls on mineralization informed the principal directions of continuity that the variograms were calculate along. Experimental variograms were calculated for multiple domains within each resource area to assess the parameters sensitivity. Modelled variogram ranges for both structures were reasonably consistent throughout the Tower Gold Project, the differences between major and minor direction ranges were minor. The most variation is observed in the vertical direction. The most stable and robust variogram from each area was selected and used for all domains within the resource area.

During estimation, the standardized variogram model is scaled to the variance of the composites within each individual domain. The scaled nugget effect and covariance contributions for each variogram structure are used as input parameters for ordinary kriging. The ranges used for each of the mineralized zones are not changed from the standardized variogram model. Locally varying anisotropy is used during estimation to define the orientation of the variogram on a per-block basis, which is explained in more detail in Section 14.6. The scaled variogram parameters used for each estimation domain and images of the modelled variograms are provided in Appendix C.4.2.

14.5 Block Model Grid Definition

A percent (block factor) style block model was used to calculate the Tower Gold Project MRE. Each estimation domain used for the resource estimation described in Section 14.3 was populated with a block model. All block models used the same block size of 2.5 m x 2.5 m x 2.5 m. The resource areas within the Golden Highway and Garrison areas used different origins, as detailed in Table 14-10 and Table 14-11.

Table 14-10: 3D Block Model Grid Definition – Golden Highway Area

Axis	Block Size	Origin
X (Easting)	2.5	568499.54
Y (Northing)	2.5	5365498.29
Z (Elevation)	2.5	-953.75
Rotation	330°	
Coordinate Location	Centre of Block	

Source: APEX, 2022.

Table 14-11: 3D Block Model Grid Definition – Garrison Area

Axis	Block Size	Origin
X (Easting)	2.5	576198.6552
Y (Northing)	2.5	5371697.116
Z (Elevation)	2.5	-904.75
Rotation	340°	
Coordinate Location	Centre of Block	

Source: APEX, 2022.

14.6 Grade Estimation Methodology

Ordinary kriging (OK) was used to estimate gold grades for the Tower Gold Project block model. Only blocks that intersect the mineralization domain were estimated for gold grades.

Estimation of blocks is completed with locally varying anisotropy (LVA), which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. Blocks within the estimation domain are assigned rotation angles using a trend surface wireframe. This method allows structural complexities to be reproduced in the estimated block model. Variogram and search ranges are defined by the variogram model described in Section 14.4. All boundaries between estimation domains are treaded as hard, meaning data from one domain cannot be used to inform the estimate of another.

The correct volume-variance relationship is enforced by restricting the maximum number of conditioning data (composites) within ellipsoid sectors, the maximum number of composites per drill hole and the maximum number of conditioning data per search ellipsoid sector used. These restrictions are implemented to ensure the estimated models are not over smoothed and to limit the effect of high-grade samples, which would lead to inaccurate estimation of global tonnage and grade. The parameters used to enforce the right volume-variance relationship cause local conditional bias but ensure the global estimate of grade and tonnes is accurately estimated.

To ensure that all blocks within the estimation domains are estimated and the correct volume variance relationship is achieved, a three-pass method was used for each domain. Each pass uses the same variogram model, as modelled and detailed in Section 14.4, however different search ellipsoid configurations are used, as illustrated in Table 14-12.

Different search ellipsoid configurations are used to control the smoothing inherit in Kriging and manage influence of high-grade samples to achieve the correct volume variance relationship. The three passes are normally not required because the blocks estimated during those passes are far from composites, but because of structural complexities and the limitation of search ellipses not being able to look along the trend of the folds they were utilized here.

Table 14-12: Estimation Search and Kriging Parameters

Zone/Stat Group	Zone	Max Search Ranges			No. Search Sectors	Max Samples per Sector	Max Samples per DH	Minimum No. of Comps
		Major	Minor	Vertical				
Discovery	Pass 1	65	35	15	1	20	3	1
	Pass 2	130	70	30	1	20	3	1
Windjammer North	Pass 1	35	35	6	1	10	1	1
	Pass 2	65	35	15	1	10	2	1

Zone/Stat Group	Zone	Max Search Ranges			No. Search Sectors	Max Samples per Sector	Max Samples per DH	Minimum No. of Comps
		Major	Minor	Vertical				
	Pass 3	130	70	30	1	10	3	1
Windjammer Central	Pass 1	35	35	6	1	10	1	1
	Pass 2	65	35	15	1	10	3	1
	Pass 3	130	70	30	1	10	3	1
Windjammer South	Pass 1	35	35	15	1	20	3	1
	Pass 2	65	35	15	1	20	3	1
	Pass 3	130	70	30	1	20	3	1
Westaway (WA)	Pass 1	35	20	3	1	20	3	1
	Pass 2	65	45	5	1	20	4	2
	Pass 3	130	70	30	1	20	3	1
55 (Flat)	Pass 1	35	20	3	1	20	2	1
	Pass 2	65	45	5	1	20	4	1
	Pass 3	130	70	30	1	20	3	1
55 (Steep)	Pass 1	25	20	3	1	16	4	1
	Pass 2	65	45	5	1	16	4	1
	Pass 3	130	70	30	1	16	3	1
Southwest (OP)	Pass 1	65	45	3	1	12	3	2
	Pass 2	130	70	30	1	12	3	1
Southwest (UG)	Pass 1	65	45	3.5	1	12	6	1
	Pass 2	130	70	30	1	20	3	1
Southwest (Steep)	Pass 1	35	35	3	1	20	4	2
	Pass 2	65	45	3.5	1	20	8	1
	Pass 3	130	70	30	1	20	3	1
Southwest North	Pass 1	35	20	5	1	20	3	1
	Pass 2	65	45	5	1	20	4	2
	Pass 3	130	70	30	1	20	3	1
903 (MetaSed, PDest)	Pass 1	35	35	15	1	20	-	1
	Pass 2	65	35	15	1	20	-	1
	Pass 3	130	70	30	1	20	4	1
903 (UltMaf)	Pass 1	35	35	5	1	20	-	1
	Pass 2	65	35	8	1	20	8	1
	Pass 3	130	70	30	1	20	4	1
Jonpol	Pass 1	35	35	5	1	20	5	1
	Pass 2	65	35	8	1	20	8	1
	Pass 3	130	70	30	1	20	4	1
Garrcon	Pass 1	35	35	5	1	3	4	1
	Pass 2	65	35	8	1	20	8	1
	Pass 3	130	70	30	1	20	4	1

Source: APEX, 2022.

14.7 Model Validation

14.7.1 Statistical Validation

APEX personnel performed three varying statistical validation methods to ensure the estimated block model honours the input drill hole data. Swath plots are used to check that the block model honours directional trends, Volume-variance analysis is used to check that the proper quantity of minerals above varying cut-off grades is being estimated, and boundary analysis is performed to check that the observed grade trends along the mineralized and unmineralized boundaries are being reproduced in the block models.

14.7.1.1 Directional Trend Analysis Validation

Swath plots verify that the estimated block model honours directional trends and identifies potential areas of over- or under-estimation in grade. They are generated by calculating the average metal grades of composites, and the OK estimated blocks.

Overall, the block model compares well with the composites. There is some local over- and under-estimation observed. Due to the limited number of conditioning data available for the estimation in those areas, this is the expected result.

Swath plots for each resource area are provided in Appendix C.5.1.

14.7.1.2 Volume-Variance Analysis Validation

Smoothing is an intrinsic property of Kriging, and as described in Section 14.6 volume-variance corrections are used to help reduce its effects. To verify that the correct level of smoothing is achieved, theoretical histograms that indicate each estimated metal's anticipated variance and distribution at the selected block model size are calculated. The scaled composite histograms are used to calculate expected tonnages and expected grades above a series of cut-off grades. Comparing the curves of the expected versus estimated values helps ensure the correct volume of resource above varying cut-offs is being estimated.

Some domains illustrate the desired amount of smoothing, such as Discovery and Windjammer South. However, some areas, such as 55, illustrate more smoothing then desired. Further modifications of the search strategy to help control the smoothing will introduce excessive bias to the gold estimates. Future resource studies should explore reducing the amount of internal dilution within the estimation domains to help control this effect.

Volume-variance plots for each resource area are provided in Appendix C.5.2.

14.7.2 Visual Validation

APEX personnel visually reviewed the estimated block model grades in sectional views comparing the estimated block model grades to the input composited drill hole assays and the modelled mineralization trends. The block model compares very well to the input compositing data. Local high- and low-grade zones within the resource areas are reproduced as desired, and the locally varying anisotropy adequately maintains variable mineralization orientations.

14.8 Mineral Resource Classification

14.8.1 Classification Definitions

The Tower Gold Project MRE discussed in this report has been classified in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 14, 2014.

A measured mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A measured mineral resource has a higher level of confidence than that applying to either an indicated mineral resource or an inferred mineral resource. It may be converted to a proven mineral reserve or to a probable mineral reserve.

An indicated mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An indicated mineral resource has a lower level of confidence than that applying to a measured mineral resource and may only be converted to a probable mineral reserve.

An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An inferred mineral resource has a lower level of confidence than that applying to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

14.8.2 Classification Methodology

The Tower Gold Project MRE is classified as inferred and indicated according to the CIM definition standards. The classification of the indicated and inferred resources is based on geological confidence, data quality and grade continuity of the data. The most relevant factors used in the classification process were the following:

- density of conditioning data;
- level of confidence in drilling results and collar locations;
- level of confidence in the geological interpretation;
- continuity of mineralization;
- level of confidence in the assigned densities; and
- metallurgical information available for potential recoveries.

Resource classification was determined using a multiple-pass strategy that consists of a sequence of runs that flag each block with the run number a block first meets a set of search restrictions. With each subsequent pass, the search restrictions decrease, representing a decrease in confidence and classification from the previous run. For each run, a search ellipsoid is centred on each block and orientated in the same way described in Section 14.6. Table 14-3 details the range of the search ellipsoids and the number of composites that must be found within the ellipse for a block to be flagged with that run number. The runs are executed in sequence from run 1 to run 2. Classification is then determined by relating the run number that each block is flagged as to indicated (run 1) or inferred (run 2). This process is completed separately from gold estimation.

Table 14-13: Search Restrictions Applied During each Run of the Multiple-Pass Classification Strategy

Area	Domain Style	Classification	Min. No. Drill Hole	Major Range	Minor Range	Vertical Range
55, Westaway, Westblock Southwest	All	Indicated	3	65	45	12
		Inferred	2	150	100	30
Windjammer South, Windjammer Central, Windjammer North, Discovery	Thick	Indicated	3	65	45	12
		Inferred	2	100	80	30
	Thin	Indicated	3	65	45	12
		Inferred	2	110	90	30
	WJC-A	Indicated	3	65	45	12
		Inferred	2	110	110	30
Jonpol, Garrcon, 903	High Grade	Indicated	3	65	45	12
		Inferred	1	100	80	30
	Low Grade	Inferred	2	65	45	12

Source: APEX, 2022.

14.9 Evaluation of Reasonable Prospects for Eventual Economic Extraction

14.9.1 Open Pit Parameters

To demonstrate that the Tower Gold property has the potential for future economic extraction, recovery was estimated based on the assay and geological logged information available. The unconstrained and partially diluted resource block model was subjected to several pit optimization scenarios to look at the prospect for eventual economic extraction. Pit optimization was performed in Deswik.CAD v2022.2 software using the pseudo-flow pit optimization algorithm.

The criteria used in the pit optimizer were considered reasonable for a structurally-controlled orogenic gold deposits in an Archean greenstone belt. All open pit mineral resources reported below are reported within an optimized pit shell using US$1,750/oz for gold and was defined using blocks classified as indicated or inferred. The criteria used for the US$1,750/oz pit shell optimization are shown in Table 14-14. A variable lower gold grade cut-off and recovery was determined by deposit and is based on using a gravity separation, cyanide leaching and carbon absorption using carbon-in-pulp (CIP) processing methods. Ore hosted within ultramafic rocks at the Jonpol deposit was determined to be refractory type material and was assigned a lower recovery value based on the processing method chosen, except in the area between eastings of 577170N and 577984N, where metallurgical testing demonstrates normal recoveries. The pit optimization cut-off grades are based on a breakeven cut-off grade calculation, Equation 14.1, using the mining parameters in Table 14-14. The open pit cut-off grade used for all deposits for reporting the MRE was 0.3 g/t.

$$COG\ breakeven = (Cost\ processing + Cost\ (mining\ ore) - Cost\ (mining\ waste)) / (Recovery\ ore * (SalePrice - RefiningUnitCost)) \quad (14.1)$$

Mr. Dufresne, the author and QP, considers the pit parameters presented in Table 14-14 appropriate to evaluate the reasonable prospect for potential future economic extraction at the Tower Gold Project for the purpose of providing a MRE. The resources presented herein are not mineral reserves, and they do not have demonstrated economic viability. There is no guarantee that any part of the resources identified herein will be converted to a mineral reserve in future.

Table 14-14: Parameters Used for Open Pit Resource Estimate

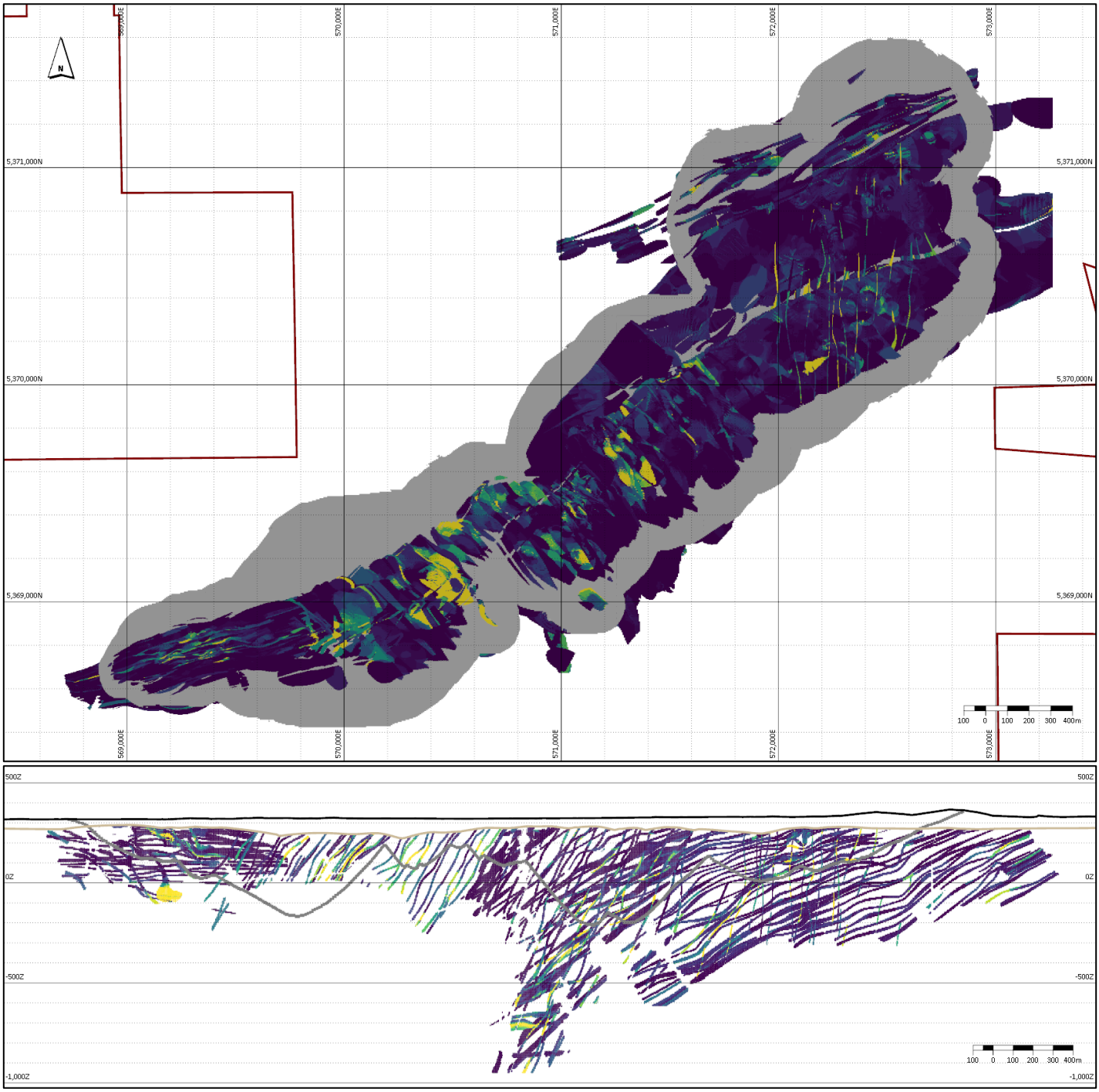
Parameters	Unit	Value
Gold Price	US$/oz	1,750
Exchange Rate	US$/C$	0.78
Mill Recovery by Deposit		
Discovery, Windjammer-North	%	89.4
Windjammer Central	%	92.2
Windjammer South	%	94.1
South West	%	93.33
Westaway, Westblock, 55	%	92.54
Bulk Rock Banded Iron Formation	%	90
903	Formula	1-(0.0828*Head Grade Au g/t ^ 0.4854)/Head Grade Au g/t)
Jonpol – Non-Refractory	%	92.54
Jonpol – Refractory	%	56.2
Garrcon	%	96.11
Mining Parameters		
Sell Cost	C$/oz	2.40
Royalties*	%	0.00/1.50
Mining Cost – Rock	C$/t mined	2.75
Mining Cost – Overburden	C$/t mined	1.84
G&A Cost	C$/t milled	1.00
Processing Cost	C$/t milled	10.60
Pit Slope in Rock	degrees	50
Pit Slope in Overburden	degrees	25
Reporting Cut-Off Grade	Au g/t	0.30

Note: *Golden Highway area has no royalties; in the Garrison area royalties average 1.50%. Source: APEX, 2022.

For the potentially open pittablepit Garrcon, Jonpol, and 903 resources, the block model was block-averaged up to a 5 m (X) x 5 m (Y) x 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted with a nominal waste value half of the detection limit. For the potentially open pittablepit South West, Windjammer South, Windjammer Central, Westaway, Discovery, and Iron Formation resources, the block model was block-averaged up to a 2.5 m (X) x 5 m (Y) x 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted with a nominal waste value half of the detection limit. However, there is sporadic mineralization within the BIF units throughout the project. Therefore, transitional waste grades were estimated for blocks within 35 m of composites within the BIF units. Dilution of mineralized blocks used the estimated low-grade material instead of the nominal waste value. The

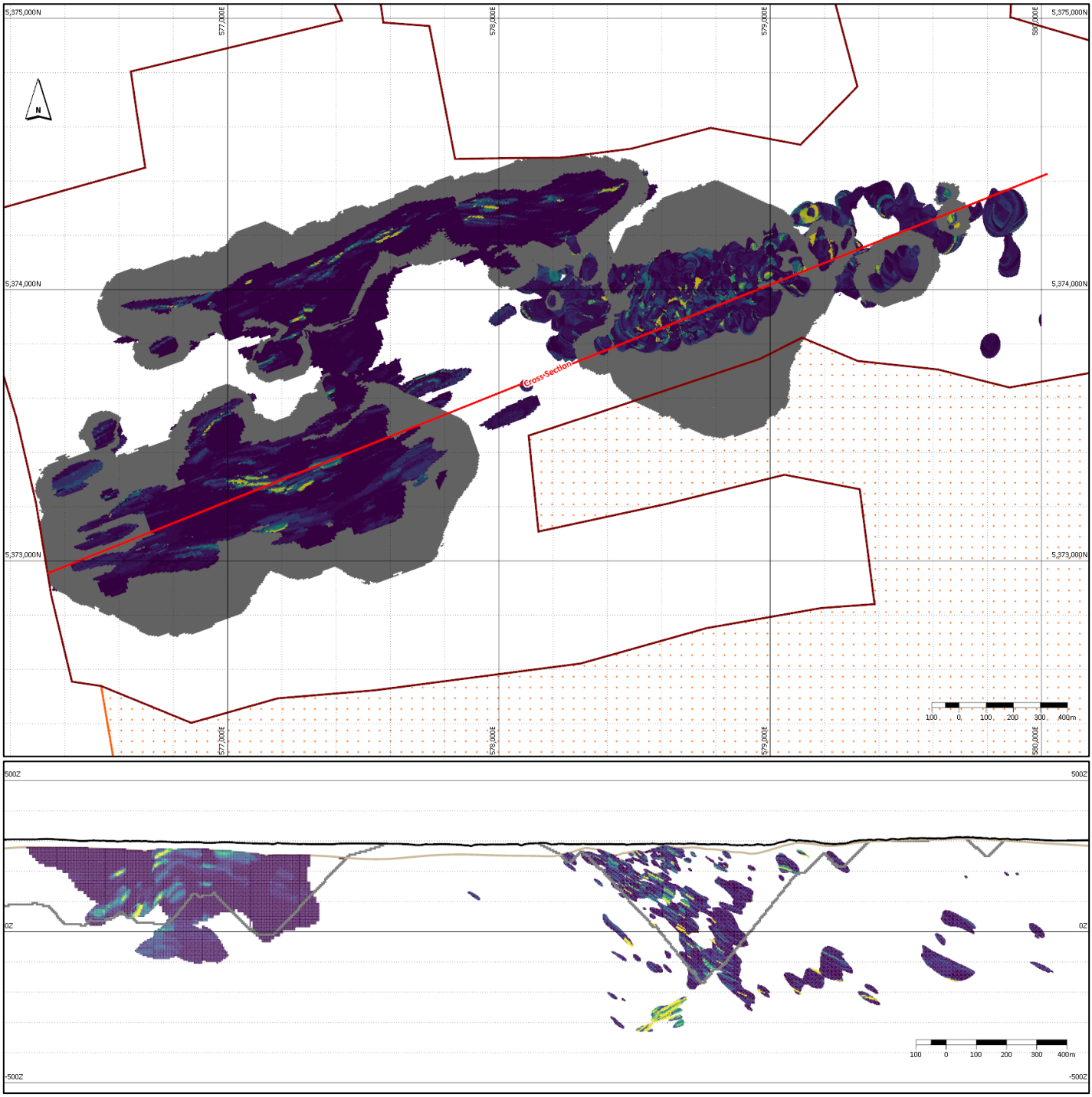
overall strip ratio for the Golden Highway property and the Garrison property open pits was 4.8:1 and 5.2:1, respectively, inclusive of overburden. The MRE is reported using undiluted gold grades and the percentage of each block that is below overburden and within the mineralized domain. Figure 14-1 and Figure 14-2 illustrate the final MRE open pits used to constrain the MRE.

Figure 14-1: Golden Highway Area – Conceptual US$1750 Open Pits, Plan and Long-Section



Note: The blue area represents the block model; the green surface represents the conceptual US$1750 open pits. Source: APEX, 2022.

Figure 14-2: Garrison Area – Conceptual US$1750 Open Pits, Plan and Long-Section



Note: The blue area represents the block model; the green surface represents the conceptual US$1750 open pits. Source: APEX, 2022.

14.9.2 Underground Parameters

The CIM guidelines for mineral resources and mineral reserves require that a mineral resource be that part of a mineral deposit with reasonable prospects for economic extraction. For the Tower Gold Project underground resource, open stope style mining methods were selected. The economic assumptions used in the mineral resource statement are shown in Table 14-15.

Table 14-15: Parameters Used for Underground Mineral Resource Estimate

Parameters	Unit	Value
Gold Price	US$/oz	1,750
Exchange Rate	US$/C$	0.78
Mill Recovery	%	92.00
Sell Cost	C$/oz	2.40
Payable	%	99.95
Royalties	%	0.00/1.5%
Mining Cost	C$/t mined	75.00
G&A Cost	C$/t milled	1.00
Processing Cost	C$/t milled	10.60
Cut-Off Grade	Au g/t	2.6

Source: APEX, 2022.

The calculated cut-off of 2.60 g/t Au was selected in reporting the underground mineral resource in the 2022 resource estimates. To isolate small areas of the resource that would not reasonably be minable in an open stope mining method, the underground mineral resources below the resource open pit are constrained by wireframe solids that encapsulate contiguous 2.5 m x 2.5 m x 2.5 m underground blocks that are above the 2.60 g/t Au cut-off with a volume greater than 1,400 m^3 and with a minimum domain width of 1.50 m.

14.10 Mineral Resource Reporting

The Tower Gold Project MRE is reported in accordance with the CSA NI 43-101 rules for disclosure and has been estimated using the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014. The effective date of the resource is September 7, 2022.

Modelling was conducted in the UTM coordinate space relative to the NAD 1983, and UTM Zone 17N (EPSG:26917). The mineral resource block model utilized a block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) to honor the mineralization wireframes. The percentage of the volume of each block below the bare earth surface, below the modeled waste overburden surface and within each mineralization domain was calculated using the 3D geological models and a 3D surface model. For the potentially open pittable Garrison resources, the block model was block-averaged up to a 5 m (X) by 5 m (Y) by 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted using a nominal waste value half of the detection limit. For the potentially open pittable South West, Windjammer South, Windjammer Central, Westaway, Discovery, and Iron Formation resources, the block model was block-averaged up to a 2.5 m (X) x 5 m (Y) x 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted with a nominal waste value half of the detection limit. The gold grade was estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE

is reported as undiluted within a series of optimized pit shells utilizing only the percentage of each block below overburden and within each domain. The mineral resources defined in this section are not mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market or other relevant issues.

The calculated open pit cut-off of 0.30 g/t Au was selected in reporting the open pit mineral resources in the 2022 resource estimates using the 5 m x 5 m x 5 m SMU block size model (Table 14-16).

The calculated cut-off of 2.60 g/t Au was selected in reporting the underground mineral resources in the 2022 resource estimates (Table 14-16). Underground mineral resources below the resource open pit are constrained by wireframe solids that encapsulate contiguous 2.5 m x 2.5 m x 2.5 m underground blocks that are above the 2.60 g/t Au cut-off with a volume greater than 1,400 m3.

Table 14-16: NI 43-101 Mineral Resource Estimate by Deposit – Tower Gold Project

September 2022 Resource	Category	Indicated			Inferred		
	Category	Tonnes (t)	Grade (g/t Au)	Ounces (oz)	Tonnes (t)	Grade (g/t Au)	Ounces (oz)
Total	Open Pit	149,773,000	0.90	4,338,000	223,910,000	0.92	6,652,000
	Underground	801,000	4.75	122,000	11,719,000	4.35	1,640,000
Total Open Pit + Underground		**150,574,000**	**0.92**	**4,460,000**	**235,629,000**	**1.09**	**8,292,000**
Breakdown by Deposit							
Southwest	Open Pit	16,676,000	0.90	481,000	45,470,000	1.01	1,472,000
	Underground	211,000	4.53	31,000	6,725,000	4.26	920,000
Windjammer South	Open Pit	42,049,000	0.78	1,058,000	29,101,000	0.96	897,000
	Underground	-	-	-	704,000	4.16	94,000
Westaway	Open Pit	750,000	2.20	53,000	22,106,000	1.95	1,383,000
	Underground	-	-	-	2,349,000	4.23	320,000
Windjammer Central	Open Pit	28,498,000	0.63	581,000	77,834,000	0.64	1,595,000
	Underground	-	-	-	-	-	-
55 Zone	Open Pit	4,780,000	1.30	199,000	4,266,000	1.01	139,000
	Underground	-	-	-	150,000	3.95	19,000
Discovery	Open Pit	3,244,000	1.20	125,000	5,767,000	0.85	158,000
	Underground	-	-	-	326,000	3.97	42,000
Southwest North	Open Pit	-	-	-	3,945,000	0.58	73,000
	Underground	-	-	-	-	-	-
Golden Highway Iron Formation	Open Pit	-	-	-	5,360,000	1.03	177,000
	Underground	-	-	-	-	-	-
Garrcon	Open Pit	26,787,000	1.01	872,000	971,000	0.83	26,000
	Underground	590,000	4.82	91,000	1,466,000	5.22	246,000
903	Open Pit	18,090,000	1.01	585,000	24,127,000	0.75	581,000
	Underground	-	-	-	-	-	-
Jonpol	Open Pit	8,898,000	1.34	383,000	4,962,000	0.94	151,000
	Underground	-	-	-	-	-	-

Notes: 1. Mineral resource estimates are reported at two different cut-off grades; 0.3 g/t Au for the surface mining scenario and 2.6 g/t Au for the underground mining scenario. 2. The cut-off grade was determined at a gold price of US$1,750 per ounce and a USD/CAD exchange rate of 0.78. 3. The resource estimate is supported by statistical analysis with different high-grade capping applied to each of the deposits ranging from 0.6 g/t Au to 79.0 g/t Au applied on assays composited into 1 m composites. 4. The mineral resources presented here were estimated with a block size of 2.5 m x 2.5 m x 2.5 m utilizing percent blocks and constrained within geological wireframes with a minimum width of 1.50 m. Gold was estimated by ordinary kriging using locally varying anisotropy variogram models. Block grade estimation employed locally varying anisotropy, which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. The maximum range of the variogram models generally are between 65 m x 25 m x 2.5 m and 80 m x 45 m x 5 m. The search ellipse was constrained to selecting composites flagged within each domain. 5. The mineral resources presented here were estimated by APEX Geoscience Ltd. Using the CIM Standards on Mineral Resources and Reserves definitions and guidelines. 6. The historical underground voids from mining in any of the deposit areas have been removed. 7. Tonnage estimates are based on bulk densities individually measured and calculated for each of the deposit areas. Resources are presented as undiluted and in situ. 8. This mineral resource estimate is dated September 7, 2022. The effective date for the drill-hole database used to produce this updated mineral resource estimate is March 15, 2022. Tonnages and ounces in the tables are rounded to the nearest thousand and hundred, respectively. Numbers may not total due to rounding. 9. Discovery includes the Windjammer North resource. 10. Mr. Mike Dufresne, P.Geol., P.Geo. of APEX Geoscience Ltd., who is deemed a qualified persons as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation. Source: APEX, 2022.

Mineral resources can be sensitive to the selection of the reporting cut-off grade. For sensitivity analyses, other cut-off grades are presented for review. Mineral resources at various cut-off grades are presented for the open pit and underground resources in Table 14-17 and Table 14-18, respectively.

Table 14-17: Tower Gold, Open Pit Resource Estimate Sensitivity Table

Cut-Off Grades	Indicated			Inferred		
	Tonnes (t)	Grade (g/t Au)	Ounces (oz)	Tonnes (t)	Grade (g/t Au)	Ounces (oz)
0.20	184,463,000	0.78	4,616,000	282,361,000	0.78	7,119,000
0.25	166,728,000	0.84	4,488,000	251,438,000	0.85	6,895,000
0.30	149,773,000	0.9	4,338,000	223,910,000	0.92	6,652,000
0.40	119,897,000	1.04	4,004,000	175,735,000	1.08	6,113,000
0.50	96,537,000	1.18	3,667,000	140,170,000	1.24	5,601,000

Note: Mineral resource estimates are reported at two different cut-off grades; 0.3 g/t Au for the surface mining scenario and 2.6 g/t Au for the underground mining scenario. Source: APEX, 2022.

Table 14-18: Underground Resource Estimate Sensitivity Table

Cut-Off Grades	Indicated			Inferred		
	Tonnes (t)	Grade (g/t Au)	Ounces (oz)	Tonnes (t)	Grade (g/t Au)	Ounces (oz)
1.50	1,788,000	3.23	186,000	27,742,000	2.99	2,664,000
2.00	1,185,000	3.96	151,000	18,068,000	3.63	2,109,000
2.60	801,000	4.75	122,000	11,719,000	4.35	1,640,000
3.00	622,000	5.27	105,000	8,865,000	4.84	1,379,000

Note: Mineral resource estimates are reported at two different cut-off grades; 0.3 g/t Au for the surface mining scenario and 2.6 g/t Au for the underground mining scenario. Source: APEX, 2022.

14.11 Risk and Uncertainty in the Mineral Resource Estimate

The complete drillhole and assay database comprises assays from 31 drilling programs from 1986 to 2021, utilizing numerous analytical labs. The uniformity of analytical data across these generations of data collection is difficult to characterize because of the large number of drilling programs and different laboratories used, which provides a source of risk. To date, data verification of historical data has been completed to industry standards as described in Section 12, including several twin drill holes. In addition, very few areas within the resource are not well supported by post-2000 drilling. Therefore, to help decrease this risk further, Moneta could complete additional data analysis to establish the uniformity of the various generations of analytical data and determine if specific generations show bias or require special treatment in future resource assessments.

Metallurgical difficulties have been identified at Jonpol. Currently, any mineralized material hosted within ultramafic rocks in the area utilizes a lower recovery than all other resource areas within the Tower Gold Project. Further work to increase the understanding of this and better delineate the lower recovery material would help decrease the risk and uncertainty in the resources at Jonpol.

Modelling structurally controlled orogenic gold deposits in an Archean greenstone belt has inherent geological risk. This style of gold deposit is very complex regarding geological and mineralization continuity. Broader zones with a high density of veins and structural features favourable to mineralization provide much less uncertainty as they are easier to map and predict. Connecting drillhole intercepts of thin mineralized discrete vein or vein zones into continuous interpretations is a more significant source of uncertainty. Open pit resources have less risk as mining does not need to be as selective as with underground resources. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality orientated structural data from drilling. The current mineralization domain interpretations are well-founded and supported by modern drilling, often in several differing orientations based upon significant structural modelling using orientated core. There are some areas with wider spaced drilling that, with additional drilling, may cause changes in the mineralization domain interpretations. Moreover, additional drilling is completed, updating the mineralization on an ongoing basis and working to remove internal dilution as much as possible will confidence increases in the interpretation.

Unsampled intervals within mineralization zones provide a source of uncertainty. There are instances where Moneta's drilling has illustrated that previous issuers did not sample the entire length of mineralization, creating unsampled intervals within mineralization zones. APEX personnel applied a nominal waste value of 0.0025 ppm Au to the unsampled intervals to calculate the MRE detailed in this report. If possible, all unsampled intervals within mineralization zones should be sampled.

Moneta's 2021 drilling identified materially more mineralization than previously expected within the Windjammer Central area, resulting in a material increase of inferred resources. Mineralization at Windjammer Central appears similar in style to Windjammer South, and further drilling to confirm will reduce the uncertainty in the new inferred resources.

The authors are not aware of any other significant material risks to the MRE other than the risks that are inherent to mineral exploration and development in general. The authors of this report are not aware of any specific environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that might materially affect the results of this resource estimate and there appear to be no obvious impediments to developing the MRE at the Tower Gold Project.

15 MINERAL RESERVE ESTIMATES

No mineral reserve has been developed for the project at this time.

16 MINING METHODS

16.1 Introduction

The site is located 100 km east of Timmins, Ontario. The mineral resources used in the mine plan are contained in seven mineral deposits (Southwest, Westaway, 55, Windjammer, Garrcon, 903, and JonPol) over a length of 12 kilometers and span from surface down to a depth of approximately 1,100 meters.

Extraction of the economic mineable inventory is proposed through a combination of open pit and underground (UG) mining as this presented the best case from an economic, environmental, and sustainable development perspective and it will take place in two phases. The Project is to have production achieve an average maximum combined rate of 7.0 Mt/a at 0.94 g/t over the 24-year Life of Mine (LOM). As a result, this report is focused on the two mining methods mentioned above for the extraction of the seven mineralized deposits as shown on Table 16-1 below. Table 16-2 shows the combined resources for the open pit and underground mines.

Table 16-1: Mining Methods and Mineralized Zones

Mine	Area	Deposit
Underground	Golden Highway	Westaway
		Southwest
Open Pit	Golden Highway	55
		Westaway
		Southwest
		Windjammer
	Garrison	Garrcon
		903
		JonPol

Source: Mining Plus, 2022.

The underground mine will be accessed through a single portal to surface leading to Westaway Zone via the main ramp of size 5.5 m wide (W) x 5.8 m high (H) and at a gradient of 1:7. The main ramp will bifurcate at the ventilation raise in order to access Southwest Zone. This will allow ready access to fresh air to develop the two ramp branches simultaneously. The underground mine will make use of the longhole method and have average stope dimensions of 20 m length (L) x 3 m W x 25 m H, and a production rate of 900 ktpa. The underground design for the Southwest and Westaway deposits are presented in Figure 16-1 below.

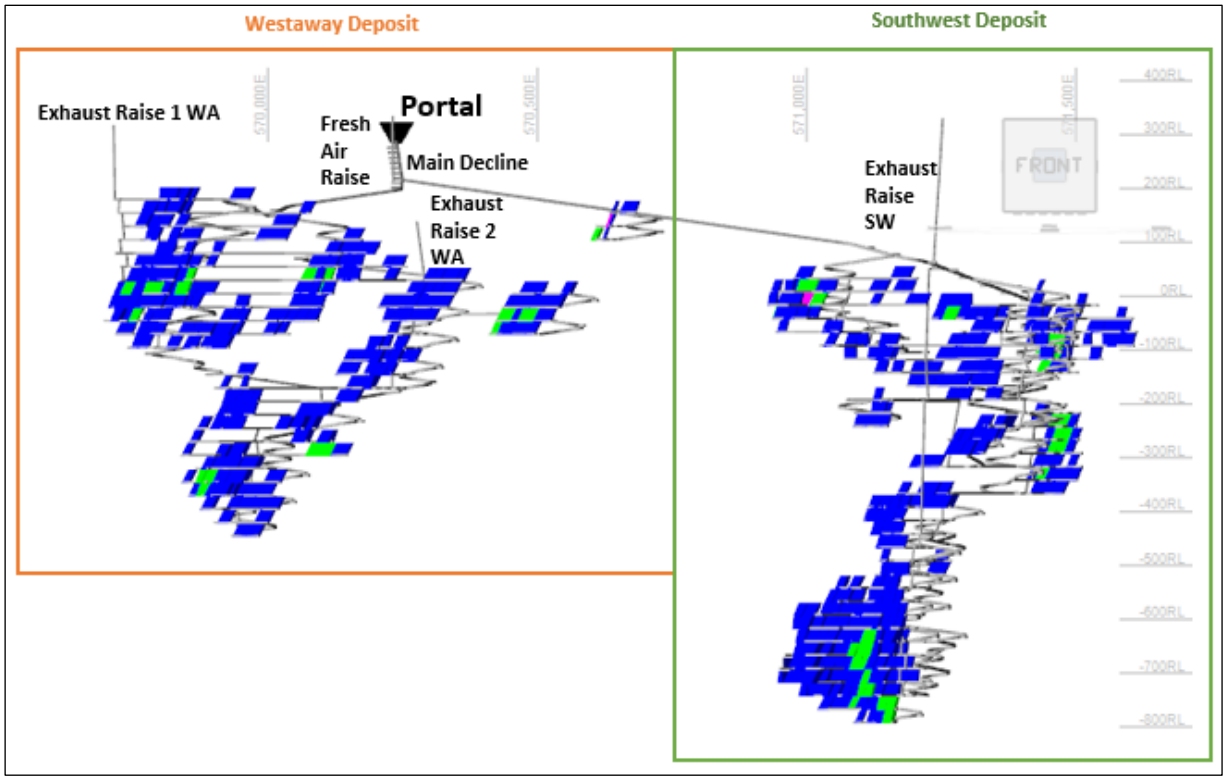
The open pit Mine will encompass a total of seven pits mined in two phases at an ultimate pit angle of 46 degrees. The Tower Gold project will employ a conventional truck shovel open pit mining method comprising separate waste and mineralized material equipment fleets to improve on selectivity and reduce waste removal costs. The mineralized material fleet consists of 12 m³-excavators and 92-tonne trucks while the waste fleet consists of 29 m³-excavators and 227-tonne trucks. Surface mining will extract material from two areas of the property: Garrison and Golden Highway, with Golden Highway providing the bulk of the PEA mine plan.

Table 16-2: Combined Resources for OP and UG Mines

Description	Value
PEA Mill Feed	166,436 kt
Mill Feed Gold Grade	0.94 g/t
Waste Overburden and Rock	732,505 kt

Notes:
1. The PEA Mine Plan and Mill Feed estimates are a subset of the September 07, 2022, Mineral Resource estimates, and are based on open pit mine engineering and technical information developed at a Scoping level for the Garrison and Golden Highway deposits.
2. PEA Mine Plan and Mill Feed estimates are mined tonnes and grade; the reference point is the primary crusher.
3. OP Cut-off grade of 0.30 g/t assumes US$1,600/oz. Au at a currency exchange rate of 0.78 US$ per C$; 99.95% payable gold; $2.40/oz off-site costs (refining, transport, and insurance); a 1.5% NSR royalty (Garrison only); and a 91% average metallurgical recovery.
4. The cut-off grade covers processing costs of $11.13/t and administrative (G&A) costs of $1.67/t.
5. Mining dilution of 5% is applied to the in-situ mineral resources for the open pit with a mining recovery of 96% diluted tonnages applied. Underground stopes are designed with a 1 metre skin to capture dilution and a mining recovery of 90%.
6. Estimates have been rounded and may result in summation differences.
Source: Mining Plus, 2022.

Figure 16-1: Underground Mine Layout – Looking North



Source: Mining Plus, 2022.

16.2 Underground Geotechnical Parameters

Formal geotechnical design work remains outstanding for the Southwest and Westaway mineralized zones. Available data is limited to rock quality designation (RQD) data from 516 exploration drill holes (See Table 16-3, Table 16-4, Table 16-5 below) and structural orientation records (α and β angles).

Table 16-3: Westaway Zone Stope Optimization Parameters

Stope Parameters	Unit	Value
Height (vertical)	m	25.0
Section Length	m	20.0
Minimum Width	m	3.0
Maximum Width	m	17.0
Average Width	m	5.8
ELOS HW Dilution	m	0.5
ELOW FW Dilution	m	0.5
Minimum Dip	degree	60.0
Maximum Dip	degree	90.0

Source: Mining Plus, 2022.

Table 16-4: Southwest Zone Stope Optimization Parameters

Stope Parameters	Unit	Value
Height (vertical)	m	25.0
Section Length	m	20.0
Minimum Width	m	3.0
Maximum Width	m	20.0
Average Width	m	6.9
ELOS HW Dilution	m	0.5
ELOW FW Dilution	m	0.5
Minimum Dip	degree	60.0
Maximum Dip	degree	90.0

Source: Mining Plus, 2022.

Table 16-5: Summary of Exploration Drill Hole RQD Data

Drill Hole ID	Count
M55-10-XX	19.0
M55-12-XX	3.0
MGH13-XXX	96.0
MGH16-XXX	11.0
MGH17-XXX	73.0
MGH18-XXX	28.0
MGH19-XXX	28.0
MGH20-XXX	39.0
MGH21-XXX	94.0
MM97-2XXX	2.0
MPL11-XX	9.0
MSW10-XXX	29.0
MSW11-XXX	18.0
MSW12-XXX	14.0
MU-89-129X	1.0
MWj08-XXX	1.0
MWJ09-XX	2.0
MWJ10-XX	2.0
MWJ11-XX	26.0
MWJ12-XX	21.0
Total Count	516.0
Average RQD	87.5

Source: Mining Plus, 2022.

No laboratory strength testing has been performed on the rock units. A summary of the geotechnical parameters used in this study for mine design are as follow.

- Standard ground support has been assumed for the underground excavations which is envisioned to be installed with a development jumbo. A summary of the development dimensions is provided in Table 16-6 below. Standard ground support of 2.4 m resin rebar bolts in the back spaced on a 1.2 m x 1.2 m pattern, with 4-inch weld wire 6-gauge screen down to 1.5 m from the sill, and 2.4-m split sets bolts in the side wall spaced on a 1.2 m x 1.2 m pattern. The application of split set bolts assumes dry and non-corrosive conditions and would be regularly inspected and audited by a quality assurance and control program. Where zones of weak rock mass quality are encountered (faults, shear zones), 50 mm of shotcrete over mesh should be employed to support the rock mass.

Table 16-6: Development Dimensions

Excavation	Width (m)	Height (m)
Ramp	5.0	5.8
Levels, sill, cross cuts, remucks, ventilation drifts	4.5	4.5
Safety Bays	3.0	4.0

Source: Mining Plus, 2022.

- Stopes will be backfilled with a pastefill with the assumed binder requirements expected to provide for added strength for 25-m high vertical exposures.

- Within all zones, dilution from the hanging wall and footwall is expected with an equivalent linear overbreak/slough (ELOS) of 0.5 m for the hanging wall and footwall respectively. In areas where diminishing pillars are created, dilution for the final stope is expected to have an equivalent linear overbreak/slough of 1.0 m for the hanging wall and footwall respectively. The addition of rib and sill pillars needs to be evaluated and potentially included once subsequent geotechnical analyses and strength modelling are completed in the PFS/FS.

- Assuming a maximum stope width of 10 m for near surface stopes for the Westaway pit and strike length of 20 m, a sufficient crown pillar of 20 m is expected to be stable.

- Stope Optimization parameters followed for this study are included above in Table 16-3 and Table 16-4.

16.2.1 In-Situ Stress

The state of in-situ stress has been assumed based upon the updated estimate of in-situ stresses in the Canadian Shield (Kaiser et al., 2015) and separated by Domains related to depth below surface. The authors noted variability and uncertainty in the in-situ stress regime is highest in the transitional stress Domain 2 (300 to 600 m depths). The orientation of the major horizontal stress can be estimated from the World Stress Map (2016) which in the vicinity of the Tower Gold project shows perpendicular trajectories. The dip slip displacement model for faults in this area favor the presumption of an east/west orientation. It is also important to note that local faulting in the mine can influence the in-situ stress field and should be considered for future studies. Table 16-7 shows a summary of the estimated in-situ stress state for the Tower Gold project. Figure 16-2 illustrates the principal stress trajectories in the vicinity of the Project.

Table 16-7: In-Situ Stress State Estimation – Tower Gold Project

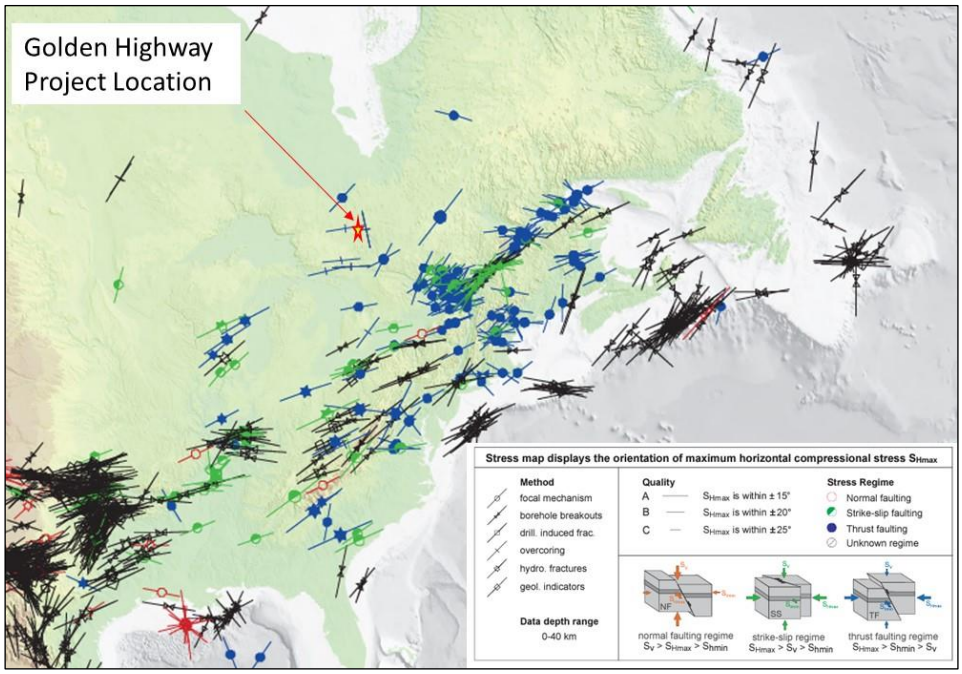
Domain 1 (0–300m)	Domain 3 (600–1500m)
σ_H (MPa) = (0.060 ± 0.027)*z**+ (3.722 ± 4.659)	σ_H (Mpa) = (0.035 ± 0.005)*z**+ (9.500 ± 5.373)
σ_h (Mpa) = (0.044 ± 0.022)*z**+ (2.981 ± 3.766)	σ_h (Mpa) = (0.024 ± 0.005)*z**+ (8.883 ± 4.867)
σ_V (Mpa) = (0.026 ± 0.002)z*	
Orientation σ_H	
Strike (80/260)	Plunge (Flat)

*Depth in meters. Source: Mining Plus, 2022.

The Southwest Zone mine design currently exists to a depth of approximately 1,100 m, while the Westaway Zone reaches a depth of 750 m. At these depths, overstressing of the rockmass is unlikely; however, the potential for overstressing still

exists, and a review of the induced stresses from mining would be beneficial in order to provide greater confidence in the development and production scheduling and costing.

Figure 16-2: Canadian Shield Major Horizontal Stress Trajectories



Source: World Stress Map, 2016.

16.2.2 Structural Model

The structural mapping database from oriented core mapping of exploration drill holes was reviewed for structural information. These data are not correlated to a geotechnical domain model and is for indicative purposes only. The Rocscience Program Dips v.7.0 was used to plot the data and summarize the statistically dominant structural sets.

Figure 16-3 summarizes the bedding planes, faults, and shear zone structural information from the data set. The bedding plane information aligns with the historical understanding that sedimentary bedding generally strikes northeast or southwest and dips steeply to the northwest or southeast. Additional fault information can be referenced in the Moneta Porcupine Mines updated mineral resource estimate and PEA (January 2021) as detailed below in Table 16-8.

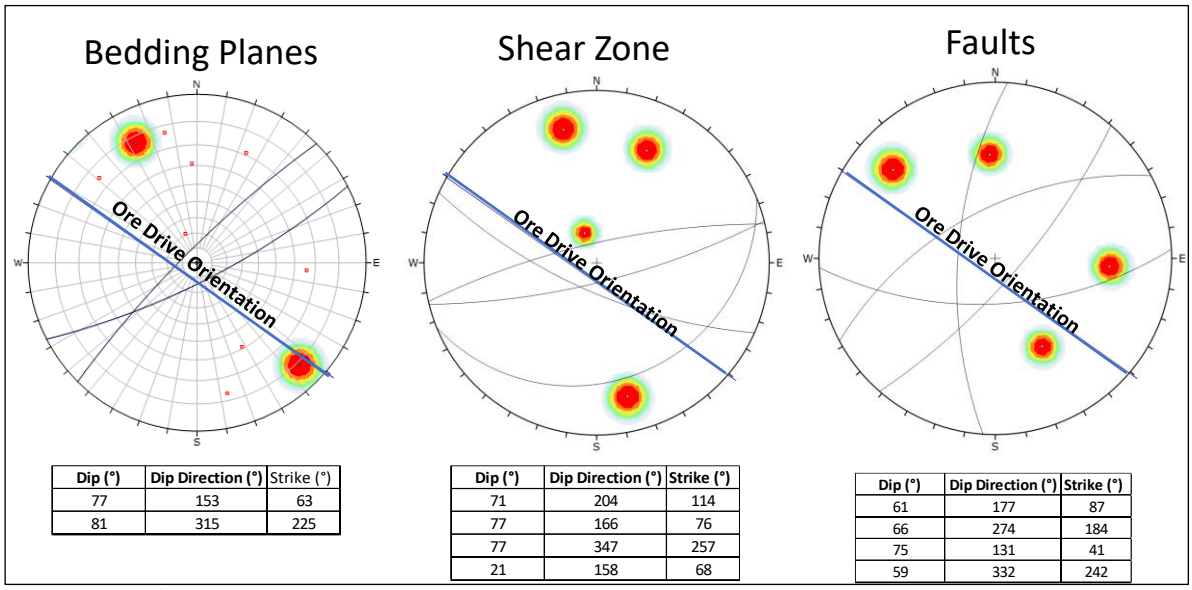
Table 16-8: Summary of Fault Information in the January 2021 Updated Mineral Resource Estimate and PEA

Deposit	Feature	Name	Dip (°)	Dip Direction (°)	Strike (°)
SW	Fault	Main	60	245	`155
SW	Fault	Gap	65	225	135

Source: Mining Plus, 2022.

The information indicates these geologic features are more commonly orthogonal to the drive orientation, which is favourable for stability of the drive and the hangingwall/footwall of longitudinal stopes.

Figure 16-3: Summary of Structural Information from Tower Gold Exploration Mapping



Dip (°)	Dip Direction (°)	Strike (°)
77	153	63
81	315	225

Dip (°)	Dip Direction (°)	Strike (°)
71	204	114
77	166	76
77	347	257
21	158	68

Dip (°)	Dip Direction (°)	Strike (°)
61	177	87
66	274	184
75	131	41
59	332	242

Source: Mining Plus, 2022.

16.2.3 Rock Mass Characterization

No formal rock mass characterization has been completed on the exploration drill hole core. The NGI Q-system (Grimstad and Barton, 1993) and Rock Mass Rating (Bieniawski, 1989) systems are recommended for application to provide a basis for empirical ground support design and stope optimization via the Matthews' Stability Graph method. The current assumption for the PEA is the overall rockmass is of Fair to Good quality (RMR89 = 41-80).

This information should ideally be correlated to a geotechnical domain model that is derived from the structural and geology information. Such a model could be populated with the derived rock mass classification data to develop a better understanding of the underground geotechnical behavior.

16.2.4 Additional Recommended Geotechnical Analysis

The following is a list of additional site investigations that are recommended to support pre-feasibility study level designs for the Tower Gold Project. These will include:

- Rock strength testing of key geologic units in the vicinity of mining to obtain Unconfined Compressive Strength, Brazilian indirect Tensile Strength, Triaxial and Elastic constants, bulk density.
- Geotechnical logging of previously drilled exploration boreholes for NGI Q and/or Rock Mass Rating Assessments.
- A crown pillar assessment for the Westaway Zone to validate the design thickness.
- Geomechanical drilling (using oriented core) including packer testing. It is recommended to supplement this work with geophysical acoustic televiewer surveys in open exploration boreholes.

- Numerical stress modelling should be conducted to validate sill pillar sizing if required and stope sizing optimization studies and verify low risk levels for induced stress related problems.
- Matthews' Stability Graph stope size optimization should be completed for both the Westaway and Southwest zones and include an assessment of cable bolting requirements for the backs of stopes. This analysis should also be used to refine the stope dilution estimations.
- Development of geotechnical domains based on geologic and structural data.
- Development of a structural model that incorporates major faults and shear zones.
- Kinematic analysis of wedge development to validate the ground support strategy for all geotechnical domains including intersection support standards and development through weak rock mass zones.

16.3 Hydrogeological Parameters

A hydrogeological assessment of the underground, open pits and waste dump/stockpile foundations has not been undertaken for any of the deposits. Hydrogeological testing (packer testing, profile tracer testing) and instrumentation (i.e., piezometers) should be installed in select holes to provide basic data for groundwater modelling and excavation dewatering/depressurization simulations. There should be a focus on both underground and open pits where this information is sparse. Groundwater investigation should be integrated with any geotechnical programs for underground dewatering, pit slope design and waste storage facilities.

16.4 Underground Mine Design

The Tower Gold Project will be extracted with a combination of open pit mining for mineralization closer to surface, and underground mining for mineralization at depth. The combined output of both mines will be 166.4 Mt at an average grade of 0.94 g/t. The underground mine will be responsible for 8.2 Mt at a grade of 3.42 g/t over an underground mine life of 12 years. The underground mine is estimated to produce 900 ktpa at peak and has been planned to a depth of 1,100 m, encompassing a total of 25 and 37 levels in the Westaway and Southwest deposits respectively.

A mining method trade-off study was conducted to determine the most suitable mining method considering the geometry and geology of the deposit, as well as ability to meet cost and production targets. The mining methods assessed for the trade-off study were Sub-Level Open Stoping- (SLOS), Modified Avoca, Overhand Cut and Fill, and Sub-Level Caving. Each of the criteria were assigned a weighted value and the methods were ranked based on these criteria. Table 16-9, below, details the results of the study.

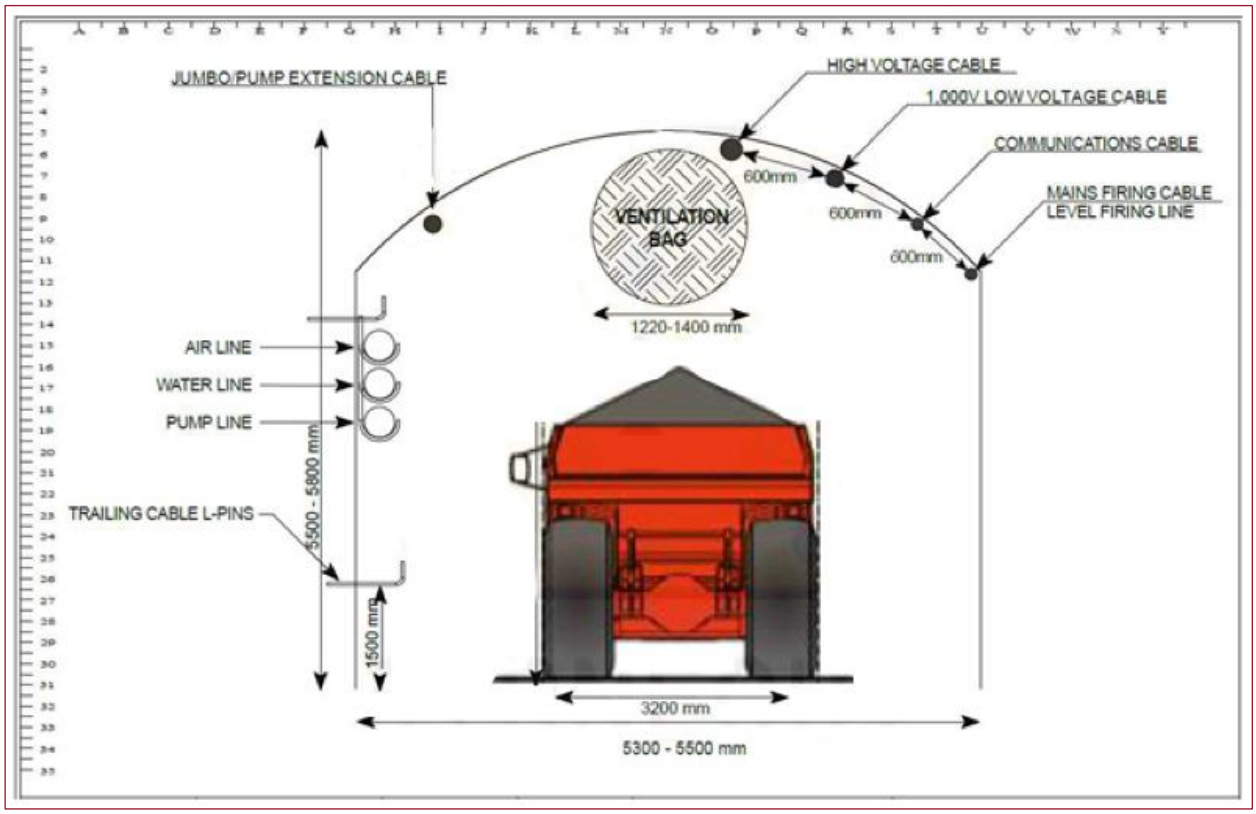
Longhole stoping with pastefill was selected as the primary extraction method for both deposits, however the authors identified potential for cut and fill mining to selectively extract isolated mineralized material opportunities. The ramp is designed at 5.5 m wide by 5.8 m high, and also adds flexibility to production as there is potential to employ 60-t trucks for haulage to facilitate higher production. Figure 16-4 illustrates a schematic of the ramp cross section.

Table 16-9: Mining Method Trade-off Study Ranking Criteria and Results

			Method Considerations													
Mining Method	Orebody Suitability	Expected Prod Rate	Dilution	Recovery	Ore Grade	Selectivity	Flexibility	Vent	Geotech Stability	Time To First Ore	Backfill Req	CapEx	OpEx	Safety & Socioecon	Total Score	Rank
SLOS with Backfill - Primary-Primary	18	18	14	17	17	14	13	18	14	15	11	15	20	21	224	1
Modified Avoca	16	12	11	16	16	13	11	17	11	11	8	17	25	20	205	2
Overhand Cut and Fill	17	8	18	20	21	18	10	9	15	11	6	9	10	16	187	3
Sub-Level Caving	12	18	6	11	10	7	6	14	8	8	14	18	23	16	170	4

Source: Mining Plus, 2022.

Figure 16-4: Example Schematic for Ramp Development



Source: Byrnecut Mining, 2019.

16.4.1 Mine Access

The underground mine will be accessed via a portal and ramp. A decision was made to move the UG mine to an earlier stage in the schedule, raising the need to develop a box cut and portal to access the mine instead of accessing through the open pit. The ramp will be driven at a 1:7 ratio and sized to 5.5 m W x 5.8 m H, bifurcating at the ventilation raise to enable air to be carried to both branches accessing the Southwest and Westaway zones. The ventilation raise will be established after about 800 m of initial ramp development. The ramp then branches about 650 m and 1,000 m to reach Westaway and Southwest respectively. The ramp is estimated to reach the uppermost levels of Westaway Deposit in 11 months and the Southwest Deposit in 16 months.

16.4.2 Underground Mine Development

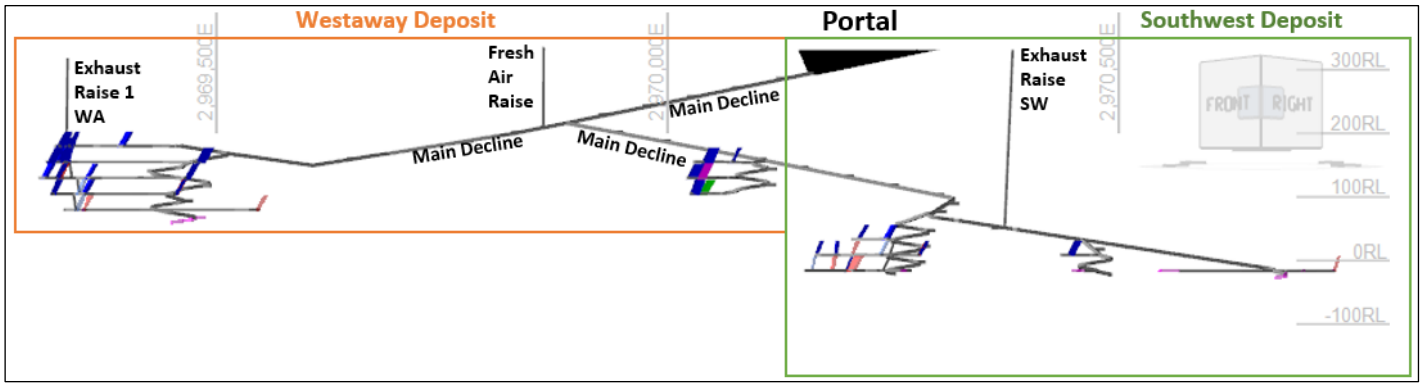
Underground development will access stopes predominantly by the footwall in Westaway, and by either the footwall or hangingwall in Southwest depending on the zone. The current design calls for about 28,200 m of lateral capital development, and 50,000 meters of lateral operating development. Each crosscut contains a sump, remuck, and ventilation drift-raise connection between levels, with an electrical substation on every other level. Items such as lunchrooms, electrical and dewatering stations, explosive and fuel bays, or underground maintenance facilities have not been included in the design, though it is expected that pre-existing remucks will be utilized for most of these purposes. A suitable number of

portable refuge stations has been factored into the design. Furthermore, a dedicated secondary egress has not yet been included for both deposits and is recommended to be evaluated in future planning stages.

16.4.3 Underground Mine Production

The underground mine is planned to initially be contractor built and operated for the first three years, transitioning to an owner-operated and managed mine after ramp-up to full production, which is typical of similar operating mines in the region. Longhole mining has been selected for the mining method as it presents the best compromise given the parameters of the mineral body, while minimizing waste development. The average stope dimensions are planned to 20 m L x 25 m H with a 3 m minimum mining width, predominantly retreating longitudinally with occasional transverse mining as required. The production sequence will take place top-down in order to gain early access to mineralization. It is expected for the construction period and ramp-up to take around 3 years, at which time the owner will take over operations and development. See Figure 16-5 for an illustration.

Figure 16-5: Underground Mining Complex at Start of Year 3 – Looking Northwest



Source: Mining Plus, 2022.

Mining operations are based on 360 operating days per year with two, 12-hour shifts per day. The number of mine operations personnel peaks at 116 and it encompasses three distinct crew rosters (day/night/off). Table 16-10 details the labour force requirements for the operation of the underground mine. Note that certain positions, like Chief Mine Engineer, Mine Manager, and Superintendent, that overlap with open pit (OP) labour force requirements have not been included in these figures as they have been included in the open pit detail. Also, the proximity of the Project to populated centers, makes it possible to have 5-day-on, 2-day-off coverage by a single supervisor at the start of development and production. Dedicated explosive loaders, miners (services), and grader operators will not be required in the first year; these positions will be covered by the stand-by operators.

Table 16-10: Labour Force Summary

Labour Force	Years											
	1	2	3	4	5	6	7	8	9	10	11	12
Underground Labour	11	36	62	105	109	116	116	113	113	105	105	56
Maintenance	10	27	27	27	27	27	27	27	27	27	23	13
Operations Staff	2	5	5	10	10	10	10	10	10	10	10	4
Technical Staff	8	11	12	14	14	14	14	14	14	14	14	9
Total	**31**	**79**	**106**	**156**	**160**	**167**	**167**	**164**	**164**	**156**	**152**	**82**

Source: Mining Plus, 2022.

Drilling will take place with a top-hammer, electro-hydraulic longhole drill rig. The 4-inch diameter blastholes will be loaded with emulsion and detonated with non-electric blasting caps. Broken mineral will be mucked via a 10-t load haul & dump (LHD) loader and loaded onto 50-t underground trucks for haulage to surface. On surface, the mineralized rock will be hauled from the portal dump site to the mill with a dedicated surface truck.

The selected mining method will require paste backfill to manage stability and achieve planned extraction. All excavations will be pastefilled to about 70%, and adjacent stopes will be blasted against the cured pastefill. Perimeter blasting techniques will be used in order to minimize dilution.

Determination of potentially mineable material was made using Deswik Stope Optimizer® cut-off grade. The following key inputs to generate an optimized stope shape were employed. The actual input parameters used are illustrated in Table 16-11.

- Cut-off grade;
- Mining extents;
- Min and max stope width;
- Level spacing;
- Min and max dip angle; and
- Dilution parameters.

Table 16-11: Input Parameters Used for Deswik Stope Optimizer (DSO) Runs

Parameter	Value
Cut-off grade g/t Au	2.60 g/t Au
Min mining width	3.0 m
Level spacing	25.0 m
Section spacing	0.5 m
Min trans pillar width	5 m
Min dip angle	60˚
Max dip angle	120˚
Max strike angle change	20˚

Source: Mining Plus, 2022.

A suitable global cut-off grade was selected for the underground extraction of mineralization. In accordance with best practices for steady and reliable production, stope shapes were designed at a cut-off grade higher than that determined at current spot prices to protect against down-side risk; with the 2.6 g/t cut-off used to break even at $1,200/oz price point. Additionally, this cut-off maintains constancy with the last PEA as it pertains to potentially economic mineable resources. An assessment of development cut-off grade was completed and calculated to be 0.25 g/t for use in development of sills through otherwise uneconomic mineralization. This was applied directly to operating development to reduce overall waste generation and increase minable tonnes. The parameters for the calculation are summarized in Table 16-12.

Table 16-12: Tower UG Cut-off Grade Calculation

Parameter	Unit	Break-even COG	Selected COG
Gold Price	US$/oz	1,600	1,200
Exchange Rate	C$/US$	1.28	1.28
Gold Mass Conversion	g/oz	31.1	31.1
Gold Price	C$/g	65.95	49.46
Refining Cost	C$/oz	5	5
Transport & Insurance	C$/oz	2	2
Value of Gold	C$/g	65.73	49.24
Operating Costs	**Unit**	**Value**	**Value**
UG Mining (including backfill)	C$/t mill feed	88	88
Sampling, GA	C$/t mill feed	5	5
Crushing	C$/t mill feed	5	5
Haul	C$/t mill feed	5	5
Milling	C$/t mill feed	10	10
Total Operating Cost	C$/t mill feed	113.1	113.1
Opex Cut-off	g/t Au	1.72	2.3
Mill Recovery Est.	%	90	90
Total Cut-off Grade	**g/t Au**	**1.9**	**2.6**

Source: Mining Plus, 2022.

16.4.4 Underground Production Schedule

Mine development will initially be carried out by a mining contractor, with Moneta later taking over full operation of all stoping and development activities. Headings are scheduled to advance at a rate of 5.9 m/day for single headings, and up to 8.2 m/day for multiple headings, with steady-state production of 900 ktpa being reached in Year 3.

In addition to the ventilation raise that will facilitate pre-production development, three other ventilation shafts are proposed in the mine design. Each deposit will possess a dedicated exhaust shaft to be utilized during production, with an additional shaft being driven in Westaway subsequent to the completion of that pit. As detailed engineering work was not carried out for this PEA, it is recommended that the ventilation, dewatering, and mine services be further detailed in later studies.

The optimized stope shapes were used for mine development design by means of Deswik CAD® and integrated in Deswik IS® and Scheduler to sequence and develop the life-of-mine schedule. It is a task-based dependency schedule in which each task of the schedule is assigned a duration (for time-dependant activities) or rates (for productivity dependant activities) as per Table 16-13 below. The "Stope Preparation" task begins upon completion of the undercut, or once the adjacent stope's pastefill has finished curing. A drilling factor of 6 t/m was calculated based on the average stope dimensions and applied across the mine to estimate production drilling requirements. Resources representing underground equipment were then generated and applied to productivity-based tasks to produce a practical LOM schedule. The physicals for underground production are summarized in Table 16-14.

Table 16-13: Stope Scheduling Tasks and Parameters

Schedule Task	Duration/Rate
Stope Prep Lag	7 days
Drill Rate	230 m/day
Muck Rate	500 t/day
Fill Rate	5700 pft/day
Cure Lag	28 days

Source: Mining Plus, 2022.

Table 16-14: Tower Gold Underground LOM Physicals

Westaway Deposit	Total	Years											
		1	2	3	4	5	6	7	8	9	10	11	12
Mineral (t)	3,007,922	44,263	267,504	281,970	395,861	376,474	379,705	318,552	326,807	402,234	179,780	34,772	0
Grade (g/t)	3.37	2.84	3.16	3.62	3.81	3.17	3.29	3.20	3.15	3.39	3.84	2.88	0.00
Total Oz (Au)	326,203	4,049	27,199	32,796	48,529	38,378	40,161	32,801	33,056	43,824	22,192	3,219	0
Waste (t)	1,169,274	63,820	150,624	139,471	129,585	197,486	186,411	104,871	88,982	108,024	0	0	0
Southwest Deposit	**Total**	**Years**											
		1	2	3	4	5	6	7	8	9	10	11	12
Mineral (t)	5,240,649	0	132,979	617,942	504,139	523,526	520,219	581,448	573,175	497,754	544,619	527,077	217,772
Grade (g/t)	3.44	0.00	2.69	3.37	3.14	3.35	3.49	3.14	3.21	3.42	3.86	3.96	4.09
Total Oz (Au)	579,843	0	11,507	66,909	50,894	56,335	58,368	58,700	59,117	54,784	67,502	67,095	28,632
Waste (t)	1,708,778	0	194,537	251,408	323,057	227,409	377,564	270,675	46,967	5,972	4,381	6,809	0
Combined UG	**Total**	**Years**											
		1	2	3	4	5	6	7	8	9	10	11	12
Mineral (t)	8,248,571	44,263	400,482	899,912	900,000	900,000	899,924	900,000	899,982	899,988	724,400	561,849	217,772
Grade (g/t)	3.42	2.84	3.01	3.45	3.44	3.27	3.41	3.16	3.19	3.41	3.85	3.89	4.09
Total Oz (Au)	906,046	4,049	38,705	99,705	99,423	94,713	98,529	91,501	92,174	98,608	89,694	70,314	28,632
Waste (t)	2,878,052	63,820	345,161	390,879	452,642	424,895	563,975	375,546	135,949	113,996	4,381	6,809	0

Source: Mining Plus, 2022.

16.5 Open Pit Mine Design

16.5.1 Key Design Criteria

The following mine planning design inputs were used:

- The Garrison topography is based on a drone survey of the region in 2017. The Golden Highway topography is based on a LiDAR survey flown in 2010.
- The Garrison resource block model uses a block size of 5 m x 5 m x 5 m.
- The Golden Highway resource block model used a block size of 2.5 m x 5 m x 5 m.
- The resource model contains mineralized gold grades, specific gravities, resource classifications, and flags for refractory potential.
- Measured, indicated, and inferred class mineral resource estimates are included in pit optimizations and mill feed estimates.
- Stockpiles and haul roads are planned to minimize wetland, waterbody, and watercourse disturbance.

16.5.2 Net Smelter Price and Cut-Off Grade

Net smelter price (NSP) is used for mine planning to consider all off-site costs and determine the revenue potential of each deposit. The NSP calculation used the inputs shown below in Table 16-15.

Table 16-15: Net Smelter Price

Item	Value
Gold Price	US$1,600/oz
US Exchange Rate	US$0.78:C$1
Payable Gold	99.95%
Gold Offsite Costs (Refining, Transport, Insurance)	C$2.40/oz
Royalty	Garrison: 1.5% Golden Highway: 0%
Net Smelter Price	C$64.85/g
	C$2,017/oz

Source: Mining Plus, 2022.

The economic cut-off grade is chosen as the grade required to pay for processing and G&A costs. The cut-off grade uses the inputs shown below in Table 16-16.

Table 16-16: OP Cut-Off Grade

Item	Value
Net Smelter Price	$64.85/g
Average Process Recovery	91.00%
Mining Costs	$2.75/t
Processing Costs	$11.23/t
G&A Costs	$1.67/t
Cut-off Grade	0.29g/t
Selected Cut-off Grade	0.30g/t

Source: Mining Plus, 2022.

A higher cut-off grade of 0.30 g/t was selected for the basis of mine planning, in order to reduce the amount of low grade fed to the plant to increase margins.

16.5.3 Mining Loss and Dilution

A 5% external dilution factor is applied to account for mixing of mineralized material and waste during the mining process.

A 96% mining recovery is also applied to account for inefficiencies and operating challenges such as blasting losses, carry-back in truck boxes due to wet material, misdirected materials, and other unforeseen exceptions.

A detailed study is necessary to better understand and quantify the internal dilution. This analysis is recommended for the next phase of Project development.

16.5.4 Pit Slopes

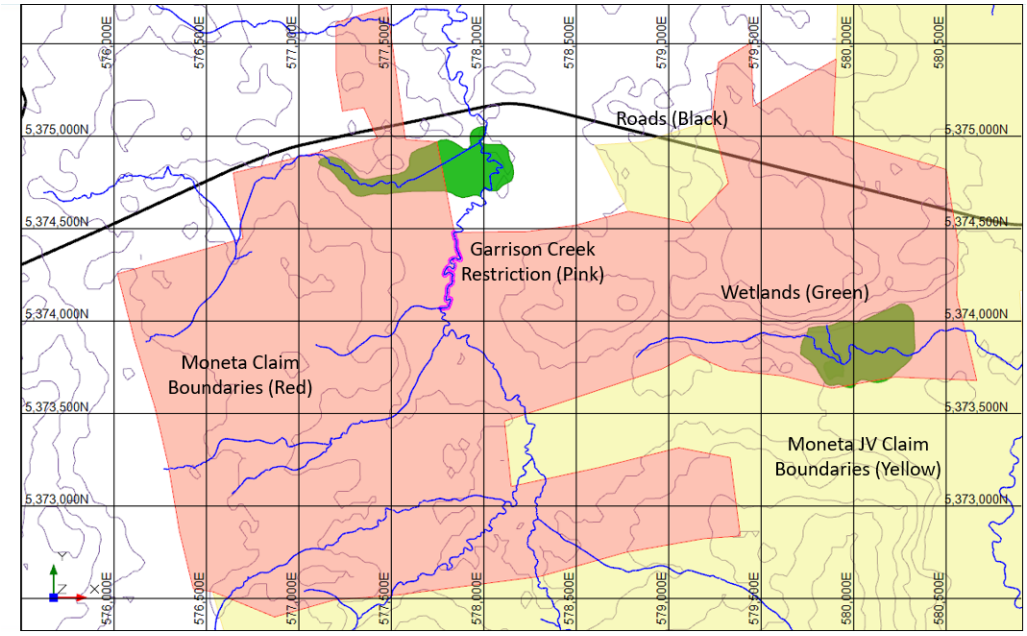
A geotechnical assessment has not yet been completed for Garrison or Golden Highway deposit areas. A benchmarking study was conducted based on nearby mines to determine the appropriate pit slope angles to use for this study. An overall pit slope angle of 46° has been selected for hard rock, and 25° for overburden.

A targeted program of geotechnical borehole drilling, and analysis is recommended for the next phase of Project development in order to better understand pit slope design criteria and overall pit slope angles in all sectors of each deposit.

16.5.5 Geographic Restrictions

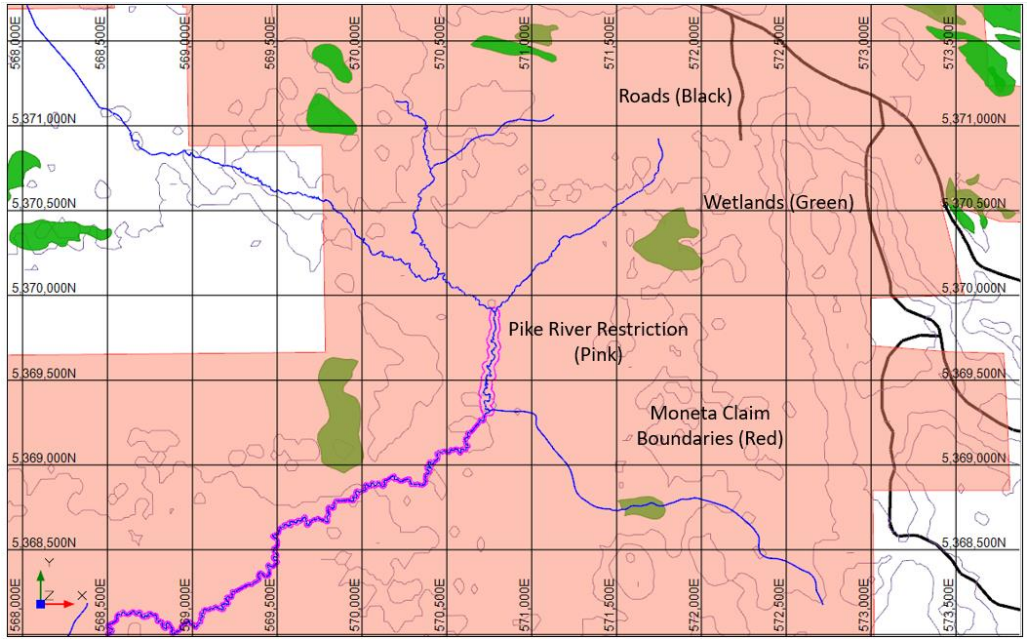
Open pits and stockpiles are restricted from progressing beyond the Moneta mining claims or joint venture boundaries. Open pits and stockpiles are also restricted from being at least 10 m away from Garrison Creek and 30 m away from the Pike River. Stockpiles are restricted from being placed near Highway 101 or within identified wetland zones. These geographic restrictions to mine planning are illustrated below in Figure 16-6 and Figure 16-7.

Figure 16-6: Garrison Geographic Restrictions



Source: Mining Plus, 2022.

Figure 16-7: Golden Highway Geographic Restrictions



Source: Mining Plus, 2022.

16.5.6 Pit Optimization

Pit optimization was conducted using Geovia Whittle software and the Pseudoflow algorithm. This algorithm uses the resource gold grades, resource class and specific gravity (SG) for each block of the block model to evaluates the cost and revenue of the blocks within potential pit shells. The algorithm uses engineering parameters and economic inputs and expands downwards and outwards until the last block mined is at break-even economics.

In this study, the pit shells are generated by varying the input gold price and comparing the resource and waste tonnes and grade for each pit. By varying the gold price while keeping inputs for metallurgical recoveries and pit slopes constant, various generated pit cases are evaluated to determine where incremental pit shells produce marginal or negative economic returns. The economic margins from each pit are evaluated on a relative basis to provide payback on capital and produce a return for the Project. At some point, a larger pit does not provide significant added value. A pit limit can then be chosen that has a suitable financial return for the deposit.

Note that the economics are only applied for comparative purposes to assist in the selection of an optimum pit shell for further mine planning; they do not reflect the actual financial results of the mine plan. The chosen pit shell is then used as the basis for further mine planning, scheduling, equipment selection and financial modelling.

The pit optimization inputs utilized in this study are shown in Table 16-17 below.

Table 16-17: Whittle Pit Optimization Inputs

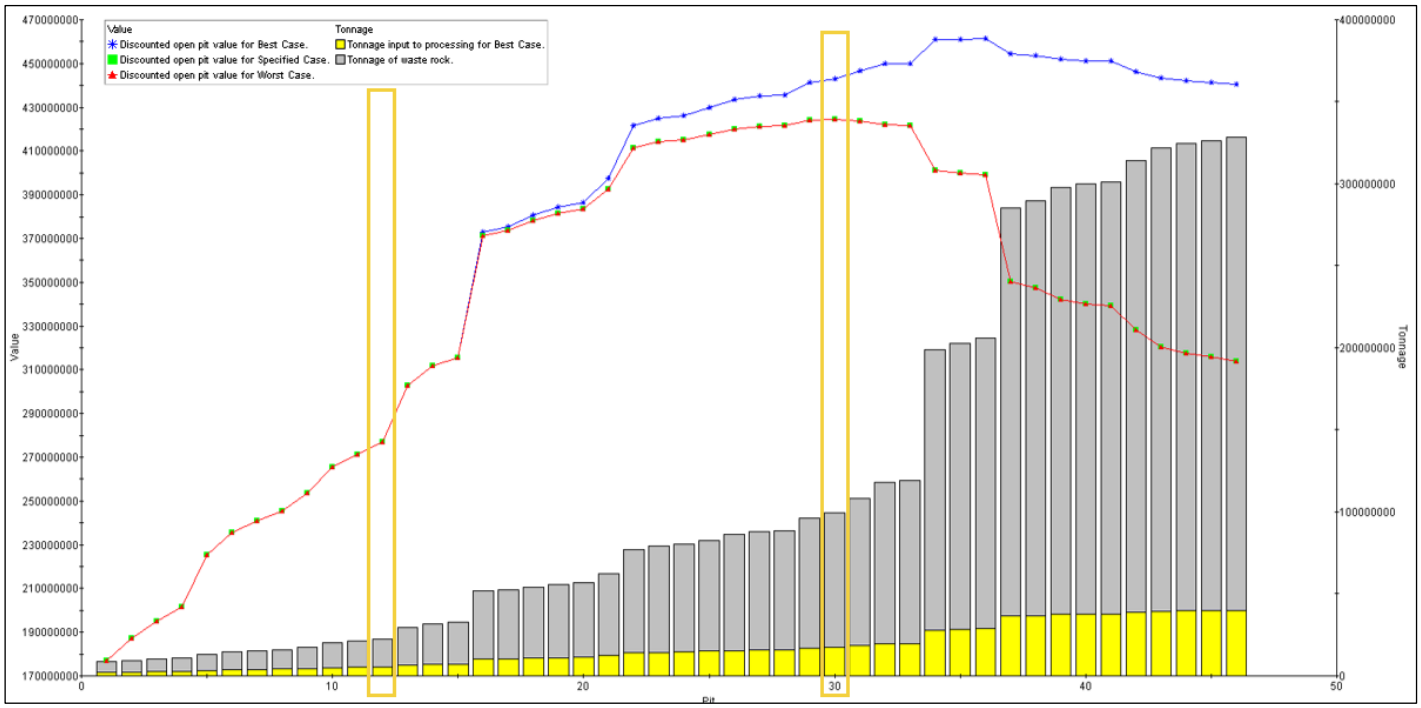
Item	Value
Gold Price	US$1,600/oz
US Exchange Rate	US$0.78:C$1
Mining Cost	Hard Rock: $2.75/t, Overburden: $1.84/t
Incremental Mining Cost per 5m Bench	$0.015/bench
Processing Cost	$11.13/t
G&A Cost	$1.67/t
Mining Dilution	5%
Mining Recovery	96%
Payable Gold	99.95%
Gold Offsite Costs (Refining, Transport, Insurance)	C$2.40/oz
Royalty	Garrison: 1.5% Golden Highway: 0%
Pit Slopes	Hard Rock: 46°, Overburden: 25°
Average Recoveries	91%

Source: Mining Plus, 2022.

16.5.7 Pit Limit Optimization for OP Deposits

Figure 16-8 shows the contents of the generated pit shells for the 903 deposit (Garrison). Pit 12 was selected for the first phase, as it is located at the first inflection point and provides a high value relative to the pit size. Pit 30 was selected as the second phase as it is approaching the maximum value of the shells. Any larger shells have marginal economic benefit.

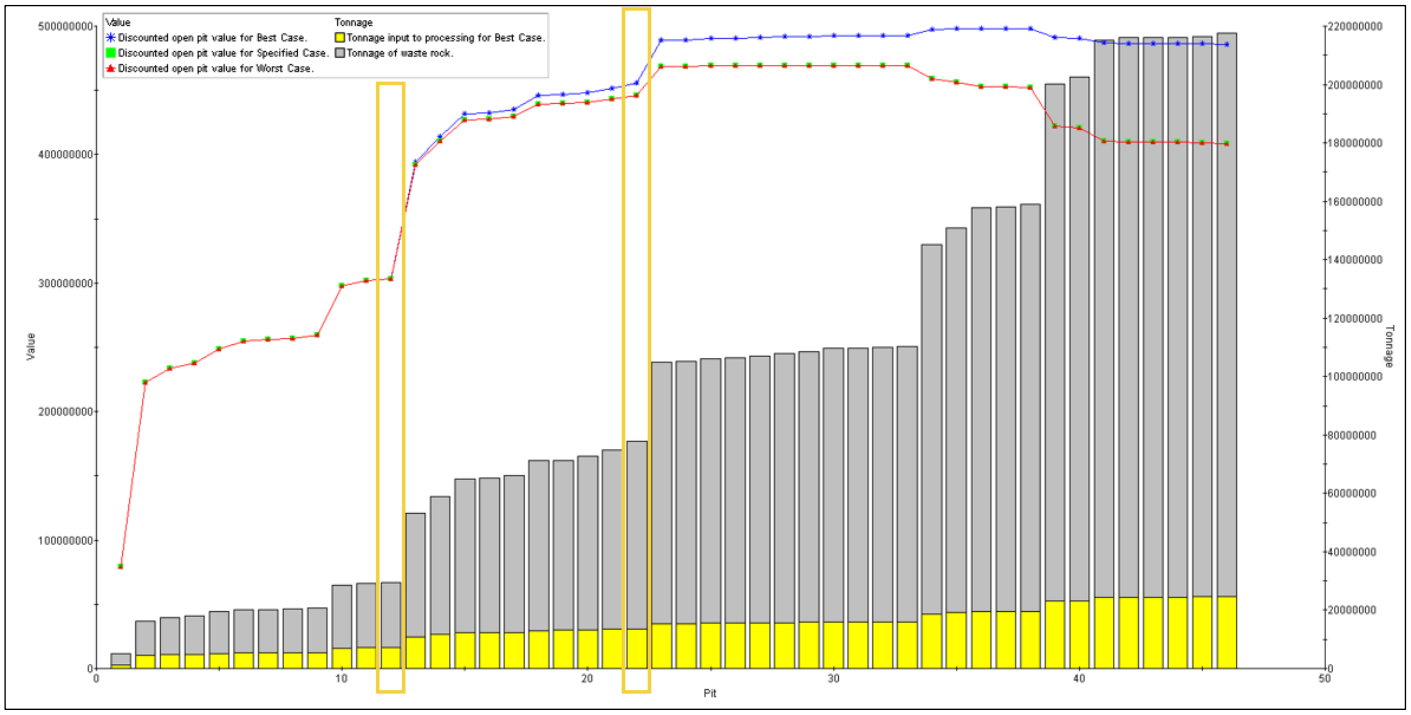
Figure 16-8: 903 Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

Figure 16-9 shows the contents of the generated pit shells for the Garrcon deposit (Garrison). Pit 12 was selected for the first phase, as it is located at the first inflection point and provides a high value relative to the pit size. Pit 22 was selected as it is located close to the maximum value of the pit shells and avoids mining significant marginal material for a negligible benefit to pit value.

Figure 16-9: Garrcon Pit Shell Resource Contents by Pit

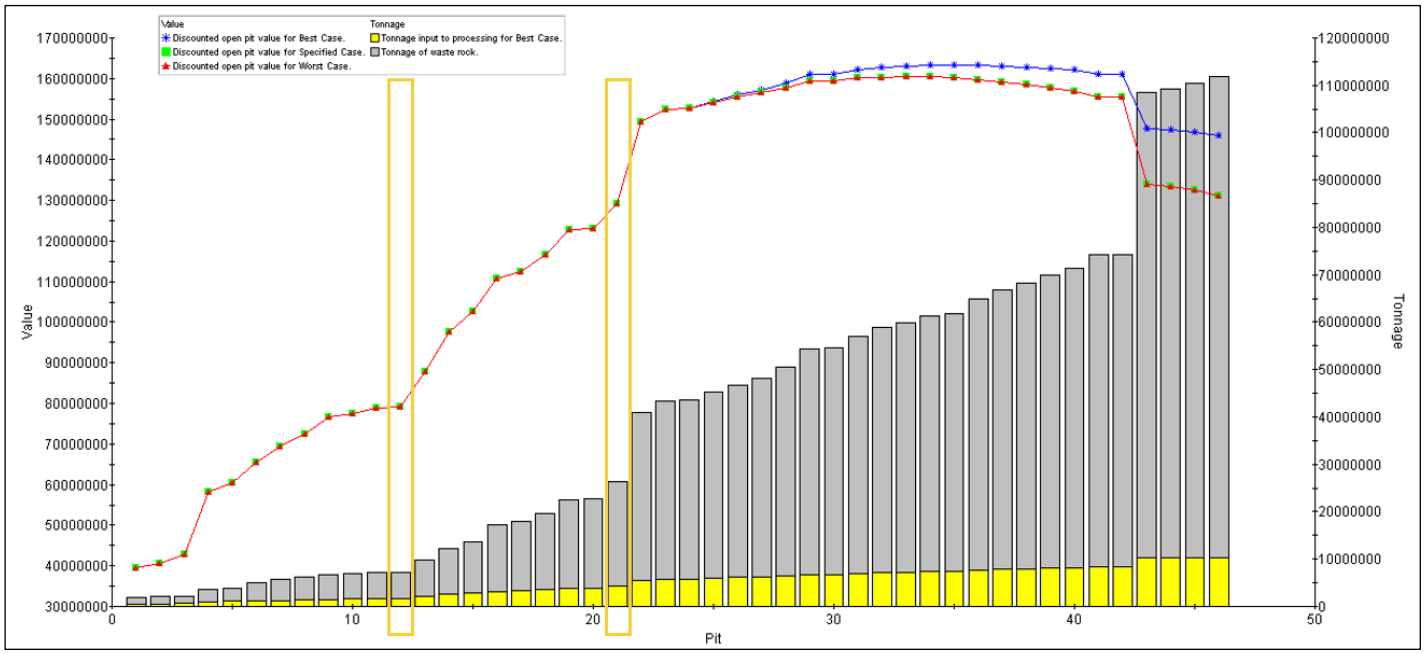


Source: Mining Plus, 2022.

Figure 16-10 shows the contents of the generated pit shells for the Jonpol deposit (Garrison). The Garrison Creek boundary limit was applied to Jonpol in order to avoid mining through the creek.

Pit 12 was selected for the first phase, as it is located at the first inflection point and provides a high value relative to the pit size. Pit 22 was selected as it is located close to the maximum value of the pit shells and avoids mining significant marginal material for a negligible benefit to pit value.

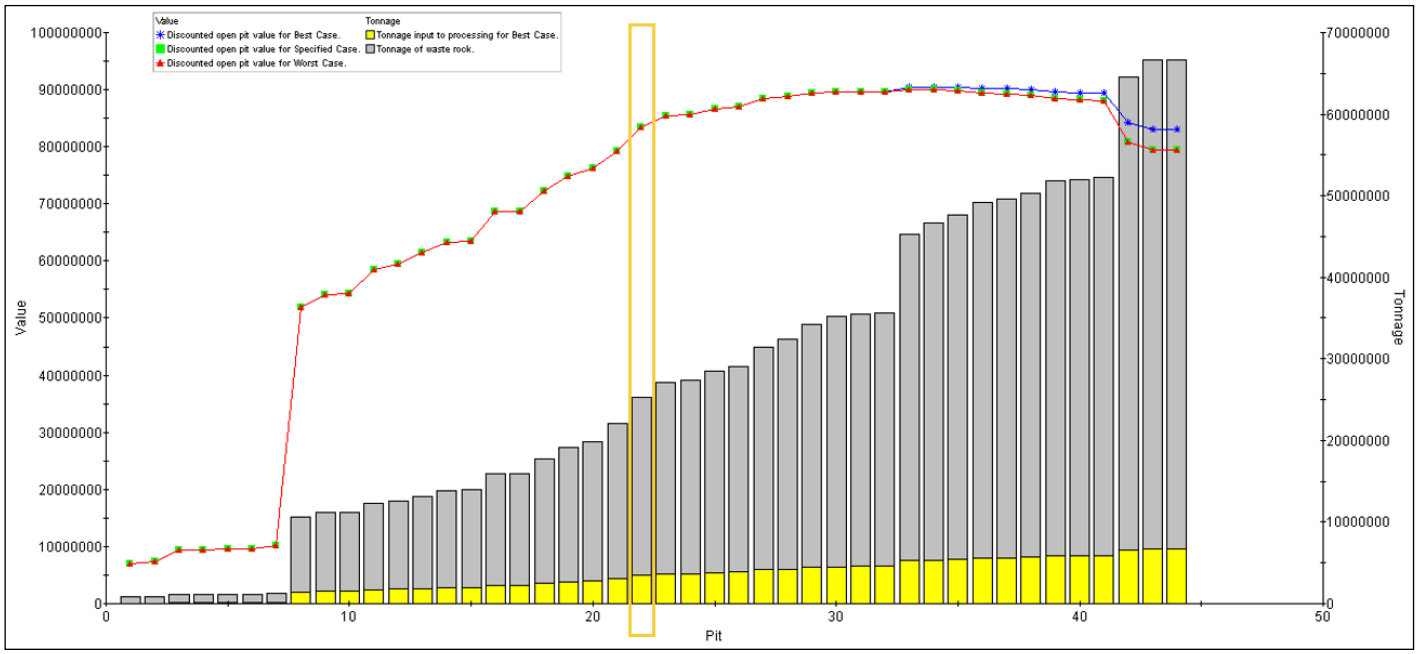
Figure 16-10: Jonpol Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

Figure 16-11 shows the contents of the generated pit shells for the 55-zone deposit (Golden Highway). Pit 22 was selected, as this pit approaches the maximum value generated for the zone, while avoiding mining low grade, high strip material that does not improve the value of the pit.

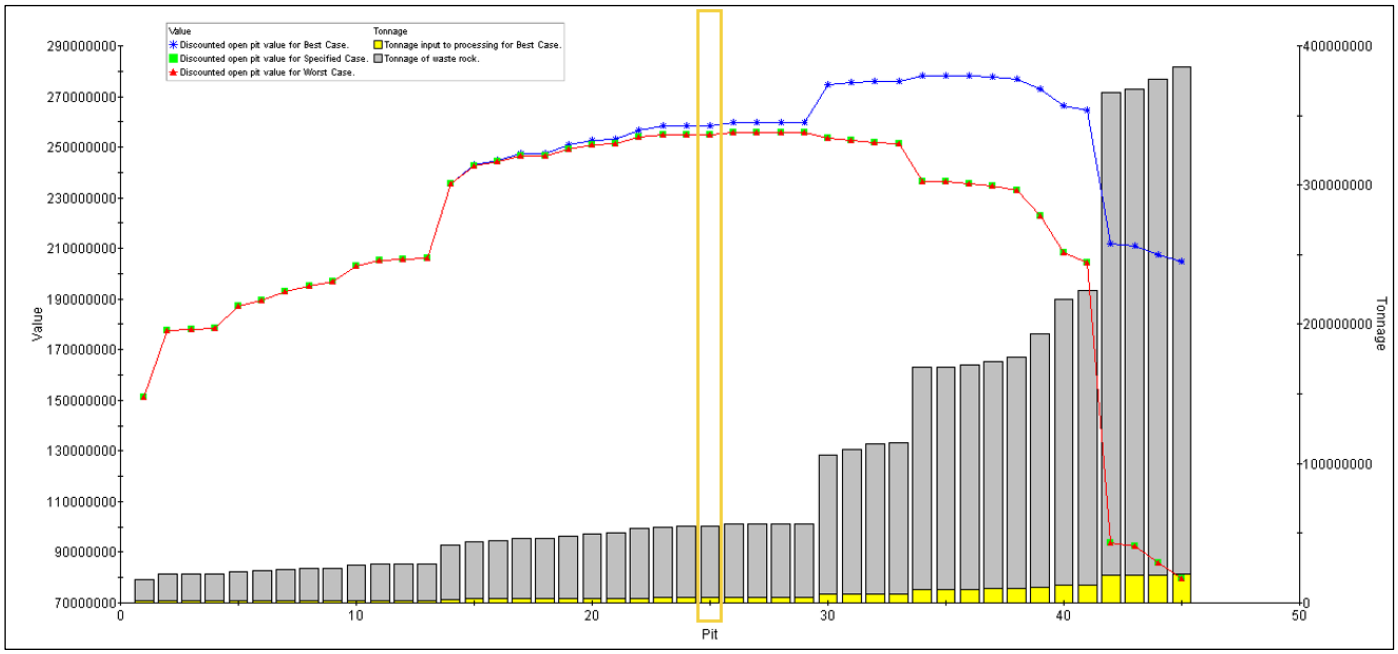
Figure 16-11: 55 Zone Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

Figure 16-12 shows the contents of the generated pit shells for the Westaway deposit (Golden Highway). Pit 25 was selected, as this was considered the ideal trade-off between resource inventory and strip ratio. Pit 30 was considered, however the higher increase in value is composed of lower grade, higher strip ratio material that would reduce the margins of the deposit.

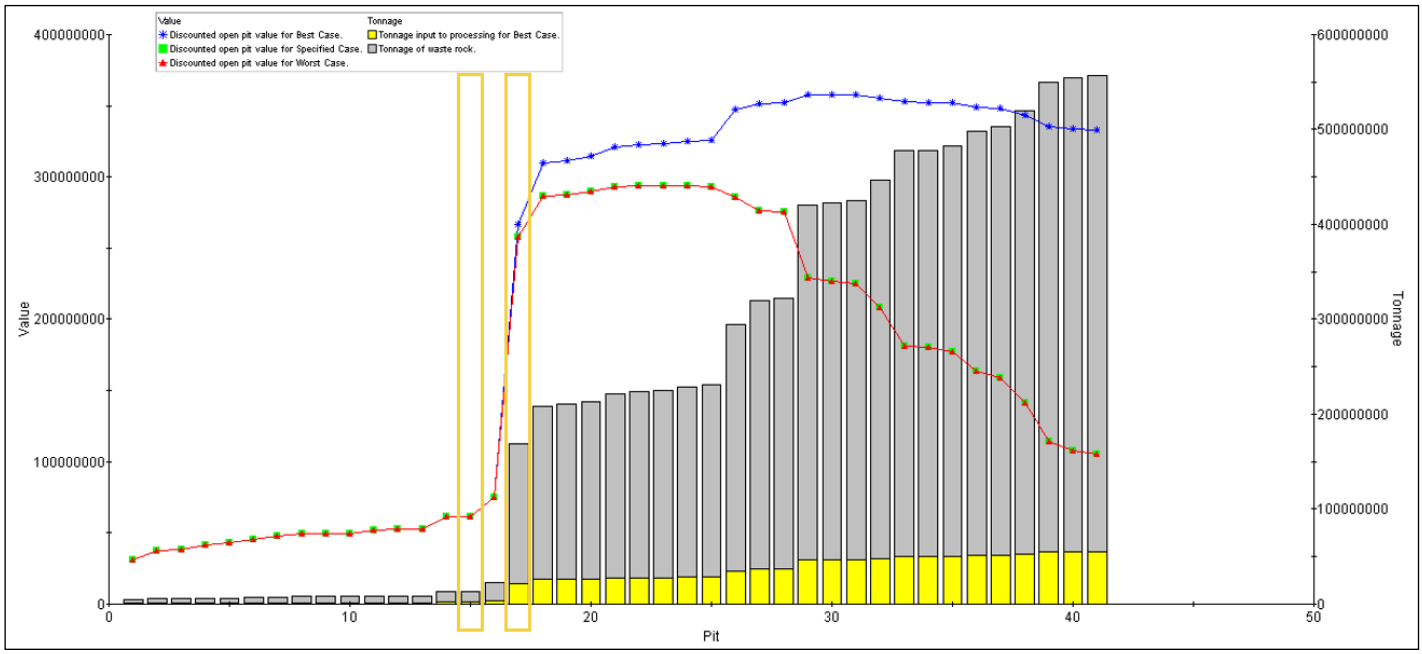
Figure 16-12: Westaway Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

Figure 16-3 shows the contents of the generated pit shells for the Southwest deposit (Golden Highway). The Southwest deposit includes the Southwest and Southwest North geological zones (shortened to "Southwest" for simplicity). Pit 15 was selected for Phase 1, as this resulted in a small, high-grade pit that can be mined earlier in the mine life to increase cash flow. Pit 17 was selected as Phase 2, as this pit approaches the maximum value gained for this zone. Pits 18–26 show higher value; however, this is composed of lower grade and higher strip material that would reduce the overall margins of the Project.

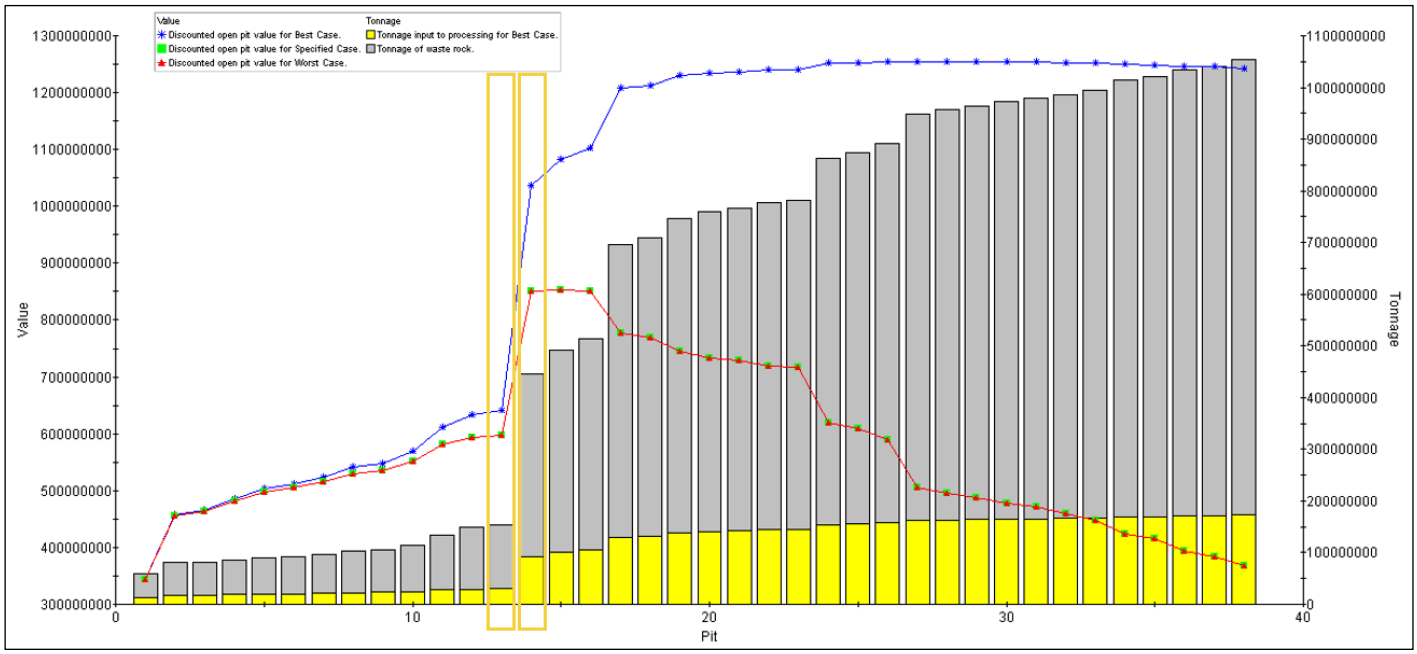
Figure 16-13: Southwest Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

Figure 16-14 shows the contents of the generated pit shells for the Windjammer deposit (Golden Highway). The Windjammer deposit includes the Windjammer North, Windjammer Central, Windjammer South, and Discovery geological zones (shortened to "Windjammer" for simplicity). Pit 13 was selected for the first phase, as this resulted in a small, high-grade pit that can be mined earlier in the mine life to increase cash flow. Pit 14 was selected as Phase 2, as this pit approaches the maximum value gained for this zone. Pits 15–17 show higher value, however as with Southwest, this is composed of lower grade and higher strip material that would reduce the overall margins of the Project.

Figure 16-14: Windjammer Pit Shell Resource Contents by Pit



Source: Mining Plus, 2022.

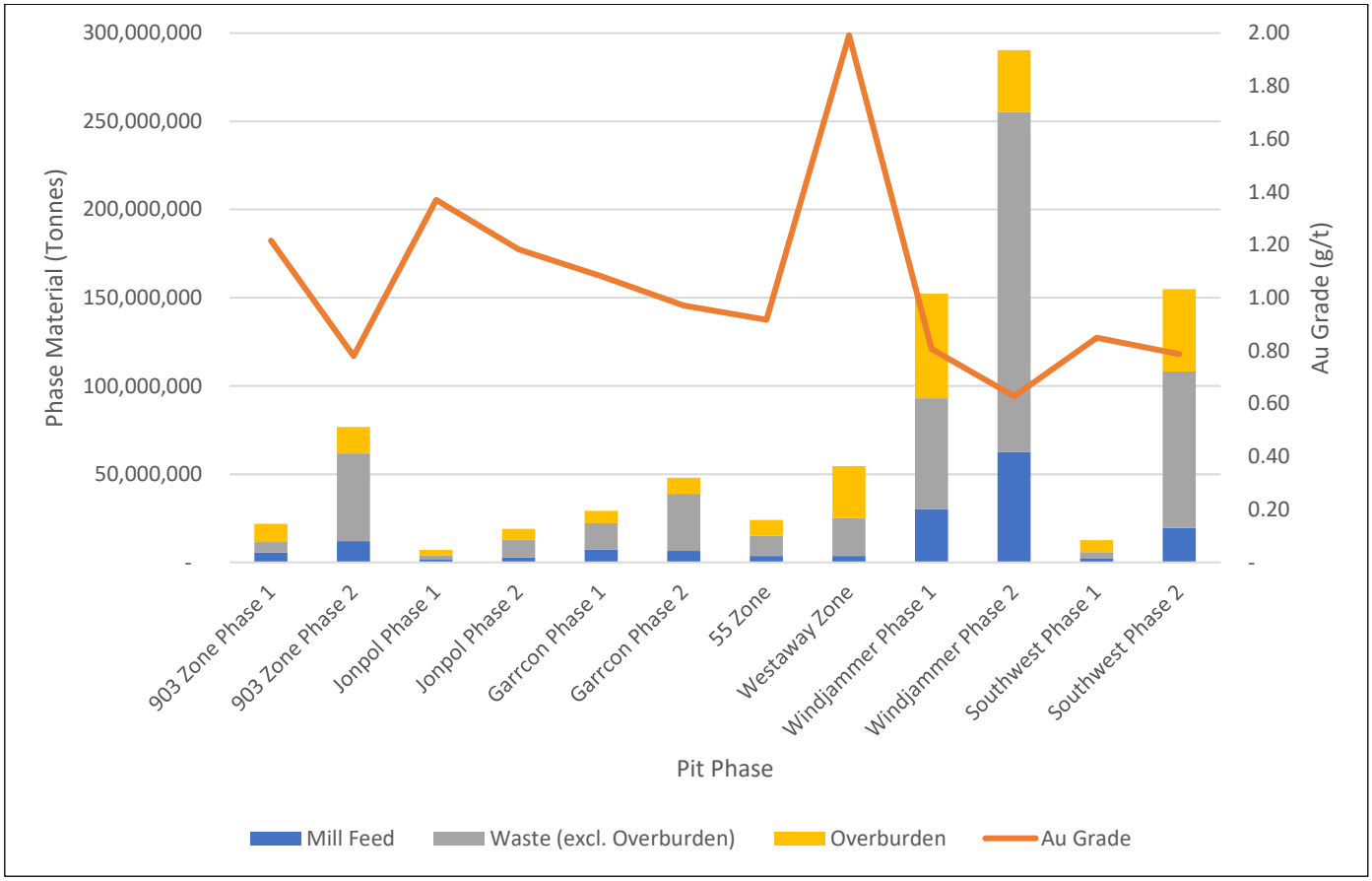
16.5.8 Phased Pit Tonnages

Ultimate pit limits are generally split up into phases or pushbacks to target higher economic margin material earlier in the mine life to improve the pit's economics. Minimum pushback distances of 50 m were targeted to allow for productive mining headings for equipment. The selected pit phases were chosen based on a combination of overall economic value, strip ratio, grade, and phase life.

The phases are based on Pseudoflow pit shells generated in the Whittle pit optimization software. Benching details and access ramps have not been detailed into the chosen pit phases at this stage of study. However, an overall pit slope angle, inclusive of internal access ramps and berms, has been used to ensure that there is adequate room to add these features into future, more detailed phase designs. While these features will have an impact on the phase recoverable resource and waste value, the potential differences are not considered material to this PEA. The selected pit phases are discussed above in the previous section, Pit Optimization.

A section for each pit phase is shown below in Figure 16-15. The tonnages of each pit phase are shown below in Table 16-18. Overburden tonnes are shown for reference.

Figure 16-15: Phase Pit Tonnages



Source: Mining Plus, 2022.

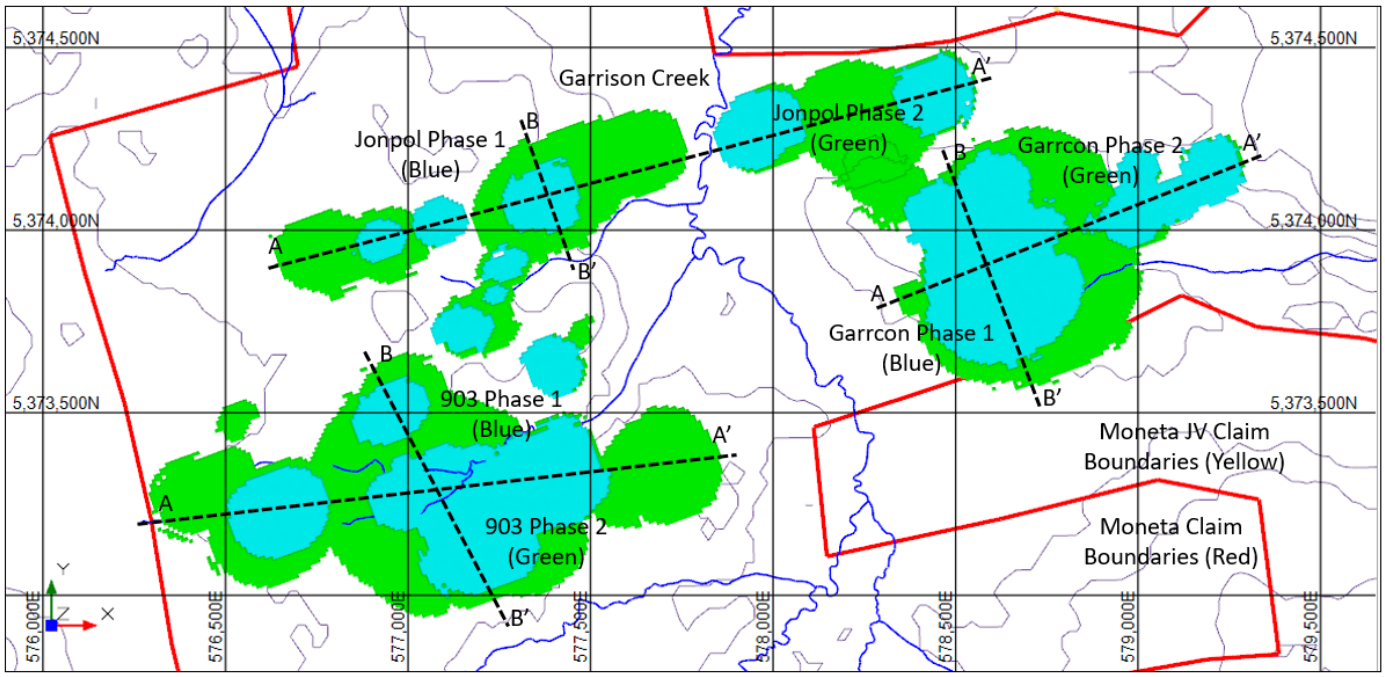
Table 16-18: Detailed Phase Pit Tonnages

Zone	Mill Feed	Au Grade	Waste (excl. Overburden)	Overburden	Strip Ratio (incl. Overburden)	Strip Ratio (excl. overburden)
903 Zone Phase 1	5,589,861 t	1.22 g/t Au	5,876,714 t	10,501,242 t	2.93	1.05
903 Zone Phase 2	12,107,457 t	0.78 g/t Au	49,681,279 t	14,981,669 t	5.34	4.10
Total 903	17,697,318 t	0.92 g/t Au	55,557,993 t	25,482,911 t	4.58	3.14
Jonpol Phase 1	1,782,142 t	1.37 g/t Au	2,002,334 t	3,251,719 t	2.95	1.12
Jonpol Phase 2	2,784,801 t	1.18 g/t Au	9,969,818 t	6,192,754 t	5.80	3.58
Total Jonpol	4,566,942 t	1.26 g/t Au	11,972,152 t	9,444,474 t	4.69	2.62
Garrcon Phase 1	7,200,371 t	1.08 g/t Au	15,075,540 t	6,945,360 t	3.06	2.09
Garrcon Phase 2	6,464,592 t	0.97 g/t Au	32,434,032 t	9,072,571 t	6.42	5.02
Total Garrcon	**13,664,963 t**	**1.03 g/t Au**	**47,509,572 t**	**16,017,931 t**	**4.65**	**3.48**
Total Garrison	**35,929,223 t**	**1.00 g/t Au**	**115,039,717 t**	**50,945,316 t**	**4.62**	**3.20**
55 Zone	3,626,097 t	0.92 g/t Au	11,524,681 t	8,874,555 t	5.63	3.18
Westaway Zone	3,734,570 t	1.99 g/t Au	21,288,445 t	29,570,975 t	13.62	5.70
Windjammer Phase 1	30,364,122 t	0.81 g/t Au	62,641,504 t	59,288,854 t	4.02	2.06
Windjammer Phase 2	62,640,808 t	0.63 g/t Au	192,680,352 t	35,070,348 t	3.64	3.08
Total Windjammer	93,004,930 t	0.69 g/t Au	255,321,856 t	94,359,202 t	3.76	2.75
Southwest Phase 1	2,362,025 t	0.85 g/t Au	3,383,745 t	6,878,332 t	4.34	1.43
Southwest Phase 2	19,530,763 t	0.79 g/t Au	88,743,064 t	46,575,543 t	6.93	4.54
Total Southwest	**21,892,787 t**	**0.79 g/t Au**	**92,126,809 t**	**53,453,875 t**	**6.65**	**4.21**
Total Golden Highway	**122,258,385 t**	**0.75 g/t Au**	**380,261,790 t**	**186,258,607 t**	**4.63**	**3.11**
Total Project	**158,187,608 t**	**0.81 g/t Au**	**495,301,507 t**	**237,203,923 t**	**4.63**	**3.13**

Notes:
1. The PEA Mine Plan and Mill Feed estimates are a subset of the September 07, 2022, Mineral Resource estimates.
and are based on open pit mine engineering and technical information developed at a Scoping level for the Garrison and Golden Highway deposits.
2. PEA Mine Plan and Mill Feed estimates are mined tonnes and grade; the reference point is the primary crusher.
3. OP Cut-off grade of 0.30 g/t assumes US$1,600/oz. Au at a currency exchange rate of 0.78 US$ per C$; 99.95% payable gold; $2.40/oz off-site costs (refining, transport, and insurance); a 1.5% NSR royalty (Garrison only); and a 91% average metallurgical recovery.
4. The cut-off grade covers processing costs of $11.13/t and administrative (G&A) costs of $1.67/t.
5. Mining dilution of 5% is applied to the in-situ mineral resources. Mining recovery of 96% diluted tonnages is applied.
6. Estimates have been rounded and may result in summation differences.
Source: Mining Plus, 2022.

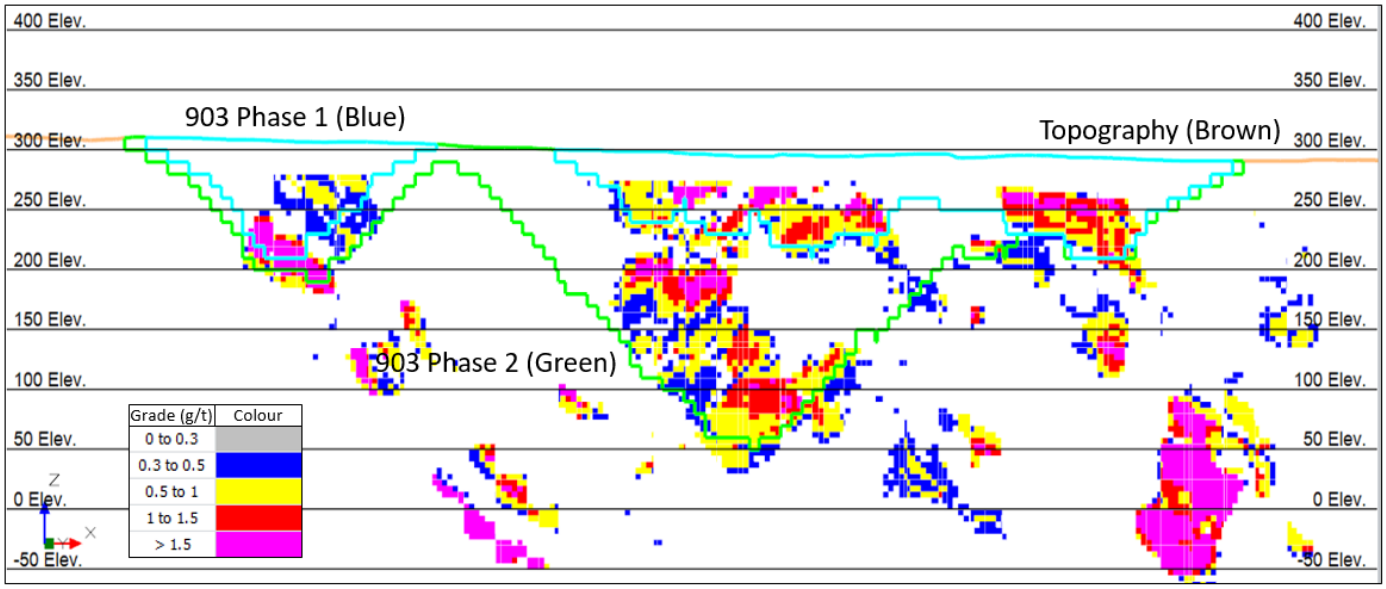
A section for each pit phase is shown below in Figure 16-16 to Figure 16-26.

Figure 16-16: Garrison Selected Phases – Plan View



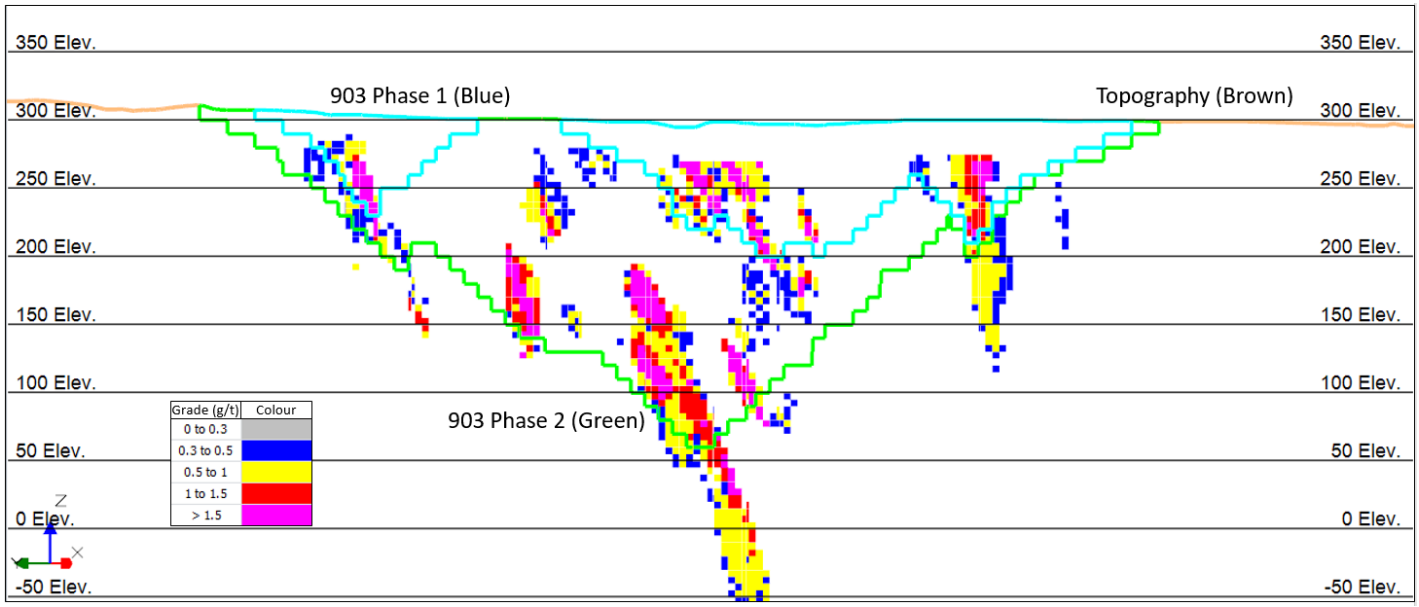
Source: Mining Plus, 2022.

Figure 16-17: 903 Selected Phases – Selection A-A' View



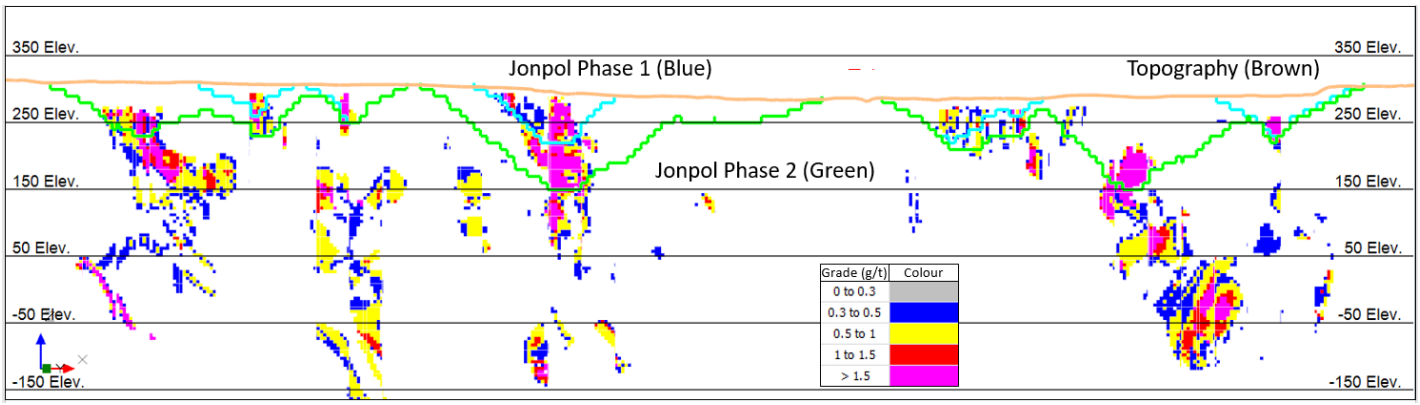
Source: Mining Plus, 2022.

Figure 16-18: 903 Selected Phases – Section B-B' View



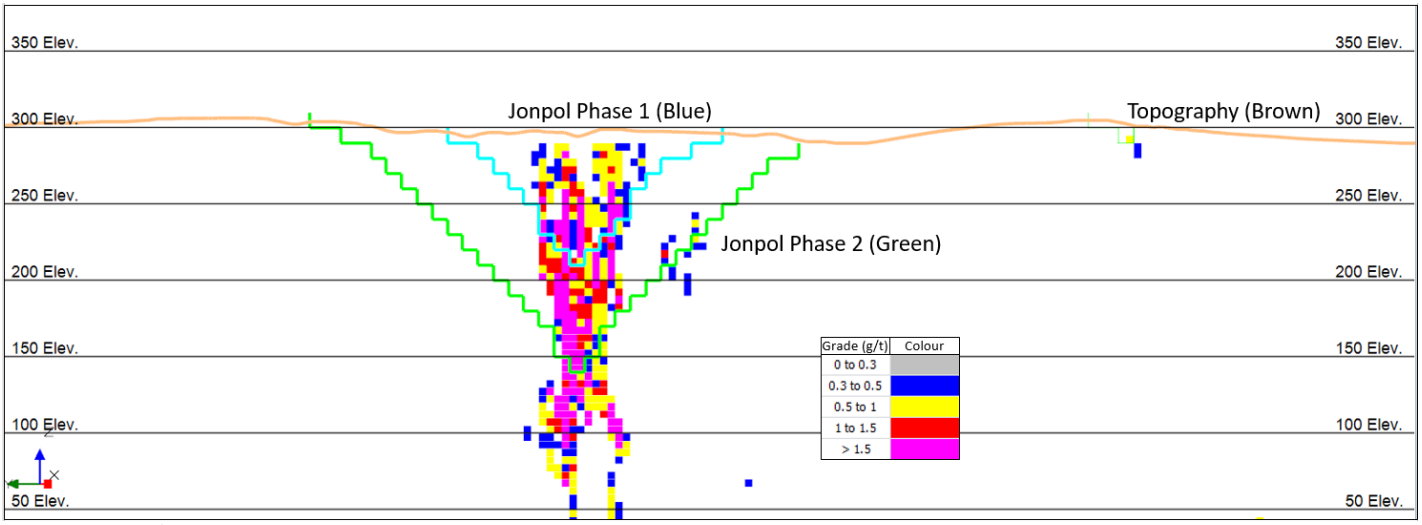
Source: Mining Plus, 2022.

Figure 16-19: Jonpol Selected Phases – Section A-A' View



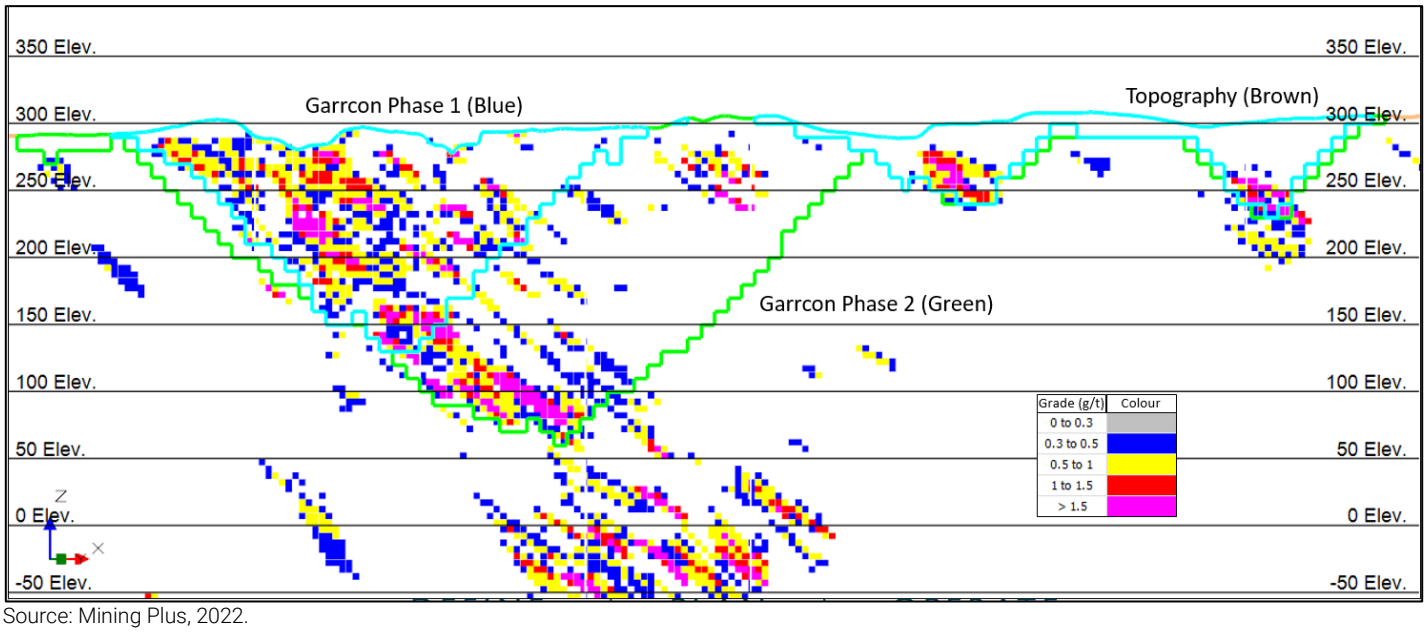
Source: Mining Plus, 2022.

Figure 16-20: Jonpol Selected Phases – Section B-B' View



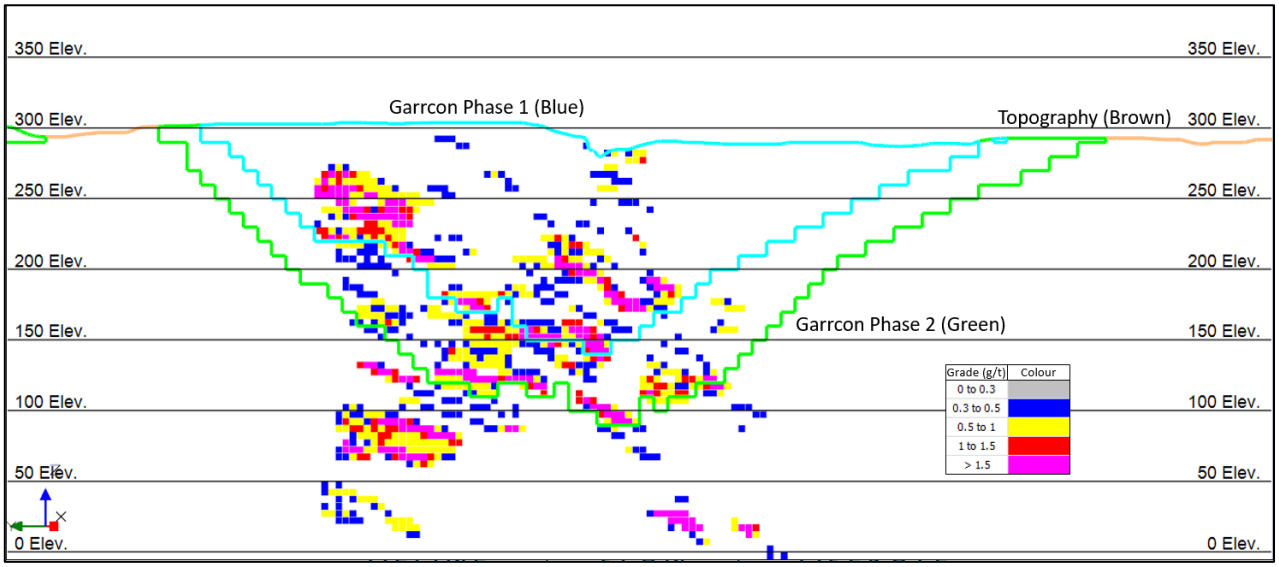
Source: Mining Plus, 2022.

Figure 16-21: Garrcon Selected Phases – Section A-A' View



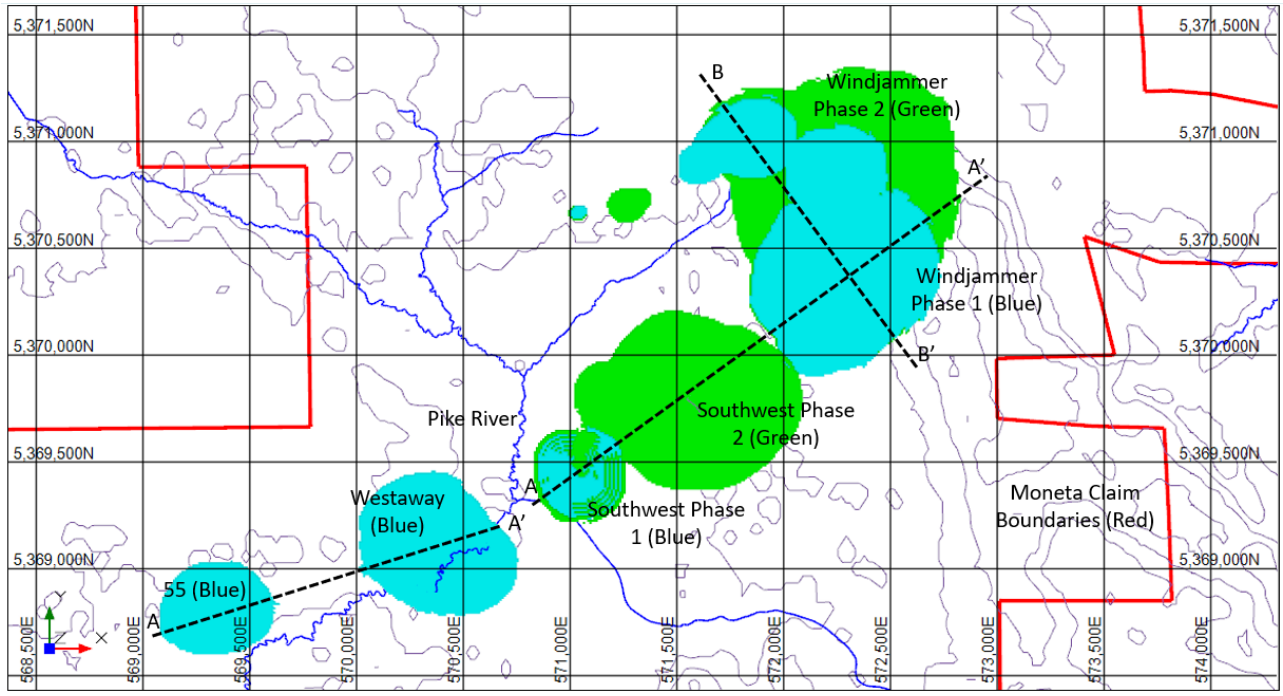
Source: Mining Plus, 2022.

Figure 16-22: Garrcon Selected Phases – Section B-B' View



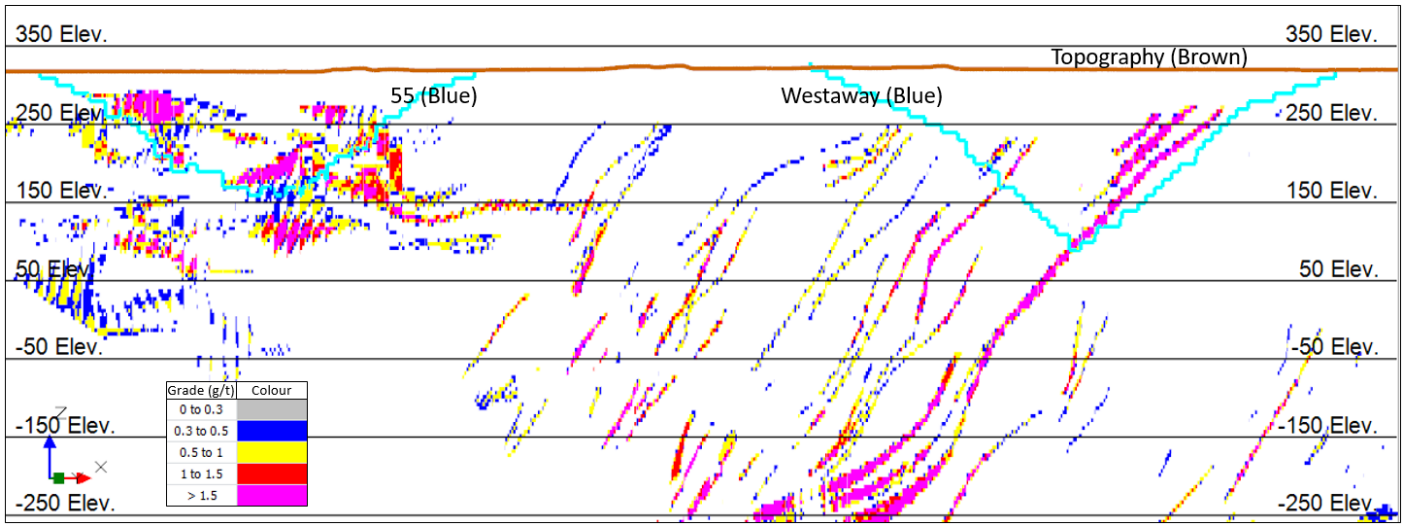
Source: Mining Plus, 2022.

Figure 16-23: Golden Highway Selected Phases – Plan View



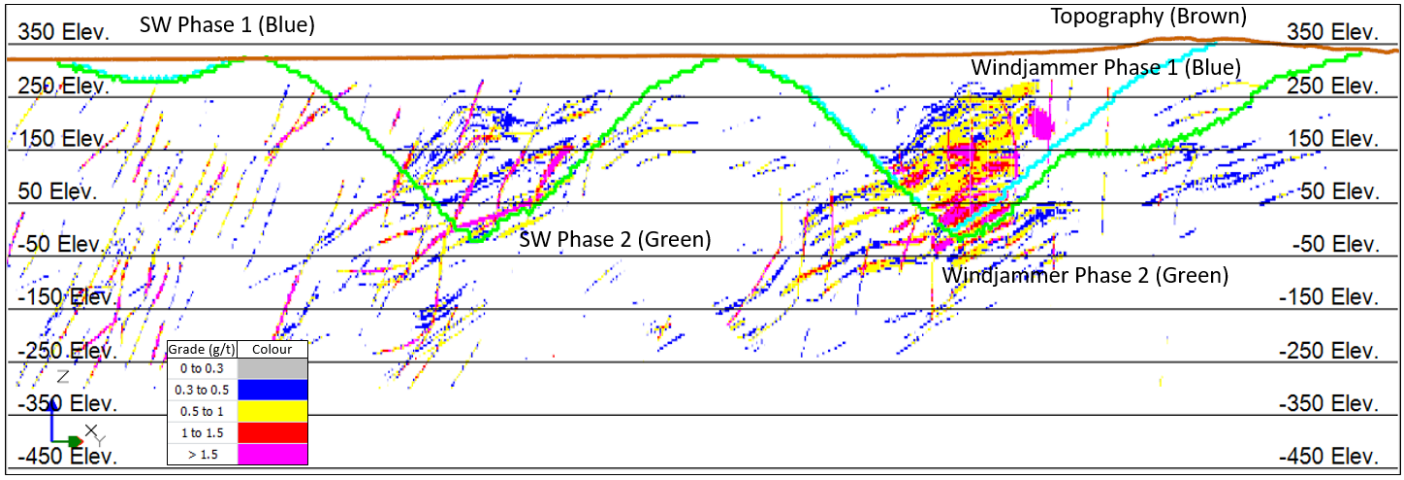
Source: Mining Plus, 2022.

Figure 16-24: 55 and Westaway Selected Phases – Section View A-A'



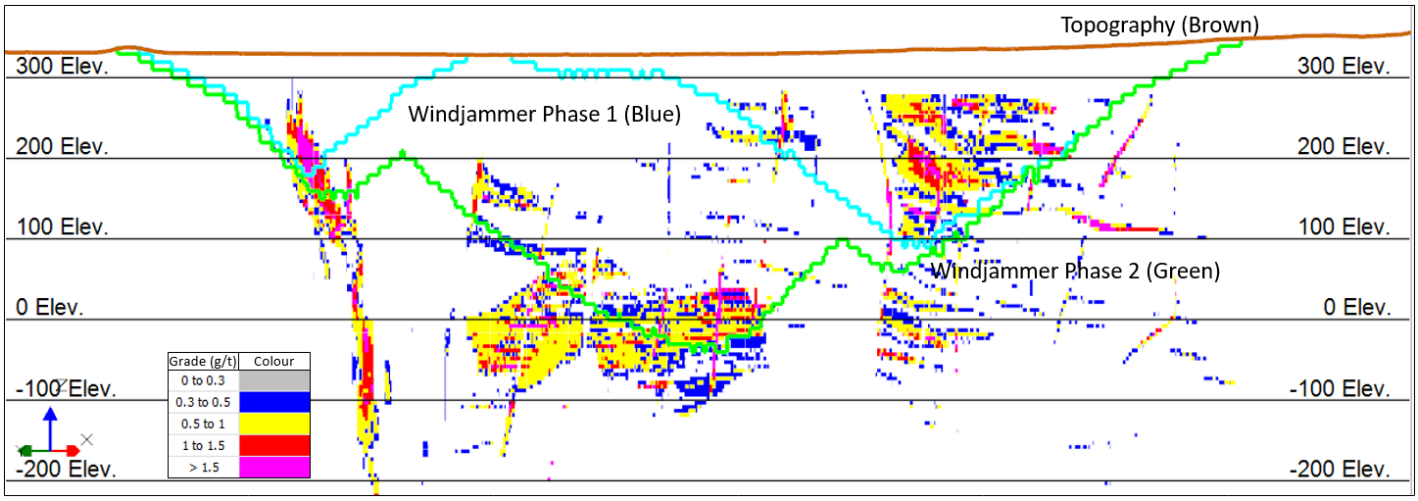
Source: Mining Plus, 2022.

Figure 16-25: Southwest and Windjammer Selected Phases – Section View A-A'



Source: Mining Plus, 2022.

Figure 16-26: Southwest and Windjammer Selected Phases – Section View B-B'



Source: Mining Plus, 2022.

16.5.9 Ex-Pit Haul Roads

Mine haul roads outside of the open pits are planned to haul resource and waste materials from the open pits to the scheduled destinations such as waste rock storage facilities, resource low grade stockpiles, ROM stockpiles, and the processing plant. Centreline routes for the ex-pit mine haul roads have been laid out with the following conceptual features:

- 35 m wide, incorporating a dual lane running width, drainage ditches, and berms on both sides of the road;
- Sized to handle up to 227 tonne payload rigid-frame haul trucks; and
- 10% maximum grade.

The ex-pit haul road centrelines are shown in the Project layout drawing.

16.5.10 Mineralized Material Stockpiles

When resources are mined from the pit, they will either be delivered straight to the crusher at the processing plant, to the ROM stockpile, or to the low-grade mineralized material stockpiles. The crusher and ROM stockpile are located 0.5 km southeast of 903 zone, 1 km south of Jonpol and Garrcon, 6 km northeast of Windjammer, 7 km northeast of Southwest, 8 km northeast of Westaway, and 9 km northeast of 55 zone.

Cut-off grade optimization on the mine production schedule sends mineralized material between 0.30 g/t and 0.50 g/t Au to a low-grade mineralized material stockpile in certain planned periods. The Garrison low grade stockpile is located in between all three deposit pit limits and just north of the crusher and ROM stockpile. This stockpile will be built up to a crest elevation of 310 masl. The Golden Highway low grade stockpile is located to the north of Windjammer. This stockpile will be built to a crest elevation of 380 masl.

The stockpiled resources are planned to be re-handled back to the crusher during the mine life. The Garrison resources will be re-handled during pit operations and the Golden Highway lower grade resources, between 0.30 g/t to 0.50 g/t Au, will be rehandled once the pits are exhausted. The low-grade stockpiles are shown in the Project layout drawings.

The design considerations assumed for the mineralized stockpiles are:

- 2.5:1 overall slopes.

16.5.11 Waste Rock and Topsoil Storage Facilities

Waste rock and overburden/topsoil storage facilities are planned for all waste materials from the open pits. In general, the design considerations assumed are:

- bottom-up construction;
- 2.5:1 overall slopes for waste rock ;
- 3.5:1 overall slopes for overburden/topsoil;
- placed density of 2.13 t/m^3 (Golden Highway) and 2.19 t/m^3 (Garrison) in waste rock stockpiles;
- placed density of 1.64 t/m^3 in all overburden stockpiles; and
- all stockpiles are planned to avoid existing waterbodies, watercourses, and wetlands where possible.

It is assumed that the waste rock from all deposits is net acid neutralizing and there has been no consideration for segregation of different rock types in the planned stockpiles, other than separation of overburden and waste rock.

Details for each storage facility can be found below in Table 16-19.

Table 16-19: Details of Waste Storage Facilities

Golden Highway			Garrison		
Material Type	Material Location	Capacity (m^3)	Material Type	Material Location	Capacity (m^3)
Waste	North 1	31.6	Waste	East	40.3
Waste	North 2	33.4	Waste	North	16.4
Waste	South	184.1	Backfill Waste	903 In-Pit	3.3
Overburden	East	84.7	Backfill Waste	Jonpol In-Pit	3.5
Overburden	West	32.8	Backfill Waste	Garrcon In-Pit	1.6
Topsoil	West	1.7	Overburden	North	3.6
Total		368.3	Overburden	East	10.2
			Overburden	South	2.4
			Overburden	West	16.5
			Topsoil	Central	1.3
			Total		99.2

Source: Mining Plus, 2022.

Overburden and waste rock have not been considered for construction of the tailings facility described in Section 18 of this report, due to the excessive distance to the facility from the open pits. The waste rock and overburden storage facilities are shown in the Project layout drawings.

16.5.12 Production Schedule

The open pit operations are planned to run for twenty years to pit depletion, followed by four years of low-grade stockpile feed to the mill. The general mine sequence through the various pit phases is illustrated in Table 16-20 below.

Table 16-20: Pit Phase Sequence

Phases Mined	Description	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
903 Phase 1	Mineral (kt)	5,590																			
	Au (g/t)	1.22																			
Garrcon Phase 1	Mineral (kt)	2,389	4,811																		
	Au (g/t)	0.92	1.16																		
Jonpol Phase 1	Mineral (kt)		1,782																		
	Au (g/t)		1.37																		
Garrcon Phase 2	Mineral (kt)		1,083	5,382																	
	Au (g/t)		0.73	1.02																	
903 Phase 2	Mineral (kt)			1,593	7,070	3,444															
	Au (g/t)			0.49	0.73	1.02															
Jonpol Phase 2	Mineral (kt)					2,785															
	Au (g/t)					1.18															
Westaway	Mineral (kt)					25	3,710														
	Au (g/t)					0.75	2.00														
Southwest Phase 1	Mineral (kt)						2,362														
	Au (g/t)						0.85														
55 Zone	Mineral (kt)							2,412	1,214												
	Au (g/t)							0.81	1.12												
Windjammer Phase 1	Mineral (kt)							45	5,238	14,619	8,932	1,529									
	Au (g/t)							0.95	0.67	0.76	0.91	1.09									
Windjammer Phase 2	Mineral (kt)										65	1,599	4,048	6,659	10,122	13,697	20,658	5,792			
	Au (g/t)										0.54	0.56	0.55	0.56	0.63	0.65	0.65	0.64			
Southwest Phase 2	Mineral (kt)																	359	3,199	10,221	5,753
	Au (g/t)																	0.66	0.67	0.71	1.00
Total	**Mineral (kt)**	**7,979**	**7,676**	**6,975**	**7,070**	**6,254**	**6,072**	**2,457**	**6,452**	**14,619**	**8,998**	**3,129**	**4,048**	**6,659**	**10,122**	**13,697**	**20,658**	**6,150**	**3,199**	**10,221**	**5,753**
	Au (g/t)	**1.13**	**1.15**	**0.90**	**0.73**	**1.09**	**1.55**	**0.81**	**0.76**	**0.76**	**0.91**	**0.82**	**0.55**	**0.56**	**0.63**	**0.65**	**0.65**	**0.64**	**0.67**	**0.71**	**1.00**

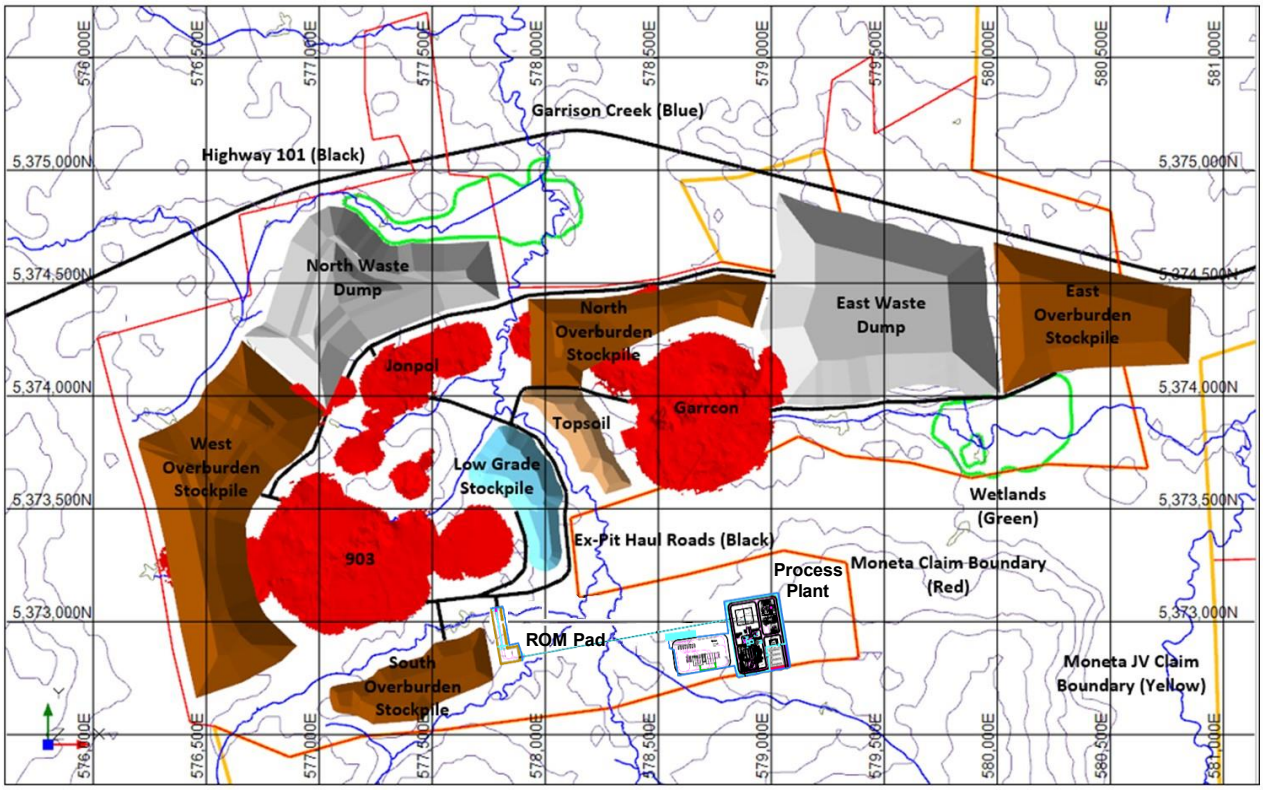
Source: Mining Plus, 2022.

The production schedule is based on the following parameters:

- The mineral resource and associated waste material quantities are split by phase and bench.
- The operations are scheduled on annual periods.
- An annual mill feed rate of 7 Mt/a is targeted.
- Within a given phase, each bench is fully mined before progressing to the next bench.
- Pit phases are mined in sequence, where the second pit phases do not mine below the first pit phases.
- Resource tonnes released more than the mill capacity are stockpiled.
- Low-grade resource is stockpiled and re-handled to the primary crushers at the end of mine life.

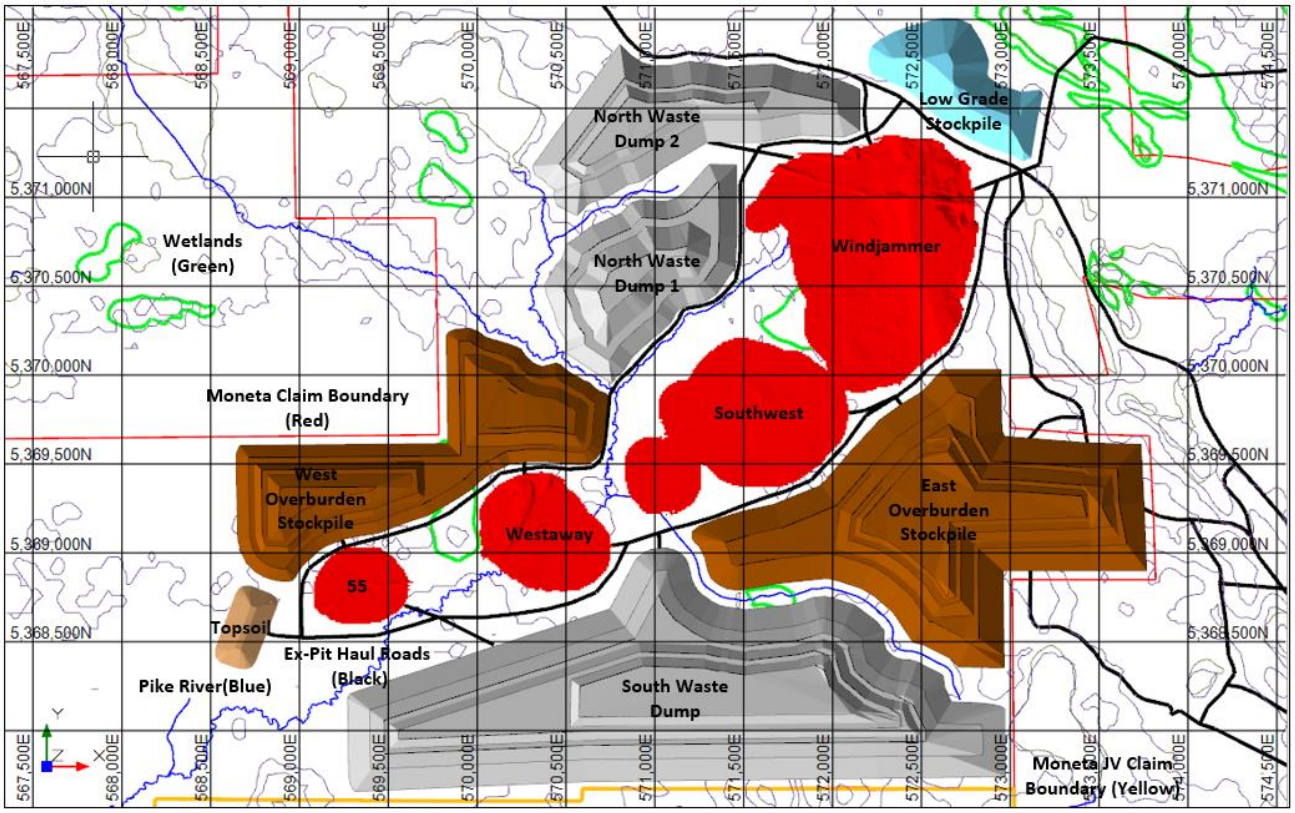
The overall site layout plan is shown below in Figure 16-27 for Garrison and Figure 16-28 for Golden Highway.

Figure 16-27: Garrison Site Layout Plan



Source: Mining Plus, 2022.

Figure 16-28: Golden Highway Site Layout Plan



Source: Mining Plus, 2022.

16.5.13 Open Pit Operations

An owner-operated and managed open pit mine is planned, which is typical of similar operating mines in the region.

Grade control drilling will be carried out to better delineate recoverable resource grades and locations in the "near-term" benches to be mined. A grade control system is planned to provide field control for the loading equipment to selectively mine resource material separately from the waste.

Mine rock is drilled and blasted on 10-m benches for resource material and waste to create suitable fragmentation and efficient loaded for equipment. If it is found that excessive dilution is found in the resource materials, blasting of the resource material can be reduced to 5-meter finches. It is assumed that overburden material does not require blasting. A powder factor of 0.30 kg/t will be used in the resource material and waste rock for all deposits. The blasting activities are planned to fall under a contract service agreement with the explosive supplier providing all services up to transporting explosive agents to the borehole. Bulk blasting materials will be stored on site at a dedicated location consisting of silos for ANFO and emulsion and delivered as required. An on-site magazine is planned for initiation systems. The location of the magazine and explosive facility has not been selected at the PEA stage of the Project and will require analysis as the Project develops.

Loading in resource material will be completed with hydraulic excavators on 5-m benches, and in waste zones are loaded with hydraulic excavators on 5-m or 10-m benches, depending on grade control requirements.

Resource and waste rock will be hauled out of the pit and to scheduled destinations with off highway rigid-frame haul trucks.

Mine pit services include:

- haul road maintenance;
- pit floor and ramp maintenance;
- waste dump maintenance;
- ditching;
- pit dewatering;
- secondary blasting and rock breaking;
- snow removal;
- reclamation and environmental control;
- lighting; and
- transporting personnel and operating supplies.

Mine fleet maintenance is planned as an owner's fleet with equipment ownership and labour being charged to mine operations.

Mining operations are based on 365 operating days per year with two 12-hour shifts per day. An allowance of 10 days of no production has been built into the mine schedule to allow for adverse weather conditions.

The number of hourly mine operations personnel, including maintenance crews, peaks in Years 15 and 16 at an average of 455 people due to the longer hauls associated with waste and resource materials. Table 16-21 below details the labour force requirements for the operation of the open pit mine.

Table 16-21: Labour Force Summary

Area	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
Management and Administration	16	22	22	22	22	22	22	22	22	22	22	22
Mine Production	162	182	185	226	178	226	204	218	298	222	230	246
Mine Maintenance	63	71	73	92	71	90	76	86	120	91	91	98
Total	**241**	**275**	**280**	**340**	**271**	**338**	**302**	**326**	**440**	**335**	**343**	**366**
Area	**Y13**	**Y14**	**Y15**	**Y16**	**Y17**	**Y18**	**Y19**	**Y20**	**Y21**	**Y22**	**Y23**	**Y24**
Management and Administration	22	22	22	22	22	22	22	21	8	8	8	7
Mine Production	256	278	310	342	220	250	294	126	57	57	57	45
Mine Maintenance	102	110	123	138	86	100	116	50	22	22	22	17
Total	**380**	**410**	**455**	**502**	**328**	**372**	**432**	**197**	**87**	**87**	**87**	**69**

Source: Mining Plus, 2022.

Only one-quarter of full personnel complement will be on shift at a given time. Salaried personnel of approximately 22 people will be required for operations, including mine and maintenance operations, supervision, mine engineering and geology, and technical support.

16.6 Combined Mine Schedule

The overall OP and UG combined production schedule are shown below in Table 16-22. The combined production schedule is also shown graphically below in Figure 16-29.

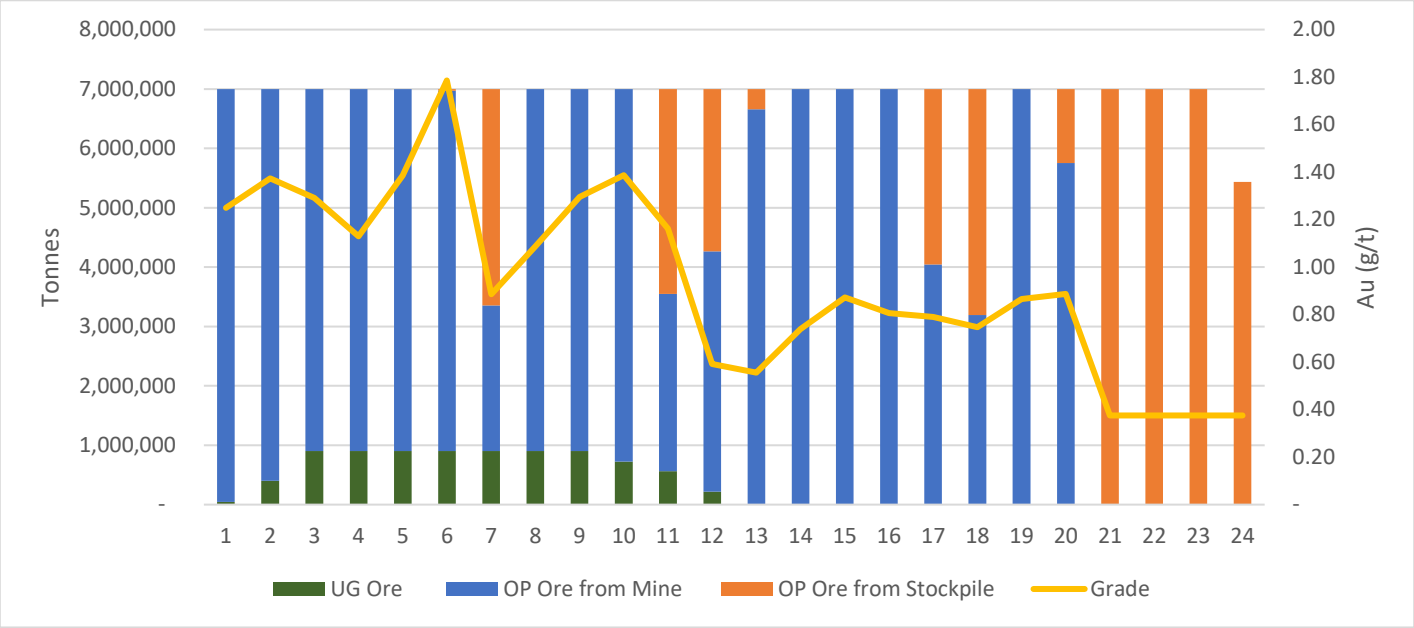
Table 16-22: Combined OP and UG Production Schedule

Total Mine Production	Year	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13
OP Mill Feed	kt	6,956	6,600	6,100	6,100	6,100	6,072	2,457	6,100	6,100	6,276	2,989	4,048	6,659
Au	g/t	1.24	1.27	0.97	0.79	1.11	1.55	0.55	0.78	0.98	1.10	0.92	0.48	0.56
Ounces	koz	277	270	191	155	217	302	43	153	193	222	89	62	119
UG Mill Feed	kt	44	400	900	900	900	900	900	900	900	724	562	218	0
Au	g/t	2.84	3.01	3.45	3.44	3.27	3.41	3.16	3.19	3.41	3.85	3.89	4.09	0.00
Ounces	koz	4	39	100	99	95	99	92	92	99	90	70	29	0
Stockpile to Mill	kt	0	0	0	0	0	28	3,643	0	0	0	3,449	2,734	341
Total Mill Feed	**kt**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**
Au	g/t	1.25	1.37	1.29	1.13	1.39	1.79	0.89	1.09	1.30	1.39	1.16	0.59	0.56
Ounces	koz	281	309	291	254	312	402	199	245	292	312	261	133	125

Total Mine Production	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Y21	Y22	Y23	Y24	LOM
OP Mill Feed	6,659	7,000	7,000	7,000	4,043	3,190	7,000	5,753	0	0	0	0	113,542
Au	0.56	0.74	0.87	0.81	0.79	0.75	0.87	0.89	0.38	0.38	0.38	0.38	0.92
Ounces	119	166	196	182	103	77	195	164	0	0	0	0	3,376
UG Mill Feed	0	0	0	0	0	0	0	0	0	0	0	0	8,249
Au	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42
Ounces	0	0	0	0	0	0	0	0	0	0	0	0	906
Stockpile to Mill	341	0	0	0	2,957	3,810	0	1,247	7,000	7,000	7,000	5,436	44,646
Total Mill Feed	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**7,000**	**5,436**	**166,436**
Au	0.56	0.74	0.87	0.81	0.79	0.75	0.87	0.89	0.38	0.38	0.38	0.38	0.94
Ounces	125	166	196	182	178	168	195	200	84	84	84	66	5,020

Source: Mining Plus, 2022.

Figure 16-29: Combined OP and UP Production Schedule



Source: Mining Plus, 2022.

16.7 Mining Equipment

16.7.1 Underground Mining Equipment

Mining equipment commonly found in underground mines has been selected based on reliability, proven performance, and availability. The equipment was sized according to mine design parameters and expected underground mine production. The equipment selection was carried out based on the following criteria:

- suitability of the equipment to the excavation size;
- productivity;
- UG mine output requirements; and
- capital and operating costs.

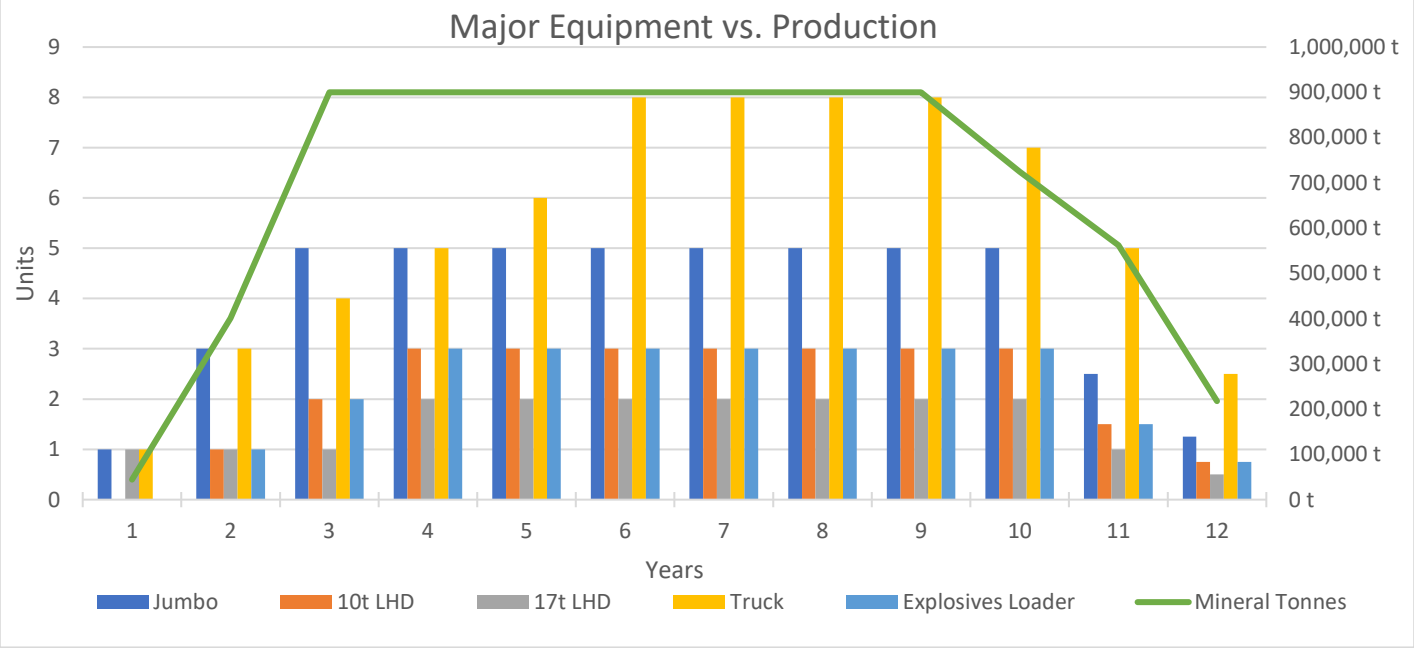
Equipment quantities have been estimated to achieve the steady state mining rate of 900ktpa with allowances for spares of critical equipment types. A list, detailing the underground equipment cumulative fleet, can be found in Table 16-23 and Figure 16-30 below.

Table 16-23: Underground Equipment Cumulative Fleet

Cumulative Equipment Fleet												
Equipment \ Year	1	2	3	4	5	6	7	8	9	10	11	12
Prod Drill		1	2	2	2	2	2	2	2	2	1	1
Jumbo	1	3	5	5	5	5	5	5	5	5	3	1
10t LHD		1	2	3	3	3	3	3	3	3	2	1
Truck	1	3	4	5	6	8	8	8	8	7	5	3
17t LHD	1	1	1	2	2	2	2	2	2	2	1	1
Scissor Lift				2	2	2	2	2	2	2	1	1
Explosives Loader		1	2	3	3	3	3	3	3	3	2	1
Service Truck				2	2	2	2	2	2	2	1	1
Crane Truck				2	2	2	2	2	2	2	1	1
Personnel carrier				1	1	1	1	1	1	1	1	1
Light Duty Truck	4	8	10	10	10	10	10	10	10	10	5	3
OP Truck		1	1	1	1	1	1	1	1	1	1	1
Grader		1	1	1	1	1	1	1	1	1	1	1

Source: Mining Plus, 2022.

Figure 16-30: Major Equipment vx.UG Mine Production



Source: Mining Plus, 2022.

Five two-boom jumbos will be used to drill all rounds. Jumbo development headings were scheduled at 8.2 m/d per jumbo for multi-heading development in order to meet the peak development requirement of 1,275 m/month. Development jumbos will also be used for the installation of ground support.

Two LHD sizes have been specified for the fleet, a 10-tonne LHD and a 17-tonne LHD model. The fundamental premise is to utilize the 17 tonne LHD is for development in order to expedite the mucking of the round, and the 10-tonne LHD for production given its compact size and ability to muck places that would otherwise be difficult or impossible for a 17-tonne LHD to reach. Mineralized material is to be loaded in-access directly to 50-t haul trucks which will transport the material directly to surface, where it will then be transported to the mill by a dedicated open-pit/surface truck.

16.7.2 Open Pit Equipment

The mine equipment described below are based on typical surface equipment fleet operated by North American open pit mine operations. It should be expected that mine equipment specifications and fleet sizes will be revised with will occur in subsequent engineering studies associated with the Project (for example prefeasibility/feasibility). The mine will employ a conventional truck shovel open pit mining method comprising separate waste and mineralized material equipment fleets to improve on selectivity and reduce waste removal costs. Surface mining will extract material from two areas of the property: Garrison and Golden Highway with Golden Highway providing the bulk of the PEA mine plan.

Mineralized material production drilling will be carried out with 165 mm (6.5 inch) while waste production drilling will be carried out by a 215 mm (8.5 inch) (diesel-driven down-the-hole (DTH) hammer and rotary drills respectively). Both drills will be specifically configured to allowed for sampling of cutting for grade control as in some instances both drills will be used for drilling in mineralized material.

The mineralized material extraction fleet consists of 12 m³-hydraulic excavators based on their ability to minimize losses and dilution for the grade control operations. Rigid frame haulers (92-tonne payload) are proposed to be flexible enough to use on smaller benches and in selective mining scenarios but are not so small that the fleet size is excessive.

The waste removal fleet consists of 29 m³-hydraulic excavators based on their lower operating cost costs. Rigid frame 220 tonne trucks are selected for the larger waste benches were selectivity is not as important and to match the 29 m3-hydraulic excavators for four-pass loading.

Graders will be used to maintain the haul routes for the haul trucks and other equipment within the pits and on all routes to the various waste storage locations and the processing plant crusher and stockpile location. Off-highway trucks of the same size to the rigid frame trucks that are outfitted with a water tank and gravel spreader are included for haul road, pit floor and dump platform maintenance. Track dozers (455 kW) are included to handle waste rock, and overburden at the various waste storage locations.

Custom fuel/lube trucks are included for mobile fuel/lube support. Various small mobile equipment pieces are proposed to handle all other pit service and mobile equipment maintenance functions. Owner-operated mine fleet maintenance activities are generally performed in the maintenance facilities located near the processing plant site.

Primary mining equipment requirements by year are summarized in Table 16-24 below.

Table 16-24: Primary Mining Equipment Fleet Requirements

Equipment \ Year	1	2	3	4	5	6	7	8	9	10	11	12
227-t Haul Truck	8	9	11	13	8	10	10	12	14	12	15	16
92-t Haul Truck	6	7	7	11	8	11	9	8	8	8	9	11
29-m^3 Excavator	2	2	2	2	2	2	2	2	2	2	2	2
12-m^3 Excavator	1	1	1	2	2	2	2	1	1	1	1	1
150-mm Bit Drill	2	3	3	4	2	3	1	3	4	2	4	4
215-mm Bit Drill	2	2	2	1	2	1	1	2	2	2	1	2
Dozer (455 kw)	4	4	5	6	6	6	6	5	4	5	5	5
Grader (4.88-m Blade)	3	4	4	5	4	5	4	4	5	4	5	6
Equipment \ Year	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
227-t Haul Truck	16	16	16	12	11	16	16	4	0	0	0	0
92-t Haul Truck	11	11	11	11	11	13	13	11	7	7	7	6
29-m^3 Excavator	2	2	1	1	2	2	1	1	0	0	0	0
12-m^3 Excavator	1	1	2	2	1	1	1	1	1	1	1	1
150-mm Bit Drill	4	4	4	3	1	4	4	1	0	0	0	0
215-mm Bit Drill	2	2	2	2	1	2	2	1	0	0	0	0
Dozer (455 kw)	4	5	5	6	5	5	4	2	1	1	1	1
Grader (4.88-m Blade)	6	6	6	5	5	6	6	4	1	1	1	1

Source: Mining Plus, 2022.

Additional support mobile equipment included for the development of mine operating cost estimates is summarized below:

- Field fuel/lube truck;
- Field service truck;
- Forklift, or IT machine;
- Field welding truck (need 13-t gross vehicle weight (GVW) chassis);
- Flatbed Truck, 19,500–26,000 lb GVW;
- Crane, 55 ton;
- Pickup, 4WD, 0.50 t-F150;
- Fire Truck;
- Ambulance;
- Skidsteer;

- 12000-lb-lift Forklift;
- 400 gpm @400 ft dewatering pump, 46 hp;
- Trailer mounted lights, 4-1000 W, 6 kW gen;
- 80 kW, fuel 6.3 gph portable genset; and
- Crew Van, 4WD, 1.0 t.

The equipment classes, as well as number of units, are preliminary scoping level estimates, and modifications by future studies should be anticipated.

17 RECOVERY METHODS

17.1 Overall Process Design

The Project flowsheet has been selected based on recovery methods suitable for processing both Garrison and Golden Highway deposits, supported by preliminary metallurgical testwork and financial analysis. The unit operations selected to build the plant flowsheet are standard technologies widely used in gold processing plants. The basis of the design is presented in more detail in this section. An overall process flow diagram and mechanical equipment list were developed on the basis of this design.

The process design includes the following:

- two-stage crushing of run-of-mine (ROM) material;
- covered crushed material stockpile to provide buffer capacity for the process plant;
- SAG mill with trommel screen in closed circuit, followed by a ball mill with cyclone classification (SAB);
- gravity recovery of ball mill discharge by semi-batch centrifugal gravity concentrator, followed by intensive cyanidation of the gravity concentrate and electrowinning of the pregnant leach solution,
- trash screening of cyclone overflow;
- leach and carbon-in-leach adsorption tanks;
- acid washing of loaded carbon and Pressure Zadra elution followed by electrowinning and smelting to produce doré;
- carbon regeneration
- tailings cyanide destruction using the SO_2/air process;
- carbon safety screening, and tailings disposal;
- paste plant for underground backfill;
- reagent storage and distribution;
- water services (process water, treated water, fire water, gland water);
- potable water treatment and distribution; and
- air services.

17.2 Process Design Criteria

The process design criteria established after a review of the available metallurgical testwork and comparable industry benchmarks are summarized in Table 17-1. The overall process flow diagram in presented in Figure 17-1.

Table 17-1: Process Design Criteria

Design Parameter	Units	Value
Plant Feed Characteristics		
Mill Throughput	t/d	19,178
Total Material Milled	t/a	7,000,000
Gold Head Grade – Design	g/t	1.59
Crushing Plant Availability	%	70
Mill Availability	%	92
SME Parameter (Axb) - Design		35
Design Bond Crusher Work Index (CWi) - Design	kWh/t	35.0
Design Bond Rod Mill Work Index (RWi) - Design	kWh/t	20.0
Design Bond Ball Mill Work Index (BWi) - Design	kWh/t	21.6
Material Specific Gravity - Design		2.80
Angle of Repose	degrees	38
Run of Mine Moisture Content	% w/w water	5.0
Comminution Circuit		
Primary Crusher Product Size	mm	100
SAG Mill Density	%w/w solids	70
SAG Mill Ball Charge	%v/v	12
SAG Mill Ball Media Consumption	kg/kWh	0.06
SAG Recirculating Load (nominal)	% SAG new feed	22
Ball Mill Discharge Density	%w/w solids	72
Ball Mill Ball Charge	%v/v	30
Ball Mill Ball Media Consumption	kg/kWh	0.08
Cyclone Recirculating Load - Design	%	350
Primary Grind size (P_{80})	µm	75
Gravity Circuit		
Feed Source for Gravity Circuit		Ball mill discharge
Circuit Feed Rate	% grinding feed	100
Projected Mass Pull to Gravity Concentrate	%	0.02
Recovery to Gravity Concentrate - Design	%	25.0
Extraction from Intensive Leach Reactor	%	98
Leach Circuit		

Design Parameter	Units	Value
Total Leach + CIL Residence Time - Design	h	24
Leach-Feed Pulp Density	% w/w solids	42.5
Garrison - Leach DO target	mg/L	8
Garrison - Cyanide consumption rate	kg/t	0.45
Garrison - Lime consumption rate	kg/t	0.81
Golden Highway - Leach DO target	mg/L	8
Golden Highway - Cyanide consumption rate	kg/t	0.44
Golden Highway - Lime consumption rate	kg/t	1.15
Leach-CIL pH Target		10.5
Leach-CIL Carbon Concentration	g/L	16
Leach+CIL Tanks	#	2+6
Desorption, Regen, Goldroom Circuit		
Loaded Carbon Gold Concentration	g/t	1,600
Carbon Movement	t/wk per column	63
Tonnes of Carbon per Column	t	9 x 2 elution columns
Carbon Elution Method		Pressure Zadra
Fuel Source for Heater, Kiln, Furnace		Propane
Cyanide Destruct Circuit		
Detox Residence Time - Design	h	1.5
Detox WAD Cyanide Feed to Circuit - Design	mg/L CN_{WAD}	60.0
Detox WAD Cyanide Discharge Target	mg/L CN_{WAD}	< 5
Detox Air Addition Rate	g/g CN_{WAD}	2.0
Copper Addition	mg/L Cu^{+2}	10
SO_2 addition	g/g CN_{WAD}	5.00
Detox Hydrated Lime Addition - Design	g/g SO_2	0.50
Thickener Underflow Density	%w/w solids	65
Tailings Flocculant Addition	g/t	20

Source: Ausenco, 2022.

Figure 17-1: Overall Process Flowsheet

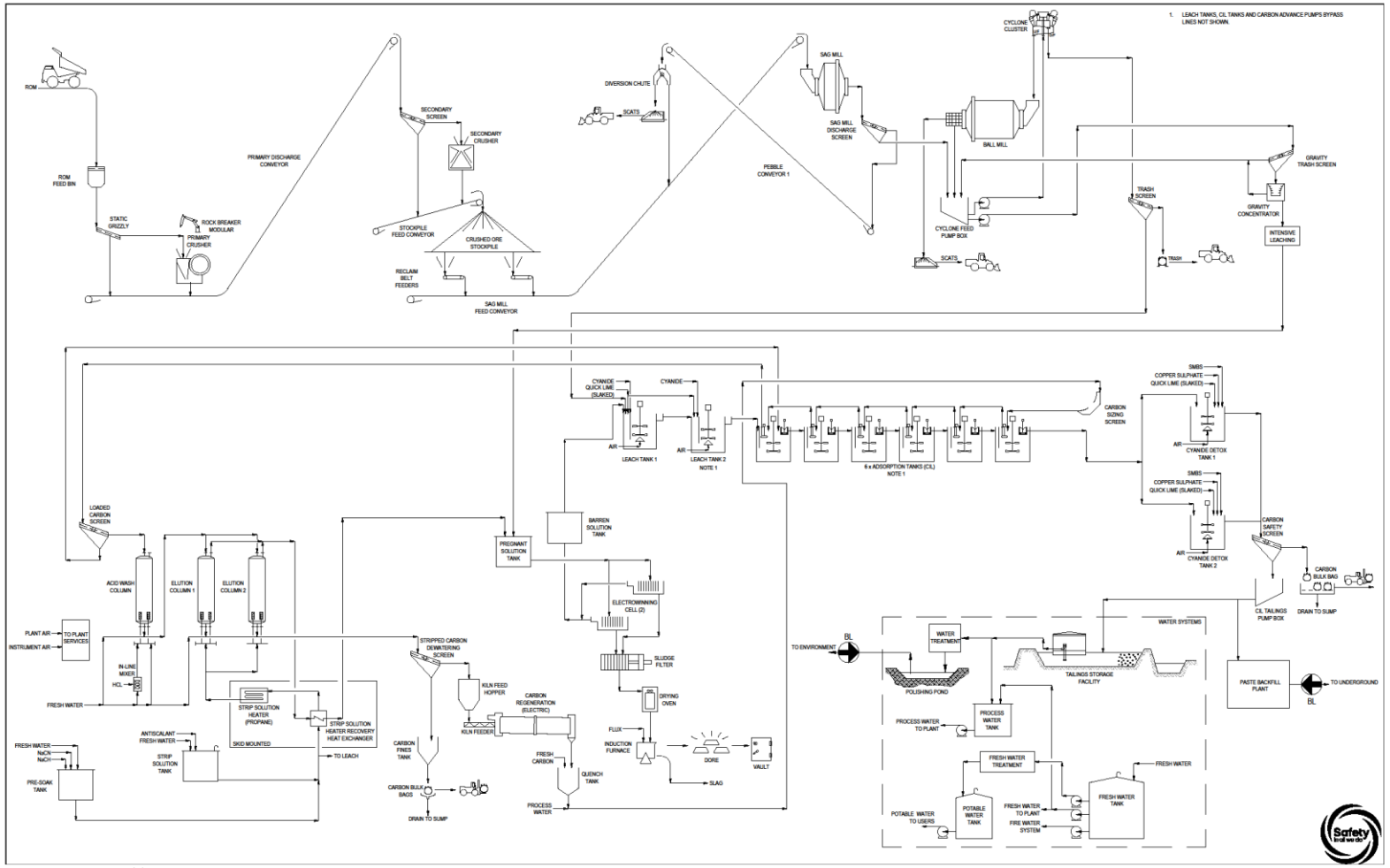


Figure prepared by Ausenco, 2022.

17.3 Process Description

The individual process areas are described in more detail below.

17.3.1 Crushing & Stockpiling

Material is hauled from the mines and stockpiled or direct tipped into to the ROM feed bin. Material from the bin is discharged by gravity to a grizzly screen where undersize is conveyed to the crushed product stockpile and oversize is discharged to the primary jaw crusher. Oversize material is crushed by the primary jaw crusher along with a modular rock breaker to manage very large rocks that may exceed the crusher gape size. The crushed material is then conveyed to the secondary crushing circuit where the particle size is further reduced in open circuit with a scalping vibrating screen. Final crushed product is conveyed to a covered stockpile. The 12-hour live residence time of the stockpile permits opportunity to perform maintenance on the crushing circuit without affecting the downstream process plant. Crushed material is withdrawn from the stockpile by two belt feeders that discharge onto the SAG mill feed conveyor. Oversize pebbles returned from the SAG mill trommel are deposited back on the SAG mill feed belt.

17.3.2 Grinding Circuit

The grinding circuit consists of a SAG mill in closed circuit with a vibrating screen and is followed by a ball mill in closed circuit with a hydrocyclone cluster. Process water is added to the SAG mill feed chute as well as the discharge pumpbox to maintain slurry pulp densities throughout the circuit. The hydrocyclone is fed combined SAG discharge screen undersize and ball mill discharge from the cyclone feed pumpbox. Slurry from the pumpbox is pumped up to a hydrocyclone cluster as well as a gravity circuit by individual pumps. The hydrocyclones classify the mill discharges to achieve a grind of 80% passing size 75 µm. Cyclone overflow gravitates over the trash screen where the oversize is collected and periodically removed. Trash screen undersize reports to the leach/CIL circuit. The hydrocyclone underflow returns to the ball mill for further size reduction. The circulating load within the ball mill hydrocyclone circuit is designed to be 350%.

17.3.3 Gravity Circuit

The gravity circuit includes one centrifugal concentrator with a feed scalping screen to protect the unit from oversize material. Feed to the circuit is pumped from the cyclone feed pumpbox via a dedicated pump to the scalping screen. Gravity scalping screen oversize reports back to the cyclone feed pumpbox. Scalping screen undersize is fed to the centrifugal concentrator. Operation of the gravity concentrator is semi-batch and the gravity concentrate is collected in the concentrate storage cone and subsequently leached by the intensive cyanidation reactor. The tails from the gravity concentrator is returned to the grinding circuit for further liberation through the cyclone feed pumpbox.

17.3.4 Intensive Leach Reactor

A separate leaching circuit is used to treat the free gold concentrate produced by the gravity concentrator. In the intensive leach reactor (ILR), free gold concentrate is leached into solution using sodium hydroxide, sodium cyanide and leach accelerant. Pregnant solution is stored in a pregnant solution tank for prior to the electrowinning circuit. The ILR pregnant solution is pumped from the reaction vessel feed tank to the ILR pregnant solution tank. The pregnant solution tank also receives elution pregnant solution. Combined ILRand elution pregnant solution is treated in the gold room for gold recovery as gold sludge using two electrowinning cells. The sludge is then collected and then smelted into doré.

17.3.5 Leach/Carbon-in-Leach Circuit

Hydrocyclone overflow gravitates to the leach and carbon-in-leach (CIL) area via a trash screen. The trash screen will remove any debris or trash from the slurry before leaching for periodic disposal with other site trash. The leach and CIL circuit consists of eight tanks: two leach tanks and six CIL tanks to provide a total residence time of 24 hours. Air is sparged to the tanks to maintain adequate dissolved oxygen levels for leaching. Hydrated lime is added to further refine the operating pH to the desired set point of 10.5. Cyanide solution is added to the leach tank and the first two CIL tanks. Fresh/regenerated carbon from the carbon regeneration circuit is returned to the last tank of the CIL circuit and is advanced counter-currently to the slurry flow by pumping slurry and carbon. Slurry from the last CIL tank gravitates to the cyanide detoxification tanks. Each CIL tank has a mechanically swept carbon retention screen to retain the carbon while allowing the slurry to flow by gravity to the downstream tank. Loaded carbon is transferred from the first CIL tank to carbon elution via the loaded carbon screen using a recessed impeller pump.

17.3.6 Cyanide Detoxification of Tailings

CIL tailings slurry passing through the carbon safety screen is discharged into two cyanide detoxification tanks in parallel. Cyanide detoxification will take place using the SO_2/air process. In this process, sodium metabisulphite (SMBS) and oxygen in air are used to detoxify the CIL tailings to a weak acid dissociable cyanide (CN_{WAD}) concentration of 5 mg/L or less. This reaction is carried out at a pH of 8.5 and makes use of copper sulphate as a catalyst. Lime is used to maintain the pH of the reaction. The cyanide detoxification makes use of two tanks in parallel that have each been sized for a total residence time of 1.5 hours. Detoxified tailings slurry are pumped to a tailings management facility, where solids from the slurry settle to the bottom of the tailings dam. The separation of water and solids allows water to be reclaimed from the dam and used as makeup process water within the plant.

17.3.7 Paste Plant

A paste plant is used to dewater detoxified tailings using a pair of horizontal plate and frame filters. Tailings are pumped from the tailings pumpbox to twin filter lines, each of which includes a filter safety screen, a filter feed tank, and filter. Filter cake is discharged to a combined conveyor prior to mixing with cement in a paste mixer and pumped underground via hydraulic pumps.

Cement is discharged from a bulk hopper into a premix tank where it is combined with water and pumped to the paste mixer.

17.3.8 Carbon Acid Wash, Elution & Regeneration

17.3.8.1 Carbon Acid Wash

Gold-laden carbon is pumped to the elution circuit to the loaded carbon screen. Screen undersize gravitates back to the first CIL tank, while screen oversize discharges to the acid wash vessel. Loaded carbon is washed with a weak hydrochloric acid solution to remove calcium, magnesium, and other salt deposits. The spent acid is discharged into the cyanide detoxification system where it can be neutralized with lime. The carbon is soaked in the hydrochloric acid solution. After soaking, the used acid is transferred to the cyanide destruction tank along with washing water of the carbon to remove any retained acid. The acid-washed carbon is then hydraulically transferred to the elution column for gold stripping. The single acid wash column is used to supply washed loaded carbon to both elution columns.

17.3.8.2 Carbon Elution

Carbon elution circuit is based on the Pressure Zadra process using twin 9-tonne columns. The acid washed carbon is eluted a strong sodium cyanide solution and sodium hydroxide solution in the elution column. Pregnant solution from the elution column is transferred to electrowinning. Electrowinning barren solution is then re-circulated through the elution column via a heater. When an elution cycle is complete, the circuit is ready to initiate a new acid wash and elution cycle.

17.3.8.3 Carbon Reactivation

The eluted or stripped carbon now is dewatered by a screen over a 5-tonne feed hopper, which feeds an electric rotary kiln via a screw feeder. The kiln is operated at 700°C in an atmosphere of superheated steam to restore the activity of the carbon. Carbon discharging from the kiln is quenched in water and screened on a carbon sizing screen located on top of the CIL tanks to remove undersized carbon fragments. Make-up carbon is added to the circuit as needed in the carbon quench tank. Oversize carbon reports to the last CIL tank and undersized carbon is removed from the circuit where it is dewatered by gravity in a bulk bag and shipped offsite for third party processing.

17.3.9 Electrowinning & Gold Room

Gold is recovered from the ICR and elution pregnant solution by electrowinning and smelted to produce doré bars. The pregnant solution is pumped through one of two electrowinning cells fitted with stainless steel mesh cathodes. An electric current is applied across the cells, causing gold to deposit on the surface of the cathodes. The remaining barren solution transferred to the leach circuit. The gold-rich sludge is washed off the steel cathodes in the electrowinning cells using high pressure spray water and gravitates to the sludge hopper. The sludge is filtered, dried, mixed with fluxes, and smelted in an electric induction furnace to produce gold doré. The electrowinning and smelting process takes place within a secure and supervised gold room equipped with access control, intruder detection, and closed-circuit television equipment.

17.3.10 Reagent Handling & Storage

The consumables and reagents required for the mechanical and chemical treatment of the ROM can be summarized as follows:

- Quicklime (CaO) – This will be slaked into hydrated lime and used to control the pH in the leach, CIL and detoxification circuit.
- Sodium Cyanide (NaCN) – This will be used as the main gold leaching reagent in the CIL circuit, elution column and in the ILR circuit.
- Sodium Hydroxide (NaOH) – This will be used in carbon elution and ILR circuits.
- Hydrochloric Acid (HCl) – This will be used in the acid wash circuit to remove scale formation on the carbon.
- Copper Sulphate Pentahydrate – This is a catalyst in the detoxification reaction.
- Sodium Metabisulphite – This is a cyanide detoxification process reagent and source of SO2.
- Process Air – Air will be used for both leaching and cyanide detoxification

- Activated Carbon – Carbon is used in the CIL circuit to adsorb dissolved gold.
- Flocculant – This is used as a thickening aid to accelerate settling rates and/or achieve higher pulp densities.
- Leach Aid – This is used in the ILR circuit to improve the free gold leaching process.
- Antiscalant – This is used to reduce the formation of scale in the elution and electrowinning circuit equipment and on the activated carbon itself.
- Flux – A flux of silica, nitre and soda ash is used in gold smelting to produce slag and capture metal impurities.
- Filter Cloth – Used for filters in the paste plant
- Cement – Used as a binder in the paste plant
- SAG Mill Grinding Media – For addition to the SAG mill.
- Ball Mill Grinding Media – For addition to the ball mill.
- Crusher and grinding mill liners will be required.

17.4 Services

This circuit will be supplied with both compressed and dried instrument air. Compressors will first supply air for general process use, notably in leaching and detoxification, to a primary receiver. A portion of air will then be dried and filtered before transfer to a dried air receiver for instrument use.

The process plant is expected to consume 206 MWh per year.

17.5 Water

The process will require both fresh and reclaim water to maintain the plant water balance. Fresh water will be used to supply gland seal pumps, reagent makeup water and the elution circuit. Reclaim water will be taken from the consolidated tailings supernatant water pond as well as from captured surface runoff. The process is estimated to require 23 m^3/h of fresh water for use in gland seals, reagent make-up, and the carbon elution system.

17.6 Consumption Rates

Consumption rates for major plant reagents are shown below in Table 17-2, as calculated from the plant mass balance.

Table 17-2: Reagent Consumption Rates

Reagent	Unit	Quantity
Cyanide	t/a	3380
Lime	t/a	10292
Sulphur	t/a	3082
CuSO4	t/a	131
HCl	t/a	236
NaOH	t/a	255
Flocculant	t/a	418
Carbon	t/a	280

Source: Ausenco, 2022.

Consumption rates for major wear parts used in the process plant are shown below in Table 17-3, estimated from comparable industry benchmarks with similar abrasion properties.

Table 17-3: Wear Part Consumption Rates

Reagent	Unit	Quantity
Primary Jaw Liner Sets	#/a	3
Cone Crusher Liner Sets	#/a	3
SAG Mill Liner	#/a	1
SAG Mill Grinding Media	t/a	1505
SAG Mill Trommel	#/a	2
Ball Mill Liner	#/a	1
Ball Mill Grinding Media	t/a	4977
Paste Plant Filter Cloth Sets	#/a	38

Source: Ausenco, 2022.

18 PROJECT INFRASTRUCTURE

Infrastructure to support the Tower Gold Project will consist of site civil work, site facilities and buildings, water management systems, and site electrical power. Site facilities will include both mine facilities and process facilities, as follows:

- mine facilities include offices, truckshop, warehouse, and washbay
- process facilities include the process plant, crusher facilities, process plant workshop, assay laboratory, and tailings storage facility (TSF)
- common facilities include a gatehouse and administration building
- HV power line and on-site electrical substation
- diversions, ditches, ponds and effluent treatment for management of contact and redirection of non-contact water
- mine facilities and process facilities will be serviced with potable water, fire water, compressed air, power, diesel, communication, and sanitary systems.

18.1 Overall Site Layout Development

Site selection was based on the following observations and factors:

- select a site within the Moneta Gold's claim boundary
- try to avoid as much as possible building and stockpiling on wetlands
- locate the primary crushing and ROM pad to reduce hauling from all pits over the life of mine
- locate the process plant in an area with reduced risk of flooding
- locate the TSF near the process plant and outside of local flood plains
- arrange the administration, processing plant and offices in close proximity
- preserve local water body and fish habitat to the extent practicable.

The Tower Gold Project site layout is shown in Figure 18-1.

Figure 18-1: Tower Gold Overall Site Layout

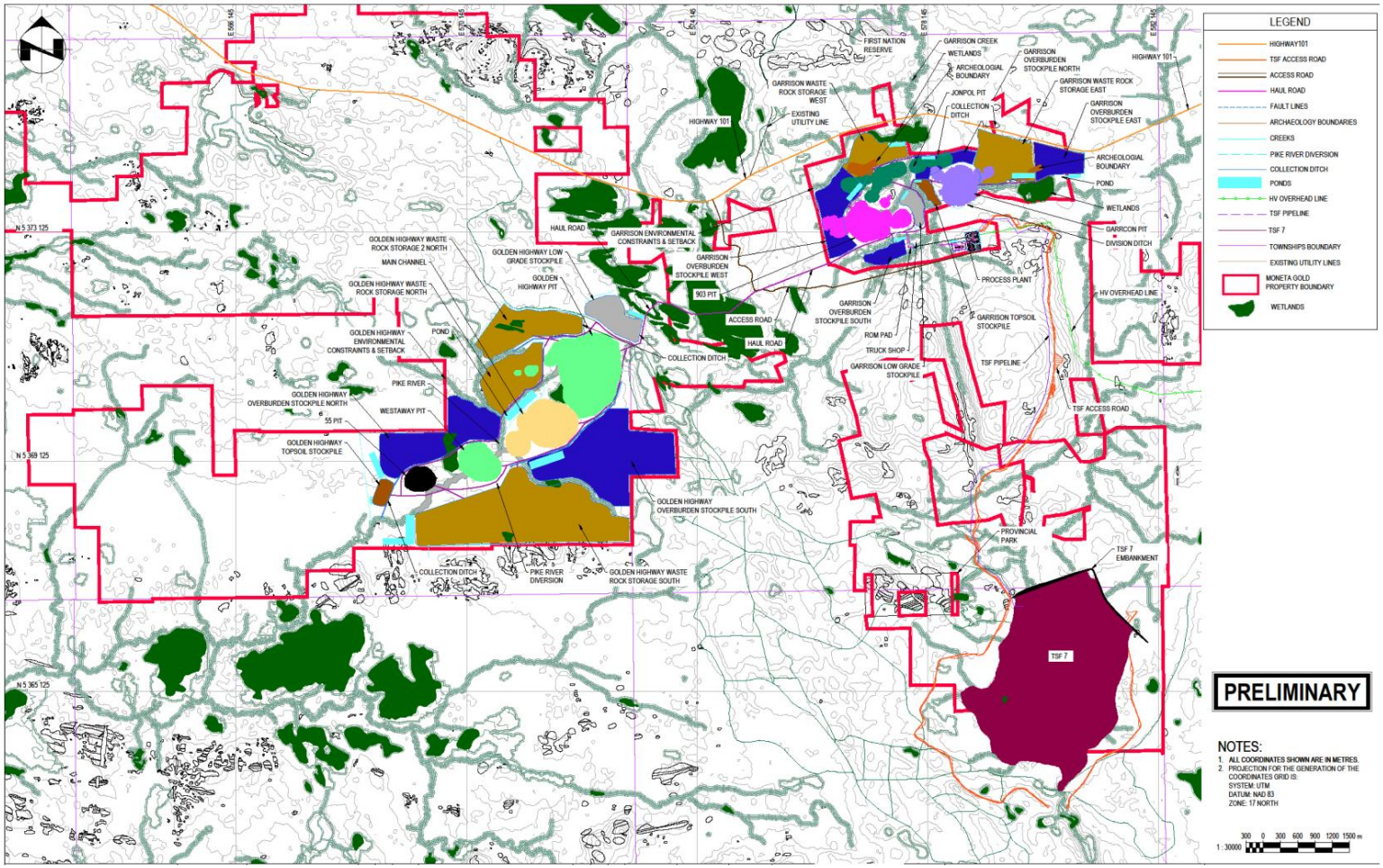


Figure prepared by Ausenco, 2022

18.2 Site Preparation

The existing roads will be connected to the project for site accesses. The typical method of clearing, topsoil removal, and excavation will be employed, incorporating drains, safety bunds and backfilling with granular material and aggregates for road structure. Forest clearing and topsoil removal is expected to be required to allow construction of the processing plant and other buildings and facilities. Site civil work includes design for the following infrastructure:

- light vehicle and heavy equipment roads
- access roads
- topsoil and overburden stockpile area
- mine facility platforms and process facility platforms
- water management ponds and ditches and channels
- rock storage facilities.

18.3 Stockpiles

The material mined from each deposit will be diverted to different destinations depending on the grade and material type. The barren material will be sent to the rock storage facility while the low- and high-grade mineralized material, that is not feeding the mill directly, will be sent to low- and high-grade stockpiles, respectively.

All mill feed is currently envisioned to be hauled from the pit rim, portal, and stockpiles. The stockpiles are shown in Figure 18-1.

18.4 Waste Rock Storage Facilities

Waste rock and overburden storage facilities are planned at each site for waste materials from the open pit. Total waste rock and overburden tonnes by area is as follows:

- Golden Highway – 567 Mt
- Garrison – 166 Mt

All stockpiles and rock storage facilities are planned to avoid existing waterbodies and water courses. The rock storage facilities are shown in Figure 18-1.

18.5 Road and Logistics

18.5.1 Access Roads

The site can be accessed by a network of forestry logging and drilling roads that extend 4 km south from Highway 101. The intersection for the main logging access road (Tower Road) is 32 km east of Matheson.

An access road to the process plant site will be constructed as a 0.5 km gravel-based road connected to Highway 101. A road connecting the Garrison and Golden Highway mining areas will be constructed suitable for heavy and light vehicle traffic.

18.5.2 Interior Roads

The roads within the process plant area will be generally 6 m wide, integrated with process plant pad earthworks, and designed with adequate drainage. The roads will allow access between the administration building, warehouses, mill building, crushing buildings, stockpile, mining truck shop, and the top of the mill feed stockpile. Haul roads connecting the mine pits, stockpiles and ROM pad will be 35 m wide.

18.6 On-site Infrastructure

The plant site consists of the necessary infrastructure to support the processing operations. All infrastructure buildings and structures will be built and constructed to all applicable codes and regulations. The plant site layout showing facilities is provided in Figure 18-1.

18.6.1 Power Supply

A 115 kV power transmission line of unknown capacity is located approximately 10 km southeast of the property along Highway 672. The overhead powerline indicated on the site plan (See Figure 18-1) was mapped from the known transmission line location.

An outdoor substation will be constructed on the Garrison property near the process plant. An overhead line will be constructed from this substation to the Golden Highway mining areas to provide power to underground and surface operations. Diesel generators will be procured to provide emergency power to plant services and underground mining infrastructure.

18.6.2 Buildings

18.6.2.1 Process Plant

The process plant will be located on the Garrison property. Process plant buildings are summarized in Table 18-1. All process plant buildings, and ancillary buildings, conveyors and other equipment discussed in this section, will be equipped with fire suppression systems.

Table 18-1: List of Process Buildings

Building Description	Building Construction	L (m)	W (m)	H (m)	Area (m^3)	Volume (m^3)
Crushing building	Fabric	21	14	21	294	6,257
Stockpile Cover	Fabric	89	84	26	7,448	193,656
Mill building (Grinding + Gravity)	Pre-Engineered	56	44	27	2,483	66,042
Gold room building	Pre-Engineered	19	13	13	251	3,261
Reagents building	Fabric	48	26	16	1,256	20,342
Reagents storage warehouse	Fabric	18	11	6	203	1,217

Source: Ausenco, 2022.

The crushing area building, and the stockpile cover, will be of fabric design and equipped with dust collection systems. The crushing building will house the ROM hopper equipped with a static grizzly, primary jaw crusher, chutes and additional platework. The rock breaker will also be within the building. In addition, access platforms and reinforced concrete will be utilised for the pad to support the primary jaw crusher. Secondary screening and crushing will also be completed prior to conveyance to the mill feed stockpile. Conveyors are used in the nominal operation to move the crushed material through the crushing circuit and do not rely on regular use of mobile equipment. A fabric building cover and concrete reclaim tunnel will be used for the mill feed stockpile.

The mill building will be constructed from pre-engineered metal, supported on reinforced concrete footings complete with concrete slabs and pedestals. To account for winter conditions, buildings will be built with insulated metal panel (IMP) roof and wall cladding. Area cranes will be available for equipment servicing in the process plant. The mill building includes a ground floor, one elevated concrete floor. The various equipment will be accessed by purpose-built mezzanine platforms for maintenance, service and sampling. The mill building will contain the ball and SAG mills, cyclones, trash screen, as well as dedicated areas for the gravity circuit equipment, acid wash column, the elution column and regeneration equipment.

The reagent building will be of fabric design and will contain the reagent mixing tanks, and dosing tanks (where applicable). Where possible totes of reagents will be used directly, to conserve space and tankage. Reagents storage warehouse will be located nearby and also be of fabric design.

The gold room will house the pregnant solution tank, electrowinning cells, sludge filters, furnace, drying oven and vault. The building will be constructed from pre-engineered metal.

18.6.2.2 Administration Building

The administration offices will be located near the process plant in a single-storey modular building placed on pre-cast concrete block footings. The building will have heating, ventilation, and air conditioning (HVAC); it will contain offices, meeting rooms, a lunchroom, washrooms, men's and women's dry, lockers, a first-aid area, and showers that will accommodate all the G&A staffing.

The area assigned to the administrative and modular buildings on site are listed in Table 18-2.

Table 18-2: List of Process Buildings

Building Description	Building Construction	Area (m^3)
Mine dry & mining office	Modular	468
Security gatehouse	Modular	52
Mill/plant office	Modular	208

Source: Ausenco, 2022.

18.6.2.3 Maintenance Shops and Warehouses

The dimensions of the maintenance shops and warehouse buildings on site are listed in Table 18-3. The plant maintenance building will be located near the process plant, and will be used as a warehouse for process plant equipment spares, maintenance and storage of light vehicles and process plant equipment, as well as general storage. The building will be supported on reinforced concrete slab-on-grade.

The truck shop and truck wash building will provide maintenance to the truck fleet, and be located on a separate pad near the process plant at the Garrison site. Supplementary facilities will be located at the Golden Highway property, primarily to support the underground mining fleet.

Table 18-3: List of Warehousing, Office & Workshops as On-site Infrastructures

Building Description	Building Construction	L (m)	W (m)	H (m)	Area (m^3)	Volume (m^3)
Truck wash building - Garrison	Fabric	30	21	14	645	9,032
Truck shop building - Garrison	Fabric	77	30	14	2,320	32,476
Truck shop warehouse - Garrison	Fabric	30	21	6	645	3,871
Plant warehouse and maintenance building	Fabric	56	23	6	1,307	7,840
Truck shop building – Golden Highway	Fabric	21	15	14	315	4,410
Truck shop warehouse – Golden Highway	Fabric	42	22	14	924	12,936

Source: Ausenco, 2022.

18.7 Water Management

The following sections describe available geochemical data, climate data, flood analysis, hydrogeology, water management structures, and Rainfall-Runoff Modelling for the project site.

18.7.1 Geochemistry

18.7.1.1 Mine Waste Geochemistry

The Garrison site hosts the Garrcon deposit which is situated within the Timiskaming Assemblage adjacent to the Porcupine-Destor Fault and is a zone of brecciated, silicified metasediment with disseminated sulphides and irregular quartz veinlets (Golder, 2014a). In 2013, a total of 533 drill core samples were submitted for acid-base accounting (ABA) analysis to assess the risk of acid rock drainage and shake flask extraction (SFE) tests to assess the short-term risk of metal leaching. The waste rock lithologies tested included hematitic metasediments (SED; 462 samples), lamprophyre dyke (LAMP; 55 samples) and chloritized ultramafic to mafic flows (CK; 16 samples), (Golder, 2014b).

The results of the laboratory testing indicated:

- Low total sulphur values (less than 1%wt.);
- A minority of SED samples were classified as potentially acid generating (PAG), or as having an uncertain risk of acid generation;
- All LAMP and CK samples were classified as non-potentially acid generating (NPAG); and
- Minor leaching of metals such as silver, aluminum, copper, iron and vanadium above stringent water quality guidelines (Provincial Water Quality Objectives, MOE, 1994).

Overall samples contained abundant capacity to neutralize acidity, including reactive carbonates (for selected samples submitted for carbonate analysis).

18.7.1.2 Mine Environment Compliance Approvals

Environment Compliance Approval (ECA) documents available online were reviewed to see what types of mine water treatment, if any, was used/is being used at historic/currently operating gold mines in the vicinity of the Project. This information is summarized in Table 18-4 and in Figure 18-2. Some projects (e.g., Garrison, Hislop) required lime or sodium hydroxide dosing to increase the pH to remove metals such as copper likely attributable to sulphide oxidation under near-neutral pH conditions. This is of note since the Garrison project is part of the Tower Gold project.

At other mines (e.g., Black Fox) mine water treatment of metals mobile under near-neutral pH conditions (e.g., arsenic) was required. In general, a minimum level of treatment required at most mines includes coagulant dosing to promote removal of total suspended solids (TSS) with associated treatment ponds for water management and polishing.

Table 18-4: Summary of Existing Mine Water Treatment Information

No.	Gold Project	Current Status	Metals of Concern	Mine Water Treatment System Details
1	McEwan Black Fox mine	Operating	Mine: Arsenic, total suspended solids (TSS)	Sulphuric acid addition (to lower pH), ferric sulphate dosing to remove arsenic. Coagulant dosing (e.g., poly-aluminium chloride) used as needed to promote settling of TSS.
			Mill: Cyanide destruction and arsenic precipitation	INCO SO_2 / Air cyanide destruction and ferric sulphate dosing for arsenic removal.
2	Garrison mine (Garrcon)	Historic	Copper, TSS	Lime or sodium hydroxide addition (to raise pH). Dosing with flocculants (e.g., ferric sulphate) /coagulant's and carbon dioxide gas dosing at effluent point to raise pH.
3	Agnico Eagle Hislop mine	Closed	Arsenic, metals, TSS	Ferric sulphate flocculants/coagulant dosing. pH adjustment using lime slurry to precipitate out metals.
4	St. Andrews Goldfields Taylor mine	Suspended	TSS	Lime / sodium hydroxide pH adjustment, ferric sulphate flocculant dosing, coagulant dosing.

18.7.1.3 Discussion

The limited geochemistry data indicates that the risk of acid generation from sulphide oxidation is low. Metal leaching from unoxidized rock was also low in comparison to stringent water quality guidelines for freshwater receivers. The results of the short-term leach tests do not necessarily mimic actual site contact water quality due to differences between laboratory and field conditions. Nonetheless, for readily soluble metals the short-term leach test results generally provide an indication of metals of particular concern i.e., if leached concentrations are elevated in the laboratory, then they will probably also be elevated in the field. However, metals which may be released during sulphide oxidation (e.g., lead, zinc, nickel, arsenic, and selenium) would typically not show up in short-term leach tests on unoxidized samples, as the rock needs to be exposed to oxidizing conditions for metal release. Longer-term kinetic tests which promote oxidizing conditions are typically required to mobilize these metals which are associated with pyrite or other sulphide minerals.

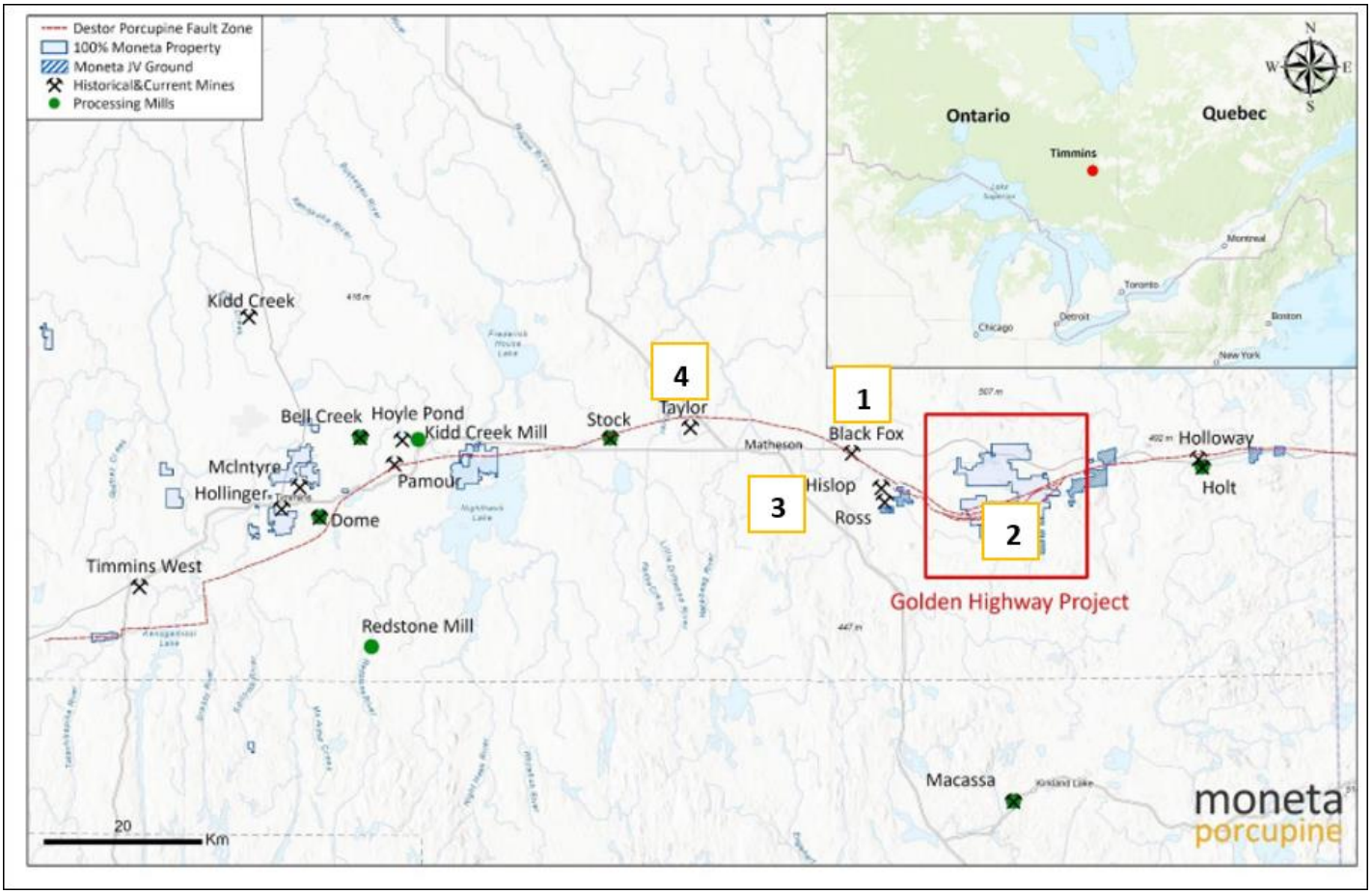
Based on review of the limited geochemistry data and ECA information for neighbouring mine properties, it was concluded that development of low pH (i.e., pH 2-3) ARD with significantly elevated metal concentrations is unlikely at the Project. However, development of near-neutral pH drainage with metal concentrations above water quality criteria is possible. This appears to be the case at the Garrison property. Treatment of contact water at the Project is required after mining of around 150,000 t of rock has occurred and development of two small open pits as part of advanced exploration activities.

Suitable effluent water treatment might include:

- Suitably sized treatment ponds with flow training berms;
- Arsenic treatment – using ferric sulphate (noted that not needed at Garrison);
- TSS removal using retention time, flocculant and coagulant addition;
- Ammonia removal using aeration (noted that not needed at Garrison, but only small-scale mining carried out to date);
- Metals removal using lime or sodium hydroxide to raise pH;

- pH adjustment using carbon dioxide gas to lower pH before discharge; and
- If a mill will be present cyanide destruction will be required in addition.

Figure 18-2: Current and historic gold mines located in the vicinity of the Project



Source: Ausenco, 2022.

18.7.2 Hydrological Study

Based on the Köppen climate classification (1884), the Tower Gold Project is located in subarctic climate (type "Dfc") and temperate zones, typically with long, very cold, freezing winters and short, cool summers. The project region is cold by Canadian arctic standards. In winter, there may be cold periods lasting a few days, in which the minimum drops down to −54 °C. Total annual precipitation is 835 mm, of which 67 % is rainfall, and 33 % is snow. The direction of prevailing winds is south most of the year.

The climate station close to the Project site and with sufficient minimum data history (30 years) is TIMMINS VICTOR POWER A. This station is located approximately 99km distance to project site. The climate normal data (1981-2010) from TIMMINS station (Table 18-5) is chosen for water balance analysis. However, evaporation data from Amos station (Table

18-6) was used for water balance analysis as the TIMMINS station does not have evaporation data. The extreme precipitation events for the project site were estimated based on the TIMMINS IDF curves obtained from Environment Canada. Table 18-7 summarizes storm events for the various return period.

Table 18-5: TIMMINS VICTOR POWER A Climate Normal

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Daily Average (°C)	-16.8	-14	-7.4	1.8	9.6	14.9	17.5	16	11.1	4.4	-3.4	-11.9	1.8
Daily Maximum (°C)	3.6	3.1	2.6	2.3	2.1	1.6	1.2	1.4	1.6	1.5	2.6	3.7	1
Daily Minimum (°C)	-10.6	-7.2	-0.6	8	16.6	21.9	24.2	22.5	17.1	9	0.6	-6.9	7.9
Rainfall (mm)	3.2	1.7	14.1	30.1	62.3	83.2	90.9	81.6	83.7	68.1	30.9	8.5	558.3
Snowfall (cm)	57.8	45.9	44.8	27.2	5	0.2	0	0	1	15.1	49	65.2	311.3
Precipitation (mm)	51.8	41.3	54.5	56.2	67.4	83.4	90.9	81.6	84.7	82.5	75.9	64.5	834.6
Average Snow Depth (cm)	53	64	54	18	1	0	0	0	0	0	7	28	19
Maximum Hourly Speed (km/h)	57	59	58	56	64	56	48	72	56	56	61	56	72
Most Frequent Direction	NW	S	NW	N	N	S	W	S	S	S	S	S	S

Table 18-6: Amos Climate Normal

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Lake Evaporation (mm)	0	0	0	0	3.4	4.1	4.1	3.2	2	0	0	0	-

Table 18-7: Extreme Storm Events for TIMMINS station

Station	Duration	2	5	10	25	50	100
TIMMINS	5 min	6.8	9	10.5	12.3	13.7	15.1
	10 min	9.8	13.4	15.8	18.8	21.1	23.3
	15 min	11.6	15.9	18.7	22.3	25	27.6
	30 min	14.7	21.2	25.4	30.8	34.8	38.8
	1 h	17.9	25	29.7	35.7	40.1	44.5
	2 h	21.7	29	33.8	39.9	44.4	48.9
	6 h	29.1	38.4	44.6	52.5	58.3	64.1
	12 h	35.2	48	56.5	67.3	75.3	83.2
	24 h	43.8	62.6	75	90.7	102.3	113.9

18.7.3 Hydrogeology

Spatial analysis of the resource drilling data set, corrected for dip and azimuth, was also conducted to help visualize the sub-surface and estimate overburden and bedrock pit wall surface areas. These were based on desktop pit designs with proposed pit depths of Garrcon 240 m, Jonpol 130 m, 903 Zone 270 m, Golden Highway 340m, Westaway 240m, and 55 Zone 180m.

18.7.3.1 Previous Hydrogeological Studies

Golder completed a Category Three Permit-To-Take-Water (PTTW) for a bulk sample from two trial (East and West) pits in 2017. Six boreholes were completed and found subsurface conditions to consist dominantly of glacial-lacustrine clays with lesser silts and sands above a thin layer of sand and gravel with cobbles. In the West pit the soils were dominantly sandy silt and less than four metres thick. In the East pit, there are soft clays with depths of 10 – 15 m to bedrock and with extremely low undrained shear strength (15 – 20 kPA), requiring slopes no greater than 6:1 (Golder 2016). Known overburden stratigraphy is summarized in Table 18-8.

Table 18-8: Summary of Overburden Stratigraphy

Soil Layer	Description
Organic Soil	Varies from 0 to 0.4 m in thickness; black to dark brown; with roots and organic material.
Brown Clay	Varies from 0 to 4 m in thickness; dark brown to tan; soft to firm clay with minor silt.
Grey Clay	Up to 12 m thick; grey; moist to wet; very soft clay with minor silt.
Glacial lacustrine Silt	Varies in thickness; grey; stiff to firm; moist; sandy silt to clayey silt.
Silty Sand to Sandy Gravel	Varies ~1-2 m thick above the bedrock and varies across the site.

For the PTTW, Golder determined hydraulic conductivity in the overburden of 3.8E-07 m/s and in bedrock from 1.8E-07 m/s to 9.5E-07 m/s and storativity of 5.5E-06 from a pumping test in bedrock well near the East and West trial pits. Inflow estimates for the PTTW for the East and West Pits were 29 m3/day (16 m deep) and 39 m3 / day (21m deep) based on equivalent diameters of 89 m and 104 m, respectively, using the Jacob-Lohman equation for a confined aquifer.

Schlumberger completed a hydrogeological study in 2013 for dewatering of the shaft and underground workings for a Category Three PTTW. Fourteen (14) twinned monitoring wells were installed at seven locations (one in bedrock and the other in overburden), and an eight-inch pumping well (PW12-01) was installed 30 m into a silty sand aquifer. Hydraulic conductivity estimates were determined for silty sand: K = 1.4 E-05 m/s (slug tests) and for fractured bedrock K = 2.3 E-07 m/s (packer tests). Artesian flow was reported from monitoring well MW12-06B (Golder 2018).

Schlumberger determined that the principal aquifer in the study area is a confined, overburden silty sand aquifer that lies just above the weathered bedrock surface. The silty sand was encountered above bedrock in all borings, but the areal extent of this aquifer beyond the study site is unknown. It is confined above by the clay loam soils of the Great Clay Belt, and below by the fractured Precambrian crystalline bedrock. The bedrock is slightly fractured and, as a result, has a very low hydraulic conductivity (ibid 2013).

18.7.3.2 Pit Inflow Estimates

Pit flow estimates have been made using the analytical solution developed by Marinelli and Niccoli (2000). The analytical solution for Zone 1 (pit walls) considers steady-state, unconfined, horizontal radial flow with a uniformly distributed recharge at the water table. The analytical solution for Zone 2 (pit bottom) is based on steady-state flow to one side of a circular disk sink of constant and uniform drawdown. A pit lake does not have to exist for the validity of the method.

Hydraulic conductivities (K) have been adapted from the Golder and Schlumberger investigations for overburden and upper bedrock (top 100 m). In the Garrcon trial Pit area, the overburden and bedrock K is similar. In the proposed Jonpol Pit area, the overburden K is two orders of magnitude greater than the bedrock. There are no measurements in the 903 Zone deposit, so we have assumed similar overburden conductivity as at Jonpol. Similarly, there are no measurements at Golden

Highway, Westaway, and 55 Zone pit; we have assumed average hydraulic conductivity (K) (Table 18-9) is applicable for the Golden Highway site. The bedrock is assumed to be isotropic Kh = Kv.

Table 18-9: Pit Parameters Used in Analytical Model

Model Parameter	Garrcon Pit	Jonpol Pit	903 Zone
Overburden K_h	3.8E-07 m/s	1.4E-05 m/s	1.4E-05 m/s
Upper Bedrock K_h	5.6E-07 m/s	2.3E-07 m/s	2.3E-07 m/s
Lower Bedrock K_h	5.6E-08 m/s	2.3E-08 m/s	2.3E-08 m/s
Average K_h	2.6E-07 m/s	4.6E-07 m/s	1.2E-07 m/s

Source: Ausenco, 2022.

18.7.3.3 Results: Pit Inflows from Groundwater

The pit inflows represent the maximum volumes considering an 'instantaneous pit'. The flows will be low initially but increase near the bedrock contact as the sand and gravel material is mined through close to the bedrock contact. The shallow bedrock is also expected to provide higher flows compared to deeper bedrock, and this may be concentrated in fault zones where secondary permeability has developed through fractures and joints. Table 18-10 presents maximum pit inflows from groundwater. The Garrcon, Jonpol and 903 Zone will be filled with west rock and tailings between Yr1 to Yr16, and groundwater flow will be reduced accordingly.

Table 18-10: Maximum Pit Inflows from Groundwater

Pit	Groundwater Inflows Rate (m^3/day)
Garrcon	6649
Jonpol	4868
903 Zone	10598
Golden Highway	16365
Westaway	7212
55 Zone	3957

Source: Ausenco, 2022.

18.7.4 Water Management Structures

18.7.4.1 Conceptual Design

This section summarizes a list of proposed water management structures for the project site.

Diversion Channels – diversion channels are required to divert river or creek away from the facilities and to minimize the amount of contact runoff to be collected and managed. The design criterion for the diversion ditches was the conveyance of 1:1000-year peak flow without overflow.

Diversion Ditches – diversion ditches are required to divert clean runoff away from the facilities and to minimize the amount of contact runoff to be collected and managed. The design criterion for the diversion ditches was the conveyance of 1:100-year peak flow without overflow.

Collection Ditches – collection ditches collect contact runoff from the Waste Rock Dumps (WRDs), Overburdens (OVBs), Stockpiles, Process Plant, and Crusher. The design criterion for collection ditches was the conveyance of 1:100-year peak flow without overflow.

Collection Ponds – collection ponds were proposed to store contact runoff from the collection ditches. The collection ponds' design criteria were to store 1:100-year 24hr flood with a minimum freeboard of 0.5m. The stored contact water should be either treated and released to the environment or reused for process purposes.

A high-level estimate of excavation volumes was also completed using the proposed geometries of the structures and elevation profile along the alignment of channels and ditches.

The Garrison site consists of two WRDs, three OVBs, two Stockpiles, three Pits, Process Plant, and Crusher. These facilities were shown in Figure 18-3. A total of 5 diversion ditches with a total length of ~3,730m were designed (blue lines in Figure 18-3) to divert the clean runoff approaching the WRDs, Pits and Process Plant. In addition to diversion ditches, a collection system, including 18 collection ditches, was designed to manage contact water from the WRDs, OVBs, Stockpiles, Process Plant, and Crusher. The collected contact water will be retained in 9 collection ponds near each facility. Figure 18-3 also shows the proposed alignments for the diversion ditches, collection ditches, and collection ponds.

The Golden Highway site consists of three WRDs, two OVBs, two Stockpiles, and three Pits. These facilities are shown in Figure 18-4 and Figure 18-5. A ~3877 diversion channel was designed to divert Pike River from the pits (purple line in Figure 18-5 and Figure 18-6). A total of 5 diversion ditches with a total length of ~9,948 m were designed (blue lines in Figure 18-3 and Figure 18-4) to divert the clean runoff approaching the WRDs, Pits and OVBs. In addition to diversion ditches, a collection system, including 14 collection ditches (Figure 18-6), was designed to manage contact water from the WRDs, OVBs and Stockpiles. The collected contact water will be retained in 6 collection ponds near each facility.

Figure 18-3: Water Management Structures within the Garrison Site

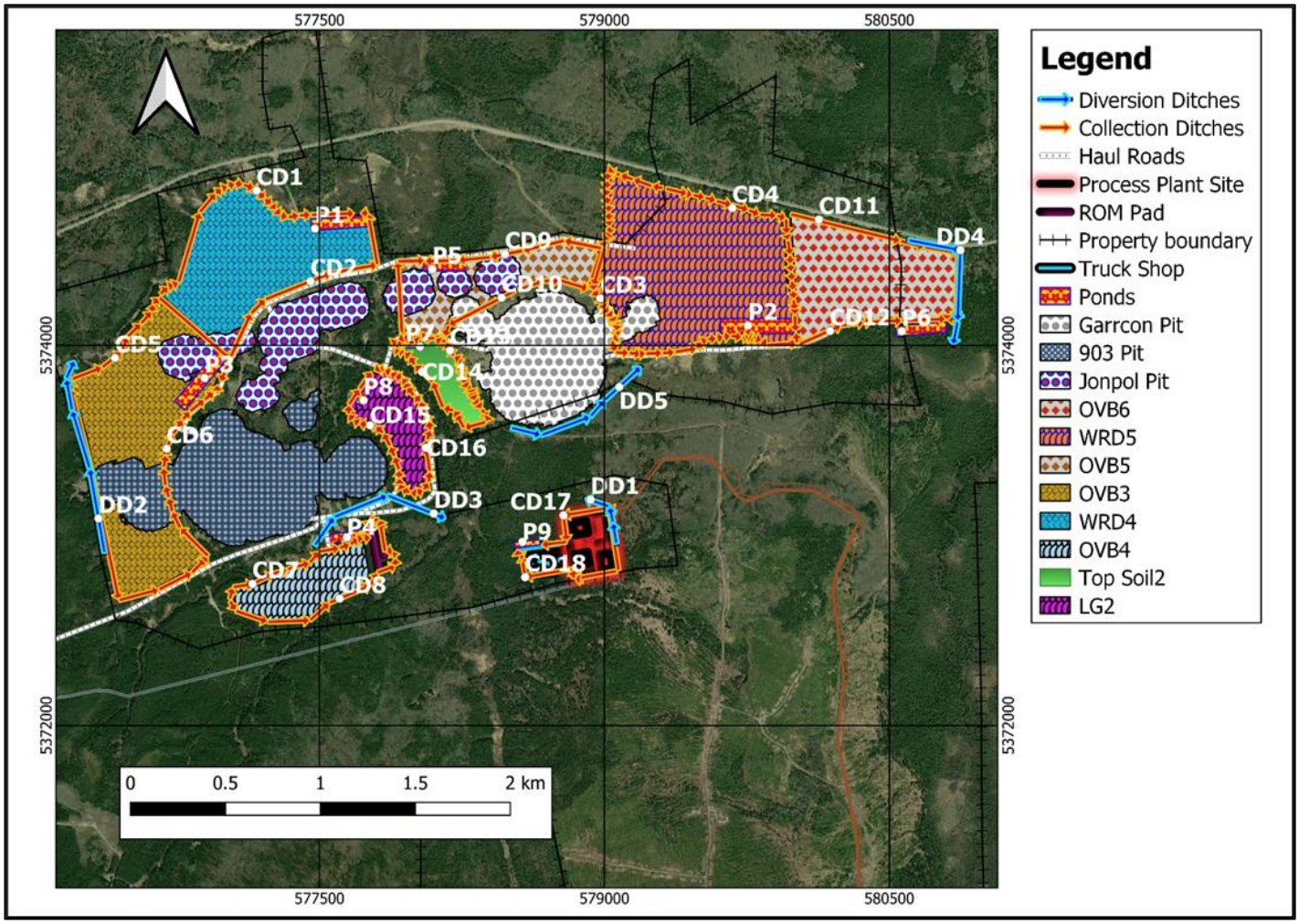


Figure Prepared by Ausenco, 2022.

Figure 18-4: Water Management Structures (Diversion ditches) within the Golden Highway Site

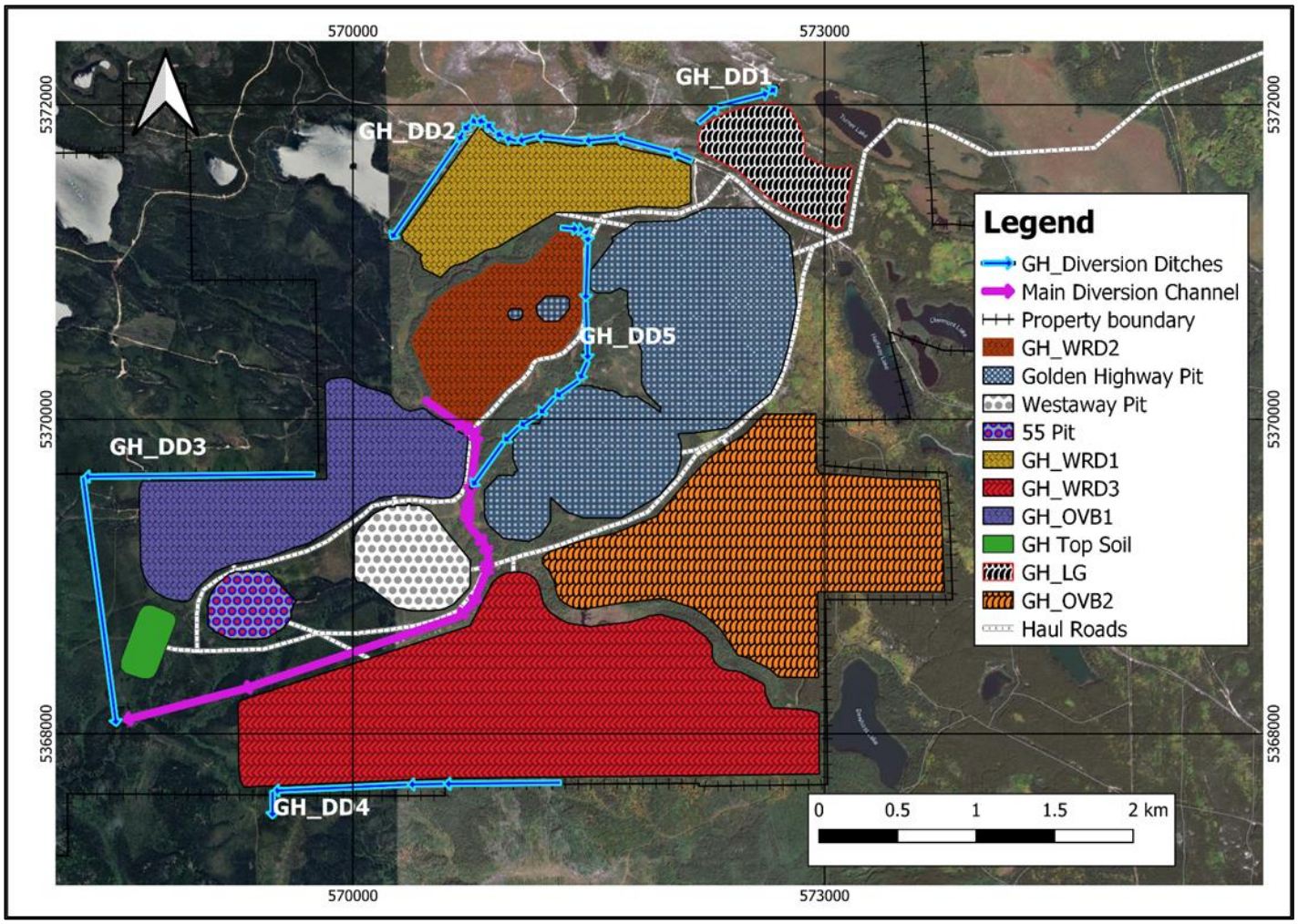


Figure prepared by Ausenco, 2022.

Figure 18-5: Water Management Structures (Collection ditches and Ponds) within the Golden Highway Site

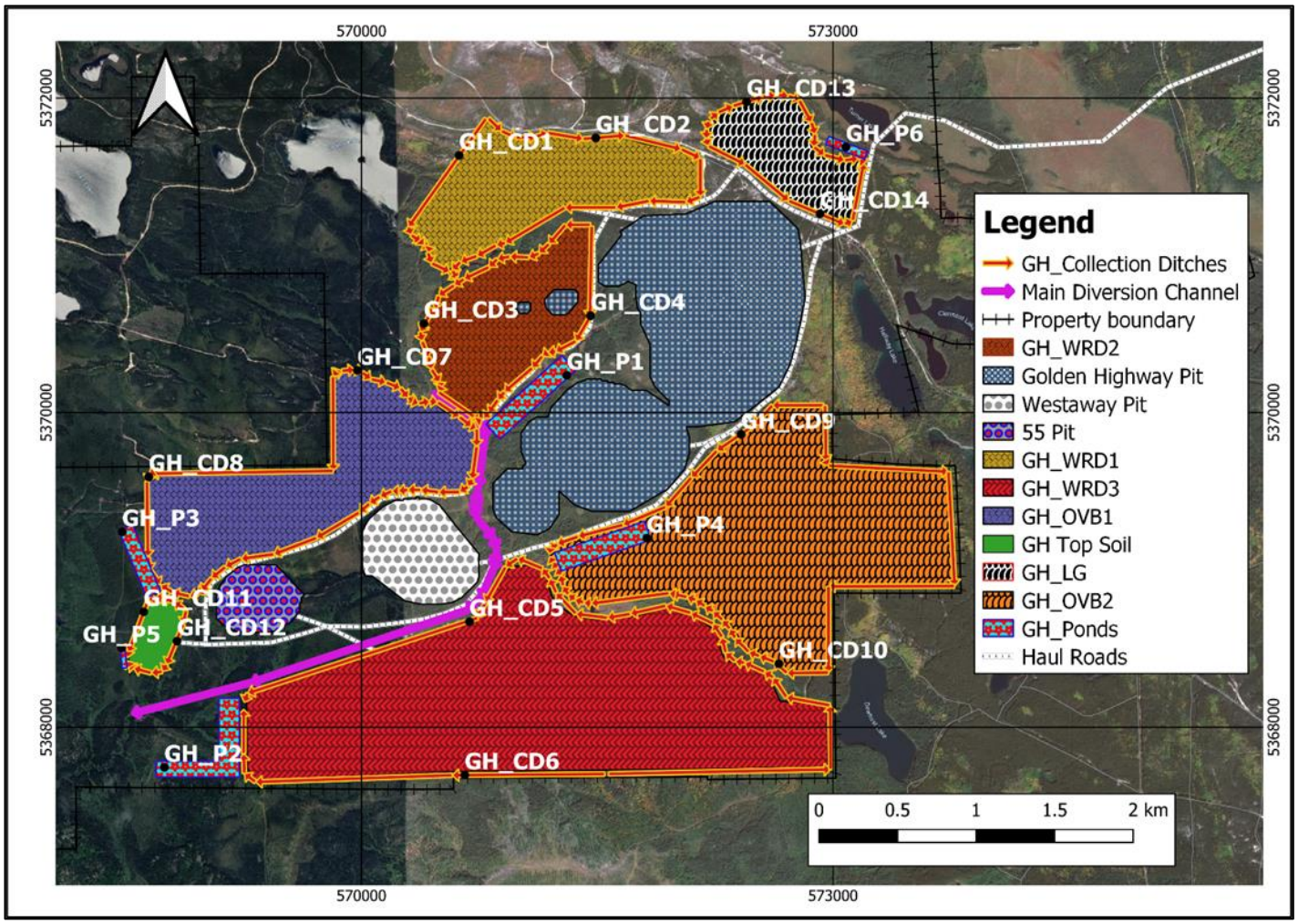


Figure Prepared by Ausenco, 2022.

18.7.4.2 Rainfall-Runoff Modelling

LiDAR elevation measurements were used to delineate drainage pathways and catchments for diversion and collection of water structures. The hydrologic model used in the runoff analysis was HEC-HMS version 4.7.1, developed by U.S. Army Corps of Engineers. The US Soil Conservation Service (SCS) unit hydrograph method was applied to determine the runoff hydrograph from the design rainstorm. The SCS Type II distribution was selected to define the distribution of design rainfall over 24 hours. The catchment area is covered by fair to poor grassland and shrubs, which will be partly altered during construction. SCS curve numbers for land covers, gravel and pond areas were set to 65, 87, and 99, respectively, based on TR-55 (Cronshey, 1986). Soil Type B, representing soil composed of shallow loess and sandy loam, was chosen for the study area. To account for critical conditions, the initial abstraction of the soil was considered zero. The hydrologic modelling results were used to size the water management structures of the Vangorda site preliminarily.

The hydrological parameters were then input into the HEC-HMS model to estimate the design geometries for various storm events. The diversion ditches and collection ditches were designed to convey 100-year flood event. Based on peak flows of design events, channel and ditch cross-sections were designed. Riprap protection was implemented as required for diversion ditches. The collection ponds, retaining the contact runoff from each facility, were sized based on the extreme 100-year 24-hour storm event. While sizing the ponds, sediment accumulation and freeboard allowances were also considered. Conceptual pond design data are presented in Table 18-11 and Table 18-12.

Table 18-11: Conceptual Design for the Ponds for Garrison Site

Item#	Label	Name	Flood Volume (m3)	Depth (m)	Width (m)	Length (m)	Excavation Volume (m^3)	Liner Area (m^2)
1	P1	Pond WRD4	20,310	2.2	60	295	38,940	19,262
2	P2	Pond WRD5	35,200	2.2	80	385	67,760	32,846
3	P3	Pond OVB3	29,300	2.2	70	350	53,900	26,348
4	P4	Pond OVB4	11,300	2.2	45	220	21,780	11,066
5	P5	Pond OVB5	11,000	2.2	45	215	21,285	10,819
6	P6	Pond OVB6	16,600	2.2	55	265	32,065	15,983
7	P7	Pond TS2	3,800	2.2	30	130	8,580	-
8	P8	Pond LG2	5,850	2.2	35	160	12,320	6,458
9	P9	Pond Plant	4,200	2.2	30	135	8,910	4,776

Source: Ausenco, 2022.

Table 18-12: Conceptual Design for the Ponds for Golden Highway Site

Item#	Label	Name	Flood Volume (m3)	Depth (m)	Width (m)	Length (m)	Excavation Volume (m^3)	Liner Area (m^2)
1	GH_P1	Pond WRD1 and 2	100,800	2.2	130	650	185,900	87,932
2	GH_P2	Pond WRD3	123,300	2.2	145	720	229,680	108,206
3	GH_P3	Pond OVB1	50,200	2.2	95	460	96,140	46,142
4	GH_P4	Pond OVB2	86,700	2.2	125	605	166,375	78,837
5	GH_P5	Pond TS1	4,600	2.2	30	140	9,240	-
6	GH_P6	Pond LG1	16,700	2.2	55	265	32,065	15,983

Source: Ausenco, 2022.

18.7.5 Garrison Creek Flood Analysis

Using the results of Rainfall-Runoff Modelling for Garrison Creek, a preliminary 2D hydraulic flood model was developed for Garrison Creek. The model used to develop the flood analysis was the US Army Hydrologic Engineering Center's River

Analysis System (HEC-RAS) 2D. The synthetic flow hydrographs were developed for Garrison Creek, and an unsteady model was then set up using HEC-RAS 2D. The topography used to develop the model was taken from the LiDAR data. The modelling mesh was set to be 10 m, and the modelling times step was set to be 1s. The Manning's Roughness coefficients for the main channel and riverbanks were selected to be 0.035 and 0.055, respectively. The results of the flood modelling are summarized in Figure 18-6, showing the maximum inundation depth and extent for the 1:100-year flood. It should be noted that the model topography did not include the creek bathymetry. The flood boundary results indicate that the Jonpol pit overlaps with 1:1000-year and 1:100-year flood boundaries. Section 26 discusses three engineering options to address the flooding issue.

Figure 18-6: 1:100 Year Flood Boundary

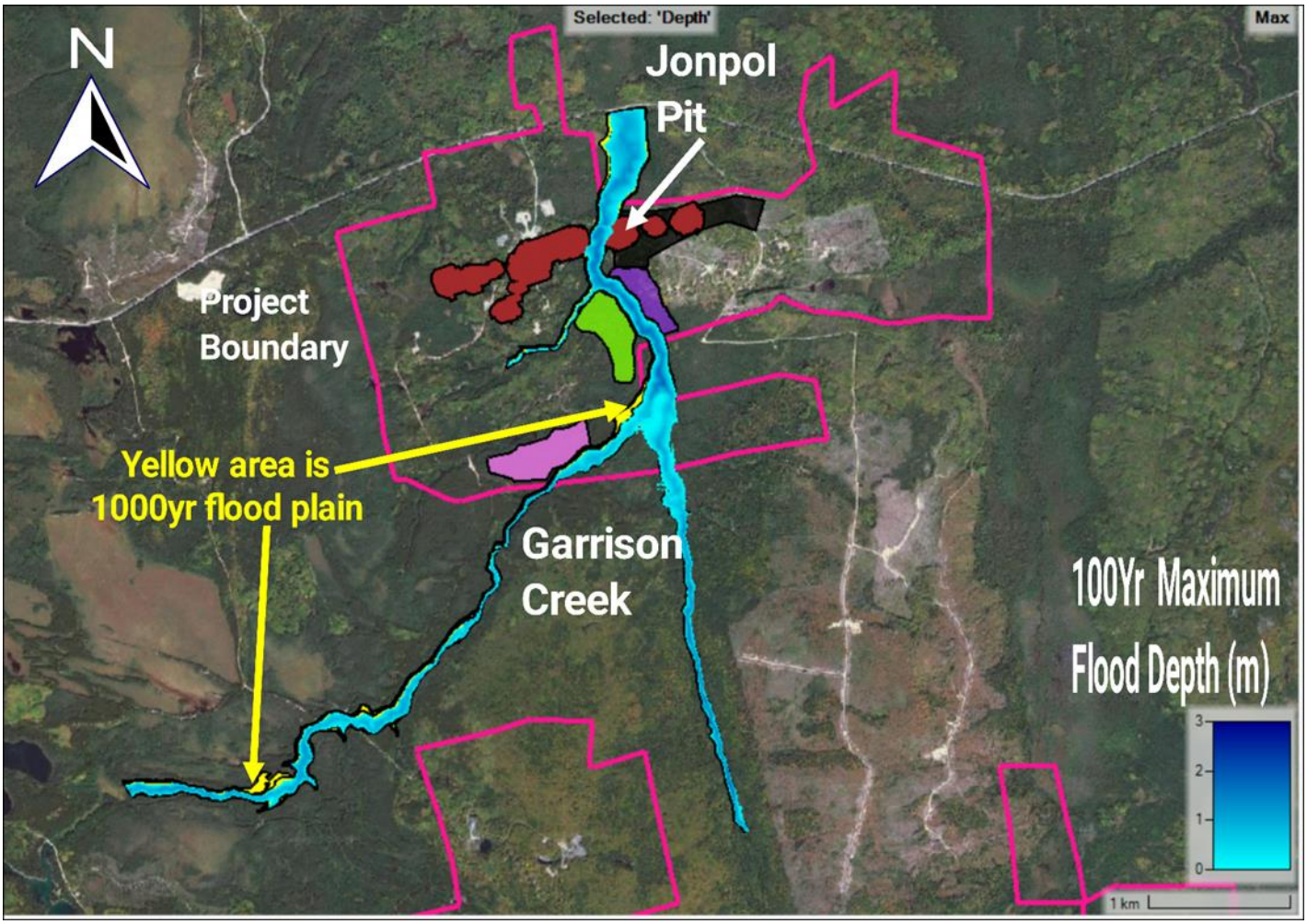


Figure Prepared by Ausenco, 2022.

18.7.6 Site-Wide Water Balance

A preliminary site-wide water balance analysis was performed for the Garrison and Golden Highway sites, and the results are summarized in this section. The water balance model was used to inform water management and predict the potential

contact water volumes through the life of mine. In this analysis, a comparison between the process plant water requirement/ excess and the available water from various sources were made to identify site-wide water balance. The life of mine (LOM) for the PEA is planned to be 24 years. The following water components were considered:

- Water from the moisture in rocks,
- Surface runoff from precipitation,
- Precipitation/evaporation on pits and ponds,
- Groundwater inflow to mining pits,
- Dust control water requirement.

As shown in Table 18-13 to Table 18-16, the process plant has a net raw water demand of approximately 375 m3/hr in LOM. The groundwater inflow to the pits, in the Garrison site, require dewatering that their rates fluctuate in the LOM as the pit will be filled by waste rock and tailings. It should be noted that 3D groundwater modelling was not conducted at the time of this report, and pit dewatering values are calculated based on analytical equations developed by Marinelli and Niccoli (2000). Also, there are no measurements at Golden Highway, Westaway, and 55 Zone pit, we have assumed average hydraulic conductivities (K) from the Garrison site can be used. Therefore, 3D groundwater modelling must be added in the next phase of the project. Table 18-5 was used to calculate potential runoff. For evaporation estimation on ponds, 100% of observed lake evaporation data were used from Amos station (Table 18-6). A representative schematic of the water balance for year 1 to year 4 is shown in Figure 18-7; refer to tables for other periods in the mine life. The water balance results indicate that annual surplus water can vary between 811 and 2,557 m3/hr in the LOM for the average year.

It should also be noted that at the earlier stage of the mining operation, the amount of surplus water is less than the estimated available water from pit and dumps, as there are not fully constructed yet. During later stages of study, a detailed water balance analysis is required to review the annual amount of excess water, which needs to be treated and managed throughout the mine's life.

Table 18-13: Site-Wide Water Balance (m³/hr) for Average Climate Condition (Yr1 to Yr4)

Water Component (Yr1 to Yr4) (m³/hr)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total Process Plant Water Demand	375	375	375	375	375	375	375	375	375	375	375	375	375
Process Plant Fresh Water Demand	158	158	158	158	158	158	158	158	158	158	158	158	158
TSF Reclaim	217	217	217	217	217	217	217	217	217	217	217	217	217
Roads Dust Control	0	0	0	166	190	183	184	186	181	172	0	0	105
Contact Water from Net Precipitation and Evaporation													
Garrcon Pit	258	258	287	358	322	297	297	294	298	293	274	261	291
Jonpol Pit	111	111	135	195	165	143	144	141	145	140	124	114	139
903 Pit	419	418	460	560	509	473	474	469	476	468	441	423	466
Golden Highway Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
Westaway Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
Garrison WRDs	3	2	62	206	146	97	98	88	93	73	34	9	76
Garrison OVBs	4	2	63	212	150	100	101	90	96	75	35	9	78
Garrison LG Stockpile	0	0	7	23	17	11	11	10	11	8	4	1	9
Garrison TS Stockpile	0	0	5	17	12	8	8	7	8	6	3	1	6
Process Plant and Truck Shop	0	0	7	24	17	12	12	10	11	9	4	1	9
Tower Gold WRDs	0	0	0	0	0	0	0	0	0	0	0	0	0
Tower Gold OVBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Tower Gold LG Stockpile	0	0	0	0	0	0	0	0	0	0	0	0	0
Tower Gold TS Stockpile	0	0	0	0	0	0	0	0	0	0	0	0	0
Garrison Ponds Direct Precipitation	1	0	9	31	22	15	15	13	14	11	5	1	11
Tower Gold Ponds Direct Precipitation	0	0	0	0	0	0	0	0	0	0	0	0	0
Garrison Ponds Evap	0	0	0	0	17	21	21	16	10	0	0	0	7
Tower Gold Ponds Evap	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Deficits/Excess (-/+)	640	634	877	1,302	994	794	795	762	802	753	766	663	815

Source: Ausenco, 2022.

Table 18-14: Site-Wide Water Balance (m³/hr) for Average Climate Condition (Yr5 to Yr10)

Water Component (Yr5 to Yr10) (m³/hr)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total Process Plant Water Demand	375	375	375	375	375	375	375	375	375	375	375	375	375
Process Plant Fresh Water Demand	158	158	158	158	158	158	158	158	158	158	158	158	158
TSF Reclaim	217	217	217	217	217	217	217	217	217	217	217	217	217
Roads Dust Control	0	0	0	166	190	183	184	186	181	172	0	0	105
	Contact Water from Net Precipitation and Evaporation												
Garrcon Pit	157	156	185	256	220	195	195	192	197	191	172	159	189
Jonpol Pit	85	85	110	170	139	118	118	115	119	114	98	88	113
903 Pit	395	394	435	535	484	449	449	445	451	443	416	399	441
Golden Highway Pit	690	687	826	1,163	991	871	872	857	881	853	762	703	846
Westaway Pit	302	301	326	384	354	333	334	331	335	330	314	304	329
55 Pit	166	165	177	207	192	181	181	180	182	180	172	167	179
Garrison WRDs	3.4	2.0	61.5	206.0	145.8	97.2	97.7	87.7	92.9	73.2	34.3	9.1	76
Garrison OVBs	3.5	2.1	63.3	212.0	150.1	100.0	100.5	90.3	95.7	75.3	35.3	9.4	78
Garrison LG Stockpile	0.4	0.2	7.0	23.4	16.6	11.1	11.1	10.0	10.6	8.3	3.9	1.0	9
Garrison TS Stockpile	0.3	0.2	5.0	16.7	11.9	7.9	7.9	7.1	7.6	5.9	2.8	0.7	6
Process Plant and Truck Shop	0.4	0.2	7.3	24.5	17.3	11.5	11.6	10.4	11.0	8.7	4.1	1.1	9
Tower Gold WRDs	13.2	7.8	236.7	792.2	560.7	373.7	375.6	337.2	357.4	281.4	131.9	35.1	292
Tower Gold OVBs	9.5	5.6	170.6	571.1	404.2	269.4	270.8	243.1	257.7	202.9	95.1	25.3	210
Tower Gold LG Stockpile	1.1	0.7	20.5	68.7	48.6	32.4	32.6	29.2	31.0	24.4	11.4	3.0	25
Tower Gold TS Stockpile	0.3	0.2	5.5	18.4	13.0	8.7	8.7	7.8	8.3	6.5	3.1	0.8	7
Garrison Ponds Direct Precipitation	0.5	0.3	9.3	31.1	22.0	14.7	14.7	13.2	14.0	11.0	5.2	1.4	11
Tower Gold Ponds Direct Precipitation	1.4	0.8	25.2	84.3	59.6	39.7	40.0	35.9	38.0	29.9	14.0	3.7	31
Garrison Ponds Evap	0	0	0	0	17.1	20.6	20.6	16.1	10.1	0	0	0	7
Tower Gold Ponds Evap	0	0	0	0	46.3	55.9	55.9	43.6	27.3	0	0	0	19
Water Deficits/Excess (-/+)	1,670	1,650	2,512	4,438	3,419	2,695	2,702	2,588	2,713	2,509	2,118	1,753	2,564

Source: Ausenco, 2022.

Table 18-15: Site-Wide Water Balance (m³/hr) for Average Climate Condition (Yr11 to Yr16)

Water Component (Yr11 to Yr16) (m³/hr)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total Process Plant Water Demand	375	375	375	375	375	375	375	375	375	375	375	375	375
Process Plant Fresh Water Demand	158	158	158	158	158	158	158	158	158	158	158	158	158
TSF Reclaim	217	217	217	217	217	217	217	217	217	217	217	217	217
Roads Dust Control	0	0	0	166	190	183	184	186	181	172	0	0	105
Contact Water from Net Precipitation and Evaporation													
Garrcon Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
Jonpol Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
903 Pit	209	208	249	349	299	263	263	259	266	258	231	213	256
Golden Highway Pit	690	687	826	1,163	991	871	872	857	881	853	762	703	846
Westaway Pit	302	301	326	384	354	333	334	331	335	330	314	304	329
55 Pit	166	165	177	207	192	181	181	180	182	180	172	167	179
Garrison WRDs	3.4	2.0	61.5	206.0	145.8	97.2	97.7	87.7	92.9	73.2	34.3	9.1	76
Garrison OVBs	3.5	2.1	63.3	212.0	150.1	100.0	100.5	90.3	95.7	75.3	35.3	9.4	78
Garrison LG Stockpile	0.4	0.2	7.0	23.4	16.6	11.1	11.1	10.0	10.6	8.3	3.9	1.0	9
Garrison TS Stockpile	0.3	0.2	5.0	16.7	11.9	7.9	7.9	7.1	7.6	5.9	2.8	0.7	6
Process Plant and Truck Shop	0.4	0.2	7.3	24.5	17.3	11.5	11.6	10.4	11.0	8.7	4.1	1.1	9
Tower Gold WRDs	13.2	7.8	236.7	792.2	560.7	373.7	375.6	337.2	357.4	281.4	131.9	35.1	292
Tower Gold OVBs	9.5	5.6	170.6	571.1	404.2	269.4	270.8	243.1	257.7	202.9	95.1	25.3	210
Tower Gold LG Stockpile	1.1	0.7	20.5	68.7	48.6	32.4	32.6	29.2	31.0	24.4	11.4	3.0	25
Tower Gold TS Stockpile	0.3	0.2	5.5	18.4	13.0	8.7	8.7	7.8	8.3	6.5	3.1	0.8	7
Garrison Ponds Direct Precipitation	0.5	0.3	9.3	31.1	22.0	14.7	14.7	13.2	14.0	11.0	5.2	1.4	11
Tower Gold Ponds Direct Precipitation	1.4	0.8	25.2	84.3	59.6	39.7	40.0	35.9	38.0	29.9	14.0	3.7	31
Garrison Ponds Evap	0	0	0	0	17.1	20.6	20.6	16.1	10.1	0	0	0	7
Tower Gold Ponds Evap	0	0	0	0	46.3	55.9	55.9	43.6	27.3	0	0	0	19
Water Deficits/Excess (-/+)	1,243	1,224	2,032	3,827	2,874	2,197	2,204	2,095	2,211	2,018	1,662	1,320	2,076

Source: Ausenco, 2022.

Table 18-16: Site-Wide Water Balance (m³/hr) for Average Climate Condition (Yr17 to Yr24)

Water Component (Yr17 to Yr24) (m³/hr)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Total Process Plant Water Demand	375	375	375	375	375	375	375	375	375	375	375	375	375
Process Plant Fresh Water Demand	158	158	158	158	158	158	158	158	158	158	158	158	158
TSF Reclaim	217	217	217	217	217	217	217	217	217	217	217	217	217
Roads Dust Control	0	0	0	166	190	183	184	186	181	172	0	0	105
Contact Water from Net Precipitation and Evaporation													
Garrcon Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
Jonpol Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
903 Pit	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Highway Pit	690	687	826	1,163	991	871	872	857	881	853	762	703	846
Westaway Pit	302	301	326	384	354	333	334	331	335	330	314	304	329
55 Pit	166	165	177	207	192	181	181	180	182	180	172	167	179
Garrison WRDs	3.4	2.0	61.5	206.0	145.8	97.2	97.7	87.7	92.9	73.2	34.3	9.1	76
Garrison OVBs	3.5	2.1	63.3	212.0	150.1	100.0	100.5	90.3	95.7	75.3	35.3	9.4	78
Garrison LG Stockpile	0.4	0.2	7.0	23.4	16.6	11.1	11.1	10.0	10.6	8.3	3.9	1.0	9
Garrison TS Stockpile	0.3	0.2	5.0	16.7	11.9	7.9	7.9	7.1	7.6	5.9	2.8	0.7	6
Process Plant and Truck Shop	0.4	0.2	7.3	24.5	17.3	11.5	11.6	10.4	11.0	8.7	4.1	1.1	9
Tower Gold WRDs	13.2	7.8	236.7	792.2	560.7	373.7	375.6	337.2	357.4	281.4	131.9	35.1	292
Tower Gold OVBs	9.5	5.6	170.6	571.1	404.2	269.4	270.8	243.1	257.7	202.9	95.1	25.3	210
Tower Gold LG Stockpile	1.1	0.7	20.5	68.7	48.6	32.4	32.6	29.2	31.0	24.4	11.4	3.0	25
Tower Gold TS Stockpile	0.3	0.2	5.5	18.4	13.0	8.7	8.7	7.8	8.3	6.5	3.1	0.8	7
Garrison Ponds Direct Precipitation	0.5	0.3	9.3	31.1	22.0	14.7	14.7	13.2	14.0	11.0	5.2	1.4	11
Tower Gold Ponds Direct Precipitation	1.4	0.8	25.2	84.3	59.6	39.7	40.0	35.9	38.0	29.9	14.0	3.7	31
Garrison Ponds Evap	0	0	0	0	17.1	20.6	20.6	16.1	10.1	0	0	0	7
Tower Gold Ponds Evap	0	0	0	0	46.3	55.9	55.9	43.6	27.3	0	0	0	19
Water Deficits/Excess (-/+)	1,034	1,015	1,782	3,478	2,576	1,934	1,940	1,837	1,945	1,761	1,431	1,107	1,820

Source: Ausenco, 2022.

Figure 18-7: Schematic for annual average water balance (Yr1 to Yr4)

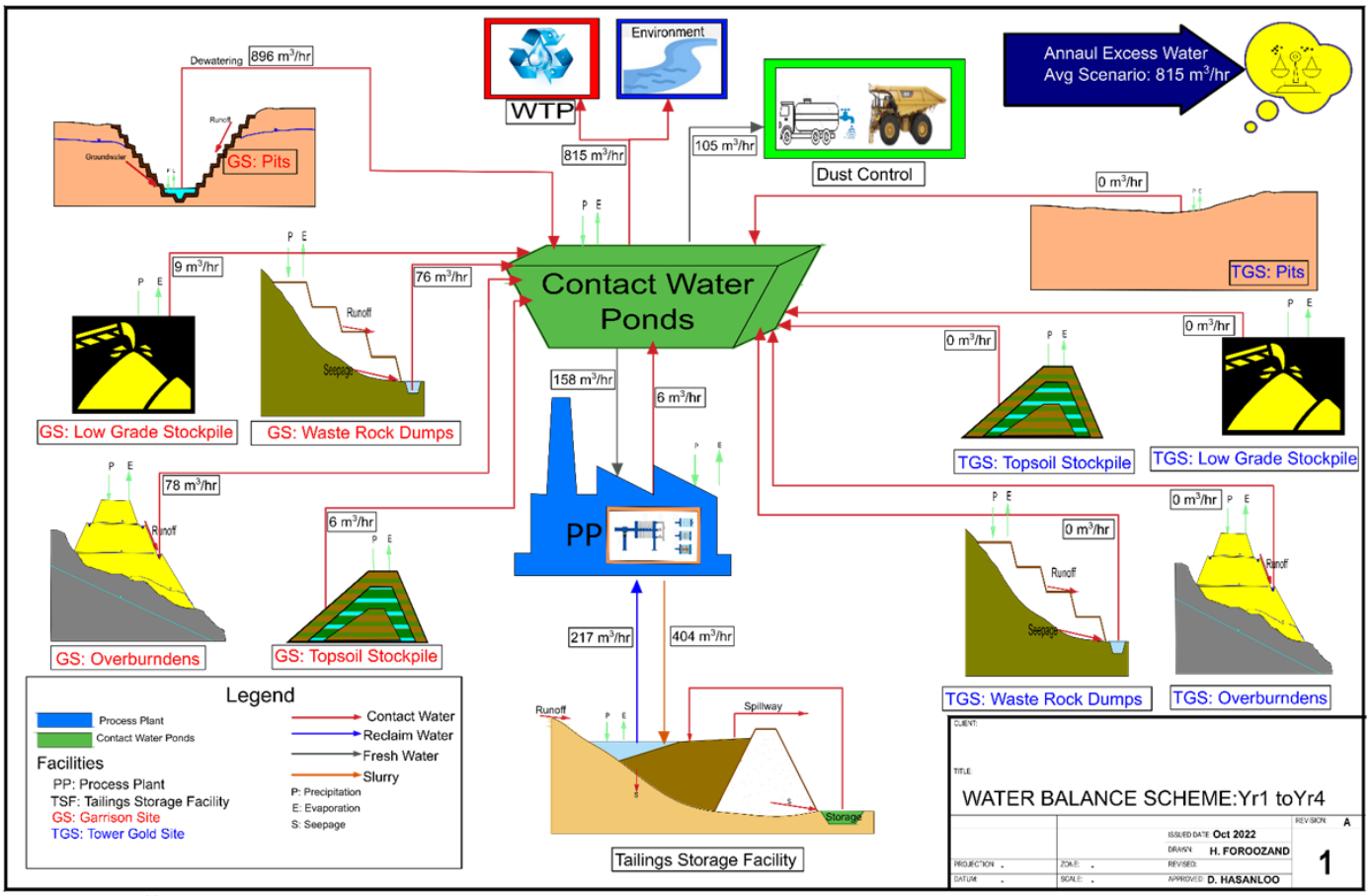


Figure Prepared by Ausenco, 2022.

18.8 Tailings Storage Facilities

The Tower Gold project has multiple open pits at both the Gold Highway deposit and Garrison Deposit. The Garrison pits (903, Garrcon and Jonpool) are exhausted prior to the end of the project mine life and are therefore available for in-pit tailings storage during operations. This reduces the need to place 100 percent of the tailings in a traditional TSF where the tailings are stored behind an embankment(s).

The primary design objectives for the TSFs are secure confinement of tailings and protection of the regional groundwater and surface water during both mine operations and in the long-term (after closure). The design of the TSFs and associated water management facilities has accounted for the following:

- No geosynthetic lining of the bottom of the facility to limit seepage
- Staged development of the facility over the life of the Project

- Flexibility to accommodate additional tailings if the resource increases, and
- Control, collection, and removal of water from the facility during operations for recycle as process water to the maximum practical extent and discharge to the environment as needed along with water treatment if needed.

Approximately 164.0 Mt of tailings will be stored within the four tailings facilities, including 90.1 Mt in a conventional tailings storage facility (TSF) and 73.9 Mt in in-pit storage facilities.

18.8.1 Tailings Storage Facilities Design Criteria

The proposed process plant site location in relation to the TSF 1 and in-pit tailings facilities is shown in Figure 18-8 and Figure 18-1. Design and operating criteria have been developed for the current design. The design criteria reflect the mine plan and operating strategy. Considerations used in the development of the TSFs design are summarized as follows:

- TSFs and water management facilities are located on Moneta Gold Property.
- Integration of mine rock release schedules from the Mining Plus.
- Required storage of 164.0 Mt of tailings:
    - TSF 1 has a capacity of 90.1 Mt.
    - TSF Garrcon has a capacity of 29.4 Mt.
    - TSF Jonpol has a storage capacity of 3.9 Mt
    - TSF 903 has a storage capacity of 40.6 Mt
- Nominal tailings discharge of 7.0 Mt/a (19,178 t/d).
- Tailings discharge solids content = 65% (by mass).
- Dry tailings density of 1.45 t/m3.
- Annual staging of the TSF dam lifts allows for storage of subsequent years of tailings disposal, and in-pit disposal facilities a minimum operational pond volume of 0.3 Mm3 and storage of the inflow design flood (IDF) during operations with sufficient freeboard for wave run-up and embankment settlement.
- TSF filling schedule based on the detailed mine schedule including material movements for dam construction and mine rock disposal.
- Water for the process plant sourced from the TSF supernatant pond with additional make-up water from xx as required.
- Limiting impacts to wildlife and fisheries resources.
- Designing cover system for closure.

- Meeting or exceeding applicable regulatory requirements and industry guidelines for stability events.

TSF 1 has the main embankment that is classified as "VERY HIGH" consequence category under the Canadian Dam Association's (CDA's) "Dam Safety Guidelines" (2014) based on a preliminary dam break analysis that would discharge into Thackeray Creek, which eventually drains into Ghost River. According to CDA, the consequences of failure include potential loss of life of 100 or fewer and very high critical economic losses. Losses may include, but are not limited to, significant fish or wildlife habitat, infrastructure damage, loss of mining equipment, ore sterilization, and loss of tailings containment. The main criteria leading to "Very High" category is due to lose of fish and wildlife habitat.

TSFs 903, Garrcon and Jonpol are in-pit disposal, therefore there are no need for dams to contain tailings. These TSFs are classified as "LOW" consequence category. According to CDA, the consequences of failure include potential loss of life of 0 and low economic losses. Losses may include, but are not limited to, low fish or wildlife habitat, infrastructure damage, loss of mining equipment, ore sterilization, and loss of tailings containment.

Despite the differences in TSF dam consequence classifications, the TSF 1 and in-pit disposal TSFs for the Tower Gold Project were designed for the most extreme event above (i.e., "Very High" consequence category), which is the second highest design standard defined by CDA Dam Safety Guidelines.

Figure 18-8: TFS 1 and in-pit TSFs General Layouts

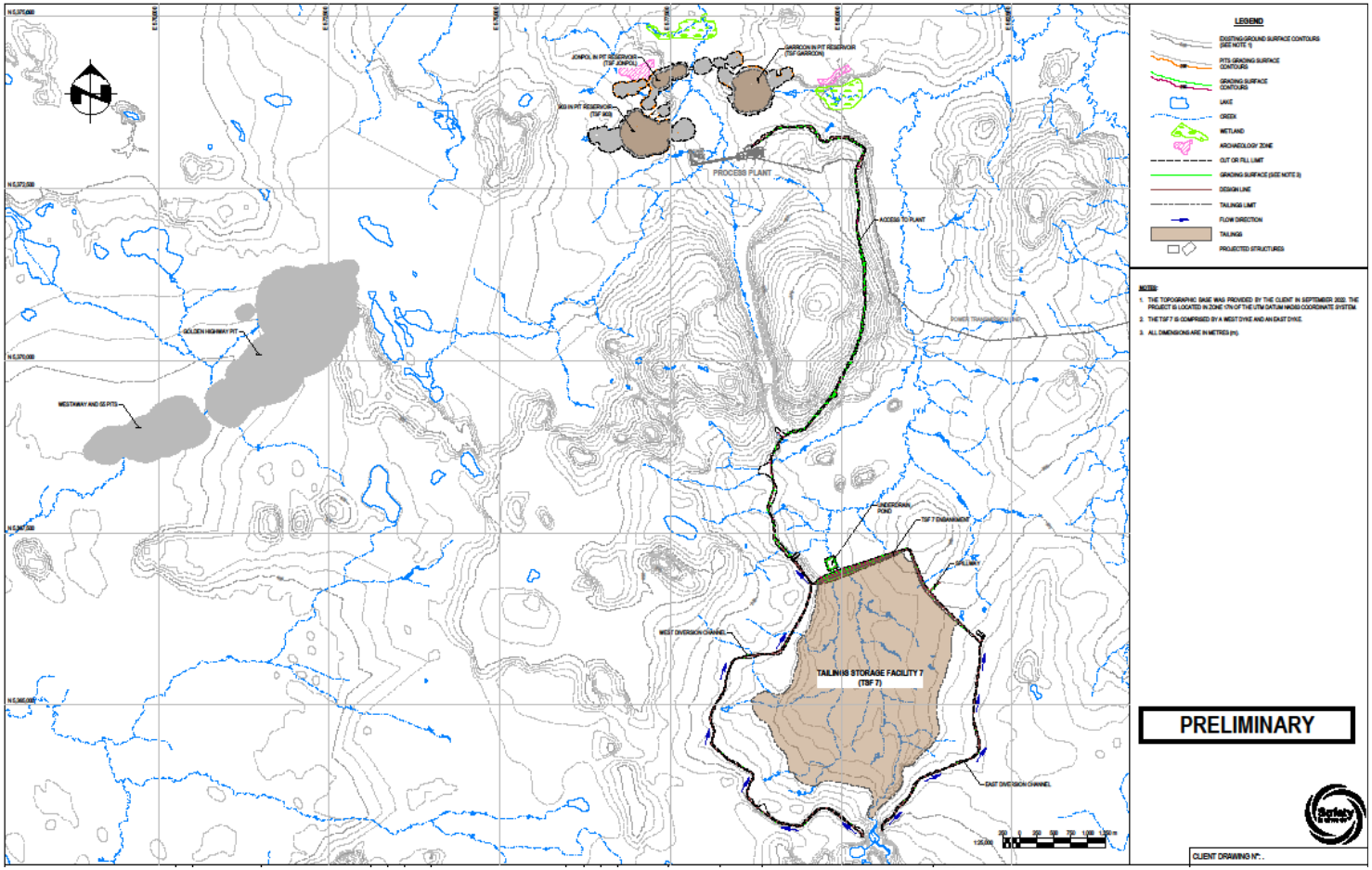


Figure prepared by Ausenco, 2022.

18.8.2 Construction and Operations

Prior to construction of the TSF 1 Embankment, the embankment foundation and select areas of the TSF 1 basin will be prepared for the earthwork dam construction. The following activities will be required for the preparation of the TSF 1 Embankment foundation and TSF 1 basin:

- Clearing and grubbing of the TSF Embankment footprint and select areas of the TSF basin;
- Stripping of topsoil and organics to stockpile;
- Removal of unsuitable soil and preparation of foundation area only; and
- Installation of the TSF 1 Embankment underdrain system to the underdrain pond, including supply and installation of dual wall perforated pipes, drainage rock and non-woven geotextile.

Seepage through the embankment will primarily be controlled by the geomembrane, low permeability soil, filter zone on the upstream face of the embankment, and the seepage cut-off structures along the upstream toe of TSF 1. The tailings facility water management includes diversion ditches and ponds.

TSF Garrcon will be placed into operation in Year 7, which is in-pit tailings disposal into Garrcon open pit that has a capacity for 29.4 Mt. A tailings pipeline and water reclaim pipeline will be constructed in June of Year 6 so operations can commence around January of Year 7. Then TSFs Jonpol and 903 will be placed into operation in Year 11, which are also in-pit tailings disposal into the Jonpol and 903 open pits and have a capacity of 3.9Mt and 40.6 Mt, respectively. Tailings pipelines and water reclaim pipelines will be constructed in June of Year 10 so operations can commence around the 2nd Quarter of Year 11. The tailings pipelines will be constructed around the pits with multiple spigots to evenly discharge tailings into the facility. There are no berms or diversion channel required since all surface runoff structure were constructed for development of the in-pit disposal since they were developed as part of the open pit operations.

18.8.3 TSF 1 Embankment Construction

The TSF 1 embankments will be constructed to an ultimate elevation of 308.0 masl. The total fill requirement for tailings dam construction is 2.3 Mm3, of which 0.6 Mm3 will be used to construct the Starter Embankment (Crest El. 298.0 masl). Initial construction material will be taken from initial waste rock from the development of the pits and local borrow sources, which will be constructed using a contractor fleet. The remainder of the embankment construction stages will be constructed using waste rock by the mine and local borrow sources by a contractor.

The geomembrane, low permeability soils, and filter zone will be constructed on the upstream face from low-permeability glacial till material and filter material from nearby borrow sources and the geomembrane will be placed on top of these material to create a seepage barrier. The geomembrane will be anchor 6 m into the subgrade along the interior toe of the embankment and back filled will local low permeability soils and structural fill to create a seepage cut-off wall. The other embankment zone includes the compacted waste rock shell. These zones will be constructed from compacted earth fill and specified waste rock materials, either from a local borrow area or from open pit operations.

A TSF filling schedule was developed that shows the tailings mass balance or cumulative tailings volumetrics, freeboard for PMF, and respective dam crest elevations to contain the water and tailings volumes on an annual basis; is provided in the filling schedule for the TSF in Figure 18-9.

Figure 18-9: TFS 1 Filling Schedule

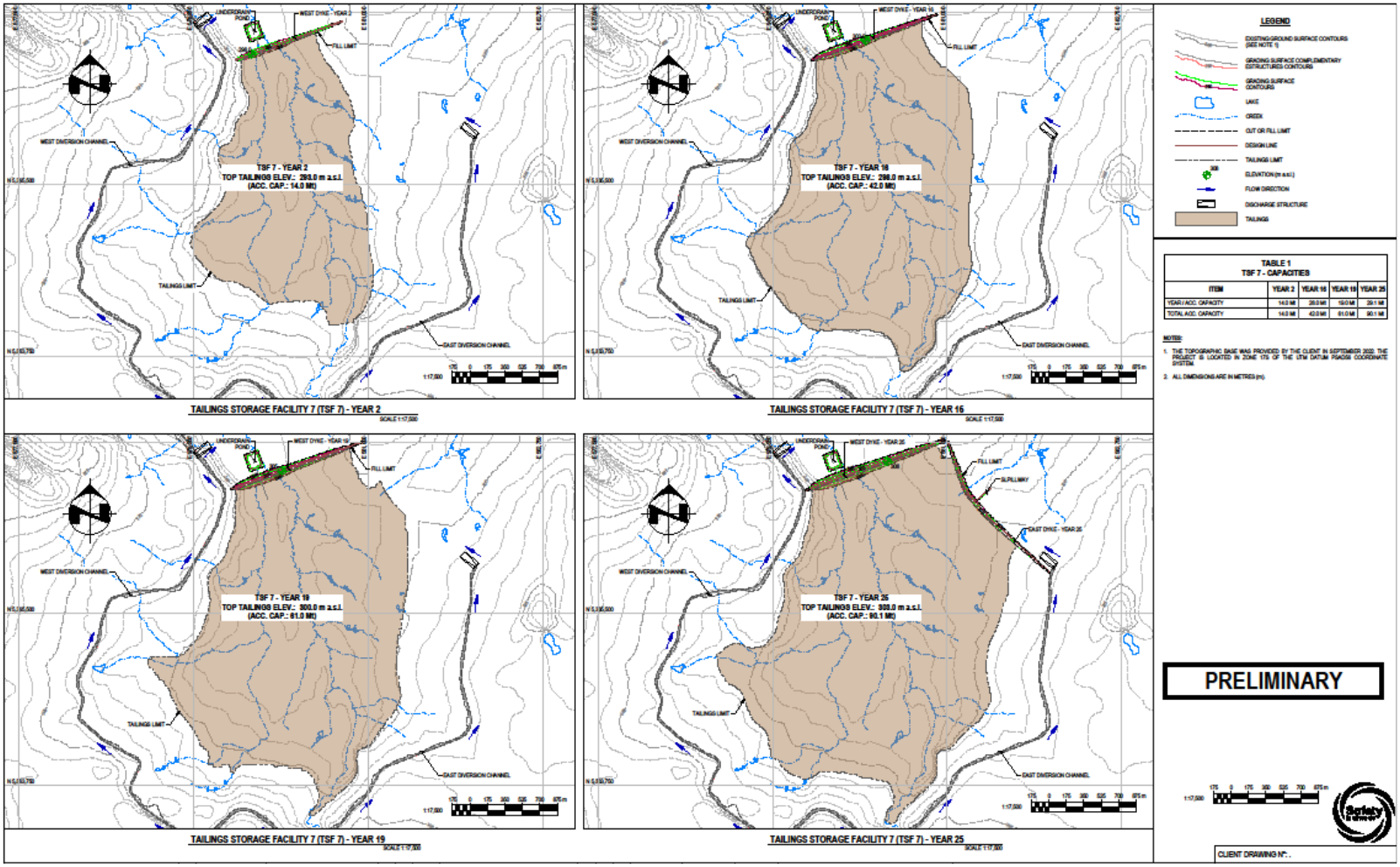


Figure prepared by Ausenco, 2022

18.8.4 In-pit Disposal Areas Embankment Construction

In-pit tailings disposal areas do not require embankments, spillways, diversion channel, access roads to be constructed since these were constructed as part of the development of the 907, Garrison and Jonpol pits. The only construction required for in-pit is the tailings and water reclaim pipelines. An in-pit tailings disposal schedule was developed that shows the tailings mass balance or cumulative tailings volumetrics, freeboard for PMF, and wave-up and respective dam crest elevations to contain the water and tailings volumes on an annual basis; is provided in the filling schedule for the in-pit disposal areas in Figure 18-10.

Figure 18-10: TFS 2 Filling Schedule

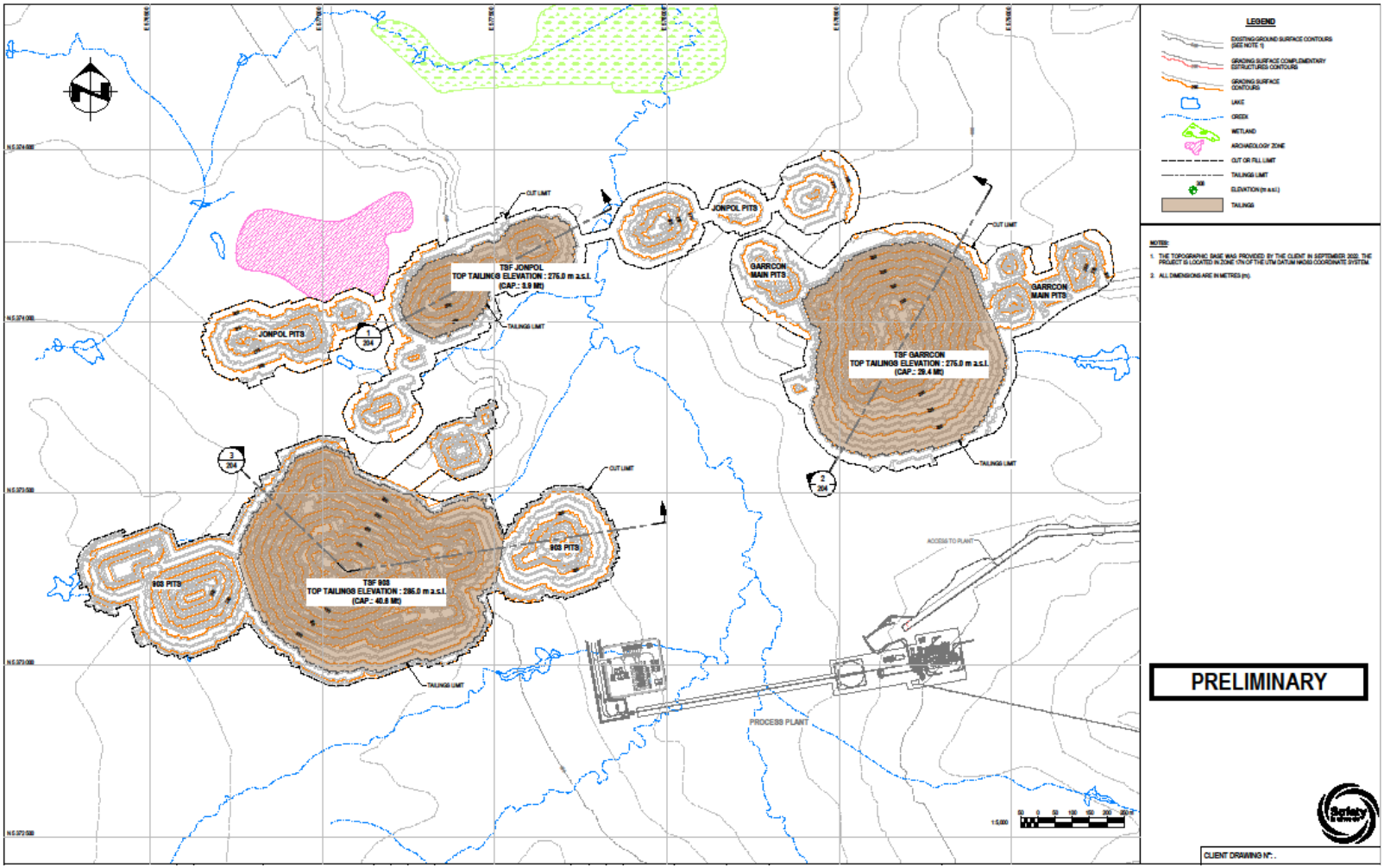


Figure prepared by Ausenco, 2022

18.8.5 Tailings Distribution & Reclaim System

A start-up water pond was designed to be sufficient for the thickened tailings operation based on Ausenco's design criteria of a minimum 180 days of make-up water (Ausenco, 2022). This water will be contained in the TSF starter facility. A trenched channel will be excavated within the basin (prior to plant site commissioning) to provide a surface water connection supernatant pond for the barge water recycle system, during the initial production years.

As tailings are deposited into the facility, water will be released from the tailings stream during deposition and subsequent consolidation and will eventually report as supernatant water to the main tailings operations pond. A portion of the supernatant water will be lost due to evaporation, interstitial voids, and from seepage into the foundation. The remaining water will be available as recycle to the plant site. Deposition of tailings will be sequenced such that tailings beaches displace the supernatant pond to the northeast. Over time, the tailings will slowly infill the barge trench. The supernatant pond level will be maintained at a level that allows for on-going operation of the reclaim water barge. Normal tailings operations will see the lowermost portion of the tailings beach submerged below the supernatant pond. Water will be reclaimed through a floating pump barge and pumped to a reclaim tank near the process plant. The reclaim water line will parallel the same service road being used by the tailings distribution pipeline corridor.

Similarly, in-pit tailings disposal areas will be sequenced such that tailings beaches displace the supernatant pond to one side. The supernatant pond level will be maintained at a level that allows for on-going operation of the reclaim water barge. Normal tailings operations will see the lowermost portion of the tailings beach submerged below the supernatant pond. Water will be reclaimed through a floating pump barge and pumped to a reclaim tank near the process plant. The reclaim water line will parallel the haul road being used by the tailings distribution pipeline corridor.

Reclaim and tailing water pipelines will be placed in a HDPE-lined containment trench that will direct potential leaks into emergency pond located at a low point of the corridor.

The tailings distribution and reclaim water systems are designed to convey tailings and reclaim water between the TSF/in-pit disposal areas and the plant site.

The tailings distribution system has three key components: a tailings pump station, tailings conveyance pressure pipeline and discharge spigots. Distribution of the tailings around the perimeter of the TSF 1, TSF Garrcon, TSF Jonpol and TSF 903 tailings storage areas, which is undertaken using four HDPE pressure pipeline alignments, which feed discharge spigots along the embankment crest and around the open pits. The discharge spigots facilitate tailings beach development within the TSF 1 and open pit TSFs. The tailings slurry shall be discharged via spigots from various points along the upstream crest of the starter dam and future embankment raises. In addition, around TSF1 to maximize storage volume verses TSF footprint. Whereas for in-pit disposal, tailings slurry shall be discharged via spigots from various points around the open pits. The preliminary tailings deposition plan for the TSFs are summarized as follows:

- Initial tailings slurry discharge shall be from the north embankment of TSF to develop the beaches at this location first to push the supernatant pond to the south and tailings slurry discharge shall be from the south ends of the in-pit disposal areas to develop the beaches at these locations to push the supernatant ponds to the north.

- Tailings discharge points shall be moved as required to ensure the apex elevation of the deposition fan does not violate freeboard criteria.

- The method of tailings deposition (spigotting from perimeter) is expected to result in beaches with approximately 0.5 to 1.5% overall slopes. The actual tailings beach slope is expected to be steeper at the dam crest (near the deposition point) and flatter downslope. Beach slope angles will vary with solids content, discharge velocity, season,

and the total height of tailings. The slurry tailings at 65% solids content will consolidate relatively quickly in the TSF deposit with an estimated tailings density of approximately 1.45. Periodic monitoring of beach slope angles and tailings characteristics will allow better prediction of future slope angles and allow for refinement of the tailings discharge plans over time.

- Supernatant pond water will be reclaimed from the TSF and in-pit disposal areas for use as process water for ongoing process plant operations throughout the life of mine.

- Trafficability of tailings will be poor where the tailings are saturated or nearly so. Access to the beach and pond areas shall be restricted.

18.8.6 Instrumentation and Monitoring

Geotechnical instrumentation will be installed through the TSF embankment. There will be no instrumentation in the in-pit storage facility. The instrumentation will be installed during construction phases and monitored over the life of the project, and into closure. Geotechnical instrumentation is typically comprised of vibrating wire piezometers and slope inclinometers and will be installed in the foundations and embankment fills.

Instrumentation monitoring will be routinely completed during construction, operations, and closure. Measurements during construction will be taken and analyzed on a routine basis to monitor the response of the embankment fill and the foundation from the loading of the embankment fill.

18.8.7 Water Management

The TSF 1 water management consists of diverting non-contact surface water from the surrounding area around the facility in trapezoidal diversion channels lined with riprap to existing drainages. The channels are design to convey the 1:100-year storm event. TSF 1 is designed to contain and then pass the Probable Maximum Precipitation (PMP). The water from large storm events can be used for makeup water or be discharged into one of the collection ponds. A spillway is located at the northeast side of the facility which discharges into the environment via an engineered pond and into one of Thackeray Creek's tribuaries. Any excess water flowing out of the underdrain pond goes into natural drainage located at the north end of the facility.

The TSF Garrcon, TSF Jonpol and TSF 903 water management consists of diversion channel and dikes to convey surface runoff around the Garrcon, Jonpol and 903 Pits. These structures are designed to convey the 1:100-year storm event around the pits. In-pit TSFs are designed to contain and then pass the PMP. The water from large storm events can be used for makeup water or be pumped downstream into one of the collection ponds. There are no spillway since the tailings facility are open pits with no embankments.

19 MARKET STUDIES AND CONTRACTS

It was assumed in this PEA that the Tower Gold Project will produce gold in the form of doré bars. The market for doré is well established and accessible to new producers. The doré bars will be refined in a certified North American refinery—of which there are many in the eastern United States and Canada—and the gold will be sold on the spot market.

19.1 Market Studies

No market studies have been conducted by Moneta Gold or its consultants on the gold doré that will be produced by Tower Gold. Gold is a freely traded commodity on the world market for which there is a steady demand from numerous buyers. Gold production is expected to be sold on the spot market. Terms and conditions included as part of the sales contracts are expected to be typical for this commodity. Gold is bought and sold on many markets in the world, and it is not difficult to obtain a market price at any time. The gold market is very liquid with many buyers and sellers active at any given time.

19.2 Commodities Price and Refining Assumptions

As of August 30, 2022, the trailing two-year gold price was US$1,830/oz and the trailing three-year gold price was US$1,760/oz (See Figure 19-1). For the purpose of the PEA, a gold price of US$1,600/oz was assumed. The exchange rate used in the study is C$1.00:US$0.78.

Figure 19-1: Two Year Gold Price Chart

Source: https://goldprice.org/gold-price-history.html, September 27, 2022.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

This section provides insight into baseline environmental studies and a discussion of any known environmental issues for the Tower Gold Project which combines the previous Golden Highway Project and Garrison Project as well as the locations for waste management facilities (such as the Tailings Storage Facility (TSF)). Furthermore, waste rock and tailings disposal, water management, project regulatory and permitting requirements, potential social or community considerations, the status of any negotiations or agreements with local communities or Indigenous communities, and mine closure requirements are described.

So far, no impediments to mining have been found, though additional work is needed to optimize design based on environmental and social constraints. To be updated at PFS.

Moneta will work to obtain the necessary authorizations and permits as per Section 20.3.

20.1 Environmental Considerations

The following sections illustrate the biophysical and social setting of the Project. The climate and physiography, and the regional and property geology are described in Section 5 and Section 7, respectively.

The Tower Gold Project is in the Black River-Matheson area of Northeastern Ontario. It includes the Golden Highway property to the southwest and the Garrison property (Garrcon, JonPol/903) to the northeast. The Project site is located approximately 30 kilometres east of Matheson, Ontario immediately south of Highway 101 between Highway 572 and Highway 672 and as such is accessible year-round. The area surrounding the site has land cover characterized by treed vegetation communities, treed muskeg, previously forested lands, and low flow watercourses.

The Project site layout and study area, shown in Figure 20-1, are divided into the Golden Highway Study Area and the Garrison Study Area for the descriptions provided in this chapter. Together, these study areas comprise the Tower Gold Project (Tower Gold or the Project site). The Property comprises 85 patented mineral claims, 4 leased mineral claims and 318 unpatented mineral claims. The Project site covers an area of 7,705.54 ha.

Figure 20-1: Project Study Area

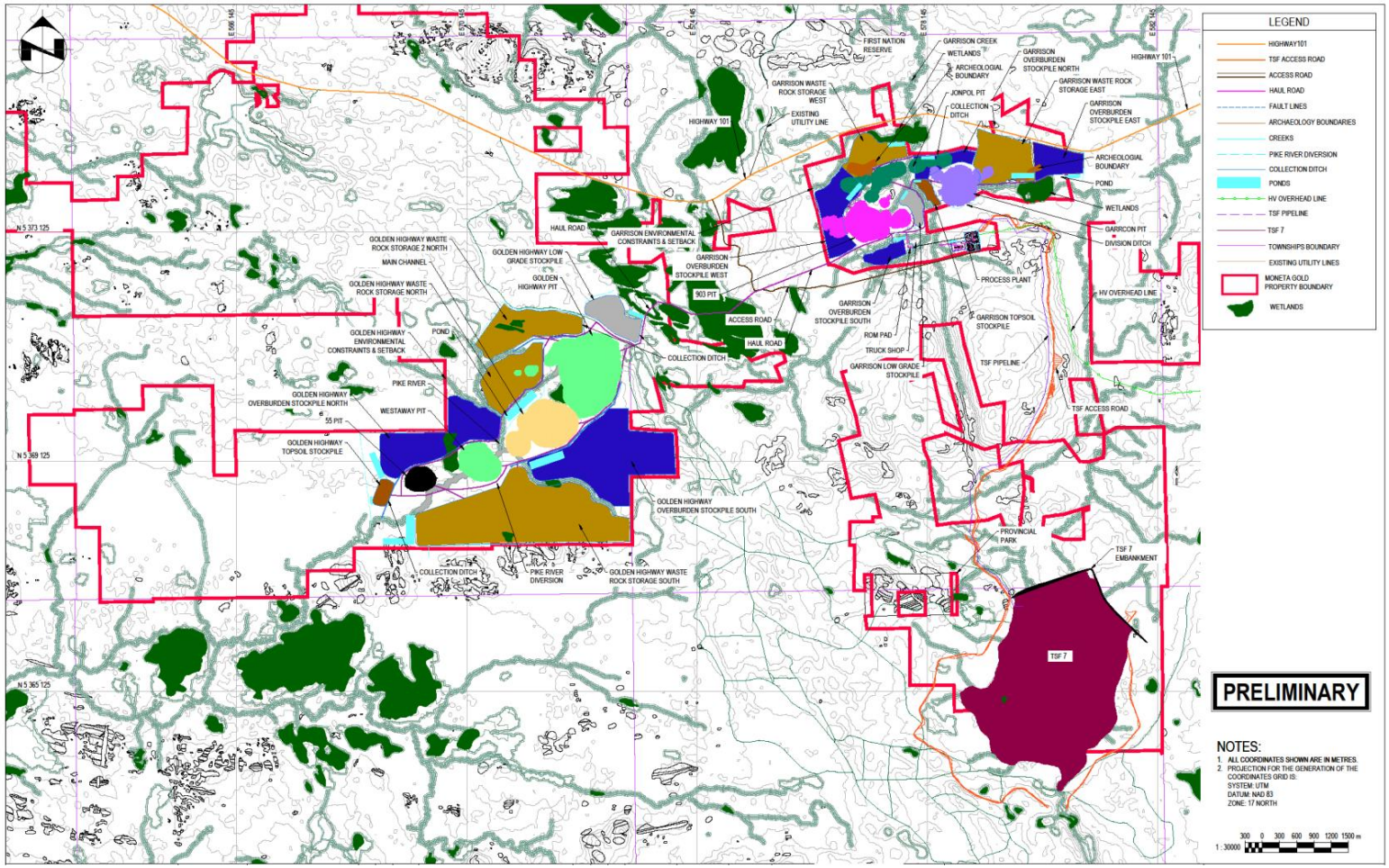


Figure prepared by Ausenco, 2022.

20.1.1 Biophysical Settings

20.1.1.1 Vegetation

Forest Resource Inventory data classifies the Project site into 14 ecosites and six unclassified habitats corresponding to anthropogenic disturbance, wetlands and open water. The Project site is located within the Abitibi (3E) Ecoregion. Within this ecoregion, the mixed forest habitat is generally comprised of stands of white spruce, balsam fir, white birch and trembling aspen. Depending on soil moisture, drier groupings may have pure stands of jack pine or mixtures of jack pine, white birch, and trembling aspen, whilst more humid groupings are characterized by black spruce and balsam fir, with an understorey of moss and lichen (Golder, 2016).

Vegetation communities (to the Ecosite level) and plant assemblages for the Garrison Study Area (i.e., Garrcon, Jonpol/903) were described by Blue Heron Environmental (Blue Heron 2021). The Garrison Study Area has a gently undulating topography, with wetlands observed in low, wet, drainage areas. It spans 1,000 hectares (ha) with 841 ha of vegetated and forested habitat. The types of forest covers found at that location include 313 ha of coniferous forest, 190 ha of deciduous forest and 338 ha of mixed forest.

The topography in the Golden Highway Study Area is relatively flat with an elevation of approximately 300 m. Poorly drained swamp dominates much of the area. In the Golden Highway Study Area, forty-one varieties of plant species were identified including six trees, sixteen shrubs/woody plants, one fern and fern ally, five graminoids, four forbs, two mosses, and three lichens. An additional four varieties of plants were identified to genus (two forbs, one moss, and one lichen). In the Garrison Study Area, fifty-one varieties of plant were observed namely, seven trees, fifteen shrubs/woody plants. four fern and fern allies, two graminoids, seventeen forbs, one moss and one lichen. An additional three varieties of plants were identified to genus (one shrub/woody plant, one forb, and one moss).

All the plants identified during the plant community surveys are considered secure (S5) or apparently secure (S4) within the province of Ontario. No rare or SAR plants were observed within the Study Area.

A total of seventy-five plant species and additional seven plant genus were detected throughout the Project site. All species are typical of the 3E Lake Abitibi Ecoregion, and no rare or sensitive plant species were detected (Blue Heron, 2021) (Ausenco,2022).

20.1.1.2 Wildlife

20.1.1.2.1 Records Review

The species of wildlife in the region include four amphibian, twenty birds, nine mammal, and two reptile.

Table 20-1: Characteristic Wildlife Species of the Abitibi Ecoregion

Common Name	Scientific Name	S Rank[1]
Amphibians		
Boreal chorus frog	*Pseudacris maculata*	S5
Mink frog	*Rana septentrionalis*	S5

Common Name	Scientific Name	S Rank[1]
Spotted salamander	*Ambystoma maculatum*	S4
Wood frog	*Rana sylvatica*	S5
Birds		
America black duck	*Anas rubripes*	S4
Bald eagle	*Haliaeetus leucocephalus*	S2N,S4B
Common loon	*Gavia immer*	S5B,S5N
Common raven	*Corvus corax*	S5
Gray jay	*Perisoreus canadensis*	S5
Great blue heron	*Ardea herodias*	S4
Hooded merganser	*Lophodytes cucullatus*	S5B,S5N
Lincoln's sparrow	*Melospiza lincolnii*	S5B
Osprey	*Pandion haliaetus*	S5B
Palm warbler	*Dendroica palmarum*	S5B
Philadelphia vireo	*Vireo philadelphicus*	S5B
Pileated woodpecker	*Dryocopus pileatus*	S5
Pine siskin	*Carduelis pinus*	S4B
Purple finch	*Carpodacus purpureus*	S4B
Sharp-tailed grouse	*Tympanuchus phasianellus*	S4
Spruce grouse	*Falcipennis canadensis*	S5
Tennessee warbler	*Vermivora peregrina*	S5B
White-throated sparrow	*Zonotrichia albicollis*	S5B
Wood duck	*Aix sponsa*	S5
Yellow-rumped warbler	*Dendroica coronata*	S5B
Mammals		
American marten	*Martes americana*	S5
Beaver	*Castor canadensis*	S5
Black bear	*Ursus americanus*	S5
Canada lynx	*Lynx canadensis*	S5

Common Name	Scientific Name	S Rank[1]
Coyote	*Canis latrans*	S5
Red back vole	*Myodes gapperi*	S5
Gray wolf	*Canis lupus*	S4
Red squirrel	*Tamiasciurus hudsonicus*	S5
Snowshoe hare	*Lepus americanus*	S5
Reptiles		
Eastern gartersnake	*Thamnophis sirtalis*	S5
Midland painted turtle	*Chrysemys picta marginata*	S5

Notes:1 Provincial Ranks (S-RANK) are Rarity Ranks assigned to a species or ecological communities, by the Ontario Natural Heritage Information Center (NHIC). These ranks are not legal designations. S-RANKS are evaluated by NHIC on a continual basis and updated lists are produced annually. SX (Presumed Extirpated), SH (Possibly Extirpated - Historical), S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure), SNA (Not Applicable), S#S# (Range Rank), S? (Not ranked yet), SAB (Breeding Accident), SAN (Non-breeding Accident), SX (Apparently Extirpated). Last assessed August 2011. Source: Golder and Associates, Permit to take water Category 3 scientific study, Garrison Gold Project, for Northern Gold Mining Inc., November 2016. Originally from Environment Canada (2005) and Crins et al. (2009).

In addition, Blue Heron conducted a desktop screening for the potential for Species at Risk in the Tower Gold project area in 2019 and in 2021. Based on the results of the SAR desktop screening, there is potential for 20 provincially designated wildlife species to occur in the Project site. Eight of these are listed as either endangered (Little Brown Myotis, Northern Long-eared Myotis, Tri-coloured Bat) or threatened (Bank Swallow, Barn Swallow, Chimney Swift, Eastern Whip-poor-will, Blanding's Turtle) under the *Endangered Species Act* (ESA). The other 12 species are listed as special concern, and therefore do not have regulatory protection under the ESA: Bald Eagle, Black Tern, Canada Warbler, Common Nighthawk, Eastern Wood-pewee, Evening Grosbeak, Olive-sided Flycatcher, Rusty Blackbird, Wood Thrush, Yellow Rail, Snapping Turtle and Silver Lamprey.

Categories of Significant Wildlife Habitat (SWH) identified in the Project site during the desktop screening included: Seasonal Wildlife Concentration Areas, Rare Vegetation Communities, Specialized Habitat, Habitat for Species with Conservation Concern and Animal Movement Corridor.

20.1.1.2.2 Results of Field Surveys

Blue Heron (2021) conducted biological baseline studies in the Project site. The scope of work included in the 2021 Biological Baseline study consisted of:

- Nightjar surveys targeting Eastern Whip-poor-will;
- Breeding bird surveys;
- Basking turtle occurrence surveys; and
- Bat surveys.

The results of breeding bird surveys indicate that a total of 64 bird species was detected within the Project site. Wilson's Snipe and White-throated Sparrow were the most common species, detected at all fifteen stations. American Robin and Common Yellowthroat were the next most common species, occurring at eleven of the fifteen stations. A total of thirty-three bird species was detected over the six breeding bird survey locations in the Golden Highway Study Area. Most birds found within the Golden Highway Study Area are associated with forested habitat (48.48%). In the Garrison Study Area, thirty-nine bird species were detected over the four breeding bird survey locations in the Garrcon pit area, the majority of which are associated with forested habitat (58.97%). A total of forty-seven bird species was detected over the five breeding bird survey locations in the JonPol/903 area of the Garrison Property, the majority of which are associated with forested habitat (70.21%)(Blue Heron, 2021).Three species (Common nighthawk, Olive-Sided Flycatcher and Evening Grosbeak) designated as special concern under the ESA were detected within the Project site during the breeding bird surveys.

Nightjar surveys revealed the presence of Common Nighthawk in the Garrison Study area.

Bat species detected within the Garrison Study Area include Big Brown Bat, Eastern Red-Bat, Hoary Bat, Little Brown Myotis, Northern Long-eared Myotis, Tri-coloured Bat, and Silver-haired Bat. Bat activity, measured in number of passes, was low across all stations, with the maximum nightly passes detected being less than 200 passes. Given the relatively low number of passes detected, bats are assumed to be moving through the area rather than inhabiting this location.

An additional thirteen species of wildlife were observed through incidental observations during the 2021 field surveys. The majority of the species observed through incidental occurrences were ranked as secure (S5) or apparently secure (S4) in Ontario. One notable exception is the Sandhill Crane, whose non-breeding populations are considered vulnerable (S3) in Ontario.

SWH was confirmed in the Project site. Specialized Habitat was confirmed present in both Garrison-Garrcon Study Area and Garrison-JonPol/903 Study Area (Aquatic Feeding Habitat) and Habitat for Species of Conservation Concern (Special Concern and Rare Wildlife) was present throughout the Project site.

20.1.1.3 Fisheries & Aquatic Resources

The northeastern portion of the Project site is drained by Garrison Creek and several of its tributaries. Garrison Creek is a coldwater stream that supports brook trout, common white sucker, slimy sculpin, pearl dace, brassy minnow, creek chub, finescale dace and brook stickleback (Golder, 2013). Stream assessments completed Golder (Golder, 2013) indicate that stream channels are of low gradient and that their course is highly influenced by beaver activity. Substrates are comprised mainly of organic material and silt.

The southeastern portion of the Project site is drained by Chadwick Creek, a small tributary of Thackeray Creek. Thackeray Creek, which drains the eastern portion of the Project site, flows north, and eventually empties into Ghost River. Thackeray Creek and Ghost River are coldwater systems supporting brook trout, northern pike and walleye. Thackeray Creek also supports populations of burbot, common white sucker, longnose sucker and a variety of cyprinid species. Chadwick Creek supports brook stickleback, fathead minnow, finescale dace, pearl dace and northern redbelly dace (Golder, 2013). The headwater of Chadwick Creek is a wetland.

At the time of writing this report, the aquatic inventory results for the Golden Highway Property were not available. Pike River drains the southwestern portion of the Golden Highway Property (Ausenco, 2022).

20.1.1.4 Surface Water

The Project site is located within the Upper Abitibi Watershed. The Garrison Creek catchment area south of Highway 101 drains the Garrison Property. Small ponds and several wetlands are prevalent around the Garrison claim boundary, but there are no other significant waterbodies within that area. The northeastern portion of the Project site is drained by Garrison Creek and several of its tributaries. Garrison Creek flows northerly and ultimately discharges into Lake Abitibi. Garrison Creek drains an area of approximately 30 km2. The southeastern portion of the Project site is drained by a small tributary of Thackeray Creek, referred to as Chadwick Creek. Thackeray Creek eventually feeds into Ghost River.

Flows in Garrison Creek are typical of creeks in the area. Freshet is in May followed by a low flow season from July to September.

There is a watershed divide in the middle of the proposed Garrcon pit (see Figure 20-2). At this watershed divide, surface water flows to the west towards Garrison Creek and to the east towards Chadwick Creek which feeds into Thackeray Creek. Both watercourses eventually feed into Ghost River. Overall drainage in the area flows to the north.

Figure 20-2: Watersheds in Garrison Property

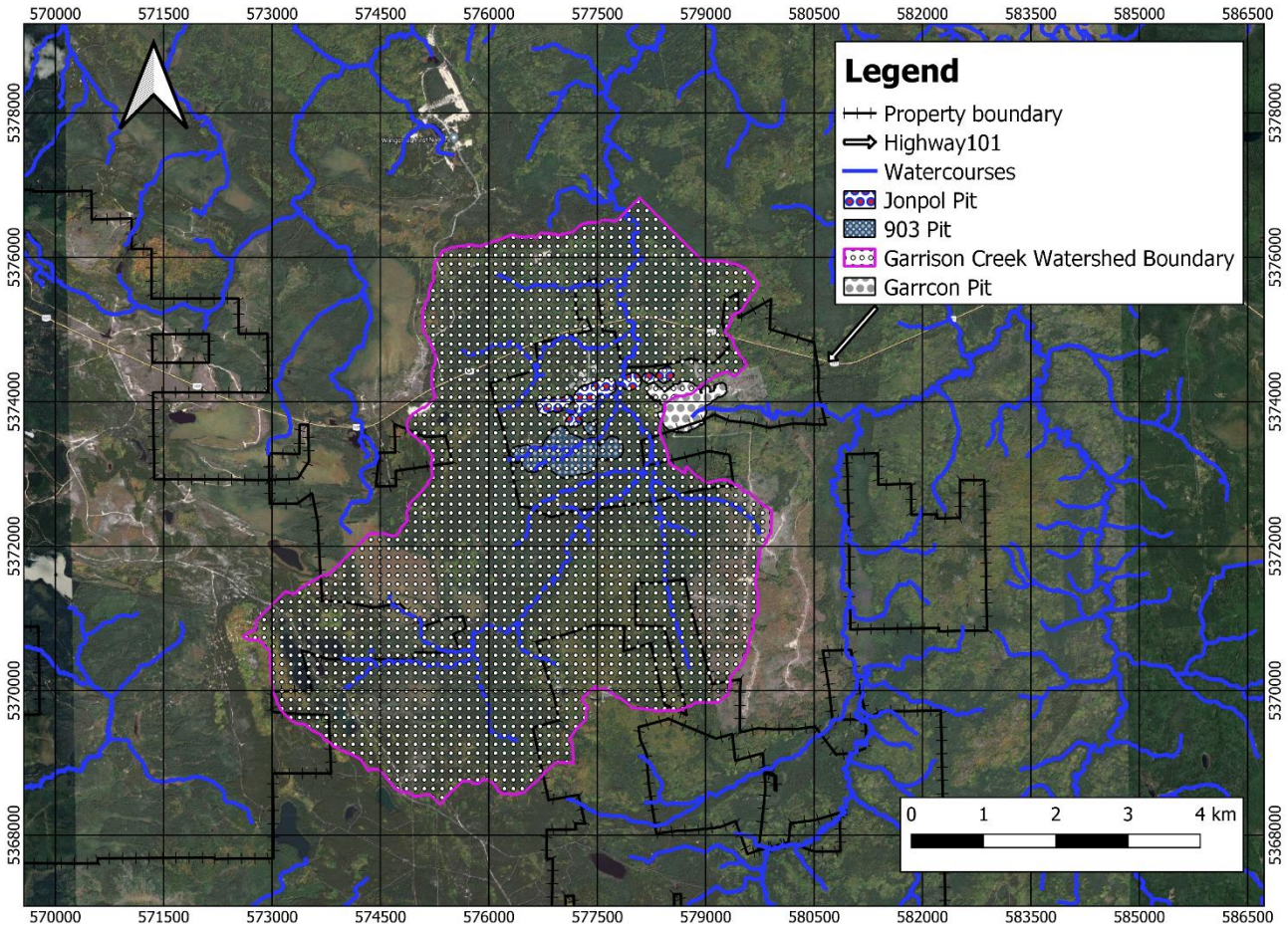


Figure prepared by Ausenco, 2022.

As part of previous environmental approvals, water quality of multiple creeks in the Garrison Property had been sampled monthly from 2015 to 2019. In June 2021, baseline efforts resumed at all 10 surface water stations which included all previous environmental approvals related stations within the Garrison Property. In addition to the historical sampling locations, two additional locations were also sampled.

The surface water quality program focused upon the collection of surface water samples from lakes and watercourses located on the Garrison Property, as well as upstream and downstream from the Property, including:

- Garrison Creek;
- Thackery Creek;
- Ghost River; and
- Unnamed Tributary

The results showed the following:

- Aluminium and iron have been found to be consistently above water quality guidelines in all sample stations.
- Total arsenic in Garrison Creek (GC-1) has been slightly higher than Provincial Water Quality Objectives (PWQO) from 2015 to 2021.
- Boron has fluctuated above PWQO in only Garrison Creek (GC-1, GC-4) and Unknown Tributary (UT-1) from 2015 to 2021.
- Cadmium has been above PWQO in only Garrison Creek (GC-1) from 2015 to 2021.
- Chromium has been above PWQO in all sample stations with the exception of Reference surface water station on Garrison Creek (REF-2) from 2015 to 2021.
- Cobalt has infrequent elevations in all sample locations except Garrison Creek (GR-1), Ghost River (GR-U), and Thackery Creek (TC-2) from 2015 to 2021.
- Copper has fluctuated above PWQO in all stations with the exception of Thackery Creek (TC-2) and Garrison Creek (REF-2) from 2015 to 2021.
- Lead has mildly fluctuated above PWQO at sample location of Unknown Tributary (UT-1) from 2015 to 2021.
- Selenium has consistently remained above PWQO in Thackery Creek (TC-1) from 2015 to 2021.
- Silver has fluctuated above PWQO in Garrison Creek (GC-1, 2, 4, and 8) and has elevated above PWQO in Thackery Creek (TC-1).
- Thallium has been slightly above PWQO in Garrison creek (GC-1 and 4) and Unknown Tributary (UT-1) from 2015 to 2021.
- Uranium has reported above PWQO in only Garrison Creek (GC-4) from 2015 to 2021.

- Zinc has shown to be consistently slightly above PWQO in all sample stations with the exception of Thackery Creek (TC-2) and Garrison Creek (REF-2) from 2015 to 2021.

Exceedances are most likely due to background geology. Future water quality monitoring will seek to provide explanation for exceedances. These exceedances will not be an impediment to mining. Surface water monitoring locations for the Garrison property are represented in Figure 20-3.

Figure 20-3: Surface Water Motoring Locations for Garrison Property

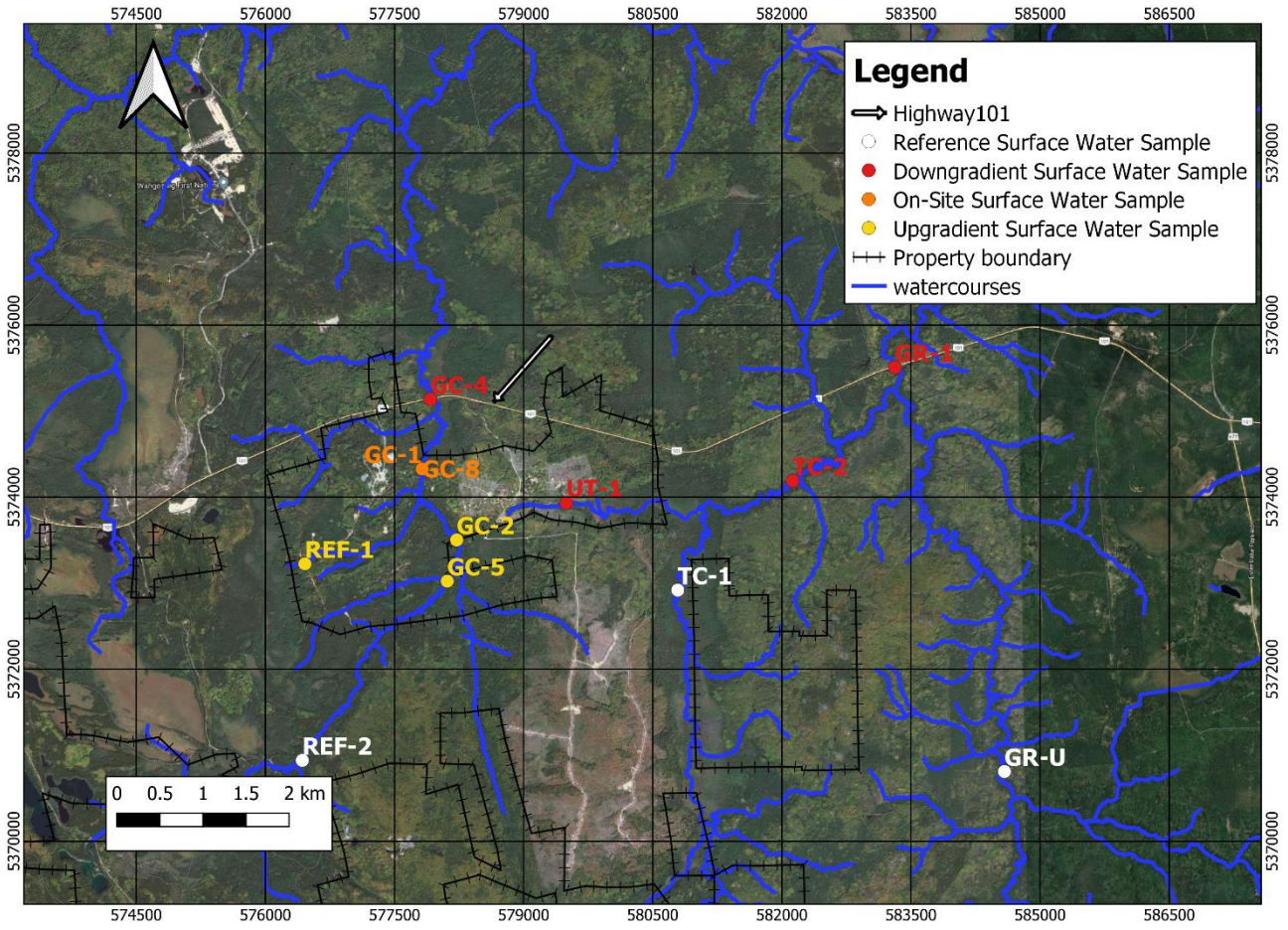


Figure prepared by Ausenco, 2022.

One main watercourse, the Pike River, drains the Golden Highway Property from east to west before discharging into the Black River. Watersheds in Golden Highway property are shown in Figure 20-4.

Figure 20-4: Watershed in the Golden Highway Property

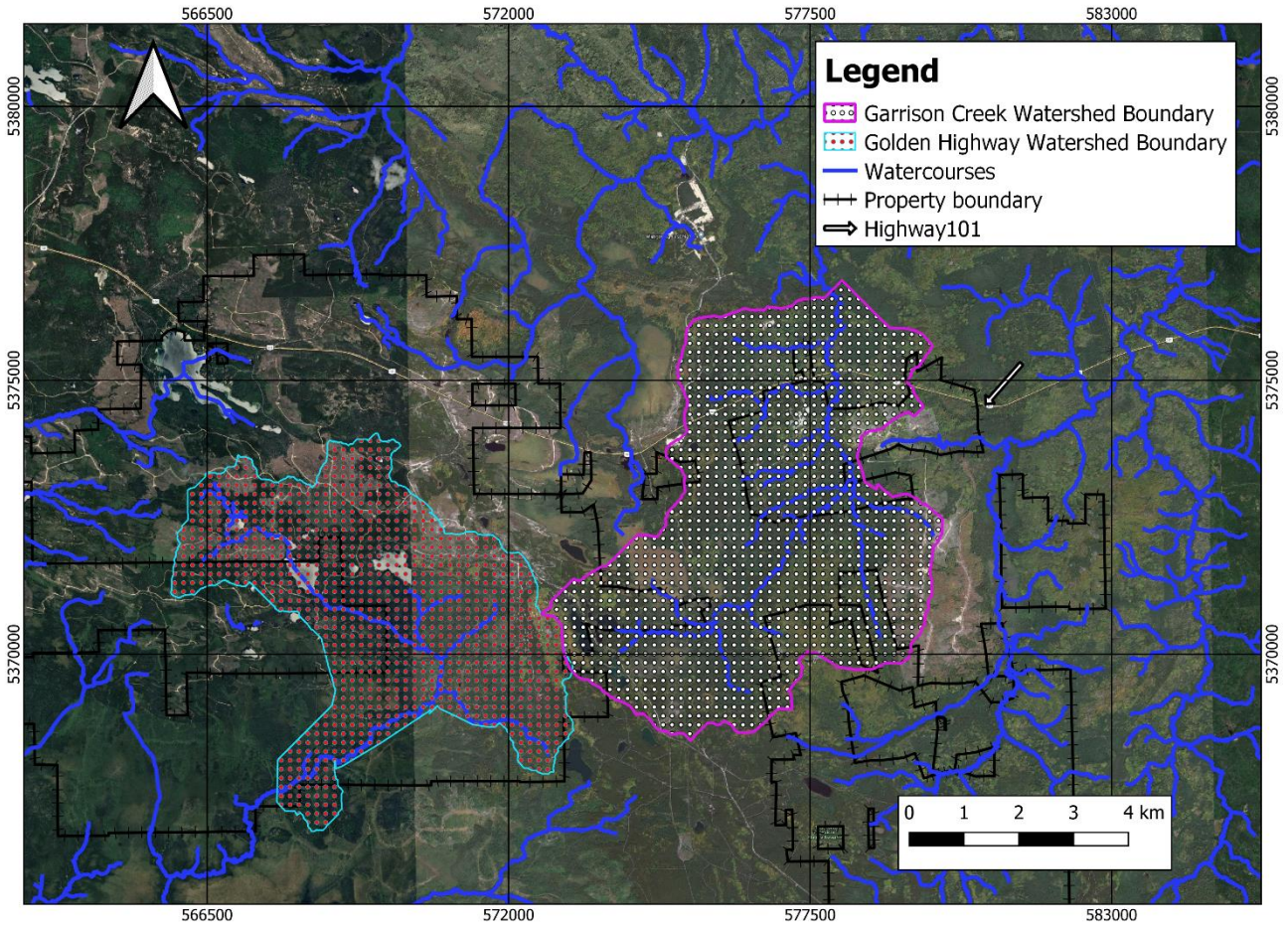


Figure prepared by Ausenco, 2022.

The water quality of multiple creeks and waterbodies in the Golden Highway Property had been sampled monthly from 2019 to 2021. The surface water quality assessment for the Golden Highway Property focused on the collection of surface water samples from waterbodies located on the Site and upstream and downstream of the Site. The principal surface water bodies located on or close to the Site where water quality samples were collected are:

- Halfway Lake;
- Dewhirst Lake;
- Pike Lake;
- Emens Lake;
- Clermont Lake;
- Pothole Lake; and

- Pike River

The results showed the following:

- Aluminium and iron have been found to be consistently above water quality guidelines in all sample stations.
- Total arsenic in all sample stations has been constantly lower than Provincial Water Quality Objectives (PWQO) from 2019 to 2021.
- Boron has been constantly relatively lower than PWQO from 2019 to 2021.
- Cadmium has been below PWQO from 2019 to 2021.
- Chromium has been detected to be above PWQO in MM-SW6, MM-SW8 and MM-SW-12 sample stations from 2019 to 2021.
- Cobalt has slightly elevated in MM-SW10, MM-SW11, MM-SW12, and Halfway Lake sample locations from 2015 to 2021.
- Copper has mildly fluctuated above PWQO in Halfway Lake, MM-SW5, MM-SW6, MM-SW8, MM-SW11, and MM-SW12 from 2019 to 2021.
- Molybdenum has been slightly above PWQO in MM-SW5 and MM-SW12.
- Lead has mildly fluctuated above PWQO at sample location MM-SW6 from 2019 to 2021.
- Selenium has consistently remained below PWQO in all sample locations from 2019 to 2021.
- Silver has slightly fluctuated above PWQO in MM-SW6 and MM-SW-12.
- Thallium has been below PWQO in all sample locations from 2019 to 2021.
- Uranium has reported below PWQO in all sample locations from 2019 to 2021.
- Zinc has shown to be consistently elevated above PWQO in sample stations MM-SW-6, MM-SW-7, MM-SW-8, MM-SW-10, MM-SW-11, MM-SW-12, and Halfway Lake from 2019 to 2021.

Exceedances are most likely due to background geology. Future water quality monitoring will seek to provide explanation for exceedances. These exceedances will not be an impediment to mining. Surface water monitoring locations for the Golden Highway property are represented in Figure 20-5 (Blue Heron, 2022).

Figure 20-5: Surface Water Monitoring Locations for Golden Highway Property

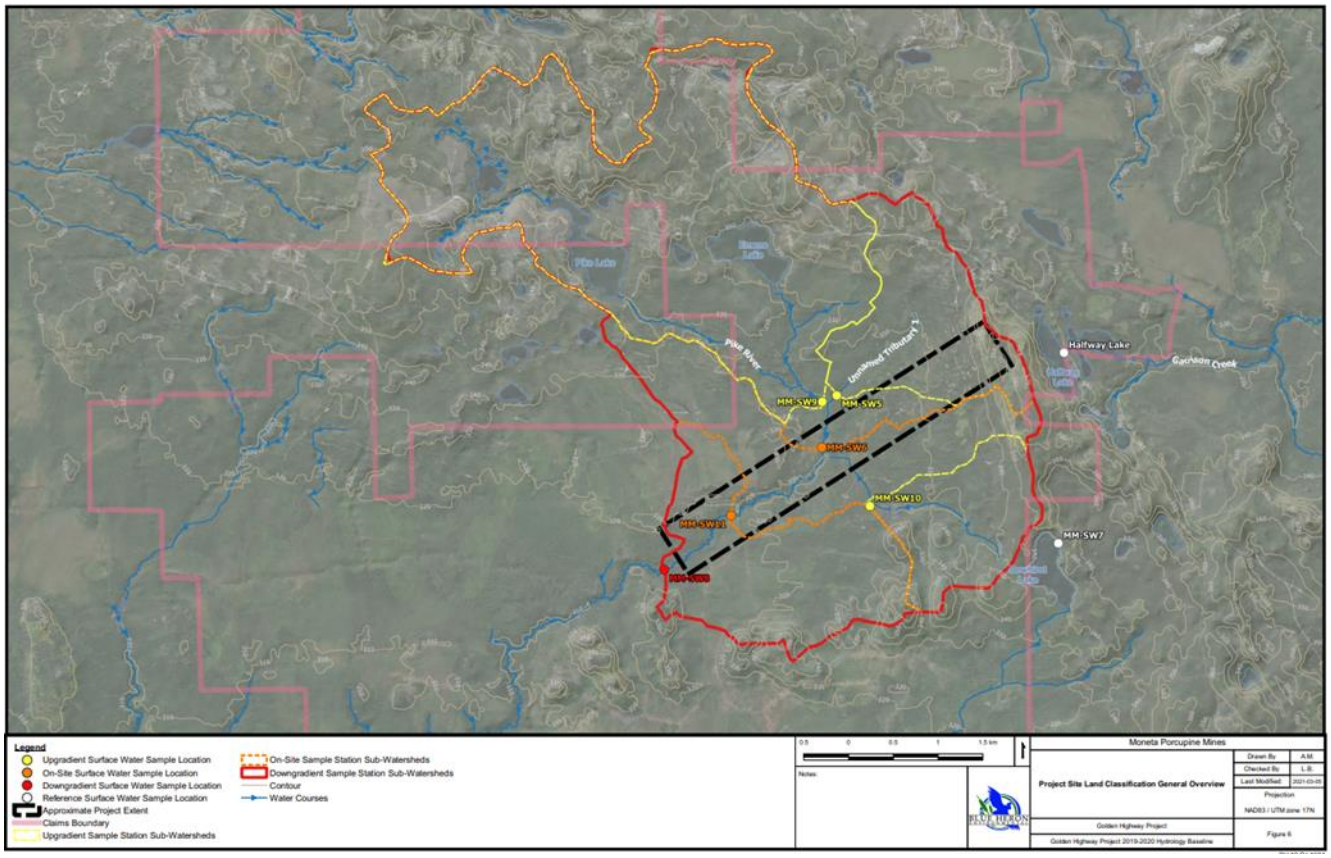


Figure prepared by Blue Heron, April 2022.

20.1.1.5 Groundwater

Schlumberger determined that the main aquifer in the northeastern portion of the Project site (Garrison Property) is a confined, overburden silty sand aquifer that lies just above the weathered bedrock surface. The silty sand was encountered above bedrock in all borings, but the areal extent of this aquifer beyond the Garrison Property is unknown. It is confined above by the clay loam soils of the Great Clay Belt, and below by the fractured Precambrian crystalline bedrock. The bedrock is slightly fractured, and as a result, has a very low hydraulic conductivity (ibid, 2013). At the time of writing this report, groundwater information for the Golden Highway Property was not available.

20.1.2 Social & Community Settings

The Project site spans the unorganized Townships of Garrison and Michaud. The closest First Nation community is the Apitipi Anicinapek Nation (AAN), formerly known as Wahgoshig First Nation, Reserve (approximate population of 250), approximately 2 km to the north. The closest town is Matheson (approximate population of 2,400), which is located approximately 30 km west of the site. The closest recreational/residential areas are Perry Lake which is within the mineral claim boundary in the northwestern portion of the Project site, and Thackeray Provincial Nature Reserve which is located adjacent to the proposed TSF in the southeastern portion of the Project site. Approximately 45 seasonal residences are present at Perry Lake; however, only seven of these are full time. There is a single residence located on Harker Lake

approximately 9 km east of the Project site. The Thackery Provincial Nature Reserve is a non-operating park with no visitor facilities.

20.1.2.1 Archeology

A Stage 1 Archaeological Assessment was completed on the Garrison property in October 2012 by Golder Associates (Golder, 2012). Areas of archaeological potential are shown on Figure 20-6. According to the assessment, there is archaeological potential in two locations (identified in green) where elevation increases.

Figure 20-6: Archaeological Potential Areas

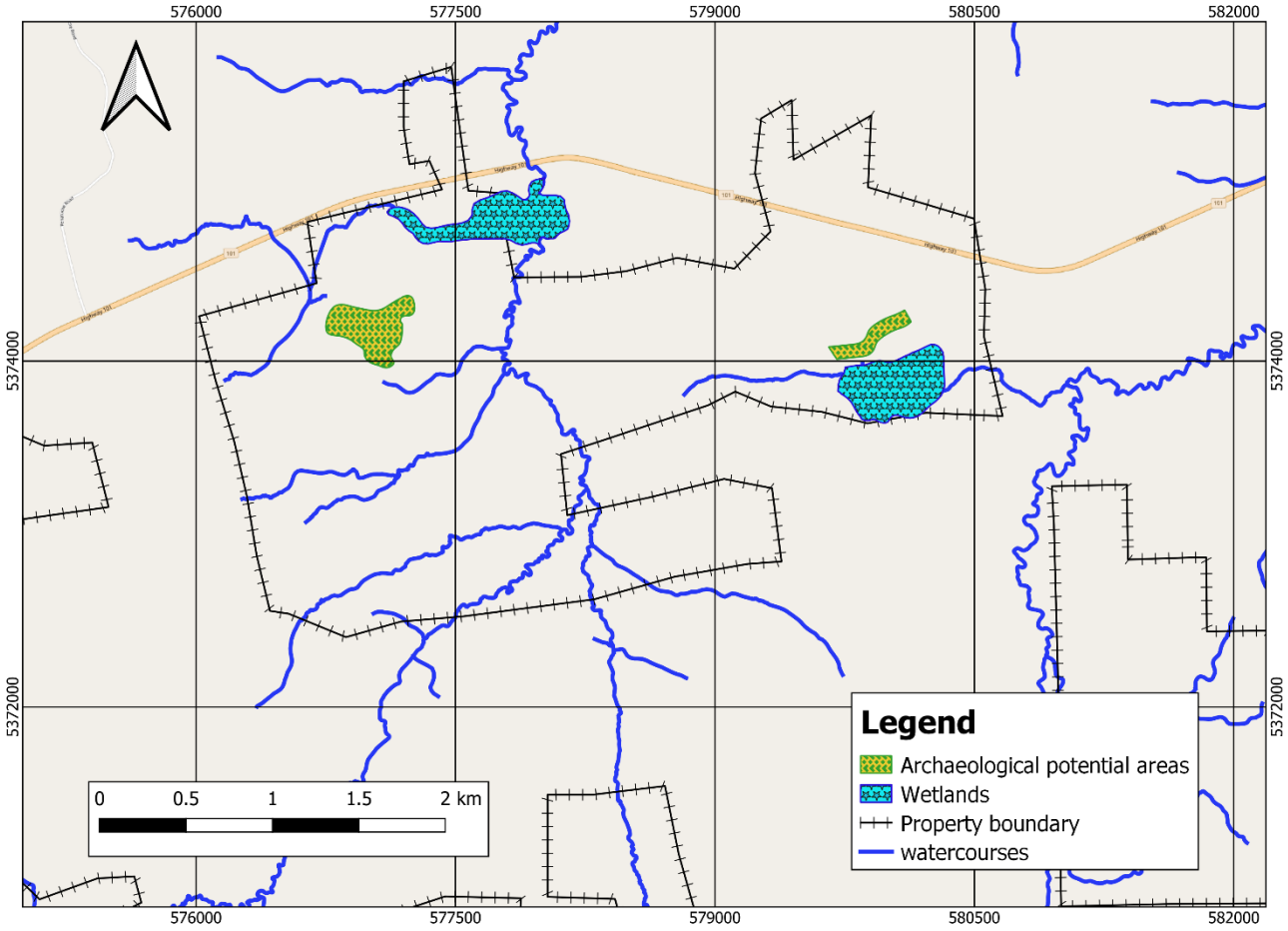


Figure prepared by Ausenco, 2022.

20.1.2.2 First Nation Agreements

On August 15, 2013, Osisko, the previous owner of the Garrison Property, entered into an exploration agreement with Apitipi Anicinapek Nation (AAN, formerly known as Wahgoshig First Nation) near Garrison Township. The agreement established a commitment by Osisko to develop an ongoing relationship with AAN in the Garrison Project and provided AAN with an opportunity to participate in the benefits of Osisko's projects through training, ongoing communication and business

development. The company had also agreed to negotiate an Impact and Benefits Agreement with AAN should construction or mining operations commence on any of Osisko's properties located on AAN's traditional territory, in addition to Osisko's commitments to training, communication, community funding and business development.

Consequently, an Exploration Agreement was signed between Moneta and AAN in 2019. Moneta has hired members of the community (via Wahgoshig Resources Inc. LP) to assist Moneta's drilling program, and has had contracts to deliver core from the drill sites to Moneta's core logging and storage area in Timmins, as well as to clear snow during the winter months. Moneta has undertaken engagement activities with Apitipi Anicinapek Nation from 2018 to the present.

20.1.3 Past Environmental Studies

The following environmental studies have been previously completed:

- Northern Gold early baseline studies conducted by Golder and Blue Heron 2012–2013. Activities included: water quality sampling of the creeks, profile water sampling of the Jonpol vertical shaft and rock dump sampling at Jonpol for acid rock drainage (ARD) and metal leaching analyses. In 2013 Northern Gold began working on an advanced exploration closure plan for a bulk sample on the Garrcon deposit.

- Osisko (Northern Gold) bulk sample permitting work conducted by Golder and Blue Heron 2014–2016 related to Environmental Certificate Application (ECA) and Permit to Take Water (PTTW).

- Osisko (Northern Gold) ECA and PTTW monitoring conducted by Blue Heron 2015–2020. Activities included surface and groundwater sampling in compliance with ECA (sewage works) and PTTW. The results were presented in Osisko Annual Performance reports from 2015 to 2018, and O3 Mining Annual Performance report for 2019, for submission to the Ministry as per the ECA. `

- Tower Gold ECA and PTTW monitoring conducted by Blue Heron 2015–2021. Activities included surface and groundwater sampling.

- Meteorology data (precipitation, temperature, wind speed surveys were gathered by Blue Heron Environmental Inc., 2021.

- Terrain and soils monitoring conducted by Terrane Geoscience, lidar imagery of the Project area is also included.

- Geochemistry tests were conducted by N.A.R Environmental Consultants and Blue Heron Environmental Inc.

- Surface water, groundwater, quality and quantity monitoring conducted by Blue Heron Environmental Inc (2016–2019, 2019–2021).

- Aquatic resources (sediment quality, periphyton and benthic communities) monitoring was conducted by Golder (2012) and Blue Heron Environmental Inc. (2020).

- Fish and fish habitat monitoring was conducted by Golder (2012).

- Vegetation communities monitoring was conducted by Golder (2016) and Blue Heron Environmental Inc. (2021).

- Wildlife and wildlife habitat monitoring was conducted by Golder (2016) and Blue Heron Environmental Inc. (2021).

- Archaeological resources study was conducted by Golder (2012) (Ausenco, 2022).

20.2 Environmental Management

20.2.1 Historical Waste Disposal Activities

The exploration shaft and ramp that were established at the Jonpol deposit in the Garrison Property during the 1980s and 1990s have been capped and meet current regulatory standards for closure. The portal to the Jonpol ramp has been blocked with coarse mine waste. The historic Garrcon shaft within the Garrison Property has also been capped.

In 2014 and 2015, Northern Gold obtained a trial production mining permit from the MNDM, allowing for the extraction of up to 150,000 tonnes in the Garrison Property. During the trial project, there were designated areas for waste rock and overburden storage on the site. The waste rock material was eventually used for road maintenance and rehabilitation of the site, in accordance with the Closure Plan filed in 2014. Overburden material was used for rehabilitation of the site in accordance with the Closure Plan filed in 2014.

In 2019, Osisko made a Request for Consent for Alteration of Rehabilitation Works under the *Mining Act*, to use a portion of the Jonpol waste rock pile that was closed and rehabilitated in accordance with the Closure Plan filed in 1995. Osisko had tested the waste rock pile to show that there was no acid generation concerns, and used the waste rock to construct a berm around the East and West pits of the Garrcon deposit in the Garrison Property (bulk sample pits) while placing the Garrcon site into temporary suspension from mining.

20.2.2 Site Management & Monitoring

The Project will be designed, constructed, operated, and decommissioned to meet all applicable Ontario environmental and safety standards and practices. Some of the provincial legislation that establishes or enables these standards include:

- *Mining Act;*
- *Environmental Protection Act;*
- *Ontario Water Resources Act;*
- *Public Lands Act;*
- *Aggregate Resource Act;*
- *Lakes and Rivers Improvement Act;*
- *Crown Forest Sustainability Act; and*
- *Ontario Heritage Act*

Moneta Gold will develop and implement an Environmental Management System (EMS) that defines the processes by which compliance will be met and demonstrated. The EMS will include ongoing monitoring and reporting to relevant parties at the various Project stages.

Site water management will be a critical component of Project design. The most likely avenue for transport of contaminants into the natural environment will be through surface water, groundwater, and dust. Moneta Gold will develop a Water Management Plan and Dust Control Management Plan that applies to all activities undertaken during all Project phases.

20.2.3 Waste Management – Waste Rock & Tailings Disposal

The Project will create waste rock from mine development and tailings as a by-product of mineral processing.

The limited geochemistry data indicates that the risk of acid generation from sulphide oxidation is low. Metal leaching from unoxidized rock was also low in comparison to stringent water quality guidelines for freshwater receivers. The results of the short-term leach tests do not necessarily mimic actual site contact water quality due to differences between laboratory and field conditions. Nonetheless, for readily soluble metals the short-term leach test results generally provide an indication of metals of particular concern (i.e., if leached concentrations are elevated in the laboratory, then they will probably also be elevated in the field). However, metals which may be released during sulphide oxidation (e.g. lead, zinc, nickel, arsenic and selenium) would typically not show up in short-term leach tests on unoxidized samples, as the rock needs to be exposed to oxidizing conditions for metal release. Longer-term kinetic tests which promote oxidizing conditions are typically required to mobilize these metals which are associated with pyrite or other sulphide minerals.

Based on review of the limited geochemistry data and water treatment information for neighbouring mine properties (as described in Chapter 18), it was concluded that development of low pH (i.e. pH 2-3) ARD with significantly elevated metal concentrations is unlikely at the Project site. However, development of near-neutral pH drainage with metal concentrations above water quality criteria is possible. This appears to be the case at the Garrison property. Treatment of contact water at the Project site is required after mining of around 150,000 t of rock has occurred and development of two small open pits as part of advanced exploration activities.

For a stand alone mine (no mill) suitable mine water treatment might include:

- Suitably sized treatment ponds with flow training berms;
- Arsenic treatment – using ferric sulphate (noted that not needed at Garrison);
- TSS removal using retention time, flocculant and coagulant addition;
- Ammonia removal using aeration (noted that not needed at Garrison, but only small-scale mining carried out to date);
- Metals removal using lime or sodium hydroxide to raise pH; and
- pH adjustment using carbon dioxide gas to lower pH before discharge.

If a mill will be present cyanide destruction will be required in addition. Tailings will be deposited into the same conventional tailings storage facility (TSF) to reduce the risk of metal leaching and to facilitate the development of any design mitigation measure, if required, in the future. In the latter part of the mine life, tailings will be deposited into the three Garrison Property pits.

Monitoring of surface water (monthly) and groundwater (quarterly) will be performed to ensure that seepage and runoff from TSF and WRSF are detected. In that respect, a water quality management plan will be prepared to specify the locations, sampling frequency and parameters to be sampled.

20.2.3.1 Non-Hazardous Waste

Non-hazardous waste management will involve segregating industrial and domestic waste into appropriate management streams. Project-related waste collection and disposal facilities will comprise one or more incinerators for domestic waste, separate waste collection areas for recyclable and industrial waste streams destined to off-site disposal, and on-site disposal facility for sewage effluent and sludge. Waste collection areas will be managed following regulatory requirements and best management practices for the safety of workers and environment, including standard operating procedures for spill management, fire safety and wildlife attractant.

20.2.3.2 Hazardous Waste

Hazardous waste materials such as spoiled reagents, waste petroleum products and used batteries will be generated throughout the life of the Project, from construction to decommissioning. Storage facilities will facilitate the segregation and inventory of the various hazardous waste streams generated during the Project. A separate secure storage area will be established with appropriate controls and best management practices to maintain the safety of workers and the environment. Hazardous materials will be labelled and stored in appropriate containers for shipment to approved off-site disposal facilities. Waste streams will be tracked in accordance with federal and provincial regulations, such as the federal *Transportation of Dangerous Goods Act, 1992* (SC 1992, c 34) and the provincial R.R.O. 1990, Regulation 347, General – Waste Management.

20.2.4 Water Management

Mine water can be divided into two categories depending on the potential for contamination:

- Non-contact water: includes water from upstream catchments that has not been in contact with mine workings. This water will be kept separate from water that has been in contact with mine workings and discharged to the environment with no treatment.

- Contact water: includes water that has been in contact with potential sources of contamination. This includes seepage from the WRSF, process water, and pit dewatering. Contact water from the WRSF will be collected and sent to a water treatment plant for treatment prior to discharge if testing shows any onset of ML/ARD. If contact water quality from the WRSF is within permitted parameter limits and is confirmed with regular testing, this water will be discharged without treatment. Water from pit dewatering will be pumped to a water treatment plant for treatment prior to discharge in accordance with future permits. Process water will be discharged to the TSF.

A site-wide water balance is included in Section 18. Strategies for water management include the following:

- reduce the amount of contact water as much as possible;

- manage surface erosion;

- recycle mine-contact water whenever possible;

- treat mine-contact water as required; and

- monitor water quality to meet discharge standards prior to discharge to the environment.

The following water management structures will be used (see Section 18 for details):

- Diversion Ditches – Diversion ditches are required to divert clean runoff away from the facilities and to minimize the amount of contact runoff to be collected and managed.
- Collection Ditches – Collection ditches collect contact runoff from the plant site, WRSF and overburden storages that is not diverted by the diversion ditches.
- Collection Ponds – Collection ponds store contact runoff from the collection ditches. The stored contact water will be either treated and released to the environment or reused for process purposes.

20.3 Permitting

The following sections summarize the federal and provincial environmental regulatory approvals, as well as permits and applicable regulations that are assumed to be required to support construction and operation of the Project, as currently proposed. Moneta has not commenced seeking these permits.

20.3.1 Federal Environmental Approvals

20.3.1.1 Federal Impact Assessment

The Physical Activities Regulations (also known as the Project List) identifies types of projects that may require a Federal Impact Assessment (IA) under the *Impact Assessment Act*. When the physical activity associated with a project is described in the Physical Activities Regulations, the proponent must provide the Impact Assessment Agency of Canada (Agency) with an Initial Project Description. The applicable sections of the Regulations were screened against physical activities associated with the proposed Tower Gold project, with the result summarized in Table 20-2.

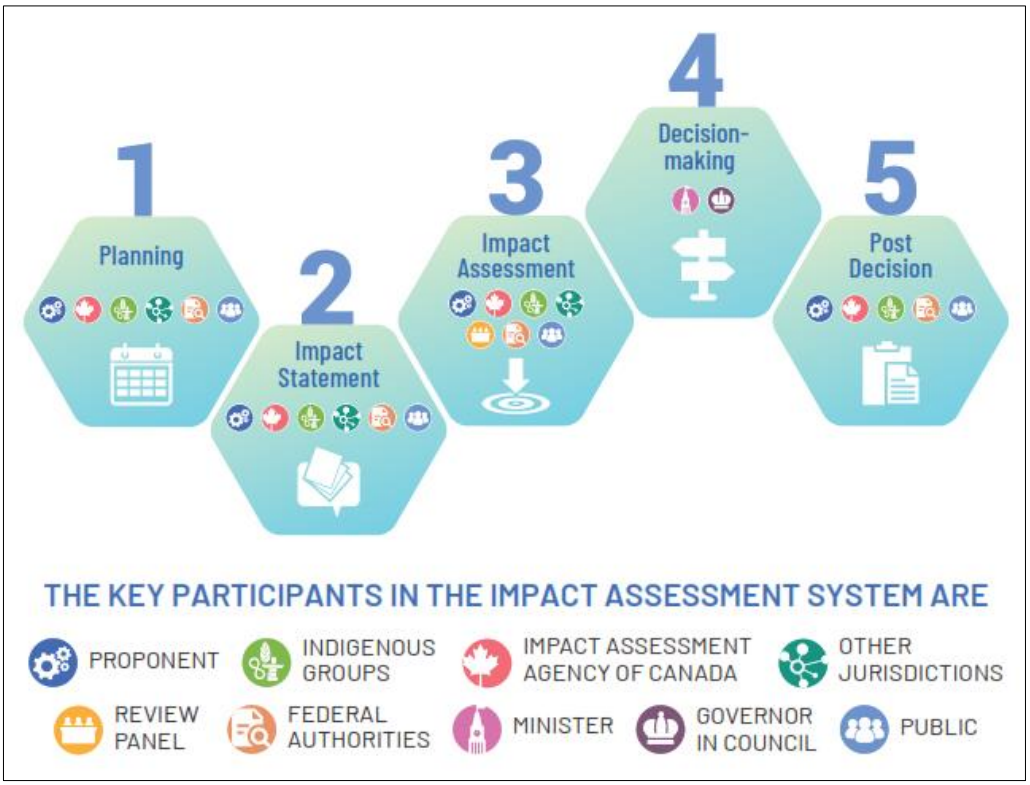
Table 20-2: Impact Assessment Act, 2019 Regulations Trigger Evaluation

Physical Activities Regulations (SOR/2019-285)	Project Components / Activities	Applicable
Section 2, Paragraph 18 (c) a new metal mine, other than a rare earth element mine, placer mine or uranium mine, with an ore production capacity of 5,000 t/d or more (d) a new metal mill, other than a uranium mill, with an ore input capacity of 5,000 t/d or more	Based on the PEA, the ore production capacity will be above 5,000 t/d	Yes

Source: *Impact Assessment Act*, *2019*.

The general Federal IA process, along with key participants, is represented in Figure 20-7. The project would first enter the planning phase with the submission of an Initial Project Description. During the planning phase, multiple deliverables will need to be produced, some by the proponent and some by the Agency, in consultation with other federal and provincial entities as well as with Indigenous communities (i.e., First Nations and Métis). The planning phase will end with a decision of whether the project should produce an impact statement. A Tailored Impact Statement Guidelines (TISG) document, which covers the content required for the Environmental Impact Statement (EIS), will also be produced at the end of the planning phase where an EIS is confirmed.

Figure 20-7: Federal Impact Assessment Process



Source: IAA Website.

The Impact Statement is then produced by the proponent following the collection of the necessary baseline studies and assessment of impacts. Once it is determined that the Impact Statement is complete (comprises all the elements included in the TISG), the Agency will begin the IA phase, or review of the Impact Statement. During this time, the Agency along with federal and provincial departments will ask questions and make additional information requests of the proponent. The IA phase ends with the production by the Agency of the Impact Assessment Report.

Finally, the Minister or Governor in Council makes a decision to approve or deny the Project. The public will have multiple opportunities to review Project documents and provide feedback at each phase of the process. Indigenous communities will be involved throughout the process by the Agency.

20.3.1.2 Federal Permitting Requirements

In addition to the requirement for assessment under *Impact Assessment Act* (IAA), 2019, key federal permits that are assumed to be required for the Tower Gold Project include but are not limited to:

- *Fisheries Act* Authorization (Fisheries and Oceans Canada (DFO); and
- Schedule 2 of Metal and Diamond Mining Effluent Regulations (MDMER), including changes in 2021.

Prohibitions under other pieces of federal legislation also apply, but no permitting requirements are currently expected. These include the following:

- *Canadian Environmental Protection Act, SC 1999;*
- *Migratory Birds Convention Act, SC 1994, c. 2;*
- *Explosives Act, RSC 1985, c. E-17;*
- *Transportation of Dangerous Goods Act, SC 1992, c. 34;*
- *Species at Risk Act, SC 2002; c. 29;*
- *Nuclear Safety Control Act, SC 1997, c. 9*

20.3.2 Provincial Environmental Approvals

20.3.2.1 Provincial Environmental Assessment

In 2019, the Ontario government released a discussion paper outlining its intent to modernize Ontario's environmental assessment program. On July 21, 2020, Ontario passed Bill 197, the COVID-19 Economic Recovery Act, 2020. Through Schedule 6 of this Act, Ontario has made significant amendments to the Environmental Assessment Act (EAA) that are intended to be phased in overtime. However, many relevant amendments will take time to either come into force or require future regulations to enact. One of these amendments requiring future regulation is the creation of a "Project list" which identifies which projects trigger the need for an Environmental Assessment (EA). Another amendment includes the replacement of the Class EA/Environmental Screening process with the "Streamlined EA" which will set out consistent requirements across all project types to replace the differing and inconsistent Class EA system. Individual EAs will remain in a narrowed form and be renamed a Comprehensive EA. Since changes to the EAA will require future regulations to enact many of the significant amendments, the description below follows current EA processes.

Currently, in Ontario, a mining development is not subject to the provincial EA requirements. However, aspects of mining development projects are often subject to one or more Class EA/Environmental Screening processes. Moneta Gold could enter into a Voluntary Agreement with the Ministry of Environment, Conservation and Parks (MECP) under Section 3.0.1 of the provincial Environmental Assessment Act. This has the effect of consolidating other possible Class EA process requirements for specific project components into one single provincial EA for review by the appropriate government review team. Should Moneta decide to follow this approach, the individual EA should be prepared in accordance with project components that are subject to the provincial Environmental Assessment Act or that have been otherwise agreed to as part of the Voluntary Agreement.

A critical milestone related to initiating the provincial EA process is preparing the Terms of Reference (TOR) for approval by MECP in order to confirm the scope of the provincial individual EA requirements. Once approved, the EA process can begin Some changes may occur during the approvals process that cannot be accounted for at this time. It is typical that a project already proceeding through the approval process, when changes to regulations are made, is allowed to continue under the previous process.

20.3.2.2 Provincial Permitting Requirements

A variety of other provincial and municipal permits may also be required depending on the final design of the mine Project components. Based on our current understanding of the Project, it is anticipated the following permit and approvals will be required:

- *Mine Closure Plan, Mining Act,* Energy, Northern Development and Mines;
- Permit to Take Water, MECP;
- Environmental Compliance Approval (Air/Noise), *Environmental Protection Act, MECP;*
- Environmental Compliance Approval (Sewage), *Ontario Water Resources Act, MECP;*
- Environmental Compliance Approval (Waste)*, Environmental Protection Act, MECP;*
- Spill Prevention and Contingency Plans, *Environmental Protection Act, MECP;*
- Effluent Monitoring and Effluent Limits, *Environmental Protection Act, MECP;*
- Work Permit*, Public Lands Act,* Ministry of Natural Resources and Forestry, MNRF;
- Aggregate Permit, *Aggregate Resource Act,* MNRF;
- Water Crossings*, Lakes and Rivers Improvement Act, MNRF;*
- Forestry Resource Licence/Release of Reservation*, Crown Forest Sustainability Act, MNRF; and*
- *Archaeological Clearance, Ontario Heritage Act,* Ministry of Heritage, Sports, Tourism, and Culture Industries (MHSTCI).

20.3.3 Federal Provincial Harmonization

The Government of Canada is committed to the principle of one project, one assessment, for projects subject to the federal Impact Assessment Act and the review processes of one or more jurisdictions. Similarly, the Province of Ontario's EAA speaks to harmonization where another jurisdiction imposes requirements with respect to an undertaking to which the provincial EAA applies. The recent amendments to provincial EAA will enable the development of regulations to support modernization of the EA program including provisions on reducing duplication, which is in alignment with the federal Impact Assessment Act (IAA). In order to harmonize the federal and provincial processes, the proponent will be required to develop an Impact Assessment Cooperation Plan that describes how each jurisdiction will cooperate. The plan will be developed during the planning phase of the IA process.

20.4 Engagement & Consultation

Both the *Ontario Environmental Assessment Act* (OEAA) and the federal *Impact Assessment Act* (IAA) 2019 contain provisions for consultation with Indigenous communities (i.e., First Nations and Métis), and the public as a component of

the EA process. Future engagement and consultation measures will comply with federal and provincial regulations, best practices, and Moneta Gold's internal company policies.

20.4.1 Indigenous Communities

As part of the EA process Moneta Gold will be required to consult with local Indigenous communities (i.e., First Nations and Métis). The consultation requirements and Indigenous groups to consult will be determined during the TOR phase as part of the provincial process. During the planning phase of the federal EA process, multiple deliverables will need to be produced, some by the proponent and some by the Agency, in consultation with other federal and provincial entities as well as with Indigenous groups. An Indigenous Engagement and Partnership Plan is produced by the Agency and details First Nation groups to be consulted and how.

In early 2022, MNDM conducted a pre-determination of Indigenous communities that will need to be consulted with regard to the Tower Gold project. This included Apitipi Anicinapek Nation (formerly known as Wahgoshig First Nation), as well as several First Nations who are members of the Wabun Tribal Council (WTC), and the Métis Nation of Ontario. Moneta Gold will continue the engagement with these communities, leading to formal consultation activities in line with the federal and provincial consultation requirements.

20.4.2 Government

Moneta Gold will engage and collaborate with federal, provincial, regional, and municipal government agencies and representatives as required with respect to topics such as land and resource management, protected areas, official community plans, environmental and social baseline studies, and effects assessments.

20.4.3 Public & Stakeholders

Moneta Gold will be required to consult with the public and local stakeholders as part of the EA process. The consultation requirements are determined in the TOR phase as part of the provincial process. During the planning phase of the federal IA process, multiple deliverables will need to be produced, some by the proponent and some by the Agency, in consultation with other federal and provincial entities as well as with the Public and Stakeholders. A Public Participation Plan will be produced by the Agency that outlines how the public will be engaged throughout the impact assessment process and preferred engagement tools and strategies.

20.5 Closure Plan Requirements

In Ontario, all land affected by mining development activity must be rehabilitated after the activity has finished. A Closure Plan outlines how the affected land will be rehabilitated and the costs associated with doing so. A Closure Plan must be developed and acknowledged by the Ministry of Energy, Northern Development and Mines before mine development can begin. Closure plans must be certified by company executives to ensure that they cover all the conditions described in the Mine Rehabilitation Code, which is essentially Schedule 1 of O. Reg. 240/00: MINE DEVELOPMENT AND CLOSURE UNDER PART VII OF THE ACT and that all required rehabilitation tasks meet necessary technical requirements.

The Closure Plan is typically developed as part of the EA process and refined for the permitting process. A key aspect of mine closure is to meet water quality objectives without ongoing treatment for ARD. A graded earthfill/rockfill cover will be constructed on top of the WRSF and revegetated to facilitate runoff and minimize infiltration. The surface workings will be

progressively backfilled with waste rock throughout mine operations as far as is practicable, without hindering mine operations.

The on-site structures will be decommissioned and removed upon completion of mining. Explosives, explosive magazines, fuel, and storage facilities will also be removed from site at closure. Concrete slabs and footings will be broken and placed appropriately to meet Project closure and reclamation objectives. Process buildings, camp facilities, pipelines, conveyor systems, and equipment will be removed from site or appropriately landfilled in an approved facility. In addition to removing bridges from the mine haulage roads, Moneta will remove all culverts and install cross-ditches for drainage. The mine site access road will not be deactivated, as it will be required to allow access for continued reclamation activities and monitoring. Similarly, the transmission line to the site will be maintained to maintain the power supply required for reclamation, closure, and monitoring activities. Compacted surfaces, including laydowns and roads, will be decompacted and revegetated.

Closure planning will include engaging with Indigenous groups and stakeholders to determine post-mining land use objectives and carrying out the investigations required to achieve and monitor those objectives.

The Closure Plan will include at least the items and information set out in Schedule 2 of the Regulation, as presented in Table 20-3.

Table 20-3: Closure Plan Content Requirements (Schedule 1 of O. Reg. 240/00)

Item	Component	Content
1.	Letter of transmittal	(i) to be signed and dated by the proponent, where an individual, or where the proponent is a corporation, a senior officer of the corporation
		(ii) indicate that closure plan document constitutes entire closure plan under Part VII of the Act
		(iii) names of agents or employees, if any, authorized to act on behalf of the proponent
2.	Certification	(i) statement of certification set out in subsections 12 (2) and (3) of the regulation
3.	Project information	(i) name and address of the proponent, location and address of project site
		(ii) boundaries of the project site, details of the land tenure of the project, including the proponent's interest in the mining lands within the boundaries and of the tenure of land not owned but leased or otherwise controlled by the proponent
		(iii) a site plan of legible scale indicating the location of all project features, including all openings to the surface, in relation to the site boundaries and the claim numbers, parcel numbers and, where applicable, the township name, lot number and concession number
		(iv) plans and sections of proposed new underground development
4.	Current project site conditions	(i) details of the current land use of the site and the immediately adjacent lands that may be affected by the project, including current zoning and official plan designations, where applicable
		(ii) topographical details of the site, including a plan of appropriate scale and contour interval where the project will alter existing site topography
		(iii) details of the surface waters on or flowing through the site and any surface waters receiving flow from the site, including an assessment of the quality and quantity of such waters that indicates whether and to what extent they will be affected by the project and shall be consistent with the monitoring requirements specified in the Code and a plan of legible scale showing the current location of all such waters and their watershed boundaries
		(iv) details of the ground waters within and beyond the site boundaries that may be affected by the project, including the identification of aquifers and an assessment of the quality and quantity of such ground waters that indicates whether and to what extent they will be affected by the project and shall be provided in accordance with the Code
		(v) details of the terrestrial plant and animal life that may be affected by the project

Item	Component	Content
		(vi) details of the aquatic plant and animal life that may be affected by the project
		(vii) complete details of any previous activities that may have resulted in a mine hazard existing on the site or any contamination of the site that has occurred, including the history of the site, an assessment of any physical mine hazards that exist and an assessment of any current contamination of soils, surface and ground waters that exist at the start of the project
5.	Project description	(i) a brief summary of the project
		(ii) details of the mineralogy of the ore and host rock within the site
		(iii) details of the mining activities anticipated throughout the life of the project, including methods and rates of mine development and mining, and methods and procedures for handling mine backfill
		(iv) details of any processing, including a general description of the process, types and rates of any reagents used and a process water balance
		(v) details of existing and expected buildings and infrastructure on the site, including their size, type, use and location and a surface plan, at a legible scale, showing their location
		(vi) details of the production, handling and disposal of any tailings on the site, including the physical and chemical nature of the tailings, an assessment of the potential for metal leaching and acid mine drainage in accordance with the Code, the rate of production of tailings, methods of handling tailings, the location, size and nature of any tailings impoundment and treatment areas and a surface plan of legible scale showing the location of any such areas with engineering details of any impoundment structures
		(vii) details of the production, handling, storage and disposal of waste rock, ore, concentrate and overburden, including the physical and chemical nature of the materials, an assessment of the potential for metal leaching and acid mine drainage in accordance with the Code, the rates of production of such material, methods of handling and the location, size and nature of any storage or disposal areas and a surface plan of legible scale showing the location of any storage or disposal areas
		(viii) available details of any existing or proposed waste management systems and treatment or disposal sites, including disposal sites located within tailings areas, a description of the treatment or disposal process or system and a surface plan of legible scale showing the location of any treatment or disposal site and effluent discharge points
		(ix) details of any water management or treatment systems, including a description of the processes and physical facilities for such systems
		(x) details of storage sites for petroleum products, chemicals, explosives, hazardous substances and toxic substances, including the quantity of materials stored, the size, nature and location of such storage areas and a surface plan of legible scale showing their location
		(xi) a proposed schedule
6.	Progressive rehabilitation	(i) details of any such measures anticipated during the life of the project, including a schedule for carrying them out
7.	Rehabilitation measures — temporary suspension	(i) details of measures to restrict access to the project site, buildings and other structures to authorized persons to secure petroleum products, chemicals, waste and waste management systems are made secure and to dispose of or remove explosives from the site
		(ii) details of measures for the prevention of unauthorized or inadvertent access to mine openings to the surface
		(iii) details of measures to ensure maintenance of mechanical and hydraulic systems in a no-load condition and the safety and security of electrical systems
		(iv) details of measures to control effluents of all types
		(v) details of measures to ensure that all waste rock piles and stockpiles of ore, concentrate, overburden and other materials are maintained in a safe and stable condition
		(vi) details of measures to ensure that all tailings, water and other impoundment structures are maintained in a safe and stable condition in accordance with the Code

Item	Component	Content
		(vii) a schedule of rehabilitation measures to be implemented in order for the project to be considered in temporary suspension
8.	Rehabilitation measures — state of inactivity	(i) details of measures to restrict access to the project site, buildings and other structures to authorized persons
		(ii) details of how all shafts, raises or open stopes are to be secured in accordance with the Code
		(iii) details of how all portals of adits and declines are to be secured in accordance with the Code
		(iv) details of measures to ensure that all other mine openings to surface that create a mine hazard are stabilized and secured in accordance with the Code
		(v) details of measures to ensure that all mechanical and hydraulic systems are maintained in a no-load condition and that non-essential electrical systems are de-energized and all other electrical systems are made safe and secure
		(vi) details of measures to monitor, maintain or rehabilitate all tailings impoundment areas
		(vii) details of measures to monitor, maintain or rehabilitate all landfill or other waste management sites
		(viii) details of measures to remove, dispose of, isolate or manage on site all petroleum products, chemicals and waste, including PCBs, and to ensure that all explosives are disposed of or removed from the site
		(ix) details of measures to ensure that all waste rock piles and stockpiles of ore, concentrate, overburden and other materials are maintained in a physically and chemically safe and stable condition
		(x) details of measures to ensure that all tailings, water and other impoundment structures are maintained in a safe and stable condition in accordance with the Code
		(xi) details of a site inspection program to be conducted at least once every six months to ensure that the required rehabilitative measures are in place and how the site inspections will be recorded and reported to the Director
		(xii) a schedule of the rehabilitation measures to be implemented in order for the project to be considered in a state of inactivity
9.	Rehabilitation measures — closed out	(i) details of how all shafts, raises or open stopes shall be secured in accordance with the Code
		(ii) details of how all portals of adits and declines are to be secured in accordance with the Code
		(iii) details of the measures to be implemented to ensure that all other mine openings to surface that create a mine hazard are stabilized and secured in accordance with the Code
		(iv) details of the measures to be implemented to assess the stability of surface and subsurface mine workings and any measures to be used to ensure stability of the ground surface in accordance with the Code, including reports of all studies conducted under sections 30, 31, and 32 of Schedule 1
		(v) details of how all buildings, power transmission lines, pipelines, airstrips and other structures and infrastructure will be removed or otherwise disposed of
		(vi) details of how all machinery, equipment and storage tanks will be removed or otherwise disposed of
		(vii) details of how all transportation corridors will be closed off and revegetated in accordance with the Code
		(viii) details of how all concrete structures, foundations and slabs shall be removed or covered and revegetated in accordance with the Code
		(ix) details of how all petroleum products, chemicals and waste will be removed or disposed of on-site and that all explosives will be disposed of or removed from the site
		(x) details of how any PCBs or PCB contaminated material will be removed or managed on site
		(xi) details of measures to rehabilitate all landfill sites and other waste management sites

Item	Component	Content
		(xii) details of measures to test soils in the immediate vicinity of any petroleum product, chemical, explosive or waste storage or transfer sites and measures to be implemented including a risk assessment analysis to control or dispose of any soils found to be contaminated
		(xiii) details of measures to ensure physical and chemical stability, erosion control and surface and ground water quality at all tailings areas
		(xiv) details of measures to ensure physical and chemical stability, erosion control and surface and ground water quality at all waste rock piles and stockpiles of ore, concentrate, overburden and other materials
		(xv) details of measures to breach or stabilize all tailings, water and other impoundment structures against static or dynamic loadings to ensure the containment of materials and to maintain the specified land use
		(xvi) details of measures to remove or make inoperable all decant structures, other than dam spillways
		(xvii) details of measures to ensure that the physical structure of all water courses and drainage channels remaining on the site will be naturally stable and integrated into the surrounding ecosystem, and that they will be consistent with the specified land uses of the site
		(xviii) details of measures to ensure that the revegetation of all disturbed areas will be self-sustaining, integrated with the surrounding ecosystem and consistent with the specified land uses of the site in accordance with the Code
		(xix) a schedule of the rehabilitative measures to be implemented before the project can be considered closed out
10.	Monitoring	(i) details of the monitoring programs and procedures in accordance with the Code to ensure that the physical stability of mine hazards located on the site provide the level of protection required for each stage of closure, including the locations, methods and frequencies of monitoring and how the results of the monitoring will be recorded and reported to the Director
		(ii) details of the monitoring programs and procedures in accordance with the Code to ensure that the chemical stability of tailings, waste rock, ore stockpiles, concentrate stockpiles, overburden and other stockpiles, and surface and subsurface effluents provide the level of protection required for each stage of closure, including the locations, methods and frequency of sampling, the parameters to be analyzed, the analytical methods to be used and how the results of the monitoring will be recorded and reported to the Director
		(iii) details of any biological monitoring programs and procedures to assess the effects of the project on any biological communities. These details shall include the locations, nature, methods and frequency of monitoring, the biological communities to be monitored and how the results of the monitoring will be recorded and reported to the Director
11.	Expected site conditions	(i) details of the specified land uses of the site after close out
		(ii) details of the site topography after close out if significant changes to the existing site topography are expected, including a topographic plan of legible scale and contour interval
		(iii) details of the expected conditions, after close out, of all surface waters on or flowing through the site and any surface waters receiving flow from the site, including the expected quantity and physical and chemical quality as well as all expected final water elevations of all surface waters that may be affected by the project
		(iv) details of the expected conditions, after close out, of all ground waters located within the site that may have been affected by the project, including the expected location of aquifers, the expected quantity, the expected physical and chemical quality, all expected final water elevations and the compatibility with expected land use of all ground waters that may be affected by the project

Item	Component	Content
		(v) details of the expected condition of the terrestrial plant and animal life communities, as compared to the condition of such communities prior to the start of the project, that may have been affected by the project, including the methods to be used to assess the health or quality of the communities to demonstrate that the project will sustain terrestrial plant and animal life and that the project can be considered closed out
		(vi) details of the expected condition of the aquatic plant and animal life communities, as compared to the condition of such communities prior to the start of the project, that may have been affected by the project, including the methods to be used to assess the health or quality of the communities to demonstrate that the project will sustain aquatic plant and animal life and that the project can be considered closed out
12.	Costs	(i) details of the expected costs of implementing the rehabilitation measures and monitoring programs required to close out the site, including at least a detailed expenditure schedule and an itemized estimate of capital costs and operating costs based on the market value of the material goods and services provided
13.	Financial assurance	(i) the form and amount of the financial assurance to be provided
		(ii) all financial and commercial information used to establish the financial assurance

21 CAPITAL AND OPERATING COSTS

21.1 Introduction

The capital and operating cost estimates presented in this PEA provide substantiated costs that can be used to assess the preliminary economics of the Tower Gold Project. The estimates are based on the development of an open pit and underground operation in Golden Highway, an open pit mining operation in Garrison, construction of a process plant, infrastructure, tailings storage facility, as well as Owner's costs and contingency.

All capital and operating cost estimates are reported in Canadian dollars (C$), with no allowance for escalation or exchange rate fluctuations. An exchange rate of 0.78 (C$:US$) has been applied as necessary.

The capital cost estimate conforms to Class 5 guidelines for a preliminary economic assessment level estimate with a ±50% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International). The capital cost estimate was developed in Q3 2022 Canadian dollars based on Ausenco's in-house database of projects and studies as well as experience from similar operations.

21.2 Capital Costs

The total initial capital for the Tower Gold Project is C$517.0 million and the life-of-mine sustaining cost is C$886.4 million. The initial capital cost summary is presented in Table 21-1. Table 21-2 presents a breakdown per year of the capital costs incurred over the life-of-mine.

Table 21-1: Summary of Capital Costs

WBS	WBS Description	Initial Capital Cost (C$M)	Sustaining Capital Cost (C$M)	Total Capital Cost (C$M)
1100	Golden Highway Open Pit Deposit	0.0	406.2	406.2
1200	Golden Highway Underground Deposit	0.0	241.5	241.5
2000	Mining Garrison	63.7	174.7	238.4
3000	Process Plant	203.0	0.0	203.0
4000	On-site Infrastructure	96.2	60.9	157.2
5000	Off-site Infrastructure	0.5	0.0	0.5
	Total Directs	**363.4**	**883.3**	**1,246.8**
6000	Project Indirects	21.8	0.0	21.8
7000	Project Delivery	36.3	0.0	36.3
8000	Owner's Costs	14.5	0.0	14.5
	Total Indirects	**72.7**	**0.0**	**72.7**
9000	Contingency	80.9	3.0	83.9
	Project Total	**517.0**	**886.4**	**1,403.4**

Source: Ausenco, 2022.

Table 21-2: Annual Breakdown of Capital Costs

WBS	WBS Description	-1	1	2	3	4	5	6	7	8	9	10	11
1100	Golden Highway Open Pit Deposit	0.0	0.0	0.0	0.0	10.4	55.4	37.3	30.0	17.1	10.9	25.4	44.1
1200	Golden Highway Underground Deposit	0.0	30.0	40.9	33.4	32.0	25.4	34.6	18.6	13.3	8.7	3.2	0.7
2000	Mining Garrison	63.7	33.9	38.4	53.2	49.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	Process Plant	203.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	On-site Infrastructure	96.3	9.3	7.4	7.4	22.8	14.0	0.0	0.0	0.0	0.0	0.0	0.0
5000	Off-site Infrastructure	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Directs	**363.5**	**73.2**	**86.8**	**94.1**	**114.3**	**94.8**	**71.9**	**48.7**	**30.4**	**19.6**	**28.6**	**44.9**
6000	Project Indirects	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7000	Project Delivery	36.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8000	Owner's Costs	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9000	Contingency	80.9	0.5	0.4	0.4	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
	Total Indirects and Contingency	**153.6**	**0.5**	**0.4**	**0.4**	**1.1**	**0.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Project Total	**517.0**	**73.6**	**87.2**	**94.5**	**115.4**	**95.5**	**71.9**	**48.7**	**30.4**	**19.6**	**28.6**	**44.9**
WBS	**WBS Description**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**Total**
1100	Golden Highway Open Pit Deposit	36.9	34.9	31.5	33.7	19.9	5.7	9.6	0.8	0.8	0.8	0.8	406.2
1200	Golden Highway Underground Deposit	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	241.5
2000	Mining Garrison	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	238.4
3000	Process Plant	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	203.0
4000	On-site Infrastructure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	157.2
5000	Off-site Infrastructure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	Total Directs	**37.6**	**34.9**	**31.5**	**33.7**	**19.9**	**5.7**	**9.6**	**0.8**	**0.8**	**0.8**	**0.8**	**1,246.8**
6000	Project Indirects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8
7000	Project Delivery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.3
8000	Owner's Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
9000	Contingency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.9
	Total Indirects and Contingency	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**156.6**
	Project Total	**37.6**	**34.9**	**31.5**	**33.7**	**19.9**	**5.7**	**9.6**	**0.8**	**0.8**	**0.8**	**0.8**	**1,403.4**

Source: Ausenco, 2022.

21.2.1 Capital Cost Estimate Responsibilities

The capital cost estimate was developed in accordance with the responsibility breakdown presented in Table 21-3.

Table 21-3: Capital Cost Estimate Responsibilities by WBS

WBS	Description	Ausenco	Mining Plus
1000	**Mining Golden Highway**		
1100	Golden Highway Open Pit Deposit		Y
1200	Golden Highway Underground Deposit		Y
2000	**Mining Garrison**		
2100	Garrison Open Pit Deposit		Y
3000	**Process Plant**		
3100	Crushing and Stockpiling	Y	
3200	Grinding	Y	
3300	Gravity Gold Recovery	Y	
3400	Gravity Tails / Leach Absorption	Y	
3500	Elution / Carbon Regen / Goldroom	Y	
3600	Cyanide Detox / Tailings Dewatering	Y	
3700	Reagents Offloading and Storage	Y	
3800	Plant Air Services	Y	
3900	Plant Water Services	Y	
4000	**On-site Infrastructure**		
4100	Bulk Earthworks	Y	
4200	Power Supply	Y	
4300	Fuel Storage	Y	
4400	Warehousing, Office and Workshops	Y	
4500	Site Services	Y	
4600	Site Water Services	Y	
4700	Site Water Management	Y	
4800	Tailings Storage and Management Facilities	Y	
5000	**Off-site Infrastructure**		
5100	HV Power Supply	Y	
6000	**Project Indirects**		
6000	Project Indirects	Y	
7000	**Project Delivery**		
7000	Project Delivery	Y	
8000	**Owner's Costs**		
8000	Owner's Costs	Y	
9000	**Contingency**		
9000	Contingency	Y	

Source: Ausenco, 2022.

21.2.2 Basis of Estimate

The capital cost estimate was developed in Q3 2022 Canadian dollars based on Ausenco's in-house database of projects and studies as well as experience from similar operations. Due to the methodology used to develop the capital estimate and the conceptual level of engineering definition, the estimate has an accuracy of ±50%, which is in accordance with the Association for the Advancement of Cost Engineering International (AACE International) guidelines for a PEA study.

Data input for the estimates has been obtained from numerous sources, including the following:

- mining schedule;
- conceptual engineering design by Ausenco and Mining Plus;
- mechanical equipment costs determined from first principles and Ausenco's database of historical projects;
- costs for concrete, steel, electrical, instrumentation, in-plant piping and platework were factored by benchmarking against similar projects with equivalent technologies and unit operations;
- topographical information; and
- engineering design at a preliminary economic assessment level.

21.2.2.1 Mining Golden Highway & Mining Garrison (WBS 1000 & WBS 2000)

The capital and operating cost estimates presented in this PEA are for the Tower Gold Project and are based on open pit mining of the Garrison and Golden Highway areas, and underground mining for the Golden Highway area as per Table 21-4. The mine annual production for the open pit is approximately 45 Mt per year with mine life of 24 years, with the last 4 years consisting of moving resource material from a stockpile sourced from the Golden Highway deposit, whilst the underground has an annual production averaging 900 kt per year over a mine life or 12 years. All capital and operating cost estimates are reported in Canadian dollars (C$) and based on 2022 values.

Table 21-4: Mining Methods and Mineralized Zones

Mine	Area	Deposit
Underground	Golden Highway	Westaway
		Southwest
Open Pit	Golden Highway	55
		Westaway
		Southwest
		Windjammer
	Garrison	Garrcon
		903
		JonPol

Source: Mining Plus, 2022.

21.2.2.1.1 Underground Mine Capital Cost

Mining Plus provided estimates for all underground mine capital costs. The total underground mine pre-production capital cost is $104.4M. A contractor will be retained to conduct all required development and ramp up the mine to a steady state production rate of 900 ktpa of mineralized material. Pre-production costs include all down payments for mobile equipment as well as the monthly payments for the three-year pre-production period on a rent to own basis. After the pre-production period, the monthly mobile equipment payments have been allocated to operating costs. The initial capital is also inclusive of fixed plant purchases as well as associated capitalized costs for the period. Table 21-5 below summarizes the pre-production underground capital costs and provides a breakdown per item. Pre-production capital costs include material and manpower for each category.

Quotations for the estimates were obtained from major equipment manufacturers, as well as benchmarks and contractor rates.

Table 21-5: Underground Mine Pre-Production Capital

Cost Summary	Costs (C$M)	%
Mob & Demob	0.3	0.3%
Portal & Vent Platform	2.9	2.8%
Capital Lateral Development	68.4	65.5%
Vertical Development	5.0	4.7%
Mobile Equipment Capital Costs	12.2	11.7%
Services Capital Costs	15.6	14.9%
Total	**104.4**	**100%**

Source: Mining Plus, 2022.

Sustaining capital costs are incurred after the construction period has finished and the underground mine has reached steady state. The majority of sustaining capital is attributed to underground mine operations. These costs are related to fleet unit replacement, capitalized development, and services infrastructure. Capital development comprises of ramps, level accesses, ventilation drives and raises, and service cut-outs such as re-mucks, electrical stations, sumps, etc. Table 21-6 presents a breakdown of sustaining capital for the nine-year production period of the underground mine.

Table 21-6: Underground Mine Sustaining Capital

Cost Summary	Costs (C$M)	%
Capital Lateral Development	93.9	68.5%
Vertical Development	7.7	5.6%
Mobile Equipment Capital Costs	18.3	13.3%
Services Capital Costs	17.2	12.6%
Total	**137.1**	**100%**

Source: Mining Plus, 2022.

21.2.2.1.2 Open Pit Mine Capital Cost

Mine capital costs have been derived from historic data collected by Mining Plus from other Canadian open pit mining operations surrounding this Project, combined with the Tower Gold PEA mine production schedule and from capital costs obtained from select equipment and infrastructure vendors where required. Pre-production pit operating costs include drilling and blasting, grade control, loading and hauling, mine support activity costs, and general mining expenses (GME) costs for labour. All mine operation site development costs such as clearing and grubbing, topsoil salvage and stockpiling, are capitalized. During Years 4 to 7 removal of overburden from the Windjammer Pit is also capitalized.

It is planned for the open pit major mine equipment fleet to be purchased through a lease to purchase agreement with the equipment vendors. Major mine equipment is leased to purchase in the year required. Down payments and monthly lease payments are capitalized through the initial and sustaining periods of the Project.

The following items have also been capitalized:

- explosives magazine and facility;
- machine guidance and production tracking systems;
- mine fleet communications systems;
- mine survey gear and supplies;
- geology, grade control, and mine planning software licenses;
- maintenance tooling and supplies, and
- mine rescue equipment.

Total surface mine area capital costs are summarized in Table 21-7 below and a breakdown of Golden Highway and Garrison Pit total capital expenditures are summarized in Table 21-8 below.

Table 21-7: Tower Gold PEA Surface Mine Area Capital Cost Summary

Description	Initial (C$M)	Sustaining (C$M)	Total (C$M)
Pre strip of Windjammer Overburden	0	44.6	44.6
Mine Development	13.0	81.8	94.9
Mine Operation Services	4.3	0.0	4.3
Mine Major Equipment	38.5	230.7	269.2
Mine Major Equipment Replacements	0.0	204.5	204.5
Mine Mobile Equipment	4.9	14.7	19.6
Mine Site Layout	1.8	4.5	6.3
Mining Infrastructure	1.3	0.0	1.3
Total Mining Capital cost	**63.7**	**580.9**	**644.6**

Source: Mining Plus, 2022.

Table 21-8: Golden Highway and Garrison Pit Capital Costs

Description	Initial (C$M)	Sustaining (C$M)	Total (C$M)
Golden Highway Pits	0.0	406.2	406.2
Garrison Pits	63.7	174.7	238.4
Total	**63.7**	**580.9**	**644.6**

Source: Mining Plus, 2022.

21.2.2.2 Process Plant and Infrastructure

Process and infrastructure costs are summarized in Table 21-9 and described in the following sections. Direct costs include all contractors' direct and indirect labour, permanent equipment, materials, freight, and mobile equipment associated with the physical construction of the areas.

Table 21-9: Process and Infrastructure Capital Costs

WBS	WBS Description	Initial Capital Cost (C$M)	Sustaining Capital Cost (C$M)	Total Capital Cost (C$M)
3000	**Process Plant**	**203.0**	**0.0**	**203.0**
3100	Crushing and Stockpiling	32.5	0.0	32.5
3200	Grinding	81.1	0.0	81.1
3300	Gravity Gold Recovery	2.1	0.0	2.1
3400	Gravity Tails / Leach Absorption	22.1	0.0	22.1
3500	Elution / Carbon Regen / Goldroom	23.1	0.0	23.1
3600	Cyanide Detox / Tailings Dewatering	25.8	0.0	25.8
3700	Reagents Offloading and Storage	13.4	0.0	13.4
3800	Plant Air Services	1.1	0.0	1.1
3900	Plant Water Services	1.8	0.0	1.8
4000	**On-site Infrastructure**	**96.2**	**60.9**	**157.2**
4100	Bulk Earthworks	8.8	0.0	8.8
4200	Power Supply	11.4	0.0	11.4
4300	Fuel Storage	0.1	0.0	0.1
4400	Warehousing, Office and Workshops	13.0	0.0	13.0
4500	Site Services	2.4	0.0	2.4
4600	Site Water Services	7.1	0.0	7.1
4700	Site Water Management	4.2	23.7	27.9
4800	Tailings Storage and Management Facilities	49.3	37.2	86.5
5000	**Off-site Infrastructure**	**0.5**	**0.0**	**0.5**
5100	HV Power Supply	0.5	0.0	0.5
	Total Process & Infrastructure Cost	**299.7**	**60.9**	**360.7**

Source: Ausenco, 2022.

21.2.2.2.1 Process Plant (WBS 3000)

The definition of process equipment requirements was based on conceptual process flowsheets and process design criteria (refer to Section 17). Each major process area has been built up with costs by separately addressing the following disciplines:

- earthworks (B);
- concrete (C);
- structural steel (E);
- architectural and unit building (F);
- mechanical platework and tanks (L);
- mechanical equipment (M);
- piping (P);
- electrical equipment (Q);
- conduit and cable tray (R);
- wire and cable (S); and
- instrumentation (T).

Mechanical equipment and building (inclusive of HVAC and lighting) supply costs were based on recent and historical budget quotes from similar projects, adjusted to reflect the Tower Gold Project sizing. Building costs are presented in Table 21-10.

The materials and equipment total direct costs for other disciplines were developed by applying factors (percentages) to the total direct cost (supply and install) of the mechanical equipment. The factors are based on Ausenco's historical data for similar type work and are specific to both discipline and area.

Table 21-10: WBS 3000 & 4000 Building Costs

WBS	WBS Description	Building Description	Building Type	Total Capital Cost (C$M)
3100	Crushing and Stockpiling	Crushing building	Fabric	0.9
3200	Grinding	Mill building (Grinding + Gravity)	Pre-Engineered	17.1
3500	Elution / Carbon Regen / Goldroom	Gold room building	Pre-Engineered	1.8
3700	Reagents Offloading and Storage	Reagents building	Fabric	2.9
		Reagents storage warehouse	Fabric	0.2
4400		Truck wash building	Fabric	1.8

WBS	WBS Description	Building Description	Building Type	Total Capital Cost (C$M)
	Warehousing, Office and Workshops	Truck shop building	Fabric	6.2
		Truck shop warehouse	Fabric	0.6
		Mine dry & mining office	Modular	1.0
		Assay laboratory	Modular	4.2
		Security gatehouse	Modular	0.2
		Plant warehouse and maintenance building	Fabric	1.6
		Mill/plant office	Modular	0.5
		Truck shop building – Golden Highway underground	Fabric	2.2
		Truck shop warehouse – Golden Highway underground	Fabric	0.5

Source: Ausenco, 2022.

21.2.2.2.2 On-Site Infrastructure (WBS 4000)

On-site infrastructure costs were derived from benchmarking against similar projects in eastern Canada as well as Ausenco's in-house database of costs and labour rates. On-site infrastructure includes the following:

- Bulk Earthworks (WBS 4100):
  - Site earthworks; and
  - Golden Highway underground mining fleet maintenance area.
- Power Supply (WBS 4200):
  - Electrical substation;
  - Powerline to UG E-room from substation; and
  - Emergency generators.
- Fuel Storage (WBS 4300):
  - Fuel storage; and
  - Diesel storage.
- Warehousing, Office, and Workshops (WBS 4400):
  - Truck wash building;
  - Truck shop building;

  - Truck shop warehouse;
  - Mine dry & mining office;
  - Assay laboratory;
  - Security gatehouse;
  - Plant warehouse and maintenance building;
  - Mill/plant office;
  - Truck shop building – Golden Highway underground; and
  - Truck shop warehouse – Golden Highway underground.
- Site Services (WBS 4500):
  - Telecommunications & IT; and
  - Mobile maintenance equipment.
- Site Water Services (WBS 4600):
  - Fire suppression system;
  - Tails slurry and reclaim water pipeline; and
  - Freshwater intake pipeline.
- Site Water Management (WBS 4700):
  - Main channel;
  - Diversion ditches;
  - Collection ditches; and
  - Collection ponds.
- Tailings Storage and Management Facilities (WBS 4800):
  - Tailing storage facility; and
  - Water collection and storage infrastructure.

21.2.2.2.3 Off-site Infrastructure (WBS 5000)

Off-site infrastructure costs were developed based on in-house database of costs and labour rates and include the following:

- WBS 5100 – High voltage overhead power line from tie-in to site.

21.2.2.3 Indirect Costs

Indirect costs are summarized in Table 21-11and described in the following sections.

Table 21-11: Indirect Capital Costs

WBS	WBS Description	Initial Capital Cost (C$M)	Sustaining Capital Cost (C$M)	Total Capital Cost (C$M)
6000	Project Indirects	21.8	0.0	21.8
7000	Project Delivery	36.3	0.0	36.3
8000	Owner's Costs	14.5	0.0	14.5
	Total Cost	**72.7**	**0.0**	**72.7**

Source: Ausenco, 2022.

21.2.2.3.1 Project Indirects (WBS 6000)

Indirect costs are required during the Project delivery period to enable and support construction activities. Indirect costs include the following:

- temporary construction facilities and services;
- commissioning representatives and assistance;
- on-site materials transportation and storage;
- spares (commissioning, initial, and insurance);
- first fills and initial charges; and
- freight and logistics.

The Project indirect costs have been based on Ausenco's historical project costs of similar nature and have been included at a rate of 6% of the total direct cost, or C$21.8 million.

21.2.2.3.2 Project Delivery (WBS 700)

The Project delivery cost has been calculated at 10% of total direct costs based on Ausenco's historical project costs of similar nature. This includes the following:

- engineering, procurement, and construction management services (EPCM); and
- commissioning services.

Project delivery costs are estimated at C$36.3 million.

21.2.2.3.3 Owner's Cost (WBS 8000)

Owner's costs were factored from total directs and are 4% of total direct costs, or C$14.5 million, and include the following:

- Project staffing and miscellaneous expenses;
- pre-production labour;
- home office Project management; and
- home office finance, legal, and insurance.

21.2.3 Contingency

Contingency accounts for the difference in costs from the estimated and actual costs of materials and equipment. The level of contingency varies depending on the nature of the contract and the client's requirements. Due to uncertainties at the time the capital cost estimate was developed, it is essential that the estimate include a provision to cover the risk from these uncertainties.

The estimate contingency does not allow for the following:

- abnormal weather conditions;
- changes to market conditions affecting the cost of labour or materials;
- changes of scope within the general production and operating parameters;
- effects of industrial disputations;
- financial modelling;
- technical engineering refinement; and
- estimate inaccuracy.

The estimated contingency includes the following:

- 10% of mining initial capital cost;
- 20% of total direct of Ausenco's scope, during construction period;

- 20% total direct cost, during construction period; and
- 5% of total direct costs of Ausenco's scope, during production period.

The total estimated contingency for the Tower Gold Project is C$83.9 million.

21.2.4 Closure Costs

The estimated total reclamation and closure costs, exclusive of taxes and contingency, for the Tower Gold Project is C$78.0 million. Closure costs have been benchmarked based on recent projects in similar jurisdictions.

21.2.5 Salvage Value

Salvage value for the Tower Gold Project is estimated at C$10.2 million. Salvage value was calculated as 5% of processing plant's direct costs.

21.2.6 Exclusions

The following costs and scope are excluded from the capital cost estimate:

- land acquisitions;
- taxes not listed in the financial analysis;
- sales taxes;
- scope changes and Project schedule changes and the associated costs;
- any facilities/structures not mentioned in the Project summary description;
- costs to advance the Project from preliminary economic assessment to pre-feasibility study;
- costs of pre-feasibility and feasibility studies;
- geotechnical unknowns/risks;
- financing charges and interest during the construction period;
- any costs for demolition or decontamination for the current site;
- third-party costs; and
- permitting or environmental compensation costs.

21.3 Operating Costs

21.3.1 Introduction

The process plant operating cost estimate was developed to a level of accuracy of ±50% and with a base date of Q3 2022 using Ausenco's in-house database of projects and studies and experience from similar operations. The estimate includes processing, tailings disposal, and general and administration (G&A). Mine operating costs are built up from first principles and applied to the Tower Gold PEA mine production schedule. Cost inputs are derived from historical data collected by Mining Plus.

The overall life-of-mine operating cost is C$5,290 million over the 24-year mine life, or C$31.78/t of mineralized material milled. The operating cost estimates for the life of mine are provided in Table 21-12.

Table 21-12: Tower Gold Process Operating Cost Summary (LOM Averages)

Description	Unit	Value
Mining Costs (Golden Highway Open Pit)	$/t mined	3.11
Mining Costs (Garrison Open Pit)	$/t mined	2.56
Mining Costs (Underground)	$/t mined	87.43
Processing Costs	$/t milled	10.07
G&A Costs	$/t milled	0.94
Total Site Operating Costs	**$/t milled**	**31.78**

Source: Ausenco, 2022.

Common to all operating cost estimates are the following assumptions:

- Cost estimates are based on Q3 2022 pricing without allowances for inflation.
- Costs are expressed in Canadian dollars (C$).
- For material sourced or benchmarked in US dollars (US$), an exchange rate of 0.78 US dollar per Canadian dollar was assumed.
- The annual power costs were calculated using a 70% overall power utilization and a unit price of C$0.08/kWh.
- Majority of labour requirement is assumed to come from the town of Matheson and surrounding communities. All salaries are benchmarked against similar gold projects in the Timmins region.
- The processing unit operations were benchmarked against similar or comparable processing plants.
- Equipment and materials will be purchased as new.
- Grinding media consumption rates have been estimated based on the material characteristics.
- Reagent consumption rates have been estimated on the metallurgical characteristics.

- The mobile equipment cost provides for fuel and maintenance.

21.3.2 Mine Operating Costs

21.3.2.1 Underground Mining

The total underground operating cost is $721.2M for the Tower Gold Project. Cost inputs for the operating cost calculation included consumables of mobile equipment (such as lube, fuel, tires, etc.), and development (explosives, bits, shanks, etc.), labour rates, maintenance labour ratios, as well as benchmarked information from contractors and other projects. Equipment lease-to-own payments have been included as operating expenses. All level development with the exception of that detailed in the Capital Cost section has been allocated to operating cost.

The operating unit costs were calculated over the total mineralized material mined from development and from production, including the development tonnage during pre-production. The unit cost is $87.43/t mined. The unit costs for the life-of-mine (LOM) are detailed in Table 21-13.

Table 21-13: Underground Mine Operating Cost

Operating Cost			
Activity	Total LOM Cost (C$M)	Average LOM Cost (C$/t)	Opex (%)
Stope Drilling & Blasting	94.4	11.44	13.1%
Paste Fill	31.5	3.82	4.4%
Underground Mat. Hauling	145.3	17.61	20.1%
Vent, Dewater. & Exploration	8.7	1.05	1.2%
Operations Lateral Development	220.1	26.68	30.5%
Mine Manpower	123.0	14.91	17.1%
Mine Engineering Staff	17.4	2.11	2.4%
Mine Operation Staff	15.0	1.82	2.1%
Mine Maintenance Staff	37.4	4.53	5.2%
Mining Equipment	28.5	3.46	4.0%
Operating Cost	721.2	87.43	100%

Source: Mining Plus, 2022.

Table 21-14 presents a breakdown per year of the underground mine operating costs together with the underground capital costs.

Table 21-14: Underground Capital and Operating Costs per Year (C$M)

Item	1	2	3	4	5	6	
Total UG Capex (C$M)	30.0	40.9	33.4	32.0	25.4	34.6	
Total UG Opex (C$M)	9.3	48.1	84.4	74.7	72.9	86.4	
Total U/G Cost (C$M)	**39.3**	**89.0**	**117.8**	**106.7**	**98.3**	**120.9**	
Item	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Total UG Capex (C$M)	18.6	13.3	8.7	3.2	0.7	0.7	**241.5**
Total UG Opex (C$M)	91.3	83.4	71.7	48.6	34.3	16.1	**721.2**
Total U/G Cost (C$M)	**110.0**	**96.7**	**80.4**	**51.7**	**35.0**	**16.8**	**962.7**

Source: Mining Plus, 2022.

21.3.2.2 Open Pit Mining

Mine operating costs are built up from first principles using the Tower Gold PEA mine production schedule. Cost inputs are derived from historical data collected by Mining Plus from other operating mines in the region and equipment vendors where required. This includes cost and consumption rates for such inputs as fuel, lubes, explosives, tires, undercarriage, ground engaging tools, drill bits/rods/strings, machine parts, machine major components, labour rates, operating and maintenance labour ratios. Equipment and labour productivity inputs are estimated for the specific equipment fleets and rationalized to existing Canadian open pit mine operations. Simulated hauler cycle times from source pit benches to planned destinations are utilized to inform hauler productivities. Production tonnages for various material types are taken from the Tower Gold PEA mine production schedule. Drilling, loading, and hauling hours are calculated based on the capacities and parameters of the specified equipment fleet for the material type. The production tonnes and equipment fleet hours also provide the basis for blasting consumables and support equipment fleet inputs. The mine equipment hours are used to determine labour hours for mine operations and maintenance support for equipment. Based on operating labour for mine and maintenance crews, the supervisory and technical support staff were determined based on expected Canadian norms at other operating mines in the region. Using average wages and burden rates for the region overall labour costs for the Tower Gold were determined. Using all this information for equipment, labour, and consumables the mine operating costs can be determined and are summarized in Table 21-15 below and averages at $2.99/tonne mined over the life of the Project.

Table 21-15: Operating Cost Summary

Area	Ave. LOM Cost (C$/t)
Golden Highway	3.11/t
Garrison	2.56/t
Total Operating Cost	**2.99/t**

Source: Mining Plus, 2022.

21.3.3 Process Plant Operating Costs

The overall life-of-mine operating cost, not including mining, is C$1,832 million over the 24-year mine life, or C$11/t of mineralized material milled.

The operating cost estimates for the life of mine are provided in Table 21-12. The estimates are derived from benchmarking against existing gold processing plants located in eastern Canada as well as in-house data and quotations.

Table 21-16: Tower Gold Process Operating Cost Summary (LOM Averages)

Description	C$M/a	C$/t
Processing		
Reagents	17.5	2.53
Consumables	19.8	2.86
Labour	8.5	1.22
Power	16.5	2.36
Process Equipment Maintenance	3.9	0.55
Laboratory Consumables	1.7	0.24
Effluent Water Treatment	1.6	0.24
Processing Mobile Equipment	0.5	0.07
Processing Subtotal	69.9	10.07
General & Administration (G&A)		
Process G&A	4.1	0.59
Other G&A	2.4	0.34
G&A Subtotal	6.5	0.94
Project Total	**76.4**	**11.01**

Source: Ausenco, 2022.

21.3.3.1 Reagents

The reagent profile was developed according to the testwork results outlined in Section 13. The testwork enabled the addition and consumption rates of reagents to be estimated. Where testwork was not available, benchmarking against proven unit technologies was examined. Costs for each reagent were identified from other projects in Eastern Canada. The details are presented in Table 21-17.

Table 21-17: Reagent Cost Summary

Reagent	C$M/a	C$/t of Mill Feed
Cyanide	7.9	1.13
Lime	3.6	0.51
Sulphur	2.0	0.29
Cooper Sulfate	0.4	0.06
Hydrochloric Acid	0.1	0.02
Sodium Hydroxide	0.2	0.03
Flocculant	2.0	0.29
Carbon	1.3	0.19
Project Total	**17.5**	**2.53**

Source: Ausenco, 2022.

21.3.3.2 Consumables

Consumables were identified as non-reagent requirements/replacements that were not listed in Section 21 and are related to the crushing circuits, griding circuit, and tailings filter presses. Consumable costs associated with the paste plant are only incurred during the years of underground mining operations. The following items are considered consumables:

- primary jaw liners;
- cone crusher liners;
- Semi-Autogenous Grinding (SAG) mill liner;
- SAG mill media;
- SAG mill trommel;
- ball mill liner;
- ball mill media; and
- paste filter cloths.

Major consumables costs include:

- grinding media estimated at C$9.8M/a, or $1.39/t of mill feed
- liners costs estimated at C$6.8M/a, or $0.98/t of mill feed
- filter cloths costs are estimated at C$0.6M/a, or $0.08/t of mill feed.

The annual consumables cost was estimated at C$19.8M.

21.3.3.3 Labour

Staffing was estimated by benchmarking the Tower Gold Project against similar projects. The labour costs incorporate requirements for plant operation, such as management, metallurgy, operations, maintenance, site services, assay laboratory, and contractor allowance. Labour costs associated with the paste plant is only incurred during the years of underground mining operations. The total operational labour averages 76 employees over the life of mine.

The estimate includes staff for the following areas, as well as an allowance for contract labour:

- mill staff;
- administration;
- mill operations;
- laboratory;

- mill maintenance; and
- paste plant.

Organizational staffing plans outlining the labour requirement are shown in Table 21-18.

Table 21-18: Processing Plant Labour Summary

Labour Description	Number of Personnel
Mill Management	**4**
Mill Superintendent	1
Maintenance Superintendent	1
Chief Metallurgist	1
Chief Maintenance Planner	1
Mill Operations	**28**
Supervisor	4
Lead Hand	4
Crusher Operator	4
Grinding/Gravity Operator	4
Leach/Elution Operator	4
Reagents Operator	4
Gold Refining Foreman/Operator	4
Maintenance	**28**
Millwright Foreman	4
Millwright/Fitter	8
Electrical Foreman	4
Electrician	4
Instrument Technician	4
Maintenance Planner	4
Laboratory	**8**
Chief Assayer	1
Laboratory Technician	2
Sample Preparation Technician	2
Senior Assayer	1
Junior Assayer	2
Paste Plant	**8**
Paste Plant Operators	8
Total	**76**

Source: Ausenco, 2022.

21.3.3.4 Power

The power cost is calculated from the overall plant power draw determined from the mechanical equipment list. This cost was calculated using an assumption by Ausenco of 74% installed power utilization at a delivered power cost of C$0.08/kWh.

21.3.3.5 Maintenance

The process plant annual maintenance costs were derived from the total installed mechanical cost and using a factor of 4%. The annual consumables costs were estimated at C$3.9M/a.

21.3.3.6 Laboratory Services

The operating cost estimate for laboratory labour was benchmarked against similar projects in eastern Canada, whereas laboratory consumables were derived from the total installed mechanical cost and using a factor of 1.75%. The annual cost was estimated at C$1.7M.

21.3.3.7 Light Vehicles

The process plant mobile equipment operating costs are based on a scheduled number of light vehicles and mobile equipment, including fuel, maintenance, spares, and tires, as well as annual registration and insurance fees. Mobile equipment requirements result in an annual cost of C$0.5M.

21.3.3.8 Effluent Water Treatment

The operating cost estimate for effluent water treatment plant was benchmarked against similar projects in eastern Canada. The cost estimate includes maintenance, labour, power, and consumables. The annual cost was estimated at C$1.6M.

21.3.3.9 General & Administration

General and administrative costs are expenses not directly related to the production of the desired products and include expenses not included in mining, processing, external refining, and transportation costs. These costs were developed using Ausenco's in-house data on existing operations, summarized in Table 21-19. The G&A costs consider the following:

- human resources, including training, recruiting, and community relations;
- site administration, maintenance, and security, including subscriptions, memberships, advertisement, office supplies and garbage disposal;
- health and safety, including personal protective equipment, hospital service cost, and first aid;
- environmental, including water sampling and tailings management facility operating costs;
- IT & telecommunications, including hardware and support services; and
- contract services, including insurance, sanitation and cleaning, licence fees, and legal fees.

Table 21-19: G&A Cost Summary

Item	C$M/a	C$/t of Mill Feed
Tailings and Environmental Monitoring Staff	0.4	0.06
Tailings Environmental Monitoring	1.0	0.14
Plant Management	0.3	0.04
Plant Administration and HR	1.2	0.17
Day Operations	0.4	0.06
External Consulting Services	0.8	0.11
Process G&A Subtotal	**4.1**	**0.59**
General Administration and HR	0.7	0.10
Insurances	1.0	0.14
IT	0.5	0.07
External Consulting Services	0.2	0.03
Other G&A Subtotal	**2.4**	**0.34**
Project Total	**6.5**	**0.94**

Source: Ausenco, 2022.

22 ECONOMIC ANALYSIS

22.1 Forward-Looking Information Cautionary Statements

The results of the economic analyses discussed in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Information that is forward-looking includes the following:

- mineral resource estimates;
- assumed commodity prices and exchange rates;
- the proposed mine production plan;
- projected mining and process recovery rates;
- assumptions as to mining dilution and ability to mine in areas previously exploited using mining methods as envisaged;
- the timing and amount of estimated future production;
- sustaining costs and proposed operating costs;
- assumptions as to closure costs and closure requirements; and
- assumptions as to environmental, permitting, and social risks.

Additional risks to the forward-looking information include:

- changes to costs of production from what is assumed;
- unrecognized environmental risks;
- unanticipated reclamation expenses;
- unexpected variations in quantity of mineralized material, grade, or recovery rates;
- accidents, labour disputes, and other risks of the mining industry;
- geotechnical or hydrogeological considerations during mining being different from what was assumed;
- failure of mining methods to operate as anticipated;

- changes to assumptions as to the availability of electrical power, and the power rates used in the operating cost estimates and financial analysis;
- ability to maintain the social licence to operate;
- changes to interest rates;
- changes to tax rates;
- impact of COVID-19 or other pandemics that could cause disruptions to business operations including to the company's supply chain; and
- international conflicts and other geopolitical risks which can cause destabilizing effects on commodity prices, supply chains, inflation risk and global economies more broadly.

22.2 Methodologies Used

The Project has been evaluated using a discounted cash flow (DCF) analysis based on a 5% discount rate. Cash inflows consist of annual revenue Projections. Cash outflows consist of capital expenditures, including pre-production costs, operating costs, taxes, and royalties. These are subtracted from the inflows to arrive at the annual cash flow Projections.

Cash flows are expected to occur at the mid-point of each period. It must be noted that tax calculations involve complex variables that can only be accurately determined during operations and, as such, the actual post-tax results may differ from those estimated. A sensitivity analysis was performed to assess the impact of variations in metal prices, discount rate, foreign exchange rates, operating cost, and initial capital cost.

The capital and operating cost estimates developed specifically for this Project are presented in Section 21 of this report in Q3 2022 Canadian dollars. The economic analysis has been run on a constant dollar basis with no inflation.

22.3 Financial Model Parameters

22.3.1 Assumptions

The economic analysis was performed assuming a base case gold price of US$1,600/oz, based on consensus analyst estimates and recently published economic studies. The forecasts used are meant to reflect the average metal price expectation over the life of the Project. No price inflation or escalation factors were taken into account. Commodity prices can be volatile, and there is the potential for deviation from the forecast.

The economic analysis also used the following assumptions:

- construction period of one year;
- mine life of 23.8 years;
- exchange rate of 0.78 ($C:$US);

- base case gold price of US$1,600/oz;
- cost estimates in constant Q3 2022 Canadian dollars with no inflation or escalation factors considered;
- results based on 100% ownership with an 1.5% net smelter return (NSR) on Garrison deposits;
- capital cost funded with 100% equity (no financing cost assumed);
- all cash flow discounted to start of construction period;
- all metal products are sold in the same year they are produced; and
- Project revenue is derived from the sale of gold doré
- no contractual arrangements for refining currently exist.

22.3.2 Taxes

The Project has been evaluated on a post-tax basis to provide an approximate value of the potential economics. The tax model was compiled by Moneta Gold with assistance from third-party taxation professionals. The calculations are based on the tax regime as of the date of the PEA technical report. At the effective date of the cashflow, the Project was assumed to be subject to the following tax regime:

- Income tax consists of 25% of net income after depreciation and deductions.

At the base case gold price assumption, total tax payments are estimated to be C$647 million over the life of mine.

22.3.3 Royalty

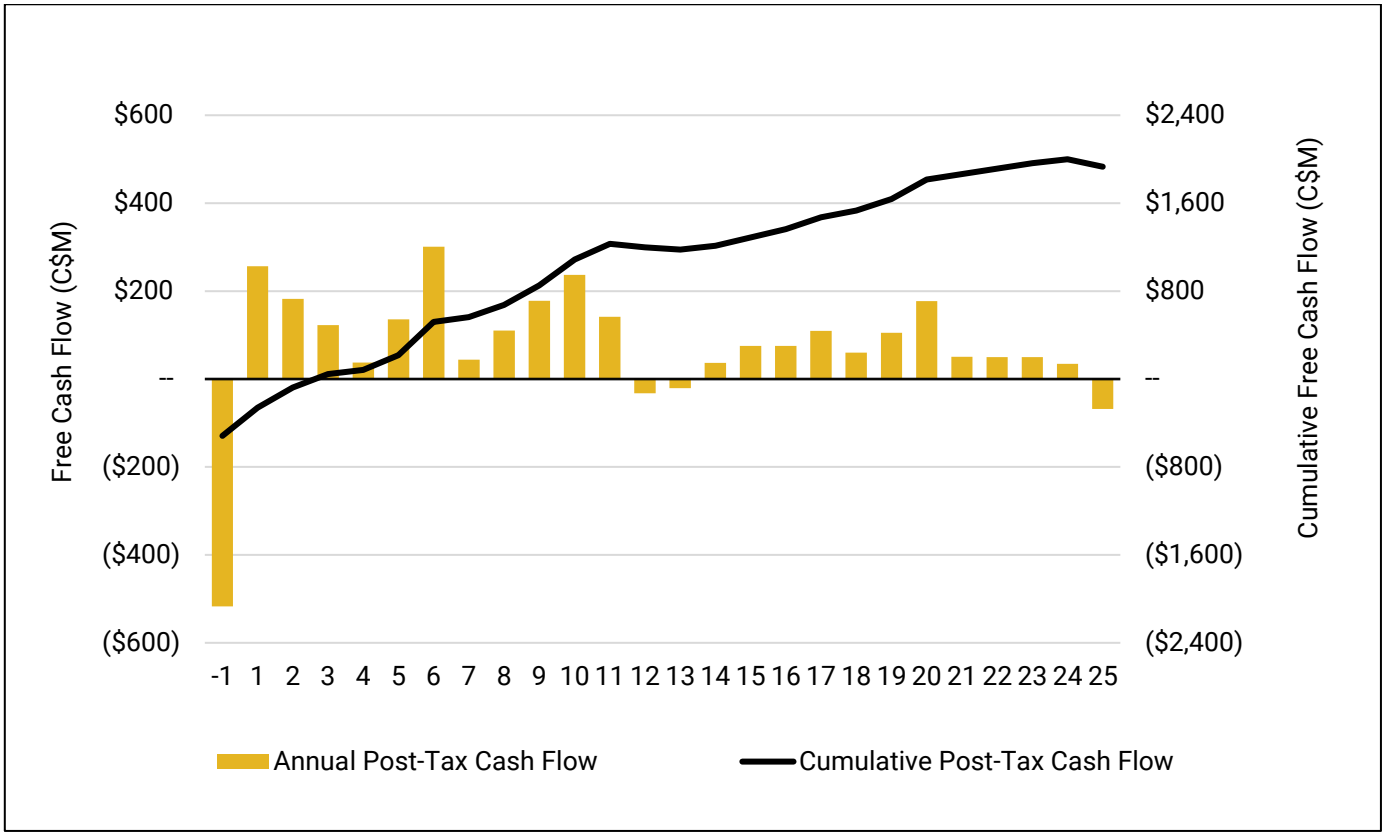
A 1.5% NSR royalty has been assume for production from the Garrison deposits, resulting in approximately C$32 million in royalty payments over the life of mine.

22.4 Economic Analysis

The economic analysis was performed assuming a 5% discount rate. The pre-tax NPV discounted at 5% is $1,459 million; the internal rate of return (IRR) is 38.9%, and payback period is 2.2 years. On a post-tax basis, the NPV discounted at 5% is $1,066 million, the IRR is 31.7%, and the payback period is 2.6 years. A summary of Project economics is shown graphically in Figure 22-1 and listed in Table 22-1. The analysis was done on an annual cashflow basis; the cashflow output is shown in Table 22-2.

Readers are cautioned that the PEA is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

Figure 22-1: Post-Tax Project Economics



Source: Ausenco, 2022.

Table 22-1: Economic Analysis Summary

Description	Unit	LOM Total / Avg.
General Assumptions		
Gold Price	US$/oz	$1,600
Exchange Rate	$C:$US	0.78
Mine Life	years	23.8
Production		
Total Mill Feed Tonnes	kt	166,436
Mill Head Grade	g/t	0.94
Mill Recovery Rate	%	91.3%
Average Annual Gold Production	koz	193
Average Annual Gold Production (years 1- 11)	koz	261
Peak Annual Gold Production (year 6)	koz	369
Total Mill Ounces Recovered	koz	4,581
Operating Costs		
Mining + Reclaim Cost	C$/t Mined	$3.7
Mining + Reclaim Cost	C$/t Milled	$20.8
Processing Cost	C$/t Milled	$10.1
G&A Cost	C$/t Milled	$0.9
Refining & Transport Cost	C$/oz	$4.7
Total Operating Costs	C$/t Milled	$31.8
Cash Costs*	US$/oz Au	$910
AISC**	US$/oz Au	$1,073
Capital Costs		
Initial Capital	C$M	$517
Sustaining Capital	C$M	$886
Closure Costs	C$M	$78
Salvage Costs	C$M	$10
Economics - Pre-tax		
NPV (5%)	C$M	$1,459
IRR	%	38.9%
Payback	years	2.2
LOM Average Annual Cash Flow	C$M	$132
LOM Cumulative Annual Cash Flow	C$M	$2,579
Economics - Post-tax		
NPV (5%)	C$M	$1,066
IRR	%	31.7%
Payback	years	2.6
LOM Average Annual Cash Flow	C$M	$105
LOM Cumulative Annual Cash Flow	C$M	$1,932
Profitability Index (NPV/Initial Capital)	ratio	2.1
Peak Investment	C$M	$517

Notes: * Cash costs consist of mining costs, processing costs, G&A and refining charges and royalties. ** AISC includes cash costs plus sustaining capital, closure cost and salvage value. Sources: Ausenco, 2022.

Table 22-2: Project Cash Flow

Item	Unit	Total / Avg.	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Gold Price	US$/oz	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600	$1,600
Exchange Rate	$C:$US	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78
Free Cash Flow Valuation																												
Revenue	**C$M**	**$9,392**	**–**	**$529**	**$571**	**$555**	**$471**	**$533**	**$756**	**$372**	**$460**	**$552**	**$593**	**$495**	**$250**	**$234**	**$311**	**$368**	**$341**	**$334**	**$317**	**$370**	**$379**	**$159**	**$159**	**$159**	**$124**	**–**
Operating Expenses	C$M	($5,289)	--	($190)	($244)	($286)	($292)	($249)	($287)	($273)	($296)	($307)	($255)	($261)	($259)	($229)	($234)	($236)	($225)	($190)	($232)	($235)	($146)	($95)	($95)	($95)	($79)	--
Refining Charges & Transportation Cost	C$M	($22)	--	($1)	($1)	($1)	($1)	($1)	($2)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($1)	($0)	($0)	($0)	($0)	--
Royalties	C$M	($32)	--	($8)	($7)	($5)	($4)	($5)	($0)	($1)	--	--	--	--	($0)	--	--	--	--	--	--	--	--	--	--	--	--	--
EBITDA	**C$M**	**$4,050**	**–**	**$330**	**$318**	**$262**	**$174**	**$277**	**$468**	**$97**	**$163**	**$244**	**$337**	**$232**	**($9)**	**$4**	**$77**	**$132**	**$114**	**$143**	**$84**	**$135**	**$232**	**$64**	**$64**	**$64**	**$44**	**–**
Initial Capital Expenditure	C$M	($517)	($517)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sustaining Capex	C$M	($886)	--	($74)	($87)	($94)	($115)	($95)	($72)	($49)	($30)	($20)	($29)	($45)	($38)	($35)	($31)	($34)	($20)	($6)	($10)	($1)	($1)	($1)	($1)	--	--	--
Closure Capex	C$M	($78)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	($78)
Salvage Value	C$M	$10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	$10
Change in Working Capital	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pre-Tax Unlevered Free Cash Flow	**C$M**	**$2,579**	**($517)**	**$256**	**$231**	**$167**	**$58**	**$182**	**$396**	**$48**	**$133**	**$224**	**$308**	**$188**	**($47)**	**($30)**	**$45**	**$98**	**$95**	**$137**	**$75**	**$134**	**$231**	**$63**	**$63**	**$64**	**$44**	**($68)**
Pre-Tax Cumulative Unlevered Free Cash Flow	C$M	$2,579	($517)	($261)	($29)	$138	$196	$378	$774	$822	$954	$1,178	$1,486	$1,674	$1,627	$1,597	$1,642	$1,740	$1,835	$1,972	$2,047	$2,181	$2,412	$2,475	$2,538	$2,602	$2,647	$2,579
Taxes	C$M	($647)	--	--	($49)	($45)	($21)	($46)	($95)	($4)	($23)	($46)	($71)	($46)	$14	$10	($9)	($23)	($19)	($28)	($15)	($29)	($54)	($13)	($14)	($14)	($10)	--
Post-Tax Unlevered Free Cash Flow	**C$M**	**$1,932**	**($517)**	**$256**	**$182**	**$123**	**$38**	**$136**	**$301**	**$44**	**$110**	**$178**	**$237**	**$141**	**($33)**	**($20)**	**$36**	**$75**	**$75**	**$109**	**$60**	**$105**	**$177**	**$50**	**$50**	**$50**	**$35**	**($68)**
Post-Tax Cumulative Unlevered Free Cash Flow	C$M	$1,932	($517)	($261)	($78)	$44	$82	$218	$519	$563	$673	$851	$1,088	$1,230	$1,197	$1,176	$1,213	$1,288	$1,363	$1,473	$1,533	$1,638	$1,815	$1,865	$1,915	$1,965	$1,999	$1,932
Mining																												
Golden Highway																												
OP Mineralized Material Mined	kt	122,258	--	--	--	--	--	25	6,072	2,457	6,452	14,619	8,998	3,129	4,048	6,659	10,122	13,697	20,658	6,150	3,199	10,221	5,753	--	--	--	--	--
Grade - Au	g/t	0.75	--	--	--	--	--	0.75	1.55	0.81	0.76	0.76	0.91	0.82	0.55	0.56	0.63	0.65	0.65	0.64	0.67	0.71	1.00	--	--	--	--	--
Waste	kt	380,262	--	--	--	--	0	220	24,453	9,846	24,095	30,360	10,145	32,683	40,926	38,338	34,878	31,303	12,833	7,309	38,276	34,779	9,818	--	--	--	--	--
Overburden	kt	186,259	--	--	--	--	5,031	27,873	19,507	37,728	14,453	21	25,857	9,188	25	--	--	--	11,509	31,541	3,525	--	--	--	--	--	--	--
UG Mineralized Material Mined	kt	8,249	--	44	400	900	900	900	900	900	900	900	724	562	218	--	--	--	--	--	--	--	--	--	--	--	--	--
Grade - Au	g/t	3.42	--	2.84	3.01	3.45	3.44	3.27	3.41	3.16	3.19	3.41	3.85	3.89	4.09	--	--	--	--	--	--	--	--	--	--	--	--	--
Garrison																												
OP Mineralized Material Mined	kt	35,929	--	7,979	7,676	6,975	7,070	6,229	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OP Grade - Au	g/t	1.00	--	1.13	1.15	0.90	0.73	1.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Waste	kt	115,040	--	17,003	27,658	23,190	33,612	13,577	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Overburden	kt	50,945	--	20,018	9,666	14,835	4,318	2,108	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Mineralized Material	**kt**	**166,436**	**–**	**8,023**	**8,076**	**7,875**	**7,970**	**7,154**	**6,972**	**3,357**	**7,352**	**15,519**	**9,722**	**3,691**	**4,266**	**6,659**	**10,122**	**13,697**	**20,658**	**6,150**	**3,199**	**10,221**	**5,753**	**–**	**–**	**–**	**–**	**–**
Grade - Au	g/t	0.94	--	1.14	1.24	1.19	1.04	1.36	1.79	1.44	1.05	0.91	1.13	1.29	0.73	0.56	0.63	0.65	0.65	0.64	0.67	0.71	1.00	--	--	--	--	--
Total Waste	**kt**	**495,302**	**–**	**17,003**	**27,658**	**23,190**	**33,612**	**13,797**	**24,453**	**9,846**	**24,095**	**30,360**	**10,145**	**32,683**	**40,926**	**38,338**	**34,878**	**31,303**	**12,833**	**7,309**	**38,276**	**34,779**	**9,818**	**–**	**–**	**–**	**–**	**–**

Item	Unit	Total / Avg.	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Total Overburden	**kt**	**237,204**	**–**	**20,018**	**9,666**	**14,835**	**9,350**	**29,980**	**19,507**	**37,728**	**14,453**	**21**	**25,857**	**9,188**	**25**	**–**	**–**	**–**	**11,509**	**31,541**	**3,525**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Processing																												
Golden Highway Mineralized Material Sent to Mill	kt	130,507	--	44	400	900	900	918	6,972	3,357	7,000	7,000	7,000	7,000	6,579	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	5,436	--
Golden Highway Head Grade - Au	g/t	0.92	--	2.84	3.01	3.45	3.44	3.23	1.79	1.44	1.09	1.30	1.39	1.16	0.61	0.56	0.74	0.87	0.81	0.79	0.75	0.87	0.89	0.38	0.38	0.38	0.38	--
Garrison Total Mineralized Material Sent to Mill	kt	35,929	--	6,956	6,600	6,100	6,100	6,082	28	3,643	--	--	--	--	421	--	--	--	--	--	--	--	--	--	--	--	--	--
Garrison Head Grade - Au	g/t	1.00	--	1.24	1.27	0.97	0.79	1.11	0.37	0.37	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Mineralized Material Sent to Mill	kt	166,436	--	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	5,436	--
Head Grade - Au	g/t	0.94	--	1.25	1.37	1.29	1.13	1.39	1.79	0.89	1.09	1.30	1.39	1.16	0.59	0.56	0.74	0.87	0.81	0.79	0.75	0.87	0.89	0.38	0.38	0.38	0.38	--
Gold Recovery	%	91.3%	--	91.9%	90.2%	93.1%	90.3%	83.4%	91.7%	90.8%	91.8%	92.3%	92.7%	92.3%	91.7%	91.4%	91.3%	91.5%	91.5%	91.5%	91.9%	92.6%	92.6%	91.9%	91.9%	91.9%	91.9%	--
Gold Recovered	koz	4,581	--	258	279	271	230	260	369	181	225	269	289	241	122	114	152	180	166	163	155	181	185	78	78	78	60	--
Gold % Payable	%	99.95%	--	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	99.95%	--
Payable Gold	**koz**	**4,579**	**–**	**258**	**279**	**270**	**229**	**260**	**368**	**181**	**224**	**269**	**289**	**241**	**122**	**114**	**152**	**180**	**166**	**163**	**154**	**180**	**185**	**78**	**78**	**78**	**60**	**–**
Revenue	**C$M**	**$9,392**	**–**	**$529**	**$571**	**$555**	**$471**	**$533**	**$756**	**$372**	**$460**	**$552**	**$593**	**$495**	**$250**	**$234**	**$311**	**$368**	**$341**	**$334**	**$317**	**$370**	**$379**	**$159**	**$159**	**$159**	**$124**	**–**
Operating Costs																												
Mine Operating Costs	C$M	$3,457	--	$109	$163	$205	$211	$168	$206	$192	$215	$226	$174	$180	$178	$157	$161	$163	$153	$117	$159	$162	$73	$22	$22	$22	$18	--
Mill Operating Costs	C$M	$1,676	--	$74	$74	$74	$74	$74	$74	$74	$74	$74	$74	$74	$74	$66	$66	$66	$66	$66	$66	$66	$66	$66	$66	$66	$55	--
G&A Costs	C$M	$156	--	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	$7	--
Total Operating Cost	**C$/t processed**	**$31.8**	**–**	**$27.2**	**$34.9**	**$40.9**	**$41.6**	**$35.6**	**$40.9**	**$39.0**	**$42.3**	**$43.9**	**$36.4**	**$37.3**	**$37.0**	**$32.8**	**$33.4**	**$33.7**	**$32.2**	**$27.1**	**$33.1**	**$33.5**	**$20.8**	**$13.5**	**$13.5**	**$13.5**	**$14.5**	**–**
Refining & Transport Costs & Royalties																												
Total Refining Costs	C$M	$11	--	$1	$1	$1	$1	$1	$1	$0	$1	$1	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	--
Total Transportation	C$M	$11	--	$1	$1	$1	$1	$1	$1	$0	$1	$1	$1	$1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	--
Garrison NSR Royalty	C$M	$32	--	$8	$7	$5	$4	$5	$0	$1	--	--	--	--	$0	--	--	--	--	--	--	--	--	--	--	--	--	--
Cash Cost and All-in Sustaining Cost																												
Cash Cost *	US$/oz Au	$910	--	$602	$709	$845	$1,009	$767	$610	$1,184	$1,033	$894	$692	$849	$1,657	$1,570	$1,206	$1,027	$1,062	$914	$1,174	$1,018	$620	$956	$956	$956	$1,027	--
All-in Sustaining Cost (AISC) **	US$/oz Au	$1,073	--	$825	$953	$1,118	$1,402	$1,054	$762	$1,393	$1,138	$951	$769	$994	$1,898	$1,808	$1,368	$1,174	$1,156	$942	$1,222	$1,021	$624	$964	$964	$956	$1,027	--
Capital Expenditure																												
Initial Capital Expenditure																												
Mining - Garrison	C$M	$64	$64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Process Plant	C$M	$203	$203	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
On Site Infrastructure	C$M	$96	$96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Off Site Infrastructure	C$M	$0	$0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Project Indirect Preliminaries	C$M	$22	$22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Project Delivery	C$M	$36	$36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Owner's Costs	C$M	$15	$15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Provisions	C$M	$81	$81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Item	Unit	Total / Avg.	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Total Initial Capital Expenditure	**C$M**	**$517**	**$517**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Sustaining Capital Expenditure																												
Mining - Golden Highway	C$M	$648	--	$30	$41	$33	$42	$81	$72	$49	$30	$20	$29	$45	$38	$35	$31	$34	$20	$6	$10	$1	$1	$1	$1	--	--	--
Mining - Garrison	C$M	$175	--	$34	$38	$53	$49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Process Plant	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
On Site Infrastructure	C$M	$61	--	$9	$7	$7	$23	$14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Off Site Infrastructure	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Project Indirect Preliminaries	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Project Delivery	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Owner's Costs	C$M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Provisions	C$M	$3	--	$0	$0	$0	$1	$1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Sustaining Capital Expenditure	**C$M**	**$886**	**–**	**$74**	**$87**	**$94**	**$115**	**$95**	**$72**	**$49**	**$30**	**$20**	**$29**	**$45**	**$38**	**$35**	**$31**	**$34**	**$20**	**$6**	**$10**	**$1**	**$1**	**$1**	**$1**	**–**	**–**	**–**
Closure Cost	C$M	$78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	$78
Salvage Value	C$M	$10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	$10
Total Capital Expenditures Including Salvage Value	**C$M**	**$1,471**	**$517**	**$74**	**$87**	**$94**	**$115**	**$95**	**$72**	**$49**	**$30**	**$20**	**$29**	**$45**	**$38**	**$35**	**$31**	**$34**	**$20**	**$6**	**$10**	**$1**	**$1**	**$1**	**$1**	**–**	**–**	**$68**

Notes: * Cash costs consist of mining costs, processing costs, G&A and refining charges and royalties. ** AISC includes cash costs plus sustaining capital, closure cost and salvage value. Sources: Ausenco, 2022.

22.5 Sensitivity Analysis

A sensitivity analysis was conducted on the base case post-tax NPV and IRR of the Project using the following variables: metal prices, discount rate, foreign exchange rates, operating cost, and initial capital cost.

Table 22-3 and Table 22-4 show the post-tax sensitivity analysis results.

As shown in Figure 22-2, the sensitivity analysis revealed that the Project is most sensitive to changes in metals price and foreign exchange, and less sensitive to operating cost, and initial capital cost.

Table 22-3: Post-Tax Sensitivity Analysis

Gold Price US$/oz	Post-Tax NPV 5% (C$M) Base Case	Foreign Exchange		Operating Cost		Initial Capital Cost	
		(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)
$1,350	**$385**	$794	$48	$623	$145	$425	$344
$1,500	**$794**	$1,248	$422	$1,032	$555	$833	$754
$1,600	**$1,066**	$1,550	$670	$1,304	$828	$1,106	$1,026
$1,700	**$1,339**	$1,853	$917	$1,577	$1,101	$1,378	$1,299
$1,950	**$2,019**	$2,609	$1,537	$2,257	$1,781	$2,059	$1,980
Gold Price US$/oz	**Post-Tax IRR (%) Base Case**	**Foreign Exchange**		**Operating Cost**		**Initial Capital Cost**	
		(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)	(-10.0%)	(+10.0%)
$1,350	**15.8%**	25.6%	6.5%	21.1%	9.6%	18.2%	13.9%
$1,500	**25.6%**	35.8%	16.8%	30.3%	20.5%	28.9%	22.9%
$1,600	**31.7%**	42.3%	22.7%	36.2%	27.0%	35.8%	28.5%
$1,700	**37.8%**	48.6%	28.4%	42.1%	33.2%	42.3%	34.0%
$1,950	**52.0%**	63.9%	42.0%	56.0%	47.9%	58.0%	47.1%

Source: Ausenco, 2022.

Table 22-4: Post-Tax Sensitivity Summary

Post-Tax NPV Sensitivity To Discount Rate

Discount Rate	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
1.0%	$717	$1,310	$1,705	$2,100	$3,088
3.0%	$528	$1,016	$1,341	$1,666	$2,479
5.0%	$385	$793	$1,066	$1,339	$2,019
8.0%	$228	$551	$766	$981	$1,518
10.0%	$151	$431	$618	$806	$1,271

Post-Tax IRR Sensitivity To Discount Rate

Discount Rate	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
1.0%	15.8%	25.6%	31.7%	37.8%	52.0%
3.0%	15.8%	25.6%	31.7%	37.8%	52.0%
5.0%	15.8%	25.6%	31.7%	37.8%	52.0%
8.0%	15.8%	25.6%	31.7%	37.8%	52.0%
10.0%	15.8%	25.6%	31.7%	37.8%	52.0%

Post-Tax NPV Sensitivity To Foreign Exchange

Foreign Exchange	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	$1,304	$1,815	$2,155	$2,495	$3,346
(10.0%)	$793	$1,248	$1,550	$1,853	$2,608
--	$385	$793	$1,066	$1,339	$2,019
10.0%	$48	$422	$669	$917	$1,536
20.0%	($259)	$110	$339	$566	$1,134

Post-Tax IRR Sensitivity To Foreign Exchange

Foreign Exchange	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	37.0%	47.8%	54.8%	61.6%	78.5%
(10.0%)	25.6%	35.8%	42.3%	48.6%	63.9%
--	15.8%	25.6%	31.7%	37.8%	52.0%
10.0%	6.5%	16.8%	22.7%	28.4%	42.0%
20.0%	0.0%	8.4%	14.7%	20.3%	33.2%

Post-Tax NPV Sensitivity To Operating Cost

Operating Cost	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	$861	$1,269	$1,542	$1,814	$2,494
(10.0%)	$623	$1,031	$1,304	$1,576	$2,257
--	$385	$793	$1,066	$1,339	$2,019
10.0%	$144	$555	$828	$1,100	$1,781
20.0%	($97)	$317	$590	$862	$1,543

Post-Tax IRR Sensitivity To Operating Cost

Operating Cost	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	25.9%	34.8%	40.6%	46.2%	59.9%
(10.0%)	21.1%	30.3%	36.2%	42.1%	56.0%
--	15.8%	25.6%	31.7%	37.8%	52.0%
10.0%	9.6%	20.5%	27.0%	33.2%	47.9%
20.0%	1.1%	14.9%	21.9%	28.5%	43.7%

Post-Tax NPV Sensitivity To Initial Capital Cost

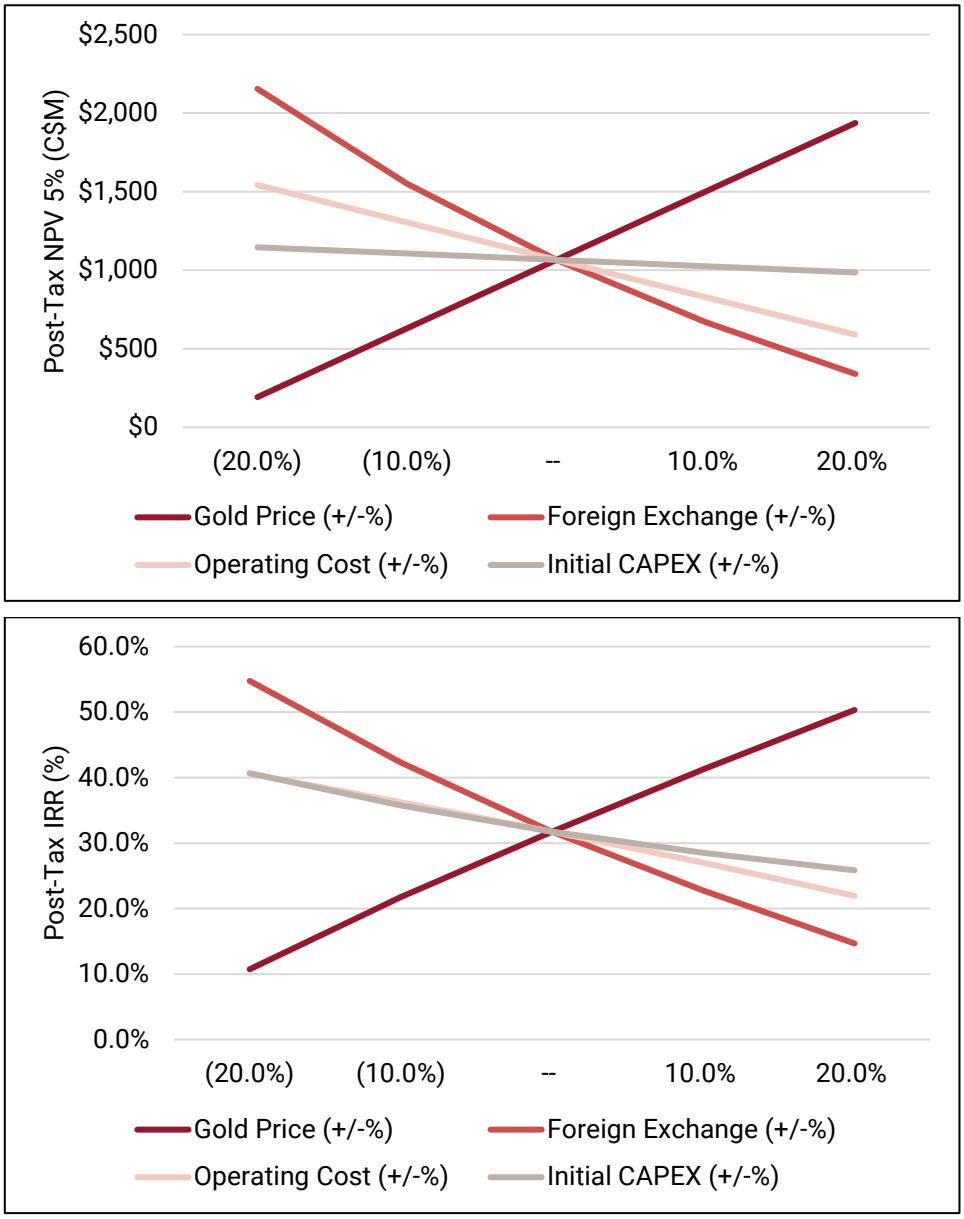
Initial Capital Cost	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	$464	$873	$1,146	$1,418	$2,098
(10.0%)	$424	$833	$1,106	$1,378	$2,058
--	$385	$793	$1,066	$1,339	$2,019
10.0%	$344	$753	$1,026	$1,298	$1,979
20.0%	$304	$714	$986	$1,259	$1,940

Post-Tax IRR Sensitivity To Initial Capital Cost

Initial Capital Cost	Gold Price (US$/oz)				
	$1,350	$1,500	$1,600	$1,700	$1,950
(20.0%)	21.1%	33.1%	40.7%	47.9%	65.5%
(10.0%)	18.2%	28.9%	35.7%	42.3%	58.0%
--	15.8%	25.6%	31.7%	37.8%	52.0%
10.0%	13.9%	22.9%	28.5%	34.0%	47.1%
20.0%	12.2%	20.6%	25.8%	30.9%	43.1%

Source: Ausenco, 2022

Figure 22-2: Post-Tax NPV and IRR Sensitivity Results



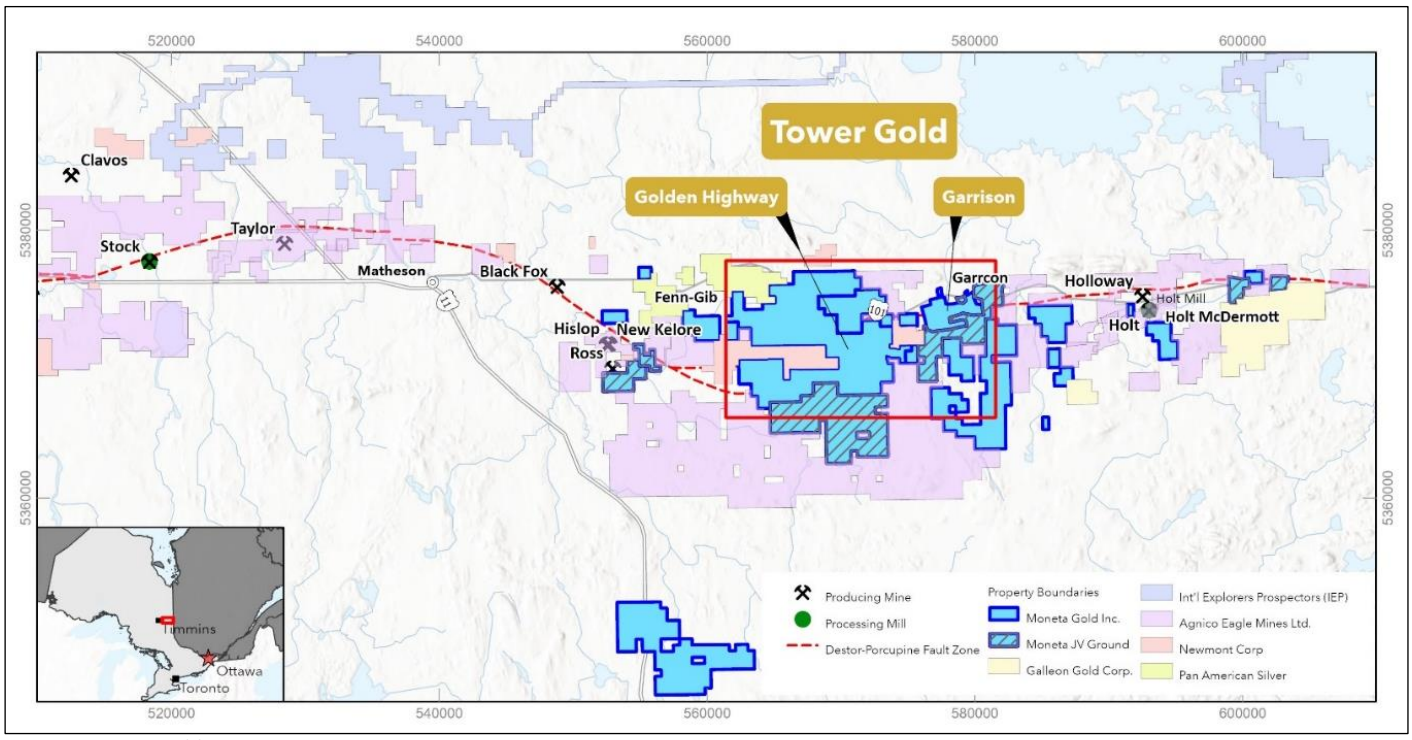
Source: Ausenco, 2022.

23 ADJACENT PROPERTIES

23.1 General

Moneta's Tower Gold project is located on the DPFZ, a major gold-mineralized regional fault structure. Figure 23-1 shows the location of the DPFZ and several prominent gold deposits including the Black Fox Mine, Hislop Mine, Ross Mine, Holloway Mine and Holt-McDermott Mine that are located within an approximately 25 km radius of the Tower Gold project. The project is surrounded by claims, mining leases, or patents held by other mining and exploration companies. The most active of the neighbouring companies are Mayfair Gold, Pan American Silver, McEwen Mining, and Agnico Eagle Mines.

Figure 23-1: Tower Gold Project Location



Source: Moneta Gold, 2022.

The current resources and information on the adjacent properties are reported on the corporate websites and SEDAR filings of the holding companies. These data have not been verified by the authors and are not reported herein. The authors have not visited any of these adjacent properties. The information presented may not necessarily be indicative of the geology or mineralization on the Tower Gold Project that is the subject of this technical report. The information provided in this section is simply intended to describe examples of the type and tenor of mineralization that exists in the region and may or may not be an exploration target for Moneta at the Tower Gold Project.

23.2 Fenn-Gib Project

Mayfair Gold acquired the Fenn-Gib property in 2020 from Pan American Silver, which in turn had acquired Tahoe Resources in 2019 (Makarenko et al., 2021). The latter had acquired Lake Shore Gold in 2016, owner of the Fenn-Gib property to the west-northwest of Moneta's property since 2012.

Mayfair Gold completed the acquisition of the Fenn-Gib property on December 31, 2020. In March 2021, Mayfair Gold filed a "NI 43-101 Technical Report for the Fenn-Gib Project, Ontario, Canada" dated February 5, 2021 (revised on February 19, 2021), prepared by JDS Energy and Mining Inc. (Makarenko et al., 2021). The resource for Fenn-Gib is based on an indicated mineral resource and inferred mineral resource estimate undertaken by Garth Kirkham, P. Geo., of Kirkham Geosystems Ltd. The mineral resource estimate incorporated more than 420 drill holes totalling 134,546 metres and was reported at a base case above a 0.35 g/t Au cut-off and included 70,203,723 tonnes grading 0.921 g/t Au for 2,077,661 oz indicated and 3,774,865 tonnes grading 0.618 g/t Au for 74,967 oz inferred (Makarenko et al., 2021).

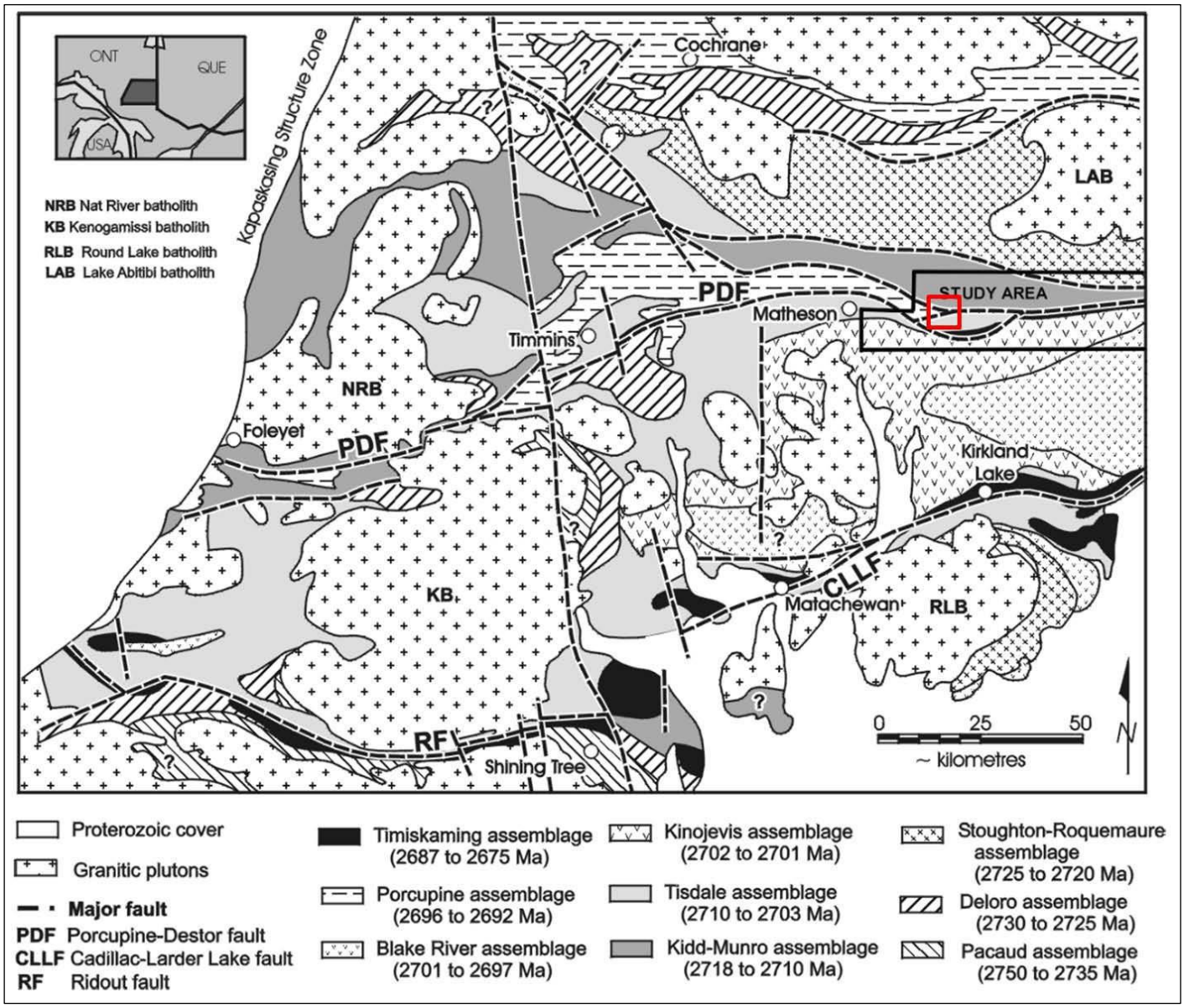
The Fenn-Gib property is located along Highway 101, approximately 80 km east of Timmins and 21 km east of Matheson, Ontario. Geologically, the Fenn-Gib property is located in the southern portion of the Abitibi Sub-province, which is part of the Superior Province of the Canadian Shield. The province is principally composed of volcanic and sedimentary assemblages that have been metamorphosed to greenschist facies and intruded by late tectonic plutons of tonalite and trondhjemite affinity.

The property is underlain by the dominantly volcanic Kidd-Munro Assemblage to the north and the dominantly sedimentary Hoyle Assemblage to the south. The two sequences are juxtaposed along the Contact Fault, an east-west to south-east trending shear zone, which is interpreted to be a splay of the DPFZ. Gold within the Fenn-Gib property is primarily associated with disseminated pyrite in syenites and basalts affected by albitization and silicification in proximity to the fault contact between the Hoyle and Kidd-Munro packages.

There appears to be a close association of the mineralization with syenite dykes and intrusions. The deposit itself can be traced for 1.25 km along strike and is thickest at the western end (300 m). The mineralization forms a thinner extension to the east along the same contact, concentrated within the deformation zone itself. Although the deposit is open in all directions, the quality of current known mineralization (grade and thickness) appears to decrease away from the core of the Fenn-Gib deposit.

Of the several styles of gold mineralization at the property area, the most common consists of quartz-carbonate veins, stringers and breccias hosted within intensely altered volcanic rocks and granitoid intrusions and, in particular, syenite dykes. A second style of gold mineralization is associated with intensely altered sediments with variable fine crystalline pyrite. A third style of gold mineralization is associated with alteration, shearing and sulphides (Figure 23-2).

Figure 23-2: Regional Geological Map of the Timmins Area



Notes: The location of the Fenn-Gib property is shown by the red square. Source: Berger, 2002.

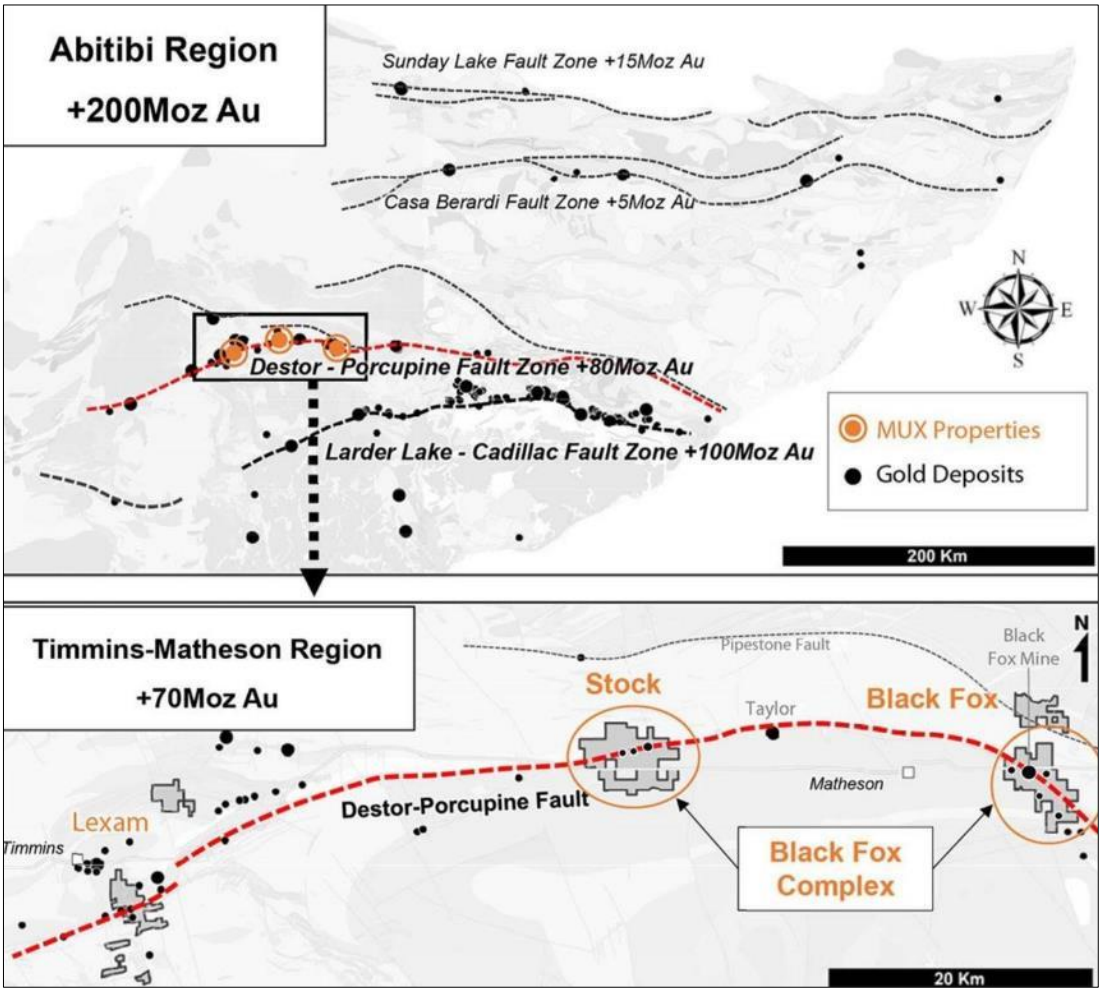
23.3 Black Fox Complex

The Black Fox Complex includes the Black Fox and Stock properties, located along the Provincial Highway 101. The Stock property is located 22 km west of Matheson and 45 km east of Timmins. The Black Fox property is located 11 km east of Matheson. The Black Fox complex is composed of approximately 3,300 ha of land packages that cover 11 km of the DPFZ. The DPFZ has a total strike length of approximately 200 km and hosts many of Ontario's gold mines and deposits (Figure 23-3).

The Black Fox property is a key component of the Black Fox complex, including the Black Fox and Froome mines and the Tamarack and Grey Fox deposits. The Black Fox mine had initial production from 1997 to 2001. Recommissioned in 2009, it operated continuously, with open pit commercial production from May, 2009 to September, 2015 and underground mining commenced in October 2011 and continued to 2021. The open pit and underground operations at the Black Fox mine have produced a total of 950,000 oz of gold to the end of 2021 (www.mcewenmining.com). During 2021, production wound down at the Black Fox mine and ramped up at the Froome mine.

The Stock property is also located along the DPFZ, between the Lexam property and the Black Fox property. Stock hosts the Black Fox-Stock mill and is the site of the former Stock Mine, which produced 137,000 oz of gold from an underground operation between 1989 and 2005 (www.mcewenmining.com). Exploration initiated in 2018 at Stock and continued to date has defined deposits east and west of the Stock Mine, within a 3 km mineralized trend along the DPFZ.

Figure 23-3: Black Fox Mine Complex



Source: McEwen Mining, 2022.

In January 2022, McEwen Mining announced a PEA to extend mine life and increase gold production at the Fox Complex (McEwen Mining News Release dated January 26, 2022). Although there is a history of exploration and production, the land packages of the Black Fox Complex remain relatively underexplored. Black Fox has a high gold endowment, the presence of high-grade mineralization, multiple prospective structural trends, as well as various styles of mineralization and host rock types.

23.4 Holt Mine Project

The Holt Mine (Figure 23-1) was originally built and operated by Barrick in the late 1980s (www.miningdataonline.com). The mine has a long history of reserve replacement. Approximately 85% of the current reserves are situated in three zones: Zone 4, Zone 6, and Zone 7. Kirkland Lake Gold acquired St Andrew Goldfields Ltd. in January 2016, which included the Taylor, Holloway, Holt and Hislop mines and a milling facility on the Holt property. Operations were suspended at the Holt Complex in April 2020 as part of the company's COVID-19 response and after a strategic review, in July 2020, the company announced the suspension would be extended until further notice. In February 2022, Agnico Eagle Mines acquired Kirkland Lake Gold and assumed ownership of the Holt Mine (Agnico Eagle Mines News Release dated February 8, 2022).

The Holt Mine is a mafic volcanic, sulphide-replacement-hosted gold deposit. The mineralized zones are structurally controlled by both the McDermott Fault and the Ghostmount Fault Zone, which are splays off the DPFZ. Different from other quartz vein-hosted deposits in the region, native gold at the Holt Mine occurs as very fine grains spatially associated with pyrite, typically located in fractures, on grain boundaries, or encapsulated in pyrite grains. Zone thickness can widen from less than 10 m to locally more than 50 m. Historically mined zones include the South (Zone 4), C-104, McDermott, Worvest/Three Star, Mattawasaga and C-97, which occur over a strike length of 3 km and have been mined to depths of over 1 km below surface. More recently, the bulk of the existing gold mineralization is located within Zone 4, Zone 6, Zone 7, and C Zones.

The mineralized zones at the Holt Mine display two pronounced shoot plunges: (a) moderate to steep east plunges that outline the major zones, and (b) alignment of zones and small mineralized shoots along shallow west-plunging axes.

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information.

25 INTERPRETATION AND CONCLUSIONS

25.1 Property Description, Location and Access

The Tower Gold Project is located in Guibord, McCool, Michaud, Barnet, and Garrison townships, Larder Lake Mining Division in northeastern Ontario, Canada, approximately 540 km north of Toronto, 90 km east of Timmins and 40 km north of the municipality of Kirkland Lake (Figure 1-1). It is centred approximately 5371620N and 573677E in Zone 17N of the NAD 83 UTM coordinate system (48° 29' 36.20" N latitude and 080° 00' 09.92" W longitude).

The property comprises 85 patented mineral claims, 4 leased mineral claims, and 318 unpatented mineral claims (consisting of 221 single cell mining claims and 97 boundary cell claims). These contiguous claims total 7,705.54 ha in area and are owned 100% by Moneta.

The property is accessed by logging and drilling roads that extend south from Highway 101, east of Matheson, Ontario. The intersection for the main logging access road (Tower Road) is 32 km east of Matheson. The mineral deposits are located approximately 4 km south of Highway 101 and accessed locally by a network of forestry logging and drilling roads of varying quality.

Regional-scale, poorly drained swamp dominates much of the property area. The topography is relatively flat with an elevation of approximately 330 m above sea level. Relief is generally only a few metres, with drier sandy esker ridges and dunes rising up to 25 m above open and forested swampy areas in western parts. The property has very limited outcrop. All streams and rivers in the project area are part of the Arctic watershed.

Mineral exploration can be conducted year-round. However, because of the swampy ground conditions on much of the project area, exploration activities such as geophysical surveys and diamond drilling are more easily conducted in the winter due to better accessibility after freeze-up. Drilling at other times is possible on a large portion of the property.

Mining equipment and personnel are readily available from the towns of Matheson, Kirkland Lake and Timmins. Timmins and Kirkland Lake are major supply and service centres for the mining industry. They are serviced by modern telecommunications, commercial airlines or rail service and truck transportation.

Communications and power are available along Highway 101 and Highway 672. Water resources are locally available. Cell phone coverage extends to the property. Electrical power is supplied to various mining and mineral exploration projects along Highway 101 from west of Matheson to the Quebec border.

25.2 Geology and Mineralization

The property is situated in the Abitibi Greenstone Belt (AGB). The AGB consists of Neoarchean supracrustal rocks divided into tectonic-stratigraphic assemblages that include metavolcanic rocks, synvolcanic intrusions, metasedimentary rocks, calc-alkaline and alkaline intrusive rocks, and late Proterozoic dykes. The dominant regional structures of interest are the Destor Porcupine Fault Zone (DPFZ) and Pipestone Fault Zone with their associated gold deposits and mineralization.

The central portion of the Golden Highway property has been the focus of exploration work by Moneta and is divided into a North Corridor and South Corridor that together define the DPFZ, as it crosses Michaud and western Garrison townships.

These distinct geological corridors contain the bulk of the known gold mineralization discovered at the property to date. The North Corridor contains the historical DPFZ (north branch) trace in a sequence of Tisdale mafic and ultramafic metavolcanics. The Timiskaming metasedimentary rocks, iron formation and associated rocks are contained in the South Corridor.

The Garrison property geology is underlain by rocks of the Kidd-Munro and Timiskaming Assemblages and about 4 km of the regionally significant DPFZ along with a major splay, the Munro Fault Zone. Both fault zones comprise a variably altered and deformed sequence of metavolcanic rocks that include komatiites and tholeiitic basalts. The Kidd-Munro Assemblage is composed of massive to pillowed, mafic (high magnesium and iron tholeiites) and ultramafic (komatiite) metavolcanic rocks. The metavolcanic flows strike in a general east-west direction and dip steeply to the south. The Timiskaming Assemblage is composed of clastic metasedimentary rocks, consisting of conglomerate, wacke-sandstone, siltstone, argillite and schist, and is closely associated with the DPFZ.

The Tower Gold Project to date is host to nine gold deposits, six from the Golden Highway property and three from the Garrison property. Most of the gold occurrences are found within a corridor parallel to the DPFZ. The nine gold deposits include South West, Westaway, Windjammer South, Windjammer Central, Discovery, 55 Zone, Garrcon, 903 and Jonpol. These deposits have been classified as structurally controlled orogenic gold deposits in an Archean greenstone belt setting. These deposits are typically quartz-carbonate vein hosted and are distributed along crustal-scale fault zones that mark convergent margins between major lithological boundaries such as those between volcano-plutonic and sedimentary domains. The greenstone- and sediment-hosted quartz-carbonate vein deposits are structurally controlled, epigenetic deposits characterized by simple to complex networks of gold-bearing, laminated quartz-carbonate structure-fill veins. These veins are hosted by moderately to steeply dipping, compressional, brittle-ductile shear zones and faults with locally associated extensional veins and hydrothermal breccias.

25.3 Exploration, Drilling and Development

Minor underground development has occurred at the Garrison and Jonpol deposits. The most important historical data relating to the Garrison Property are from the exploration work completed since 1985 by Jonpol Explorations Ltd. (and its partners, Cominco, Lac Minerals, and Hillsborough Resources), ValGold, Northern Gold, Osisko, O3 and Moneta.

The Golden Highway property has been explored since the 1940s. Historical exploration included geological mapping, geophysical surveying and drilling including diamond drilling and a small amount of RC drilling. Moneta has conducted exploration on the Golden Highway property since 1986. Since the end of 2012, exploration has included primarily diamond drilling has focused on the expansion and better definition of known gold mineralization areas. Historical mineral resources have been estimated using multiple series of narrow vein interpretations grouped in seven mineralization areas, Windjammer North Zone (WJN), Windjammer South Zone (WJS), Discovery (DIS), South West Zone (SW), West Block (WB), Westaway (WA) and 55 Zone (55).

For the Garrison property Moneta's current drill hole database includes holes completed between 1983 and the present and includes 1,096 drill holes totalling 350,822 m. The majority of work has concentrated on the Jonpol deposit, Garrcon deposit and the 903 Zone areas within the Garrison Property. The true thickness of the mineralized zones identified from previous drilling are 60% to 95% of the sample lengths. Mineralization at the Garrcon deposit was previously interpreted to be striking approximately 075° and dipping 50° to the south; mineralization for Jonpol was previously interpreted to be striking approximately 070° and dipping 75°-85° to the south. The Garrison drill hole database used in the MRE consists of 992 drill holes that intersect the interpreted mineralization.

For the Golden Highway property, Moneta's current drill hole database includes holes completed between 1946 and the present and includes 1,169 drill holes totalling 438,235 m across all seven mineralization areas: Windjammer North Zone

(WJN), Windjammer South Zone (WJS), Discovery (DIS), South West Zone (SW), West Block (WB), Westaway (WA) and 55 Zone (55). The Golden Highway drill hole database used in the MRE consists of 748 drill holes that intersected the interpreted mineralization.

The QP has examined the logging, sampling and analytical procedures both historical and utilized by Moneta. In the opinion of the QP, Moneta personnel have used industry standard best practices in the collection, handling, management of drill core and assaying of samples. The QP is not aware of any drilling, sampling, analytical or recovery factors that could materially impact the accuracy and reliability of the results presented in this report.

25.4 Mineral Resource Estimate

The updated MRE is based on historical drilling and drilling conducted by Moneta as recently as 2021 at the Golden Highway portion of the project, along with historical drilling conducted at the Garrison project area. This MRE supersedes all prior resource estimates for the Tower Gold Project. The MRE herein is an update to, and supersedes, the MRE in the technical report filed by Moneta on June 24, 2022, whereby the current MRE reflects changes in the resource estimation domains and open pit block model size versus the June 24, 2022 model. The Tower Gold Project MRE is reported in accordance with the CSA NI 43-101 rules for disclosure and has been estimated using the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014. The effective date of the Mineral Resource Estimate is September 7, 2022.

The current MRE for the Tower Gold Project was constructed by APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada. Mr. Warren Black, M.Sc., P.Geo. and Mr. Tyler Acorn, M.Sc. completed the mineral resource estimate under the direct supervision of Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo. Mr. Dufresne is an independent QP with APEX and takes responsibility for the MRE and Section 14 herein. Mr. Dufresne visited the property on June 21, 2022, and reviewed core from the 2020 to 2021 drill program completed by Moneta, as discussed in Section 12.1.

Modelling was conducted in the UTM coordinate space relative to the North American Datum (NAD) 1983, and UTM zone 17N (EPSG:26917). The mineral resource block model utilized a block size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) to honour the mineralization wireframes. The percentage of the volume of each block below the bare earth surface, below the modelled waste overburden surface and within each mineralization domain was calculated using the 3D geological models and a 3D surface model. For the potentially open pittable Garrison resources, the block model was block-averaged up to a 5 m (X) by 5 m (Y) by 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted using a nominal waste value half of the detection limit. For the potentially open pittable South West, Windjammer South, Windjammer Central, Westaway, Discovery, and Iron Formation resources, the block model was block-averaged up to a 2.5 m (X) by 5 m (Y) by 5 m (Z) SMU block size for pit optimization with the outer blocks on the boundaries of the domains diluted with a nominal waste value half of the detection limit. The gold grade was estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells utilizing only the percentage of each block below overburden and within each domain. The mineral resources defined in this section are not mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, market or other relevant issues.

The calculated open pit cut-off of 0.30 g/t Au was selected in reporting the open pit mineral resources in the 2022 resource estimates using the SMU block size model (Table 25-1).

The calculated cut-off of 2.60 g/t Au was selected in reporting the underground mineral resources in the 2022 resource estimates (Table 25-1). Underground mineral resources below the resource open pit are constrained by wireframe solids

that encapsulate contiguous 2.5 m x 2.5 m x 2.5 m underground blocks that are above the 2.60 g/t Au cut-off with a volume greater than 1,400 m^3.

Table 25-1: NI 43-101 Mineral Resource Estimate by Deposit – Tower Gold Project

September 2022 Resource	Category	Indicated			Inferred		
	Category	Tonnes (t)	Grade (g/t Au)	Ounces (oz)	Tonnes (t)	Grade (g/t Au)	Ounces (oz)
Total	Open Pit	149,773,000	0.90	4,338,000	223,910,000	0.92	6,652,000
	Underground	801,000	4.75	122,000	11,719,000	4.35	1,640,000
Total Open Pit + Underground		**150,574,000**	**0.92**	**4,460,000**	**235,629,000**	**1.09**	**8,292,000**
Breakdown by Deposit							
South West	Open Pit	16,676,000	0.90	481,000	45,470,000	1.01	1,472,000
	Underground	211,000	4.53	31,000	6,725,000	4.26	920,000
Windjammer South	Open Pit	42,049,000	0.78	1,058,000	29,101,000	0.96	897,000
	Underground	-	-	-	704,000	4.16	94,000
Westaway	Open Pit	750,000	2.20	53,000	22,106,000	1.95	1,383,000
	Underground	-	-	-	2,349,000	4.23	320,000
Windjammer Central	Open Pit	28,498,000	0.63	581,000	77,834,000	0.64	1,595,000
	Underground	-	-	-	-	-	-
55 Zone	Open Pit	4,780,000	1.30	199,000	4,266,000	1.01	139,000
	Underground	-	-	-	150,000	3.95	19,000
Discovery	Open Pit	3,244,000	1.20	125,000	5,767,000	0.85	158,000
	Underground	-	-	-	326,000	3.97	42,000
South West North	Open Pit	-	-	-	3,945,000	0.58	73,000
	Underground	-	-	-	-	-	-
Golden Highway Iron Formation	Open Pit	-	-	-	5,360,000	1.03	177,000
	Underground	-	-	-	-	-	-
Garrcon	Open Pit	26,787,000	1.01	872,000	971,000	0.83	26,000
	Underground	590,000	4.82	91,000	1,466,000	5.22	246,000
903	Open Pit	18,090,000	1.01	585,000	24,127,000	0.75	581,000
	Underground	-	-	-	-	-	-
Jonpol	Open Pit	8,898,000	1.34	383,000	4,962,000	0.94	151,000
	Underground	-	-	-	-	-	-

Notes: **1.** Mineral resource estimates are reported at two different cut-off grades; 0.3 g/t Au for the surface mining scenario and 2.6 g/t Au for the underground mining scenario. **2.** The cut-off grade was determined at a gold price of US$1,750 per ounce and a USD/CAD exchange rate of 0.78. **3.** The resource estimate is supported by statistical analysis with different high-grade capping applied to each of the deposits ranging from 0.6 g/t Au to 79.0 g/t Au applied on assays composited into 1 m composites. **4.** The mineral resources presented here were estimated with a block size of 2.5 m x 2.5 m x 2.5 m utilizing percent blocks and constrained within geological wireframes with a minimum width of 1.50 m. Gold was estimated by ordinary kriging using locally varying anisotropy variogram models. Block grade estimation employed locally varying anisotropy, which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. The maximum range of the variogram models generally are between 65 m x 25 m x 2.5 m and 80 m x 45 m x 5 m. The search ellipse was constrained to selecting composites flagged within each domain. **5.** The mineral resources presented here were estimated by APEX Geoscience Ltd. Using the CIM Standards on Mineral Resources and Reserves definitions and guidelines. **6.** The historical underground voids from mining in any of the deposit areas have been removed. **7.** Tonnage estimates are based on bulk densities individually measured and calculated for each of the deposit areas. Resources are presented as undiluted and in situ. **8.** This mineral resource estimate is dated September 7, 2022. The effective date for the drill-hole database used to produce this updated mineral resource estimate is March 15, 2022. Tonnages and ounces in the tables are rounded to the nearest thousand and hundred, respectively. Numbers may not total due to rounding. **9.** Discovery includes the Windjammer North resource. **10.** Mr. Mike Dufresne, P.Geol., P.Geo. of APEX Geoscience Ltd., who is deemed a qualified persons as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation. Source: APEX, 2022.

25.5 Mining

The Tower Gold project consists of seven mineral deposits (Southwest, Westaway, 55, Windjammer, Garrcon, 903 and Jonpol). The overall steady state production rate is 7.0 Mt/a at 0.94 g/t over the 24-year Life of Mine (LOM). Extraction of the economic mineable inventory is proposed through a combination of open pit and underground mining as this presented the best case from an economic, environmental, and sustainable development perspective, with open pit mining occurring over two phases.

For the first 11 years of the project, the open pit mine will be responsible for a steady state production of 6.1Mt/a at an average grade of 1.03 g/t. Once the underground mine is complete, the open pit will be responsible for a steady state production of 7Mt/a at an average grade of 0.75g/t until pit depletion in Year 20, followed by 4 years of low grade stockpile feed at an average grade of 0.38g/t. The Tower Gold project will employ a conventional truck shovel open pit mining method comprising separate waste and mineralized material equipment fleets to improve on selectivity and reduce waste removal costs. The mineralized material fleet consists of 12 m³ excavators and 92 tonne trucks while the waste fleet consists of 29 m³ excavators and 227 tonne trucks.

The selected underground mining method is longitudinal longhole stoping at 25 m sublevel spacing with paste fill backfill. The underground mine will be responsible for a steady state production of 900ktpa at an average grade of 3.42 g/t, with an estimated underground mine life of 12 years. The mine production rate, design and production schedule for the Southwest and Westaway zones is considered suitable for the proposed mining and extraction method and designed and sequenced to maximize production with some potential to further increase with the utilization of larger 60t haul trucks and mine automation such as automated truck hauling and mucking between shifts.

25.5.1 Geotechnical Considerations

Formal geotechnical design work remains outstanding for the Golden Highway and Garrison areas to support mineable production and development schedules for underground mining of the Southwest and Westaway deposits and development of the proposed open pits and waste dump/stockpile foundations. Available geotechnical data for the underground is limited to RQD data from 516 exploration drill holes and structural orientation records (α and β angles). A key target of future geotechnical data collection will be to establish a geotechnical domain model for the underground and surface based on key geotechnical parameters such as rock mass quality, induced stress effects, hydrogeologic impacts, persistent structural models incorporating orientation, alteration, persistence, etc.

Ground support systems, stope sizing baselines and external dilution estimates are based on the available geotechnical information. Recommendations for upgrading the geotechnical understanding of the deposits to a PFS level is contained herein to provide greater confidence to the production and development schedules, identify and mitigate geotechnical risks and improve the safety of the mining systems and methods.

25.5.2 Mine Plan

Reasonable mine production schedules, mine plans, and mine capital and operating costs have been developed for the project.

Mine operations and layouts are typical of other regional open pit and underground gold operations, and the assumptions within the developed mine operating plan are proven to be suitable for these other operations.

The mine plan and estimated mine capital and operations costs are reasonable at a scoping level of engineering and support the cash flow model and financials developed for the PEA.

25.6 Metallurgical Testing

Several historical and one current metallurgical testing campaigns have been conducted on the Garrison and Golden Highway properties to quantify metallurgical performance. With the exception of a portion of the Jonpol property, all deposits exhibited free milling gold recoveries amenable to gravity concentration and cyanide leaching. Testing has largely focused on cyanide leach testing with some comminution testing in the historical testing.

In recent metallurgical testing using standard gravity concentration and cyanide gold processing there is no evidence from the metallurgical test results of any deleterious elements that would impair recovery or result in low quality doré. Gold recoveries are expected to be in the range of 89% to 96% for all deposits with the exception of the refractory portions of the Jonpol deposit. The refractory portions of the Jonpol deposit have an estimated gold recovery of 56%.

25.7 Recovery Methods

The process plant is designed to process material at a rate of 7.0 Mt/a (19,178 t/d) to produce doré. The process plant flowsheet designs were based on testwork results and industry-standard practices. The flowsheet was developed for optimum recovery while minimizing capital expenditure and life of mine operating costs. The process methods are conventional to the industry. The comminution and recovery processes are widely used with no significant elements of technological innovation.

25.8 Tailings Storage Facilities

The Tower Gold Project has four tailings storage facilities over the life of mine that will store approximately 164.0 million tonnes over a 24-year mine life. The initial tailings storage facility (TSF 1) is a traditional facility with embankments and topographic containment with a storage capacity of 90.1 Mt in Year 1 through 7 and Year 17 through 24. TSF Garrcon becomes available in Year 7 through 11 for tailings in-pit disposal with a storage capacity of 29.4 Mt. TSF Jonpol and 903 become available in Year 11 through a portion of 17 for tailings in-pit disposal with a combined storage capacity of 44.5 Mt.

TSF 1 consists of embankments with an outer shell constructed with waste rock, the interior consists of filter zone against the waste rock, then a low permeability layer and finally a geomembrane liner to prevent seepage through the embankments. The facility will be constructed in multiple phases over the life of the facility to a maximum height of approximately 23 meters. TSF1 has a total storage capacity of 90.1 Mt and has been designed in accordance with CDA (2013, 2019) guidelines. Tailings will be slurried from the process plant to the TSF 1 by way of a pipeline and spigots around the facility discharging tailings and a water reclaim system will pump decant water back to the process plant for reuse. Tailings will be deposited in TSF 1 in Year 1 through 7 and Year 17 through 24.

TSF Garrcon, in-pit tailings disposal, become available in Year 7 through 11. Tailings will be slurried from the process plant to the TSF Garrcon by way of a pipeline and spigots around the facility discharging tailings and a water reclaim system will pump decant water back to the process plant for reuse. TSF Garrcon has a storage capacity of 29.4 Mt.

TSF Jonpol and 903 in-pit tailings disposal, become available in Year 11 through a portion 17. Tailings will be slurried from the process plant to the TSF Jonpol and 903 by way of a pipeline and spigots around the facility discharging tailings and a water reclaim system will pump decant water back to the process plant for reuse. TSF Jonpol and 903 have a combined storage capacity of 44.5 Mt.

25.9 Site Water Management

25.9.1 Geochemistry

The limited geochemistry data indicates that the risk of acid generation from sulphide oxidation is low. Metal leaching from unoxidized rock was also low in comparison to stringent water quality guidelines for freshwater receivers. The results of the short-term leach tests do not necessarily mimic actual site contact water quality due to differences between laboratory and field conditions. Nonetheless, for readily soluble metals the short-term leach test results generally provide an indication of metals of particular concern i.e., if leached concentrations are elevated in the laboratory, then they will probably also be elevated in the field. However, metals which may be released during sulphide oxidation (e.g., lead, zinc, nickel, arsenic and selenium) would typically not show up in short-term leach tests on unoxidised samples, as the rock needs to be exposed to oxidizing conditions for metal release. Longer-term kinetic tests which promote oxidizing conditions are typically required to mobilize these metals which are associated with pyrite or other sulphide minerals.

Based on review of the limited geochemistry data and ECA information for neighbouring mine properties, it was concluded that development of low pH (i.e., pH 2-3) ARD with significantly elevated metal concentrations is unlikely at the Project. However, development of near-neutral pH drainage with metal concentrations above water quality criteria is possible. This appears to be the case at the Tower Gold projects Garrison property. Treatment of contact water at Garrison is required after mining of around 150,000 t of rock has occurred and development of two small open pits as part of advanced exploration activities.

25.9.2 Water Balance and Water Management Structures

A preliminary site-wide water balance analysis was performed for the Garrison and Golden Highway sites. The water balance model was used to inform water management and predict the potential contact water volumes through the life of mine. In this analysis, a comparison between the process plant water requirement/ excess and the available water from various sources were made to identify site-wide water balance. The water balance results indicate that annual surplus water can vary between 811 and 2,557 m3/hr in the LOM for the average year.

A water management plan was developed to collect contact runoff/seepage from any facilities and any clean catchment runoff to be diverted away from the facilities. Collection ditches were designed to convey contact runoff and were considered to collect and convey the contact runoff to collection ponds. With modifications to the diversion profiles and riprap armour modification there is potential to reduce the excavation volumes. These can be reviewed further in the next phase of the Project.

25.10 Capital and Operating Costs

25.10.1 Capital Costs

The capital cost estimate conforms to Class 5 guidelines for a PEA-level estimate with a ±50% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International). The capital cost estimate was developed in Q3 2022 Canadian dollars based on Ausenco's in-house database of projects and studies as well as experience from similar operations.

The capital cost estimate includes the following:

- Golden Highway and Garrison open pit mining development
- Golden Highway underground development
- construction of process plant
- additional on-site and off-site infrastructure
- construction of associated tailing storage and management facilities
- indirect costs, Owner's costs, and provisions.

The total initial capital cost for the Tower Gold Project is C$517.0 million and the life-of-mine sustaining cost is C$886.4 million.

25.10.2 Operating Costs

The overall life-of-mine operating cost is C$5,290 million over the 24-year mine life, or C$31.78/t of mineralized material milled. The operating cost estimates for the life of mine are provided in Table 25-2.

Table 25-2: Tower Gold Process Operating Cost Summary (LOM Averages)

Description	Unit	Value
Mining Costs (Golden Highway Open Pit)	$/t mined	3.11
Mining Costs (Garrison Open Pit)	$/t mined	2.56
Mining Costs (Underground)	$/t mined	87.43
Processing Costs	$/t milled	10.07
G&A Costs	$/t milled	0.94
Total Site Operating Costs	**$/t milled**	**31.78**

Source: Ausenco, 2022.

25.11 Economic Analysis

An engineering economic model was developed to estimate the project's annual pre-tax and post-tax flows and sensitivities based on an 5% discount rate.

The analysis used the following key inputs:

- mine life of 23.8 years
- exchange rate of 0.78 (CAD:USD)
- base case gold price of US$1,600/oz

- cost estimates in constant Q3 2022 Canadian dollars with no inflation or escalation factors considered
- results based on 100% ownership with an 1.5% net smelter return (NSR) on Garrison deposits
- capital costs funded with 100% equity (no financing costs assumed).

The pre-tax NPV discounted at 5% is $1,459 million; the internal rate of return (IRR) is 38.9%, and payback period is 2.2 years. On a post-tax basis, the NPV discounted at 5% is $1,066 million, the IRR is 31.7%, and the payback period is 2.6 years.

A sensitivity analysis was conducted on the base case post-tax NPV and IRR of the project using the following variables: metal prices, discount rate, foreign exchange rates, operating cost, and initial capital cost. The sensitivity analysis revealed that the project is most sensitive to changes in metals price and foreign exchange, and less sensitive to operating cost, and initial capital cost.

25.12 Risks and Opportunities

25.12.1 Risks

25.12.1.1 Mineral Resources

There are some risks and uncertainties centered around the sheer size of the project and the number of mineralized zones and the current geological understanding of these zones in an area with poor outcrop exposure and a reliance on significant amounts of drilling and interpretation of the structures controlling the mineralization. Other than the normal risks associated with exploration projects at this stage of exploration, the QPs have identified a few specific risks and areas of uncertainty based upon the level of work to date. These include the following:

- This early stage of resource development with a number of deposits and complex mineralization domain interpretations that may change with additional drilling.
- Uncertainty in the mineralization models and continuity of mineralization associated with wide spaced drilling and large amounts of exploration targets and inferred mineral resources in large portions of the deposits.
- Uncertainty in the recovery model that will need to be updated with modern metallurgical characterization of all the mineralization types and styles within all the nine deposit areas.

25.12.1.2 Recovery Methods

This study was performed with limited metallurgical testing, potentially resulting in the following:

- Some mineralized areas within the deposit are adjacent to other areas with differing metallurgical recovery. The variation/continuity of this recovery model is not fully understood at this time and should be investigated further.
- Grinding equipment was selected based on limited comminution test data and the flowsheet should be further reviewed as additional testing is completed to confirm it is still the most appropriate design for the project.
- the gold recovery flowsheet was selected based on the metallurgical testing data available, and may not be optimal.

Further Work should be conducted to determine the optimal flowsheet and design criteria to potentially improve project economics as part of a pre-feasibility study.

25.12.1.3 Mining

The mine plan is partly based on inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA based on these mineral resources will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Risks to the mine plan include changes to the following factors and assumptions:

- metal prices
- interpretations of mineralization geometry and continuity in mineralized zones
- geotechnical and hydrogeological assumptions
- ability of the mining operation to meet the annual production rate and anticipated grade
- operating cost assumptions
- dilution, mine operation and process plant recoveries

25.12.1.4 Environmental Studies, Permitting and Social or Community Impact

Additional inventories related to species of potential conservation concern as well as Fish Habitat will provide more detailed information on permitting risks. Reducing layout impacts on Fish Habitat as well as on Habitat for species aforementioned, and limiting disturbance to Highway will contribute in reducing permitting risks.

Continued engagement with the First Nations will also contribute in risk reduction and optimizing opportunity related to the minimization of impacts.

25.12.1.5 Tailings Storage Facility

The following risks are noted with regards to the general site infrastructure:

- If additional resource is discovered in Garrcon deposit, then TSF Garrcon may not be available for tailings disposal in Year 7. There is the ability to raise TSF 1, which would add sustaining capital to the project. Similarly, if additional resource is discovered in Jonpol and/or 903 deposits, then TSF Jonpol and 903 may not be available for tailings disposal in Year 11. Again, TSF 1 could be expanded until these pits become available.

25.12.2 Opportunities

25.12.2.1 Mineral Resources

The current mineralization domain interpretations are well-founded and supported by modern drilling, often in several differing orientations based upon significant structural modelling using orientated core. However, there are some areas with wider spaced drilling and with mineralization domain interpretations that have incorporated a significant amount of internal low grade to waste dilution. As additional drilling is completed, continued updating of the mineralization domains on an ongoing basis and working to remove internal dilution as much as possible could increase the confidence in the interpretation and work to improve overall grade in a number of the domains and deposits.

As part of this process, it has been observed that there is a significant amount of unsampled intervals in historical and some more recent drilling within mineralization domains that provide a source of uncertainty. There are instances where Moneta's drilling has illustrated that previous issuers selectively sampled core and often did not sample the entire length of mineralization, creating unsampled intervals within mineralization zones. For the purposes of mineral resource estimation, a nominal waste value of 0.0025 ppm Au was applied to the unsampled intervals to calculate the MRE detailed in this report. Many of the drillholes with these unsampled intervals exist in Moneta's core yards. If possible, all unsampled intervals within mineralization zones in historical and modern drill holes should be sampled.

25.12.2.2 Mining

The following opportunities have been identified as they relate to underground and open pit mining:

- Improved pit wall slope design when additional geotechnical data is available from geotechnical drilling.
- Reduced truck hours by conducting a trade-off study for an optimal plant location.
- Increase underground production rate with larger 60t haul trucks
- Increase production rate with mine automation such as automated truck hauling and mucking between shifts.
- Utilize the Westaway or Southwest open pit for underground portal access and eliminate the boxcut excavation.
- Expansion of underground resources through additional exploration drilling, notably at Westaway and Garrcon. Currently 12 years of underground mining are proposed.

25.12.2.3 Metallurgy

Metallurgical testing should be conducted to further refine the process design selected for the project. This should include testing for comminution properties as well as metallurgical response at varying grind size and leach conditions. This work may determine that there are improved flowsheets and process operating conditions that improve project economics.

Studies to achieve a more detailed understanding of the underlying mineralogical conditions that are causing the refractory nature areas within JonPol should be formed. This may allow for a more targeted operating strategy in both the mine and process plant to further improve project economics.

25.12.2.4 Recovery Methods

Further opportunities exist to confirm that the gold recovery circuit selected in this process design is optimal for the life of mine with respect to both capital and operating costs, as well as maximizing gold recovery to doré. Specific opportunities include reduction in leaching retention time which may be supported with additional cyanide bottle rolls at shorter durations, and optimizing grind size by zone rather than as a whole.

The refractory nature of portions of JonPol may be mitigated through selectively treating these zones with alternative processes. This may include the use of more oxidative cyanide leaching conditions, selectively grinding this zone finer through the use of variable speed mills and/or regrind systems. Each of these technologies will also likely improve the recovery for the other mineralized zones within the deposit, but the increase in operating costs should be investigated as this may offset the increased revenue generated.

25.12.2.5 Tailings Storage Facility

Conservative foundation conditions were assumed in the area of TSF 1 since there is no geotechnical data. Future geotechnical investigation in this area may show better foundation conditions, which could reduce capital and sustaining capital costs by the elimination or reduction of the stability buttress.

25.13 Summary of Conclusions

Based on the assumptions and parameters presented in this report, the PEA shows positive economics (i.e., C$1,066 million post-tax NPV (5%) and 31.7% post-tax IRR). The PEA supports a decision to carry out additional detailed studies.

26 RECOMMENDATIONS

26.1 Summary of Recommendations

The financial analysis of this PEA demonstrates positive economics. It is recommended to continue developing the project through additional studies, including a pre-feasibility study. Items required to be completed in advance of, and as inputs to, a pre-feasibility study are indicated as such in the respective sections below.

Table 26-1 summarises the proposed budget to advance the project through the pre-feasibility study stage, considering the recommendations discussed in this Section and a pre-feasibility study budget of $1,500,000.

Table 26-1: Budget for Recommendations

Description	Units (m)	Unit Cost (C$/m)	Cost Estimate (C$)
Infill Drilling - Open Pit	110,000	$220	$24,200,000
Infill Drilling - Underground	90,000	$220	$19,800,000
Advance Exploration Permit			$450,000
Underground Exploration Decline			$27,500,000
Resource Expansion Drilling	60,000	$220	$13,200,000
Exploration Drilling	60,000	$220	$13,200,000
Resource Estimation			$200,000
Metallurgical Testing			$475,000
Mining Geotechnical Drilling and Test Work	20,000	$275	$5,500,000
Geotechnical Studies - Mining			$100,000
Mine Engineering			$450,000
Geotechnical - Site Infrastructure			$700,000
Tailings Storage			Included in PFS
Surface Water Management			Included in PFS
Hydrogeological Drilling and Test Work	5,000	$275	$1,375,000
Hydrogeological Test Work Data Interpretations			$200,000
Geochemistry Analysis			$62,000
Environmental Baseline Study Work			$500,000
First Nations Consultation and Archaeological Studies			$900,000
PFS Study Budget			$1,500,000
Total			$110,300,000

26.2 Geology

The following work is recommended:

- Exploration drilling program to test mineralized targets already identified
- Exploration drilling to expand the current mineral resources
- Exploration drilling to test new exploration drill targets
- Infill drilling within the current resource where drilling gaps occur or to upgrade resource confidence categories
- Further geological interpretation and modelling
- Updating mineral resource estimates upon completion of drill campaigns
- Updated resource and preliminary economic assessment (PEA) of the project to include new and expanded resource areas, to determine the focus, direction and plans for further resource development.

26.2.1 Infill Drilling and Exploration Decline

An infill drilling program of 200,000 m is recommended to infill portions of the resource where drill spacing is not sufficient within the interpreted wireframes to fully interpolate grade between more widely spaced drill holes and to connect shallower structures with extensions at depth. A total of 110,000 m of infill drilling is recommended to convert exploration mineralization and inferred open pit resources to either measured or indicated resources and improve the understanding of the geological and mineralization models. The budgeted amount for this surface drilling is $24,200,000.

As part of the infill drilling to develop increased M&I mineral resources, in particular for the underground portion of the resources, an exploration decline is recommended to successfully complete significant underground drilling. Currently much of the inferred mineral resources for Westway and Southwest exist at a vertical depth from 700 m to as deep as 1,100 m. Surface drilling to infill high grade underground resources at those kinds of depths would be both expensive and technically difficult. The estimated cost for the exploration decline for infill drilling is budgeted at $27,500,000. A total of 90,000 m of infill drilling that will be from surface and underground but targeting the underground resources is recommended and budgeted at $19,800,000. Additional permitting will be required to construct the underground drilling decline. The additional permitting is budgeted at $450,000.

26.2.2 Resource Expansion and Exploration Drilling

A 60,000 m resource expansion drilling program is recommended to expand the currently modelled or pending resources. Drilling should be allocated to the following target areas: down dip and strike extensions of the 55, Westaway at depth, SouthWest underground and northern areas, Garrcon underground, 903 extensions and Windjammer Central (to the east and West) and east of the Windjammer South deposit area. as well as the Discovery and Windjammer North deposits and associated zones along the northern splay of the DPFZ.

A 60,000 m exploration drilling program is recommended to test untested new targets to poorly drilled targets. A number of new targets not included in the current resource have been identified and found to host gold mineralization, notably along the southern contact of the regional banded iron formation (BIF) and the southern margins of the sedimentary basin where

a repeat of the BIF unit has been discovered associated with mineralization. The Halfway, South Basin, Garrcon East, 903 extensions, Dyment 3, 55 extensions and Western Zones should all be drilled tested. A number of zones including LC, Landing Zone and Twin Creeks occur along the northern splay of the DPFZ within the Tisdale and Kidd-Munro Formations which warrant additional drill testing. A large portion of this structure east of Windjammer North has not been tested. Along the regional BIF, approximately 8 km of strike length is untested. Historical holes have also been identified with gold mineralization along the Arrow Fault to the north.

The estimated cost to conduct the respective programs are $13,200,000, for a total of $26,400,000.

26.2.3 Mineral Resource Estimate

Upon completion of the proposed additional drilling, updated mineral resource estimates and an updated PEA should be completed to first determine the overall size of the project, then determine the potential economics and outline the best program to advance the project prior to commencing a full pre-feasibility study covering all resource areas. The estimated cost to complete this work is $200,000.

26.3 Metallurgy and Recovery Methods

Work should be conducted to determine the optimal flowsheet and design criteria to potentially improve project economics as part of a pre-feasibility study. A pre-feasibility level metallurgical testwork focusing on the major deposits is recommended including the following:

- samples reflecting the different styles and geological settings of mineralization to test recoveries near cut-off grade, the new higher average grade, as well as higher-grade areas of the resources; samples need to also reflect spatial distribution of each deposit and potential underground mineable mineralization
- bulk mineralogy studies and gold deportment studies of major lithological units in the larger deposits
- Comprehensive comminution testing including Bond rod and ball mill work indices, SMC testing and abrasion index tests
- extended gravity recovery gold tests of the major deposits to determine amenability of deposits to gravity concentration
- leach tests commencing with grind size optimization
- cyanide detoxification testing
- acid/base accounting and kinetic testing of detoxified tailings including trace element background data collection for environmental base line studies
- solids liquid separation testing
- the Jonpol deposit contains a portion of mineralized material that is refractory to conventional cyanide leaching. This portion of the deposit should be further explored and defined to determine what, if any, correlations exist to predict this refractory nature to a higher degree of confidence.

The recommended budget for these works is $475,000. Sample is assumed to be readily available from exploration and infill drilling works.

26.4 Geotechnical Studies – Mining

The recommended budget for these studies is $100,000. A drilling budget of $5,500,000 is recommended to support the necessary test work.

26.4.1 Geotechnical Studies for Pit Slopes and Sectors

A geotechnical assessment of the open pits and waste dump/stockpile foundations has not been undertaken for any of the deposits. A targeted program of geotechnical borehole drilling and analysis is recommended for the next phase of project development to better understand potential bench configurations and overall pit slope angles in all sectors of each deposit.

26.4.2 Geotechnical Studies for Underground Workings

It is recommended additional geotechnical assessments of the Golden Highway deposits are performed to support pre-feasibility level designs, as detailed in section 16.2.4. Underpinning these studies is an objective to establish a statistically relevant geotechnical domain model which incorporates the following key parameters.

1. Primary structural features: fault zones, shear zones, larger scale zones of weak rock mass quality
2. Induced stress: area where the rock mass may be compromised by high induced stresses brought on by the development of diminishing pillars and areas of extensive extraction
3. Rock mass quality: the overall competency of the rock mass on a larger scale to relate to optimization of the both the extraction methodology and stope, development sizing and support systems employed.
4. Geology: relating the structural and alteration characteristics of the geology and mineralized material contacts
5. Geotechnical data collection (rock mass classification data, structural data, and rock property data testing) to improve the understanding of geotechnical constraints influencing the mining of the economic deposits.

It will also be important to establish a statistically relevant rock property database for the deposits mined to support mine optimization studies of ground support systems for development and production extraction, numerical modelling studies of mine pillars and crown pillar stability, dilution estimates, etc.

Systems for collection geotechnical data should be established to apply to proposed exploration drilling programs as well as rock sample collection to support rock property testing campaigns.

26.5 Mine Engineering

The following work is recommended:

- A study to better understand and quantify the pit internal dilution.

- A material handling trade-off study should be conducted to determine the optimal plant location based on haul route cycle time analysis for the Golden Highway and Garrison deposits.
- A study of the underground mine services to include backfill delivery systems, electrical distribution, mine dewatering and ventilation systems.
- Expansion of underground resources through additional exploration drilling, notably at Westaway and Garrcon.
- It is also recommended that inspections of portal and surface raise breakthrough locations to ascertain potential risks to construction/development and/or identify more appropriate locations if necessary. These inspections will also support the planning of a dedicated secondary egress at the pre-feasibility stage of the design.
- A study to confirm backfill selection with testwork and hydrological studies to support pre-feasibility stage of the design.
- As much of the mineralized material is considered inferred it is recommended to continue infill drill programs to convert areas that are targeted early in the mine life, confirm potential underground resources below the Garrison pits, as well as better quantify mineralized material outside of the designed wireframes to support future design analyses.

The recommended budget for these works is $450,000.

26.6 Site Geotechnical and Laboratory Program

The following recommendations are made for geotechnical site investigation work.

- Completion of 35 (1,440 m) geotechnical boreholes, 65 test pits, and geophysics in the areas of the TSFs, WRSFs, plant site, haul roads, and ancillary roads to investigate and confirm foundation conditions, specifically the extent of the overburden along with depth to groundwater and to bedrock.
- Geotechnical laboratory program including index testing, including compaction tests, mechanical strength tests, consolidation test, and permeability tests on foundation soils, potential borrow materials and tailings.
- Geomechanical laboratory program including testing to confirm the physical and mechanical characteristics of bedrock.
- Using new data, develop recommendations for designs for foundations, borrow sources, construction materials for infrastructure, and tailings and waste rock storage facility exterior slope configurations.
- Perform deterministic and probabilistic local seismic hazard study for the development of design seismic values for infrastructure.

The estimated cost for the fieldwork and lab testing is approximately $650,000 including the drilling and excavator rental.

The estimated cost for the seismic analysis is approximately $50,000.

26.7 Tailings Storage Facility

The following work is recommended to be executed during a PFS:

- Review and update meteorological and hydrology information, updating surface water and sediment management for the tailings storage facilities.
- Confirm geochemical characterization of tailings and waste rock from additional waste characterization studies.
- Develop seepage predictions and seepage control measures for the TSFs.
- Update the tailings and waste rock deposition strategy to optimize material handling for tailings facilities.
- The stability model should be reviewed and updated, as required, with consideration of the final deposition plan using updated data about the material properties of the waste rock, tailings, and the foundations for both the TSF 1.
- Perform a liquefaction assessment with consideration of updated information on material properties and the updated stacking plan for the TSF 1.

The estimated cost for the recommended work is approximately $ 275,000. This is considered to be included in the PFS budget.

26.8 Surface Water Management

26.8.1 Water Management Structures

The water management plan was developed to collect contact runoff/seepage from any facilities and any clean catchment runoff to be diverted away from the facilities. Collection ditches were designed to convey contact runoff and were considered to collect and convey the contact runoff to collection ponds. With modifications to the diversion profiles and riprap armour modification there is potential to reduce the excavation volumes. These can be reviewed further in the next phase of the Project. For the next phase of the work, a trade-off study should be completed for each pond volume versus its treatment costs. The ponds should also be designed such that particles of less than 10 microns settle within each pond. The cost of the next phase of the Project is estimated at C$40,000 (C$20,000 for each site); this estimate does not include any baseline work for the environmental assessment. This estimate is considered to be included in the PFS budget.

26.8.2 Garrison Creek Flood Boundary

Garrison Creek flood modelling results indicate that the Jonpol pit overlaps with both 1:1000-year and 1:100-year flood boundaries. Three engineering options can be explored to address the flood issue: (1) Divert Garrison creek to the east. This option can also address the space limitation issue at the Garrison site as well as eliminate the cost of Haul Road bridges and culverts where it crosses the garrison creek; (2) Reduce the Jonpol pit footprint, which requires an economic trade-off study compared to option #1; and (3) Build a berm around the Jonpol pit and divert the creek around the pit. This option requires a detailed 2D flood study as the resulting backwater will impact other facilities upstream of the pit. The cost of flood study option is estimated at C$80,000. This estimate is considered to be included in the PFS budget.

26.8.3 Water Balance Modeling

The water balance analysis shows excess water averaged over the life of mine (Yr1 to Yr24). It should be noted that during the early stage of the mining operation, the amount of available water is less than the estimated available water from various sources. A detailed integrated GoldSIM water balance model is needed to integrate daily/monthly water balance from the TSF impoundment, ponds for various facilities and process plant for every single year of LOM. The inputs and assumptions used in the current study should also be further narrowed down and investigated. A detailed rainfall runoff model for on-site streams is needed for future phases of the work. The cost of the rainfall runoff model is estimated at C$30,000; this estimate does not include any baseline work for the environmental assessment. This estimate is considered to be included in the PFS budget.

26.9 Hydrogeological for Surface Water Management

The following work is recommended:

- This study estimated groundwater discharge into the Golden Highway, Westaway, and 55 Zone pits based on hydraulic conductivity parameters at the Garrison site. Therefore, hydrogeological investigation at the Tower Gold site is needed in the later stages of the work.
- In this study, it is assumed that surface runoffs collected in ponds can satisfy the freshwater requirement for the process plant. If the water quality of surface runoffs can not fulfill the process plant's requirement, then a study to use groundwater flow would be needed.

The cost of the hydrogeology study is estimated at C$200,000. A drilling budget of $1,575,000 is recommended to support the necessary test work.

26.10 Geochemistry

The total estimated cost for the recommended static testing analysis on Golden Highway samples; and trace metal analysis, mineralogical analysis and humidity testing on Garrison property is $62,000. This does not include drilling and logistics.

26.10.1 Garrison Property

Kinetic testing is recommended to determine the long-term leachate behaviour of the ore, Low Grade Stockpiles, 903 & Jonpol Waste Stockpile, Garrcon Waste Stockpile. The type of test work and number of samples collected are provided below:

- Trace metal analysis will be conducted on 20 waste rock samples.
- Kinetic testing will be conducted on 3 waste rocks, 1 Low Grade ore samples.
- Select mineralogical analysis of 2 Low Grade ore and 3 waste rock, and 1 tailings sample (if available) will be completed.

26.10.2 Golden Highway Property

The type of test work and number of samples collected from Golden Highway is provided below:

- Acid Base Accounting will be conducted on 15 waste rocks, 3 tailings, 10 Low-Grade and Ores samples.
- Shake flask testing will be completed on 3 tailings (if available), 15 waste rock and 5 Low-Grade and Ores samples.
- Mineralogical (XRD) analysis is recommended for 3 waste rock, 1 Low Grade Ore sample.

Samples eligible for kinetic testing will be assessed after reviewing the static data results. All static and kinetic tests will be completed as per the Draft Guidelines and Recommended Methods for the Prediction of Metal Leaching and Acid Rock Drainage at Mine sites in British Columbia (Price, 1997).

26.11 Environmental Studies, Permitting, and Social or Community Impact

The following is recommended:

- Additional inventories related to species of potential conservation concern as well as fish habitat to provide more detailed information on permitting risks.
- Reducing layout impacts on fish habitat as well as on habitat for species aforementioned will contribute to reducing permitting risks.
- Continued engagement with First Nations to contribute to the minimization of impacts.

The recommended budget to proceed environmental baseline studies through a PFS is $500,00, and archaeological studies and First Nations engagement $900,000.

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Appendix A – Claims List

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A. 2	Leased Mining Claims List
A. 3	Unpatented Mining Claims List

Appendix A.1 – Patented Mining Claims List

Appendix A.1 – Patented Mining Claims List

Property	MLAS ID	Parcel	Township	Surface Rights	Mining Rights	Area (ha)	Legal Description
Garrison	PAT-2455	5649SEC	GARRISON	Yes	Yes	2.902	Mining Claim L26120
Garrison	PAT-2456	5650SEC	GARRISON	Yes	Yes	7.697	Mining Claim L26121
Garrison	PAT-2457	5651SEC	GARRISON	Yes	Yes	13.525	Mining Claim L26122
Garrison	PAT-2458	5647SEC	GARRISON	Yes	Yes	11.335	Mining Claim L26341
Garrison	PAT-2459	5652SEC	GARRISON	Yes	Yes	6.386	Mining Claim L26342
Garrison	PAT-2460	5653SEC	GARRISON	Yes	Yes	6.754	Mining Claim L26343
Garrison	PAT-2461	5644SEC	GARRISON	Yes	Yes	10.817	Mining Claim L26344
Garrison	PAT-2462	5645SEC	GARRISON	Yes	Yes	10.692	Mining Claim L26345
Garrison	PAT-2463	5648SEC	GARRISON	Yes	Yes	7.859	Mining Claim L26346
Garrison	PAT-2464	10223SEC	GARRISON	Yes	Yes	8.223	Mining Claim L38949
Garrison	PAT-2465	10224SEC	GARRISON	Yes	Yes	9	Mining Claim L38950
Garrison	PAT-2466	10225SEC	GARRISON	Yes	Yes	11.849	Mining Claim L38951
Garrison	PAT-3152	23868SEC	GARRISON	Yes	Yes	10.137	Mining Claim L26075
Garrison	PAT-3153	23868SEC	GARRISON	Yes	Yes	13.913	Mining Claim L26076
Garrison	PAT-3154	23868SEC	GARRISON	Yes	Yes	16.086	Mining Claim L26116 (L40273)
Garrison	PAT-3155	23867SEC	GARRISON	Yes	Yes	6.584	Mining Claim L26384
Garrison	PAT-3156	23867SEC	GARRISON	Yes	Yes	7.24	Mining Claim L26385
Garrison	PAT-3157	23867SEC	GARRISON	Yes	Yes	14.148	Mining Claim L26386
Garrison	PAT-3158	23868SEC	GARRISON	Yes	Yes	14.354	Mining Claim L30576
Garrison	PAT-3337	9840SEC	GARRISON	Yes	Yes	11.602	Mining Claim L26432
Garrison	PAT-3338	9841SEC	GARRISON	Yes	Yes	9.862	Mining Claim L26433
Garrison	PAT-3339	9842SEC	GARRISON	Yes	Yes	11.57	Mining Claim L26434
Garrison	PAT-3340	9843SEC	GARRISON	Yes	Yes	13.286	Mining Claim L26435
Garrison	PAT-3341	9835SEC	GARRISON	Yes	Yes	15.317	Mining Claim L26436
Garrison	PAT-3342	9844SEC	GARRISON	Yes	Yes	17.207	Mining Claim L26437
Garrison	PAT-3343	9884SEC	GARRISON	Yes	Yes	19.202	Mining Claim L29734
Garrison	PAT-3344	9885SEC	GARRISON	Yes	Yes	13.33	Mining Claim L29735
Garrison	PAT-3345	9836SEC	GARRISON	Yes	Yes	12.845	Mining Claim L39428
Garrison	PAT-3346	9845SEC	GARRISON	Yes	Yes	11.76	Mining Claim L39429
Garrison	PAT-3347	9837SEC	GARRISON	Yes	Yes	15.835	Mining Claim L43702
Garrison	PAT-3348	9846SEC	GARRISON	Yes	Yes	12.315	Mining Claim L43703
Garrison	PAT-3349	9838SEC	GARRISON	Yes	Yes	15.453	Mining Claim L44331
Garrison	PAT-3350	9839SEC	GARRISON	Yes	Yes	18.098	Mining Claim L44332
Garrison	PAT-3604	12905SEC	GARRISON	Yes	Yes	13.674	Mining Claim L43861
Garrison	PAT-3605	10946SEC	GARRISON	Yes	Yes	22.059	Mining Claim L43903
Garrison	PAT-3606	10947SEC	GARRISON	Yes	Yes	17.377	Mining Claim L44148
Garrison	PAT-3607	10948SEC	GARRISON	Yes	Yes	17.041	Mining Claim L44149
Garrison	PAT-3608	10949SEC	GARRISON	Yes	Yes	12.396	Mining Claim L44261
Garrison	PAT-3609	10950SEC	GARRISON	Yes	Yes	22.893	Mining Claim L44262
Garrison	PAT-3610	10951SEC	GARRISON	Yes	Yes	19.202	Mining Claim L44263
Garrison	PAT-3611	10952SEC	GARRISON	Yes	Yes	23.002	Mining Claim L44264
Garrison	PAT-3612	10966SEC	GARRISON	Yes	Yes	9.664	Mining Claim L44265
Garrison	PAT-3613	10967SEC	GARRISON	Yes	Yes	9.753	Mining Claim L44266
Garrison	PAT-3614	10968SEC	GARRISON	Yes	Yes	9.538	Mining Claim L44267
Garrison	PAT-3615	10953SEC	GARRISON	Yes	Yes	6.868	Mining Claim L47324
Garrison	PAT-3616	10969SEC	GARRISON	Yes	Yes	6.855	Mining Claim L50231
Garrison	PAT-3715	9903SEC	GARRISON	Yes	Yes	8.215	Mining Claim L25803
Garrison	PAT-3716	9904SEC	GARRISON	Yes	Yes	9.097	Mining Claim L25804
Garrison	PAT-3717	9906SEC	GARRISON	Yes	Yes	6.511	Mining Claim L25805

Appendix A.1 – Patented Mining Claims List

Property	MLAS ID	Parcel	Township	Surface Rights	Mining Rights	Area (ha)	Legal Description
Garrison	PAT-3718	9906SEC	GARRISON	No	Yes	12.74	Mining Claim L25937
Garrison	PAT-3719	9907SEC	GARRISON	Yes	Yes	7.956	Mining Claim L25938
Garrison	PAT-3720	9908SEC	GARRISON	Yes	Yes	6.568	Mining Claim L25939
Garrison	PAT-3721	9909SEC	GARRISON	Yes	Yes	7.118	Mining Claim L25940
Garrison	PAT-3722	9910SEC	GARRISON	Yes	Yes	4.767	Mining Claim L25941
Garrison	PAT-3723	9911SEC	GARRISON	Yes	Yes	7.79	Mining Claim L25942
Garrison	PAT-4249	10823SEC	GARRISON	Yes	Yes	13.852	Mining Claim L39858
Garrison	PAT-4250	10824SEC	GARRISON	Yes	Yes	14.334	Mining Claim L39859
Garrison	PAT-4251	10825SEC	GARRISON	Yes	Yes	14.557	Mining Claim L39876
Garrison	PAT-4252	10826SEC	GARRISON	Yes	Yes	14.014	Mining Claim L39877
Garrison	PAT-4489	12906SEC	GARRISON	Yes	Yes	14.476	Mining Claim L43862
Garrison	PAT-4490	12907SEC	GARRISON	Yes	Yes	13.253	Mining Claim L43863
Garrison	PAT-4491	12908SEC	GARRISON	Yes	Yes	12.97	Mining Claim L43864
Garrison	PAT-4926	7026SEC	GARRISON	Yes	Yes	19.109	Mining Claim L26074
Golden Highway	PAT-3005	9921SEC	MICHAUD	No	Yes	15.479	Pt Lt 2 Con 3 Being the NW1/4 of the S1/2 Being Mining Claim L38501
Golden Highway	PAT-3006	9926SEC	MICHAUD	No	Yes	16.238	SW1/4 of N1/2 Lt 3 Con 3 Being Mining Claim L38929
Golden Highway	PAT-3007	9924SEC	MICHAUD	Yes	Yes	16.238	NE1/4 of S1/2 Lt 3 Con 3 Being Mining Claim L38497
Golden Highway	PAT-3008	9925SEC	MICHAUD	Yes	Yes	16.238	NW1/4 of S1/2 Lt 3 Con 3 Being Mining Claim L38493
Golden Highway	PAT-3009	9922SEC	MICHAUD	Yes	Yes	16.238	Mining Claim L38498; SE1/4 of the S1/2 Lot 3 Con 3
Golden Highway	PAT-3010	9923SEC	MICHAUD	No	Yes	16.238	SW1/4 of S1/2 Lt 3 Con 3 Being Mining Claim L38494
Golden Highway	PAT-3011	9927SEC	MICHAUD	Yes	Yes	16.236	Pt Broken Lt 4 Con 3 Being Mining Claim L38490
Golden Highway	PAT-3012	9928SEC	MICHAUD	Yes	Yes	16.39	Pt Broken Lt 4 Con 3 Being Mining Claim L38504
Golden Highway	PAT-3013	11561SEC	MICHAUD	No	Yes	16.086	SE 1/4 of N1/2 Lt 3 Con 2 Being Mining Claim L47194
Golden Highway	PAT-3014	10215SEC	MICHAUD	Yes	Yes	16.491	NW1/4 of N1/2 Lt 4 Con 2 Being Mining Claim L38505
Golden Highway	PAT-3015	10214SEC	MICHAUD	Yes	Yes	16.491	Mininng Claim L38491; NE1/4 of the N1/2 Lot 4 Con 2
Golden Highway	PAT-3016	10216SEC	MICHAUD	Yes	Yes	15.479	SW1/4 of S1/2 Lt 2 Con 3 Being Mining Claim L38502
Golden Highway	PAT-3017	10217SEC	MICHAUD	No	Yes	15.479	SW1/4 of N1/2 Lt 2 Con 3 Being Mining Claim L38500
Golden Highway	PAT-3018	10219SEC	MICHAUD	No	Yes	16.236	Pt Lt 4 Con 3 Being Mining Claim L38492
Golden Highway	PAT-3019	10221SEC	MICHAUD	Yes	Yes	16.236	Pt Broken Lt 4 Con 3 Being Mining Claim L38930
Golden Highway	PAT-3020	10218SEC	MICHAUD	Yes	Yes	16.238	SE1/4 of N1/2 Lt 3 Con 3 Being Mining Claim L38928
Golden Highway	PAT-3021	10220SEC	MICHAUD	Yes	Yes	16.697	Pt Lt 4 Con 3 Being Mining Claim L38503
Golden Highway	PAT-3022	10213SEC	MICHAUD	No	Yes	16.086	NW1/4 of N1/2 Lt 3 Con 2 Being Mining Claim L38495

Appendix A.1 – Patented Mining Claims List

Property	MLAS ID	Parcel	Township	Surface Rights	Mining Rights	Area (ha)	Legal Description
Golden Highway	PAT-3023	10212SEC	MICHAUD	Yes	Yes	16.086	Mining Claim L38499; NE1/4 of the N1/2 Lot 3 Con 2
Golden Highway	PAT-3024	11562SEC	MICHAUD	No	Yes	16.086	SW1/4 of N1/2 Lt 3 Con 2 Being Mining Claim L47193
Golden Highway	PAT-3025	11563SEC	MICHAUD	Yes	Yes	16.491	SE1/4 of N1/2 Lt 4 Con 2 Being Mining Claim L47191
Golden Highway	PAT-3026	11564SEC	MICHAUD	No	Yes	16.491	SW1/4 of N1/2 Lt 4 Con 2 Being Mining Claim L47192

Appendix A.2 – Leased Mining Claims List

Appendix A.2 – Leased Mining Claims List

Property	MLAS ID	Parcel	Township	Surface Rights	Mining Rights	Area (ha)	Legal Description
Golden Highway	LEA-108690	1589LC	MICHAUD	Yes	Yes	195.10	Lot 7, Con 2, being Mining Claims L521421 to L521424 inclusive, L772743 & L772744, Lot 8, Con 2, being Mining Claims L521415 to L521420 inclusive, designated as Pt 1 & 2 on Plan 6R5725.
Golden Highway	LEA-108691	1588LC	MICHAUD	Yes	Yes	1102.06	N 1/2 Lot 1, Con 1, being Mining Claims L632952 to L632955 incl.. N 1/2 Lot 2 , Con 1, being Mining Claims L591312, L591317, L632956 & L949682. N 1/2 Lot 3, Con 1, being Mining Claim L591308. SE 1/4 of the N 1/2 , NE 1/4 of the S 1/2 of the S 1/2 ..
Golden Highway	LEA-108823	1599LC	GARRISON	No	Yes	180.91	Mining Claims L522605, L522606, L522611, L522612, L522614, L522615, L522618 to LL522620, L714826 & L736481, being land and land under the water
Golden Highway	LEA-109306	1665LC	MICHAUD	No	Yes	175.13	Land and land under the water, FIRSTLY: Lot 1, Con 3, comprising mining claims L522624, L522625, L522626, L522627, L800487, L800488, L800489 and L800490; SECONDLY: E1/2 of the S1/2 of Lot 2, Con 3 and the SW1/4 of the N1/2 of Lot 2 Con 3, comprising mining claims L522632, L522633 and L800491l

Appendix A.3 – Unpatented Mining Claims List

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
1	Garrison	123321	32D12D315	Single Cell Mining Claim	GARRISON	2023-06-03	100%	7.63
2	Garrison	253956	32D12D314	Single Cell Mining Claim	GARRISON	2023-06-03	100%	7.38
3	Garrison	270488	32D12D294	Single Cell Mining Claim	GARRISON	2023-06-03	100%	6.37
4	Garrison	342748	32D12D295	Single Cell Mining Claim	GARRISON	2023-06-03	100%	1.77
5	Golden Highway	102202	42A09B338	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	3.81
6	Golden Highway	103497	42A08I172	Single Cell Mining Claim	MICHAUD	2023-03-31	100%	0.68
7	Golden Highway	103523	42A09A254	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39
8	Golden Highway	106702	42A09A252	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
9	Golden Highway	110755	42A09A324	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
10	Golden Highway	116916	42A09B295	Single Cell Mining Claim	GUIBORD	2023-09-27	100%	10.56
11	Golden Highway	117398	42A09A283	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
12	Golden Highway	117421	42A08I012	Single Cell Mining Claim	MICHAUD	2023-11-30	100%	21.40
13	Golden Highway	118331	42A09B354	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	6.11
14	Golden Highway	118785	42A09A233	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39
15	Golden Highway	119125	42A08I192	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	17.73
16	Golden Highway	119835	42A08J220	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
17	Golden Highway	121892	42A08I033	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
18	Golden Highway	124464	42A08I011	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
19	Golden Highway	125025	42A09A367	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
20	Golden Highway	125735	42A08I036	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.40
21	Golden Highway	125736	42A09A321	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
22	Golden Highway	126399	42A09B356	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	21.40
23	Golden Highway	127123	42A08I007	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
24	Golden Highway	128913	42A08I040	Single Cell Mining Claim	GARRISON	2023-08-27	100%	5.59
25	Golden Highway	129488	42A09A225	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	20.97
26	Golden Highway	130274	42A09A227	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
27	Golden Highway	133430	42A09A230	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
28	Golden Highway	135518	42A08I038	Single Cell Mining Claim	MICHAUD	2023-09-20	100%	7.09
29	Golden Highway	137381	42A09A267	Single Cell Mining Claim	MICHAUD	2023-04-09	100%	21.39
30	Golden Highway	137652	42A09B276	Single Cell Mining Claim	GUIBORD	2023-09-27	100%	3.82
31	Golden Highway	138343	42A09A384	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
32	Golden Highway	140215	42A09A303	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
33	Golden Highway	143821	42A08I070	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	0.72
34	Golden Highway	144925	32D05L042	Single Cell Mining Claim	GARRISON	2025-06-27	100%	1.90
35	Golden Highway	146189	42A09A284	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
36	Golden Highway	147469	42A09A349	Single Cell Mining Claim	MICHAUD	2023-04-29	100%	21.40
37	Golden Highway	150967	42A09A326	Single Cell Mining Claim	MICHAUD	2023-09-30	100%	21.39
38	Golden Highway	151803	42A09A329	Single Cell Mining Claim	MICHAUD	2023-09-26	100%	21.39
39	Golden Highway	153800	42A09A269	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
40	Golden Highway	155054	42A09A387	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
41	Golden Highway	155660	42A08I163	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	16.02
42	Golden Highway	155676	42A09B358	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	21.40
43	Golden Highway	156460	42A08J156	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	7.21
44	Golden Highway	158187	42A08I019	Single Cell Mining Claim	GARRISON,MICHAUD	2023-09-20	100%	21.40
45	Golden Highway	161552	42A09A389	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
46	Golden Highway	162913	42A08I166	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	15.98
47	Golden Highway	163821	42A08J158	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-07-24	100%	20.40
48	Golden Highway	164212	42A08I020	Single Cell Mining Claim	GARRISON	2023-08-27	100%	10.53
49	Golden Highway	164213	42A08I039	Single Cell Mining Claim	GARRISON,MICHAUD	2023-09-20	100%	8.89
50	Golden Highway	167093	42A09A234	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39
51	Golden Highway	169025	42A09A386	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
52	Golden Highway	169026	42A08I005	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
53	Golden Highway	170432	42A09A268	Single Cell Mining Claim	MICHAUD	2023-04-09	100%	21.39
54	Golden Highway	172249	42A08I032	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
55	Golden Highway	172330	42A09B337	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	16.45
56	Golden Highway	172564	42A08I072	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	1.39
57	Golden Highway	172568	42A09A286	Single Cell Mining Claim	MICHAUD	2023-09-30	100%	21.39
58	Golden Highway	172898	42A09A364	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
59	Golden Highway	172899	42A09A363	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
60	Golden Highway	174507	42A08I052	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	20.42
61	Golden Highway	174559	42A08I185	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.42
62	Golden Highway	174560	42A08I181	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
63	Golden Highway	174772	42A09A304	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
64	Golden Highway	175567	42A09A207	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
65	Golden Highway	175572	42A08J118	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-07-24	100%	21.41
66	Golden Highway	177221	42A08J159	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.41
67	Golden Highway	177224	42A09A390	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
68	Golden Highway	179280	42A09A370	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
69	Golden Highway	182221	42A09A365	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
70	Golden Highway	182558	42A09A368	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
71	Golden Highway	185413	42A09A211	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
72	Golden Highway	185904	42A08I013	Single Cell Mining Claim	MICHAUD	2023-11-30	100%	21.40
73	Golden Highway	186567	42A09A274	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39
74	Golden Highway	187529	42A08I053	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	3.76
75	Golden Highway	188911	42A08J117	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	21.41
76	Golden Highway	189125	42A08I056	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	4.36
77	Golden Highway	189126	42A09B360	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
78	Golden Highway	189243	42A09B355	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	19.93
79	Golden Highway	189412	42A09A248	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
80	Golden Highway	189677	42A09B400	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
81	Golden Highway	190820	42A08I015	Single Cell Mining Claim	MICHAUD	2023-11-30	100%	21.40
82	Golden Highway	191097	42A08I161	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	19.53
83	Golden Highway	193224	42A09A391	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
84	Golden Highway	193535	42A08J099	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	5.01
85	Golden Highway	198945	42A09A270	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
86	Golden Highway	200880	42A08I017	Single Cell Mining Claim	MICHAUD	2023-09-20	100%	21.40
87	Golden Highway	201799	42A09A307	Single Cell Mining Claim	MICHAUD	2023-02-18	100%	21.39
88	Golden Highway	202369	42A09B380	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
89	Golden Highway	202370	42A09A381	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
90	Golden Highway	202371	42A08J020	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
91	Golden Highway	203122	42A09A344	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
92	Golden Highway	203148	42A08I004	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
93	Golden Highway	206328	42A09A385	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
94	Golden Highway	208410	42A08J116	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	12.92
95	Golden Highway	209085	42A08I071	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	1.29
96	Golden Highway	210386	42A08I016	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.40
97	Golden Highway	210450	42A09A362	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
98	Golden Highway	214796	42A09B336	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	18.51
99	Golden Highway	215049	42A09B315	Single Cell Mining Claim	GUIBORD	2023-03-24	100%	10.67
100	Golden Highway	217707	42A08I006	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
101	Golden Highway	218689	42A08I057	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	1.33
102	Golden Highway	219058	42A09B339	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	5.58
103	Golden Highway	219334	42A09A398	Single Cell Mining Claim	MICHAUD	2023-09-20	100%	21.40
104	Golden Highway	220507	42A08I164	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	16.01
105	Golden Highway	220508	42A08J200	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
106	Golden Highway	220509	42A08I205	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
107	Golden Highway	221014	42A08I201	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
108	Golden Highway	221029	42A09B357	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	21.40
109	Golden Highway	224349	42A09A327	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
110	Golden Highway	225204	42A09A229	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
111	Golden Highway	225205	42A09A251	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
112	Golden Highway	226497	42A08I055	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	4.16
113	Golden Highway	226521	42A08J179	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.42
114	Golden Highway	226696	42A09A247	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
115	Golden Highway	227300	42A08I018	Single Cell Mining Claim	MICHAUD	2023-09-20	100%	21.40
116	Golden Highway	228784	32D05L043	Single Cell Mining Claim	GARRISON	2025-06-27	100%	1.57
117	Golden Highway	229597	42A08I186	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.42
118	Golden Highway	233560	42A09B316	Single Cell Mining Claim	GUIBORD	2023-03-24	100%	8.76
119	Golden Highway	236190	42A08I054	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	3.96
120	Golden Highway	236916	42A09A350	Single Cell Mining Claim	MICHAUD	2023-05-05	100%	21.40
121	Golden Highway	237060	42A08J137	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	21.41
122	Golden Highway	237313	42A09A308	Single Cell Mining Claim	MICHAUD	2023-09-26	100%	21.39
123	Golden Highway	239326	42A09A266	Single Cell Mining Claim	MICHAUD	2023-04-09	100%	21.39
124	Golden Highway	239327	42A09A288	Single Cell Mining Claim	MICHAUD	2023-09-26	100%	21.39
125	Golden Highway	241155	42A08I165	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	16.00
126	Golden Highway	242173	42A08J140	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	18.91
127	Golden Highway	245356	42A09A213	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	16.82
128	Golden Highway	245370	42A09A232	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
129	Golden Highway	247139	42A09A343	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
130	Golden Highway	247760	42A09A305	Single Cell Mining Claim	MICHAUD	2023-09-30	100%	21.39
131	Golden Highway	248251	42A09A244	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	11.89
132	Golden Highway	249675	42A08J120	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	15.19
133	Golden Highway	249715	42A09A396	Single Cell Mining Claim	MICHAUD	2023-03-31	100%	21.40
134	Golden Highway	252218	42A09A210	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
135	Golden Highway	252715	42A09A273	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
136	Golden Highway	256059	42A09A246	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
137	Golden Highway	256060	42A09A285	Single Cell Mining Claim	MICHAUD	2023-09-30	100%	21.39
138	Golden Highway	256986	42A09A345	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
139	Golden Highway	257703	42A08I203	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
140	Golden Highway	257896	42A08J019	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
141	Golden Highway	259153	42A09A323	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
142	Golden Highway	259179	42A09A383	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
143	Golden Highway	259935	42A09A264	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
144	Golden Highway	262263	42A09B335	Single Cell Mining Claim	GUIBORD	2023-05-20	100%	10.77
145	Golden Highway	263479	42A08I008	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
146	Golden Highway	266426	42A08I141	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	13.82
147	Golden Highway	267652	42A09A263	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
148	Golden Highway	267687	42A08J136	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	12.99
149	Golden Highway	270938	42A09A388	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
150	Golden Highway	273060	42A08I121	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	7.91
151	Golden Highway	274231	42A09A341	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
152	Golden Highway	274232	42A09B359	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
153	Golden Highway	276220	42A08I182	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	21.42
154	Golden Highway	276798	42A08I187	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.42
155	Golden Highway	278320	42A08J138	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-07-24	100%	21.41
156	Golden Highway	279842	42A09A348	Single Cell Mining Claim	MICHAUD	2023-04-29	100%	21.40
157	Golden Highway	281848	42A09A253	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.39
158	Golden Highway	284001	42A09A397	Single Cell Mining Claim	MICHAUD	2023-09-20	100%	21.40
159	Golden Highway	285206	42A09A265	Single Cell Mining Claim	MICHAUD	2023-05-06	100%	17.24
160	Golden Highway	285207	42A09A287	Single Cell Mining Claim	MICHAUD	2023-04-09	100%	21.39
161	Golden Highway	285613	42A09A347	Single Cell Mining Claim	MICHAUD	2023-04-29	100%	21.40
162	Golden Highway	286312	42A08I035	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	21.40
163	Golden Highway	286314	42A09B340	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.31
164	Golden Highway	286333	42A08J178	Single Cell Mining Claim	GUIBORD,MICHAUD	2023-05-31	100%	19.02
165	Golden Highway	287782	42A08J180	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.42
166	Golden Highway	287783	42A08I184	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	21.42
167	Golden Highway	288892	42A08I167	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	15.97
168	Golden Highway	289196	42A09A371	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
169	Golden Highway	289237	42A08I051	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
170	Golden Highway	290075	42A08I034	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
171	Golden Highway	291633	42A09A325	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
172	Golden Highway	292656	42A08I037	Single Cell Mining Claim	MICHAUD	2023-11-06	100%	11.12
173	Golden Highway	293314	42A09A245	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	15.92
174	Golden Highway	293522	42A09A361	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
175	Golden Highway	293523	42A09B379	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
176	Golden Highway	293524	42A08I001	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
177	Golden Highway	294849	42A08I139	Single Cell Mining Claim	GARRISON,MICHAUD	2023-09-15	100%	20.73
178	Golden Highway	295094	42A08I162	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	16.03
179	Golden Highway	295095	42A08I183	Single Cell Mining Claim	MICHAUD	2023-05-03	100%	21.42
180	Golden Highway	296811	42A09A208	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
181	Golden Highway	296812	42A09A228	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
182	Golden Highway	296816	42A08J119	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.41
183	Golden Highway	300072	42A09A369	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
184	Golden Highway	301467	42A09A209	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
185	Golden Highway	301468	42A09A250	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
186	Golden Highway	302188	42A09A272	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
187	Golden Highway	303012	42A08J160	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.41
188	Golden Highway	305944	42A09A351	Single Cell Mining Claim	MICHAUD	2023-05-05	100%	21.40
189	Golden Highway	306360	42A08I002	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
190	Golden Highway	308079	42A08I193	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	13.48
191	Golden Highway	309523	42A09A206	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
192	Golden Highway	309527	42A08J100	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	3.49
193	Golden Highway	313646	42A09A322	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.39
194	Golden Highway	314183	32D05L062	Single Cell Mining Claim	GARRISON	2025-06-28	100%	8.91
195	Golden Highway	316258	42A09A226	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
196	Golden Highway	318118	42A09A231	Single Cell Mining Claim	MICHAUD	2023-06-05	100%	21.39
197	Golden Highway	319418	42A08I014	Single Cell Mining Claim	MICHAUD	2023-11-30	100%	21.40
198	Golden Highway	321583	42A08I031	Single Cell Mining Claim	MICHAUD	2023-10-24	100%	21.40
199	Golden Highway	321653	42A09A346	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
200	Golden Highway	322447	42A09A249	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
201	Golden Highway	326346	42A08J139	Single Cell Mining Claim	MICHAUD	2023-05-31	100%	21.41
202	Golden Highway	326945	42A08J240	Single Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	21.42
203	Golden Highway	327597	42A09A328	Single Cell Mining Claim	MICHAUD	2023-09-26	100%	21.39
204	Golden Highway	328901	42A09B296	Single Cell Mining Claim	GUIBORD	2023-09-27	100%	8.83
205	Golden Highway	336148	42A08I204	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
206	Golden Highway	336149	42A08I202	Single Cell Mining Claim	MICHAUD	2023-08-01	100%	21.42
207	Golden Highway	337148	42A09A205	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	21.38
208	Golden Highway	339692	42A09A212	Single Cell Mining Claim	MCCOOL,MICHAUD	2023-06-05	100%	20.23
209	Golden Highway	340904	42A09A271	Single Cell Mining Claim	MICHAUD	2023-06-27	100%	21.39
210	Golden Highway	343091	42A08J157	Single Cell Mining Claim	GUIBORD	2023-07-24	100%	11.99
211	Golden Highway	343813	42A09A306	Single Cell Mining Claim	MICHAUD	2023-09-30	100%	21.39
212	Golden Highway	343869	42A09B399	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
213	Golden Highway	344042	42A09A366	Single Cell Mining Claim	MICHAUD	2023-06-13	100%	21.40
214	Golden Highway	345130	42A09A342	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
215	Golden Highway	345156	42A09A382	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
216	Golden Highway	345157	42A08I003	Single Cell Mining Claim	MICHAUD	2023-05-20	100%	21.40
217	Golden Highway	552887	32D05L064	Single Cell Mining Claim	GARRISON	2022-07-01	100%	14.48
218	Golden Highway	553031	42A09A214	Single Cell Mining Claim	MCCOOL,MICHAUD	2024-07-03	100%	2.08
219	Golden Highway	663600	42A09A188	Single Cell Mining Claim	MCCOOL	2023-06-29	100%	17.50
220	Golden Highway	686221	42A09A187	Single Cell Mining Claim	MCCOOL	2023-11-17	100%	17.46
221	Golden Highway	702647	42A09A224	Single Cell Mining Claim	MICHAUD	2024-01-24	100%	16.53
222	Golden Highway	103280	42A09A243	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	15.76
223	Golden Highway	103365	42A08I226	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	15.34
224	Golden Highway	103843	42A08I171	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	10.47
225	Golden Highway	104192	42A08I050	Boundary Cell Mining Claim	MICHAUD	2023-10-24	100%	13.74

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
226	Golden Highway	105030	42A09A330	Boundary Cell Mining Claim	MICHAUD	2023-09-26	100%	7.92
227	Golden Highway	109704	42A08J098	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-07-24	100%	4.62
228	Golden Highway	109851	42A09A301	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	17.30
229	Golden Highway	115107	42A08I188	Boundary Cell Mining Claim	MICHAUD	2023-05-31	100%	20.17
230	Golden Highway	117917	42A08I010	Boundary Cell Mining Claim	MICHAUD	2023-10-24	100%	17.13
231	Golden Highway	118218	42A08J199	Boundary Cell Mining Claim	MICHAUD	2023-08-01	100%	20.93
232	Golden Highway	122128	42A09A292	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	7.56
233	Golden Highway	127149	42A09A242	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	10.35
234	Golden Highway	127601	42A08I140	Boundary Cell Mining Claim	GARRISON	2023-09-15	100%	16.12
235	Golden Highway	127729	42A09B378	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	19.06
236	Golden Highway	137045	42A08J040	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.39
237	Golden Highway	138844	42A09A395	Boundary Cell Mining Claim	MICHAUD	2023-11-30	100%	14.27
238	Golden Highway	144331	42A09A375	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	2.54
239	Golden Highway	153611	42A08I159	Boundary Cell Mining Claim	GARRISON,MICHAUD	2023-09-15	100%	11.49
240	Golden Highway	156650	32D05L082	Boundary Cell Mining Claim	GARRISON	2025-06-28	100%	2.06
241	Golden Highway	157219	42A08J018	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	18.94
242	Golden Highway	158324	42A08J219	Boundary Cell Mining Claim	MICHAUD	2023-08-01	100%	20.49
243	Golden Highway	158325	42A08I225	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	19.18
244	Golden Highway	162465	42A08I160	Boundary Cell Mining Claim	GARRISON	2023-09-15	100%	9.34
245	Golden Highway	170433	42A09A289	Boundary Cell Mining Claim	MICHAUD	2023-09-26	100%	13.51
246	Golden Highway	171203	42A09A331	Boundary Cell Mining Claim	MICHAUD	2023-05-05	100%	2.08
247	Golden Highway	172220	42A09A241	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	4.38
248	Golden Highway	173795	42A09A399	Boundary Cell Mining Claim	GARRISON,MICHAUD	2023-09-20	100%	11.67
249	Golden Highway	174694	42A09A392	Boundary Cell Mining Claim	MICHAUD	2023-11-30	100%	10.62
250	Golden Highway	177849	42A08I223	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	19.18
251	Golden Highway	177850	42A08I221	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	19.18
252	Golden Highway	180500	42A09A295	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	4.56
253	Golden Highway	180501	42A09A294	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	7.80
254	Golden Highway	184327	42A09A378	Boundary Cell Mining Claim	MICHAUD	2023-03-30	100%	5.22
255	Golden Highway	186733	42A09A290	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	7.44
256	Golden Highway	189678	42A09B398	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	18.97
257	Golden Highway	190028	42A08I209	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	1.95
258	Golden Highway	191114	42A09B377	Boundary Cell Mining Claim	GUIBORD	2023-05-20	100%	0.48
259	Golden Highway	192236	42A09A302	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	19.61
260	Golden Highway	196887	42A08I026	Boundary Cell Mining Claim	MICHAUD	2023-02-17	100%	5.75
261	Golden Highway	196936	42A08I030	Boundary Cell Mining Claim	MICHAUD	2023-10-24	100%	14.14
262	Golden Highway	201282	32D05L083	Boundary Cell Mining Claim	GARRISON	2025-06-28	100%	1.35
263	Golden Highway	202372	42A08J039	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.33
264	Golden Highway	202486	42A09B275	Boundary Cell Mining Claim	GUIBORD	2023-09-27	100%	4.58
265	Golden Highway	206934	42A09B376	Boundary Cell Mining Claim	GUIBORD	2023-05-20	100%	0.38
266	Golden Highway	210451	42A08I024	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.62
267	Golden Highway	210771	42A08I120	Boundary Cell Mining Claim	GARRISON	2023-09-15	100%	2.99
268	Golden Highway	213699	42A09A377	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	5.76
269	Golden Highway	219243	42A09A372	Boundary Cell Mining Claim	MICHAUD	2023-06-13	100%	0.81
270	Golden Highway	221289	42A09A393	Boundary Cell Mining Claim	MICHAUD	2023-11-30	100%	9.88

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
271	Golden Highway	221773	42A08I029	Boundary Cell Mining Claim	MICHAUD	2023-02-13	100%	2.58
272	Golden Highway	222866	42A08I191	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	20.18
273	Golden Highway	223700	42A08I222	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	19.18
274	Golden Highway	226689	42A09A352	Boundary Cell Mining Claim	MICHAUD	2023-05-05	100%	0.81
275	Golden Highway	227156	42A09B375	Boundary Cell Mining Claim	GUIBORD	2023-05-20	100%	0.28
276	Golden Highway	228403	42A09A282	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	11.16
277	Golden Highway	228419	42A09A400	Boundary Cell Mining Claim	GARRISON	2023-08-27	100%	6.17
278	Golden Highway	229255	42A08I213	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	2.80
279	Golden Highway	229256	42A08I212	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	3.35
280	Golden Highway	234385	42A09A235	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	2.31
281	Golden Highway	235757	42A09A310	Boundary Cell Mining Claim	MICHAUD	2023-09-26	100%	5.51
282	Golden Highway	239073	42A08I022	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.50
283	Golden Highway	241905	42A08I028	Boundary Cell Mining Claim	MICHAUD	2023-02-13	100%	5.88
284	Golden Highway	253448	42A09A293	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	7.68
285	Golden Highway	253449	42A09A291	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	7.48
286	Golden Highway	255722	42A08J097	Boundary Cell Mining Claim	GUIBORD	2023-07-24	100%	1.34
287	Golden Highway	257491	42A08I119	Boundary Cell Mining Claim	GARRISON,MICHAUD	2023-09-15	100%	5.14
288	Golden Highway	257897	42A08I021	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.44
289	Golden Highway	257898	42A08J038	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-05-20	100%	4.67
290	Golden Highway	264933	42A08I025	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.68
291	Golden Highway	266263	42A09B320	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	3.99
292	Golden Highway	267131	42A09A376	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	6.17
293	Golden Highway	267653	42A09A262	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	15.46
294	Golden Highway	267686	42A08J096	Boundary Cell Mining Claim	GUIBORD	2023-07-24	100%	0.84
295	Golden Highway	274243	42A08J198	Boundary Cell Mining Claim	GUIBORD,MICHAUD	2023-05-03	100%	3.56
296	Golden Highway	276820	42A08I211	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	2.92
297	Golden Highway	279188	42A08I224	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	19.17
298	Golden Highway	283213	42A09A309	Boundary Cell Mining Claim	MICHAUD	2023-09-26	100%	19.41
299	Golden Highway	285846	42A08I210	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	2.35
300	Golden Highway	286453	42A09B374	Boundary Cell Mining Claim	GUIBORD	2023-05-20	100%	0.07
301	Golden Highway	288893	42A08I208	Boundary Cell Mining Claim	MICHAUD	2023-05-31	100%	11.80
302	Golden Highway	288894	42A08I206	Boundary Cell Mining Claim	MICHAUD	2023-08-01	100%	21.08
303	Golden Highway	290379	42A08I009	Boundary Cell Mining Claim	MICHAUD	2023-06-13	100%	13.40
304	Golden Highway	294491	42A09A379	Boundary Cell Mining Claim	GARRISON,MICHAUD	2023-08-20	100%	14.53
305	Golden Highway	306049	42A08I189	Boundary Cell Mining Claim	MICHAUD	2023-03-31	100%	18.32
306	Golden Highway	306827	42A09A394	Boundary Cell Mining Claim	MICHAUD	2023-11-30	100%	9.56
307	Golden Highway	307472	32D05L063	Boundary Cell Mining Claim	GARRISON	2025-06-28	100%	9.87
308	Golden Highway	313667	42A08I023	Boundary Cell Mining Claim	MICHAUD	2023-05-20	100%	5.56
309	Golden Highway	322558	42A08I190	Boundary Cell Mining Claim	MICHAUD	2023-06-27	100%	17.83
310	Golden Highway	323243	42A09A332	Boundary Cell Mining Claim	MICHAUD	2023-05-05	100%	0.09
311	Golden Highway	323692	42A09A359	Boundary Cell Mining Claim	GARRISON,MICHAUD	2023-08-20	100%	0.22
312	Golden Highway	323704	42A09A261	Boundary Cell Mining Claim	MICHAUD	2023-06-05	100%	4.18
313	Golden Highway	325454	42A08I168	Boundary Cell Mining Claim	MICHAUD	2023-05-31	100%	9.14
314	Golden Highway	325455	42A08I207	Boundary Cell Mining Claim	MICHAUD	2023-05-31	100%	19.83
315	Golden Highway	326946	42A08J239	Boundary Cell Mining Claim	BARNET,MICHAUD	2023-08-01	100%	18.07

Appendix A.3 – Unpatented Mining Claims List

Record #	Project	Tenure ID	Cell ID(s)	Tenure Type	Township / Area	Due Date	Tenure Percentage	Area (ha)
316	Golden Highway	329640	42A09A255	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	12.19
317	Golden Highway	337395	42A08I027	Boundary Cell Mining Claim	MICHAUD	2023-02-13	100%	5.82
318	Golden Highway	341506	42A09A275	Boundary Cell Mining Claim	MICHAUD	2023-11-06	100%	12.29

Appendix B – Drill Hole List

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	87-18	579759.55	5374850.66	299	181.97	160	-50	DDH
Garrison	903-13-01	577641	5373061	291.6	603	337.85	-49.5	DDH
Garrison	903-13-02	577606	5373154	293.3	72	340	-45	DDH
Garrison	903-13-02A	577604	5373148	293	99	336.15	-45	DDH
Garrison	903-13-03	577561	5373136	294.6	363	334.09	-47.9	DDH
Garrison	903-13-04	577086	5373123	301.4	330	336.34	-51.4	DDH
Garrison	903-13-05	577198	5373102	299.9	345	337.6	-46.3	DDH
Garrison	903-13-06	576963	5373315	297	174	160	-45	DDH
Garrison	AR89-1	578503.38	5373878.072	305.2	17.07	0	-90	DDH
Garrison	AR89-10	578527.918	5373937.57	305.04	15.24	0	-90	DDH
Garrison	AR89-11	578498.011	5373891.558	304.8	15.24	0	-90	DDH
Garrison	AR89-12	578491.576	5373905.065	305.04	16.15	0	-90	DDH
Garrison	AR89-13	578483.938	5373917.357	305.96	15.24	0	-90	DDH
Garrison	AR89-14	578572.477	5373909.405	307.6	15.24	0	-90	DDH
Garrison	AR89-15	578528.556	5373905.171	302.27	15.24	0	-90	DDH
Garrison	AR89-16	578528.358	5373888.23	298.76	15.24	0	-90	DDH
Garrison	AR89-17	578546.504	5373927.807	305.59	15.24	0	-90	DDH
Garrison	AR89-18	578553.24	5373915.559	306.75	15.24	0	-90	DDH
Garrison	AR89-19	578580.858	5373928.988	305.35	15.24	0	-90	DDH
Garrison	AR89-20	578544.937	5373897.037	302.67	15.24	0	-90	DDH
Garrison	AR89-21	578574.456	5373941.727	302.51	15.24	0	-90	DDH
Garrison	AR89-22	578491.268	5373938.759	305.04	15.24	0	-90	DDH
Garrison	AR89-23	578541.039	5373911.083	305.9	15.24	0	-90	DDH
Garrison	AR89-24	578539.602	5373941.908	305.47	15.24	0	-90	DDH
Garrison	AR89-25	578554.37	5373950.343	302.82	15.24	0	-90	DDH
Garrison	AR89-26	578527.621	5373871.146	300.14	6.1	0	-90	DDH
Garrison	AR89-27	578553.972	5373891.417	302.79	15.24	0	-90	DDH
Garrison	AR89-28	578567.318	5373924.386	297.55	12.19	0	-90	DDH
Garrison	AR89-29	578562.798	5373933.398	297.55	15.24	0	-90	DDH
Garrison	AR89-3	578510.91	5373898.301	303.28	17.37	0	-90	DDH
Garrison	AR89-30	578561.428	5373895.717	299.1	15.24	0	-90	DDH
Garrison	AR89-31	578580.065	5373896.227	296.54	15.24	0	-90	DDH
Garrison	AR89-32	578588.473	5373902.809	294.77	4.57	0	-90	DDH
Garrison	AR89-33	578584.021	5373920.619	296.97	6.1	0	-90	DDH
Garrison	AR89-34	578532.785	5373923.855	298.98	4.57	0	-90	DDH
Garrison	AR89-35	578675.876	5373938.099	298.52	15.24	0	-90	DDH
Garrison	AR89-36	578671.487	5373948.498	300.75	15.24	0	-90	DDH
Garrison	AR89-37	578657.32	5373944.052	298.86	15.24	0	-90	DDH
Garrison	AR89-38	578655.922	5373910.065	296.3	15.24	0	-90	DDH
Garrison	AR89-39	578669.115	5373917.156	296.66	15.24	0	-90	DDH
Garrison	AR89-4	578505.633	5373910.908	302.67	16.76	0	-90	DDH
Garrison	AR89-40	578679.603	5373921.413	295.66	15.24	0	-90	DDH
Garrison	AR89-41	578648.03	5373923.715	294.47	15.24	0	-90	DDH
Garrison	AR89-42	578663.508	5373931.338	293.55	15.24	0	-90	DDH
Garrison	AR89-43	578635.473	5373918.31	294.28	15.24	0	-90	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	AR89-44	578644.213	5373938.759	295.53	15.24	0	-90	DDH
Garrison	AR89-45	578652.624	5373959.208	300.5	7.62	0	-90	DDH
Garrison	AR89-5	578497.718	5373925.273	304.8	16.76	0	-90	DDH
Garrison	AR89-6	578512.78	5373930.177	303.95	16.15	0	-90	DDH
Garrison	AR89-7	578519.412	5373917.357	304.8	16.46	0	-90	DDH
Garrison	AR89-8	578491.268	5373938.759	304.8	14.94	0	-90	DDH
Garrison	AR89-9	578522.051	5373950.779	305.04	15.24	0	-90	DDH
Garrison	B-1	577378.025	5374091.594	162.74	6.1	290	-9	DDH
Garrison	B-10	577340.936	5374068.134	162.94	9.14	335	-3	DDH
Garrison	B-11	577332.277	5374067.622	163.04	6.28	152	-9.5	DDH
Garrison	B-12	577321.923	5374060.131	163.14	20.73	188	-6	DDH
Garrison	B-13	577401.49	5374101.516	162.84	6.1	300	-11	DDH
Garrison	B-14	577405.623	5374102.805	162.84	6.4	298	-5	DDH
Garrison	B-15	577410.736	5374105.537	162.84	6.1	11	-5	DDH
Garrison	B-16	577415.718	5374108.857	162.94	6.1	1	-7.5	DDH
Garrison	B-17	577422.024	5374110.77	162.94	6.1	185	-2	DDH
Garrison	B-18	577428.397	5374115.786	163.04	6.1	190	-4	DDH
Garrison	B-19	577427.669	5374118.042	163.04	6.1	7	-6	DDH
Garrison	B-2	577378.806	5374089.671	162.74	6.1	180	-12	DDH
Garrison	B-20	577433.886	5374121.68	163.04	6.71	7	-5	DDH
Garrison	B-21	577439.196	5374127.996	163.04	6.1	327	-12.7	DDH
Garrison	B-22	577322.373	5374062.689	163.14	12.19	7	-5	DDH
Garrison	B-3	577371.516	5374087.908	162.74	6.1	312	-12	DDH
Garrison	B-4	577360.259	5374083.554	162.84	3.96	338	-11.5	DDH
Garrison	B-5	577356.723	5374078.571	162.84	9.45	330	-7.5	DDH
Garrison	B-6	577350.874	5374071.475	162.94	12.8	277	-17.5	DDH
Garrison	B-7	577351.797	5374069.381	162.94	9.14	167	-11.5	DDH
Garrison	B-8	577347.186	5374067.877	162.94	15.85	341	-12	DDH
Garrison	B-86-1	579105.498	5374209.261	303.5	108.2	340	-50	DDH
Garrison	B-86-2	579394.08	5374315.771	304.8	144.78	340	-50	DDH
Garrison	B-86-3	579583.91	5374643.93	304.4	141.73	340	-50	DDH
Garrison	B-86-4	579629.177	5374382.991	308.4	106.68	340	-45	DDH
Garrison	B-86-5	579662.555	5374149.951	304	106.68	340	-45	DDH
Garrison	B-87-17	579930.61	5374758.71	304.8	154.23	340	-50	DDH
Garrison	B-9	577348.051	5374065.553	162.94	6.71	157	-13	DDH
Garrison	BH1	578484	5373892	303.8	4.8	360	-90	
Garrison	BH2	578493	5373891	303.3908	3.3528	360	-90	
Garrison	BH3	578494.1	5373885.9	303.406	3.3528	360	-90	
Garrison	BH4	578493.7	5373881.2	302.3528	3.3528	360	-90	
Garrison	BH5	578488.9	5373880.6	302.3528	3.3528	360	-90	
Garrison	C06-01	578654.246	5373903.702	291.8	383	342.2	-44.5	DDH
Garrison	C06-02	578701.103	5374076.925	308.41	461	271.95	-44.6	DDH
Garrison	C06-03	578701.237	5374077.955	308.34	254	337.93	-54.4	DDH
Garrison	C06-04	578652.65	5373906.103	292	326.35	331.6	-45.1	DDH
Garrison	C06-05	578543.796	5373847.489	290	45	330	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	C06-05A	578543.796	5373847.489	290	47	330	-50	DDH
Garrison	C06-05B	578543.796	5373847.489	290	497	324	-50	DDH
Garrison	C06-06X	578583	5373884	298	455	338.1	-44.9	DDH
Garrison	C06-07	578574.625	5374063.136	305	422	151.4	-44.7	DDH
Garrison	C06-08	578430.814	5374014.517	303.25	422	159.7	-43	DDH
Garrison	C06-09	578703.773	5373934.239	293.5	131	338.6	-45.1	DDH
Garrison	C07-01	578701.07	5373786.85	286	499	326.5	-48.6	DDH
Garrison	C07-02	578771.92	5373730.85	288	500	337.4	-46.6	DDH
Garrison	C07-03	578617.92	5373815.76	290	512	333	-56.1	DDH
Garrison	C07-04	578570.65	5373784.883	288	581	340	-57	DDH
Garrison	C07-05	579035.01	5374058.07	299	269	340	-88	DDH
Garrison	COQ86-10	580179	5374785	300	152.4	340	-50	DDH
Garrison	COQ86-11A	580113	5374788	300	152.4	340	-50	DDH
Garrison	COQ86-12	580173	5374849	300	133.2	340	-50	DDH
Garrison	COQ86-13	580144	5374837	300	102.41	340	-50	DDH
Garrison	COQ86-14	580103	5374814	300	87.48	340	-50	DDH
Garrison	COQ86-15	580170	5374810	300	203	340	-50	DDH
Garrison	COQ86-8	580159	5374837	300	155.45	340	-50	DDH
Garrison	COQ86-9	579980	5374796	300	160.02	340	-50	DDH
Garrison	COQ87-16	580092	5374843	300	169.16	340	-50	DDH
Garrison	COQ87-19	580135	5374862	300	152.4	340	-60	DDH
Garrison	COQ87-20	580123	5374759	300	154.53	340	-50	DDH
Garrison	COQ87-21	579478.25	5374582.42	304.5	152.1	340	-55	DDH
Garrison	COQ87-22	579716.6	5374680.69	304.7	158	340	-55	DDH
Garrison	COQ87-23	580122	5374806	300	198.42	340	-50	DDH
Garrison	COQ87-24	580141	5374798	300	160.63	340	-50	DDH
Garrison	COQ87-25	580120	5374853	300	152.4	340	-50	DDH
Garrison	COQ87-26	580131	5374826	300	198.12	340	-50	DDH
Garrison	COQ87-27	579366.65	5374534.85	304.1	167.94	340	-55	DDH
Garrison	COQ87-28	579255.04	5374487.29	303.5	157.58	340	-50	DDH
Garrison	COQ87-29	580100	5374781	300	182.88	340	-50	DDH
Garrison	COQ87-30	580089	5374808	300	239.27	340	-55	DDH
Garrison	COQ87-31	579143.44	5374439.73	302.2	152.47	340	-50	DDH
Garrison	COQ87-32	580117	5374820	300	160.63	340	-55	DDH
Garrison	COQ87-33	579145.44	5374100.865	297	29.57	340	-50	DDH
Garrison	COQ87-34	579143.149	5374100.031	297	306.63	340	-50	DDH
Garrison	COQ87-35	579385.714	5374180.272	305.05	460.25	150	-50	DDH
Garrison	COQ87-36	579605.882	5374089.531	303.5	269.75	160	-50	DDH
Garrison	COQ87-37	579666.954	5374139.631	303.9	324.92	160	-50	DDH
Garrison	D-1	577544.79	5373508.929	289.02	264.87	340	-45	DDH
Garrison	D-10	577538.397	5373571.297	289.02	283.1	180	-45	DDH
Garrison	D-11	577477.436	5373569.131	291.5	327.36	180	-45	DDH
Garrison	D-12	577550.458	5373276.258	294.79	292.91	360	-60	DDH
Garrison	D-13	577610.235	5373323.249	293.23	291.39	360	-60	DDH
Garrison	D-14	577662.694	5373506.278	291	210.5	180	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	D-15	577515.619	5373429.284	290	146.3	180	-60	DDH
Garrison	D-16	577454.687	5373427.843	290	230.73	180	-56	DDH
Garrison	D-17	577423.235	5373428.828	290	215.19	185.32	-59.38	DDH
Garrison	D-18	577454.502	5373567.33	293.5	411.78	181.5	-50	DDH
Garrison	D-19	577454.324	5373567.33	293.52	413.31	181.7	-49	DDH
Garrison	D-20	577486.495	5373389.884	291	285.6	180	-85	DDH
Garrison	D-4	577546.287	5373383.421	291.22	304.5	180	-50	DDH
Garrison	D-8	577427.553	5373627.524	298.66	305.41	323	-45	DDH
Garrison	D-9	577457.977	5373629.383	296.76	108.51	323	-45	DDH
Garrison	G05-01	577116.348	5373949.799	303	161	331.5	-45	DDH
Garrison	G05-02	577096.897	5373910.984	302.98	200	333.5	-44.3	DDH
Garrison	G05-03	576995.969	5373834.8	305.96	310.6	333.13	-55.17	DDH
Garrison	G05-04	576819.508	5374107.347	305.46	341	153.65	-60.07	DDH
Garrison	G05-05	577306.04	5373958.233	296.9	182	333.98	-48.18	DDH
Garrison	G05-06	577251.124	5373938.105	301.15	161	334.05	-47.91	DDH
Garrison	G05-07	577273.531	5373889.329	299.5	230	333.53	-45.65	DDH
Garrison	G06-01	577418.784	5373903.458	291.5	305	335.7	-45	DDH
Garrison	G06-02	577432.699	5373859.552	295.99	371	159.37	-45.58	DDH
Garrison	G06-03	577449.686	5373824.536	302.89	451	337.2	-45.1	DDH
Garrison	G06-04	577479.874	5373752.075	302.76	617	314.91	-54.54	DDH
Garrison	G06-04W1	577378.608	5373899.611	60.27	326.4	335.7	-51.2	DDH
Garrison	G06-04W2	577382.092	5373892.656	69.41	500	335.7	-49.3	DDH
Garrison	G06-04W3	577370.743	5373914.493	42.41	482	332	-42.9	DDH
Garrison	G06-05	577411.412	5373813.683	301.68	461	329.87	-45.22	DDH
Garrison	G06-06	577387.685	5373839.297	296.14	371	337.59	-47.51	DDH
Garrison	G06-07	577369.647	5373884.306	291.24	314	335.25	-46.2	DDH
Garrison	G06-08	577319.044	5373871.037	292.08	317	331.44	-44.7	DDH
Garrison	G06-09	577346.168	5373806.989	298.1	380	335.38	-44.51	DDH
Garrison	G06-10	577377.902	5373776.466	299.63	416	336.56	-42.47	DDH
Garrison	G06-11	577328.659	5373739.51	300.78	416	335.36	-44.2	DDH
Garrison	G06-12	577305.519	5373790.773	299.56	377	340.18	-47.18	DDH
Garrison	G06-13	577278.284	5373842.039	294.1	332	336.81	-45.7	DDH
Garrison	G06-14	577229.39	5373824.608	296	320	345.19	-45.76	DDH
Garrison	G06-15	577258.188	5373767.608	300.82	401	336	-44	DDH
Garrison	G06-16	577283.057	5373727.595	301	456	336	-44	DDH
Garrison	G06-17	577495.742	5373829.85	303.43	452	334.37	-45.06	DDH
Garrison	G06-18	577516.774	5373870.661	298.18	434	340.15	-46.01	DDH
Garrison	G06-19	577512.022	5373922.29	288.05	350	340.72	-43.86	DDH
Garrison	G06-20	577546.774	5373933.153	287.24	371	338.3	-45.38	DDH
Garrison	G06-21	577573.6	5373884.18	286.31	452	340.81	-46.23	DDH
Garrison	G06-22	577587.212	5373826.459	286.62	500	340.88	-44.4	DDH
Garrison	G06-23	577525.363	5373770.691	299.01	539	338.73	-44.65	DDH
Garrison	G06-24	577432.728	5373736.642	304	524	337.3	-44.7	DDH
Garrison	G06-25	577460.657	5373661.956	302.29	671	336.9	-54.47	DDH
Garrison	G06-26	577348.683	5373684.456	301.84	632	341.11	-48.61	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	G06-27	577759.744	5374349.591	287.12	77	159.37	-45.48	DDH
Garrison	G06-27A	577759.663	5374349.742	287.07	401	158.79	-51.01	DDH
Garrison	G06-28	577799.41	5374368.48	282.7	74	160.2	-44.5	DDH
Garrison	G06-29	578071.2	5374175.29	291	353	340	-42.3	DDH
Garrison	G06-30	578166.55	5373897.9	289.98	341	333.45	-43.06	DDH
Garrison	G06-31	578255.73	5373935.03	297.96	584	342.12	-43.92	DDH
Garrison	G06-32	578356	5373965	307	638	328.2	-42.5	DDH
Garrison	G06-33	578098	5374100	288.3	430.3	339.8	-52.5	DDH
Garrison	G06-34	578219	5373916	298	740	339.7	-47.6	DDH
Garrison	G06-35	578012.92	5374149.19	291.81	251	337.3	-45.1	DDH
Garrison	G06-36	577954.99	5374130.6	284.8	251	333.89	-55.85	DDH
Garrison	G06-37	577500.383	5373586.938	290.23	786.2	333.89	-55.85	DDH
Garrison	G06-37A	577412.424	5373895.094	-174.89	235.8	350	-50	DDH
Garrison	G06-38	577411.897	5373648.124	302.11	797	346.3	-54.65	DDH
Garrison	G06-39	577455.78	5373744.632	302.83	560	338.98	-43.57	DDH
Garrison	G06-40	577465.856	5373790.961	303.88	497	340	-44.17	DDH
Garrison	G06-41	577479.805	5373753.029	302.83	536	341	-43.5	DDH
Garrison	G06-42	577505.807	5373752.524	300.31	587	344.65	-43.43	DDH
Garrison	G07-01	577507.312	5373726.823	298.42	536	339.03	-45.87	DDH
Garrison	G07-02	577487.6	5373728.72	301.31	551	339.03	-45.87	DDH
Garrison	G07-03	577446.95	5373698.95	302	603	338.6	-54.5	DDH
Garrison	G07-04	577477.317	5373623.041	292.83	759	340.12	-54.67	DDH
Garrison	G07-05	578123.17	5374041.57	290.7	542	338.1	-55.4	DDH
Garrison	G07-06	578064.2	5374180.29	288	455	340	-57	DDH
Garrison	G07-07	578039.41	5374244.23	286.2	257	336.4	-51	DDH
Garrison	G07-08	578070.97	5374034.72	291	593	333	-50.7	DDH
Garrison	G07-09	578149.44	5373973.18	293.1	698	335.4	-52.5	DDH
Garrison	GAR-09-01	578626.434	5373997.199	304.38	177	343.5	-40.5	DDH
Garrison	GAR-09-02	578664.341	5373880.922	289.91	350	339.2	-44.6	DDH
Garrison	GAR-09-03	578594.195	5373944.902	298.65	80	159.8	-43.7	DDH
Garrison	GAR-09-03A	578598.548	5373936.288	298	198	154.3	-43.7	DDH
Garrison	GAR-09-04	578503.983	5373962.346	304.94	291	156	-42.6	DDH
Garrison	GAR-09-05	578531.679	5373968.011	304.37	288	162.5	-45.6	DDH
Garrison	GAR-09-06	578661.116	5373952.699	300.78	189	170.4	-45.3	DDH
Garrison	GAR-09-07	578653.333	5373972.985	301.73	83	165.9	-45.2	DDH
Garrison	GAR-09-08	578624.105	5373950.474	298.82	237	340.8	-45.3	DDH
Garrison	GAR-09-09	578614.927	5374026.607	304.12	150	343.4	-45.4	DDH
Garrison	GAR-09-10	578955.958	5374116.676	292.57	293	162.5	-42	DDH
Garrison	GAR-10-11	578670.991	5373929.01	295.66	129	161.6	-44	DDH
Garrison	GAR-10-12	578648.293	5373970.616	302.07	237	155.3	-45.4	DDH
Garrison	GAR-10-13	578580.967	5373988.152	304.05	231	346.6	-44	DDH
Garrison	GAR-10-14	578479.554	5373955.292	304.52	324	162.6	-45.9	DDH
Garrison	GAR-10-15	578590.77	5374020.428	304.14	155.18	333.06	-43.59	DDH
Garrison	GAR-10-16	578640.938	5374014.249	304.59	297	162.2	-44.3	DDH
Garrison	GAR-10-17	578535.57	5373932.608	306.63	261	166.2	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-10-18	578573.066	5373990.709	303.99	330	162	-46.5	DDH
Garrison	GAR-10-19	578704.553	5373992.245	309.29	231	179.2	-45.8	DDH
Garrison	GAR-10-20	578793.782	5374012.524	305.92	351	241.9	-44.9	DDH
Garrison	GAR-10-21	578776.299	5374014.956	305.47	51	245.9	-44.7	DDH
Garrison	GAR-10-22	578760.138	5373937.576	290.54	96	160	-45	DDH
Garrison	GAR-10-23	578552.849	5373978.217	304.07	336	158.8	-44.8	DDH
Garrison	GAR-10-24	578526.184	5374017.956	303.68	234	331.61	-44.59	DDH
Garrison	GAR-10-25	578496.947	5373985.639	304.71	354	161.5	-44	DDH
Garrison	GAR-10-26	578505.038	5373932.631	304.29	291	340	-45	DDH
Garrison	GAR-10-27	578505.975	5373822.067	289.16	177	337.3	-48.5	DDH
Garrison	GAR-10-28	578552.154	5373880.993	293.26	150	164.9	-58.2	DDH
Garrison	GAR-10-29	578653.374	5373860.561	289.4	351	343.5	-44.8	DDH
Garrison	GAR-10-30	578689.552	5373970.856	301.95	249	342.2	-45.8	DDH
Garrison	GAR-10-31	578674.379	5374013.257	305.52	192	340.3	-45.6	DDH
Garrison	GAR-10-32	578719.821	5373891.328	289.33	339	341.3	-45.6	DDH
Garrison	GAR-10-33	578706.493	5373928.234	292.32	300	339.1	-43.4	DDH
Garrison	GAR-10-34	578658.247	5374058.05	304.66	135	338.2	-45	DDH
Garrison	GAR-10-34B	578658.247	5374058.05	304.66	43	338.2	-46	DDH
Garrison	GAR-10-34C	578658.247	5374058.05	304.66	528	335.26	-44.91	DDH
Garrison	GAR-10-35	578564.766	5374099.448	301.6	75.25	335.16	-44.21	DDH
Garrison	GAR-10-36	578735.215	5373855.997	288.51	300	340.9	-44	DDH
Garrison	GAR-10-37	578744.313	5373822	288.01	400	337.13	-44.76	DDH
Garrison	GAR-10-38	578611.525	5373892.614	291.98	126	160	-45	DDH
Garrison	GAR-10-38A	578611.525	5373892.614	291.98	126	155.1	-62.9	DDH
Garrison	GAR-10-39	578600.49	5373849.995	289.47	351	342.6	-43.3	DDH
Garrison	GAR-10-40	578558.841	5373963.64	303.44	225	343.4	-44.8	DDH
Garrison	GAR-10-41	578572.496	5373991.401	303.92	225	160.4	-78.1	DDH
Garrison	GAR-10-42	578517.479	5374013.126	303.87	300	159.9	-45	DDH
Garrison	GAR-10-43	578611.259	5373897.807	292.32	300	339.8	-44.7	DDH
Garrison	GAR-10-44	578627.555	5373851.785	289.72	330	340.4	-43.3	DDH
Garrison	GAR-10-45	578528.202	5373910.678	301.93	351	348.22	-36.1	DDH
Garrison	GAR-10-46	578554.1	5373851.369	289.83	357.43	326.83	-45.5	DDH
Garrison	GAR-10-47	578405.425	5374123.972	295.65	234	160	-45	DDH
Garrison	GAR-10-48	578384.765	5374168.775	293.45	249	160	-45	DDH
Garrison	GAR-10-50	578758.428	5373933.27	290.47	351	338.6	-45.3	DDH
Garrison	GAR-10-51	578742.884	5373970.579	294.63	300	343.9	-45.4	DDH
Garrison	GAR-10-52	578727.426	5374033.414	308.92	198	2.1	-45.8	DDH
Garrison	GAR-10-53	578638.532	5374106.663	302.66	87	338.5	-44.7	DDH
Garrison	GAR-10-54	578594.941	5374096.686	302.15	81	341.6	-45.2	DDH
Garrison	GAR-10-55	578791.016	5373978.992	292.29	270	336.65	-44.4	DDH
Garrison	GAR-10-56	578810.079	5373936.11	288.26	351	340	-45	DDH
Garrison	GAR-10-57	578780.276	5374020.802	306.07	213	340	-45	DDH
Garrison	GAR-10-58	578766.255	5374061.977	310.19	166	342.72	-44.68	DDH
Garrison	GAR-11-100	578392.924	5373773.932	289.19	159	155.72	-62.92	DDH
Garrison	GAR-11-101	578391.984	5373776.188	289.13	252	333.33	-49.13	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-11-102	578332.668	5373784.985	289.22	102	154.27	-72.59	DDH
Garrison	GAR-11-103	578322.449	5373816.171	290.7	240	164.09	-69.87	DDH
Garrison	GAR-11-104	578377.098	5373817.116	290.89	309	154.2	-60.02	DDH
Garrison	GAR-11-105	578449.029	5373985.557	302.42	420	333.28	-68.66	DDH
Garrison	GAR-11-105X	578449.029	5373985.557	302.42	615	340.22	-68.3	DDH
Garrison	GAR-11-106	578410.538	5374091.509	297.47	93	338.04	-43.89	DDH
Garrison	GAR-11-106X	578410.538	5374091.509	297.47	423	341.12	-43.69	DDH
Garrison	GAR-11-107	578496.272	5374086.823	300.6	102	341.76	-44.45	DDH
Garrison	GAR-11-108	578537.61	5374108.345	300.78	75	335.82	-44.94	DDH
Garrison	GAR-11-109	578477.597	5374128.309	298.15	61.54	336.41	-44.83	DDH
Garrison	GAR-11-109X	578477.597	5374128.309	298.15	396	337.87	-43.46	DDH
Garrison	GAR-11-110	578759.878	5373933.925	290.36	402	338.22	-79.01	DDH
Garrison	GAR-11-111	578774.232	5373887.313	288.08	501	333.34	-81.56	DDH
Garrison	GAR-11-112	578788.549	5373843.079	286.36	408	329.58	-81.23	DDH
Garrison	GAR-11-113	578790.758	5373979.563	292.49	421.71	54.36	-89.35	DDH
Garrison	GAR-11-114	578810.623	5373936.393	288.2	463.61	70.17	-87.14	DDH
Garrison	GAR-11-115	578827.338	5373890.244	286.13	462	245.32	-88.38	DDH
Garrison	GAR-11-116	578849.203	5373977.528	288.21	450	71.49	-89.54	DDH
Garrison	GAR-11-117	578862.306	5373932.853	286	537	29.91	-88.69	DDH
Garrison	GAR-11-118	578882.753	5373887.248	283.93	504	158.7	-87.65	DDH
Garrison	GAR-11-119	578919.299	5373920.808	284.26	618	110.43	-89.3	DDH
Garrison	GAR-11-120	578341.641	5373762.104	289.01	216	339.07	-48.34	DDH
Garrison	GAR-11-121	578376.163	5373819.546	290.95	537	338.7	-46.89	DDH
Garrison	GAR-11-122	578830	5374029	304	420	0	-90	DDH
Garrison	GAR-11-123	578874.684	5374053.96	300.62	438	78.04	-89.84	DDH
Garrison	GAR-11-124	578905.048	5373968.181	285.12	534	357.84	-88.92	DDH
Garrison	GAR-11-125	578953.559	5373983.944	285.54	573	30	-89.25	DDH
Garrison	GAR-11-126	578935.822	5374032.04	287.84	438	24.42	-87.31	DDH
Garrison	GAR-11-130	579142.548	5374205.878	302.38	285	160	-45	DDH
Garrison	GAR-11-131	579194.592	5374201.144	302.47	456	157.49	-45.59	DDH
Garrison	GAR-11-132	579178.842	5374245.934	301.07	309	161.75	-46.63	DDH
Garrison	GAR-11-133	579122.982	5374254.921	300.2	366	159.14	-43.53	DDH
Garrison	GAR-11-134	579105	5374305	298.96	127.3	160	-45	DDH
Garrison	GAR-11-134A	579106.604	5374301.217	298.96	399	155.68	-45.76	DDH
Garrison	GAR-11-135	579162.588	5374295.108	300.38	383	155.54	-48.44	DDH
Garrison	GAR-11-136	579076.251	5374237.864	300.08	393	161.91	-45.38	DDH
Garrison	GAR-11-137	579092.209	5374209.388	304.09	366	163.22	-44.3	DDH
Garrison	GAR-11-138	579102.406	5374153.6	308.08	348	160.26	-44.95	DDH
Garrison	GAR-11-140	579370.377	5374148.213	300.94	342	158.59	-44.79	DDH
Garrison	GAR-11-141	579323.761	5374141.642	302.56	393	173.53	-44.63	DDH
Garrison	GAR-11-142	579415.9	5374177.688	305.77	357	161.6	-44.58	DDH
Garrison	GAR-11-143	579388	5374100	287.4	33	160	-45	DDH
Garrison	GAR-11-143A	579389.507	5374100.746	287.4	279	168.52	-46.13	DDH
Garrison	GAR-11-144	579339	5374089	285.88	42	160	-60	DDH
Garrison	GAR-11-144A	579340.414	5374090.217	285.88	393	160.88	-59.01	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-11-145	579339.21	5374095.662	286.15	459	339.67	-44.78	DDH
Garrison	GAR-11-146	579295.537	5374063.284	284.32	276	344.86	-45.04	DDH
Garrison	GAR-11-147	578964.927	5374095.892	290.78	504	43.55	-89.19	DDH
Garrison	GAR-11-148	578982.272	5374047.654	288.04	459	82.46	-89.68	DDH
Garrison	GAR-11-149	578999.31	5374001.183	285.37	546	44.29	-89.33	DDH
Garrison	GAR-11-150	578951.062	5374140.197	296.74	463.87	294.45	-88.94	DDH
Garrison	GAR-11-151	578919.847	5374082.824	297.74	483	130.91	-88.47	DDH
Garrison	GAR-11-152	579054.217	5374151.649	308.31	504	223.8	-88.58	DDH
Garrison	GAR-11-154	578900.567	5374124.156	303.34	408	213.21	-89.18	DDH
Garrison	GAR-11-15X	578590.77	5374020.428	304.14	576	336.86	-41.76	DDH
Garrison	GAR-11-160	579050.742	5374011.496	284.56	483	7.14	-87.97	DDH
Garrison	GAR-11-161	579106.398	5374009.805	283.84	416	303.39	-87.97	DDH
Garrison	GAR-11-162	579105.348	5374015.97	283.72	414	326.95	-43.53	DDH
Garrison	GAR-11-163	579088.951	5374059.943	301.37	540	232.89	-88.85	DDH
Garrison	GAR-11-164	579579.092	5374183.342	307.06	486	343.17	-45.94	DDH
Garrison	GAR-11-165	579588.455	5374145.57	306.84	207	342.59	-46.61	DDH
Garrison	GAR-11-166	579622.182	5374198.233	306.76	246	343.25	-44.88	DDH
Garrison	GAR-11-167	579637.921	5374149.85	306.31	300	347.48	-47.57	DDH
Garrison	GAR-11-168	579663.375	5374214.599	306.27	243	351.48	-44.35	DDH
Garrison	GAR-11-169	579603.694	5374240.067	311.26	174	163.35	-47.18	DDH
Garrison	GAR-11-170	578916.938	5373954.618	284.51	555	241.85	-88.13	DDH
Garrison	GAR-11-171	578985.875	5374198.687	299.84	573	171.95	-88.81	DDH
Garrison	GAR-11-172	579005.776	5374152.258	305.62	478.9	28.61	-89.12	DDH
Garrison	GAR-11-173	579031.953	5374198.262	301.47	312	102.21	-89.34	DDH
Garrison	GAR-11-174	579085.755	5374347.333	297.54	303	159.88	-45.63	DDH
Garrison	GAR-11-175	579142.436	5374339.7	298.04	399	163.72	-45.63	DDH
Garrison	GAR-11-176	579244.947	5374204.497	303.73	84	337.29	-46.87	DDH
Garrison	GAR-11-177	579398.486	5374221.194	307.35	408	157.4	-46.87	DDH
Garrison	GAR-11-178	579470.936	5374165.93	304.2	321	339.99	-44.73	DDH
Garrison	GAR-11-179	579454.208	5374216.005	309.3	291	336.49	-43.1	DDH
Garrison	GAR-11-180	579450.754	5374225.158	309.96	396	161.1	-46.21	DDH
Garrison	GAR-11-181	579437.523	5374259.303	308.07	210	340.32	-45.37	DDH
Garrison	GAR-11-182	579491.533	5374259.345	311.13	199.58	338.98	-44.83	DDH
Garrison	GAR-11-183	579398.349	5374218.998	307.24	147	342.1	-45.31	DDH
Garrison	GAR-11-190	579652.923	5374253.681	307.11	150	333.4	-46.75	DDH
Garrison	GAR-11-191	579634.772	5374304.178	312.66	246	336.82	-45.74	DDH
Garrison	GAR-11-35X	578564.766	5374099.448	301.6	459	335.84	-43.79	DDH
Garrison	GAR-11-49	578381.582	5374180.093	293.42	75	166.48	-64.95	DDH
Garrison	GAR-11-59	578758.578	5373775.699	287.34	513	342.14	-45.36	DDH
Garrison	GAR-11-60	578627.809	5373766.603	288.17	300	335.72	-55.99	DDH
Garrison	GAR-11-61	578643.424	5373811.903	288.83	327	337.22	-46.07	DDH
Garrison	GAR-11-62	578664.471	5373820.917	288.78	399	332.39	-46.96	DDH
Garrison	GAR-11-63	578560.127	5374035.03	303.68	370	145.13	-44.31	DDH
Garrison	GAR-11-64	578459.935	5373949.75	303.48	278	157.09	-44.02	DDH
Garrison	GAR-11-65	578561.023	5373819.391	288.84	327	340	-55	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-11-66	578586.206	5373741.051	288.14	538	337.13	-56.44	DDH
Garrison	GAR-11-67	578519.757	5373855.992	290.65	195	151.64	-60.85	DDH
Garrison	GAR-11-68	578494.116	5373796.163	288.44	175	342.3	-48.79	DDH
Garrison	GAR-11-69	578478.866	5373820.612	289.1	150	158.46	-63.06	DDH
Garrison	GAR-11-70	578773.848	5373888.2	287.98	369	332.13	-46.2	DDH
Garrison	GAR-11-71	578787.71	5373843.9	286.88	62	336.48	-45	DDH
Garrison	GAR-11-71A	578788.2	5373842.78	286.73	591	336.48	-46.43	DDH
Garrison	GAR-11-72	578862.4	5373901.509	285.21	345	340.07	-46.19	DDH
Garrison	GAR-11-73	578883.394	5373951.245	286.31	312	341.11	-45.83	DDH
Garrison	GAR-11-74	578826.52	5373891.406	286.48	318	342.36	-51.08	DDH
Garrison	GAR-11-74X	578826.52	5373891.406	286.48	339	346.12	-45.89	DDH
Garrison	GAR-11-75	578844.509	5373946.199	287.48	291	335.93	-46.98	DDH
Garrison	GAR-11-76	578898.505	5373910.723	284.92	345	334.02	-45.88	DDH
Garrison	GAR-11-77	578813.816	5374077.488	308.93	162	338.21	-46.02	DDH
Garrison	GAR-11-78	578813.507	5374076.992	308.95	336	164.59	-45.71	DDH
Garrison	GAR-11-79	578829.679	5374034.647	305.65	264	159.08	-44.79	DDH
Garrison	GAR-11-80	578800.128	5374123.991	307.87	399	167.24	-44.5	DDH
Garrison	GAR-11-81	578840.627	5373846.357	283.53	432	334.38	-44.94	DDH
Garrison	GAR-11-82	579051.63	5374006.698	284.44	258	341.45	-44	DDH
Garrison	GAR-11-83	579063.455	5373965.924	282.84	420	343.74	-45.39	DDH
Garrison	GAR-11-84	579021.263	5374085.521	302.19	171	334.95	-41.55	DDH
Garrison	GAR-11-85	578833.6	5374020.306	303.5	306	336.09	-69.8	DDH
Garrison	GAR-11-86	578849.335	5373975.942	288.34	354	340.32	-65.56	DDH
Garrison	GAR-11-87	578897.436	5373992.291	286.49	363	334.69	-64.36	DDH
Garrison	GAR-11-88	578940.417	5374013.278	286.76	352	346.15	-66.23	DDH
Garrison	GAR-11-89	578900.756	5373983.366	286.12	354	336.91	-60.14	DDH
Garrison	GAR-11-90	578426.115	5373820.525	291.16	222	152.66	-60.04	DDH
Garrison	GAR-11-91	578456.509	5373885.44	303.61	219	159.42	-60.48	DDH
Garrison	GAR-11-92	578439.989	5373931.351	303.52	165	162.18	-58.21	DDH
Garrison	GAR-11-93	578466.343	5374034.772	302.42	177	340.17	-44.48	DDH
Garrison	GAR-11-93X	578466.343	5374034.772	302.42	564	343.56	-43.34	DDH
Garrison	GAR-11-94	578410.911	5374008.263	300.49	201	344.24	-43.98	DDH
Garrison	GAR-11-94X	578410.911	5374008.263	300.49	570	348.33	-43.23	DDH
Garrison	GAR-11-95	578425.447	5373973.41	302.47	315	156.88	-59.79	DDH
Garrison	GAR-11-96	578413.486	5373928.272	301.45	327	340	-44.9	DDH
Garrison	GAR-11-97	578505.5	5374057.2	302.14	480	156.07	-45.12	DDH
Garrison	GAR-11-98	578438.098	5373794.791	289.61	180	151.3	-61.13	DDH
Garrison	GAR-11-99	578412.677	5373851.382	292.86	327	155.99	-59.36	DDH
Garrison	GAR-12-114X	578810.623	5373936.393	288.2	834.48	96.84	-87.17	DDH
Garrison	GAR-12-127	578870.823	5374065.184	301.87	198	335.64	-44.95	DDH
Garrison	GAR-12-128	578902.413	5374127.272	303.69	348	156.9	-44.86	DDH
Garrison	GAR-12-129	578885.446	5374022.176	293.56	504	51.57	-88.1	DDH
Garrison	GAR-12-139	579154.422	5374162.157	298.62	273	157.05	-44.76	DDH
Garrison	GAR-12-153	579069.713	5374102.836	306.32	504	47.53	-88.45	DDH
Garrison	GAR-12-155	579018.271	5374101.037	301.46	351	277.86	-89.17	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-12-156	578841.155	5373922.232	286.43	561	118.61	-88.17	DDH
Garrison	GAR-12-157	578795.257	5373906.202	287.61	591	179	-88.88	DDH
Garrison	GAR-12-158	578785.395	5373932.863	288.98	391.58	154.75	-75.66	DDH
Garrison	GAR-12-159	578702.456	5374008.878	308.13	531	237.37	-89.33	DDH
Garrison	GAR-12-184	578929.462	5374189.758	300.63	481.7	184.68	-89.24	DDH
Garrison	GAR-12-185	578852.795	5374113.348	307.68	177	342.15	-45.19	DDH
Garrison	GAR-12-186	578891.559	5374008.825	289.18	234	338.15	-44.12	DDH
Garrison	GAR-12-187	579130.53	5374077.773	298.25	533.13	127.82	-88.68	DDH
Garrison	GAR-12-188	579186.869	5374074.504	286.28	526.06	80.03	-89.34	DDH
Garrison	GAR-12-189	578964.59	5374244.856	297.37	523.35	14.19	-88.32	DDH
Garrison	GAR-12-192	579684.553	5374313.436	308.23	201	334.32	-45.46	DDH
Garrison	GAR-12-193	579761.151	5374249.986	305.73	225	349.01	-45.92	DDH
Garrison	GAR-12-194	579358.512	5374188.103	304.43	462	161.52	-46.23	DDH
Garrison	GAR-12-195	579340.605	5374234.941	304.56	415.78	160.21	-44.8	DDH
Garrison	GAR-12-196	579254.611	5374183.68	304.19	486	156.48	-44.15	DDH
Garrison	GAR-12-197	579270.754	5374131.533	299.8	342	154.91	-46.5	DDH
Garrison	GAR-12-198	579306.436	5374181.065	303.87	217	347.85	-43.8	DDH
Garrison	GAR-12-199	578276.354	5373864.489	295.21	558	347.05	-70.35	DDH
Garrison	GAR-12-200	578966.89	5374095.469	290.74	216	336.08	-42.81	DDH
Garrison	GAR-12-201	578776.267	5374023.952	306.19	436.8	262.58	-88.18	DDH
Garrison	GAR-12-202	578808.55	5374017.05	305.44	441	340	-79.12	DDH
Garrison	GAR-12-203	578808.665	5374016.825	305.58	476.47	176.12	-87.73	DDH
Garrison	GAR-12-204	578693.214	5373893.636	290.11	666	321.09	-88.79	DDH
Garrison	GAR-12-205	578646.455	5373875.832	290.33	642	330.95	-89.15	DDH
Garrison	GAR-12-206	578658.582	5373987.456	304.29	576	290.13	-89.12	DDH
Garrison	GAR-12-207	578640.104	5374033.57	304.92	537	323.48	-89.18	DDH
Garrison	GAR-12-208	578627.842	5373924.871	296.51	561	343.98	-89.64	DDH
Garrison	GAR-12-209	578606.808	5373837.224	289.02	510	321.91	-88.84	DDH
Garrison	GAR-12-210	578900.99	5374131.187	303.67	156	341.41	-43.73	DDH
Garrison	GAR-12-211	578826.698	5373967.03	289.08	459	349.18	-88.97	DDH
Garrison	GAR-12-212	578722.109	5373958.693	294.09	465	155.24	-88.47	DDH
Garrison	GAR-12-213	578742.018	5373912.089	290.46	507	170.39	-87.68	DDH
Garrison	GAR-12-214	578363.772	5374069.727	296.09	471	335.66	-46.63	DDH
Garrison	GAR-12-215	578355.064	5373948.76	300.74	492	330.8	-69.18	DDH
Garrison	GAR-12-216	578308.312	5373929.715	300.02	513	349.14	-68.34	DDH
Garrison	GAR-12-217	578259.825	5373911.741	295.82	498	357.63	-67.53	DDH
Garrison	GAR-12-218	578214.693	5373895.401	293.15	513	352.25	-69.8	DDH
Garrison	GAR-12-219	578324.645	5373882.705	296.72	513	346.56	-69.21	DDH
Garrison	GAR-12-220	578586.78	5373883.161	292.33	471	259.64	-89.18	DDH
Garrison	GAR-12-222	578555.726	5373976.104	304.03	477	243.91	-89.79	DDH
Garrison	GAR-12-223	578541.696	5373867.81	291.43	534.42	115.02	-88.83	DDH
Garrison	GAR-12-224	578296.228	5374108.163	294.41	459	334.52	-45.3	DDH
Garrison	GAR-12-225	578309.584	5374049.785	298.55	420	339.26	-44.61	DDH
Garrison	GAR-12-226	578167.332	5373878.589	288.09	490	353.15	-70.34	DDH
Garrison	GAR-12-227	578121.04	5373859.001	286.09	552	341.94	-68.95	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-12-228	578371.972	5373899.619	295.94	531	334.02	-69.11	DDH
Garrison	GAR-12-229	579778.133	5374203.548	305.65	285	340	-45	DDH
Garrison	GAR-12-230	579017.82	5374245.304	298.51	558	326.36	-88.46	DDH
Garrison	GAR-12-231	579066.86	5374267.729	298.83	441	129.38	-88.41	DDH
Garrison	GAR-12-232	578935.898	5374031.813	288.02	465.06	163.65	-71.6	DDH
Garrison	GAR-12-233	578982.264	5374046.355	287.86	360	163.38	-69.15	DDH
Garrison	GAR-12-234	578413.779	5373928.19	301.33	537	319.27	-70.38	DDH
Garrison	GAR-12-235	578429.718	5373886.894	300.41	546	330.91	-70.52	DDH
Garrison	GAR-12-236	578738.069	5373924.317	290.97	573	161.51	-73.18	DDH
Garrison	GAR-12-237	579111.5	5374281.414	299.35	388	123.77	-88.13	DDH
Garrison	GAR-12-238	579158.63	5374296.441	300.13	411	24.23	-88.71	DDH
Garrison	GAR-12-239	579216.686	5374282.39	301.15	459	282.9	-88.7	DDH
Garrison	GAR-12-240	579826.652	5374217.432	305.49	315	324.01	-46.26	DDH
Garrison	GAR-12-241	579842.513	5374172.185	305.63	231	330.24	-48.05	DDH
Garrison	GAR-12-242	579893.507	5374187.66	306.9	216.57	330.38	-44.45	DDH
Garrison	GAR-12-242X	579893.507	5374187.66	306.9	297	341.16	-40.99	DDH
Garrison	GAR-12-243	579895.051	5374184.379	306.89	225	151.35	-44.21	DDH
Garrison	GAR-12-244	579234.557	5374091.168	286.39	582	93.85	-89.02	DDH
Garrison	GAR-12-245	579283.075	5374094.833	286.12	599.24	7.38	-89.85	DDH
Garrison	GAR-12-246	579232.002	5374091.636	286.32	441	167.39	-75.43	DDH
Garrison	GAR-12-247	579325.78	5374138.449	301.86	582	1.95	-88.35	DDH
Garrison	GAR-12-248	579382.62	5374122.471	292.89	552	5.79	-88.9	DDH
Garrison	GAR-12-249	579429.582	5374139.157	298.51	555.3	294.36	-87.82	DDH
Garrison	GAR-12-250	579252.213	5374332.7	301.71	384	6.18	-89.14	DDH
Garrison	GAR-12-251	578898.141	5373911.082	284.91	199.04	337.63	-47.4	DDH
Garrison	GAR-12-252	578802.32	5373875.28	287.71	183			DDH
Garrison	GAR-12-253	578801.195	5373880.753	287.17	471	336.82	-45.86	DDH
Garrison	GAR-12-254	578499.121	5373911.254	304.82	549	331.78	-69.93	DDH
Garrison	GAR-12-255	578577.909	5374053.164	303.4	588.3	332.46	-49.92	DDH
Garrison	GAR-12-256	578458.419	5374262.204	293.67	225	337.94	-44.92	DDH
Garrison	GAR-12-257	578412.031	5374244.01	293.67	236.98	337.06	-45.21	DDH
Garrison	GAR-12-258	578393.537	5374288.199	292.97	224	339.43	-46.38	DDH
Garrison	GAR-12-259	578423.634	5374357.054	291.05	135	337.84	-45.09	DDH
Garrison	GAR-12-260	579476.655	5374155.802	302.96	555	199.13	-88.98	DDH
Garrison	GAR-12-261	579299.695	5374346.68	302.82	752.36	159.66	-61.92	DDH
Garrison	GAR-12-262	579391.769	5374385.789	304.64	608.38	155.71	-59.36	DDH
Garrison	GAR-12-263	579485.632	5374419.405	305.82	570	160.72	-62.67	DDH
Garrison	GAR-12-264	579582.089	5374451.956	306.26	600	157.21	-59.8	DDH
Garrison	GAR-12-265	579581.296	5374453.373	306.27	417	338.57	-46.59	DDH
Garrison	GAR-12-266	579767	5374523	304.65	582	160	-60	DDH
Garrison	GAR-12-267	579952.658	5374595.377	298.14	627	156.21	-56.16	DDH
Garrison	GAR-12-268	579804.023	5374427.668	302.28	405	157.94	-59.34	DDH
Garrison	GAR-12-270	579345.721	5374370.648	303.72	438	358.24	-89.43	DDH
Garrison	GAR-12-271	578375	5374340	291.5	104.47	340	-45	DDH
Garrison	GAR-12-271A	578376.11	5374336.911	290.21	129	342.46	-45.48	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-12-272	578329.07	5374321.162	289.77	189	339.84	-44.74	DDH
Garrison	GAR-12-273	578357.414	5374386.359	288.58	75	339.54	-44.79	DDH
Garrison	GAR-12-274	578345.61	5374274.735	290.32	102	343.39	-44.95	DDH
Garrison	GAR-12-274A	578347.443	5374268.682	290.32	231	341.48	-45.61	DDH
Garrison	GAR-12-275	578473.738	5374216.028	296.97	264	340.64	-45.99	DDH
Garrison	GAR-12-276	578361.245	5374376.825	288.92	117	338.85	-45.64	DDH
Garrison	GAR-12-277	578504.376	5374280.467	294.13	216.03	335.65	-44.63	DDH
Garrison	GAR-12-278	578521.171	5374232.056	296.98	261	337.84	-44.76	DDH
Garrison	GAR-12-279	578565.972	5374249.732	298.69	231	340.11	-43.14	DDH
Garrison	GAR-12-280	578538.714	5374184.915	300.53	312	335.59	-43.99	DDH
Garrison	GAR-12-281	578586.012	5374207.767	300.45	273	337.59	-44.24	DDH
Garrison	GAR-12-282	578629.155	5374220.124	300.74	243	335.86	-43.91	DDH
Garrison	GAR-12-283	578361.806	5374228.427	291.93	270	341.83	-46.7	DDH
Garrison	GAR-12-284	578281.889	5374301.138	288.13	210	332.61	-45.25	DDH
Garrison	GAR-12-285	578299.107	5374256.411	290	264	335.69	-45.28	DDH
Garrison	GAR-12-286	578093.194	5374232.284	287.32	264	340.82	-45.66	DDH
Garrison	GAR-12-287	578109.769	5374184.989	289	318	335.06	-43.34	DDH
Garrison	GAR-12-288	578127.7	5374139.165	289.16	408	342.98	-44.37	DDH
Garrison	GAR-12-289	578046.036	5374214.499	288.39	279	337.48	-45.35	DDH
Garrison	GAR-12-290	578024.791	5374262.053	286.53	234	337.63	-45.06	DDH
Garrison	GAR-12-34X	578658.247	5374058.05	304.66	528	338.2	-45.3	DDH
Garrison	GAR-12-46X	578554.1	5373851.369	289.83	525	330.15	-41.53	DDH
Garrison	GAR-12-53X	578638.532	5374106.663	302.66	411	340.1	-44.6	DDH
Garrison	GAR-12-58X	578766.255	5374061.977	310.19	513	343.11	-43.74	DDH
Garrison	GAR-13-291	577979.8	5374249	285.5	237	342.74	-44.98	DDH
Garrison	GAR-13-292	577998.7	5374202.4	286.9	285	337.58	-45.2	DDH
Garrison	GAR-13-293	577950.6	5374182.2	285	300	341.22	-44.63	DDH
Garrison	GAR-13-294	577931.6	5374232.3	283.7	204	340.61	-46.4	DDH
Garrison	GAR-20	578324.893	5373874.581	300.39	275.84	148	-45	DDH
Garrison	GAR-21	578235.706	5373860.221	290.1	142.34	152	-45	DDH
Garrison	GAR-22	578692.599	5374021.21	309.5	282.55	150	-45	DDH
Garrison	GAR-23	578867.194	5374079.408	304.39	303.89	150	-45	DDH
Garrison	GAR-24	578975.654	5374059.379	295.25	233.78	150	-45	DDH
Garrison	GAR-25B	579060.306	5374094.525	301.69	178.92	155	-45	DDH
Garrison	GAR-26	578512.34	5374209.03	298.61	243.84	340	-45	DDH
Garrison	GAR-27	578465.1	5374318.63	293.31	245.36	340	-45	DDH
Garrison	GAR-28	578607.24	5374299.97	298.61	136.25	340	-45	DDH
Garrison	GAR-29	578728.83	5374345.32	295.42	137.16	340	-45	DDH
Garrison	GAR-30	578870	5374366	300	142.34	338	-45	DDH
Garrison	GAR-31	578965.78	5374419.58	296.81	148.44	340	-45	DDH
Garrison	GAR-32	578350.17	5374256.03	294.11	269.44	340	-45	DDH
Garrison	GAR-33	578255.5	5374182.34	293.11	394.9	340	-45	DDH
Garrison	GAR-34	578406.85	5374131.04	299.31	250.94	340	-45	DDH
Garrison	GAR-35	578191.05	5374054.48	298	78.03	340	-50	DDH
Garrison	GAR-35A	578191.05	5374054.48	298	593.14	340	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-36	578218.06	5374197.82	293.28	409.9	340	-55	DDH
Garrison	GAR-37	578275.34	5374224.29	292.11	255.94	340	-55	DDH
Garrison	GAR-38	578267.4	5374154	294.42	304.92	340	-50	DDH
Garrison	GAR-39	578324.94	5374312.44	292.61	238.66	250	-50	DDH
Garrison	GAR-40	578200.23	5374259.15	289.5	285.9	340	-50	DDH
Garrison	GAR-41	578439.73	5374310.74	293.11	178.96	340	-50	DDH
Garrison	GAR-42	578476.01	5374326.89	293.31	113	340	-50	DDH
Garrison	GAR-43	578498.97	5374319.24	294.81	152.58	340	-50	DDH
Garrison	GAR-44	578523.23	5374299.04	297.55	157.95	340	-50	DDH
Garrison	GAR-45	578359.19	5374109.45	297.81	356.92	340	-50	DDH
Garrison	GAR-46	578029.63	5374102.54	288.19	418.89	336	-50	DDH
Garrison	GAR-47	578483.61	5374027.657	301.16	529.86	340	-52	DDH
Garrison	GAR-48	578541.719	5374055.033	303.5	674.43	340	-52	DDH
Garrison	GAR-48A	578486.16	5374287.19	-11.74	643.13	353	-53.5	DDH
Garrison	GAR-49	578803.13	5374154.936	304.78	470.06	336	-50	DDH
Garrison	GAR-50	578992.32	5374179.657	301.7	474.88	336	-50	DDH
Garrison	GAR-51	578259.04	5374117.39	296.22	244.94	340	-50	DDH
Garrison	GAR-51A	578212.11	5374246.34	137.35	252.95	340	-50	DDH
Garrison	GAR-52	578499.251	5373923.683	304.02	213.94	337	-45	DDH
Garrison	GAR-53	578239.77	5374192.59	292.42	139.96	340	-63	DDH
Garrison	GAR-53A	578241.48	5374187.89	292.42	45.99	340	-65	DDH
Garrison	GAR-54	578241.86	5374180.5	292.42	472.87	337	-60	DDH
Garrison	GAR-55	578523.31	5373949.64	302	228.94	340	-45	DDH
Garrison	GAR-56	578560.723	5373932.635	301.39	197.57	337	-45	DDH
Garrison	GAR-57	578588.783	5373944.964	300.28	186.96	345	-45	DDH
Garrison	GAR-58	578203.6	5374143.72	294.22	397.89	340	-50	DDH
Garrison	GAR-59	578610.76	5373999.41	301	152.95	340	-45	DDH
Garrison	GAR-60	578182.77	5374220.89	290.61	214.95	340	-50	DDH
Garrison	GAR-61	578639.163	5373991.943	303.5	183.95	337	-45	DDH
Garrison	GAR-62	578143.85	5374222.36	290.11	411	337	-55	DDH
Garrison	GAR-63	578457.675	5373948.72	304.62	167.98	340	-45	DDH
Garrison	GAR-64	578135.84	5374250.61	289.31	305	340	-50	DDH
Garrison	GAR-65	578283.41	5374260.73	292.5	277.92	340	-50	DDH
Garrison	GAR-66	578136	5374114.79	289.3	392.89	340	-55	DDH
Garrison	GAR-67	578321.31	5374276.7	293.31	258.93	340	-50	DDH
Garrison	GAR-68	578320.36	5374371.57	290.11	254.75	250	-50	DDH
Garrison	GAR-69	578479.42	5374179.3	299.42	460.89	340	-50	DDH
Garrison	GAR-70	578332.38	5374213.14	294.5	248.9	340	-50	DDH
Garrison	GAR-71	578308.66	5374188.15	295.11	294.92	340	-50	DDH
Garrison	GAR-72	578466.78	5374124.27	301.11	706.83	337	-65	DDH
Garrison	GAR-72A	578430.45	5374227.98	87.83	400.9	337	-65	DDH
Garrison	GAR-73	578505.67	5374355.44	294.31	137.95	250	-50	DDH
Garrison	GAR-74	578581.884	5374155.897	304.31	165.96	250	-50	DDH
Garrison	GAR-75	578648.881	5373970.997	303.87	271.42	340	-55	DDH
Garrison	GAR-76	578652.404	5374036.994	304.3	154.96	340	-50	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAR-77	577963.65	5374106.88	286.8	433.88	340	-45	DDH
Garrison	GAR-78	577975.35	5374077.79	285.7	529.86	337	-60	DDH
Garrison	GAR-79	578043.14	5374073.27	288.42	547.85	337	-60	DDH
Garrison	GAT-14-01	578487.5	5373881.2	303	18.8	360	-90	BLAST
Garrison	GAT-14-02	578492.2	5373883.2	303	18	360	-90	BLAST
Garrison	GAT-14-03	578490.8	5373887.8	304	19	360	-90	BLAST
Garrison	GAT-14-04	578498.2	5373895.9	302	17	360	-90	BLAST
Garrison	GAT-14-05	578498.6	5373902.4	303	18	360	-90	BLAST
Garrison	GAT-14-06	578502.7	5373898.6	302	13	360	-90	BLAST
Garrison	GAT-14-07	578496.3	5373901.6	303	18	360	-90	BLAST
Garrison	GAT-14-08	578499.1	5373907	303	10	360	-90	BLAST
Garrison	GAT-14-09	578495.1	5373905.4	302	3	360	-90	BLAST
Garrison	GAT-14-10	578492.8	5373909.7	303	18	360	-90	BLAST
Garrison	GAT-14-100	578580.8	5373990.9	300	21	360	-90	BLAST
Garrison	GAT-14-101	578577.8	5373984.5	300	16	360	-90	BLAST
Garrison	GAT-14-102	578582.5	5373986.2	300	20	360	-90	BLAST
Garrison	GAT-14-103	578535.1	5373926.4	306	20	360	-90	BLAST
Garrison	GAT-14-104	578538.1	5373932.8	307	20	360	-90	BLAST
Garrison	GAT-14-105	578530.4	5373924.6	303	20	360	-90	BLAST
Garrison	GAT-14-106	578506.5	5373931.9	303	22	360	-90	BLAST
Garrison	GAT-14-107	578508.2	5373927.2	303	20	360	-90	BLAST
Garrison	GAT-14-108	578500.1	5373934.9	304	16	360	-90	BLAST
Garrison	GAT-14-109	578536.4	5373937.5	307	21	360	-90	BLAST
Garrison	GAT-14-11	578499.8	5373891.4	302	17	360	-90	BLAST
Garrison	GAT-14-110	578541.1	5373939.2	307	21	360	-90	BLAST
Garrison	GAT-14-111	578542.8	5373934.5	306	21	360	-90	BLAST
Garrison	GAT-14-112	578544.5	5373929.8	306	20	360	-90	BLAST
Garrison	GAT-14-113	578539.8	5373928.1	306	21	360	-90	BLAST
Garrison	GAT-14-114	578532.2	5373919.9	303	20	360	-90	BLAST
Garrison	GAT-14-115	578536.8	5373921.7	304	19	360	-90	BLAST
Garrison	GAT-14-116	578541.5	5373923.4	305	20	360	-90	BLAST
Garrison	GAT-14-117	578538.6	5373917	303	18	360	-90	BLAST
Garrison	GAT-14-118	578543.3	5373918.7	304	20	360	-90	BLAST
Garrison	GAT-14-119	578540.3	5373912.3	303	4	360	-90	BLAST
Garrison	GAT-14-12	578505.1	5373893.5	302	17	360	-90	BLAST
Garrison	GAT-14-120	578545	5373914	303	18	360	-90	BLAST
Garrison	GAT-14-121	578542	5373907.6	303	7	360	-90	BLAST
Garrison	GAT-14-122	578546.7	5373909.3	302	17	360	-90	BLAST
Garrison	GAT-14-125	578528.3	5373945.1	305	20	360	-90	BLAST
Garrison	GAT-14-126	578533	5373946.9	304	20	360	-90	BLAST
Garrison	GAT-14-127	578530	5373940.4	306	21	360	-90	BLAST
Garrison	GAT-14-128	578534.7	5373942.2	305	20	360	-90	BLAST
Garrison	GAT-14-129	578474.1	5373904.1	299	16	360	-90	BLAST
Garrison	GAT-14-129A	578474.1	5373905.1	299	16	360	-90	BLAST
Garrison	GAT-14-13	578509.5	5373894.8	303	16	360	-90	BLAST

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAT-14-130	578475.8	5373899.4	299	20	360	-90	BLAST
Garrison	GAT-14-130A	578475.8	5373900.4	299	20	360	-90	BLAST
Garrison	GAT-14-131	578477	5373910.5	299	20	360	-90	BLAST
Garrison	GAT-14-132	578478.8	5373905.8	299	20	360	-90	BLAST
Garrison	GAT-14-133	578480.5	5373901.1	299	20	360	-90	BLAST
Garrison	GAT-14-134	578481.7	5373912.2	299	17	360	-90	BLAST
Garrison	GAT-14-135	578483.5	5373907.5	299	21	360	-90	BLAST
Garrison	GAT-14-136	578485.2	5373902.8	299	20	360	-90	BLAST
Garrison	GAT-14-137	578486.9	5373898.1	299	20	360	-90	BLAST
Garrison	GAT-14-138	578488.6	5373893.4	299	16	360	-90	BLAST
Garrison	GAT-14-14	578507.4	5373900.3	303	18	360	-90	BLAST
Garrison	GAT-14-140	578489.9	5373904.6	299	20	360	-90	BLAST
Garrison	GAT-14-141	578491.6	5373899.9	299	20	360	-90	BLAST
Garrison	GAT-14-143	578494.6	5373906.3	299	20	360	-90	BLAST
Garrison	GAT-14-144	578539.4	5373943.9	305	21	360	-90	BLAST
Garrison	GAT-14-145	578537.7	5373948.6	305	21	360	-90	BLAST
Garrison	GAT-14-146	578553.1	5373906.3	301	17	360	-90	BLAST
Garrison	GAT-14-147	578551.4	5373911	301	16	360	-90	BLAST
Garrison	GAT-14-148	578549.7	5373915.7	302	17	360	-90	BLAST
Garrison	GAT-14-149	578548	5373920.4	303	18	360	-90	BLAST
Garrison	GAT-14-15	578512.2	5373901	303	17	360	-90	BLAST
Garrison	GAT-14-152	578470.6385	5373913.519	299	20	360	-90	BLAST
Garrison	GAT-14-153	578472.3486	5373908.821	299	3	360	-90	BLAST
Garrison	GAT-14-154	578467.6501	5373907.111	299	21	360	-90	BLAST
Garrison	GAT-14-155	578469.3602	5373902.412	299	21	360	-90	BLAST
Garrison	GAT-14-156	578471.0703	5373897.714	299	17	360	-90	BLAST
Garrison	GAT-14-158	578477.4789	5373894.725	299	21	360	-90	BLAST
Garrison	GAT-14-159	578482.1773	5373896.435	299	20	360	-90	BLAST
Garrison	GAT-14-16	578504	5373908.7	304	17	360	-90	BLAST
Garrison	GAT-14-160	578637.728	5373923.659	295	20	360	-90	BLAST
Garrison	GAT-14-161	578639.1087	5373918.46	295	20	360	-90	BLAST
Garrison	GAT-14-162	578642.573	5373924.881	296	20	360	-90	BLAST
Garrison	GAT-14-163	578644.1404	5373919.254	295	20	360	-90	BLAST
Garrison	GAT-14-164	578646.702	5373926.043	296	20	360	-90	BLAST
Garrison	GAT-14-165	578648.784	5373921.074	295	20	360	-90	BLAST
Garrison	GAT-14-166	578635.301	5373927.579	295	20	360	-90	BLAST
Garrison	GAT-14-167	578640.282	5373913.549	294	20	360	-90	BLAST
Garrison	GAT-14-168	578645.902	5373914.336	295	13	360	-90	BLAST
Garrison	GAT-14-169	578650.286	5373915.961	295	20	360	-90	BLAST
Garrison	GAT-14-17	578508	5373905.8	303	18	360	-90	BLAST
Garrison	GAT-14-170	578644.646	5373931.857	296	20	360	-90	BLAST
Garrison	GAT-14-171	578648.527	5373933.064	296	20	360	-90	BLAST
Garrison	GAT-14-172	578650.219	5373927.681	296	20	360	-90	BLAST
Garrison	GAT-14-173	578653.075	5373923.117	295	20	360	-90	BLAST
Garrison	GAT-14-174	578658.013	5373924.611	295	22	360	-90	BLAST

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAT-14-175	578656.205	5373928.906	296	22	360	-90	BLAST
Garrison	GAT-14-177	578631.183	5373924.248	295	20	360	-90	BLAST
Garrison	GAT-14-178	578633.463	5373920.098	295	20	360	-90	BLAST
Garrison	GAT-14-179	578635.365	5373915.815	294	20	360	-90	BLAST
Garrison	GAT-14-18	578508.8	5373910.4	303	17	360	-90	BLAST
Garrison	GAT-14-180	578637.692	5373911.745	294	22	360	-90	BLAST
Garrison	GAT-14-182	578646.524	5373950.072	300	20	360	-90	BLAST
Garrison	GAT-14-183	578644.657	5373953.75	300	20	360	-90	BLAST
Garrison	GAT-14-184	578642.439	5373959.035	300	20	360	-90	BLAST
Garrison	GAT-14-185	578645.509	5373965.523	301	14	360	-90	BLAST
Garrison	GAT-14-186	578647.153	5373961.254	301	8	360	-90	BLAST
Garrison	GAT-14-187	578648.807	5373956.67	301	7	360	-90	BLAST
Garrison	GAT-14-188	578651.082	5373952.043	300	20	360	-90	BLAST
Garrison	GAT-14-189	578655.435	5373953.403	299	20	360	-90	BLAST
Garrison	GAT-14-19	578510.7	5373905.3	302	17	360	-90	BLAST
Garrison	GAT-14-190	578653.73	5373958.346	300	20	360	-90	BLAST
Garrison	GAT-14-191	578652.115	5373962.736	302	11	360	-90	BLAST
Garrison	GAT-14-192	578650.705	5373967.419	302	20	360	-90	BLAST
Garrison	GAT-14-193	578640.107	5373929.908	296	20	360	-90	BLAST
Garrison	GAT-14-194	578642.572	5373936.052	297	20	360	-90	BLAST
Garrison	GAT-14-195	578633.873	5373932.544	296	20	360	-90	BLAST
Garrison	GAT-14-196	578647.08	5373910.535	293	22	360	-90	BLAST
Garrison	GAT-14-197	578652.242	5373911.387	293	22	360	-90	BLAST
Garrison	GAT-14-199	578657.291	5373913.265	294	23	360	-90	BLAST
Garrison	GAT-14-20	578517.3	5373902.2	303	18	360	-90	BLAST
Garrison	GAT-14-200	578659.905	5373919.744	295	22	360	-90	BLAST
Garrison	GAT-14-201	578662.415	5373914.312	295	22	360	-90	BLAST
Garrison	GAT-14-202	578663.096	5373925.868	296	22	360	-90	BLAST
Garrison	GAT-14-203	578710.809	5374022.036	308	21	360	-90	BLAST
Garrison	GAT-14-204	578712.371	5374017.361	309	22	360	-90	BLAST
Garrison	GAT-14-205	578714.044	5374012.488	307	22	360	-90	BLAST
Garrison	GAT-14-206	578718.311	5374014.287	308	3	360	-90	BLAST
Garrison	GAT-14-207	578713.798	5374028.068	309	22	360	-90	BLAST
Garrison	GAT-14-208	578720.037	5374025.252	308	22	360	-90	BLAST
Garrison	GAT-14-209	578771.311	5373993.403	301	22	360	-90	BLAST
Garrison	GAT-14-21	578518.6	5373898.3	303	18	360	-90	BLAST
Garrison	GAT-14-210	578769.734	5373998.234	302	21	360	-90	BLAST
Garrison	GAT-14-211	578716.953	5374018.801	308	18	360	-90	BLAST
Garrison	GAT-14-212	578715.194	5374023.644	309	19	360	-90	BLAST
Garrison	GAT-14-213	578668.557	5373923.499	295	22	360	-90	BLAST
Garrison	GAT-14-214	578667.291	5373927.454	295	22	360	-90	BLAST
Garrison	GAT-14-215	578664.288	5373920.344	295	22	360	-90	BLAST
Garrison	GAT-14-215A	578774.036	5373999.752	302	22	360	-90	BLAST
Garrison	GAT-14-216	578767.719	5374003.176	303	22	360	-90	BLAST
Garrison	GAT-14-217	578772.719	5374004.195	303	3	360	-90	BLAST

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAT-14-218	578771.123	5374009.223	304	22	360	-90	BLAST
Garrison	GAT-14-219	578766.19	5374007.227	305	21	360	-90	BLAST
Garrison	GAT-14-22	578514.1	5373896.6	303	18	360	-90	BLAST
Garrison	GAT-14-220	578654.949	5373969.961	302	12	360	-90	BLAST
Garrison	GAT-14-221	578656.66	5373965.263	301	22	360	-90	BLAST
Garrison	GAT-14-224	578663.725	5373909.304	293	19	360	-90	BLAST
Garrison	GAT-14-225	578659.026	5373907.594	292	22	360	-90	BLAST
Garrison	GAT-14-226	578654.328	5373905.884	292	22	360	-90	BLAST
Garrison	GAT-14-23	578515.8	5373891.6	302	17	360	-90	BLAST
Garrison	GAT-14-236	578528.747	5373870.818	293	22	360	-90	BLAST
Garrison	GAT-14-238	578514.6	5373924.2	294	22	360	-90	BLAST
Garrison	GAT-14-239	578628.5331	5373947.512	295	22	360	-90	BLAST
Garrison	GAT-14-24	578511.1	5373891.5	303	18	360	-90	BLAST
Garrison	GAT-14-240	578627.0635	5373951.555	297	22	360	-90	BLAST
Garrison	GAT-14-241	578622.3713	5373949.827	297	22	360	-90	BLAST
Garrison	GAT-14-242	578623.8234	5373945.837	297	18	360	-90	BLAST
Garrison	GAT-14-244	578633.247	5373949.185	296	19	360	-90	BLAST
Garrison	GAT-14-245	578631.7549	5373953.285	297	22	360	-90	BLAST
Garrison	GAT-14-246	578634.9356	5373944.551	295	21	360	-90	BLAST
Garrison	GAT-14-25	578507.3	5373889.7	302	17	360	-90	BLAST
Garrison	GAT-14-26	578520.4	5373909.2	302	18	360	-90	BLAST
Garrison	GAT-14-27	578521.3	5373904.1	302	16	360	-90	BLAST
Garrison	GAT-14-28	578523	5373901.1	302	16	360	-90	BLAST
Garrison	GAT-14-29	578520.4	5373893.7	302	17	360	-90	BLAST
Garrison	GAT-14-30	578515	5373907.1	302	17	360	-90	BLAST
Garrison	GAT-14-31	578525.2	5373910.7	302	17	360	-90	BLAST
Garrison	GAT-14-32	578491.5	5373914.7	304	20	360	-90	BLAST
Garrison	GAT-14-33	578497.6	5373911.5	304	20	360	-90	BLAST
Garrison	GAT-14-34	578486.8	5373912.7	304	19	360	-90	BLAST
Garrison	GAT-14-35	578495.8	5373916.2	304	20	360	-90	BLAST
Garrison	GAT-14-36	578500.3	5373917.9	305	20	360	-90	BLAST
Garrison	GAT-14-37	578494.2	5373921.2	305	21	360	-90	BLAST
Garrison	GAT-14-38	578498.9	5373922.7	304	20	360	-90	BLAST
Garrison	GAT-14-39	578507.1	5373915	303	18	360	-90	BLAST
Garrison	GAT-14-40	578513	5373911.8	303	18	360	-90	BLAST
Garrison	GAT-14-41	578518.4	5373913.7	304	18	360	-90	BLAST
Garrison	GAT-14-42	578516.7	5373917.6	303	18	360	-90	BLAST
Garrison	GAT-14-43	578511.2	5373916.2	303	18	360	-90	BLAST
Garrison	GAT-14-44	578510.1	5373921.4	304	3	360	-90	BLAST
Garrison	GAT-14-45	578527.8	5373903.4	301	22	360	-90	BLAST
Garrison	GAT-14-46	578524.9	5373896	301	22	360	-90	BLAST
Garrison	GAT-14-47	578526.6	5373891.2	301	22	360	-90	BLAST
Garrison	GAT-14-48	578522	5373889.5	301	22	360	-90	BLAST
Garrison	GAT-14-49	578517.2	5373887.8	302	19	360	-90	BLAST
Garrison	GAT-14-50	578519.3	5373925.9	305	20	360	-90	BLAST

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAT-14-51	578521	5373921.2	304	20	360	-90	BLAST
Garrison	GAT-14-52	578522.8	5373916.5	304	20	360	-90	BLAST
Garrison	GAT-14-53	578525.7	5373922.9	304	19	360	-90	BLAST
Garrison	GAT-14-54	578524	5373927.6	305	20	360	-90	BLAST
Garrison	GAT-14-55	578522.3	5373932.3	305	19	360	-90	BLAST
Garrison	GAT-14-56	578514.6	5373924.2	304	19	360	-90	BLAST
Garrison	GAT-14-57	578527.5	5373918.2	303	18	360	-90	BLAST
Garrison	GAT-14-57B	578527.4	5373918.3	303	3	360	-90	BLAST
Garrison	GAT-14-58	578529.2	5373913.5	302	15	360	-90	BLAST
Garrison	GAT-14-59	578530.9	5373908.8	302	14	360	-90	BLAST
Garrison	GAT-14-60	578526.2	5373907.1	302	17	360	-90	BLAST
Garrison	GAT-14-61	578532.6	5373904.1	301	18	360	-90	BLAST
Garrison	GAT-14-62	578529.6	5373897.7	300	17	360	-90	BLAST
Garrison	GAT-14-63	578531.3	5373893	300	16	360	-90	BLAST
Garrison	GAT-14-64	578505.2	5373919.7	303	18	360	-90	BLAST
Garrison	GAT-14-65	578502.2	5373913.4	304	18	360	-90	BLAST
Garrison	GAT-14-66	578513	5373928.8	304	19	360	-90	BLAST
Garrison	GAT-14-67	578517.7	5373930.6	304	18	360	-90	BLAST
Garrison	GAT-14-68	578520.9	5373937.1	304	17	360	-90	BLAST
Garrison	GAT-14-69	578516	5373935.6	305	17	360	-90	BLAST
Garrison	GAT-14-70	578511.4	5373933.6	304	12	360	-90	BLAST
Garrison	GAT-14-71	578535.57	5373910.6	302	22	360	-90	BLAST
Garrison	GAT-14-72	578537.28	5373905.9	301	21	360	-90	BLAST
Garrison	GAT-14-73	578538.99	5373901.2	300	22	360	-90	BLAST
Garrison	GAT-14-74	578534.29	5373899.4	301	21	360	-90	BLAST
Garrison	GAT-14-75	578533.86	5373915.3	303	12	360	-90	BLAST
Garrison	GAT-14-76	578528.73	5373929.3	305	20	360	-90	BLAST
Garrison	GAT-14-77	578527.02	5373934	306	20	360	-90	BLAST
Garrison	GAT-14-78	578525.31	5373938.7	305	20	360	-90	BLAST
Garrison	GAT-14-79	578523.6	5373943.4	304	14	360	-90	BLAST
Garrison	GAT-14-80	578518.9	5373941.7	305	14	360	-90	BLAST
Garrison	GAT-14-81	578514.2	5373940	305	22	360	-90	BLAST
Garrison	GAT-14-82	578503.6	5373925.5	303	18	360	-90	BLAST
Garrison	GAT-14-83	578501.8	5373930.2	304	19	360	-90	BLAST
Garrison	GAT-14-84	578504.8	5373936.6	303	18	360	-90	BLAST
Garrison	GAT-14-85	578509.5	5373938.3	304	20	360	-90	BLAST
Garrison	GAT-14-86	578533.4	5373931.1	306	21	360	-90	BLAST
Garrison	GAT-14-87	578531.7	5373935.8	306	21	360	-90	BLAST
Garrison	GAT-14-88	578549.65	5373974.2	302	17	360	-90	BLAST
Garrison	GAT-14-89	578554.3	5373976	302	17	360	-90	BLAST
Garrison	GAT-14-90	578559.2	5373977.7	302	7	360	-90	BLAST
Garrison	GAT-14-91	578563.7	5373979.3	302	7	360	-90	BLAST
Garrison	GAT-14-92	578568.4	5373981	302	17	360	-90	BLAST
Garrison	GAT-14-93	578573.1	5373982.8	302	17	360	-90	BLAST
Garrison	GAT-14-94	578571.4	5373987.5	302	17	360	-90	BLAST

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GAT-14-95	578566.7	5373985.7	302	6	360	-90	BLAST
Garrison	GAT-14-96	578557.3	5373982.3	302	17	360	-90	BLAST
Garrison	GAT-14-97	578560.8	5373972.9	302	17	360	-90	BLAST
Garrison	GAT-14-99	578576.8	5373987.4	300	15	360	-90	BLAST
Garrison	GAT-15-227	578649.676	5373904.13	291	20	360	-90	BLAST
Garrison	GAT-15-229	578643.17	5373907.138	292	20	360	-90	BLAST
Garrison	GAT-15-230	578638.46	5373905.4	290	20	360	-90	BLAST
Garrison	GAT-15-247	578662.538	5373956.699	296	20	360	-90	BLAST
Garrison	GAT-15-248	578664.185	5373951.976	295	20	360	-90	BLAST
Garrison	GAT-15-249	578665.901	5373947.348	295	20	360	-90	BLAST
Garrison	GAT-15-250	578667.584	5373942.652	296	20	360	-90	BLAST
Garrison	GAT-15-252	578671.015	5373933.192	295	20	360	-90	BLAST
Garrison	GAT-15-253	578672.737	5373928.544	296	20	360	-90	BLAST
Garrison	GAT-15-254	578666.313	5373931.461	295	20	360	-90	BLAST
Garrison	GAT-15-255	578664.602	5373936.132	295	20	360	-90	BLAST
Garrison	GAT-15-256	578662.884	5373940.857	295	20	360	-90	BLAST
Garrison	GAT-15-257	578661.138	5373945.614	295	20	360	-90	BLAST
Garrison	GAT-15-258	578659.414	5373950.289	295	20	360	-90	BLAST
Garrison	GAT-15-259	578654.797	5373948.546	294	20	360	-90	BLAST
Garrison	GAT-15-260	578656.478	5373943.825	295	20	360	-90	BLAST
Garrison	GAT-15-261	578658.201	5373939.122	294	20	360	-90	BLAST
Garrison	GAT-15-262	578675.662	5373934.841	295	21	360	-90	BLAST
Garrison	GAT-15-263	578665.414	5373963.14	295	20	360	-90	BLAST
Garrison	GAT-15-264	578667.118	5373958.399	296	20	360	-90	BLAST
Garrison	GAT-15-265	578668.854	5373953.661	295	20	360	-90	BLAST
Garrison	GAT-15-266	578670.514	5373949.009	295	20	360	-90	BLAST
Garrison	GAT-15-267	578672.262	5373944.341	295	20	360	-90	BLAST
Garrison	GAT-15-268	578673.958	5373939.632	296	20	360	-90	BLAST
Garrison	GAT-15-269	578677.408	5373930.225	295	20	360	-90	BLAST
Garrison	GAT-15-270	578679.14	5373925.556	294	20	360	-90	BLAST
Garrison	GAT-15-271	578680.8	5373920.797	294	20	360	-90	BLAST
Garrison	GAT-15-272	578685.509	5373922.531	293	19	360	-90	BLAST
Garrison	GAT-15-273	578683.792	5373927.249	293	21	360	-90	BLAST
Garrison	GAT-15-274	578682.102	5373931.958	294	20	360	-90	BLAST
Garrison	GAT-15-275	578680.376	5373936.665	296	20	360	-90	BLAST
Garrison	GAT-15-276	578678.686	5373941.343	296	20	360	-90	BLAST
Garrison	GD85-1	578598.941	5374063.337	305.69	110.05	350	-45.11	DDH
Garrison	GD85-2	578627.22	5373754.262	289	93.88	360	-58	DDH
Garrison	GD85-3	579034.293	5374167.64	301.61	111	210	-45	DDH
Garrison	GD85-4	578573.747	5373880.428	292.48	144.3	155	-60	DDH
Garrison	GD85-5	578586.344	5373986.747	302.28	160	5	-61	DDH
Garrison	GD86-10	578634.023	5373936.8	299.98	256.85	160	-45.5	DDH
Garrison	GD86-11	578273.497	5374000.047	300.81	180.31	160	-45.5	DDH
Garrison	GD86-12	578558.819	5374014.649	303.39	165.56	340	-45	DDH
Garrison	GD86-13	578668.413	5374077.141	309.5	180.82	340	-45	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	GD86-14	578417.727	5373929.424	300.9	300.41	160	-45	DDH
Garrison	GD86-15	578804.838	5374021.21	305.58	273.92	160	-45	DDH
Garrison	GD86-16	578538.412	5373987.576	302.39	115.49	340	-45	DDH
Garrison	GD86-17	578438.221	5374149.484	298.63	198.12	160	-45	DDH
Garrison	GD86-18	578419.156	5374103.683	299.5	131.12	160	-45	DDH
Garrison	GD86-19	578494.952	5374011.007	302.5	95.31	345	-45	DDH
Garrison	GD86-6	578630.181	5374088.531	302.6	129.95	340	-56	DDH
Garrison	GD86-7	578539.168	5374225.523	299.31	259.08	160	-49	DDH
Garrison	GD86-8	578576.959	5374054.708	304.5	129.54	340	-50	DDH
Garrison	GD86-9	578479.458	5373928.864	302	279.98	160	-45	DDH
Garrison	GE88-05	577514.183	5373504.474	289	259.38	178	-52	DDH
Garrison	GE88-06	577509.967	5373438.421	290	322.17	176	-51	DDH
Garrison	GE88-07	577519.577	5373504.66	289	367.89	168	-50	DDH
Garrison	GE88-08	577502.465	5373504.474	289	355.7	185	-50	DDH
Garrison	GE88-09	577392.245	5373523.075	294.46	114.91	360	-50	DDH
Garrison	GE88-10	577511.579	5373546.326	289.61	266.09	182	-51	DDH
Garrison	GE88-10A	577511.981	5373554.565	289.6	30.78	180	-50	DDH
Garrison	GE88-11	577451.436	5373515.8	291.93	93.57	340	-50	DDH
Garrison	GE88-12	577511.579	5373546.14	289.61	222.2	180	-50	DDH
Garrison	GE88-12A	577511.579	5373546.14	289.61	337.72	170	-50	DDH
Garrison	GE88-13	577580.806	5373106.051	293.84	514.5	360	-55	DDH
Garrison	GE88-14	577523.047	5373111.342	295.23	402.49	360	-90	DDH
Garrison	GE88-14W	577532.994	5373239.486	77.7	471.31	4.5	-58	DDH
Garrison	GE88-15	577482.52	5373426.847	290	368.81	180	-60	DDH
Garrison	GE88-16	577442.839	5373399.07	290.7	333.76	167	-60	DDH
Garrison	GE88-17	577462.202	5373137.355	297	330.4	360	-54	DDH
Garrison	GE88-18	577845.04	5373581.748	289.3	267	330	-50	DDH
Garrison	GGT-01	578073.973	5374294.027	283.71	204	262.82	-65.77	DDH
Garrison	GGT-02	577277.856	5374026.498	302.9	198	266.61	-64.46	DDH
Garrison	H-1	576812.55	5373383.425	300.71	328.57	185.37	-46	DDH
Garrison	H-10	576892.35	5373399.225	300.08	179.22	168	-45	DDH
Garrison	H-11	576945.35	5373220.025	298	235.61	346.87	-50	DDH
Garrison	H-13	576881.05	5373276.355	299.63	152.4	346.33	-45	DDH
Garrison	H-2	576793.55	5373196.175	300.55	277.55	185.3	-45	DDH
Garrison	H-3	576885.55	5373484.025	302.13	333.76	168.15	-45	DDH
Garrison	H-5	576443.45	5373794.525	309.12	255.12	327.95	-45	DDH
Garrison	H-6	576884.45	5373442.725	300.88	270.97	345.6	-45	DDH
Garrison	H-7	576487.75	5373924.725	306	216.77	327.5	-45	DDH
Garrison	H-8	576903.65	5373400.025	300	171.91	167.93	-45	DDH
Garrison	H87-1	576422.4	5374024	304	184.71	360	-45	DDH
Garrison	H87-10	576444.62	5373261.704	309.77	260.91	360	-45	DDH
Garrison	H87-11	576753.863	5373071.639	304.15	282.25	360	-45	DDH
Garrison	H87-13	577023.992	5373029.443	303.02	316.38	360	-45	DDH
Garrison	H87-15	577048.638	5373335.709	296.01	184.71	360	-45	DDH
Garrison	H87-2	576244	5373917	308.92	196.9	360	-45	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	H87-3	576671.3	5373685	309	321.87	360	-45	DDH
Garrison	H87-4	576495.4	5373608	311.35	215.8	360	-45	DDH
Garrison	H87-6	576791.8	5373655	306.61	346.25	360	-45	DDH
Garrison	H87-7	576792.5	5373655	306.58	381.31	360	-65	DDH
Garrison	H-9	576919.35	5373402.525	300	220.68	168	-45	DDH
Garrison	H91-1	576779.2	5374105	306.97	415.99	180	-65	DDH
Garrison	H91-2	576991.365	5373118.947	301.04	459.94	360	-60	DDH
Garrison	H91-3	576930.226	5373118.081	301.06	459.94	360	-60	DDH
Garrison	H91-4	576872.614	5373115.73	301.14	598.93	360	-60	DDH
Garrison	JDGT-01	577089.647	5373969.148	304.87	150	327.66	-50.82	DDH
Garrison	JDGT-02	576998.743	5373944.847	305.2	117	330.22	-50.93	DDH
Garrison	JP-12-01	577095.589	5373972.827	305.15	315	338.26	-47.57	DDH
Garrison	JP-12-02	577128.261	5373969.102	304.5	279	338.63	-46.04	DDH
Garrison	JP-12-03	577158.382	5373934.261	303.79	249	342.02	-45.2	DDH
Garrison	JP-12-04	577177.254	5373897.225	303.07	294	340	-45	DDH
Garrison	JP-13-05	577051	5373926	305	360	340.79	-46.11	DDH
Garrison	JP-13-06	577033	5373850	305	243	341.64	-47.66	DDH
Garrison	JP-13-07	577228	5373910	303	303	336.03	-49.1	DDH
Garrison	JP-13-08	577209	5373957	303	273	338.85	-46.6	DDH
Garrison	JP-13-09	577424	5373945	290	357	337.52	-59.9	DDH
Garrison	JP-13-10	577064	5373768	307	339	334.71	-46.4	DDH
Garrison	JP-13-11	577580	5374170	286	324	340	-61.81	DDH
Garrison	JP-13-12	577648	5374135	284	333	340	-60	DDH
Garrison	JP-13-13	577694	5374153	283	354	340	-60	DDH
Garrison	JP-13-14	577673	5374211	285	249	340	-60	DDH
Garrison	JP-13-15	577193	5373850	289	327	340	-45	DDH
Garrison	JP-13-16	577439	5373759	303	460.3	340	-70	DDH
Garrison	JP-13-16A	577402.49	5373900.21	-113.1	330.3	340	-70	DDH
Garrison	JP-13-17	577470	5374110	300	123	340	-45	DDH
Garrison	JP-13-17A	577471	5374111	300	25.5	340	-45	DDH
Garrison	JP-13-20	577937	5374071	287	444	343.84	-45.1	DDH
Garrison	JP-13-21	577921	5374120	285	345	332.95	-45.4	DDH
Garrison	JP-13-22	577902	5374167	284	297	342.63	-45.4	DDH
Garrison	JP-13-23	577840	5374193	283	279	336.72	-45.4	DDH
Garrison	JP-13-24	577855	5374150	284	363	340	-45	DDH
Garrison	JP-13-25	577877	5374100	283	445	328.27	-46.7	DDH
Garrison	JP-13-26	577714	5374229	284	270	340	-60	DDH
Garrison	JP-13-27	577730	5374201	283	336	340	-60	DDH
Garrison	JP-13-28	577628	5374192	285	264	340	-60	DDH
Garrison	JPGT-01	577397.029	5374058.189	296.49	97.83	330.42	-49.68	DDH
Garrison	JPGT-02A	577515.416	5374111.888	287.05	276	330.97	-51.69	DDH
Garrison	LH89-24	576842.2	5374014	308	215.49	0	-90	DDH
Garrison	LH89-25	576781.6	5374013	307.05	206.35	180	-50	DDH
Garrison	LH89-26	576723.3	5374013	306.11	214.58	180	-50	DDH
Garrison	LH89-27	576782.2	5374013	307.07	304.8	180	-65	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	LH89-28	576661.4	5374010	305.01	228.6	180	-60	DDH
Garrison	L-WH-83-1	577066	5373355	294.23	198.43	180	-45	DDH
Garrison	L-WH-83-2	577127	5373339	294	194.16	180	-45	DDH
Garrison	L-WH-83-3	577188.322	5373371.918	293.39	276.15	180	-65	DDH
Garrison	L-WH-83-5	577310.343	5373388.122	291.38	309.07	180	-45	DDH
Garrison	L-WH-87-12	576880.975	5372862.225	306.38	306.63	180	-48	DDH
Garrison	MG96-01	580017.815	5374349.793	298.8	264	180	-45	DDH
Garrison	MG96-02	579852.454	5374209.225	304.4	222	180	-55	DDH
Garrison	MG96-03	580020.726	5374319.595	299.8	210	360	-45	DDH
Garrison	MG96-04	579234.322	5374172.694	305.9	186	180	-45	DDH
Garrison	MGA21-001	578979.813	5373744.862	290.566	550.91	280.09	-64.71	DDH
Garrison	MGA21-002	579550.723	5374052.103	307.906	750.01	280.26	-55.42	DDH
Garrison	MGA21-003	579727.015	5374029.058	307.691	714	279.83	-54.94	DDH
Garrison	MGA21-004	579571.978	5374149.972	306.796	720	279.73	-60.22	DDH
Garrison	MGA21-005	579015.412	5373851.683	284.49	806.41	279.7	-60.09	DDH
Garrison	MGA21-006	579386.012	5374077.463	284.47	300	279.75	-60.01	DDH
Garrison	MGA21-007	579710.239	5374126.473	306.347	702	280.3	-60.01	DDH
Garrison	MGA21-008	578885.552	5373923.822	285.652	687	280.17	-60.16	DDH
Garrison	MGA21-008A	578885.552	5373923.822	285.652	163.51	280	-60	DDH
Garrison	MGA21-009	579724.793	5374227	306.012	701.81	280.26	-55.18	DDH
Garrison	MGA21-010	578688.962	5373799.853	288.099	707.03	280.07	-75.28	DDH
Garrison	N87-1	577474.897	5374017.446	287.79	90.22	340	-50	DDH
Garrison	N87-10	577125.178	5373926.76	303.46	96.01	340	-50	DDH
Garrison	N87-11	577236.187	5373975.717	302.91	215.49	340	-50	DDH
Garrison	N87-12	577707.446	5374339.747	284.62	309.98	160	-50	DDH
Garrison	N87-13	577290.205	5374003.683	302.06	194.16	340	-50	DDH
Garrison	N87-14	577645.699	5374329.917	285.02	193.85	160	-50	DDH
Garrison	N87-15	577339.467	5374042.81	300.23	178.92	340	-50	DDH
Garrison	N87-16	577588.099	5374309.785	287.33	178.92	156.39	-50	DDH
Garrison	N87-17	577410.132	5374031.715	294	203.3	340	-64	DDH
Garrison	N87-18	577526.878	5374277.63	292.46	187.15	160	-50	DDH
Garrison	N87-19	577348.385	5374021.884	299.44	249.33	340	-70	DDH
Garrison	N87-2	577390.33	5373987.67	294.83	258.17	340	-50	DDH
Garrison	N87-20	577556.051	5374308.195	288.55	313.03	160	-70	DDH
Garrison	N87-21	577438.033	5374043.605	292.5	324.92	340	-70	DDH
Garrison	N87-22	577472.348	5374272.524	291.88	282.25	160	-52	DDH
Garrison	N87-23	577465.435	5374057.375	299.99	299.62	340	-70	DDH
Garrison	N87-24	577422.492	5374234.792	290.14	41.76	160	-50	DDH
Garrison	N87-25	577490.268	5374075.757	289.5	288.34	340	-70	DDH
Garrison	N87-26	577388.646	5374236.852	296.5	270.97	160	-52	DDH
Garrison	N87-27	577429.157	5373987.073	291.36	166.12	340	-70	DDH
Garrison	N87-28	577438.217	5374205.443	290.47	35.05	160	-50	DDH
Garrison	N87-29	577429.157	5373987.073	291.36	388.62	340	-70	DDH
Garrison	N87-3	577859.468	5374091.335	283.2	355.7	340	-50	DDH
Garrison	N87-30	577350.68	5374171.219	294.8	289.26	160	-65	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	N87-31	577380.541	5374020.514	298.72	324.92	340	-75	DDH
Garrison	N87-32	577322.779	5374159.329	297.79	350.52	160	-65	DDH
Garrison	N87-33	577326.43	5373996.043	297.39	32.31	340	-70	DDH
Garrison	N87-34	577610.748	5374179.851	284.93	39.62	340	-50	DDH
Garrison	N87-34A	577610.748	5374179.851	284.93	42.06	340	-50	DDH
Garrison	N87-35	577639.966	5374192.17	284.5	32.31	340	-65	DDH
Garrison	N87-35A	577638.649	5374191.742	284.5	37.19	340	-65	DDH
Garrison	N87-36	577276.451	5373976.392	301.81	209.09	340	-75	DDH
Garrison	N87-37	577320.71	5374011.047	300.33	329.18	341.11	-74	DDH
Garrison	N87-38	577239.076	5374123.657	304.04	334.06	160	-65	DDH
Garrison	N87-38A	577239.076	5374123.657	304.04	10.36	160	-60	DDH
Garrison	N87-4	577542.834	5374055.3	285.6	262.13	340	-50	DDH
Garrison	N87-5	577567.942	5374280.294	290.14	248.11	160	-50	DDH
Garrison	N87-6	577051.071	5373713.852	303.43	330.1	340	-50	DDH
Garrison	N87-7	577629.689	5374290.125	287.85	322.17	160	-50	DDH
Garrison	N87-8	577134.299	5373750.64	302.24	309.37	340	-50	DDH
Garrison	N87-9	577679.545	5374327.857	285.78	313.03	160	-50	DDH
Garrison	N88-100	577653.001	5374003.345	284.68	537.06	340	-60	DDH
Garrison	N88-101	577529.507	5373983.684	285.29	431.29	340	-60	DDH
Garrison	N88-102	577589.897	5374006.999	286.02	438	343.61	-62.4	DDH
Garrison	N88-103	577546.617	5374024.863	285.99	439.98	335.53	-60.3	DDH
Garrison	N88-104	577518.444	5374011.633	287.28	367.89	338.39	-59.8	DDH
Garrison	N88-105	577488.261	5373996.39	288.64	391.97	337.43	-58.9	DDH
Garrison	N88-106	577460.435	5373984.257	289.84	387.98	331.5	-57.7	DDH
Garrison	N88-107	577266.508	5373904.57	299.83	428.55	340	-60	DDH
Garrison	N88-108	577601.526	5374278.385	288.81	321.87	160	-65	DDH
Garrison	N88-109	577601.788	5374278.235	288.92	211.23	160	-50	DDH
Garrison	N88-110	577573.887	5374266.344	289.77	203	160	-45	DDH
Garrison	N88-111	577534.096	5374282.354	292.27	291.39	160	-60	DDH
Garrison	N88-112	577382.7	5374250.802	296	276.15	160	-50	DDH
Garrison	N88-113	577390.471	5374155.209	292	123.75	160	-45	DDH
Garrison	N88-114	577370.45	5373816.264	295.6	523.95	340	-50	DDH
Garrison	N88-115	577362.57	5374143.319	294.01	160.33	160	-55	DDH
Garrison	N88-116	577362.57	5374143.319	294.16	181.66	160	-65	DDH
Garrison	N88-117	577294.878	5374147.438	299.91	209.09	160	-55	DDH
Garrison	N88-118	577294.878	5374147.438	300.11	244.15	161	-60	DDH
Garrison	N88-119	577291.966	5374077.374	302.23	105.16	157.67	-44.8	DDH
Garrison	N88-120	577262.857	5374067.855	303.33	108.51	170	-45	DDH
Garrison	N88-121	577262.857	5374067.855	303.25	184.71	160	-65	DDH
Garrison	N88-122	577262.857	5374067.855	303.23	212.14	160	-70	DDH
Garrison	N88-123	577320.65	5374011.361	300.18	152.1	340	-60	DDH
Garrison	N88-124	577320.65	5374011.361	300.18	169.77	340	-65	DDH
Garrison	N88-125	577348.385	5374021.884	299.55	152.1	341	-50	DDH
Garrison	N88-126	577348.385	5374021.884	299.65	181.97	343	-60	DDH
Garrison	N88-127	577346.56	5374103.527	298.29	93.27	166	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	N88-128	577334.669	5374131.428	296.38	120.7	163	-45	DDH
Garrison	N88-129	577380.386	5374020.725	298.69	151.79	335.65	-47.1	DDH
Garrison	N88-130	577382.232	5374019.824	298.73	214.88	346	-65	DDH
Garrison	N88-131	577433.052	5374041.046	300.38	199.95	338.26	-49.9	DDH
Garrison	N88-132	577433.096	5374040.9	300.36	213.97	338.17	-53.8	DDH
Garrison	N88-133	577433.201	5374040.709	300.39	259.99	339.06	-59	DDH
Garrison	N88-134	577465.35	5374057.589	300.18	170.08	336	-45	DDH
Garrison	N88-135	577465.35	5374057.589	300.18	151.49	334.5	-55	DDH
Garrison	N88-136	577362.57	5374143.319	294.34	137.47	157	-40	DDH
Garrison	N88-137	577391.024	5374231.272	296	196.9	160	-49	DDH
Garrison	N88-138	577456.338	5374232.732	290.06	121.92	161	-54	DDH
Garrison	N88-139	577491.457	5374072.967	289.5	183.19	339	-55	DDH
Garrison	N88-140	577491.457	5374072.967	289.5	242.62	331	-68	DDH
Garrison	N88-39	577266.977	5374135.548	302.67	333.45	160	-62	DDH
Garrison	N88-40	577297.668	5374148.627	300.08	340.16	160	-65	DDH
Garrison	N88-41	577398.242	5374059.616	296.75	203	340	-50	DDH
Garrison	N88-42	577425.023	5374072.158	296	203	339.4	-49.7	DDH
Garrison	N88-43	577450.359	5374090.203	292.89	175.57	335.87	-49.1	DDH
Garrison	N88-44	577487.89	5374081.337	289.5	184.71	339.62	-50	DDH
Garrison	N88-45	577370.341	5374047.725	298.46	218.24	340	-50	DDH
Garrison	N88-46	577127.622	5374072.972	305.79	487.68	350	-49.5	DDH
Garrison	N88-47	577071.772	5374047.999	306.01	619.35	160	-62.5	DDH
Garrison	N88-48	577002.875	5374055.932	307.22	504.75	160	-60	DDH
Garrison	N88-49	577429.794	5373908.221	291.05	457.51	340	-60	DDH
Garrison	N88-50	577315.682	5374023.732	302.26	172.52	341.8	-55	DDH
Garrison	N88-51	577516.06	5374109.194	287.22	231.34	340.18	-49.3	DDH
Garrison	N88-52	577538.409	5374118.685	286.68	266.4	337.8	-50.5	DDH
Garrison	N88-53	577595.04	5374142.723	285.69	257.86	339.6	-61.3	DDH
Garrison	N88-54	577621.449	5374154.74	284.87	245.67	340	-60	DDH
Garrison	N88-55	577650.175	5374167.201	284.29	282.25	341.69	-61.1	DDH
Garrison	N88-56	577677.647	5374178.357	283.74	288.34	336.38	-60.3	DDH
Garrison	N88-57	577718.912	5374159.187	283.21	355.4	336.46	-60.7	DDH
Garrison	N88-58	577745.911	5374173.293	282.86	324.92	335.72	-60.3	DDH
Garrison	N88-59	577773.751	5374185.673	282.3	91.75	339.76	-70	DDH
Garrison	N88-60	577490.253	5374078.17	289.93	288.34	340	-60	DDH
Garrison	N88-61	577702.513	5374121.128	283.32	364.85	340	-61.1	DDH
Garrison	N88-62	577675.888	5374107.988	283.57	443.18	340	-60.3	DDH
Garrison	N88-63	577646.99	5374095.946	283.83	190.81	340	-59.7	DDH
Garrison	N88-64	577621.057	5374081.075	284.44	218.24	340	-60.4	DDH
Garrison	N88-65	577592.152	5374070.836	284.93	388.93	333.22	-60.9	DDH
Garrison	N88-66	577561.528	5374063.267	285.72	346.25	340	-60	DDH
Garrison	N88-67	577566.729	5374129.177	286.21	270.05	338.39	-59.3	DDH
Garrison	N88-68	577561.996	5374294.245	289.13	315.77	160	-60	DDH
Garrison	N88-69	577448.838	5374248.035	291.08	230.43	155.44	-60	DDH
Garrison	N88-70	577099.571	5374064.204	305.53	220.68	160	-60	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	N88-71	577087.681	5374092.105	305.96	432.21	160	-60	DDH
Garrison	N88-72	577075.79	5374120.006	306.51	263.96	160	-60	DDH
Garrison	N88-73	577047.257	5374105.043	306.81	303.58	153.51	-61.6	DDH
Garrison	N88-74	577035.128	5374132.302	307.67	321.26	152.39	-58.3	DDH
Garrison	N88-75	577024.108	5374163.918	309.25	547.42	160	-60	DDH
Garrison	N88-76	577434.465	5373974.603	291.02	306.63	337.44	-59	DDH
Garrison	N88-77	577157.351	5374218.724	311.96	623.62	0	-90	DDH
Garrison	N88-78	577406.643	5373961.079	291.73	303.58	341.32	-58.9	DDH
Garrison	N88-79	577378.112	5373952.132	291.63	327.96	340	-60	DDH
Garrison	N88-80	577570.766	5373970.367	286.88	403.86	340	-60	DDH
Garrison	N88-81	577542.54	5373957.179	287.37	413.92	340	-60	DDH
Garrison	N88-82	577518.9	5373924.389	288.51	466.95	340	-60	DDH
Garrison	N88-83	577485.596	5373932.002	288.13	442.87	340	-60	DDH
Garrison	N88-84	577451.749	5373934.062	289.1	463.91	340	-60	DDH
Garrison	N88-85	577479.524	5373868.317	299.58	527	336.31	-61.3	DDH
Garrison	N88-86	577453.575	5373852.419	302	506.88	340	-60	DDH
Garrison	N88-87	577477.356	5373796.617	303.79	706.83	340	-70	DDH
Garrison	N88-88	577350.211	5373940.241	294.2	279.81	340	-60	DDH
Garrison	N88-89	577321.478	5373930.304	296.84	126.8	340	-60	DDH
Garrison	N88-89A	577321.478	5373930.304	296.94	288.34	340	-60	DDH
Garrison	N88-90	577400.717	5373896.383	292.13	401.12	340	-60	DDH
Garrison	N88-91	577373.992	5373884.44	291.51	501.7	340	-60	DDH
Garrison	N88-92	577346.091	5373872.549	291.66	556.26	340	-60	DDH
Garrison	N88-93	577306.3	5373888.559	292.73	91.44	340	-60	DDH
Garrison	N88-93A	577306.775	5373887.443	293.4	209.09	340	-60	DDH
Garrison	N88-94	577290.289	5373848.768	293	355.4	340	-60	DDH
Garrison	N88-95	577262.388	5373836.877	294.53	498.35	340	-60	DDH
Garrison	N88-96	577294.409	5373916.46	297.24	303.58	340	-60	DDH
Garrison	N88-97	577411.412	5373813.683	299.86	523.95	340	-60	DDH
Garrison	N88-98	577398.868	5373828.228	297.79	32	340	-65	DDH
Garrison	N88-98A	577397.773	5373828.638	297.88	439.83	340	-65	DDH
Garrison	N88-99	577421.554	5373772.836	302.3	579.12	340	-70	DDH
Garrison	N88-99B	577387.58	5373895.46	-30.95	622.4	340	-70	DDH
Garrison	N89-141	576942.02	5374044.203	306.27	185.01	160.86	-48.7	DDH
Garrison	N89-142	576883.794	5374020.117	306.06	213.97	160	-50	DDH
Garrison	N89-143	576820.756	5374007.798	306.04	184.71	160	-50	DDH
Garrison	N89-144	576979.436	5374109.559	308.25	306.02	157.91	-52.9	DDH
Garrison	N89-145	576941.893	5374044.65	306.16	249.02	156.77	-64.9	DDH
Garrison	N89-146	576883.124	5374021.099	305.94	245.97	156.33	-66.1	DDH
Garrison	N89-147	576907.547	5374045.162	305.88	242.32	157.26	-65.5	DDH
Garrison	N90-148	576923.712	5374086.857	306.35	306.93	156.38	-53.5	DDH
Garrison	N90-149	576865.232	5374060.55	305.72	364.24	154.18	-54.5	DDH
Garrison	N90-150	577003.146	5374058.387	304.8	181.97	160	-49	DDH
Garrison	N90-151	576956.416	5374168.037	307.9	372.16	160	-55	DDH
Garrison	N90-152	576901.005	5374139.726	306.18	345.34	156.09	-52.4	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	N90-153	577041.223	5374040.036	305.58	92.35	159.47	-60	DDH
Garrison	N91-154	577379.049	5374414.088	289.5	783.79	160	-60	DDH
Garrison	N91-155	577323.248	5374390.307	299.9	709.82	160	-65	DDH
Garrison	N91-156	577267.446	5374366.526	304	622.71	160	-70	DDH
Garrison	N91-156A	577335.241	5374180.26	-166.72	949.45	160	-70	DDH
Garrison	N91-157	577255.555	5374394.427	301.9	445.92	160	-70	DDH
Garrison	N91-158	577311.357	5374418.208	299.1	1012.73	160	-70	DDH
Garrison	N92-159	577245.959	5374571.663	290.6	112.96	160	-45	DDH
Garrison	N92-160	577245.51	5374566.45	288.88	100.89	159.33	-61.6	DDH
Garrison	N92-161	576883.324	5374494.264	299.7	138.07	340	-60	DDH
Garrison	N92-162	577349.323	5374483.84	291.7	192.63	340	-45	DDH
Garrison	N92-163	577361.214	5374455.94	293.4	103.02	340	-45	DDH
Garrison	N92-164	577303.586	5374513.801	290.8	79.86	160	-45	DDH
Garrison	N92-165	577303.586	5374513.801	290.8	77.72	160	-60	DDH
Garrison	N92-166	577251.988	5374402.797	301.8	103.94	340	-45	DDH
Garrison	N92-167	577367.859	5374667.716	285.4	122.23	115	-45	DDH
Garrison	N94-1	577234.98	5373820.66	296.5	474.27	340	-60	DDH
Garrison	N94-2	577214.72	5373711.19	303.4	538.28	340	-65	DDH
Garrison	N94-3	577146.68	5373715.55	304.2	550.47	340	-60	DDH
Garrison	N95-1	577248.7	5373787.51	300.1	168.86	340	-60	DDH
Garrison	N95-2	577219.02	5373780.19	301.5	171.6	340	-60	DDH
Garrison	N95-3	577277.6	5373797.05	298.8	173.43	340	-50	DDH
Garrison	N95-4	577286.64	5373775.4	299.8	170.69	340	-50	DDH
Garrison	N95-5	577258.79	5373763.66	301.2	192.33	340	-50	DDH
Garrison	N95-6	577230.82	5373751.68	303.1	205.13	340	-60	DDH
Garrison	OSK-G16-156X	578875.32	5373927.35	-273.49	558	119	-88	DDH
Garrison	OSK-G16-209X	578605.52	5373842.27	-220.93	456	322	-89	DDH
Garrison	OSK-G16-213X	578742.25	5373889.85	-216.04	456	170	-88	DDH
Garrison	OSK-G16-295	578549.893	5374212.766	301.71	906	160	-60	DDH
Garrison	OSK-G16-296	578595.386	5373812.977	288.4	1218	336	-57	DDH
Garrison	OSK-G16-297	577898.21	5373961.602	283.95	600	338.65	-52	DDH
Garrison	OSK-G16-298	577696.514	5373935.192	283.82	696	336	-61.5	DDH
Garrison	OSK-G16-299	579414.769	5374618.433	305.63	795	157	-61.3	DDH
Garrison	OSK-G16-300	578350.532	5373899.115	297.06	822	337.24	-55	DDH
Garrison	OSK-G16-301	579905.376	5374723.876	302.26	918	160	-55	DDH
Garrison	OSK-G16-302	578110	5373955	300	750.65	340	-55	DDH
Garrison	OSK-G16-303	578398.818	5373767.639	289.24	1032	340	-55	DDH
Garrison	OSK-G16-304	580147	5374663	300	690	160	-55	DDH
Garrison	OSK-G16-305	577149.812	5373233.919	295.64	249	160	-45	DDH
Garrison	OSK-G16-306	578331.598	5373939.775	300.65	813	335	-53	DDH
Garrison	OSK-G16-307	577149.659	5373234.145	295.56	378	160	-60	DDH
Garrison	OSK-G16-308	578399.947	5373750.79	288.86	1130	340	-55	DDH
Garrison	OSK-G16-309	577660.003	5373476.36	289.83	976.5	340.5	-52	DDH
Garrison	OSK-G16-310	580251.084	5374629.315	291.9	417	340	-60	DDH
Garrison	OSK-G16-311	580150	5374656	300	411	160	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	OSK-G16-312	578450.11	5373613.333	288.13	1210.8	340	-55	DDH
Garrison	OSK-G16-312A	578184.42	5374190.49	-579.22	66	340	-55	DDH
Garrison	OSK-G16-313	577170.618	5373650.105	298.88	597	340	-50	DDH
Garrison	OSK-G16-314	578670.845	5373864.569	297.34	111	337	-48	DDH
Garrison	OSK-G16-314A	578670.845	5373864.569	290	936	335.5	-48	DDH
Garrison	OSK-G16-315	577462.481	5373432.884	290.45	1119	340	-50	DDH
Garrison	OSK-G16-316	576964.66	5373456.781	302.28	873	340	-50	DDH
Garrison	OSK-G16-317	578528.779	5373835.001	285.04	638.9	340	-90	DDH
Garrison	OSK-G16-318	577101.771	5373212.639	297.74	327	340	-45	DDH
Garrison	OSK-G16-319	577020.35	5373151.957	300.19	414	340	-45	DDH
Garrison	OSK-G16-320	576974.786	5373422.165	300.62	147	340	-50	DDH
Garrison	OSK-G16-321	577069.14	5373007.456	302.45	570	340	-55	DDH
Garrison	OSK-G16-322x	577430.395	5373196.091	295.75	518	340	-50	DDH
Garrison	OSK-G16-71ax	578650.68	5374219.89	-146.94	456	340.63	-47.62	DDH
Garrison	OSK-G17-317A	578525.7	5373815.26	-314.18	963	195	-90	DDH
Garrison	OSK-G17-323	577465	5373103	300	426	340	-50	DDH
Garrison	OSK-G17-324	576860.366	5373001.201	306.1	468.5	340	-50	DDH
Garrison	OSK-G17-325	578382.746	5373852.366	292.86	958	336	-55	DDH
Garrison	OSK-G17-326	577297.271	5373251.876	297.19	219	340	-45	DDH
Garrison	OSK-G17-327	577335.597	5373162.473	297.78	389	340	-45	DDH
Garrison	OSK-G17-328	577132.801	5373138.393	300.49	522	340	-50	DDH
Garrison	OSK-G17-329	578355.485	5373577.557	287.44	773	340	-57	DDH
Garrison	OSK-G17-330	576830.191	5373092.59	304.72	402	340	-45	DDH
Garrison	OSK-G17-331	577840.661	5373239.733	289.77	819	339.52	-45.02	DDH
Garrison	OSK-G17-332	577396.39	5373291.054	295.38	339	340	-50	DDH
Garrison	OSK-G17-333	578259.43	5373553.803	284.23	660.75	340	-58	DDH
Garrison	OSK-G17-334	577207.406	5373212.446	298.39	253.4	340	-45	DDH
Garrison	OSK-G17-335	577242.64	5373129.264	298.97	354	340	-45	DDH
Garrison	OSK-G17-336	578439.432	5373928.256	304.81	970.3	336	-55	DDH
Garrison	OSK-G17-337	578355.529	5373577.384	287.45	642	340	-63	DDH
Garrison	OSK-G17-338	577840.676	5373239.772	289.83	861	340	-55	DDH
Garrison	OSK-G17-339	577371.682	5373068.149	297.3	324	340	-45	DDH
Garrison	OSK-G17-340	577270.829	5373343.521	293.74	207	340	-45	DDH
Garrison	OSK-G17-341	577257	5373236	300	258	340	-45	DDH
Garrison	OSK-G17-342	577285.913	5373303.045	295.57	204	340	-45	DDH
Garrison	OSK-G17-343	577058.922	5373487.82	300.83	186	340	-50	DDH
Garrison	OSK-G17-344	577237.506	5373283.376	295.07	226.3	340	-45	DDH
Garrison	OSK-G17-345	576869.979	5373421.077	301.36	180	340	-50	DDH
Garrison	OSK-G17-346	578451	5373610	285	735	340	-63	DDH
Garrison	OSK-G17-347	576879.386	5373276.661	301.69	186	165	-50	DDH
Garrison	OSK-G17-348	577273.403	5373190.431	298.49	270.9	340	-45	DDH
Garrison	OSK-G17-349	577072.804	5373302.651	292.94	447	340	-45	DDH
Garrison	OSK-G17-350	577935.86	5373276.127	288.32	768.55	340	-45	DDH
Garrison	OSK-G17-351	577318.141	5373212.398	292.02	369	340	-45	DDH
Garrison	OSK-G17-352	576950.489	5373039.398	301.45	465	340	-60	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	OSK-G17-353	577382.994	5373181.241	296.63	273.4	340	-45	DDH
Garrison	OSK-G17-354	578450.187	5373613.175	288.15	810	340	-68	DDH
Garrison	OSK-G17-355	577277.106	5373034.38	298.88	306	340	-45	DDH
Garrison	OSK-G17-356	577655.556	5373170.705	292.08	507	340	-45	DDH
Garrison	OSK-G17-357	577489.7	5373326	293.06	270	340	-45	DDH
Garrison	OSK-G17-358	577366.37	5373227.05	296.53	351	340	-45	DDH
Garrison	OSK-G17-359	577524	5373231	294.45	414	340	-45	DDH
Garrison	OSK-G17-360	577584.45	5373360.289	292.85	279	340	-45	DDH
Garrison	OSK-G17-361	577351.498	5373268.303	296.51	290	340	-45	DDH
Garrison	OSK-G17-362	577331.927	5373321.967	295.51	195	340	-45	DDH
Garrison	OSK-G17-363	577618.357	5373266.721	292.76	366	340	-45	DDH
Garrison	OSK-G17-364	576737.974	5373051.641	307.35	258	340	-45	DDH
Garrison	OSK-G17-365	577289.775	5373146.148	298.29	345	340	-45	DDH
Garrison	OSK-G17-366	576770.134	5372954.67	307.41	468	340	-45	DDH
Garrison	OSK-G17-367	577306.893	5373100.694	298	372	340	-45	DDH
Garrison	OSK-G17-368	577594.756	5373040.986	292.35	642	160	-45	DDH
Garrison	OSK-G17-369	577165.775	5373047.627	300.4	431.5	340	-50	DDH
Garrison	OSK-G17-370	577593.684	5373044.219	292.55	516	340	-45	DDH
Garrison	OSK-G17-371	576899.02	5372902.86	300	63	340	-45	DDH
Garrison	OSK-G17-371A	576899.263	5372903.175	305.8	550.8	340	-50	DDH
Garrison	OSK-G17-372	577874.72	5373145.96	290	459.6	340	-53	DDH
Garrison	OSK-G17-373	577712.303	5373300.996	290.98	279	340	-45	DDH
Garrison	OSK-G17-374	576661.61	5372970.39	300	51	340	-45	DDH
Garrison	OSK-G17-374A	576661.61	5372970.39	300	354	340	-45	DDH
Garrison	OSK-G17-375	577748.2	5373204.252	287.83	660	340	-45	DDH
Garrison	OSK-G17-376	576694.403	5372872.115	308.163	393	340	-45	DDH
Garrison	OSK-G17-377	577341.331	5373005.12	297.413	480	340	-45	DDH
Garrison	OSK-G17-378	576584.291	5372885.495	311.075	398.45	340	-45	DDH
Garrison	OSK-G17-379	577049.299	5373078.162	302.122	504	340	-52	DDH
Garrison	OSK-G17-380	578690.81	5373823.311	288.653	465	340	-45	DDH
Garrison	OSK-G17-381	578543.743	5373646.798	284.165	706.6	340	-57	DDH
Garrison	OSK-G17-382	576584.592	5372885.026	310.991	429	340	-60	DDH
Garrison	OSK-G17-383	576924.145	5373127.509	300.666	327	340	-45	DDH
Garrison	OSK-G17-384	576504.94	5372798.209	311.771	48	340	-45	DDH
Garrison	OSK-G17-384A	576504.94	5372798.209	311.771	408	340	-45	DDH
Garrison	OSK-G17-385	578548.155	5373843.302	289.679	73.4	280	-45	DDH
Garrison	OSK-G17-386	578548.394	5373843.373	289.557	141	280	-60	DDH
Garrison	OSK-G17-387	577164.8	5373196	298.01	312	340	-45	DDH
Garrison	OSK-G17-388	578592.416	5373860.454	289.802	147	280	-40	DDH
Garrison	OSK-G17-389	578669.94	5373877.3	289.748	843	0	-90	DDH
Garrison	OSK-G17-390	577568.415	5373108.895	291.291	456	340	-45	DDH
Garrison	OSK-G17-391	578592.101	5373860.509	290.034	216	280	-60	DDH
Garrison	OSK-G17-392	576973.655	5373137.903	299.761	342	340	-45	DDH
Garrison	OSK-G17-393	578584.965	5373885.626	292.628	207	280	-45	DDH
Garrison	OSK-G17-394	577476.063	5373218.48	295.093	414	340	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	OSK-G17-395	578584.535	5373885.662	292.688	191.81	280	-60	DDH
Garrison	OSK-G17-396	576984.17	5373250.954	297.793	297	340	-45	DDH
Garrison	OSK-G17-397	577631.986	5373230.585	292.628	333	340	-45	DDH
Garrison	OSK-G17-398	578591.3	5373905.923	294.42	178	280	-45	DDH
Garrison	OSK-G17-399	577815.454	5373308.795	290.06	690	340	-45	DDH
Garrison	OSK-G17-400	577025.106	5373288.595	293.093	360	340	-45	DDH
Garrison	OSK-G17-401	578591.269	5373905.923	294.42	186	280	-60	DDH
Garrison	OSK-G17-402	578714.223	5373763.749	286.4	685.1	340	-45	DDH
Garrison	OSK-G17-403	578597.514	5373940.612	298.06	162	280	-45	DDH
Garrison	OSK-G17-404	576766.641	5373110.742	306.472	240	340	-45	DDH
Garrison	OSK-G17-405	578596.922	5373939.272	298.437	189.15	280	-60	DDH
Garrison	OSK-G17-406	577013.947	5373167.123	298.673	245.6	340	-45	DDH
Garrison	OSK-G17-407	578577.76	5373969.987	302.983	90	280	-45	DDH
Garrison	OSK-G17-408	577387.899	5373315.321	295.405	282	340	-45	DDH
Garrison	OSK-G17-409	578577.561	5373970.036	303.178	93	280	-60	DDH
Garrison	OSK-G17-410	578664.94	5373876.75	290.033	100.5	280	-45	DDH
Garrison	OSK-G17-411	577354.879	5373113.775	297.147	414	340	-45	DDH
Garrison	OSK-G17-412	577066.501	5373168.209	301.064	396	340	-45	DDH
Garrison	OSK-G17-413	578665.248	5373876.693	290.02	117	282.55	-61.33	DDH
Garrison	OSK-G17-414	578700.344	5373894.692	290.474	156	280	-45	DDH
Garrison	OSK-G17-415	577260.267	5373079.876	300.6	417	340	-45	DDH
Garrison	OSK-G17-416	578700.79	5373894.553	290.498	210	280	-55	DDH
Garrison	OSK-G17-417	578774.519	5373963	292.275	642	0	-90	DDH
Garrison	OSK-G17-418	576907.7	5373171.448	298.78	333	340	-45	DDH
Garrison	OSK-G17-419	578711.949	5373917.452	291.557	144.25	280	-45	DDH
Garrison	OSK-G17-420	577228.092	5373168.997	298.942	303	340	-45	DDH
Garrison	OSK-G17-421	578712.265	5373917.311	291.362	210	280	-60	DDH
Garrison	OSK-G17-422	577186.966	5373134.804	299.943	324	340	-45	DDH
Garrison	OSK-G17-423	578694.792	5373948.121	294.546	183.35	280	-60	DDH
Garrison	OSK-G17-424	577124.256	5373161.181	299.83	381	340	-45	DDH
Garrison	OSK-G17-425	577145.843	5373248.063	295.05	270	340	-45	DDH
Garrison	OSK-G17-426	578695.256	5373947.998	294.486	243.7	280	-60	DDH
Garrison	OSK-G17-427	578692.095	5374048.32	307.209	566	340	-90	DDH
Garrison	OSK-G17-428	577280.366	5373170.844	298.87	333	340	-45	DDH
Garrison	OSK-G17-429	578739.359	5373840.345	287.946	698.05	340	-90	DDH
Garrison	OSK-G17-430	576548.094	5372981.479	310.835	327	340	-45	DDH
Garrison	OSK-G17-431	577411.081	5373252.767	295.933	334.1	340	-50	DDH
Garrison	OSK-G17-432	576879.498	5373278.27	300.773	234	340	-45	DDH
Garrison	OSK-G17-433	578919.538	5374005.072	287.465	600	0	-90	DDH
Garrison	OSK-G17-434	576680.515	5373164.93	307.004	267	340	-50	DDH
Garrison	OSK-G17-435	577026.64	5373285.098	294.078	243	340	-70	DDH
Garrison	OSK-G17-436	577392.394	5373015.342	296.8	435	340	-45	DDH
Garrison	OSK-G17-437	576992	5373379	296	285	340	-50	DDH
Garrison	OSK-G17-438	578626.959	5373857.845	290.42	777	340	-90	DDH
Garrison	OSK-G17-439	576931.586	5372808.339	305.396	537	340	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	OSK-G17-440	578784.141	5373717.84	285.52	594	340	-50	DDH
Garrison	OSK-G17-441	577603.6	5373158.855	292.875	447	340	-45	DDH
Garrison	OSK-G17-442	577960.589	5373418.649	288.258	702	340	-40	DDH
Garrison	OSK-G17-443	578658.621	5373771.189	287.811	510	340	-50	DDH
Garrison	OSK-G17-444	578077.682	5373388.896	287.774	825	340	-45	DDH
Garrison	OSK-G17-445	578738.09	5373700.215	282.294	582	340	-45	DDH
Garrison	OSK-G17-446	578511.99	5373659.593	284.282	646.7	340	-50	DDH
Garrison	OSK-G17-447	578142.173	5373511.876	284.746	765	340	-50	DDH
Garrison	OSK-G17-448	577618.539	5373116.823	292.26	483.4	340	-50	DDH
Garrison	OSK-G17-449	578694.795	5373822.222	288.315	147	340	-45	DDH
Garrison	OSK-G17-450	578586.659	5373822.945	289.066	630	340	-50	DDH
Garrison	OSK-G17-451	577196.977	5373254.766	295.994	183	340	-45	DDH
Garrison	OSK-G17-452	577220.321	5373193.559	298.76	228	340	-45	DDH
Garrison	OSK-G17-453	577575.29	5373088.599	293.375	483	340	-45	DDH
Garrison	OSK-G17-454	577264.487	5373214.835	297.774	228	340	-45	DDH
Garrison	OSK-G17-455	577246.389	5373265.622	295.873	195	340	-45	DDH
Garrison	OSK-G17-456	577329.275	5373183.627	297.423	306	340	-45	DDH
Garrison	OSK-G17-457	577531.46	5373069.546	291.113	378	340	-45	DDH
Garrison	OSK-G17-458	577293.666	5373281.504	296.208	231	340	-45	DDH
Garrison	OSK-G17-459	577310.987	5373234.096	297.082	291	340	-45	DDH
Garrison	OSK-G17-460	578685.929	5373698.449	282.193	606	340	-50	DDH
Garrison	OSK-G17-461	577197.018	5373254.709	296.163	228	340	-45	DDH
Garrison	OSK-G17-462	576682.396	5373208.84	307.239	369	340	-45	DDH
Garrison	OSK-G17-463	577442.2	5373165	296.5	272	340	-50	DDH
Garrison	OSK-G17-464	576587.4	5373174	308.5	330	340	-45	DDH
Garrison	OSK-G17-465	576482.607	5373139.742	311.308	348	340	-45	DDH
Garrison	OSK-G17-466	577034.8	5373406.95	297.43	324	340	-45	DDH
Garrison	OSK-G17-467	576885.785	5372790.513	307.277	462	340	-50	DDH
Garrison	OSK-G17-468	576980.385	5372827.235	305.394	477	340	-50	DDH
Garrison	OSK-G17-469	576794.153	5372749.574	309.23	428.75	340	-45	DDH
Garrison	OSK-G17-470	576604.003	5372679.001	310.956	489	340	-45	DDH
Garrison	OSK-G18-471	577082.069	5373569.972	300.057	462	340	-45	DDH
Garrison	OSK-G18-472	576819.537	5373701.311	306.182	438	340	-45	DDH
Garrison	OSK-G18-473	576770.039	5373840.776	306.473	357	340	-45	DDH
Garrison	OSK-G18-474	576685.933	5373486.556	307.033	441	340	-45	DDH
Garrison	OSK-G18-475	576632.518	5373628.993	310.364	504	340	-45	DDH
Garrison	OSK-G18-476	576465.828	5373508.625	313.783	462	340	-45	DDH
Garrison	OSK-G18-477	576564.989	5373236.683	308.864	525	340	-45	DDH
Garrison	OSK-G18-478	579677.9	5374037.9	312.763	580	160	-45	DDH
Garrison	OSK-G18-479	579962.5	5374022.44	275.833	600	160	-50	DDH
Garrison	OSK-G18-480	577009.05	5373478.667	300.91	705	340	-45	DDH
Garrison	PHOMO-1	577456	5373718	301.96	30.48	180	-55	DDH
Garrison	PHOMO-2	577483	5373675	298.7	38.1	180	-55	DDH
Garrison	PHOMO-3	577390	5373650	301.33	36.88	180	-55	DDH
Garrison	S-1	576529.007	5373487.152	311	125.58	160	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Garrison	S-3	576544.622	5373496.775	310.93	103.33	160	-45	DDH
Garrison	S-4	576561.527	5373517.947	311	128.93	160	-45	DDH
Garrison	U-1	577332.703	5374155.768	162.34	101.5	147	-11	DDH
Garrison	U-10	577332.703	5374155.768	162.54	99.06	159	-40	DDH
Garrison	U-11	577332.703	5374155.768	162.14	92.66	159	-11	DDH
Garrison	U-12	577332.703	5374155.768	161.94	96.47	159	-20	DDH
Garrison	U-14	577332.703	5374155.768	162.34	105.46	174	-9	DDH
Garrison	U-15	577332.703	5374155.768	162.54	102.11	174	-19	DDH
Garrison	U-16	577332.703	5374155.768	162.74	98.15	174	-28	DDH
Garrison	U-17	577332.703	5374155.768	162.94	105.77	174	-38	DDH
Garrison	U-18	577332.703	5374155.768	162.14	104.24	174	-9	DDH
Garrison	U-19	577332.703	5374155.768	161.94	115.82	174	-18	DDH
Garrison	U-2	577332.703	5374155.768	162.54	105.46	147	-22	DDH
Garrison	U-28	577332.703	5374155.768	162.34	110.95	184	-8	DDH
Garrison	U-29	577332.703	5374155.768	162.54	111.56	184	-16	DDH
Garrison	U-3	577332.703	5374155.768	162.74	121.92	147	-32	DDH
Garrison	U-31	577332.703	5374155.768	162.14	114.91	184	-8	DDH
Garrison	U-34	577337.147	5374159.057	162.34	97.23	139	-10	DDH
Garrison	U-35	577337.147	5374159.057	162.54	103.63	139	-20	DDH
Garrison	U-36	577337.147	5374159.057	162.74	99.97	139	-30	DDH
Garrison	U-37	577337.147	5374159.057	162.94	104.24	139	-40	DDH
Garrison	U-4	577332.703	5374155.768	162.94	108.2	147	-41	DDH
Garrison	U-41	577337.147	5374159.057	162.54	99.36	132	-9	DDH
Garrison	U-42	577337.147	5374159.057	162.74	100.58	132	-18	DDH
Garrison	U-44	577337.147	5374159.057	162.94	98.45	132	-38	DDH
Garrison	U-45	577337.147	5374159.057	162.14	104.85	132	-10	DDH
Garrison	U-46	577337.147	5374159.057	161.94	107.29	132	-19	DDH
Garrison	U-47	577337.147	5374159.057	161.74	103.33	132	-26	DDH
Garrison	U-48A	577334.599	5374160.428	161.28	75.74	270	-60	DDH
Garrison	U-5	577332.703	5374155.768	162.24	83.82	147	-11	DDH
Garrison	U-50	577278.728	5374230.581	247.34	195.38	143	0	DDH
Garrison	U-6	577332.703	5374155.768	161.94	115.52	147	-20	DDH
Garrison	U-8	577332.703	5374155.768	162.34	112.78	159	-22	DDH
Garrison	WH-33	577423.678	5373223.475	296.3	224.64	352.5	-50	DDH
Garrison	WH45-12	577048.553	5373403.439	296.32	247.38	150	-50	DDH
Garrison	WH45-13	577008.132	5373339.026	296.7	239.27	150	-50	DDH
Garrison	WH45-20	577112.039	5373405.828	297.39	243.84	150	-50	DDH
Garrison	WH45-21	577065.924	5373363.852	296.32	243.84	330	-50	DDH
Golden Highway	659-01	569961.98	5373799.55	325	171.9	180	-45	DDH
Golden Highway	659-02	569531.22	5373870	325	157	180	-45	DDH
Golden Highway	659-03	570839.84	5373418.11	325	152.9	180	-45	DDH
Golden Highway	659-04	569475.94	5373694.33	325	221.3	360	-50	DDH
Golden Highway	659-05	570265.88	5373830.64	325	152.4	180	-50	DDH
Golden Highway	659-06	570495.57	5374662.16	325	129.5	360	-45	DDH
Golden Highway	80-01	576038.35	5369873.07	325	198.12	360	-55	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	80-02	576094.55	5369903.08	325	169.16	360	-55	DDH
Golden Highway	83-01	575872.65	5370081.61	325	320.65	8	-45	DDH
Golden Highway	83-02	575754.66	5370181.95	325	148.13	359	-50	DDH
Golden Highway	83-03	575732.51	5370051.61	325	226.16	10	-45	DDH
Golden Highway	85-081-B	565380	5371150	325	2	0	-90	TP
Golden Highway	85-130-B	563670	5374480	325	30	0	-90	TP
Golden Highway	85-18	567070	5370670	339	12.5	0	-90	RC
Golden Highway	85-19	571580	5373950	338	78	0	-90	RC
Golden Highway	85-20	572200	5370450	330.5	46.3	0	-90	RC
Golden Highway	87-38	569340	5368450	318	45.7	0	-90	RC
Golden Highway	87-39	565542	5369264	320	52.4	0	-90	RC
Golden Highway	87-41	563300	5372600	323	11.3	0	-90	RC
Golden Highway	89-01	575360.06	5369854.03	325	151.18	360	-45	DDH
Golden Highway	89-02	575358.19	5369960.96	325	163.07	360	-45	DDH
Golden Highway	89-03	575178.73	5369736.31	325	154.23	360	-45	DDH
Golden Highway	89-04	575873.34	5370214.58	325	55.17	50	-45	DDH
Golden Highway	95-01	575661.54	5370091.64	325	47.55	180	-60	DDH
Golden Highway	95-02	575660.93	5370126.77	325	76.2	180	-60	DDH
Golden Highway	95-03	575630.77	5370103.38	325	45.72	180	-60	DDH
Golden Highway	95-04	575629.79	5370159.79	325	104.85	180	-60	DDH
Golden Highway	95-05	575604.5	5370124.86	325	93.57	180	-60	DDH
Golden Highway	95-IP-01	575606.63	5370002.63	325	551.08	360	-65	DDH
Golden Highway	95-IP-02	575667.33	5369760.12	325	457.5	360	-55	DDH
Golden Highway	95-IP-03	575480.8	5369940.24	325	411.78	360	-65	DDH
Golden Highway	95-IP-04	575609.95	5369545.17	325	152.4	360	-75	DDH
Golden Highway	97IRI-01	566958.37	5372109.5	325	93.27	180	-45	DDH
Golden Highway	97IRI-02	567174.75	5371999	325	98.15	180	-45	DDH
Golden Highway	97IRI-03	566662.43	5371907.5	325	102.41	180	-45	DDH
Golden Highway	DM-02	563020	5371240	325	228.6	10	-35	DDH
Golden Highway	DM-03	562540	5370920	325	278.28	45	-42.5	DDH
Golden Highway	DM-04	563845	5370450	325	42.67	0	-90	DDH
Golden Highway	DM-05	565265	5371245	325	237.74	170	-33.5	DDH
Golden Highway	DM-06	565390	5370475	325	191.26	0	-61.5	DDH
Golden Highway	DM-07	565450	5370475	325	198.42	0	-60	DDH
Golden Highway	DM-08	565340	5370475	325	179.22	0	-61	DDH
Golden Highway	DM-09	565340	5370500	325	241.1	180	-63.5	DDH
Golden Highway	DM-10	565275	5370385	325	128.32	0	-60	DDH
Golden Highway	DM-11	565390	5370115	325	305.71	0	-53	DDH
Golden Highway	FC03-01	564204.66	5375147.76	325	129	17	-50	DDH
Golden Highway	FC03-02	564208.59	5375147.76	325	135	17	-62	DDH
Golden Highway	FC03-03	564029.66	5375197.76	325	51	17	-50	DDH
Golden Highway	FC03-04	564154.67	5375155.77	325	84	17	-50	DDH
Golden Highway	FC03-05	564248.66	5375131.77	325	108	17	-50	DDH
Golden Highway	FC04-06	564186.59	5375086.58	325	161.5	17	-55	DDH
Golden Highway	FC04-07	564308.59	5375154.58	325	186	17	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	FC04-08	564108.59	5375173.58	325	144	17	-50	DDH
Golden Highway	GC-18	575666.71	5369967.91	325	229.21	350	-50	DDH
Golden Highway	GHM97-01	570425.81	5373660	325	302	210	-50	DDH
Golden Highway	GHM97-02	570978.68	5373523	325	302	180	-45	DDH
Golden Highway	GHM97-03	570225	5373732	325	302	180	-45	DDH
Golden Highway	GHM97-04	569794.68	5373812.5	325	221	180	-50	DDH
Golden Highway	GHM97-05	570746.75	5373597	325	267	180	-45	DDH
Golden Highway	GHM97-06	569691.81	5373981	325	307	180	-45	DDH
Golden Highway	GHM97-07	569145.12	5373963.5	325	350	180	-45	DDH
Golden Highway	GNG-90-01	574811.06	5369788.01	325	184.95	360	-45	DDH
Golden Highway	GNG-90-02	574809.14	5369897.96	325	183.95	360	-45	DDH
Golden Highway	GNG-90-03	574808.07	5369959.06	325	403.89	360	-45	DDH
Golden Highway	GNG-90-04	574807.33	5370001.89	325	286.94	360	-45	DDH
Golden Highway	GNG-90-05	574076.84	5369945.82	330	78.97	360	-45	DDH
Golden Highway	GNG-90-06	574803.81	5370203.49	325	214.94	360	-45	DDH
Golden Highway	GNG-90-07	574797.94	5370539.59	325	300.93	360	-45	DDH
Golden Highway	GNG-90-08	574795.17	5370698.49	325	343.91	360	-45	DDH
Golden Highway	GNG-90-09	574789.25	5371037.59	325	529.86	360	-45	DDH
Golden Highway	H-81-01	567846.71	5374244.23	325	154.23	20	-60	DDH
Golden Highway	HV-86-01	575732.55	5370049.2	325	135.64	8	-62	DDH
Golden Highway	HV-86-02	575732.55	5370049.2	325	47.85	340	-45	DDH
Golden Highway	HV-86-02A	575732.55	5370049.2	325	52.43	20	-45	DDH
Golden Highway	HV-86-03	575729.77	5370036.28	325	66.14	10	-60	DDH
Golden Highway	HV-86-04	575729.77	5370036.28	325	26.52	10	-45	DDH
Golden Highway	HV-86-05	575779.21	5370037.14	325	78.33	10	-45	DDH
Golden Highway	HV-86-06	575779.21	5370037.14	325	75.9	340	-45	DDH
Golden Highway	HV-86-07	575680.81	5370035.42	325	78.33	10	-45	DDH
Golden Highway	HV-86-08	575684.98	5370058.48	325	42.06	10	-45	DDH
Golden Highway	HV-86-09	575684.98	5370058.48	325	47.85	340	-45	DDH
Golden Highway	HV-86-10	575684.98	5370058.48	325	40.54	40	-45	DDH
Golden Highway	HV-86-11	575639.18	5370059.72	325	50.9	40	-45	DDH
Golden Highway	HV-86-12	575639.18	5370059.72	325	58.52	340	-45	DDH
Golden Highway	HV-87-13	575916.98	5369989.13	325	218.54	10	-45	DDH
Golden Highway	HV-87-14	575925.07	5370049.43	325	152.4	10	-45	DDH
Golden Highway	HV-87-15	575680.81	5370035.42	325	117.96	340	-50	DDH
Golden Highway	HV-87-16	575680.81	5370035.42	325	99.06	10	-60	DDH
Golden Highway	HV-87-17	575684.98	5370058.48	325	61.26	40	-60	DDH
Golden Highway	HV-87-18	575684.98	5370058.48	325	63.7	40	-60	DDH
Golden Highway	HV-87-19	575684.98	5370058.48	325	32.31	10	-60	DDH
Golden Highway	HV-87-20	575684.98	5370058.48	325	27.74	340	-60	DDH
Golden Highway	HV-87-21	575639.18	5370059.72	325	76.5	10	-45	DDH
Golden Highway	HV-87-22	575639.18	5370059.72	325	22.86	10	-60	DDH
Golden Highway	HV-87-22A	575639.18	5370059.72	325	93.57	10	-60	DDH
Golden Highway	HV-87-23	575596.53	5370052.24	325	84.43	10	-45	DDH
Golden Highway	HV-87-24	575596.53	5370052.24	325	76.5	10	-60	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	HV-87-25	575552.18	5370056.16	325	57	360	-50	DDH
Golden Highway	HV-87-26	575552.18	5370056.16	325	59.44	360	-60	DDH
Golden Highway	JM-82-01	572567.42	5371878.78	332.5	377.34	188	-50	DDH
Golden Highway	JM-82-02	572695.66	5372221.71	339.28	251.76	205	-45	DDH
Golden Highway	JM-83-03	572968.72	5372159.03	340	70.1	360	-45	DDH
Golden Highway	JM-83-04	573419.72	5371968.11	338.84	304.8	360	-45	DDH
Golden Highway	JM-93-05	573632.26	5371919.84	340.16	334	180	-45	DDH
Golden Highway	JRM-95-01	573992.09	5370379.28	331	157.58	360	-90	DDH
Golden Highway	JRM-95-02	575253.36	5370975.42	325	154.23	270	-45	DDH
Golden Highway	JRM-95-03	575325.1	5370105.62	325	190.8	270	-45	DDH
Golden Highway	JRM-95-04	575323.77	5370182.01	325	157.28	290	-45	DDH
Golden Highway	KX25-67	569760	5369225	322.25	110.03	343	-50	DDH
Golden Highway	KX26-68	570020	5368580	318.75	106.98	343	-47	DDH
Golden Highway	M-01-225	570356.61	5370385.56	324.25	210.6	260	-45	DDH
Golden Highway	M-01-226	571635.62	5370937.56	330.25	174	224	-45	DDH
Golden Highway	M-03-236	571637.62	5370761.56	328.25	245	160	-45	DDH
Golden Highway	M-03-237	571415.62	5370660.56	327	356	160	-50	DDH
Golden Highway	M-03-238	570788.62	5370416.56	324.25	344	340	-50	DDH
Golden Highway	M-03-239	570665.61	5370400.56	325.25	305	340	-50	DDH
Golden Highway	M-04-257	569668.61	5369403.55	322.75	314	10	-45	DDH
Golden Highway	M-04-258	569501.61	5369456.55	323	231	10	-45	DDH
Golden Highway	M-08-259	571635.26	5369843.3	328.41	437	336.7	-59.6	DDH
Golden Highway	M55-10-01	569371.24	5368879.92	318.88	404	158.6	-61.9	DDH
Golden Highway	M55-10-02	569309.37	5368857.34	319.22	303	158.1	-62	DDH
Golden Highway	M55-10-03	569249.01	5368839.09	319.22	289.95	159.4	-60.7	DDH
Golden Highway	M55-10-04	569329.16	5368959	319.48	119	160	-60	DDH
Golden Highway	M55-10-05	569335.71	5368938.94	319.47	335	161.3	-58.3	DDH
Golden Highway	M55-10-06	569558.6	5369045.31	320.94	271.75	157.1	-61.4	DDH
Golden Highway	M55-10-07	568993.99	5368837.3	319.53	281.1	162.3	-60.2	DDH
Golden Highway	M55-10-08	569420.3	5368986.95	320.58	305	155.1	-64.4	DDH
Golden Highway	M55-10-09	569653.27	5369076.79	321.41	253.95	158.5	-60	DDH
Golden Highway	M55-10-10	569276.6	5368941.2	319.55	311	162.5	-61.2	DDH
Golden Highway	M55-10-11	569746.99	5369112.47	321.59	286.41	158.4	-61.2	DDH
Golden Highway	M55-10-12	568902.79	5368800.85	319.73	302.15	154	-62.3	DDH
Golden Highway	M55-10-13	569367.41	5368974.64	319.73	296	159.3	-58.8	DDH
Golden Highway	M55-10-14	569315.78	5368954.69	320.01	179	163.5	-60.1	DDH
Golden Highway	M55-10-15	569225.26	5368936.6	319.79	251	156.4	-59.7	DDH
Golden Highway	M55-10-16	569339.76	5368963.02	319.91	161	161.4	-61.2	DDH
Golden Highway	M55-10-17	568814.28	5368744.53	319.12	248.82	158.1	-53.8	DDH
Golden Highway	M55-10-18	569307.66	5368977.37	319.98	191	160.4	-59.6	DDH
Golden Highway	M55-10-19X	569179.75	5368922.02	319.93	427.85	157.2	-61	DDH
Golden Highway	M55-10-20	569090.54	5368872.46	320.09	359.05	160.6	-60.1	DDH
Golden Highway	M55-10-21	569247.67	5368944.94	319.6	371	162.1	-61	DDH
Golden Highway	M55-10-22	569137.47	5368891.23	319.94	337.9	158.2	-62.4	DDH
Golden Highway	M55-10-23	569042.48	5368846.89	319.54	254	159	-60	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	M55-10-24	569447.99	5368911.61	319.33	224	160.1	-62	DDH
Golden Highway	M55-10-25	569494.73	5368936.93	319.95	278	157.1	-59.3	DDH
Golden Highway	M55-10-26	569334.5	5368790.93	318.04	170	158.7	-65	DDH
Golden Highway	M55-10-27	569463.45	5369012.13	320.47	314	158.1	-59.4	DDH
Golden Highway	M55-10-28	569278.6	5368787.23	318.65	158	155.9	-62	DDH
Golden Highway	M55-10-29	569068.96	5368785.25	319.03	260.15	161.2	-59.1	DDH
Golden Highway	M55-10-30	569159.17	5368817.51	319.12	263	154.5	-61.8	DDH
Golden Highway	M55-10-31	569225.32	5368790.66	318.85	205.95	159	-64.4	DDH
Golden Highway	M55-10-32	569396.08	5368831.06	319.57	212	159.2	-59.7	DDH
Golden Highway	M55-10-33	569119.02	5368788.13	319.09	236	161.7	-58.9	DDH
Golden Highway	M55-10-34	568928.86	5368730.27	319.39	302	159.7	-62.6	DDH
Golden Highway	M55-10-35	569523.86	5368871.94	319.49	235.9	157.4	-63	DDH
Golden Highway	M55-10-36	569176.97	5368771.72	318.88	161	158.5	-61	DDH
Golden Highway	M55-12-37	569579.16	5368963.82	320.39	315	158.7	-51.1	DDH
Golden Highway	M55-12-38	569675.87	5368995.65	321.03	218.84	160.8	-50.7	DDH
Golden Highway	M55-12-39	569575	5368980	320.39	303	160	-60	DDH
Golden Highway	M-86-01	570718.86	5370620.28	328.57	151.2	154	-45	DDH
Golden Highway	M-87-01	570248.22	5369936.27	325.25	88.39	343	-50	DDH
Golden Highway	M-87-02	570184.92	5370130.28	324.42	257.86	343	-50	DDH
Golden Highway	M-87-03	570601.43	5370250.15	323.25	153.31	343	-50	DDH
Golden Highway	M-87-04	570706.7	5370317.86	322.93	38.1	343	-50	DDH
Golden Highway	M-87-05	570916.76	5370639.91	327.75	141.88	163	-50	DDH
Golden Highway	M-87-06	571022.17	5370708.34	327.76	230.73	163	-50	DDH
Golden Highway	M-87-06A	571036.03	5370667.98	327.82	60.96	163	-50	DDH
Golden Highway	M-87-07	570971.36	5370845.61	329.67	355.4	163	-50	DDH
Golden Highway	M-87-08	569710	5371365	330	459.03	0	-65.5	DDH
Golden Highway	M-87-09	571235.96	5369744.57	323.02	241.4	328	-51	DDH
Golden Highway	M-87-10	571163.86	5369868.55	323.5	242.62	330	-50	DDH
Golden Highway	M-87-11	571006.94	5370686.99	328.73	91.44	163	-50	DDH
Golden Highway	M-87-12	571055.87	5370713.46	328.54	91.44	163	-50	DDH
Golden Highway	M-87-13	570024.65	5371332.57	327.5	304.8	15	-50	DDH
Golden Highway	M-87-14X	571252.64	5370806.77	328.41	341	163	-54	DDH
Golden Highway	M-87-15	571476.56	5370877.29	329.84	243.84	161	-50	DDH
Golden Highway	M-87-16	571214.93	5369786.2	322.7	85.04	333	-51	DDH
Golden Highway	M-87-17	571210.73	5369729.03	322.84	152.4	329	-49	DDH
Golden Highway	M-87-18	571263.59	5369758.42	323.33	159.11	328	-50	DDH
Golden Highway	M-87-19	571210.47	5369729.39	322.75	213.66	328	-66	DDH
Golden Highway	M-87-20	571310.26	5369790.75	324.55	175.56	325	-51	DDH
Golden Highway	M-87-21	571186.26	5369715.2	323.32	150.57	319	-51	DDH
Golden Highway	M-87-22	571165.17	5369698.77	323.01	151.18	322	-50	DDH
Golden Highway	M-87-23	571186.9	5369765.81	323.5	108.51	328	-50	DDH
Golden Highway	M-87-24	571196.4	5369774.32	322.63	94.18	330	-50	DDH
Golden Highway	M-87-25	571135.81	5369864.25	323.5	245.06	150	-50	DDH
Golden Highway	M-87-26	571068.08	5369470.01	322.5	213.36	330	-50	DDH
Golden Highway	M-87-27	571235.96	5369718.31	323.53	105.13	281	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	M-87-27A	571235.96	5369718.31	323.53	206.04	330	-50	DDH
Golden Highway	M-87-28	571068.08	5369470.01	322.5	281.94	330	-65	DDH
Golden Highway	M-87-28A	571068.08	5369470.01	322.5	106.98	330	-90	DDH
Golden Highway	M-87-29	571170.98	5369811.82	322.83	182.88	330	-90	DDH
Golden Highway	M-87-30	571189.54	5369782.32	322.6	182.88	330	-90	DDH
Golden Highway	M-87-31	571172.69	5369763.54	323.5	182.88	300	-90	DDH
Golden Highway	M-87-32	571220	5369803.38	322.6	182.88	310	-90	DDH
Golden Highway	M-87-33	571206.05	5369858.08	322.56	182.88	150	-60	DDH
Golden Highway	M-87-34	571220.46	5369886.1	322.82	137.16	150	-50	DDH
Golden Highway	M-87-35	571101.66	5369472.66	323	47.55	330	-50	DDH
Golden Highway	M-87-36	571101.66	5369472.66	323	57.91	330	-65	DDH
Golden Highway	M-87-37	571101.66	5369472.66	323	182.88	0	-90	DDH
Golden Highway	M-87-38	571066.73	5369471.49	322.24	122.32	330	-65	DDH
Golden Highway	M-87-39	571078.25	5369464.17	322.75	183.18	0	-90	DDH
Golden Highway	M-87-40	571064.24	5369416.3	322.22	115.82	330	-50	DDH
Golden Highway	M-87-41	571063.78	5369417.84	322.22	138.99	330	-65	DDH
Golden Highway	M-87-42	571038.4	5369397.62	322.25	122.83	330	-50	DDH
Golden Highway	M-87-43	571038.4	5369397.62	322.25	149.35	330	-70	DDH
Golden Highway	M-87-44	571132.65	5369823.11	322.96	259.08	150	-70	DDH
Golden Highway	M-87-44A	571134.22	5369823.22	322.96	245.67	90	-65	DDH
Golden Highway	M-87-45	571110.71	5369805.59	322.01	154.23	150	-50	DDH
Golden Highway	M-87-46	571110.71	5369808.59	322.01	260.91	150	-70	DDH
Golden Highway	M-87-47	571086.96	5369791.5	322.25	152.4	150	-50	DDH
Golden Highway	M-87-48	571082.24	5369789.43	323	26.21	0	-90	DDH
Golden Highway	M-87-49	571036.1	5369755.18	322.15	312.72	150	-50	DDH
Golden Highway	M-87-50	571550.59	5369917.74	327.61	153.01	342	-50	DDH
Golden Highway	M-87-51	571022.75	5369367.31	321.2	152.4	330	-50	DDH
Golden Highway	M-87-52	571123.82	5369438.82	323	110.03	330	-50	DDH
Golden Highway	M-87-53	571147.04	5369459.68	323	129.84	330	-50	DDH
Golden Highway	M-87-54	571171.24	5369477.69	322.1	137.46	330	-50	DDH
Golden Highway	M-87-57	571813.3	5369918.11	328.5	243.84	342	-50	DDH
Golden Highway	M-87-58	570988.78	5369512.74	322	276.15	150	-50	DDH
Golden Highway	M-87-59	571775.56	5370006.71	328.14	271.27	342	-50	DDH
Golden Highway	M-87-60	570690.01	5369394.01	320.1	259.08	343	-50	DDH
Golden Highway	M-87-61	571742.25	5370124.59	326.86	274.93	343	-50	DDH
Golden Highway	M-87-62	571659.64	5370353.63	326.52	291.39	343	-50	DDH
Golden Highway	M-87-63	571613.02	5370498.75	325.57	267	343	-50	DDH
Golden Highway	M-87-64	570520.05	5369359.81	321.26	126.49	343	-50	DDH
Golden Highway	M-87-65	570378.68	5369187.11	320.99	148.13	343	-50	DDH
Golden Highway	M-87-66	570387.38	5368840.16	319.5	285.9	163	-50	DDH
Golden Highway	M-87-67	571268.82	5370740.74	327.68	152.4	163	-50	DDH
Golden Highway	M-87-68	571083.32	5369538.77	321.8	367.59	148.5	-53.5	DDH
Golden Highway	M-87-70	570961.14	5369497.43	321.88	369.42	150	-50	DDH
Golden Highway	M-87-70A	571007.11	5369489.48	321.88	365.76	138.8	-62	DDH
Golden Highway	M-87-71	571019.2	5369523.01	322.25	71.17	150	-65	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	M-87-72	571032.31	5369530.33	321.4	523.04	150	-50	DDH
Golden Highway	M-87-74	570961.14	5369497.43	321.1	330.71	150	-50	DDH
Golden Highway	M-87-76	571063.67	5369392.01	321.6	230.43	331	-53.5	DDH
Golden Highway	M-87-77	571092.72	5369341.81	321.8	275.23	330	-53	DDH
Golden Highway	M-87-78	571123.45	5369288.85	321.8	268.83	330	-50	DDH
Golden Highway	M-87-78A	571123.45	5369288.85	321.83	385.88	330	-60	DDH
Golden Highway	M-87-80	571095.23	5369391.56	321.7	199.95	330	-50	DDH
Golden Highway	M-87-81	571122.76	5369338.83	321.7	324.92	330	-55	DDH
Golden Highway	M-87-82	571125.84	5369407.2	323	234.39	330	-55	DDH
Golden Highway	M-87-83	571155.06	5369354.36	323	302.36	330	-55	DDH
Golden Highway	M-87-85	571118.28	5369486.3	323	276.15	150	-50	DDH
Golden Highway	M-87-86	570625.54	5369595.59	321.4	306.63	163	-50	DDH
Golden Highway	M-87-87	570953.47	5369435.65	321.4	337.11	89	-56	DDH
Golden Highway	M-87-88A	570587.4	5369571.33	322.25	101.5	157	-51.5	DDH
Golden Highway	M-87-89	571023.21	5369367.81	322.07	257.86	102.5	-66.5	DDH
Golden Highway	M-87-90	570091.63	5369639.74	324.5	325.83	6.5	-53	DDH
Golden Highway	M-87-91	571770.2	5369659.47	327.79	181.66	341	-55	DDH
Golden Highway	MA02-01	571190.91	5369732.23	323.74	150	330	-70	DDH
Golden Highway	MA02-02	571049.35	5369343.3	322.13	239.5	26.5	-69.2	DDH
Golden Highway	MA02-03	571049.28	5369343.52	322.1	248	11.4	-57.8	DDH
Golden Highway	MA02-04	570696.88	5369406.1	320.95	261	328.1	-72.7	DDH
Golden Highway	MA02-05	570359.25	5368981.66	320.21	395	322.7	-57	DDH
Golden Highway	MA02-06	569297.36	5368611.12	317.35	407	340.8	-57.1	DDH
Golden Highway	MA02-07	569454	5368540.95	316.72	551	346.5	-62.9	DDH
Golden Highway	MA02-08	570830.02	5369609.43	321.12	416	36.8	-52	DDH
Golden Highway	MA02-09	570829.64	5369609.84	321.15	371	353.3	-51.7	DDH
Golden Highway	MA03-10X	569358.35	5368525.44	318.26	482	342.5	-63.1	DDH
Golden Highway	MA03-11	569220.67	5368628.17	318.75	401	333.7	-59.8	DDH
Golden Highway	MA03-12	567285.71	5368113.92	313	150	340	-50	DDH
Golden Highway	MA03-13	567377.71	5367855.92	311.95	290	340	-50	DDH
Golden Highway	MA03-14	567275.71	5367802.92	312	323	340	-50	DDH
Golden Highway	MA04-15	567055.71	5368047.92	314	359	160	-50	DDH
Golden Highway	MA04-16	567509.71	5367881.92	311	299	340	-50	DDH
Golden Highway	MA04-17	566914.71	5368092.92	314	422.1	160	-50	DDH
Golden Highway	MA04-18	566793.71	5368062.92	314.3	452	160	-50	DDH
Golden Highway	MA04-19	566671.71	5368048.92	315	432	160	-50	DDH
Golden Highway	MA04-20	567609.71	5367941.92	311	286.5	340	-50	DDH
Golden Highway	MA04-21	567241.71	5368069.92	313.51	461	225	-50	DDH
Golden Highway	MA04-22	567371.71	5368070.92	312.37	371	225	-50	DDH
Golden Highway	MA04-23	567259.71	5367867.92	312.55	215	340	-45	DDH
Golden Highway	MA04-24	569462.14	5368676.13	318.19	344	343.8	-60.9	DDH
Golden Highway	MA04-25	569229.78	5368712.23	319.01	254	342.7	-47.9	DDH
Golden Highway	MA04-26	569407.19	5368586.31	317.86	430	346.8	-64.1	DDH
Golden Highway	MA05-27	569275.16	5368654.83	317.34	314	340	-45	DDH
Golden Highway	MA05-28	569199.17	5368678.87	317.71	251	340	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MA05-29	569307.25	5368581.9	317.34	515	340.2	-66.4	DDH
Golden Highway	MA05-30	569264.28	5368596.96	316.99	401	336	-54	DDH
Golden Highway	MA05-31	569312.88	5368655.72	318.81	356	337.7	-52.3	DDH
Golden Highway	MA05-32	569336.17	5368687.83	317.27	305	342	-45	DDH
Golden Highway	MA06-33	568402.71	5368605.92	318.5	343	206	-50	DDH
Golden Highway	MA06-34	568175.71	5368498.92	317.25	104	160	-50	DDH
Golden Highway	MA06-35	568688.71	5368499.92	317.25	60	160	-50	DDH
Golden Highway	MA06-36	568959.18	5368487.75	317.22	311	341	-50	DDH
Golden Highway	MA06-37A	569175.61	5368880.6	319.81	299	153.9	-49	DDH
Golden Highway	MA07-35X	568191.71	5368488.92	317.25	323	160	-50	DDH
Golden Highway	MA07-39	568327.71	5368249.92	315.5	347	340	-50	DDH
Golden Highway	MA07-40	568416.71	5368356.92	316.25	257	340	-50	DDH
Golden Highway	MA07-41	568349.71	5368368.92	316.25	209	340	-50	DDH
Golden Highway	MA07-42	568505.72	5368322.92	316	350	340	-50	DDH
Golden Highway	MA08-43	569360.94	5368707.05	317.61	323	337.6	-57	DDH
Golden Highway	MA08-44	569250.21	5368666.2	317.8	329	341.8	-55.6	DDH
Golden Highway	MA08-45	569188.34	5368642.54	317.87	317	337.8	-58.7	DDH
Golden Highway	MA08-46	569480.97	5368800.53	318.54	248	342	-57.3	DDH
Golden Highway	MA08-47	569469.27	5368745.1	317.49	302	337.2	-58.7	DDH
Golden Highway	MA08-48	569440.15	5368735.18	317.49	296	6.2	-55.7	DDH
Golden Highway	MA08-49	569415.39	5368725.96	317.68	332	338.4	-55.4	DDH
Golden Highway	MA08-50	569547.37	5368774.01	318.69	302	341	-54.6	DDH
Golden Highway	MBL-46-01	570553.62	5370505.53	331.5	320.04	333	-50	DDH
Golden Highway	MBL-46-02	570553.62	5370505.53	331.5	144.78	153	-40	DDH
Golden Highway	MBL-46-03	570580.09	5370456.6	332.75	189.56	153	-50	DDH
Golden Highway	MBL-46-04A	570661.51	5370726.27	327.25	38.4	153	-52	DDH
Golden Highway	MBL-46-04B	570660.52	5370729.15	327.25	287.27	153	-55	DDH
Golden Highway	MBL-46-05	570719.28	5370621.87	329	246.89	153	-44	DDH
Golden Highway	MBL-46-06	570734.98	5370596.81	329	106.07	153	-45	DDH
Golden Highway	MBL-46-07	570746.16	5370639.32	329.5	195.38	158	-50	DDH
Golden Highway	MBL-46-08	570692.47	5370607.99	329	178.61	153	-52	DDH
Golden Highway	MBL-46-09	570613.36	5370559.49	327.5	223.42	153	-53	DDH
Golden Highway	MBL-46-10	570794.21	5370490.05	325.75	286.51	333	-57	DDH
Golden Highway	MBL-46-11	570728.15	5370180.35	323	335.28	333	-55	DDH
Golden Highway	MBL-47-12	570768.06	5370669.41	329.5	109.42	333	-50	DDH
Golden Highway	MBL-47-13	570780.61	5370445.19	324.5	124.05	333	-57	DDH
Golden Highway	MBL-47-14	570447.61	5370846.56	325	304.8	153	-56	DDH
Golden Highway	MBL-47-15	570488.61	5370746.56	324.5	423.06	333	-51	DDH
Golden Highway	MD-1-86	563596	5367988.5	317	206.65	360	-50	DDH
Golden Highway	MD-2-86	563847.58	5367598.55	316.19	206.96	360	-55	DDH
Golden Highway	MD-88-03	566463.6	5368353.55	317	270.05	180	-50	DDH
Golden Highway	MD-88-04	566463.6	5368223.55	316.3	199.95	180	-50	DDH
Golden Highway	MD-88-05	566463.6	5367944.55	314	287.19	180	-50	DDH
Golden Highway	MD-88-06	566213.59	5368174.55	316	221.28	360	-47	DDH
Golden Highway	MD-88-07	564469.59	5368444.45	316	291.46	180	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MD-90-08	564345.59	5367918.55	313.43	217	360	-45	DDH
Golden Highway	MD-90-09	564344.59	5368019.55	314	248.25	360	-45	DDH
Golden Highway	MD-90-10	564837.59	5368079.55	315	252	360	-45	DDH
Golden Highway	MD-90-11	567831.6	5367843.55	309	200	360	-45	DDH
Golden Highway	MGH13-001	571530.73	5369792.39	326.48	350.58	338.1	-53.6	DDH
Golden Highway	MGH13-002	571556.15	5369697.49	326.33	490.65	334.6	-54.1	DDH
Golden Highway	MGH13-003	571615.03	5369837.98	328.44	357.25	334.3	-54.4	DDH
Golden Highway	MGH13-004	571679.41	5369814.31	328.39	436.9	338	-53.7	DDH
Golden Highway	MGH13-005	571497.83	5369719.39	325.54	436.3	334.6	-54.1	DDH
Golden Highway	MGH13-006	571746.32	5369921.49	328.42	363.38	336.3	-55.3	DDH
Golden Highway	MGH13-007	571434.12	5369746.04	325.45	234.15	335.9	-53.3	DDH
Golden Highway	MGH13-008	571724.92	5369835.88	328.32	462.3	336.2	-53.9	DDH
Golden Highway	MGH13-009	571450.89	5369694.71	325.19	429	330.6	-58.4	DDH
Golden Highway	MGH13-010	571118.22	5369271.23	318.95	339	330.8	-62.8	DDH
Golden Highway	MGH13-011	571455.84	5369809.11	325.47	280	338.3	-56.8	DDH
Golden Highway	MGH13-012	571430.69	5370051.61	325.62	234.86	337.2	-58.3	DDH
Golden Highway	MGH13-013	571374.26	5370192.81	325.16	456.43	156.5	-57.5	DDH
Golden Highway	MGH13-014	571590.81	5369770.88	327.01	397	334.1	-53.6	DDH
Golden Highway	MGH13-015	571374.82	5370196.89	324.86	314.14	337.3	-57	DDH
Golden Highway	MGH13-016	571775.46	5370418.39	328.12	425.07	334	-55.8	DDH
Golden Highway	MGH13-017	571458.08	5370252.81	325.83	320	336.9	-56.1	DDH
Golden Highway	MGH13-018	571599.54	5370306.52	327.27	420.88	337.2	-51.4	DDH
Golden Highway	MGH13-019	571459.08	5370249.56	325.78	485	157.8	-52.9	DDH
Golden Highway	MGH13-020	571600.86	5370303.43	327.08	405	156.7	-52	DDH
Golden Highway	MGH13-021	571768.88	5370214.74	328.39	210.18	155.1	-57.2	DDH
Golden Highway	MGH13-022	571728.26	5370309.19	328.09	279	156.8	-51.9	DDH
Golden Highway	MGH13-023	572409.35	5371291.17	338.4	299	156.8	-61.7	DDH
Golden Highway	MGH13-024	572508.68	5370878.56	358.46	574	335.9	-52.1	DDH
Golden Highway	MGH13-025	572360.83	5371290.05	337.77	501	157.6	-60.3	DDH
Golden Highway	MGH13-026	572448.82	5370754.8	349.41	501	335.9	-52.8	DDH
Golden Highway	MGH13-027	572477.53	5370830.66	360.53	429	335.5	-52.2	DDH
Golden Highway	MGH13-028	572430.01	5370801.03	347.07	425	335.8	-52	DDH
Golden Highway	MGH13-029	572528.54	5370688.26	362.43	402	336.9	-50.5	DDH
Golden Highway	MGH13-030	572350.2	5370602.94	335.23	601	334.4	-53.4	DDH
Golden Highway	MGH13-031	572505.79	5370733.37	362.3	536.33	336.4	-50	DDH
Golden Highway	MGH13-032	572305.22	5370722.71	334.81	426	337.9	-49.8	DDH
Golden Highway	MGH13-033	572444.7	5370630.62	343.87	600	332.5	-54.3	DDH
Golden Highway	MGH13-034	572286.26	5370771.46	332.35	359	336.4	-51.2	DDH
Golden Highway	MGH13-035	572263.49	5370836.53	332.7	401	335.5	-53.5	DDH
Golden Highway	MGH13-036	572398.79	5370729.18	341.25	456.5	335.4	-49.5	DDH
Golden Highway	MGH13-037	572297.27	5370880.86	333.86	425	337.8	-51.8	DDH
Golden Highway	MGH13-038	572240.71	5370722.91	331.91	404	337.9	-51.4	DDH
Golden Highway	MGH13-039	572347.14	5370739.61	337.13	426	335.5	-54.1	DDH
Golden Highway	MGH13-040	572149.22	5370718.02	330.04	375	333.9	-55.2	DDH
Golden Highway	MGH13-041	572378.61	5370612.98	337.02	575	338.8	-59.1	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH13-042	572313.09	5370252.29	331	428	335.3	-62.3	DDH
Golden Highway	MGH13-043	572303.72	5370122.47	330.37	513	334.6	-54.5	DDH
Golden Highway	MGH13-044	572093.57	5370725.23	329.16	279	334.6	-53.8	DDH
Golden Highway	MGH13-045	572182.56	5370739	330.74	339	335.2	-53.6	DDH
Golden Highway	MGH13-046	572419.22	5370393.26	336.74	255	342	-63.3	DDH
Golden Highway	MGH13-047	572539.95	5370315.85	345.25	414	334.7	-53.2	DDH
Golden Highway	MGH13-048	572263.78	5370673.86	331.72	477	333.6	-53.6	DDH
Golden Highway	MGH13-049	572195.18	5370126.94	330.01	459.25	335.4	-63.1	DDH
Golden Highway	MGH13-050	572241.09	5370610.18	330.9	585	331.8	-53.9	DDH
Golden Highway	MGH13-051	572145.25	5370120.87	331.21	438	330.3	-60.4	DDH
Golden Highway	MGH13-052	572167.33	5370648.08	330	495	336	-54.4	DDH
Golden Highway	MGH13-053	571816.8	5370003.01	329.13	134	337.6	-52.5	DDH
Golden Highway	MGH13-053A	571803.48	5370034.53	328.63	353	337.7	-56	DDH
Golden Highway	MGH13-054	572142.79	5370587.68	329.09	506.56	333.4	-56.9	DDH
Golden Highway	MGH13-055	572380.17	5370211.91	332.46	539	336.8	-61.6	DDH
Golden Highway	MGH13-056	572466.52	5370706.19	350.93	617	335.7	-52.5	DDH
Golden Highway	MGH13-057	572540.75	5370315.08	345.05	239	332.8	-62.8	DDH
Golden Highway	MGH13-058	572607.13	5370328.04	352.33	402	336	-49.6	DDH
Golden Highway	MGH13-059	572549.81	5370781.32	363.93	447	337.3	-52.6	DDH
Golden Highway	MGH13-060	572354.94	5370141.76	331.66	318.15	338.3	-54.3	DDH
Golden Highway	MGH13-061	572125.55	5370024.1	329.86	75	338	-56	DDH
Golden Highway	MGH13-061A	572118.39	5370042.74	329.94	443.6	344.6	-57.8	DDH
Golden Highway	MGH13-062	572550.96	5370899.03	357.16	513	338.7	-60.7	DDH
Golden Highway	MGH13-063	572252.27	5370135.28	329.72	120	335.2	-66.8	DDH
Golden Highway	MGH13-063A	572252.27	5370135.28	329.72	726	335.2	-66.8	DDH
Golden Highway	MGH13-064	572595.68	5370946.57	346.62	295	334.8	-47.9	DDH
Golden Highway	MGH13-065	572366.74	5370688.68	337.71	550.4	336.1	-51.2	DDH
Golden Highway	MGH13-066	572752.95	5371414.09	330.75	450	160.7	-53.9	DDH
Golden Highway	MGH13-067	572437	5370218.02	334.5	326	335.3	-52.5	DDH
Golden Highway	MGH13-068	571871.28	5369995.4	330	389	336.5	-52.1	DDH
Golden Highway	MGH13-069	572103.29	5370531.73	329.06	574	333.4	-57	DDH
Golden Highway	MGH13-070	572530.11	5370829.62	359.52	450	336.1	-54.3	DDH
Golden Highway	MGH13-071	573149.29	5371175.85	338.79	86	24	-50	DDH
Golden Highway	MGH13-071A	573148.93	5371174.65	338.91	500	25.2	-54.3	DDH
Golden Highway	MGH13-072	572009.27	5370486.87	329.08	600	337.1	-54.9	DDH
Golden Highway	MGH13-073	573355.95	5371019.97	329.52	218	195	-50	DDH
Golden Highway	MGH13-073A	573330.84	5370967.65	330.55	569	194.9	-55.4	DDH
Golden Highway	MGH13-074	572027.65	5370019.55	330.97	459	336.6	-54.4	DDH
Golden Highway	MGH13-075	571292.79	5369115.77	323.14	908	336	-58.1	DDH
Golden Highway	MGH13-076	571246.83	5368933.46	323.01	1233.2	337	-67.9	DDH
Golden Highway	MGH13-077	571827.45	5371104.92	331.05	510	158.2	-53	DDH
Golden Highway	MGH13-078	571186.39	5368959.01	322.86	870	334.5	-63.3	DDH
Golden Highway	MGH13-079	571737.05	5371401.38	332.56	798	157.7	-47.7	DDH
Golden Highway	MGH13-080	571299.91	5368932.61	323.03	1244	337.1	-68	DDH
Golden Highway	MGH13-081	571886.54	5370973.54	329.94	56	154.4	-53.9	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH13-081A	571886.54	5370973.54	329.94	314	154.4	-53.9	DDH
Golden Highway	MGH13-082	572430.16	5371250.11	335.32	324.5	158.9	-50.8	DDH
Golden Highway	MGH13-083	571803.51	5371204.95	331.61	660	156.3	-61.6	DDH
Golden Highway	MGH13-084	572454.36	5371317.7	335.52	423	155.7	-62.1	DDH
Golden Highway	MGH13-085	572500.51	5371345.13	333.35	33	158	-58	DDH
Golden Highway	MGH13-085A	572500.05	5371345.21	333.29	288	156	-59.3	DDH
Golden Highway	MGH13-086	570599.68	5371763.58	340.83	655.3	223	-51.3	DDH
Golden Highway	MGH13-087	571932.79	5371144.67	330.89	422	155.8	-57.8	DDH
Golden Highway	MGH13-088	571742.04	5371076.24	330.47	509	157.2	-51	DDH
Golden Highway	MGH13-089	571913.59	5371196.18	331.1	560	157.7	-58.4	DDH
Golden Highway	MGH13-090	571760.84	5371032.19	330.29	434	157.8	-46.2	DDH
Golden Highway	MGH13-091	570787.7	5371942.32	350.42	531	223.4	-50.3	DDH
Golden Highway	MGH13-092	571802.43	5371175.82	331.3	642	155.6	-61.3	DDH
Golden Highway	MGH13-093	571913.24	5371197.16	331.18	661	156	-69.9	DDH
Golden Highway	MGH13-094	570930.96	5372094.95	357.43	465	224.6	-49.8	DDH
Golden Highway	MGH13-095	571838.73	5371071.51	330.27	290	158.1	-47.3	DDH
Golden Highway	MGH13-096	571827.05	5371105.27	330.63	444	156.6	-69.2	DDH
Golden Highway	MGH13-097	571658.07	5371078.19	330.58	450	158.1	-52.3	DDH
Golden Highway	MGH13-098	571874.24	5371110.67	333.8	402	156.9	-53.4	DDH
Golden Highway	MGH13-099	571781.41	5371145.49	335.74	425	160.7	-50.8	DDH
Golden Highway	MGH13-100	571874.03	5371111	333.82	456	157	-60.6	DDH
Golden Highway	MGH13-101	571781.27	5371145.86	335.7	525	161.4	-62	DDH
Golden Highway	MGH13-102	571646.37	5371106.7	331.39	504	161	-60.7	DDH
Golden Highway	MGH13-103	571741.77	5371077.15	330.52	398	157.8	-58	DDH
Golden Highway	MGH13-104	571741.56	5371077.65	330.48	423	160.1	-62.1	DDH
Golden Highway	MGH13-105	571827.81	5371104.42	330.51	65	158.6	-52.5	DDH
Golden Highway	MGH13-105A	571827.54	5371104.63	330.43	351	157.8	-60.1	DDH
Golden Highway	MGH16-001	566881.28	5369052.82	320.48	152	4.47	-50	DDH
Golden Highway	MGH16-002	566881.17	5369052.38	320.55	587	8.72	-66	DDH
Golden Highway	MGH16-003	566678.71	5368946.16	321.07	500	7.95	-52	DDH
Golden Highway	MGH16-004	566283.6	5368668.65	316.27	944.87	212.47	-69	DDH
Golden Highway	MGH16-005	566209.09	5368782.62	320.95	33	0	-50	DDH
Golden Highway	MGH16-005A	566209.06	5368781.78	321	429.23	4.63	-51	DDH
Golden Highway	MGH16-006	565967.02	5368644.79	315.96	722.5	168.85	-70	DDH
Golden Highway	MGH16-007	566217.85	5368840.89	321.41	387	175.62	-51	DDH
Golden Highway	MGH16-008	565821.45	5368851.09	321.56	396.62	153.67	-51	DDH
Golden Highway	MGH16-009	565362.32	5368999.48	321.17	452	208.97	-55	DDH
Golden Highway	MGH16-010	565726	5368689	320	884.69	168	-77	DDH
Golden Highway	MGH16-011	567978.73	5369268.34	292.46	563	308.47	-52	DDH
Golden Highway	MGH17-012	565675	5374095	325	694	330	-65	DDH
Golden Highway	MGH17-013	568346.58	5369443.71	324.02	449	335.53	-52	DDH
Golden Highway	MGH17-014	567275.71	5367802.92	312	519	220	-50	DDH
Golden Highway	MGH17-015	567725	5369258	322	488	20	-52	DDH
Golden Highway	MGH17-016	568114	5369358	324	447	340	-50	DDH
Golden Highway	MGH17-017	567480	5369200	320	301.37	40	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH17-018	567395	5369105	320	492.13	40	-50	DDH
Golden Highway	MGH17-019X	570570.6	5369833	323.64	878.79	90.2	-55.5	DDH
Golden Highway	MGH17-020	567280	5369200	320	341	40	-50	DDH
Golden Highway	MGH17-021	567195	5369110	320	493.65	40	-50	DDH
Golden Highway	MGH17-022	567080	5369150	320	284.2	40	-50	DDH
Golden Highway	MGH17-023	570570	5369933	324	614.38	90	-50	DDH
Golden Highway	MGH17-024	566995	5369055	320	489	40	-50	DDH
Golden Highway	MGH17-025	569866.3	5370110.4	326.5	302.1	340	-50	DDH
Golden Highway	MGH17-026	569866.3	5370110.4	326.5	500	40	-50	DDH
Golden Highway	MGH17-027	568009.9	5369359.4	323	180	40	-50	DDH
Golden Highway	MGH17-028	570060	5370150	324.75	321	340	-50	DDH
Golden Highway	MGH17-029	570438.6	5369720.8	324	662.86	162	-50	DDH
Golden Highway	MGH17-030	567826	5369570	326	698.93	192	-50	DDH
Golden Highway	MGH17-031	570145	5370164	324	548	40	-50	DDH
Golden Highway	MGH17-032	570145	5370164	324	338	340	-50	DDH
Golden Highway	MGH17-033	567862	5369496	325	445.85	192	-50	DDH
Golden Highway	MGH17-034	567912	5369490	325	440.98	192	-50	DDH
Golden Highway	MGH17-035	570420	5370390	326	139.7	340	-50	DDH
Golden Highway	MGH17-037	571876.87	5371148.84	332.93	632.6	159.01	-61.85	DDH
Golden Highway	MGH17-038	571918.86	5371163.37	332.61	566	160	-56.6	DDH
Golden Highway	MGH17-039	568467.84	5369562.96	323.95	348.18	293.48	-63	DDH
Golden Highway	MGH17-039A	568468.5	5369563.6	325	76	300.6	-63	DDH
Golden Highway	MGH17-040	572362.64	5371355.46	339.2	629.97	158.37	-66.32	DDH
Golden Highway	MGH17-041	571977.54	5371161.2	332.63	648.1	162.3	-68.09	DDH
Golden Highway	MGH17-042	572407.94	5371447.29	334.89	651	158.2	-61.91	DDH
Golden Highway	MGH17-043	568301.86	5369567.58	324.06	351	297.74	-62.15	DDH
Golden Highway	MGH17-044	568223.48	5369460.76	323.52	411.4	300.51	-55.88	DDH
Golden Highway	MGH17-045	571906.85	5371200.99	332.99	636	158.45	-62.42	DDH
Golden Highway	MGH17-046	572616.21	5371376.39	334.54	450.11	160.95	-66.84	DDH
Golden Highway	MGH17-047	568150.04	5369383.43	322.95	402.9	296.99	-57.47	DDH
Golden Highway	MGH17-048	572020.73	5371180.27	332.19	634.64	158.9	-61.94	DDH
Golden Highway	MGH17-049	572696.75	5371376.89	337.78	401.98	161.89	-67.78	DDH
Golden Highway	MGH17-050	569113.74	5368849.39	320.4	239.15	115.3	-56.54	DDH
Golden Highway	MGH17-051	570672.58	5369298.82	321.72	723	89.52	-52.38	DDH
Golden Highway	MGH17-052	569127.79	5368762.72	319.82	252	111	-59.33	DDH
Golden Highway	MGH17-053	572267.05	5371313.34	333.68	653.88	160.07	-67.23	DDH
Golden Highway	MGH17-054	572903.35	5371388.1	339.53	300.1	158.88	-61.21	DDH
Golden Highway	MGH17-055	569330.86	5368842.91	319.74	248.85	113.05	-58.29	DDH
Golden Highway	MGH17-055A	569330.9	5368842.9	319.74	30	115	-55	DDH
Golden Highway	MGH17-056	570674.25	5369377.82	322.09	774.06	88.02	-55	DDH
Golden Highway	MGH17-057	569321.9	5368807.38	319.12	246.47	113.03	-56.75	DDH
Golden Highway	MGH17-057A	569321.9	5368807.38	319.12	72.9	115.2	-55	DDH
Golden Highway	MGH17-057B	569321.9	5368807.38	319.12	81	115.2	-55	DDH
Golden Highway	MGH17-057C	569321.9	5368807.38	319.12	33	115.2	-55	DDH
Golden Highway	MGH17-058	571473.02	5369804.98	326.59	210	13.52	-63.69	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH17-059	570647.13	5369341.13	322.09	699	84.51	-50.91	DDH
Golden Highway	MGH17-060	571360.98	5369669.2	325.35	636	35.01	-57.19	DDH
Golden Highway	MGH17-061	569225.1	5368799.2	320.63	405	112.36	-56.07	DDH
Golden Highway	MGH17-062	570613.26	5369485.11	323.12	507	88.61	-57.04	DDH
Golden Highway	MGH17-062A	570613.3	5369485.1	325	81	90	-55	DDH
Golden Highway	MGH17-063	571517.08	5369914.16	328.21	435	34.78	-57.21	DDH
Golden Highway	MGH17-064	570672.95	5369413.88	322.29	699	89.39	-50.47	DDH
Golden Highway	MGH17-065	570540.54	5369299.26	323.13	793.9	90.06	-55.89	DDH
Golden Highway	MGH17-066	571472.93	5369805.51	326.6	536.95	4.22	-66.35	DDH
Golden Highway	MGH17-067	571263.86	5369683.03	324.77	453	91.96	-48.04	DDH
Golden Highway	MGH17-068	571201.31	5369627.92	324.49	452.97	91.93	-53.9	DDH
Golden Highway	MGH17-069X	571572.06	5369896.01	329.34	704.94	31.59	-61.75	DDH
Golden Highway	MGH17-070	571209.58	5369757.97	324.68	525	88.36	-55.85	DDH
Golden Highway	MGH17-071	570597.36	5369218.77	321.84	844.7	88.9	-50.72	DDH
Golden Highway	MGH17-071A	570597.36	5369218.77	321.84	63	90	-50	DDH
Golden Highway	MGH17-072	570555.9	5369441.97	323.39	501.08	90.71	-54.19	DDH
Golden Highway	MGH17-073	570995.59	5369756.07	323.92	600.03	85.6	-61.54	DDH
Golden Highway	MGH17-073A	570995.59	5369756.07	323.92	42	90	-58	DDH
Golden Highway	MGH17-073B	570995.59	5369756.07	323.92	39	90	-58	DDH
Golden Highway	MGH17-074	570888.18	5369594.42	322.8	713.96	85.93	-58.92	DDH
Golden Highway	MGH17-074A	570888.18	5369594.42	322.8	78	90	-55	DDH
Golden Highway	MGH17-074B	570888.38	5369594.62	322.8	57	90	-55	DDH
Golden Highway	MGH17-075	571031.8	5369455.18	323.39	593.88	89.49	-50.7	DDH
Golden Highway	MGH17-076	570849.53	5369411.59	322.56	628.1	86.58	-52.43	DDH
Golden Highway	MGH17-077	571006.87	5369214.42	323.5	672.15	92.4	-54.9	DDH
Golden Highway	MGH17-077A	571006.87	5369214.42	323.5	189.25	90	-50	DDH
Golden Highway	MGH17-077B	571005	5369217	323.5	57	90	-50	DDH
Golden Highway	MGH17-078	570751.29	5369095.84	321.39	735.75	92.65	-56.44	DDH
Golden Highway	MGH17-079	571199.57	5369396.81	324.41	501	89.65	-55.74	DDH
Golden Highway	MGH17-080	571208.87	5369334.56	324.56	498	89.33	-57.04	DDH
Golden Highway	MGH17-081	571000.65	5369338.78	323.27	528	88.79	-55.21	DDH
Golden Highway	MGH17-082	571050.1	5369557.61	323.67	696	87.64	-51.72	DDH
Golden Highway	MGH17-083	570847.97	5369499.95	322.46	737.84	85.74	-54.13	DDH
Golden Highway	MGH18-084	570766.14	5369256.11	321.38	848.4	86.92	-67.96	DDH
Golden Highway	MGH18-085	570701.04	5369146.79	321.37	812.3	83.41	-64.1	DDH
Golden Highway	MGH18-086	571055.06	5369138.52	323.83	600	89.58	-54.02	DDH
Golden Highway	MGH18-087	570959.93	5369371.21	322.9	591.07	89.21	-51.68	DDH
Golden Highway	MGH18-088	571000.9	5369271.39	323.38	713.85	92.88	-55.21	DDH
Golden Highway	MGH18-089	570951	5369697.39	323.54	453	86.46	-57.96	DDH
Golden Highway	MGH18-089A	570950.92	5369696.72	323.35	57	90	-57	DDH
Golden Highway	MGH18-089B	570950.92	5369696.72	323.35	249	90	-60	DDH
Golden Highway	MGH18-090	570999.42	5369797.7	324.51	624.22	85.35	-65.98	DDH
Golden Highway	MGH18-091	571102.71	5369904.35	324.57	474	88.44	-59.65	DDH
Golden Highway	MGH18-092	571369.36	5369395.94	325.57	533.86	91.66	-53.66	DDH
Golden Highway	MGH18-093	570784.7	5369003.18	322.7	786	2.57	-72.99	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH18-093A	570781.7	5368993.87	322.62	366.02	0.47	-68.82	DDH
Golden Highway	MGH18-093B	570781.7	5368993.87	322.62	99	359.93	-72.83	DDH
Golden Highway	MGH18-094	570819.91	5368955.49	322.96	824.96	4.9	-74.3	DDH
Golden Highway	MGH18-095	570820.49	5369481.27	322.24	801	87.91	-73.41	DDH
Golden Highway	MGH18-096	570821.09	5369596.1	322.41	839.36	92.62	-70.17	DDH
Golden Highway	MGH18-097	570849.06	5369700.39	322.76	831	81.8	-73.7	DDH
Golden Highway	MGH18-098	570882.22	5369765.1	323.3	767.95	88.47	-67.08	DDH
Golden Highway	MGH18-099	571056.53	5369636.66	323.61	750	92.15	-56.55	DDH
Golden Highway	MGH18-100	571757.88	5369998.36	329.84	474.31	11.81	-55.84	DDH
Golden Highway	MGH18-101	571169.2	5369610.25	324.23	366.12	46.06	-60.9	DDH
Golden Highway	MGH18-102	571521.37	5369725.93	326.69	737	1.66	-66.72	DDH
Golden Highway	MGH18-103	571204.39	5369658	324.35	588.01	34.2	-66.29	DDH
Golden Highway	MGH18-104	571812.21	5370127.39	327.28	249	7.98	-56.34	DDH
Golden Highway	MGH18-105X	571662.58	5370203.2	327.13	756	90.52	-54.25	DDH
Golden Highway	MGH18-106	571220.84	5369900.05	324.86	351	90.55	-62.6	DDH
Golden Highway	MGH18-107	571323.81	5369946.85	325.73	239.64	87.57	-52.1	DDH
Golden Highway	MGH18-108	572368.11	5370242.71	331.33	648	282.06	-57.12	DDH
Golden Highway	MGH19-109	571043.51	5369538.59	323.37	316	39.6	-76.62	DDH
Golden Highway	MGH19-110	571241.88	5369531.4	324.55	1086	48.35	-65.1	DDH
Golden Highway	MGH19-111	570970.4	5369704.07	323.22	984.25	87.59	-74.9	DDH
Golden Highway	MGH19-112	571051.17	5369676.9	323.59	551.91	46.31	-69.6	DDH
Golden Highway	MGH19-112A	571051.17	5369676.9	323.59	60.6	50	-69.6	DDH
Golden Highway	MGH19-113	571237.17	5369396.67	324.6	1012.5	43.14	-81.6	DDH
Golden Highway	MGH19-114	569111.4	5368587.25	318.95	465	36.47	-66.7	DDH
Golden Highway	MGH19-115	571175.92	5369570.09	324.2	798	43.68	-50.1	DDH
Golden Highway	MGH19-116	570449.18	5369377.61	323.62	567	82.3	-70.7	DDH
Golden Highway	MGH19-117	571399.63	5369599.36	325.5	702	48.25	-74.6	DDH
Golden Highway	MGH19-118	570475.65	5369447.01	322.7	549	87.72	-65.2	DDH
Golden Highway	MGH19-119	571196.84	5369694.47	324.53	827.2	41.2	-68.8	DDH
Golden Highway	MGH19-120X	570532.283	5368960.892	319.831	854.7	50.37	-67.6	DDH
Golden Highway	MGH19-121	570389.73	5369311.29	322.67	497.07	90.04	-59.6	DDH
Golden Highway	MGH19-122	570352.63	5369376.68	324.44	657	85.92	-69.4	DDH
Golden Highway	MGH19-123	572571.2	5370529.1	358.7	498	70	-54.39	DDH
Golden Highway	MGH19-124X	572296.3	5370442.7	338.7	576.01	89.39	-61.26	DDH
Golden Highway	MGH19-125	571927.19	5370299.71	330	528	80.04	-55.82	DDH
Golden Highway	MGH19-126	571831.22	5370290.06	329.68	651	83.22	-54.9	DDH
Golden Highway	MGH19-127	570243.94	5369073.31	322.75	480	47.4	-60	DDH
Golden Highway	MGH19-128	572024.04	5370224.17	329.76	501	79.7	-60	DDH
Golden Highway	MGH19-129	569959.51	5368872.63	320.31	651	54.8	-62	DDH
Golden Highway	MGH19-130	571931.59	5370206.1	329.97	444.05	79.6	-58	DDH
Golden Highway	MGH19-131	569911.59	5368932.62	324.69	448.85	49.8	-62	DDH
Golden Highway	MGH19-132	572072.58	5370132.07	330.36	492	79.8	-60	DDH
Golden Highway	MGH19-133	570300.88	5369019.24	321.2	792	49.8	-62	DDH
Golden Highway	MGH19-134	572122.3	5370042.65	331.44	503.96	79.8	-60	DDH
Golden Highway	MGH19-135	570165.3	5369101.13	326.15	315	49.9	-59	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH20-136	571974.41	5370110.98	329.56	690	80	-58	DDH
Golden Highway	MGH20-137	570454.17	5369151.38	322.19	600.15	50	-55	DDH
Golden Highway	MGH20-138	569822.4	5368854.38	320.25	519	50.2	-60	DDH
Golden Highway	MGH20-139	570069.5	5368828.25	319.73	381.15	49.8	-62	DDH
Golden Highway	MGH20-140	571754.33	5370228.81	329.06	629.76	80	-55	DDH
Golden Highway	MGH20-141	569870.56	5368987.04	322.89	288	50	-60	DDH
Golden Highway	MGH20-141A	569869.79	5368986.51	323.04	139.5	50	-60	DDH
Golden Highway	MGH20-142	572350.09	5370472.1	337.02	540	80	-55	DDH
Golden Highway	MGH20-143	569855.94	5368751.63	318.82	783.35	50	-60	DDH
Golden Highway	MGH20-144	569777.1	5368909.68	325.8	345	50	-60	DDH
Golden Highway	MGH20-145	572282.98	5370336.84	333.7	471	80	-55	DDH
Golden Highway	MGH20-146	568969.85	5368749.75	320.47	444	110	-60	DDH
Golden Highway	MGH20-147	571757.73	5370149.93	329.27	473.91	60	-60	DDH
Golden Highway	MGH20-148	570298.95	5368848.26	321.38	608.5	100	-60	DDH
Golden Highway	MGH20-149	568999.05	5368796.76	320.58	114.09	109.8	-60	DDH
Golden Highway	MGH20-149A	568998.97	5368796.78	320.08	191.33	110	-60	DDH
Golden Highway	MGH20-150	569978.36	5368751.74	319.45	720	55	-60	DDH
Golden Highway	MGH20-151	570042.33	5368978.46	324.8	492	60	-60	DDH
Golden Highway	MGH20-152	570607.28	5368905.27	322.23	582	50.1	-55	DDH
Golden Highway	MGH20-153	568859.78	5368721.01	320.08	537	110	-60	DDH
Golden Highway	MGH20-154	569419.84	5368980.28	321.27	621	110	-60	DDH
Golden Highway	MGH20-155	569790.54	5368647.28	318.98	858	50	-62	DDH
Golden Highway	MGH20-156	570676.27	5369064.68	321.47	492	50	-60	DDH
Golden Highway	MGH20-157	568944.38	5368695.78	320.22	354	110	-60	DDH
Golden Highway	MGH20-158	572703.22	5370489.3	345.239	639	65.4	-50	DDH
Golden Highway	MGH20-159	572672.15	5370568.92	349.31	450.8	65.2	-55.4	DDH
Golden Highway	MGH20-160	573942.49	5370857.97	333.91	699.05	49.7	-50.3	DDH
Golden Highway	MGH20-161	572612.18	5370447.28	352.845	597	64.5	-50.1	DDH
Golden Highway	MGH20-162	574034.6	5370852.47	339.47	636	50.2	-50	DDH
Golden Highway	MGH20-163	572150.53	5370948.29	329.86	375	340	-55.3	DDH
Golden Highway	MGH20-164	573043.87	5370643.02	350.017	438	65	-50	DDH
Golden Highway	MGH20-165	571876.24	5370891.93	329.036	300.23	340.1	-55.2	DDH
Golden Highway	MGH20-166	571678.41	5370869.62	329.814	298	339.8	-55.2	DDH
Golden Highway	MGH20-167	571812.97	5370614.87	328.03	633.1	340.2	-61	DDH
Golden Highway	MGH20-168	571747.82	5369919.66	328.44	663.18	50	-59.8	DDH
Golden Highway	MGH20-169	570555.73	5370298.59	323.913	300.2	304.7	-59.6	DDH
Golden Highway	MGH20-170	570483.83	5370161.15	322.961	555	304.9	-62	DDH
Golden Highway	MGH20-171	570953.67	5370521.89	325.405	408	299.6	-59.9	DDH
Golden Highway	MGH20-172	571766.83	5369776.34	328.362	648	50.2	-59.6	DDH
Golden Highway	MGH20-173	570827.63	5370446.66	324.501	405.18	300	-60	DDH
Golden Highway	MGH21-174	571477.4	5369536.08	324.525	900	50	-60.1	DDH
Golden Highway	MGH21-175	571624.7	5369665.82	327.148	664	50.2	-60.5	DDH
Golden Highway	MGH21-176	570061.2	5368693.47	318.62	713.86	50	-59.9	DDH
Golden Highway	MGH21-176A	570061.27	5368693.52	318.47	138	50	-59.9	DDH
Golden Highway	MGH21-177	570140.87	5368629.81	318.999	699.2	50	-60	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH21-178	570133.66	5368754.91	318.688	477	50	-60	DDH
Golden Highway	MGH21-179	570219.34	5368827.56	319.098	699	60.2	-60.1	DDH
Golden Highway	MGH21-180	570219.9	5368700.3	319.395	699	50.2	-60	DDH
Golden Highway	MGH21-181	570297.98	5368763.47	319.542	725.9	50	-60.3	DDH
Golden Highway	MGH21-182	570224.34	5368576.02	319.453	720.99	50.1	-60.2	DDH
Golden Highway	MGH21-183	569917.13	5368667.41	318.359	773.9	50.1	-60.2	DDH
Golden Highway	MGH21-184	569085.01	5368705.71	318.357	444.01	110	-55.3	DDH
Golden Highway	MGH21-185	571076.74	5368909.17	322.663	753	55	-65	DDH
Golden Highway	MGH21-186	570458.22	5368770.12	320.655	740.89	50.1	-60.2	DDH
Golden Highway	MGH21-187	569050.13	5368654.69	318.294	402.01	110	-55	DDH
Golden Highway	MGH21-188	570452.9	5368892.34	320.303	831	50.2	-60.2	DDH
Golden Highway	MGH21-189	569152.86	5368620.89	317.749	300.1	110	-55.1	DDH
Golden Highway	MGH21-190	570096.59	5368856.84	318.477	798.9	50	-63	DDH
Golden Highway	MGH21-191	569244.03	5368587.18	317.508	198	110.1	-55	DDH
Golden Highway	MGH21-192	570114.76	5368793.49	318.909	600	50.1	-60	DDH
Golden Highway	MGH21-193	568833	5368677.77	318.698	399	110.4	-50.1	DDH
Golden Highway	MGH21-194	570520.62	5369129.3	320.038	566.8	60.5	-59.9	DDH
Golden Highway	MGH21-195	568921.82	5368649.11	318.778	411	110.4	-55.4	DDH
Golden Highway	MGH21-196	570461.7	5369014.63	319.842	417	54.8	-60	DDH
Golden Highway	MGH21-197	570384.62	5369086.87	320.369	610.86	55	-62.2	DDH
Golden Highway	MGH21-198	570337.96	5368927.95	319.231	504	65.1	-60.3	DDH
Golden Highway	MGH21-199	570532.07	5368960.72	320.324	372.6	50	-60	DDH
Golden Highway	MGH21-200	569395.88	5368834.28	319.166	462	109.9	-60.1	DDH
Golden Highway	MGH21-201	570151.54	5369024.62	325.28	841	70	-64.9	DDH
Golden Highway	MGH21-202	569496.7	5368818.41	321.64	372.15	109.9	-50.1	DDH
Golden Highway	MGH21-203	569537.79	5368829.69	322.511	366	110.4	-55.2	DDH
Golden Highway	MGH21-204	571598.13	5369787.82	327.279	831	60.5	-60	DDH
Golden Highway	MGH21-205	569431.44	5368795.95	318.07	315	120	-55.3	DDH
Golden Highway	MGH21-206	569708.92	5368831.75	321.193	498	55.2	-60.1	DDH
Golden Highway	MGH21-207	571825.52	5369986.69	329.462	698.35	60.33	-60.04	DDH
Golden Highway	MGH21-208	569709.02	5368831.12	321.156	750	70.3	-60.17	DDH
Golden Highway	MGH21-209	570270.13	5369205.84	326.06	711	75.4	-60.5	DDH
Golden Highway	MGH21-210	571997.33	5369876.12	330.31	728.65	60.3	-60.3	DDH
Golden Highway	MGH21-211	571909.44	5369932.69	329.46	704.2	60	-60.2	DDH
Golden Highway	MGH21-212	571690.06	5370009.409	327.834	657.01	50.1	-60.4	DDH
Golden Highway	MGH21-213	569598.058	5368795.866	318.305	999	70.2	-60.3	DDH
Golden Highway	MGH21-214	571803.47	5370063.94	328.09	700	60.3	-59.7	DDH
Golden Highway	MGH21-215	572894.857	5370661.163	356.7	260.21	74.7	-55.1	DDH
Golden Highway	MGH21-216	572784.261	5370615.298	353.469	549.528	75.49	-55.12	DDH
Golden Highway	MGH21-217	573014.7	5370693.759	348.73	216	80.13	-54.94	DDH
Golden Highway	MGH21-218	572808.639	5370539.49	355.866	691.01	65.2	-50.39	DDH
Golden Highway	MGH21-219	572913.855	5370581.28	363.896	597.01	65.71	-50.13	DDH
Golden Highway	MGH21-220	572482.17	5370503.056	344.059	436.18	70.65	-60.19	DDH
Golden Highway	MGH21-221	572536.204	5370411.115	346.599	453.01	64.53	-65.04	DDH
Golden Highway	MGH21-222	569497.892	5368761.75	317.682	1041.12	69.36	-59.72	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH21-223	572912.647	5370479.06	364.227	501.203	64.97	-55.04	DDH
Golden Highway	MGH21-224	571671.311	5369850.148	328.122	704.583	49.56	-59.91	DDH
Golden Highway	MGH21-225	572619.072	5370360.98	350.444	597.01	64.92	-55.22	DDH
Golden Highway	MGH21-226	573113.444	5370563.522	340.403	714	65.19	-55.43	DDH
Golden Highway	MGH21-227	572318.4	5370240.773	331.178	716.01	69.88	-55.43	DDH
Golden Highway	MGH21-228	572427.684	5370285.01	334.883	600	69.63	-55.05	DDH
Golden Highway	MGH21-229	572525.439	5370320.168	342.848	519.1	65.08	-55.2	DDH
Golden Highway	MGH21-230	572396.409	5370360.378	335.267	590.51	69.86	-55.55	DDH
Golden Highway	MGH21-231	572971.952	5370396.991	364.048	609	65.2	-55.19	DDH
Golden Highway	MGH21-232	571839.296	5369848.222	328.81	711.01	50.28	-60	DDH
Golden Highway	MGH21-233	572205.979	5370206.868	329.887	663	70.29	-55.2	DDH
Golden Highway	MGH21-234	572490.161	5370195.26	337.498	498	69.87	-60.44	DDH
Golden Highway	MGH21-235	572272.607	5370139.589	330.043	603	69.91	-59.93	DDH
Golden Highway	MGH21-236	572388.561	5370164.616	332.905	504	70.4	-59.77	DDH
Golden Highway	MGH21-237	572193.766	5370621.522	329.975	750	74.86	-60.49	DDH
Golden Highway	MGH21-238	572454.052	5370095.115	333.753	543	70.07	-59.89	DDH
Golden Highway	MGH21-239	572343.776	5370055.469	331.095	501	69.74	-59.94	DDH
Golden Highway	MGH21-240	571927.879	5370048.147	329.375	732	60.2	-59.63	DDH
Golden Highway	MGH21-241	572590.951	5370233.235	349.068	501	65.08	-59.91	DDH
Golden Highway	MGH21-242	572170.349	5370724.086	330.14	705	74.91	-60.47	DDH
Golden Highway	MGH21-243	572397.363	5370680.111	340.083	676.76	75.1	-60.35	DDH
Golden Highway	MGH21-244	571969.704	5370671.479	328.181	600	74.99	-60.01	DDH
Golden Highway	MGH21-245	572818.14	5370439.404	352.083	501.01	65.44	-55.24	DDH
Golden Highway	MGH21-246	572719.777	5370394.129	342.517	504.03	65.2	-54.72	DDH
Golden Highway	MGH21-247	572371.238	5370778.098	339.049	645	75.17	-60.35	DDH
Golden Highway	MGH21-248	573002.397	5370511.95	360.748	411.68	64.86	-55.14	DDH
Golden Highway	MGH21-249	571720.426	5369603.714	326.721	702	50.45	-60.49	DDH
Golden Highway	MGH21-249A	571718.78	5369601.66	326.83	98.151	50.41	-60.32	DDH
Golden Highway	MGH21-250	572226.896	5370046.979	330.067	440.3	75	-60	DDH
Golden Highway	MGH21-251	572594.746	5370727.311	361.429	501	85.15	-60.88	DDH
Golden Highway	MGH21-252	572802.282	5370753.286	351.874	399	80.42	-60.28	DDH
Golden Highway	MGH21-253	572999.234	5370518.722	361.231	522.31	64.77	-55.2	DDH
Golden Highway	MGH21-254	572770.96	5370313.974	345.898	499.232	64.62	-55.48	DDH
Golden Highway	MGH21-255	572896.78	5370764.263	349.859	435.01	80.19	-60.49	DDH
Golden Highway	MGH21-256	573009.362	5370776.815	338.89	374.75	85.09	-60.37	DDH
Golden Highway	MGH21-257	572701.854	5370738.377	352.393	417	85.11	-60.01	DDH
Golden Highway	MGH21-258	572560.827	5370835.016	357.415	406	84.4	-60.37	DDH
Golden Highway	MGH21-259	571805.347	5370523.691	327.838	606	75.18	-60.17	DDH
Golden Highway	MGH21-260	572677.356	5370269.838	353.315	477.01	64.8	-55.17	DDH
Golden Highway	MGH21-261	572873.77	5370352.598	354.482	524.87	65.03	-55.27	DDH
Golden Highway	MGH21-262	573090.458	5370448.966	351.157	511	65.38	-55.14	DDH
Golden Highway	MGH21-263	571996.75	5370572.556	328.687	456.7	75.01	-60.05	DDH
Golden Highway	MGH21-264	571826.041	5370437.39	328.241	501.25	75.03	-60.25	DDH
Golden Highway	MGH21-265	572691.995	5370838.232	348.125	429	79.93	-59.78	DDH
Golden Highway	MGH21-266	572034.61	5370528.126	328.709	603	85.18	-60.18	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MGH21-267	572183.128	5370560.863	331.166	534	84.94	-60.03	DDH
Golden Highway	MGH21-268	572385.311	5370628.269	337.891	450	85	-60.01	DDH
Golden Highway	MH-23	570081	5368496	319	8.84	0	-90	CP
Golden Highway	MH-24	570047	5368607	319	8.84	0	-90	CP
Golden Highway	MH-25	570021.5	5368690	318.5	8.84	0	-90	CP
Golden Highway	MH-35	569800	5369384.5	322.5	8.84	0	-90	CP
Golden Highway	MH-36	569767.5	5369495	323	8.84	0	-90	CP
Golden Highway	MI54-01	568948.04	5373116.57	350.5	358	360	-50	DDH
Golden Highway	MI55-01	570792.51	5373624.16	342.9	341.1	180	-50	DDH
Golden Highway	MI55-02	571098.91	5374367.38	342.9	285.6	180	-50	DDH
Golden Highway	MI-91-139	570228.77	5370475.49	326	388.7	163.6	-57	DDH
Golden Highway	MI-91-140	570388.52	5370535.83	323.99	302	162	-60	DDH
Golden Highway	MI-91-141	570443.41	5370329.09	324.65	202.9	343	-60	DDH
Golden Highway	MI-91-142	570324.75	5370233.56	322.44	305	341.7	-59.1	DDH
Golden Highway	MI-91-143	571329.25	5370543.27	325	89.46	342	-55	DDH
Golden Highway	MI-91-144	571317.34	5370568.91	325	323	345	-59.5	DDH
Golden Highway	MI-91-145	571223.4	5370844.17	328.78	122.08	163	-61	DDH
Golden Highway	MI-91-146	571234.49	5370840.3	328.47	315.5	164	-67	DDH
Golden Highway	MI-91-147	571335.6	5370903	330.25	400.5	163	-60	DDH
Golden Highway	MI-91-148X	571616.63	5370844.82	329.5	371	164	-54.5	DDH
Golden Highway	MI-91-149X	570125.63	5370457.99	324.63	536	164.2	-52.3	DDH
Golden Highway	MI-91-150	570015.34	5371009.92	329.96	294.44	343	-51.5	DDH
Golden Highway	MICH-96-01	570915	5375735	325	61.57	0	-90	DDH
Golden Highway	MJB-87-01	572014.91	5371645.9	336.5	62.8	0	-90	RC
Golden Highway	MJB-87-02	571669.59	5371764.28	342	63.72	0	-90	RC
Golden Highway	MJB-87-03	571555.63	5371801.89	342.5	82.62	0	-90	RC
Golden Highway	MJB-87-04	571265	5371824.74	344	77.13	0	-90	RC
Golden Highway	MJB-87-05	571107.55	5371778.13	344	70.43	0	-90	RC
Golden Highway	MJB-87-06	570813.11	5372110.49	325	83.54	0	-90	RC
Golden Highway	MJB-87-07	570771.77	5371814.85	344	74.39	0	-90	RC
Golden Highway	MJB-87-08	570524.23	5371858	338	66.77	0	-90	RC
Golden Highway	MJB-87-09	570249.53	5372025.13	325	64.94	0	-90	RC
Golden Highway	MJB-87-09A	570252.85	5372025.13	325	65.55	0	-90	RC
Golden Highway	MJB-87-10	569588.15	5371921.49	325	60.96	0	-90	RC
Golden Highway	MJB-87-11	569393.4	5371818.84	333.5	55.18	0	-90	RC
Golden Highway	MJB-87-12	569439.34	5371700.53	329	58.23	0	-90	RC
Golden Highway	MJB-87-13	569504.95	5371530.81	328	59.45	0	-90	RC
Golden Highway	MJB-87-14	569737.62	5371396.81	327.25	68.9	0	-90	RC
Golden Highway	MJB-87-15	569593	5371297.93	329.5	63.72	0	-90	RC
Golden Highway	MJB-87-16	569344.29	5371313.07	338.5	60.37	0	-90	RC
Golden Highway	MJB-87-17	569238.12	5371311.63	335.25	62.2	0	-90	RC
Golden Highway	MJB-87-18	569232.03	5371120.16	329.5	50.3	0	-90	RC
Golden Highway	MJB-87-19	569118.34	5371295.08	335	57.62	0	-90	RC
Golden Highway	MJB-87-20	569177.14	5370980.87	328.75	50.3	0	-90	RC
Golden Highway	MJB-87-21	569508.12	5371031.11	329	49.09	0	-90	RC

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MJB-87-22	569682.72	5371126.77	329.25	62.5	0	-90	RC
Golden Highway	MJB-87-23	569813.56	5371127.1	329.25	56.1	0	-90	RC
Golden Highway	MJB-87-24	569857.63	5371202.41	328	56.4	0	-90	RC
Golden Highway	MJB-87-25	569968.51	5371131.67	328.75	50.91	0	-90	RC
Golden Highway	MJB-87-26	570094.88	5371292.28	326.75	73.48	0	-90	RC
Golden Highway	MJB-87-27	570224.22	5370984.91	328	60.96	0	-90	RC
Golden Highway	MJB-87-28	570020	5370620	327	44.2	0	-90	RC
Golden Highway	MJB-87-29	570250	5370700	325.75	46.63	0	-90	RC
Golden Highway	MJD-86-01	570520	5370300	324	9.75	0	-90	RC
Golden Highway	MJD-86-01A	570520.1	5370300.1	324	9.75	0	-90	RC
Golden Highway	MJD-86-02	570550	5370215	323	24.38	0	-90	RC
Golden Highway	MJD-86-03	570655	5370280	323.25	27.43	0	-90	RC
Golden Highway	MJD-86-04	570765	5370335	323.75	19.2	0	-90	RC
Golden Highway	MJD-86-05	570830	5370345	324	16.76	0	-90	RC
Golden Highway	MJD-86-06	570870	5370405	324.5	21.03	0	-90	RC
Golden Highway	MJD-86-07	570930	5370410	324.5	14.02	0	-90	RC
Golden Highway	MJD-86-07A	570930	5370410	324.5	17.37	0	-90	RC
Golden Highway	MJD-86-08	571115	5370430	324	17.37	0	-90	RC
Golden Highway	MJD-86-09	571235	5370450	323.75	16.46	0	-90	RC
Golden Highway	MJD-86-10	571355	5370485	324.5	19.81	0	-90	RC
Golden Highway	MJD-86-11	571415	5370300	325	29.26	0	-90	RC
Golden Highway	MJD-86-12	571605	5370515	326.5	23.47	0	-90	RC
Golden Highway	MJD-86-13	571350	5370870	330	51.82	0	-90	RC
Golden Highway	MJD-86-14	571380	5370785	329.25	21.34	0	-90	RC
Golden Highway	MJD-86-15	571260	5370760	328.5	21.34	0	-90	RC
Golden Highway	MJD-86-16	571130	5370760	330.5	24.99	0	-90	RC
Golden Highway	MJD-86-17	571035	5370675	327.75	20.73	0	-90	RC
Golden Highway	MJD-86-18	570780	5370650	329.25	24.38	0	-90	RC
Golden Highway	MJD-86-19	570555	5370560	326.5	26.21	0	-90	RC
Golden Highway	MJD-86-20	570290	5370220	323.25	15.24	0	-90	RC
Golden Highway	MJD-86-21	570185	5370150	325.75	27.43	0	-90	RC
Golden Highway	MJD-86-22	570185	5370350	324.5	27.43	0	-90	RC
Golden Highway	MJL-87-01	572030	5370015	331	79.86	0	-90	RC
Golden Highway	MJL-87-02	571800	5369935	328.5	60.66	0	-90	RC
Golden Highway	MJL-87-03	571755	5370075	327.75	37.8	0	-90	RC
Golden Highway	MJL-87-04	571700	5370215	328	28.04	0	-90	RC
Golden Highway	MJL-87-05	571655	5370350	327.5	29.57	0	-90	RC
Golden Highway	MJL-87-06	571545	5370315	326.5	32.61	0	-90	RC
Golden Highway	MJL-87-07	571475	5370135	326	39.32	0	-90	RC
Golden Highway	MJL-87-08	571525	5369995	327	38.4	0	-90	RC
Golden Highway	MJL-87-09	571560	5369855	326.5	70.1	0	-90	RC
Golden Highway	MJL-87-10	571680	5369895	328	57.91	0	-90	RC
Golden Highway	MJL-87-11	571740	5369730	328	54.56	0	-90	RC
Golden Highway	MJL-87-12	571800	5369565	328.25	57.61	0	-90	RC
Golden Highway	MJL-87-13	571570	5369485	325.5	57.3	0	-90	RC

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MJL-87-14	571510	5369650	325	40.84	0	-90	RC
Golden Highway	MJL-87-15	571450	5369830	325	59.13	0	-90	RC
Golden Highway	MJL-87-16	571405	5369955	324.75	28.65	0	-90	RC
Golden Highway	MJL-87-17	571300	5369890	324	25.45	0	-90	RC
Golden Highway	MJL-87-18	571340	5369775	324.5	34.75	0	-90	RC
Golden Highway	MJL-87-19	571230	5369745	323.5	52.12	0	-90	RC
Golden Highway	MJL-87-20	571205	5369795	323.5	29.26	0	-90	RC
Golden Highway	MJL-87-21	571190	5369850	323.5	24.99	0	-90	RC
Golden Highway	MJL-87-22	571145	5369960	323.5	39.32	0	-90	RC
Golden Highway	MJL-87-23	571110	5370070	325	36.88	0	-90	RC
Golden Highway	MJL-87-24	571080	5370155	322.75	32.61	0	-90	RC
Golden Highway	MJL-87-25	570855	5370075	322.25	32	0	-90	RC
Golden Highway	MJL-87-26	570890	5369965	322.25	32.92	0	-90	RC
Golden Highway	MJL-87-27	570940	5369825	323.25	22.25	0	-90	RC
Golden Highway	MJL-87-28	570845	5369730	321.5	29.26	0	-90	RC
Golden Highway	MJL-87-29	570880	5369620	321.5	41.15	0	-90	RC
Golden Highway	MJL-87-30	571000	5369650	322	41.45	0	-90	RC
Golden Highway	MJL-87-31	571095	5369695	322.75	45.11	0	-90	RC
Golden Highway	MJL-87-32	571245	5369680	323.5	28.65	0	-90	RC
Golden Highway	MJL-87-33	571290	5369545	323.75	49.38	0	-90	RC
Golden Highway	MJL-87-34	571150	5369590	323	35.66	0	-90	RC
Golden Highway	MJL-87-35	571035	5369550	322.25	36.88	0	-90	RC
Golden Highway	MJL-87-36	570920	5369510	321.75	46.94	0	-90	RC
Golden Highway	MJL-87-37	570815	5369440	321	42.98	0	-90	RC
Golden Highway	MJL-87-38	570860	5369300	320.75	33.68	0	-90	RC
Golden Highway	MJL-87-39	570955	5369400	322	41.45	0	-90	RC
Golden Highway	MJL-87-40	570575	5369390	321.5	73.76	0	-90	RC
Golden Highway	MJL-87-41	570530	5369340	321.75	74.07	0	-90	RC
Golden Highway	MJL-87-42	570380	5369195	321.5	73.76	0	-90	RC
Golden Highway	MJL-87-43	570472	5368912	322.25	48.16	0	-90	RC
Golden Highway	MJL-87-44	570300	5368847	320	65.84	0	-90	RC
Golden Highway	MJL-87-45	570118	5368782	318.75	68.88	0	-90	RC
Golden Highway	MJL-87-46	569515	5368600	317	45.11	0	-90	RC
Golden Highway	MJL-87-47	569260	5368690	318	27.13	0	-90	RC
Golden Highway	MJL-87-48	569200	5368836	319.25	27.13	0	-90	RC
Golden Highway	MJL-87-49	569432	5368912	319.25	34.75	0	-90	RC
Golden Highway	MJL-87-50	569665	5369030	321	35.36	0	-90	RC
Golden Highway	MJL-87-51	569900	5369085	322	68.58	0	-90	RC
Golden Highway	MJL-87-52	569955	5369295	322.5	34.14	0	-90	RC
Golden Highway	MJL-87-53	569720	5369240	322	29.87	0	-90	RC
Golden Highway	MJL-87-54	569335	5369230	322	21.34	0	-90	RC
Golden Highway	MJL-87-55	569105	5369150	321.5	37.49	0	-90	RC
Golden Highway	MJL-87-56	569160	5369010	320.75	37.19	0	-90	RC
Golden Highway	MJN-87-01	569910	5369435	323	25.3	0	-90	RC
Golden Highway	MJN-87-02	569880	5369505	323.5	19.51	0	-90	RC

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MJN-87-03	569730	5369530	323.25	26.21	0	-90	RC
Golden Highway	MJN-87-04	569540	5369385	322.75	28.35	0	-90	RC
Golden Highway	MJN-87-05	569055	5369295	322.5	26.82	0	-90	RC
Golden Highway	MJN-87-06	568940	5368895	320	31.7	0	-90	RC
Golden Highway	MJN-87-07	568710	5368810	319.5	51.51	0	-90	RC
Golden Highway	MJN-88-01	566455	5369375	325	9.45	0	-90	RC
Golden Highway	MJN-88-02	566560	5369070	320	18.9	0	-90	RC
Golden Highway	MJN-88-03	566655	5368785	320	48.77	0	-90	RC
Golden Highway	MJN-88-04	566450	5368690	320	29.57	0	-90	RC
Golden Highway	MJN-88-05	566490	5368535	320	27.43	0	-90	RC
Golden Highway	MJN-88-06	566945	5368715	320	38.1	0	-90	RC
Golden Highway	MJN-88-07	566890	5368850	320	33.83	0	-90	RC
Golden Highway	MJN-88-08	567105	5368945	320	23.77	0	-90	RC
Golden Highway	MJN-88-09	567220	5369010	320	40.23	0	-90	RC
Golden Highway	MJN-88-10	567280	5368835	320	46.33	0	-90	RC
Golden Highway	MJN-88-10A	567280	5368835	320	52.43	0	-90	RC
Golden Highway	MJN-88-11	567340	5368645	320	47.85	0	-90	RC
Golden Highway	MJN-88-12	566415	5369495	325	8.23	0	-90	RC
Golden Highway	MJN-88-13	567620	5368955	320	60.96	0	-90	RC
Golden Highway	MJN-88-14	567815	5369155	321.5	49.68	0	-90	RC
Golden Highway	MJN-88-15	568035	5369260	322.25	37.8	0	-90	RC
Golden Highway	MJN-88-16	568080	5369120	321.5	31.7	0	-90	RC
Golden Highway	ML94-01	563622.89	5374392.19	325	311	30	-44	DDH
Golden Highway	ML94-02	563029.54	5374761.96	325	350	30	-45	DDH
Golden Highway	ML94-03	562904.4	5374550.16	325	207	30	-45	DDH
Golden Highway	ML94-04	564005.88	5374056.73	325	326	30	-45	DDH
Golden Highway	ML95-05	563707.17	5374693.16	325	361	210	-45	DDH
Golden Highway	ML95-06	563430.91	5375054.74	325	397	210	-45	DDH
Golden Highway	ML95-07	564174.79	5374543.27	325	360	210	-45	DDH
Golden Highway	ML95-08	563900.73	5374471.32	325	258	210	-45	DDH
Golden Highway	ML95-09	563672.63	5374753.48	325	446	210	-55	DDH
Golden Highway	ML95-10	563568.89	5374696.03	325	246.5	30	-45	DDH
Golden Highway	ML95-11	563469.97	5374774.96	325	175	210	-45	DDH
Golden Highway	ML95-12	562957.66	5375037.79	325	266	210	-45	DDH
Golden Highway	MM-94-132X	571650.9	5370754.43	328	398.2	342	-52	DDH
Golden Highway	MM-94-151	571711.33	5370778.32	328	419.7	342	-60	DDH
Golden Highway	MM-95-102X	570499.81	5370061.64	322.25	535.5	341	-50	DDH
Golden Highway	MM-95-152	571167.45	5369232.99	322.83	529.8	330	-60	DDH
Golden Highway	MM-95-152A	571166.53	5369195.78	322.83	50	330	-60	DDH
Golden Highway	MM-95-153	570736.71	5369341.5	320.48	306	341	-63	DDH
Golden Highway	MM-95-153A	570742.52	5369310.78	320.48	50	341	-60	DDH
Golden Highway	MM-95-154	570657.36	5369345.48	320.95	270.4	335	-55	DDH
Golden Highway	MM-95-155	571209.83	5369090.44	322.65	619	335	-57	DDH
Golden Highway	MM-95-156	570846.22	5369425.36	321.36	303.8	335	-59	DDH
Golden Highway	MM-95-157	570808.97	5369306.18	320.17	422.7	335	-55	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MM-95-158	571053.6	5369244.35	322.34	584.35	335	-57	DDH
Golden Highway	MM-95-159	571225.95	5369269.07	323.09	550.7	335	-57	DDH
Golden Highway	MM96-168	570696.71	5369301.03	320.48	372	330	-62	DDH
Golden Highway	MM96-169	571111.17	5369171.98	321.15	576.65	330	-60	DDH
Golden Highway	MM96-170	571274.1	5369644.52	323.87	486.75	330	-60	DDH
Golden Highway	MM96-172	571318.03	5369719.33	324.03	301	330	-55	DDH
Golden Highway	MM96-173	570944.2	5369267.37	321.47	551	340	-62	DDH
Golden Highway	MM96-177	571269.99	5368993.81	322.16	1047	330	-68.8	DDH
Golden Highway	MM96-179	571321.58	5369559.16	323.52	541.4	330	-63	DDH
Golden Highway	MM97-177A	571269.99	5368993.81	322.16	864	330	-68.8	DDH
Golden Highway	MM97-177B	571269.99	5368993.81	322.16	285	330	-68.8	DDH
Golden Highway	MM97-182	570917.56	5369490.57	320.9	630	127	-55	DDH
Golden Highway	MM97-183	571076.37	5369341.77	322.5	264	330	-60	DDH
Golden Highway	MM97-185	571003.06	5369269.17	322	282.5	330	-60	DDH
Golden Highway	MM97-187	571147.17	5369212.97	322.2	445	330	-60	DDH
Golden Highway	MM97-188	570804.86	5369467.87	320.3	732	120	-55	DDH
Golden Highway	MM97-189	571190.47	5369265.37	322.6	639	330	-61.5	DDH
Golden Highway	MM97-190	570765.17	5369467.23	320.55	996	114	-69.5	DDH
Golden Highway	MM97-192	571202.17	5369319.77	322.5	531	330	-60	DDH
Golden Highway	MM97-193	571223.37	5369391.87	323.25	660	330	-61.5	DDH
Golden Highway	MM97-194	570525.96	5369504.27	322.3	971	120	-61	DDH
Golden Highway	MM97-198	570978.47	5369484.77	321.2	597	120	-60	DDH
Golden Highway	MM97-200	570566.26	5369539.47	322	812	105	-58	DDH
Golden Highway	MM97-201	571029.47	5369829.47	323.5	402	125	-55	DDH
Golden Highway	MM97-203X	570944.91	5369315.95	321.23	777.47	24.6	-53.3	DDH
Golden Highway	MM97-204	571010.96	5369278.27	321.3	402	20	-55	DDH
Golden Highway	MM97-206	570960.17	5369904.87	322.2	526	117	-55	DDH
Golden Highway	MM97-207	570469.36	5369476.47	325	474	115	-62	DDH
Golden Highway	MM97-208	570935.06	5369238.47	321.4	385	20	-60	DDH
Golden Highway	MM97-209	571010.17	5369377.37	321.8	212.5	25	-55	DDH
Golden Highway	MM97-210	570615.96	5369304.17	320.4	646	88	-60	DDH
Golden Highway	MM97-211	570897.46	5369354.47	320.8	397	85	-60	DDH
Golden Highway	MM97-212	571082.57	5369173.17	321.8	429	30	-60	DDH
Golden Highway	MM97-213	570968.66	5369177.87	321.9	462	20	-58	DDH
Golden Highway	MM97-214	571066.27	5369306.67	321.8	159	30	-58	DDH
Golden Highway	MM97-214A	571066.27	5369306.67	321.8	56	30	-55	DDH
Golden Highway	MM97-214B	571066.27	5369306.67	321.8	156	30	-60	DDH
Golden Highway	MM97-215	570612.66	5369304.27	320.5	386	20	-60	DDH
Golden Highway	MM97-216X	570929.16	5369053.67	321.75	1346.05	30	-55.7	DDH
Golden Highway	MM97-217	570958.36	5369298.37	321.2	420	30	-57	DDH
Golden Highway	MM97-218	570555.26	5369246.17	320.6	444	20	-65	DDH
Golden Highway	MM97-219	570885.16	5369129.67	321.25	570	30	-65	DDH
Golden Highway	MM97-220	570539.16	5369482.97	322.3	414	90	-60	DDH
Golden Highway	MM97-221	570836.76	5369165.67	320.4	449	16	-65	DDH
Golden Highway	MM97-222	570885.16	5369129.67	321.25	558	24	-55	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MM97-223	570907.97	5369333.75	321.14	258	20	-65	DDH
Golden Highway	MM97-223A	570907.97	5369333.75	321.14	38	20	-60	DDH
Golden Highway	MM97-224	570836.76	5369165.67	320.4	383	14	-57	DDH
Golden Highway	MN96-131AX	567725.81	5369258.29	322.14	436	340.5	-62	DDH
Golden Highway	MN96-160	567893.78	5369150.88	321.83	525	341.8	-59	DDH
Golden Highway	MN96-161	567813.14	5369196.81	322.06	429	338.3	-59	DDH
Golden Highway	MN96-162	571336.4	5368876.92	323.17	1248	330.9	-73.4	DDH
Golden Highway	MN96-163	567982.74	5369260.64	322.19	405	340.4	-60	DDH
Golden Highway	MN96-164	568187.18	5369235.89	321.85	471	345	-60	DDH
Golden Highway	MN96-165	568510.97	5369389.42	323.96	78	340.5	-59	DDH
Golden Highway	MN96-166	567698.65	5368940.41	320.45	732	342.8	-59	DDH
Golden Highway	MN96-167	567883.07	5368997.5	320.82	699.3	340.4	-58	DDH
Golden Highway	MN96-171	568482.29	5369465.06	323.33	369	340	-60	DDH
Golden Highway	MN96-174	569232.96	5368792.23	319.55	363	338.47	-58	DDH
Golden Highway	MN96-175	571314.78	5370233.3	323.86	771	150	-58.5	DDH
Golden Highway	MN96-176	569375.76	5369124.27	320.3	340	340	-55	DDH
Golden Highway	MN96-178	570272.06	5369043.77	320.1	390	330	-60	DDH
Golden Highway	MN96-180	569166.82	5368627.1	321.16	321	340	-55	DDH
Golden Highway	MN96-181	569392.95	5368713.89	320.87	306.2	340	-54	DDH
Golden Highway	MN97-184	570305.3	5368981.27	319.4	366	330	-65	DDH
Golden Highway	MN97-186	570373.26	5369082.67	320.25	364	330	-75	DDH
Golden Highway	MN97-186A	570208.87	5368950.97	319	54	330	-65	DDH
Golden Highway	MN97-186B	570382.08	5369050.97	320	72	330	-65	DDH
Golden Highway	MN97-186C	570370.56	5369070.87	320	61	330	-70	DDH
Golden Highway	MN97-191	569975.76	5369159.27	321.3	558	120	-65	DDH
Golden Highway	MN97-195	569361.24	5368620.84	317.95	432	340	-60	DDH
Golden Highway	MN97-196	571544.66	5369777	326.62	777.5	327	-60	DDH
Golden Highway	MN97-197	569517.65	5368712.88	320.47	342	337	-55	DDH
Golden Highway	MN97-199	570330.16	5369347.57	323.5	523	118	-65	DDH
Golden Highway	MN97-199A	570330.16	5369347.57	323.5	111	120	-65	DDH
Golden Highway	MN97-202	570198.46	5368874.37	318.6	591	15	-60	DDH
Golden Highway	MN97-205	570260.26	5368859.17	318.6	510	10	-58	DDH
Golden Highway	MPL11-01	568500	5373375	325	322.69	135	-50	DDH
Golden Highway	MPL11-02	568600	5373275	325	257	135	-50	DDH
Golden Highway	MPL11-03	568700	5373400	325	256.47	135	-50	DDH
Golden Highway	MPL11-04	568900	5373419	325	195.01	135	-50	DDH
Golden Highway	MPL11-05	568500	5373300	325	259.92	0	-50	DDH
Golden Highway	MPL11-06	567200	5373450	325	208.93	199	-50	DDH
Golden Highway	MPL11-07	566340	5372920	325	201.14	190	-50	DDH
Golden Highway	MPL11-08	565950	5373075	325	329.1	180	-50	DDH
Golden Highway	MPL11-09	569075	5372475	325	462	265	-50	DDH
Golden Highway	MPM1939	567822.78	5374014.34	325	100	0		DDH
Golden Highway	MPM1939-04	567803.21	5374170.22	325	68.95	0		DDH
Golden Highway	MPM-89-01	569120	5372195	325	340.46	270	-50	DDH
Golden Highway	MR-01	570364	5368562	320.5	3.51	0	-90	HA

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MR-02	570185.5	5368159	319.5	3.66	0	-90	HA
Golden Highway	MR-03	570021.5	5368690	318.5	1.83	0	-90	HA
Golden Highway	MR-04	569922	5368997	322	3.66	0	-90	HA
Golden Highway	MR-05	569835.5	5369270	322.5	2.13	0	-90	HA
Golden Highway	MR-06	569664.5	5369830.5	324.5	1.98	0	-90	HA
Golden Highway	MR-07	569493	5370380	327	1.83	0	-90	HA
Golden Highway	MR-08	569854	5370193	326	7.01	0	-90	CP
Golden Highway	MR-09	569942	5369918	326	4.27	0	-90	CP
Golden Highway	MR-10	570010.5	5369694	324.5	3.66	0	-90	CP
Golden Highway	MR-11	570046	5369583	327.5	4.27	0	-90	CP
Golden Highway	MR-12	570080	5369474	324	0.76	0	-90	CP
Golden Highway	MR-13	570116	5369360.5	324.5	7.01	0	-90	CP
Golden Highway	MR-14	570148	5369250.5	325	7.01	0	-90	CP
Golden Highway	MR-15	570183.5	5369139.5	325.5	7.01	0	-90	CP
Golden Highway	MR-16	570221	5369016	320.5	7.01	0	-90	CP
Golden Highway	MR-17	570252	5368920	319	8.84	0	-90	CP
Golden Highway	MR-18	570364	5368562	320.5	8.84	0	-90	CP
Golden Highway	MR-19	570324	5368694	320	8.84	0	-90	CP
Golden Highway	MR-20	570286	5368805	319.5	8.84	0	-90	CP
Golden Highway	MR-21	570185.5	5368159	319.5	8.84	0	-90	CP
Golden Highway	MR-22	570116	5368383	319.5	8.84	0	-90	CP
Golden Highway	MR-34	569835.5	5369270	322.5	8.84	0	-90	CP
Golden Highway	MR-37	569733	5369607	323.5	8.84	0	-90	CP
Golden Highway	MR-38	569664.5	5369830.5	324.5	8.84	0	-90	CP
Golden Highway	MR-39	569571	5370134.5	327	10.67	0	-90	CP
Golden Highway	MR-40	569493	5370380	327	2.44	0	-90	CP
Golden Highway	MSW10-162A	571336.4	5368876.92	323.17	1435.19	330.9	-73.4	DDH
Golden Highway	MSW10-162B	571336.4	5368876.92	323.17	1320.16	330.9	-73.4	DDH
Golden Highway	MSW10-162C	571336.4	5368876.92	323.17	897.22	330.9	-73.4	DDH
Golden Highway	MSW10-162D	571336.4	5368876.92	323.17	1364.78	330.9	-73.4	DDH
Golden Highway	MSW10-162E	571336.4	5368876.92	323.17	872.95	330.9	-73.4	DDH
Golden Highway	MSW10-162F	571336.4	5368876.92	323.17	753.39	330.9	-73.4	DDH
Golden Highway	MSW10-162G	571336.4	5368876.92	323.17	1392.61	331.9	-72.1	DDH
Golden Highway	MSW10-260	571084.86	5369140.8	322.11	446.27	317.5	-63	DDH
Golden Highway	MSW10-261	571114.47	5369086.9	322.17	251.69	321.2	-66.3	DDH
Golden Highway	MSW10-262	571115.19	5369086.02	322.44	135	327	-65	DDH
Golden Highway	MSW10-263	571102.53	5369010.86	322.49	137.5	317.1	-70	DDH
Golden Highway	MSW10-264	570863.65	5369363.38	321.78	318.92	319.8	-61.8	DDH
Golden Highway	MSW10-265	570819.72	5369470.53	321.07	265.85	296.1	-58.6	DDH
Golden Highway	MSW10-267	571336.73	5368876.47	323.17	1515.86	309.2	-81.3	DDH
Golden Highway	MSW10-267A	571336.73	5368876.47	323.17	1169.83	309.2	-81.3	DDH
Golden Highway	MSW10-267B	571336.73	5368876.47	323.17	850.84	309.2	-81.3	DDH
Golden Highway	MSW10-267C	571336.73	5368876.47	323.17	1198.1	309.2	-81.3	DDH
Golden Highway	MSW10-267D	571336.73	5368876.47	323.17	921.68	309.2	-81.3	DDH
Golden Highway	MSW10-267E	571336.73	5368876.47	323.17	1121.7	309.2	-81.3	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MSW10-267F	571336.73	5368876.47	323.17	1310.8	309.2	-81.3	DDH
Golden Highway	MSW10-267G	571336.73	5368876.47	323.17	1531.1	309.2	-81.3	DDH
Golden Highway	MSW10-268	571173.57	5368533.42	327.43	1395	315.8	-70.3	DDH
Golden Highway	MSW10-268A	571173.57	5368533.42	327.43	1463	315.8	-70.3	DDH
Golden Highway	MSW10-269	570963.46	5368888.19	322.56	844.9	315.8	-73.6	DDH
Golden Highway	MSW10-270	570963.47	5368888.19	318.89	278	322	-67	DDH
Golden Highway	MSW10-271	570963.47	5368888.19	318.89	740.5	321.1	-64.3	DDH
Golden Highway	MSW10-272	570963.47	5368888.19	318.89	119	321.5	-68.6	DDH
Golden Highway	MSW10-272A	570963.47	5368888.19	318.89	767.2	321.5	-68.6	DDH
Golden Highway	MSW10-273	571459.65	5369039.05	324.21	1275	306.5	-72.6	DDH
Golden Highway	MSW10-273A	571459.65	5369039.05	324.21	762	306.5	-72.6	DDH
Golden Highway	MSW10-273B	571459.65	5369039.05	324.21	1152	306.5	-72.6	DDH
Golden Highway	MSW10-274	571447.03	5368645.91	325.1	335.45	326.4	-54.8	DDH
Golden Highway	MSW10-275	571690.64	5368603.23	326.48	642.8	12	-50.9	DDH
Golden Highway	MSW10-276	571418.53	5369078.42	324.3	639	21.7	-50.9	DDH
Golden Highway	MSW11-277	571541.49	5369782.04	326.49	496.35	30.1	-58.9	DDH
Golden Highway	MSW11-278	570995.64	5368880.78	322.71	267	13.5	-78.5	DDH
Golden Highway	MSW11-278A	570995.64	5368880.78	322.71	251.87	13.5	-78.5	DDH
Golden Highway	MSW11-279	570995.77	5368880.54	323.18	1443.06	19.2	-78.8	DDH
Golden Highway	MSW11-280	571190.88	5369732.21	323.56	289.33	19.9	-57.3	DDH
Golden Highway	MSW11-281	571165.04	5369702.6	322.97	504.62	25.9	-62.3	DDH
Golden Highway	MSW11-282	571113.41	5369689.24	322.86	336.55	23.8	-57.5	DDH
Golden Highway	MSW11-283	571312.77	5369644.95	324.46	564.2	20.6	-54.1	DDH
Golden Highway	MSW11-284	570995.77	5368880.54	319.52	257.9	17.7	-75.4	DDH
Golden Highway	MSW11-285X	570996.36	5368880.56	322.53	1366	26.5	-75.9	DDH
Golden Highway	MSW11-286	571324.68	5369742.17	325.21	453.57	20.3	-51.4	DDH
Golden Highway	MSW11-287	571464.43	5369793.17	325.71	327.3	25.2	-49.4	DDH
Golden Highway	MSW11-288	571429.41	5369713.22	324.82	525.63	23.7	-50.9	DDH
Golden Highway	MSW11-289	571428.85	5369711.97	323.51	478.85	0.1	-64.6	DDH
Golden Highway	MSW11-290	571389.95	5369615.88	324.46	654.72	19.3	-54.7	DDH
Golden Highway	MSW11-290A	571389.95	5369615.88	324.46	656.9	19.3	-54.7	DDH
Golden Highway	MSW11-291	571387.45	5369608.22	324.29	338.77	17	-71.8	DDH
Golden Highway	MSW11-291AX	571387.45	5369608.22	324.29	1047.75	17	-71.8	DDH
Golden Highway	MSW11-292	571370.27	5369829.77	324.4	214.4	16.3	-51.7	DDH
Golden Highway	MSW11-293	572065.89	5369573.63	329.2	386.86	27	-53.3	DDH
Golden Highway	MSW11-294	571165	5369975	324	299.86	330	-50	DDH
Golden Highway	MSW12-295	571446.99	5369854.11	325.34	60	18.7	-51.5	DDH
Golden Highway	MSW12-295A	571446.99	5369854.11	325.34	332.7	18.7	-51.5	DDH
Golden Highway	MSW12-296	571394.26	5369371.39	324.6	383.87	332.4	-53.7	DDH
Golden Highway	MSW12-297X	570570.58	5369832.72	323.64	535	121.1	-51.5	DDH
Golden Highway	MSW12-298	570444.6	5369720.34	324.22	218.83	125.3	-52.9	DDH
Golden Highway	MSW12-299	570555.26	5369246.17	320.98	107	340	-50	DDH
Golden Highway	MSW12-300	571243.19	5370155.09	324.15	348.2	141.3	-52.7	DDH
Golden Highway	MSW12-301	571586.61	5369918.99	328.32	294.07	14.7	-50.8	DDH
Golden Highway	MSW12-302	570675.96	5368998.77	321.31	417.03	13.1	-55.4	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MSW12-303	571402.03	5369983.26	324.94	326.44	11.2	-53.5	DDH
Golden Highway	MSW12-304	571655.04	5369969.5	327.55	287.3	16.3	-50.9	DDH
Golden Highway	MSW12-305	571590.93	5369851.71	328.08	395.98	10.9	-50.8	DDH
Golden Highway	MSW12-306	571358.81	5370147.98	325.43	357.11	137.9	-51.8	DDH
Golden Highway	MSW12-307	571626.68	5370009.81	327.04	167.53	11	-51.5	DDH
Golden Highway	MSW12-308	571684.56	5369924.58	327.56	455.8	10.6	-53.5	DDH
Golden Highway	MSW12-309	571345.27	5370130.92	325.43	303.2	316.3	-62.8	DDH
Golden Highway	MT-84-01	563597.1	5367971	317	27	0	-90	RC
Golden Highway	MT-84-02	563974	5367748	315	30.6	0	-90	RC
Golden Highway	MT-84-03	564283	5367801	313.5	34.5	0	-90	RC
Golden Highway	MT-84-04	564598	5367898	313.5	31.5	0	-90	RC
Golden Highway	MT-84-05	564909	5367918	315	43.5	0	-90	RC
Golden Highway	MT-84-06	565220	5367957	314	21.5	0	-90	RC
Golden Highway	MT-84-07	565530	5368025	314	16.5	0	-90	RC
Golden Highway	MT-84-08	565840	5368072	314	14.5	0	-90	RC
Golden Highway	MT-84-09	566153	5368137	316	19.5	0	-90	RC
Golden Highway	MT-84-10	566464	5368171	316	27	0	-90	RC
Golden Highway	MT-84-11	568833	5367735	310	16.7	0	-90	RC
Golden Highway	MT-84-12	567520	5367675	310	37.5	0	-90	RC
Golden Highway	MT-84-13	567200	5367612	310	96.5	0	-90	RC
Golden Highway	MT-84-14	566845	5367162	310	20.4	0	-90	RC
Golden Highway	MT-84-15	566553	5367168	310	21	0	-90	RC
Golden Highway	MT-84-16	566234	5367145	315	16	0	-90	RC
Golden Highway	MT-84-17	565920	5367115	315	27.5	0	-90	RC
Golden Highway	MT-84-18	565640	5367055	315	18	0	-90	RC
Golden Highway	MT-84-19	567200	5367612	310	87.7	0	-90	RC
Golden Highway	MT-84-20	565320	5367000	315	37.5	0	-90	RC
Golden Highway	MT-84-21	565025	5366950	315	29	0	-90	RC
Golden Highway	MT-84-22	564750	5366880	315	21.4	0	-90	RC
Golden Highway	MT-84-23	564430	5366830	315	28.5	0	-90	RC
Golden Highway	MT-84-24	564100	5366775	315	38.4	0	-90	RC
Golden Highway	MTL05-01	572128.62	5371767.57	340.5	560	0	-50	DDH
Golden Highway	MTL05-02	573188.63	5372084.57	340	479	160	-45	DDH
Golden Highway	MU-89-100	570774.95	5369485.93	321	230	292	-50	DDH
Golden Highway	MU-89-101	570291.72	5370297.54	323.05	229.05	342	-50	DDH
Golden Highway	MU-89-102	570438.78	5370034.34	323.25	228	342	-50	DDH
Golden Highway	MU-89-103	567896.96	5369140.25	321.05	257	342	-52	DDH
Golden Highway	MU-89-104	567811.41	5369383.08	322.9	182	346.4	-49.5	DDH
Golden Highway	MU-89-105	566494.29	5368641.18	317.87	231.17	8.6	-50	DDH
Golden Highway	MU-89-106	566479.18	5368893.04	321.86	263.9	0	-50	DDH
Golden Highway	MU-89-107	569974.28	5369227.7	322.25	68.85	161.2	-50	DDH
Golden Highway	MU-89-108	567853.45	5369275.13	322.71	284	340.3	-47	DDH
Golden Highway	MU-89-109	569943.69	5369325.88	322.5	504.99	162	-50	DDH
Golden Highway	MU-89-110	571599.8	5370808.43	328.71	178.92	340	-51	DDH
Golden Highway	MU-89-111	571625.18	5370784.28	328.53	187.45	340.2	-49	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MU-89-112	571652.19	5370792.91	328.5	184.4	335.5	-51	DDH
Golden Highway	MU-89-113	571635.9	5370888.18	330	153.92	340	-52.5	DDH
Golden Highway	MU-89-114	571735.81	5370882.53	329.5	184.4	341.7	-50.5	DDH
Golden Highway	MU-89-115	571502.38	5370825.4	328.71	141.73	346.7	-53	DDH
Golden Highway	MU-89-116	570264.38	5370290.17	324	135.03	340	-57.2	DDH
Golden Highway	MU-89-117	570285.53	5370262.99	322.83	60.4	342	-50	DDH
Golden Highway	MU-89-117A	570289.96	5370265.99	322.83	169.16	348	-52.6	DDH
Golden Highway	MU-89-118	570315.64	5370272.32	322.92	47.24	340	-50	DDH
Golden Highway	MU-89-118A	570315.64	5370272.32	322.92	184.4	343	-52.4	DDH
Golden Highway	MU-89-119	570317.74	5370308.91	323.65	123.44	351	-52	DDH
Golden Highway	MU-89-120	570436.46	5370337.08	323.5	178.31	341	-51.5	DDH
Golden Highway	MU-89-121	570130.97	5370206.64	322.89	238.6	339.5	-57	DDH
Golden Highway	MU-89-122	569976.09	5370124.46	324.75	306.32	339	-49.5	DDH
Golden Highway	MU-89-123	567830.13	5369332.99	322.84	216.78	338	-49	DDH
Golden Highway	MU-89-124	567750.36	5369548.43	324.48	329.52	160	-50.5	DDH
Golden Highway	MU-89-125	567824.78	5369265	322.22	289.56	338.1	-47	DDH
Golden Highway	MU-89-126	567882.04	5369285.21	322.33	294.13	341	-50	DDH
Golden Highway	MU-89-127	567812.47	5369294.78	322.52	262.13	339.9	-49	DDH
Golden Highway	MU-89-128	567871.42	5369315.09	322.75	248.41	344.9	-46	DDH
Golden Highway	MU-89-129X	568009.9	5369359.42	323	421	341	-50	DDH
Golden Highway	MU-89-130	568225.81	5369468.12	323.2	205.74	341.5	-55	DDH
Golden Highway	MU-89-131A	567725.81	5369258.29	322.14	224.03	340.5	-62	DDH
Golden Highway	MU-89-133	567859.81	5369256.01	322.22	309.37	340.4	-52	DDH
Golden Highway	MU-89-134	570198.69	5370280.99	324.25	150.88	343	-51.9	DDH
Golden Highway	MU-89-135	570374.95	5370342.64	323.5	135.64	343	-50	DDH
Golden Highway	MU-89-136	570476.38	5370392.63	325.91	129.54	338	-50	DDH
Golden Highway	MU-89-137	570905.36	5370579.28	325.91	143.26	340	-50.5	DDH
Golden Highway	MU-89-138	570203.96	5370447.31	323.87	220.98	357	-55	DDH
Golden Highway	MU-89-94	571281.31	5370672.59	327	200	342	-50	DDH
Golden Highway	MU-89-95	571629.71	5370816.12	329.25	236	342	-49	DDH
Golden Highway	MU-89-96	571179.09	5370633.49	327	234.35	342	-50	DDH
Golden Highway	MU-89-97	571628.83	5370028.19	327.25	243.99	296	-50	DDH
Golden Highway	MU-89-98	571165.09	5369479.5	323.25	174	286	-50	DDH
Golden Highway	MU-89-99	571165.09	5369416.86	323.25	233.44	286	-50	DDH
Golden Highway	MW-26	569961	5368883	318.5	7.01	0	-90	CP
Golden Highway	MW-27	569922	5368997	322	8.84	0	-90	CP
Golden Highway	MW-28	569900	5369078	322	7.92	0	-90	CP
Golden Highway	MW-29	570021	5369179	322.5	6.1	0	-90	CP
Golden Highway	MW-30	570064	5369041	322.5	8.84	0	-90	CP
Golden Highway	MW-31	569789	5368950	322	8.84	0	-90	CP
Golden Highway	MW-32	569744	5369090.5	321.5	8.84	0	-90	CP
Golden Highway	MW-33	569873	5369162	322	8.84	0	-90	CP
Golden Highway	MWJ07-01	572366.52	5370355.71	334.77	239	329.6	-67.8	DDH
Golden Highway	MWJ07-02	572209.22	5370219.78	330.12	380	341	-60.2	DDH
Golden Highway	MWJ07-03	572269.55	5370248.27	330.95	369	334.8	-64.8	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MWJ08-05	573994.86	5370740.08	331	401	336.2	-56.1	DDH
Golden Highway	MWJ08-06	572060.49	5370167.41	328.62	336	343.1	-58.5	DDH
Golden Highway	MWJ08-07	572257.65	5370042.18	329.91	556.86	339.8	-53.5	DDH
Golden Highway	MWJ08-08	572479.11	5370322.64	338.95	443	342	-60	DDH
Golden Highway	MWJ08-09	572415.28	5370362.81	335.83	398	340.8	-61.9	DDH
Golden Highway	MWJ08-10	572332.88	5370327.64	333.57	266	338.4	-62.9	DDH
Golden Highway	MWJ08-11	572396.02	5370414.08	335.68	166	340.2	-61	DDH
Golden Highway	MWJ08-12	572504.68	5370398.54	343.23	341	348.2	-60.7	DDH
Golden Highway	MWJ08-13	572313.82	5370378.55	332.98	185	339.6	-61.3	DDH
Golden Highway	MWJ08-14X	572447.83	5370434.72	339.07	524	349.6	-60.6	DDH
Golden Highway	MWJ08-15	572437.39	5370304.68	335.28	464	340	-60	DDH
Golden Highway	MWJ08-15A	572437.39	5370304.68	335.28	119	335	-60	DDH
Golden Highway	MWJ08-16	572347.61	5370262.01	331.87	413	342.8	-59.7	DDH
Golden Highway	MWJ08-17X	572308.28	5370045.67	330.44	455	345.7	-48	DDH
Golden Highway	MWJ08-18	572283.06	5370275.25	330.12	299	344.4	-60	DDH
Golden Highway	MWJ08-19	571889.22	5370058.07	328.83	360	337	-60.5	DDH
Golden Highway	MWJ08-20	572231.55	5370255.24	330.43	317	340.9	-65	DDH
Golden Highway	MWJ08-21	572184.19	5370180.68	329.12	362	339.3	-59.8	DDH
Golden Highway	MWJ08-22	572405.54	5370315.6	334.54	446	340.1	-62.5	DDH
Golden Highway	MWJ09-23	572413.78	5370125.25	332.25	590	341.5	-52.4	DDH
Golden Highway	MWJ09-24	572541.62	5370091.64	339.38	470	339.2	-51.4	DDH
Golden Highway	MWJ09-25	572350.51	5370387.37	334.32	536	330.8	-54	DDH
Golden Highway	MWJ09-26	572506.09	5371298.63	334.55	365	156	-56	DDH
Golden Highway	MWJ09-27	572386.01	5371265.2	337.69	436	157.5	-59.4	DDH
Golden Highway	MWJ09-28	572321.38	5371275.95	333.3	587	160	-59.7	DDH
Golden Highway	MWJ09-29	572213.44	5370681.34	331.41	485	340.4	-49	DDH
Golden Highway	MWJ09-30	572267.54	5370539.18	331.77	530	339.9	-51.9	DDH
Golden Highway	MWJ09-31	572108.11	5370318.57	329.84	473	266.2	-47.7	DDH
Golden Highway	MWJ10-32	572117.98	5370045.83	330.23	451.82	43.2	-53.4	DDH
Golden Highway	MWJ10-33	572005.07	5370118.15	328.62	530	40.6	-52.6	DDH
Golden Highway	MWJ11-34	574174.79	5370811.99	331.37	463.98	24.3	-54.1	DDH
Golden Highway	MWJ11-35	572101.16	5370136.55	330.51	423.14	38.7	-54	DDH
Golden Highway	MWJ11-36X	572194.1	5370034.22	330.01	730	36.1	-54.3	DDH
Golden Highway	MWJ11-37	572233.4	5370188.79	329.95	498.85	34.5	-49.2	DDH
Golden Highway	MWJ11-38	572174.22	5370503.04	330.97	426.3	158.1	-50.9	DDH
Golden Highway	MWJ11-39	571859.86	5370105.5	328.06	429	29.5	-57.4	DDH
Golden Highway	MWJ11-40X	572053.78	5369975.6	330.74	675	34.7	-56	DDH
Golden Highway	MWJ11-41	572412.74	5370317.29	334.86	543.03	36.3	-50.7	DDH
Golden Highway	MWJ11-42	572498.18	5370403.49	343.33	306.9	29	-50.7	DDH
Golden Highway	MWJ11-43	572612.07	5370433.06	352.22	429	32.5	-54.2	DDH
Golden Highway	MWJ11-44	572553.49	5370421.61	351.96	480	35.3	-53.9	DDH
Golden Highway	MWJ11-45	572447.08	5370433.77	339.06	342.22	34.8	-59.5	DDH
Golden Highway	MWJ11-46	572517.41	5370461.56	346.54	296.3	32.6	-52	DDH
Golden Highway	MWJ11-47	572057.17	5370074.89	328.8	404.28	37.9	-58.5	DDH
Golden Highway	MWJ11-48X	572224.5	5370101.66	329.36	900.1	37.8	-50.7	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	MWJ11-49	571942.75	5370139.33	328.16	267	30.5	-54	DDH
Golden Highway	MWJ11-50	571833.01	5370179.54	328.1	310.03	38.4	-52.3	DDH
Golden Highway	MWJ11-51	572216.85	5370675.64	331.6	504	16.4	-50.7	DDH
Golden Highway	MWJ11-52	572388.87	5370781.69	341.33	465	27.3	-51	DDH
Golden Highway	MWJ11-53	572376.31	5370881.71	339.77	396	24.9	-50.3	DDH
Golden Highway	MWJ11-54	572549.37	5370893.94	357.83	459	24.4	-52.4	DDH
Golden Highway	MWJ11-55	572301.77	5370808.73	333.84	318.04	350	-50.8	DDH
Golden Highway	MWJ11-56	571925.2	5370598.95	328.23	108.75	340	-50	DDH
Golden Highway	MWJ11-57	572108.07	5370678.5	329.09	384.13	341.2	-53.7	DDH
Golden Highway	MWJ11-58X	571908	5370643.9	332.8	621	339.3	-52.5	DDH
Golden Highway	MWJ11-59	572079	5370461.92	330.56	324.02	340.1	-51.4	DDH
Golden Highway	MWJ12-60	572221.11	5370779.23	331.15	312.03	338.1	-52	DDH
Golden Highway	MWJ12-61	572375.23	5370843.14	340.25	278.73	347.8	-48.9	DDH
Golden Highway	MWJ12-62	572461.18	5370569.28	344.1	390.03	351.4	-48.7	DDH
Golden Highway	MWJ12-63	572654.64	5370615.86	350.66	417	335	-50	DDH
Golden Highway	MWJ12-64	571846.33	5370524.39	328.1	63.61	160	-50	DDH
Golden Highway	MWJ12-64A	571846.33	5370524.39	328.1	303.09	156	-49.2	DDH
Golden Highway	MWJ12-65	572125.16	5370785.47	329.37	237.25	332.9	-48.8	DDH
Golden Highway	MWJ12-66	572697.85	5371096.27	331.52	213.15	342.2	-60.7	DDH
Golden Highway	MWJ12-67	572693.91	5370943.01	340.77	392.94	342	-51.8	DDH
Golden Highway	MWJ12-68	572765.93	5371068.91	330.48	318.55	340.4	-62.2	DDH
Golden Highway	MWJ12-69	572213.45	5370895.97	330.95	377.88	344.5	-49.7	DDH
Golden Highway	MWJ12-70	572629.66	5371408.92	334.83	393	162.1	-52.2	DDH
Golden Highway	MWJ12-71	572801.15	5371120.92	330.63	213	335.1	-59.7	DDH
Golden Highway	MWJ12-72	572383.06	5370786.8	340.37	399.02	347.4	-52.6	DDH
Golden Highway	MWJ12-73	572897.91	5371148.76	330.07	231.3	334.8	-59.6	DDH
Golden Highway	MWJ12-74	572173.65	5370504.65	330.73	413.56	337.4	-54.8	DDH
Golden Highway	MWJ12-75	572356.27	5370554.6	335.31	540.58	345.6	-51.5	DDH
Golden Highway	MWJ12-76	572559.68	5370592.19	360.2	462.07	349.9	-50.9	DDH
Golden Highway	MWJ12-77	572323.32	5370658.47	334.1	513.7	345.2	-50	DDH
Golden Highway	MWJ12-78	572420.46	5370675.62	342.66	423.27	343.2	-51.8	DDH
Golden Highway	MWJ12-79	572422.22	5370674.01	342.74	406.12	30.6	-50.2	DDH
Golden Highway	NM82-1	571765.62	5368600.55	325.75	152.7	135	-55	DDH
Golden Highway	NM82-2	571365.62	5368583.55	324.25	169.77	153.5	-60	DDH
Golden Highway	NM82-3	571529.62	5368825.55	326	172.21	229	-60	DDH
Golden Highway	NM82-4	566486.01	5369137.5	321.7	205.74	0	-60	DDH
Golden Highway	NM83-5	566856.6	5368836.55	319	359.05	155	-55	DDH
Golden Highway	NM83-6	566469.72	5368915.57	325	121.92	180	-55	DDH
Golden Highway	NM83-7	571738.62	5368829.55	325.5	152.7	350	-60	DDH
Golden Highway	NM86-10	571739.62	5368474.55	327.73	160.32	360	-55	DDH
Golden Highway	NM86-11	571890.62	5368206.55	332.25	106.68	40	-50	DDH
Golden Highway	NM86-12	571790.62	5368834.55	325.25	138.99	360	-55	DDH
Golden Highway	NM86-13	571889.62	5368804.55	325	206.04	360	-60	DDH
Golden Highway	NM86-8	571889.62	5368628.55	326.5	155.45	180	-50	DDH
Golden Highway	NM86-9	572000.62	5368304.55	334	81.38	220	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	PL-01	567036	5373300	325	29.27	0	-90	RC
Golden Highway	PL-02	566643	5373275	325	35.98	0	-90	RC
Golden Highway	PL-03	566236	5373273	325	12.96	0	-90	RC
Golden Highway	PL-03A	566238	5373260	325	12.2	0	-90	RC
Golden Highway	PL-04	565851	5373286	325	1.83	0	-90	RC
Golden Highway	PL-04A	565819	5373285	325	1	0	-90	RC
Golden Highway	PL-05	565452	5373285	325	2.74	0	-90	RC
Golden Highway	PL-06	565057	5373101	325	11.89	0	-90	RC
Golden Highway	PL06-01	568087.25	5371239.68	333.5	350	145	-50	DDH
Golden Highway	PL06-02	568718.26	5371358.68	336.5	311	195	-50	DDH
Golden Highway	PL-07	564657	5373283.67	325	11.59	0	-90	RC
Golden Highway	PL-08	564280	5373250	325	9.45	0	-90	RC
Golden Highway	PL-09	563873	5373263	325	24.39	0	-90	RC
Golden Highway	PL-10	563481	5373265	325	35.37	0	-90	RC
Golden Highway	PL-11	563078	5373263	325	32.32	0	-90	RC
Golden Highway	PL-12	562681	5373261	325	1.37	0	-90	RC
Golden Highway	PL-12B	562724	5373276	325	3.66	0	-90	RC
Golden Highway	PL-13	562289	5373277	325	4.88	0	-90	RC
Golden Highway	PL-14	563327	5372432	325	2.74	0	-90	RC
Golden Highway	PL-14A	563325	5372432	325	4.88	0	-90	RC
Golden Highway	PL-15	563721	5372469	325	15.55	0	-90	RC
Golden Highway	PL-16	564097	5372483	325	25.61	0	-90	RC
Golden Highway	PL-17	564517	5372475	325	21.04	0	-90	RC
Golden Highway	PL-18	564922	5372472	325	7.93	0	-90	RC
Golden Highway	PL-19	565296	5372415	325	19.51	0	-90	RC
Golden Highway	PL-20	565712	5372472	325	4.88	0	-90	RC
Golden Highway	PL-21	566101	5372487	325	8.54	0	-90	RC
Golden Highway	PL-22	566500	5372468	325	17.68	0	-90	RC
Golden Highway	PL-23	563523	5371670	325	21.04	0	-90	RC
Golden Highway	PL-24	563900	5371682	325	17.99	0	-90	RC
Golden Highway	PL-25	564257	5371673	325	17.68	0	-90	RC
Golden Highway	PL-26	564700	5371674	325	40.55	0	-90	RC
Golden Highway	PL-27	565095	5371685	325	13.72	0	-90	RC
Golden Highway	PL-28	565500	5371640	325	5.79	0	-90	RC
Golden Highway	PL-29	565882	5371675	325	4.27	0	-90	RC
Golden Highway	PL-30	566263	5371680	325	12.5	0	-90	RC
Golden Highway	PL-31	566655	5371680	325	6.71	0	-90	RC
Golden Highway	PL-32	567070	5371680	325	7.93	0	-90	RC
Golden Highway	PL-33	567463	5371680	325	65.85	0	-90	RC
Golden Highway	PL-84-01	565690	5373700	325	150.31	180	-45	DDH
Golden Highway	PL-87-01	565637.58	5372740.35	325	148.13	195	-45	DDH
Golden Highway	PL-87-02	565464.76	5373077.25	325	245.67	15	-45	DDH
Golden Highway	PL-87-03	565022.13	5373329.15	325	215.19	195	-45	DDH
Golden Highway	PL-87-04	564558.67	5373490.43	325	47.55	195	-45	DDH
Golden Highway	PL-87-04A	564563.33	5373489.55	325	201.17	195	-45	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	PL-87-05	564649.17	5373884.12	325	80.77	195	-45	DDH
Golden Highway	PL-87-05A	564649.17	5373884.12	325	187.45	195	-45	DDH
Golden Highway	PL-87-06	565371.86	5373217.48	325	114.6	195	-45	DDH
Golden Highway	PL-87-07	565614.34	5373183.65	325	74.98	195	-45	DDH
Golden Highway	PL-87-08	565377.34	5372696.93	325	53.64	15	-45	DDH
Golden Highway	PL-87-08A	565396	5372698	325	117.65	195	-45	DDH
Golden Highway	PL-87-09	565727.74	5372588.22	325	226.77	15	-45	DDH
Golden Highway	PL-87-10	563575.43	5372479.2	325	334.06	15	-45	DDH
Golden Highway	PL-87-11	563580.09	5372478.31	325	85.34	195	-45	DDH
Golden Highway	PL-87-12	563691.21	5372438.51	325	352.35	15	-45	DDH
Golden Highway	PL-88-13	563524.76	5372781.96	325	361.49	195	-47	DDH
Golden Highway	PL-88-14	563609.46	5372606.08	325	193.85	15	-45	DDH
Golden Highway	PL-88-15	563615.63	5372088.54	325	245.67	195	-45	DDH
Golden Highway	PL-88-16	564244.03	5372100.46	325	193.85	195	-48	DDH
Golden Highway	PL-90-1B	565220	5375375	325	243	195	-55	DDH
Golden Highway	PL-96-01	565889	5373429	325	224	190	-45	DDH
Golden Highway	PL-96-02	565690	5373375	325	346	190	-45	DDH
Golden Highway	PL-97-03	565284	5373371	325	274	190	-45	DDH
Golden Highway	PL-97-04	566306	5373485	325	276.1	190	-45	DDH
Golden Highway	PL-97-04A	566304.26	5373475.15	325	21	190	-45	DDH
Golden Highway	PL-97-05	564798	5373522	325	343	190	-45	DDH
Golden Highway	PL-98-06	566505.95	5373433.4	325	335	190	-45	DDH
Golden Highway	PL-98-07	566099	5373429	325	302	190	-45	DDH
Golden Highway	PL-98-08	566322	5373577	325	623	190	-62	DDH
Golden Highway	PL-98-09	566121	5373635	325	548	190	-45	DDH
Golden Highway	PL-98-10	565941.11	5373685.31	325	653	190	-45	DDH
Golden Highway	PL-98-11	564191.77	5372978.34	325	251	190	-45	DDH
Golden Highway	PL-98-12	564184.45	5373512.73	325	113	190	-45	DDH
Golden Highway	PMT1	570357.52	5373759.69	325	218	180	-50	DDH
Golden Highway	PMT2	570372.33	5373743.69	325	206	180	-50	DDH
Golden Highway	PMT3	570423.64	5373766.69	325	272	180	-50	DDH
Golden Highway	PMT4	570398.95	5373678.19	325	146	180	-55	DDH
Golden Highway	R83-1	567580	5369130	320	44	0	-90	RC
Golden Highway	R83-10	568880	5369490	323.5	37.5	0	-90	RC
Golden Highway	R83-11	569085	5369570	323.5	36.5	0	-90	RC
Golden Highway	R83-12	568180	5369520	324	26.5	0	-90	RC
Golden Highway	R83-13	568080	5369325	322.75	38.5	0	-90	RC
Golden Highway	R83-14	567970	5368900	320.5	39.5	0	-90	RC
Golden Highway	R83-15	567700	5368690	318.5	49.5	0	-90	RC
Golden Highway	R83-2	567050	5368843	320	23.7	0	-90	RC
Golden Highway	R83-3	567180	5368765	320	49.5	0	-90	RC
Golden Highway	R83-4	566995	5368625	320	36.5	0	-90	RC
Golden Highway	R83-5	566685	5368635	320	33.1	0	-90	RC
Golden Highway	R83-6	567775	5368985	320.5	43.5	0	-90	RC
Golden Highway	R83-7	567975	5369085	321.25	29.5	0	-90	RC

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	R83-8	568240	5369355	322.75	36	0	-90	RC
Golden Highway	R83-9	568580	5369390	323.5	33.4	0	-90	RC
Golden Highway	RM-01	568628.66	5373236.17	325	279.5	314	-50	DDH
Golden Highway	RM-02	568568	5373413	325	309.37	138.5	-45	DDH
Golden Highway	RM-03	568265.96	5373515.75	325	200.86	192	-47.5	DDH
Golden Highway	RM-04	568136.11	5373367.56	325	160.02	9.5	-50	DDH
Golden Highway	RM-05	567748.06	5373257.56	325	148.13	179	-45	DDH
Golden Highway	RM-06	567389.04	5373168.95	325	166.73	176.8	-45	DDH
Golden Highway	RM-07	567645.7	5373440.89	325	156.06	176.6	-45	DDH
Golden Highway	RM-08	567748.06	5372952.01	325	175.08	169.6	-45	DDH
Golden Highway	RM-09	568366.79	5373129.23	325	134.75	181	-45	DDH
Golden Highway	RM-10	568239.99	5373323.25	325	152.67	178	-45	DDH
Golden Highway	RM-11	568814.43	5373702.13	325	141.73	173.5	-45	DDH
Golden Highway	RM-12	568432	5373195	325	172.21	1	-45	DDH
Golden Highway	T96-01	565092.59	5368168.55	315	94.51	360	-50	DDH
Golden Highway	T96-01A	565092.59	5368113.55	314.71	146.55	360	-46	DDH
Golden Highway	T96-02	565341.59	5368193.55	315.7	82.93	360	-52.5	DDH
Golden Highway	T96-02A	565341.59	5368193.75	315.71	243.11	360	-52	DDH
Golden Highway	T96-03	565214.59	5367833.55	314	246.04	360	-50	DDH
Golden Highway	T96-04	564723.59	5368198.55	315	367.99	360	-56.5	DDH
Golden Highway	TH03-08	569494.46	5373694.33	325	236	180	-50	DDH
Golden Highway	TH06-09	571138.27	5373508.69	350	401	180	-50	DDH
Golden Highway	TH06-10	571223.27	5374168.7	350	180.2	180	-50	DDH
Golden Highway	TH06-11	570008.27	5374578.7	350	263	180	-50	DDH
Golden Highway	TH06-12	569908.27	5374378.7	350	148.5	180	-50	DDH
Golden Highway	TM-1	563722.2	5368122.6	317	22.5	0	-90	RC
Golden Highway	TM-10	563724.1	5368569.4	317	36.25	0	-90	RC
Golden Highway	TM-11	563724.1	5368619.7	317	36.2	0	-90	RC
Golden Highway	TM-12	563724.1	5368669	317	35.1	0	-90	RC
Golden Highway	TM-13	563724.1	5368718.2	317	36.8	0	-90	RC
Golden Highway	TM-14	563480.1	5368420.9	317	24.5	0	-90	RC
Golden Highway	TM-15	563480.1	5368372	317	24	0	-90	RC
Golden Highway	TM-16	563480.1	5368469.8	317	24	0	-90	RC
Golden Highway	TM-17	563343.8	5368420.3	317	26.7	0	-90	RC
Golden Highway	TM-2	563722.2	5368172.6	317	24.5	0	-90	RC
Golden Highway	TM-3	563722.4	5368222.5	317	22.5	0	-90	RC
Golden Highway	TM-4	563722.4	5368271.4	317	17	0	-90	RC
Golden Highway	TM-5	563722.4	5368321.7	317	26.25	0	-90	RC
Golden Highway	TM-6	563722.4	5368372.3	317	31.5	0	-90	RC
Golden Highway	TM-7	563722.4	5368419.3	317	34	0	-90	RC
Golden Highway	TM-8	563722.4	5368468.8	317	35.3	0	-90	RC
Golden Highway	TM-9	563724.1	5368519.8	317	36.1	0	-90	RC
Golden Highway	WH-47-01	572614.03	5370801.25	358.5	181.96	180	-50	DDH
Golden Highway	WH-47-02	572584.57	5370723.78	360.75	335.28	180	-50	DDH
Golden Highway	WH-47-03	572591.18	5370607.58	356.5	441.35	345	-50	DDH

Appendix B – Drill Hole List

Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	WH-47-03W	565561.59	5368300.55	316	339.55	180	-50	DDH
Golden Highway	WH-47-04	572589.07	5370573.63	358	374.6	155	-60	DDH
Golden Highway	WH-47-04W	565687.59	5368012.55	314.08	68.58	180	-50	DDH
Golden Highway	WH-47-05A	565688.59	5367878.55	313.63	220.68	360	-50	DDH
Golden Highway	WH-47-06	565800.59	5367604.55	313	171.6	180	-50	DDH
Golden Highway	WH-47-07	565799.59	5367572.55	313	335.28	360	-50	DDH
Golden Highway	WH-49-01	565356.59	5368809.55	319.02	308.15	180	-50	DDH
Golden Highway	WH-49-02	565340.59	5368664.55	318.12	332.54	180	-50	DDH
Golden Highway	WH-49-08	565673.59	5367966.55	314	304.5	360	-50	DDH
Golden Highway	WH-49-09	568629.8	5368492.5	317.5	269.14	345	-50	DDH
Golden Highway	WH-49-10	568620.93	5368536.32	317.75	305.41	165	-50	DDH
Golden Highway	WJ83-1	574130.75	5371195.2	331.5	87.78	180	-50	DDH
Golden Highway	WJ83-2	574145.47	5370933.43	332.5	219.45	0	-53	DDH
Golden Highway	WJ85-1	572456.53	5371232.4	336.5	256	340	-55	DDH
Golden Highway	WJ85-2	572404.1	5371367.59	336.5	333.6	340	-55	DDH
Golden Highway	WJ87-1	572145.79	5370295.73	330.14	398.17	340	-60	DDH
Golden Highway	WJ87-10	572395.28	5371042.34	342.18	397.76	340	-60	DDH
Golden Highway	WJ87-11	572247.34	5370307.55	331.72	254.81	340	-62	DDH
Golden Highway	WJ87-2	572468.06	5371111.03	345.5	408.74	340	-60	DDH
Golden Highway	WJ87-3	572533.92	5370952.5	348.91	623.62	340	-63.5	DDH
Golden Highway	WJ87-4	572198.09	5370283.7	329.88	317.91	342	-61	DDH
Golden Highway	WJ87-5	572108.27	5370255.05	329.46	307.54	340	-60	DDH
Golden Highway	WJ87-6	572452.18	5371082.99	346.5	352.04	346	-63	DDH
Golden Highway	WJ87-7	572156.12	5370267.35	329.33	263.96	340	-60	DDH
Golden Highway	WJ87-8	572504.69	5371085.47	346	388.92	340	-60	DDH
Golden Highway	WJ87-9	572061.47	5370238.47	329.14	257.86	340	-62	DDH
Golden Highway	WJ88-12	572294.23	5370324.97	332.51	251.96	340	-60	DDH
Golden Highway	WJ88-13	572521.61	5371112.35	344	346.5	340	-61	DDH
Golden Highway	WJ88-14	572125.87	5370277.21	329.71	227.38	340	-60	DDH
Golden Highway	WJ88-15	572410.29	5371338.42	335.71	334.06	184.9	-55.7	DDH
Golden Highway	WJ88-16	572172.53	5370295.12	330.35	239.27	340	-60	DDH
Golden Highway	WJ88-17	572218.67	5370312.83	331.07	273.1	340	-61	DDH
Golden Highway	WJ88-18X	572108.15	5370324.9	330.69	339.86	340	-60	DDH
Golden Highway	WJ88-19	572491.48	5371128.37	343.5	310.29	340	-60	DDH
Golden Highway	WJ88-20	572155.12	5370342.01	330.5	203.91	340	-60	DDH
Golden Highway	WJ88-21	572201.81	5370360.55	330.84	175.6	340	-60	DDH
Golden Highway	WJ88-22	572539.77	5371147.31	339.75	343.2	340	-60	DDH
Golden Highway	WJ88-23	572265.58	5370331.18	331.56	257.86	340	-60	DDH
Golden Highway	WJ88-24	572590.48	5371166.72	340.11	388.92	340	-60	DDH
Golden Highway	WJ88-25	572248.35	5370376.17	331.41	199.95	340	-60	DDH
Golden Highway	WJ88-26	572919.76	5370471.09	365	413.21	340	-60	DDH
Golden Highway	WJ88-27	572492.46	5371369.74	334.7	410.26	160.8	-63.8	DDH
Golden Highway	WJ88-28	572984.16	5370600.5	364.5	251.76	340	-60	DDH
Golden Highway	WJ88-29	572364.32	5371318.85	338.96	362.41	160	-65	DDH
Golden Highway	WJ88-30	572525.4	5371031.01	348.31	428.55	340	-60	DDH

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Property	Hole Name	X	Y	Z	Length	Azimuth	Incl.	Type
Golden Highway	WJ88-31	572496.6	5370983.16	355.13	502.32	340	-60	DDH
Golden Highway	WJ88-32	572403.05	5370951.9	345.3	510.54	340	-60	DDH
Golden Highway	WJ88-33	572586.27	5371023.99	343.2	554.13	340	-61	DDH
Golden Highway	WJ88-34	572154.89	5370214.73	329.3	327.96	340	-60	DDH
Golden Highway	WJ88-35	572648.91	5371142.91	341	371.25	340	-60	DDH
Golden Highway	WJ88-36	572209.8	5370223.38	330.04	371.55	340	-60	DDH
Golden Highway	WJ88-37	572388.44	5371101.63	339.5	310.29	340	-60	DDH
Golden Highway	WJ88-38	572284.08	5370999.63	340.35	438.3	340	-60	DDH
Golden Highway	WJ88-39	572113.64	5370170.96	330.53	383.38	340	-60	DDH
Golden Highway	WJ88-40	572229.58	5370129.75	329.35	1008.28	340	-81.8	DDH
Golden Highway	WJ88-41	572871.18	5371323.44	332.02	306.63	340	-60	DDH
Golden Highway	WJ88-42	572902.45	5371235.88	331	361.49	340	-60	DDH
Golden Highway	WJ88-43	572112.36	5370949.71	329.73	330.71	340	-60	DDH
Golden Highway	WJ88-44	572050.14	5370833.13	329.08	298.09	340	-61	DDH
Golden Highway	WJ88-45	572364.19	5370354.54	334.08	313.33	340	-60	DDH
Golden Highway	WJ88-46	572068.58	5371065.39	330.72	303.58	340	-60	DDH
Golden Highway	WJ88-47	572457.85	5370386.55	338.92	382.82	340	-60	DDH
Golden Highway	WJ88-48	572390.22	5370286.29	333.8	494.38	340	-62.5	DDH
Golden Highway	WJ88-49	572385.71	5371401.29	335.67	395.63	160	-60	DDH
Golden Highway	WJ89-50	572327.92	5371413.07	335.27	499.26	160	-65	DDH
Golden Highway	WJ89-51	572448.34	5371459.97	336.04	519.7	158	-65.7	DDH
Golden Highway	WJ89-52	572226.77	5370184.29	329.68	444.4	340	-60	DDH
Golden Highway	WJ89-53	572319.58	5370218.86	331.06	514.5	340	-61.7	DDH
Golden Highway	WJBPG-2	573078	5371418	332.75	336.19	160	-60	DDH
Golden Highway	WJBPG-3	573078	5371393.62	332.25	213.97	340	-50	DDH
Golden Highway	WJDM66-1	572165.98	5371130.5	331	264.87	160	-50	DDH
Golden Highway	WJDM66-2	572748.17	5371092.63	330.25	384.05	340	-50	DDH
Golden Highway	WJMPH-1	572038.6	5370318.37	329.18	198.12	0	-60	DDH
Golden Highway	WJMPH-2	572198.22	5370425.41	331.16	169.16	0	-60	DDH

Appendix C – Mineral Resources Estimates Supporting Plots and Figures

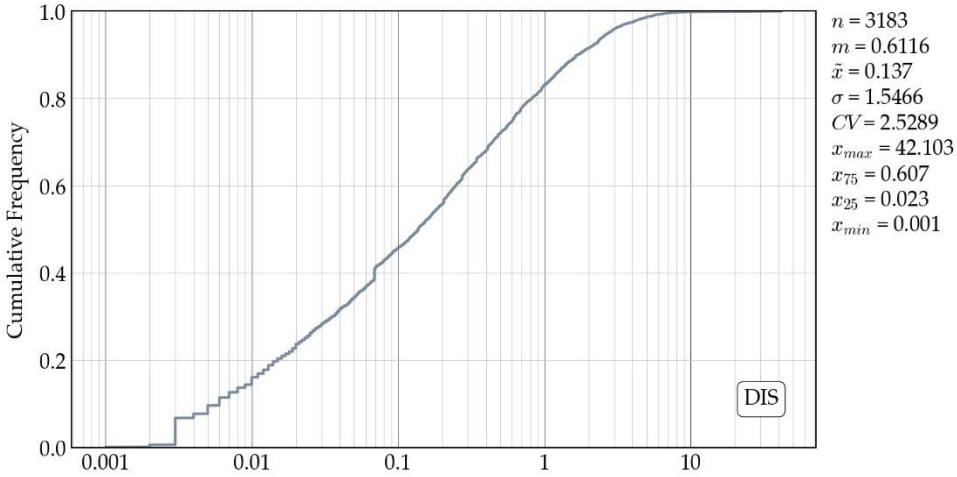
Document Number	Document Title
C. 1	Raw Sample CDF Plots
C. 2	Composite Capping Figures
C. 3	Final Gold (ppm) Composites CDF Plots
C. 4	Variography
C. 5	Resource Validation

3 MINERAL RESOURCES ESTIMATES SUPPORTING PLOTS AND FIGURES

3.1 Raw Sample CDF Plots

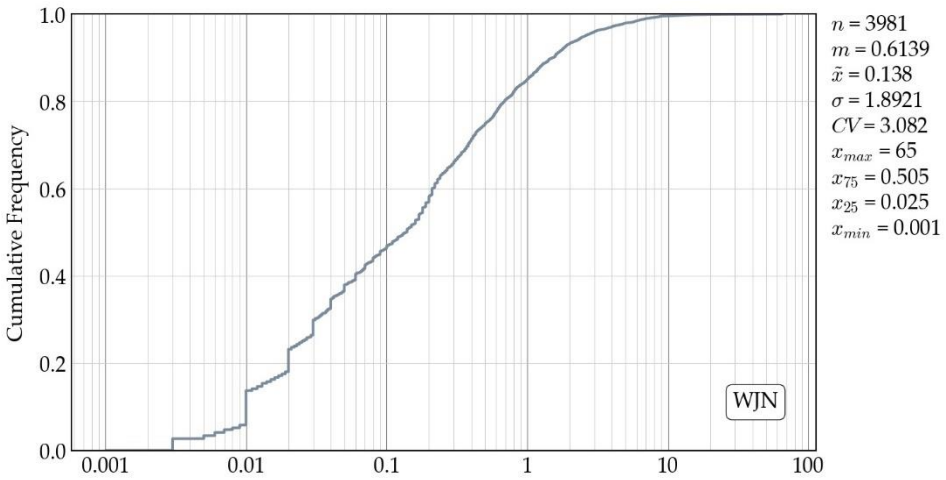
3.1.1 Au (ppm)

3.1.1.1 Discovery Area



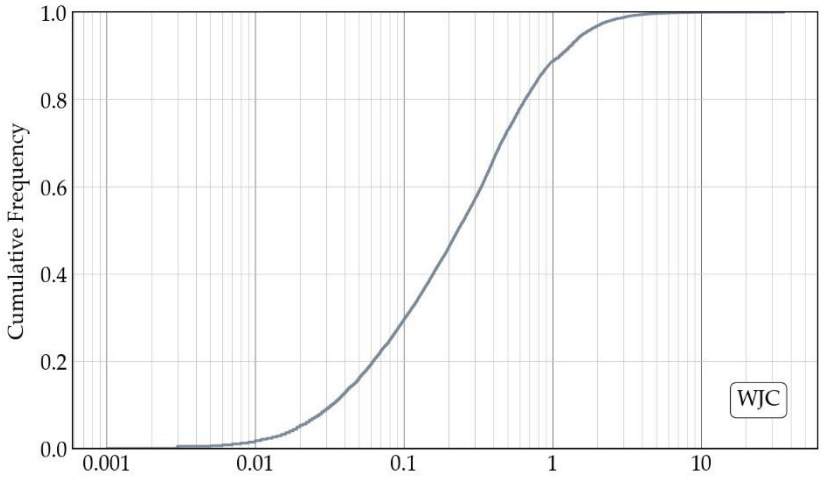
Source: APEX, 2022

3.1.1.2 Windjammer-North Area



Source: APEX, 2022

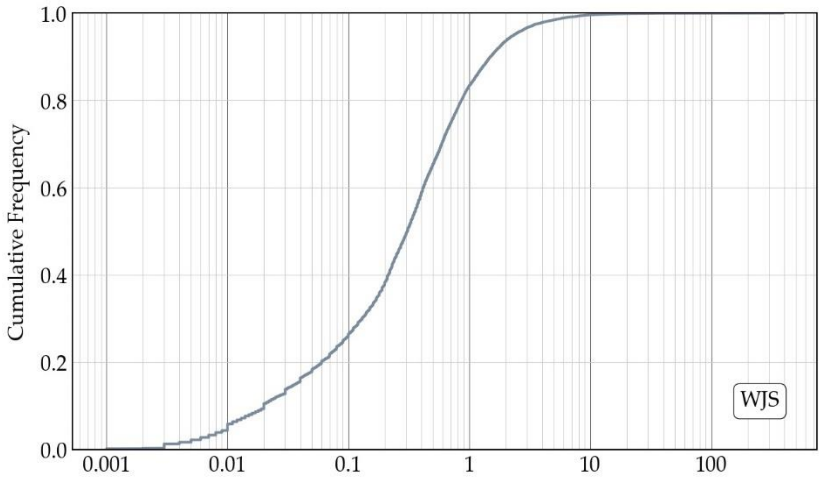
3.1.1.3 Windjammer-Central Area



$n = 15114$
$m = 0.4569$
$\tilde{x} = 0.23$
$\sigma = 0.77$
$CV = 1.6854$
$x_{max} = 35.86$
$x_{75} = 0.543$
$x_{25} = 0.081$
$x_{min} = 0.001$

Source: APEX, 2022

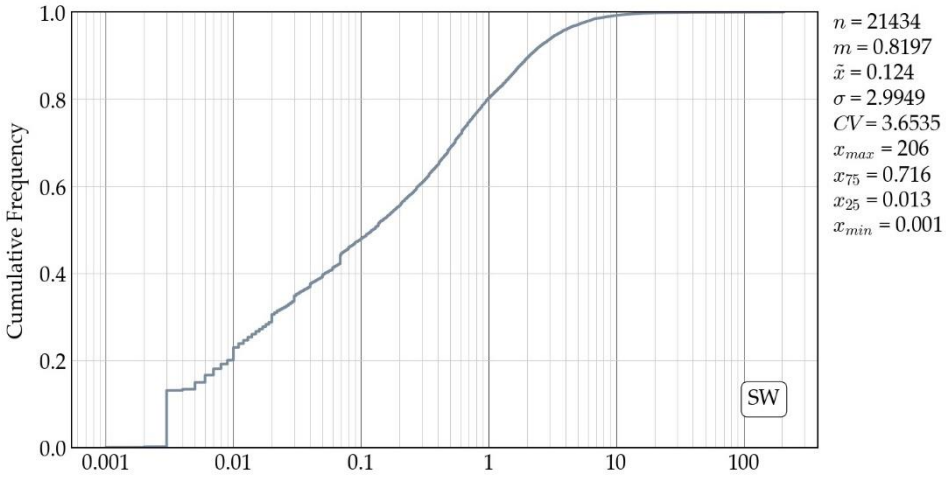
3.1.1.4 Windjammer-South Area



$n = 21474$
$m = 0.7211$
$\tilde{x} = 0.307$
$\sigma = 3.7769$
$CV = 5.2373$
$x_{max} = 391.84$
$x_{75} = 0.706$
$x_{25} = 0.091$
$x_{min} = 0.001$

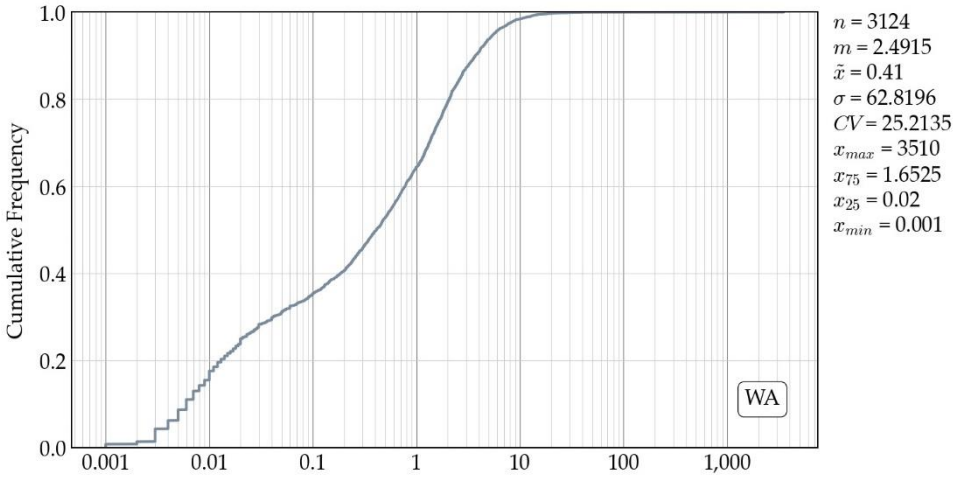
Source: APEX, 2022

3.1.1.5 South West Area



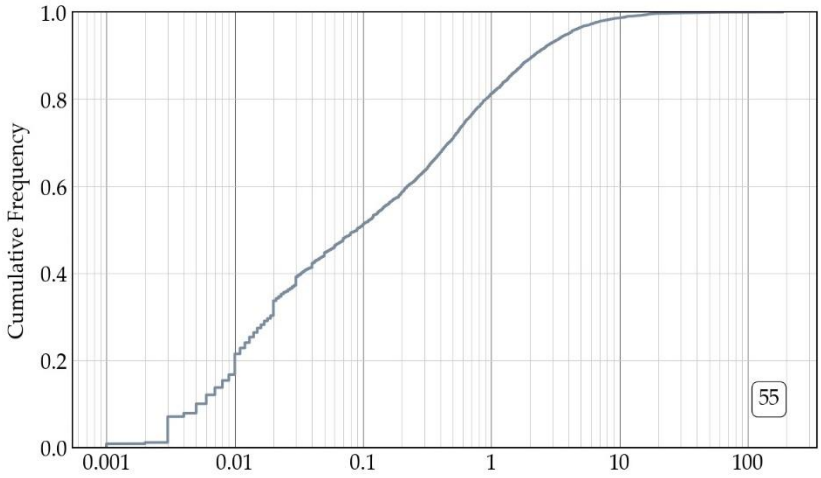
Source: APEX, 2022

3.1.1.6 Westaway Area



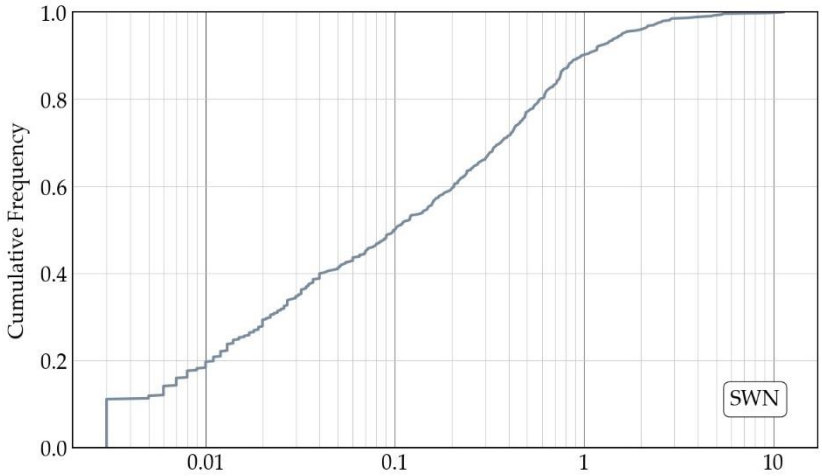
Source: APEX, 2022

3.1.1.7 55 Area



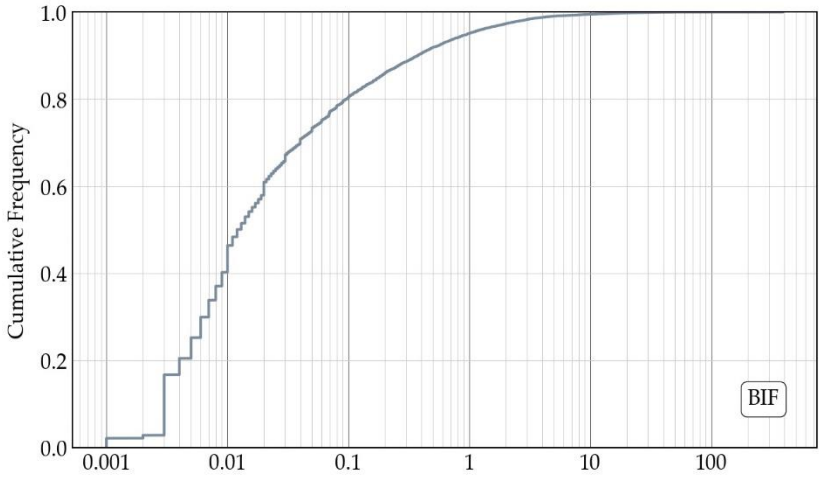
Source: APEX, 2022

3.1.1.8 South West North



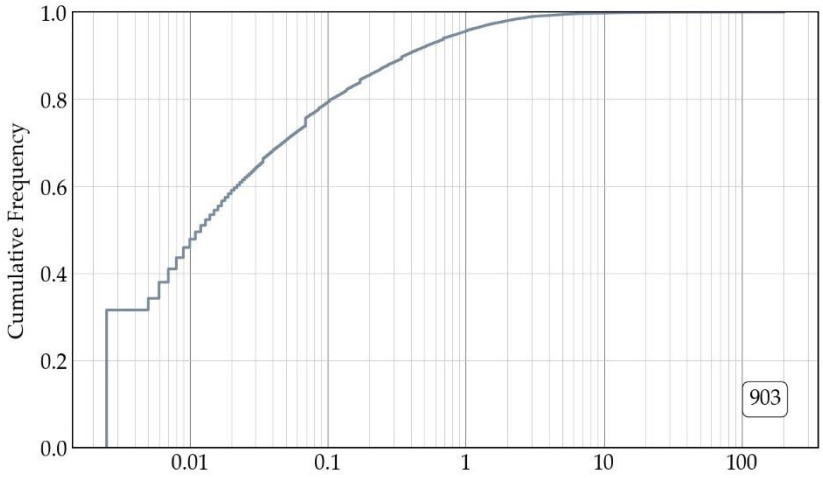
Source: APEX, 2022

3.1.1.9 Golden Highway Iron Formation



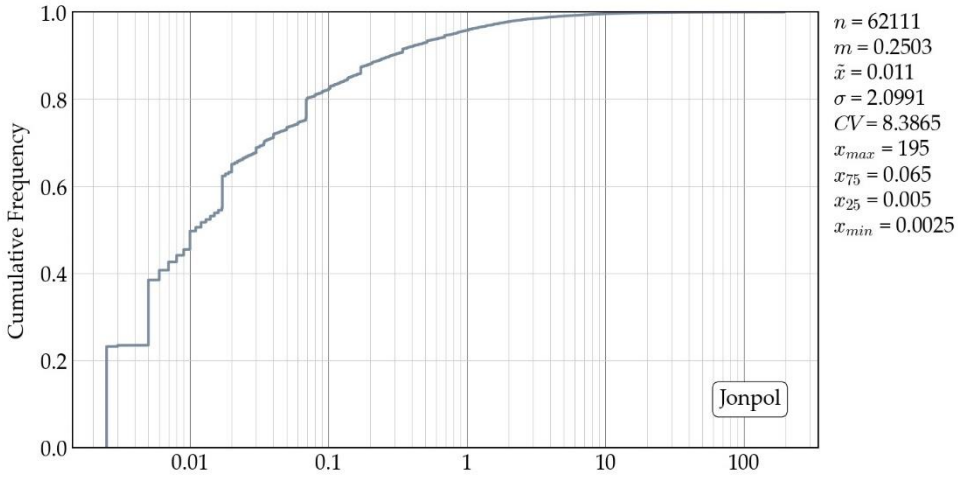
Source: APEX, 2022

3.1.1.10 903 Area



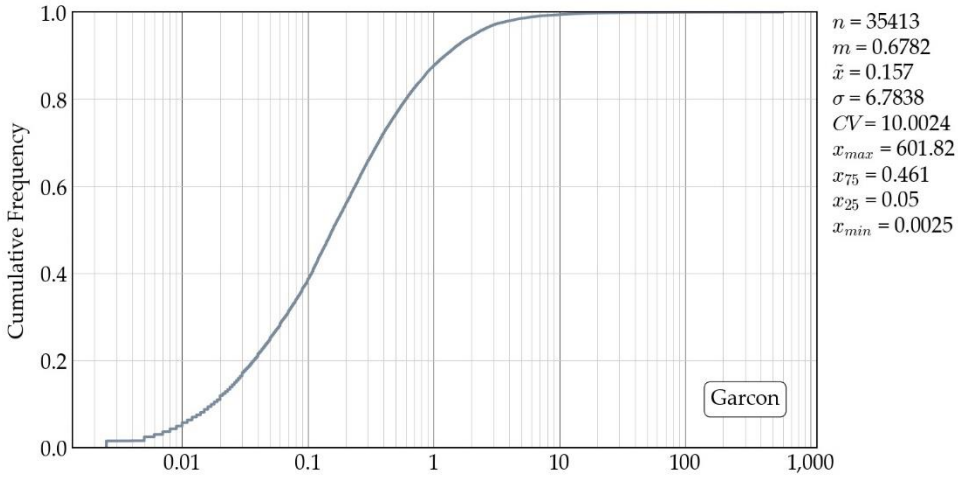
Source: APEX, 2022

3.1.1.11 Jonpol Area



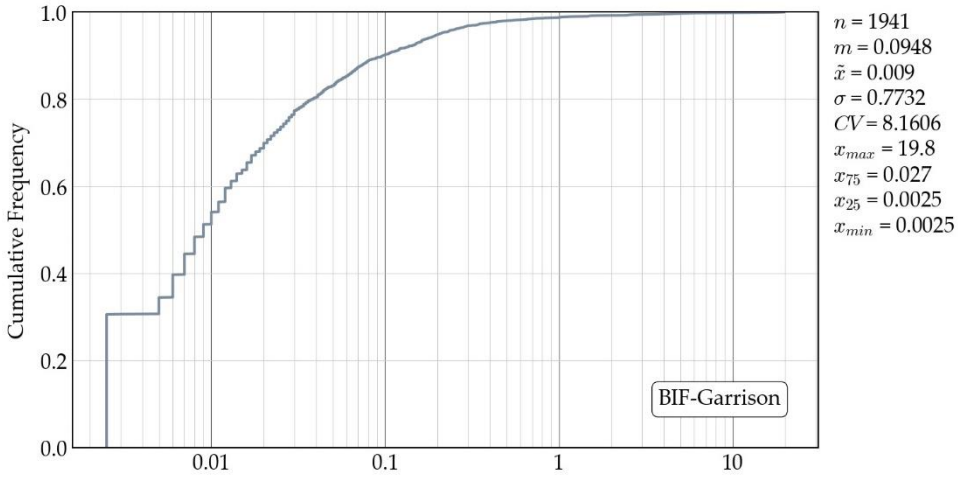
Source: APEX, 2022

3.1.1.12 Garrcon Area



Source: APEX, 2022

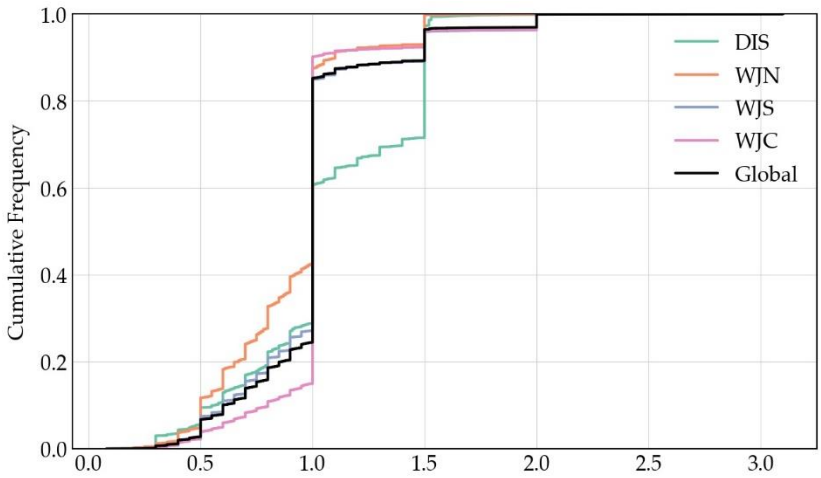
3.1.1.13 Garrison Iron Formation



Source: APEX, 2022

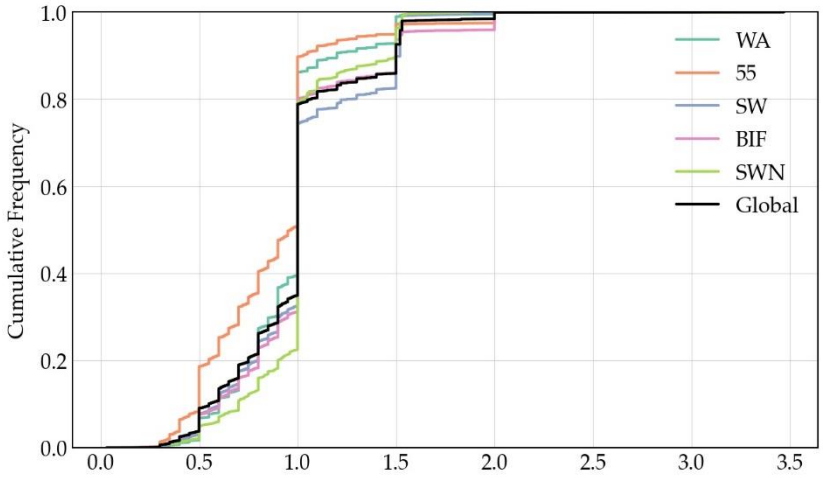
3.1.2 Raw Sample Lengths (m)

3.1.2.1 Windjammer and Discovery Areas



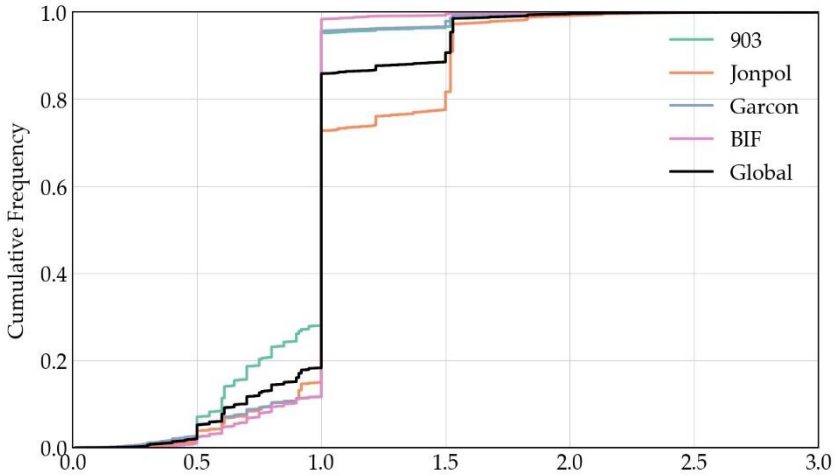
Source: APEX, 2022

3.1.2.2 55, Westaway/Westblock, and South West Areas



Source: APEX, 2022

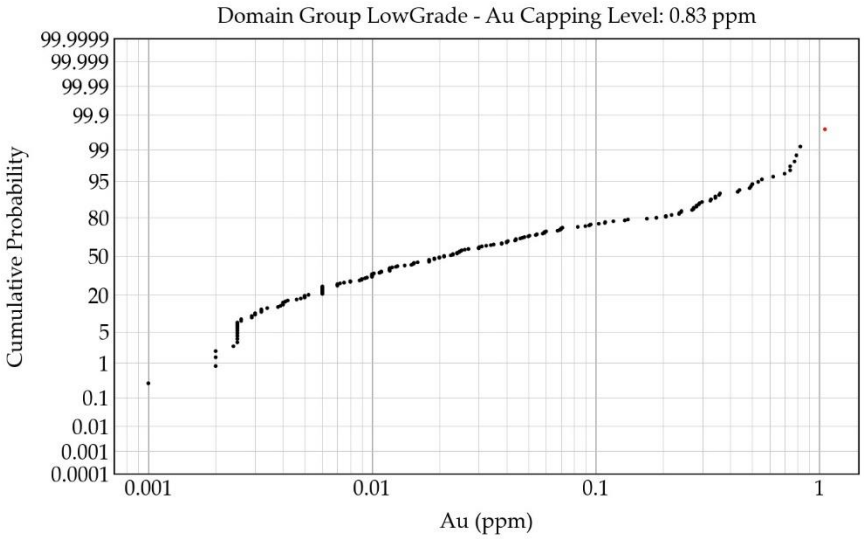
3.1.2.3 Garrison Area



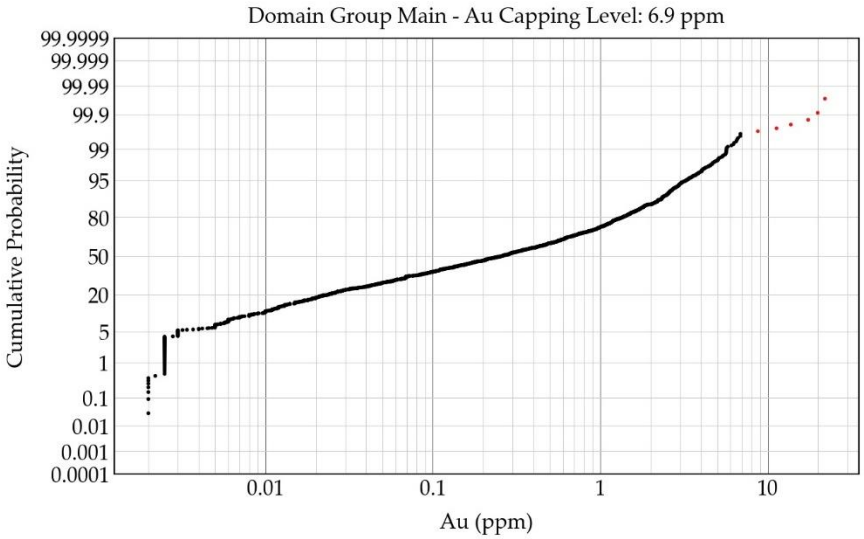
Source: APEX, 2022

3.2 Composite Capping Figures

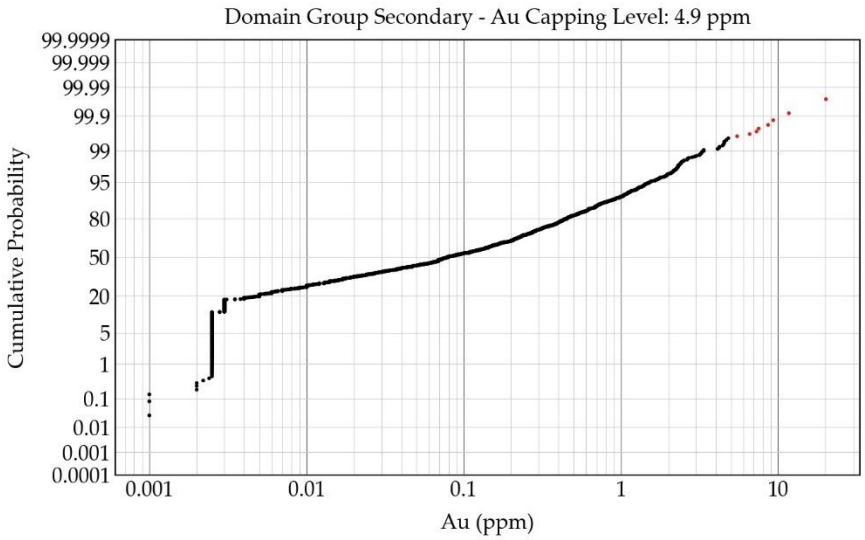
3.2.1 Discovery Area



Source: APEX, 2022

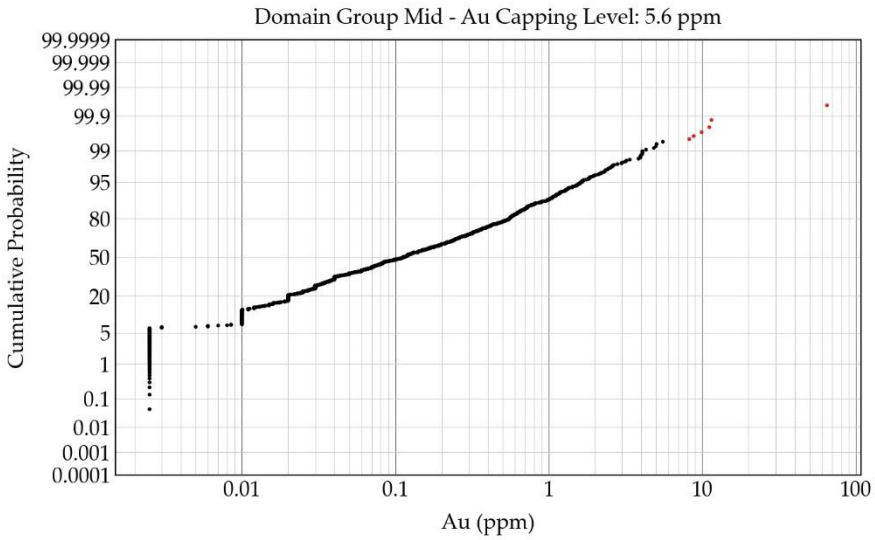


Source: APEX, 2022

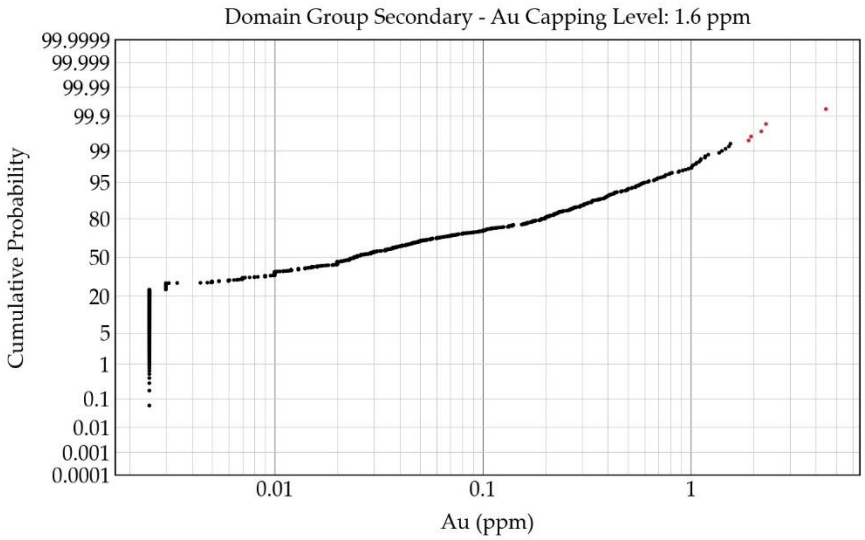


Source: APEX, 2022

3.2.2 Windjammer-North Area



Source: APEX, 2022



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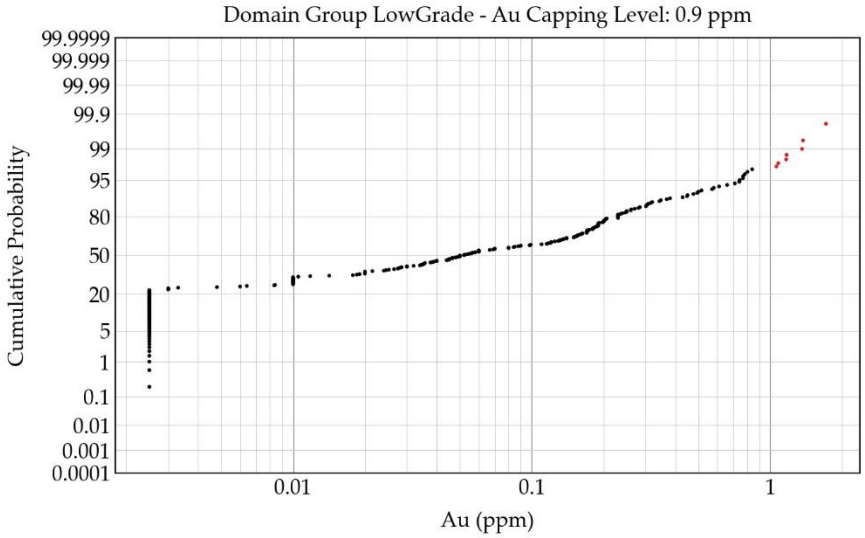

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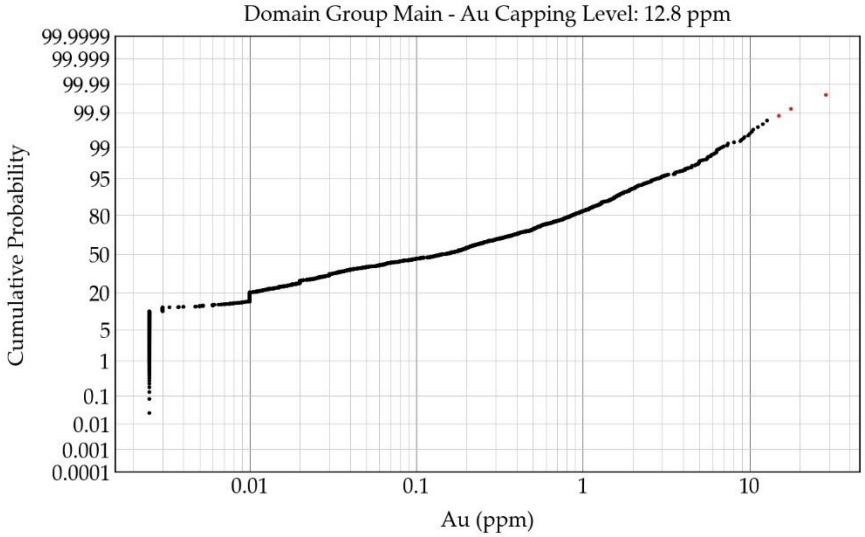
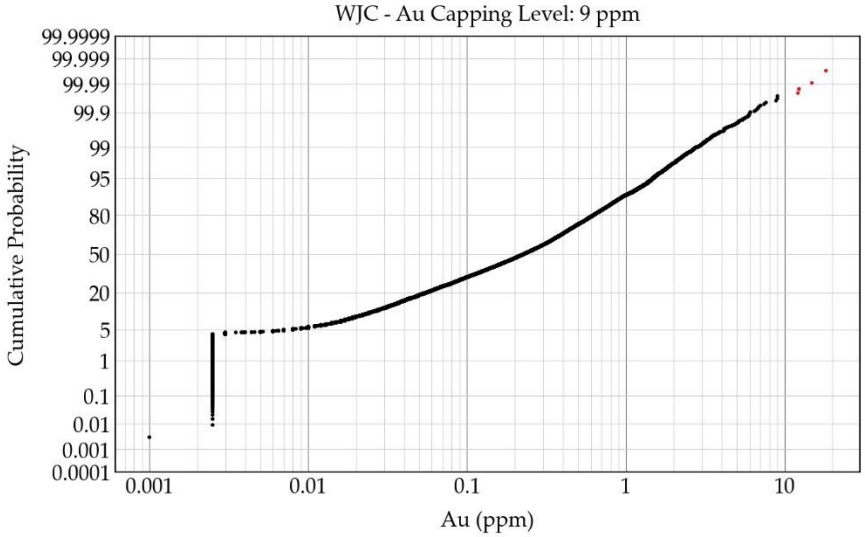


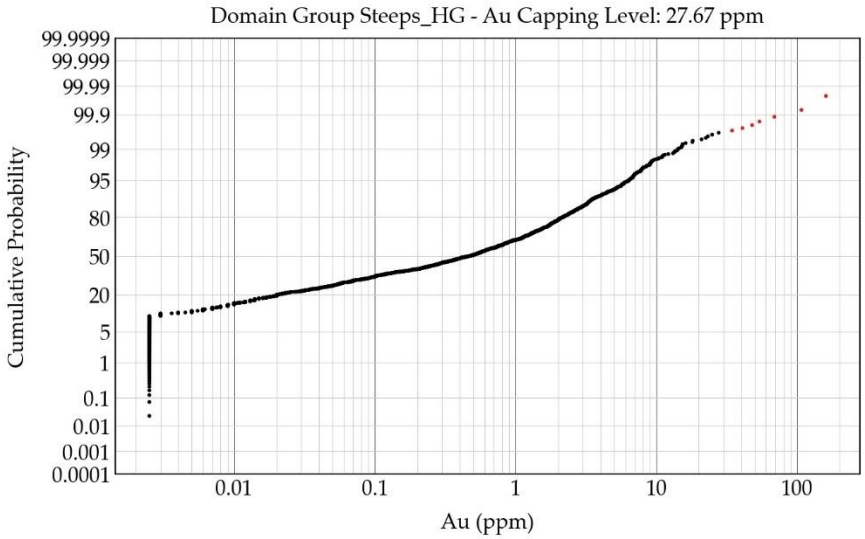
Source: APEX, 2022

3.2.3 Windjammer-Central Area



Source: APEX, 2022

3.2.4 Windjammer-South Area



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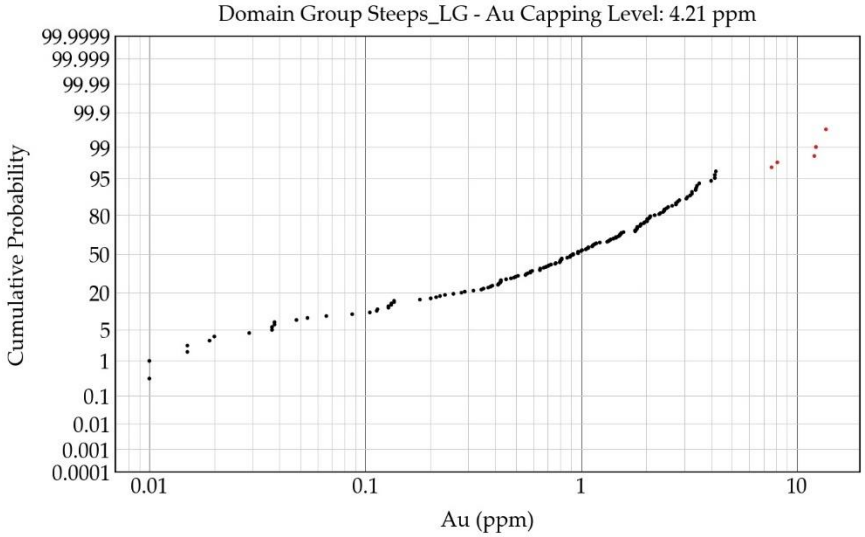

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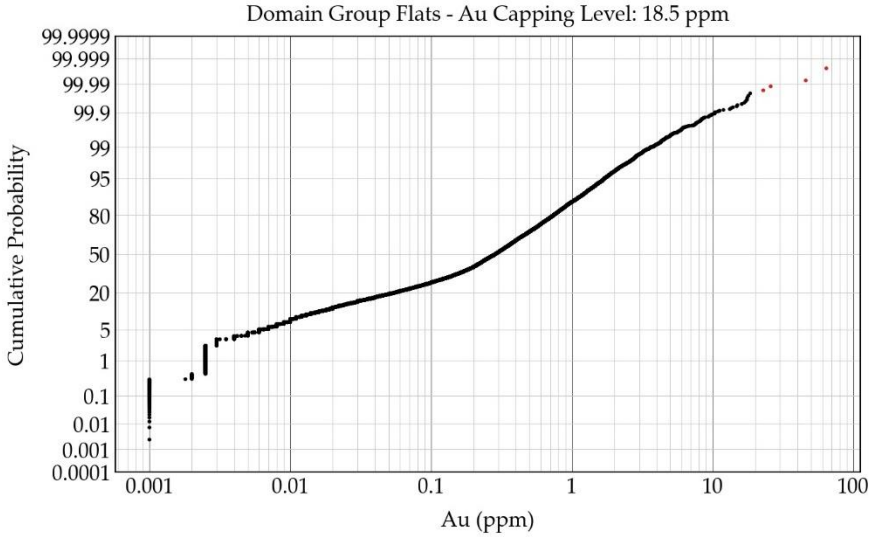
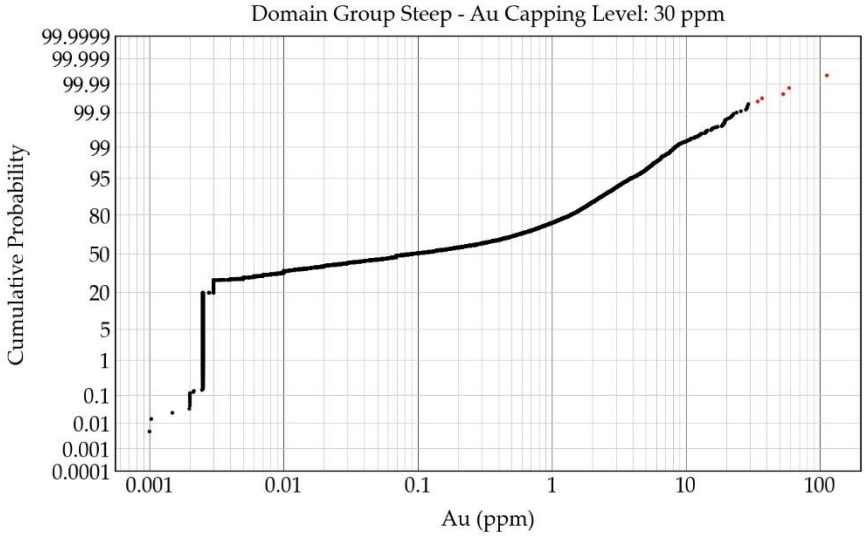
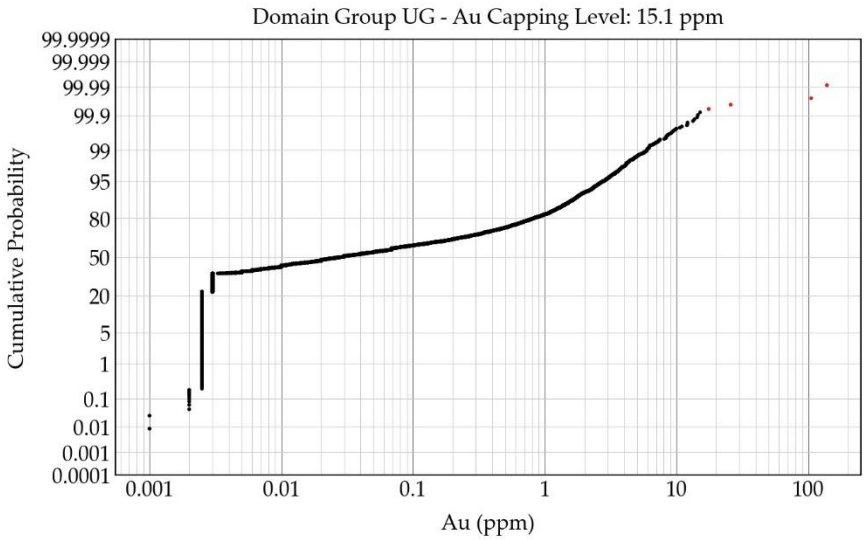


Source: APEX, 2022

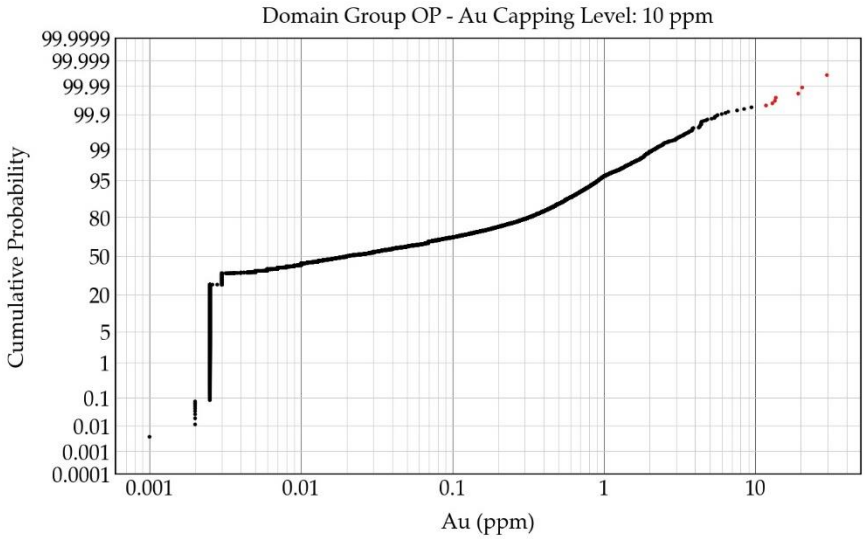
3.2.5 South West Area



Source: APEX, 2022

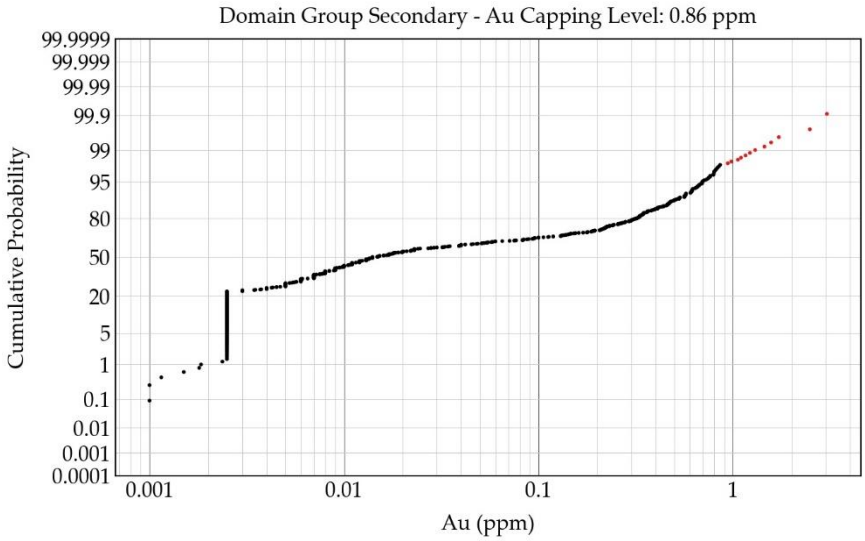


Source: APEX, 2022



Source: APEX, 2022

3.2.6 Westaway Area



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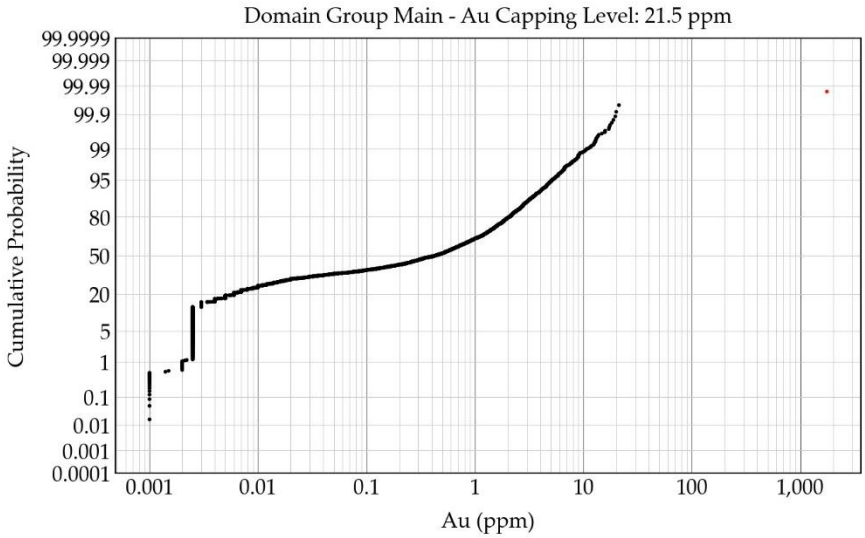
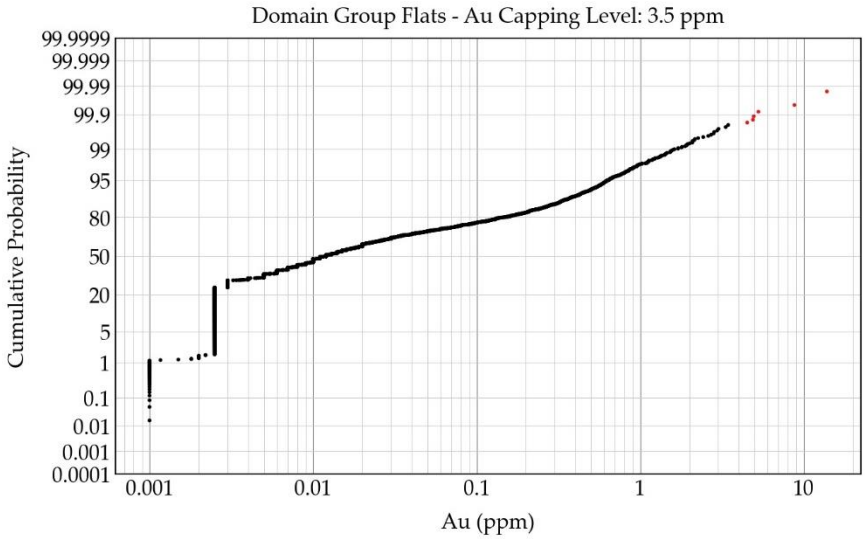


Source: APEX, 2022

3.2.7 55 Area



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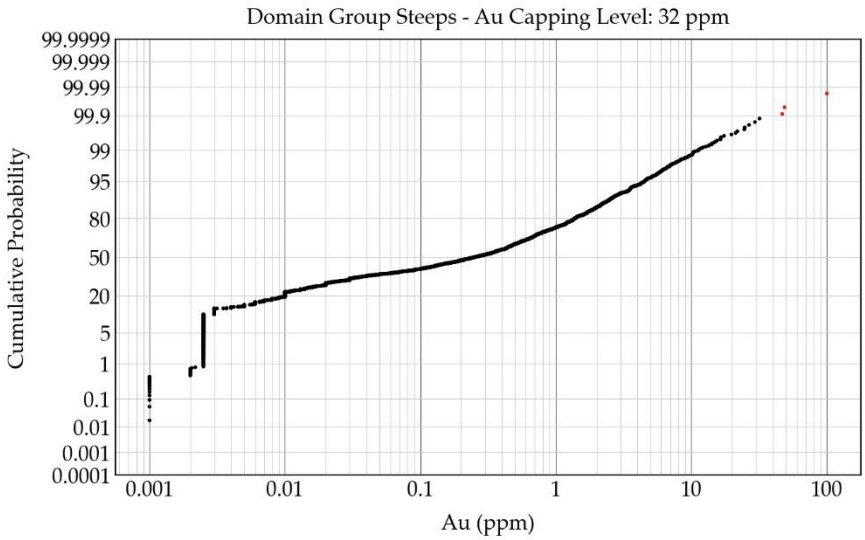
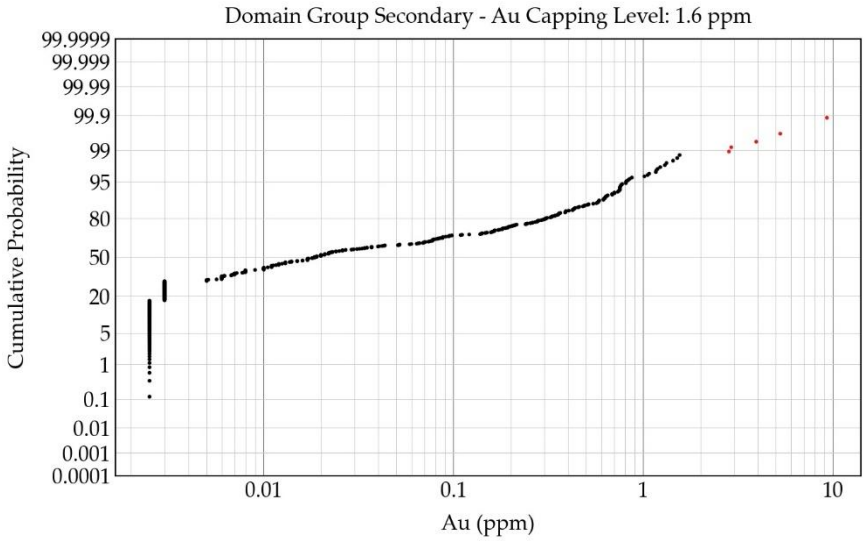


Source: APEX, 2022

3.2.8 South West North



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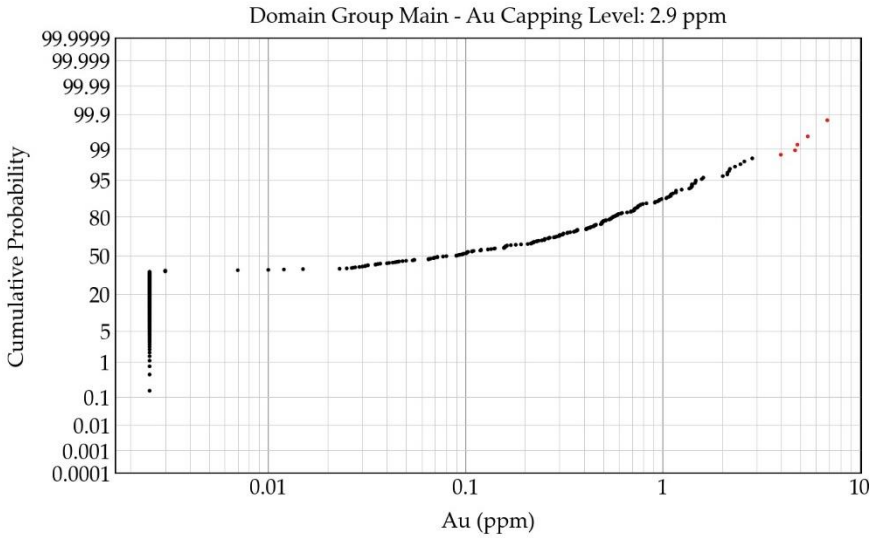
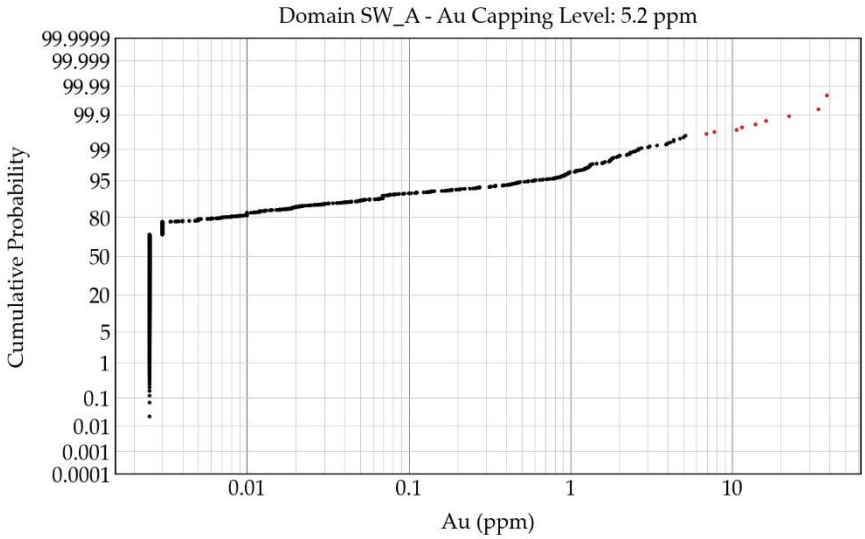


Source: APEX, 2022

3.2.9 Golden Highway Iron Formation



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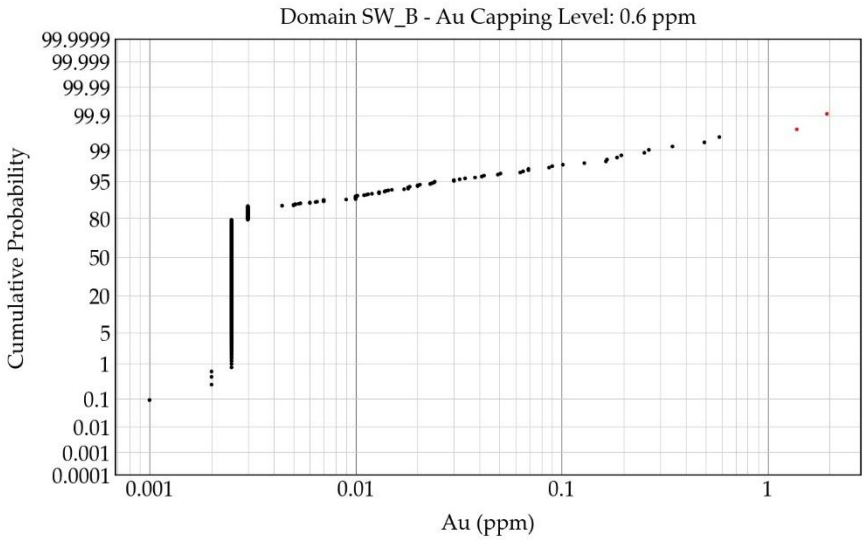

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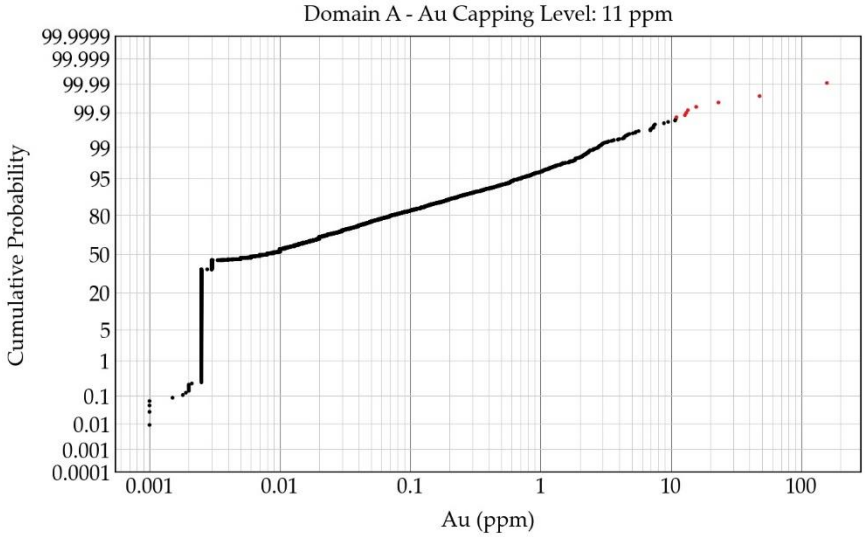

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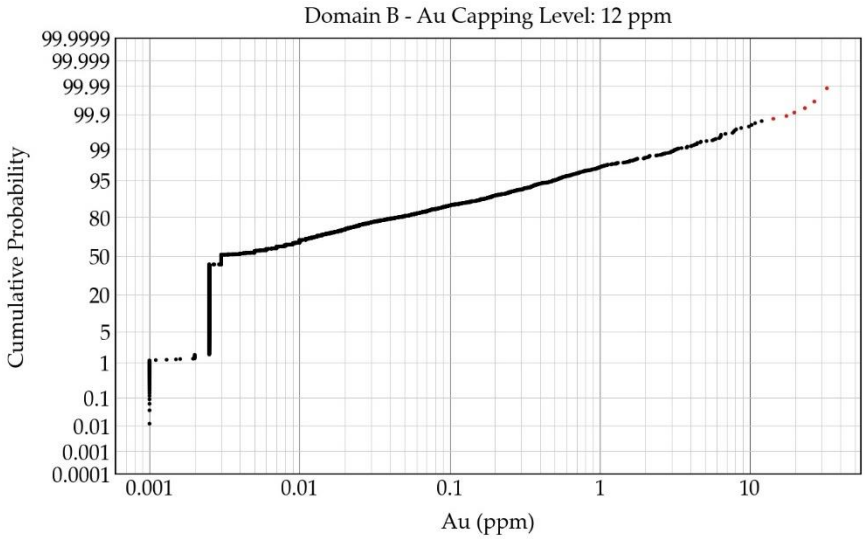

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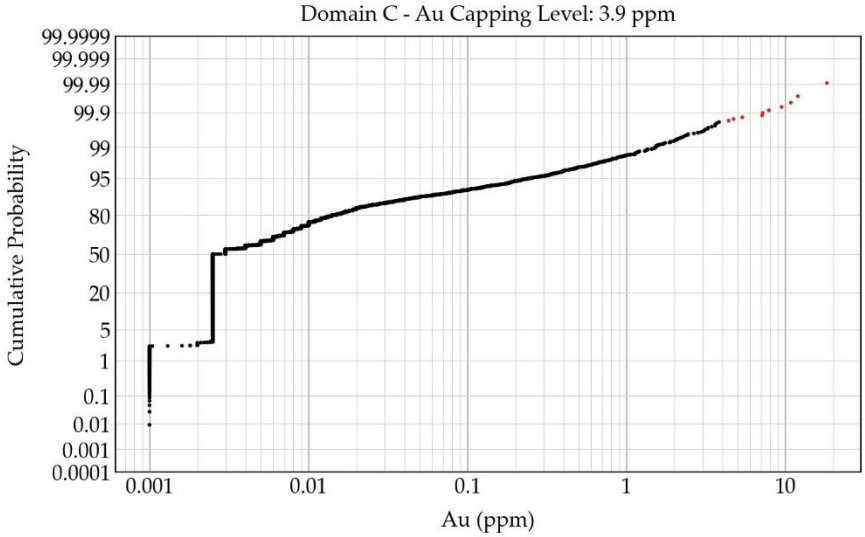

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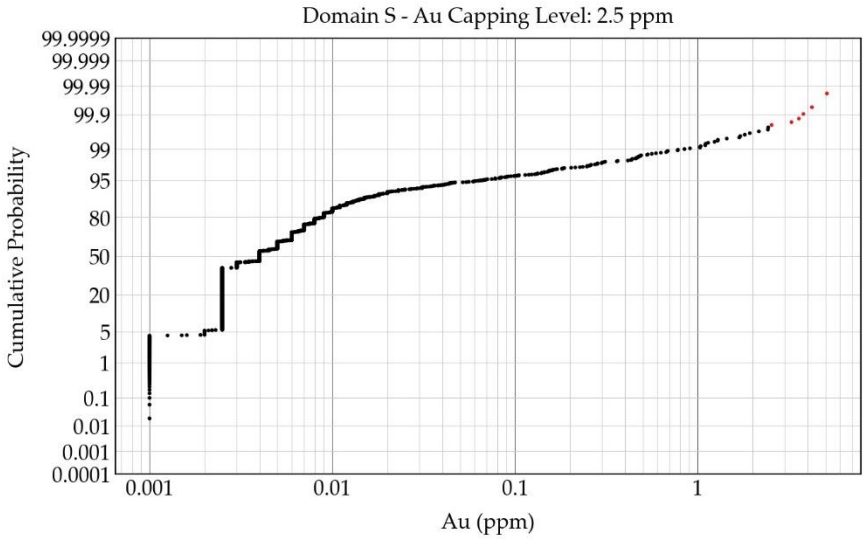
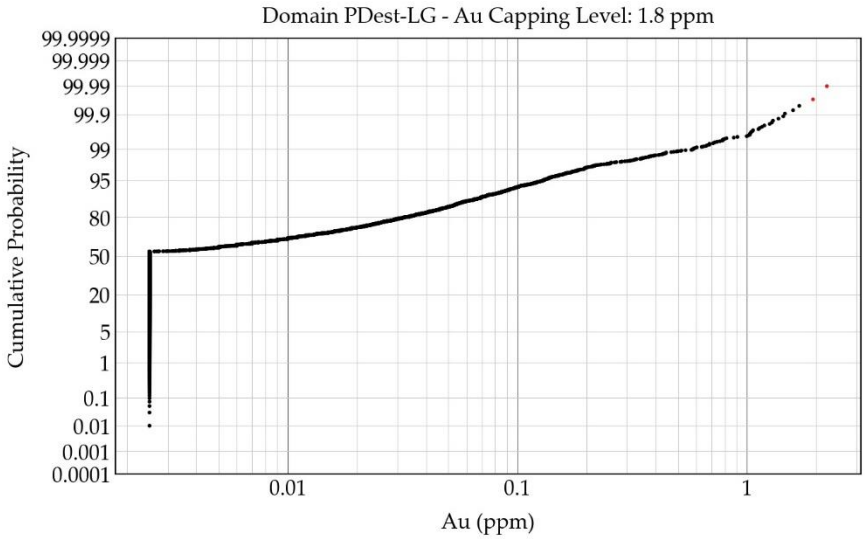


Source: APEX, 2022

3.2.10 903 Area



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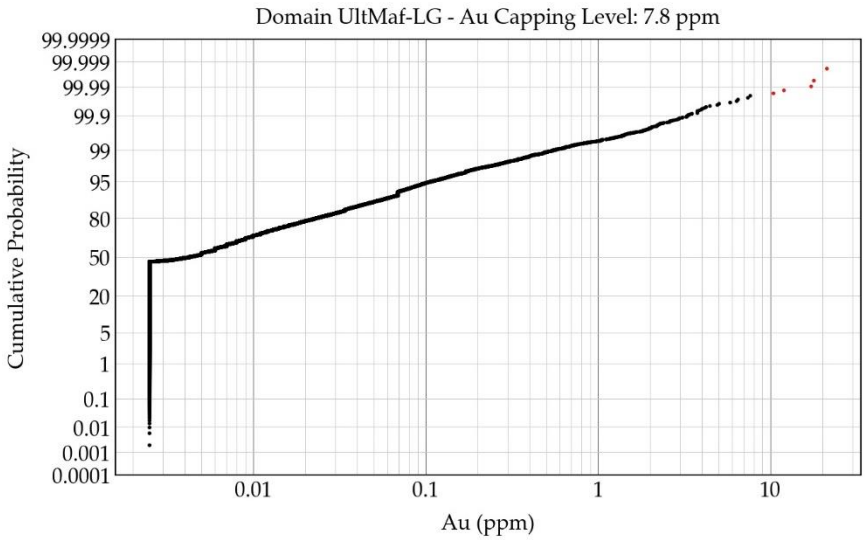
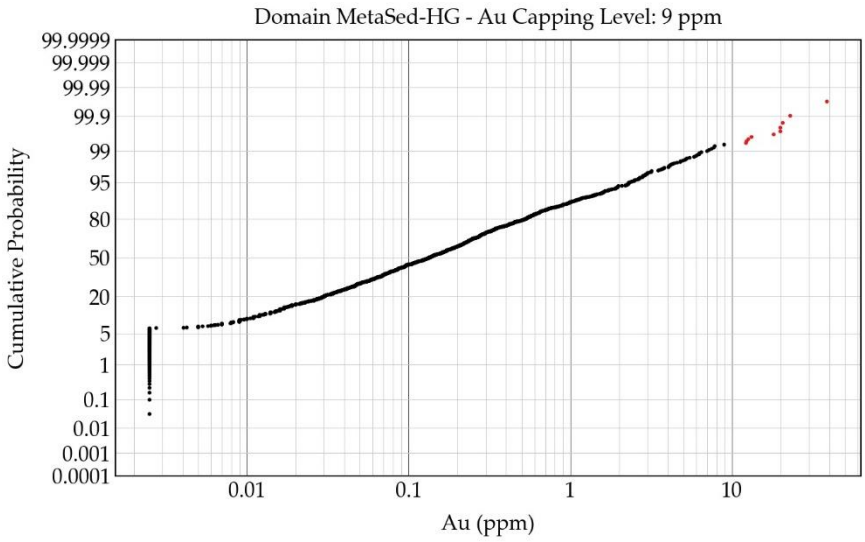
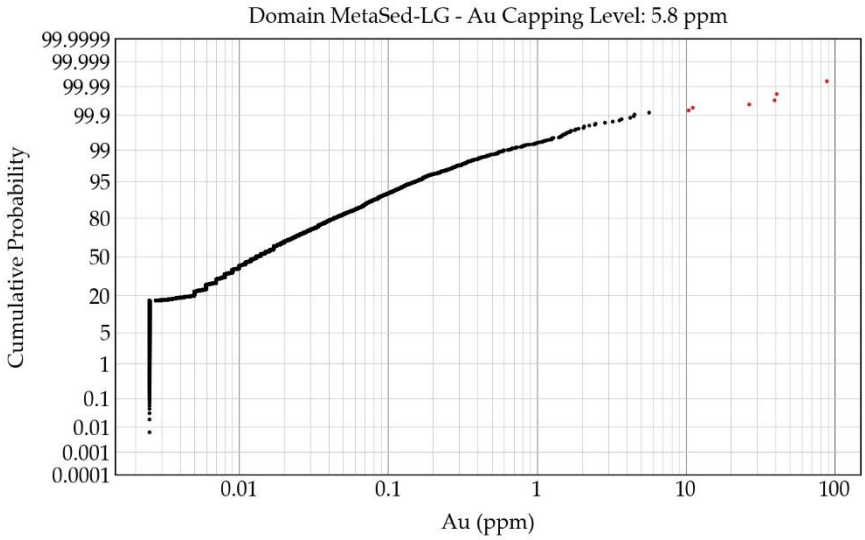


Source: APEX, 2022



Source: APEX, 2022



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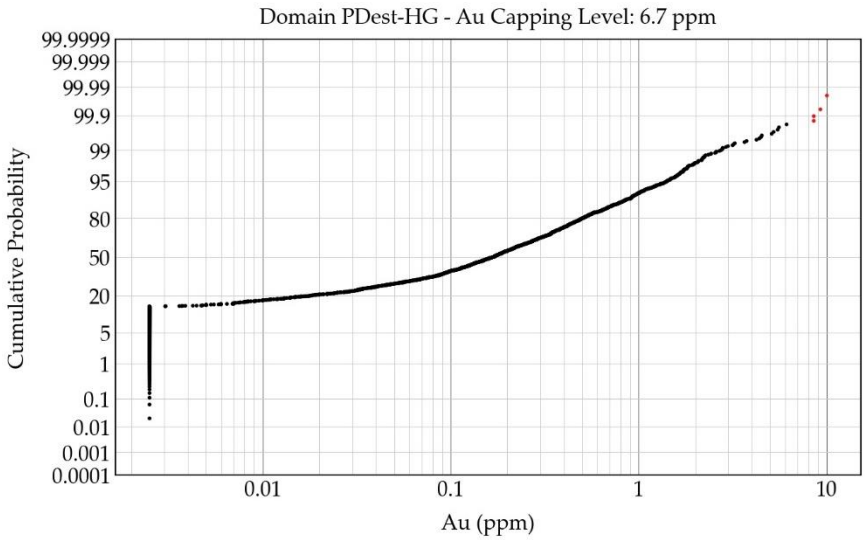

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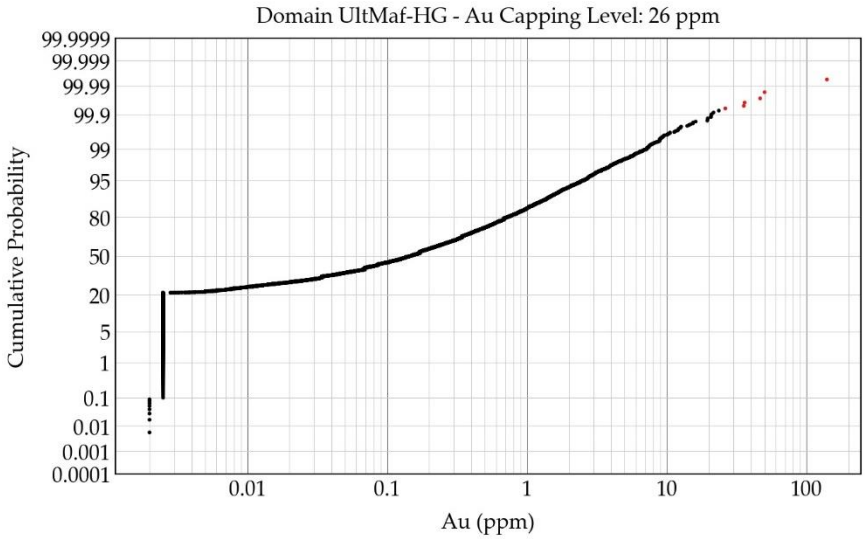
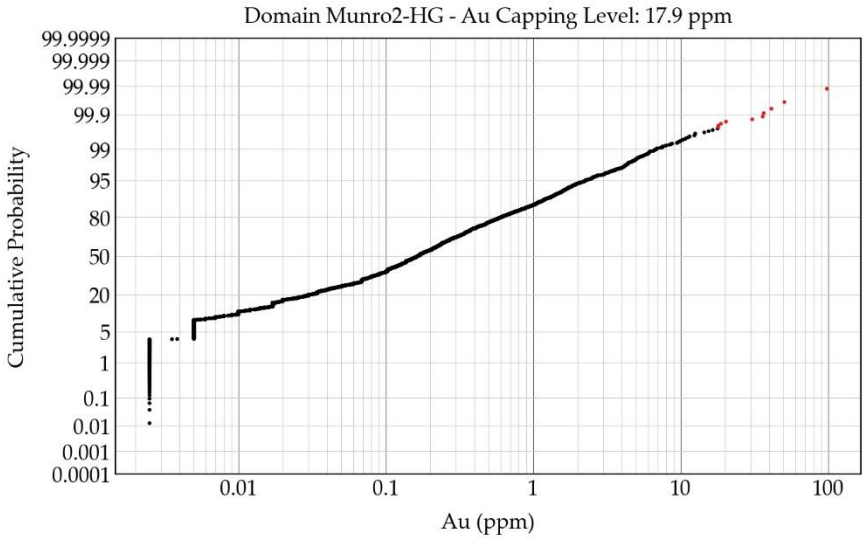


Source: APEX, 2022

3.2.11 Jonpol Area



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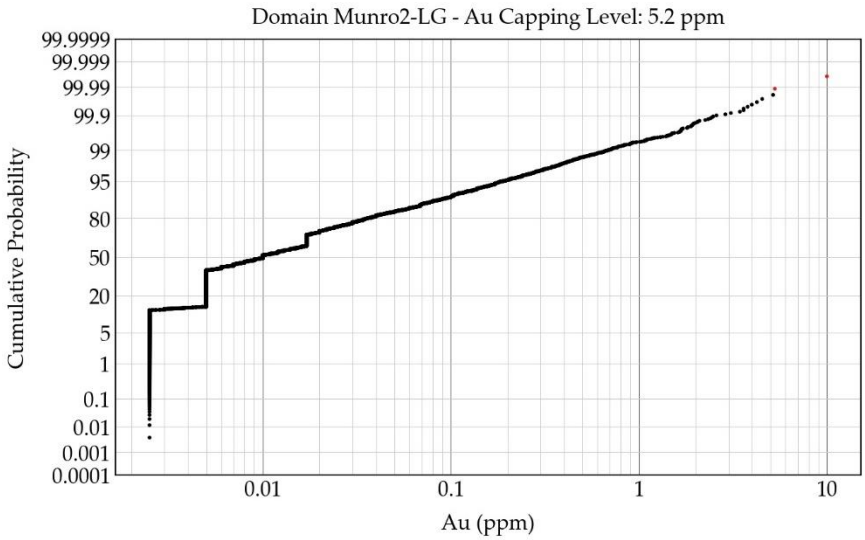

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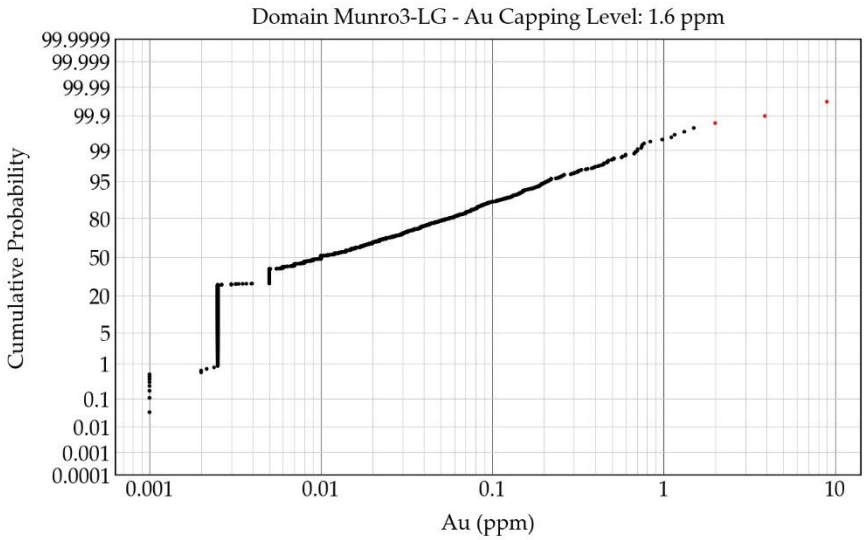
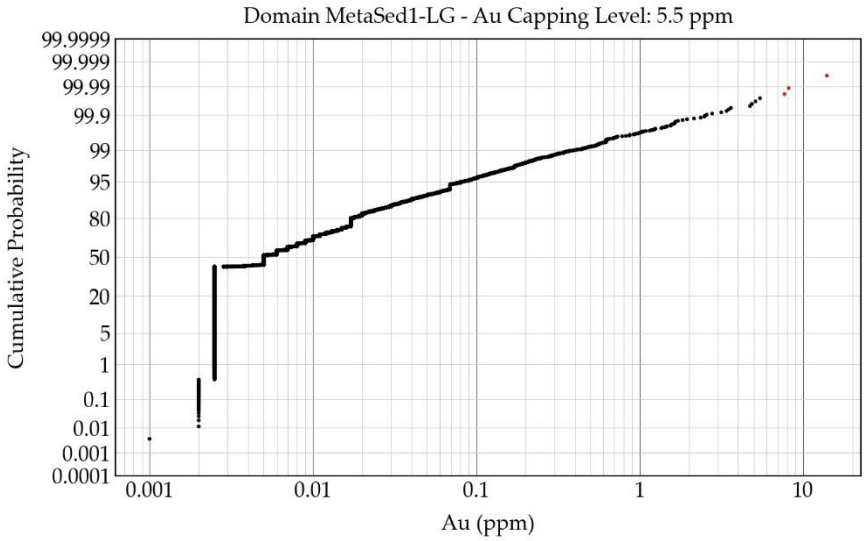


Source: APEX, 2022



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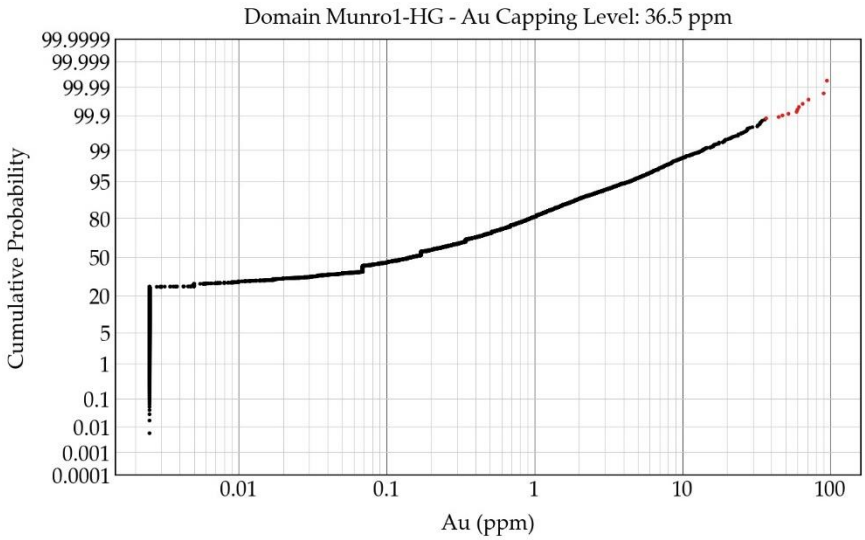

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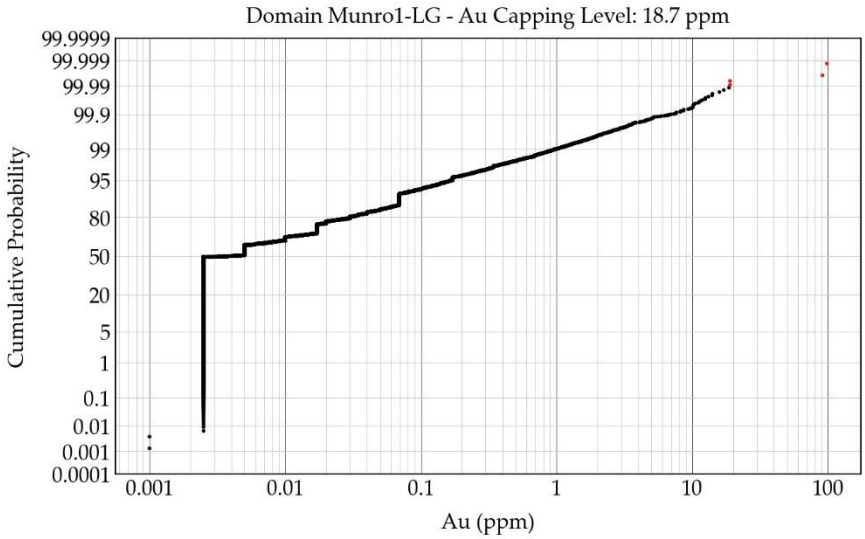
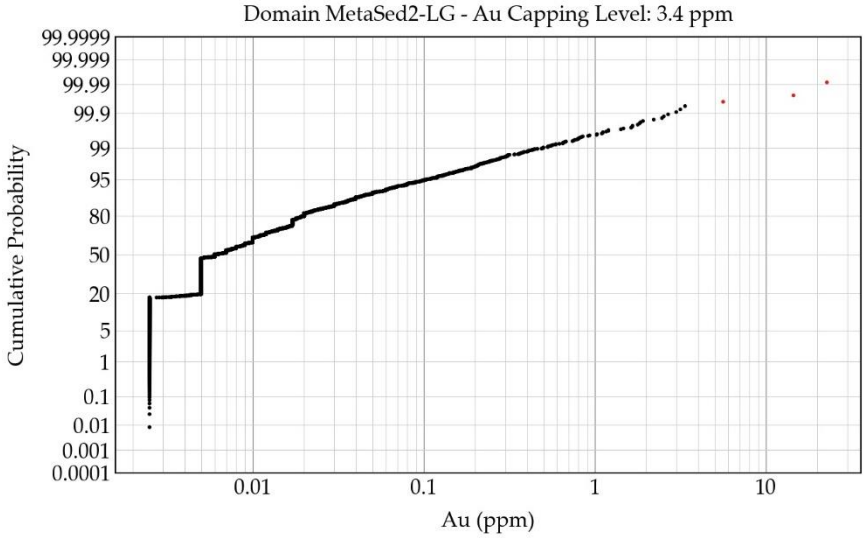
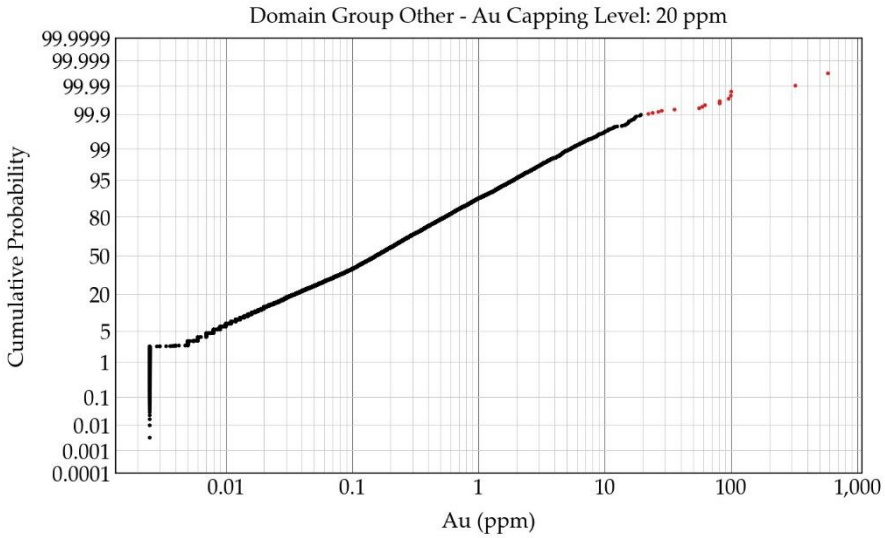


Source: APEX, 2022

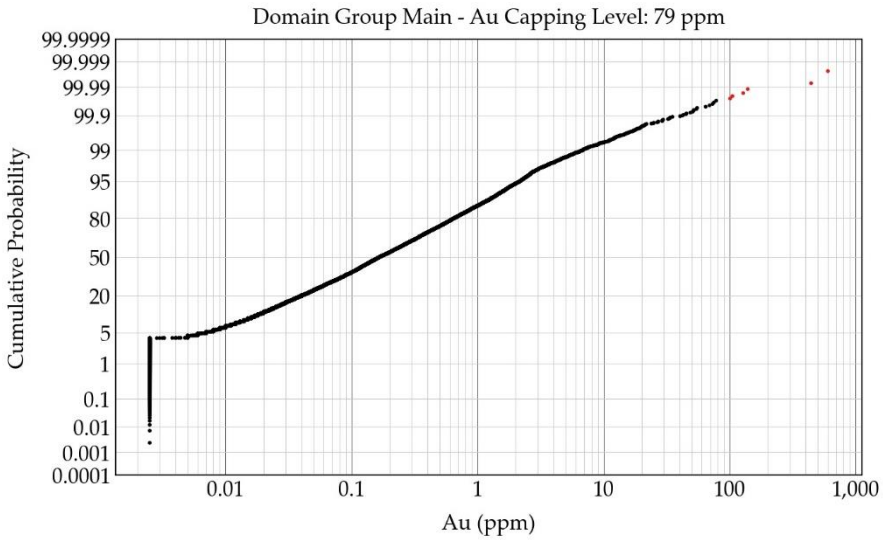


Source: APEX, 2022

3.2.12 Garrcon Area

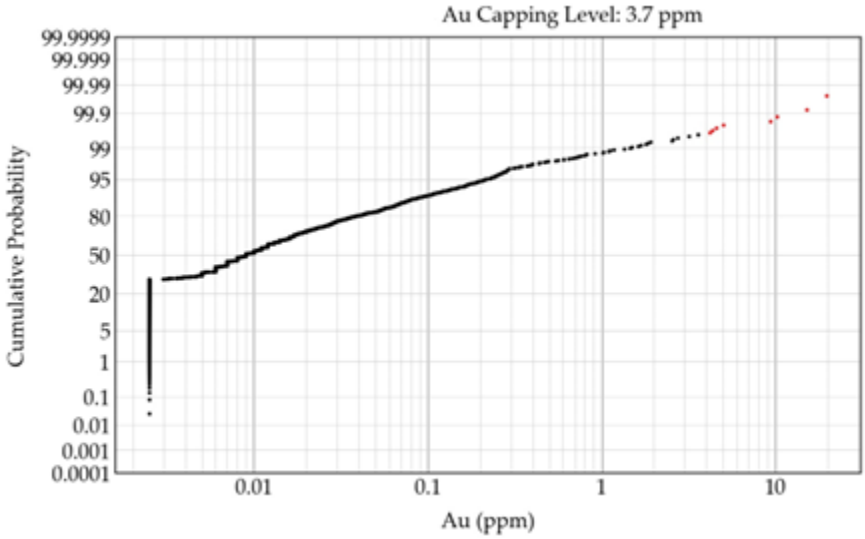


Source: APEX, 2022



Source: APEX, 2022

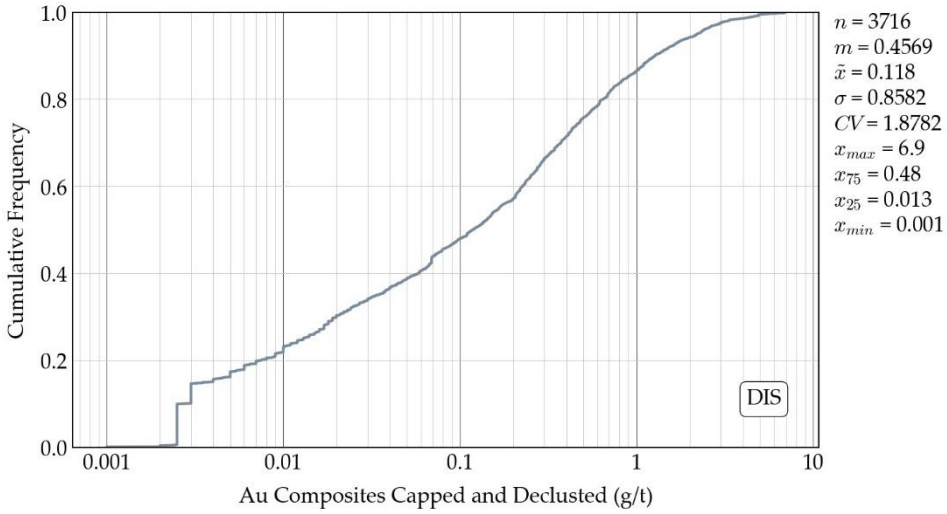
3.2.13 Garrison Iron Formation



Source: APEX, 2022

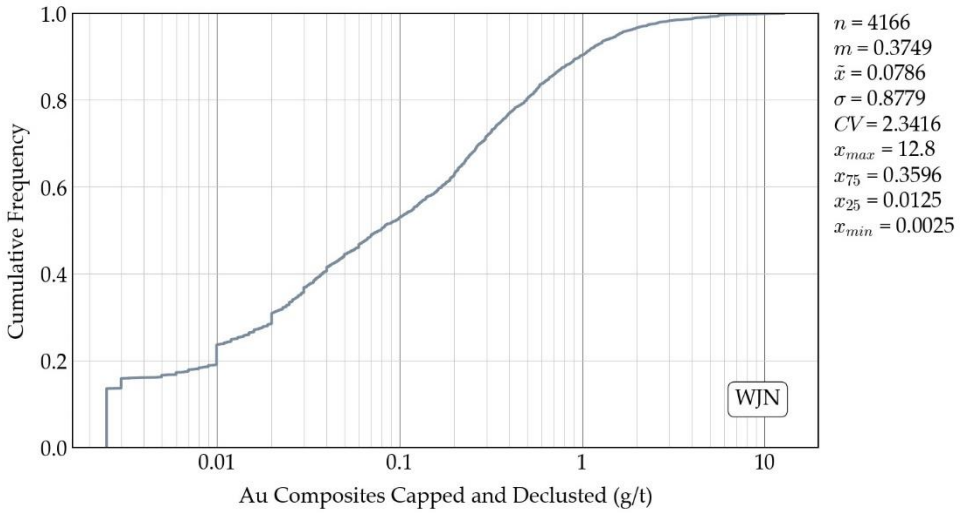
3.3 Final Au (ppm) Composites CDF Plots

3.3.1 Discovery Area



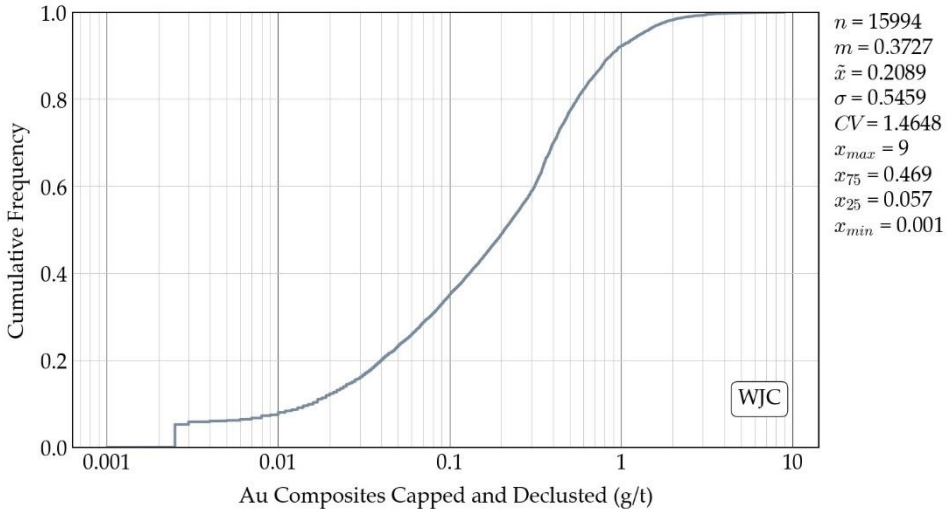
Source: APEX, 2022

3.3.2 Windjammer-North Area



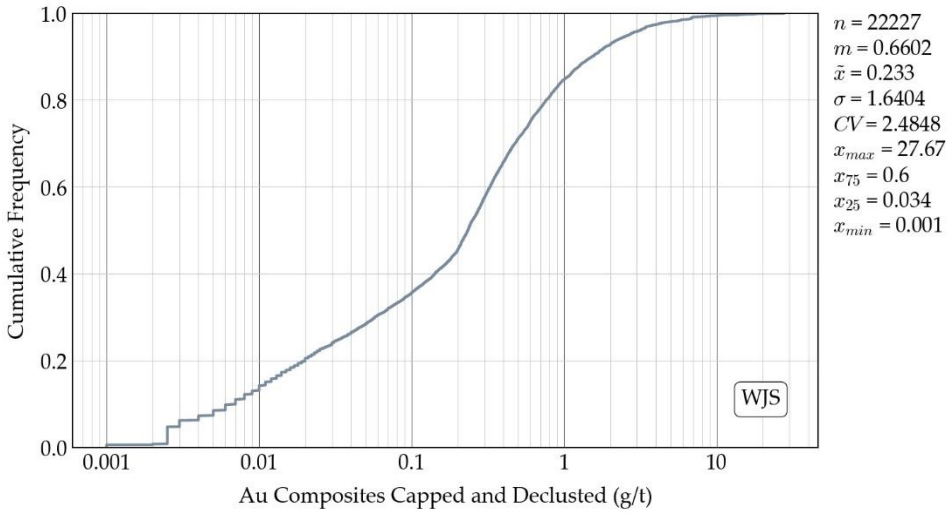
Source: APEX, 2022

3.3.3 Windjammer-Central Area



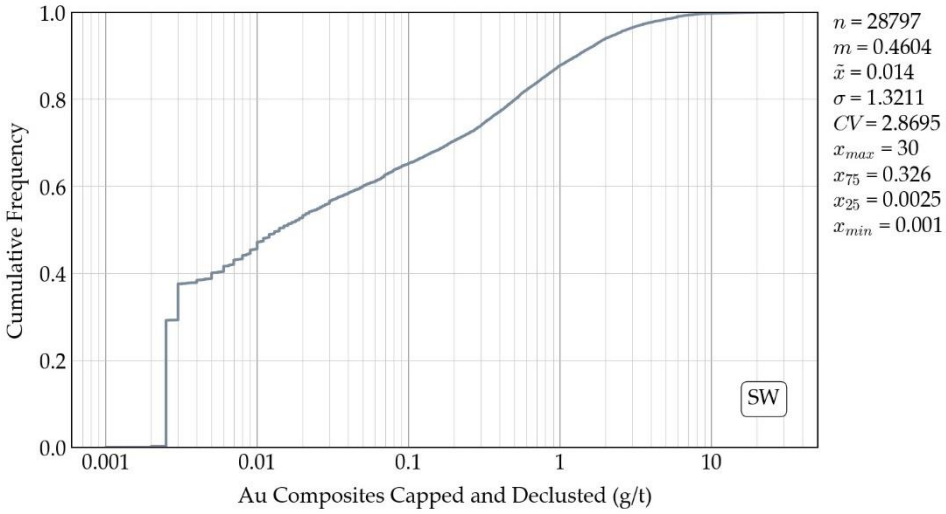
Source: APEX, 2022

3.3.4 Windjammer-South Area



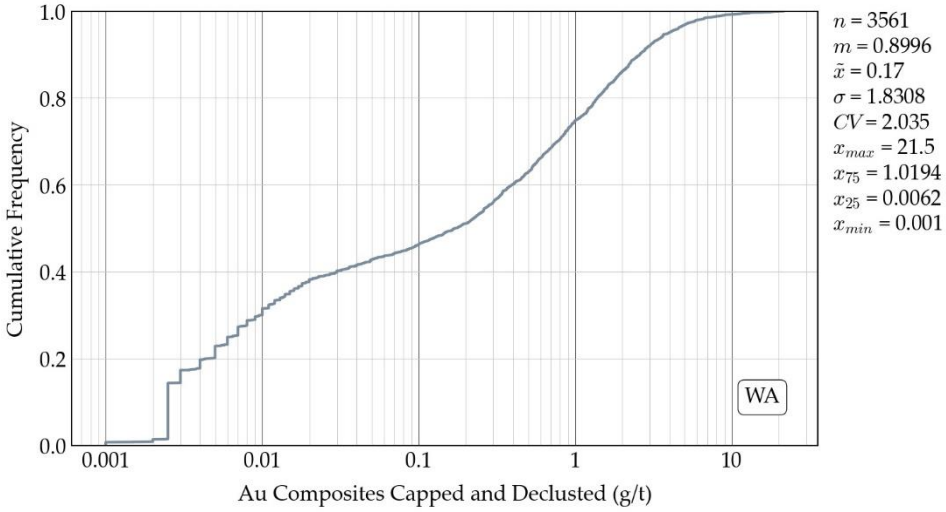
Source: APEX, 2022

3.3.5 South West Area



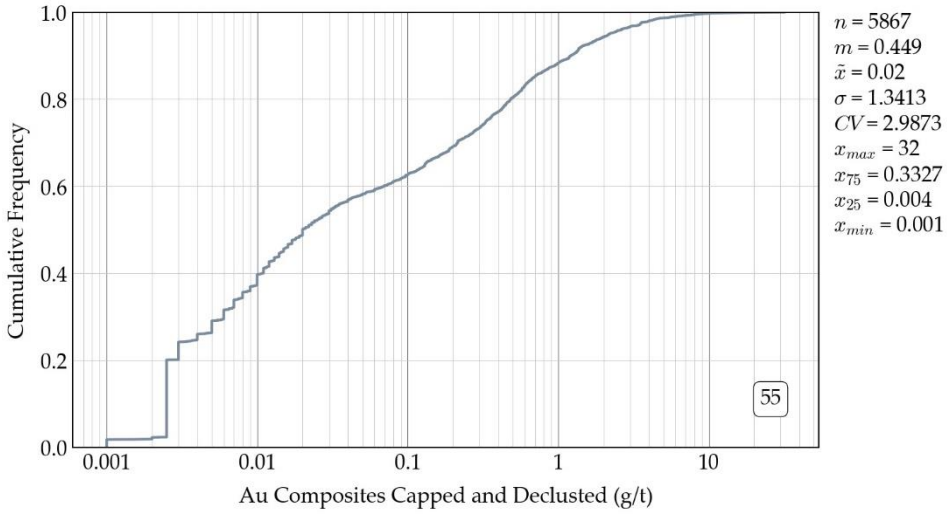
Source: APEX, 2022

3.3.6 Westaway Area



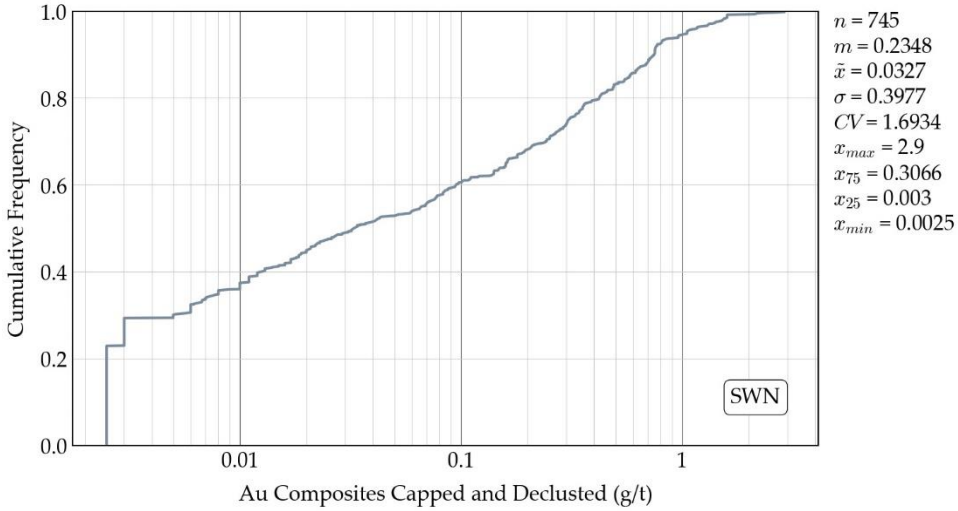
Source: APEX, 2022

3.3.7 55 Area



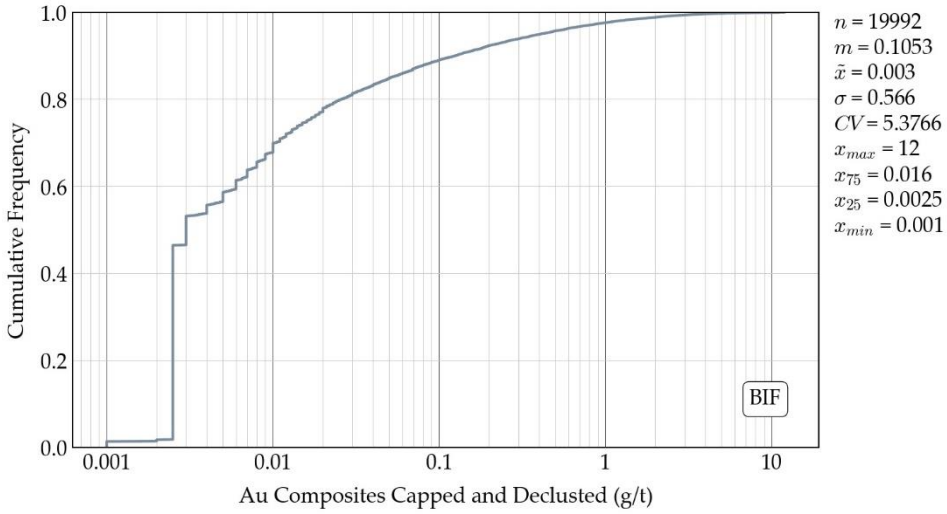
Source: APEX, 2022

3.3.8 South West North



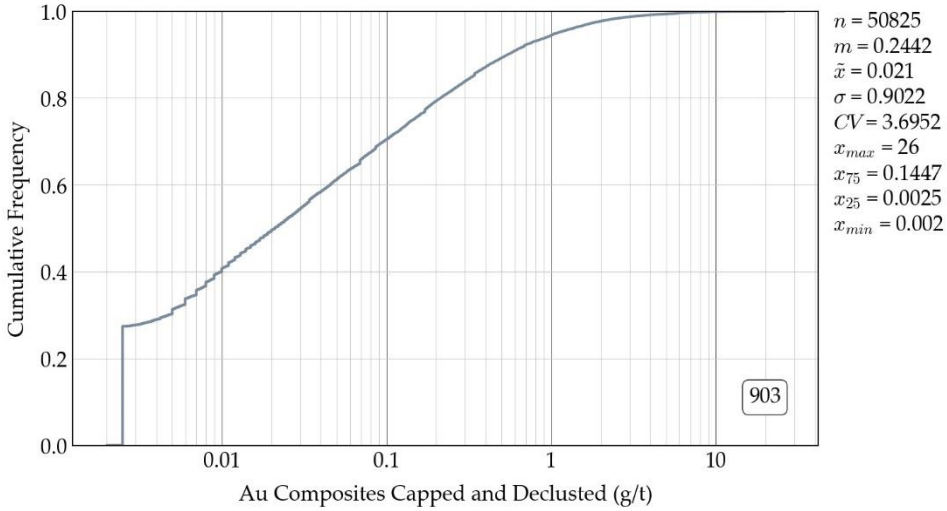
Source: APEX, 2022

3.3.9 Golden Highway Iron Formation



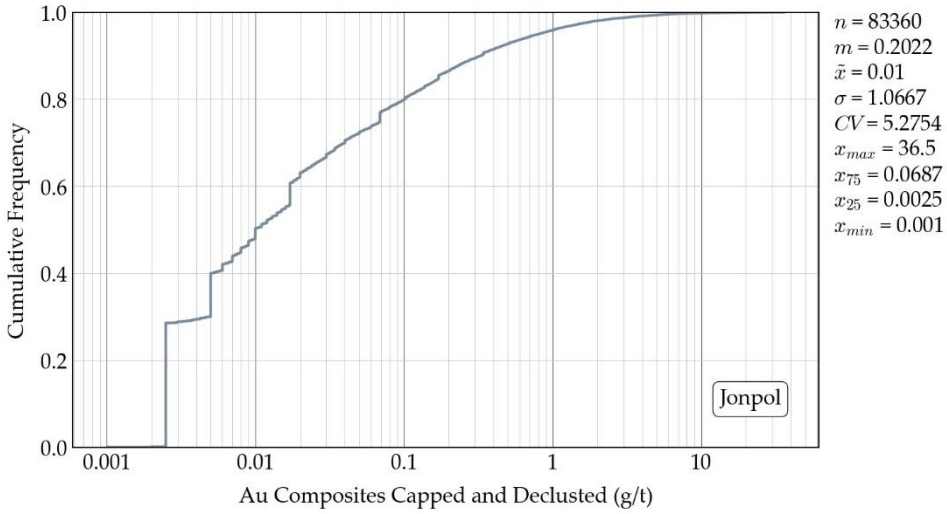
Source: APEX, 2022

3.3.10 903 Area



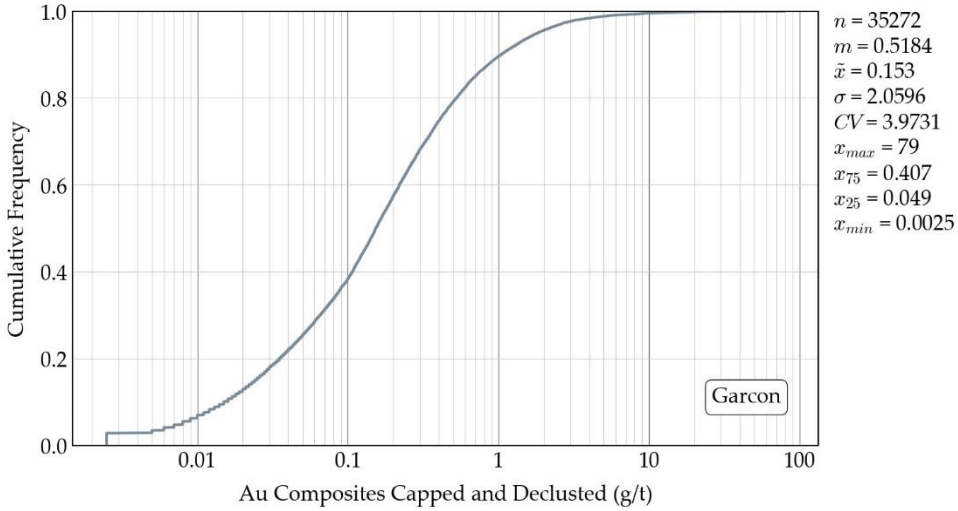
Source: APEX, 2022

3.3.11 Jonpol Area



Source: APEX, 2022

3.3.12 Garrcon Area

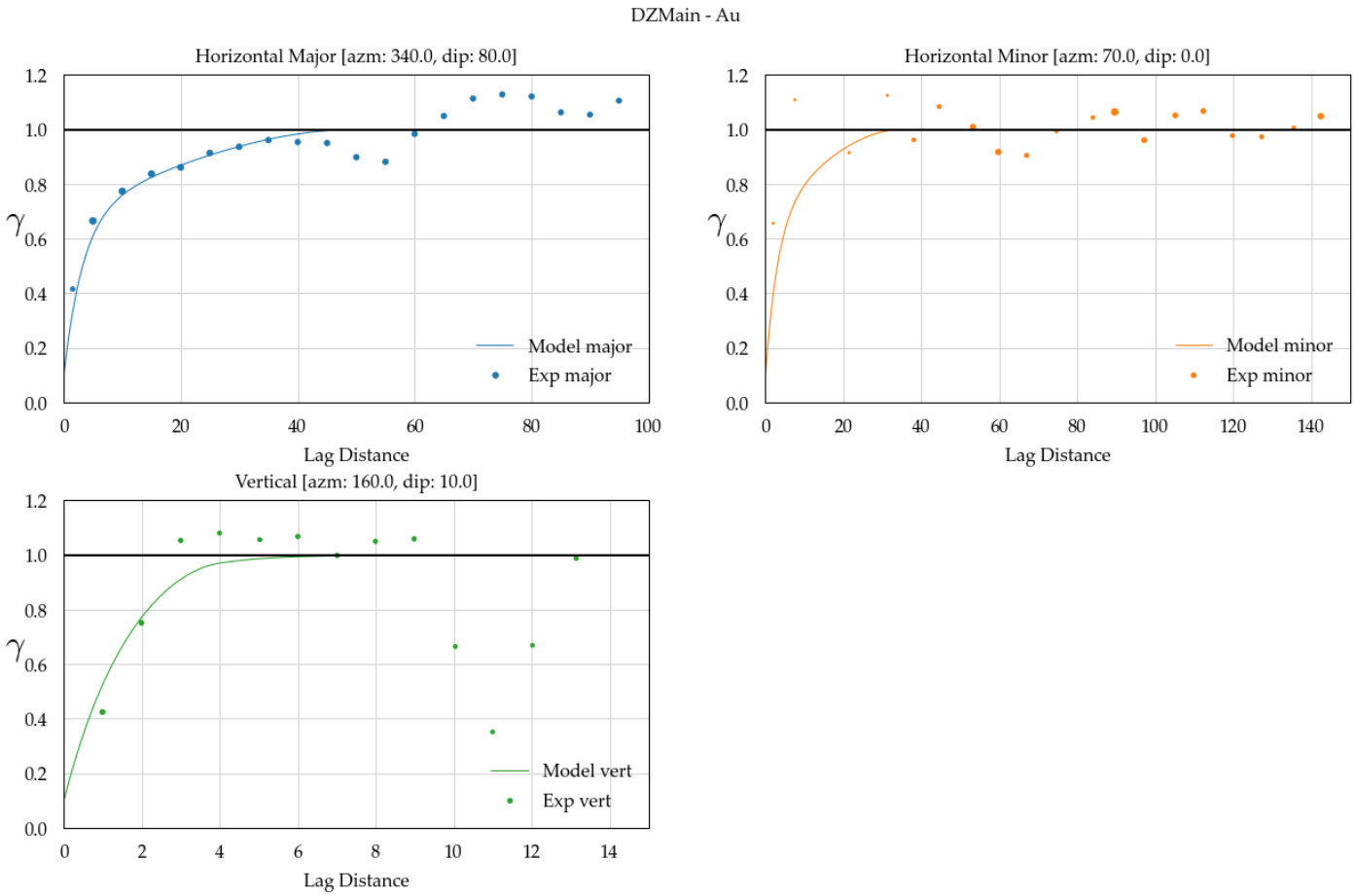


Source: APEX, 2022

3.4 Variography

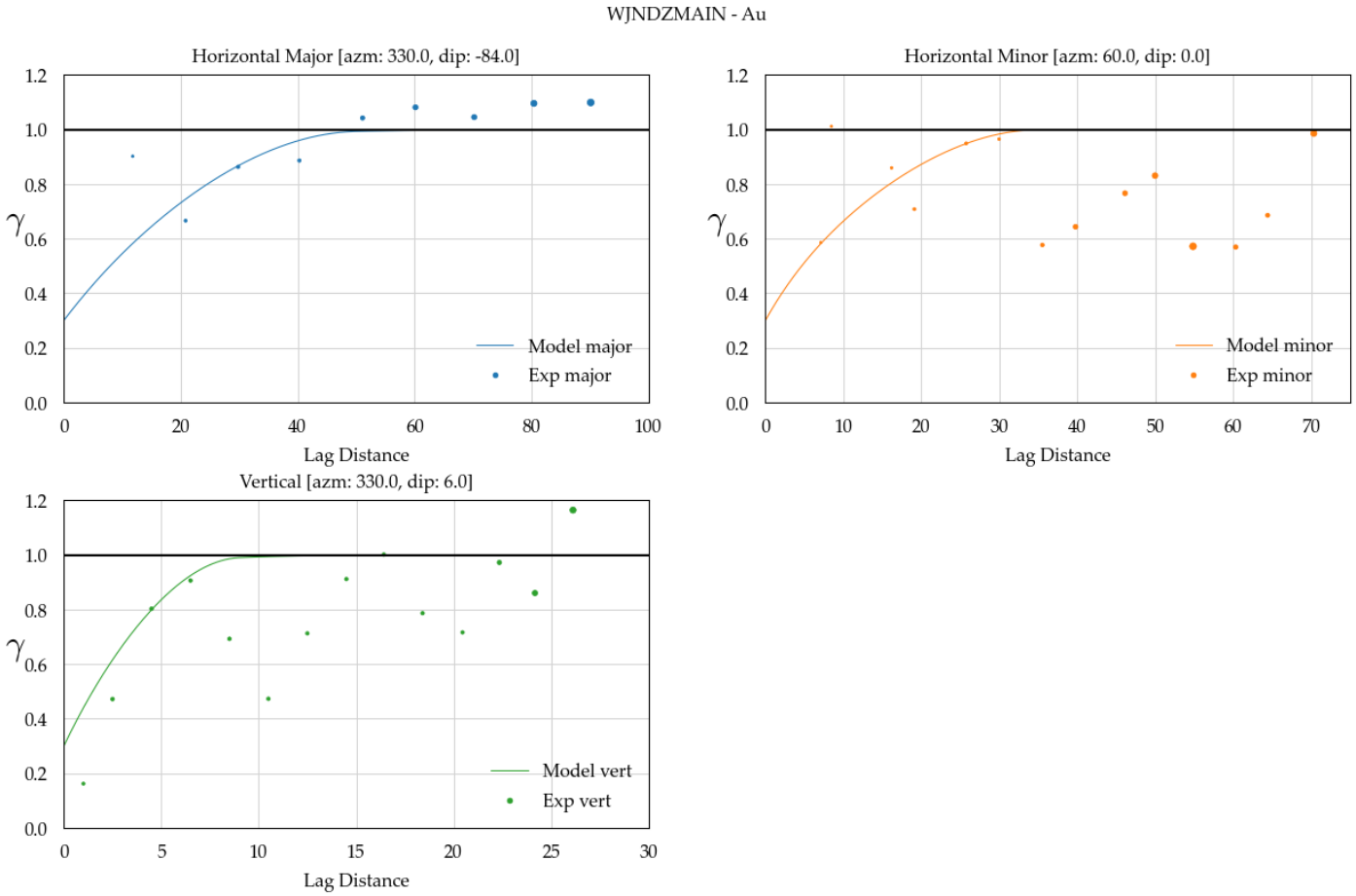
3.4.1 Modelled Variogram Figures

3.4.1.1 Discovery Area



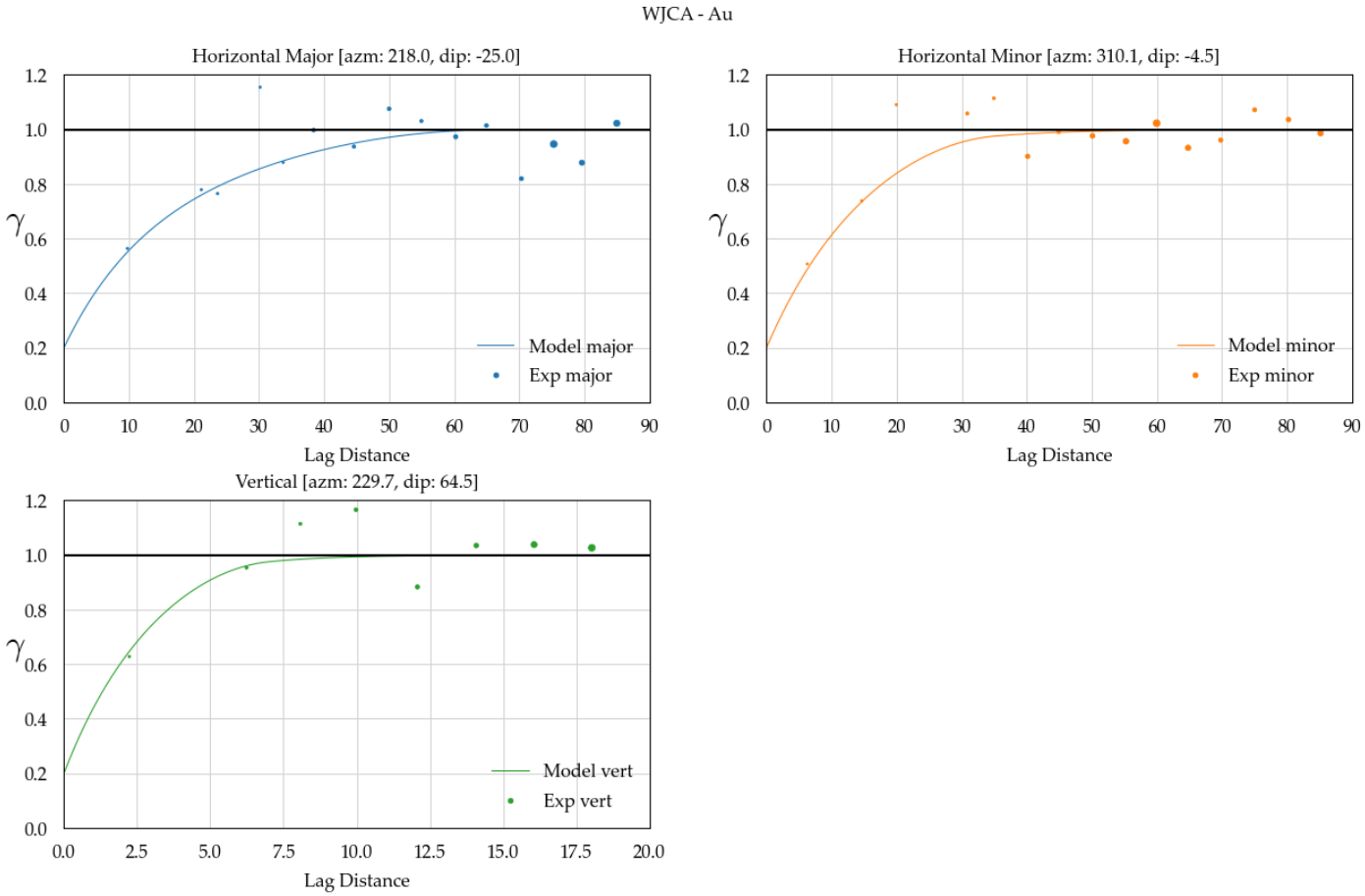
Source: APEX, 2022

3.4.1.2 Windjammer-North Area



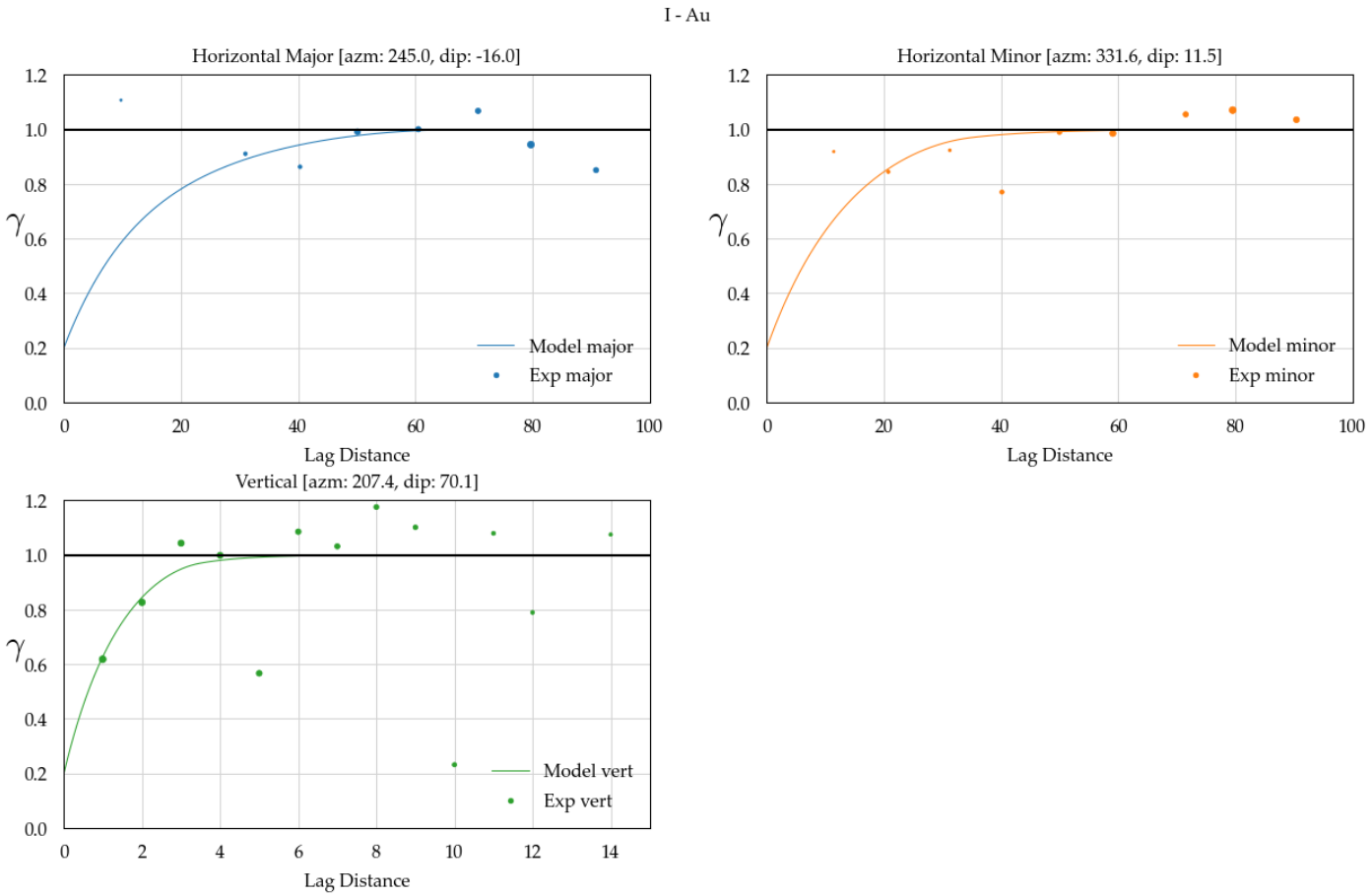
Source: APEX, 2022

3.4.1.3 Windjammer-Central Area



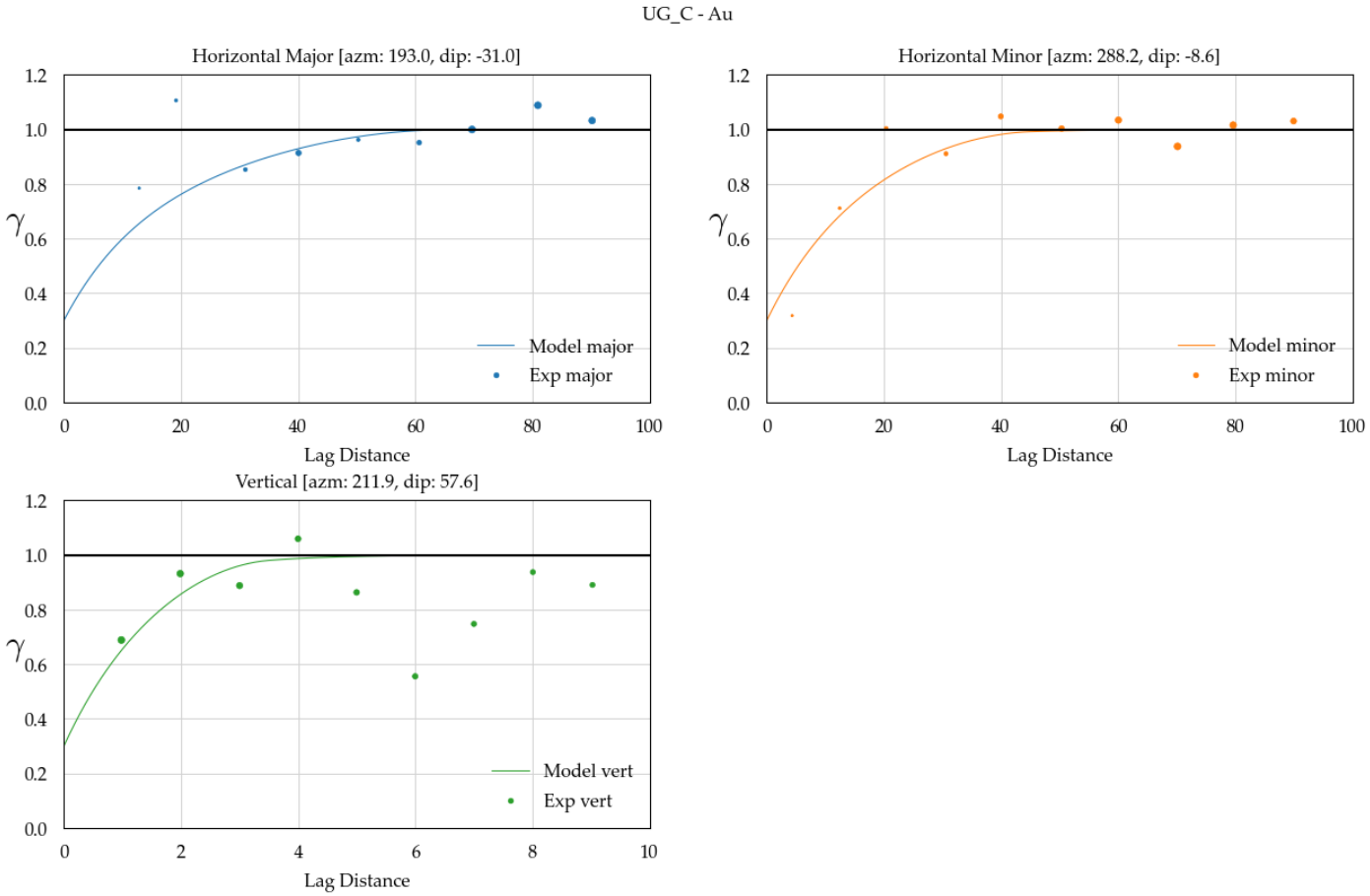
Source: APEX, 2022

3.4.1.4 Windjammer-South Area

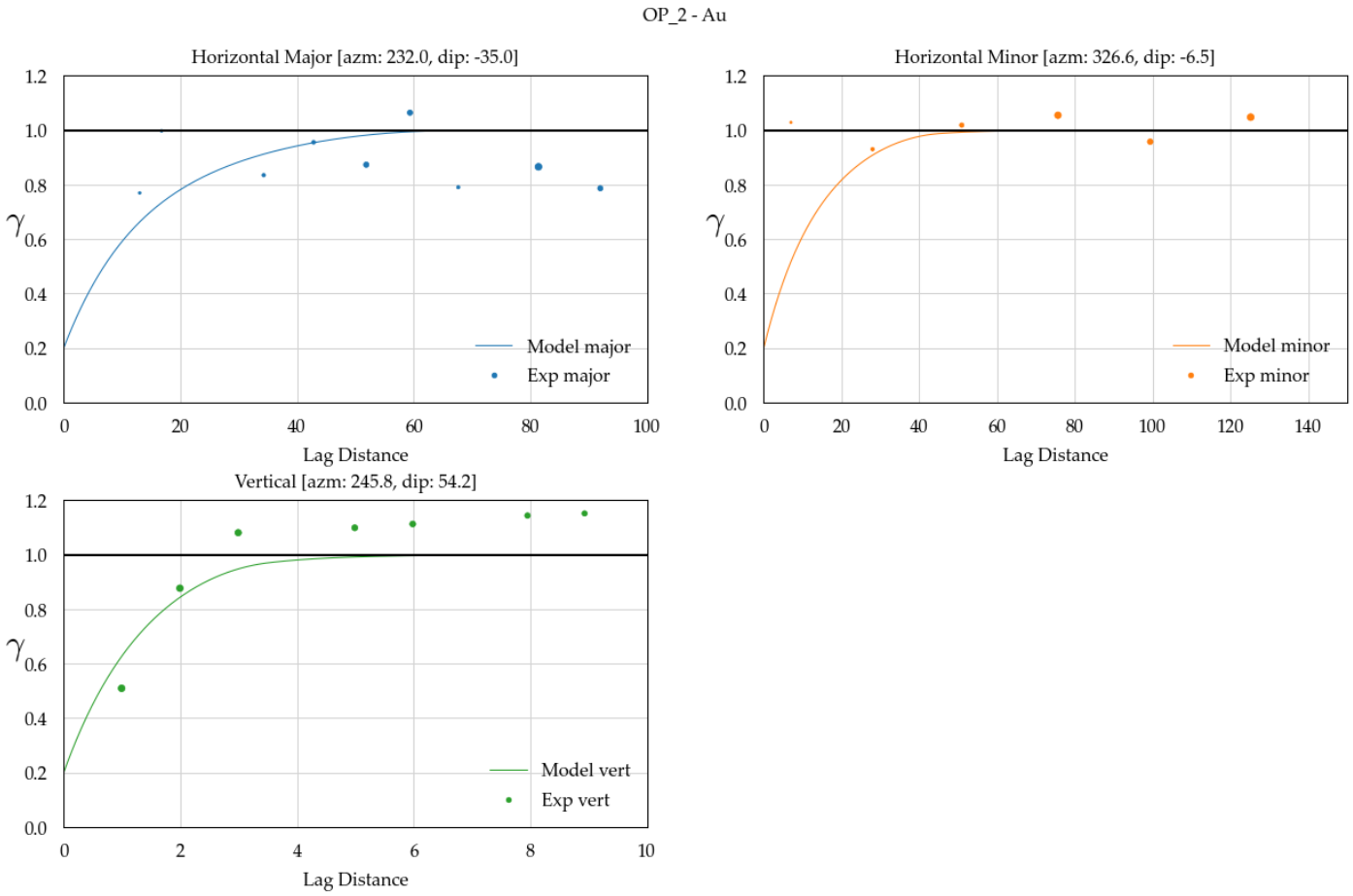


Source: APEX, 2022

3.4.1.5 South West Area

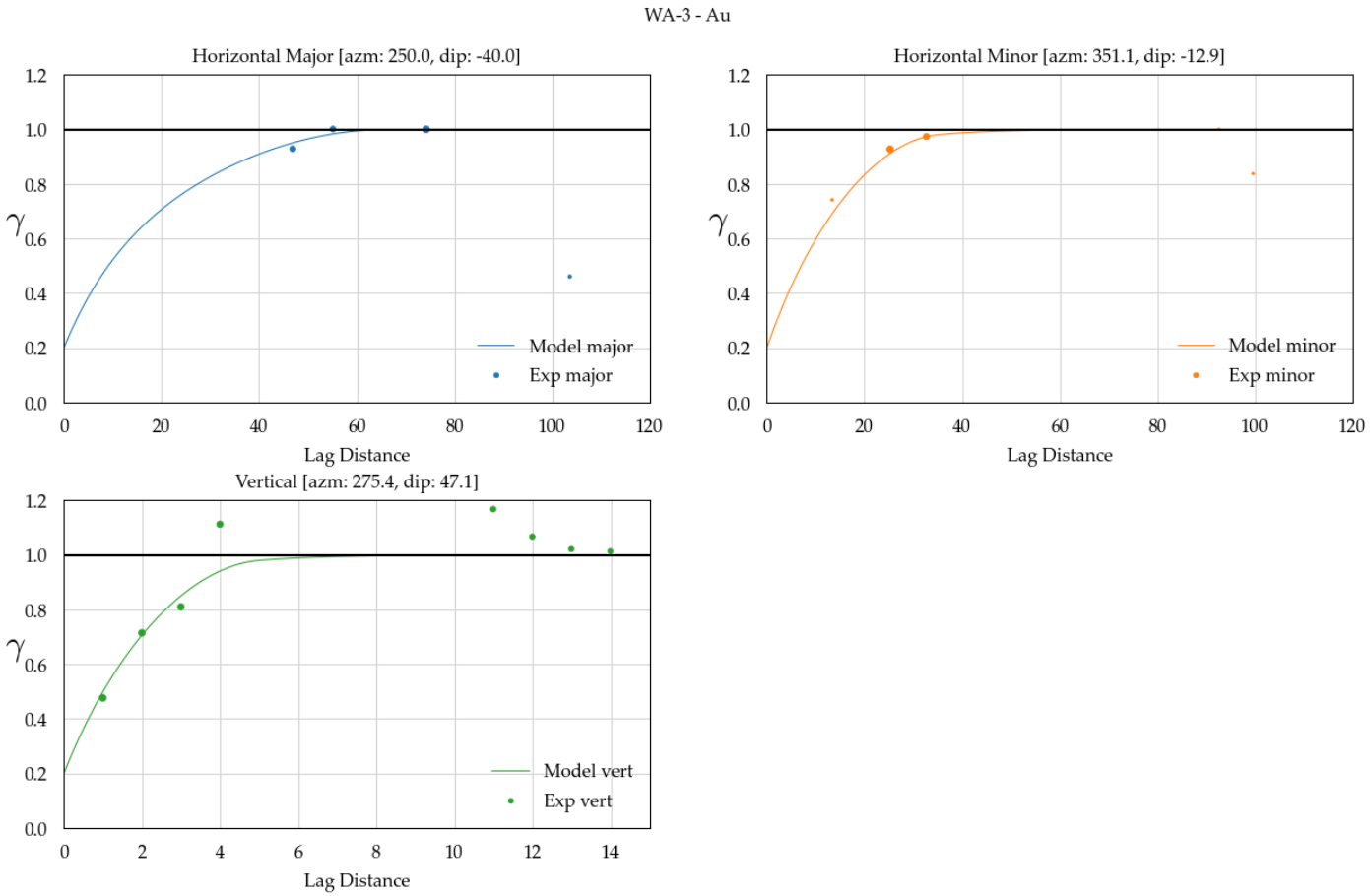


Source: APEX, 2022



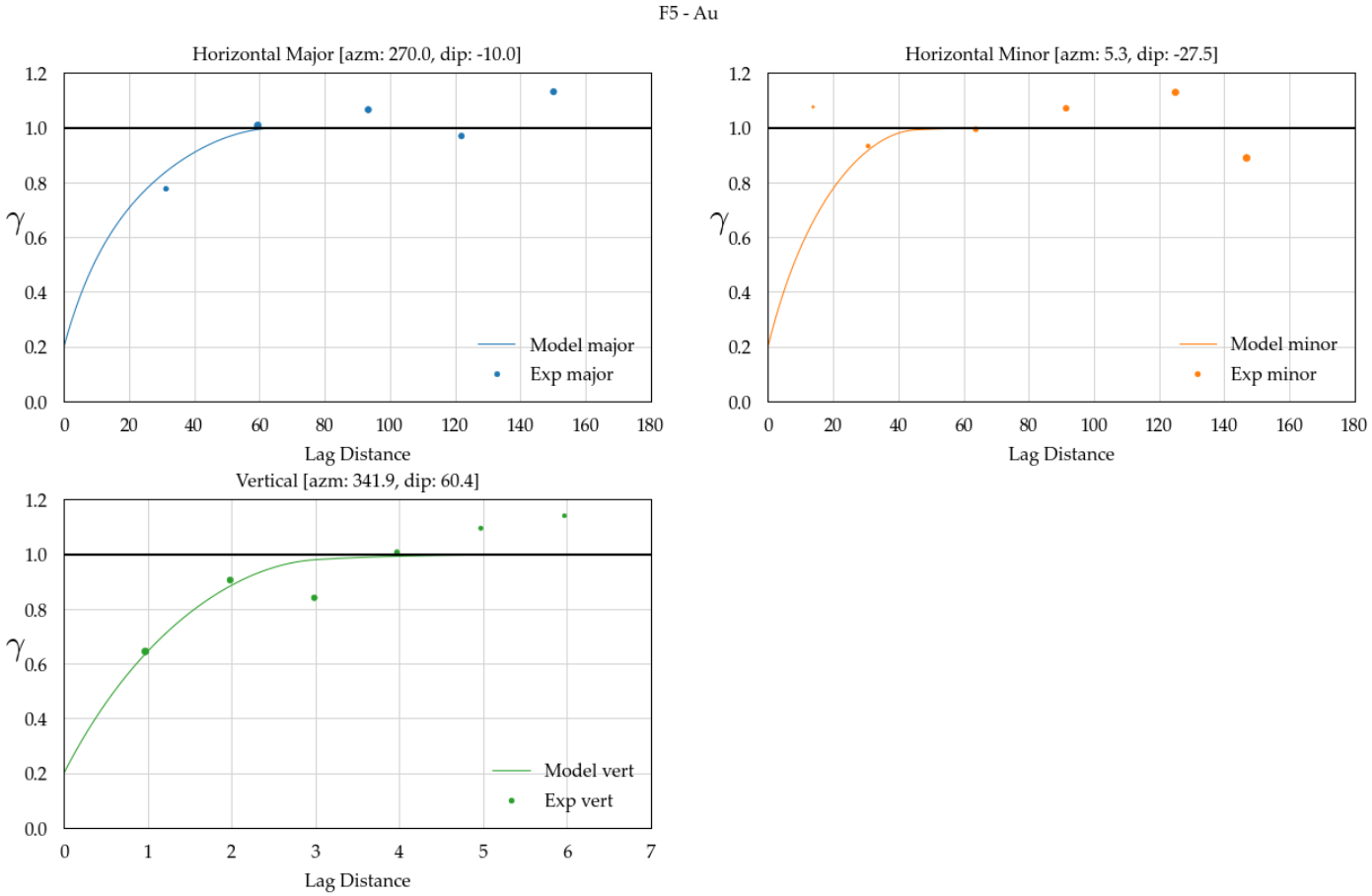
Source: APEX, 2022

3.4.1.6 Westaway Area

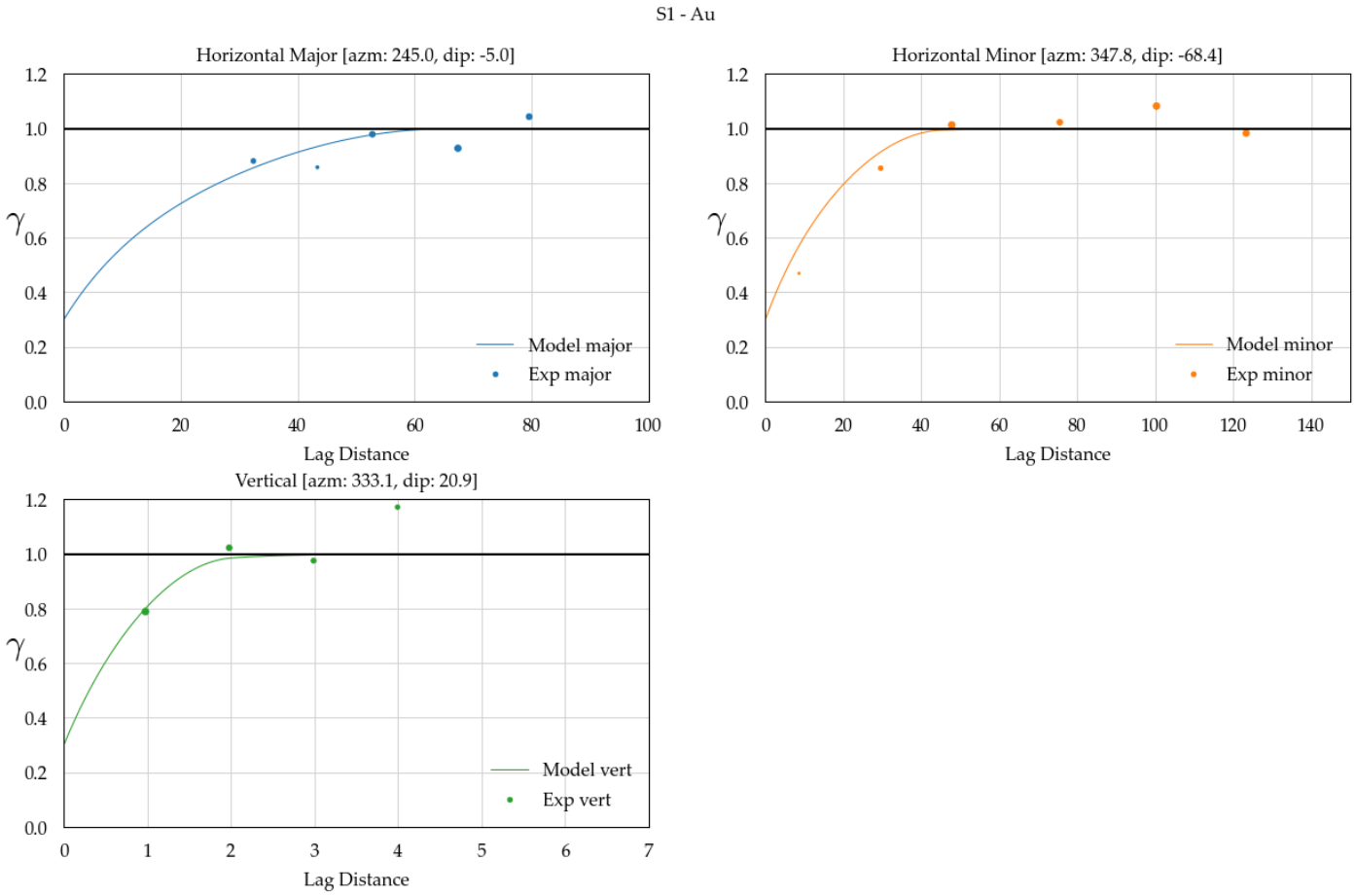


Source: APEX, 2022

3.4.1.7 55 Area



Source: APEX, 2022



Source: APEX, 2022

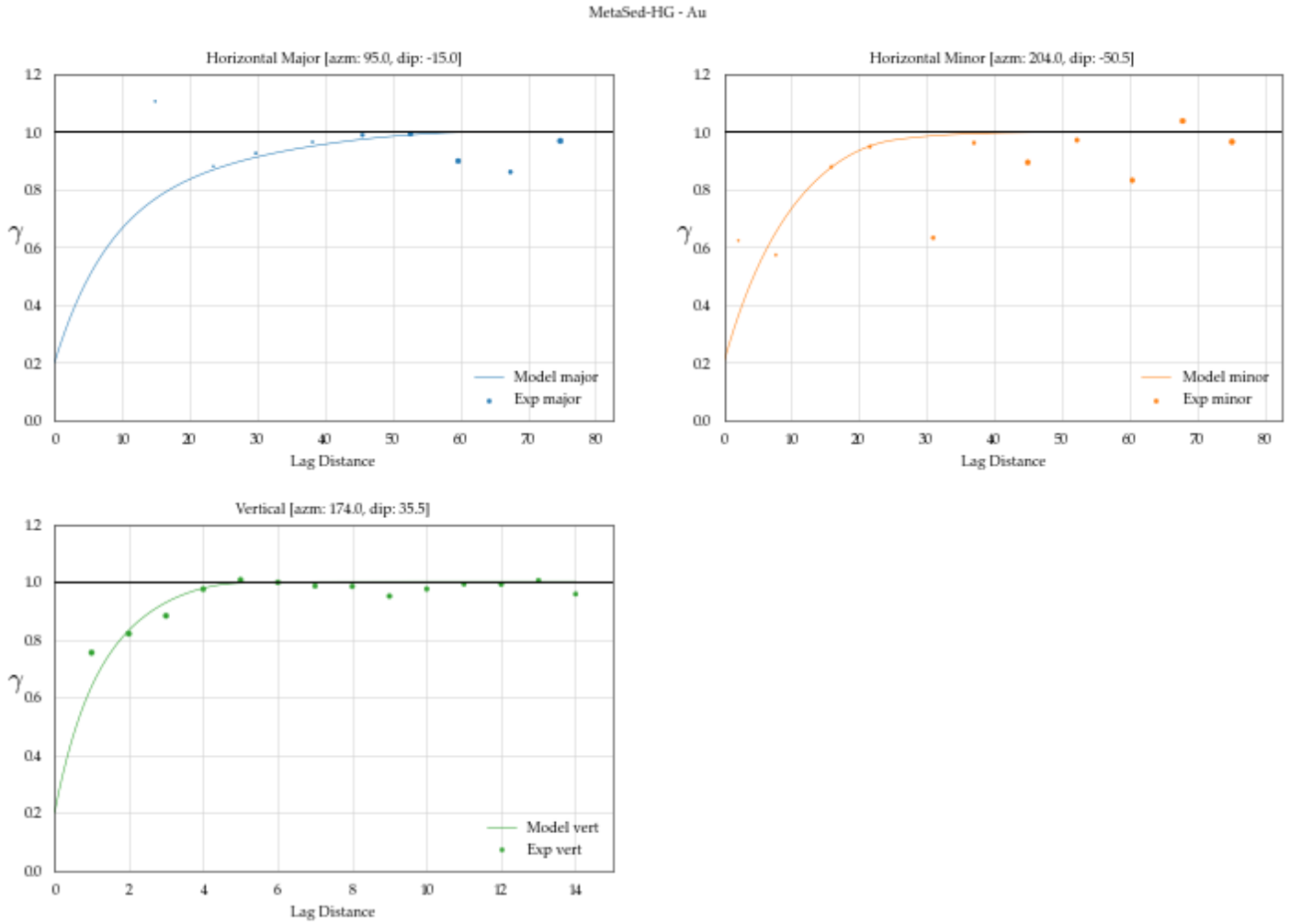
3.4.1.8 South West North

Variogram from South West OP-2 used to estimate resource at South West North.

3.4.1.9 Golden Highway Iron Formation

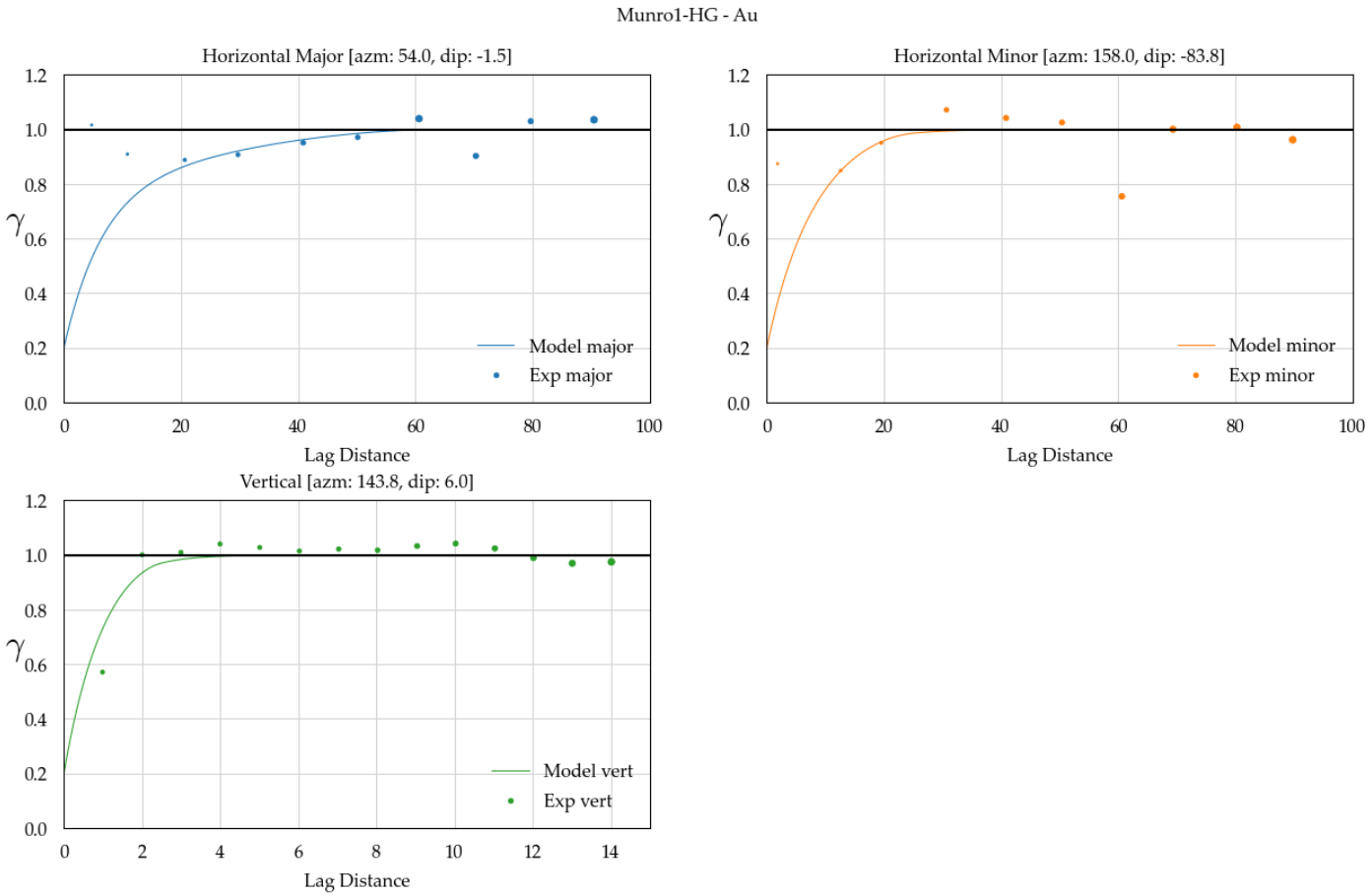
Variogram from South West OP-2 used to estimate resource at South West North.

3.4.1.10 903 Area



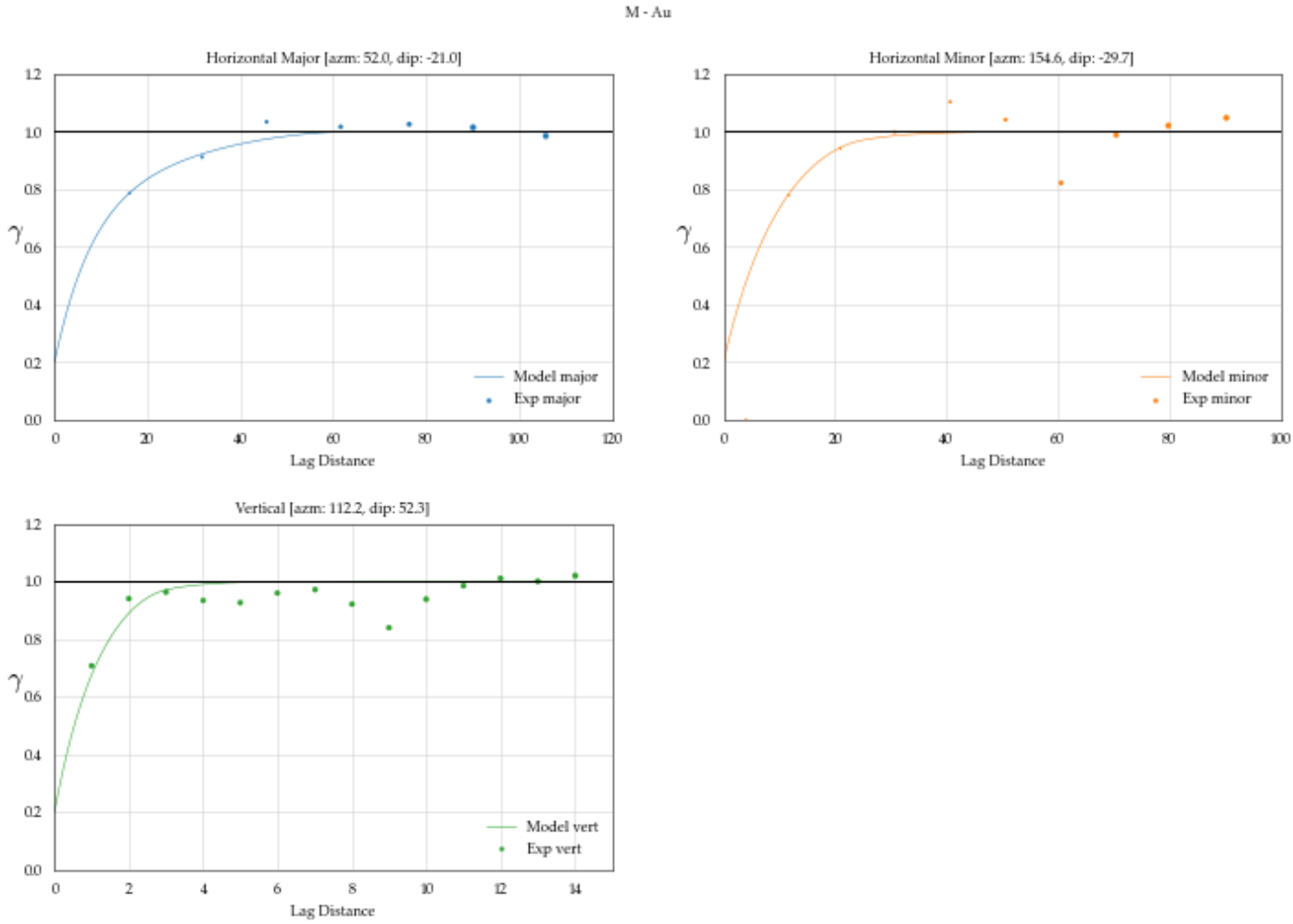
Source: APEX, 2022

3.4.1.11 Jonpol Area



Source: APEX, 2022

3.4.1.12 Garrcon Area



Source: APEX, 2022

3.4.2 Variogram Parameters Used for Kriging

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
DIS	DZ2	0.33	0.03	exp	0.20	10	10	4	sph	0.10	50	35	4
DIS	DZ3	0.05	0.00	exp	0.03	10	10	4	sph	0.01	50	35	4
DIS	DZ4	0.33	0.03	exp	0.20	10	10	4	sph	0.10	50	35	4
DIS	DZ5	0.44	0.04	exp	0.27	10	10	4	sph	0.13	50	35	4
DIS	DZ6	0.01	0.00	exp	0.00	10	10	4	sph	0.00	50	35	4
DIS	DZM3	0.68	0.07	exp	0.41	10	10	4	sph	0.20	50	35	4
DIS	DZM4	0.22	0.02	exp	0.13	10	10	4	sph	0.07	50	35	4
DIS	DZMain	1.44	0.14	exp	0.86	10	10	4	sph	0.43	50	35	4
WJN	WJN1	0.65	0.20	exp	0.13	45	20	9	sph	0.33	50	35	9
WJN	WJN2	0.45	0.14	exp	0.09	45	20	9	sph	0.23	50	35	9
WJN	WJN3	0.04	0.01	exp	0.01	45	20	9	sph	0.02	50	35	9
WJN	WJN4	0.06	0.02	exp	0.01	45	20	9	sph	0.03	50	35	9
WJN	WJN5	0.07	0.02	exp	0.01	45	20	9	sph	0.03	50	35	9
WJN	WJN6	0.07	0.02	exp	0.01	45	20	9	sph	0.04	50	35	9

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJN	WJNDZMAIN	1.89	0.57	exp	0.38	45	20	9	sph	0.94	50	35	9
WJS	A	0.36	0.07	exp	0.22	35	35	3.5	sph	0.07	65	35	3.5
WJS	AA	0.12	0.02	exp	0.07	35	35	3.5	sph	0.02	65	35	3.5
WJS	AB	0.48	0.10	exp	0.29	35	35	3.5	sph	0.10	65	35	3.5
WJS	AC	0.02	0.00	exp	0.01	35	35	3.5	sph	0.00	65	35	3.5
WJS	B	0.60	0.12	exp	0.36	35	35	3.5	sph	0.12	65	35	3.5
WJS	C	0.47	0.09	exp	0.28	35	35	3.5	sph	0.09	65	35	3.5
WJS	D	1.14	0.23	exp	0.68	35	35	3.5	sph	0.23	65	35	3.5
WJS	E	0.76	0.15	exp	0.46	35	35	3.5	sph	0.15	65	35	3.5
WJS	F	0.69	0.14	exp	0.41	35	35	3.5	sph	0.14	65	35	3.5
WJS	G	0.39	0.08	exp	0.23	35	35	3.5	sph	0.08	65	35	3.5
WJS	G2	0.24	0.05	exp	0.14	35	35	3.5	sph	0.05	65	35	3.5
WJS	H	1.00	0.20	exp	0.60	35	35	3.5	sph	0.20	65	35	3.5
WJS	I	0.85	0.17	exp	0.51	35	35	3.5	sph	0.17	65	35	3.5
WJS	J	0.97	0.19	exp	0.58	35	35	3.5	sph	0.19	65	35	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJS	K	0.71	0.14	exp	0.42	35	35	3.5	sph	0.14	65	35	3.5
WJS	L	1.53	0.31	exp	0.92	35	35	3.5	sph	0.31	65	35	3.5
WJS	M	1.03	0.21	exp	0.62	35	35	3.5	sph	0.21	65	35	3.5
WJS	N	0.64	0.13	exp	0.39	35	35	3.5	sph	0.13	65	35	3.5
WJS	O	0.64	0.13	exp	0.39	35	35	3.5	sph	0.13	65	35	3.5
WJS	P	0.31	0.06	exp	0.19	35	35	3.5	sph	0.06	65	35	3.5
WJS	Q	0.43	0.09	exp	0.26	35	35	3.5	sph	0.09	65	35	3.5
WJS	V	0.36	0.07	exp	0.22	35	35	3.5	sph	0.07	65	35	3.5
WJS	V2	0.13	0.03	exp	0.08	35	35	3.5	sph	0.03	65	35	3.5
WJS	V3	0.14	0.03	exp	0.08	35	35	3.5	sph	0.03	65	35	3.5
WJS	W	1.27	0.25	exp	0.76	35	35	3.5	sph	0.25	65	35	3.5
WJS	WJ10	1.71	0.34	exp	1.03	35	35	3.5	sph	0.34	65	35	3.5
WJS	WJ11	2.24	0.45	exp	1.34	35	35	3.5	sph	0.45	65	35	3.5
WJS	WJ12	1.34	0.27	exp	0.80	35	35	3.5	sph	0.27	65	35	3.5
WJS	WJ2	12.40	2.48	exp	7.44	35	35	3.5	sph	2.48	65	35	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJS	WJ3	5.51	1.10	exp	3.30	35	35	3.5	sph	1.10	65	35	3.5
WJS	WJ4	10.35	2.07	exp	6.21	35	35	3.5	sph	2.07	65	35	3.5
WJS	WJ5	18.52	3.70	exp	11.11	35	35	3.5	sph	3.70	65	35	3.5
WJS	WJ9	9.83	1.97	exp	5.90	35	35	3.5	sph	1.97	65	35	3.5
WJS	X	0.67	0.13	exp	0.40	35	35	3.5	sph	0.13	65	35	3.5
WJS	Y	0.34	0.07	exp	0.20	35	35	3.5	sph	0.07	65	35	3.5
WJS	WJ1	6.47	1.29	exp	3.88	35	35	3.5	sph	1.29	65	35	3.5
WJS	WJ13	4.14	0.83	exp	2.48	35	35	3.5	sph	0.83	65	35	3.5
WJS	WJ14	7.00	1.40	exp	4.20	35	35	3.5	sph	1.40	65	35	3.5
WJS	WJ15	13.26	2.65	exp	7.95	35	35	3.5	sph	2.65	65	35	3.5
WJS	WJ6	23.09	4.62	exp	13.85	35	35	3.5	sph	4.62	65	35	3.5
WJS	WJ7	14.23	2.85	exp	8.54	35	35	3.5	sph	2.85	65	35	3.5
WJS	WJ8	5.05	1.01	exp	3.03	35	35	3.5	sph	1.01	65	35	3.5
WJS	R	1.18	0.24	exp	0.71	35	35	3.5	sph	0.24	65	35	3.5
WJS	S	0.44	0.09	exp	0.27	35	35	3.5	sph	0.09	65	35	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJS	T	0.14	0.03	exp	0.09	35	35	3.5	sph	0.03	65	35	3.5
WJS	U	1.39	0.28	exp	0.83	35	35	3.5	sph	0.28	65	35	3.5
WJS	Z1	0.51	0.10	exp	0.30	35	35	3.5	sph	0.10	65	35	3.5
WJS	Z10	0.13	0.03	exp	0.08	35	35	3.5	sph	0.03	65	35	3.5
WJS	Z2	1.68	0.34	exp	1.01	35	35	3.5	sph	0.34	65	35	3.5
WJS	Z3	0.16	0.03	exp	0.10	35	35	3.5	sph	0.03	65	35	3.5
WJS	Z4	0.45	0.09	exp	0.27	35	35	3.5	sph	0.09	65	35	3.5
WJS	Z5	0.07	0.01	exp	0.04	35	35	3.5	sph	0.01	65	35	3.5
WJS	Z6	0.32	0.06	exp	0.19	35	35	3.5	sph	0.06	65	35	3.5
WJS	Z7	0.36	0.07	exp	0.22	35	35	3.5	sph	0.07	65	35	3.5
WJS	Z8	0.04	0.01	exp	0.03	35	35	3.5	sph	0.01	65	35	3.5
WJS	Z9	0.73	0.15	exp	0.44	35	35	3.5	sph	0.15	65	35	3.5
WJS	GAP3P5	2.61	0.52	exp	1.56	35	35	3.5	sph	0.52	65	35	3.5
WJS	GAP4	2.80	0.56	exp	1.68	35	35	3.5	sph	0.56	65	35	3.5
WJS	GAP5	1.18	0.24	exp	0.71	35	35	3.5	sph	0.24	65	35	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJS	GAP5P5	5.82	1.16	exp	3.49	35	35	3.5	sph	1.16	65	35	3.5
WJC	WJC1	0.36	0.07	exp	0.18	35	35	7	sph	0.11	65	35	7
WJC	WJC2	0.29	0.06	exp	0.15	35	35	7	sph	0.09	65	35	7
WJC	WJC3	0.41	0.08	exp	0.20	35	35	7	sph	0.12	65	35	7
WJC	WJC4	0.17	0.03	exp	0.09	35	35	7	sph	0.05	65	35	7
WJC	WJC5	0.29	0.06	exp	0.15	35	35	7	sph	0.09	65	35	7
WJC	WJC6	0.09	0.02	exp	0.04	35	35	7	sph	0.03	65	35	7
WJC	WJC7	0.17	0.03	exp	0.08	35	35	7	sph	0.05	65	35	7
WJC	WJC8	0.14	0.03	exp	0.07	35	35	7	sph	0.04	65	35	7
WJC	WJC9	0.20	0.04	exp	0.10	35	35	7	sph	0.06	65	35	7
WJC	WJCA	0.43	0.09	exp	0.21	35	35	7	sph	0.13	65	35	7
WJC	WJCB	0.48	0.10	exp	0.24	35	35	7	sph	0.14	65	35	7
WJC	WJCC	0.13	0.03	exp	0.07	35	35	7	sph	0.04	65	35	7
WJC	WJCD	0.23	0.05	exp	0.12	35	35	7	sph	0.07	65	35	7
WJC	WJCE	0.87	0.17	exp	0.43	35	35	7	sph	0.26	65	35	7

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WJC	WJCF	0.19	0.04	exp	0.09	35	35	7	sph	0.06	65	35	7
WJC	WJCG	0.06	0.01	exp	0.03	35	35	7	sph	0.02	65	35	7
WJC	WJCH	0.03	0.01	exp	0.02	35	35	7	sph	0.01	65	35	7
55	F10	0.02	0.00	exp	0.01	35	35	3	sph	0.01	65	45	3
55	F11	0.11	0.02	exp	0.05	35	35	3	sph	0.05	65	45	3
55	F12	0.13	0.03	exp	0.05	35	35	3	sph	0.05	65	45	3
55	F1	0.07	0.01	exp	0.03	35	35	3	sph	0.03	65	45	3
55	F2	0.13	0.03	exp	0.05	35	35	3	sph	0.05	65	45	3
55	F3B	0.03	0.01	exp	0.01	35	35	3	sph	0.01	65	45	3
55	F3	0.06	0.01	exp	0.02	35	35	3	sph	0.02	65	45	3
55	F4	0.22	0.04	exp	0.09	35	35	3	sph	0.09	65	45	3
55	F5	0.07	0.01	exp	0.03	35	35	3	sph	0.03	65	45	3
55	F6B	0.25	0.05	exp	0.10	35	35	3	sph	0.10	65	45	3
55	F6	0.31	0.06	exp	0.13	35	35	3	sph	0.13	65	45	3
55	F7A	0.12	0.02	exp	0.05	35	35	3	sph	0.05	65	45	3

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
55	F7B	0.10	0.02	exp	0.04	35	35	3	sph	0.04	65	45	3
55	F7	0.10	0.02	exp	0.04	35	35	3	sph	0.04	65	45	3
55	F8	0.11	0.02	exp	0.04	35	35	3	sph	0.04	65	45	3
55	F9	0.00	0.00	exp	0.00	35	35	3	sph	0.00	65	45	3
55	FAA	0.04	0.01	exp	0.02	35	35	3	sph	0.02	65	45	3
55	FAB	0.05	0.01	exp	0.02	35	35	3	sph	0.02	65	45	3
55	FAC	0.11	0.02	exp	0.04	35	35	3	sph	0.04	65	45	3
55	FAD	0.13	0.03	exp	0.05	35	35	3	sph	0.05	65	45	3
55	FAE	0.02	0.00	exp	0.01	35	35	3	sph	0.01	65	45	3
55	FAF	0.05	0.01	exp	0.02	35	35	3	sph	0.02	65	45	3
55	FBA	0.00	0.00	exp	0.00	35	35	3	sph	0.00	65	45	3
55	S1	16.10	4.83	exp	4.83	35	35	2	sph	6.44	65	45	2
55	S2A	0.55	0.17	exp	0.17	35	35	2	sph	0.22	65	45	2
55	S2	5.83	1.75	exp	1.75	35	35	2	sph	2.33	65	45	2
55	S3A	0.45	0.14	exp	0.14	35	35	2	sph	0.18	65	45	2

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
55	S3	2.29	0.69	exp	0.69	35	35	2	sph	0.91	65	45	2
55	S4A	1.88	0.56	exp	0.56	35	35	2	sph	0.75	65	45	2
55	S4	8.04	2.41	exp	2.41	35	35	2	sph	3.22	65	45	2
55	S5A	3.50	1.05	exp	1.05	35	35	2	sph	1.40	65	45	2
55	S5	2.46	0.74	exp	0.74	35	35	2	sph	0.98	65	45	2
55	S6	0.59	0.18	exp	0.18	35	35	2	sph	0.23	65	45	2
55	S7	0.13	0.04	exp	0.04	35	35	2	sph	0.05	65	45	2
55	S8	0.06	0.02	exp	0.02	35	35	2	sph	0.02	65	45	2
55	SAA	2.45	0.73	exp	0.73	35	35	2	sph	0.98	65	45	2
55	SA	6.00	1.80	exp	1.80	35	35	2	sph	2.40	65	45	2
55	SB	13.45	4.03	exp	4.03	35	35	2	sph	5.38	65	45	2
55	SC	4.16	1.25	exp	1.25	35	35	2	sph	1.66	65	45	2
55	SD	1.97	0.59	exp	0.59	35	35	2	sph	0.79	65	45	2
55	SE	0.68	0.20	exp	0.20	35	35	2	sph	0.27	65	45	2
55	SF	1.14	0.34	exp	0.34	35	35	2	sph	0.46	65	45	2

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
55	SG	0.77	0.23	exp	0.23	35	35	2	sph	0.31	65	45	2
SWN	SWN1	0.35	0.07	exp	0.21	35	35	3.5	sph	0.07	65	45	3.5
SWN	SWN2	0.17	0.03	exp	0.10	35	35	3.5	sph	0.03	65	45	3.5
SWN	SWN3	0.10	0.02	exp	0.06	35	35	3.5	sph	0.02	65	45	3.5
SWN	SWN4	0.03	0.01	exp	0.02	35	35	3.5	sph	0.01	65	45	3.5
SWN	SWN5	0.14	0.03	exp	0.08	35	35	3.5	sph	0.03	65	45	3.5
SWN	SWN6	0.05	0.01	exp	0.03	35	35	3.5	sph	0.01	65	45	3.5
BIF	A	0.50	0.10	exp	0.30	35	35	3.5	sph	0.10	65	45	3.5
BIF	B	0.63	0.13	exp	0.38	35	35	3.5	sph	0.13	65	45	3.5
BIF	C	0.09	0.02	exp	0.06	35	35	3.5	sph	0.02	65	45	3.5
BIF	SW_A	0.27	0.05	exp	0.16	35	35	3.5	sph	0.05	65	45	3.5
BIF	SW_B	0.00	0.00	exp	0.00	35	35	3.5	sph	0.00	65	45	3.5
BIF	S	0.03	0.01	exp	0.02	35	35	3.5	sph	0.01	65	45	3.5
SW	OP_1A	0.56	0.11	exp	0.33	35	35	3.5	sph	0.11	65	45	3.5
SW	OP_1	0.21	0.04	exp	0.13	35	35	3.5	sph	0.04	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	OP_2	0.12	0.02	exp	0.07	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_3	0.03	0.01	exp	0.02	35	35	3.5	sph	0.01	65	45	3.5
SW	OP_4	0.19	0.04	exp	0.11	35	35	3.5	sph	0.04	65	45	3.5
SW	OP_5	0.15	0.03	exp	0.09	35	35	3.5	sph	0.03	65	45	3.5
SW	OP_6	0.22	0.04	exp	0.13	35	35	3.5	sph	0.04	65	45	3.5
SW	OP_AB	0.06	0.01	exp	0.04	35	35	3.5	sph	0.01	65	45	3.5
SW	OP_A	0.17	0.03	exp	0.10	35	35	3.5	sph	0.03	65	45	3.5
SW	OP_BC	0.12	0.02	exp	0.07	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_B	0.15	0.03	exp	0.09	35	35	3.5	sph	0.03	65	45	3.5
SW	OP_CD	0.65	0.13	exp	0.39	35	35	3.5	sph	0.13	65	45	3.5
SW	OP_C	0.11	0.02	exp	0.07	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_D	0.26	0.05	exp	0.16	35	35	3.5	sph	0.05	65	45	3.5
SW	OP_E	0.12	0.02	exp	0.07	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_F	0.10	0.02	exp	0.06	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_M1	0.07	0.01	exp	0.04	35	35	3.5	sph	0.01	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	OP_M2	0.16	0.03	exp	0.10	35	35	3.5	sph	0.03	65	45	3.5
SW	OP_M3	2.93	0.59	exp	1.76	35	35	3.5	sph	0.59	65	45	3.5
SW	OP_M4	0.84	0.17	exp	0.50	35	35	3.5	sph	0.17	65	45	3.5
SW	OP_MF1	0.57	0.11	exp	0.34	35	35	3.5	sph	0.11	65	45	3.5
SW	OP_MF2	0.80	0.16	exp	0.48	35	35	3.5	sph	0.16	65	45	3.5
SW	OP_MF3	0.21	0.04	exp	0.13	35	35	3.5	sph	0.04	65	45	3.5
SW	OP_MF4	0.10	0.02	exp	0.06	35	35	3.5	sph	0.02	65	45	3.5
SW	OP_MF5	0.31	0.06	exp	0.18	35	35	3.5	sph	0.06	65	45	3.5
SW	OP_MF6	0.17	0.03	exp	0.10	35	35	3.5	sph	0.03	65	45	3.5
SW	OP_MF7	4.23	0.85	exp	2.54	35	35	3.5	sph	0.85	65	45	3.5
SW	OP_MF8	0.01	0.00	exp	0.00	35	35	3.5	sph	0.00	65	45	3.5
SW	UG_ALDER	3.59	1.08	exp	1.43	35	35	3.5	sph	1.08	65	45	3.5
SW	UG_ARBUTUS	1.90	0.57	exp	0.76	35	35	3.5	sph	0.57	65	45	3.5
SW	UG_B2	1.30	0.39	exp	0.52	35	35	3.5	sph	0.39	65	45	3.5
SW	UG_BALSAM	3.67	1.10	exp	1.47	35	35	3.5	sph	1.10	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	UG_BIRCH	4.29	1.29	exp	1.71	35	35	3.5	sph	1.29	65	45	3.5
SW	UG_C2	0.53	0.16	exp	0.21	35	35	3.5	sph	0.16	65	45	3.5
SW	UG_CEDAR	4.55	1.37	exp	1.82	35	35	3.5	sph	1.37	65	45	3.5
SW	UG_E2	0.78	0.23	exp	0.31	35	35	3.5	sph	0.23	65	45	3.5
SW	UG_ELM	1.71	0.51	exp	0.68	35	35	3.5	sph	0.51	65	45	3.5
SW	UG_GAP1	6.61	1.98	exp	2.64	35	35	3.5	sph	1.98	65	45	3.5
SW	UG_GAP2	1.60	0.48	exp	0.64	35	35	3.5	sph	0.48	65	45	3.5
SW	UG_GAP3	2.89	0.87	exp	1.16	35	35	3.5	sph	0.87	65	45	3.5
SW	UG_LARCH	2.00	0.60	exp	0.80	35	35	3.5	sph	0.60	65	45	3.5
SW	UG_MAPLE	7.37	2.21	exp	2.95	35	35	3.5	sph	2.21	65	45	3.5
SW	UG_OAK	4.38	1.31	exp	1.75	35	35	3.5	sph	1.31	65	45	3.5
SW	UG_PINE2	0.33	0.10	exp	0.13	35	35	3.5	sph	0.10	65	45	3.5
SW	UG_PINE	6.02	1.81	exp	2.41	35	35	3.5	sph	1.81	65	45	3.5
SW	UG_PUGLAR2	0.60	0.18	exp	0.24	35	35	3.5	sph	0.18	65	45	3.5
SW	UG_PUGLAR	1.23	0.37	exp	0.49	35	35	3.5	sph	0.37	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	UG_R2	2.61	0.78	exp	1.04	35	35	3.5	sph	0.78	65	45	3.5
SW	UG_REDWOOD	3.17	0.95	exp	1.27	35	35	3.5	sph	0.95	65	45	3.5
SW	UG_SPRUCE	4.20	1.26	exp	1.68	35	35	3.5	sph	1.26	65	45	3.5
SW	UG_10	1.63	0.49	exp	0.65	35	35	3.5	sph	0.49	65	45	3.5
SW	UG_11	0.13	0.04	exp	0.05	35	35	3.5	sph	0.04	65	45	3.5
SW	UG_13	0.90	0.27	exp	0.36	35	35	3.5	sph	0.27	65	45	3.5
SW	UG_14	5.73	1.72	exp	2.29	35	35	3.5	sph	1.72	65	45	3.5
SW	UG_16	6.67	2.00	exp	2.67	35	35	3.5	sph	2.00	65	45	3.5
SW	UG_1	1.42	0.43	exp	0.57	35	35	3.5	sph	0.43	65	45	3.5
SW	UG_2	3.28	0.98	exp	1.31	35	35	3.5	sph	0.98	65	45	3.5
SW	UG_3	2.05	0.61	exp	0.82	35	35	3.5	sph	0.61	65	45	3.5
SW	UG_4	3.68	1.10	exp	1.47	35	35	3.5	sph	1.10	65	45	3.5
SW	UG_7	6.60	1.98	exp	2.64	35	35	3.5	sph	1.98	65	45	3.5
SW	UG_8	3.01	0.90	exp	1.20	35	35	3.5	sph	0.90	65	45	3.5
SW	UG_9	3.23	0.97	exp	1.29	35	35	3.5	sph	0.97	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	UG_A4	2.14	0.64	exp	0.85	35	35	3.5	sph	0.64	65	45	3.5
SW	UG_A5	1.93	0.58	exp	0.77	35	35	3.5	sph	0.58	65	45	3.5
SW	UG_AA	0.87	0.26	exp	0.35	35	35	3.5	sph	0.26	65	45	3.5
SW	UG_A	0.88	0.26	exp	0.35	35	35	3.5	sph	0.26	65	45	3.5
SW	UG_B	1.09	0.33	exp	0.44	35	35	3.5	sph	0.33	65	45	3.5
SW	UG_CE	0.89	0.27	exp	0.35	35	35	3.5	sph	0.27	65	45	3.5
SW	UG_CF	1.53	0.46	exp	0.61	35	35	3.5	sph	0.46	65	45	3.5
SW	UG_CG	0.95	0.28	exp	0.38	35	35	3.5	sph	0.28	65	45	3.5
SW	UG_CH	1.43	0.43	exp	0.57	35	35	3.5	sph	0.43	65	45	3.5
SW	UG_C	0.55	0.16	exp	0.22	35	35	3.5	sph	0.16	65	45	3.5
SW	UG_D12	0.05	0.02	exp	0.02	35	35	3.5	sph	0.02	65	45	3.5
SW	UG_D1	0.00	0.00	exp	0.00	35	35	3.5	sph	0.00	65	45	3.5
SW	UG_D2	4.16	1.25	exp	1.66	35	35	3.5	sph	1.25	65	45	3.5
SW	UG_D3	2.71	0.81	exp	1.08	35	35	3.5	sph	0.81	65	45	3.5
SW	UG_D4	1.45	0.43	exp	0.58	35	35	3.5	sph	0.43	65	45	3.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
SW	UG_D5	5.36	1.61	exp	2.14	35	35	3.5	sph	1.61	65	45	3.5
SW	UG_D6	3.50	1.05	exp	1.40	35	35	3.5	sph	1.05	65	45	3.5
SW	UG_D7	1.73	0.52	exp	0.69	35	35	3.5	sph	0.52	65	45	3.5
SW	UG_ZA	0.81	0.24	exp	0.32	35	35	3.5	sph	0.24	65	45	3.5
SW	UG_SYCAMORE	1.58	0.47	exp	0.63	35	35	3.5	sph	0.47	65	45	3.5
SW	UG_Tamarack2	7.05	2.12	exp	2.82	35	35	3.5	sph	2.12	65	45	3.5
SW	UG_Tamarack	2.00	0.60	exp	0.80	35	35	3.5	sph	0.60	65	45	3.5
SW	UG_WALNUT	4.30	1.29	exp	1.72	35	35	3.5	sph	1.29	65	45	3.5
SW	UG_WILLOW2	0.92	0.28	exp	0.37	35	35	3.5	sph	0.28	65	45	3.5
SW	UG_WILLOW	5.24	1.57	exp	2.09	35	35	3.5	sph	1.57	65	45	3.5
SW	UG_YEW	7.41	2.22	exp	2.97	35	35	3.5	sph	2.22	65	45	3.5
WA	WA-10	0.34	0.07	exp	0.13	35	35	5	sph	0.13	65	35	5
WA	WA-11	4.80	0.96	exp	1.92	35	35	5	sph	1.92	65	35	5
WA	WA-12	4.76	0.95	exp	1.90	35	35	5	sph	1.90	65	35	5
WA	WA-13A	2.59	0.52	exp	1.04	35	35	5	sph	1.04	65	35	5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WA	WA-13	2.48	0.50	exp	0.99	35	35	5	sph	0.99	65	35	5
WA	WA-14	3.73	0.75	exp	1.49	35	35	5	sph	1.49	65	35	5
WA	WA-15	16.96	3.39	exp	6.78	35	35	5	sph	6.78	65	35	5
WA	WA-16	8.51	1.70	exp	3.40	35	35	5	sph	3.40	65	35	5
WA	WA-17	1.07	0.21	exp	0.43	35	35	5	sph	0.43	65	35	5
WA	WA-18	4.13	0.83	exp	1.65	35	35	5	sph	1.65	65	35	5
WA	WA-19	4.29	0.86	exp	1.72	35	35	5	sph	1.72	65	35	5
WA	WA-1	10.32	2.06	exp	4.13	35	35	5	sph	4.13	65	35	5
WA	WA-2	5.07	1.01	exp	2.03	35	35	5	sph	2.03	65	35	5
WA	WA-3	6.09	1.22	exp	2.44	35	35	5	sph	2.44	65	35	5
WA	WA-4	1.46	0.29	exp	0.58	35	35	5	sph	0.58	65	35	5
WA	WA-5	4.93	0.99	exp	1.97	35	35	5	sph	1.97	65	35	5
WA	WA-6	1.64	0.33	exp	0.65	35	35	5	sph	0.65	65	35	5
WA	WA-7A	1.52	0.30	exp	0.61	35	35	5	sph	0.61	65	35	5
WA	WA-7	1.69	0.34	exp	0.68	35	35	5	sph	0.68	65	35	5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WA	WA-8	6.06	1.21	exp	2.42	35	35	5	sph	2.42	65	35	5
WA	WA-9	3.62	0.72	exp	1.45	35	35	5	sph	1.45	65	35	5
WA	WB-10	2.58	0.52	exp	1.03	35	35	5	sph	1.03	65	35	5
WA	WB-11	2.24	0.45	exp	0.90	35	35	5	sph	0.90	65	35	5
WA	WB-12	1.68	0.34	exp	0.67	35	35	5	sph	0.67	65	35	5
WA	WB-1	2.07	0.41	exp	0.83	35	35	5	sph	0.83	65	35	5
WA	WB-2	2.97	0.59	exp	1.19	35	35	5	sph	1.19	65	35	5
WA	WB-3	3.20	0.64	exp	1.28	35	35	5	sph	1.28	65	35	5
WA	WB-4	7.22	1.44	exp	2.89	35	35	5	sph	2.89	65	35	5
WA	WB-5	0.42	0.08	exp	0.17	35	35	5	sph	0.17	65	35	5
WA	WB-6	5.73	1.15	exp	2.29	35	35	5	sph	2.29	65	35	5
WA	WB-7	1.78	0.36	exp	0.71	35	35	5	sph	0.71	65	35	5
WA	WB-8	3.89	0.78	exp	1.56	35	35	5	sph	1.56	65	35	5
WA	WB-9	1.62	0.32	exp	0.65	35	35	5	sph	0.65	65	35	5
WA	WB-T	7.44	1.49	exp	2.98	35	35	5	sph	2.98	65	35	5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
WA	WA-A	0.06	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-B	0.04	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-C	0.08	0.02	exp	0.03	35	35	5	sph	0.03	65	35	5
WA	WA-D	0.06	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-E	0.03	0.01	exp	0.01	35	35	5	sph	0.01	65	35	5
WA	WA-F	0.08	0.02	exp	0.03	35	35	5	sph	0.03	65	35	5
WA	WA-G	0.06	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-H	0.06	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-I	0.07	0.01	exp	0.03	35	35	5	sph	0.03	65	35	5
WA	WA-I2	0.05	0.01	exp	0.02	35	35	5	sph	0.02	65	35	5
WA	WA-J	0.02	0.00	exp	0.01	35	35	5	sph	0.01	65	35	5
WA	WA-K	0.01	0.00	exp	0.00	35	35	5	sph	0.00	65	35	5
903	MetaSed-HG	1.33	0.27	exp	0.80	25	25	3	sph	0.27	65	25	5
903	MetaSed-LG	0.06	0.01	exp	0.04	25	25	3	sph	0.01	65	25	5
903	PDest-HG	0.36	0.07	exp	0.22	20	20	2.5	sph	0.07	65	25	2.5

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
903	PDest-LG	0.01	0.00	exp	0.01	20	20	2.5	sph	0.00	65	25	2.5
903	UltMaf-HG	2.30	0.46	exp	1.15	35	35	4	sph	0.69	75	35	4
903	UltMaf-LG	0.05	0.01	exp	0.03	35	35	4	sph	0.02	75	35	4
Jonpol	MetaSed1-LG	0.03	0.01	exp	0.02	20	20	2.5	sph	0.01	65	25	2.5
Jonpol	Munro1-HG	7.98	1.60	exp	4.79	20	20	2.5	sph	1.60	65	25	2.5
Jonpol	Munro1-LG	0.20	0.04	exp	0.12	20	20	2.5	sph	0.04	65	25	2.5
Jonpol	Munro3-LG	0.02	0.00	exp	0.01	20	20	2.5	sph	0.00	65	25	2.5
Jonpol	MetaSed2-LG	0.02	0.00	exp	0.01	20	20	2.5	sph	0.00	65	65	2.5
Jonpol	Munro2-HG	2.27	0.45	exp	1.36	20	20	2.5	sph	0.45	65	65	2.5
Jonpol	Munro2-LG	0.04	0.01	exp	0.02	20	20	2.5	sph	0.01	65	65	2.5
Garcon	M	6.61	1.32	exp	3.97	25	25	3	sph	1.32	65	25	3
Garcon	M2	1.07	0.21	exp	0.64	25	25	3	sph	0.21	65	25	3
Garcon	Z2	1.74	0.35	exp	1.04	25	25	3	sph	0.35	65	25	3
Garcon	Z3	1.40	0.28	exp	0.84	25	25	3	sph	0.28	65	25	3
Garcon	Z4	1.79	0.36	exp	1.08	25	25	3	sph	0.36	65	25	3

Area	Domain	Sill	C0	Structure 1					Structure 2				
				Type	C1	Ranges (m)			Type	C2	Ranges (m)		
						Major	Minor	Vertical			Major	Minor	Vertical
Garcon	Z5	0.40	0.08	exp	0.24	25	25	3	sph	0.08	65	25	3
Garcon	D1	6.89	1.38	exp	4.13	25	25	3	sph	1.38	65	25	3

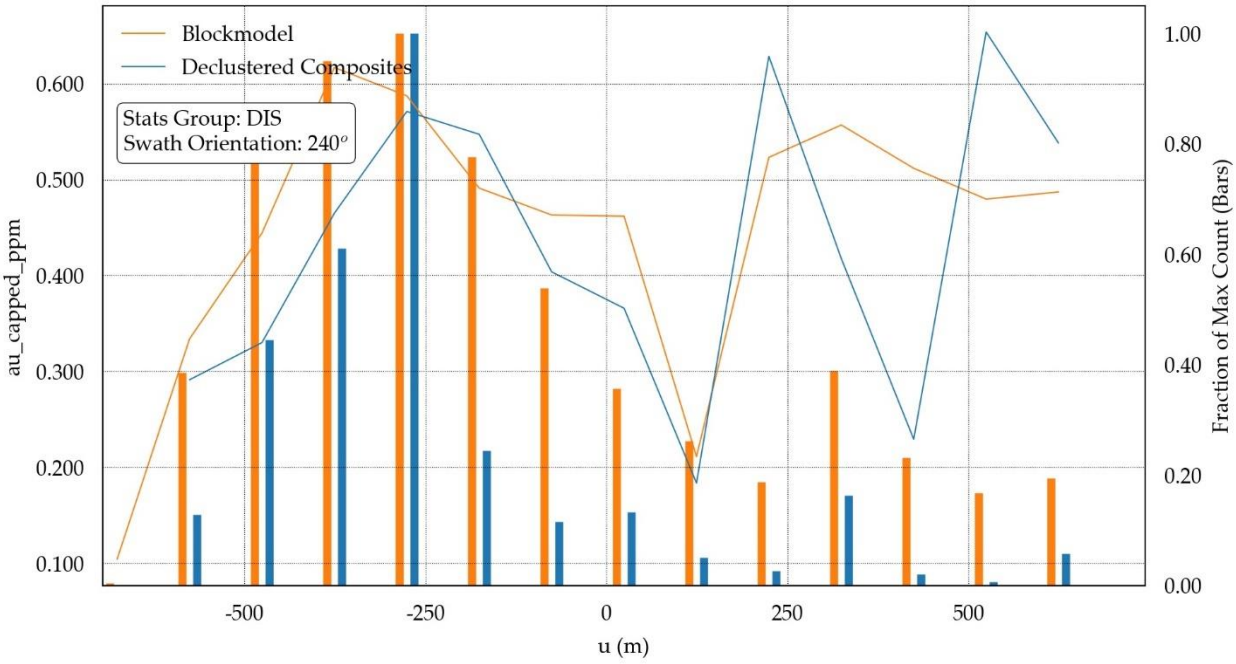
Source: APEX, 2022

Note: azm: azimuth, LVA: local varying anisotropy, sph: spherical, exp: exponential; C0: nugget effect; C1: covariance contribution of structure 1; C2: covariance contribution of structure 2.

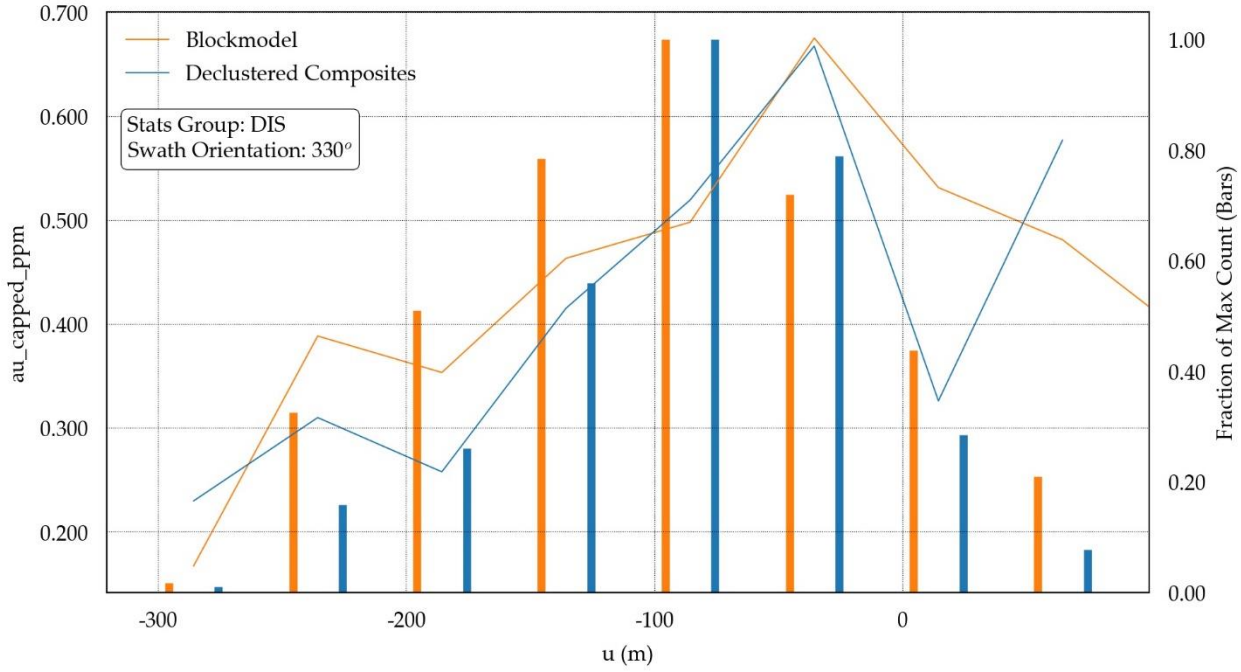
3.5 Resource Validation

3.5.1 Swath Plots

3.5.1.1 Discovery Area



Source: APEX, 2022



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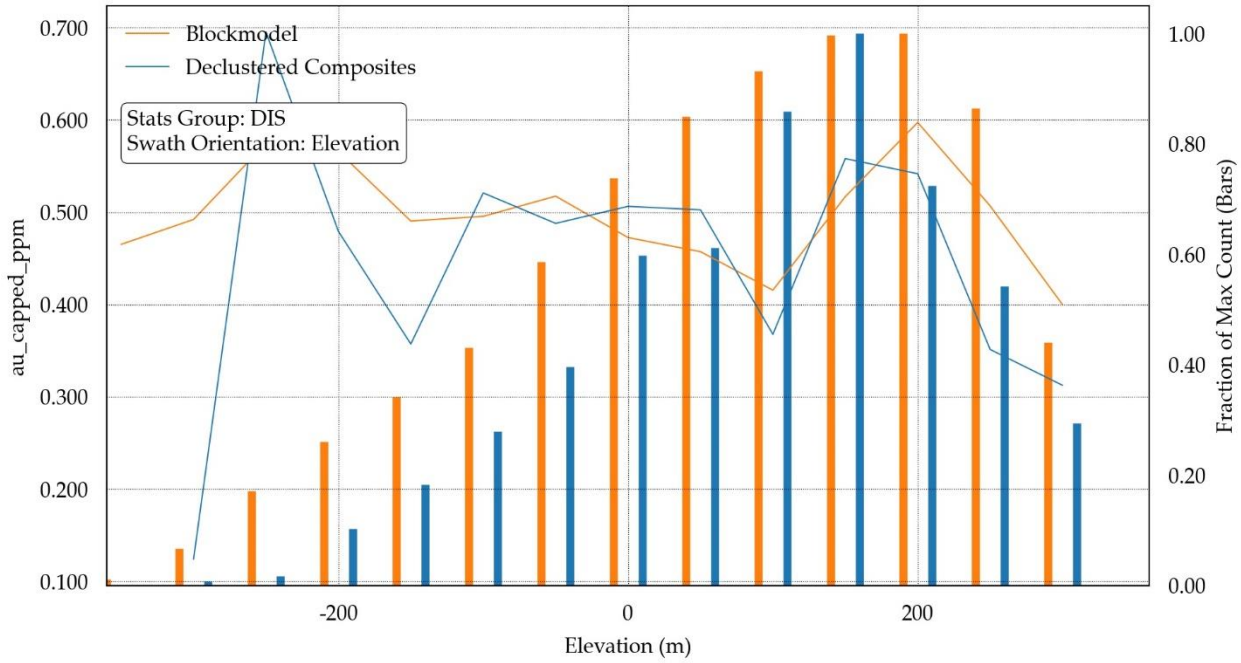
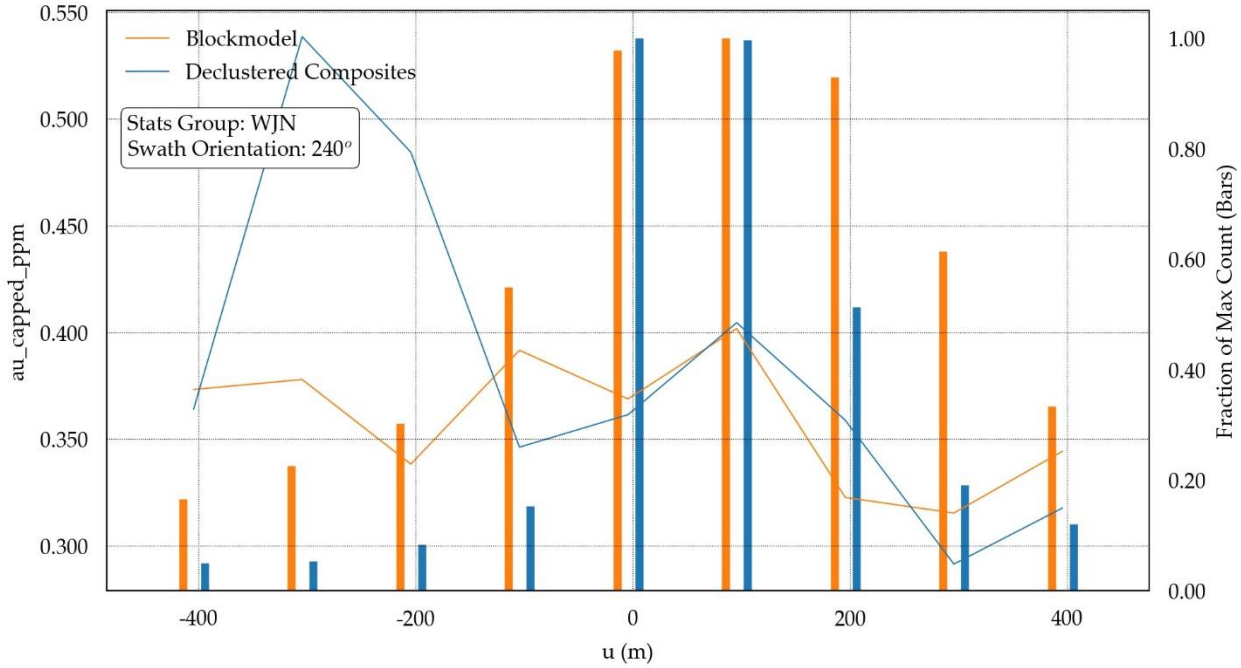
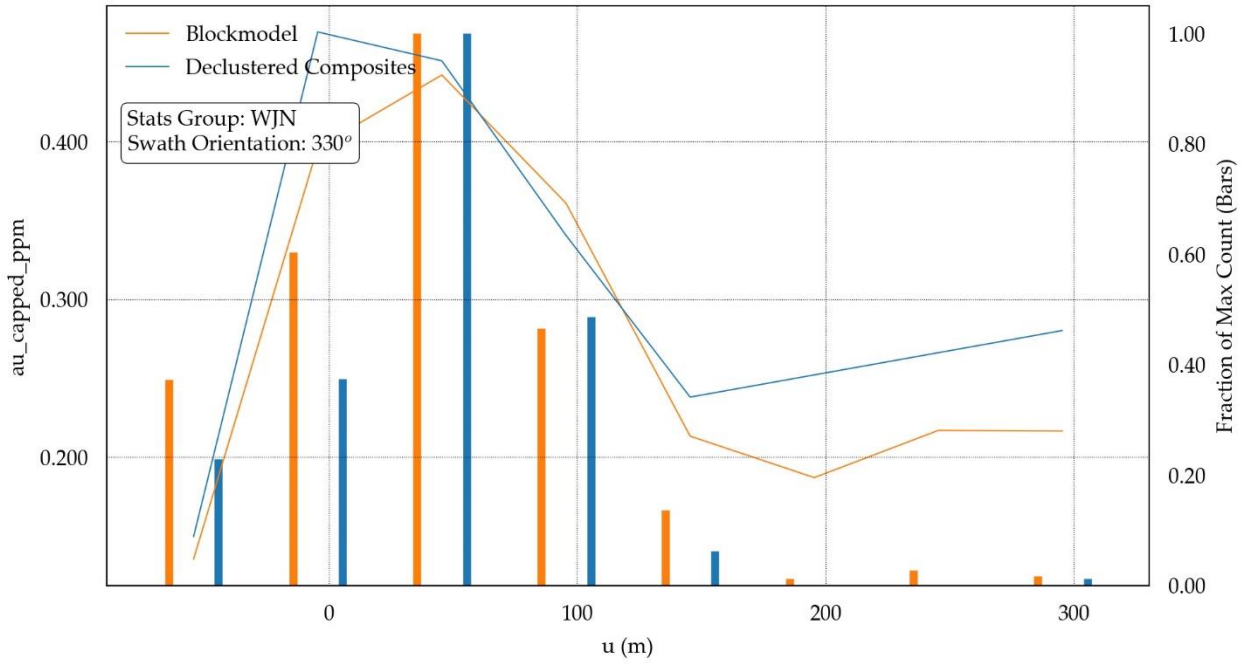


Source: APEX, 2022

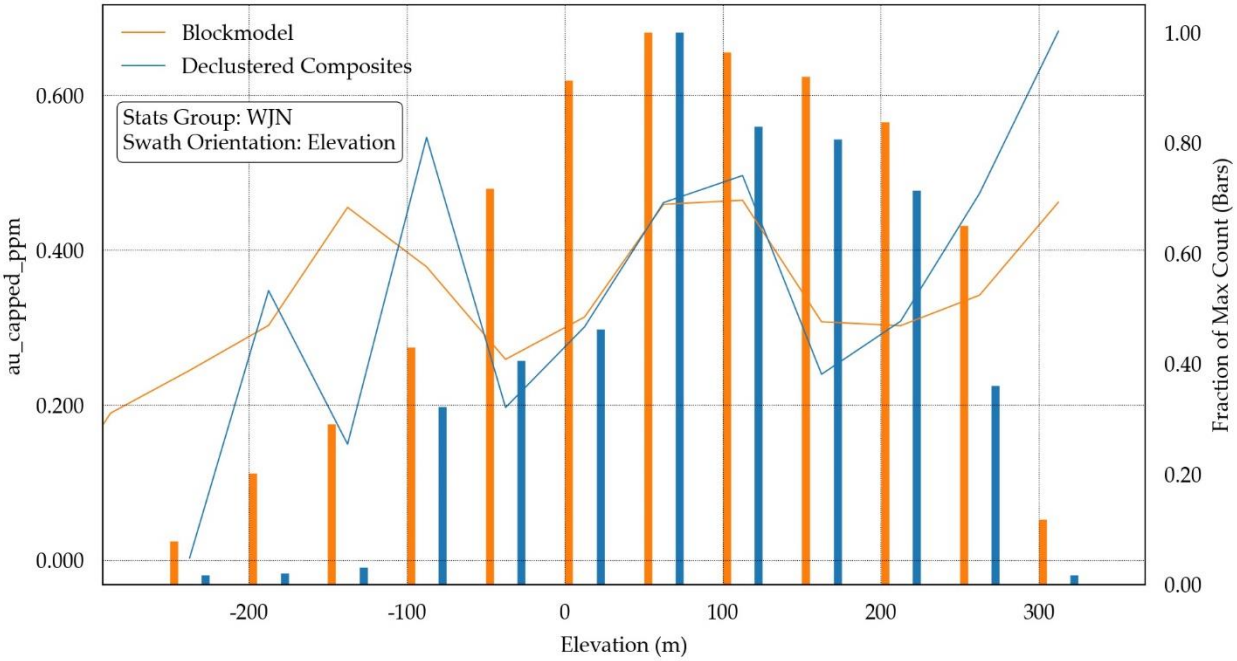
3.5.1.2 Windjammer-North Area



Source: APEX, 2022

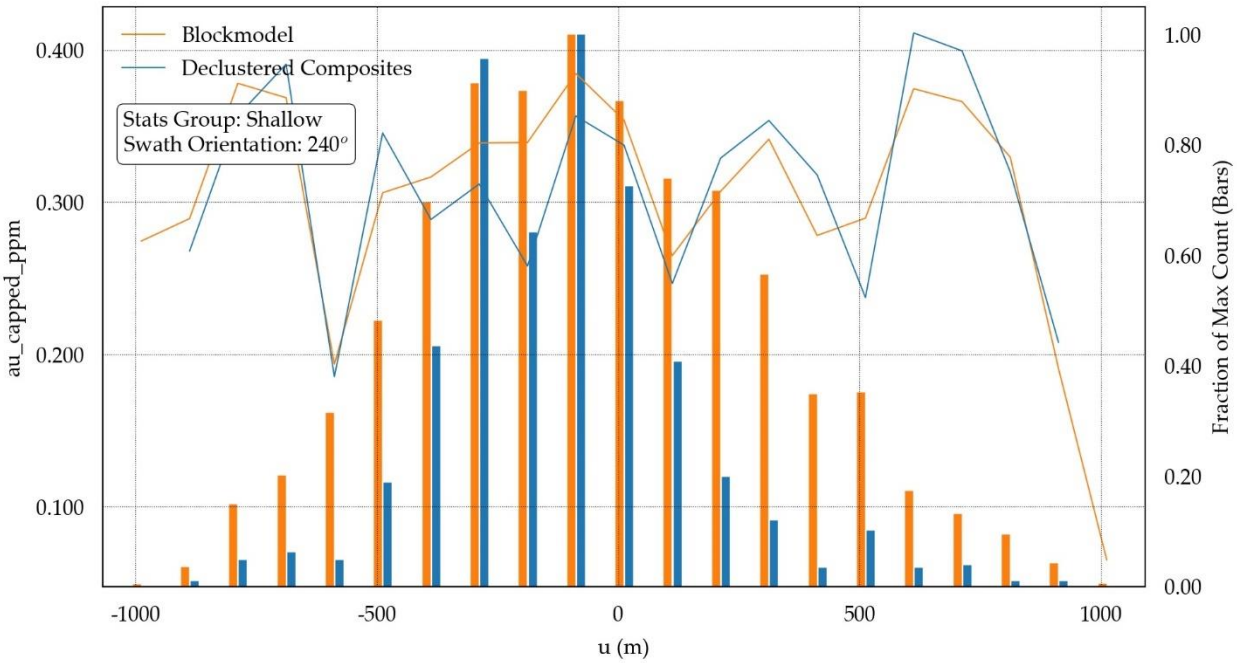


Source: APEX, 2022

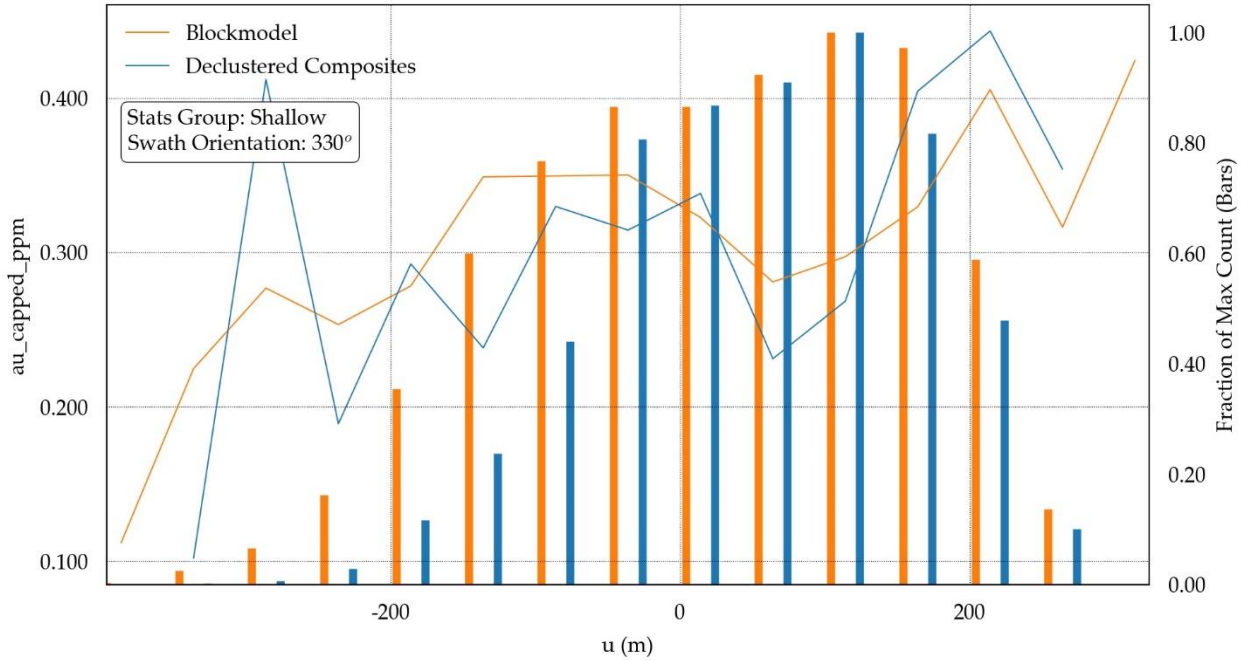


Source: APEX, 2022

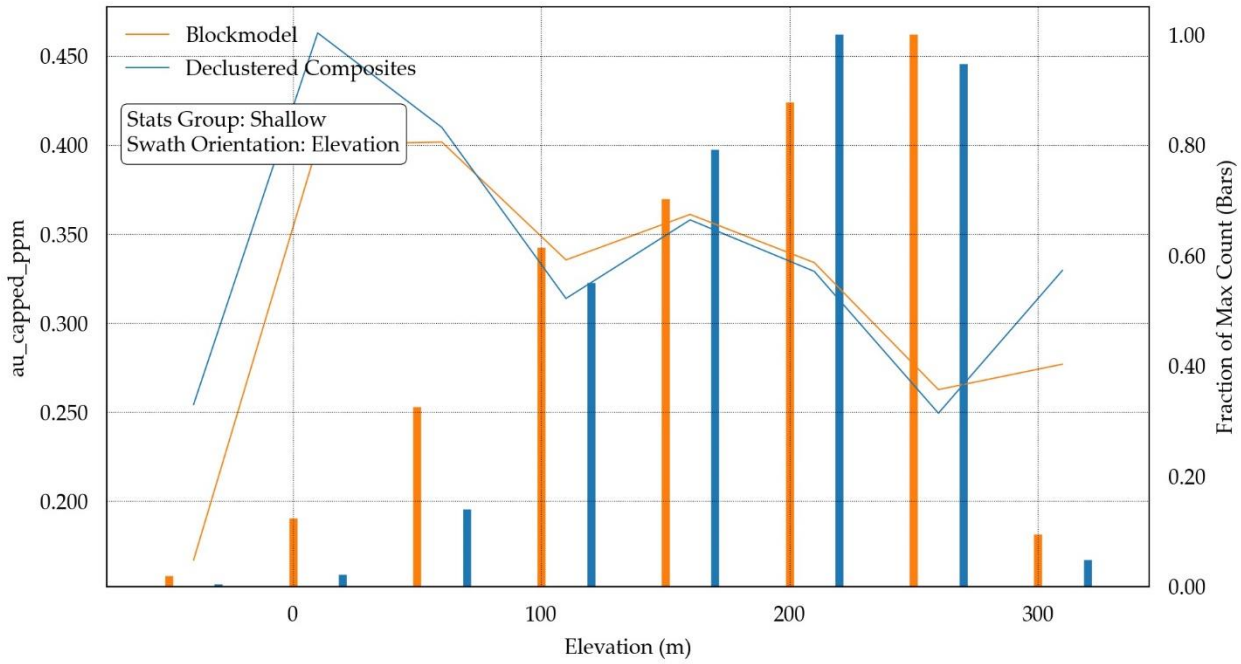
3.5.1.3 Windjammer-Central Area



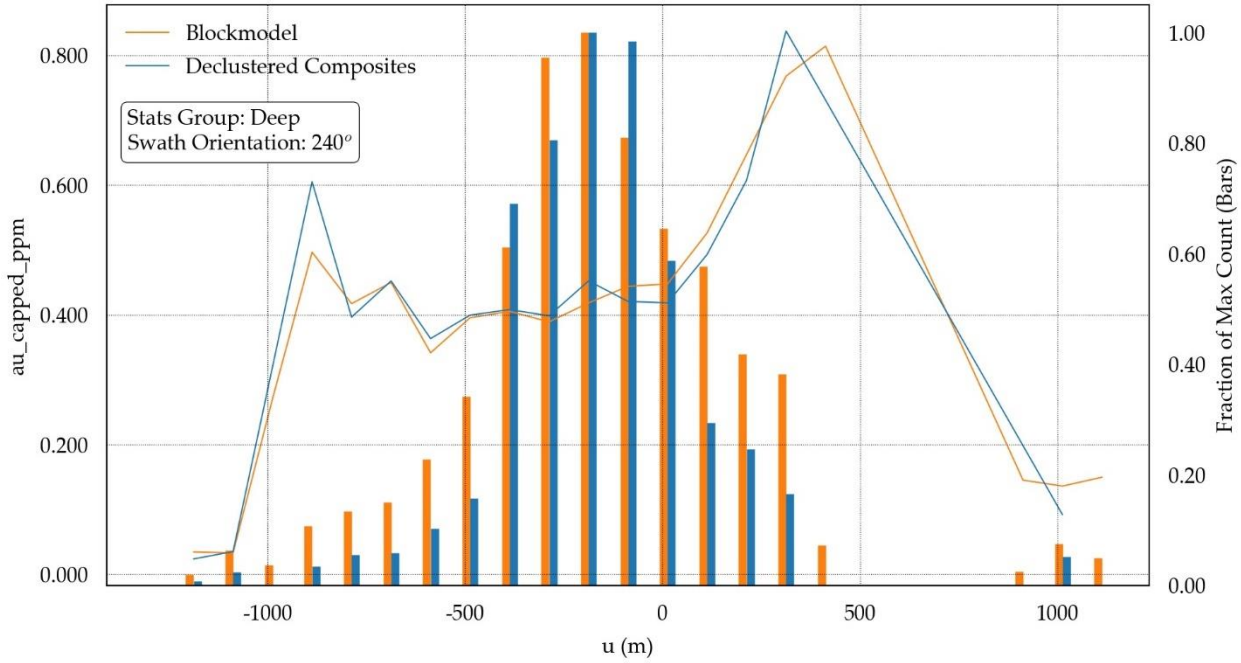
Source: APEX, 2022



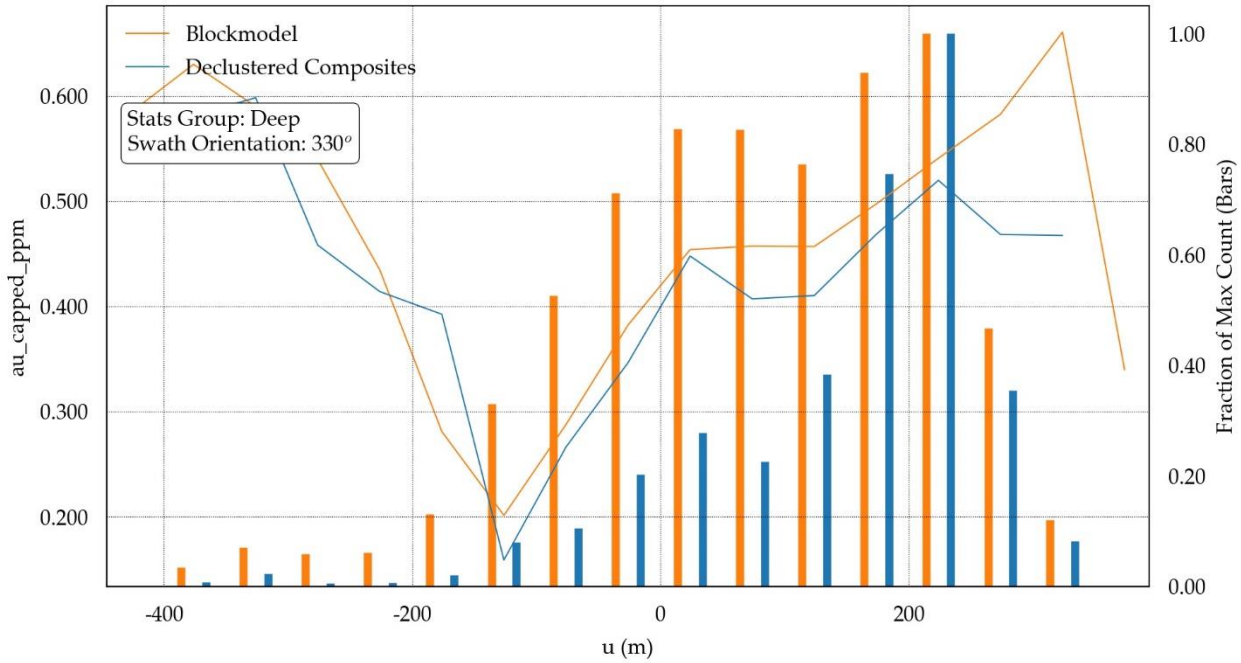
Source: APEX, 2022



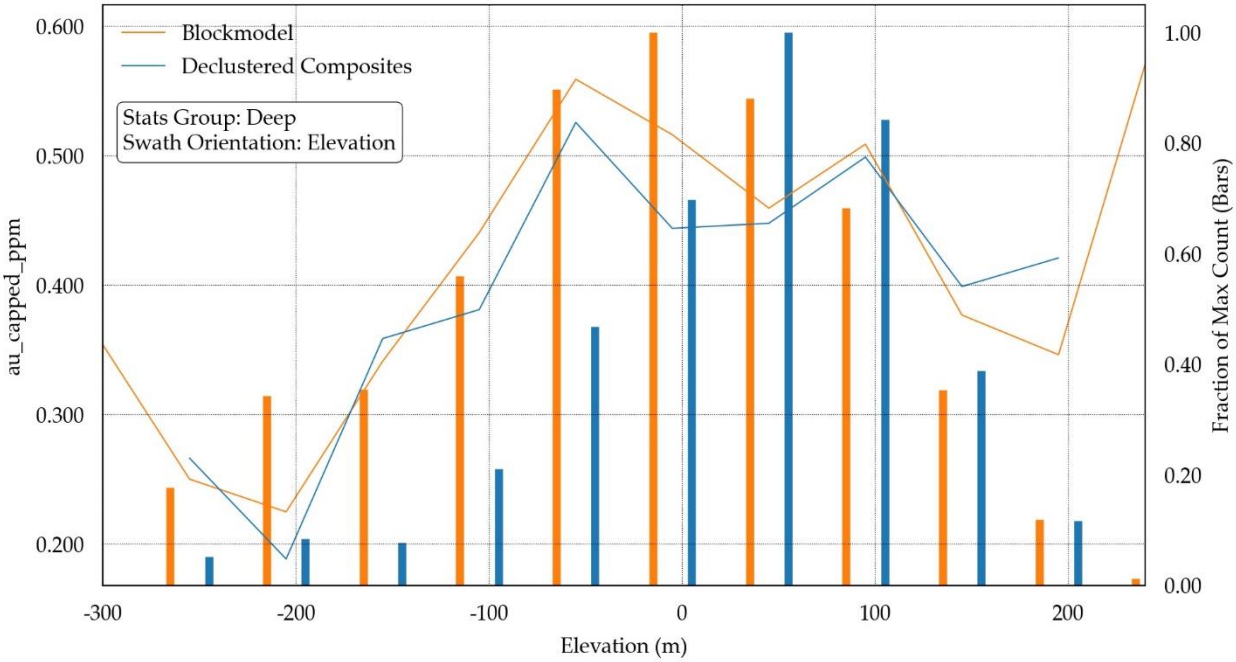
Source: APEX, 2022



Source: APEX, 2022

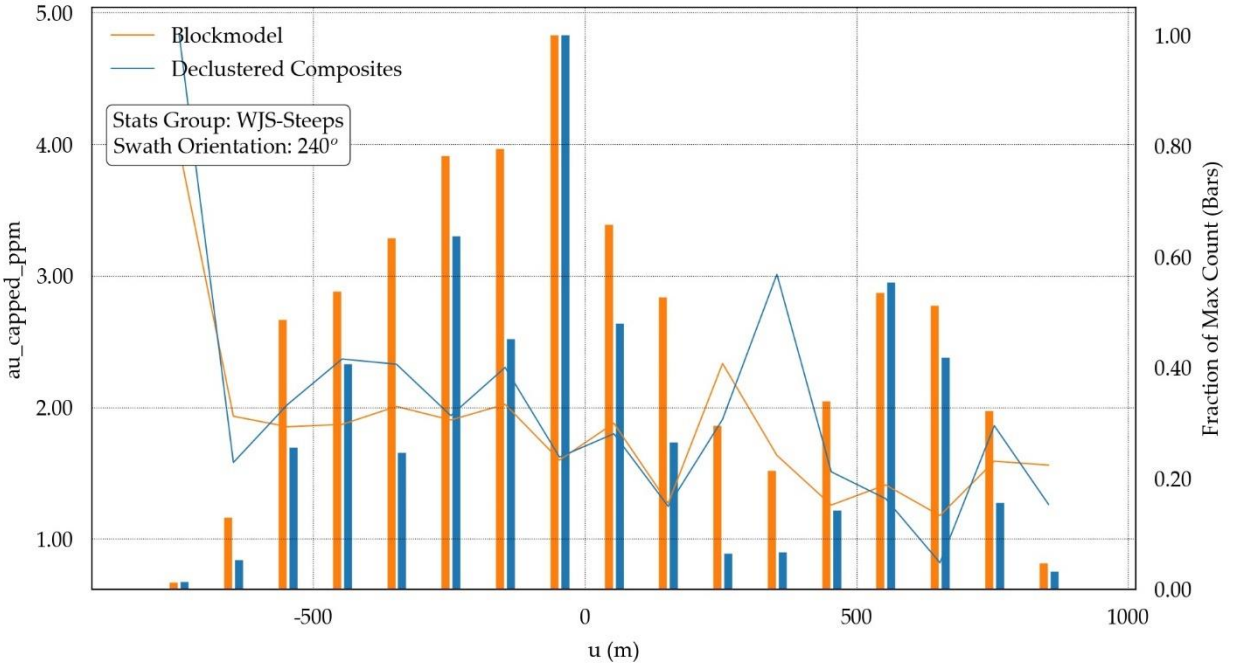


Source: APEX, 2022

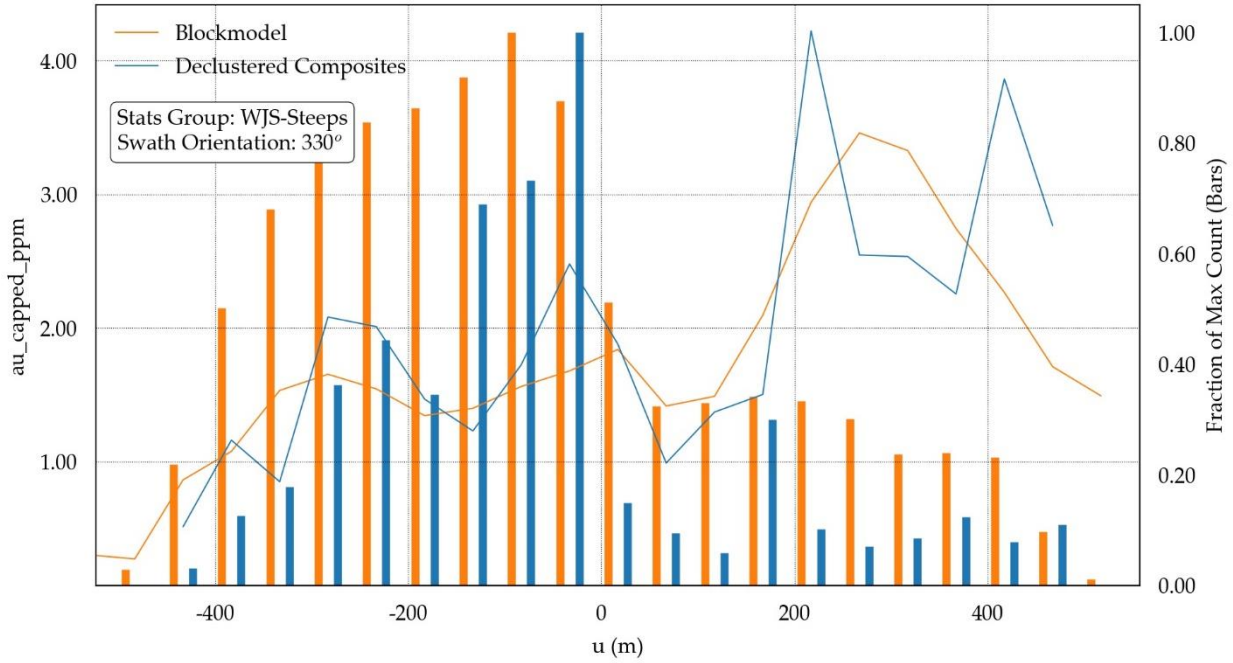


Source: APEX, 2022

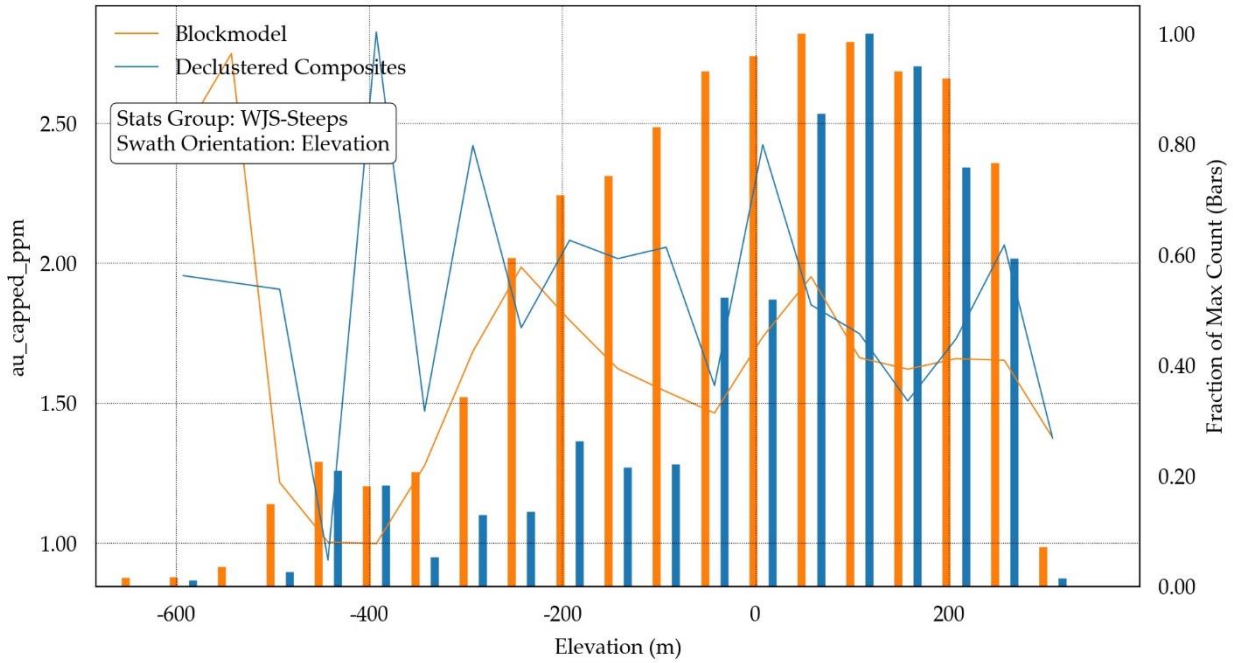
3.5.1.4 Windjammer-South Area



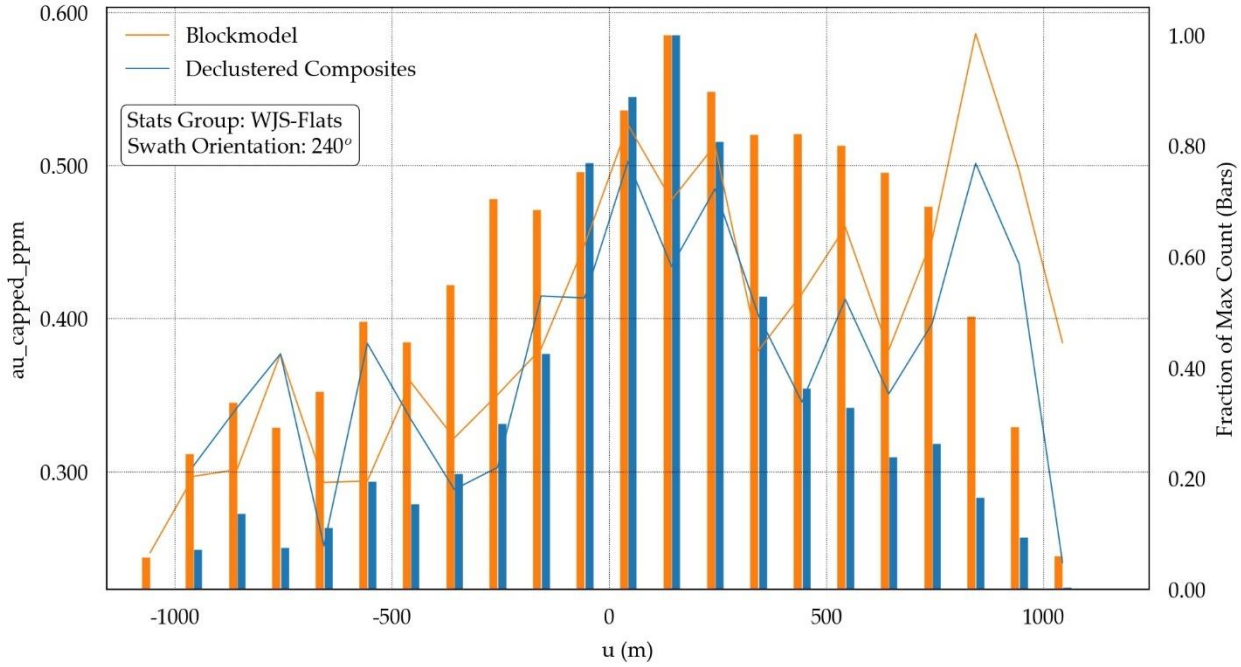
Source: APEX, 2022



Source: APEX, 2022



Source: APEX, 2022



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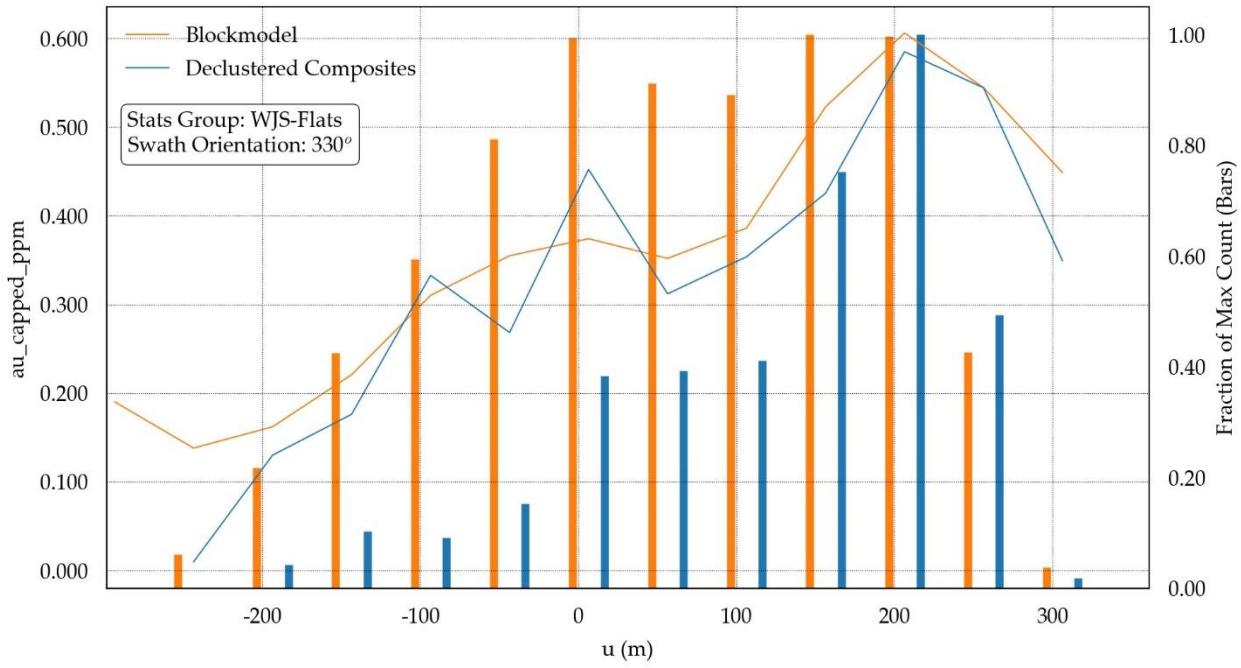

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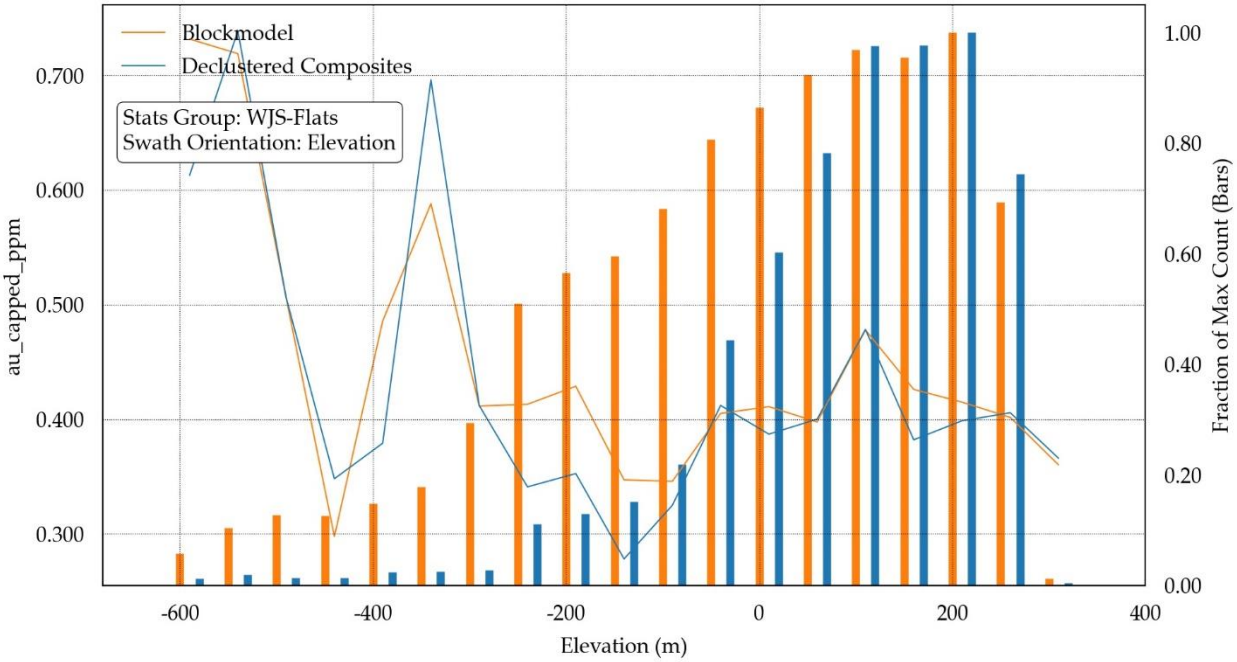
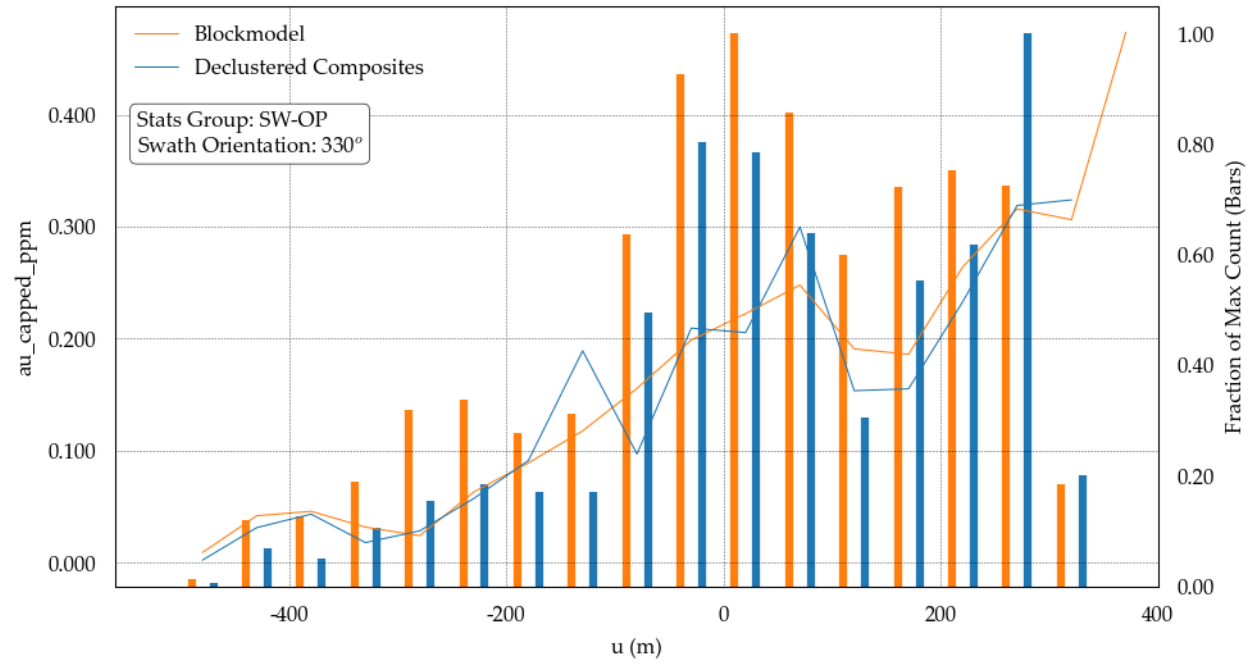


Source: APEX, 2022

3.5.1.5 South West Area



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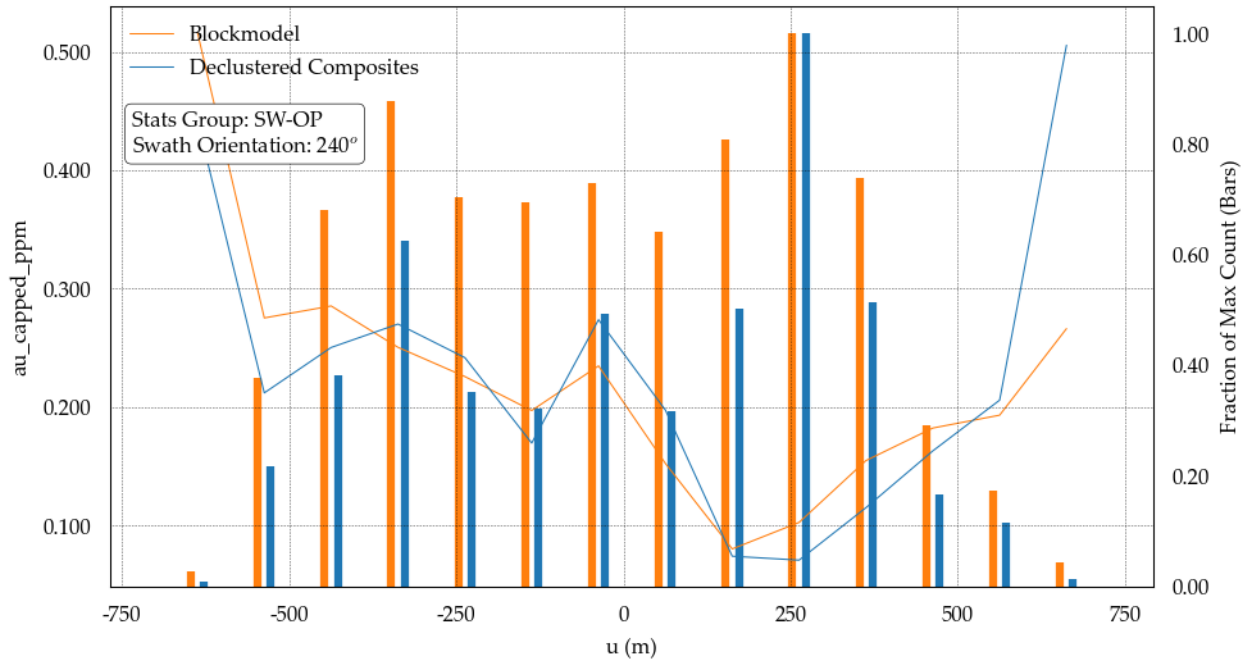

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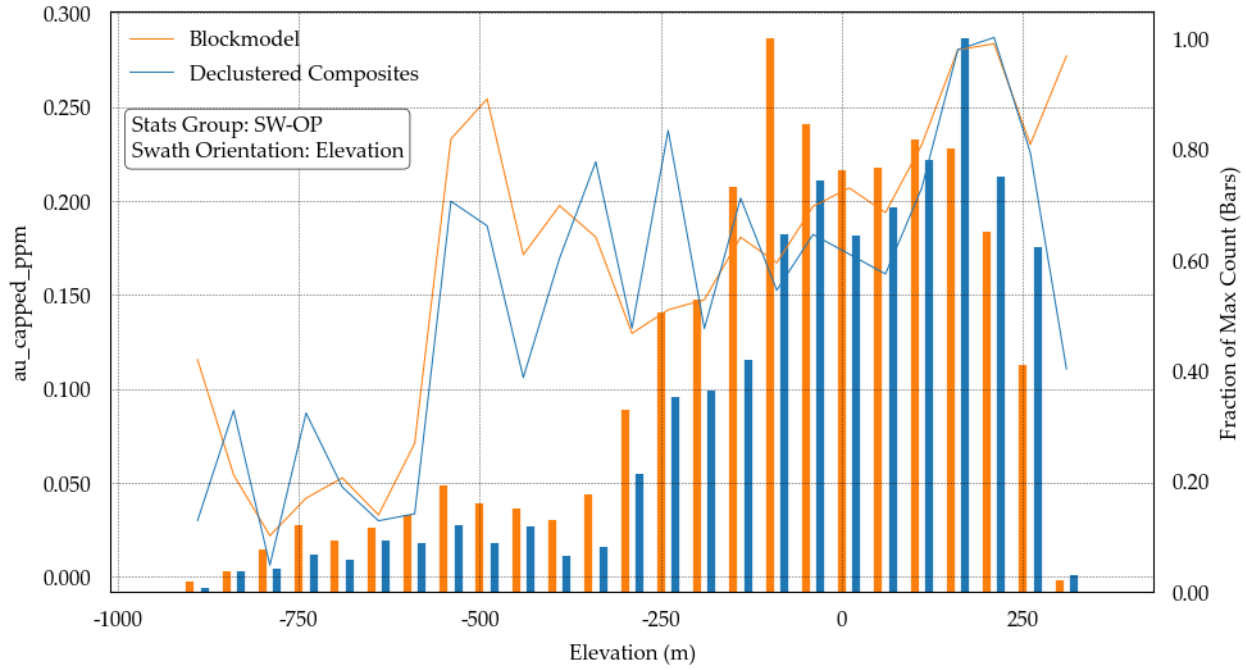

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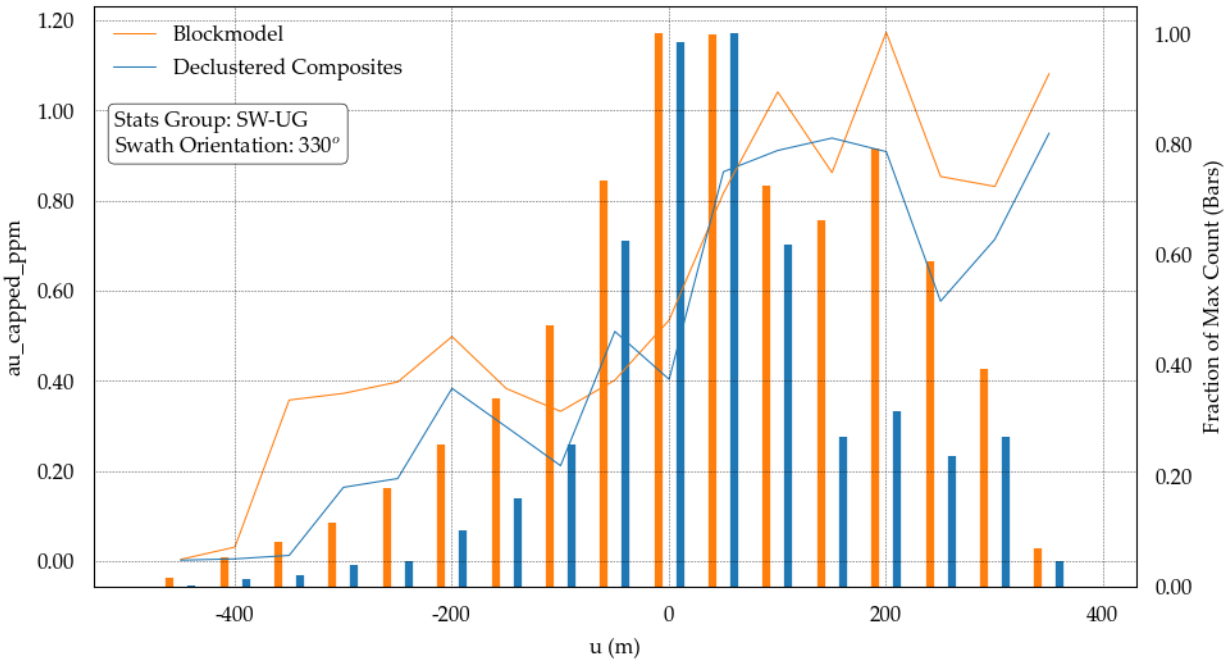

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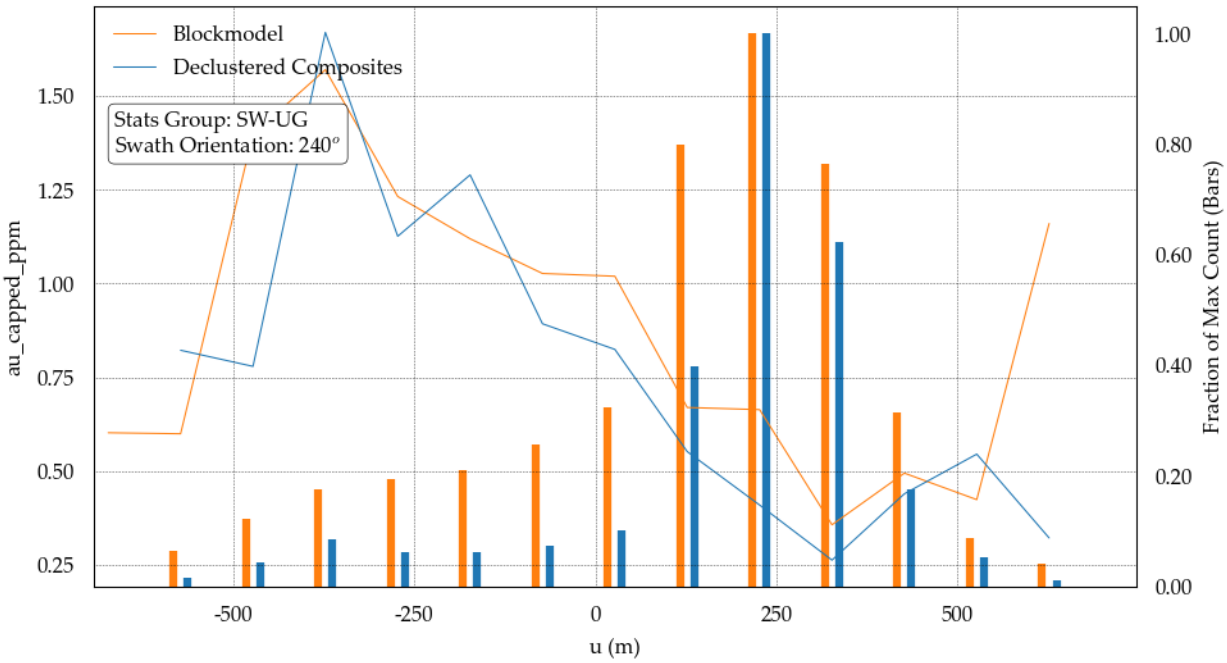

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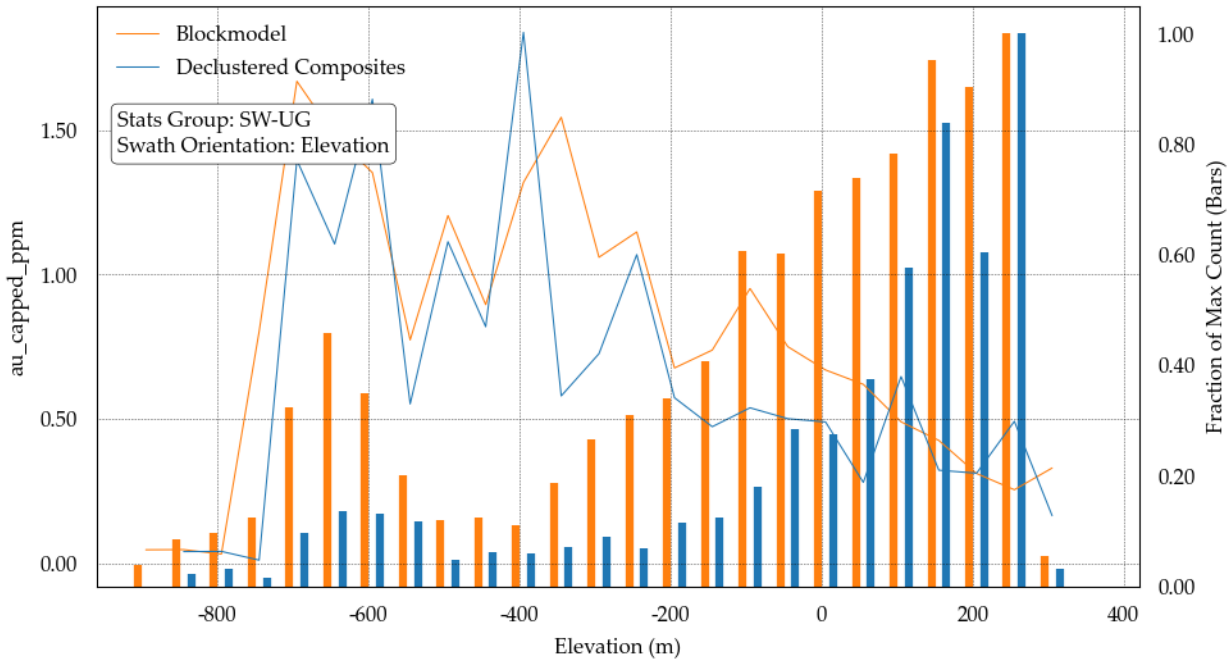

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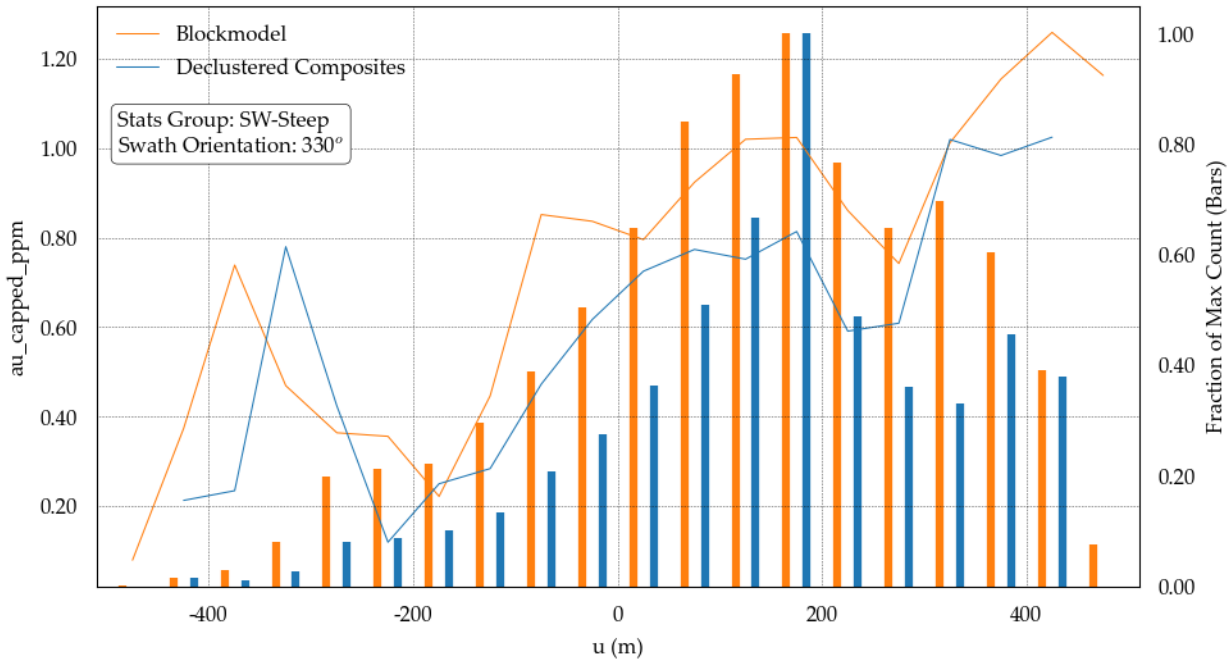
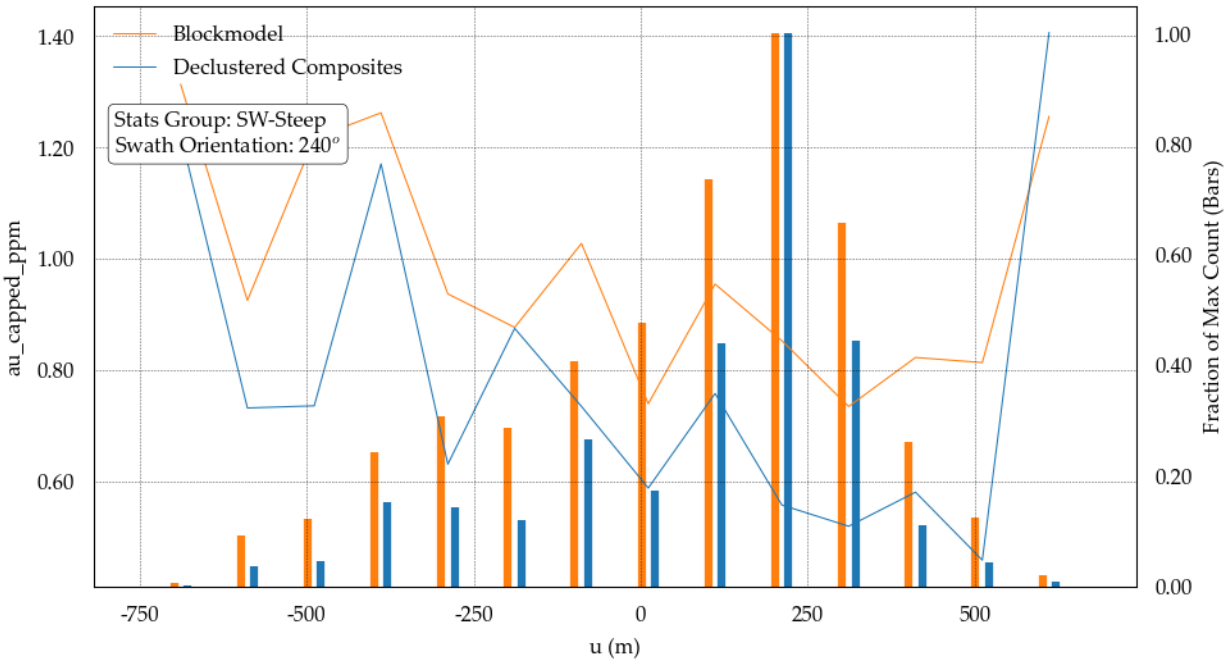


Source: APEX, 2022



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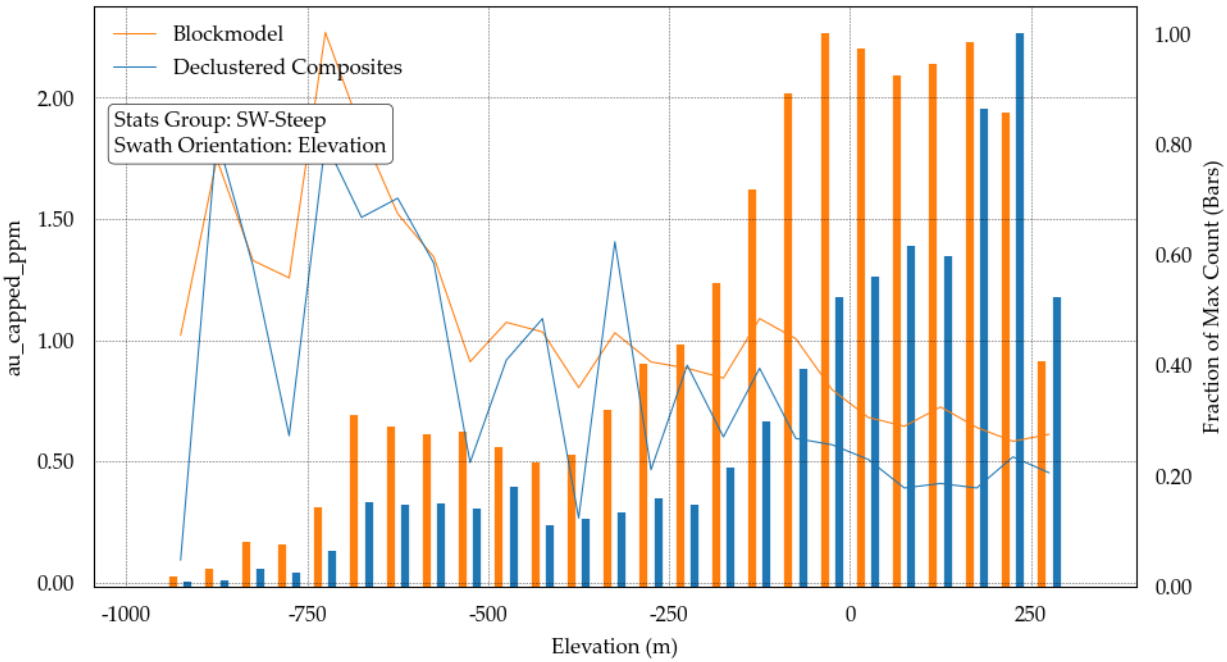

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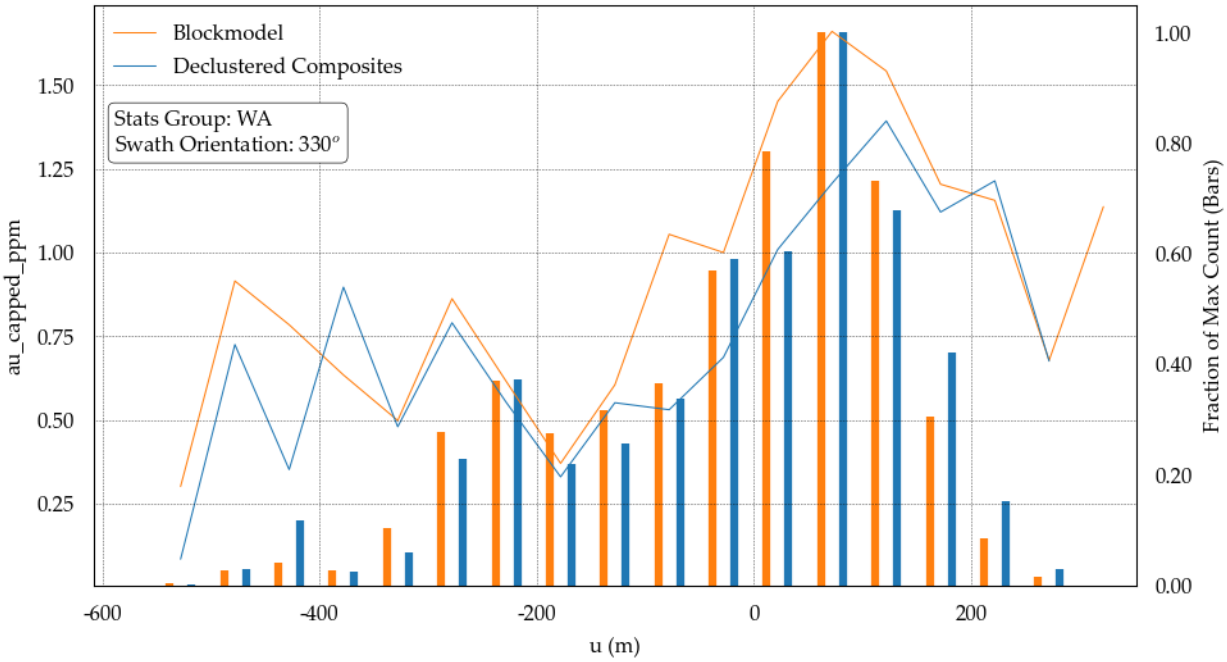
3.5.1.6 Westaway Area



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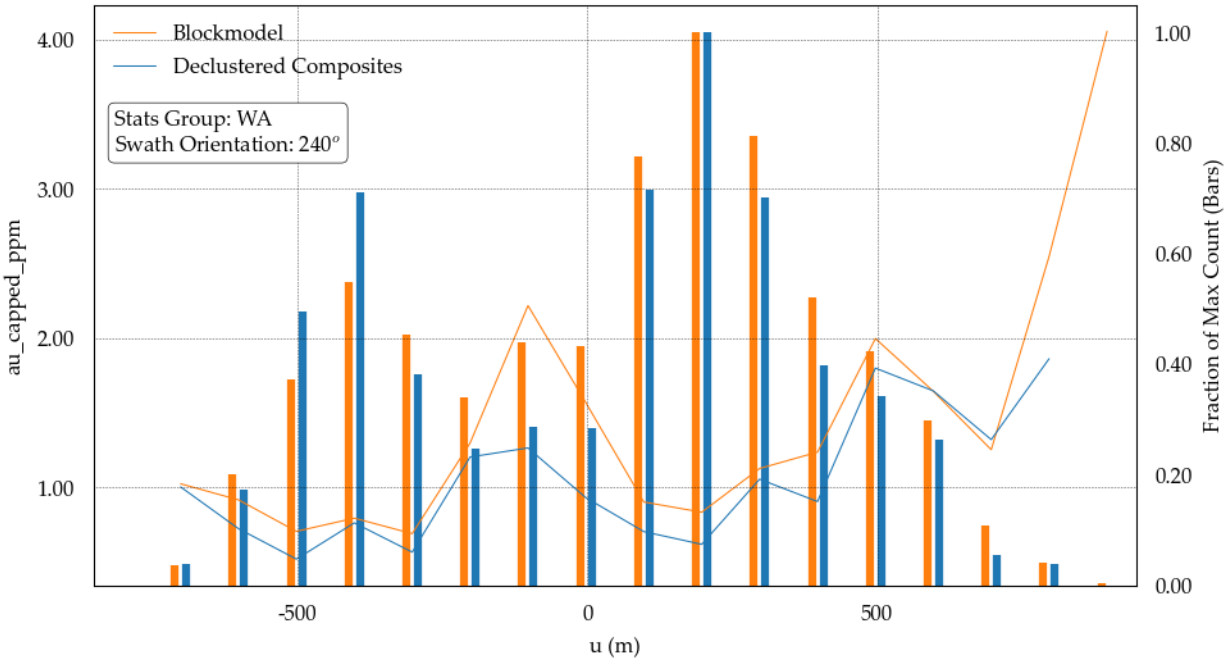

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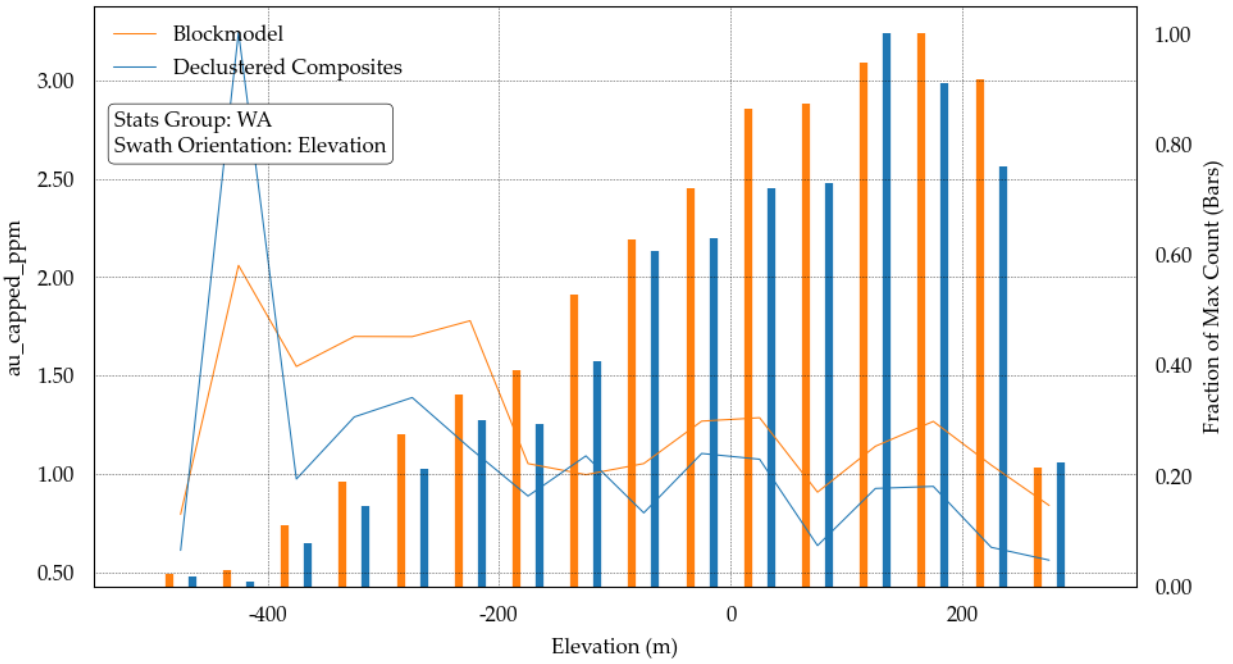

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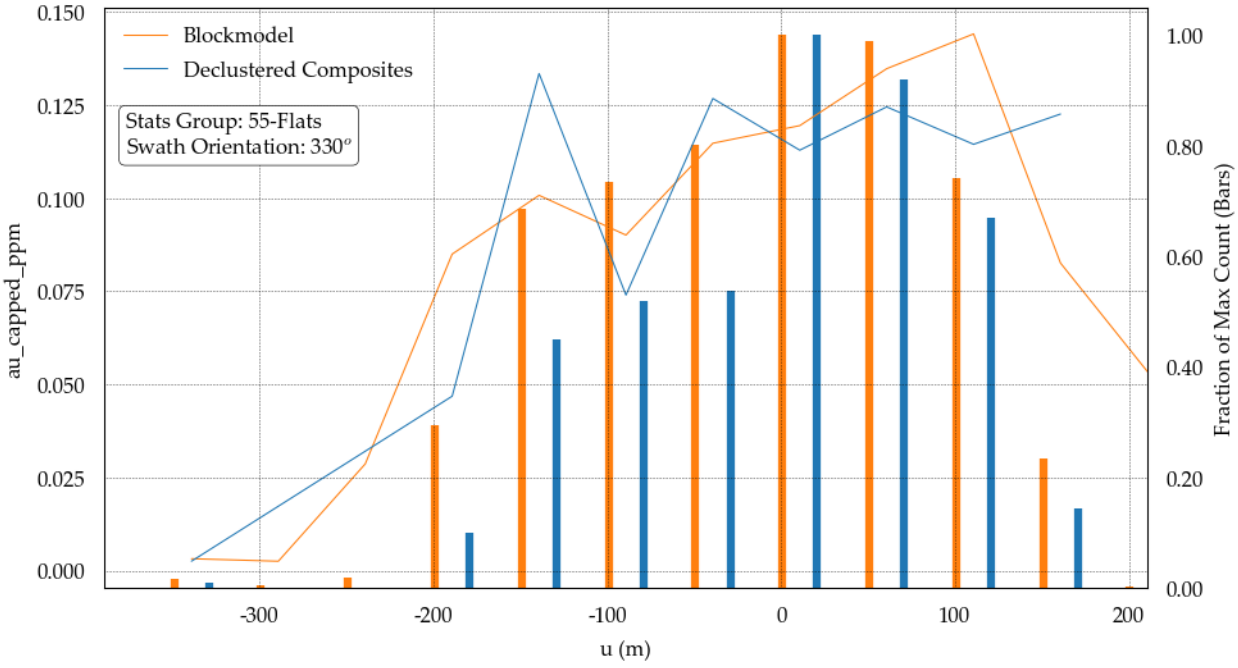
3.5.1.7 55 Area



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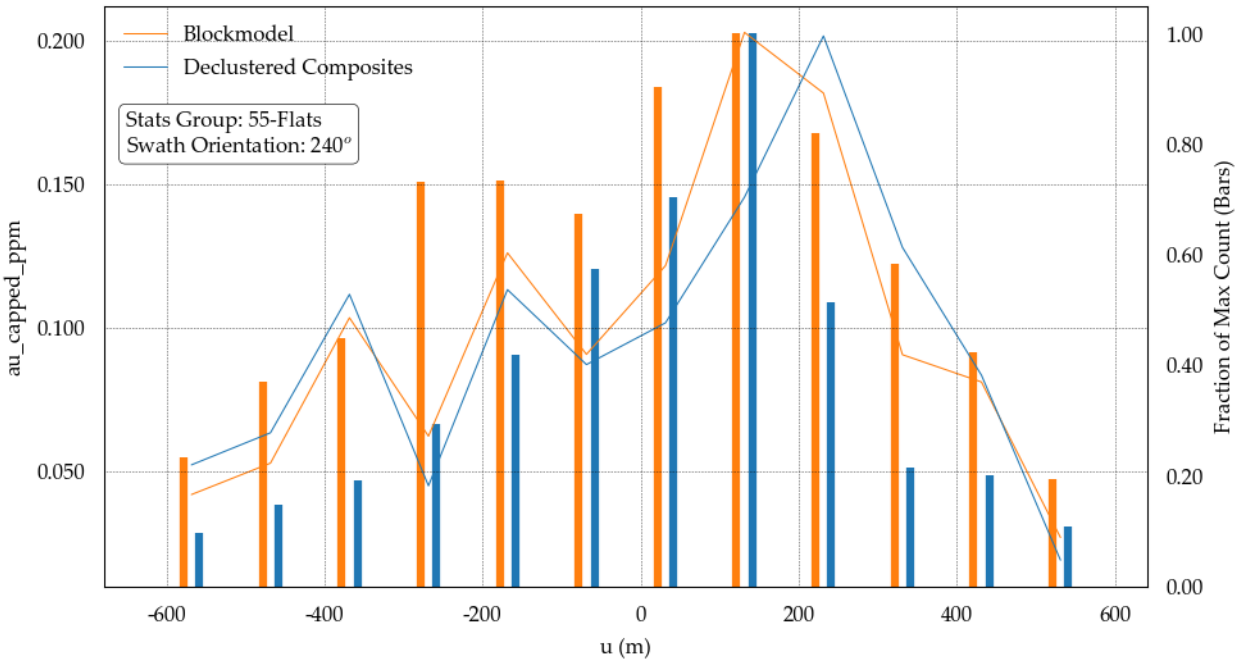

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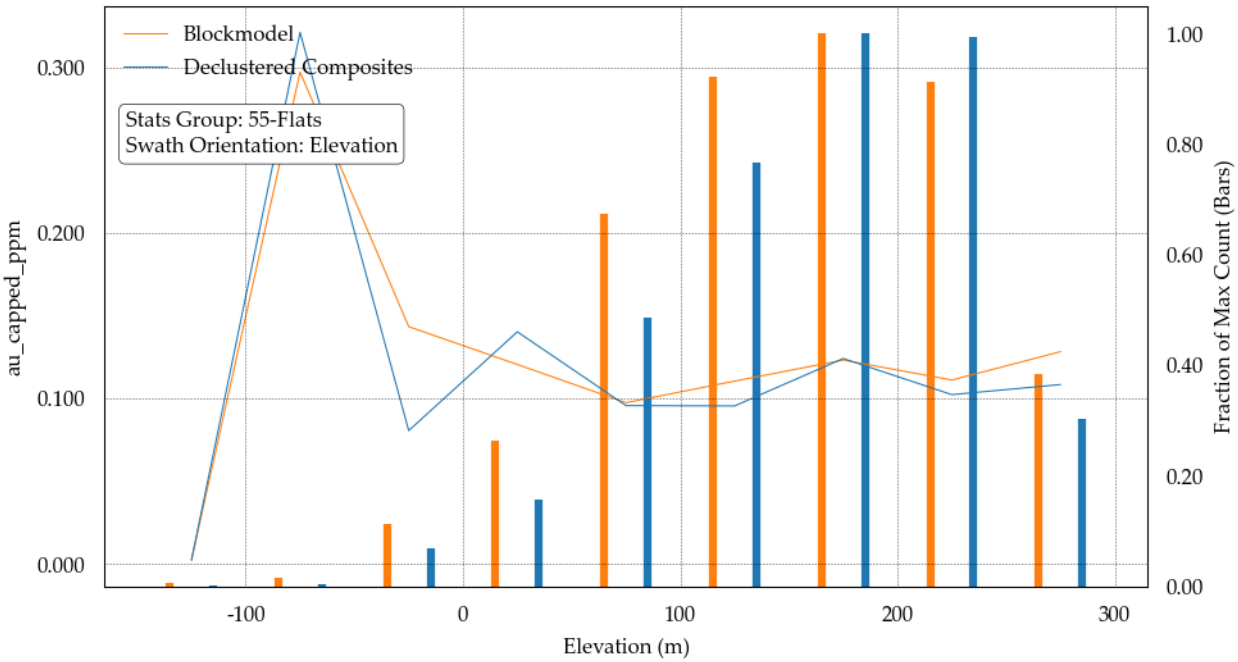

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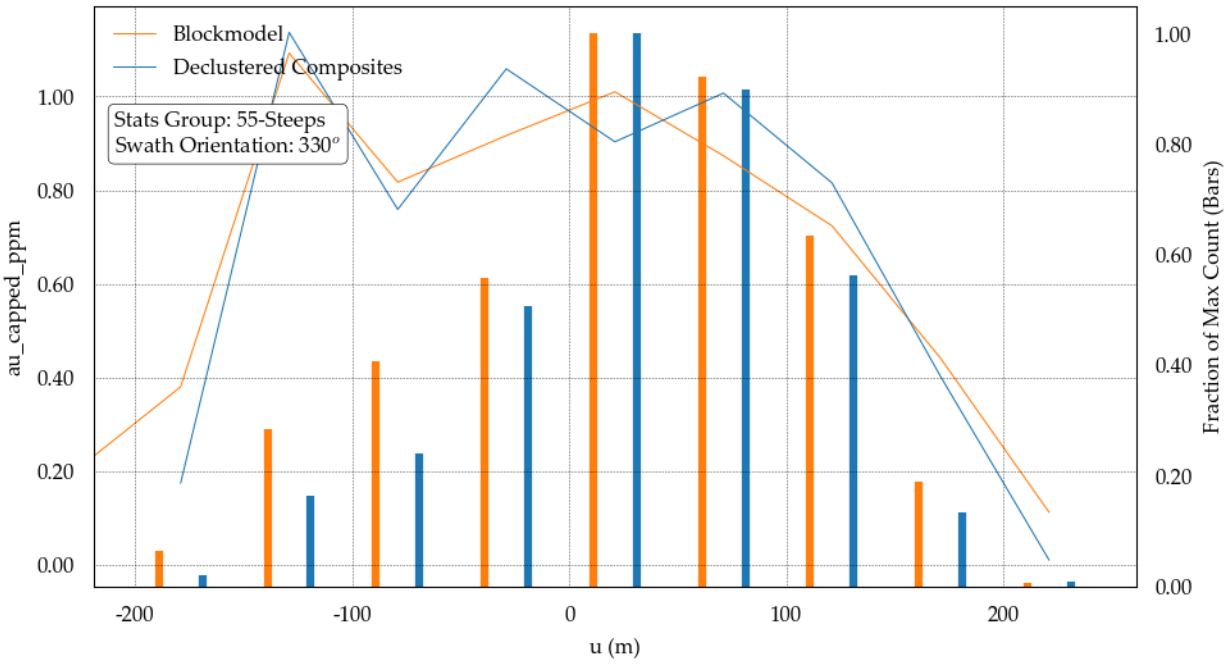

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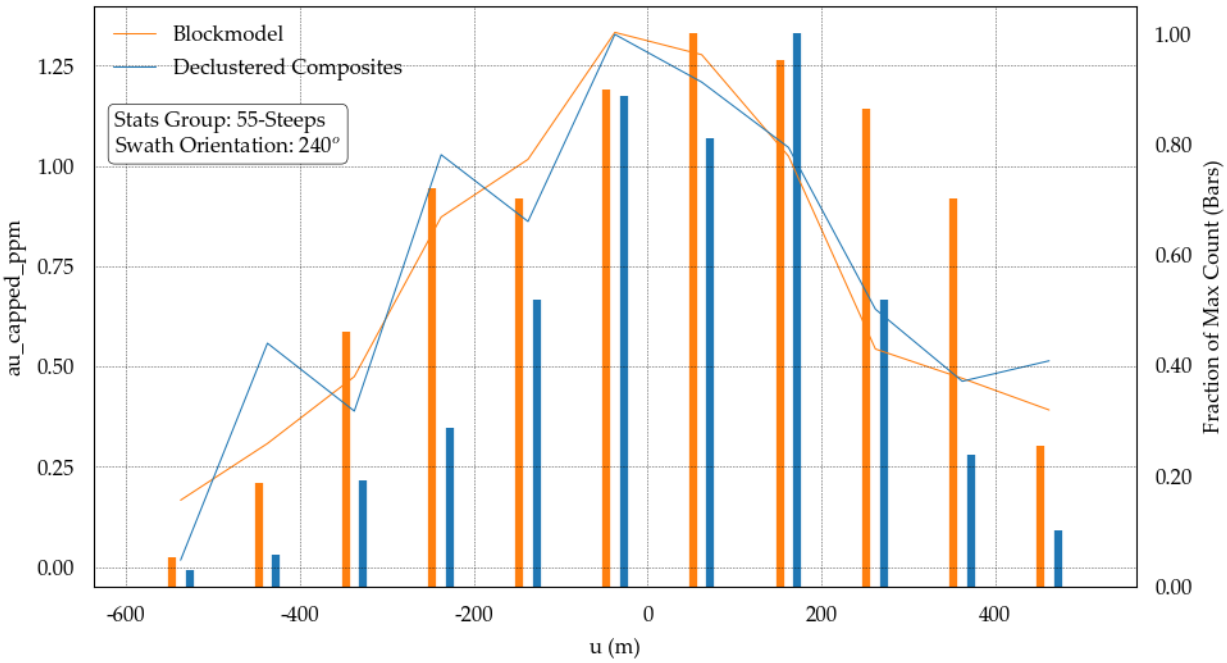

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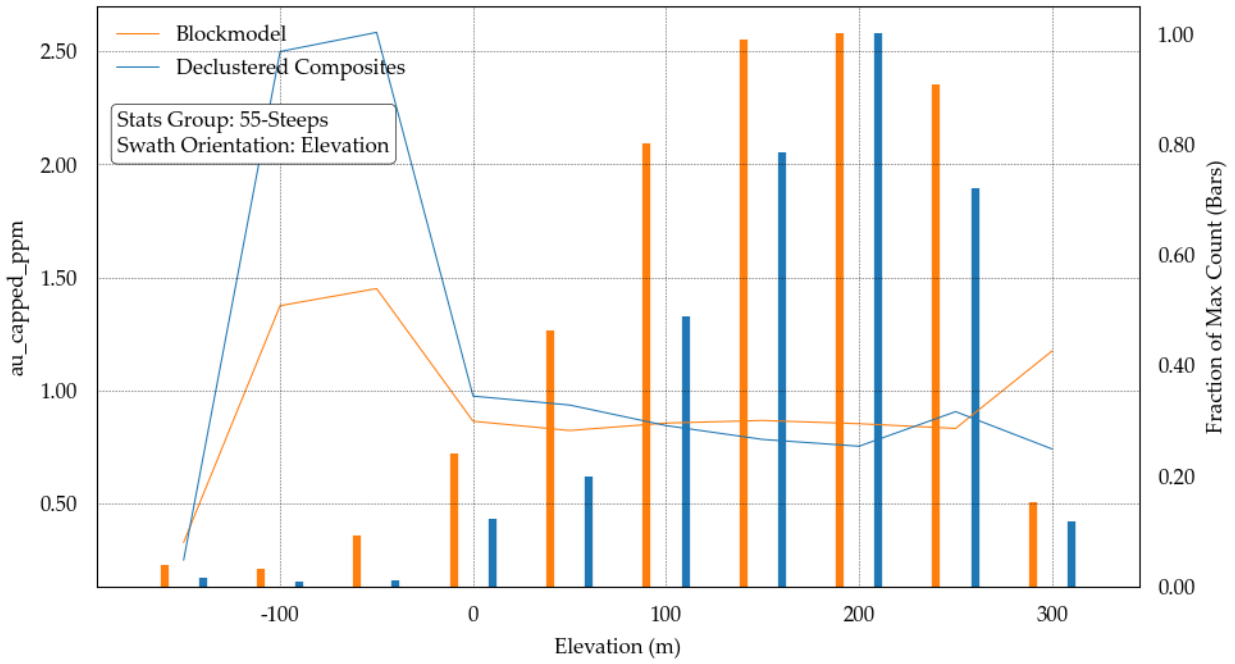

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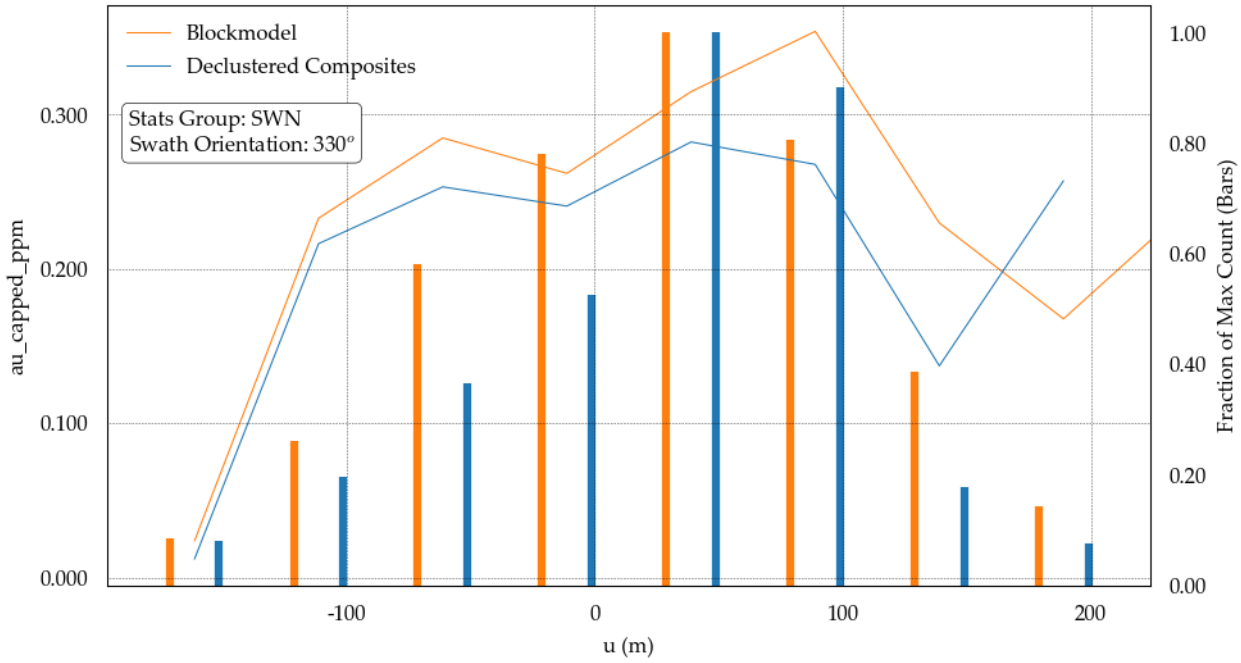
3.5.1.8 South West North



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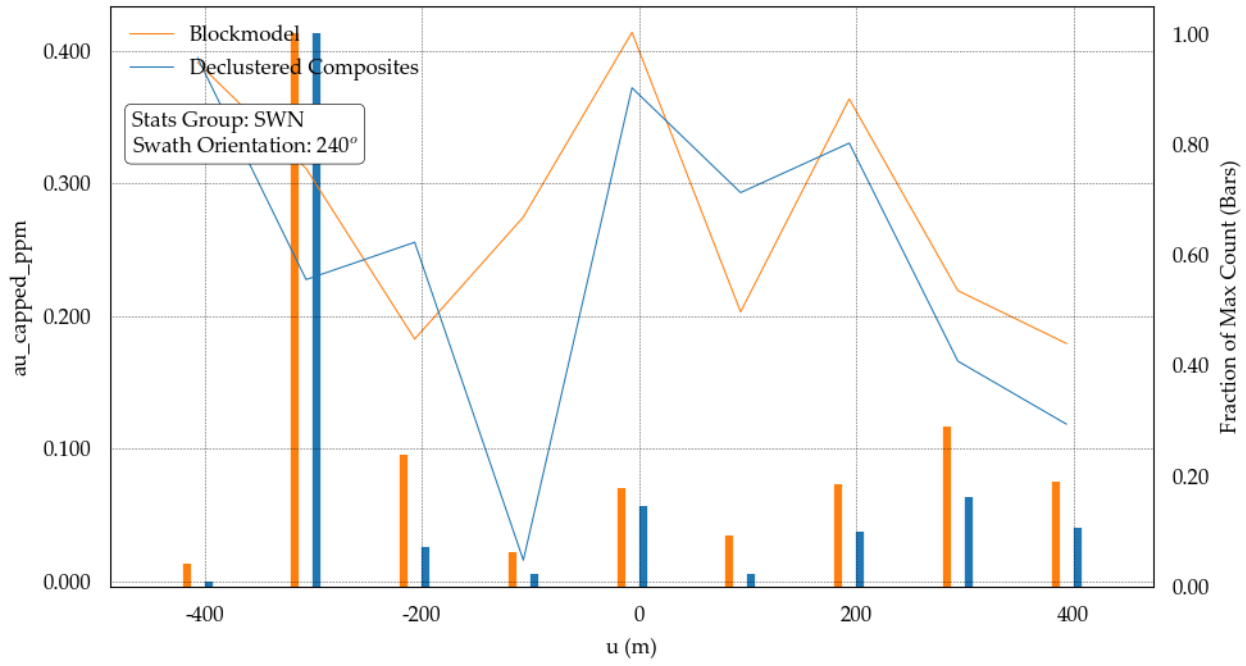

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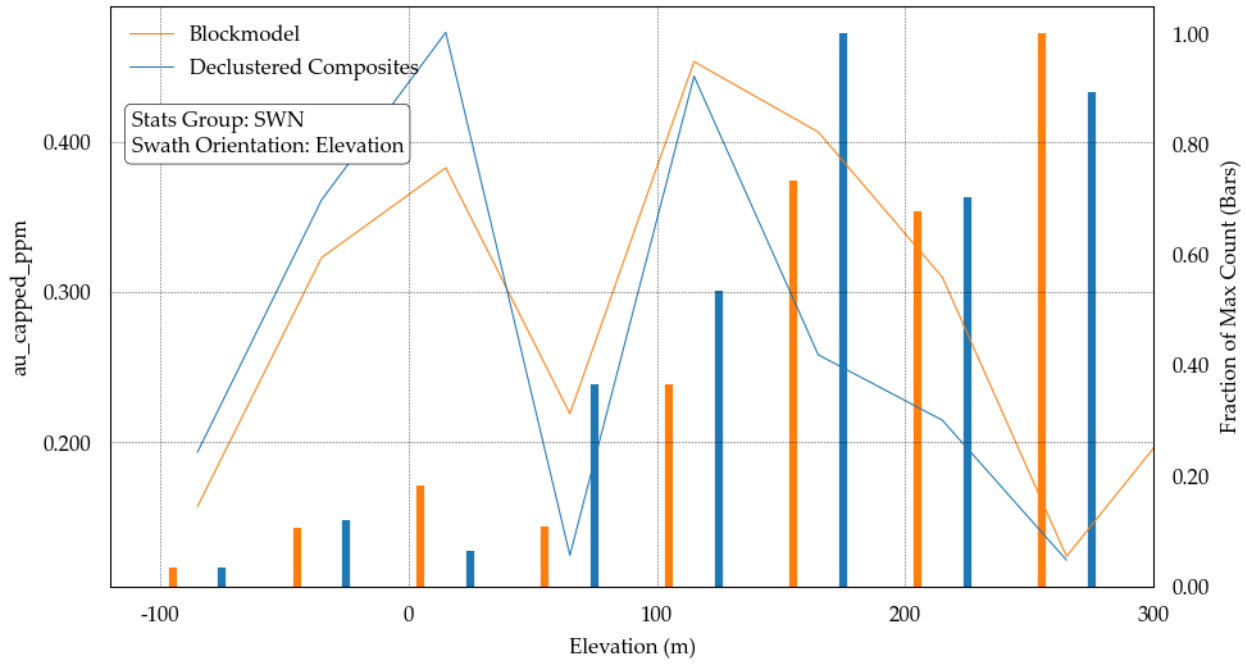

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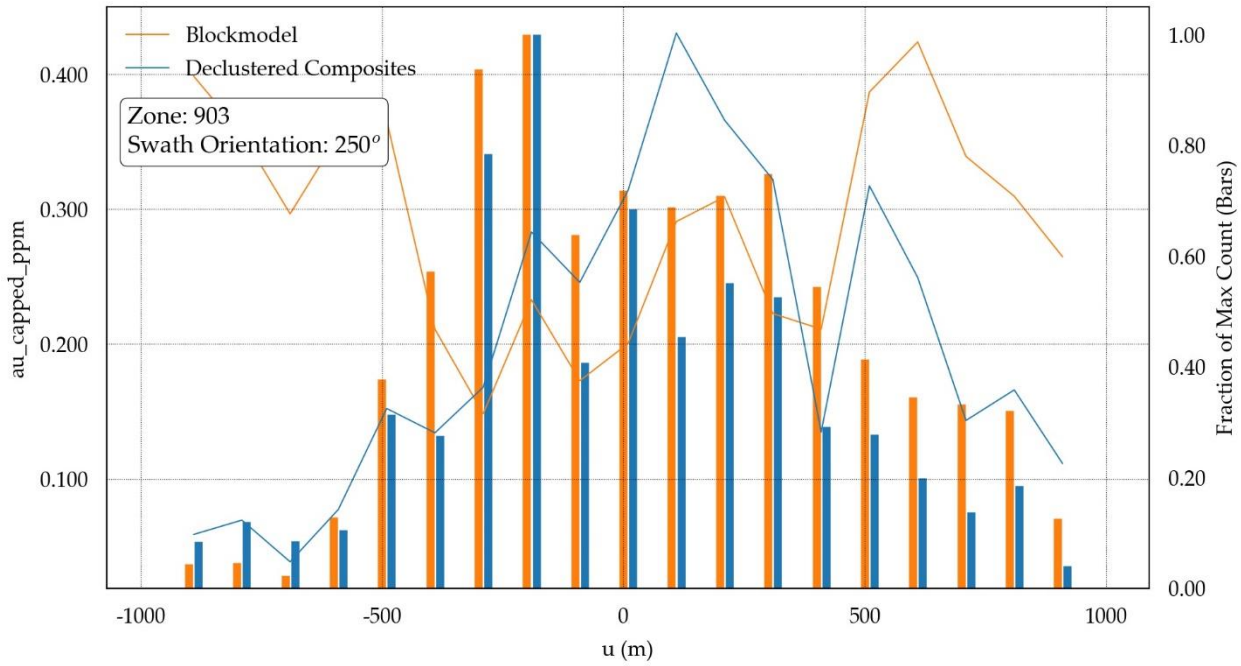
3.5.1.9 903



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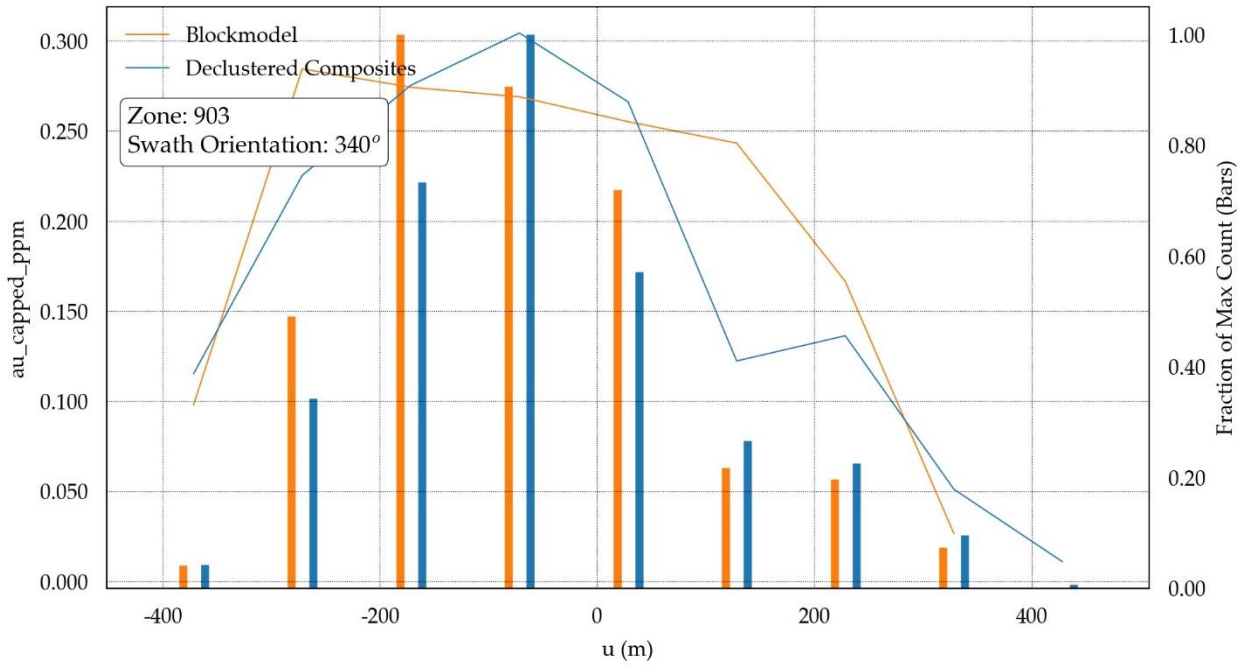

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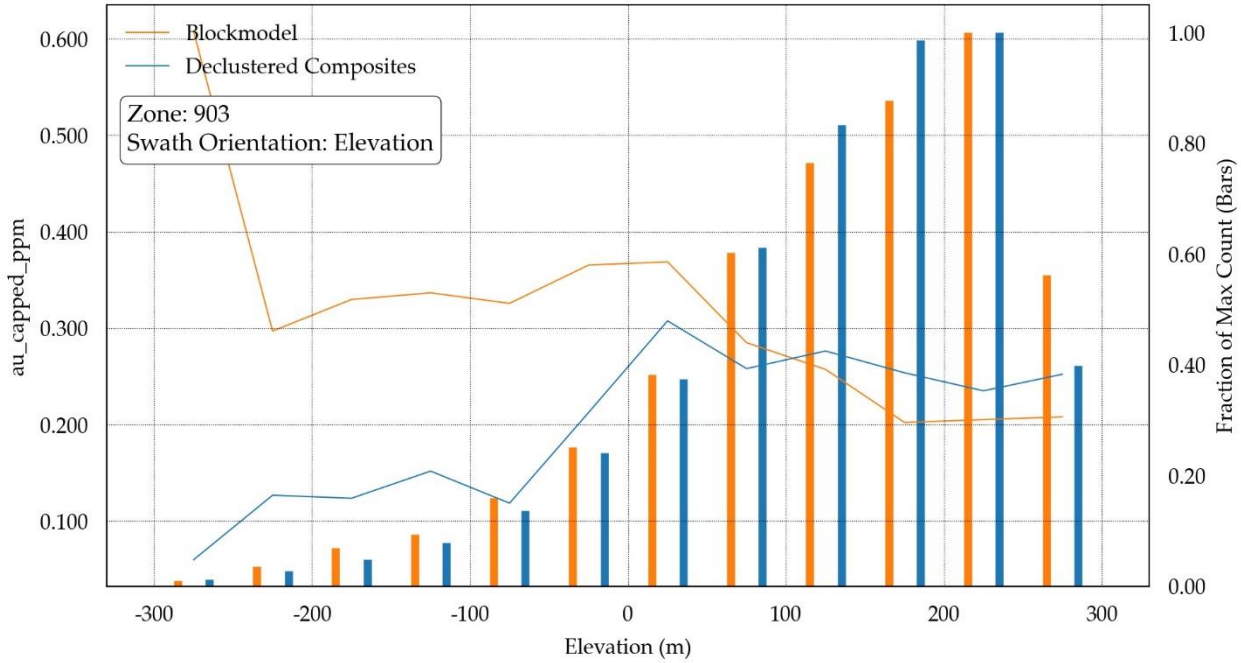

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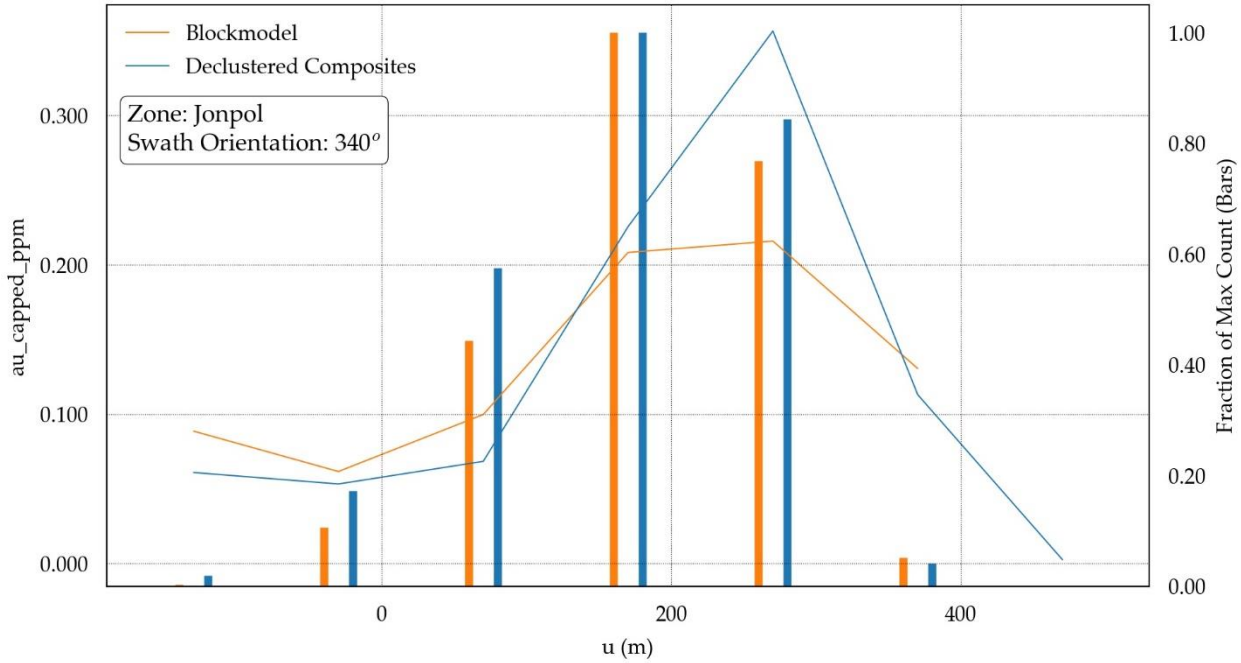
3.5.1.10 Jonpol Area



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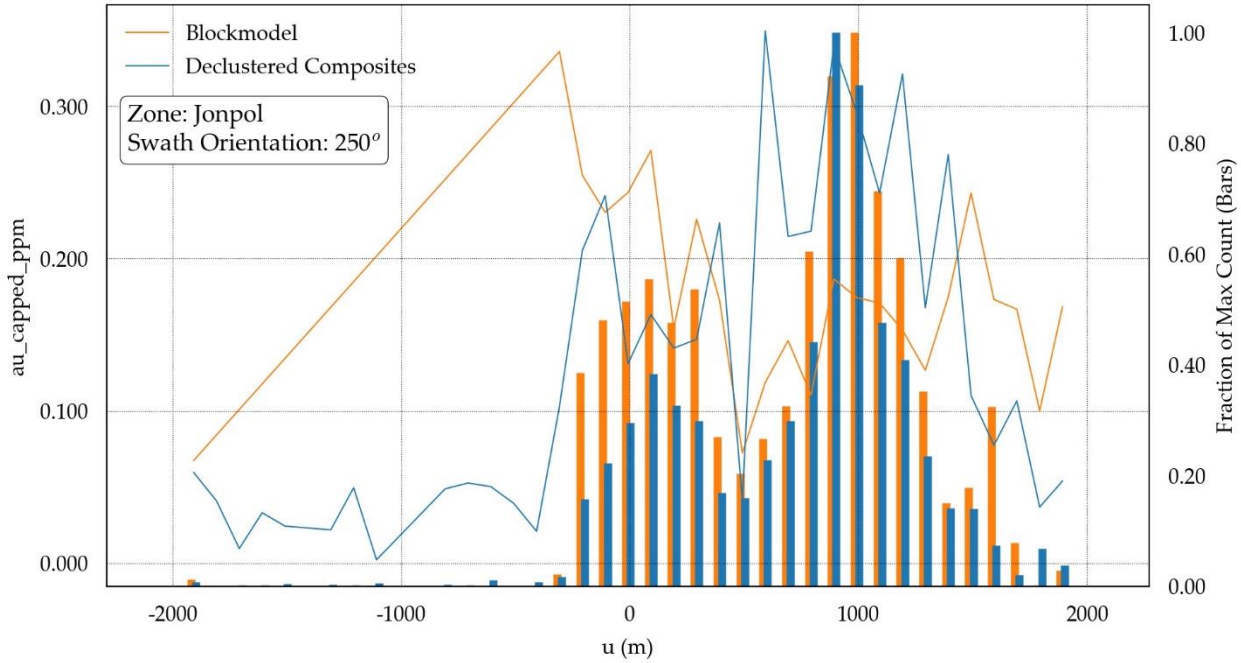

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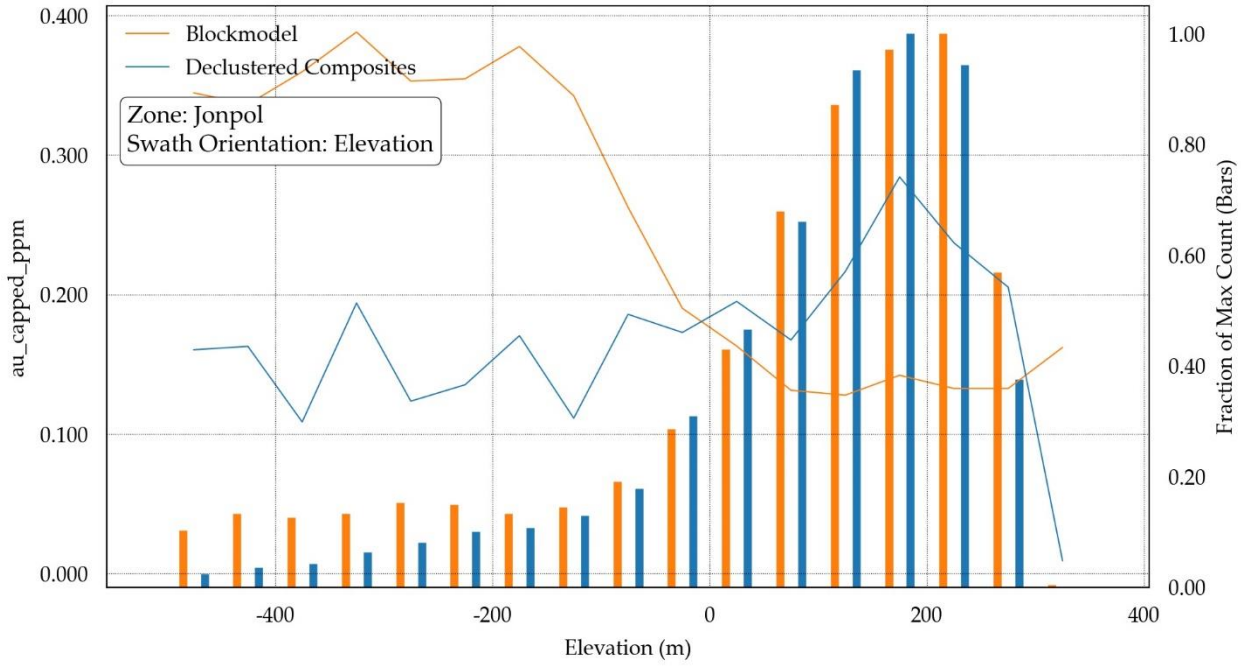
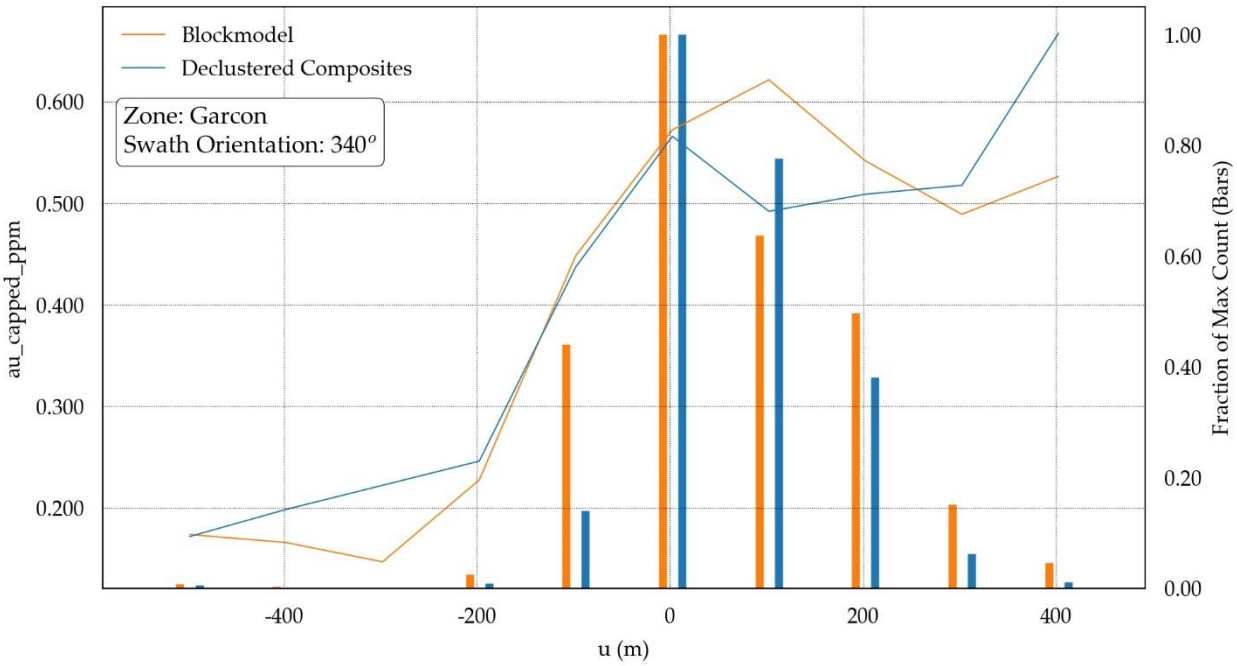


Source: APEX, 2022

3.5.1.11 Garrcon Area



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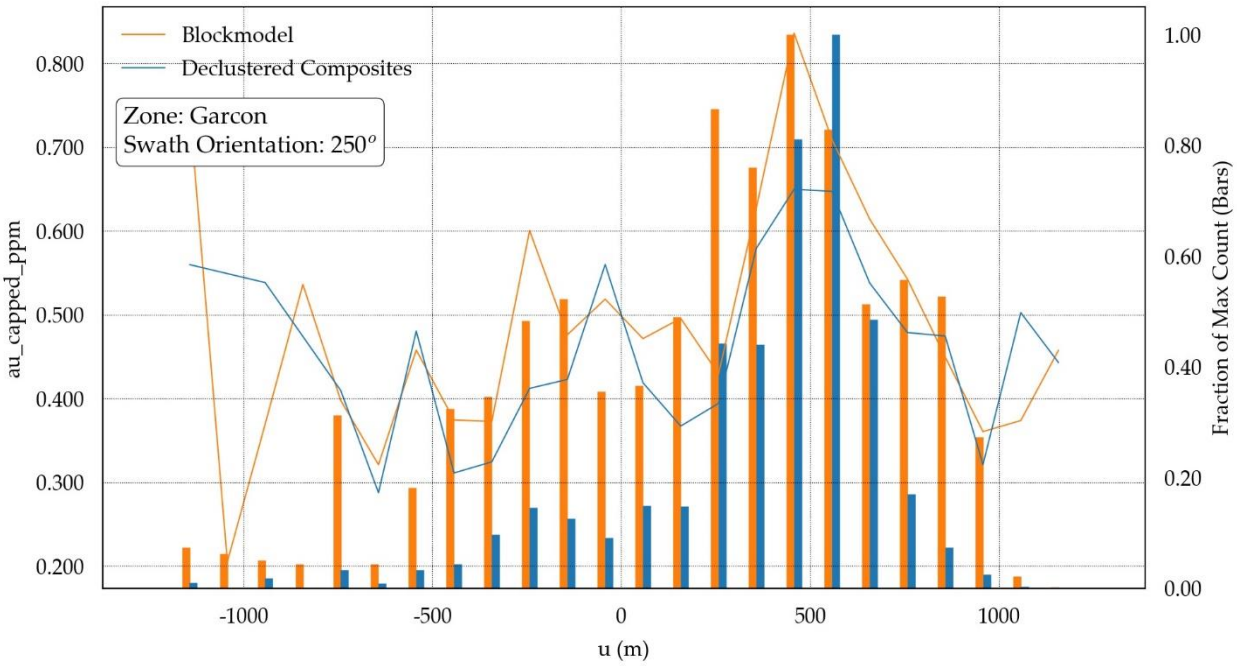

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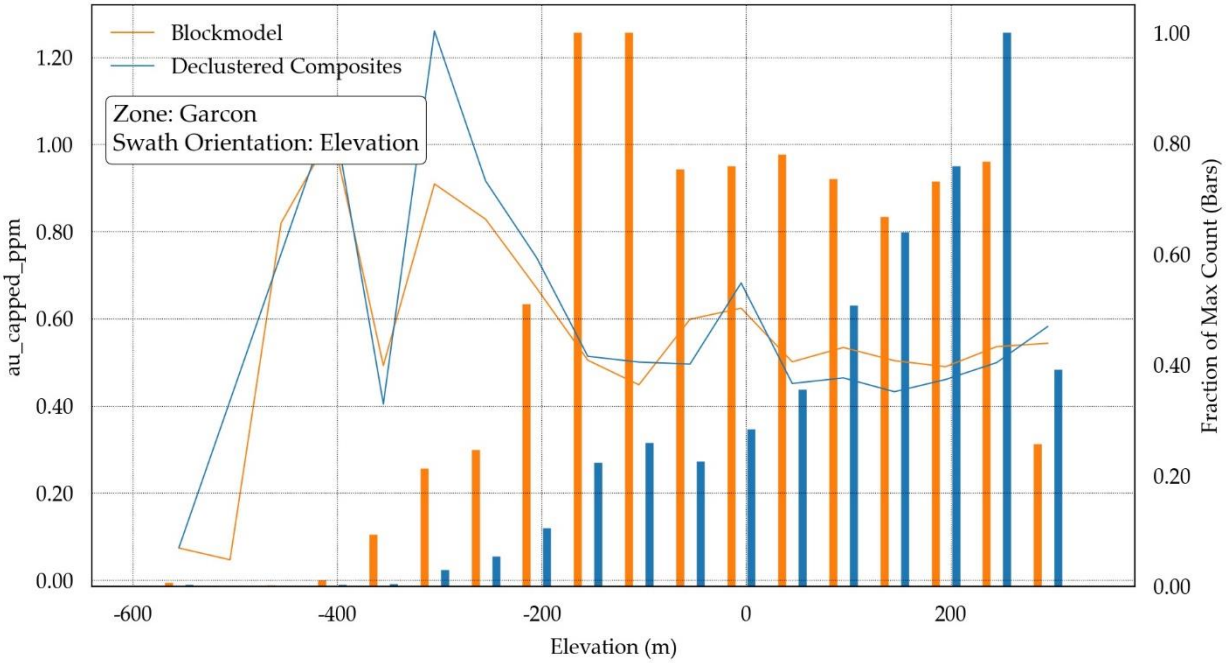
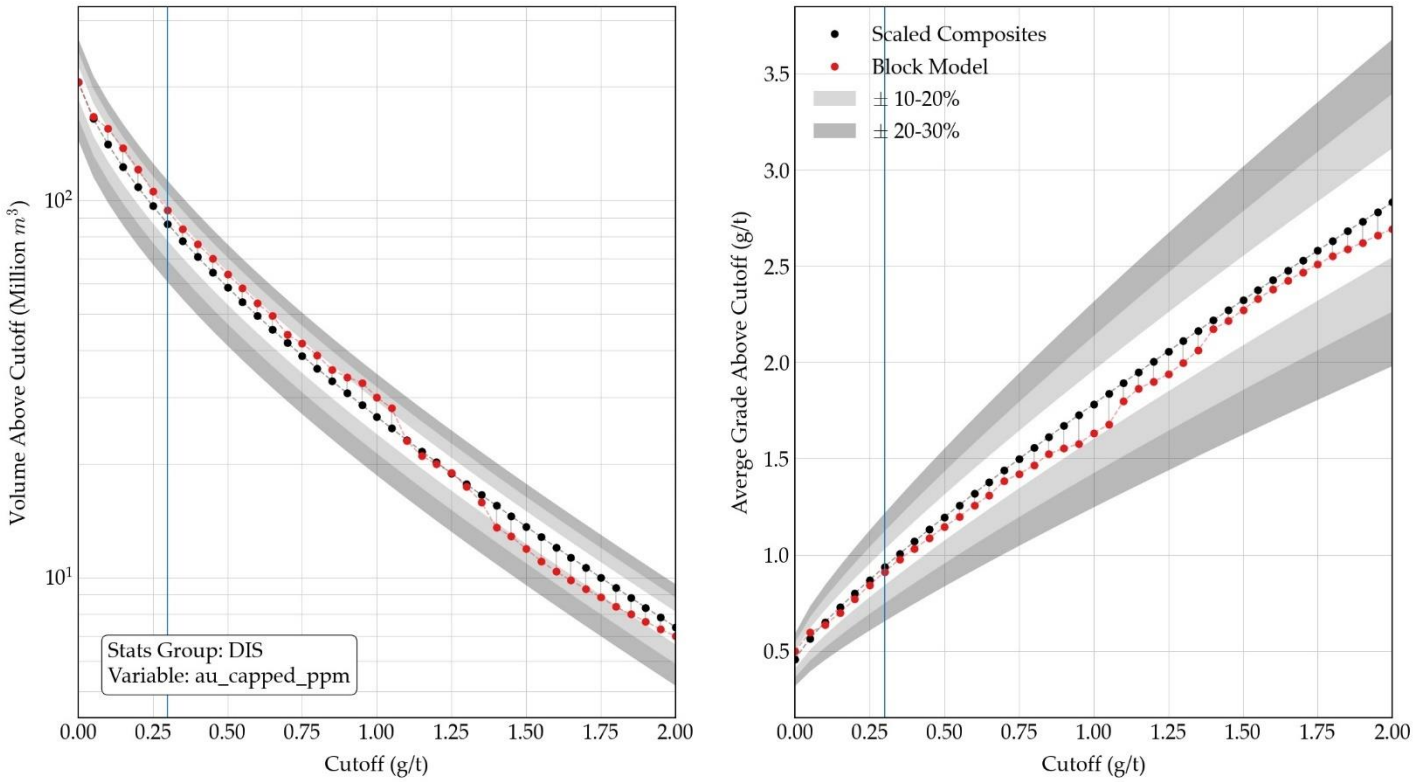


Source: APEX, 2022

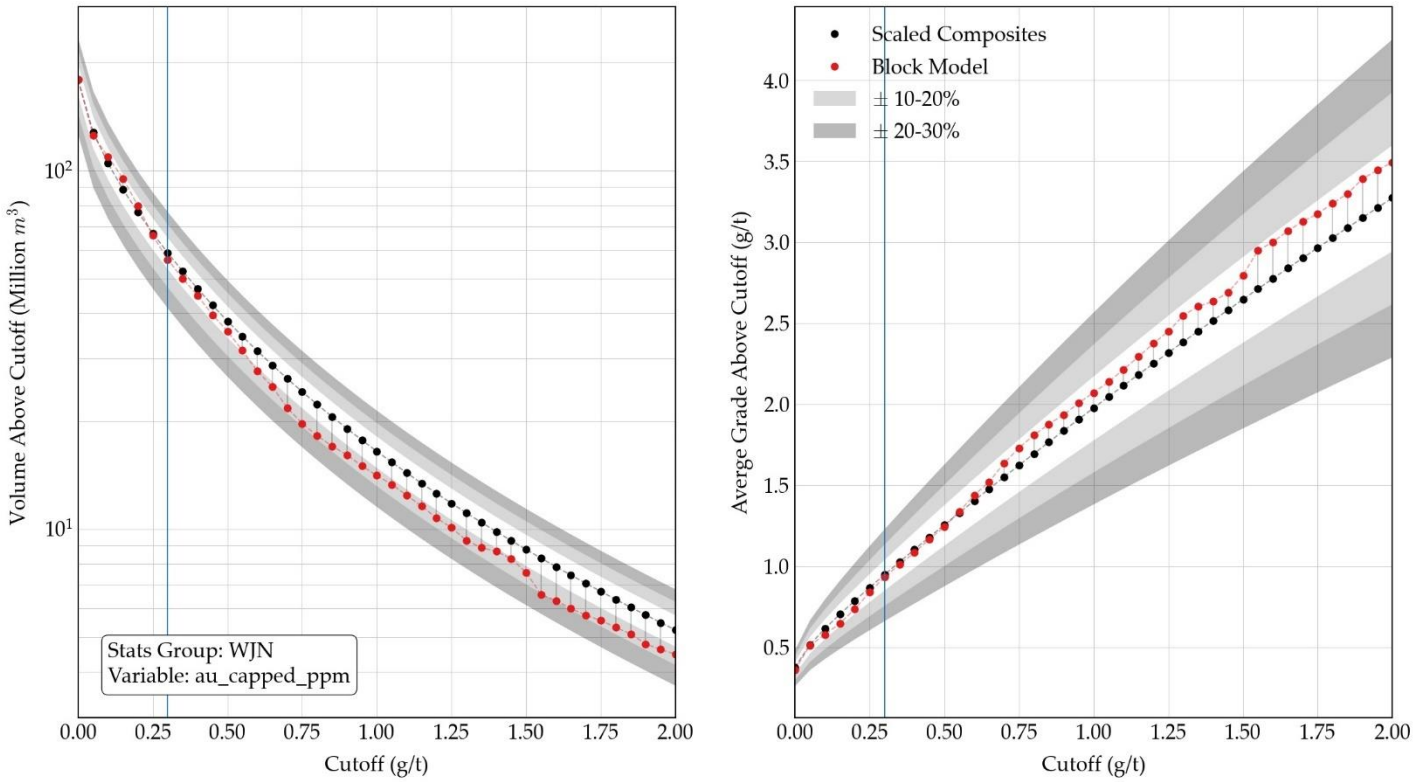
3.5.2 Volume Variance (Smoothing) Checks

3.5.2.1 Discovery Area



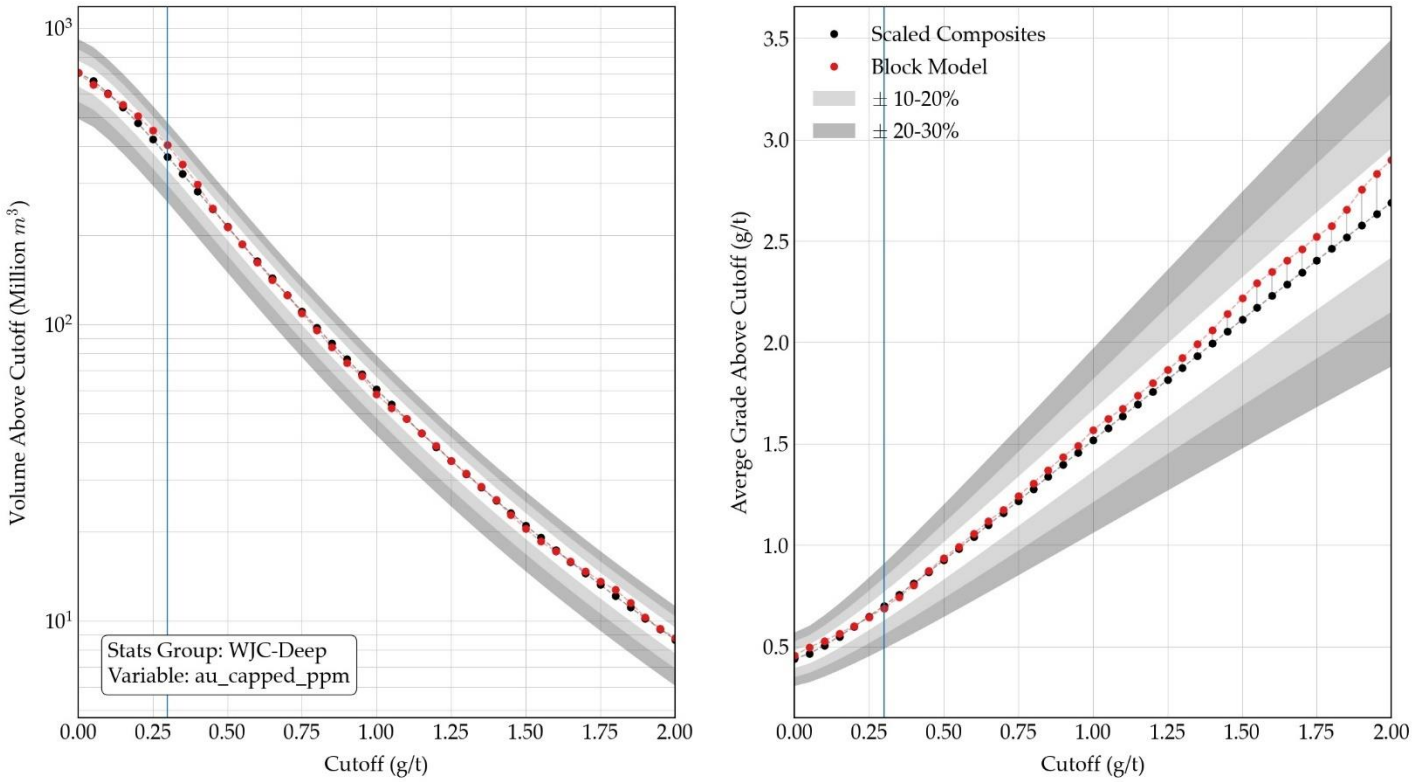
Source: APEX, 2022

3.5.2.2 Windjammer-North Area



Source: APEX, 2022

3.5.2.3 Windjammer-Central Area



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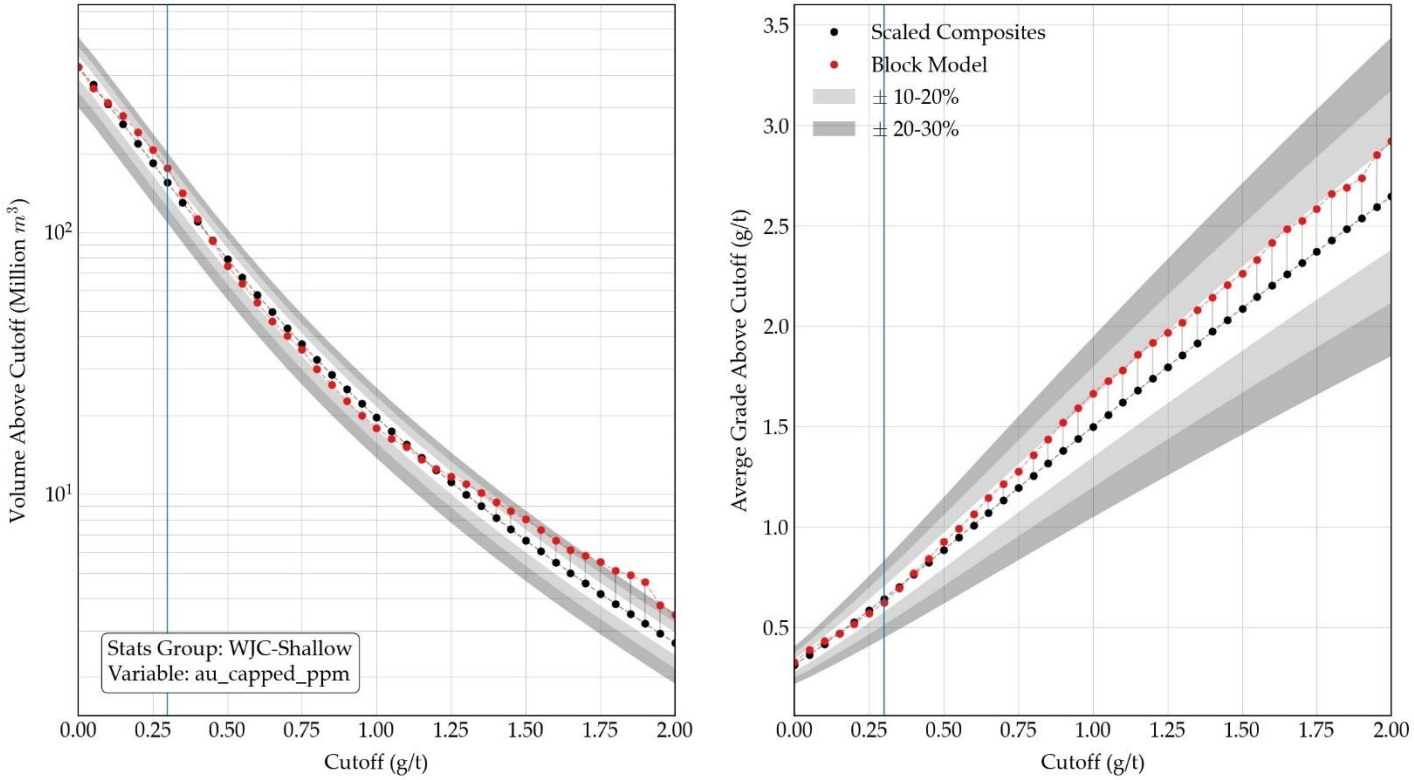
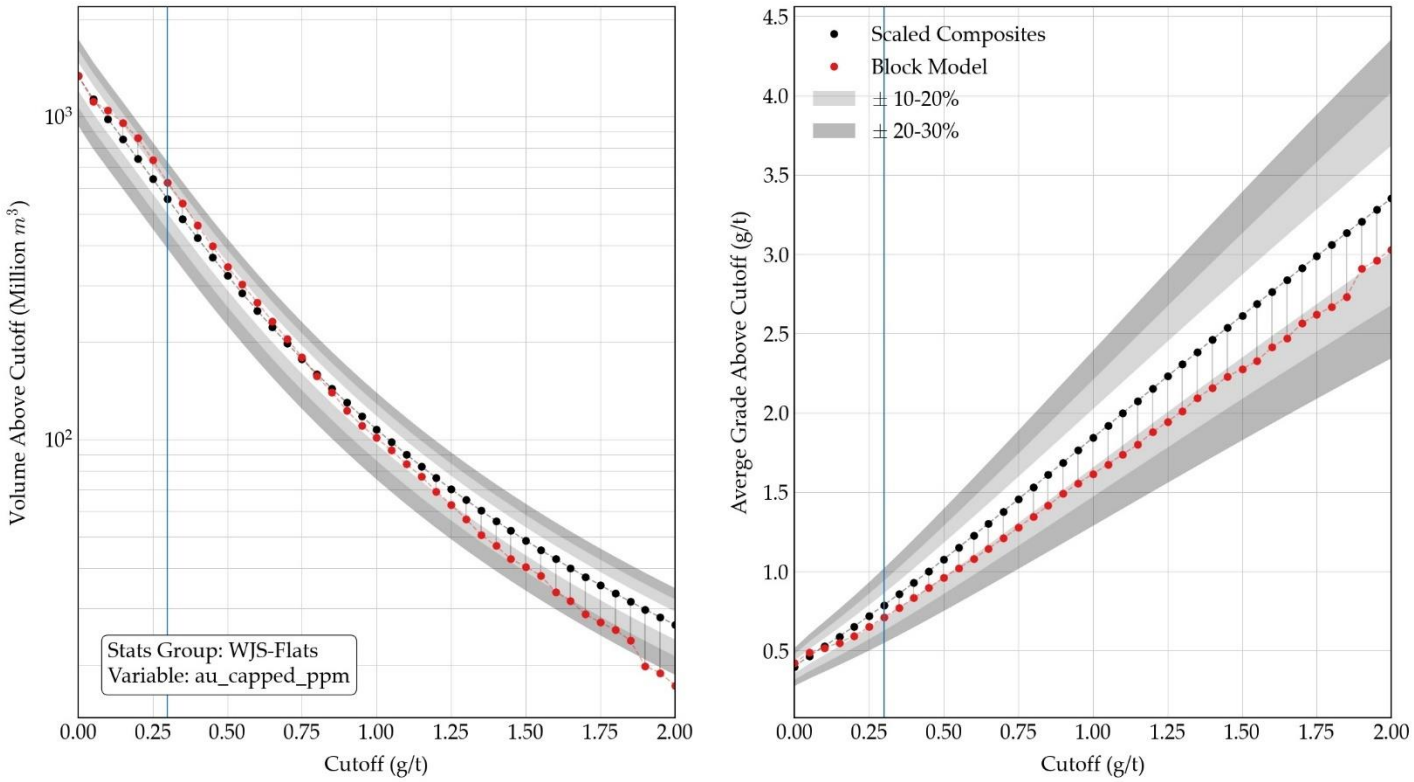


Source: APEX, 2022

3.5.2.4 Windjammer-South Area



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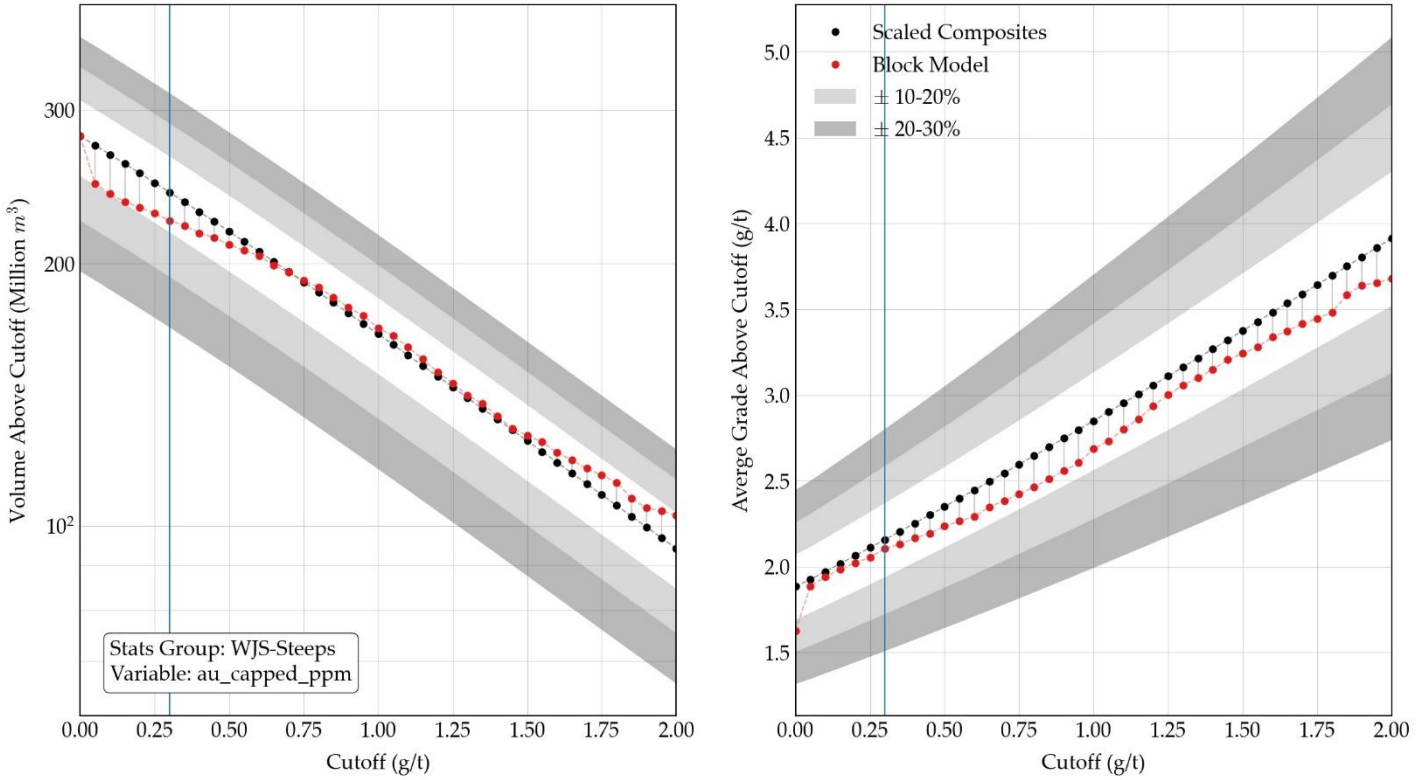

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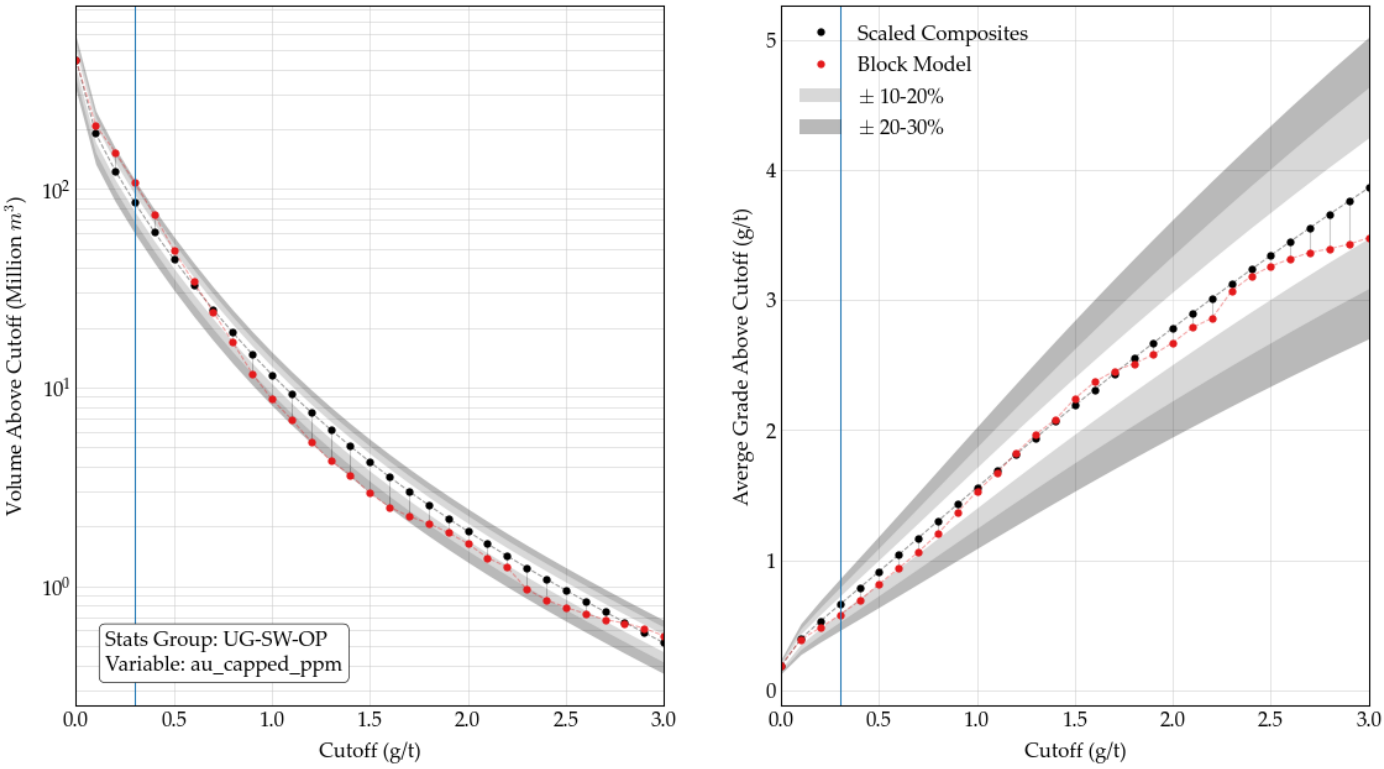
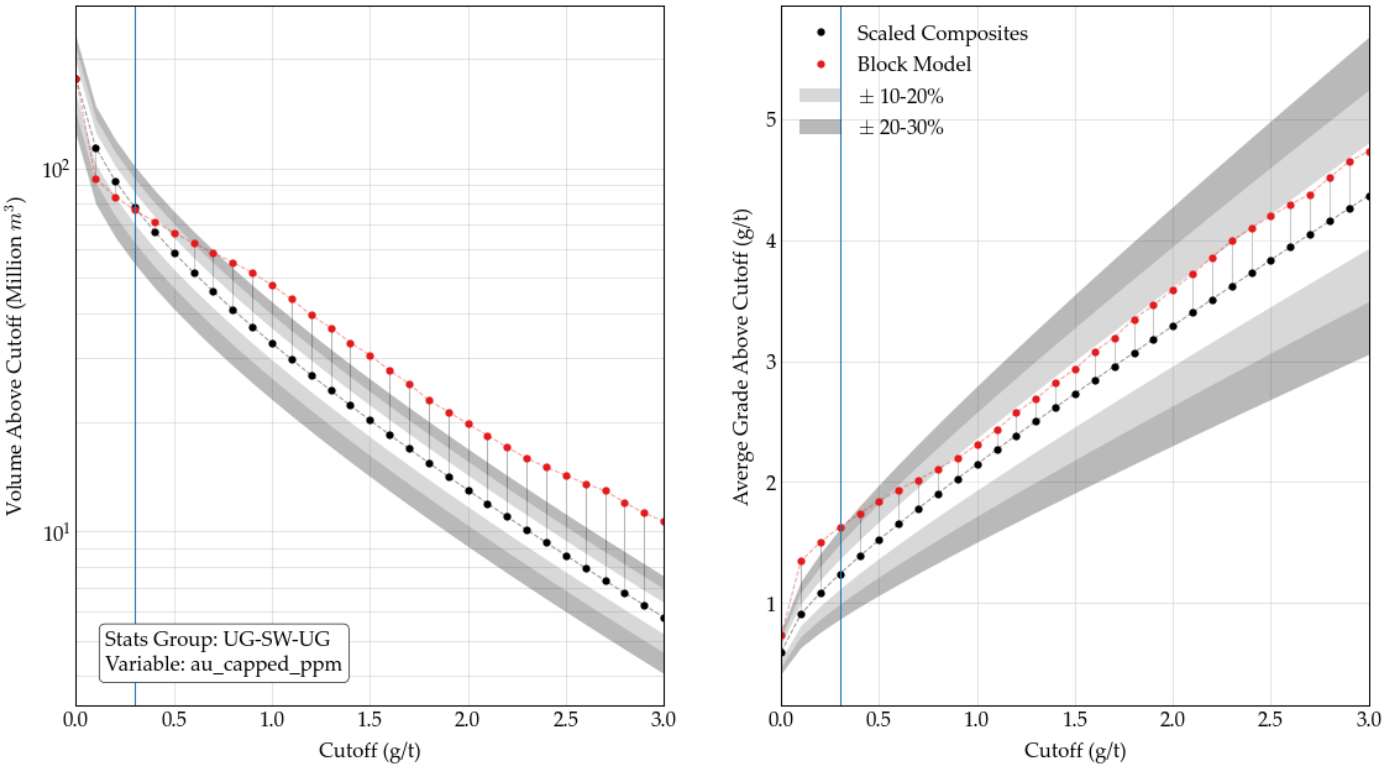
3.5.2.5 South West Area



Source: APEX, 2022



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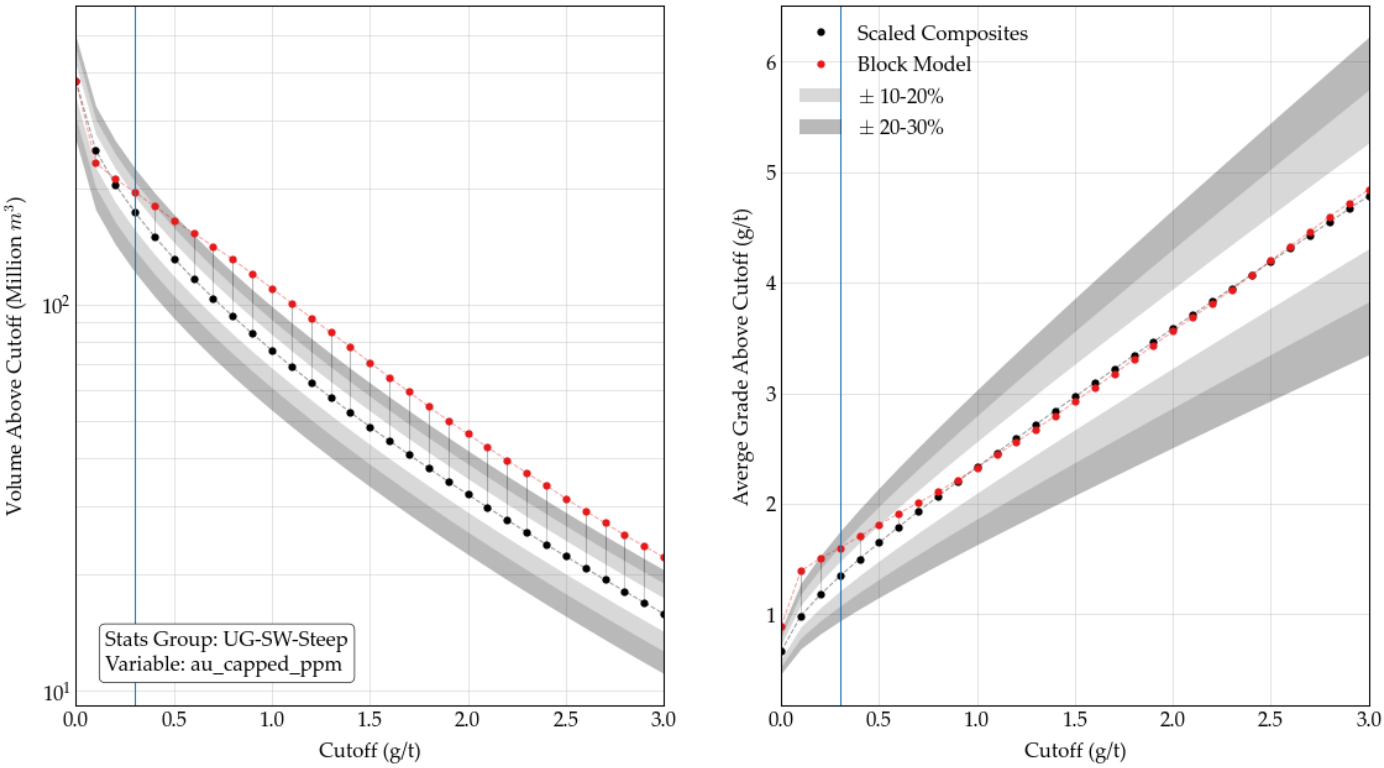
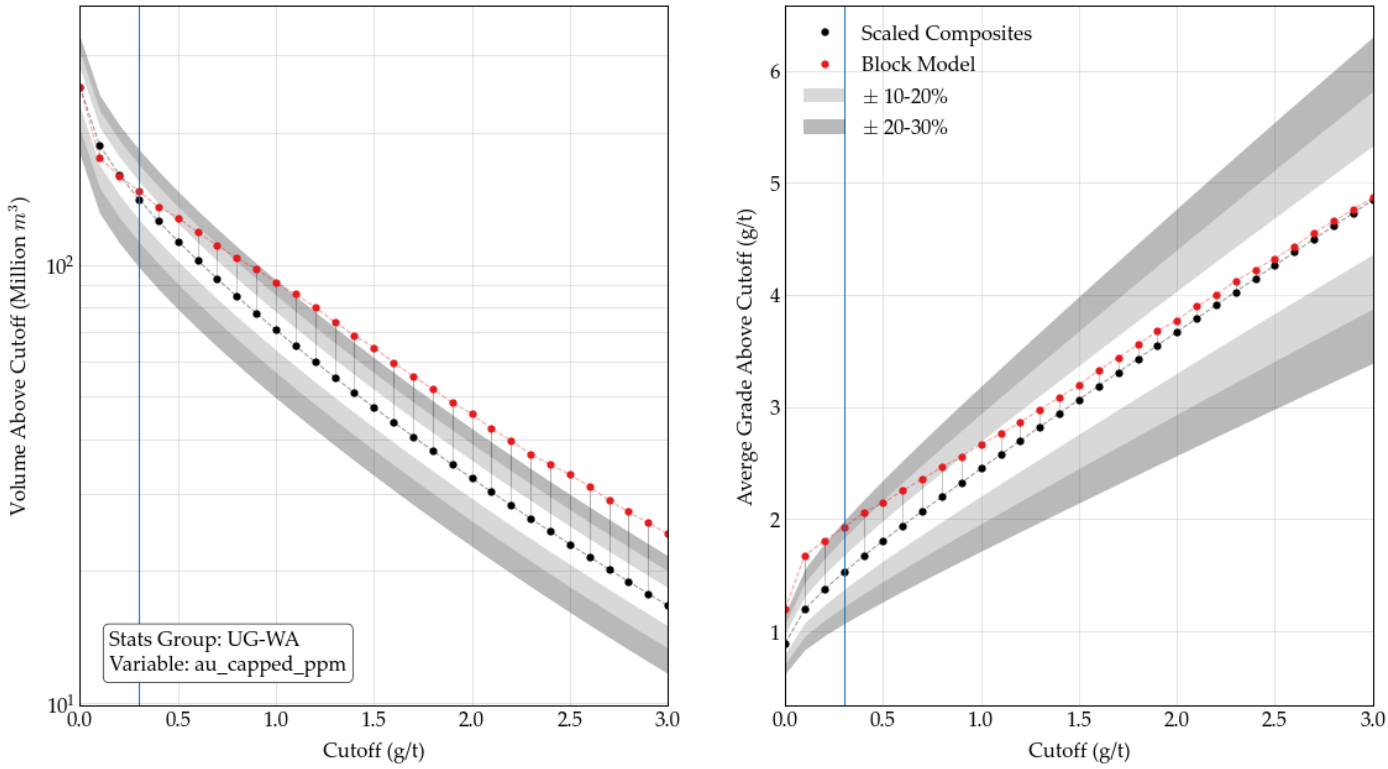


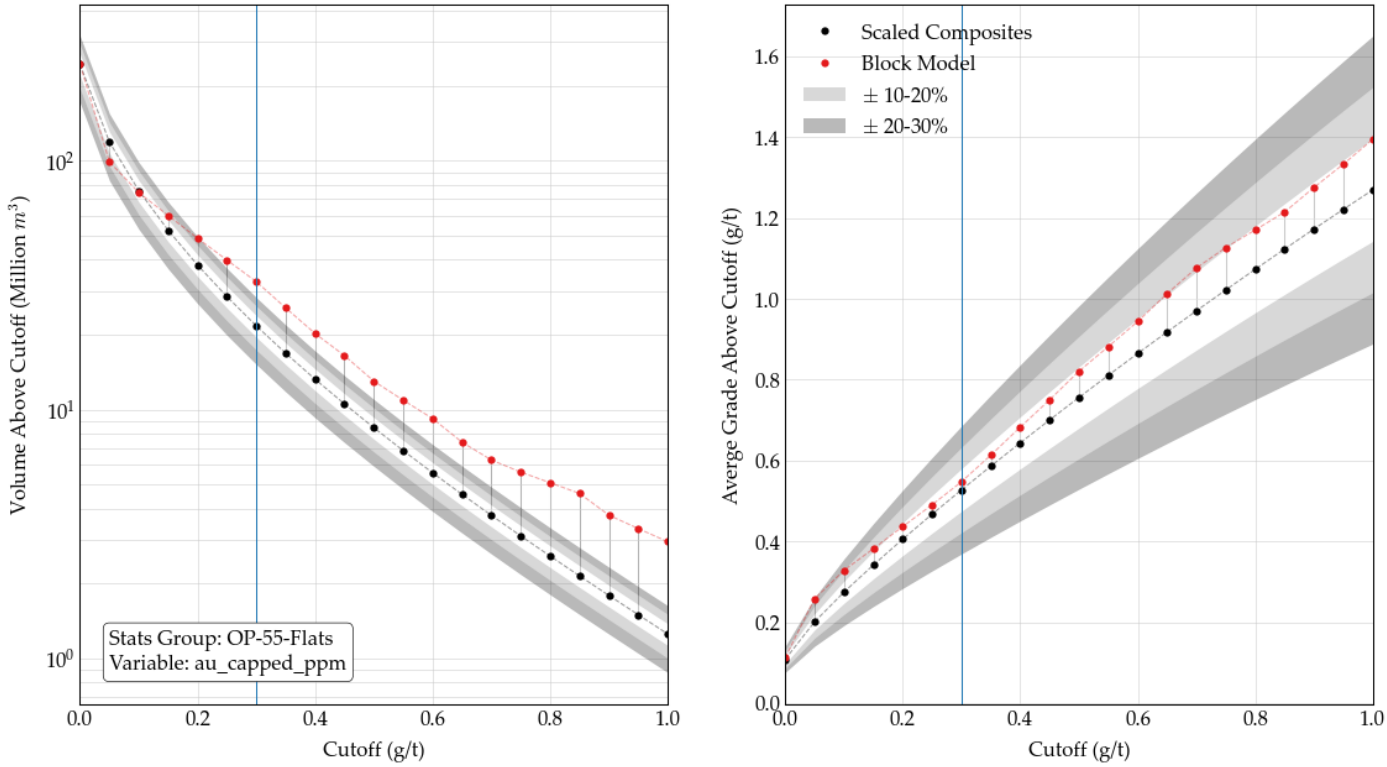
Source: APEX, 2022

3.5.2.6 Westaway Area



Source: APEX, 2022

3.5.2.7 55 Area



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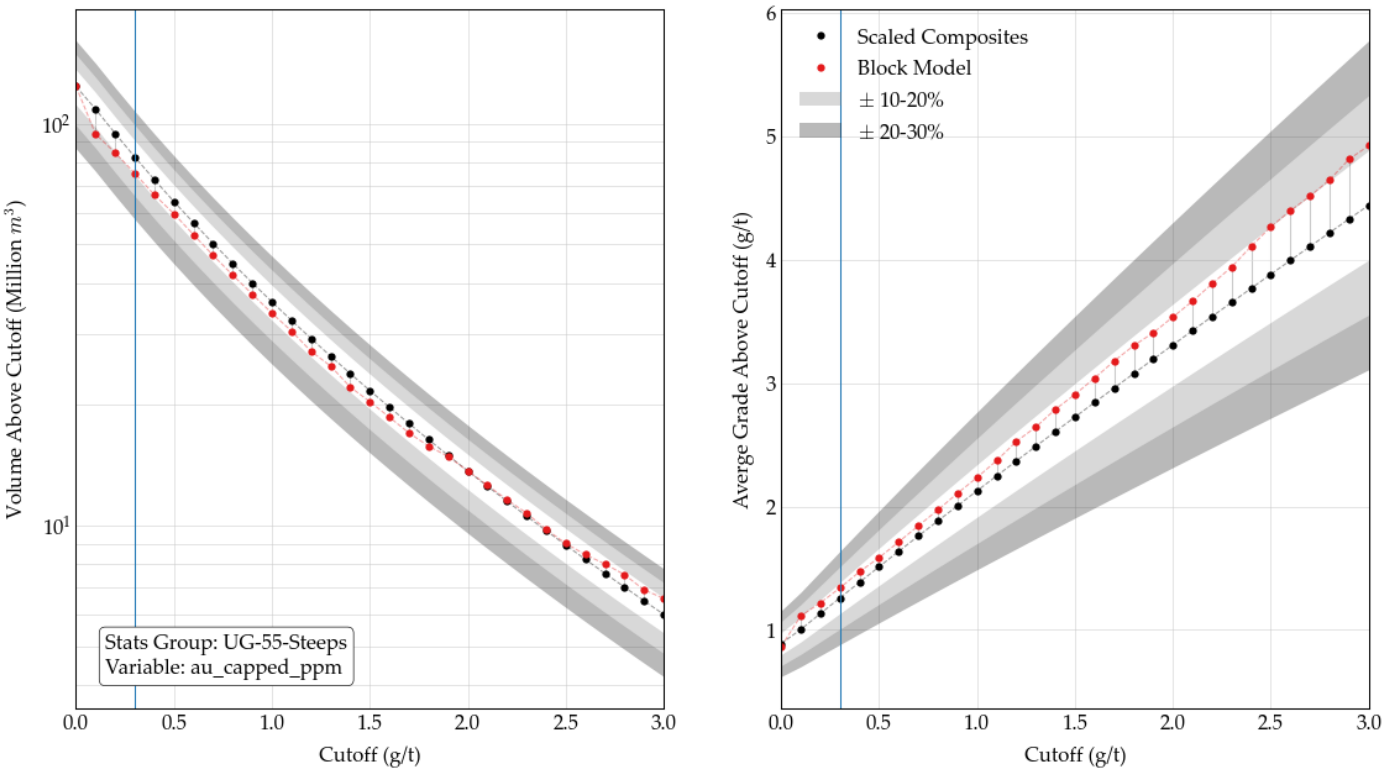

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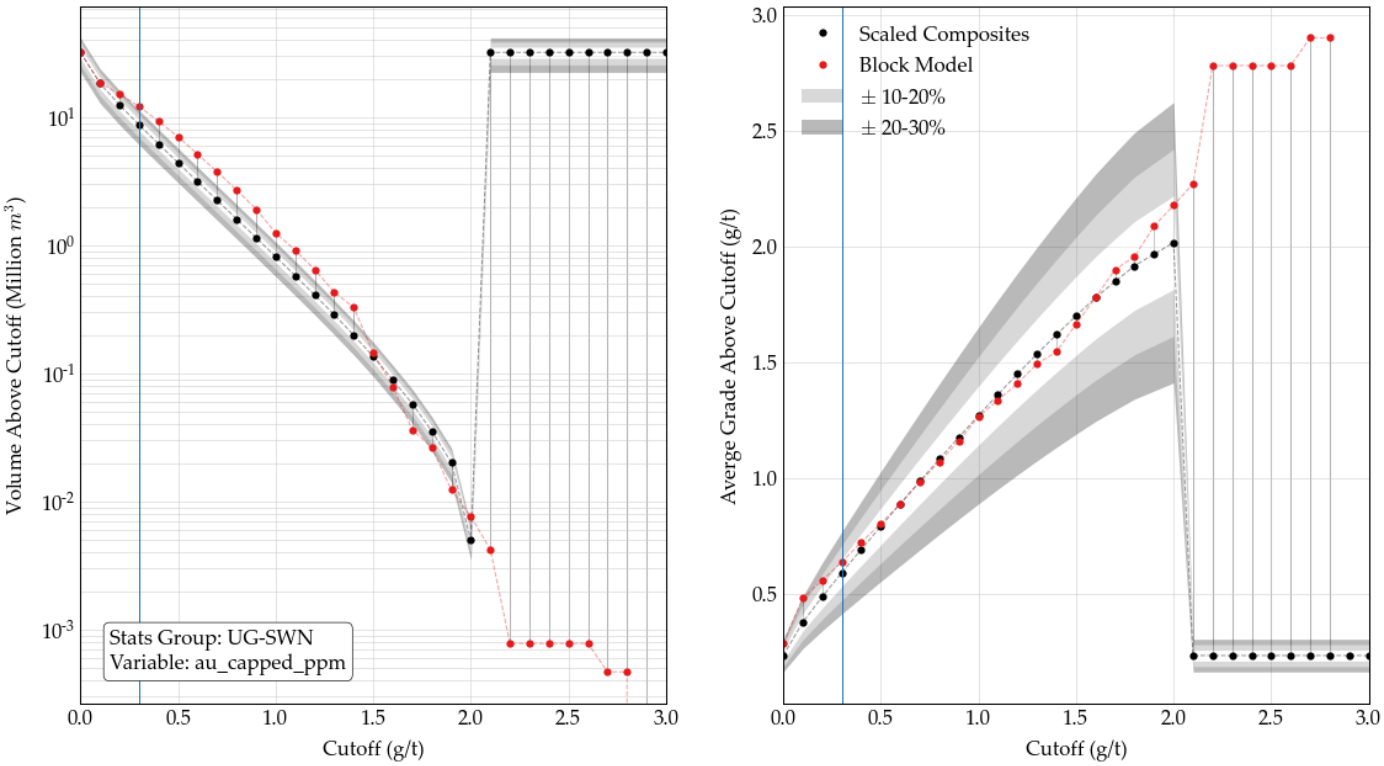
3.5.2.8 South West North



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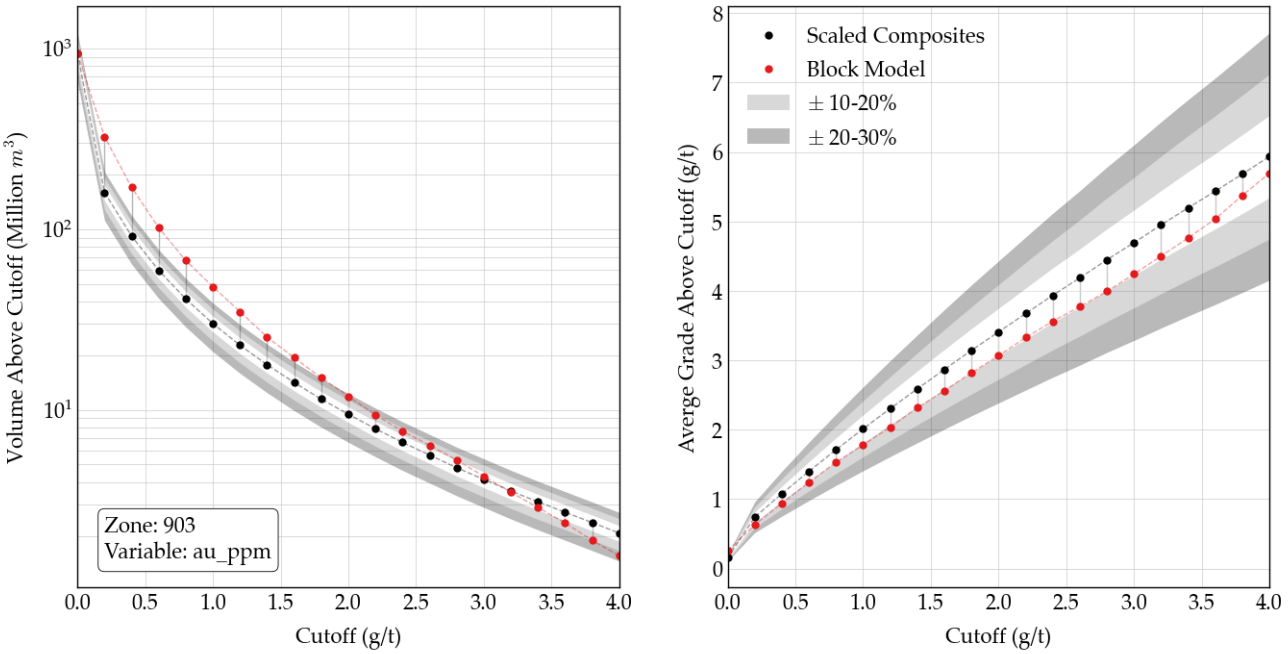
3.5.2.9 903 Area



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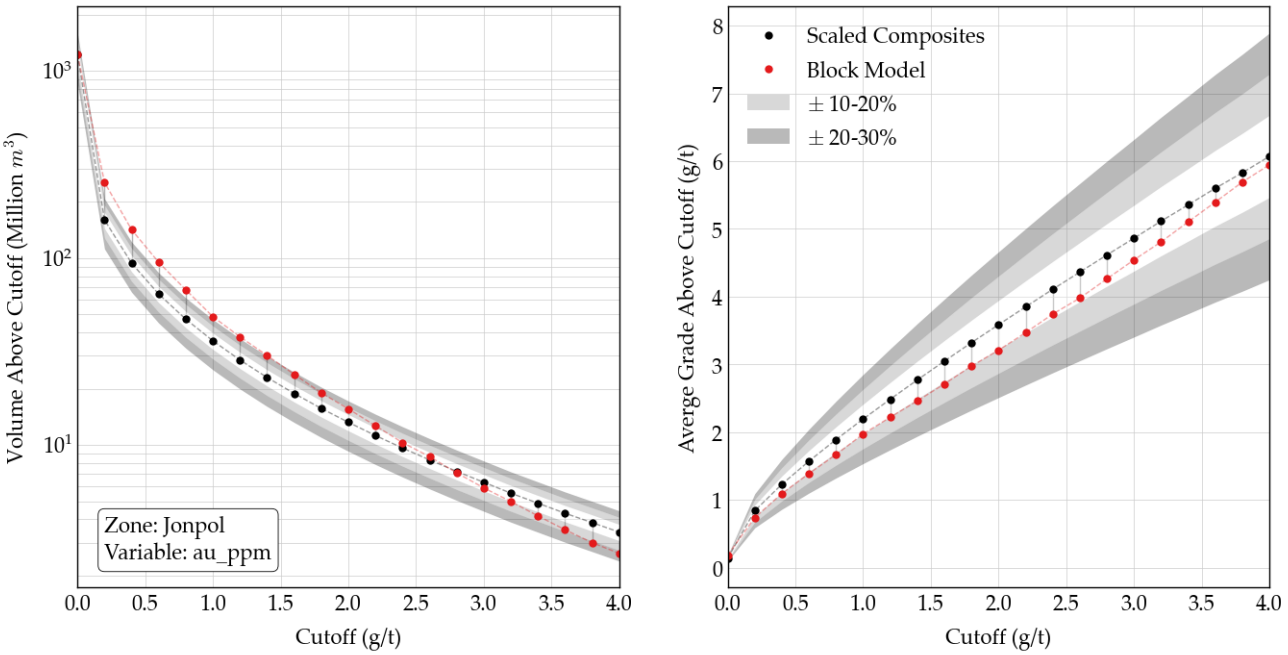
3.5.2.10 Jonpol Area



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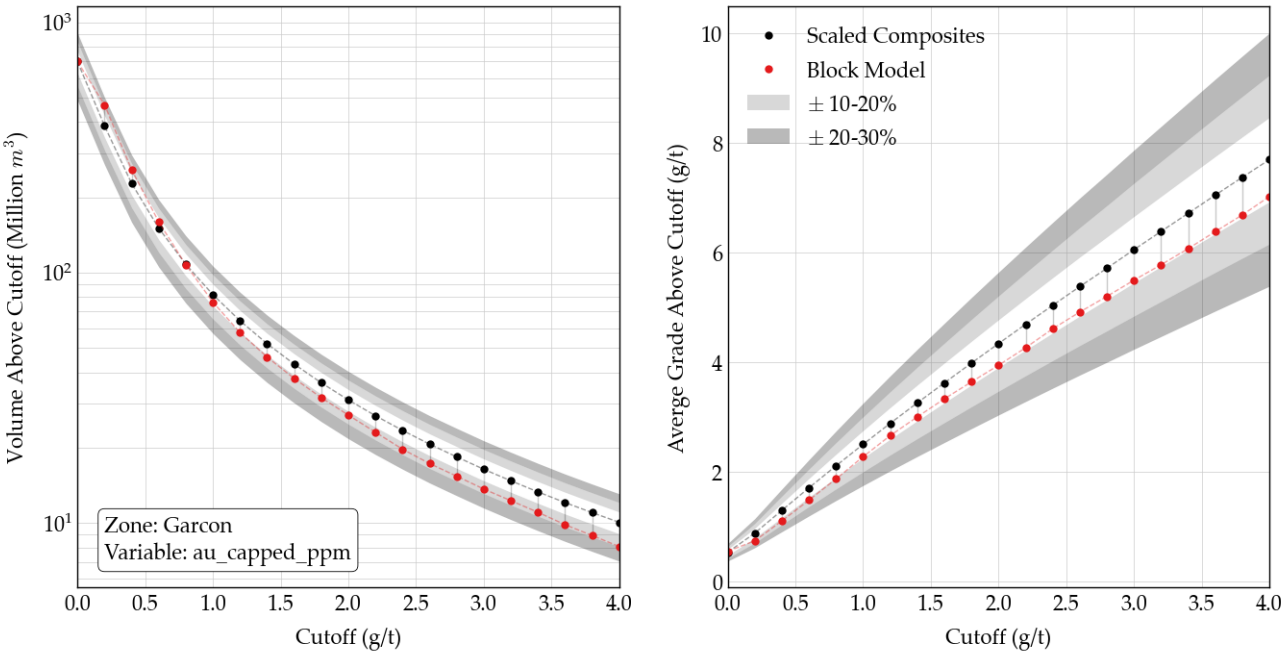
3.5.2.11 Garrcon Area



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