Eskay Creek Project
British Columbia
NI 43-101 Technical Report on Updated Feasibility Study

Prepared for: Skeena Resources Limited

Prepared by:

Mr. Ben Adaszynski, P.Eng., Sedgman Canada Limited.

Ms. Terre Lane, MMSA QP, Global Resource Engineering.

Dr. Hamid Samari, MMSA QP, Global Resource Engineering.

Mr. Jim Fogarty, P.Eng., Knight Piésold Ltd.

Mr. Ian Stilwell, P.Eng., BGC Engineering Inc.

Mr. Rolf Schmitt, P.Geo., ERM Consultants Canada Ltd.

Mr. A.J. MacDonald, P.Eng., Integrated Sustainability Ltd.

Mr. David Baldwin, P.Eng., Carisbrooke Consulting Inc.

Mr. Steven Andrew Baisley, P.Geo., M.A. O'Kane Consultants Inc.

Report effective date: 14 November, 2023

CERTIFICATE OF QUALIFIED PERSON

I, Ben Adaszynski, P.Eng., am employed as a Manager Project Development with Sedgman Canada Limited with an office address at #860 – 625 Howe St, Vancouver BC, V6C 2T6.

This certificate applies to the technical report titled “Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the “technical report”).

I am a Professional Engineer of Engineers and Geoscientists British Columbia*;* member number 40359. I graduated from the University of British Columbia with a Bachelor of Applied Science in Chemical Engineering in 2009.

I have practiced my profession for 14 years. I have been directly involved in all levels of engineering studies from preliminary economic analysis (PEA) to feasibility studies including gold flotation projects. I have been directly involved with metallurgical test work and flowsheet development from preliminary testing through to detailed design and process optimization.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I have not visited the Eskay Creek Project.

I am responsible for Sections 1.1, 1.2, 1.8, 1.9, 1.15, 1.16, 1.19 (process costs only), 1.20 (process costs only), 1.22, 1.24; Sections 2.1, 2.2, 2.3, 2.6; Section 12.3.1; Section 13; Section 17; Sections 18.1, 18.6.1, 18.6.2, 18.7, 18.9; Sections 21.2.3, 21.3.3; Sections 25.1, 25.5, 25.9, 25.10, 25.13 (process costs only), 25.14 (process cost only); 25.16.1.1, 25.16.2.3; Section 26; Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project during the preparation of the 2023 Updated Feasibility Study.

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: 22 December, 2023

"Signed and sealed"

Ben Adaszynski, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Terre Lane, MMSA QP, am employed as a Principal Mining Engineer within Global Resource Engineering with an office at 17301 W. Colfax Ave, Suite 400, Golden Colorado, 80403.

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the "technical report").

I am a MMSA Qualified Professional #01407QP and SME Registered Member #4053005. I graduated from Michigan Technological University with a Batchelor of Science in Mining Engineering in 1982.

I have practiced my profession for over 40 years. I have been directly involved in construction, startup, operations of several mines. I have been involved with or led geology, resource and reserve estimation, mine design, capital and operating cost estimation, economic analysis, and reports for hundreds of developing projects from preliminary to detailed design engineering levels.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Eskay Creek Project on October 18 and 19, 2022, a duration of two days.

I am responsible for Sections 1.1, 1.2, 1.3, 1.4, 1.8, 1.12, 1.13, 1.14.2, 1.14.3, 1.18, 1.19 (excepting process costs), 1.20 (excepting process costs), 1.21, 1.22, 1.23, 1.24; Sections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6; Section 3; Sections 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.10; Section 5; Section 12.3.2; Section 14 (excepting 14.2.1); Section 15; Section 16 (excepting Section 16.2); Section 18.6.3; Section 19; Section 21 (excepting process costs); Section 22; Section 24; Sections 25.1, 25.2, 25.6, 25.7, 25.8, 25.12, 25.13 (excepting process costs), 25.14 (excepting process costs), 25.15, 25.16.1.2, 25.16.1.3, 25.16.2.2, 25.17; Section 26; and Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project during the preparation of the 2023 Updated Feasibility Study.

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: 22 December, 2023

“Signed and sealed”

Terre Lane, MMSA QP.

CERTIFICATE OF QUALIFIED PERSON

I, Dr. Hamid Samari, Ph.D., QP, am employed as a Principal Geologist with Global Resource Engineering with an office address at 17301 W Colfax Ave, Suite 400, Golden, Co 80401.

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study, which has an effective date of 14 November 2023 (the "technical report").

I am a member of the Mining and Metallurgical Society of America (MMSA) 01519QP.

I graduated from Azad University, Sciences and Research Branch, Tehran, and received a PhD in Geology-Tectonics in 2000. I graduated from Beheshti University, Tehran, and received an MS in Geology-Tectonics in 1995. I graduated from Beheshti University, Tehran, and received a BS in Geology in 1991.

I have practiced in the areas of geology, mining, and civil industry for over 25 years. I worked for Azad University, Mahallat branch, Iran, as an assistant professor and head of the economic geology department for 19 years and simultaneously for Tamavan Consulting Engineers in Iran as a senior geologist for 12 years. I have worked for Global Resource Engineering since 2017 for over six years. I have worked on geologic reports and resource statements for silver and gold deposits in the United States and Latin America. This includes epithermal silver deposits in Peru, different types of gold deposits in Nevada and Utah, and mixed precious metals deposits elsewhere in the Western Hemisphere.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101) for those sections of the technical report I am responsible for preparing.

I visited the Eskay Creek Project from 19–21 September 2023, a duration of three days.

I am responsible for Sections 1.1, 1.2, 1.5, 1.6, 1.7, 1.8, 1.24; Section 2; Section 6; Section 7; Section 8; Section 9; Section 10; Section 11; Sections 12.1, 12.2, 12.3.3; Section 14.2.1; Section 23; Sections 25.1, 25.3, 25.4, 25.16.2.1; Section 26; and Section 27 of the technical report.

I am independent of Skeena Resources Limited, as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project while preparing the 2023 Updated Feasibility Study.

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 the technical report not misleading.

Dated: 22 December, 2023

"Signed and sealed"

Dr. Hamid Samari, QP MMSA 01519QP

CERTIFICATE OF QUALIFIED PERSON

I, Jim Fogarty, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study" with an effective date of November 14, 2023, (the "Technical Report") prepared for Skeena Resources Limited.
2. I am employed as Senior Engineer of Knight Piésold Ltd. with an office at Suite 1400 - 750 West Pender Street, Vancouver, British Columbia, V6C 2T8, Canada.
3. I am a graduate of the University of Galway, Ireland, with a bachelor's degree in civil engineering (B.Eng. (Civil)), graduating in 2010. I have practiced my profession continuously since 2011. My experience includes tailings, waste and water management designs, mine planning and permitting, cost estimates and technical report writing for mine developments in Canada, USA, Europe and South America.
4. I am a Professional Engineer (P.Eng.) in good standing with Engineers and Geoscientists of British Columbia in the area of Civil Engineering (No. 44041).
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I visited the Eskay Creek Project from September 13-15, 2022, and October 16-18, 2023.
7. I am responsible for Sections 1.1, 1.2, 1.8, 1.16, 1.22, 1.24; Sections 2.1, 2.2, 2.3, 2.4, 2.6; Section 12.3.4; Sections 18.1, 18.2, 18.3, 18.4, 18.5, 18.6.4, 18.6.5, 18.6.7; Sections 25.1, 25.10, 25.16.1.4, 25.16.1.5, 25.16.1.6, 25.16.1.7, 25.16.2.4, 25.16.2.5, 25.16.2.6; Section 26 and Section 27 of this Technical Report.
8. I am independent of Skeena Resources Limited and related companies applying all of the tests in Section 1.5 of the NI 43-101.
9. I have had no involvement with the Eskay Creek Project that is the subject of this Technical Report.
10. As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.
11. 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.

Knight Piésold Ltd. | Suite 1400 - 750 West Pender Street | Vancouver, British Columbia | Canada, V6C 2T8
T +1 604 685 0543 | E vancouver@knightpiesold.com | www.knightpiesold.com

Knight Piésold CONSULTING

Effective Date: November 14, 2023
Signing Date: December 22, 2023

<<Original Signed & Sealed>>

Jim Fogarty, P.Eng.

Knight Piésold Ltd. | Suite 1400 - 750 West Pender Street | Vancouver, British Columbia | Canada, V6C 2T8
T +1 604 685 0543 | E vancouver@knightpiesold.com | www.knightpiesold.com

CERTIFICATE OF QUALIFIED PERSON

I, Ian Stilwell, P.Geo., am employed as a Principal Geotechnical Engineer with BGC Engineering Inc., with an office address at 500-980 Howe St, Vancouver, BC, Canada, V6Z0C8.

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the "technical report").

I am a member of the Engineers and Geoscientists BC; membership number 27316.

I graduated from the University of British Columbia with a Bachelor of Applied Science degree in 1995.

I have practiced my profession for 28 years. During this time, I have been directly involved in open pit slope design projects at all levels of project development, including detailed design, and operational support.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Eskay Creek Project from September 1–4, 2021, a duration of four days.

I am responsible for Sections 1.1, 1.2, 1.8, 1.14.1, 1.22.1, 1.22.2, 1.24; Sections 2.1, 2.2, 2.3, 2.4, 2.6; Section 12.3.5; Section 16.2; Sections 25.1, 25.8, 25.16.1.3, 25.16.2.2; Section 26; and Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have previously co-authored a technical report on the Eskay Creek Project:

- Murray, K., Fard, M.A.H., Papini, G., Hasanloo, D., Mehrfert, P.I., Ulansky, S. Schmitt, R., Hamilton, W., Stilwell, I., and Schmid, C., 2022: Eskay Creek Project, NI 43-101 Technical Report and Feasibility Study: report prepared by Ausenco Engineering Canada Inc., Ausenco Sustainability Inc., SRK Consulting (Canada) Inc., ERM, AGP Mining Consultants Inc., and BGC Engineering Inc., for Skeena, effective date September 6, 2022; amended and restated report date: September 19, 2022.

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: 22 December, 2023

"Signed and sealed"

Ian Stilwell, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Rolf Schmitt, P.Geo., am employed as a Technical Director – Permitting by ERM Consultants Canada Limited (ERM), with an office address #1000 – 1100 Melville Street, Vancouver, British Columbia, Canada V6E 4A6.

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the "technical report").

I am a member in good standing of the Nunavut/Northwest Territories Association of Professional Engineers and Geoscientists (NAPEG), License # L4706, (ERM Permit No. P388) and Engineers and Geoscientists of British Columbia, License #19824.

I graduated from the University of British Columbia – Honours Bachelor of Science (B.Sc.) Geology (1977), and a Master of Science (M.Sc.) Regional Planning (1985), and University of Ottawa - Master of Science (M.Sc.) Exploration Geochemistry (1993

I have practiced my profession for 44 years since graduation; six years in mineral exploration, 20 years in government mining regulation and geochemical research, and 18 years (since 2005) as a senior mining and natural resource regulatory consultant (since 2005). I have been directly involved in directing and managing mine project Environmental Assessments, permitting and due diligence assignments for 18 years throughout Canada and internationally.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I have not visited the Eskay Creek Project

I am responsible for Sections 1.1, 1.2, 1.8, 1.17.1, 1.17.3, 1.17.4, 1.22, 1.24; Sections 2.1, 2.2, 2.3, 2.6; Sections 4.7, 4.8, 4.9; Sections 5; Section 12.3.6; Sections 20.1, 20.2, 20.3, 20.5, 20.6; Sections 25.1, 25.11, 25.16.1.8, 25.16.2.7; Section 26; Section 27; of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have previously co-authored the following technical reports on the Eskay Creek Project:

- Murray, K., Fard, M.A.H., Papini, G., Hasanloo, D., Mehrfert, P.I., Ulansky, S. Schmitt, R., Hamilton, W., Stilwell, I., and Schmid, C., 2022: Eskay Creek Project, NI 43-101 Technical Report and Feasibility Study: report prepared by Ausenco Engineering Canada Inc., Ausenco Sustainability Inc., SRK Consulting (Canada) Inc., ERM, AGP

Mining Consultants Inc., and BGC Engineering Inc., for Skeena, effective date September 6, 2022; amended and restated report date: September 19, 2022;

- Raponi, R., Elfen, S., Ulansky, S., Schmitt, R., Dance, A., Hamilton, W., Tosney, R., 2021: NI 43-101 Technical Report and Prefeasibility Study, Canada: report prepared by Ausenco Engineering Canada Inc. for Skeena, effective date 22 July 2021,

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: 22 December, 2023

“Signed and sealed”

Rolf Schmitt, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

I, A.J. MacDonald, P.Eng., am employed as Vice President Engineering / Senior Technical Specialist, with Integrated Sustainability Ltd., with an office at 1050 West Pender Street, Vancouver BC, V6C 3S7.

This certificate applies to the technical report titled “Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the “technical report”).

I am a Professional Engineer, registered with Engineers and Geoscientists BC (EGBC member 45872). I am also a member of Yukon Professional Engineers, the Association of Professional Engineers and Geoscientists of Alberta, the Association of Professional Engineers and Geoscientists of Saskatchewan, Professional Engineers Ontario, Professional Engineers and Geoscientists of Newfoundland & Labrador and the Association of Professional Engineers and Geoscientists of New Brunswick.

I graduated from Queen’s University, Kingston, Ontario in 2005 (B.Sc., B.A.) and Carleton University, Ottawa, Ontario in 2007 (M.A.Sc.).

I have practiced my profession for 18 years. I have been involved or associated with the mining industry since 2007. I have participated in dozens of mining and other resource sector projects, with a particular focus on water treatment, primarily in Western Canada.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I have not visited the Eskay Creek Project site.

I am responsible for Sections 1.1, 1.2, 1.8, 1.16, 1.22.1, 1.24; Sections 2.1, 2.2, 2.3, 2.6; Section 12.3.7; Section 18.6.6; Sections 25.1, 25.10, 25.16.1.6; Section 26 and Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project during the preparation of the 2023 Updated Feasibility Study.

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: 22 December, 2023

"Signed and sealed"

A.J. MacDonald, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, David Baldwin, P.Eng., am employed as a Principal Engineer with Carisbrooke Consulting Inc., with an office address at 4339 Morgan Crescent, West Vancouver, BC V7V 2P1

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the "technical report").

I am a Professional Engineer of Engineers and Geoscientist of British Columbia; Registration No. 35139.

I graduated from the University of Victoria in 2006 with a Bachelor of Engineering and Queen's University in 2010 with a Master's degree in Business Administration.

I have practiced my profession for 17 years. I have been directly involved in over 20 power transmission projects in British Columbia.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I visited the Eskay Creek Project from 14–16 August 2023, a duration of two days.

I am responsible for Sections 1.1, 1.2, 1.8, 1.16, 1.24; Sections 2.1, 2.2, 2.3, 2.4, 2.6; Section 12.3.8; Sections 18.1, 18.8; Sections 25.1, 25.10; Section 26; Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project during the preparation of the 2023 Updated Feasibility Study.

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: 22 December 2023

“Signed and sealed”

David Baldwin, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Steven Andrew Baisley, P.Geo, am employed as a Senior Geoscientist with M.A. O'Kane Consultants Inc, with an office address at 736 6 Ave SW Suite 1900, Calgary, AB T2P 3T7.

This certificate applies to the technical report titled "Eskay Creek Project, British Columbia, NI 43-101 Technical Report on Updated Feasibility Study and that has an effective date of 14 November, 2023 (the "technical report").

I am a Geoscientist registered with Engineers & Geoscientists British Columbia; #44880.

I graduated with a Bachelor of Science degree and a Master of Science in Earth and Environmental Sciences from McMaster University in 2010 and 2012 respectively.

I have practiced my profession for 13 years. I have been directly involved in the development of numerous reclamation and closure plans, as well as closure cost liability estimates, in the province of British Columbia.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 *Standards of Disclosure for Mineral Projects* (NI 43–101) for those sections of the technical report that I am responsible for preparing.

I have not visited the Eskay Creek Project.

I am responsible for Sections 1.1, 1.2, 1.8, 1.17.2, 1.24; Sections 2.1, 2.2, 2.3, 2.6; Section 12.3.9; Section 20.4; Sections 25.1, 25.11; Section 26; Section 27 of the technical report.

I am independent of Skeena Resources Limited as independence is described by Section 1.5 of NI 43–101.

I have been involved with the Eskay Creek Project during the preparation of the 2023 Updated Feasibility Study.

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: 22 December, 2023

"Signed and sealed"

Steven Andrew Baisley, P.Geo.

IMPORTANT NOTICE

This report was prepared as National Instrument 43-101 Technical Report for Skeena Resources Limited (Skeena). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Sedgman Canada Limited's, Global Resource Engineering's, Knight Piésold Ltd.'s, BGC Engineering Inc.'s, ERM Consultants Canada Ltd.'s, Integrated Sustainability Ltd.'s, Carisbrooke Consulting Inc.'s and M.A. O'Kane Consultants Inc.'s (collectively 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 Skeena subject to terms and conditions of its contracts with 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.

CONTENTS

TABLES

FIGURES

1.0 SUMMARY

1.1 Introduction

Mr. Ben Adaszynski, P.Eng., Ms. Terre Lane, MMSA QP, Dr. Hamid Samari, MMSA QP, Mr. Jim Fogarty, P.Eng., Mr. Ian Stilwell, P.Eng., Mr. Rolf Schmitt, P.Geo., Mr. A.J. MacDonald, P.Eng., Mr. David Baldwin, P.Eng., and Mr. Steven Andrew Baisley, P.Geo., have prepared this technical report (the Report) on the Eskay Creek Project (the Project) in British Columbia for Skeena Resources Limited (Skeena).

Skeena wholly-owns the Project.

Mineral Resources and Mineral Reserves are reported for the Eskay Creek deposit assuming open pit mining methods. The deposit hosted an underground mining operation from 1994–2008.

1.2 Terms of Reference

This Report was prepared to support disclosures in Skeena's news release filed 14 November, 2023, entitled "Skeena Completes Positive Definitive Feasibility Study For Eskay Creek: After-Tax NPV (5%) of C$2.0 Billion, 43% IRR And 1.2 Year Payback".

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 (May 2014; the 2014 CIM Definition Standards) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019; the 2019 CIM Best Practice Guidelines).

Units used in the report are metric units unless otherwise noted. Monetary units are in Canadian dollars (C$) unless otherwise stated. The Report uses Canadian English.

Skeena uses the term "mine rock storage area" (MRSA) for the area where permanent storage of non acid-generating (NAG) waste rock will be stored, and where temporary storage of ore within the run-of-mine (ROM) ore stockpiles will occur.

1.3 Project Setting

The Project is located in the Golden Triangle region of British Columbia, Canada, 83 km northwest of Stewart, on the eastern flanks of the Coast Mountain ranges.

Access to the Project is via Highway 37 (Stewart Cassiar Highway). The Eskay Mine Road is an all-season gravel road that connects to Highway 37 approximately 135 km north of Meziadin Junction. The Eskay Mine Road is a 59 km private industrial road that is operated by Coast Mountain Hydro Corp. (0 km to 43.5 km) and Skeena (43.5 km to 59 km).

There are two nearby gravel air strips: Bronson Strip which is about 40 km west of the mine site (not connected to the road system) and Bob Quinn air strip, roughly 37 km northeast of the Project alongside Highway 37.

Travel to the planned mine site from local population centres will be primarily by Highway 16 (e.g. Terrace or Smithers) and via Highway 37 north to the Bob Quinn and Eskay Mine Access road junction; however, there is a possibility that the proposed mine could fly personnel to the Bob Quinn airport and then provide a shuttle to transport personnel from the airport to the mine site.

The Project is located in a northern temperate climate with moderately warm summers and cold dry winters. Exploration activities can be curtailed by winter conditions. The previous mining operation was conducted on a year-round basis, and it is expected that any future operations will also be year-round.

Support services for mining and other resource sector industries in the region are provided primarily by the communities of Smithers (pop. 5,400) and Terrace (pop. 12,700). British Columbia has a long mining history and experienced mining personnel can be found within the province. The closest tidewater port to the project is in Stewart, approximately 260 km from the Project by road. Stewart is an ice-free shipping location and provides year-round access for bulk shipping.

The Project lies in the Prout Plateau, a rolling subalpine upland with an average elevation of 1,100 m (masl), located on the eastern flank of the Boundary Ranges. Mountain slopes are heavily forested.

1.4 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

The Project covers a total of 7,666.02 ha and consists of 51 mineral claims totalling 5,835.76 ha, and eight mineral leases totalling 1,830.26 ha. Of these, two mineral claims are jointly held by Skeena (66.67%), and Canagold Resources Ltd. (33.33%), and three mineral leases are jointly held by Skeena (66.6667%), and Canagold Resources Ltd. (33.3333%). The remaining mineral claims and mineral leases are 100% Skeena-owned. Where on-ground work commitments have not been met, Skeena has made cash-in-lieu payments as stipulated under the BC *Mineral Tenure Act* Regulation.

Skeena holds the following surface rights interests:

- Surface lease number 634309 (December 24, 1994) between the Province of BC and Prime Resources Group Inc.; interest assigned to Skeena;
- Surface lease number 740715 (July 25, 2004) between the Province of BC and Optionor; interest assigned to Skeena;
- Special Use Permit S17635: for the use of the Eskay Creek road;
- Permitted Mine Area authorized under *Mines Act* M197 – August 2023;

- Temporary Licence of Occupation SK945110.

Skeena currently holds two water licences.

A 1% net smelter return (NSR) royalty on the entire Eskay Creek land package was payable to Barrick, with Skeena able to repurchase half (0.5%) of that royalty. On September 23, 2022 Skeena bought the 0.5% NSR, leaving a 0.5% royalty payable to Barrick. On September 29, 2022, Barrick closed the sale of a portfolio of 22 royalties, including the 0.5% royalty with Skeena, to Maverix Metals Inc. (Maverix). Maverix was acquired by Triple Flag Precious Metals Corp. (Triple Flag) in early 2023. This royalty is payable on all of the Mineral Reserves.

On December 30, 2022, Skeena granted a 0.5% NSR on the Eskay Creek Land package to Franco-Nevada Corp. (Franco-Nevada) in exchange for a closing cash consideration of C$27 M and contingent cash consideration of C$1.5 M. This royalty is payable on all of the Mineral Reserves. Subsequent to the Report effective date, on December 18, 2023, Skeena concluded a financing package with Franco-Nevada. The package included the sale of a 1.0% NSR royalty on Eskay Creek for C$56 million over all of the land packages that make up the Project. This royalty is payable on all of the Mineral Reserves, and is not included in the economic analysis in Section 22. With this incremental royalty purchase, Franco-Nevada now holds a 2.5% NSR on the Project.

Franco-Nevada also has a 1% NSR on the Kay-Tok property (Kay and Toc mining leases) based on a 1995 agreement and Arc Resource Group Ltd. has a 2% royalty on the SKI mining lease. These royalties are payable on a portion of the Mineral Reserves on these leases.

1.5 Geology and Mineralization

The Eskay Creek deposit is generally classified as an example of a high-grade, precious metals-rich epithermal volcanogenic massive sulphide (VMS) deposit; however, it has also been suggested to be an example of a subaqueous hot spring gold–silver deposit.

The Project is located along the western margin of the Stikine Terrane, within the Intermontane Tectonic Belt of the Northern Cordillera. It is hosted within the Jurassic rocks of the Stikinia Assemblage at the stratigraphic transition from volcanic rocks of the uppermost Hazelton Group to the marine sediments of the Bowser Lake Group.

In the Project area, stratigraphy comprises an upright succession of the Lower to Middle Jurassic Hazelton Group, including andesite, marine sediments, intermediate to felsic volcaniclastic rocks, rhyolite, contact mudstone (host to the main Eskay Creek deposits), and basaltic/andesitic sills and flows. This sequence is overlain by mudstones and conglomerates of the Bowser Lake Group.

These rocks are folded into a gently, northeast-plunging fold, the Eskay Anticline, and are cut by north-, northwest- and northeast-trending fault structures. Regional metamorphic grade in the area is lower greenschist facies.

Several styles of stratiform and discordant mineralization are present at the Eskay Creek Project, defined over an area approximately 1,400 m long and as much as 300 m wide. Distinct zones have been defined by variations in location, mineralogy, texture, and precious metal grades.

Stratiform-style mineralization is hosted in black carbonaceous mudstone and sericitic tuffaceous mudstone of the Contact Mudstone, located between the footwall Eskay Rhyolite member and the hanging wall Willow Ridge andesite unit. The stratiform-hosted zones include the 21A, 21B, 21Be, 21C, 21E, and North Extension (NEX). Stratigraphically above the Contact Mudstone, and usually above the first basaltic sill, the mudstones also host a localized body of base metal-rich, relatively precious metal-poor, massive sulphides referred to as the Hanging Wall (HW) Zone. Stratabound-style mineralization is also hosted stratigraphically below the Rhyolite and is hosted within the Lower Mudstone, Dacite, Even Lower Mudstone and Footwall Andesite, in the 23 Zone (formerly Lower Package Zone).

Stockwork and discordant-style mineralization at Eskay Creek is hosted in the Rhyolite within the PMP, 109, 21A, 21B-, 21Be, 21C, 21E, Water Tower, and 22 Zones.

Gold and silver occur as electrum and amalgam while silver mainly occurs within sulphosalts. Precious metal grades generally decrease proportionally with a decrease in total sulphides and sulphosalts. Clastic sulphoside beds contain fragments of coarse-grained sphalerite, tetrahedrite, and lead–sulphosalts, with lesser freibergeite, galena, pyrite, electrum, amalgam, and minor arsenopyrite. Stibnite occurs locally in late veins, as a replacement of clastic sulphides, and appears to be confined to the central, thickest part of the deposit, suggesting a locus for late hydrothermal activity. Cinnabar is rare and is found associated with the most abundant accumulations of stibnite. Barite occurs as isolated clasts, in the matrix of bedded sulphides and sulphosalts, and also as rare clastic or massive accumulations of limited extent. Barite is more common towards the north end of the deposit.

The Eskay Creek deposit retains exploration upside, along strike and at depth, in particular the potential to identify well-defined, mineralized syn-volcanic feeder structures that propagate through the volcanic pile.

1.6 History

Prior to Skeena acquiring its Project interest, companies that had been involved in the Project area included: Premier Gold Mining Co. Ltd., MacKay Gold Mines Ltd., Canadian Exploration Ltd., American Standard Mines Ltd., Pioneer Gold Mines of B.C. Ltd., New York-Alaska Gold Dredging Corp., Western Resources Ltd., Stikine Silver Ltd., Canex Aerial Exploration Ltd., Mount Washington Copper Co., Newmont Mining Corp., Kalco Valley Mines Ltd., Texas Gulf Canada Ltd., May-Ralph Resources Ltd., Ryan Exploration Ltd. (U.S. Borax), Kerrisdale Resources Ltd., Consolidated Stikine Silver Ltd., International Corona Corp., Homestake Canada Inc., and Barrick Gold Inc. Work completed included: prospecting, geological mapping and reconnaissance, rock, stream, sediment, and soil geochemical sampling, trenching, surface geophysical surveys (electromagnetic (EM), very low frequency (VLF), ground magnetic/VLF-EM, induced polarization (IP), seismic refraction, University of Toronto electro-magnetic system (UTEM)), borehole geophysics (frequency domain EM (FEM)) core drilling, exploration adit and underground development, petrography, and mining studies.

Underground mining operations were conducted from 1994 to 2008. From 1995–2006, ore was direct-shipped after blending and primary crushing. From 1998 to closure in 2008, ore was also milled on site to produce a shipping concentrate.

Skeena has completed geological mapping, soil and grab sampling, rotary air blast (RAB) and core drilling, an airborne light detection and ranging (LiDAR) and photo acquisition survey, Mineral Resource and Mineral Reserve estimation, metallurgical testwork, environmental testwork and supporting studies, and mining studies. A preliminary economic assessment (PEA) was completed in 2019 (2019 PEA), a pre-feasibility study in 2021 (2021 PFS), and a feasibility study in 2022 (2022 FS). The current, updated, feasibility study (2023 FS) was completed in 2023 and is the subject of this Report.

1.7 Drilling and Sampling

Surface drilling has been carried out by multiple operators, with the first drilling on the property by Unuk Gold in 1934. Between 1934 and 2004, 1,655 surface core drill holes (377,667.1 m) were drilled. Six underground core holes (224.64 m) were drilled in 1964 at the Emma adit, and 6,149 underground core drill holes (317,381.3 m) were completed from 1991 to 2008. From 2018 to 2022, Skeena drilled 1,101 core surface holes (183,440.54 m). No underground drilling has been undertaken to date. The 2023 drill program, with a planned 27 holes (15,700 m), is currently underway.

The database close-out date for estimation is March 28, 2023. The Mineral Resource estimate is based on 8,684 core holes (834,824 m). Drill holes from south of 8250 N (227 core holes) and Albino Lake (20 RAB holes) are not used in estimation. No drill holes from the in-progress 2023 drill campaign are used in estimation.

Limited information is available for procedures used during the exploration programs carried out before 2004. The drill core was logged using DLOG computer programs for data entry as well as for drill log printing. Information collected included lithology, mineralization, textural descriptions, rock colour, structure, core recovery, and rock quality designation (RQD). Skeena currently does not have access to the legacy RQD and recovery data. Underground collar location surveys were performed by the mine surveyors. These provided accurate collar locations for the holes, and a check on the initial azimuth and dip was recorded for each drill hole. Prior to 2004, most of the underground drill holes in the database were surveyed downhole using a Sperry Sun Single Shot instrument, with readings taken every 60 m, or by acid tubes, with readings every 30 m. In early 2004, downhole surveying used an Icefield Tools M13 instrument. This provided azimuths and dips for each hole every 3 m down the hole. Readings were reviewed by staff and inaccurate entries were removed from the database. All collar and survey information were tabulated in master files within the DLOG computer program. Completed logs were printed and the information was exported into ACAD and Vulcan software to facilitate plotting drill hole location maps and cross-sections.

During the Skeena drill programs, core was geologically logged for lithology, alteration, veining, mineralization, and structural features. Geotechnical data such as recovery, RQD, longest stick, and magnetic susceptibility were recorded. Skeena recorded geological and geotechnical information into a GeoSpark database. Core was photographed wet. Surface drill hole collars were initially located using hand-held global positioning system (GPS) units and surveyed at the end of the drill program using a Trimble differential GPS (DGPS). Down hole orientation surveys for surface drill holes were taken approximately every 30 m down the hole using a multi-shot Reflex orientation tool.

Drill hole spacing throughout the orebody varies from 5 m, where underground production drilling encountered complex areas, to 25 m between surface drill holes. The average drill hole spacing is approximately 10–15 m throughout the deposit. As the drill holes cut the mineralization at different angles, each drill hole has different true widths. In general, the true width is estimated to be 70–100% of the interval length.

Historically, sampling at Eskay Creek was selective and primarily based on visual estimations of sulphide percent. All sample intervals sent to the laboratory were tested for gold and silver; however, lead, copper, zinc, mercury, antimony, and arsenic were inconsistently sampled from one drilling campaign to the next. For underground drilling, lead, copper, zinc, mercury, antimony, and arsenic were assayed when samples exceeded 8 g/t gold equivalent (AuEq; where AuEq equaled Au + (Ag/68)). Legacy sampling intervals were variable. Prior to 2003, sample intervals varied from about 0.25 m to 1.5 m, though the optimum sample interval was 1.0 m. Sample intervals were always contained within one geological unit and did not straddle contacts. During 2004, sample intervals were typically on 1 m intervals, but smaller increments were applied where necessary to honour geological contacts.

During Skeena's drill programs, 1 m assay intervals were established when visible mineralization was first observed, and then uniform intervals were continued down the drill length until there is no evidence of mineralization. Assay intervals honoured geological contacts to a minimum of 0.5 m and a maximum of 1.5 m.

Specific gravity (SG) measurements are available from both historical and Skeena programs. Historically, the following formula was used to determine SG:

- SG = (Pb + Zn + Cu) * 0.03491 + 2.67 (where all metals are reported in %).

During Skeena's campaigns, SG samples were collected at the rate of one in every 20 m down the hole. A whole piece of competent core (10–15 cm in length) was selected and measured using the water displacement method. A total of 9,115 SG measurements were taken between 2018–2023, and are categorized according to dominant lithology type and mineralization zone.

Depending on lithology and mineralization, the SG values range from 2.63–3.89. Specific gravity was coded into the resource model using rock type divisions per estimation zone or rock type.

Laboratories used for sample preparation and analysis during legacy programs, where known, include: Independent Plasma Laboratories (IPL; independent, accreditations not known), the Eskay Mine laboratory (not independent, not accredited), Bondar Clegg (independent, ISO 9002), and Acme Analytical (Acme; independent, ISO 9001:2000).

Skeena used the ALS sample preparation facility in Kamloops (ALS Kamloops), which is independent and accredited. Analysis was completed at the ALS facility in Vancouver (ALS Vancouver), which holds ISO 17025 accreditation for selected analytical methods. Both laboratories are independent of Skeena. SGS Canada, located in Burnaby, BC (SGS), was used to independently test pulp duplicates and a select number of standards. SGS holds ISO 17025 accreditations for selected analytical techniques, and is independent of Skeena.

Legacy sample preparation and analytical methods varied by laboratory and over time, and typically consisted of crushing to -10 mesh, followed by pulverizing to -15, or -150. Skeena's samples were commonly crushed to -10 mesh then pulverized to -200 mesh.

Legacy analytical methods included:

- IPL: Gold was assayed by fire assay with an atomic absorption (AA) finish. All gold values >1.00 g/t were re-assayed by fire assay and finished gravimetrically. Silver was assayed by fire assay with an AA finish. Analysis for lead, zinc, copper, arsenic, and antimony was done by an ore grade assay method using AA. Mercury analysis consisted of an aqua regia digestion and inductively-coupled plasma (ICP) finish;
- Eskay Mine laboratory: Gold was assayed by fire assay with an AA finish. For analysis for zinc, antimony, copper, and lead, a 0.20 g sample was digested in a heated solution of tartaric, nitric, perchloric and hydrochloric acids, and finished by AA. For mercury and arsenic, a 1.00 g sample was digested in a heated solution of nitric, perchloric and hydrochloric acids and finished by AA;
- Bondar Clegg: Gold and silver were assayed by fire assay with an AA finish. Silver, lead, zinc, copper, arsenic, and antimony were analyzed using an aqua regia digest followed by an ICP atomic emission spectroscopy (AES) finish. Mercury was analysed using an aqua regia digest, with a cold vapour AAS finish;
- Acme: Gold was assayed by fire assay with an ICP mass spectrometry (MS). Overlimit grades (> 30 g/t Au) were re-assayed using fire assay with gravimetric finish. Silver was assayed using an aqua regia digest with an ICP–MS finish. Overlimit grades (>300 g/t Ag) were re-assayed using fire assay with an ICP–MS finish. Lead, zinc, copper, arsenic, and antimony were assayed using an aqua regia digest, with an ICP atomic emission spectroscopy (AES) or ICP–MS finish.

Analytical methods used during the Skeena programs included:

- Gold: 50 g sample; fire assay with AA finish (LDL: 0.01 g/t; ALD: 100 g/t); Overlimit fire assay with gravimetric finish (LDL: 0.05 g/t; ALD: 10,000 g/t);
- Silver: 50 g sample; fire assay with gravimetric finish (LDL: 5 g/t; ALD: 10,000 g/t). Overlimit concentrate and bullion grade fire assay with gravimetric finish (LDL: 0.07 g/t; ALD: 995,000 g/t);
- Multi-element suite: either 0.25-g sample, four-acid digest, ICP–AES finish; or 0.1 g sample, lithium borate fusion, ICP–MS finish. AES finish prioritized in database for most elements. As at March 2022, the ME_MS81 method took precedence for barium, gallium, lanthanum, uranium, and thorium due to incomplete digest of barium using four-acid digest;
- Arsenic, copper, lead zinc: overlimit, 0.4 g sample, four-acid digest, ICP or AA finish;
- Sulphur: overlimit; 0.1 g sample, LECO method (LDL: 0.01%, ADL: 50%);
- Mercury: aqua regia digest with ICP-AES finish (LDL: 1 ppm, ADL: 100,000 ppm);
- Antimony: overlimit; 0.2–0.4 g sample, hydrochloric acid-potassium chlorate digest (LDL: 0.1%, ADL: 100%).

The Eskay Creek mine initiated quality assurance and quality control (QA/QC) measures into their sample stream in 1997. With progressive years the QA/QC protocol became more comprehensive and detailed.

Skeena implemented a formal QA/QC program, consisting of included submission of blanks, certified reference materials (standards), duplicates, and completion of a check assay program. All quality control issues were immediately addressed, and repeat batches were conducted if questionable data was encountered. Quality control reports documented the type, quantity, and outcome of the quality control assessment, all of which show good performance and assay data integrity.

1.8 Data Verification

Internal data verification by Skeena personnel consisted of review of database inputs. Data were manually checked for errors and gaps prior to database upload, and where issues arose, these were corrected.

A number of verification programs were completed on historical data and in support of technical reports on the Project by third-parties, in the period 2004–2022. No material issues were identified during these programs.

Site visits were completed. The QPs individually reviewed the information in their areas of expertise, and concluded that the information supported Mineral Resource and Mineral Reserve estimation, and could be used in mine planning and in the economic analysis that supports the Mineral Reserve estimates.

1.9 Metallurgical Testwork

Testwork was conducted by, or supervised by, the independent metallurgical facilities Blue Coast Research, Parksville B.C., and Base Metallurgical Laboratories, Kamloops, B.C., in the period 2018–2023. Tests included: mineralogy, comminution, open and locked cycle flotation, whole ore leaching, gravity, variability, bulk sample, concentrate treatment, solid–liquid separation, filtration tests, and reagent selection and refinement.

The proposed process flowsheet has been refined and modified over time, with the current preferred option representing a conventional flowsheet consisting of a single rougher flotation stage and a single cleaning circuit producing a high-grade gold–silver concentrate.

The 2023 FS uses information from earlier programs in support of flowsheet design and simplification. The 2023 testwork was based on three large composite samples from drill core, representing different Mudstone to Rhyolite ratios that would be encountered at different phases of the proposed mine life.

Detailed mineralogy was completed for each of the 2023 composites including mineral abundance and sulphide liberation analysis. Mineralogy between the composites was relatively similar.

Comminution tests were completed prior to the 2023 FS, and consisted of determination of SG, abrasion index, drop weight index, Bond rod work index, Bond ball mill index testwork, and SMC comminution tests. 2023 testwork consisted of IsaMILL "signature plot" testing for assessing the specific energy required for fine grinding. The signature plot provides a relationship between product size and energy input for mill sizing.

A significant volume of flotation testwork was completed during the four earlier stages of metallurgical evaluations using materials from the Eskay Creek deposit. The 2023 FS adopted a significant change to the flotation process, which consisted of the introduction of high addition rates of flotation collector addition in the primary grinding mill. Introducing collector in the grinding process allows for better adsorption onto sulphide minerals in the face of competing organic minerals in the ores. This allowed for process circuit optimization opportunities.

A number of open circuit flotation tests were completed to confirm a relationship between primary grind particle size distributions and expected flotation recovery for gold and sulphur. A range of different chemistries were trialed. Each of the 2023 composites, along with a Rhyolite composite, underwent lock cycle tests under different conditions. The lock cycle results demonstrate that the gold recovery values are expected to be consistent at 80–82% of contained gold, although with different concentrate grades.

Recovery forecasts will vary over the proposed LOM plan, based on the proportion of lithologies planned to be treated each year, and the head grades. Gold and silver recovery rates are expected to range from 80.8–84.2% with an average LOM recovery of 83.0% for gold, and range from 89.0–94.2% with an average LOM recovery of 90.5% for silver.

High arsenic levels are expected for the first year before dropping to below penalty levels. Mercury penalties are expected for all production years; however, mercury will peak at approximately 1.5% of revenues in Year 1 and drop to approximately 0.3% of revenues for the remainder of the mine life. Sulphur in concentrate is expected to average 35% over the mine life.

1.10 Mineral Resource Estimation

The grade estimate was constructed using a block size of 5 x 5 x 2.5 m.

A lithostructural model was constructed that included lithologies, major faults, and intrusive units. A total of 103 mineralization solids were created, consisting of 14 high-grade solids and 89 lower-grade solids. The mineralization solids were separated into major fault block and historical mining zones.

The high-grade solid used to constrain and restrict the influence of the previously-mined extremely high-grade drill hole samples used a 15 g/t AuEq grade shell modelled in the orientation of the Contact Mudstone.

Estimation domains were coded successively based on the following division scheme: location within the historical mining area; dominant lithology type; position within the litho-structural domain; and location within the high-grade restriction domain.

A 0.20 m geotechnical exclusion zone around the underground workings was used to deplete the final resource estimate, using 1 x 1 x 1.25 m sub-blocks.

Capping was applied to all domains before compositing. Gold capping ranged from 115–1,700 g/t Au in the high-grade domains and 2.4–350 g/t Au in the lower-grade domains. Silver capping ranged from 200–60,000 g/t Ag in the high-grade domains and 30–22,000 g/t Ag in the lower-grade domains. Samples were composited to 1 m lengths.

Variograms were used to assess for grade continuity, spatial variability in the estimation domains, sample search distances, and kriging parameters.

Due to the folded nature of the deposit, dynamic anisotropy was selected as the preferred estimation method for the 21A, 21B, 21C, 21Be, NEX, HW and LP Zones because adjustments in each block could be made in relation to the presiding mineralization trend. The anisotropy direction was defined from the base of the Contact Mudstone.

SG values were determined based on a combination of lithology type and zone, with the mean SG value selected from each zone, or, if outside of the zones, then average SG values within lithology type were used. Where there were fewer than 10 samples, SG was determined by averaging the SG of zones in that lithology. Values ranged from 2.6–3.1.

Ordinary kriging (OK) was used to estimate gold and silver in all domains, apart from two zones in the WT Zone, which were estimated by inverse distance weighting to the second power (ID^2). Gold and silver within the mineralization domains were estimated using three passes with increasing search radii based on variogram ranges. Hard boundaries were honoured between all solids.

Validation included visual inspection in plan and sectional views, comparison of OK estimates with ID^2 and nearest-neighbour methods, and swath plots. No major biases were noted.

For mineralization in domains exhibiting good geological continuity using adequate drill hole spacing, the QP considers that blocks estimated during the first estimation pass using a minimum of four drill holes, an average distance of <18 m and a kriging variance of <0.4, to be classified as the Measured category. Mineralization in domains exhibiting good geological continuity estimated during Pass 1 with a minimum of three drill holes were classified as Indicated. Blocks estimated during pass 1 and 2 using a minimum of two drill holes and an average distance of <100 m were classified in the Inferred category.

Epithermal (mercury, arsenic, antimony), base metal (lead, copper, zinc), and metallurgical (iron and sulphur) elements were estimated to support metallurgical evaluations. A high degree of variability of the epithermal elements exists between the different zones and rock types, and elevated concentrations occur in localized zones/pods.

Mineralization considered potentially amenable to open pit mining methods was confined within a pit shell. A pit constrained cut-off of 0.7 g/t AuEq was selected for reporting the estimate, based on the equation:

- AuEq = ((Au(g/t)*1,700*0.84) + (Ag(g/t)*23*0.88)) / (1,700*0.84).

A portion of the deposit beneath the open pit shell may be amenable to drift-and-fill underground mining methods, and was confined within potentially mineable shapes. A cut-off of 3.2 AuEq was selected for reporting the estimate, based on the equation:

- AuEq = ((Au(g/t)*1,700*0.84) + (Ag(g/t)*23*0.88)) / (1,700*0.84).

1.11 Mineral Resource Statement

Mineral Resources are reported insitu, using the 2014 CIM Definition Standards. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Mineral Resources have an effective date of 20 June, 2023.

The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.

Mineral Resources considered potentially amenable to open pit mining methods are summarized in Table 1-1. Mineral Resources considered potentially amenable to underground mining methods are summarized in Table 1-2. The Mineral Resources considered potentially amenable to underground mining methods are reported exclusive of the estimated Mineral Resources potentially amenable to open pit mining.

Factors that may affect the estimate include: changes to long-term metal price assumptions; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to the density values applied to the mineralized zones; changes to geological shape and continuity assumptions; potential for unrecognized bias in the assay results from legacy drilling where there was limited documentation of the QA/QC procedures; changes to the input values used to generate the AuEq cut-off grade; changes to metallurgical recovery assumptions; changes in assumptions of marketability of final product; changes to the conceptual input assumptions for assumed open pit operations; changes to the input assumptions for assumed underground operations; variations in geotechnical, hydrogeological and mining assumptions; changes to environmental, permitting and social license assumptions.

1.12 Mineral Reserve Estimation

Mineral Reserves were estimated from Measured and Indicated Mineral Resources, assuming open pit mining methods. Inferred Mineral Resources within the mine plan were set to waste.

Pit designs were completed using the pseudoflow procedure in Geovia Whittle. Ultimate pits were generated using a revenue factor of one.

An NSR value of C$24.45/t (US$18.81/t) was used as the mill feed cut-off. NSR calculations are inclusive of all revenues for the gold concentrate. Revenues are based on contributions of both gold and silver metals. The NSR cut-off was used to flag ore and waste blocks and represents the preliminary process and site general and administrative (G&A) costs. The NSR is calculated using the following equation:

- NSR = [((gold in concentrate * concentrate tonnage) * gold price * gold payable percentage) + ((silver in concentrate * concentrate tonnage) * silver price * silver payable percentage)] – transportation costs – penalties – royalty.

The open pit resource model was provided as a sub-blocked model with 5 x 5 x 2.5 m parent blocks, and 1 x 1 x 1.25 m sub-blocks around the underground workings.

Table 1-1: Mineral Resources Potentially Amenable to Open Pit Mining Methods

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Measured	27,814	4.6	3.3	87.9	4,077	2,964	78,560
Indicated	22,264	2.1	1.6	32.0	1,468	1,144	22,876
Total Measured + Indicated	***50,078***	***3.4***	***2.6***	***63.0***	***5,545***	***4,107***	***101,436***
Inferred	652	1.9	1.5	32.4	40	30	680

Notes to Accompany Mineral Resources Potentially Amenable to Open Pit Methods:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, with an effective date of June 20, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are constrained within a conceptual open pit shell that uses the following assumptions: gold price of US$1,700/oz, silver price of US$23/oz; metallurgical recoveries of 84% for gold and 88% for silver; reference mining cost of US$3.00/t mined; mining dilution of 5%; mining recovery of 95%; processing cost of US$15.50/t processed; general and administrative costs of US$6.00/t processed; transportation and refining costs of US$18.5/oz Au and US$7/oz Ag; and overall pit slope angles of 45°.
4. Mineral Resources are reported at a cut-off grade of 0.7 g/t AuEq, using the equation AuEq = ((Au (g/t) * 1,700 * 0.84)+ (Ag (g/t)* 23 * 0.88))/(1,700 * 0.84).
5. Numbers have been rounded and may not sum.

Table 1-2: Mineral Resources Potentially Amenable to Underground Methods

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Measured	834	7.3	5.3	142.9	196	142	3,831
Indicated	988	4.9	4.1	55.7	156	131	1,768
Total Measured + Indicated	***1,821***	***6.0***	***4.7***	***95.6***	***352***	***273***	***5,599***
Inferred	272	4.6	4.2	25.4	40	37	222

Notes to Accompany Mineral Resources Potentially Amenable to Underground Mining Methods:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, with an effective date of June 20, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, SME Registered Member, a GRE employee.
2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are constrained within stope-optimized shapes that use the following assumptions: gold price of US$1,700/oz, silver price of US$23/oz; metallurgical recoveries of 84% for gold and 88% for silver; reference mining cost of US$100/t mined; processing cost of US$25/t processed; general and administrative costs of US$12/t processed; transportation and refining costs of US$18.5/oz Au and US$7/oz Ag; and a mining recovery of 95%.
4. Mineral Resources are reported at a cut-off grade of 3.2 g/t AuEq, using the equation AuEq = ((Au (g/t) * 1,700 * 0.84)+ (Ag (g/t)* 23 * 0.88))/(1,700 * 0.84).
5. Numbers have been rounded and may not sum.

1.13 Mineral Reserve Statement

Mineral Reserves are reported at the point of delivery to the process plant using the 2014 CIM Definition Standards, and have an effective date of 14 November, 2023.

The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.

The estimate is provided in Table 1-3.

Table 1-3: Mineral Reserves Statement

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Proven	27,954	4.1	3.0	80.9	3,675	2,657	72,661
Probable	11,889	2.3	1.8	40.1	894	680	15,308
Total	**39,843**	**3.6**	**2.6**	**68.7**	**4,569**	**3,336**	**87,969**

Notes to Accompany Mineral Reserves Table:

1. Mineral Resources are reported at the point of delivery to the process plant, using the 2014 CIM Definition Standards, with an effective date of November 14, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, SME Registered Member, a GRE employee.
2. Mineral Reserves are stated within the final design pit based on a US$1,800/oz gold price and US$23.00/oz silver price. Gold and silver recoveries were 83% and 91%, respectively during the LOM scheduling. An NSR cut-off of C$24.45/t was used to estimate Mineral Reserves based on preliminary processing costs of $18.22/t ore processed and G&A costs of C$6.23/t ore processed. Final operating costs within the pit design were C$2.96/t mined, with associated process costs of C$19.16/t ore processed, G&A costs of C$5.69/t ore processed and water treatment costs of C$2.50/t ore processed. Pit slope inter-ramp angles ranged from 26–51°.
3. Mineral Reserves are reported at a NSR cut-off of C$24.45/t. The equation AuEq (g/t) = ((Au (g/t) * 1,800 * 0.83) + (Ag (g/t)* 23 * 0.91))/(1,800 * 0.83) is used for reporting.
4. Numbers have been rounded and may not sum.

Factors that may affect the estimate include: metal price and exchange rate assumptions; changes to the assumptions used to generate the gold equivalent grade cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shapes, and geological and grade continuity assumptions; changes to offsets around the old underground workings and additional knowledge related to exact locations of the mined-out voids; density and domain assignments; changes to geotechnical assumptions including pit slope angles; changes to hydrological and hydrogeological assumptions; changes to mining and metallurgical recovery assumptions; changes to the input and design parameter assumptions that pertain to the open pit shell constraining the estimates; assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain and maintain environmental and other regulatory permits, and obtain the social license to operate.

Operations will need careful water management, effective execution of water diversion to allow access to the northern portion of the pit during later pit phases, and management of snow and rain conditions.

1.14 Mining Methods

1.14.1 Geotechnical Considerations

A geotechnical model that characterizes the rock mass conditions, structural geology, hydrogeology, and seismicity of the open pit area was developed and is used as the basis for the open pit geotechnical assessment. The rock mass model is based on data from drill hole logging, laboratory testing, the Eskay Creek geology model and relevant background reports. A total of 11 geotechnical units were identified.

Inter-ramp scale kinematic analyses were first performed in each structural domain to identify plausible planar, wedge, and toppling instability modes formed by the combination of discontinuities and the pit wall orientation. Based on the results, the structural domains in the pit wall were subdivided into "kinematic sectors" with similar kinematic controls. Bench-scale kinematic analyses were also completed to estimate the effective bench face angles that can be expected during mining.

Recommended inter-ramp slope angles range from 26–51°. Maximum inter-ramp stack heights should be limited to approximately 80 m in toppling controlled sectors and 120 m in other sectors. Inter-ramp stacks should be separated by geotechnical berms or ramps that are a minimum of 30 m wide. Double benches, of 20 m in height, are likely achievable in all sectors, with recommended catch bench widths ranging from 12.7–37.5 m, depending on the sector.

The slope design criteria assume that controlled blasting will be implemented. A program of scaling bench faces and cleaning accumulated material from bench toes is also required. Active slope depressurization will be required in the north and southeast walls of the north pit to meet the design acceptance criteria in these slopes.

1.14.2 Hydrogeological Considerations

The hydrogeological assumptions used in the 2023 FS were the same as those used in the 2022 FS.

1.14.3 Mine Plan

The mine plan assumes conventional open pit mining methods and the use of conventional equipment. Two open pits are planned, a larger northern pit, and smaller southern pit.

Pit designs were developed for the north and south pit areas. The initial phases were designed for the purpose of obtaining a technical sample and necessary NAG waste material to create supporting infrastructure. The north pit will consist of an additional six main phases, while the south pit will consist of a single small phase. The pit optimization shells used to determine the ultimate pits were also used to outline areas of higher value for targeted early mining and phase development.

The south pit is significantly smaller than the north pit, and is likely to be mined near the end of the mine schedule. The south pit generally has harder rock and lower gold grades. Rhyolite is the dominant rock type that will remain in the mined-out pit walls before reclamation.

A total of 11 pit phases are planned, for a nine-year mine life, with a three-year pre-production period. Mining will be initiated in the north pit starting with phase 1 and will continue sequentially by phase through to the last northern pit phase, phase 10. The south pit (phase 11) will be mined when all the pit phases in the north pit are complete.

Mine planning indicates that the northern end of the open pit will intersect Tom MacKay Creek requiring the provision of a water diversion channel to re-route flowing water along a bench of the Phase 9 pit before re-entering the existing Tom MacKay Creek downstream.

NAG and potentially acid generating (PAG) waste material contained in the ultimate pits are estimated at about 166.50 Mt and 151.39 Mt, respectively. The total amount of waste within the pits in the mine plan is 317.89 Mt. PAG waste will be sent to the Tom MacKay Storage Facility (TMSF) for subaqueous disposal. NAG waste will be stored in the MRSA.

Two ore stockpiles will be used:

- Low-grade stockpile: material with C$24.45/t ($18.81/t) <NSR <C$39/t ($30/t);
- Medium-grade stockpile: material with C$39/t ($30/t) <NSR <C$130/t ($100/t).

Grade control will be completed using a fleet of RC drill rigs.

The mining equipment selected to achieve the planned production schedule is conventional open pit mining equipment, with additional support equipment required for snow management.

Drilling will be completed with down-the-hole hammer drills with 171 mm bits. Pre-production mining will be completed with 75 ton and 90 ton class excavators, loading into 60 ton class articulated dump trucks. Production mining will be completed with 200 ton class excavators and 400 ton class hydraulic shovels loading 150 ton class haul trucks. Three 354 horsepower bulldozers will be dedicated to supporting the loaders in the pits. The support equipment fleet will be responsible for road, pit, and dump maintenance requirements and will provide snow removal during winter months. Snow blowers and snowplows were included in the fleet.

Skeena plans to execute selective mining of ore on three flitches within each 10 m high operating bench, by using 200 ton class excavators with buckets that are substantially smaller than the 5 x 5 x 5 m mine planning model blocks. During mine operations, ore and waste boundaries will be delineated by a grade control model that uses a smaller block size, which will be defined by the SMU that is achievable with the selected excavator bucket size. The grade control model will be developed from assays obtained from RC drilling to accurately define ore and waste contacts.

1.15 Recovery Methods

The processing plant facilities will consist of crushing, grinding and flotation circuits designed to liberate and recover gold from the ROM ore. Flotation concentrate will then be thickened, filtered, dried, and stockpiled at the process plant prior to loading into haul trucks for transport.

The Project will be constructed in two distinct phases, as follows:

- Initial operation of 3.0 Mt/a for Years 1–5, which comprises:
  - Single-stage crushing circuit (jaw), fed from the open pit mine;
  - Coarse ore bin with reclaim system, fed from an overland conveyor;
  - Primary grinding including a semi-autogenous grinding (SAG) mill, pebble crusher (installed in year 3), and ball mill in closed circuit with hydrocyclones;
  - Further classification and liberation via one stage of hydrocyclones and tertiary grinding;
  - Rougher flotation with concentrate regrind and two stages of cleaning;
  - Scavenger flotation for recovery of cleaner tails;
  - Concentrate thickening, filtration, drying and storage;
  - Concentrate load-out by way of front-end loaders filling concentrate transportation;
  - Final tailings pumping to the TMSF.
- Expansion to 3.5 Mt/a for the remaining mine life, which includes the initial equipment with the addition of the following installed for Year 6 operation:
  - Additional operating cyclones and concentrate filter plates (original equipment designed to allow expansion);
  - Upgraded process pumps and piping;
  - Several key pieces of equipment in the initial phase will already be sized to accommodate the final 3.5 Mt/a throughput, including the jaw crusher, SAG and ball mills, and thickener;
  - Retrofit larger motor size on tertiary grind mill (if required, pending further sampling and testwork).

The process plant building has been sized to accommodate the Year 6 expansion.

Electrical power will be provided to the process plant building from the main substation at 13.8 kV. The SAG mill, ball mill, tertiary mill and regrind mills will all operate on 13.8 kV motors. A stepdown transformer will provide 4160V and 600 V power to the other motors. The initial installed power for the processing plant will be 32.4 MW with an anticipated power draw of 25.3 MW during operations. The expansion installed power in Year 6 will be 33.2 MW, with an anticipated power draw of 26.1 MW.

Fresh water will be sourced from groundwater wells. Process water will consist predominantly of mine dewatering, contact water, concentrate thickener overflow and, TMSF reclaim water.

Consumables will include: collector (PAX); frother (methyl isobutyl carbinol); flocculant (anionic); crushing liners and wear parts; and grinding media.

1.16 Project Infrastructure

The proposed Project infrastructure will include:

- Eskay mine access road connecting the proposed operation to Highway 37 (Stewart-Cassiar Highway);
- On-site roads including:
  - TMSF haul road;
  - TMSF South Dam haul road;
  - Technical sample haul road;
  - Process plant and infrastructure pad site access road;
  - Process plant and infrastructure pad collection pond access road;
  - Explosives facility access road;
  - All other roads within site required to connect facilities and provide access to Project infrastructure;
- ROM crushing, handling, and process plant;
- Mine infrastructure facilities, including:
  - Security gatehouse at KM2 and KM55;
  - Truck weigh scale (adjacent to gatehouse at KM55);
  - Truck shop and truck wash;
  - Tire change area;
  - Mine warehouse;
  - Mine dry and administration offices;
  - Process plant workshop;
  - Laboratory;

- Process plant and infrastructure area services:
  - Potable and waste water treatment plant;
  - Electrical power system;
  - Propane tank and pumping system;
  - Fire protection systems;
- Fuel storage and dispensing area;
- Solid waste management facilities;
- Explosives storage facility;
- Permanent accommodation camp including:
  - Potable and waste water treatment plant;
  - Electrical power system;
  - Propane tank and pumping system;
  - Fire protection systems;

- High and medium-voltage power distribution systems;
- Open pit mine;
- ROM pads and low- to medium-grade ore stockpiles;
- Soil and overburden stockpiles;
- MRSA;
- TMSF;
- Water management facilities;
- TMSF water treatment plant (including reclaim water pumps and pipeline).

The access road is currently in good condition and is maintained on a continuous basis and is providing the main access to existing facilities at camp KM58 and KM59 (historical camp). During construction, this road will be locally re-routed in some limited areas between the future gate-house and historical camp, to accommodate tie-ins to newly constructed roads, or expanded footprint of future infrastructure, however access will be continuously maintained throughout the construction to facilitate optimal use of the existing facilities.

Soil and overburden stockpiles will be constructed adjacent the TMSF haul road. PAG waste rock and overburden will be temporarily stockpiled on surface during the pre-production period for material generated through initial pioneering of the TMSF and technical sample haul roads prior to access being available to the TMSF for subaqueous deposition. All PAG material will be relocated to the TMSF by the end of the pre-production period.

The MRSA will be located adjacent to, and immediately west of, the open pits within the Argillite Creek drainage.

The TMSF is an existing tailings storage facility located approximately 4.6 km southwest of the deposit area. Approximately 0.6 Mt was deposited subaqueously in the facility from 2001 to 2008. The deposited tailings were discharged as a slurry and have settled at a depth of approximately 30 m below the surface of the water.

Dams will be constructed at the north and south end of the TMSF to accommodate the storage of tailings and waste rock, as well as provide storage capacity of site contact water to be treated at the water treatment plant. The dams will be constructed in stages over the life of mine, with an initial starter dam constructed at the north of the facility to provide storage for tailings from the first year of mill operations, and PAG waste rock generated during pre-production and Year 1 of operations.

The TMSF has been designed to store 38.6 Mt of tailings and 152.8 Mt of PAG waste rock as well as site contact water, with additional capacity maintained above the minimum storage requirements for storm inflows.

PAG waste rock will be managed in the north end of the facility. Tailings slurry will be deposited in the south end of the TMSF at a nominal solids content of approximately 21% solids by weight.

The TMSF design is based on an operating mine life of 12 years, and a total storage capacity of 191.4 Mt of tailings and waste rock. The TMSF has a storage capacity of 118.8 Mm^3 which includes approximately 33.7 Mm^3 of tailings, 75.6 Mm^3 of PAG waste rock, 8.5 Mm^3 of water storage capacity, and 1 Mm^3 of stormwater management capacity for the environmental design flood (1-in-1,000-year, 24-hour precipitation event). Larger flood events will be managed through an emergency discharge spillway which will route storm flows to Tom MacKay Creek.

Site water management during construction involves controlling contact water runoff from the temporary PAG stockpiles, runoff from the roads, drawdown of the TMSF to prepare for construction of the TMSF dams, and erosion and sediment control measures around active construction areas. Site water management for operations involves controlling surface water around the Project site. Water in contact with mine workings or disturbed areas (groundwater inflows and meteoric inputs to the open pits; runoff from waste rock, ore stockpiles, quarry areas, tailings, laydown areas, etc.) is considered contact water. Non-contact water is runoff from undisturbed areas, including those areas that are being diverted.

A water treatment plant will treat mine-impacted water originating from the TMSF, open pits and the MRSA prior to discharge to the environment. Due to high flow rates, two separate treatment trains are planned for the plant. The water treatment plant is designed for a flow rate of 568 L/s and will operate year-round.

A mine-site water balance has been completed to support the design of the TMSF and the water treatment plant. The water balance indicates that the site will operate in an annual water surplus of approximately 560 L/s. Surplus volumes will be managed in the TMSF prior to treatment and discharge.

The existing camps at KM58 and KM59 (200-person combined capacity) and Forrest Kerr camp (160-person available capacity) will be used in Year -1 and the first half of Year -2. In Year -2, the 380-person permanent camp facility will be constructed, ready for occupancy in the second half of that year, and will be located at the Eskay Creek mine site east of the TMSF.

The Project will connect to the provincial grid via the Coast Mountain Hydro-owned 287kV transmission line, 2L379. Power will be purchased from BC Hydro who will supply the power over 2L379. The point of interconnection on 2L379 will be near Volcano Creek where a transmission line tap exists for the Coast Mountain Hydro-owned Volcano Creek generating station. The Eskay Creek power system will be capable of supplying 48 MVA to the Eskay Creek substation which will cover the initial power demands and planned future expansion.

Standby diesel generators in weatherproof enclosures will be provided to supply critical process loads and life safety systems.

1.17 Environmental, Permitting and Social Considerations

A number of environmental studies were performed in support of the historical mining activities to support an application for a Mine Development Certificate. Additional environmental studies were completed in 1997 to support the proposed mill installation at the mine site (and again in 2000 to apply for a separate Environmental Assessment Certificate and listing under Schedule 2 of the Metal and Diamond Mining Effluent Regulations, to deposit tailings and waste rock in the TMSF. Environmental monitoring and routine reporting was completed during and after the historical operations. The Eskay Creek Mine has been in care and maintenance since mining operations ceased in 2008, with ongoing site management and minimal waste generation.

Skeena commenced environmental, social, economic, historical and health baseline studies to reflect current environmental and social conditions in 2020. Where available and to provide context, pre-2020 data was reviewed and summarized for the current baseline studies and where suitable for the Project, sampling sites used in earlier studies were re-visited to support an application for a new or amended Environmental Assessment Certificate.

1.17.1 Environmental Considerations

The Project will be designed, constructed, operated, and decommissioned to meet all applicable provincial and federal environmental and safety standards, regulations, and permit conditions. Skeena will implement an environmental management system in advance of construction that defines the processes, resources, responsibilities, and specific management plans to ensure compliance. The existing site operates under an environmental management system which will be modified to meet the scope of the Project during the permitting process and include ongoing monitoring, management steps, and reporting to relevant parties.

Site water management will be a critical component of project design, execution, operation, and closure. To mitigate the potential contamination of water from a variety of sources (air, land, and process), Skeena will develop a Water Management Plan and a Dust Control Management Plan that applies to all activities, in addition to numerous other plans as required by regulation or that have been identified through the development and mitigation measures informed by Tahltan mitigation strategies.

1.17.2 Closure and Reclamation Planning

For planning purposes, closure and reclamation strategies have been developed for each mine component. In accordance with the *Mines Act* permit, mine closure, reclamation and post-closure costs must be updated every five years or upon a major amendment to the mine plan to reflect current and projected site wide closure and reclamation liabilities to inform the reclamation security bond.

A closure cost estimate was developed to determine the estimated cost of implementing closure plans. Reclamation and closure costs include conventional closure (e.g., earthworks), long-term monitoring and maintenance, and water treatment activities. Closure, reclamation, and post-closure costs were calculated over a 100-year timeframe using a net present value (NPV) analysis, beginning with scheduled closure and reclamation activities in 2040.

The total closure cost estimate, including water treatment, monitoring and maintenance, demobilization, engineering, and contingency is $174.8 M. At a 4% annual discount rate, the total discounted closure cost estimate in 2023 is $53.7 M.

1.17.3 Permitting Considerations

The Eskay Creek Mine went through two Environmental Assessment processes in its history. For the proposed Project, Skeena will undertake a substituted process to amend an existing Environmental Assessment Certificate or obtain a new Environmental Assessment Certificate. The process to follow for the Environmental Assessment/Impact Assessment is being developed with the provincial and federal regulators, the Tahltan Nation and Skeena, based upon the legislative steps, criteria, and procedures. Skeena submitted a Detailed Project Description to the federal and provincial regulators and Tahltan Central Government on August 11, 2022, to initiate the second phase (Readiness Decision) of the Environmental Assessment process. A process order was issued by the BC government on April 18, 2023 which outlines the scope of the assessment and determines the application information requirements to be included in the application.

No technical or policy issues have been identified that would prevent obtaining the required project permits and approvals, given its long mining history, understanding and mitigation of environmental and social effects.

No permits for project commercial development will be issued before an Environmental Assessment Certificate is obtained. Consequently, Skeena will apply concurrently for permits within the environmental review process schedule for all permits. Strategies to expedite the permitting process and reduce the time to start construction are being examined. To that end a Process Charter was signed between Skeena, the BC government and the Tahltan Central Government in January 2023 outlining regulatory processes to be followed, efficiencies, risk mitigations and the development of joint work plans.

Skeena has identified the likely provincial and federal permits that must be approved prior to commencing construction or operational activities.

1.17.4 Social Considerations

Provisions for consultation with Indigenous Nations and the public are a component of the provincial and federal legislation for both the Environmental Assessment processes and permitting activities. Skeena is implementing an Engagement Plan for the Project as required by the provincial and federal Environmental Assessment processes and meets the requirements of the Environmental Assessment process order. This plan provides a summary of Skeena engagement activities as well as serves as a guide for Skeena's engagement activities with identified Indigenous Nations and stakeholders throughout the Environmental Assessment process.

Ongoing and future engagement and consultation measures by Skeena are driven by best practices as well as Skeena's internal company policies, and federal and provincial government requirements. Skeena diligently tracks and maintains records of all engagement activities and commitments therefrom.

The Project is located within the traditional territory of the Tahltan Nation and the asserted territory of the Tsetsaut Skii Km Lax Ha. The historical environmental process and subsequent expansions included consultation with the Iskut Band, Tahltan Band, and the Tahltan Central Government.

Project traffic will use Highways 37 and 37A which pass through the Nass Area and Nass Wildlife Area (as defined by the Nisga'a Final Agreement) and the traditional territory of the Gitanyow Nation. Skeena engages with Nisga'a and Gitanyow on matters of mutual interest.

Skeena will consult with the public and relevant stakeholder groups, including tenure holders, businesses, economic development organizations, businesses, and contractors (e.g., suppliers and service providers), and special interest groups (e.g., environmental, labour, social, health, and recreation groups), as appropriate.

1.18 Markets and Contracts

A market study for the LOM potential concentrate production, which took into account production and grade variation over time, was finalized by third-party consultants Deno Advisory in October 2023. This study forms the basis for the economic analysis in this Report.

Typical treatment and refining charges for concentrate sales will depend on the concentrate type and grade.

The proposed Eskay Creek operation is expected to produce a high gold–silver grade concentrate with elevated levels of mercury, arsenic, carbon, and antimony. The concentrate is complex and will require a more measured marketing strategy.

Samples of the Eskay Creek concentrates, varying in antimony, arsenic, lead, zinc, gold, and silver grades, were sent to potential lead smelters and gold roasters during 2023. The exercise demonstrated that a diversified sales strategy could be implemented for concentrate sales; thereby reducing reliance on a single smelter or trader. Such a strategy could include varied sales to lead smelters, traders, blenders, and roasters.

China is the most likely destination for the majority of the concentrate production and the concentrate will currently meet the direct importation regulations, i.e., without the need for further blending. Skeena has received indicative bids from smelters and traders, ranging from a portion of the total production, to LOM production.

Skeena management used a combination of pricing used in other recently-published feasibility studies, long-term analyst prices, and the two-year and three-year trailing average gold and silver prices as of April, 2023 to establish the forecast pricing for the purposes of the 2023 FS. Mineral Resource and Mineral Reserve pricing was set at US$1,700/oz Au and US$23/oz Ag. Cashflow pricing was set at US$1,800/oz Au and US$23/oz Ag.

At the Report effective date, no contracts had been entered into. Concentrate sales are likely to be a mix of long-term and spot contracts, to ensure a diversified sales strategy. It is likely that the longer-term contracts will be a type of evergreen contract, which continue after the initial term, but with periodic renegotiation of terms and conditions. Terms of sale for a term contract between mining companies and smelters commonly use "benchmark terms", which include annual sales terms, and can be annually negotiated. In contrast, spot contracts use spot terms, and are negotiated on a contract-by-contract basis. Likely contracts other than concentrate sales may include bulk shipping, ship-loading services, load/port agency, and data management/invoicing contracts.

Other major contracts that may be entered into could cover items such as electricity supply, bulk commodities, operational and technical services, mining and process equipment, earthworks projects, security, transportation and logistics, and administrative support services. Such contracts would typically be reviewed and negotiated on a frequent basis and the terms would be typical of similar contracts both regionally and nationally.

1.19 Capital Cost Estimates

The capital cost estimate was prepared as an Association of the Advancement of Cost Engineering International (AACE International) Class 3 estimate with an accuracy of ±15%, and is reported using Q3 2023 Canadian dollars.

The capital cost estimate includes:

- Supply and installation of the fixed facilities to operating order;
- Engineering, procurement support, construction, and commissioning management services by scope package;
- Owner's costs;
- Design development, quantity growth allowances.

The capital cost estimate is summarized in Table 1-4. Total capital costs over the LOM are estimated at:

- Initial: C$712.9 M;
- Sustaining: C$561.3 M;
- Expansion: C$8.7 M;
- Closure: C$174.8 M.

1.20 Operating Cost Estimates

Operating costs are reported using Q3 2023 Canadian dollars and are in line with an AACE International Class 3 estimate with an accuracy range of ±15%.

Costs were broken down into:

- Fixed costs: costs that are independent of feed tonnes to the plant, or operating hours;
- Variable costs: costs that are driven by the amount of feed tonnes to the plant, or operating hours.

The operating cost estimate is summarized in Table 1-5. The LOM operating costs include:

- Mining: C$1,057.5 M, or C$26.54/t milled;
- Processing: C$736.5 M or C$19.16/t milled;
- G&A: C$326.2 M or C$8.19/t milled;
- Total: C$2,147.3 M or C$53.89/t milled.

Table 1-4: Capital Cost Estimate

Description	Initial (C $M)	Sustaining (C $M)	Expansion (C $M)	Closure (C $M)
Mining	113.7	426.0	—	—
Ore crushing and reclaim	38.0	3.0	—	—
Process plant	171.8	2.0	8.0	—
Tailings reclaim and water treatment	21.7	65.3	—	—
On-site infrastructure	98.6	52.0	—	—
Off-site infrastructure	30.3	—	—	—
Owner's costs	92.6	—	—	—
Indirect costs	97.5	13.0	0.7	—
Subtotal	*664.2*	*561.3*	*8.7*	—
Contingency	48.7	—	—	—
Closure	—	—	—	174.8
Total	***712.9***	***561.3***	***8.7***	***174.8***

Note: numbers have been rounded.

Table 1-5: Operating Cost Summary Table

	Initial Years 1–5		Expansion Year 6+		LOM	
	C$M	**C$/t milled**	**C$M/a**	**C$/t milled**	**C$M**	**C$/t milled**
Mining	710.5	45.40	347.0	14.34	1,057.5	26.54
Processing	313.5	20.03	450.0	18.60	763.5	19.16
G&A	150.1	9.59	176.1	7.28	326.2	8.19
Total	***1,174.2***	***75.03***	***973.1***	***40.22***	***2,147.3***	***53.89***

Notes: numbers have been rounded. Year 1–5 costs represent the costs for the initial phase and include pre-production costs. Year 6+ costs represent the costs in the expansion phase. Mining declines and more material is reclaimed from stockpiles after Year 6 toward Year 12.

1.21 Economic Analysis

1.21.1 Forward-Looking Information Statement

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 several known and unknown risks, uncertainties and other factors that may cause actual results to materially differ from those presented in this Report.

Information that is forward-looking includes:

- Mineral Resource and Mineral Reserve 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 underground mining methods as envisaged;
- Sustaining costs and proposed operating costs;
- Interpretations and assumptions as to agreement terms;
- Assumptions as to closure costs and closure requirements;
- Assumptions as to environmental, permitting, and social risks;

Additional risks to the forward-looking information include:

- Changes to costs of production from what are estimated;
- Unrecognized environmental risks;
- Unanticipated reclamation expenses;
- Unexpected variations in quantity of mineralized material, grade, or recovery rates;
- Geotechnical or hydrogeological considerations during mining being different from what was assumed;
- Failure of mining methods to operate as anticipated;
- Failure of plant, equipment, or processes to operate as anticipated;

Changes to assumptions as to the availability of electrical power, and the 2023 FS assumes that permits must be obtained in support of operations, and approval for development to be provided by Skeena's Board.

1.21.2 Methodology Used

An engineering economic model was developed to estimate annual pre-tax and post-tax cash flows and sensitivities of the Project based on a 5% discount rate. The Project assumes 100% equity. No price inflation or escalation factors were considered.

Tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations.

At the effective date of the Report, the Project was assumed to be subject to the following tax regime:

- Federal income tax of 15% and provincial income tax of 12%;
- BC Minerals Tax, assuming a net current proceeds rate of 2% and a net revenue tax rate of 13%.

Total tax payments are estimated to be C$1,561 M over the LOM.

The economic analysis was performed assuming a 5% discount rate.

The pre-tax net present value discounted at 5% (NPV 5%) is C$3,058 M, the internal rate of return (IRR) is 52.8%, and payback period is 1.13 years.

On an after-tax basis, the NPV 5% is C$1,973 M, the IRR is 42.7%, and the payback period is 1.19 years.

A summary of the Project economics is included in Table 22-1.

1.21.3 Sensitivity Analysis

A sensitivity analysis was conducted on the base case pre-tax and after-tax NPV and IRR of the Project, using the following variables: metal price, capital costs, operating costs, gold grade, and silver grade. The Project sensitivity to the discount rate and foreign exchange rate were also assessed in the 2023 FS.

On an NPV basis, the Project is most sensitive to changes in metal prices and gold grades, and then to a lesser extent, to operating costs and capital costs. The Project is least sensitive to changes in the silver grades.

Table 1-6: Cashflow Summary Table

Parameter	Value
Base Case Economic Assumptions	
Gold price (US$/oz)	1,800
Silver price (US$/oz)	23
Exchange rate (US$/C$)	0.74
Discount rate (%)	5
Contained Metal	
Contained gold (koz)	3,336
Contained silver (koz)	87,969
Mining	
Strip ratio (waste: ore)	7.98:1
Total material mined (excluding rehandle) (Mt)	357.7
Total ore mined (Mt)	39.8
Processing	
Processing life (years)	12
Processing throughput (Mtpa)	3.0 (Years 1–5) 3.5 (Years 6–12)
Average diluted gold grade (g/t)	2.6
Average diluted silver grade (g/t)	68.7
Production	
Gold recovery (% to concentrate)	83
Silver recovery (% to concentrate)	91
LOM gold production (koz)	2,769
LOM silver production (koz)	80,052
LOM AuEq production (koz)	3,891
LOM average annual gold production (koz)	228
LOM average annual silver production (koz)	6,583
LOM average annual AuEq production (koz)	320
Operating Costs Per Tonne	
Mining cost (C$/t mined)	2.96
Mining cost (C$/t milled)	26.54
Processing cost (C$/t milled)	19.16
G&A cost (C$/t milled)	5.69
Water treatment cost (C$/t milled)	2.50
Total operating costs (C$/t milled)	53.89

Parameter	Value
Other Costs	
Transport to smelter (C$/dmt concentrate)	154
Gold refining costs (C$/oz payable)	34
Silver refining costs (C$/oz payable)	1.65
Treatment costs (C$/dmt concentrate)	172
Royalty (NSR) (%)	2
Cash Costs and All-in Sustaining Costs	
LOM cash cost (US$/oz Au) net of silver by-product	133
LOM cash cost (US$/oz AuEq) co-product	568
LOM AISC (US$/oz Au) net of silver by-product	300
LOM AISC (US$/oz AuEq) co-product	687
Capital Expenditures	
Pre-production capital expenditures (C$M)	713
Expansion capital expenditures (C$M)	9
Sustaining capital expenditures (C$M)	561
Closure expenditures (C$M)	175
Economics	
After-tax NPV (5%) (C$M)	1,973
After-tax IRR	42.7
After-tax payback period (years)	1.2
After-tax NPV/initial capital costs	2.8
Pre-tax NPV (5%) (C$M)	3,058
Pre-tax IRR (%)	52.8
Pre-tax payback period (years)	1.1
Pre-tax NPV/initial capital costs	4.3
Average annual after-tax free cash flow (Year 1–5) (C$M)	467
Average annual after-tax free cash flow (Year 1–12) (C$M)	313
LOM after-tax free cash flow (C$M)	2,993

Notes:

- Cash costs are on an ounce payable basis and are inclusive of operating mining costs, processing costs, site G&A costs, royalties, smelting, refining, and transports costs.
- All-in sustaining costs (AISC) are on an ounce payable basis and include cash costs plus sustaining capital and closure costs.
- Pre-production capital expenditure of C$713 M is exclusive of initial working capital, primarily C$43.3 M of pre-production mining operating costs associated with establishing initial ore stockpile inventory.

1.22 Risks and Opportunities

1.22.1 Risks

A risk workshop was completed as part of the 2023 FS. Risks were ranked on probability and consequences, and focused on the proposed Project execution plan, schedule, and permitting timelines. Each risk identified had a mitigation action proposed.

Project-scale risks to the Mineral Resources, Mineral Reserves and the economic analysis are summarized in Table 1-7.

1.22.2 Opportunities

Opportunities are summarized in Table 1-8.

1.23 Interpretation and Conclusions

Under the assumptions in this Report, the Project shows a positive cash flow over the life-of-mine and supports the Mineral Reserve estimates. The projected mine plan is achievable under the set of assumptions and parameters used.

1.24 Recommendations

There are no material recommendations for additional work arising from the 2023 FS. Work proposed in that study would be completed as part of detailed engineering studies or conducted during mine start-up and ramp-up activities, and budget for that work is included in the capital or operating cost estimates, as relevant. As a result, the QPs have no meaningful recommendations to make.

Table 1-7: Project Risks

Discipline Area	Risk Identified	Impact	Mitigation Strategy
Mineral Resource estimates	Distribution and variability of the suite of elements that can be deleterious in concentrates	Variability is much higher than currently estimated, and that the model underestimates the deleterious elemental tonnages and grades that the 2023 FS mine plan and concentrate marketability assumptions are based on.	More information obtained from future drill programs will provide more complete data on elemental distributions within key lithologies and domains
Mining	Mining through voids	Risk to mine and production plans if alternate schedules have to be derived, or new safety measures implemented	Grade control drilling, mining methods
	Geotechnical designs	Pit slope angles may need to be shallower in some sectors of the pits	Collection of additional geotechnical data
	Dilution	Mining too much dilution material or losing high grade material near historical workings	Grade control drilling, mining methods
	Poor segregation of NAG and PAG	Economic and water quality impacts	Adhering to sampling program designed to segregate PAG and NAG waste rock
	Heavy snowfall	Affects mining outputs, can require temporary suspension of mining	Employ a specialist in heavy snowfall event management and mitigation
	Freshet	Water inflows due to seasonal changes greater than pumping capacity	Snow removal, storing the excess water on the lowest bench and adjusting the mining plan to excavate higher benches for the few days required for the pumping system to catch up and remove the water
TMSF	Groundwater seepage	May require a more comprehensive grout curtain and grout blanket design	Additional geochemical characterization of waste materials and contact water, data collection, modelling of foundation conditions
	Non-contact water management	Topographic and access constraints impacting sizing and design of the water treatment plant, and downstream flows/water quality predictions	Detailed water management planning

Discipline Area	Risk Identified	Impact	Mitigation Strategy
	Contact water management	Unable to meet discharge criteria efficiency or downtime/availability of water treatment plant	Design contingency and adequate characterization of water quality source terms, and water quality predictions
	Equipment losses during TMSF operations	Cost estimates due to equipment replacement requirements	Operating practices
	Material characterization	More material than estimated requiring sub-aqueous storage	Material characterization programs and updates to material handling management plans
Haul roads	Cut slope excavation	Cost estimates due to additional slope stabilization methods required	Design and conservative assumptions with respect to cut slope stability
	Construction sequencing and timelines	Project schedule and cost estimates	Detailed construction and execution planning; adequate resourcing of construction equipment and operators
	Stream and watercourse crossings	Availability of material for construction	Use of conservative assumptions with respect to material characterization and additional characterization programs in the field
Water management	Non-contact water diversions	Increase in design treatment capacity for the water treatment plant, and capital cost estimates	Contingency in design of the water treatment plant and inclusion of freeboard in the design of surface water management structures
	Contact water runoff collection	Larger pump systems required to manage contact water runoff, particularly during storm events and freshet; increases in capital and operating cost estimates	Sequencing of mine development to minimize disturbance footprints, and reduced contact water volumes
	Groundwater inflows	Increased contact water volumes	Use conservative assumptions around groundwater inflow estimates, and characterization programs and updated groundwater models to refine estimates
Construction	Construction schedule	Ability to construct to schedule, particularly TMSF and process	Detailed construction execution and sequencing

Discipline Area	Risk Identified	Impact	Mitigation Strategy
		plant; impact on capital and operating costs	and adequate construction resourcing
	Winter operations	Impact on capital and operating costs if infrastructure such as pipelines freezes	Design, and inclusion of heat-tracing of pipelines, if required
	Permitting constraints	Delay to Project schedule and road construction, resulting from pending approvals to place and discharge mine rock/tailings	Early engagement with regulatory agencies and Indigenous Nations. Development of feasible mitigations and contingencies for PAG handling and water management

Table 1-8: Project Opportunities

Discipline Area	Opportunity
Mineral Resource estimates	Mineralization currently classified as Inferred can be upgraded to higher confidence categories with support of drilling and test work
	Mineralization that is currently outside the estimate boundaries, or discovery of previously unknown mineralization, to be included in estimation with support of drilling and test work
Mining	Steeper slope design to reduce the cost associated with waste stripping and provide an opportunity to improve economics
	Use of stockpiles and strategic ore blending. This could result in better process performance and improved Project economics
	PAG waste material able to be effectively neutralised by blending with NAG waste, resulting in less PAG material being sent to the TMSF and therefore lower waste haulage and deposition costs
	Definition of PAG areas during mine operations could provide better PAG material management destination options and improve the confidence in segregation when assigning more NAG waste to waste facilities other than the TMSF
Recovery	Optimization of flotation reagent chemistry could lead to higher recoveries and/or reduced operating costs to improve project economics
TMSF	Using contact water from the MRSA and open pits in the process plant
	Thicken tailings to reduce the volume of water being pumped to the TMSF
	Additional material characterization programs that result in less PAG waste identified, resulting in reduced storage capacity requirements in the TMSF
	Optimization of the closure cover
Haul roads	Optimization of haul road alignments to reduce footprint and improve constructability
	Using gabion baskets or mechanically-stabilized earth walls for stream crossing construction

Discipline Area	Opportunity
	Explore the use of single-lane traffic for stream-crossings
Water management	Reduce open pit dewatering requirements through inclusion of pit depressurization and groundwater interception wells
	Sequence construction of the MRSA and progressively reclaim benches and exposed faces of the MRSA to reduce contact water runoff
	Develop the MRSA in a manner that provides water quality source control and improve water quality during operations and closure
Permitting	Expedite and or de-risk regulatory approvals through regulatory application strategies e.g., single application package, and concurrency of permitting.

2.0 INTRODUCTION

2.1 Introduction

Mr. Ben Adaszynski, P.Eng., Ms. Terre Lane MMSA QP, Dr. Hamid Samari, MMSA QP, Mr. Jim Fogarty, P.Eng., Mr. Ian Stilwell, P.Eng., Mr. Rolf Schmitt, P.Geo., Mr. A.J. MacDonald, P.Eng., Mr. David Baldwin, P.Eng., and Mr. Steven Andrew Baisley, P.Geo., have prepared this technical report (the Report) on the Eskay Creek Project (the Project) in British Columbia for Skeena Resources Limited (Skeena).

The Project location is shown in Figure 2-1.

Skeena wholly-owns the Project.

Mineral Resources and Mineral Reserves are reported for the Eskay Creek deposit assuming open pit mining methods. The deposit hosted an underground mining operation from 1995–2008.

2.2 Terms of Reference

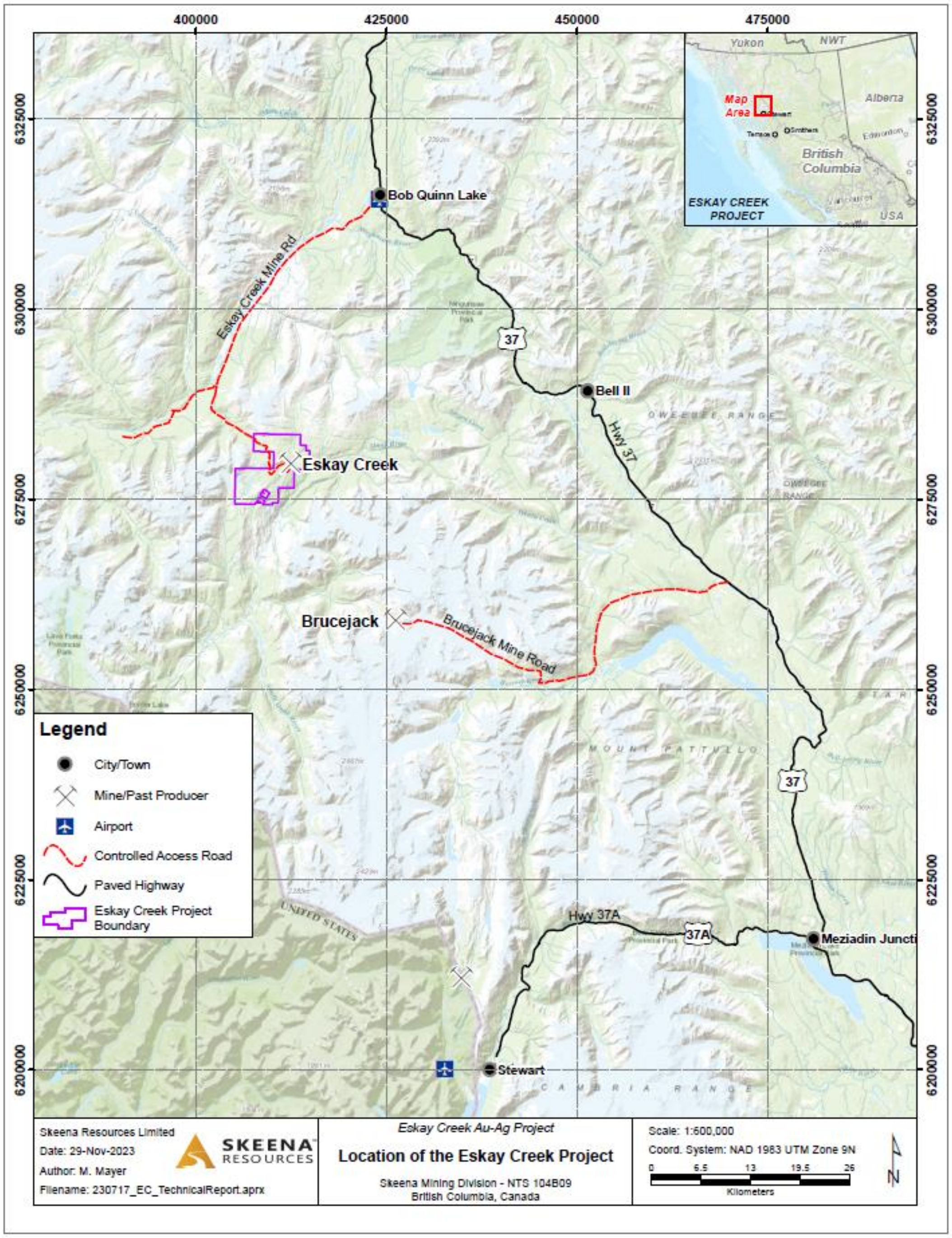
This Report was prepared to support disclosures in Skeena's news release filed 14 November, 2023, entitled "Skeena Completes Positive Definitive Feasibility Study For Eskay Creek: After-Tax NPV (5%) of C$2.0 Billion, 43% IRR And 1.2 Year Payback".

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 (May 2014; the 2014 CIM Definition Standards) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2019; the 2019 CIM Best Practice Guidelines).

Units used in the report are metric units unless otherwise noted. Monetary units are in Canadian dollars (C$) unless otherwise stated. The Report uses Canadian English.

Skeena uses the term "mine rock storage area" (MRSA) for the area where permanent storage of non acid-generating (NAG) waste rock will be stored, and where temporary storage of ore within the run-of-mine (ROM) ore stockpiles will occur.

Figure 2-1: Project Location Map



Note: The Brucejack Mine is owned by third parties.

2.3 Qualified Persons

The following serve as the qualified persons (QPs) for this Report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1:

- Mr. Ben Adaszynski, P.Eng., Manager Project Development, Sedgman Canada Limited;
- Ms. Terre Lane, MMSA QP, Principal Mining Engineer, Global Resource Engineering (GRE);
- Dr. Hamid Samari, MMSA QP, Principal Geologist, GRE;
- Mr. Jim Fogarty, P.Eng., Senior Engineer, Knight Piésold Ltd (Knight Piésold);
- Mr. Ian Stilwell, P.Eng., Principal Geotechnical Engineer, BGC Engineering Inc. (BGC);
- Mr. Rolf Schmitt, P.Geo., Technical Director – Permitting, ERM Consultants Canada Ltd;
- Mr. A.J. MacDonald, P.Eng., Vice President, Integrated Sustainability Ltd. (Integrated Sustainability);
- Mr. David Baldwin, P.Eng., Carisbrooke Consulting Inc.;
- Mr. Steven Andrew Baisley, P.Geo., Senior Mine Reclamation and Closure Geoscientist, M.A. O'Kane Consultants Inc.

2.4 Site Visits and Scope of Personal Inspection

The QPs performed site visits as follows.

Ms. Terre Lane visited the site on October 18 and 19, 2022. During that visit she toured the site via helicopter, visited core drilling operations, visited the core logging and sample preparation facility, inspected core, and selected 16 samples for check assay. Ms. Lane also reviewed QA/QC procedures, geotechnical logging facilities, and on site geological and assay databases.

Dr. Hamid Samari visited the site from 19–21 September 2023. He verified sample preparation, handling, and chain of custody procedures, verified surface drill hole location and core logs, inspected selected outcrop, inspected 132 sample intervals, including 49 core boxes from 12 different drill holes from the 2022 drilling program, and took 10 witness samples for check assay from the 2022 drilling program.

Mr. Jim Fogarty visited the site from 13–15 September, 2022, and 16–18 October, 2023. During the visits, Mr. Fogarty inspected numerous infrastructure locations and proposed locations, including the Tom MacKay storage facility (TMSF), the proposed haul roads to the TMSF, the technical sample location, the MRSA, proposed water management structures, and existing mine water management structures (e.g., the mine water ponds).

Mr. Ian Stilwell visited the site from September 1–4 2021, during the 2021 geotechnical drilling program. He reviewed the core logging, sampling, and testing procedures with Ausenco's core loggers at the drill rigs and with Ausenco's field supervisor at the core storage area. He also toured the site to review representative outcrops and terrain within and around the proposed pit area.

Mr. David Baldwin visited the site from 14–16 August 2023. During the visit, Mr. Baldwin inspected both substation locations and the transmission line route. The route was inspected from the parallel main access road and helicopter.

2.5 Effective Dates

The Report has a number of effective dates including:

- Date of supply of last information on mineral tenure, surface rights and agreements: 19 December, 2023;
- Date of updated information on royalties: 21 December, 2023;
- Date of closure of database used for resource estimation: 28 March, 2023;
- Date of last drilling information included in the Report: 31 October, 2023;
- Date of Mineral Resource estimate: 20 June, 2023;
- Date of Mineral Reserve estimate: 14 November, 2023;
- Date of economic analysis: 14 November, 2023.

The overall effective date of the Report is the date of the Mineral Reserve estimate and economic analysis, which is 14 November, 2023.

2.6 Information Sources and References

The key reference for the Report is the 2023 feasibility study update:

- Sedgman Canada Limited, 2023: Definitive Feasibility Study, Eskay Creek Revitalization Project: draft report prepared by Sedgman Canada Limited, Global Resource Engineering, Knight Piésold Ltd., BGC Engineering Inc., ERM Consultants Canada Ltd., Integrated Sustainability Ltd., Carisbrooke Consulting Inc. and M.A. O'Kane Consultants Inc. for Skeena Resources Ltd., December, 2023; 740 p.

The reports and documents listed in Section 2.7 and Section 27.0 of this Report were also used to support the preparation of the Report.

Additional information was sought from Skeena personnel where required.

2.7 Previous Technical Reports

Skeena has filed the following technical reports on the Project:

- Murray, K., Fard, M.A.H., Papini, G., Hasanloo, D., Mehrfert, PI, Ulansky, S. Schmitt, R., Hamilton, W., Stilwell, I., and Schmid, C, 2022: Eskay Creek Project, NI 43-101 Technical Report and Feasibility Study: report prepared by Ausenco Engineering Canada Inc., Ausenco Sustainability Inc., SRK Consulting (Canada) Inc., ERM, AGP Mining Consultants Inc., and BGC Engineering Inc., for Skeena, effective date September 6, 2022; amended and restated report date: September 19, 2022;
- Raponi, R., Elfen, S., Ulansky, S., Schmitt, R., Dance, A., Hamilton, W., Tosney, R., 2021: NI 43-101 Technical Report and Prefeasibility Study, Canada: report prepared by Ausenco Engineering Canada Inc. for Skeena, effective date 22 July 2021;
- Ulansky, S., and Carlson, G., 2021: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena, effective date 7 April 2021;
- Kalanchey, R., Elfen, S., Weston, S., Ulansky, S., Dance, A., Zurowski, G., and Hamilton, W., 2019: NI 43-101 Technical Report on Preliminary Economic Assessment: report prepared by Ausenco Engineering Canada Inc., Hemmera Envirochem Inc., SRK Consulting (Canada) Inc. and AGP Mining Consultants Inc for Skeena, effective date 7 November 2019;
- Ulansky, S., Uken, R., and Carlson, G., 2019: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena, effective date 28 February 2019;
- Ulansky, S., Uken, R., and Carlson, G., 2018: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena, effective date 6 July 2018.

3.0 RELIANCE ON OTHER EXPERTS

3.1 Introduction

The QPs have relied upon the following other expert reports, which provided information on mineral tenure, taxation, and marketing assumptions.

3.2 Mineral Tenure, Surface Rights, and Royalties

The QPs have not independently reviewed the mineral tenure, surface rights, Project agreements, and royalties. The QPs have fully relied upon, and disclaim responsibility for, information provided by Skeena in the following documents:

- McCarthy Tétrault LLP, 2023: Mineral Title Opinion prepared for Skeena with respect to certain mineral tenures registered under the Mineral Tenure Act (British Columbia): December 19, 2023.
- MacRitchie, A., 2023: Franco-Nevada Royalty: letter prepared by Skeena for Ms. Terre Lane, GRE Engineering, 21 December, 2023, 1 p.

This information is used in Section 4 of the Report and in support the Mineral Resource estimate in Section 14 and the Mineral Reserves estimate in Section 15.

3.3 Taxation

The QPs have not independently reviewed the Project taxation position. The QPs have fully relied upon, and disclaim responsibility for, experts retained by Skeena in the following report:

- Casey, E., 2023: Taxation Support for Use in the Technical Report: letter prepared by Skeena for Ms. Terre Lane, GRE Engineering, 2 November, 2023, 2 p.

This information is used in Section 22 of the Report and support of the Mineral Reserves in Section 15.

3.4 Markets

The QPs have relied on marketing experts retained by Skeena for information relating to treatment and refining charges, metal pricing, and concentrate marketability through the following report:

- Deno Advisory, 2023: A Marketing Report for Skeena Resources Eskay Creek Concentrate: report prepared for Skeena Resources, October 2023, 41 p.

This information is used in Sections 19 and 22 of the Report and support the Mineral Resource estimate in Section 14 and the Mineral Reserves estimate in Section 15.

Metals marketing, global concentrate market terms and conditions, and metals forecasting are specialized businesses requiring knowledge of supply and demand, economic activity and other factors that are highly specialized and require an extensive database that is outside of the purview of a QP.

The QPs consider it reasonable to rely on Deno Advisory, as the firm is a specialist advisor on commercial and logistical matters for concentrate marketing and operates an agency-style model for mining companies to market, contract, ship and monetise concentrate production; an outsourced commercial department, with full control in decision making retained by the mine management and executives.

Deno Advisory has previously been responsible for the marketing, selling, contracting and logistics for Nevsun Resources' Bisha mine in Eritrea, and PanAust's Phu Bia mine in Laos; a total of over 650,000 dmt/a in concentrate shipments.

The QPs consider the information from Deno Advisory is suitable for use in the Report, and the selected smelter terms are applicable for use in estimating potential treatment charges, penalties and net smelter returns for the proposed Eskay Creek concentrates.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Introduction

The Project is located in the Golden Triangle region of British Columbia, Canada, 83 km northwest of Stewart, on the eastern flanks of the Coast Mountain ranges.

The Project is situated at an elevation of 800 m above sea level at 56° 39' 13.9968" N and 130° 25' 44.0004" W.

4.2 Project Ownership

Skeena optioned the Project from Barrick Gold Inc (Barrick) in 2017, and obtained a 100% ownership interest in 2020.

4.3 Mineral Tenure

The Project covers a total of 7,666.02 ha and consists of the following (Figure 4-1):

- 51 mineral claims totalling 5,835.76 ha (Table 4-1);
- Eight mineral leases totalling 1,830.26 ha (Table 4-2).

Of the 51 mineral claims, 49 mineral claims are 100% registered to Skeena, and two mineral claims are jointly held by Skeena (66.67%), and Canagold Resources Ltd (33.33%).

Five mineral leases are 100% held by Skeena and three mineral leases are jointly held by Skeena (66.6667%), and Canagold Resources Ltd (33.3333%).

All statutory annual reporting obligations have been met.

Mineral leases have an annual rent payment that is due yearly on the anniversary date of the lease. The payment is based on the amount of hectares within the lease, and is C$20/ha.

Mineral claims have a yearly work requirement based on the amount of hectares. A "Statement of Work" is required to be filed on the claims with the Mineral Tenure Branch and the company submits an Assessment report detailing the work that was completed within 90 days.

Where on-ground work commitments have not been met, Skeena has made cash-in-lieu payments as stipulated under the BC *Mineral Tenure Act* Regulation.

Figure 4-1: Mineral Tenure and Surface Lease Location Map

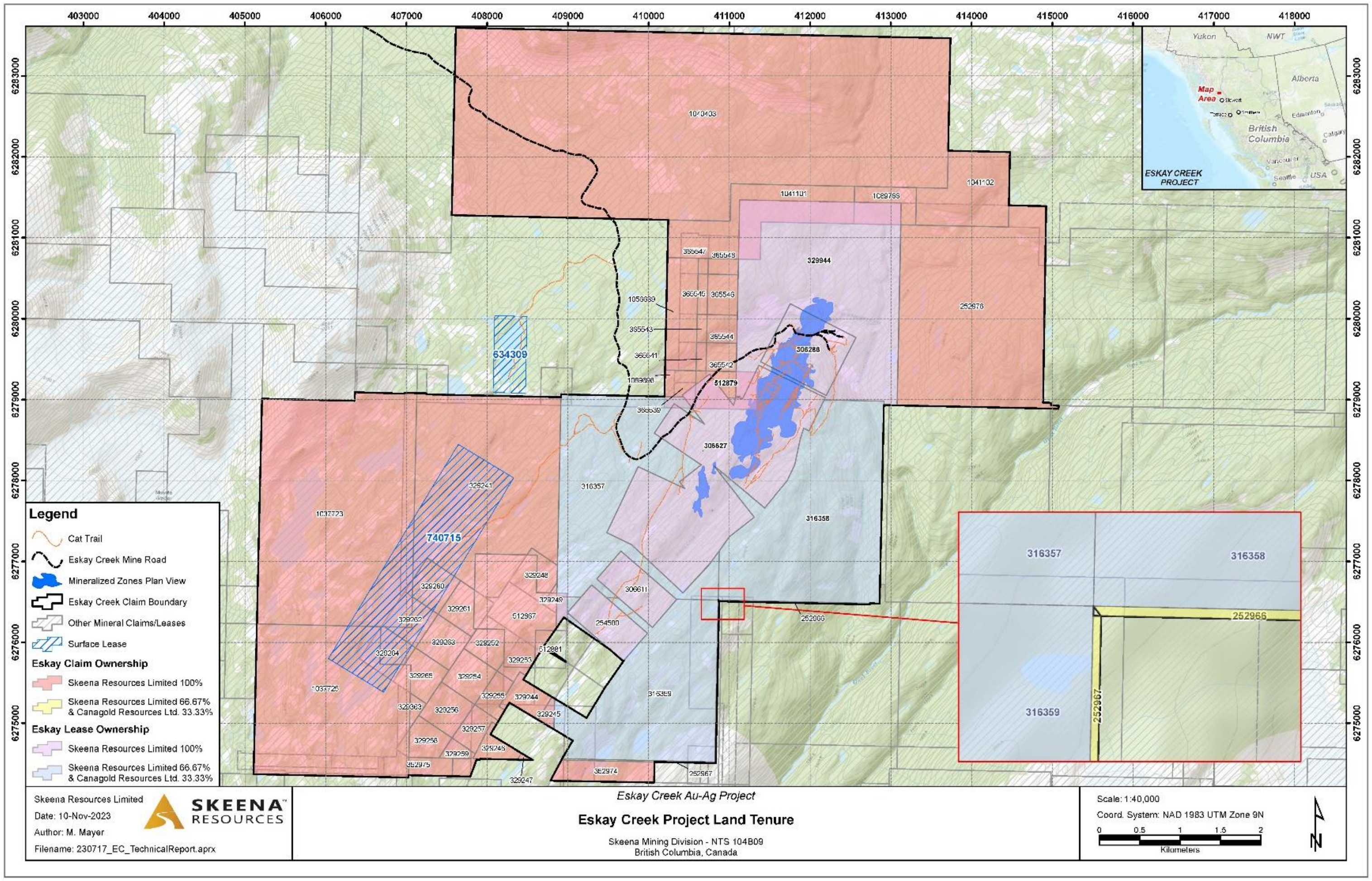


Table 4-1: Mineral Claim Table

Tenure Number	Claim Name	Issue Date	Good to Date	Area (ha)	Owner Name	Percent Ownership (%)
252966	CAL #2	1989/AUG/05	2034/JAN/15	500	Skeena Canagold Resources Ltd.	66.67 33.33
252967	CAL #3	1989/AUG/06	2034/JUN/22	400	Skeena Canagold Resources Ltd.	66.67 33.33
252976	IKS 2	1989/AUG/02	2025/JUL/12	500	Skeena	100
300298	P-1	1991/JUN/11	2024/MAY/20	25	Skeena	100
300299	P-2	1991/JUN/11	2024/MAY/20	25	Skeena	100
300300	P-3	1991/JUN/11	2024/MAY/20	25	Skeena	100
300301	P-4	1991/JUN/11	2024/MAY/20	25	Skeena	100
329241	MACK 23	1994/JUL/21	2025/JUN/25	500	Skeena	100
329244	MACK 1	1994/JUL/21	2025/JUN/25	25	Skeena	100
329245	MACK 2	1994/JUL/21	2025/JUN/25	25	Skeena	100
329246	MACK 3	1994/JUL/21	2025/JUN/25	25	Skeena	100
329247	MACK 4	1994/JUL/21	2025/JUN/25	25	Skeena	100
329248	MACK 5	1994/JUL/21	2025/JUN/25	25	Skeena	100
329249	MACK 6	1994/JUL/21	2025/JUN/25	25	Skeena	100
329252	MACK 9	1994/JUL/21	2025/JUN/25	25	Skeena	100
329253	MACK 10	1994/JUL/21	2025/JUN/25	25	Skeena	100
329254	MACK 11	1994/JUL/21	2025/JUN/25	25	Skeena	100
329255	MACK 12	1994/JUL/21	2025/JUN/25	25	Skeena	100
329256	MACK 13	1994/JUL/21	2025/JUN/25	25	Skeena	100
329257	MACK 14	1994/JUL/21	2025/JUN/25	25	Skeena	100
329258	MACK 15	1994/JUL/21	2025/JUN/25	25	Skeena	100
329259	MACK 16	1994/JUL/21	2025/JUN/25	25	Skeena	100
329260	MACK 17	1994/JUL/21	2025/JUN/25	25	Skeena	100
329261	MACK 18	1994/JUL/21	2025/JUN/25	25	Skeena	100
329262	MACK 19	1994/JUL/21	2025/JUN/25	25	Skeena	100
329263	MACK 20	1994/JUL/21	2025/JUN/25	25	Skeena	100
329264	MACK 21	1994/JUL/21	2025/JUN/25	25	Skeena	100

Tenure Number	Claim Name	Issue Date	Good to Date	Area (ha)	Owner Name	Percent Ownership (%)
329265	MACK 22	1994/JUL/21	2025/JUN/25	25	Skeena	100
329363	MACK 26 FR.	1994/AUG/03	2025/JUN/25	25	Skeena	100
352974	STAR 21	1996/DEC/07	2028/JUN/22	250	Skeena	100
352975	STAR 22	1996/DEC/07	2025/JUN/25	150	Skeena	100
365539	KAY 1	1998/SEP/12	2025/OCT/06	25	Skeena	100
365541	KAY 3	1998/SEP/12	2025/OCT/06	25	Skeena	100
365542	KAY 4	1998/SEP/12	2025/OCT/06	25	Skeena	100
365543	KAY 5	1998/SEP/12	2025/OCT/06	25	Skeena	100
365544	KAY 6	1998/SEP/12	2025/OCT/06	25	Skeena	100
365545	KAY 7	1998/SEP/12	2025/OCT/06	25	Skeena	100
365546	KAY 8	1998/SEP/12	2025/OCT/06	25	Skeena	100
365547	KAY 9	1998/SEP/12	2025/OCT/06	25	Skeena	100
365548	KAY 10	1998/SEP/12	2025/OCT/06	25	Skeena	100
512867		2005/MAY/17	2024/JUN/25	106.8	Skeena	100
512879		2005/MAY/18	2024/APR/06	35.58	Skeena	100
512881		2005/MAY/18	2024/JUN/25	17.8	Skeena	100
1037725	ESKAY CREEK MAC 25	2015/AUG/04	2024/OCT/04	338.3283	Skeena	100
1041101	ESKEY CREEK TREND	2016/JAN/09	2026/FEB/12	124.4705	Skeena	100
1041102	ESKEY CREEK 1983 FILE	2016/JAN/09	2025/JAN/10	88.9027	Skeena	100
1056639	MELISSA	2017/NOV/24	2026/FEB/12	53.35	Skeena	100
1089698	ESKAY 3	2022/JAN/21	2025/JAN/21	17.79	Skeena	100
1089766	ESKAY 1	2022/JAN/21	2025/JAN/21	35.56	Skeena	100
1040403	ESKAY NORTH	2015/DEC/05	2024/SEP/11	1297.69	Skeena	100
1037723	NEW ESKAY CREEK 1	2015/AUG/04	2028/DEC/15	569.4858	Skeena	100

Table 4-2: Mineral Lease Table

Tenure Number	Issue Date	Good to Date	Area (ha)	Owner Name	Percent Ownership (%)
306286	1991/Aug/13	2024/Aug/13	73.56	Skeena	100
306611	1992/Jun/01	2024/Jun/01	41.8	Skeena	100
306627	1992/Jun/01	2024/Jun/01	355	Skeena	100
316357	1994/Apr/30	2024/Apr/30	276.7	Skeena Canagold Resources Ltd.	66.6667 33.3333
316358	1994/Apr/30	2024/Apr/30	367.7	Skeena Canagold Resources Ltd	66.67 33.3333
316359	1994/Apr/30	2024/Apr/30	278.7	Skeena Canagold Resources Ltd	66.6667 33.3333
329944	1994/Dec/06	2024/Dec/06	395	Skeena	100
254580	1990/Dec/17	2024/Dec/17	41.8	Skeena	100

4.4 Surface Rights

Skeena holds the following surface rights interests:

- Surface lease number 634309 (December 24, 1994) between the Province of BC and Prime Resources Group Inc.; interest assigned to Skeena;
- Surface lease number 740715 (July 25, 2004) between the Province of BC and Optionor; interest assigned to Skeena;
- Special Use Permit S17635: for the use of the Eskay Creek road;
- Permitted Mine Area authorized under *Mines Act* M197, August 2023;
- Temporary Licence of Occupation SK945110.

The locations of the surface leases were included in Figure 4-1.

District Lots underly the Eskay Creek tenures, and a title search indicates that there are no mineral or surface rights associated with the District Lots. Skeena will need to acquire surface rights in support of any future mining and processing activities.

Permit amendment for Surface Lease 740715 will be required to extend the boundary to include the surface area associated with the south end of the TMSF.

4.5 Water Rights

Skeena currently holds two water licences:

- Conditional Water Licence 1017796 (March 2, 1994) between the Province of BC and Prime Resources Group Inc.; interest assigned to Skeena on October 9, 2020;
- Conditional Water Licence 114327 (effective April 20, 1999) between the Province of BC and Homestake Mining Company; interest assigned to Skeena on October 9, 2020.

Skeena anticipates having to apply for additional water licences under the BC Water Sustainability Act, including the following subsections:

- Section 2: Groundwater Well Registration and Groundwater Usage;
- Section 9: Authorization for Diversion and Use of Water;
- Section 10: Short Term Water Use;
- Section 11: Authorization for Working on or About Streams.

4.6 Royalties and Encumbrances

The Project has NSR royalty obligations payable to third parties as shown in Table 4-3 and Table 4-4. The locations of the tenures with royalty obligations are shown in Figure 4-2. Royalties payable on all of the Mineral Reserves have been included in the economic analysis in Section 22.

4.6.1 Barrick/Triple Flag Royalty

A 1% net smelter return (NSR) royalty on the entire Eskay Creek land package was payable to Barrick, with Skeena able to purchase half (0.5%) of that royalty. On September 23, 2022 Skeena purchased the 0.5% NSR, leaving a 0.5% royalty payable to Barrick.

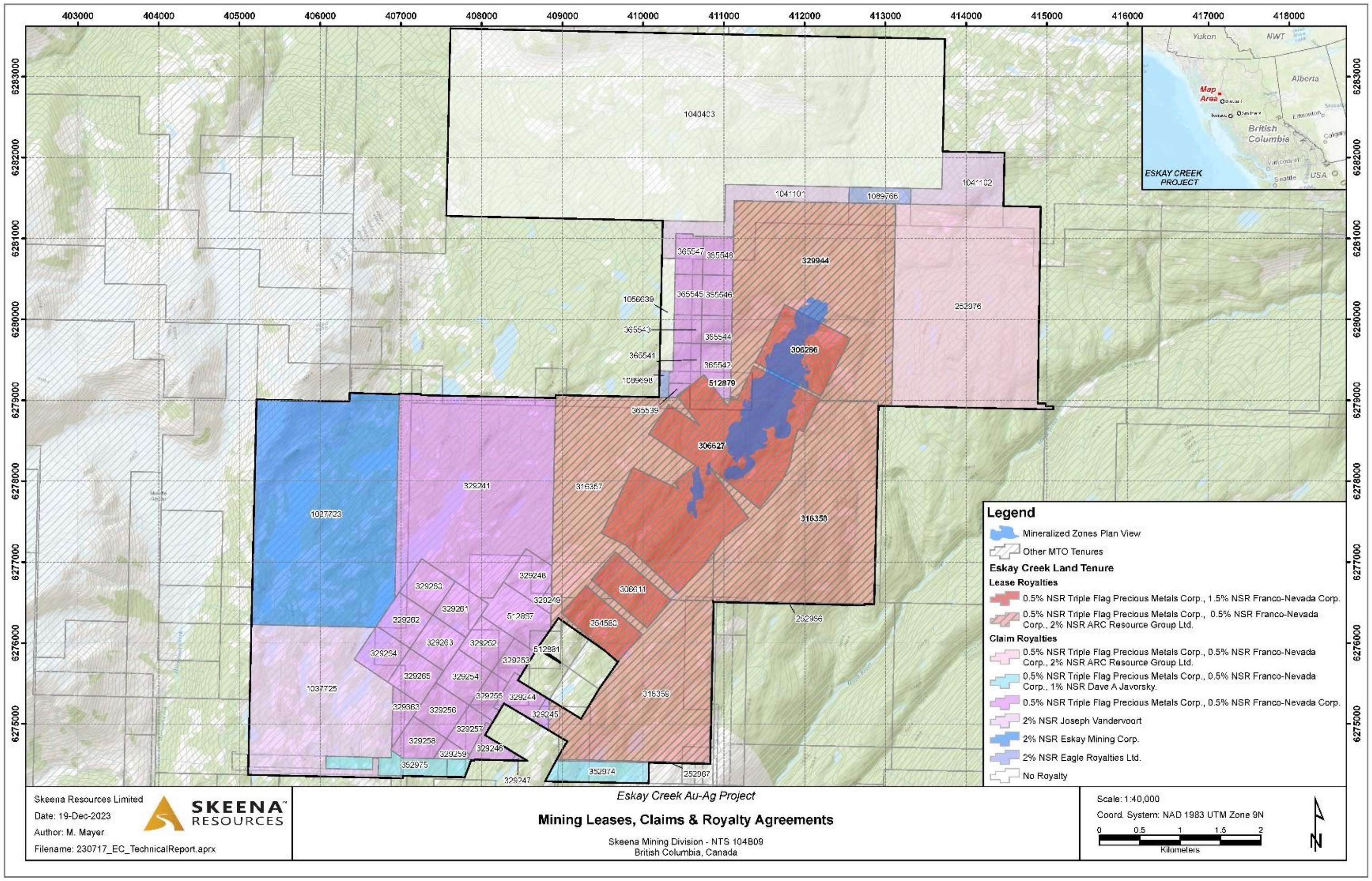
On September 29, 2022 Barrick closed the sale of a portfolio of 22 royalties, including the 0.5% royalty with Skeena, to Maverix Metals Inc. (Maverix). Maverix was acquired by Triple Flag Precious Metals Corp. (Triple Flag) in early 2023.

This royalty is payable on all of the Mineral Reserves, and is included in the economic analysis in Section 22.

4.6.2 Franco-Nevada Corp. Royalty

On December 30, 2022, Skeena granted a 0.5% NSR to Franco-Nevada Corp. (Franco-Nevada) on the Eskay Creek land package in exchange for a closing cash consideration of C$27 M and contingent cash consideration of C$1.5 M. This royalty is payable on all of the Mineral Reserves, and is included in the economic analysis in Section 22.

Figure 4-2: Lease and Claim Royalty Agreements



Subsequent to the Report effective date, on 18 December, 2023, Skeena concluded a financing package with Franco-Nevada. The package included the sale of a 1.0% NSR royalty on Eskay Creek for C$56 million over all of the land packages that make up the Project. This royalty is payable on all of the Mineral Reserves, and is not included in the economic analysis in Section 22. With this incremental royalty purchase, Franco-Nevada now holds a 2.5% NSR on the Project.

Franco-Nevada also has a 1% NSR on the Kay-Tok property (Kay and Toc mining leases) based on a 1995 agreement. This royalty is payable on the Mineral Reserves on these leases, and is included in the economic analysis in Section 22.

4.6.3 ARC Resource Group Ltd. Royalty

ARC Resource Group Ltd. has a 2% royalty on the SKI, IKS and GNC properties.

This royalty is payable on the Mineral Reserves on the SKI mining lease, and is included in the economic analysis in Section 22.

4.6.4 Other Royalties

The Project has NSR royalty obligations on other land packages within the Project area that are payable to third parties as shown in Table 4-3 and Table 4-4. The locations of the mineral tenures with royalty obligations were shown in Figure 4-2.

None of these land packages currently host Mineral Resources or Mineral Reserves, and no royalties on these claims are currently payable.

4.7 Permitting Considerations

Permitting considerations are discussed in Section 20.

4.8 Environmental Considerations

Environmental considerations are discussed in Section 20.

Skeena’s current environmental liabilities are related to the period where Skeena has had Project ownership, and to activities undertaken by Skeena.

The key liabilities include the existing infrastructure, site closure and reclamation activities, and remediation of drill pads and access road. Skeena has posted a reclamation security bond with the relevant BC authorities in relation to the work programs that have been conducted and the current environmental liabilities.

4.9 Social License Considerations

Social licence considerations are discussed in Section 20.

Table 4-3: Land Package Royalties

Property	Claims	Royalty
Eskay Creek Land Package	All claims within package	0.5% NSR in favour of Triple Flag
	Kay mining leases	0.5% NSR in favour of Franco-Nevada No buyout provision or rights of first refusal on the sale of the royalty.
	Toc mining leases	
	GNC mining leases	
	SKI mining lease	
	Mack claims	
	Star claims	
	Kay claims	
	Cal claims	
	P claims	
Kay-Tok property	Kay mining leases	1% NSR in favour of Franco-Nevada w/o duplication of the following and depending on the handling of the product: 1% net smelter returns, 1% net ore returns, 1% net returns payable from the disposition of the beneficiated product of all metals, minerals, and mineral substances. Skeena has the right to first refusal to purchase the royalty. No cap or buyout provision of this royalty.
	Toc mining leases	
IKS property	IKS 1 mining lease	2% NSR in favour of ARC Resource Group Royalty also includes the are known as the IKS Gap. No cap on royalty payments. No buyout provision or rights of first refusal on the sale of the royalty.
	IKS 2 mining claim	
SKI property	SKI mining lease	2% NSR in favour of ARC Resource Group No cap on royalty payments. No buyout provision or rights of first refusal on the sale of the royalty.
GNC property	GNC 1–3 mining leases	2% NSR in favour of ARC Resource Group Interest: Skeena 66.67%; Canagold 33.33% No cap on royalty payments. No buyout provision or rights of first refusal on the sale of the royalty.
Star property	Star 21 claim	1% NSR in favour of David A. Javorsky No cap on royalty payments. The option to purchase the royalty has expired.
	Star 22 claim	
Joseph Vandervoort	Eskay Creek MAC 25 claim	2% NSR in favour of Joseph Vandervoort

Property	Claims	Royalty
	Eskey Creek Trend claim	Skeena has the right at any time to buy down the royalty to 1% by the payment of CAD$500,000 Skeena has the right to first refusal to purchase the royalty.
	Eskey Creek 1983 file claim	
Eagle royalty	Eskay 1 claim	2% NSR in favour or Eagle Royalty Ltd. Skeena has the right at any time to buy down the royalty to 1% by the payment of CAD$1,000,000 Skeena has the right to first refusal to purchase the royalty.
	Eskay 2 claim	
Eskay Mining	New Eskay Creek 1 claim	2% NSR in favour of Eskay Mining Ltd. Skeena has the right at any time to buy down the royalty to 1% by the payment of CAD$2,000,000 Skeena has the right to first refusal to purchase the royalty.

Table 4-4: Royalties by Claim

Tenure Number ID	Tenure Sub Type	Name	Royalty
254580	Lease	Kay-Toc	0.5% NSR Triple Flag, 1.5% NSR Franco-Nevada Corp.
306286	Lease	Toc	0.5% NSR Triple Flag, 1.5% NSR Franco-Nevada Corp.
306611	Lease	Toc	0.5% NSR Triple Flag, 1.5% NSR Franco-Nevada Corp.
306627	Lease	Toc	0.5% NSR Triple Flag, 1.5% NSR Franco-Nevada Corp.
329944	Lease	SKI/IKS-1	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 2% NSR ARC Resource Group Ltd.
316357	Lease	GNC-1	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 2% NSR ARC Resource Group Ltd.
316358	Lease	GNC-2	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 2% NSR ARC Resource Group Ltd.
316359	Lease	GNC-3	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 2% NSR ARC Resource Group Ltd.
252976	Claim	IKS 2	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 2% NSR ARC Resource Group Ltd.
252966	Claim	CAL #2	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
252967	Claim	CAL #3	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
300298	Claim	P-1	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
300299	Claim	P-2	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
300300	Claim	P-3	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
300301	Claim	P-4	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329241	Claim	MACK 23	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329244	Claim	MACK 1	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329245	Claim	MACK 2	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329246	Claim	MACK 3	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329247	Claim	MACK 4	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.

329248	Claim	MACK 5	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329249	Claim	MACK 6	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329252	Claim	MACK 9	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329253	Claim	MACK 10	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329254	Claim	MACK 11	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329255	Claim	MACK 12	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329256	Claim	MACK 13	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329257	Claim	MACK 14	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329258	Claim	MACK 15	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329259	Claim	MACK 16	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329260	Claim	MACK 17	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329261	Claim	MACK 18	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329262	Claim	MACK 19	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329263	Claim	MACK 20	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329264	Claim	MACK 21	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329265	Claim	MACK 22	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
329363	Claim	MACK 26 FR.	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
352974	Claim	STAR 21	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 1% NSR Dave A Javorsky
352975	Claim	STAR 22	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp., 1% NSR Dave A Javorsky
365539	Claim	KAY 1	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365541	Claim	KAY 3	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365542	Claim	KAY 4	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365543	Claim	KAY 5	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365544	Claim	KAY 6	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365545	Claim	KAY 7	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365546	Claim	KAY 8	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.

365547	Claim	KAY 9	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
365548	Claim	KAY 10	0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
512867	Claim		0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
512879	Claim		0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
512881	Claim		0.5% NSR Triple Flag, 0.5% NSR Franco-Nevada Corp.
1037725	Claim	ESKAY CREEK MAC 25	2% NSR Joseph Vandervoort
1041101	Claim	ESKEY CREEK TREND	2% NSR Joseph Vandervoort
1041102	Claim	ESKEY CREEK 1983 FILE	2% NSR Joseph Vandervoort
1089698	Claim	ESKAY 3	2% NSR Eagle Royalties Ltd.
1089766	Claim	ESKAY 1	2% NSR Eagle Royalties Ltd.
1037723	Claim	NEW ESKAY CREEK 1	2% NSR Eskay Mining Corp.
1040403	Claim	ESKAY NORTH	
1056639	Claim	MELISSA	

4.10 QP Comments on Item 4 “Property Description and Location”

All mineral tenure, mining leases and crown land title is in good standing.

Surface and aerial access to the Project site are permitted and well-established.

Permits to authorize work program activities are in place and applied for sufficiently in advance of work requirements.

The QPs are not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Project other than as discussed in this Report.

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

5.1 Accessibility

Access to the Project is via Highway 37 (Stewart Cassiar Highway). The Eskay Mine Road is an all-season gravel road that connects to Highway 37 approximately 135 km north of Meziadin Junction (refer to Figure 2-1). The Eskay Mine Road is a 59 km private industrial road that is operated by Coast Mountain Hydro Corp. (0 km to 43.5 km) and Skeena (43.5 km to 59 km).

There are two nearby gravel air strips: Bronson Strip which is about 40 km west of the mine site (not connected to the road system) and Bob Quinn air strip, roughly 37 km northeast of the Project alongside Highway 37. Bronson Strip is a private air strip operated by Snip Gold Inc. It is 1,500 m long and in fair condition. It is accessible to the project by helicopter only. The Bob Quinn Lake air strip is managed by the Bob Quinn Lake Airport Society, a not-for-profit organization consisting of government and local industry interests. The airstrip is about 1,300 m long and is in good condition. It is accessible to the project by the Eskay Mine Road.

Travel to the planned mine site from local population centres will be primarily by Highway 16 (e.g. Terrace or Smithers) and via Highway 37 north to the Bob Quinn and Eskay Mine Access road junction; however, there is a possibility that the proposed mine could fly personnel to the Bob Quinn airport and then provide a shuttle to transport personnel from the airport to the mine site.

5.2 Climate

The Project is located in a northern temperate climate with moderately warm summers and cold dry winters.

Typical daytime temperatures range from 20°C in the summer to -20°C or lower in the winter.

The long-term mean annual precipitation is estimated as 2,800 mm, of which 74% is anticipated to fall as snow on an average annual basis. Precipitation typically falls as snow during November–April, as rain during July–August, and as a mixture of snow and rain in May–June and September–October.

The snowpack is unevenly distributed across the Project site due to both changes in temperature and precipitation with elevation and wind redistribution effects. Snow water equivalent values for the winter snowpack are estimated to be generally highest in late March, at about 1,530 mm. The one-in-100-year annual peak snow water equivalent is approximately 2,550 mm.

Exploration activities can be curtailed by winter conditions.

The previous mining operation was conducted on a year-round basis, and it is expected that any future operations will also be year-round.

5.3 Local Resources and Infrastructure

Support services for mining and other resource sector industries in the region are provided primarily by the communities of Smithers (pop. 5,400) and Terrace (pop. 12,700). Both communities are approximately 400 km southeast of the Project and are accessible by provincial highways. Both communities are also accessible by commercial airlines, with regular flights to and from Vancouver.

Labour in support of mining activities can be locally and regionally sourced. British Columbia has a long mining history and experienced mining personnel can be found within the province.

Volume freight service in the region is supported by rail connections that extend from tidewater ports in Prince Rupert and Vancouver. The closest tidewater port to the Project is at Stewart, approximately 260 km by road from the Project. Stewart is an ice-free shipping location and provides year-round access for bulk shipping.

The Project is in proximity to the new 287-kV Northwest Transmission Line operated by BC Hydro and Power Authority and three hydroelectric facilities operated by Coast Mountain Hydro.

Additional information on local resources and infrastructure is provided in Section 18.

5.4 Physiography

The Project lies in the Prout Plateau, a rolling subalpine upland with an average elevation of 1,100 m (masl), located on the eastern flank of the Boundary Ranges. The plateau is characterized by northeast-trending ridges with gently sloping meadows occupying valleys between the ridges. Relief over the plateau area ranges from 500 m in the existing TMSF area to over 1,000 m in the Unuk River and Ketchum Creek valleys. The former Eskay Creek mine site is at approximately 800 m elevation.

Mountain slopes are heavily forested.

Glacial features such as cirques, hanging valleys and over-steepened slopes, are present throughout the project area. The plateau is surrounded by high serrated peaks containing cirque and mountain glaciers. The surficial geology in the area is varied, and includes till, colluvium at the base of bedrock outcrops and on steep slopes, organics in poorly-drained depressions, and alluvium along streams and the lake shorelines (Ulansky et al., 2018).

The Prout Plateau is drained by tributaries of the Stikine-Iskut and Unuk Rivers. Volcano Creek drains to the north into the Iskut River, a major tributary to the Stikine River system. The remainder of the plateau is drained almost exclusively by the Unuk River and its tributaries: the Tom MacKay, Argillite, Ketchum, Eskay and Coulter creeks. The gradient of these drainages increases as the creeks descend from the moderate relief of the Prout Plateau into the deeply incised Unuk River valley. The plateau is occupied by the Tom MacKay, Little Tom MacKay, and several smaller lakes as well as Argillite Creek, which collectively form the headwaters of the Tom MacKay Creek drainage system.

6.0 HISTORY

6.1 Exploration History

A summary of the exploration history of the Project is provided in Table 6-1.

Skeena completed a preliminary economic assessment (PEA) in 2019 (2019 PEA), a pre-feasibility study in 2021 (2021 PFS), and a feasibility study in 2022 (2022 FS). An updated feasibility study was completed in late 2023 (2023 FS), and is the subject of this Report.

6.2 Production

No production has occurred during Skeena's Project ownership.

Underground mining operations were conducted from 1994 to 2008. From 1995 to 2006, ore was direct shipped after blending and primary crushing. From 1998 to closure in 2008, ore was also milled onsite to produce a shipping concentrate.

The Eskay Creek process plant began commercial production on 1 January 1998 at a 150 t/d rate. Production rates were incrementally increased from 1999 to 2004.

The Eskay Creek mine production from 1995–2008 totalled 1.05 Mt milled and 1.2 Mt of direct shipped ore, producing approximately 3.3 Moz Au and 162 Moz Ag.

Production is summarized in Table 6-2.

Table 6-1: Ownership and Exploration Summary on the Eskay Creek Project

Year	Owner	Work Area	Description
1932–1934	MacKay Syndicate/Unuk Valley Gold Syndicate	Unuk, Barbara, Verna D. Group claims	Prospecting, rock chip sampling, discovery of pyritized outcrop; trenching. Completed 9 core holes (181.37 m)
1935–1938	Premier Gold Mining Co. Ltd.	Unuk, Barbara claims	Prospecting, trenching and core drilling (1,825.46 m). Defined and named over 30 gold and silver showings
1939	MacKay Gold Mines Ltd.	#13 O.C./MacKay adit	Data review. Underground development of the MacKay adit. A second adit was excavated at the #13 zone
1946	Canadian Exploration Ltd.	MacKay adit	Mapping and trenching. Extended underground development in the MacKay adit
1947–1952	American Standard Mines Ltd./Pioneer Gold Mines of B.C. Ltd./New York-Alaska Gold Dredging Corp.	Canab Group (36 claims of the MacKay Group)	Property examination
1953	American Standard	Canab Group/MacKay Group 36 claims (No. 21, No. 22 & No. 5 areas)	Trenching. 22 core holes (metreage unknown) near the MacKay adit
1954–1963	Western Resources Ltd. (Western Resources)	Kay 1–18, Kay 1–36; Emma adit	Developed underground at Emma adit
1964	Stikine Silver Ltd. (Stikine Silver)/Canex Aerial Exploration Ltd.	Kay Group; Emma adit	Mapping, rock, stream, sediment, and soil sampling (data unavailable). Six underground drill holes (224.64 m)
1965–1967	Stikine Silver/Mount Washington Copper Co.	Kay Group (40 claims); Emma adit	Trenching; electromagnetic and magnetometer geophysical surveys; petrography (data unavailable). Core drilling (15.85 m). Extended the Emma adit
1968–1970	Newmont Mining Corp.	Kay 1–8	Surface and underground geological mapping, trenching
1971–1972	Stikine Silver	22 Zone	Trenching and surface bulk sample
1973	Kalco Valley Mines Ltd.	22 Zone	Surface geological mapping and core drilling (299.62 m)

Year	Owner	Work Area	Description
1975–1976	Texasgulf Canada Ltd.	#5 O.C.; #6 O.C. Kay 11–18; Tok 1–22; Sib 1–16 claims	Mapping (1:5,000 scale), line cutting; rock chip sampling; EM and magnetic geophysical surveys. Core drilling (373.38 m)
1979	May-Ralph Resources Ltd.	22 Zone	Hand-cobbed bulk sample collected from the #22 zone trenches
1980–1982	Ryan Exploration Ltd. (U.S. Borax)	22 Zone; #6 Zone; MacKay adit	Mapping; rock, stream sediment and soil sampling. Core drilling (341.95 m)
1985	Kerrisdale Resources Ltd.	#5 Zone; 21 Zone; 22 Zone	Mapping, rock, and soil sampling. Five core holes (623.57 m)
1987–1990	Consolidated Stikine/Calpine Resources Inc. (Calpine)	#3 Bluff; 5 Zone; 21A Zone; 21B Zone, 21C Zone; 23 Zone, PMP; 109; Mack; GNC; Adrian	Stream sediment, soil, and rock geochemistry sampling; split and assayed all Kerrisdale core; airborne magnetic, EM, very low frequency (VLF) geophysical surveys; ground magnetic VLF-EM, induced polarization (IP), and University of Toronto electromagnetic system (UTEM) geophysical surveys (geophysical data unavailable); environmental and terrane studies; geotechnical and metallurgical studies; bulk sample Core drilling (173,815.45 m). Delineated the 21A, 21B, 21 C, PMP and 109 zones Commenced underground development on the 21B Zone
1991–1992	International Corona Corp. (Corona)	21B Zone; GNC	Mapping; rock and soil sampling; UTEM, gradient IP, transient EM, seismic refraction, and borehole frequency domain electromagnetics (FEM) geophysical survey (geophysical data unavailable) Core drilling (19,829.27) and core relogging core program
1993–2001	Homestake	21A; 21B, 21C; PMP; 5; 22; 23; 28; GNC; Adrian; Deep Adrian; West Limb; East Limb; Albino Lake; NEX; Bonsai; MacKay Adit; SIB Gaps; Star; Coulter; Felsite Bluffs; Pillow Basalt Ridge	Mapping (1:1,000, 1:5,000 scale); structural studies; orthophoto survey; rock and silt sampling; whole rock geochemical analysis; trenching; resistivity, borehole FEM geophysical surveys; geophysical data compilation. Discovered NEX zone in 1995, HW Zone in 1996 Core drilling (317,557.34 m) Feasibility study in 1993. Began production from 21B Zone in 1995
2002–2017	Barrick	21C; 21A, 22; PMP; Deep Adrian; East and West Limb; 22 Zone; MacKay	Mapping and prospecting; rock, soil, silt, and vegetation sampling; topographic survey; IP and gravity geophysical

Year	Owner	Work Area	Description
		Adit; Ridge Block; Footwall	surveys; line cutting; borehole transient electromagnetics (TEM) geophysical survey Core drilling (149,535.55 m) Mining operations ceased 2008 Reclamation activities from 2009–2016
2017–Report effective date	Skeena	21A; 21B; 21C; 21E; PMP 22; HW; Tip Top; Eskay Porphyry; PMP; WTZ; LP, 23 and Eskay Deeps.	Secures option in 2017, obtains 100% interest in 2020 Prospecting; mapping; soil and rock sampling; light detection and ranging (LiDAR) and photographic survey; resistivity and IP geophysical surveys; core and rotary air blast (RAB) drilling programs, metallurgical leaching testwork; Mineral Resource estimates and updates; Mineral Reserve estimation, mining studies, permitting, social and environmental studies Completed preliminary economic assessment (PEA) in 2019 (2019 PEA), pre-feasibility study in 2021 (2021 PFS), feasibility study in 2022 (2022 FS). Updated feasibility study (subject of this Report) completed 2023 (2023 FS)

Table 6-2: Production History, 1995–2008

Year Gold	Gold Produced (oz)	Gold Produced (kg)	Silver Produced (kg)	Silver Produced (oz)	Ore Tonnes Milled (t)	Ore Tonnes Shipped (t direct)
1995	196,550	6,113	309,480	9,950,401	0	100,470
1996	211,276	6,570	375,000	12,057,000	0	102,395
1997	244,722	7,612	367,000	11,799,784	0	110,191
1998	282,088	8,774	364,638	11,723,841	55,690	91,660
1999	308,985	9,934	422,627	13,588,303	71,867	102,853
2000	333,167	10,363	458,408	14,738,734	87,527	105,150
2001	320,784	9,977	480,685	15,454,984	98,080	109,949
2002	358,718	11,157	552,487	17,763,562	116,013	116,581
2003	352,069	10,951	527,775	16,969,022	115,032	134,850
2004	283,738	8,825	504,602	16,223,964	110,000	135,000
2005	190,221	5,917	323,350	10,396,349	103,492	78,377
2006	106,880	3,324	216,235	6,952,388	123,649	18,128
2007	68,000	2,115	108,978	3,503,861	138,772	0
2008	15,430	480	27,800	893,826	31,750	0
Total	***3,272,628***	***102,112***	***5,039,065***	***162,016,018***	***1,051,892***	***1,205,604***

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Iskut River region is located along the western margin of the Stikine Terrane, within the Intermontane Tectonic Belt of the Northern Cordillera (Figure 7-1). Anderson (1989) divides this area of the Stikine Terrane into four unconformity-bounded tectonostratigraphic elements. Deformed and metamorphosed sedimentary and volcanic rocks of the Paleozoic Stikine Assemblage are overlain by volcano-sedimentary arc complexes of the Stikinia Assemblage (Triassic Stuhini Group and Lower to Middle Jurassic Hazelton Group). These units are subsequently overlain by Upper Jurassic to Lower Cretaceous siliciclastic sedimentary rocks of the Bowser Lake Group that formed an overlap assemblage following the amalgamation of the Stikine and Cache Creek Terranes (Table 7-1). Six distinct plutonic suites have been recognized in the area and commonly intrude all assemblages (Table 7-2).

Lower greenschist facies metamorphism is common throughout the area and is likely related to the Cretaceous deformation that formed the Skeena fold and thrust belt (Rubin et al., 1990; Evenchick, 1991). Deformation in the Iskut River area is characterized by regional upright anticlinoria and synclinoria, related thrust faults, mesoscopic folds and normal faults, and cleavage development.

The regional-scale McTagg anticlinorium is the dominant structural feature, and is located in the eastern part of the Iskut River area.

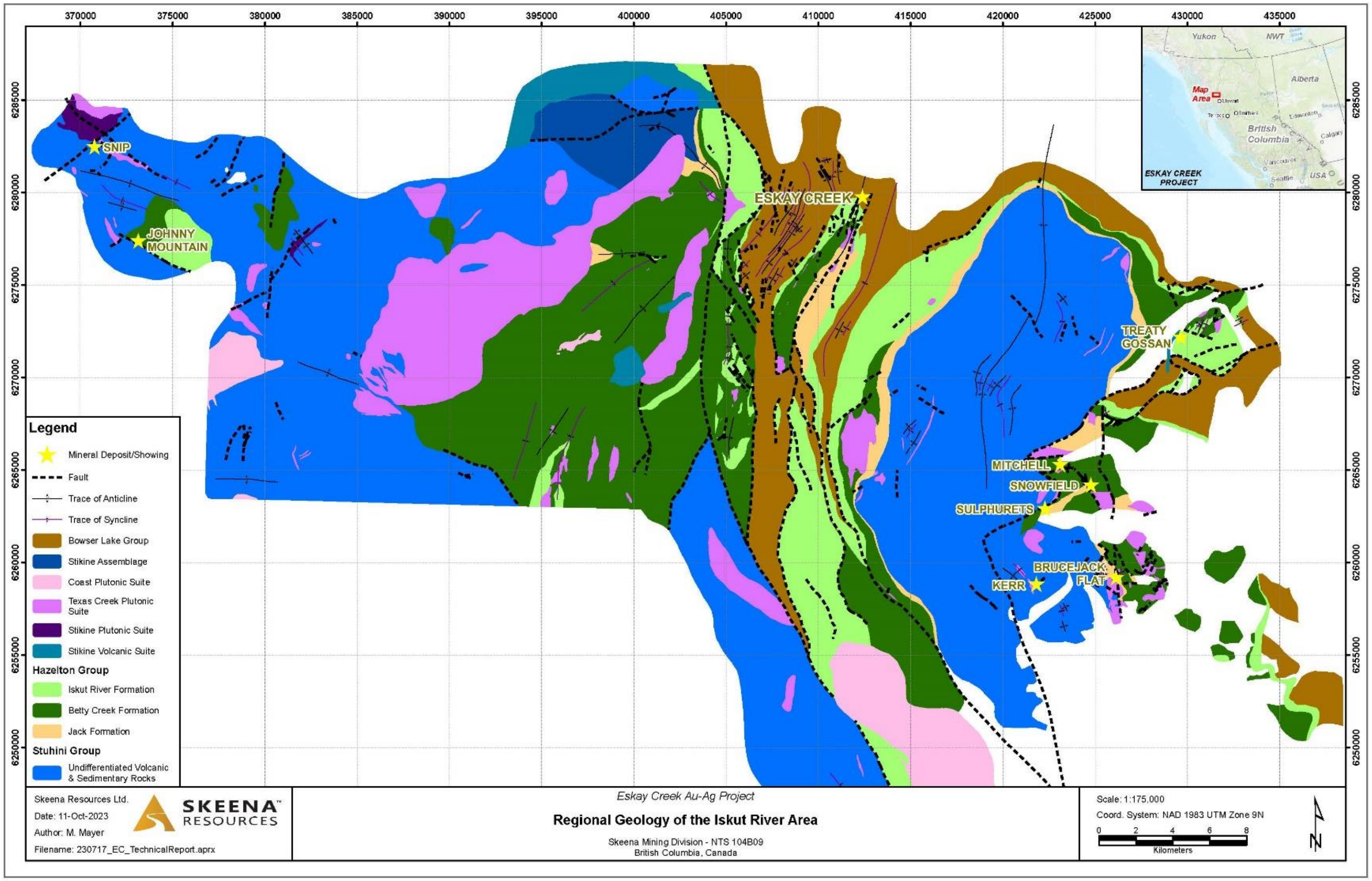
Given the important relationship of the Hazelton Group to mineral deposits throughout the area, local mapping campaigns were completed by different workers and at different scales. The resulting stratigraphic framework, although detailed in parts, contained numerous inconsistencies. Nelson et al. (2018) completed a comprehensive regional investigation of the Hazelton Group, resulting in a new stratigraphic framework that contains six formations, detailed in Table 7-3. A regional geology map is shown in Figure 7-2. The resulting stratigraphic column is provided in Figure 7-3.

7.2 Project Geology

7.2.1 Stratigraphy

The Eskay Creek deposit is located near the northern margin of the Eskay Anticline, just below the stratigraphic transition from volcanic rocks of the uppermost Hazelton Group to marine sediments of the Bowser Lake Group (Table 7-4 and Figure 7-4). The descriptions of units from the local mine stratigraphy compiled in Table 7-4 are sourced from Roth et al. (1999), with regional stratigraphic nomenclature taken from Nelson et al., (2018). A stratigraphic section through the Project area is included in Figure 7-5.

Figure 7-1: Regional Geology



Note: Eskay Creek and Snip deposits are held by Skeena. Other mines and deposits shown are owned by third parties.

Table 7-1: Regional Stratigraphy of the Iskut River Region

Assemblage	Age	Rock Units
Coast Plutonic Complex	Tertiary	Post tectonic, felsic plutons
"Bowser Overlap" Assemblage (includes Bowser Lake Group)	Late Jurassic to Early Cretaceous	Deformed, siliciclastic sediments
"Stikinia" Assemblage (includes Stuhini and Hazelton Groups)	Triassic to Middle Jurassic	Deformed volcanics, and intrusive rocks and basinal sediments
Stikine Assemblage	Early Devonian to Early Permian	Highly deformed limestone and volcanic rocks

Table 7-2: Iskut River Region Plutonic Rock Suite

Suite Name	Lithologies	Age
Coast Plutonic Complex	Lamprophyres, gabbro-syenite	Tertiary (13–25 Ma)
Hyder	Monzogranite, monzonite, granodiorite	Tertiary (36–57 Ma)
Eskay Creek	Monzodiorite	Middle Jurassic (185 ± 2 Ma)
Sulphurets	Felsic intrusives/extrusive rocks	Middle Jurassic (185.9 Ma)
Texas Creek	Calc-alkaline granodiorite and quartz monzodiorite commonly cut by andesite dikes	Early Jurassic (189–195 Ma)
Stikine	Clinopyroxene-gabbro, diorite, monzodiorite and monzonite. Co- spatial with the Stuhini volcanic rocks	Late Triassic (210 Ma)

Table 7-3: Stratigraphic Framework for the Hazelton Group in the Eskay Creek Area

Formation	Lithologies	Sub-units	Age
Quock Formation. (Hazelton Group)	The highest unit in the Hazelton Group, consisting of 50–100 m of thinly-bedded, dark grey siliceous argillite with pale felsic tuff laminae, and radiolarian chert. Commonly identifiable by presence of alternating dark and light-colored beds. Located in areas proximal to, but outside of, the Eskay rift		~164–170 Ma
Mt. Dilworth Formation. (Hazelton Group)	Dacite and rhyolite that form laterally continuous exposures; distinguished from felsic units of the Iskut River Formation by its regional extent and lack of interfingering with mafic units. Located in areas proximal to, but outside of, the Eskay rift		174 Ma
Iskut River Formation. (Hazelton Group)	A several kilometre thick successions of interlayered basalt, rhyolite, and sedimentary rocks that occupy a narrow, fault-bounded north-trending belt known as the Eskay Rift. It consists of a highly variable succession of mafic and felsic volcanic and sedimentary units in differing stratigraphic sequences, often with multiple stratigraphic repetitions	Willow Ridge mafic unit. Voluminous basalts located at varying stratigraphic levels; present in the hanging wall to the Eskay Creek deposit	170–173 Ma
		Mount Madge sedimentary unit. Thinly-bedded black argillaceous mudstone and felsic tuff (host to the stratiform mineralization at Eskay Creek in the Contact Mudstone); similar thin, discontinuous lenses enclosed within volcanics occur elsewhere in the Iskut River Formation	171–175 Ma
		Eskay Rhyolite Member. A linear flow dome complex of coherent to brecciated flows that show peperitic contacts with the overlying argillites; distinct geochemical signature compared to other felsic bodies in the	175 Ma

Formation	Lithologies	Sub-units	Age
		area (Al/Ti>100). Associated with the mineralizing event at Eskay Creek	
		Bruce Glacier felsic unit. Non-welded to welded lapilli tuff, felsic volcanic breccia and coherent flows, and volcanic conglomerates. Located in the footwall of the Eskay Creek deposit	173–179 Ma
Spatsizi Formation. (Hazelton Group)	Volcanic sandstone, conglomerate, and local bioclastic sandy limestone, mudstone-siltstone rhythmites, and limestone		~174–187 Ma
Betty Creek Formation (Hazelton Group)	Can be subdivided into three informal units which have been observed as multiple bodies at different stratigraphic levels	Brucejack Lake felsic unit. Flow dome complex believed to represent the extrusive and high-level intrusive products of a local magmatic centre; consists of K-feldspar, plagioclase, and hornblende phyric flows, breccias and bedded welded to non-welded felsic tuffs that are intruded by flow-banded coherent plagioclase phyric bodies (grade upward into flows)	183–188 Ma
		Johnny Mountain dacite unit. Generally located upsection of the Unuk River andesite consisting of bedded dacite lapilli tuff and breccia	~194 Ma
		Unuk River andesite unit. Pyroclastic and epiclastic deposits often located unconformably overtop of the Jack Formation	187–197 Ma

Formation	Lithologies	Sub-units	Age
Jack Formation. (Hazelton Group)	Basal siliciclastic unit characterized by cobble–boulder granitoid-clast conglomerates, quartz-bearing arkosic sandstone, greywackes, and thinly-bedded siltstones and mudstones. Units sometimes weather to an orange colour. Some sections contain interbedded andesitic volcaniclastic rocks		196–203 Ma

Figure 7-2: Geology Map, Eskay Creek Project Area

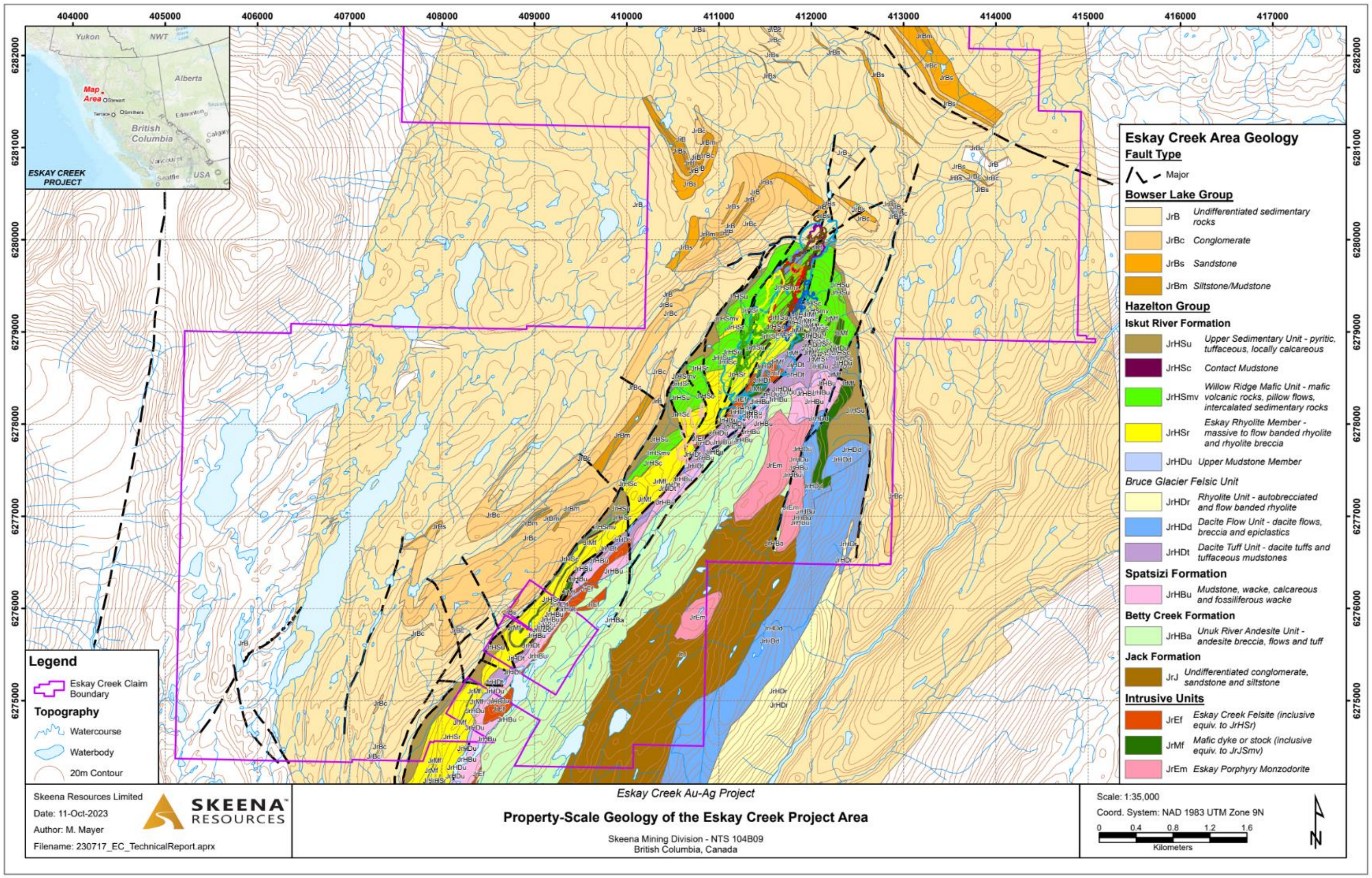
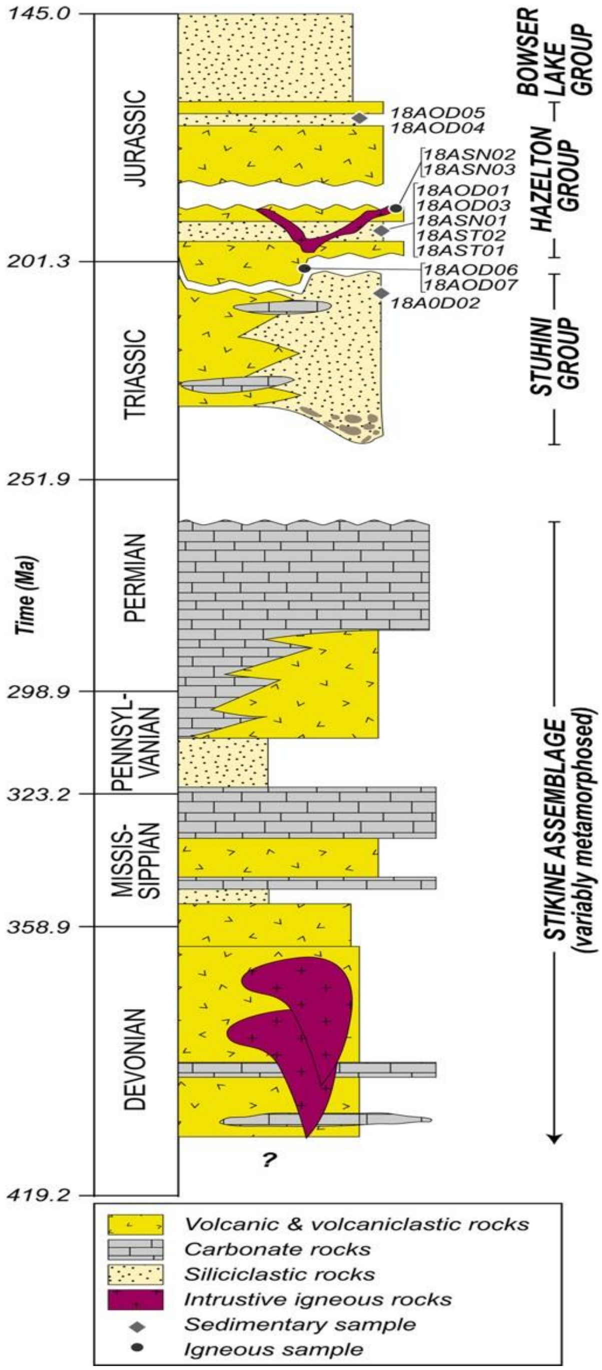


Figure 7-3: Stikinia Schematic Stratigraphic Column



Note: Figure from George et al., (2021).

Table 7-4: Local Mine Stratigraphic Units

Regional Stratigraphy	Local Mine Stratigraphy	Description
Recent	Recent	In-situ soils and transported tills
Bowser Lake Group	Bowser Group Sediments	Mudstones and conglomerates
Willow Ridge mafic unit	Hanging Wall Andesite and Hanging Wall Sediments	Has both extrusive and intrusive phases, ranges from aphanitic to medium-grained with local feldspar phenocrysts, and in places exceeds 150 m thickness. Near the top of the sequence, well-preserved pillow flows and breccias, hyaloclastite, and basaltic debris flows containing minor mudstone and rhyolite clasts interspersed with thin argillite beds occur
Mount Madge sedimentary unit	Contact Mudstone	Basal contact consists of a black matrix breccia, comprising matrix-supported white rhyolite fragments set in a siliceous black matrix. Overlying the rhyolite and black matrix breccia are black mudstone and intercalated graded volcaniclastic sedimentary rocks. Within these volcaniclastic intervals, the presence of coarser rhyolite breccia fragments is interpreted to represent debris flows. The Contact Mudstone is the host unit for stratiform mineralization in the 21A, B, C, E, NEX and Hanging Wall (HW) Zones. It is characterized by laterally extensive, well-laminated, carbonaceous mudstone that is variably calcareous and siliceous and ranges from less than 1 m to >60 m in thickness
Eskay Rhyolite member	Rhyolite	Up to 200 m thick linear set of flow-dome complexes, with locally preserved flow bands, flow lobes, breccias, hyaloclastite, spherulites, and perlitic textures. Located in the immediate footwall to the economically-significant stratiform mineralized bodies, and also hosts stringer-style discordant mineralization
Datum Mudstone	Lower Mudstone	Thin (5–15 m thick) black mudstone horizon
Datum Dacite	Dacite	Amygdaloidal, aphanitic dacite flow or sill
Bruce Glacier felsic unit	Dacite	Characterized by pumice-rich block and lapilli tuffs and heterogeneous epiclastic rocks that are locally fossiliferous
Spatsizi Formation	Even Lower Mudstone	Marine shales and interbedded coarse clastic sedimentary, volcaniclastic, and calcareous rocks
Betty Creek Formation	Footwall Andesite	Exposed in the core of the Eskay Anticline. Characterized by a thick sequence of coarse, monolithic andesite breccias and heterolithic volcaniclastic rocks

Figure 7-4: Local Geology Map Showing Mineralized Zones

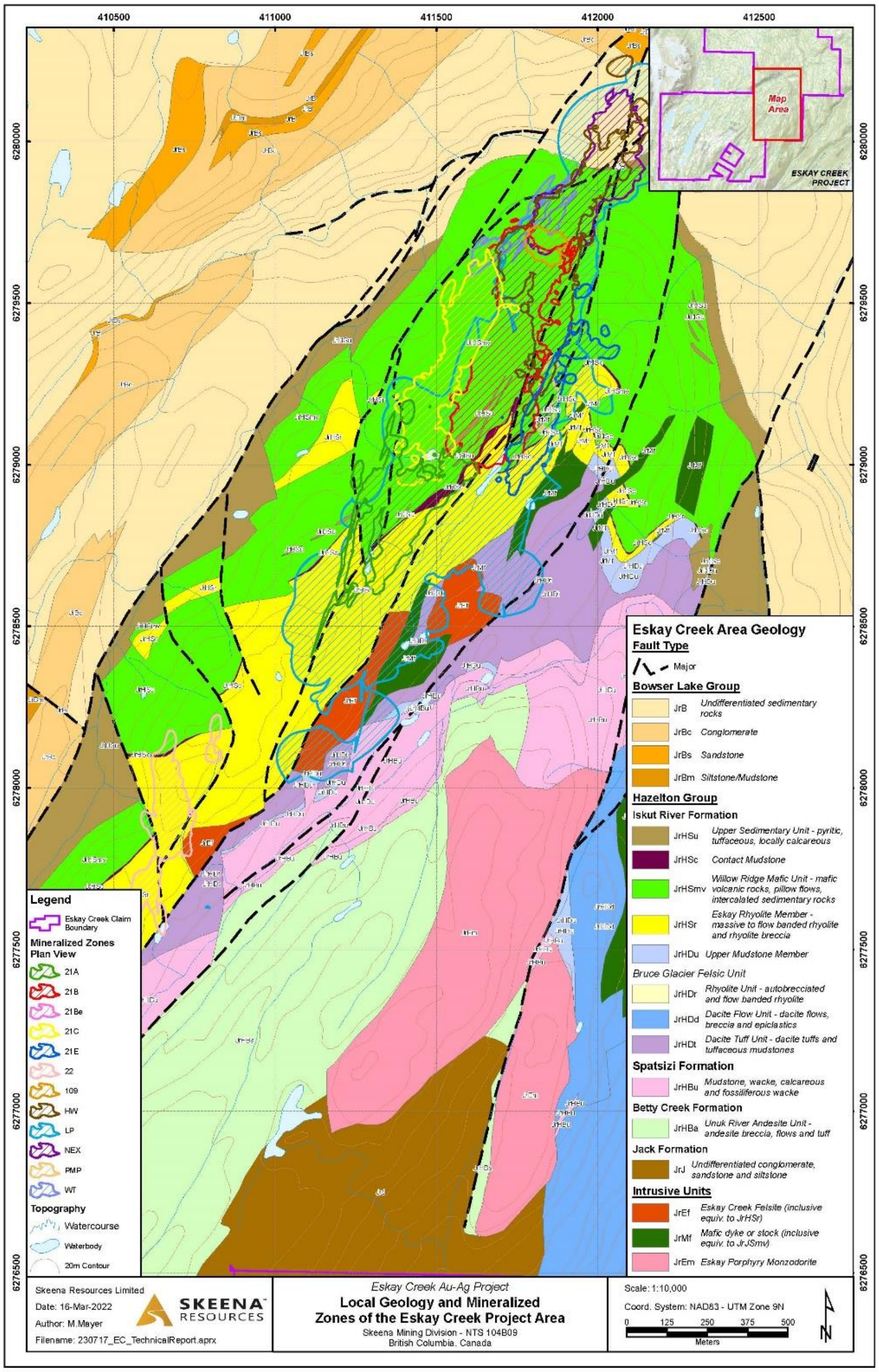
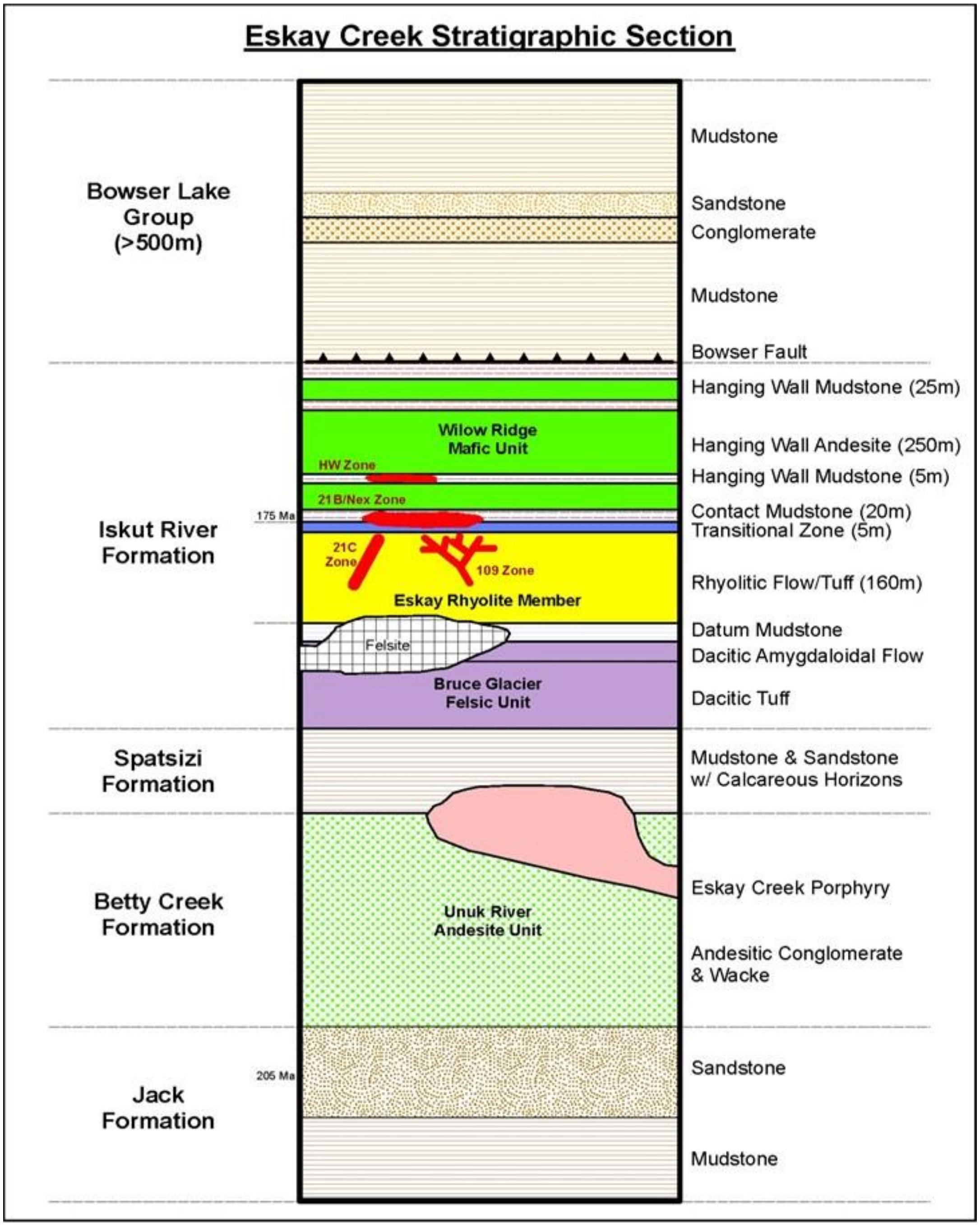


Figure 7-5: Eskay Creek Stratigraphic Section



Note: Figure prepared by Skeena, 2023. Figure modified after Gale et al., (2004). Descriptions of units from the local mine stratigraphy have been compiled from Roth et al. (1999) with stratigraphic nomenclature taken from Nelson et al., (2018).

7.2.2 Intrusive Rocks

Intrusive units are common through the stratigraphic sequence. The 184 ± 5 Ma (MacDonald et al., 1992; Childe, 1996) Eskay monzodiorite porphyry is the most voluminous intrusive unit in the Project area, and is exposed in the core of the Eskay Anticline just south of the 21 Zone deposits. It predates the Eskay Rhyolite and the 21 Zone deposits by about 6–16 Ma.

On the West Limb of the Eskay Anticline, a series of north–northeast-trending felsic intrusive rocks form a series of prominent gossanous bluffs that extend for 7 km to the southwest of the Eskay Creek deposit. These rocks are chemically indistinguishable from the Eskay Rhyolite (Bartsch, 1993, Roth, 1995) and display strong quartz, pyrite, and potassium feldspar alteration with minor sericite. Bartsch (1993) and Edmunds et al., (1994) believe interpreted these intrusive units to be sub-volcanic portions of, or feeders to, the Eskay Rhyolite.

Basaltic dikes and sills linked to the Hanging Wall Andesite (Willow Ridge mafic unit) are also observed throughout the Eskay Creek stratigraphic section. Where they cut the Contact Mudstone (Mount Madge sedimentary unit), their contacts are frequently brecciated and peperitic, suggesting the mudstone was still wet at the time of intrusion (Roth et al., 1999).

7.2.3 Structure

Three major structural events are recognized (Table 7-5) (Roth et al., 1999; Edmunds and Kuran, 1992).

Two major fault orientations have been identified:

- Northeast-trending, parallel to conjugated faults; e.g. Argillite Creek, Andesitic Creek, Pumphouse, and Portal Faults;
- Northwest-trending, second-order, oblique, normal faults.

7.2.4 Alteration

Alteration in the footwall volcanic units is characterized by a combination of pervasive quartz–sericite–pyrite, potassium feldspar, chlorite, and silica. Zones of most intense alteration are associated locally with sulphide veins that contain pyrite, sphalerite, galena, and chalcopyrite (Roth et al., 1999).

Alteration zonation is most apparent in the Rhyolite (Roth et al., 1999), closely associated with the 21 Zone deposits. Rhyolite located lateral to and at deeper levels beneath the area of stratiform mineralization is commonly moderately silicified and potassium feldspar-altered. Silica alteration occurs as extremely fine-grained quartz flooding and densely developed quartz-filled micro veinlets. Potassium feldspar occurs as fine-grained replacement of plagioclase phenocrysts (Gale et al., 2004).

Table 7-5: Key Structures

Event	Age	Description
Tension event, T1	Lower to middle Jurassic	Rifting, basin development, and intrusion and extrusion of rhyolite flow domes along the primary normal faults. Coarse volcaniclastic debris derived from the rhyolite domes deposited along developing north-trending normal faults. Hydrothermal activity focused along normal rift faults
Deformation event, D1	Mid-Cretaceous	North–northwest compression event; formed northeast-trending, syncline–anticline couples and a spaced pressure solution cleavage Late faulting resulted in the development of east-dipping thrust sheets, (e.g., Coulter Creek Fault, south of Eskay Creek) Regional metamorphism formed porphyroblastic prehnite and calcite
Deformation event, D2		North–northeast-directed compression event, locally re-oriented the D1 cleavage planes, and formed prominent early north- and later northeast-trending, steeply-dipping faults that form strong topographic lineaments and displace both stratigraphic contacts and mineralized zones

Fractures that cut potassium feldspar–silica-altered Rhyolite typically have sericitic alteration envelopes and contain very fine-grained pyrite. Where alteration is most intense, chlorite replaces sericite in these fracture envelopes.

An intense tabular-shaped blanket of chlorite–sericite alteration, up to 20 m thick, occurs in the Rhyolite, immediately below the contact with the main stratiform sulphide mineralization. In these areas, magnesium chlorite has completely replaced the Rhyolite to form a dark green, waxy rock consisting of clinochlore (Roth et al., 1999). This blanket coincides spatially with an area of greater Rhyolite thickness and where extensive brecciation has developed in the upper part of the Rhyolite unit.

7.3 Deposit Descriptions

7.3.1 Overview

Several distinct styles of stratiform and discordant mineralization are present within the Eskay Creek Project, defined over an area approximately 1,400 m long and up to 500 m wide. The main body of mineralization, predominantly mined out in 2008, is the 21B Zone, which was a stratiform tabular body of gold–silver-rich mineralization roughly 900 m long, 60 to 200 m wide, and locally exceeding 20 m thick. Individual clastic sulphide beds range from 1–100 cm thick and become progressively thinner up sequence.

Mineralized zones are composed of beds of clastic sulphides and sulphosalts containing variable amounts of barite, rhyolite, and mudstone clasts. Imbricated, laminated mudstone rip-up clasts were observed locally at the base of the clastic sulphide–sulphosalt beds, indicating turbiditic emplacement of some beds. In the thickest part of the zone, pebble and cobble-sized clasts occur in a northward-trending channel overlying the rhyolite. The beds grade laterally over short distances into thinner, finer-grained, clastic beds and laminations.

Gold and silver occur as electrum and amalgam while silver mainly occurs within sulphosalts. Precious metal grades generally decrease proportionally with a decrease in total sulphides and sulphosalts. Clastic sulphoside beds contain fragments of coarse-grained sphalerite, tetrahedrite, lead-sulphosalts with lesser freibergeite, galena, pyrite, electrum, amalgam, and minor arsenopyrite. Stibnite occurs locally in late veins, as a replacement of clastic sulphides, and appears to be confined to the central, thickest part of the deposit, suggesting a locus for late hydrothermal activity. Cinnabar is rare and is found associated with the most abundant accumulations of stibnite. Barite occurs as isolated clasts, in the matrix of bedded sulphides and sulphosalts, and also as rare clastic or massive accumulations of limited extent. Barite is more common towards the north end of the deposit.

The main characteristics and stratigraphic locations of the mineralized zones are shown in Table 7-6. The locations of the mineralized zones are shown in Figure 7-6.

7.3.2 Stratiform-Style Mineralization

Stratiform style mineralization is hosted in black carbonaceous mudstone and sericitic tuffaceous mudstone of the informally-defined Contact Mudstone located between the Rhyolite and the Hanging Wall Andesite. The stratiform-hosted zones include the 21B Zone, the NEX Zone, the 21A Zone (characterized by arsenic–antimony–mercury sulphides), the barite-rich 21C Zone, and the 21Be Zone. Stratigraphically above the 21B Zone, and usually above the first basaltic sill, the Mudstones also host a localized body of base metal-rich, relatively precious metals-poor, massive sulphides referred to as the Hanging Wall or HW Zone.

7.3.2.1 21A Zone

The 21A Zone can be subdivided into stratiform- and feeder-style mineralization types.

An example section showing the mineralization in the 21A Zone against the drilling is provided in Figure 7-7.

Stratiform mineralization is characterized by a gold–silver-rich sulphide lens that sits on the flank of a small depression at the Rhyolite–Contact Mudstone contact, located 200 m south of the 21B Zone. The zone is bounded to the east by the Pumphouse Fault. Stratiform-style, Mudstone-hosted mineralization is approximately 300 m long by 200 m wide and about 10 m in thickness. The sulphide lens consists of semi-massive to massive stibnite–realgar ± cinnabar ± arsenopyrite and local angular mudstone fragments.

Areas with more concentrated stibnite–realgar ± cinnabar appear to be focused above the interpreted vent locations with relatively limited extent. Visible gold is rare.

Table 7-6: Mineralized Zones

Zone	Associated Elements	Characteristics	Stratigraphic Position
21A	As–Sb–Hg–Au–Ag	Stratiform lenses of massive to semi-massive sulphides (realgar, stibnite, cinnabar, arsenopyrite)	At the base of the Contact Mudstone
		Disseminated stibnite, arsenopyrite, tetrahedrite, and veinlets of pyrite, sphalerite, galena, tetrahedrite ± chalcopyrite	Hosted within the Rhyolite
21B	Au–Ag–Zn–Pb–Cu– Sb	Stratiform, bedded clastic sulphides and sulphosalts including, sphalerite, tetrahedrite-freibergite, Pb sulphosalts (including boulangerite, bournonite, jamesonite), stibnite, galena, pyrite, electrum, and amalgam	At the base of the Contact Mudstone
21Be	Ag–Au–Zn–Pb–Cu	Fine-grained massive to locally clastic sulphides and sulphosalts. Massive pyrite flooding in rhyolite grading upwards into massive sulphides and sulphosalts	Within a fault-bounded block, mainly at contact between Contact Mudstone and Rhyolite
21C	Ba (Pb–Zn–Au–Ag)	Bedded massive to bladed barite associated with very fine-grained disseminated sulphides including pyrite, tetrahedrite, sphalerite and galena. Located sub-parallel to and down-dip of the 21B zone	Within the Contact Mudstone
		Localized zones of cryptic, disseminated, precious metal-bearing mineralization	Hosted within the Rhyolite
21E	Sb–Ag–Au	Fine-grained stratabound sulphide lenses dominated by stibnite, pyrite, sphalerite, galena, chalcopyrite and arsenopyrite and associated with silica and carbonate alteration. This zone has generally lower gold-silver grades relative to the 21 Zones	Hanging-wall sediments
		Disseminated stibnite, arsenopyrite, and veinlets of pyrite, sphalerite, galena, tetrahedrite and chalcopyrite	Hosted within the Rhyolite

Zone	Associated Elements	Characteristics	Stratigraphic Position
NEX	Au–Ag–Zn–Pb–Cu	The NEX stratiform mineralization is similar to the 21Be, and locally the 21B zone. Contains fewer sulphosalts and has a local overprint of chalcopyrite stringers	At the base of the Contact Mudstone
HW	Pb–Zn–Cu	Massive, fine-grained stratabound sulphide lens dominated by pyrite, sphalerite, galena, and chalcopyrite (mainly as stringers). This zone has generally lower gold-silver grades and higher base metals relative to the 21 Zones	Hanging-wall sediments
PMP	Fe–Zn–Pb–Cu	Veins of pyrite, sphalerite, galena, and tetrahedrite. Commonly banded; locally with colloform textures. Local zones of very fine-grained mineralization in rhyolite. Underlies the 21Be zone	Hosted within the Rhyolite
109	Au–Zn–Pb–Fe	Veins of quartz, sphalerite, galena, pyrite, and visible gold associated with silica flooding and fine-grained amorphous carbon. Underlies the north end of the 21B and HW Zones	Hosted within the Rhyolite
22	Au–Ag	Silica altered rhyolite with quart veinlets and micro veinlets and precious metals associated with pyrite-arsenopyrite	Hosted within the Rhyolite
23	Au-Ag	Base metal-rich veins, disseminated pyrite to massive zone of pyrite-sphalerite-galena with moderate to strong silicification and local colloform textures	Hosted within the Dacite and to a lesser degree overlying Lower Mudstone

Figure 7-6: Plan View of the Spatial Distribution of the Mineralization Zones

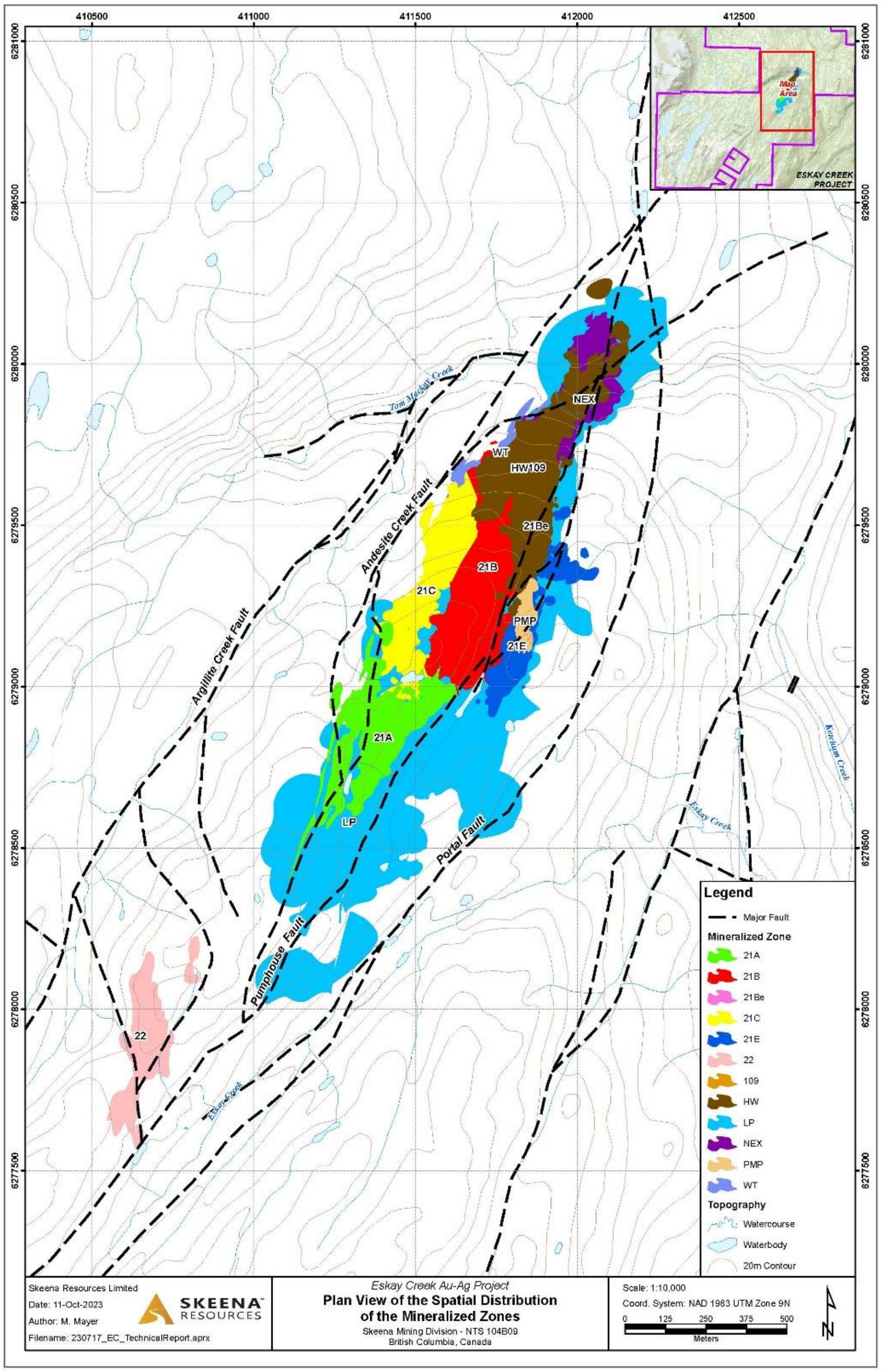
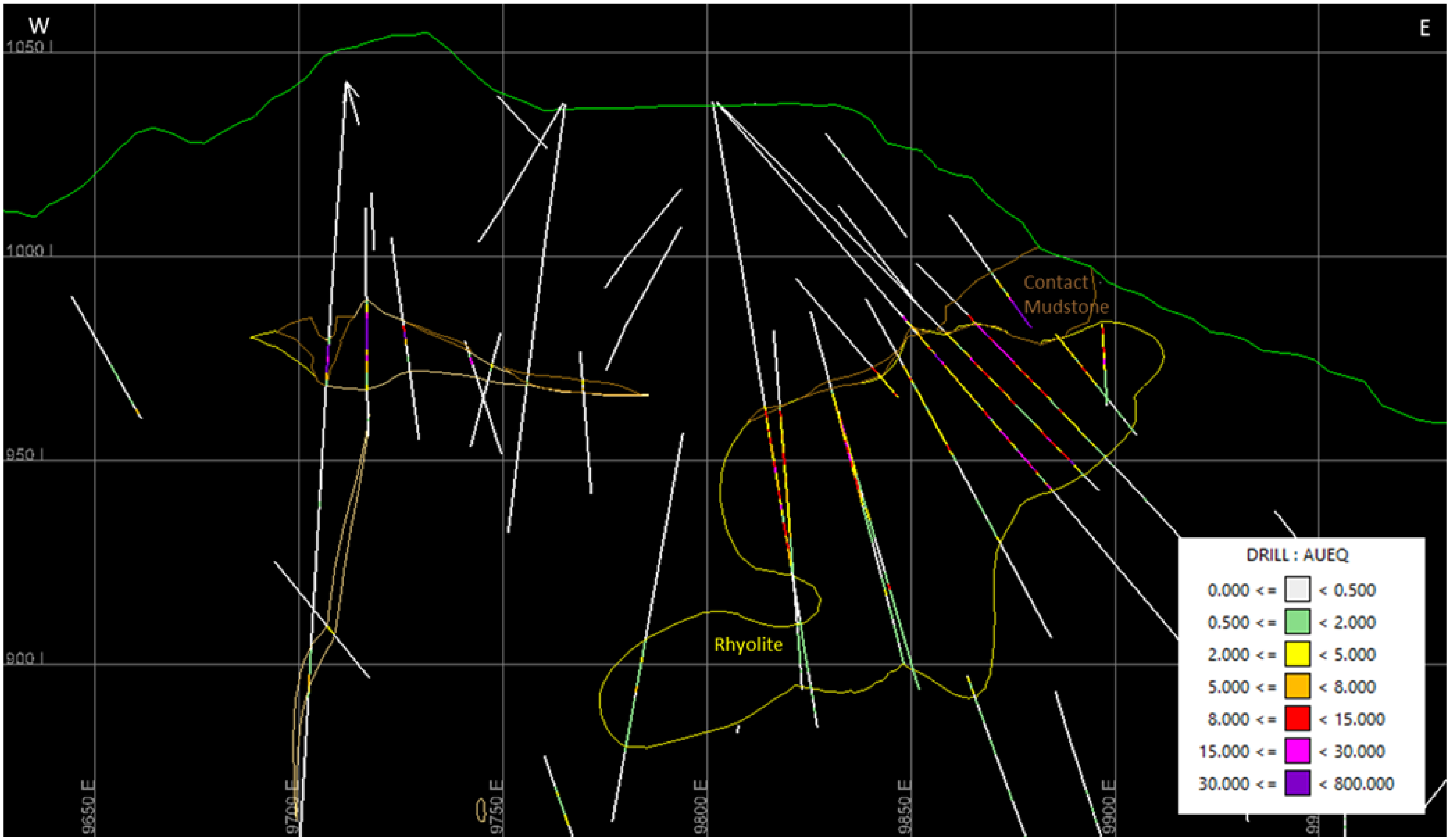


Figure 7-7: Example Cross-Section, 21A Zone



Note: Figure prepared by Skeena, 2023.. Section 10000N (15 m window.

The Contact Mudstone is underlain by a discontinuous zone of intense magnesium chlorite alteration and stockwork veining in the Rhyolite. Disseminated stibnite, arsenopyrite, and tetrahedrite also occur in the immediate footwall of the sulphide lens within the intensely sericitized Rhyolite. Cinnabar and stibnite are observed in late fractures that cut the sulphide lens, the surrounding Mudstone, and locally the Rhyolite. Realgar–calcite veinlets locally cut the Mudstone in a restricted area adjacent to the sulphide lens.

7.3.2.2 21B Zone

The main body of mineralization, the 21B Zone, is a stratiform tabular body of gold-silver-rich mineralization roughly 900 m long, 60 to 200 m wide, and locally exceeding 20 m thick. Individual clastic sulphide beds range from 1–100 cm thick and become progressively thinner up sequence.

An example section showing the mineralization in the 21B Zone against the drilling is provided in Figure 7-8.

Mineralization consists of beds of clastic sulphides and sulphosalts containing variable amounts of barite, rhyolite, and mudstone clasts. Imbricated, laminated mudstone rip-up clasts were observed locally at the base of the clastic sulphide-sulphosalt beds, indicating turbiditic emplacement of some beds. In the thickest part of the mineralized zone, pebble to cobble-sized clasts occur in a northward trending channel overlying the Rhyolite. The beds grade laterally over short distances into thinner, finer-grained, clastic beds and laminations.

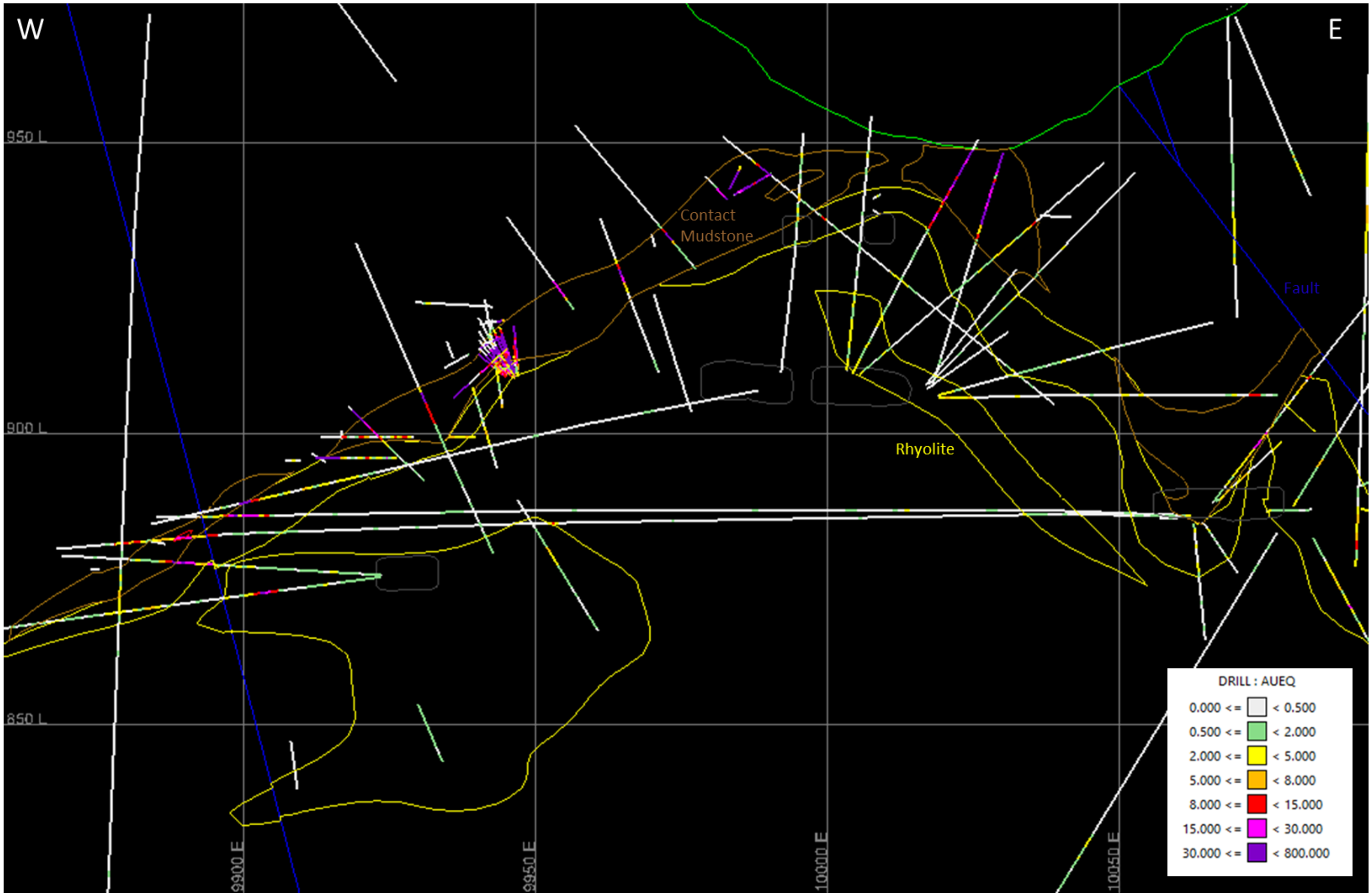
Gold and silver occur as electrum and amalgam while silver mainly occurs within sulphosalts. Precious metal grades generally decrease proportionally with the decrease in total sulphides and sulphosalts.

Clastic sulphide beds contain fragments of coarse-grained sphalerite, tetrahedrite, lead-sulphosalts with lesser freibergite, galena, pyrite, electrum, amalgam, and minor arsenopyrite.

Stibnite occurs locally in late veins, as a replacement of clastic sulphides, and appears to be confined to the central, thickest part of the deposit, suggesting a locus for late hydrothermal activity. Cinnabar is rare and is found associated with the most abundant accumulations of stibnite.

Barite occurs as isolated clasts, in the matrix of bedded sulphides and sulphosalts, and also as rare clastic or massive accumulations of limited extent. Barite is more common towards the north end of the deposit.

Figure 7-8: Example Cross-Section, 21B Zone



Note: Figure prepared by Skeena, 2023. Section 10370 N (10 m window).

7.3.2.3 21C Zone

The 21C Zone is dominantly characterized by stratabound to stratiform barite-rich mineralization with associated disseminated base and precious metal-rich mineralization in the Rhyolite and is about 675 m long by 130 m wide. It occurs at the same stratigraphic horizon as the 21B Zone but is located down-dip and subparallel to it. The two zones are separated by 40–50 m of barren Contact Mudstone, approximately 8–15 m thick. Mineralization is associated with mottled barite–calcite ± tetrahedrite beds in and near the base of the Contact Mudstone.

An example section showing the mineralization in the 21C Zone against the drilling is provided in Figure 7-9.

Precious metal grades are variable. Local areas of brecciation are infilled with sulphides including sphalerite, pyrite, galena, and tetrahedrite. Mineralization in the underlying Rhyolite forms a cryptic, tabular body, sub-concordant to stratigraphy. Aside from containing 1–2% very fine-grained pyrite and trace sphalerite, tetrahedrite, and galena, the Rhyolite appears similar to adjacent unmineralized areas.

7.3.2.4 21Be Zone

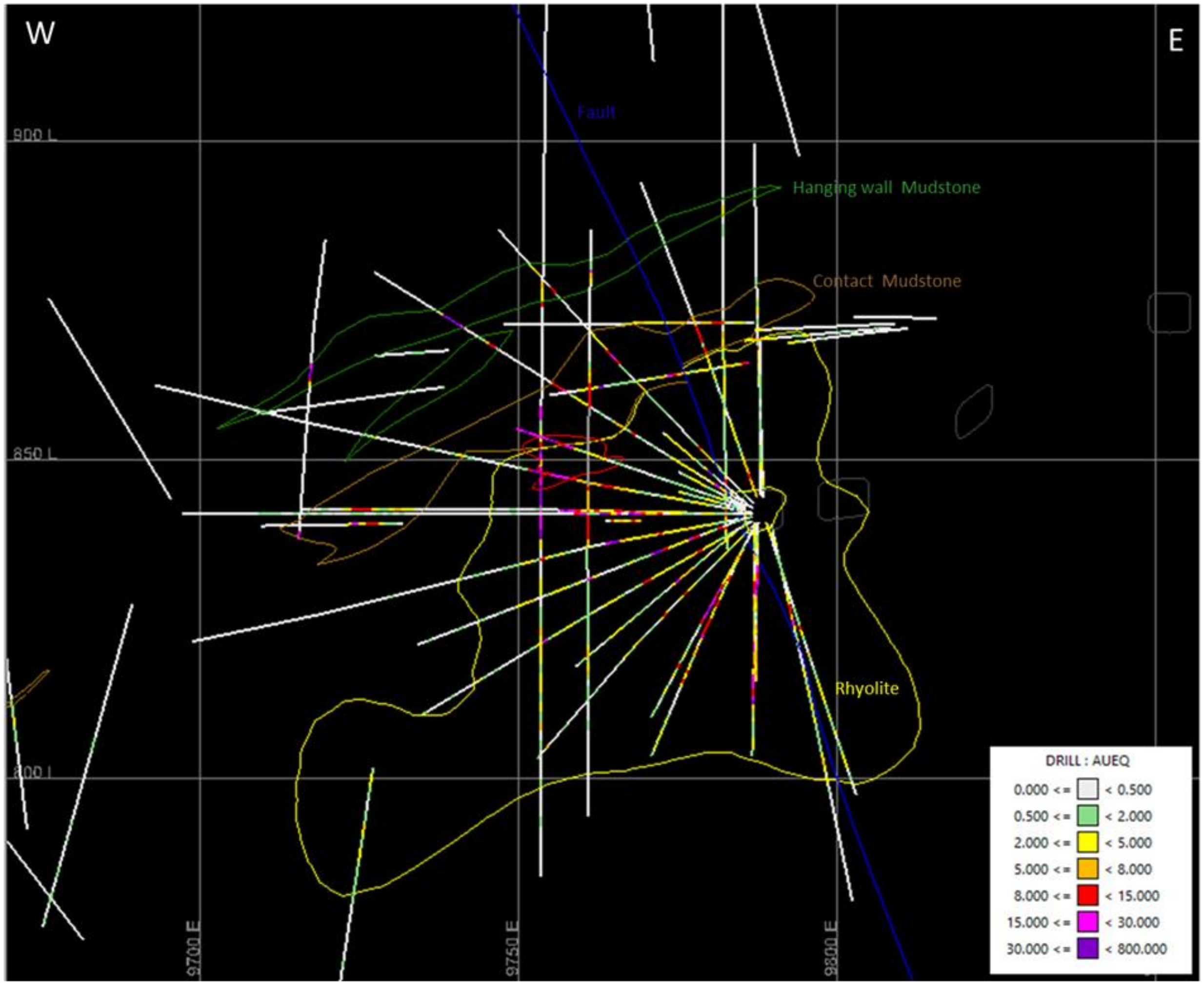
Precious-metal mineralization near the north end of the 21B Zone extends over top of the anticline into a block bound by segments of the north–south-oriented Pumphouse faults. Mineralization of the 21Be Zone is found within a steeply-dipping, fault-bounded slab of Contact Mudstone that is complexly folded and faulted. The zone is approximately 530 m long by 115 m wide with an average thickness of 10 m.

An example section showing the mineralization in the 21Be Zone against the drilling is provided in Figure 7-10.

While some of the mineralization within the 21Be Zone appears similar to the 21B Zone, the majority is steeply dipping and dominated by fine-grained, massive sulphosalts that grade downward into massive pyrite.

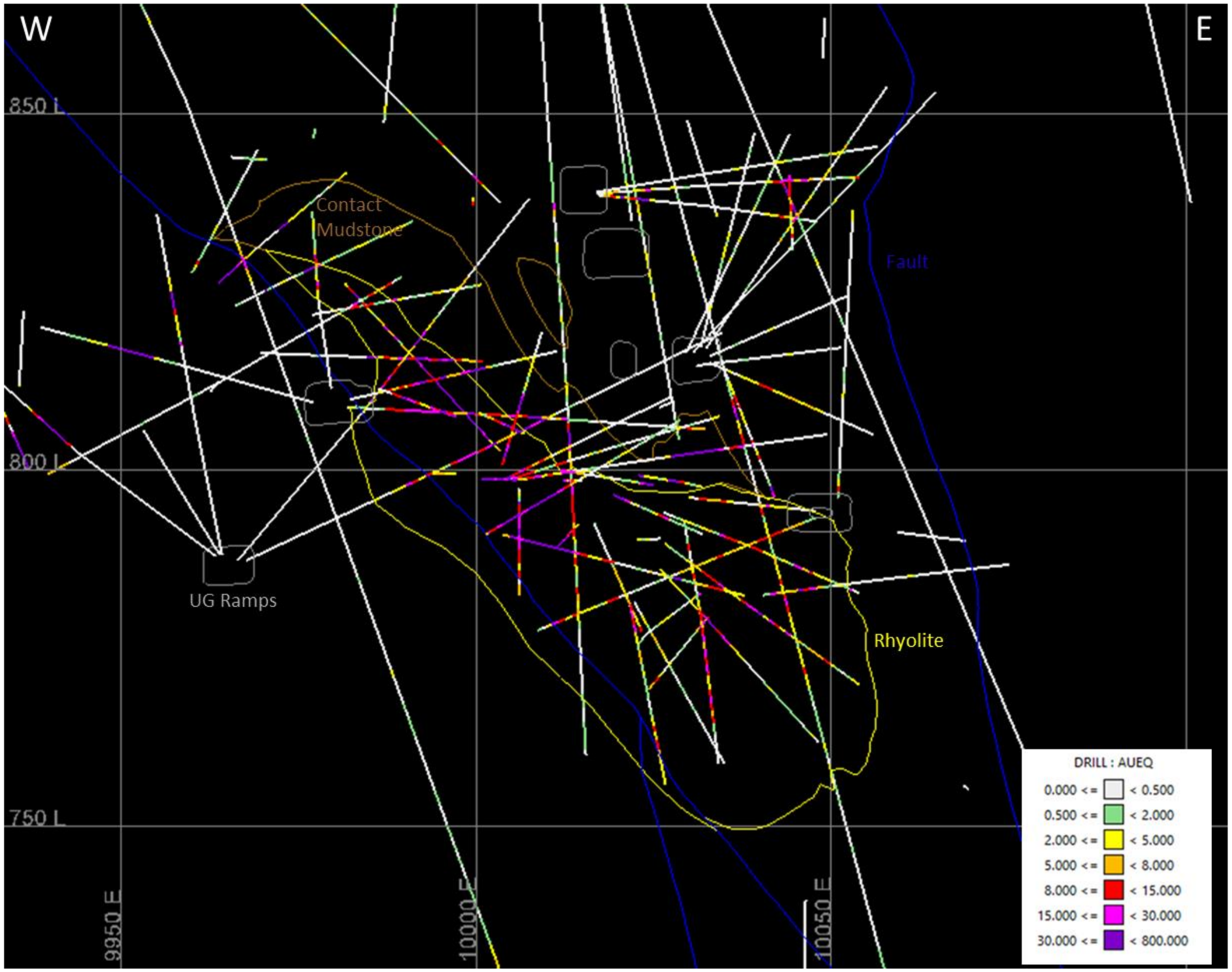
There is a direct correlation of sulphosalts with higher-grade precious metal concentrations. The silver: gold ratio for the zone is approximately 100 times greater than in the 21B Zone. Stringers of chalcopyrite and chalcopyrite-galena-sphalerite overprint the mineralization. Fine- grained pyrargyrite occurs locally in hairline fractures cutting the mudstone and hosts high-grade mineralization. Many of the textures observed in this zone suggest that the sulphides were introduced by replacement processes, perhaps along early faults.

Figure 7-9: Example Cross-Section, 21C Zone



Note: Figure prepared by Skeena, 2023. Section 10290 (15 m window)

Figure 7-10: Example Cross-Section, 21Be Zone



Note: Figure prepared by Skeena, 2023. Section 10750 N (10 m window)

7.3.2.5 HW Zone

The HW Zone forms massive sulphide horizons hosted in the mudstone interbeds within the Hanging Wall Andesite, at a higher stratigraphic level above the Contact Mudstone. Its geometry is disrupted by fault structures associated with the fold closure. The zone is about 1,100 m long by 140 m wide. The thicknesses of the individual beds range from a few metres up to 20 m.

An example section showing the mineralization in the HW Zone against the drilling is provided in Figure 7-11.

Sulphides are typically fine-grained, finely banded, and consist of semi-massive to massive pyrite, sphalerite, galena, chalcopyrite, and tetrahedrite. Sphalerite is reddish-brown, suggesting a higher iron content compared to sphalerite encountered in other zones. The HW Zone has a higher base metal content compared to other zones, except where tetrahedrite ± sulphosalts are observed, which are associated with significantly higher precious metal grades.

7.3.2.6 North Extension Zone

The ~800 m long by 170 m wide North Extension Zone (NEX Zone) is geometrically complicated by numerous faults that cut the nose of the Eskay Anticline. Textures, mineralogy, and precious-metal grades are somewhat variable and show similar characteristics to parts of the 21Be Zone and distal parts of the 21B Zone, suggesting synchronous deposition.

An example section showing the mineralization in the NEX Zone against the drilling is provided in Figure 7-12.

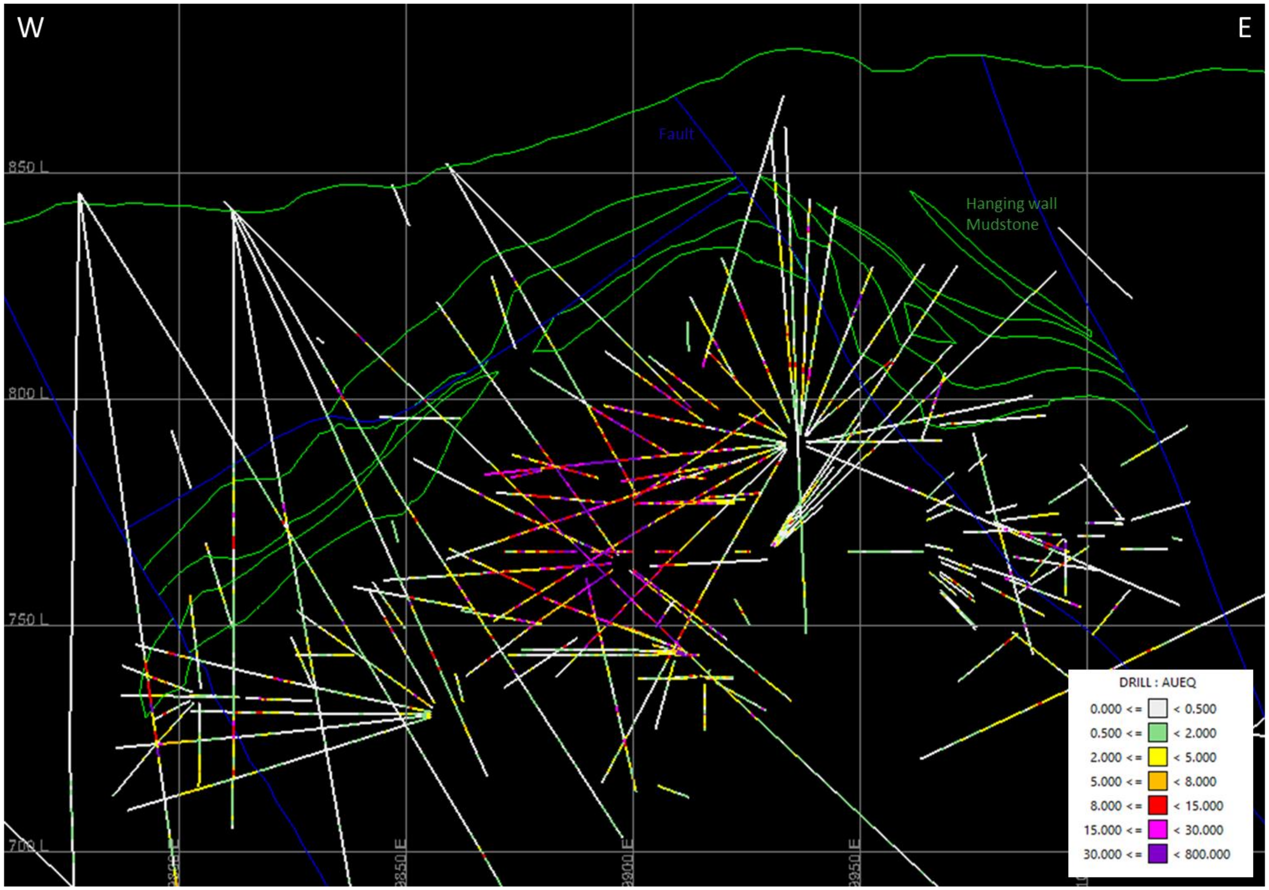
Pyrite and chalcopyrite are more common whereas antimony–mercury bearing minerals are less common. Chalcopyrite occurs in stringers that overprint earlier clastic mineralization and may be related to the formation of the HW Zone. Much of the contained pyrite may also have been introduced during this later event.

7.3.2.7 21E Zone

The 21E Zone sits on the eastern most block and is approximately 500 m long by 90 m wide. Locally, mudstone interbeds within the Hanging Wall Andesite host fine-grained to massive and locally clastic sulphides and sulphosalts. Individual beds range from a few metres up to 15 m thick.

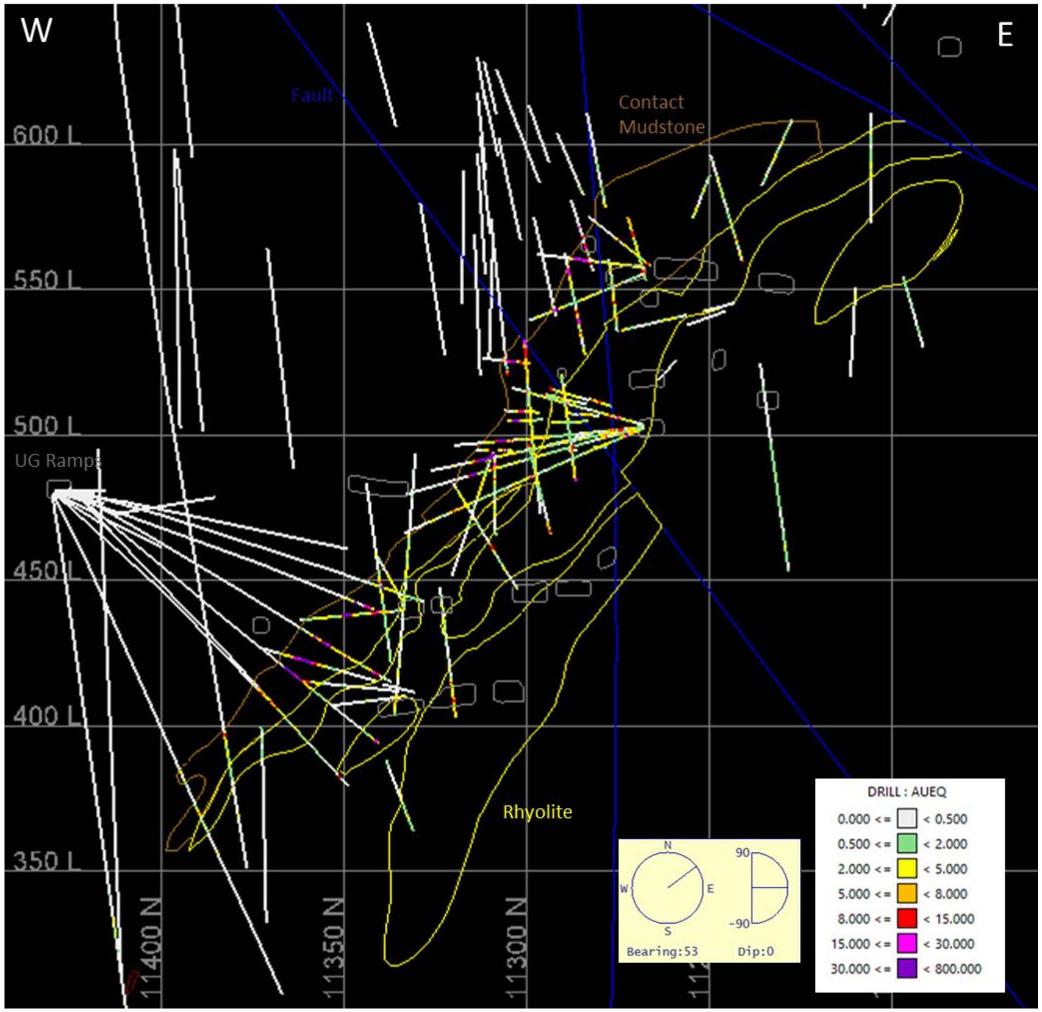
An example section showing the mineralization in the 21E Zone against the drilling is provided in Figure 7-13.

Figure 7-11: Example Cross-Section HW Zone



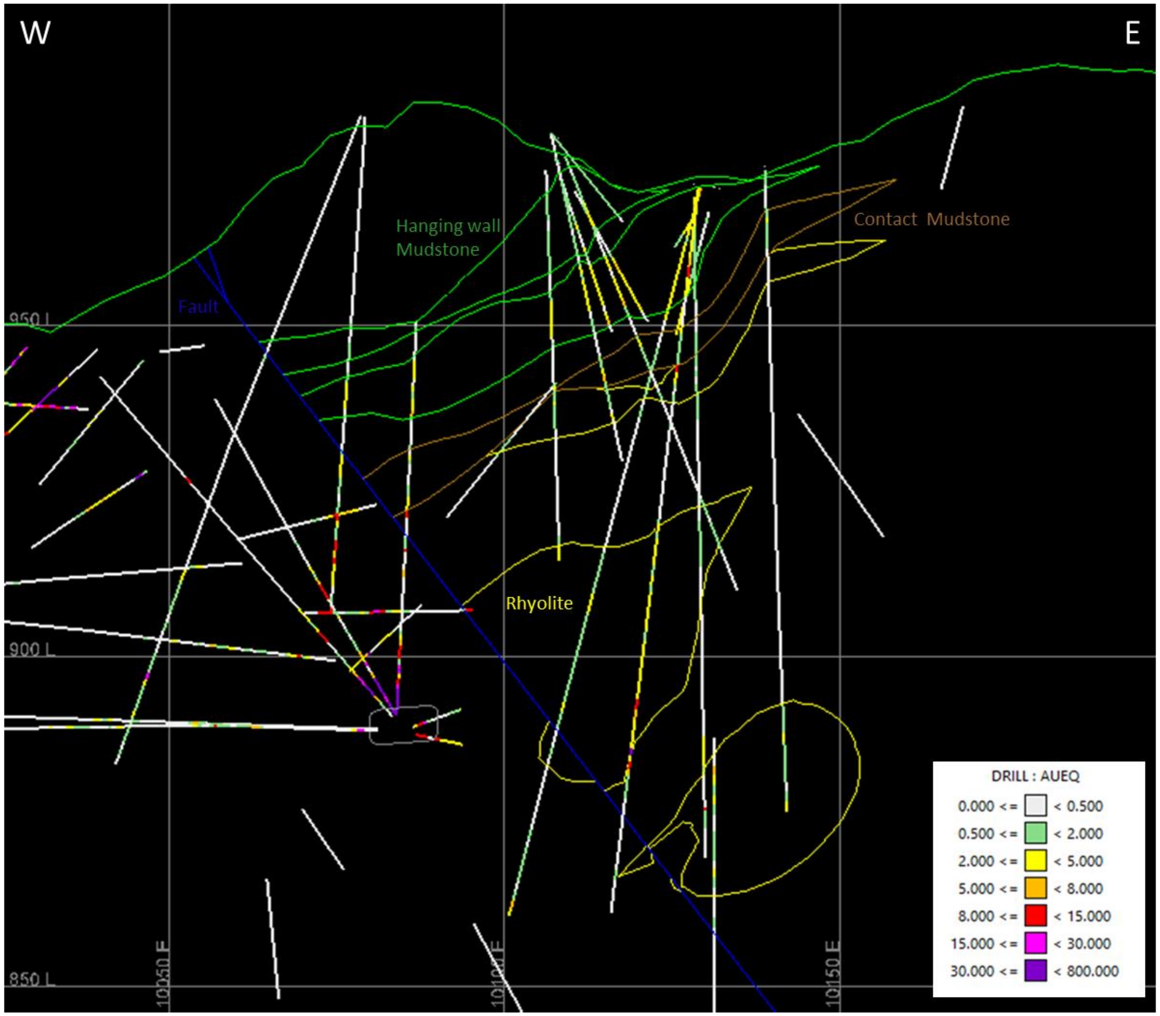
Note: Figure prepared by Skeena, 2023. Section 10900 N (10 m window).

Figure 7-12: Example Cross-Section NEX Zone



Note: Figure prepared by Skeena, 2023. Oblique section (10 m window)

Figure 7-13: Example Cross-Section, 21E Zone



Note: Figure prepared by Skeena, 2023. (10 m window)

Sulphides include fine laminae of tetrahedrite, replacement to dendritic style stibnite, and minor blebs or replacements of sphalerite-galena-chalcopyrite and arsenopyrite and associated silica and carbonate alteration. This zone generally has lower gold–silver grades relative to the other 21 Zones. In the underlying rhyolite, the mineralization is associated with disseminated stibnite, arsenopyrite and veinlets of pyrite.

7.3.2.8 Lower Package Zone (23 Zone)

The Lower Package (LP) stratabound-style mineralization is hosted stratigraphically below the Rhyolite and is hosted within the Lower Mudstone, Dacite, Even Lower Mudstone and Footwall Andesite. This zone spans the length of the deposit and is approximately 2,600 m long, 500 m wide, and ranges in thickness from a few meters up to 40 m thick. The 23 Zone is the shallow exposure of the LP Zone on the southeastern end of the orebody.

An example section showing the mineralization in the 23 Zone against the drilling is provided in Figure 7-14.

Mineralization is comprised of semi-massive base metal-rich beds with associated gold and silver. Metal content appears to be stronger near bounding faults of the Eskay Creek basin (in particular the Pumphouse fault), and related conjugate fault sets.

7.3.3 Discordant-Style Mineralization

Stockwork and discordant-style mineralization at Eskay Creek is hosted in the Rhyolite within the PMP, 109, 21A, 21B, 21Be, 21C, 21E, Water Tower, and 22 Zones.

Descriptions of the discordant-style mineralized zones are modified after Roth et al. (1999).

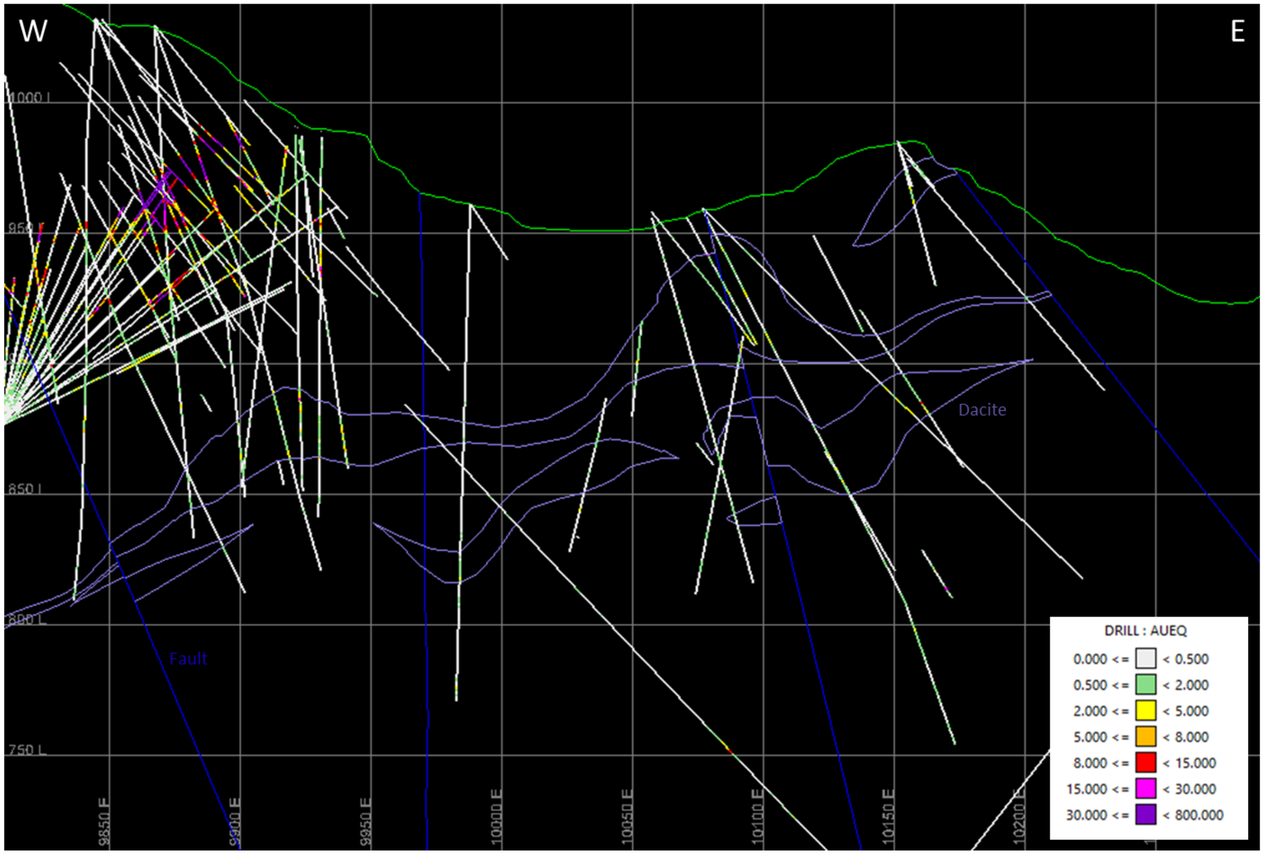
7.3.3.1 PMP Zone

The PMP Zone is a discordant zone of diffuse vein and disseminated sulphide mineralization 200 m long x 75 m wide that is hosted in the Rhyolite beneath the eastern part of the 21B Zone and just north of the 21Be Zone.

An example section showing the mineralization in the PMP Zone against the drilling is provided in Figure 7-15.

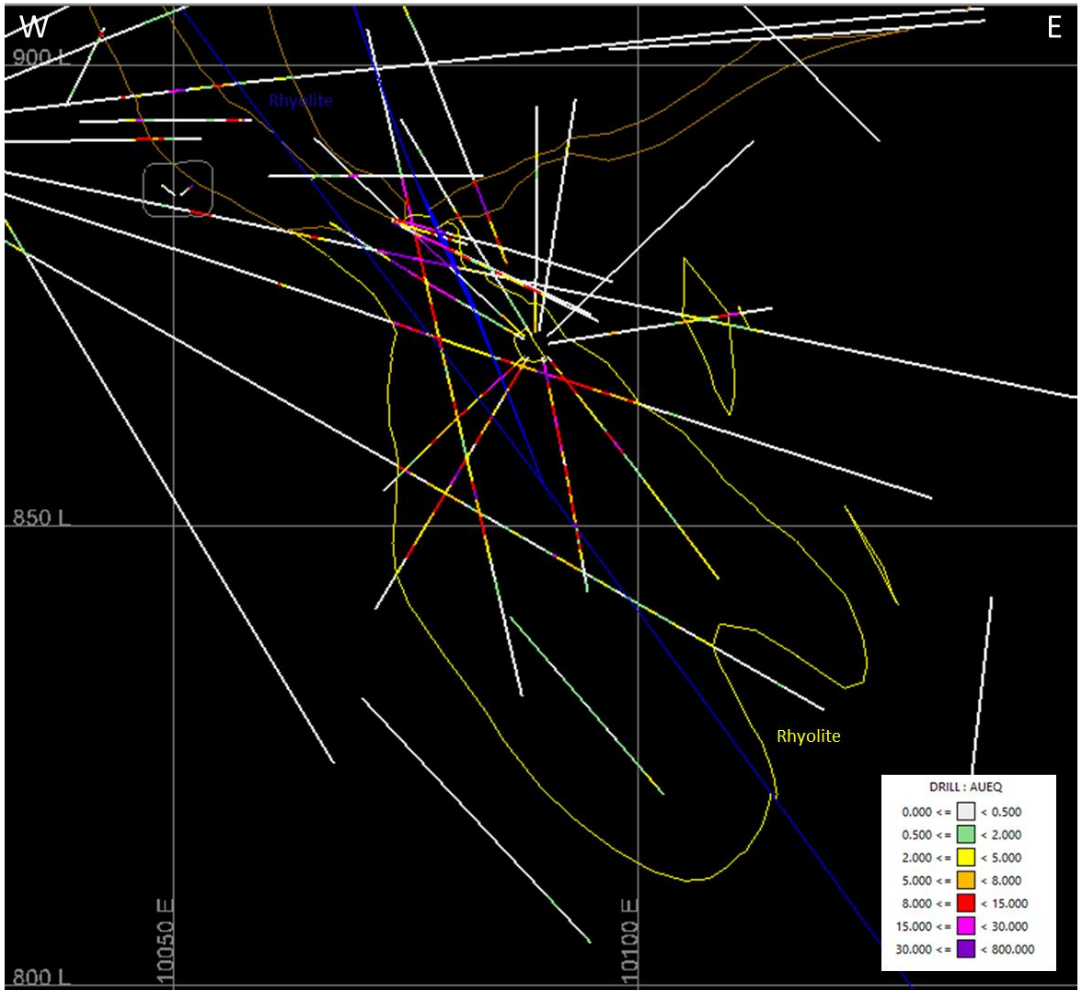
Precious metal grades are generally lower than in other zones. Patchy sulphide mineralization is observed locally through the rhyolite in the form of veins containing pyrite, sphalerite, galena, and lesser sulphosalts such as tetrahedrite. Chalcopyrite content increases with depth. Sphalerite is generally darker (more iron-rich) than in the overlying 21B Zone. Mineralization is commonly banded and is locally characterized by colloform textures. Locally, areas of very fine-grained disseminated sulphide mineralization enriched in precious metals occur; these are similar to footwall hosted mineralization observed in the 21C Zone.

Figure 7-14: Example Cross-Section, 23 Zone



Note: Figure prepared by Skeena, 2023. Section 10080 N (15 m window).

Figure 7-15: Example Cross-Section, PMP Zone



Note: Figure prepared by Skeena, 2023. Section 10470 N (10 m window).

7.3.3.2 109 Zone

The 109 Zone is named after the discovery drill hole of the same name. The zone is characterized by a distinct siliceous stockwork of crustiform quartz veins with coarse-grained sphalerite, galena, minor pyrite, and chalcopyrite in a zone that is 140 m long, 120 m wide and 30 to 80 m thick. The 109 Zone is hosted entirely within the Rhyolite, beneath the north end of the 21B and the HW Zones.

An example section showing the mineralization in the 109 Zone against the drilling is provided in Figure 7-16.

Gold and silver occur in electrum and sulphosalts.

7.3.3.3 22 Zone

The 22 Zone is located 2 km southeast of the 21A Zone, with mineralization hosted exclusively in the silicified Rhyolite. It is believed to represent a feeder zone intimately related to conjugate faults occurring between the north–south-trending basin bounding faults (Pumphouse and Andesite Creek).

An example section showing the mineralization in the 22 Zone against the drilling is provided in Figure 7-17.

Gold and silver mineralization are hosted within barren-looking quartz micro veinlets and disseminated fine-grained pyrite and blebby sphalerite in a zone roughly 350 m long by 80 m thick. Fine-grained arsenopyrite and stibnite are occasionally observed. Higher vein densities generally indicate better gold grades.

7.3.3.4 WT Zone

The WT Zone is located on the western side of the Project and occurs as steeply-dipping, feeder-style, discordant mineralization within intensely altered rhyolite breccias.

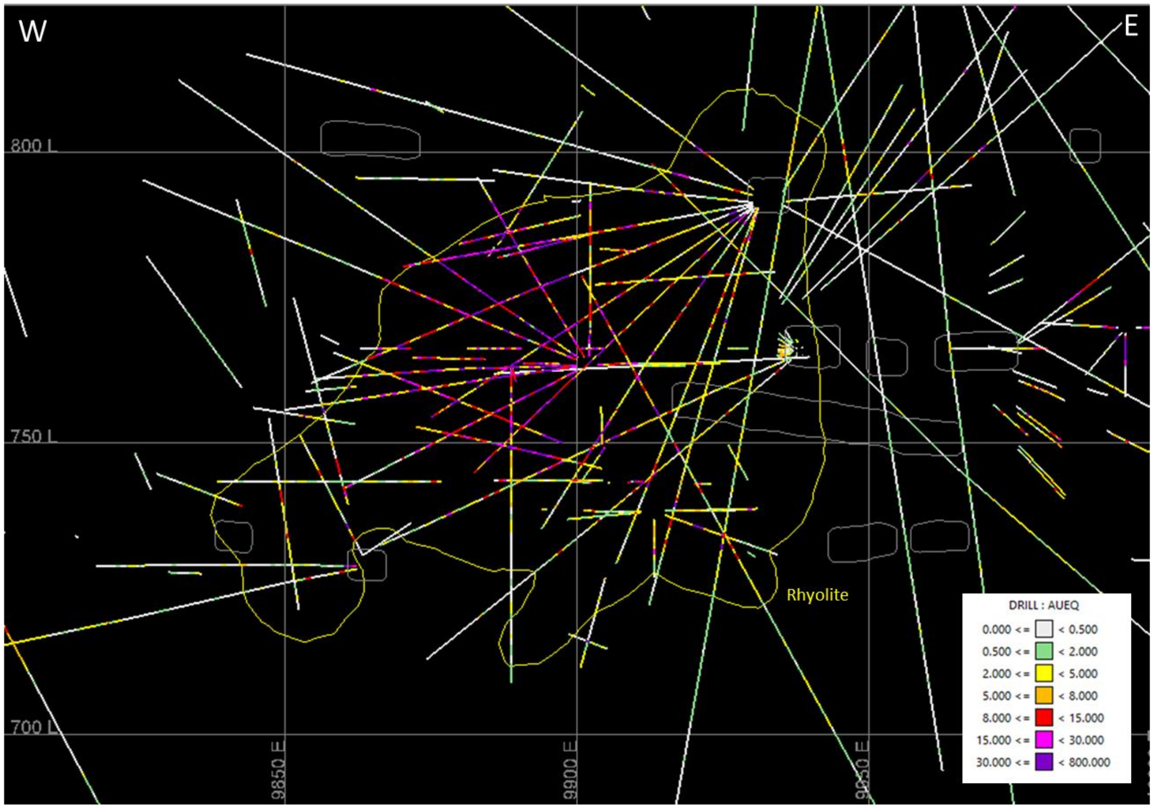
An example section showing the mineralization in the WT Zone against the drilling is provided in Figure 7-18.

Mineralization is hosted within quartz veinlets and disseminated fine-grained pyrite with blebby sphalerite in a zone that is 450 m long by 100 m wide. Individual zones average 5 m in thickness but are locally up to 20 m thick.

7.4 Prospects/Exploration Targets

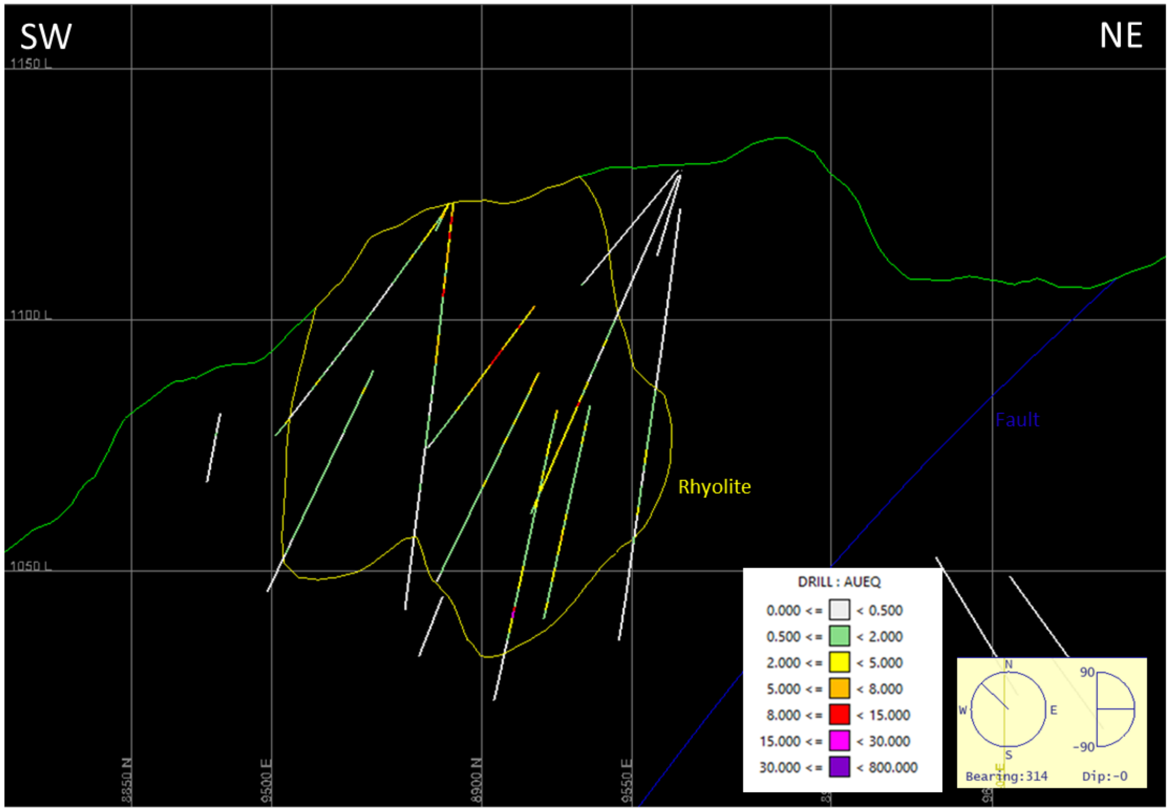
Exploration potential is discussed in Section 9.5.

Figure 7-16: Example Cross-Section, 109 Zone



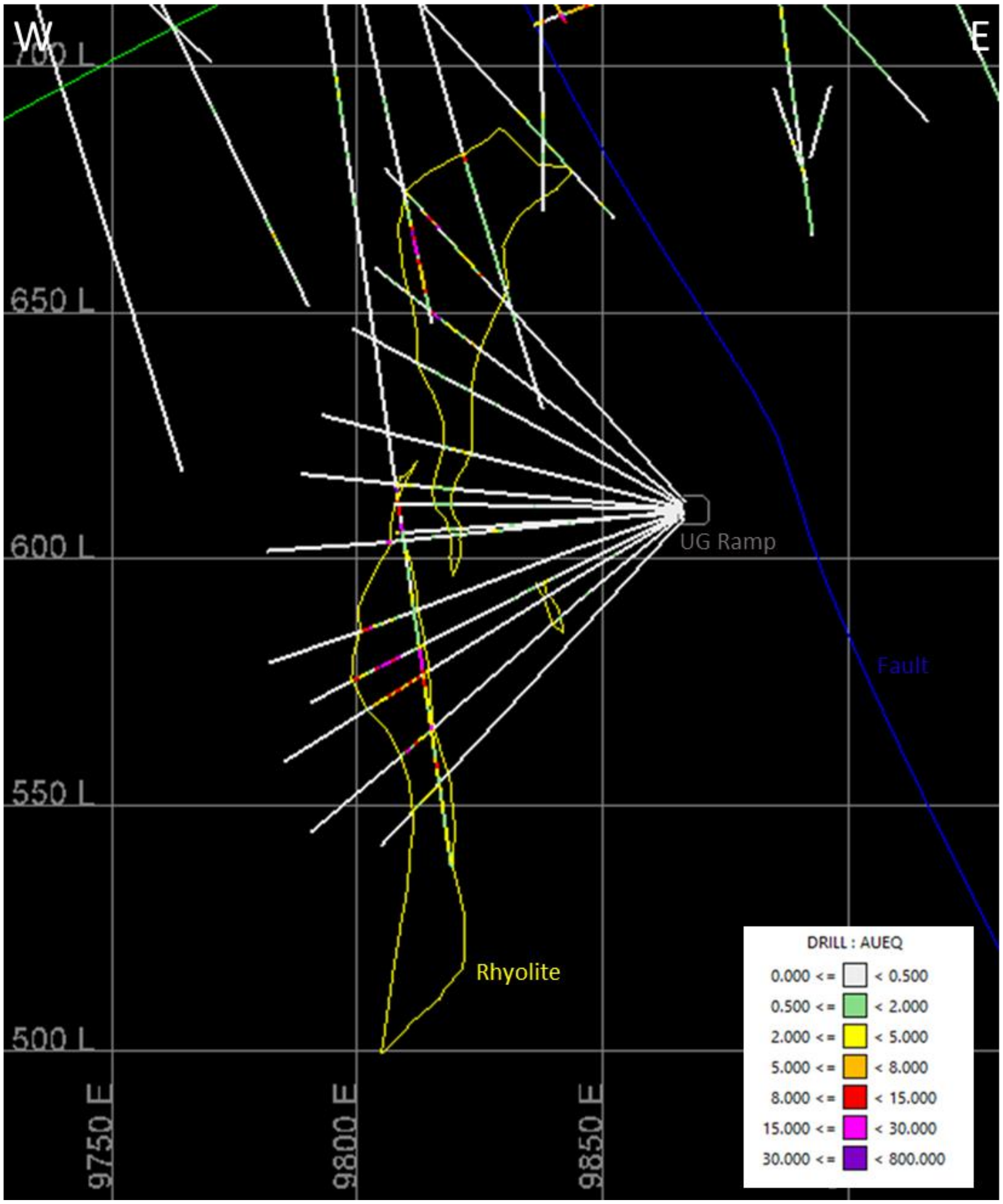
Note: Figure prepared by Skeena, 2023. Section 10910N (10 m window)

Figure 7-17: Example Cross-Section, 22 Zone



Note: Figure prepared by Skeena, 2023. Oblique section (20 m window)

Figure 7-18: Example Cross-Section, WT Zone



Note: Figure prepared by Skeena, 2023. Section 11030 N (10 m window)

8.0 DEPOSIT TYPES

8.1 Deposit Model

The Eskay Creek deposit is generally classified as an example of a high-grade, precious metals-rich epithermal volcanogenic massive sulphide (VMS) deposit; however, it has also been suggested to be an example of a subaqueous hot spring gold–silver deposit.

Table 8-1 summarizes the key features of each deposit type.

Features that would classify Eskay Creek as a VMS deposit (Roth et al., 1999) include:

- It formed on the seafloor in an active volcanic environment with a rhyolite footwall and basalt hanging wall;
- There is a chlorite-sericite alteration in the footwall, and sulphide formation within a mudstone unit at the seafloor interface.

Unlike many VMS deposits, Eskay Creek has high concentrations of gold and silver, and an associated suite of antimony, mercury, and arsenic. These mineralization features, along with the high incidence of clastic sulphides and sulphosalts, are more typical of an epithermal environment with low formation temperatures.

Features that would classify Eskay Creek as a subaqueous hot spring gold–silver deposit (Alldrick, 1995) include:

- Broad hydrothermal systems marked by widespread sericite–pyrite alteration;
- Evidence of a volcanic crater or caldera setting;
- Accumulations of felsic volcanic strata.

Roth et al., (1999) developed a deposit genesis model for the 21 Zones, that included the following phases:

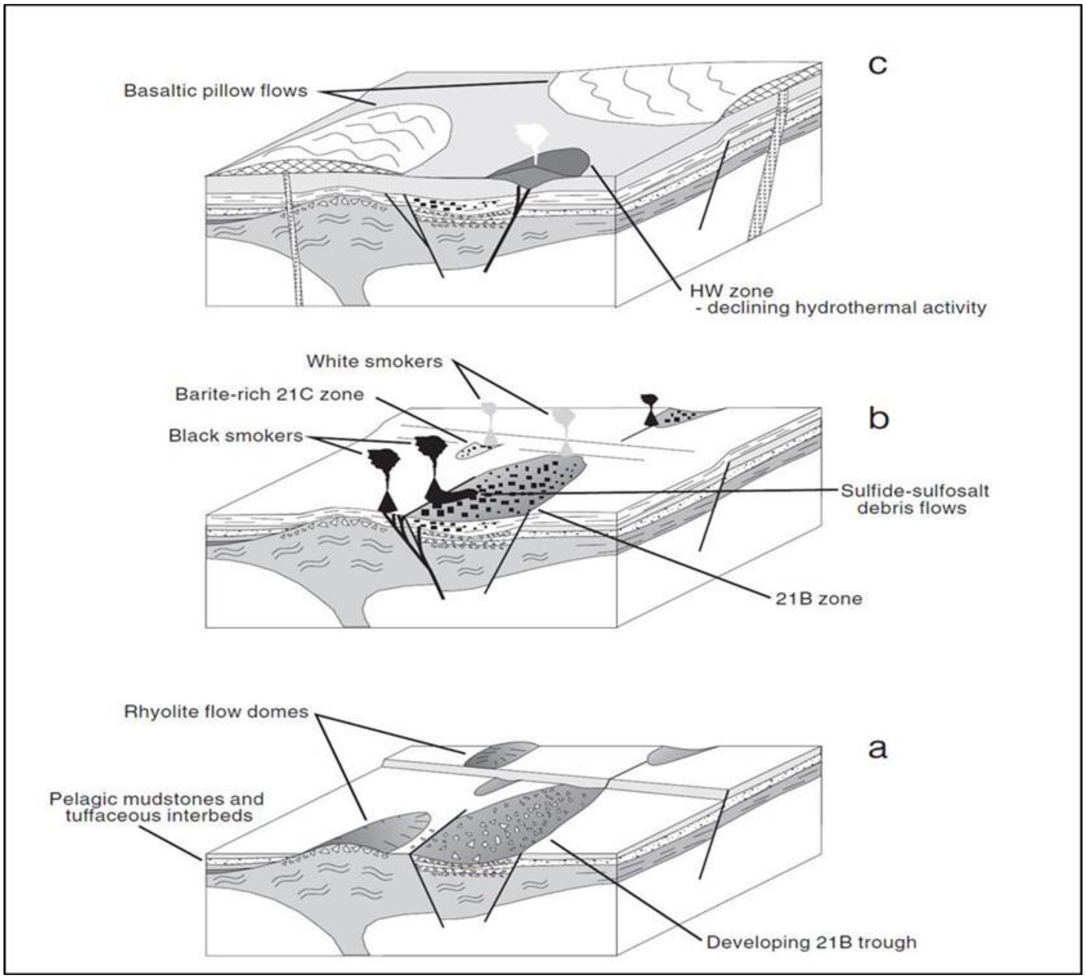
- Rifting, basin development and intrusion and extrusion of rhyolite flow domes. Coarse volcaniclastic debris from extrusive portions of the rhyolite domes are deposited along the developing 21B Zone trough (part a of Figure 8-1);
- Hydrothermal activity is focused through rift faults forming chimneys and mounds on the seafloor. Collapse or disruption of these mounds forms clastic sulphide-sulphosalt debris which is redeposited in the 21B Zone trough. Other smaller basins provide the sites for similar mineralization and barite-rich zones (21C Zone) related to white smokers (part b of Figure 8-1);

Table 8-1: Deposit Type Features

Descriptor	VMS	Hot Spring Au–Ag
Tectonic setting:	Oceanic extensional environments, such back-arc basins, oceanic ridges close to continental margins, or rift basins in the early stages of continental separation Form at, or near, the seafloor through the focused discharge of hot, metal-rich hydrothermal fluids	Active volcanic arcs (both oceanic island arcs and continental margin arcs) are likely setting
Host/Associated rock types:	Terrigenous clastic rocks associated with marine volcanic rocks and sometimes carbonate rocks; these may overlie platformal carbonate or clastic rocks Typically, a concordant sheet of massive sulphides up to a few metres thick and up to kilometres in strike length and down-dip; can be stacked lenses	Mineralization hosted by intermediate to felsic flows and tuffs and minor intercalated sedimentary rocks Pillow lavas, coarse epiclastic debris flows, and assorted subvolcanic feeder dikes are all part of the local stratigraphic package
Deposit form:	Deposits typically comprise thin sheets of massive to well-layered pyrrhotite, chalcopyrite, sphalerite, pyrite, and minor galena within interlayered, terrigenous clastic rocks and calcalkaline basaltic to andesitic tuffs and flows There is typically a mound-shaped to tabular, stratabound body composed principally of massive (>40%) sulphide, quartz and subordinate phyllosilicates, and iron oxide minerals and altered silicate wall-rock. These stratabound bodies are typically underlain by discordant to semiconcordant stockwork veins and disseminated sulphides. The stockwork vein systems, or “pipes”, are enveloped in distinctive alteration halos, which may extend into the hanging-wall strata above the VMS deposit	Highly variable Footwall stockwork or stringer-style vein networks Large, textureless massive sulphide pods, finely laminated stratiform sulphide layers and lenses, reworked clastic sulphide sedimentary beds, and epithermal-style breccia veins with large vugs, coarse sulphides and chalcedonic silica All types may coexist in a single deposit
Ore mineralogy (principal and subordinate):	Pyrite, pyrrhotite, chalcopyrite, sphalerite, cobaltite, magnetite, galena, bornite, tetrahedrite, cubanite, stannite, molybdenite, arsenopyrite, marcasite	Sphalerite, tetrahedrite, boulangerite, bournonite, native gold, native silver, amalgam, galena, chalcopyrite, enargite, pyrite, stibnite, realgar, arsenopyrite orpiment; metallic arsenic, Hg-wurtzite, cinnabar, aktashite, unnamed Ag–Pb–As–S minerals, jordanite, wurtzite, krennerite, coloradoite, marcasite, magnetite, scorodite, jarosite, limonite, anglesite, native sulphur

Descriptor	VMS	Hot Spring Au–Ag
Gangue mineralogy (principal and subordinate):	Quartz, calcite, ankerite, siderite, albite, tourmaline, graphite, biotite	Magnesian chlorite, muscovite (sericite), chalcedonic silica, amorphous silica, calcite, dolomite, pyrobitumen, gypsum, barite, potassium feldspar, alunite with minor carbon, graphite, halite and cristobalite

Figure 8-1: Genetic Model



Note: Figure from Roth et al., (1999).

- The HW zone of massive sulphide forms higher in the mudstone stratigraphy and basaltic magmatism begins (dykes and flows) during the waning stages of hydrothermal activity (part c of Figure 8-1).

8.2 QP Comments on Item 8 "Deposit Types"

The QP is of the opinion that exploration programs that use either a VMS and/or a hot-spring deposit model in this Project area are applicable for gold and silver mineralization targeting.

9.0 EXPLORATION

9.1 Grids and Surveys

McElhanney Consulting Services Ltd. (McElhanney) of Vancouver, B.C flew an airborne light detection and ranging (LiDAR) and photo acquisition survey in December 2018, covering an area of 100 km^2. Sixty flight lines (539-line kilometres) were completed.

LiDAR and photo acquisition were collected simultaneously with equipment co-mounted on the sampling aircraft. The resulting topography map was compiled to 0.1 m accuracy.

9.2 Geological Mapping

9.2.1 Pre-Skeena

Texasgulf Canada Ltd. completed 1:5,000 scale mapping in 1975–1976 in the area of the Eskay Creek deposit area. Homestake mapped the Bowser Lake sediments at 1:5,000 scale in 1995, and completed four 1:1,000 scale maps of the Eskay Creek deposit area the same year.

9.2.2 Skeena

Skeena has completed the following geological mapping programs:

- Tom MacKay target in mid-October 2019 (1: 10,000 scale, over 0.45 km^2 area), situated 2.2 km south of the 22 Zone;
- Tip Top and Eskay Porphyry targets in August 2019, (1: 10,000 scale), located 700 m east of the 21 Zone deposits;
- Geological field mapping (1:10,000 scale) and prospecting activities over the Project area, focusing on geochemical anomalies reported in historical soil grids, grab rock samples and core drilling.

The results of field mapping in the Tom MacKay area indicated that the Rhyolite varied slightly from the mapped and historically logged felsite dyke. The structural data taken support north–south-oriented faults dipping sub-vertically to the east. The strongest visual mineralization was associated with a brecciated felsite dyke within the structural corridor.

Geological data taken from Tip Top and Eskay Porphyry shows the same northeast trend of mineralization parallel to the Tom MacKay structural corridor. In these areas, mineralization is mainly associated with brecciated Andesite (Tip Top) and brecciated intrusive units (Eskay Porphyry).

Geological mapping, along with trace and major element interpretation of the collected samples, has led to the reclassification of several lithological units on the existing map as well as the redrawing of certain lithological boundaries on the maps inherited from previous operators of the Eskay Creek Project.

9.2.3 Basin Reconstruction Project

During 2021, re-logging of 26 representative drill holes totalling approximately 7,439 m of core was undertaken to establish an informal stratigraphy for strata that host the Eskay deposits. Eighty-nine samples were collected for whole rock analysis to characterize lithofacies and alteration types.

The production of stratigraphic logs, created during re-logging across pre-defined cross sections through the Eskay Creek deposit and beyond, served as a basis to model various editions of basin evolution reconstruction.

The trace and mobile elements of the whole rock analysis helped to confirm the stratigraphy by providing the true composition of certain rocks units that were otherwise obscured by intense alteration. Whole rock analysis indicated that the Contact Mudstones and HW Mudstone are geochemically identical and therefore appear to represent a continuous deposition environment that was subsequently disjointed and separated by andesite flows and sills of the HW andesite package. Although the data were reviewed to assist with alteration types, they were not particularly useful given the wide deposit alteration footprint.

9.3 Geochemical Sampling

9.3.1 Pre-Skeena

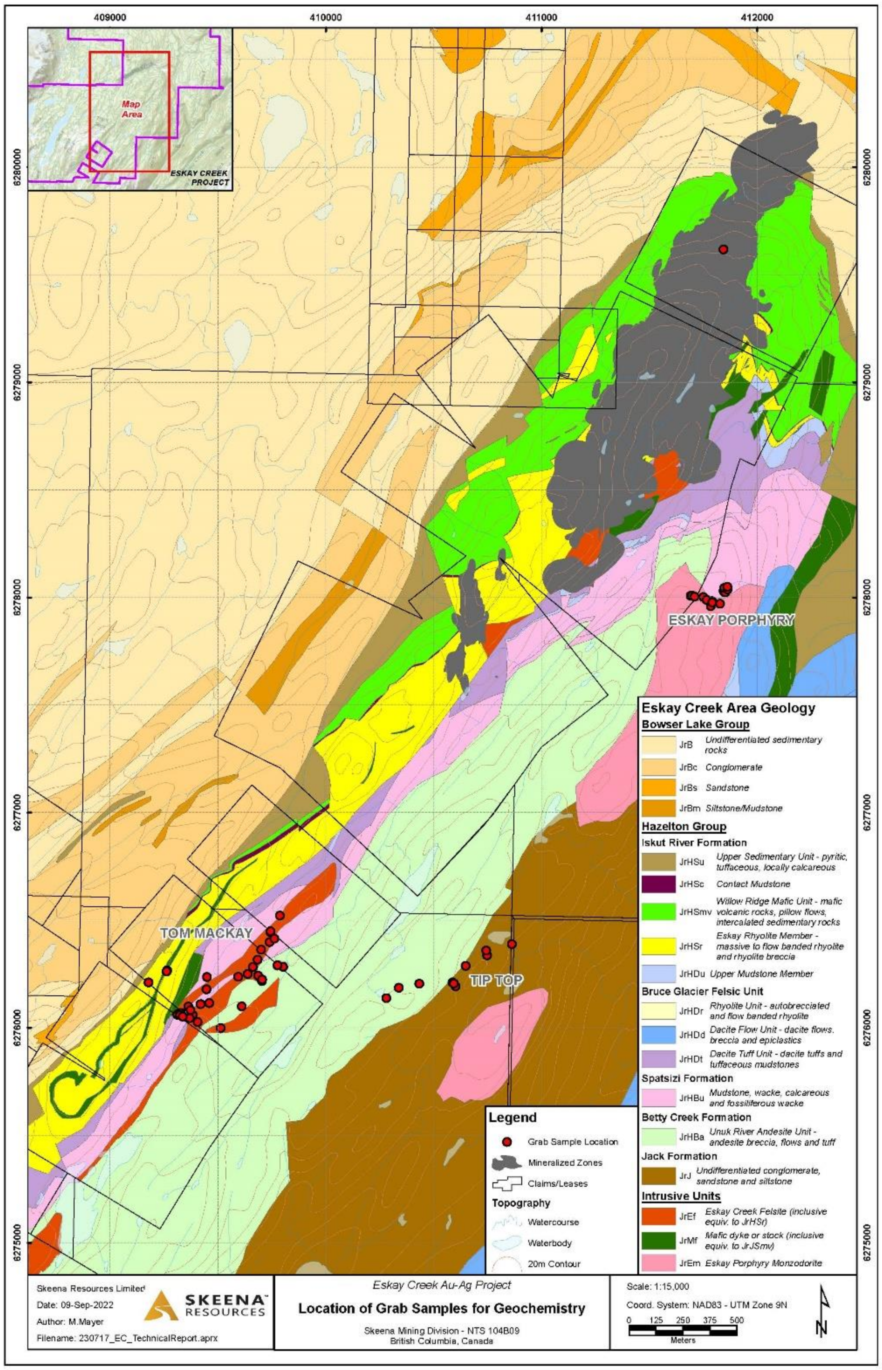
A significant number of rock chip, silt, stream sediment, soil and trench samples were taken during the early-stage exploration programs. The majority of these data are not available to Skeena. The programs identified prospects and showings for additional follow-up work.

9.3.2 Skeena

During 2019, 22 grab samples were collected from altered or mineralized outcrops in the Tom MacKay area for whole rock analysis, 28 grab samples were collected from Tip Top, and 14 grab samples were collected from the Eskay Porphyry (Figure 9-1). Sampling returned a number of anomalous gold and silver grades, and the Tom MacKay area was recommended for drill testing.

During 2021, 4,367 soil samples and 2,296 rock samples were collected. Sampling covered about 116 line kilometres and was completed on a systematic 25 x 100 m grid. Anomalous gold–silver values, together with pathfinder elements such as antimony and arsenic highlight the remaining exploration potential along the Eskay trend, south of the deposit.

Figure 9-1: Sample Location Plan, 2019 Program



Spatially, anomalous lead and zinc values in soil samples were found to correlate relatively well with anomalous gold and silver values, while copper anomalies had a weaker spatial correlation with the precious and other base metal anomalous values. Figure 9-2 shows the resulting gold in soil anomalies in the Project area.

Rock chip samples were taken to assist in the characterization of the lithofacies and alteration types. Samples were also taken to ensure coverage at altered or mineralized outcrops that had no previous data recorded. Sample locations are shown in Figure 9-3. Grab rock samples, as well as geochemical soil samples highlighted a 2 km long section of the Pumphouse Fault corridor south of the 21A Zone along the Eskay trend with limited to no historical drill testing; new data showed this corridor to be prospective. Subsequent core drilling during 2021 in this area led to the discovery and delineation of the 23 Zone.

9.4 Geophysical Surveys

9.4.1 Pre-Skeena

Initial exploration included numerous geophysical surveys (Table 6-1). However, the majority of the survey data and resulting interpretations are not available to Skeena.

9.4.2 Skeena

9.4.2.1 Airborne Geophysics

Dias Airborne Limited of Saskatoon flew an airborne magnetic gradiometry survey in 2020 using the QMAG full tensor magnetic gradiometer (FTMG) system. Approximately 1,060 line kilometres on 40 m line spacing were completed, which included 965 km of survey lines and 95 km of tie lines.

The incorporation of the airborne magnetic datasets into the larger litho-structural model highlights the structural framework of the Eskay Creek Basin, which can be applied to other regional targets associated with the Faults. This included the along-strike extension of the Pumphouse and Argillite Creek Faults, as well as other parallel structures that may have exploration potential.

9.4.2.2 Ground Geophysics

During 2020, Dias Geophysical Limited (Dias) carried out a 3D direct-current resistivity and induced polarization (DCIP) survey over an approximately 5 km^2 area that covered the axis of the Eskay Creek anticline from the Bowser Basin south to the Tom MacKay Zones using the DIAS32 system in the UTM Zone 9N WGS84.

Figure 9-2: 2021 Soil Geochemical Sample Anomalies

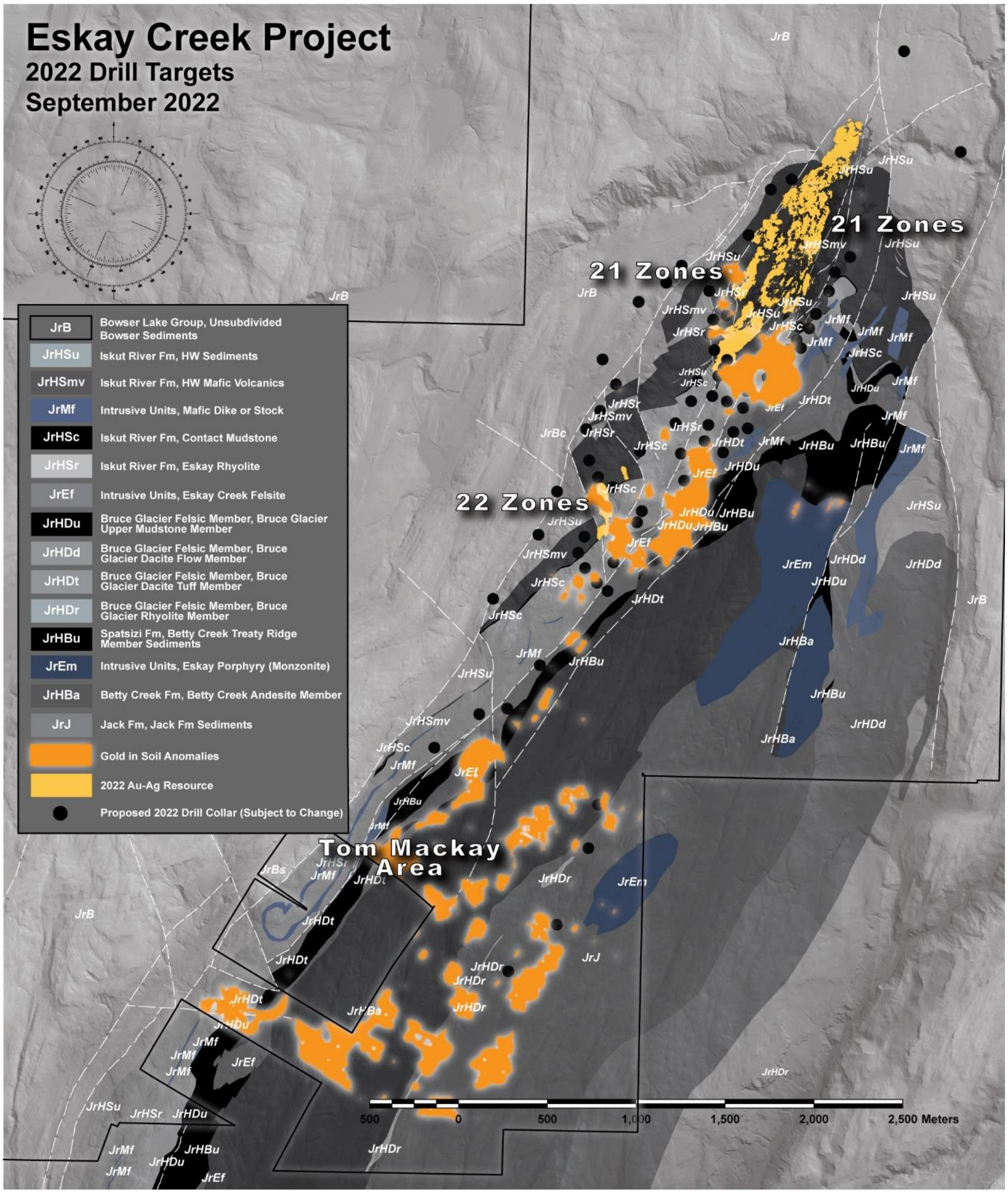
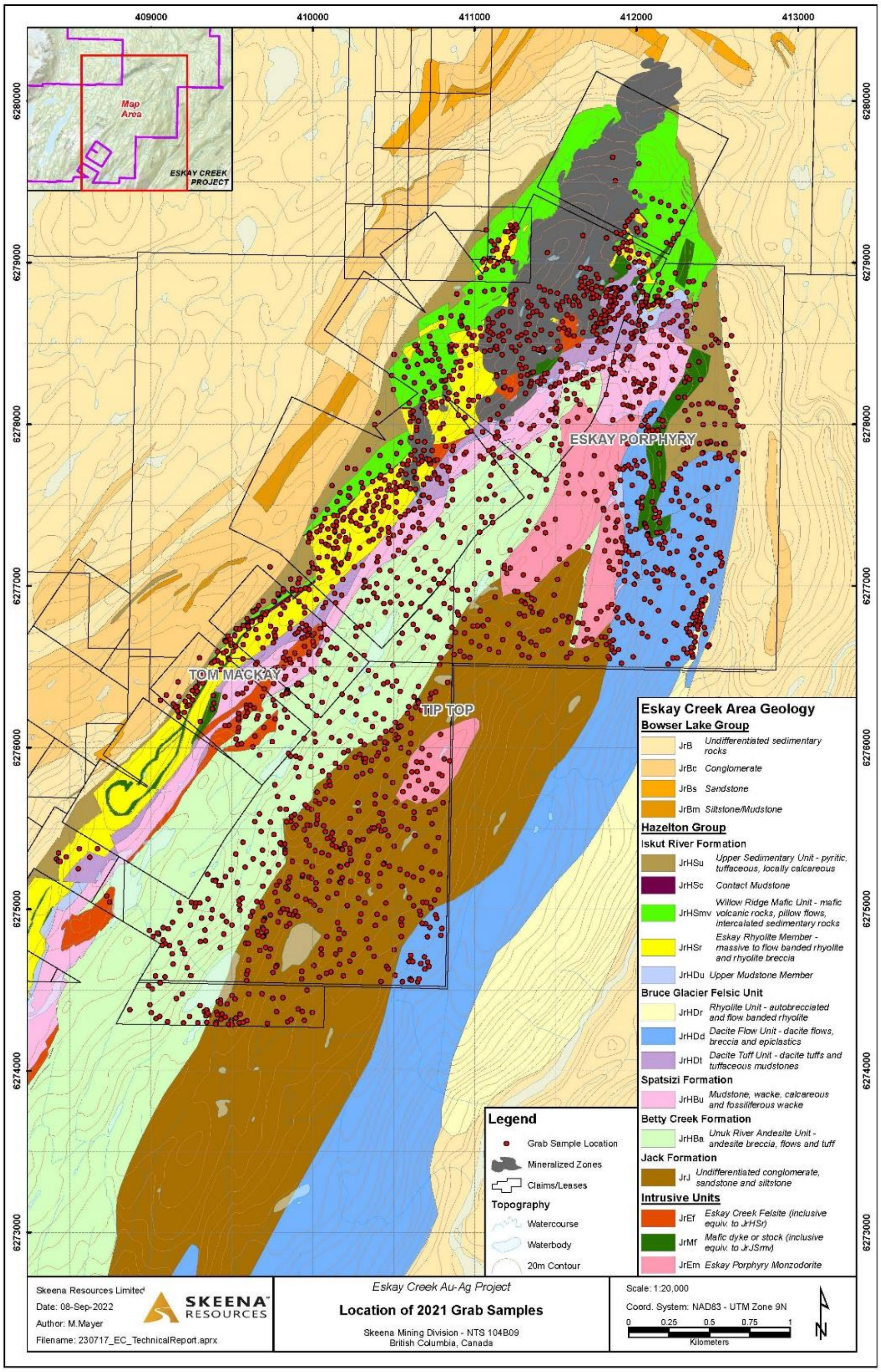


Figure prepared by Skeena, 2022.

Figure 9-3: 2021 Rock Chip Sampling Program



The survey was completed using a rolling distributed partial 3D DCIP array with a pole-dipole transmitter configuration. The survey layout consisted of a total of five northeast–southwest-oriented receiver lines, spaced at 200 m (Figure 9-4). Along the receiver lines, the electrode stations were spaced 100 m apart. The injection lines ran perpendicular to the five receiver lines and offset by 50 m from the receiver nodes.

The resulting data were used to produce a set of unconstrained 3D DC and IP models using the SimPEG inversion code.

The 3D IP ground survey showed two features, which were largely already recognized. Resistivity appears to highlight important faults/basin bounding structures with slight resistivity high response. Felsic sub-volcanic feeders are highlighted by a slight chargeability high response. There was no response for any areas with known mineralization.

9.5 Petrology, Mineralogy and Research Studies

The following theses have been completed on aspects of the geology and mineralization within the Project area:

- Donnelly, D., 1976: B.Sc. thesis;
- Roth, T., 1993: MSc. thesis;
- Bartsch, R., 1993: MSc. thesis;
- Roth, T., 2002: PhD thesis.

There are a number of published academic papers on aspects of the geology and mineralization within the Project area, including on the Eskay Creek deposit.

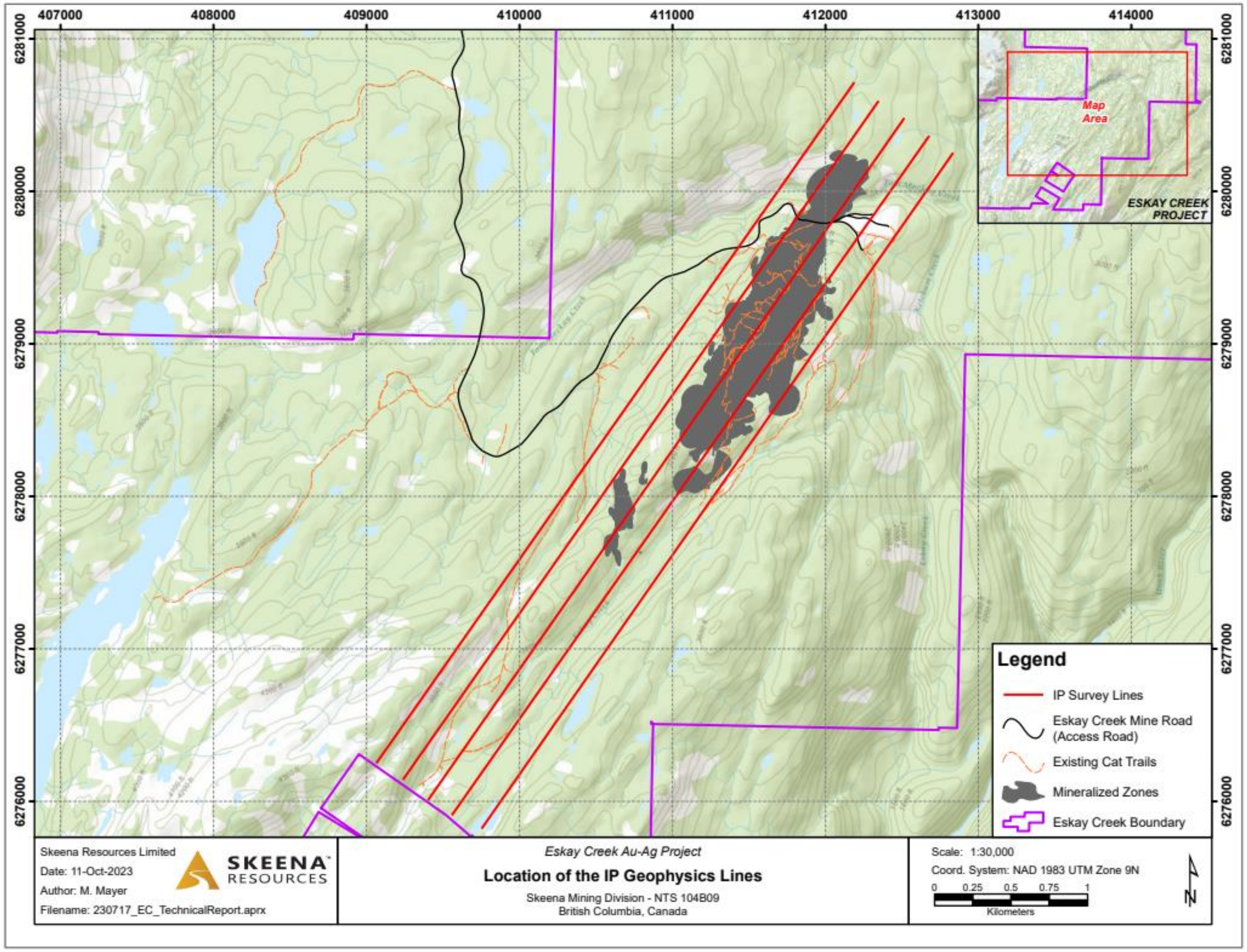
9.6 Exploration Potential

The Eskay Creek deposit retains exploration upside, along strike and at depth, in particular the potential to identify well-defined, mineralized syn-volcanic feeder structures that propagate through the volcanic pile.

The underexplored Lower Mudstone is situated about 100 m stratigraphically below the better explored Contact Mudstone and represents a horizon with potential to host similar exhalative style mineralization. Prospect ranking is influenced by areas where known synvolcanic feeder structures intersect this unit, as these locales will offer the highest potential for development of additional exhalative style mineralization.

Due to limited legacy exploratory drilling in the area between the 21A and 22 Zones, additional opportunities exist to discover and delineate near-surface, Rhyolite- and/or Dacite-hosted feeder mineralization.

Figure 9-4: Location of IP Geophysical Lines



In 2022, the Eskay Deeps Zone was identified, at about 850 m depth, and is hosted entirely within altered Rhyolite breccias, located approximately 4 m below a marker bed of thin (<1 m), unmineralized Contact Mudstone. This zone is a new occurrence of Rhyolite-hosted gold–silver mineralization in the Eskay Deeps zone, which has many analogies with the known Eskay Creek deposits (stratigraphic sequence, mineralization and alteration styles, geochemical signature).

The discovery supports that the strike extension of the entire Eskay Creek Rift north of the NEX Zone has been offset to the northwest of the previously-assumed trend, and that there is significant potential, based on geophysical data, lithogeochemical, and structural studies, for this area to host feeder-style mineralization.

9.7 QP Comments on Item 9 “Exploration”

The exploration programs completed to date are appropriate to the style of the deposit and prospects.

The deposit area retains exploration potential.

10.0 DRILLING

10.1 Introduction

Surface drilling has been carried out by multiple operators, with the first drilling on the property by Unuk Gold in 1934. Between 1934 and 2004, 1,655 surface core drill holes (377,667.1 m) were drilled. Six underground core holes (224.64 m) were drilled in 1964 at the Emma adit, and 6,149 underground core drill holes (317,381.3 m) were completed from 1991 to 2008. Historical core drilling by company per year are summarized in Table 10-1. Drill collar locations are provided in Figure 10-1 and Figure 10-2 for the historical surface and underground core programs, respectively.

From 2018 to 2022, Skeena drilled 1,101 core surface holes (183,440.54 m). No underground drilling has been undertaken to date. A program of 20 rotary air blast (RAB) holes (410.03 m) were completed at Albino Lake, a historical mine rock storage facility, in 2021. The Skeena drilling programs are summarized in Table 10-2.

A drill collar location plan of the Skeena core drill holes and RAB holes is included as Figure 10-3. The database close-out date for estimation is March 28, 2023 once the final assay certificate for the 2022 drilling was received.

The Mineral Resource estimate is based on 8,684 core holes (834,824 m). Drill holes from south of 8250 N (227 core holes) and Albino Lake (20 RAB holes) are not used in estimation.

The 2023 drilling program began in late June with 27 planned holes (15,700 m) to drill the Eskay Deeps area and 22 Zone. This drill program is currently in progress. As of October 31, 2023, 25 holes were drilled.

10.2 Drill Methods

10.2.1 Pre-Skeena

Limited details are available regarding drilling contractors and drilling procedures specific to each campaign prior to 1995. Where known, the drill methods are provided in Table 10-3.

10.2.2 Skeena

Drill contractors, rigs, and core sizes used during the Skeena drill programs are included in Table 10-3.

Table 10-1: Pre-Skeena Core Drill Summary Table

Year	Operator	Surface		Underground	
		Holes	Meters	Holes	Meters
1934	Premier Gold Mining Co. Ltd	9	181.37	—	—
1935		4	87.33	—	—
1936		26	1,237.02	—	—
1937		8	501.11	—	—
1964	Stikine Silver Ltd./ Canex Aeriel Exploration Ltd.	—	—	6	224.64
1976	Texas Gulf Canada Ltd.	7	373.40	—	—
1980	Ryan Exploration Ltd. (U.S. Borax)	5	341.95	—	—
1985	Kerrisdale Resources Ltd.	5	623.57	—	—
1988	Consolidated Stikine/ Calpine Resources Inc.	24	4,322.90	—	—
1989		200	43,547.90	—	—
1990		585	125,944.65	—	—
1991	International Corona Corp.	99	12,370.30	88	3,844.59
1992		8	3,614.38	—	—
1993	Homestake Mining Company	5	1,606.60	—	—
1994		26	4,609.80	—	—
1995		29	2,891.31	915	47,455.50
1996		110	20,002.40	43	2,448.50
1997		59	16,983.63	580	25,720.95
1998		90	23,024.87	677	31,872.24
1999		62	17,330.58	567	30,519.95
2000		75	26,393.01	421	19,712.30
2001		59	21,158.39	639	25,827.31
2002	Barrick Gold Corp.	35	13,936.41	87	2,151.14
2003		71	18492.57	1,034	71,693.49
2004		54	18,091.64	481	25,170.30
Post-2004		—	—	617	30,965.00
Totals		***1,655***	***377,677.1***	***6,155***	***317,605.9***

Figure 10-1: Pre-Skeena Surface Core Drill Collar Location Plan

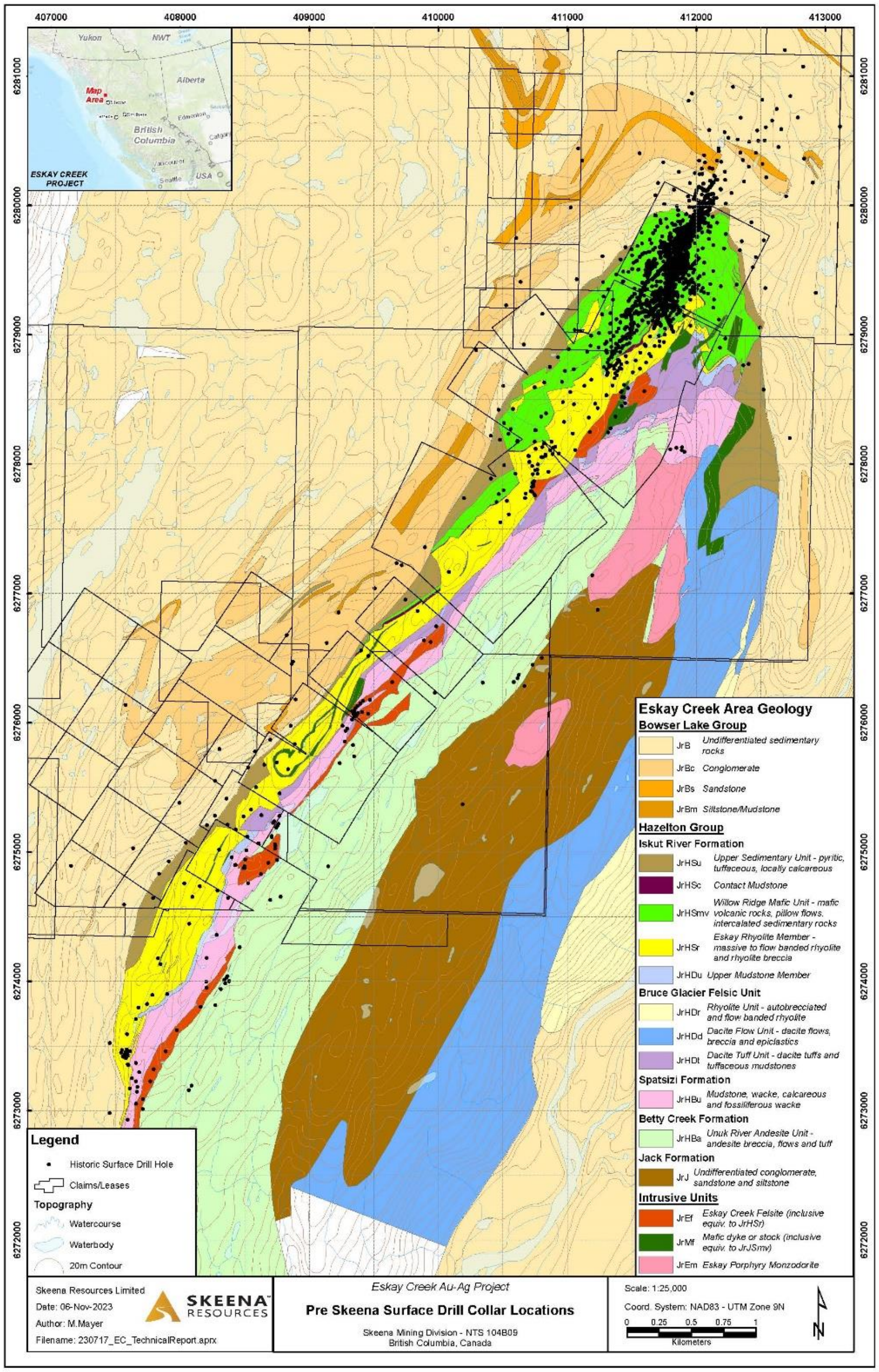


Figure 10-2: Pre-Skeena Underground Core Drill Collar Location Plan

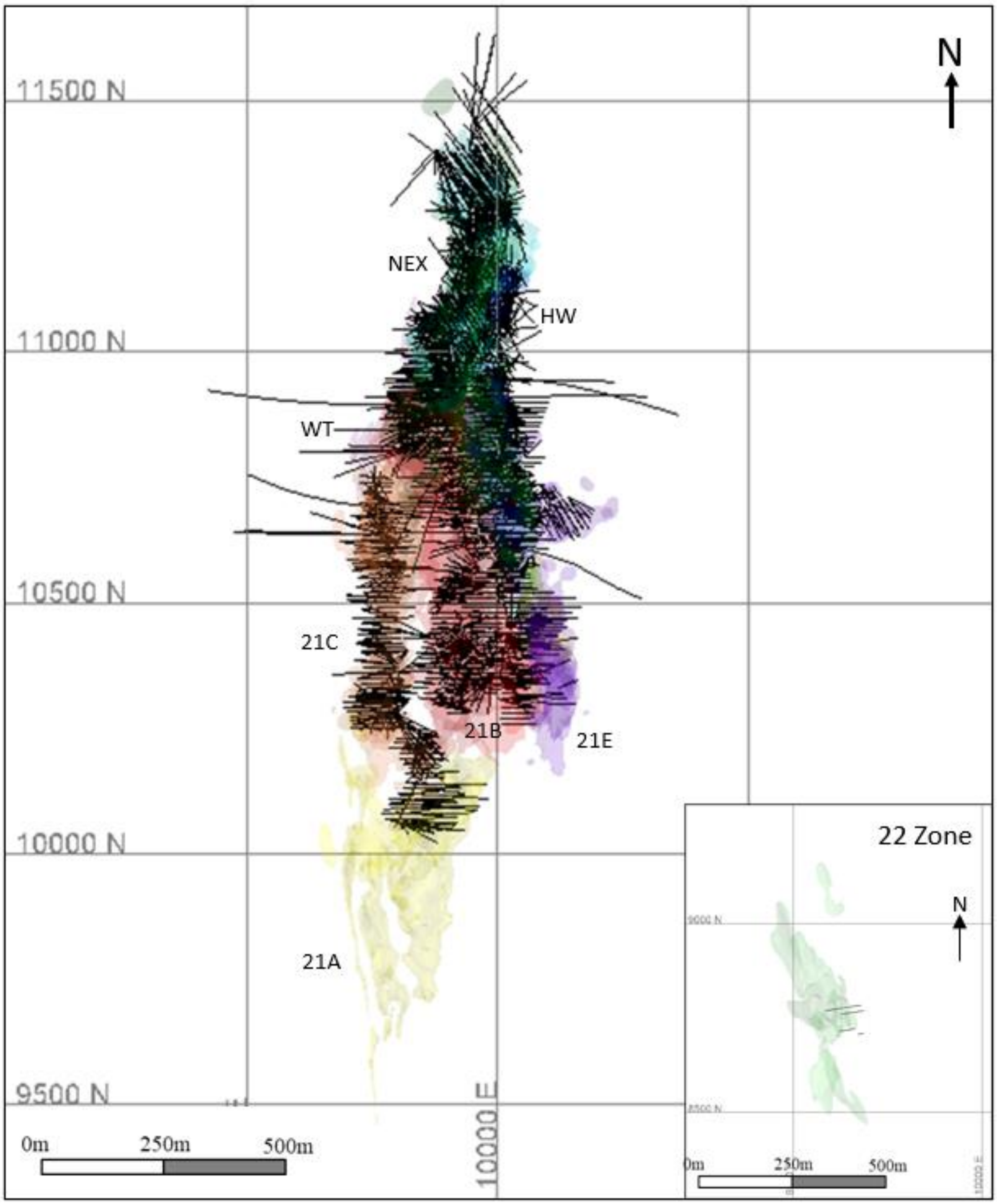


Figure prepared by Skeena, 2023

Table 10-2: Core Drill Summary Table, Skeena Drilling

Period of Work	Zone/Location	Number of Drill Holes	Core Hole Sequence	Metres Drilled
2018	21A Zone 21C Zone 22 Zone	46	SK-18-001 to SK-18-051	7,737.45
2019	21A Zone 21B Zone 21E Zone HW Zone	196	SK-19-052 to SK-19-247	13,972.87
2020	21A Zone 21B Zone 21C Zone 21E Zone HW Zone PMP Zone WT Zone MAC Zone 22 Zone	479	SK-20-248 to SK-20-807	80,449.67
2021	22 Zone 21A Zone 21C Zone 21B Zone 21E Zone PMP Zone HW Zone NEX Zone Albino Lake Zone Tom MacKay Zone 23 Zone East Dacite Eskay Porphyry	189	SK-21-645 to SK-21-997	26,342.80

Period of Work	Zone/Location	Number of Drill Holes	Core Hole Sequence	Metres Drilled
2022	22Zone	211	SK-22-912 to SK-22-1193	55,347.78
	21A Zone			
	21A West			
	WT			
	Eskay Deeps			
	PMP			
	21E			
	23 Zone			
2023	Eskay Deeps	25	SK-23-1194 to 1218	14,743
	22 Zone			
Totals to database closeout date		***1,121***		***183,850.57***
Total including 2023		***1,146***		***198,593.57***

Figure 10-3: Drill Collar Location Plan, Skeena Surface Drilling

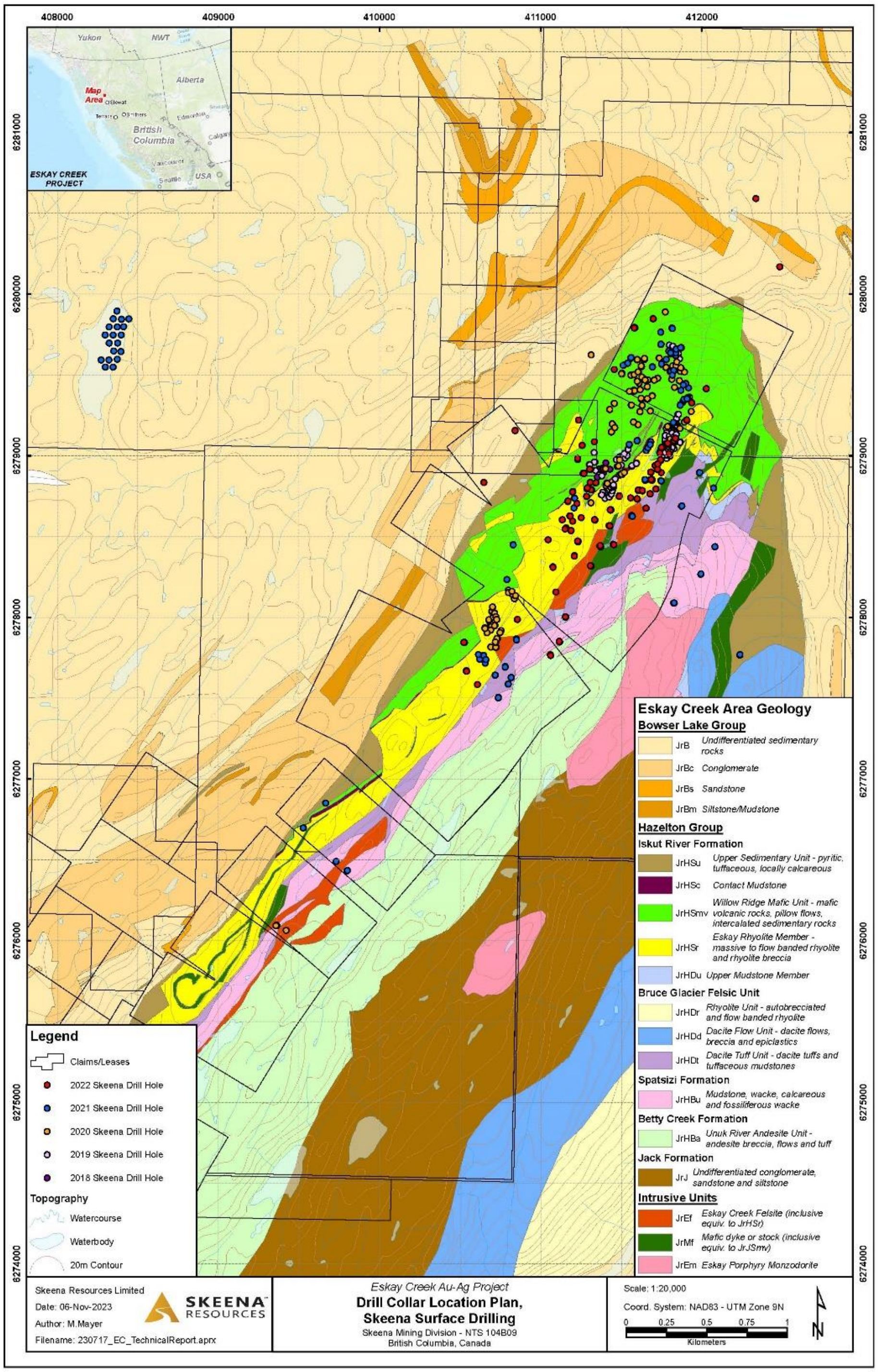


Table 10-3: Drill Contractors and Methods

Operator	Year	Contractor	Rig Type	Core Size (Core Diameter)
Pre-Skeena	1996	Advanced Drilling of Vancouver	Boyles 56	Unknown
	1995–1997	(Hy-Tech)	JKS-300	BQTK (40.7 mm); NQTK (50.6 mm); NQ2 (50.6 mm)
	1998	Hy-Tech	JKS-300, F-15	BQTK
	2002	Hy-Tech	Tech-5000	NQ2
	2004	Hy-Tech	JKS-300, F-15	BQTK
Skeena	2018	Hy-Tech	Hydracore 2000 hydraulic skid-mounted drill rig; Tech 5000 fly rig	NQ (47.6 mm); NQ2
	2019	Tahltech Drilling Services Ltd. (Tahltech)	Hydracore 2000 hydraulic skid-mounted drill rig	NQ
	2020	Tahltech; ITL Diamond Drilling Ltd., (ITL); Konaleen Drilling Ltd (Konaleen)	Hydracore 2000 hydraulic skid-mounted drill rig; DrillCo; Zinex A5	NQ
	2021	Tahltech; Konaleen; Omineca Diamond Drilling Ltd (Omineca); Helm Diamond Drilling Ltd. (Helm).	Hydracore 2000; Zinex A5; Zinex	NQ; HQ (63.5 mm)
	2022	Tahltech; Konaleen; Omineca; Helm	Hydracore 2000; Zinex A5; Tactex X-10	NQ; HQ
	2023	Tahltech; Konaleen	Zinex A5 and Zinex X-10	NQ; HQ

In the 2018 program, drill core was logged and sampled at core logging facilities located just inside the Eskay Creek Mine site gate, proximal to Argillite Creek or at the QuestEx Gold and Copper Ltd.'s core facilities located at the McLymont Creek staging area in the Iskut Valley. Subsequent logging and sampling were performed at the McLymont Creek staging area facilities until October 2021. Since October 2021, all drill core has been moved from the McLymont staging area to North Spoils, and all drill hole logging and sampling are currently performed at North Spoils.

10.3 Logging Procedures

10.3.1 Pre-Skeena

Limited information is available for procedures used during the programs carried out prior to 2004.

From 2004 onwards, drill core was logged using DLG computer programs for data entry as well as for drill log printing. The data were entered directly into laptop computers and the rock units coded with four-digit geology codes. Mineralized sections were logged separately as nested units within primary units. Textural descriptions, rock colour and structure were also coded with two-character fields. Remarks were typed into separate fields to characterize unique geology, structure, or mineralization features.

All drill core was geotechnically logged. Core recovery and rock quality designation (RQD) were routinely recorded; however, Skeena does not have access to these data.

Photographing of all drill core using a digital camera was initiated in 2004. Skeena was unable to find photographic evidence of any of the core.

10.3.2 Skeena

10.3.2.1 Core Holes

All core logging and technical tasks were completed by geologists and supervised geological technicians employed by Skeena. Once the initial assessment was completed, core was measured, and 1 m intervals were marked directly on the core with wax pencil. The start and end meterage of each core box was marked on the upper left and lower right, respectively. A metal tag, noting hole identification, box number, and metreage was stapled to the top end of the core box for easy identification while stored.

Geotechnical data were collected by a supervised geotechnician or by the logging geologist.

Data collected for all drill holes included recovery, rock quality data, magnetic susceptibility, and specific gravity. The logging geologist also recorded lithology, veining, alteration, mineralization, and structural data. All metrics, depending on the geological feature being evaluated, are assessed in percent abundance or intensity rankings as well as orientation and thickness.

Once logging and sampling were completed, the core was photographed wet, with the hole ID, box number, and start/end metreage clearly visible.

10.3.2.2 Rotary Air Blast Holes

All technical tasks were completed by geologists and supervised geological technicians employed by Skeena.

Lithology within the rotary air blast (RAB) samples was recorded by the on-site drill rig geologist for the Phase 2 2021 drilling.

10.4 Recovery

10.4.1 Pre-Skeena

Core recovery and rock quality designation (RQD) were routinely recorded; however, Skeena does not have access to these data.

10.4.2 Skeena

Core recovery is completed by geological technicians employed by Skeena and supervised by geologists. The core is placed in order and pieces are re-oriented to fit together as appropriate. The core recovery is then measured per interval by measuring the actual length of core retrieved from the drill interval against the recorded interval between the core blocks. The recovery is then written on the core block in permanent marker.

SRK reviewed core drilling undertaken by Skeena during 2018–to 2021 and concluded that the programs had excellent core recoveries, with core recovery averaging 95%.

The QP reviewed core recoveries from the 2022 drilling campaign, and concluded that the average 95.8% core recovery was good. Instances of anomalous recoveries were attributed to a combination of typographic errors on data input, and the presence of swelling clays in some drilled intervals.

10.5 Collar Surveys

10.5.1 Pre-Skeena

All collar information for the surface drill holes was tabulated in master files within the DLOG computer program.

Collar location surveys for the underground drill holes were performed by the mine surveyors. These provided accurate collar locations for the drill holes, and a check on the initial azimuth and dip was recorded for each hole.

10.5.2 Skeena

Core and RAB Drill hole collars were initially located using handheld global positioning system (GPS) units and were surveyed at the end of the drill program using a Trimble differential GPS (DGPS) instrument.

10.6 Down-Hole Surveys

10.6.1 Pre-Skeena

All survey information for the surface drill holes was tabulated in master files within the DLOG computer program.

Prior to 2004, most of the underground drill holes in the database were surveyed downhole using a Sperry Sun Single Shot instrument, with readings taken every 60 m, or by acid tubes, with readings every 30 m. In early 2004, downhole surveying used an Icefield Tools M13 instrument. This provided azimuths and dips for each hole every 3 m down the drill hole. Readings were reviewed by staff and inaccurate entries were removed from the database.

10.6.2 Skeena

Down hole orientation surveys were taken approximately every 30 m down the core hole using a multi-shot Reflex orientation tool.

All RAB drill holes were short, <25 m, and vertical, and no downhole surveys were taken.

10.7 Drill Spacing

Drill hole spacing throughout the orebody varies from 5 m, where underground production drilling encountered complex areas, to 25 m between surface drill holes. The average drill hole spacing is approximately 10–15 m throughout the deposit.

10.8 Sample Length/True Thickness

Sample lengths are determined by the geologist during logging. The average sample length for drill holes ranged from 1.0 m in the Contact Mudstone, 1.5 m in the Rhyolite and 1.5 m in the Hanging Wall Andesites. Samples were generally broken on geological contacts, leading to some samples being as short as 18 cm. As the drill holes cut the mineralization at different angles, each drill hole has different true widths. In general, the true width is estimated to be 70–100% of the interval length.

The average sample lengths for the RAB holes were 1.52 m. All drill holes were vertical, and true widths are considered to be 100% of the interval length.

Example sections showing the orientation of the drilling to the mineralization were included as Figure 7-7 to Figure 7-18.

10.9 Drilling Completed Since Database Close-out Date

A total of 27 holes (15,700 m) were planned for the 2023 program, which commenced in late June 2023. The program is focused on two areas:

- The Eskay Deeps target in search of high-grade mineralization hosted in the Contact Mudstone at depth and along strike of the currently defined deposit;
- Exploring for additional near mine mineralization that may be amenable to open-pit mining in proximity to the already defined mineralization at Eskay Creek near the 22 Zone.

As of October 31, 2023, 25 holes have been drilled and logged. The drill hole analytical data are in progress and accompanying QA/QC data are under review as results are received.

The QP compared the available logging data for those drill holes that have been geologically logged against the geological model interpretation and considers that when those drill holes are included in an updated geology model, there will be local changes to the interpretation such as to exact geological contact but overall the new drilling should have a minimal effect on the geological model.

10.10 QP Comments on Item 10 "Drilling"

The QP considers that the quantity and quality of the logging, geotechnical, collar and downhole survey data collected in the exploration and infill drill programs are sufficient to support Mineral Resource and Mineral Reserve estimation.

The collected sample data adequately reflect deposit dimensions, true widths of mineralization, and the style of the deposits.

Drill orientations are generally appropriate for the mineralization style for the bulk of the deposit area.

No factors were identified with the data collection from the drill programs that could significantly affect Mineral Resource and Mineral Reserve estimation.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Sampling

11.1.1 Pre-Skeena

No information is available to Skeena on the early geochemical sampling programs.

There is limited information on sampling completed prior to 2004.

From 1997–2003, sample intervals in core varied from about 0.25 m up to 1.5 m, although the optimum sample interval was 1.0 m. Sample intervals were always contained within one geological unit and did not straddle contacts. After logging and photography had been completed, the core was sampled by means of splitting the core with a manual or pneumatic splitter or by cutting the core with a diamond bladed rock saw in the case of the massive sulphide zones.

During the 2004 Barrick program, drill core was sampled at 1.0 m intervals, but smaller increments were applied where necessary to honour geological contacts.

11.1.2 Skeena

11.1.2.1 Geochemical

Rock chip samples were taken as grab samples from altered or mineralized outcrops.

Soil sample was collected from the B-horizon using either a hand auger or mattock at a depth of between 20–110 cm.

11.1.2.2 RAB

RAB holes were sampled on 1.52 m intervals.

11.1.2.3 Core

Skeena geologists mark the centre line of the core in red wax pencil in preparation for core cutting. All drill core is halved with a diamond core cutting saw. One-metre assay intervals are established when visible mineralization is first observed, and then uniform intervals are continued down the drill length until there is no evidence of mineralization. Assay intervals honour geological contacts to a minimum of 0.5 m and a maximum of 1.5 m.

11.2 Density Determinations

11.2.1 Pre-Skeena

Specific gravity (SG) measurements were collected from drill core in 1996 (250 measurements from 20 drill holes) and 1997 (84 measurements from 7 drill holes). Sections of drill core up to 10 cm long of split or whole core were used to determine the SG using the water displacement method. The SG was calculated using a formula that was derived experimentally based on comparisons between actual measurements and analyses at Eskay Creek. This formula was used at the Eskay operations so that SG could be determined for mineralized intervals that did not have the directly measured values. The formula was:

- SG = (Pb + Zn + Cu) * 0.03491 + 2.67 (where all metals are reported in %).

A default SG value of 2.67 was applied to samples for which base metals were not reported. This was the average SG value of unmineralized rhyolite and mudstone host rocks.

11.2.2 Skeena

Specific gravity (SG) measurements were routinely collected from drill core during Skeena's drilling campaigns.

Specific gravity samples were collected at the rate of one in every 20 m down the hole. A whole piece of competent core (10–15 cm in length) was selected and measured using the water displacement method.

A total of 9,115 SG measurements were taken between 2018–2023, and are categorized according to dominant lithology type and mineralization zone. Depending on lithology and mineralization, the SG values range from 2.63–3.89.

Specific gravity was coded into the resource model using rock type divisions per estimation zone or rock type.

11.3 Sample Preparation and Analytical Laboratories

Where known, the laboratories used for sample preparation and analysis are provided in Table 11-1.

11.4 Sample Preparation

11.4.1 Pre-Skeena

Pre-Skeena sample preparation procedures, where known, are summarized in Table 11-2. No information is available on sample preparation methods prior to about 1997.

Table 11-1: Sample Preparation and Analytical Laboratories

Laboratory Name	Duration Used	Purpose	Accreditations	Independent
Independent Plasma Laboratories (IPL)	1995–2000	Primary sample preparation and analysis	Unknown	Yes
Eskay Mine Laboratory	1994–2008	Primary sample preparation and analysis	None	None
TSL	1989–1990	Primary sample preparation and analysis	Unknown	Unknown
Bondar Clegg	1988–1994, 2001	Primary sample preparation and analysis	ISO 9002	No
Acme Analytical	1985, 2002–2004	Primary sample preparation and analysis	ISO 9001:2000	Yes
ALS Kamloops	2018–2023	Primary sample preparation	ISO/IEC 17025:2005	Yes
ALS Vancouver	2018–2023	Primary analysis	ISO/IEC 17025:2005	Yes
SGS Canada	2019–2023	Check assay analysis	ISO 17025:2015	Yes

Table 11-2: Sample Preparation Methods

Laboratory	Duration Used	Method
IPL	1995–2000	Crushed to -10 mesh, riffle split and 250 g pulverized to -15 mesh
Eskay Creek Mine	1994–2008	Jaw-crushed to -1/8'', riffle split and 250–300 g pulverized
TSL	1989-1990	Unknown
Bondar Clegg	1988–1994, 2001	Crushed to -10 mesh, rifle split, and 250 g was pulverized to -150 mesh
ACME	1985, 2002–2004	Crushed to -10 mesh and a 250 g riffle split is then pulverized to -150 mesh
ALS Kamloops	2018–2023	Dried, crushed to >70% passing a 2 mm Tyler 10 mesh screen; 1,000 g sub-split. Pulverized to > 85% passing a 75-µm Tyler 200 mesh screen

11.4.2 Skeena

Sample preparation procedures used during Skeena programs are included in Table 11-2.

All samples were initially sent to, and prepared at, ALS Kamloops, after which the pulp samples were split and shipped for analysis to the ALS laboratory in Vancouver (ALS Vancouver).

11.5 Analysis

11.5.1 Pre-Skeena

Pre-Skeena analytical procedures, where known are summarized in Table 11-3. No information is available on analytical methods prior to about 1995.

11.5.2 Skeena

Analytical procedures used during Skeena programs are included in Table 11-3.

11.6 Quality Assurance and Quality Control

11.6.1 Pre-Skeena

Prior to 2002, there was no formal quality assurance/quality control (QA/QC) program in place, however the Eskay Mine laboratory and IPL were regularly monitored with pulp duplicates. In 2003, standards and blanks were inserted into the sample stream; however, there is no record available to Skeena of what type of standards were used.

An official QA/QC program was undertaken in 2004 whereby the Eskay Creek exploration team added standards, blanks, and field duplicates to the sample stream.

11.6.2 Skeena

Skeena implemented formal QA/QC programs for the 2018–2023 drill campaigns. These included submission of blanks, certified reference materials (standards), and completion of a check assay program. In addition to the Skeena-introduced QC samples, ALS Vancouver inserted their own independent check samples. A summary of the QA/QC sample numbers by campaign is included in Table 11-4.

The material used for the blanks was marble garden rock obtained from Canadian Tire in Smithers, BC. Blanks were inserted at a rate of approximately three blanks per 100 samples.

Standards were purchased from either CDN Resource Laboratories in Langley, British Columbia, or Ore Research & Exploration Pty Ltd. (OREAS), through Analytical Solutions Ltd. in Ontario. An additional high-grade antimony CRM (Cd-1) was obtained from Natural Resource Canada in Ottawa, Ontario.

Table 11-3: Analytical Methods

Laboratory	Duration Used	Method
IPL	1995–2000	Au: 30 g sample; fire assay with gravimetric finish Ag: 30 g sample; fire assay with AA finish Pb, Zn, Cu, As, Sb: 50 g sample; ore grade assay method, aqua regia digest with AA finish Zn Sb, Cu, PB: 20 g sample; heated four-acid digest, with AA finish Hg, As: 1 g sample; heated three-acid digest, with AA finish
Eskay Creek Mine	1994–2004	Surface core (1995–2004) Au, Ag: 10 g sample, fire assay with AA finish Zn, Sb, Cu, Pb: 0.2 g sample, four-acid digest, with AA finish Hg, As: 1 g sample; heated three-acid digest, with AA finish Gold and was assayed by fire assay (10 g) with an AA finish Underground core (1994–2008) Au, Ag: fire assay Pb, Zn, Cu, As, Sb: analyzed for only if sample returned >> g/t AuEq, using the formula: AuEq = Au + (Ag ÷ 68) Zn, Sb, Cu, Pb: 0.2 g sample, four-acid digest, with AA finish Hg, As: 1 g sample; heated three-acid digest, with AA finish
TSL	1989-1999	Unknown
Bondar Clegg	1988–1994, 2001	Au: 30 g sample; fire assay with AA finish Ag, Pb, Zn, Cu, As, Sb: 0.5 g sample; aqua regia digest, ICP-AES finish Hg: aqua regia digest, with cold vapour AAS finish
ACME	1985, 2002–2004	Au: 30 g sample, fire assay with ICP-MS finish. Overlimit (> 30 g/t Au) using fire assay with gravimetric finish Ag: aqua regia digest with ICP MS finish. Overlimit (>300 g/t Ag) using fire assay Pb, Zn, Cu, As, Sb: 0.5 g sample; aqua regia digest, ICP-ES, or ICP-MS finish
ALS	2008–2023	Au: 50 g sample; fire assay with AA finish (LDL: 0.01 g/t; ALD: 100 g/t); ALS code: Au-AA26. Overlimit fire assay with gravimetric finish (LDL: 0.05 g/t; ALD: 10,000 g/t); ALS code: Au-GRA22 Ag: 50 g sample; fire assay with gravimetric finish (LDL: 5 g/t; ALD: 10,000 g/t); ALS code: Ag-GRA22. Overlimit concentrate and bullion grade fire assay with gravimetric finish (LDL: 0.07 g/t; ALD: 995,000 g/t); ALS code: Ag-CON01 Multi-element suite: either 0.25-g sample, four-acid digest, ICP-AES finish, ALS code: ME-ICP61; or 0.1 g sample, lithium borate fusion, ICP-MS finish; ALS code: ME-MS81. AES finish prioritized in database for most elements. As at March 2022, the ME_MS81 method took precedence for Ba Ga, La, U and Th due to incomplete digest of barium using four-acid digest As, Cu, Pb, Zn: overlimit, 0.4 g sample, four-acid digest, ICP or AA finish, ALS code: OG62 S: overlimit; 0.1 g sample, LECO method (LDL: 0.01%, ADL: 50%); ALS code: S-IR08

Laboratory	Duration Used	Method
		Hg: aqua regia digest with ICP-AES finish (LDL: 1 ppm, ADL: 100,000 ppm); ALS code: Hg- ICP42 Sb: overlimit; 0.2–0.4 g sample, hydrochloric acid-potassium chlorate digest (LDL: 0.1%, ADL: 100%); ALS Code: Sb-AA08

Note: AA = atomic absorption; ICP = inductively coupled plasma; AES = atomic emission spectroscopy; MS = mass spectrometry; ES = emission spectroscopy; LDL = lower detection limit; ADL = upper detection limit; AuEq = gold equivalent.

Table 11-4: Skeena QA/QC Programs

Year	Blank	Standard	Sample Preparation Duplicate	Pulp Duplicate	% Of Total Assays
2018	112	196	206	1,178	51
2019	281	466	28	1,504	27
2020	1,132	2,708	115	1,152	14
2021	270	355	44	272	12
2022	1,293	2,157	391	1,617	14
2023	In progress; program not completed at Report effective date				

Standards were inserted at a rate of approximately five standards per 100 samples. Standards were selected to match the expected grade of the logged samples, with high-grade standards inserted where the geologist projected higher-grade material.

Duplicates could be either sample preparation or pulp duplicates. The preparation duplicate was a split that the laboratory takes from the reject material at a rate of one in every 50 samples. Pulp duplicates were inserted at the laboratory manager's discretion.

Standards and blanks were monitored when batches of assay data were first received. Standard or blank control charts were routinely updated for the following elements: gold, silver, copper, lead, and zinc; other elements were analysed on an as needed basis.

Blanks were re-run when the assay value for the blank was >10 x the gold detection limit.

Control charts for standards were prepared using the acceptable value plus or minus three standard deviations, to provide the acceptable range. If analyses were outside of the acceptable range after checking for data entry errors, then repeat assays were requested. Where two or more consecutive standards were both biased high or low (<105% of the expected value or >95% of the expected value) repeat assays were requested. The laboratory was instructed to retrieve five pulp samples before and after the QC failure.

Preparation and pulp duplicate data sets were routinely charted using X–Y scatterplots, relative percent difference versus average graphs and quartile-quartile plots. Skeena monitored the laboratory's performance and reported any concerns to the laboratory manager.

All quality control issues were immediately addressed, and repeat batches were conducted if questionable data was encountered. Monthly quality control reports documented the type, quantity, and outcome of the quality control assessment, all of which show good performance and assay data integrity.

11.7 Databases

11.7.1 Pre-Skeena

The only data that remains from the legacy data are the collar, survey, four-digit lithology code and assay data. Skeena performed a rigorous analysis of the historical data prior to adopting those data into their database (see discussion in Section 12.1).

The drill core was logged using the DLOG computer program for data entry and drill log printing. The data were directly entered into laptop computers, using four-digit geology codes. All collar and survey information was tabulated in a master file within DLOG. Completed logs were printed using DLOG and the information was exported into ACAD and Vulcan to plot location maps and cross sections.

11.7.2 Skeena

Data are stored in a GeoSpark database.

Data entry personnel enter the geology and geotechnical data into a series of Excel templates with extensive pick-lists and validation rules. The logging geologist checks the digital file against the paper original and signs off on a printed copy of the captured data. The data are imported into Leapfrog software for checking that drill hole collars are in the correct location and that drill hole data is complete. This process is overseen by the on-site database manager. The original paper capture forms are filed by drill hole. PDF versions are stored on the site server and identified by the drill hole identifier.

Assay data is imported as text upon receipt from the laboratory, retaining the original laboratory codes. Text is translated to numeric values within the database. Assay results are not associated with samples until the results have been QA/QC vetted. Assay results for blanks and standards are compared with expected results via queries in the database. After QA/QC validation assays are assigned a "passing" (1) or "failing" (3) priority. Failed assays are excluded from database exports.

Export subsets are generated by macros within the database. These files are created and published to an online file transfer portal after any significant change within the database.

QA/QC data is reviewed on a continuous basis as data is imported into the database. Comprehensive QA/QC reports are generated by a senior geologist and reviewed by senior staff at the end of each drilling campaign.

The entire database is backed up to an online file transfer portal twice weekly.

Digital photos are stored on the site server and identified by drill hole identifier. Each drill hole is photographed wet, and the pictures are named with the drill hole identifier and interval. Digital images are backed up to a location separate from the primary database.

11.8 Sample Security

11.8.1 Pre-Skeena

There is limited information on pre-Skeena sample security procedures.

From 1995 to 2004, the half core to be assayed was placed in placed in plastic sample bags and sealed for shipment to the laboratory. Sample bags containing core for analysis were either carried to the mine assay laboratory located adjacent to the logging facilities or were packed in rice bags or plastic pails for shipment via truck to Acme or IPL.

11.8.2 Skeena

Skeena maintained formal chain-of-custody procedures during all segments of sample transport. Upon completion of each hole, the samples were transported to Skeena's logging facility, where the Skeena geologists marked the centre line of the core in red wax pencil in preparation for core cutting. All drill core was halved with a diamond core cutting saw. One assay sample ticket stub was placed into the sample bag with the half core, and the other matching ticket stub was stapled into position onto the core box marking the appropriate assay interval.

Groups of samples were placed in a large rice bag and secured with tie wraps. A shipment generally consisted of two to three rice bags. The sample number series within the sack was marked on the outside of the rice bag, and a laboratory sample submission form was placed in the first rice bag in sequence. The laboratory was emailed in advance of the shipment, and when the laboratory received the shipment, a confirmation email was returned.

Samples were transported by truck from the Eskay site to the McLymont staging area until October 2021 and after that to the North Spoils by Skeena personnel. Samples were then loaded onto trucks driven by Rugged Edge Holdings (Skeena's expediter). The samples were then delivered to Bandstra in Smithers and transported from there ALS Kamloops.

11.9 Sample Storage

11.9.1 Pre-Skeena

All core drilled for the mine geology department was either consumed during sampling or discarded once it had been logged.

Holes drilled for the Regional Exploration group were shipped to the exploration camp. This camp was dismantled and all core was disposed of in Albino Lake, 9 km from the Eskay Creek mine site during mine closure.

11.9.2 Skeena

Reject and pulp materials were temporarily stored with ALS Vancouver for up to one year after the original sample had been tested. All temporarily stored materials were discarded thereafter.

Core was initially stored at both the Eskay Creek Mine site carpentry shop and McLymont Creek staging area, but is now stored at North Spoils.

11.10 QP Comments on Item 11 “Sample Preparation, Analyses, And Security”

Sample preparation, security and analytical procedures used during the Skeena drill programs, are consistent with generally accepted industry best practices and are therefore acceptable for use in Mineral Resource estimation.

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

The QP is of the opinion that the quality of the gold and silver analytical data are sufficiently reliable to support Mineral Resource estimation without limitations on Mineral Resource confidence categories.

12.0 DATA VERIFICATION

12.1 Internal Data Verification

12.1.1 Historical Data

Between May and July 2018 Skeena personnel compiled and reviewed all available drilling and assay data.

Digital certificates of original and rerun assays were located for 1999–2004; assays with supporting certificates took precedence over any other assay values within the historical database.

Review of lower detection limits used by the laboratories resulted in assays <0.1 g/t Au and <0.1 g/t Ag from the Eskay Mine Laboratory being assigned values of 0.05 g/t Au and 0.05 g/t Ag, and 0.005% Pb, 0.005% Cu, 0.005% Zn, 0.005% As and 0.005% Sb.

Unsampled intervals were assigned a value of -99 in the database. Samples that had not been analyzed or insufficient material had been provided to the laboratory for analysis were assigned a value of -66.

Once the database had been rebuilt, it was validated for gaps, overlapping intervals, duplicates, and lower detection limits.

Surface drill hole collar locations were checked against the topographic surface for accuracy, and underground drill hole collar locations were checked against underground development wireframes. Where available, drill holes collar locations were confirmed from the original drill logs.

12.1.2 Skeena Data

Data were manually checked for errors and gaps prior to database upload, and where issues arose, these were corrected. Data validation was undertaken by the Skeena site team under the supervision of the exploration managers. After the data were checked, they were imported into the GeoSpark database.

Regular reviews of data quality are conducted by the Database Manager and the Director of Resources and Reserves prior to resource estimation to ensure there are no conflicting or incorrect entries (e.g., overlapping intervals, assays recorded beyond the end of hole, incorrect downhole surveys, collar coordinates, collar elevation and collar translation to mine grid etc.). All identified errors were corrected.

12.2 External Data Verification

A number of verification programs were completed on historical data and in support of technical reports on the Project (Table 12-1).

12.3 Data Verification by Qualified Persons

12.3.1 Mr. Ben Adaszynski

Mr. Adaszynski reviewed the metallurgical laboratory testing procedures, results, and QA/QC procedures during the 2023 metallurgical test program. This included a visit to Base Metallurgical Laboratories where the work was being performed to observe flotation testing in progress.

Flotation testwork prior to 2023 was not reviewed by Mr. Adaszynski as changes to the process flowsheet rendered these results no longer material.

No additional comminution testing related to primary grinding was conducted during this phase of study. Mr. Adaszynski reviewed the comminution information in the 2022 FS and considered it acceptable for use in the 2023 FS.

12.3.2 Ms. Terre Lane

Ms. Lane completed a site visit from 18–19 October 2022 (refer to discussion in Section 2.4).

A total of 16 core samples collected from the 2018–2022 drilling program during that visit from the 21A, 21B, 21C, 21E, 22, 23, HW, and WT Zones were submitted to Hazen for gold and silver analysis, and a 33-element multielement suite. The submission included five standard QA/QC samples. Sample preparation comprised grinding, pulverizing, and homogenizing. Prepared samples were then cooked, fused, and finally analyzed using fire assay with a gravimetric finish for gold and silver. For the multi-element suite, prepared samples were subject to a four-acid digestion and analyzed using ICP–OES. Data were reviewed by Dr. Samari and are discussed in Section 12.3.3.

Ms. Lane conducted an independent review of the historical database as well as the current database used from the 2018, 2019, 2020, 2021 and 2022 drill campaigns. Statistics for the 10 assay values: Ag (ppm), As (ppm), Au (ppm), Cu (%), Fe (%), Hg (ppm), Pb (%), S (%), Sb (ppm), and Zn (%) were studied; outliers were identified and capped. The data verification of the drilling campaigns shows that data did not identify any material issues, and Ms. Lane is satisfied that the assay data are of suitable quality to be used as the basis for the resource estimate.

Table 12-1: External Verification

Company	Year	Information Verified	Finding/Note
Barry Smee	2004	2004 QA/QC data	Identified a low bias in relation to Acme's internal standards for both aqua regia and fire assay methods. Acme corrected the inconsistencies with batch repeats
SRK	2018	Site visit Reviewed available historical assay certificates against assays in the database Reviewed available historical QA/QC data Checked underground collar locations against underground working locations Verified grid transformations	Historical data are unbiased. The QA/QC data for 1995–2004 showed satisfactory duplicate, blank and standard results
SRK	2019	Checked for collar survey discrepancies, erroneous downhole deviation paths, and overlapping or missing assay and lithology intervals Reviewed 2018 Skeena QA/QC data	Database is sufficiently reliable for resource estimation
SRK	2020	Site visit Verified drilling, sample preparation, handling, security, and chain of custody procedures, surface drill hole locations and core logs	Data is sufficiently reliable for resource estimation
SRK	2021	Assays in the database were compared directly with all assay certificates from 2018–2021 Reviewed 2018–2021 Skeena QA/QC data	The assay data are of suitable quality to be used as the basis for the resource estimate
GRE	2022	Checked for collar survey discrepancies, erroneous downhole deviation paths, and overlapping or missing assay and lithology intervals Site visit Witness samples Reviewed 2022 QA/QC data Reviewed 2018–2021 Skeena QA/QC data	The assay data are of suitable quality to be used as the basis for the resource estimate No material errors were noted from the 2018–2021 Skeena QA/QC data

Company	Year	Information Verified	Finding/Note
GRE	2023	Checked 2022 drill program for collar survey discrepancies, erroneous downhole deviation paths, and overlapping or missing assay and lithology intervals Site visit Witness samples	The 2022 assay data are of suitable quality to be used as the basis for the resource estimate

Mining and processing methods, costs and infrastructure needs were verified by Ms. Lane in comparison to other similar sized open pit mines operating in the western USA and Canada. Costs were developed from vendor quotations and comparisons to published and internal data used by the QP in the preparation of similar studies. Not all costs were competitively bid but were benchmarked to similar nearby operations, and unit costs of major consumables were also benchmarked to nearby operations. Other cost data used in the report was sourced from the most recent Infomine cost data report. All costs used in the analysis were verified and reviewed by Ms. Lane and were assessed to be current and appropriate for use.

Finally, after the economic study was performed, the mine operating costs were benchmarked against similar sized mines and recent feasibility studies to determine if they were similar; the results did benchmark well to other operations and economic studies.

Ms. Lane finds the resource estimate, available data for mine planning, operating cost estimation, and economic analysis suitable for use in this Report.

12.3.3 Dr. Hamid Samari

Database verification procedures completed under Dr. Samari's supervision are summarized in Table 12-2.

The drilling data was submitted to GRE for a final review in July 2023. Dr. Samari conducted an independent review of the database from 2018 to 2021 drilling programs, which was verified before by SRK, and did not note material errors from the Skeena QA/QC data.

Dr. Samari carried out manual random checking of original assay values between their certificates with the Skeena drilling database from the drilling program 2018 to 2021 and did not note any material errors. Dr. Samari also checked the 2022 QA/QC program and independently analyzed the results from this program. Dr. Samari believes that the 2022 data was sufficiently reliable to add to the main database for use in updating resource estimation.

Witness sample results from the witness sample collection programs completed from 2018 to 2022 (see Section 12.3.2) were reviewed for consistency with the original sample results. The review included two samples from the 2018 program, one sample from the 2019 program, 10 samples from the 2020 program, one sample from the 2021 program, and two samples from the 2022 drilling program.

Table 12-2: Geological Data Verification, Dr. Hamid Samari

Data Type	Verification Completed	Note	Comment
Database	Manual checking of 10% of analytical data from 2022 drill campaign Manual random checking of analytical data from 2018 to 2021	No material errors noted	
QA/QC	Checking of 2022 QA/QC data Review of 2018–2021 QA/QC data	Satisfactory pulp and preparation duplicate, blank, and standard results	Blank sample insertion rates should be revised to 1:20, as is common within industry standards

Dr. Samari inspected the samples for alteration, lithology, and mineralization prior to submission to Hazen Research Inc. (Hazen) in Golden, Colorado, USA, for gold and silver analysis. Hazen is independent of Skeena and holds certifications from the Colorado Department of Public Health and Environment (CDPHE) for radio chemistry.

Dr. Samari concluded:

- Results are excellent, with an R^2 of 0.9985 and R^2 of 0.9637 for gold and silver, respectively;
- Standard t-tests showed no statistically significant difference between the means of the gold and silver assays.

Dr. Samari inserted four standards with the witness samples. These standards were used in the 2018–2022 drilling programs. The standard results showed no precision or accuracy concerns with the Hazen sample preparation and analysis.

Dr. Samari completed a site visit from 19–21 October 2022 (refer to discussion in Section 2.4). Verification steps undertaken during that visit are summarized in Table 12-3. He took 10 witness quarter-core samples from drill holes completed during the 2022 campaign, which were submitted, together with a blank and four standard samples, to Hazen for gold and silver analysis. Sample preparation comprised grinding, pulverizing, and homogenizing. Prepared samples were then cooked, fused, and finally analyzed using fire assay with a gravimetric finish for gold and silver. Results on these 10 witness quarter-core samples, are acceptable for gold and good for silver with an R^2 of 0.7688 and R^2 of 0.8604, for gold and silver respectively.

Table 12-3: Site Visit Verification, Dr. Hamid Samari

Data Type	Verification Completed	Note
Visual inspection interpretation	Inspection of selected outcrops	Lithology of exposed bedrock, alteration types, and significant structural features is consistent with descriptions provided in previous Project reports
	132 sample intervals; including 49 core boxes, from 12 different 2022 campaign drill holes; from within and in the vicinity of the 21A, 21B, 21C, 21E, 22, LP, and NEX zones	Sample intervals selected from different mineralization zones contained a range of assay values, lithology, alteration, and mineralization Core sample intervals inspected accurately reflect the lithologies, alteration, mineralization, structure, and sample descriptions recorded on the associated drill hole logs and within the Project database
Drill collar locations, azimuth, inclination	21 collars from drill holes located in the 21A, 22, 23, and PMP zones; checked using hand-held GPS; azimuth and inclination checked using digital compass-clinometer for data capture on an Android phone	Within expected accuracy range given check instrumentation used
Witness samples from 2018–2022 drilling program	16 core intervals, including, two core intervals from the 2018 program, one from the 2019 program, ten from the 2020 program, one from the 2021 program, and two from the 2022 from within and in the vicinity of the 21A, 21B, 21C, 21E, 22, 23, HW, and WT	No issues noted
Witness samples from the 2022 drilling program	10 core intervals from the 2022 drilling program, from within and in the vicinity of the 21A, 21B, 21E, 22 and LP zones	No issues noted

The 2023 witness sample results from the 2022 drilling program were reviewed for consistency with the original sample results:

- Results are comparable, with an R^2 of 0.7688 for gold and a good R^2 correlation of 0.8604 for silver. The correlation is affected by two samples from high-grade zones. In these two instances, the surrounding grades are variable high grades, thus the difference in grade is due to a high nugget effect and variability in these high-grade zones.
- Standard t-tests showed no statistically significant difference between the means of the gold and silver assays.

The standard results showed no precision or accuracy concerns with the Hazen sample preparation and analysis. The blank sample indicated no sample contamination.

The QP concluded that the Skeena drilling database was suitable for use in Mineral Resource estimation.

12.3.4 Mr. Jim Fogarty

Mr. Fogarty visited the site from September 13–15, 2022, and from October 16–18, 2023. Mr. Fogarty visited and inspected the sites of proposed infrastructure, including:

- TMSF;
- TMSF haul road and Technical Sample haul road;
- MRSA;
- Water management infrastructure.

Mr. Fogarty also inspected the progress of the 2023 geotechnical site investigation program which was ongoing at the Report effective date.

Mr. Fogarty reviewed the results and characterization of previous geotechnical and hydrogeological investigations and determined them suitable for use in design of Project infrastructure for the purpose of the 2023 FS.

12.3.5 Mr. Ian Stilwell

Mr. Stilwell observed the collection of core logging data and the point load index testing and laboratory sampling procedures carried out by Ausenco personnel during the September 1-4, 2021 site visit. During the analysis phase, Mr. Stilwell reviewed all aspects of the design work carried out by BGC. This included:

- The process of checking, validating and correcting core logging data collected by Ausenco personnel during the 2022 drilling campaign and for the supplementary geotechnical drilling in the 21AW and 23 Zone areas;
- Development of the geotechnical model including the selection of geotechnical units;
- Laboratory testing and characterization of intact and discontinuity strengths;
- Development of the structural geology model;
- Inter-ramp and bench-scale kinematic assessments;
- Inter-ramp and overall slope stability assessments;
- Development of recommended slope design criteria.

Mr. Stilwell concluded that the geotechnical, structural, and laboratory data were suitable for use in the analyses and the development of the recommended slope design criteria.

12.3.6 Mr. Rolf Schmitt

Mr. Schmitt has overflown the site, and portions of the Eskay Mine Access road by helicopter in July 2019 during visits to neighbouring properties. During the overflights Mr. Schmitt was able to observe the general environmental setting of the Prout Plateau, and location of the former Eskay Mine, TMSF, and Albino Lake.

Mr. Schmitt examined water licenses for water rights as summarized in Section 4.5. *Mines Act* permit M-197 was examined for conditions related to Mine Closure and Reclamation of lands and watercourses and reclamation security provisions.

Baseline studies were performed for the Project over nearly two decades under the direction of multiple qualified professionals in accordance with regulatory requirements and BC best practice guidelines for collection of environmental baseline data at the time of data collection. Mr. Schmitt reviewed the summary of the scope of studies for Section 20 presented in Table 20-1 for accuracy and completeness.

Regulatory process and anticipated provincial and federal permit requirements to construct and operate the mine as presented in Table 20-3 and Table 20-4 in Section 20 were reviewed and compiled from the BC Environmental Assessment Office (BC EAO) regulatory coordination plan and by Mr. Schmitt based on his experience of permitting several major mines in BC over the previous 10 years, through direct knowledge from assisting Skeena with ancillary permitting and developing permit applications for the Technical Sample, and through review of the mine plan in this Report for insight into specific permitting requirements.

Mr. Schmitt reviewed and developed the list of mine and environmental management plans presented in Section 20.3.1 based on the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) requirements outlined in the Health, Safety and Reclamation Code for Mines in British Columbia (Code – EMLI, 2022), and joint Application Information Requirements for Mines Act and Environmental Management Act permits (EMLI, 2019). He has personal knowledge of the Project management plans and development and qualified professional sign-off of many of these management plans.

12.3.7 Mr. A.J. MacDonald

Mr. MacDonald reviewed the engineering data for the water treatment plant, including calculations and design criteria. The data and designs are suitable for the water treatment requirements for the proposed Project.

12.3.8 Mr. David Baldwin

A site visit was conducted to confirm the LiDAR and survey data of the transmission line route and substation locations. The verification is limited to visually confirming that the terrain and surface conditions were as expected from the LiDAR and survey data.

Access conditions for construction of the transmission line were confirmed.

The point of interconnection to the Coast Mountain Hydro transmission line was inspected and confirmed.

12.3.9 Mr. Steven Andrew Baisley

Data verification procedures completed under Mr. Baisley's supervision are summarized in Table 12-4.

To complete the closure cost estimate, the Standardized Reclamation Cost Estimator (SRCE) model was used to develop the cost estimate. The SRCE is used in Nevada, USA to calculate reclamation bond estimates for mine operators to comply with federal and state regulations and is the recommended estimator by BC Ministry of Energy, Mines and Low Carbon Innovation. The model allows the use of site-specific, or regulator specified third party provided units costs for its calculations and a high-level schedule can be developed within the model to estimate a net present cost for reclamation and closure activities.

Key inputs for the SRCE came from the site wide materials mass balance provided by Skeena, while operator, equipment, and other unit costs developed based on site site-specific rates, BC Blue Book, BC Regional Mine Reclamation Bond Calculator, or RECLAIM model. The latest versions of each tool and reference material were obtained, and the files were verified to be uncorrupted and unaltered prior to use.

Based on the verification of the information outlined in Table 12-4 by Mr. Baisley, it is his opinion that the data used for estimating the closure costs are accurate and reflective of the proposed closure effort.

Table 12-4: Closure Data Verification, Mr. Steven Andrew Baisley

Source	Year	Information Verified	Finding/Note
Sedgman	2023	2023 FS buildings and infrastructure detail list	Confirmed alignment and accuracy against mining general arrangement for number of buildings and approximate sizing
Skeena	2023	2023 FS mine designs	Confirmed alignment and accuracy against general arrangement for waste tonnes and destinations
Skeena	2023	Production schedule	Checked against total volumes of mine design and confirmed temporal alignment with costing
Maven Water and Environment	2023	Eskay 2023 FS pit lake closure strategy	Confirmed underlying assumptions fit with mine and closure plan. Temporal considerations included within costing
Integrated Sustainability	2023	Water treatment closure capital and operating costs	Confirmed alignment with Eskay DFS Pit Lake Closure Strategy and within range of values provided within the SRCE
BC Bluebook	2023	Equipment unit rates	Confirmed rates were in alignment with past project experience in region
SRCE	2023	Model architecture and calculator used	Confirmed latest version of secured model downloaded
BC Regional Mine Reclamation Bond Calculator	2021	Guidance document used to specify revegetation unit rates	Confirmed rates were in alignment with past project experience in region
RECLAIM model	2023	Unit rates; blast and haul, demo rates, position rates; foreman, engineer, laborer.	Confirmed rates were in alignment with past project experience in region

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Testwork was conducted by, or supervised by, the independent metallurgical facilities Blue Coast Research, Parksville B.C., and Base Metallurgical Laboratories, Kamloops, B.C., in the period 2018–2023. Tests included: mineralogy, comminution, open and locked cycle flotation, whole ore leaching, gravity, variability, bulk sample, concentrate treatment, solid–liquid separation, filtration tests, and reagent selection and refinement.

The proposed process flowsheet has been refined and modified over time, with the current preferred option representing a conventional flowsheet consisting of a single rougher flotation stage and a single cleaning circuit producing a high-grade gold–silver concentrate.

The 2023 FS uses information from earlier programs in support of flowsheet design and simplification and is based on additional testwork completed in support of the study. The 2023 FS testwork was based on three large composite samples from drill core, representing different Mudstone to Rhyolite ratios that would be encountered at different phases of the proposed mine life.

13.2 Metallurgical Testwork

13.2.1 Mineralogy

Detailed mineralogical analysis was completed for each of the 2023 composites, and included mineral abundance and sulphide liberation analysis. The abundance of various minerals between the composites was relatively similar.

At P80 passing 30 µm, the following were noted:

- Pyrite, which is assumed to be the primary gold hosting mineral, is well liberated with 68.7–74.8% of measured occurrences observed as particles that are either pure or liberated meaning ≥95% of the particle is made up of pyrite by cross-section area. The balance of the pyrite is predominantly occurring as a binary with non-sulphide gangue;
- Galena and sphalerite liberation was slightly better than pyrite liberation and could be contributing to the higher silver recoveries seen in the flotation process.

13.2.2 Comminution

Comminution tests were completed prior to the 2023 FS, and consisted of determination of SG, abrasion index, drop weight index, Bond rod work index, Bond ball mill index testwork, and SMC comminution tests. Results are summarized in Table 13-1.

Table 13-1: Comminution Test Results

Parameter	Units	Years 1–3	Years 4–5	Year 6+
Bond crusher work index (CWi)	kWh/t	19.0	19.0	18.5
Bond ball mill work index (BWi)	kWh/t	18.2	19.0	20.4
Bond rod mill work index (RWi)	kWh/t	16.8	18.5	18.9
Breakage parameters (A x b)		42	32.6	32.9

2023 testwork consisted of IsaMILL "signature plot" testing for assessing the specific energy required for fine grinding. The signature plot provides a relationship between product size and energy input for mill sizing. Results are included in Table 13-2.

13.2.3 Flotation

A significant volume of flotation testwork was completed during the four earlier stages of metallurgical evaluation of the Eskay Creek deposit.

The 2023 FS adopted a significant change to the flotation process, which consisted of the introduction of high addition rates of flotation collector addition in the primary grinding mill. Introducing collector in the grinding process allows for better adsorption onto sulphide minerals in the face of competing organic minerals in the ores. This allowed for process circuit optimization opportunities.

A number of open circuit flotation tests were completed to confirm a relationship between primary grind particle size distributions and expected flotation recovery for gold and sulphur. The primary grind was varied from 30 µm to 100 µm and the rougher concentrate regrind was varied from 10 µm to 20 µm. Flotation chemistry was kept constant while the primary grind and regrind sizes were evaluated. Potassium amyl xanthate (PAX) was used as the collector and methyl isobutyl carbinol (MIBC) as the frother.

The results of the primary grind analysis observed an inflection in the rougher gold recovery and rougher tail gold grade as the grind increased from 40 µm to 60 µm. The inflection was consistent for each of the 2023 composites.

The gold grade of the flotation tail was also used to measure the impact of finer grinding on reducing variability. The tailings gold grade was consistent between the various zones and lithologies, indicating that gold recovery tends to be relatively unchanged irrespective of the gold feed grades. There is little metallurgical variation between the composites and higher Mudstone content, which has a higher grade and therefore more organic carbon, has no significant effect on gold recovery.

The concentrate regrind size at 10 µm test produced a higher grade concentrate and a lower cleaner tail grade than the 20 µm regrind size.

Table 13-2: Signature Plot Data

Grind	Composite	Feed P80 (µm)	kWh/t @ P80 Target (kWh/t)	% Solids
Primary grind	Bulk Composite 1	60	11.05	29.1
	Bulk Composite 2	59	8.55	31.6
	Bulk Composite 3	67	11.53	37.2
Concentrate regrind	Bulk Composite 1	30	33.64	31.5
	Bulk Composite 2	22	30.01	30.8
	Bulk Composite 3	19	22.97	32.1

A range of different chemistries were trialed. Initial tests were conducted with PAX as the primary collector and MIBC used as the frother. Comparative tests considered the use of copper sulphate, kerosene, NaHS, and lime in various solo and combined applications. Tests also considered the dosage rate and location of PAX. A high PAX dosage into the mill during grinding provided the best flotation kinetics.

Alternative collectors, collector dosages and frothers were trialed in the rougher stage to determine if the collector dosage could be reduced. Reducing the PAX addition and supplementing with alternative collectors did not provide any additional metallurgical benefit.

13.2.4 Locked Cycle Testing

Each of the 2023 bulk composites, together with a Rhyolite composite, underwent lock cycle tests under different conditions. Tests were completed at natural pH. Each of the composites represent the expected ratios of the dominant lithologies that will be mined at different points of the mine life. The lock cycle results demonstrate that the gold recovery values are expected to be consistent at 80–82% of contained gold, although with different concentrate grades.

13.2.5 Solid–Liquid Separation

Thickening and filtration testwork was completed using concentrate samples generated from a pilot plant.

The concentrate sample underwent characterization, flocculent screening, static and dynamic thickening, and underflow viscosity. Based on 9.1% w/w solids in the slurry feeding the thickener it was determined that 40–45 g/t of flocculant was required and would achieve a predicted solids underflow density of 54% w/w.

Drying of flotation concentrates will be required to meet transportation moisture limits and to reduce freight costs. Due to the difficulty in achieving a final concentrate moisture below the transport moisture limit, the current process design criteria include supplementary concentrate drying using a gas-fired dryer.

13.3 Recovery Estimates

Compiling the results of the open circuit and lock cycle flotation tests the optimal results are observed to occur at a primary grind with 80% passing 30–40 µm and a regrind with 80% passing 10–12 µm, with 600 g/t of PAX dosed in the primary grinding circuit, and an additional 450 g/t of PAX dosed to the cleaner circuit.

The testwork recoveries are provided in Table 13-3.

Recovery forecasts will vary over the proposed LOM plan, based on the proportion of lithologies planned to be treated each year, and the head grades. Gold and silver recovery rates are expected to range from 80.8–84.2% with an average LOM recovery of 83.0% for gold, and range from 89.0–94.2% with an average LOM recovery of 90.5% for silver.

13.4 Metallurgical Variability

Samples selected for metallurgical testing during the various testwork representative of the various styles of mineralization. Samples were selected from a range of locations within the planned open pit operations.

Tests were performed using sufficient sample mass for the tests undertaken.

13.5 Deleterious Elements

High arsenic levels are expected for the first year before dropping to below penalty levels.

Mercury penalties are expected for all production years; however, mercury will peak at approximately 1.5% of revenues in Year 1 and drop to approximately 0.3% of revenues for the remainder of the mine life.

Table 13-3: Composite Recoveries

Sample	Bulk Composite 1 (%)	Bulk Composite 2 (%)	Bulk Composite 3 (%)	Rhyolite Composite (%)
Gold recovery range	79.3–82.1	81.3–87.1	81.3–84.8	80.2–83.4
Average gold recovery	80.8	84.2	82.1	81.3
Silver recovery range	90.8–92.7	83.5–95.0	92.8–93.7	93.5–94.8
Average silver recovery	91.6	89.0	93.3	94.2

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

The database supporting estimation was closed as at March 28, 2023.

Leapfrog Geo was used to update the litho-structural model and mineralization domains that define the Eskay Creek model. Snowden Supervisor was used to conduct geostatistical analyses, variography, and a portion of model validation. For block modelling, Maptek Vulcan and GEOVIA Surpac software were used to prepare assay data for geostatistical analysis, modify mineralization domains, construct the block model, estimate metal grades, and tabulate the mineral resources.

The grade estimate was completed in one model. A parent block size of 5 x 5 x 2.5 m was used, with sub-blocks of 1 x 1 x 1.25 m used to deplete the model around the underground workings.

14.2 Modelling

14.2.1 Three-Dimensional Litho-Structural Model

Key features of the model include:

- Lithology model, updated based on geological mapping, rock chip sampling, and core drilling;
- Fault model.

14.2.2 Mineralization Domains

A total of 103 solids were created, consisting of:

- 14 high-grade solids: created using an Indicator RBF Interpolation using a cut-off grade of 15 g/t gold equivalent (AuEq) and dynamic anisotropy along the orientation of the Contact Mudstone;
- 89 lower-grade solids: created using three methods:
  - An Indicator RBF Interpolation using a nominal cut-off grade of 0.5 g/t AuEq (where AuEq = ((Au (g/t) * 1,700 * 0.84) + (Ag (g/t)* 23 * 0.88))/(1,700 * 0.84)) and a probability of 50% in the Contact Mudstone;
  - The “interval selection” tool using a cut-off grade of ~0.5 g/t AuEq in the remaining lithologies;
  - Two small, manually-created wireframes in Vulcan.

The mineralization solids were separated into major fault block and historical mining zones. For consistency, the mineralization domain solids were split and/or combined and named according to their location within the previously established historical mining area zones: 22, 21A, 21C, 21B, 21Be, 21E, HW, NEX, WT, 109 and PMP. The newly-discovered 23 Zone is within the LP. A map showing zone locations is provided in Figure 14-1.

14.2.3 High-Grade Restriction

The high-grade solid used to constrain and restrict the influence of the previously-mined extremely high-grade drill hole samples used a 15 g/t AuEq grade-shell modelled in the orientation of the Contact Mudstone.

14.2.4 Solid Model Coding

Estimation domains were coded successively based on the following division scheme:

- Location within the historical mining area;
- Dominant lithology type;
- Position within the litho-structural domain;
- Location within the high-grade restriction domain.

14.2.5 Topography

The topography surface was created from a 10 cm resolution LiDAR survey.

14.2.6 Underground Workings

The historical underground workings are a combination of stopes, lifts, and development drives, some of which were backfilled with gravel/cement material (Barrick, 2005).

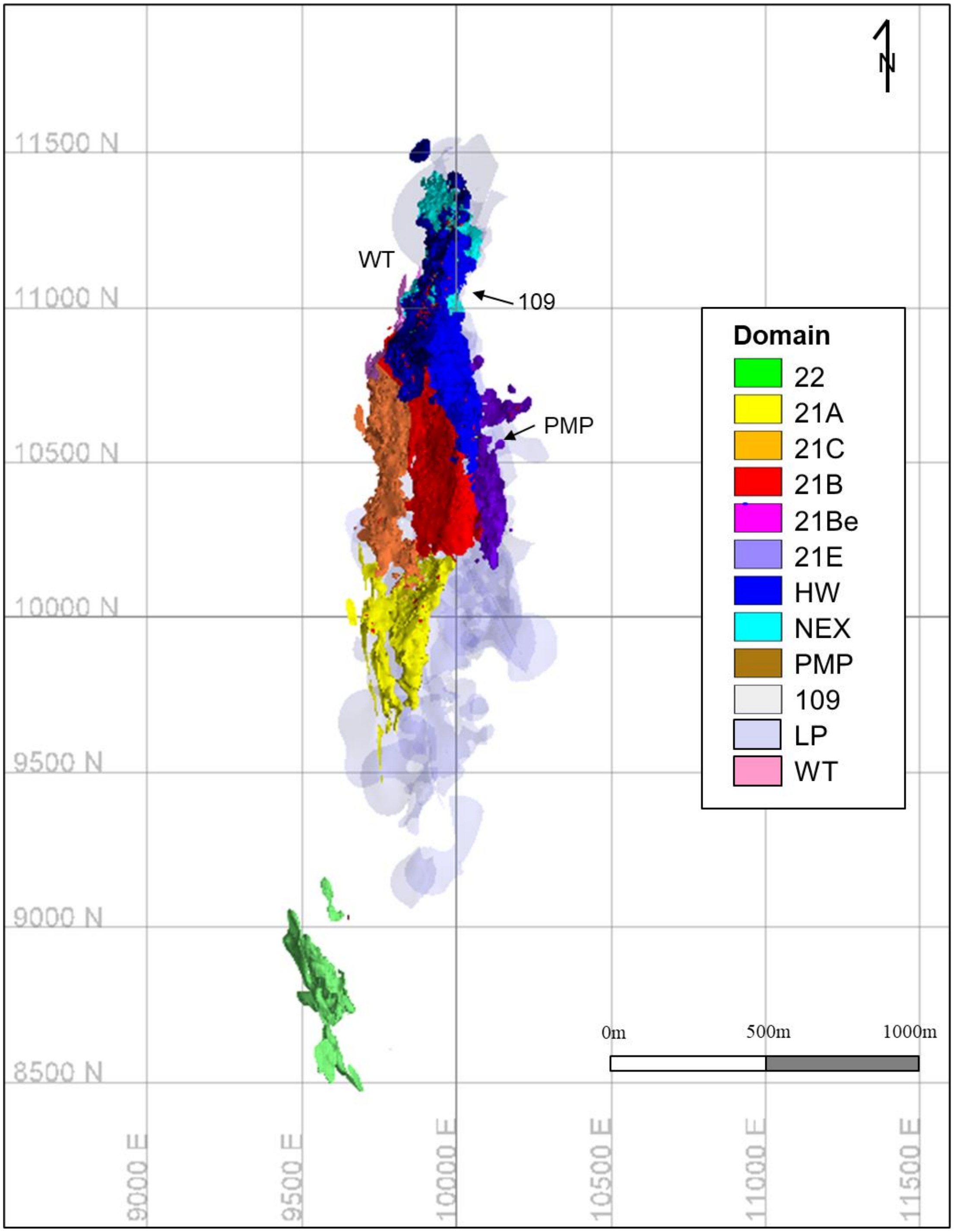
Although the underground workings were routinely surveyed, there is a small measure of uncertainty in the location of the solids due to survey method limitations. Therefore, in addition to the volume within the underground workings, a 0.20 m geotechnical exclusion zone around the underground workings was used to deplete the final resource estimate, using 1 x 1 x 1.25 m subblocks.

14.3 Data Analysis

Coded intercepts based on the main lithology groupings were used to analyse sample length and generate statistics for gold and silver assays and composites.

Lead, copper, zinc, mercury, arsenic, antimony, iron, and sulphur were also estimated because these elements can contribute to smelter penalties based on their relative content in any concentrate.

Figure 14-1: Mineralization Domain Location Plan



Note: Figure prepared by Skeena, 2023.

14.4 Compositing

To minimize bias introduced by variable sample lengths, assays were composited from assays honouring the relevant mineralization domain boundaries to 1 m lengths. Most samples inside the mineralization domains were collected at approximately 1 m and shorter intervals.

All unsampled gold and silver intervals were given a default value of 0.001 g/t during compositing. Missing samples due to lost core, voids or insufficient sample were ignored. Composite lengths that fell short were evenly distributed to prevent the formation of residual composites. The composites were assigned codes on a majority basis corresponding to the mineralized domain, zone, and estimation zone in which they occur. The compositing and coding processes were viewed in 3D to ensure that coding had been applied correctly.

14.5 Outlier Evaluation

Capping was applied to all domains on assays prior to compositing. Capping values were selected on a zone-by-zone basis using the results from log probability plots, histograms, co-efficient of variation values, and percent metal loss calculations.

Gold capping ranged from 115–1,700 g/t Au in the high-grade domains and 2.4–350 g/t Au in the lower grade domains.

Silver capping ranged from 200–60,000 g/t Ag in the high-grade domains and 30–22,000 g/t Ag in the lower grade domains.

Percent metal loss was variable between zones, ranging from as little as 0.2% to as high as 19% for gold and 1–56% for silver. For domains with percent metal >10%, the uncapped mean values were sensitive to extremely high-grade samples. On average, <4% gold and <7% silver was lost during the capping process.

14.6 Variography

Variograms were used to assess for grade continuity, spatial variability in the estimation domains, sample search distances, and kriging parameters.

Variograms were prepared using 1 m composites using the main triangulation from each of the Zones. These were used for the remainder of the solids providing they were in a similar orientation.

Spatial continuity was assessed using variogram maps and 3D representations of grade continuity. The most suitable orientation was selected based on the general understanding of the attitude of each mineralized zone. Variograms were produced on normal scores of the composite assay grades and then back transformed. Downhole variograms were calculated to characterize the nugget effect. Final variogram models on original gold and silver composites were designed from the variograms on normal scores and back transformed.

14.7 Dynamic Anisotropy

Due to the folded nature of the deposit, search ellipsoid orientations were not considered suitable for effectively estimating all the estimation domains. Dynamic anisotropy was selected as the preferred estimation method for the 21A, 21B, 21C, 21Be, NEX, HW and LP Zones because adjustments in each block could be made in relation to the presiding mineralization trend. The anisotropy direction was defined from the base of the Contact Mudstone.

14.8 Specific Gravity

SG values were determined based on a combination of lithology type and zone, with the mean SG value selected from each zone, or, if outside of the zones, then average SG values within lithology type were used. Where there were fewer than 10 samples, SG was determined by averaging the SG of zones in that lithology. Values ranged from 2.6–3.1 t/m^3.

14.9 Estimation Methodology

Ordinary kriging (OK) was used to estimate gold and silver in all domains, apart from two zones in the WT Zone, which were estimated by inverse distance weighting to the second power (ID^2).

Gold and silver within the mineralization domains were estimated using three passes with increasing search radii based on variogram ranges:

- Pass 1 equaled the variogram range;
- Pass 2 equaled 2 times the variogram range;
- Pass 3 equaled four times the variogram range. Pass 3 was only used to aid in validation and for global statistic reporting and was not used in classification.

For pass 1, a minimum of five and maximum of 32 composites were used per block. For pass 2, a minimum of five and maximum of 32 composites were used per block. For pass 3, a minimum of three and maximum of 15 composites were used. A maximum of four composites per drill hole was specified for all passes.

Hard boundaries were honoured between all solids. Discretization of 4 x 4 x 3 was used.

14.10 Model Validation

Estimated block grades were assessed in plan and sectional view along with composite assay intervals. This method provides a local visual assessment of interpolated blocks in relation to the nearest composite. Overall, the data show good agreement and no obvious discrepancies between block grades and composites were observed.

Global bias check models using block sizes equivalent to the OK estimate method were estimated using ID^2 and nearest-neighbour (NN) declustered models.

Although variable between zones, the overall global bias in relation to declustered mean values (NN declustered) were <2% for gold and <3% for silver. The differences were considered to be within acceptable limits.

The model was checked for local trends in the grade estimate using swath plots within each zone. This was done by plotting the mean values from the naïve, declustered NN, and ID^2 and against the OK estimate along north-south, east-west, and horizontal swaths. The ID^2, declustered NN and OK models show similar trends in grades with the expected smoothing for each method. The observed trends show no significant metal bias in the estimate.

14.11 Epithermal, Base Metal, and Metallurgical Estimates for Metallurgical Characterization

The epithermal suite of elements (antimony, mercury, and arsenic), base metals (lead, copper, and zinc) and metallurgical elements (iron and sulphur) were estimated into the block model for metallurgical purposes. A high degree of variability of the epithermal elements exists between the different zones and rock types, and elevated concentrations occur in localized zones/pods. The Contact Mudstone lithology within the 21A and 21B Zones have elevated levels of arsenic, mercury, and antimony. The 21A Zone is geologically and geochemically equivalent to the 21B Zone, an area that accounted for the bulk of mineralization historically mined at Eskay Creek. Smelter penalties for the elevated concentrations of arsenic, mercury, and antimony in the 21B Zone were often prevented via blending with material from other zones while maintaining a profitable head grade (Barrick, 2004).

For all drilling campaigns prior to Skeena's Project involvement, iron and sulphur were not analysed. The epithermal and base metal elements were selectively sampled. Historical documentation notes that these elements were analysed when AuEq >8 g/t; however, this was not always the case. This selective sampling process resulted in a dataset that is biased towards higher-grade material because lower-grade sample intervals were mostly excluded. The sampling inconsistencies are evident for all historical drilling campaigns, where the mineralization zones were either fully sampled, not sampled or intervals were selectively sampled. Historically, interval percentages sampled ranged from 98% in the 22 Zone to as low as 19% in the 21E Zone. Infill drilling in the 21A, 21C, 21B, 21E, HW, and PMP Zones has improved interval percentages, giving greater confidence in these mining domains.

The average epithermal, base metal, and metallurgical concentrations remaining within the pit shell at the resource cut-off grade of >0.7 g/t AuEq is shown in Table 14-1.

Table 14-1: Elemental Average Concentrations within the Proposed Open Pit

Classification	As	Hg	Sb	Fe	S	Cu	Pb	Zn
	ppm	ppm	ppm	%	%	%	%	%
Measured	661	46	1016	2.42	2.17	0.08	0.55	0.87
Indicated	790	20	495	3.31	3.18	0.03	0.30	0.49
Measured + Indicated	719	34	785	2.82	2.62	0.06	0.44	0.70
Inferred	698	14	437	2.82	2.49	0.02	0.26	0.41

14.12 Mineral Resource Confidence Classification

For mineralization in domains exhibiting good geological continuity using adequate drill hole spacing, the QP considers that blocks estimated during the first estimation pass using a minimum of four drill holes, an average distance of <18 m and a kriging variance of <0.4, to be classified as the Measured category. The kriging variance provides a relative measure of accuracy of the local kriged estimate with respect to data coverage.

Mineralization in domains exhibiting good geological continuity estimated during Pass 1 with a minimum of three drill holes were classified as Indicated.

Blocks estimated during pass 1 and 2 using a minimum of two drill holes and an average distance of <100 m were classified in the Inferred category.

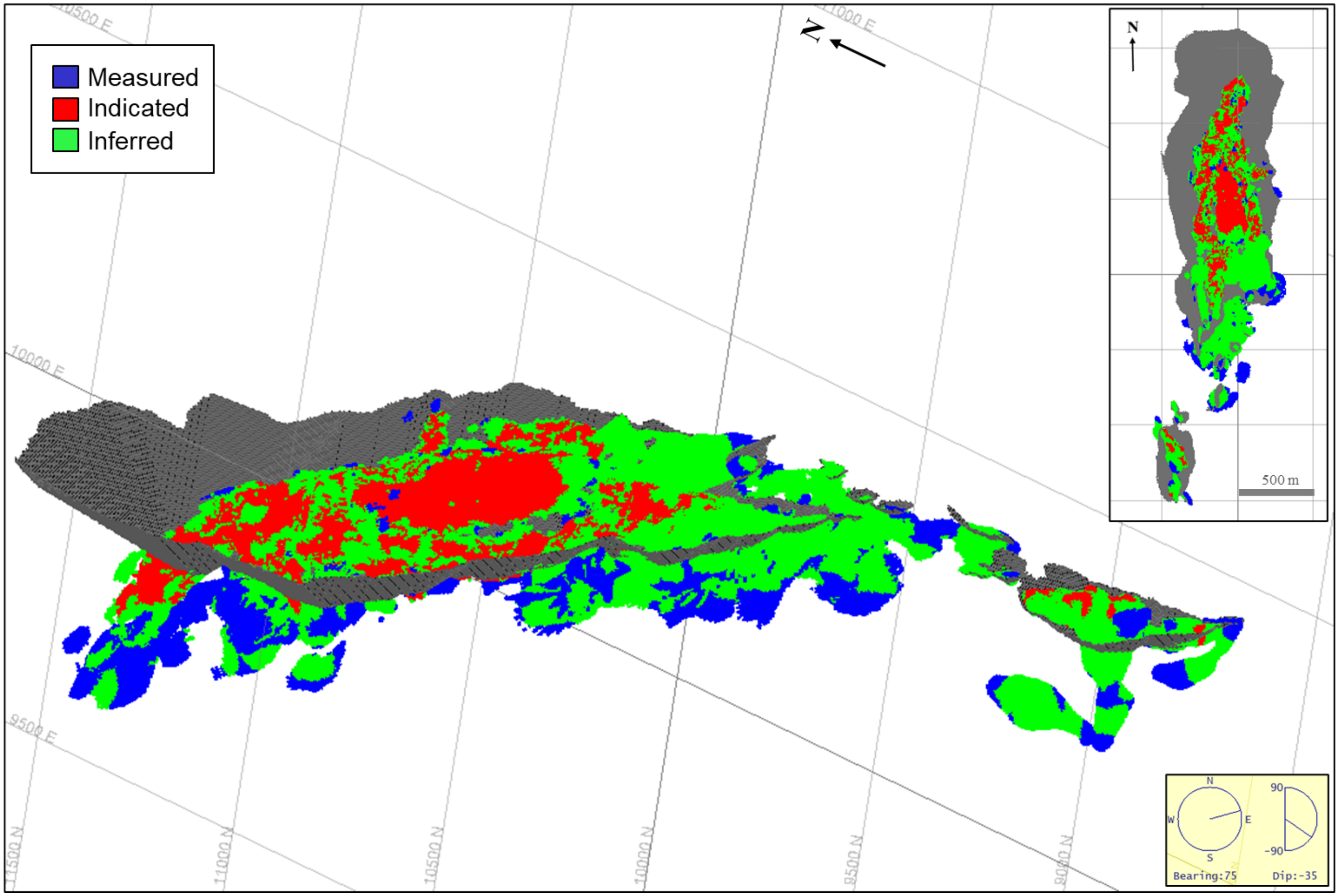
Figure 14-2 shows the distribution of the Measured, Indicated, and Inferred Mineral Resources.

14.13 Reasonable Prospects of Eventual Economic Extraction

Mineralization considered potentially amenable to open pit mining methods was confined within a Whittle pit shell that used the input assumptions in Table 14-2.

A portion of the deposit may be amenable to drift-and-fill underground mining methods. Stope shapes were approximated using a grade shell of 5 x 5 x 2.5 m. The parameters used to constrain the estimate are summarized in Table 14-3.

Figure 14-2: Long Section View of the Mineral Resource Classification



Note: Figure prepared by Skeena, 2023.

Table 14-2: Conceptual Open Pit Input Parameters

Parameter	Unit	Value
Gold price	US$/oz	1,700
Silver price	US$/oz	23
Mining cost	US$/t mined	3
Processing cost	US$/t processed	15.50
General and administrative	US$/t processed	6.00
Mining dilution	%	5
Mining recovery	%	95
Process gold recovery	%	84
Process silver recovery	%	88
Gold selling price	US$/oz	18.5
Silver selling price	US$/oz	7
Average slope angle	°	45

Table 14-3: Conceptual Underground Mineable Shape Input Parameters

Parameter	Unit	Value
Gold price	US$/oz (95% payable)	1,700
Silver price	US$/oz (95% payable)	23
Mining cost	US$/t mined	100
Processing cost	US$/t processed	25
General and administrative	US$/t processed	12
Mining recovery	%	95
Process gold recovery	%	84
Process silver recovery	%	88
Gold selling price	US$	18.5
Silver selling price	US$	7

14.14 Cut-off Grades

The milling cut-off grade for the open pit model, was determined to be 0.47 g/t Au, based on the following equation:

$$\left(\frac{(Processing\ cost\ +\ General\ and\ Administrative\ cost)}{(Gold\ Price - Gold\ Selling\ Price)\ *\ Process\ Gold\ Recovery}\right)$$

However, a pit constrained cut-off of 0.7 g/t AuEq was selected for reporting the estimate.

In the underground scenario, all zones were considered to be amenable to the drift-and-fill mining method, using a cut-off grade of 3.18 g/t Au, based on the same formula as used for the open pit material. A cut-off of 3.2 g/t AuEq was selected for reporting the estimate.

14.15 Mineral Resource Statement

Mineral Resources are reported insitu, using the 2014 CIM Definition Standards. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.

Mineral Resources considered potentially amenable to open pit mining methods are summarized in Table 14-4. Mineral Resources considered potentially amenable to underground mining methods are summarized in Table 14-5.

The Mineral Resources considered potentially amenable to underground mining are reported exclusive of the estimated Mineral Resources potentially amenable to open pit mining.

Mineral Resources have an effective date of 20 June, 2023.

Table 14-4: Mineral Resources Potentially Amenable to Open Pit Mining Methods

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Measured	27,814	4.6	3.3	87.9	4,077	2,964	78,560
Indicated	22,264	2.1	1.6	32	1,468	1,144	22,876
Total Measured + Indicated	***50,078***	***3.4***	***2.6***	***63***	***5,545***	***4,107***	***101,436***
Inferred	652	1.9	1.5	32.4	40	30	680

Notes to Accompany Mineral Resources Potentially Amenable to Open Pit Methods:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, with an effective date of June 20, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are constrained within a conceptual open pit shell that uses the following assumptions: gold price of US$1,700/oz, silver price of US$23/oz; metallurgical recoveries of 84% for gold and 88% for silver; reference mining cost of US$3.00/t mined; mining dilution of 5%; mining recovery of 95%; processing cost of US$15.50/t processed; general and administrative costs of US$6.00/t processed; transportation and refining costs of US$18.5/oz Au and US$7/oz Ag; and overall pit slope angles of 45°.
4. Mineral Resources are reported at a cut-off grade of 0.7 g/t AuEq, using the equation AuEq = ((Au (g/t) * 1,700 * 0.84)+ (Ag (g/t)* 23 * 0.88))/(1,700 * 0.84).
5. Numbers have been rounded and may not sum.

Table 14-5: Mineral Resources Potentially Amenable to Underground Methods

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Measured	834	7.3	5.3	142.6	196	142	3,830
Indicated	988	4.9	4.1	55.7	156	131	1,768
Total Measured + Indicated	***1,821***	***6***	***4.7***	***95.6***	***352***	***273***	***5,599***
Inferred	272	4.6	4.2	25.4	40	37	222

Notes to Accompany Mineral Resources Potentially Amenable to Underground Mining Methods:

1. Mineral Resources are reported insitu, using the 2014 CIM Definition Standards, with an effective date of June 20, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are constrained within stope-optimized shapes that use the following assumptions: gold price of US$1,700/oz, silver price of US$23/oz; metallurgical recoveries of 84% for gold and 88% for silver; reference mining cost of US$100/t mined; processing cost of US$25/t processed; general and administrative costs of US$12/t processed; transportation and refining costs of US$18.50/oz Au and US$7/oz Ag, and a mining recovery of 95%.
4. Mineral Resources are reported at a cut-off grade of 3.2 g/t AuEq, using the equation AuEq = ((Au (g/t) * 1,700 * 0.84)+ (Ag (g/t)* 23 * 0.88))/(1,700 * 0.84).
5. Numbers have been rounded and may not sum.

14.16 Factors that May Affect the Mineral Resource Estimates

Factors that may affect the Mineral Resource estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the gold equivalent grade cut-off grade;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shapes, and geological and grade continuity assumptions;
- Density and domain assignments;
- Changes to geotechnical assumptions including pit slope angles;
- Changes to mining and metallurgical recovery assumptions;

- Change to the input and design parameter assumptions that pertain to the conceptual pit constraining the estimates potentially amenable to open pit mining methods;
- Change to the input and design parameter assumptions that pertain to the conceptual mineable shapes constraining the estimates potentially amenable to underground mining methods;
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain, and maintain environmental and other regulatory permits, and obtain the social license to operate.

14.17 QP Comments on Item 14 "Mineral Resource Estimates"

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Mineral Resources that are not discussed in this Report.

There is upside potential for the estimates if mineralization that is currently classified as Inferred can be upgraded to higher-confidence Mineral Resource categories.

15.0 MINERAL RESERVE ESTIMATES

15.1 Introduction

Mineral Reserves were estimated from Measured and Indicated Mineral Resources, assuming open pit mining methods. Inferred Mineral Resources within the mine plan were set to waste.

15.2 Pit Optimization

Pit designs were completed using the pseudoflow procedure in Geovia Whittle. Ultimate pits were generated using a revenue factor of 1.

Geotechnical and hydrogeological considerations are summarized in Section 16.2 and Section 16.3, respectively. Pit designs are described in Section 16.5 and Section 16.6.

15.3 Optimization Inputs

The parameters for the pit shells are shown in Table 15-1. Ultimate pits were generated using a revenue factor of one, or a metal price of $1,700 /oz. These were used as the basis for the design.

15.4 Cut-off Criteria

An NSR value of C$24.45/t (US$18.81/t) was used as the mill feed cut-off. NSR calculations are inclusive of all revenues for the gold concentrate. Revenues are based on contributions of both gold and silver metals. The NSR cut-off was used to flag ore and waste blocks and represents the preliminary process and site general and administrative (G&A) costs.

The NSR was calculated using the following equation:

- NSR = [((gold in concentrate * concentrate tonnage) * gold price * gold payable percentage) + ((silver in concentrate * concentrate tonnage) * silver price * silver payable percentage)] – transportation costs – penalties – royalty

Table 15-1: Pit Optimization Input Parameters

Description	Units	Value	
Exchange rates			
C$	US$=	1.3	
Resource Model			
Block classification used		Measured + Indicated	
Block model height	m	2.5	
Mining bench height	m	10	
Metal prices		**Gold Value**	**Silver Value**
Price	US$/oz	1,700	23
Royalty	%	2	2
Smelting, refining, transportation terms		**Gold Value**	**Silver Value**
Concentrate grade ranges	g/t	17–94	283–2,943
Payable	%	65.8–93.3	60–80
Minimum deduction	g/dmt	0	0
Participation (on profits)	%	100	100
Bulk concentrate treatment charge	$/dmt	0	
Refining	$/oz	0	0
Concentrate moisture	%	12	
Transit losses		0.5	
Concentrate transportation cost	C$/wmt	148	
Metallurgical information			
Gold recovery	%	84	
Silver recovery	%	88	
Mass pull	%	Feed %S * 83.4/35	
Gold in concentrate	g/t	Feed g/t Au * Gold Recovery/Mass Pull	
Silver in concentrate	g/t	Feed g/t Ag * Silver Recovery/Mass Pull	
Power cost			
Cost of power	C$/kWhr	0.05	
Fuel cost			
Diesel fuel cost to site	C$/L	1.31	
Mining cost (based on using 144 t haul trucks)		**NAG**	**PAG**
Waste base rate -880elevation	C$/t	3.020	3.710
Incremental rate -above	C$/t/10 m bench	-0.018	-0.018
Incremental rate -below	C$/t/10 m bench	0.041	0.041
Mill feed base rate -880 elevation	C$/t	2.430	2.430

Description	Units	Value	
Incremental rate -above	C$/t/10 m bench	0.020	0.020
Incremental rate -below	C$/t/10 m bench	0.034	0.034
Processing (based on 3 Mt/a dry throughput)			
Processing cost	C$/t processed	14.18	
Maintenance (including road and bridges)	C$/t processed	4.04	
Total processing cost	C$/t processed	18.22	
General and administrative cost			
General and administrative cost	C$/t processed	6.23	
Total process and general and administrative cost			
Process + general and administrative cost	C$/t processed	24.45	
NSR cut-off			
NSR cut-off	C$/t	24.45	

15.5 Dilution

The open pit resource model was created using a parent block size of 5 x 5 x 2.5 m with sub-blocks of 1 x 1 x 1.25 m around the underground workings to deplete the mined-out workings. The open pit resource model was then regularized to a block size of 5 x 5 x 2.5 m high. The depleted mined-out underground workings are mostly backfilled with cemented rock fill, which is considered to be waste rock.

The depleted resource model blocks were regularized to 5 x 5 x 5 m high to generate a mine planning block model. During operations, Skeena plans to implement a grade control model that will use regularized dimensions in plan view (which will be aligned with the smallest mining unit that is achievable with a 200 ton class excavator), and 3.33 m high, in alignment with three flitches within each 10 m high operating bench. Using this approach, the QP believes that ore grade is adequately diluted in the 5 x 5 x 5 m mine planning block model.

15.6 Mineral Reserves Statement

Mineral Reserves are reported at the point of delivery to the process plant using the 2014 CIM Definition Standards, and have an effective date of 14 November, 2023.

The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.

The estimate is provided in Table 15-2.

Table 15-2: Mineral Reserves Statement

Category	Tonnes (000)	AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq Contained Ounces (000)	Au Contained Ounces (000)	Ag Contained Ounces (000)
Proven	27,954	4.1	3.0	80.9	3,675	2,657	72,661
Probable	11,889	2.3	1.8	40.1	894	680	15,308
Total	**39,843**	**3.6**	**2.6**	**68.7**	**4,569**	**3,336**	**87,969**

Notes to Accompany Mineral Reserves Table:

1. Mineral Resources are reported at the point of delivery to the process plant, using the 2014 CIM Definition Standards, with an effective date of November 14, 2023. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
2. Mineral Resources are constrained within an open pit shell that uses the following assumptions: gold price of US$1,700/oz, Mineral Reserves are stated within the final design pit based on a US$1,800/oz gold price and US$23.00/oz silver price. Gold and silver recoveries were 83% and 91%, respectively during the LOM scheduling. An NSR cut-off of C$24.45/t was used to estimate Mineral Reserves based on preliminary processing costs of $18.22/t ore processed and G&A costs of C$6.23/t ore processed. Final operating costs within the pit design were C$2.96/t mined, with associated process costs of C$19.16/t ore processed, G&A costs of C$5.69/t ore processed and water treatment costs of C$2.50/t ore processed. Pit slope inter-ramp angles ranged from 26–51°.
3. Mineral Reserves are reported at a net smelter return cut-off of C$24.45/t, using the equation AuEq = ((Au (g/t) * 1,800 * 0.83) + (Ag (g/t)* 23 * 0.91))/(1,800 * 0.83), and inputs of processing costs of C$18.22/t ore processed and G&A costs of C$6.23/t ore processed.
4. Numbers have been rounded and may not sum.

15.7 Factors that May Affect the Mineral Reserves

Factors that may affect the Mineral Reserve estimates include:

- Metal price and exchange rate assumptions;
- Changes to the assumptions used to generate the gold equivalent grade cut-off grade;
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones;
- Changes to geological and mineralization shapes, and geological and grade continuity assumptions;
- Changes to offsets around the old underground workings and additional knowledge related to exact locations of the mined-out voids;
- Density and domain assignments;
- Changes to geotechnical assumptions including pit slope angles;

- Changes to hydrological and hydrogeological assumptions;
- Changes to mining and metallurgical recovery assumptions;
- Change to the input and design parameter assumptions that pertain to the open pit shell constraining the estimates;
- Assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain, and maintain environmental and other regulatory permits, and obtain the social license to operate.

Operations will need careful water management, effective execution of water diversion to allow access to the northern portion of the pit during later pit phases, and management of snow and rainfall events.

15.8 QP Comments on Item 15 “Mineral Reserve Estimates”

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political or other relevant factors known to the QP that would materially affect the estimation of Mineral Reserves that are not discussed in this Report.

16.0 MINING METHODS

16.1 Overview

The mine plan assumes conventional open pit mining methods and the use of conventional equipment. Two open pits are planned, a larger northern pit, and smaller southern pit.

16.2 Geotechnical Considerations

BGC developed a geotechnical model that characterizes the rock mass conditions, structural geology, hydrogeology, and seismicity of the open pit area. This model was used as the basis for the open pit geotechnical assessment.

The rock mass model is based on data from drill hole logging, laboratory testing, the Eskay Creek geology model and relevant background reports. A total of 11 geotechnical units were identified.

Rock mass quality ranges from “fair” in the bedded mudstone units in the upper wall of the north pit, to “good” in volcanic units, including the Hanging Wall Andesite that is interlayered with mudstone in the upper north pit walls, the Rhyolite and Footwall Dacite units in the lower and south walls of the north pit and all walls of the south pit, and the Intrusives unit found distributed across the open pit area. A local reduction in rock mass strength in the Rhyolite and Footwall Sediments units is interpreted in the 21AW and 23 Zone areas. Fault zones are associated with decreased rock mass quality and are interpreted to be generally less than 5 m wide.

Soil overburden is discontinuous across the open pit area; when it is present it is expected to be less than approximately 10 m thick.

The structural geology model includes 3D modelled faults and discontinuity fabric, which consists of bedding joints, fault-parallel discontinuities, and discontinuities not associated with either faults or bedding. Sources of structural fabric data include oriented drill core, 3D model surface orientations and surface mapping. Structural domains were defined to represent areas with similar structural conditions (i.e., discontinuity set orientations). Structural domains in the current study were interpreted to be equivalent to the domains identified for the 2022 FS pit geotechnical assessments and are bounded by faults and geologic contacts from the 3D model. A total of 11 structural domains were identified in the open pit area.

The conceptual hydrogeological model is carried forward from the 2022 FS pit geotechnical assessments and is based on BGC’s understanding of groundwater conditions in the open pit area. Because the currently available groundwater flow models are not considered to be representative of pore pressure conditions expected during mining, initial geotechnical slope stability analyses were carried out assuming saturated conditions.

A site-specific seismic hazard analysis identified that seismicity in the Eskay Creek area is related to a complex offshore fault system resulting from strains on the Queen Charlotte Fault (Ausenco, 2021). Based on the results of Ausenco's probabilistic seismic hazard analysis (Ausenco, 2021), BGC considered a design horizontal ground acceleration equivalent to half of the peak ground acceleration of 0.079*g*, corresponding to a 1 in 2,475-year return period, for pseudo-static stability assessments of the open pit.

Inter-ramp scale kinematic analyses were first performed in each structural domain to identify plausible planar, wedge, and toppling instability modes formed by the combination of discontinuities and the pit wall orientation. Based on the results, the structural domains in the pit wall were subdivided into "kinematic sectors" with similar kinematic controls. Toppling was found to be the primary potential kinematic control in the majority of the west walls in the north and south pits as well as in a portion of the east walls of the north pit. Sliding along bedding-parallel joints was identified as a potential kinematic control in the northwest-dipping portions of the east wall in the north pit, as well as in west-dipping walls of the south pit. No potential kinematic controls were identified in northwest-dipping portions of the southeast wall of the north pit and northwest-dipping walls of the south pit. The remaining pit walls are controlled by the potential for sliding on wedges formed by the intersection of multiple discontinuity sets, or by potential planar sliding on discontinuity sets not associated with either faults or bedding.

Bench-scale kinematic analyses were also completed to estimate the effective bench face angles that can be expected during mining. Back-break of the bench crest was estimated from a probabilistic analytical model that incorporated the discontinuity sets developed for each structural domain and their characteristics, a double bench height of 20 m, and a pre-split design bench face angle of 80°. The predicted back-break widths in the double benched open pit walls range from 3.6–8.7 m, which correspond to effective bench face angles between 59° and 70°.

Based on the results of the bench-scale and inter-ramp scale kinematic analyses, BGC prepared provisional recommended slope design criteria which were incorporated into the 2023 FS pit plan prepared by Skeena. BGC then carried out limit equilibrium inter-ramp and overall slope stability analyses on representative cross sections through the 2023 FS pit plan. Stability analyses indicate that the slopes of the 2023 FS pit meet the design acceptance criteria with horizontal depressurization 50 m behind the pit face in the north walls of the north pit, and 20 m behind the pit face in the southeast walls of the north pit. No depressurization is expected to be required in the south pit.

Design recommendations by kinematic sector are provided in Table 16-1. Recommended inter-ramp slope angles range from 26–51°. Maximum inter-ramp stack heights should be limited to approximately 80 m in toppling controlled sectors and 120 m in other sectors. Inter-ramp stacks should be separated by geotechnical berms or ramps that are a minimum of 30 m wide. Double benches, of 20 m in height, are likely achievable in all sectors, with recommended catch bench widths ranging from 12.7–37.5 m, depending on the sector.

Table 16-1: Open Pit Slope Design Parameters

Kinematic Sector	Slope Azimuth		Bench Geometry					Inter-Ramp Geometry	
	Start (°)	End (°)	Design Height (m)	Design Angle (°)	Design Width (m)	Effective Angle (°)	Minimum Width (m)	Maximum Stack Height (m)	Angle (°)
WW-HW-200	185	215	20	80	22.1	65	16.1	80	38
WW-HW-258	215	305	20	80	20.3	65	14.3	80	40
WW-FW-200	185	215	20	80	22.1	68	17.7	80	38
WW-FW-258	215	305	20	80	20.3	70	16.7	80	40
CN-HW-045	30	60	20	80	18.7	65	12.7	80	42
CN-HW-088	60	115	20	80	20.3	65	14.3	80	40
CN-HW-133	115	150	20	80	32.6	65	26.6	80	29
CN-HW-225	210	240	20	80	22.1	65	16.1	80	38
CN-HW-278	240	315	20	80	20.3	65	14.3	80	40
CN-HW-353	315	30	20	80	31.1	65	25.1	80	30
CN-FW-093	60	125	20	80	20.3	70	16.7	80	40
CN-FW-138	125	150	20	80	12.7	70	9.1	120	51
CN-FW-225	210	240	20	80	22.1	68	17.5	120	38
CN-FW-268	240	295	20	80	20.3	70	16.7	80	40
CN-FW-358	295	60	20	80	12.7	70	9.1	120	51
CS-HW-045	25	65	20	80	23.0	65	17.0	80	37
CS-HW-078	65	90	20	80	34.1	65	28.1	80	28
CS-HW-138	90	185	20	80	37.5	59	28.8	80	26
CS-HW-215	185	245	20	80	22.1	65	16.1	80	38
CS-HW-268	245	290	20	80	20.3	65	14.3	80	40
CS-HW-338	290	25	20	80	25.0	65	19.0	80	35

Kinematic Sector	Slope Azimuth		Bench Geometry					Inter-Ramp Geometry	
	Start (°)	End (°)	Design Height (m)	Design Angle (°)	Design Width (m)	Effective Angle (°)	Minimum Width (m)	Maximum Stack Height (m)	Angle (°)
CS-FW-045	25	65	20	80	23.0	70	19.4	120	37
CS-FW-095	65	125	20	80	25.0	70	21.4	120	35
CS-FW-148	125	170	20	80	15.8	62	8.5	120	46
CS-FW-205	170	240	20	80	22.1	70	18.5	120	38
CS-FW-265	240	290	20	80	20.3	70	16.7	80	40
CS-FW-338	290	25	20	80	25.0	70	21.4	120	35
EE-HW-035	0	70	20	80	21.2	65	15.2	80	39
EE-HW-088	70	105	20	80	20.3	65	14.3	80	40
EE-HW-130	105	155	20	80	32.6	65	26.6	80	29
EE-HW-188	155	220	20	80	37.5	61	29.7	80	26
EE-HW-235	220	250	20	80	31.1	61	23.5	80	30
EE-HW-285	250	320	20	80	20.3	65	14.3	80	40
EE-FW-035	0	70	20	80	21.2	70	17.6	120	39
EE-FW-108	70	145	20	80	20.3	70	16.7	80	40
EE-FW-195	145	245	20	80	18.7	70	14.8	80	42
EE-FW-283	245	320	20	80	20.3	70	16.6	80	40
SP-093	60	125	20	80	27.3	67	22.3	80	33
SP-165	125	205	20	80	12.7	70	9.1	80	51
SP-273	205	340	20	80	20.3	70	16.7	80	40
SP-020	340	60	20	80	17.9	70	14.3	80	43
BW-333	280	25	20	80	24.0	65	18.0	80	36
BE-353	310	35	20	80	20.3	65	14.3	80	40

The slope design criteria assume that controlled blasting will be implemented. A program of scaling bench faces and cleaning accumulated material from bench toes is also required. Active slope depressurization will be required in the north and southeast walls of the north pit to meet the design acceptance criteria in these slopes.

16.3 Hydrogeological Considerations

The hydrogeological assumptions used in the 2023 FS were the same as those used in the 2022 FS.

16.4 Initial Road Construction

Mine development activities will occur at site during the three years of pre-production. Road construction will be the initial primary activity, with NAG waste to construct the roads being sourced from a technical sample phase and two quarries in the north pit area. All potentially acid-generating (PAG) waste will be deposited subaqueously in the TMSF. A road will also be required between the technical sample area and the stockpile location near the future site of the crusher. The initial roads will be constructed during Year -3 and Year -2 of the mine schedule.

16.5 Pit Shell Development

The open pit ultimate size and phasing requirements were determined with various input parameters, including estimates of the expected mining, processing, and G&A costs, as well as metallurgical recoveries, pit slopes, and reasonable long-term metal price assumptions.

The mining costs are estimates based on cost estimates for equipment from vendors and previous studies. The costs represent what is expected as a blended cost over the LOM for all material types to the various dump locations. Process costs and a portion of the G&A costs were provided based on preliminary costing results.

The mining cost estimates were based on the use of 150 ton class haul trucks using an approximate waste rock storage facility and ore stockpile configuration to determine incremental haul costs for mineralized material and waste.

Nested pit shells were generated using the pseudo-flow method in Whittle to examine sensitivity to gold and silver prices with a target of US$1,700/oz Au and US$23.00/oz Ag. The sensitivities were studied to gain an understanding of the deposit and to highlight potential opportunities in the design process. Measured and Indicated Mineral Resources that had dilution added were used in the analysis.

The NSR was varied by applying revenue factors of 0.0294 to 1.76 at 0.0294 increments to generate a set of nested shells. The selected set of revenue factors results in an equivalent gold price varying from US$50/oz to US$3,000/oz. All other parameters were fixed. The resulting nested pit shells assist in visualizing natural breakpoints in the deposit and selecting shells to act as design guidance for the ultimate pit and phase designs. The net profit before capital for each pit shell was calculated on an undiscounted basis for each pit shell using US$1,700/oz Au and US$23.00/oz Ag.

Directional nested pit shells considering a mining direction from south to north, and pit shells with restrictions on crossing Tom MacKay Creek were also created. These shells, in combination with the ultimate pit, were used as guidance for pit phase designs.

16.6 Pit Designs

16.6.1 Overview

Pit designs were developed for the north and south pit areas.

The initial phases were designed for the purpose of obtaining a technical sample and necessary NAG waste material to create supporting infrastructure. The north pit will consist of an additional six main phases, while the south pit will consist of a single small phase.

The pit optimization shells used to determine the ultimate pits were also used to outline areas of higher value for targeted early mining and phase development.

The south pit is significantly smaller than the north pit, and generally has harder rock and lower gold grades. Rhyolite is the dominant rock type that will remain in the mined-out pit walls before reclamation.

16.6.2 Pit Phases

A total of 11 pit phases are planned, for a nine-year mine life, with a three-year pre-production period. Pit phases are summarized in Table 16-2, and a final layout plan is included as Figure 16-1.

Mining will be initiated in the north pit starting with phase 1 and will continue sequentially by phase through to the last northern pit phase, phase 10. The south pit (phase 11) will be mined when all the pit phases in the north pit are complete.

16.6.3 Geotechnical Considerations

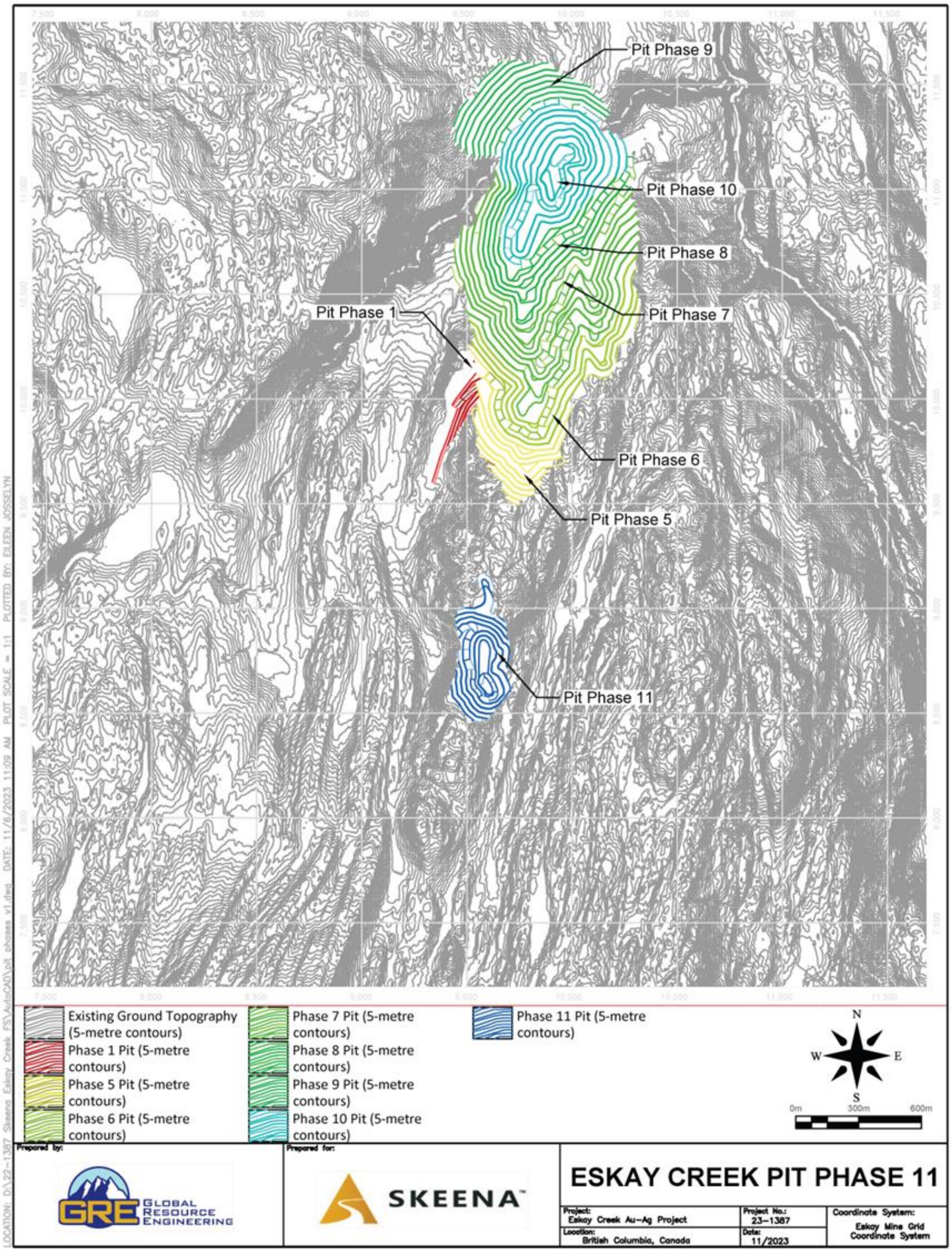
All areas of the pit were designed with 80° bench face angles and 10 m bench heights. A vertical distance of 20 m between catch berms was determined to be acceptable in all areas of the pits. The catch berm widths were designed to achieve the design inter-ramp angles in each slope sector shown in Table 16-1. In addition to these criteria, adjustments were made to consider maximum inter-ramp stack heights of 80 m in Hanging Wall/Contact Mudstone, Bowser sediments, and toppling controlled sectors, and 120 m in all other sectors. A minimum 30 m wide geotechnical berm or ramp was included between inter-ramp stacks.

Table 16-2: Pit Phasing

Pit Phase	Purpose	Comment
1	Mined in Year -3 and -2 to provide NAG waste for construction and site infrastructure	An access road to TMSF will be constructed to facilitate subaqueous disposal of PAG waste
2	Mined in Year -3 to provide NAG waste for construction and site infrastructure	Phase 3 bench elevations range from 1060 masl down to 1040 masl. All benches are 10-metres high
3	A technical sample pit that will be mined in Year -2 to provide NAG waste for construction and site infrastructure, in addition to providing access to the orebody for the purpose of obtaining a bulk sample to conduct additional metallurgical testing	Phase 3 bench elevations range from 1050 masl down to 995 masl. All benches are 10-metres high, except for a 5-metre final bench. A maximum of 10,000 tonnes of ore will be mined from the bottom two benches of this phase during Year -2 to obtain the bulk sample
4	Mined in Year -2 and -1 and will provide NAG waste for construction and site infrastructure	Phase 4 bench elevations range from 1080 masl down to 970 masl. The pit ramp exit at 970 masl is where the mined material will leave the pit near the crusher, ore stockpiles, and MRSA. This pit ramp exit will be used throughout the entire life of mine. All benches are 10 m high, and catch benches are present every 20 m
5	Mined in Year -1 and 1, and ore production begins in this phase	Phase 5 bench elevations range from 1120 masl down to 920 masl. All benches are 10 m high, and catch benches are present every 20 m
6	Mined in Year 1, 2, and 3	Phase 6 bench elevations range from 990 masl down to 840 masl. All benches are 10 m high, and catch benches are present every 20 m
7	Mined in Year 3, 4, and 5	Phase 7 bench elevations range from 890 masl down to 780 masl. All benches are 10 m high, and catch benches are present every 20 m
8	Mined in Year 5, 6, and 7	Phase 8 is designed to the ultimate pit that does not cross the Tom MacKay Creek Phase 8 bench elevations range from 770 masl down to 700 masl. All benches are 10 m high, and catch benches are present every 20 m
9	Mined in Year 3, 4, 5 and 6	Phase 9 is designed across the Tom MacKay Creek. The purpose of phase 9 is to develop a water diversion channel before the mining can be carried out below the level of Tom MacKay Creek Phase 9 bench elevations range from 940 masl down to 730 masl. All benches are 10 m high, and catch benches are present every 20 m
10	Mined in Year 6, 7, 8 and 9	Phase 10 is the final north pit phase and extends across the Tom MacKay Creek Phase 10 bench elevations range from 790 masl down to 610 masl. All benches are 10 m high, and catch benches are present every 20 m

Pit Phase	Purpose	Comment
11	Mined in Year 9	Phase 11 is a small phase in the south pit. Phase 11 bench elevations range from 1130 masl down to 990 masl. The pit exit at 1050 masl is located on the waste rock storage facility. All benches are 10 m high, and catch benches are present every 20 m

Figure 16-1: Final Pit Layout Plan



16.6.4 Equipment Sizing, Operating Widths and Ramps

Equipment sizing for ramps and working benches was based on the use of 150 ton class rigid-frame haul trucks. The operating width used for the truck is 7.5 m. This means that single lane access is 20 m (2.5 times the operating width), and double lane widths are 30 m (four times the operating width). Ramp gradients are 10% in the pit and MRSA. Working benches were designed at 35–70 m minimum mining width on pushbacks.

16.7 Working Around Underground Voids

It is anticipated that the planned RC grade control drilling program will provide additional information regarding the location of the voids in advance of mining equipment being present. The expected issue will be drifts as opposed to stopes, as the stopes were backfilled with cemented material for stability.

The old workings are only within the area of the proposed north pit.

16.8 Water Diversion

Mine planning indicates that the northern end of the open pit will intersect Tom MacKay Creek, requiring the provision of a water diversion channel to re-route flowing water along a bench of the Phase 9 pit before re-entering the existing creek downstream.

The following infrastructure will be required:

- A diversion channel that allows water to safely travel along the specifically designed bench within the Phase 9 pit;
- An upstream diversion dam to direct flow from Tom MacKay Creek into the channel;
- Energy dissipation features at regular intervals along the channel to prevent excessive flows and the possibility of hydraulic jump;
- Access roads, bridges, and related infrastructure;
- Instrumentation as required to monitor water levels and flows relevant to the diversion works.

The current channel design is trapezoidal with a bottom width of 4.5 m, a water depth of 3.37 m, and side-wall slopes of 0.5:1 V:H. The full length of the channel will be 657 m.

16.9 Mine Waste Rock Management

16.9.1 NAG and PAG Considerations

Various rock types are present in the material mined within the ultimate pits. The lithologies considered as NAG were hanging wall andesite and upper members of the sediments. NAG waste will be sent to the MRSA. The remainder of the waste rock was considered PAG, which will be sent to the TMSF for subaqueous disposal.

NAG and PAG waste material contained in the ultimate pit are 166.50 Mt and 151.39 Mt, respectively. This split in material will be determined by assays performed on samples collected from production blast hole sampling and RC grade control drilling. The total waste contained within the pits is 317.89 Mt.

16.9.2 Mine Rock Storage Area

The pit ramp exits immediately onto the MRSA where NAG rock will be placed for permanent storage and ore will be stockpiled temporarily for blending into the mill feed.

NAG rock extracted during pre-production years will be placed within the northern portion of the MRSA up to 970 masl to construct the ROM ore stockpile pad. The ROM pad will tie into the exit ramp of the north pit to allow for shorter haul distances to develop the MRSA.

The southern portion of the MRSA will be developed up to 1190 masl to achieve the required NAG rock storage capacity.

16.9.3 Tom MacKay Storage Facility

PAG material will be transported from the pit ramp exit to the TMSF via a 5.5 km haul road.

16.10 Stockpiles

Two ore stockpiles will be developed on the ROM stockpile pad:

- Low-grade stockpile: material with C$24.45/t ($18.81/t) <NSR <C$39/t ($30/t);
- Medium-grade stockpile: material with C$39/t ($30/t) <NSR <C$130/t ($100/t).

16.11 Mine Schedule

The proposed LOM mine schedule is summarized in Table 16-3.

The proposed mine life is nine years, with processing of low-grade ore from stockpiles continuing through Year 12. The mine schedule assumes 3.0 Mt/a of feed will be sent to the process facility in Years 1–5 using a suitable ramp-up in Year 1. The process plant will operate at 3.5 Mt/a during Years 6–12.

Table 16-3: LOM Production Plan

	Description	Y-3	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Total
Mining summary	NAG waste (Mt)	1.62	6.29	9.26	24.97	21.31	26.01	21.29	20.36	10.03	11.90	11.48	1.99	0.00	0.00	0.00	166.50
	PAG waste (Mt)	0.33	2.27	8.01	15.26	18.07	20.01	18.81	17.93	22.29	8.84	9.70	9.85	0.00	0.00	0.00	151.39
	Mined waste (Mt)	1.95	8.57	17.27	40.23	39.38	46.03	40.10	38.29	32.32	20.74	21.18	11.85	0.00	0.00	0.00	317.89
	Mined ore (Mt)	0.00	0.06	1.49	5.69	4.74	3.93	4.79	5.21	5.02	1.38	3.47	4.06	0.00	0.00	0.00	39.84
	Au (g/t)	0.0	4.2	1.7	3.0	2.5	3.3	2.7	2.7	2.6	2.8	2.6	1.5	0.0	0.0	0.0	2.6
	Ag (g/t)	0.0	28.5	48.6	57.5	58.6	93.9	71.4	92.2	46.0	66.3	93.6	53.9	0.0	0.0	0.0	68.7
	Sb (ppm)	0	66	45	1,744	996	1,036	776	71	372	444	589	286	0	0	0	824
	Hg (ppm)	0	42	19	104	57	43	25	6	12	13	15	6	0	0	0	37
	As (ppm)	0	4,190	735	1,797	502	429	402	401	511	464	431	798	0	0	0	692
	Pb (%)	0.00	0.01	0.06	0.09	0.15	0.22	0.23	0.51	0.67	0.86	1.05	0.18	0.00	0.00	0.00	0.37
	Zn (%)	0.00	0.03	0.11	0.17	0.27	0.38	0.37	0.81	1.00	1.34	1.64	0.28	0.00	0.00	0.00	0.59
	Cu (%)	0.000	0.005	0.012	0.017	0.030	0.052	0.045	0.080	0.065	0.106	0.125	0.025	0.000	0.000	0.000	0.053
	Fe (%)	0.00	1.60	1.28	1.49	1.56	1.93	1.84	2.01	2.26	2.45	2.73	1.36	0.00	0.00	0.00	1.87
	S (%)	0.00	1.42	1.14	1.54	1.35	1.58	1.62	1.75	1.92	2.27	2.57	1.00	0.00	0.00	0.00	1.65
	Mined Total (Mt)	1.95	8.63	18.77	45.92	44.12	49.96	44.89	43.50	37.34	22.12	24.65	15.90	0.00	0.00	0.00	357.73
Processed material	Mill Feed (Mt)	0.00	0.00	0.68	2.96	3.01	3.00	3.00	3.00	3.51	3.50	3.50	3.50	3.51	3.50	3.17	39.84
	Au (g/t)	0.0	0.0	2.0	5.0	3.4	3.9	3.6	3.9	3.3	1.9	2.6	1.7	1.2	0.8	0.8	2.6
	Ag (g/t)	0.0	0.0	53.4	91.4	86.0	115.2	101.3	147.6	63.0	40.9	95.6	60.7	23.6	13.7	11.4	68.7
	Sb (ppm)	0	0	459	2,953	1,302	1,153	973	1,074	448	463	596	322	459	347	321	824
	Hg (ppm)	0	0	24	166	71	50	32	36	14	21	18	9	24	17	15	37
	As (ppm)	0	0	447	3,080	646	494	468	498	561	452	436	763	447	384	369	692
	Pb (%)	0.00	0.00	0.22	0.11	0.19	0.26	0.28	0.65	0.75	0.37	0.85	0.19	0.22	0.28	0.29	0.37
	Zn (%)	0.00	0.00	0.36	0.21	0.34	0.46	0.45	1.05	1.14	0.58	1.32	0.29	0.36	0.43	0.44	0.59

Description		Y-3	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Total
	Cu (%)	0.000	0.000	0.030	0.025	0.039	0.056	0.055	0.110	0.079	0.050	0.112	0.027	0.030	0.028	0.027	0.053
	Fe (%)	0.00	0.00	41.21	32.30	39.78	42.20	39.74	39.49	42.19	40.88	38.64	47.87	41.21	41.72	41.83	40.78
	S (%)	0.00	0.00	1.49	1.84	1.49	1.58	1.67	1.91	1.93	1.60	2.25	1.03	1.49	1.53	1.54	1.65
Stockpile balance	Medium grade (Mt)	0.00	0.06	1.25	2.44	1.34	1.59	1.62	1.55	0.81	0.37	0.35	0.28	0.00	0.00	0.00	
	Low grade (Mt)	0.00	0.00	0.25	0.98	0.84	0.51	0.52	0.67	0.86	0.16	0.60	0.65	0.00	0.00	0.00	
Total stockpile balance (Mt)		0.00	0.06	1.49	3.41	2.18	2.10	2.14	2.21	1.67	0.53	0.96	0.93	0.00	0.00	0.00	17.68
Total stockpile reclaim (Mt)		0.00	0.00	0.68	0.69	0.45	1.17	0.35	0.00	0.16	2.64	0.98	0.37	3.51	3.50	3.17	17.68
Total material movement (Mt)		1.95	8.63	19.45	46.61	44.56	51.13	45.24	43.50	37.50	24.77	25.63	16.28	3.51	3.50	3.17	375.41

Note: Y = year.

The overall strip ratio is 7.98:1.

High-grade ore will be directly fed to the mill; low and medium-grade ore will primarily be stockpiled and blended with high-grade ore in the mill feed.

Figure 16-2 depicts the annual mill feed grade that results from blending of stockpiled ore with high grade ore that is sent directly from the pit to the primary crusher.

16.12 Mining Equipment

The mining equipment selected to achieve the planned production schedule is conventional open pit mining equipment, with additional support equipment required for snow management.

Drilling will be completed with down-the-hole hammer (DTH) drills with 171 mm bits. This will provide the capability to drill patterns for either 5 m or 10 m bench heights.

Pre-production mining will be completed with 75 ton class and 90 ton class excavators, loading into 60 ton class articulated dump trucks. This smaller fleet is well suited to the lower production tonnage requirements and limited bench geometry that will be encountered when pioneering the initial ridgetop pit benches.

Production mining will be completed with 200 ton class excavators and 400 ton class hydraulic shovels loading 150 ton class haul trucks. Use of the 200 ton class excavators will be prioritized for selective mining of ore within three flitches per 10 m high bench. These excavators are also anticipated to extract waste efficiently by using the “double benching” technique within full 10 m high benches. The 400 ton shovels will be used exclusively to mine waste rock within full 10 m high benches. Three 354 horsepower bulldozers will be dedicated to supporting the loaders in the pits.

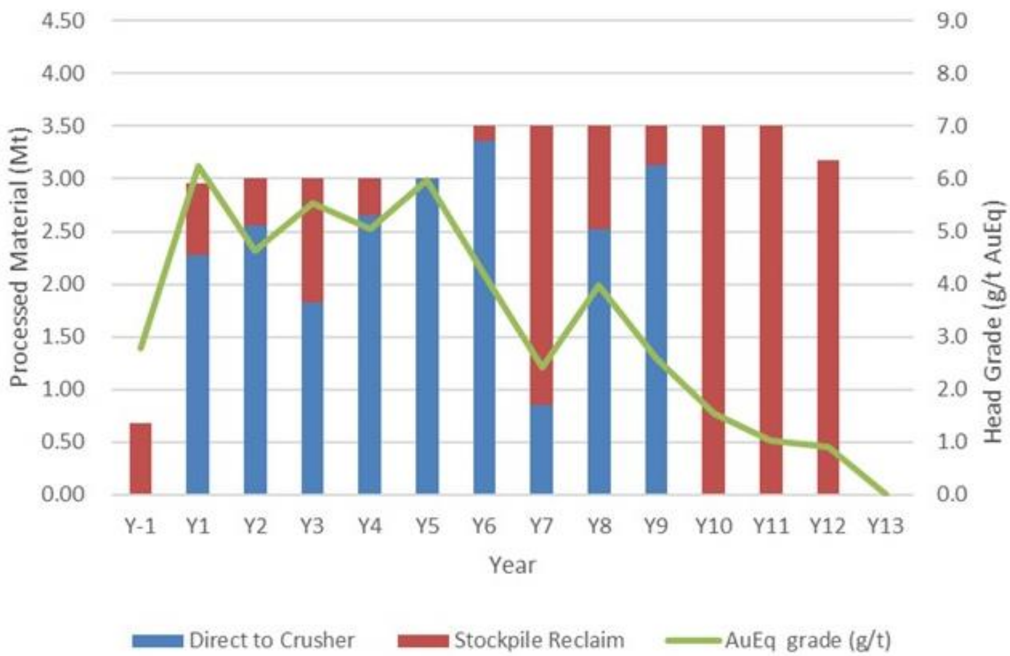
The support equipment fleet will be used for road, pit, and dump maintenance requirements and will provide snow removal during winter months. Snow blowers and snowplows were included in the fleet.

LOM equipment requirements are summarized in Table 16-4.

16.13 Selective Mining to Minimize Dilution and Ore Loss

The open pit mine plan was developed using the mine planning block model. Skeena plans to execute selective mining of ore on three flitches within each 10 m high operating bench, by using 200 ton class excavators with buckets that are substantially smaller than the 5 x 5 x 5 m mine planning model blocks.

Figure 16-2: LOM Production and Grade



Note: Figure prepared by GRE, 2023.

Table 16-4: LOM Equipment Requirements

Equipment Purpose	Item	Y-3	Y-2	Y-1	Y+1	Y+2	Y+3	Y+4	Y+5
Production	Hydraulic shovel ($12\ m^3$)	—	2	—	—	—	—	—	—
	Hydraulic shovel ($19\ m^3$)	—	—	—	2	—	—	—	—
	Haul truck (100 ton)	—	4	3	9	3	6	1	1
	Excavator ($3.8\ m^3$)	1	—	—	—	—	—	—	—
	Excavator ($5.2\ m^3$)	1	—	—	—	—	—	—	—
	Articulated dump trucks (55 ton)	4	1	—	—	—	—	—	—
	Track dozer (455 kW)	1	1	1	—	—	—	—	—
	Production drill (171 mm)	1	1	1	3	—	—	—	—
Support	Loader ($11.5\ m^3$ high lift)	—	—	1	—	—	—	—	—
	Loader ($11.5\ m^3$)	2	—	—	—	—	—	—	—
	Highway haul truck (for snow removal)	—	3	—	—	—	—	—	—
	Track dozer (455 kW)	—	3	—	—	—	—	—	—
	Track dozer (264 kW)	—	1	—	1	—	—	—	—
	Wheel dozer	—	1	—	—	—	—	—	—
	Water truck	1	—	—	—	—	—	—	—
	Fuel/lube truck	1	—	—	1	—	—	—	—
	Mechanic truck	1	—	—	1	—	—	—	—
	Grader	1	1	—	—	—	—	—	—
	Compactor	—	1	—	—	—	—	—	—
	Blast hole drill (for pre-split drilling)	—	1	—	1	—	—	—	—
	RC drill (for grade control)	1	-	—	2	—	—	—	—
	Backhoe	—	1	—	—	—	—	—	—

Equipment Purpose	Item	Y-3	Y-2	Y-1	Y+1	Y+2	Y+3	Y+4	Y+5
	Crane	—	1	—	—	—	—	—	—
	Snow blower	—	2	—	—	—	—	—	—
	4 x 4 pickup	4	—	—	6	—	—	—	—
	Dewatering pumps	1	1	—	1	—	—	—	—
	Snow plow attachment	—	—	—	2	—	—	—	—
	Tyre handler	1	—	—	—	—	—	—	—
	Telehandler	1	—	—	—	—	—	—	—
	Mobile crusher	1	—	—	—	—	—	—	—
	Light plants	3	3	—	—	—	—	—	—

Note: Y = year

During mine operations, ore and waste boundaries will be delineated by a grade control model that uses a smaller block size, which will be defined by the smallest mining unit that is achievable with the selected excavator bucket size. The grade control model will be developed from assays obtained from RC drilling to accurately define ore and waste contacts. Thus, no additional dilution is added to the 5 x 5 x 5 m mine planning block model.

The Eskay Creek deposit hosts very high-grade gold and silver mineralization. Some of the highest-grade mineralization exists within in-situ rock that lies immediately adjacent to historical underground production stopes, which are mined-out and backfilled with cemented rock fill. To ensure the high-grade mineralization that exists at the contact between in-situ rock and cemented rock fill is captured as ore, cemented rock fill will be mined as a component of planned ore dilution. During mine operations, mitigation of ore loss will be a higher priority than mitigation of dilution to ensure that all high-grade mineralization is captured. Magnets and metal detectors will be included in the primary ore crushing system to extract material such as bolts, screen, pipes, and electrical cables from ore that is diluted with cemented rock fill.

16.14 Grade Control

Grade control will be completed using a fleet of RC drill rigs. The grade control drilling will serve two purposes:

- Definition of the mill feed grade and ore/waste contacts;
- Location of previous underground infrastructure prior to blasthole rigs drilling.

Skeena plans to further optimize the grade control drilling program during mine operations. Optimizations will include more detailed consideration of variable orebody geometry, lithology type, and presence of historical underground mined-out workings. RC drilling requirements in waste zones to define PAG and NAG quantities will also be further evaluated.

17.0 RECOVERY METHODS

17.1 Introduction

The process design is based on the testwork summarized in Section 13.

The processing plant facilities will consist of crushing, grinding and flotation circuits designed to liberate and recover gold from the ROM ore. Flotation concentrate will then be thickened, filtered, dried, and stockpiled at the process plant prior to loading into haul trucks for transport.

The Project will be constructed in two distinct phases, as follows:

- Initial operation of 3.0 Mt/a for Years 1–5, which comprises:
  - Single-stage crushing circuit (jaw), fed from the open pit mine;
  - Coarse ore bin with reclaim system, fed from an overland conveyor;
  - Primary grinding including a semi-autogenous grinding (SAG) mill, pebble crusher (installed in year 3), and ball mill in closed circuit with hydrocyclones;
  - Further classification via one stage of hydrocyclones and tertiary grinding;
  - Rougher flotation with concentrate regrind and two stages of cleaning;
  - Scavenger flotation for recovery of cleaner tails;
  - Concentrate thickening, filtration, drying and storage;
  - Concentrate load-out by way of front-end loader filling concentrate transportation;
  - Final tailings pumping to the TSF.
- Expansion to 3.5 Mt/a for the remaining LOM, which includes the initial equipment with the addition of the following installed for Year 6 to Year 12 operations:
  - Additional operating cyclones and concentrate filter plates
  - Upgraded process pumps and piping.
  - Retrofit larger motor size on tertiary grind mill (if required, pending further sampling and testwork).
  - Several key pieces of equipment in the initial phase will already be sized to accommodate the final 3.5 Mt/a throughput, including the jaw crusher, SAG and ball mills, and thickener;
  - Retrofit larger motor size on tertiary grind mill (if required, pending further sampling and testwork).

The process plant building has been sized to accommodate the Year 6 expansion.

17.2 Process Flow Sheet

A process flowsheet is included as Figure 17-1.

17.3 Plant Design

Plant design criteria are summarized in Table 17-1 to Table 17-3.

17.3.1 Crushing and Stockpile

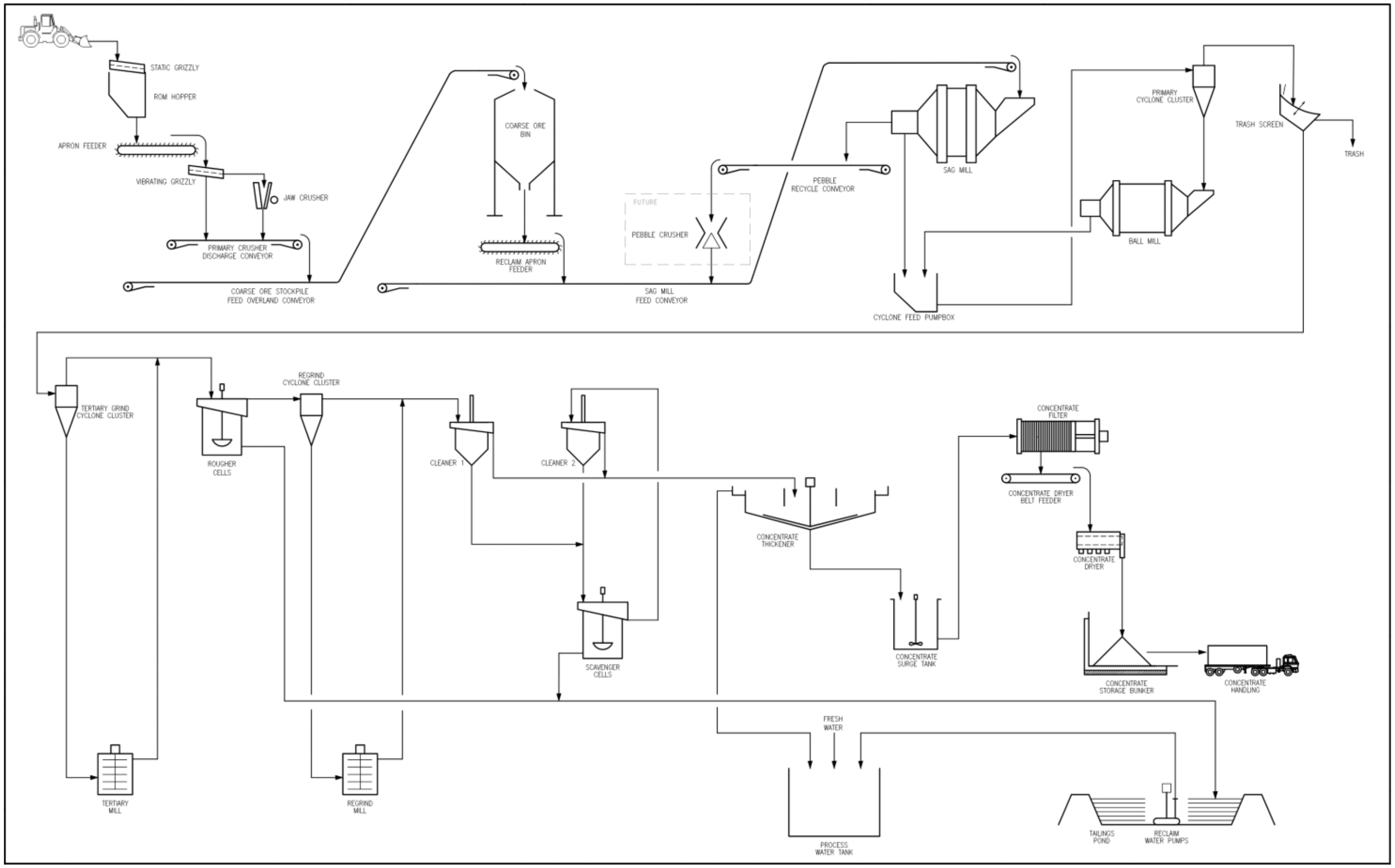
The ROM ore will be trucked from the open pit and dumped directly into the ROM surge bin or stockpiled on the ROM storage pad, with the ability to reclaim using a front-end loader. The ROM ore from the ROM bin will be withdrawn by an apron feeder and discharge onto a vibrating grizzly screen where the coarse oversize will report directly into a single jaw crusher. The undersize will fall through a chute to the primary crusher discharge conveyor. After crushing the feed material will discharge onto the primary crusher discharge conveyor. The coarse ore bin feed conveyor will transport the feed material to the coarse ore bin.

The crushing facility will be a single-stage crushing circuit that will process the ore at a nominal processing rate of 489 t/h, at 70% availability, in Year 1 to Year 5. To accommodate the increase in throughput and ore hardness, the single primary crusher will be sized to produce a feed for the SAG mill sized for 3.5 Mt/a at the final ore hardness. This negates the requirement for a secondary crusher in later years by transferring duty to the SAG mill.

The coarse ore bin feed conveyor will use a weightometer to control crushing plant throughput and assist with operational and metallurgical accounting. The coarse ore bin will provide approximately eight hours of live capacity. An overflow and emergency stockpile will be available for additional capacity. The emergency stockpile will be reclaimed by a front-end loader when the reclaim system is not operational.

Coarse ore from the bin will be reclaimed by an apron feeder, sized for the Year 6+ 3.5 Mt/a plant feed capacity, and will discharge ore to the SAG mill feed conveyor to be fed into the SAG mill. The SAG mill feed conveyor will be equipped with a weightometer to provide data for feed rate control to the grinding circuit.

Figure 17-1: Process Flowsheet



Note: Figure prepared by Sedgman, 2023.

Table 17-1: Eskay Creek Process Design Criteria – Overview

Description	Units	Value
Ore throughput (base case, Years 1–5)	Mt/a	3.0
Ore throughput (base case, Years 6+)	Mt/a	3.5
Process plant availability	%	92
Filtration plant availability	%	80
Daily throughput – average (Years 1–5)	kt/d	8.22
Daily throughput – average (Years 6+)	kt/d	9.59
Process plant capacity, nominal @ 92% availability (Years 1–5)	t/h	372
Process plant capacity, nominal @ 92% availability (Years 6+)	t/h	434
Recovery to concentrate, mass (rougher circuit)	% plant feed	20
Recovery to concentrate, mass (cleaner circuit)	% plant feed	5
ROM specific gravity	SG	2.71
Concentrate grade, Au	g/t	≥35

Table 17-2: Comminution Design Criteria

Description	Units	Year 1–5	Year 6+
Crushing (single stage)			
Availability	%	70	
Primary crusher	type	Jaw crusher	
Coarse ore bin residence time (live)	h	7	6
Primary crushing circuit feed, F_{100}	mm	800	
Bond crusher work Index (CWi) range/design (75th percentile)	kWh/t	17.6 20.9/18.5	
Primary grinding			
Availability	%	92	
Circuit type	—	SAG mill, pebble crusher, ball mill	
Bond rod mill work index (RWi) Range / design (75th percentile)	kWh/t	14.0 21.8/18.9	
Bond ball mill work index (BWi) maximum/minimum/design (75th percentile)	kWh/t	27.6 12.4/20.4	
A x b	—	38.6	
SAG mill feed particle size, F_{80}	mm	130	
Product particle size, P_{80}	µm	100	

Description	Units	Year 1–5	Year 6+
Pebble rate, nominal/design	% fresh feed	Recirc	15/30

Table 17-3: Flotation Plant Design Criteria

Description	Units	Year 1–5	Year 6+
Feed rate	t/h	372	434
Tertiary grind mill			
Type		High intensity stirred mill	
Feed rate, design	t/h	372	434
Feed rate, nominal	t/h	206	304
Feed size F_{80}	µm	100	
Discharge size P_{80}	µm	40	
Specific grinding energy (SGE)	kWh/t	14.2	
Roughers			
Cell type	—	Conventional tank cells	
Stage recovery to concentrate, mass	% fresh feed	20	
Stage recovery, Au	% fresh feed	75–85	
Regrind mill			
Type		High intensity stirred mill	
Feed rate, design	t/h	74	93
Feed rate, nominal	t/h	52	61
Feed size F_{80}	µm	40	
Discharge size P_{80}	µm	10	
Specific grinding energy (SGE)	kWh/t	35.1	
Cleaners		2 stages	
Cell type	—	High intensity flotation cells	
Recovery to concentrate, mass	% plant feed	5	
Cleaner–scavenger cell type	—	Conventional tank cells	
Concentrate thickener			
Type	—	Hi-rate	
Feed loading rate (nominal)	$m^3/m^2.h$	4.10	
Feed loading rate (design)	$m^3/m^2.h$	2.98	
Thickener underflow density	% w/w	45	
Concentrate filter			
Type	—	Vertical plate pressure filter	

Description	Units	Year 1–5	Year 6+
Filtration rate	$t/m^2/h$	0.107	
Nominal filter cake moisture	% w/w	16–18	
Concentrate drying			
Type	—	Direct heat exchanger	
Dryer feed moisture design	% w/w	18.0	
Dryer cake moisture	% w/w	$\leq$9.0	

17.3.2 Primary Grinding and Classification

The primary grinding circuit will consist of a SAG mill, pebble crusher (installed in Year ~3), and ball mill in a closed circuit with classifying cyclones. Both the SAG and ball mills will be sized for 3.5 Mt/a at the final ore hardness.

The primary grinding circuit is designed for a product size 80% passing size (P80) of 100 µm. The SAG mill and ball mill will each be driven by squirrel-cage induction motors. These motors will have capability for variable speed operation, provided by a shared variable speed drive, and a synchronisation/transfer switchboard. To start the motors with this arrangement, the variable speed drive will initially start the ball mill. Once the ball mill reaches operating speed, a synchronous transfer will convert the mill to a direct-on-line configuration. Once this is competed, the variable speed drive will operate the SAG mill in speed control.

Process water will be added with the coarse ore to the SAG mill to achieve the targeted mill feed slurry density. The SAG mill discharge will pass through a vibrating screen. The screen oversize will be transferred to the pebble crusher via the pebble crusher feed conveyor and the crusher product returned to the SAG mill feed conveyor. Undersize from the vibrating screen will discharge directly into the cyclone feed pump box, where it will be diluted with process water and pumped to the cyclone distribution manifold via a cyclone feed pump. Cyclones will classify the feed slurry to achieve an overflow stream of 100 µm (P80) material, whilst the cyclone underflow fraction will recirculate to the ball mill.

Ball mill discharge will flow through the ball mill discharge trunnion magnet and remove any metal scats, which will then be discharged to a concrete ball mill scats bunker. After passing through the trunnion magnet, slurry will discharge into the cyclone feed pump box. The cyclone overflow will report to a trash screen which will remove trash to a trash bin. Trash screen undersize will report to the tertiary grind circuit.

Classifying cyclone cluster sizes are based on volumetric feed for a plant throughput of 3.5 Mt/a. Approximately 15% of these cyclones will be blanked off during Years 0–5 while operating at the 3.0 Mt/a throughput, as these cyclones will not need to be procured until the throughput expansion in Year 6.

17.3.3 Flotation, Tertiary Grinding and Regrinding

The flotation area will consist of a primary rougher flotation stage, two cleaner stages and a cleaner scavenger stage. The area will also include a tertiary grind mill to reduce material size prior to rougher flotation, and regrinding of rougher concentrate prior to cleaning. Conventional tank cells will be used for the rougher flotation and cleaner scavenger circuits. High intensity flotation cells will be used for the two stages of cleaner cells. Launder sprays will use process water to clear any material buildup.

Flotation reagents used in the flotation circuit will include potassium amyl xanthate (PAX; collector) and methyl isobutyl carbinol (MIBC; frother).

Primary grinding product will report via the trash screen underflow to the tertiary grind cyclone feed hopper. Material will then be pump fed to the tertiary grind cyclone cluster. The cyclone overflow will report to the rougher conditioning tank and the cyclone underflow will be pumped to the tertiary grind mill. The tertiary mill (high intensity stirred mill) is designed to achieve a product size 80% passing size (P80) of 40 µm.

Tertiary grind cyclone overflow will be combined with tertiary grind mill discharge and fed into the rougher conditioning tank, which then will gravitate to a bank of rougher flotation cells. Rougher tailings will report to the final tails hopper. Concentrate from the rougher cells will be pumped through the regrind mill cyclone cluster. The cyclone underflow will be pumped to the regrind mill and ground to a P80 of 10 µm.

Regrinding of the rougher concentrate before cleaner flotation will achieve further liberation of fine gold material and enhance gold concentrate grade. A single stage of regrinding plus two stages of cleaner flotation, and a stage of cleaner scavenger flotation have been selected to produce a final gold concentrate.

The regrind mill discharge and regrind cyclone overflow will be combined with collector and process water in the cleaner flotation conditioning tank prior to being pumped to Cleaner 1. Cleaner 1 will act as a scalper cell, to recover the fast floating mineral at the desired product grade. This concentrate will gravitate to the concentrate thickener.

Cleaner 1 and Cleaner 2 tailings will feed the cleaner scavenger stage. Tailings from the cleaner scavenger stage will be combined with rougher tailings in the final tailings hopper and subsequently pumped to the TMSF. Cleaner scavenger concentrate will be pumped to feed the Cleaner 2 stage.

Cleaner 2 will re-clean cleaner scavenger concentrate to produce gold concentrate at the desired product grade. Concentrate from Cleaner 2 will be combined with Cleaner 1 concentrate and gravitate to the concentrate thickener for dewatering before filtration. Cleaner 2 tailings will be directed back to the cleaner scavenger feed.

17.3.4 Concentrate Dewatering

Concentrate from the two cleaner cells will gravitate to a static protection trash screen with any oversize foreign material reporting to a bin and the screen undersize gravitating to the thickener feed de-aeration tank and subsequently to the high-rate thickener. Flocculant will be added to the thickener feed to aid the settling process. Thickened concentrate (thickener underflow) will be pumped to the concentrate filter feed tank at a density of approximately 45% w/w solids. The concentrate thickener overflow will report to an overflow tank which will then be pumped to the process water tank.

The filter feed tank will provide eight hours of surge capacity to allow filter maintenance to be conducted without affecting mill throughput. The filter feed will be pumped to a vertical plate pressure filter to produce a filter cake of approximately 18% w/w moisture. The filter cake from the filter will be discharged and drop onto a belt feeder which will transfer the cake to the concentrate dryer. The dried concentrate will be discharged and drop from the dryers into a bunker. A front-end loader will load concentrate into a truck or move it to the storage area within the building. The normally empty storage area will have a nominal storage capacity of 2,300 t or approximately 5.5 days to avoid process plant shut down due to disruptions with concentrate trucking.

17.3.5 Tailings Disposal

Cleaner scavenger tailings and rougher tailings will be combined in the final tailings hopper with any excess contact water not being used for process water, prior to being pumped to the TMSF. Pumping to the TMSF will be achieved using four pumps in series, due to the pipeline length and elevation profile.

17.3.6 Assay Laboratory

The process plant will be equipped with sampling points to collect shift and routine samples for AA and fire assays. Those samples will include flotation feed, final tailings, and final concentrate. The data obtained will be used for product quality control and routine process optimization.

The metallurgical laboratory will perform metallurgical tests for quality control and process flowsheet optimization. The metallurgical laboratory will include equipment such as laboratory crushers, ball mill, sieve screens, laboratory flotation cells, balances, and pH meters.

17.4 Control and Operations Strategy

Field instruments will provide inputs to a set of programmable logic controllers (PLCs). The PLCs will be used to control and monitor the operation of the process plant and will be broken into different process areas. Each process area will be controlled by a single PLC system. The PLCs will be tied together to form a plant wide control system using an ethernet communication system.

Process control and monitoring for the facility will be performed in two centralized control rooms housed in the main process plant and in the primary crusher area.

17.5 Energy, Water, and Process Materials Requirements

17.5.1 Energy

Electrical power will be provided to the process plant building from the main substation at 13.8 kV. The SAG mill, ball mill, tertiary mill and regrind mills will all operate on 13.8 kV motors. A stepdown transformer will provide 4160 V and 600 V power to the other motors.

The initial installed power for the processing plant will be 32.4 MW with an anticipated power draw of 25.3 MW during operations. The expansion installed power in Year 6 will be 33.2 MW, with an anticipated power draw of 26.1 MW.

17.5.2 Water

Fresh water will be sourced from groundwater wells and pumped to the fresh water tank located inside the process plant building. Fresh water will be supplied to the process plant by two freshwater pumps in a duty/standby configuration. Fresh water will be used to supply fire water, SAG and ball mill cooling water, gland seal water, potable water, reagent mixing, washdown, and make-up water for the process water system.

Potable water will be sourced from the potable water treatment plant at the administration facility. The treated water will be stored in a potable water storage tank. Distribution of potable water is achieved by two potable water pumps in a duty/standby configuration. Potable water will also feed the tepid water skid and pumps for distribution to safety showers around the plant.

Gland water will be supplied from the freshwater tank and distributed to the process plant by two freshwater pumps in series. A low-pressure gland water pump will distribute cooling water to the mills and supply pressure to various low pressure gland seal pumps. The gland water booster pump will be used to supply pressure to the high-pressure gland water users such as the tailings pumps.

Process water will consist predominantly of mine dewatering, contact water, concentrate thickener overflow and, TMSF reclaim water. Process water will be stored in a process water storage tank and distributed by two process water pumps in a duty/standby configuration. The process water tank will also feed the concentrate filter wash water pump for distribution to the concentrate filter wash water system.

17.5.3 Consumables

The reagents will be prepared and stored in separate self-contained areas within the process plant and delivered by individual metering pumps to the required addition points for the reagents.

Consumables will include:

- Collector: PAX;
- Frother: methyl isobutyl carbinol (MIBC);
- Flocculant: anionic;
- Crushing liners and wear parts;
- Grinding media.

17.5.4 Air

Two rotary screw air compressors will supply high-pressure air for the concentrate filter press requirements. A separate air compressor will provide intermediate pressure compressed air for instrument air requirements. Instrument air will be dried in air dryers prior to being distributed throughout the process plant.

Two dedicated blowers will supply forced air to the rougher and scavenger flotation cells.

18.0 PROJECT INFRASTRUCTURE

18.1 Introduction

The proposed Project infrastructure will include:

- Eskay mine access road connecting the proposed operation to Highway 37 (Stewart-Cassiar Highway);
- On-site roads including:
  - TMSF haul road;
  - TMSF South Dam haul road;
  - Technical sample haul road;
  - Process plant and infrastructure pad site access road;
  - Process plant and infrastructure pad collection pond access road;
  - Explosives facility access road;
  - All other roads within site required to connect facilities and provide access to Project infrastructure;
- ROM crushing, handling, and process plant;
- Mine infrastructure facilities, including:
  - Security gatehouse at KM2 and KM55;
  - Truck weigh scale (adjacent to gatehouse at KM55);
  - Truck shop and truck wash;
  - Tire change area;
  - Mine warehouse;
  - Mine dry and administration offices;
  - Process plant workshop;
  - Laboratory;
  - Process plant and infrastructure area including:
    - Potable and waste water treatment plant;
    - Electrical power systems;
    - Fire protections systems;

        - Propane tank and pumping systems;
    - Fuel storage and dispensing area;
    - Solid waste management facilities;
    - Explosives storage facility;
    - Permanent accommodation camp including the following services;
        - Potable and waste water treatment;
        - Electrical power systems;
        - Fire protections systems;
        - Propane tank and pumping systems;
- High and medium-voltage power distribution systems;
- Open pit mine;
- ROM pads and low- to medium-grade ore stockpiles;
- Soil and overburden stockpiles;
- MRSA;
- TMSF;
- Water management facilities;
- TMSF water treatment plant (including reclaim water pumps and pipeline).

An infrastructure location plan is included as Figure 18-1.

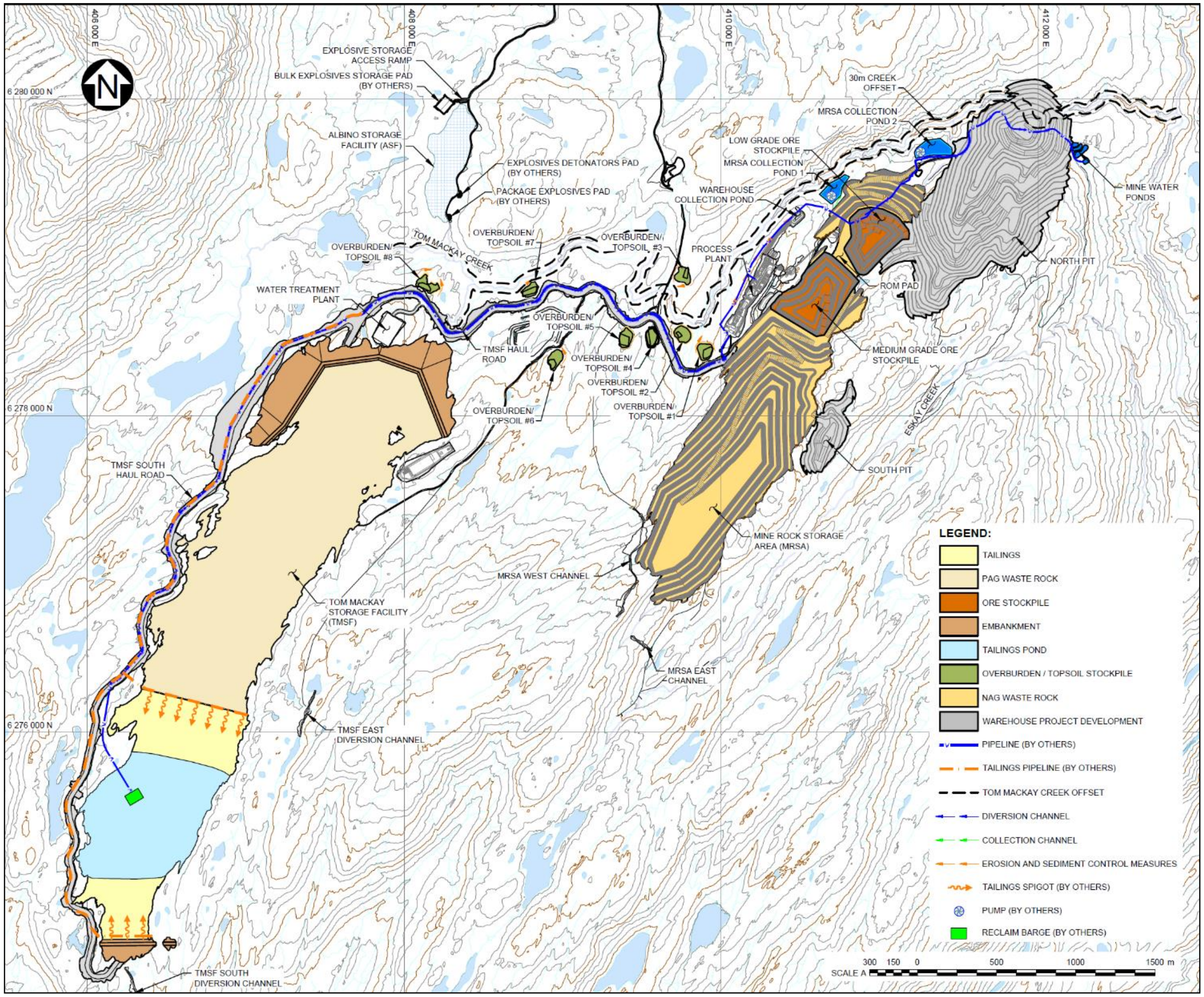
18.2 Road and Logistics

The current access to the Project area is described in Section 5.1.

The access road is currently in good condition and is maintained on a continuous basis and is providing the main access to existing facilities at camp KM58 and KM59 (historical camp). During construction, this road will be locally re-routed in some limited areas between the future gate-house and historical camp, to accommodate tie-ins to newly constructed roads, or expanded footprint of future infrastructure, however access will be continuously maintained throughout the construction to facilitate optimal use of the existing facilities.

In early stages of operation, and as mining activities develop the extent of the open pit and MRSA, this road will terminate at the new process plant access tie-in, and the remaining road length will be decommissioned and replaced with haul roads connecting the mining infrastructure area to MRSA, stockpiles, and the open pit.

Figure 18-1: Infrastructure Layout Map



Note: Figure prepared by Knight Piésold Ltd., 2023.

A summary of the new roads required is provided in Table 18-1.

Concentrate will be loaded using front-end loaders into highway haul trucks, with as much as 49 t of concentrate per truck (24.5 t per tandem dump trailer). Concentrate will be trucked using the main site access road and Highway 37 under a “bulk haul” permit from the Province of BC Ministry of Highways to move concentrate from the mine approximately 250 km to Stewart Bulk Terminals. Concentrate will be loaded onto bulk carrier ships via the existing ship loading infrastructure at the terminal.

18.3 Stockpiles

18.3.1 Soil and Overburden

Soil and overburden stockpiles will be constructed adjacent the TMSF haul road. The stockpiles will be constructed as sidehill fill structures that do not obstruct or overlap major drainages. The areas will be cleared and grubbed with minimal foundation preparation in the way of grading and material stripping being required. The stockpiles will be constructed at maximum 3H:1V slopes.

18.3.2 Temporary PAG Stockpiles

PAG waste rock and overburden will be temporarily stockpiled on surface during the pre-production period for material generated through initial pioneering of the TMSF and technical sample haul roads prior to access being available to the TMSF for subaqueous deposition.

A temporary PAG staging area will be developed adjacent to the intersection between the technical sample haul road and TMSF haul road for initial PAG development, within the MRSA footprint. This material will be relocated to a PAG storage area, located approximately 1.5 km to the west of the MRSA. All pre-production PAG waste rock will be managed in this area until access to the TMSF has been established and the TMSF is available for PAG waste deposition. All PAG material will be relocated to the TMSF by the end of the pre-production period.

The facility has a design capacity of 700,000 t, and the PAG storage area has a design capacity of 3.3 Mt.

18.4 Mine Rock Storage Area

The MRSA will be located adjacent to, and immediately west of, the open pits within the Argillite Creek drainage. NAG waste rock not used for construction purposes will be stored in the facility. The MRSA will include the ROM stockpiles pad.

Table 18-1: Road Requirements

Road Purpose	Comment
Plant site roads	Will be at least 3.3 m wide (single lane) and 6.7 m wide (double lane), integrated with process plant pad earthworks, and designed with adequate drainage. The roads will allow access between the administration building, warehouses, process plant building, crushing buildings, storage bin, mining truck shop, and top of ROM pad
Technical sample haul road	1.4 km long, double-lane road, which provides access to the NAG quarries and the technical sample excavations in phase 3 of the open pit. Will have a running surface width of 26.5 m, with a safety berm on the outside edge of the road profile, and a 2 m pipeline corridor on the outside of the safety berm
TMSF haul road	4.4 km long, double lane road designed to accommodate 150 ton class haul trucks. Will have a running surface width of 26.5 m, with a safety berm on the outside edge of the road profile, and a 3 m pipeline corridor on the outside of the safety berm

The MRSA was designed based on the following assumptions:

- Storage capacity requirements for 166 Mt NAG material;
- Bench width of 15 m and bench height of 20 m, with an inter-bench slope angle of 1.5H:1V.

Additional detail on the MRSA is included in Section 16.9.2 and Section 16.10.

18.5 Tailings Storage Facilities

18.5.1 Overview

The TMSF is an existing tailings storage facility located approximately 4.6 km southwest of the planned north pit. Approximately 0.6 Mt was deposited subaqueously in the facility from 2001 to 2008. The deposited tailings were discharged as a slurry and have settled at a depth of approximately 30 m below the surface of the water. The TMSF maintains a full water cover over the tailings stored in the facility under Condition C.3.(c)(v) of Permit M-197 which requires all waste products stored in the TMSF to be maintained in a permanently saturated condition.

In the current mine plan, tailings and PAG waste rock will be stored in the TMSF. The TMSF has been designed to store 38.6 Mt of tailings and 152.8 Mt of PAG waste rock (151.4 Mt of PAG waste rock from open pit mining activities and 1.4 Mt of PAG waste rock and overburden from site construction and grading activities) as well as site contact water, with additional capacity maintained above the minimum storage requirements for storm inflows.

Dams will be constructed at the north and south end of the TMSF to accommodate the storage of tailings and waste rock, as well as provide storage capacity of site contact water to be treated at the water treatment plant.

The dams will be constructed in stages over the life of mine, with an initial starter dam constructed at the north of the facility to provide storage for tailings from the first year of mill operations, and PAG waste rock generated during pre-production and Year 1 of operations.

A plan showing the facility at the end of the mine life is included as Figure 18-2.

18.5.2 Design

The TMSF design is based on an operating mine life of 12 years, and a total storage capacity of 191.4 Mt of tailings and waste rock. The TMSF has a storage capacity of 118.8 Mm^3 which includes approximately 33.7 Mm^3 of tailings, 75.6 Mm^3 of PAG waste rock, 8.5 Mm^3 of water storage capacity, and 1 Mm^3 of stormwater management capacity for the environmental design flood (1-in-1,000-year, 24-hour precipitation event).

The basic design criteria for the TMSF in the current mine plan are summarized in Table 18-2.

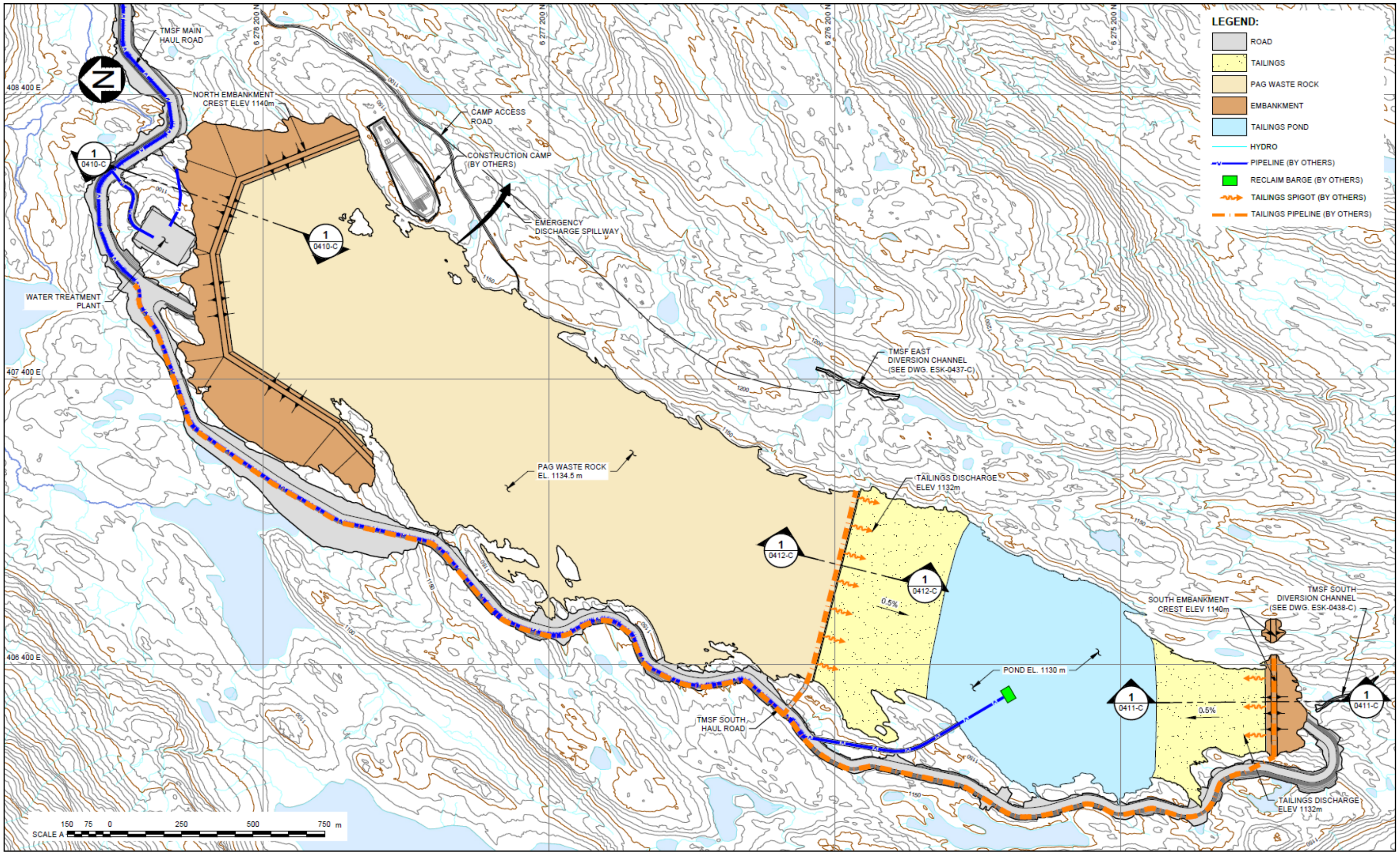
TMSF design features include:

- TMSF north and south dams constructed using ROM rockfill from the open pit;
- Filter and transition zones;
- Tailings distribution system;
- Reclaim water system;
- Surplus water system;
- PAG waste rock deposition area;
- Tailings deposition area;
- Supernatant water pond;
- Emergency discharge spillway.

The TMSF embankments will be constructed over five stages for the operating LOM.

PAG waste rock will be managed in the north end of the facility. Waste rock will be hauled from the open pit by the mine fleet and dumped at the edge of a PAG waste rock platform. A fleet of remotely-operated dozers will push the PAG waste rock into the TMSF to develop the waste rock platform.

Figure 18-2: TMSF Layout Plan



Note: Figure prepared by Knight Piésold Ltd., 2023.

Table 18-2: TMSF Design Criteria

Parameter	Units	Value
Design mill throughput	Mtpa	3.0 (Years 1–5) 3.5 (Years 6–12)
Design operating life	years	12
Total tonnes tailings produced	Mt	38.6
Total PAG waste rock and overburden managed	Mt	152.8
Ore and waste rock specific gravity		2.73
Embankment crest width	m	26.5
Embankment downstream slope		2.5H:1V
Environmental design flood	return period	1:1,000-year
Inflow design flood for spillway design (probable maximum flood peak flow)	m^3/s	30

Tailings slurry will be deposited in the south end of the TMSF at a nominal solids content of approximately 21% solids by weight. Tailings will be deposited via rotational spigot discharge from the crest of the south dam, and from a causeway constructed from the PAG waste rock to create a tailings disposal cell. The continuous deposition of fresh tailings will maintain the deposited tailings in a saturated condition.

The major infrastructure required for the TMSF is listed in Table 18-3.

18.6 Water Management

18.6.1 Reclaim Water

Water will be reclaimed from the TMSF as required, to supplement process water requirements in the processing plant. A floating barge system supporting two submersible pumps (duty/standby), de-icer agitators, and associated piping/valves will be installed on the TMSF. Reclaimed water will be pumped to the process plant at a nominal flowrate of 1,505 m^3/h via a 550 mm PN20 HDPE pipeline.

18.6.2 Surplus Water

A separate floating pumping system will be installed adjacent the reclaim water barge for removal of surplus water from the TMSF to the water treatment plant.

The water treatment plant feed water system is sized according to a maximum flow of 2,016 m^3/h at 40 m of discharge head. Two submersible pumps in parallel with a floating barge, de-icer agitators, and associated piping/valves will be installed to support this duty.

Table 18-3: TMSF Infrastructure

Infrastructure	Description
North dam	To be constructed across the existing TMSF outflow channel. 2.5H:1V slope, with a geocomposite liner on the upstream embankment faces
South dam	To be constructed at the south end of the TMSF, to the north of the catchment divide between Coulter Creek and the TMSF. 2.5H:1V slope, with a geocomposite liner on the upstream embankment faces
Spillway	Will be excavated into bedrock for each stage of TMSF embankment raises. The Stage 1 through Stage 4 spillway channels will be excavated at the east abutment of the TMSF north dam. The Stage 5 spillway, which will also function as the TMSF closure spillway, will be excavated on the east side of the TMSF. The Stage 1 to Stage 4 spillways will have a 2.5 m deep spillway, with a 5 m base width. The Stage 5 spillway will have a 3 m deep spillway with 10 m base width

18.6.3 Snow Management

Snow in all mine working areas is considered to be contact snow and will be stored near the TMSF such that the snow melt will drain into the TMSF and the water will be treated in the Eskay Creek water treatment plant.

18.6.4 Pre-Production Period Water Management

Site water management during construction involves controlling contact water runoff from the temporary PAG stockpiles, runoff from the roads, drawdown of the TMSF to prepare for construction of the TMSF dams, and erosion and sediment control measures around active construction areas.

Temporary water management infrastructure will be constructed for the MRSA and temporary PAG storage pad to support contact water management during pre-production prior to the TMSF dams and water treatment plant being constructed, and the TMSF being available as a reservoir for contact water.

Contact water runoff from the temporary PAG stockpile, pre-production MRSA footprint, and the pre-production open pit will be collected in a collection pond to the north of the MRSA, adjacent to the process plant, and pumped from there to the existing mine water ponds located at the KM59 temporary camp.

Contact water runoff from the temporary PAG stockpile will be collected in a collection pond located to the north of the temporary PAG stockpile, on the opposite side of the TMSF haul road to the stockpile. In-pond water treatment will be applied to runoff from the temporary PAG stockpile prior to direct discharge to Tom MacKay Creek, to the north of the pond.

A temporary pump system will be established at the northern end of the TMSF, close to the existing TMSF outflow channel. The pump system will be used to lower the lake level in the TMSF by approximately 5 m to facilitate PAG waste deposition in the TMSF and construction of the TMSF dams, to avoid inundation of active construction areas.

18.6.5 Operations Water Management

Site water management for operations involves controlling surface water around the Project site. Water in contact with mine workings or disturbed areas (e.g., groundwater inflows and meteoric inputs to the open pits; runoff from waste rock, ore stockpiles, quarry areas, tailings, laydown areas) is considered contact water. Non-contact water is runoff from undisturbed areas, including those areas that are being diverted.

Management of surface water will be undertaken by construction of water diversion and collection structures, construction of the TMSF and other infrastructure, selective grading of surfaces, and installation of pump and pipeline systems. The major facilities for which contact water management is required are summarized in Table 18-4.

18.6.6 Water Treatment Plant

The water treatment plant will treat mine-impacted water originating from the TMSF, open pit and the MRSA prior to discharge to the environment. The water treatment plant is designed for a flow rate of 568 L/s and will operate year-round. The design capacity is based on the mine-site water balance and the expected water surplus for the site.

The water treatment plan is designed with two parallel treatment trains. There are three main process systems included in the design:

- Metal precipitation using sulphide precipitation, high-pH precipitation, iron co-precipitation and clarification. The metals precipitation processes will target aluminum, cadmium, copper, lead, mercury, and zinc. The high-pH system uses lime with sludge recycle to generate low-solubility metal hydroxides, and is complemented by the sulphide precipitation process, which can generate low-solubility metal sulphides. The iron co-precipitation process enhances binding and coagulation and promotes further removal of metals such as cadmium and zinc via adsorption;
- Multi-stage filtration using dual-media (anthracite-sand) filtration followed by ferric oxyhydroxide media. The filtration process removes suspended solids, including residual metal precipitates from the clarifier overflow, and also helps remove remaining dissolved metals. An oxidation reactor is included to ensure preferable oxidation states of the targeted contaminants are achieved prior to polishing. The polished effluent will be discharged to the environment;
- Solids management. Excess sludge will be directed to the dewatering filter press units, which produce a dewatered filter cake and return recovered filtrate upstream in the water treatment plant.

Table 18-4: Operational Water Management

Infrastructure	Description
TMSF pond	Pond volume will fluctuate throughout the year based on inflows and water treatment plant discharge rates. A buffer capacity of 8.5 Mm^3 is to be maintained prior to the start of freshet conditions to manage peak freshet inflows against the water treatment design treatment rate which will treat surplus water at an average annual rate of discharge A stormwater inflow capacity of 1 Mm^3 will be maintained above the operational capacity described above for storing the 1:1,000-year storm event Larger storm inflows, up to the probable maximum flood, will be discharged to Tom MacKay Creek via the emergency discharge spillways
TMSF non-contact water diversion channel	Will be constructed on the east side of the TMSF to divert a portion of the contributing catchment around the facility, and the south dam haul road will be used to facilitate non-contact water diversion on the west side of the TMSF. Non-contact water diversion structures have been designed for the 1:100-year flood event
TMSF outlet channel	Will be excavated from the toe of the south dam to facilitate drainage of this water to Coulter Creek, to the south of the TMSF
Mine rock storage area	Will be collected in a series of collection ponds located along the northern toe of the facility. Collected runoff will be pumped to the TMSF for management Non-contact diversion structures will be constructed upstream of the facility to minimize contact water, and snow will be removed from the surface of the MRSA as much as practical, with attempts to segregate clean snow to further reduce volumes of contact water. It has been assumed that up to 75% of snow can be removed as non-contact snow on an annual basis, with the remaining 25% considered unremovable or contact snow
Open pits	Open pit dewatering will pump to the MRSA collection ponds, where it will be transferred to the TMSF. Snow will be removed from the access ramp and active work areas of the open pit. It has been estimated that approximately 25% of the annual snowfall on the open pit will be removed based on this approach

18.6.7 Water Balance

A mine-site water balance has been completed to support the design of the TMSF and the water treatment plant. The water balance indicates that the site will operate in an annual water surplus of approximately 560 L/s. Surplus volumes will be managed in the TMSF prior to treatment and discharge.

18.7 Camps and Accommodation

The existing camps at KM58 and KM59 (200-person combined capacity) and Forrest Kerr camp (160-person available capacity) will be used in Year -3 and the first half of Year -2.

In Year -2, the 380-person permanent camp facility will be constructed, ready for occupancy in the second half of that year, and will be located at the Eskay Creek mine site east of the TMSF at a location selected to minimize commute time while maintaining adequate separation from active mining areas, infrastructure, and hauling routes. For the remainder of the mine life, all personnel will be accommodated at the 380-person permanent camp facility.

The permanent camp will be a three-level design to minimize footprint and cost associated with required snow-roofs. The facility will include dormitories, kitchen/dining areas, boot room, recreational/fitness facilities, medical facilities, and will be connected to grid power via a 13.8 kV powerline extending from the 69kV/13.8 kV mine substation. The permanent camp will be acquired on a lease arrangement initially, with Skeena having an option to purchase outright at the end of Year 1, Year 2, or Year 3 of operations.

In the second half of Year -1, the KM58 and KM59 camps will be demobilized, and for the remainder of the mine life, all personnel will use the 380-person permanent camp facility.

18.8 Power and Electrical

The Project will connect to the provincial grid via the Coast Mountain Hydro-owned 287kV transmission line, 2L379. Power will be purchased from BC Hydro who will supply the power over 2L379. The point of interconnection on 2L379 will be near Volcano Creek where a transmission line tap exists for the Coast Mountain Hydro-owned Volcano Creek generating station.

The Eskay Creek power system will be capable of supplying 48 MVA to the Eskay Creek substation which will cover the initial power demands and planned future expansion.

Key components are summarized in Table 18-5.

Standby diesel generators in weatherproof enclosures will be provided to supply critical process loads and life safety systems.

BC Hydro require a system impact study to be performed prior to energization to identify any system upgrades required to maintain reliability on their system. A facility study will be completed by BC Hydro during 2024, and Skeena will be required to sign a facility agreement that will confirm the details of energization and electricity purchase.

As the connection to the BC Hydro grid is indirect via the Coast Mountain Hydro infrastructure, an agreement on compensation, operation, and liability is required to maintain reliability and function to the Coast Mountain Hydro and Skeena power systems.

Table 18-5: Key Power Infrastructure

Item	Note
Volcano Creek substation and switchyard	A switching station will be installed at Volcano creek to accommodate the Eskay Creek power feed. The switchyard will be made up of a ring bus with four circuit breakers, and space for a fifth breaker allowing for a future 287 kV connection The switchyard will include an independent feeder for the Eskay Creek Project. The feeder will include a 287:69kV 48MVA stepdown transformer
Transmission line	Will be a 17 km long wood pole line from Volcano Creek to Eskay Creek. The right-of-way will be 30 m wide
Eskay Creek substation	Will be located near the process plant and include a 69 kV circuit breaker and disconnect switch, a single 69:13.8 kV 36 MVA transformer, and 13.8 kV switchgear and capacitor bank
Electrical distribution	The plant electrical system is based on 13.8 kV distribution. The 287 kV feed from BC Hydro will be stepped down to 69kV at the point of interconnection and then to 13.8 kV at the Eskay Creek Substation and will supply the plant main 13.8 kV switchgear housed in the main process plant electrical room The larger variable frequency drives will have 13.8 kV input, fed by plant main 13.8 kV switchgear. Step down transformers will be provided at the electrical rooms to feed 4160 V and 600 V loads, which will be fed from the plant main 13.8 kV switchgear
Power reticulation	Overhead power lines of 13.8 kV will provide power to various remote facilities. Pole-mounted or pad-mounted transformers will step down the voltage at each location and supply the low voltage distribution system to respective facilities

18.9 Built Infrastructure

The built infrastructure requirements are summarized in Table 18-6.

Storage areas needed for operations include locations for propane, ball media, and bulk reagents. Additional infrastructure will include potable/sewage water treatment, gate house, a truck scale, and emergency medical facilities.

Table 18-6: Built Infrastructure Requirements

Building	Comment
Primary crushing	The crushing plant will consist of one building located over the primary crusher, control room and rock breaker equipment, which will be adjacent to the ROM pad. Will be fully enclosed. Will include a 7.5 t overhead maintenance crane
Pebble crusher	Will consist of a transfer conveyor, modularized cone crusher station, and associated platework. The pebble crushing station and supporting structural steel will support the pebble crusher over top of the SAG mill feed conveyor and will be fully enclosed
Process plant	Will be housed within a single pre-engineered, fully enclosed building. Will contain the process plant equipment including: SAG mill, ball mill, regrind mills, mill liner handler, cyclones, flotation cells, screens, tanks, and pumps. Will also accommodate product thickening, reagent mixing, process water containment/distribution, tailings pumping, concentrate drying, filtration and storage area (including loadout). This area will be open to the ceiling and will have the same overhead crane height to maintain uniformity across the process plant building. The building will have a sloped roof for snow load management The collector mixing and storage area will be a self-contained cladded structure within the process building Process equipment within the building will be serviced by two overhead cranes, one of 30 t capacity and one of 20 t capacity
Mine infrastructure	Will include: integrated truck shop and truck wash facility; haul truck tire change and storage area with roof; mine warehouse fabric building; potable water and sewage treatment facilities with roof; and integrated mine dry and main administration building
Assay laboratory	Will house equipment for guiding ongoing mining and process plant operations. The footprint includes an allowance for a future expansion geochemical laboratory addition
Fuel	Diesel fuelling and storage tanks will include a total volume of 60,000 gal or 230 m^3. The area will be covered by a 23 m x 21 m roof to cover the tanks and dispensers and protect against snow build-up
Explosives pad	A 6 m wide access road and 91.5 m x 71.5 m pad will be constructed to store explosives products required for mine operations

19.0 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

A market study for the LOM potential concentrate production, which took into account production and grade variation over time was finalized in October 2023 (Deno Advisory, 2023). Key findings are summarized in the following sub-sections.

19.1.1 Treatment and Refining Charges

Typical treatment and refining charges for concentrate sales will depend on the concentrate type and grade, but can be summarized as follows:

- Gold concentrates: annual contracts between mines and roasters tend to be set with either fixed payables and fixed treatment charges or, more commonly for roasters, a lower fixed payable for gold and silver content with no treatment or refining charges and minimal to no penalties;
- Copper: typically based on long-term sales contracts. Contracts stipulate payable element rates, delivery timings, quotational periods, penalties, and precious metal refining charges. Treatment and copper refining charges are negotiated annually;
- Lead: similar to copper save for the annual negotiation of a treatment charge, scale (dependent on price), and silver refining charge. A benchmark for high silver (>500 g/t) set separately to lower silver-content lead concentrates, differentiates the market.

19.1.2 Deleterious Elements

Deleterious elements in a concentrate must be either removed and refined into metallic form, disposed of in tailings storage facilities, or sold to third parties for safe processing. Certain elements may incur penalties if in sufficient tenor in a concentrate.

Penalties may be charged for specific elements, accruing for each increment (either percentage or ppm) above a base 'allowed' level. Often penalties will be layered, i.e., will increase as the deleterious element content increases.

19.1.3 Payment Terms

The following payment terms on gold concentrates are typical:

- Western smelters: 90% of provisional value between 5 and 30 calendar days after arrival of the carrying vessel at the discharging port;
- Traders: 90–95% of provisional value within 5–10 days of shipment from load port;

- Smelters or roasters in China: 90% of provisional value against an irrevocable letter of credit upon presentation of normal shipping documents within 20–25 days from concentrate shipment.

19.1.4 Marketing Strategy

Samples of the Eskay Creek concentrates, varying in antimony, arsenic, lead, zinc, gold, and silver grades, were sent to potential lead smelters and gold roasters during 2023. The exercise demonstrated that a diversified sales strategy could be implemented for concentrate sales; thereby reducing reliance on a single smelter or trader. Such a strategy could include varied sales to lead smelters, traders, blenders, and roasters.

19.1.5 Potential Saleability of Eskay Creek Concentrates

The proposed Eskay Creek operation is expected to produce a high gold–silver grade concentrate with elevated levels of mercury, arsenic, carbon, and antimony. The concentrate is complex and will require a more measured marketing strategy.

Table 19-1 summarizes the key features of the likely concentrate. Table 19-2 summarizes the key concentrate elemental grades over the LOM plan.

Limited spare capacity at existing pressure oxidation plants for third-party concentrates limits the possibility of sales to these plants.

Western lead smelters are unlikely to purchase the Eskay Creek concentrate due to their adverse penalty costs for deleterious elements.

The high gold content of the Eskay Creek concentrate makes it amenable for processing at gold roasting facilities in China; however, typical sales terms are likely to be more attractive for high-silver–lead smelters. High-silver–lead concentrates have been in short supply and demand for physical silver, buoyed by photovoltaic cells, has been strong. Lead smelters will be attracted by the high antimony, lead, and zinc content, all of which will be recoverable.

There are a number of other opportunities for the sale of the Eskay Creek concentrates:

- Blending by buyers, particularly with lead concentrates to improve the marketability and scope of buyers for the concentrate;
- Blending with on-shore and offshore copper concentrates for sale to copper smelters.

Copper smelting capacity is set to increase at a much greater rate than mine production in the next five years, creating a shortage of clean copper concentrates. Smelters will be more incentivised to buy higher penalty concentrates to make up for an otherwise depleted revenue stream. The concentrate is therefore likely to be in demand as a result.

Table 19-1: Concentrate Features

Item	Sales Positives	Sales Negatives
Gold content	Gold roasters	Copper smelters
Silver content	Lead smelters	Copper smelters
Sulphur content	Gold roasters, copper smelters	
Antimony content	Lead smelters	Gold roasters and copper smelters
Lead and zinc content	Lead smelters	Gold roasters; copper smelters
Silica content	Lead smelters that add silica for sintering	
Arsenic content		Gold roasters and copper smelters
Carbon content		Pressure oxidation plants and potentially gold roasters
Mercury content		Cost of removal and disposal

Table 19-2: Estimated Concentrate Average Assay

	Element	Unit	Minimum (Annual)	Maximum (Annual)	Average (LOM)
Payable	Au	g/t	17	94	55
	Ag	g/t	283	2,943	1,588
	Pb	%	2.19	13.93	8.06
	Zn	%	4.02	21.03	12.79
	Cu	%	0.48	2.05	1.14
Deleterious	As	%	0.69	5.96	1.50
	Hg	%	0.03	0.32	0.08
Payable/deleterious	Sb	%	0.74	5.72	1.78

Note: Estimated assays based on testwork. Antimony classified as either payable or deleterious depending on the smelter destination.

China is the most likely destination for the majority of the concentrate production and the concentrate will currently meet the direct importation regulations, i.e., without the need for further blending.

Skeena has received indicative bids from smelters and traders, ranging from a portion of the total production to LOM production.

19.2 Commodity Price Projections

In support of the determination of appropriate metal prices for use in determining the NSRs used in the 2023 FS, Skeena requested a commodity price analysis from Deno Advisory (2023). Deno Advisory used a combination of the review of historical five-year average (2018–2023), consensus average forward-looking price predictions, and spot pricing (October 2023) to arrive at the suggested metal prices to be used in NSR calculations in Table 19-3.

In support of the determination of appropriate metal prices for use in Mineral Resource and Mineral Reserve estimation, mine planning, and the economic analysis that supports the Mineral Reserves, Skeena reviewed the pricing used in other recently-published feasibility studies, long-term analyst consensus prices, the two-year trailing average of gold (US$1,818/oz) and silver (US$22.89/oz) and the three-year trailing average of gold (US$1,822/oz) and silver (US$23.17/oz) prices as of April, 2023.

Based on these reviews, Skeena management requested the following pricing be used in the 2023 FS:

- Mineral Resources:
  - Gold: US$1,700/oz;
  - Silver: US$23/oz;
- Mineral Reserves:
  - Gold: US$1,700/oz;
  - Silver: US$23/oz;
- Cashflow:
  - Gold: US$1,800/oz;
  - Silver: US$23/oz;
- Exchange rate:
  - United States dollars to Canadian dollars: 1.36.

Table 19-3: Metal Pricing

Five Year Average Pricing (2018–2022)				Deno Advisory			
Element	**Price**	**Unit**	**Basis**	**Element**	**Price**	**Unit**	**Basis**
Gold	1,604.61	US$/oz	Morning/evening LBMA fix	Au	1,900	US$/oz	60-day average of morning/evening LBMA fix
Silver	19.86	US$/oz	Daily silver fix	Ag	23	US$/oz	60-day average of spot fixes
Lead	2,084.51	US$/t	LME settlement price	Pb	2,085	US$/t	
Zinc	2,842.74	US$/t	LME settlement price	Zn	2,843	US$/t	

Note: LBMA = London Bullion Market Association; LME = London Metals Exchange

19.3 Contracts

At the Report effective date, no contracts had been entered into.

Concentrate sales are likely to be a mix of long-term and spot contracts, to ensure a diversified sales strategy. It is likely that the longer-term contracts will be a type of evergreen contract, which continue after the initial term, but with periodic renegotiation of terms and conditions.

Terms of sale for a term contract between mining companies and smelters commonly use “benchmark terms”, which include annual sales terms, and can be annually negotiated. In contrast, spot contracts use spot terms, and are negotiated on a contract-by-contract basis.

Likely contracts other than concentrate sales may include bulk shipping, ship-loading services, load/port agency, and data management/invoicing contracts.

Other major contracts that may be entered into could cover items such as electricity supply, bulk commodities, operational and technical services, mining and process equipment, earthworks projects, security, transportation and logistics, and administrative support services. Such contracts would typically be reviewed and negotiated on a frequent basis and the terms would be typical of similar contracts both regionally and nationally.

19.4 QP Comments on Item 19 “Market Studies and Contracts”

The QP has reviewed the information summarized in this section and notes the following.

There is a reasonable basis for the assumption that the concentrates can be marketed, as Skeena has engaged with a broad range of potential buyers and has provided concentrate samples for testing by roasters and smelters. It is likely that a comprehensive marketing strategy will be required to obtain the best sales terms. A diversified approach to concentrate sales will be adopted. The most likely market for the majority of the concentrate is China.

Commodity pricing was provided by Skeena's management, and appears reasonable.

No commercial contracts have yet been agreed, but there is reasonable expectation that terms and conditions will be within industry norms.

The QP considers that the information is suitable to be used in the economic analysis in Section 22, and can support the Mineral Reserve estimates.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Introduction

A number of environmental studies were performed in support of the historical mining activities. The environmental baseline data were primarily collected between 1990 and 1993 by Hallam Knight Piésold Ltd. for Prime Resources Ltd. to support an application for a Mine Development Certificate. Additional environmental studies were completed in 1997 to support the proposed mill installation at the mine site (Hemmera, 1997), and again in 2000 to apply for a separate Environmental Assessment certificate to deposit tailings and waste rock in the TMSF (Hemmera, 2000). Environmental monitoring and routine reporting was completed during and after the historical operations. The Eskay Creek Mine has been in care and maintenance since mining operations ceased in 2008, with ongoing site management, and minimal waste generation.

Skeena commenced environmental, social, economic, historical, and health baseline studies to reflect current environmental and social conditions in 2020. Where available and to provide context, pre-2020 data was reviewed and summarized for the current baseline studies, and where suitable for the Project, sampling sites used in earlier studies were re-visited to support the new Environmental Assessment application.

A gap analysis was completed to inform the scope of studies needed to support further Project design, and the assessment process for provincial and federal authorizations and permits.

20.2 Baseline and Supporting Studies

Studies under Skeena management are summarized in Table 20-1.

20.3 Environmental Considerations/Monitoring Programs

20.3.1 Management and Monitoring Planning

The Project will be designed, constructed, operated, and decommissioned to meet all applicable provincial and federal environmental and safety standards, regulations, and permit conditions. Skeena will implement an environmental management system in advance of construction that defines the processes, resources, responsibilities, and specific management plans to ensure compliance. The existing site operates under an environmental management system which will be modified to meet the scope of the Project during the permitting process and include ongoing monitoring, management steps, and reporting to relevant parties.

Table 20-1: Baseline and Supporting Studies

Area	Note
Climate and meteorology	Weather and climate data are used to inform air quality monitoring and dispersion modelling, long-term climate monitoring, and hydrologic studies
Air quality	Concentrations of potential airborne pollutants are low and representative of an area where there are no sources of air pollution emissions
Noise	Noise levels documented in 2020 are due to weather, wildlife, and anthropogenic activities such as helicopter traffic and vehicles
Surface water quality and quantity (hydrology)	Large spatial differences in water quality were observed which can be attributed to contrasting source waters. Eskay and Tom MacKay creeks have characteristics similar to that of non-glaciated systems, while the Unuk River had characteristics of glaciated systems. Ketchum Creek characteristics are intermediate between those seen in Eskay and Tom MacKay Creeks and the Unuk River The open water, high flow period extends from early May until late October, with low-flow periods the rest of the year. Annual peak flows occur as a result of snowmelt during the spring freshet between late May and mid-July, glacial melt in the summer (Ketchum Creek and Unuk River only), and autumn rain events in mid-September and October. Hydrological changes affect water quality by diluting concentrations of dissolved solids during the open water period, while increasing sediment load and transport causing high concentrations of suspended sediments and particulate-associated metal loadings The 2023 aquatic biology monitoring results do not indicate that adverse environmental effects were occurring seasonally related to slightly elevated concentrations. The aquatic invertebrate community at and downstream of the mine site indicated suitable water quality in streams (Minnow, 2023). Monitoring is ongoing to establish longer term understanding of baseline and trends
Groundwater quality and quantity	The Project area has six hydrostratigraphic units. Groundwater at all locations is typically circumneutral to slightly alkaline. Metals concentrations are variable, and do not exhibit clear spatial trends Continuous groundwater level monitoring data suggest that local seasonal changes in groundwater elevation have a minimal effect on regional flow directions over time. Seasonal peaks occur in late spring / early summer following freshet, and mid to late fall during the typical high precipitation season. Groundwater elevation lows tend to occur during dry months in late summer as well as in winter before the spring melt. These observations are also consistent with the precipitation and snowpack trends The groundwater potentiometric surface generally mimics a subdued form of topography. Groundwater is recharged by precipitation along ridges and flows toward the valleys where it discharges via seeps on valley slopes, or directly to streams. However, part of the groundwater recharged over that area is most likely intercepted by underground mine workings. Those workings serve, along with faults and other hydraulically active rock discontinuities, as preferential flow paths, carrying groundwater to a discharge area further north, around Tom MacKay Creek Slug test results reflect the heterogeneity of bedrock aquifers in mountainous terrain, with hydraulic conductivity (K) values varying several orders of magnitude in response to the degree of weathering and the frequency and size of fractures

Area	Note
Aquatic resources	The assessment of potential mine-related effects to benthic invertebrate communities at mine-exposed stations in Tom MacKay and Ketchum creeks is not indicative of mine-related impacts, despite elevated concentrations (relative to guidelines, SSWQO, and/or reference) of some metals in water and sediment. although the possibly impaired classification for the mine-exposed station on the Unuk River is not expected to be mine-related, further monitoring is required to determine whether the benthic invertebrate community conditions can be more definitively classified and if any longer-term patterns in the evaluated endpoints exist. Benthic invertebrate tissue residue analysis indicated that selenium concentrations exceeded the BC tissue guideline for the protection of wildlife at both the reference site (i.e. not influenced by former mine) and exposure site on the Unuk River situated downstream of the Ketchum/Unuk River confluence From the most recent sediment sampling event concentrations of arsenic, copper, iron, manganese, and nickel in fine sediment fractions consistently exceeded the lower guidelines at mine-exposed and reference stations on Little Tom MacKay, Tom MacKay, and Ketchum creeks, and the Unuk River. Additionally, similar to the case for water, concomitant increases or decreases in sediment analyte concentrations at paired mine-exposed and reference stations on Ketchum Creek and the Unuk River suggest that some regional factors outside of mine-influence are likely affecting sediment chemistry in the vicinity of the Mine. However, concentrations of arsenic, cadmium, chromium, copper, iron, lead, mercury, selenium, silver, and zinc were significantly higher and/or exceeded the upper BC WSQG/alert concentration more frequently at mine-exposed versus reference areas in 2022
Fish and fish habitat	Waterfall barriers on Ketchum Creek and Eskay Creek immediately upstream of their confluences with the Unuk River prevent fish movement into these waterways and to tributaries upstream near the Project area within the Tom MacKay Creek watershed (i.e., Tom MacKay Creek and Argillite Creek). Waterways adjacent to the historic mine and proposed Project; are non-fish-bearing. The Unuk River is fish-bearing in stream reaches adjacent to the confluence of Ketchum Creek and the Unuk River, with Dolly Varden observed approximately 7.7 km upstream of the Ketchum Creek influence, and salmon species situated downstream several kilometers from the Ketchum/Unuk River confluence
Soils	Soils in the Project area are variable, typically of moderate depth developed on glacial deposits and loose sediments with smaller areas of floodplain and organic soils. Terrain is ridged and varies in slope steepness, soil drainage and depth over relatively short ground distances. Soils are very strongly to slightly acid and low in salinity
Geohazards, terrain stability, and soils erosion	Geohazards (landslides) include (most common to least common): rockfall, debris flow, debris slide, tension cracks, lateral spread, slump in surficial material and slump in bedrock. Nineteen percent of the Project footprint is potentially exposed to the risk of one or more geohazard(s)

Area	Note
Vegetation and ecosystems	Riparian floodplain ecosystems are infrequent in the Project area and are located adjacent to larger creeks and rivers (e.g. lower Volcano Creek, Iskut River, Unuk River) and support unique vegetation communities that are maintained by fluctuating water tables and intermittent flood events Wetlands account for 1.2% of the project area and immediately surrounding area. Most of the eleven wetland units detected are fens, one of these was a blue-listed wetland site unit Nineteen exotic and invasive plants were registered in the region around the Project Twenty-one culturally valued plants were found in the Project area and region surrounding the Project. Thirty-seven combinations of BGC Unit and Site Unit presented culturally valued plants Metals in vegetation exceeded soils guidelines for arsenic, nickel, chromium, selenium, and vanadium in several plant species in and around the Project No rare species were detected in the Project area that are listed in the BC Conservation Data Centre or under the federal Species At Risk Act were located (Tahltan ERM Environmental Consultants 2023)
Wildlife	Habitat suitability mapping was conducted for seven species and large wildlife species recorded within the Project area include grizzly bear, black bear, and mountain goat. Small mammals present in the Project vicinity include American marten, wolverine, voles, and the hoary marmot. Furbearing mammals with suitable habitat in the Project area include grizzly bear, wolf, lynx, ermine, mink, fisher, least weasel, and snowshoe hare (Hallam Knight Piésold Ltd, 1993) Biophysical inventory mapping identified the Project area as potentially suitable to support woodland caribou and moose (MOE, 1982). However, the Project area is not overlapped by any caribou herd ranges shown on provincial range mapping (BC, 2019)
Social, economics, land, and resource use	The Project is located in the Regional District of Kitimat-Stikine, which contains six electoral areas and five municipalities, including Terrace, Kitimat, and Stewart, the Hazeltons, and Dease Lake
Tahltan social, economics, and land and resource use	The Project is located within the traditional territory of the Tahltan Nation and the asserted traditional territory of the Tsetsaut Skii km Lax Ha. The Tahltan Nation has asserted Indigenous title and rights to this area in the Declaration of the Tahltan Tribe in 1910. Previous operators have established formal agreements with the Tahltan Central Government regarding their ongoing participation at the mine site An extensive study of the Tahltan-specific socio-economic conditions within Tahltan Territory has been completed in 2021. The study provides the Tahltan Central Government and Nation, Skeena, and study partners with an updated characterization of Tahltan economic status, social conditions, current access to land and cultural supports, health, educational outcomes, interests, concerns and current access to land and cultural supports and land uses in support of community health
Tahltan country foods	A country foods study identified the animals harvested including: moose, caribou, bear, fish (salmon, trout, Dolly Varden, Burbot, Mountain Whitefish, and Lake Whitefish), and game birds (geese, ducks, grouse, and ptarmigan). Plants harvested includes berries, fungi, trees, and other food and medicinal plants

Area	Note
Archaeology	The Project area was subject to previous disturbances over the past century relating to exploration activities and the development of the previously operating Eskay Creek Mine. A single previously recorded archaeological site, HdTo-6, is located within the Project area. Site avoidance is the preferred mitigation measure. An Archaeological Chance Find Procedure will be applied prior to commencement of ground-altering activities
Paleontology	Clusters of documented fossil sites are present within or near the sedimentary and volcanic rock deposits in the Project area. The ages of these range from Lower Jurassic to Lower Cretaceous. There is a possibility that Project activities could impact fossil resources. A Chance Find Protocol for Paleontological Resources has been developed

Site water management will be a critical component of Project design, execution, operation, and closure. To mitigate the potential contamination of water from a variety of sources (air, land, and process), Skeena will develop a Water Management Plan and Dust Control Management Plan that applies to all activities.

Skeena has developed, or will be developing the following management plans as required by regulation or identified through the development and mitigation measures informed by Tahltan mitigation strategies:

- Erosion and Sediment Control Plan;
- Soil Management Plan;
- Construction Environmental Management Plan;
- Metal Leaching/Acid Rock Drainage Management Plan;
- Mine Site Water Management Plan;
- Discharge Management Plan;
- Vegetation Management Plan;
- Invasive Plant Management Plan;
- Wildlife Management Plan;
- Archaeological and Cultural Heritage Management Plan;
- Mine Emergency Response Plan;
- Mine Site Traffic Control Plan;
- Fuel Management and Spill Prevention Plan;
- Combustible Dust Management Plan;
- Chemicals and Materials Storage, Transfer, and Handling Plan;

- Integrated Waste Management Plan;
- Avalanche Safety Plan.

20.3.2 Geochemical Characterization

Geochemical characterization data were obtained by both Barrick and Skeena:

- Barrick: bulk chemical and mineralogical characteristics, data from laboratory weathering tests (humidity cells and subaqueous columns), drainage chemistry for a temporary waste rock stockpile, and underground water drainage chemistry. Research studies also evaluated chemical reactions occurring in sub-aqueously deposited tailings;
- Skeena: bulk chemical and mineralogical characteristics of diamond drill core obtained by Skeena from the planned open pit and infrastructure sites, laboratory, and field weathering tests (humidity cells, field barrel tests and subaqueous columns). Laboratory based kinetic tests (humidity cells and subaqueous columns) have also been initiated on tailings samples collected from bench-scale metallurgical testing. Legacy tailings in the TMSF and overburden have also been characterized.

The package of interlayered mudstone and andesite in the hanging wall has mixed acid rock drainage potential classification of PAG, uncertain and non-PAG. Acid rock drainage potential decreases with distance from the mineralization so that the uppermost part of the package is non-PAG.

Bowser Lake Group rocks that occur in the planned open pit and at project infrastructure locations including the warehouse pad and haul road vary from PAG to non-PAG, which is partly controlled by rock type. Coarser-grained strata (conglomerate and sandstone) include a mixture of both PAG and non-PAG materials. Finer-grained strata (undifferentiated sediment package) tend to be PAG.

Bulk (i.e., combined rough and cleaner) tailings are currently classified as PAG to uncertain.

The Project will involve disposal of PAG waste rock and all tailings under subaqueous conditions at the TMSF. This approach will limit oxidation of sulphide minerals and prevent the onset of acid generation. However, testwork shows that antimony leaching occurs under subaqueous conditions.

Segregated non-PAG waste rock will be disposed in a waste rock facility outside the open pit and as backfill into the open pit as allowed by the mining schedule. The segregated waste rock is not expected to generate acid, although leaching of some elements under non-acidic condition is expected.

Pit walls remaining exposed to long term weathering will have PAG, uncertain and non-PAG components which can be expected to leach metals into the final pit lake to varying degrees.

Excavations for infrastructure will need to consider the potential for acid generation and metal leaching in fill materials and exposed surfaces.

20.3.3 Other Waste Management

Non-hazardous waste management will involve the segregation of industrial and domestic waste into streams. Waste collection and disposal facilities will include a combination of offsite haulage to nearby municipal waste landfill, one or more incinerators for domestic/putrescible waste, separate waste collection areas for recyclable and industrial waste streams for off-site disposal, and sewage effluent and sludge disposal for onsite disposal.

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 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.

20.4 Closure Considerations

20.4.1 Closure Plan

For planning purposes, closure and reclamation strategies have been developed for each mine component. During development of the reclamation and closure plan and supplemental investigations, strategies will be refined to ensure closure and returning land use objectives are met. Following completion of mining, the Eskay Creek mine will be closed, reclaimed, and monitored in accordance with its authorizations, regulations, and plans. Closure activities are anticipated to be completed over a three-year period and post-closure monitoring and maintenance activities will be performed as required. Progressive reclamation of the site will be completed where practical.

Following implementation of closure activities, post-closure monitoring and maintenance activities will be completed. Monitoring and maintenance programs include water quality/quantity monitoring, reclamation monitoring and maintenance (e.g., erosion, vegetation, metals uptake), geotechnical monitoring, air quality/meteorological monitoring, and road/infrastructure maintenance.

In accordance with the Mines Act permit, mine closure, reclamation, and post-closure costs must be updated every five years or upon a major variation to the mine plan to reflect best available technologies. and inform the establishment of a reclamation security bond.

20.4.2 Closure Costs

A closure cost estimate was developed to determine the estimated cost of implementing closure plans (Okane, 2023). The Standardized Reclamation Cost Estimator (SRCE) model was used to develop the cost estimate. The SRCE is used in Nevada, USA to calculate reclamation bond estimates for mine operators to comply with federal and state regulations and is a well-accepted estimator by the BC Ministry of Energy, Mines and Low Carbon Innovation (EMLI). The model allows the use of site-specific, or third party provided units costs for its calculations and a high-level schedule can be developed within the model to estimate a net present value cost for eligible reclamation and closure activities based on prescribed discount rates.

Reclamation and closure costs include conventional closure (e.g., earthworks), long-term monitoring and maintenance, and water treatment activities. Closure costs were calculated over a 100-year timeframe using a net present value (NPV) analysis, beginning with scheduled closure and reclamation activities in 2040.

Closure costs were developed based on the following basis of estimation:

- Operator, equipment, and other unit costs developed based on site site-specific rates, BC Blue Book, BC Regional Mine Reclamation Bond Calculator, or RECLAIM model;
- All structures and equipment were assumed to not have salvage value;
- A discount rate of 4% as per BC closure costing guidelines and the Interim Policy (EMLI, 2022); no escalation rate is included;
- Demobilization of equipment is equivalent to 2.5% of conventional closure costs;
- Engineering, design, and construction plans were estimated as 5% of the value of conventional closure costs;
- Site administration and other long-term maintenance costs continued for 100-year period;
- A contingency rate of 15% is applied to undiscounted costs

The total closure cost estimate, including water treatment, monitoring and maintenance, demobilization, engineering, and contingency is $174.8 M. At a 4% annual discount rate, the total discounted closure cost estimate in 2023 is $53.7 M (Table 20-2).

Table 20-2: Closure Cost Summary

Cost Item	Cost (C$M)	Discounted Cost Using 4% Discount Rate (C$M)
Reclamation and closure earthworks	38.8	22.3
Water treatment	114.0	27.5
Post-closure Monitoring and Maintenance	20.9	3.5
Demobilization	1.0	0.5
Total	***174.8***	***53.7***

20.5 Permitting

20.5.1 Environmental Permits

The Eskay Creek Mine went through two Environmental Assessment processes in its history. An application for a Mine Development Certificate was approved in 1994 and a Mine Development Certificate was issued under previous environmental review legislation and is considered equivalent to an Environmental Assessment Certificate under present legislation. In 2000, an application for an Environmental Assessment Certificate was reviewed and a Project Approval Certificate was approved for disposal of mine tailings into TMSF and is also considered a present day Environmental Assessment Certificate.

The 1993 Mine Development Certificate enabled the proponent to obtain construction/operation permits to build the Eskay Creek Mine, including underground mining, surface workings, and use of Albino Lake as a waste rock storage facility and off-site shipping of ore. In 1997, permits were amended to build a mill onsite and dispose of tailings with waste rock to Albino Lake. Once the Project Approval Certificate was issued in 2000 for the use of Tom MacKay Lake as a tailings disposal facility, construction and operation permits were obtained. Tom MacKay Lake and Albino Lake are listed as Tailings Impoundment Areas in Schedule 2 (Subsections 5(1) and 27.1(1)) of the Metal and Diamond Mining Effluent Regulations (SOR/2002-222).

For the proposed Project, Skeena will undertake a substituted process to amend an existing Environmental Assessment Certificate or obtain a new Environmental Assessment Certificate. The process to follow for the Environmental Assessment/Impact Assessment is being developed with the provincial and federal regulators, the Tahltan Nation and Skeena, based upon the legislative steps, criteria, and procedures.

Skeena submitted a Detailed Project Description to the federal and provincial regulators and Tahltan Central Government on August 11, 2022, to initiate the second phase (Readiness Decision) of the Environmental Assessment process.

A process order was issued by the BC Government on April 18, 2023 which outlines the scope of the assessment and determines the application information requirements to be included in the application.

No technical or policy issues have been identified that would prevent obtaining the required project permits and approvals, given its long mining history, understanding and mitigation of environmental and social effects.

20.5.2 Provincial and Federal Permits

No permits for project commercial development will be issued before an Environmental Assessment Certificate is obtained. Consequently, Skeena will apply concurrently for permits within the environmental review process schedule for all permits. Strategies to expedite the permitting process and reduce the time to start construction are being examined. To that end a Process Charter was signed between Skeena, BC government and the Tahltan Central Government in January 2023 outlining regulatory processes to be followed, efficiencies, risk mitigations and the development of joint work plans.

The likely key provincial permits required are summarized in Table 20-3, and potentially-required federal permits in Table 20-4.

20.6 Considerations of Social and Community Impacts

20.6.1 Consultation Policy Requirements

Provisions for consultation with Indigenous Nations and the public are a component of the provincial and federal legislation for both the Environmental Assessment processes and permitting activities. Skeena is implementing an Engagement Plan for the Project as required by the provincial and federal Environmental Assessment processes and meets the requirements of the Environmental Assessment process order. This plan provides a summary of Skeena engagement activities as well as serves as a guide for Skeena's engagement activities with identified Indigenous Nations and stakeholders throughout the Environmental Assessment process.

Ongoing and future engagement and consultation measures by Skeena are driven by best practices as well as Skeena's internal company policies, federal and provincial government requirements. Skeena diligently tracks and maintains records of all engagement activities and commitments therefrom.

Table 20-3: Potentially-Required Provincial Permits, Licences and Approvals

Authorization	Responsible Agency	Legislation	Purpose
Amendment to *Mines Act* Permit M-197	BC Ministry of Energy, Mines and Low Carbon Innovation (EMLI)	*Mines Act*, Health, Safety and Reclamation Code for Mines in BC	Approve the new mine plan and reclamation program
Water System Construction Permit Water System Operating Permit	Northern Health	*Drinking Water Protection Act*, Drinking Water Protection Regulation	Authorize construction and operation of potable water supply system for camp and process plant
Food Facility – Health Approval Application	Northern Health	*Drinking Water Protection Act*	Approve opening and operation of food service facility
Sewage Registration *Environmental Management Act*	Northern Health	Sewage Registration	Authorize sewage treatment plant
Amendment to *Environmental Management Act* (Effluent) Permit 10818	BC Ministry of Environment and Climate Change Strategy (ENV)	*Environmental Management Act*,	Authorize discharges from sedimentation ponds, tailings storage facility, seepage
Amendment to *Environmental Management Act* Permit 12977	ENV	*Environmental Management Act*	Authorize solid waste discharges
Environmental Management Act (Air)	ENV	*Environmental Management Act*	Authorize air emissions e.g., from incinerator and process plant, landfill
Hazardous Waste Registration	ENV	*Environmental Management Act* Hazardous Waste Regulation	Register hazardous waste transfer facility, plant truck shop
Fuel Storage Registration	ENV	*Environmental Management Act*	Authorize bulk fuel storage
Groundwater Well Registration and Groundwater Usage (Section 2)	ENV	*Water Sustainability Act*	Authorize storage, use or diversion of groundwater for one or more purposes
Short Term Water Use (Section 10)	ENV	*Water Sustainability Act*	Authorize short -term storage, use or diversion of surface water or groundwater for one or more purposes

Authorization	Responsible Agency	Legislation	Purpose
Water Licence (Section 9)	ENV	*Water Sustainability Act*	Authorize storage, use or diversion of surface water or groundwater for one or more beneficial purposes
Approval for Works in and about a Stream (Section 11)	ENV	*Water Sustainability Act*	Approve changes in or about a stream
Investigation or Inspection Permit	MOF	*Heritage Conservation Act*, RSBC 1996, c. 187	Undertake archaeological impact assessment (AIA)
Site Alteration Permit	MOF	*Heritage Conservation Act*	Required to alter an archaeological site (should any be identified and impacted by the Project)
Occupant Licence to Cut	MOF	*Forest Act*	Authorizes cutting and removal of timber on Crown land
Road Use Permit	MOF	*Forest Act*	Authorizes use of existing Road
Licence of Occupation (crown land)	MOF	*Land Act*	Authorizes occupancy of crown land for approved purpose – for example offsite power line right of way or quarry.

Table 20-4 Potentially-Required Federal Permits, Licences and Approvals

Authorization	Responsible Agency	Legislation	Purpose
Explosives Permit	Natural Resources Canada	*Explosives Act*	Required to manufacture, store, and use explosives
Fisheries Authorization	Fisheries and Oceans Canada	*Fisheries Act*	Required if the Project will result in the harmful alteration, disruption or destruction of fish habitat or death of fish
Metal and Diamond Mining Effluent Regulations (MDMER) Schedule 2 amendment	Environment & Climate Change Canada (ECCC)	*Fisheries Act*	Schedule 2 amendment may be required to amend the existing tailings impoundment sizes
Migratory Bird Permit	ECCC	*Migratory Birds Convention Act,*	Required if nesting habitats used by migratory birds might be impacted or

Authorization	Responsible Agency	Legislation	Purpose
			if activities occur during the nesting season (e.g., clearing of vegetation)
Species at Risk Permit	ECCC	*Species at Risk Act*	Authorizes an activity affecting listed wildlife species, any part of its critical habitat or the residences of its individuals
Environmental Emergency Registration	ECCC	Environmental Emergency Regulations	Registers substances over specified volumes site must have suitable emergency response plan for the substances
Nuclear Safety Authorization	Canadian Nuclear Safety Commission	*Nuclear Safety and Control Act*	Required for possession of instruments containing radioactive material, such as nuclear density gauges (portable and fixed)
Radio Licence	Innovation, Science and Economic Development Canada (ISED)	*Radio Communication Act*	Authorizes use of radio equipment on site
Navigable Waters Approval	Transport Canada	*Canadian Navigable Waters Act*	Required for works that take place within navigable waters that do not meet works established under the Minor Works Order and which may interfere with navigation
Transportation of Dangerous Goods Permits	Transport Canada	*Transportation of Dangerous Goods Act*	Authorizes transportation and handling of dangerous goods

20.6.2 Indigenous Nations

Skeena recognizes engagement and support of the Project from Indigenous Nations from initial project design until post-closure is critical for the success of the Project. Skeena is consulting and will consult with local Indigenous Nations, yet also recognizes this is part of the Environmental Assessment process at both the provincial and federal level. Engagement with local Indigenous Nations will continue throughout the Project design, construction, operations, closure, and post-closure.

The Project is located within the traditional territory of the Tahltan Nation and the asserted territory of the Tsetsaut Skii Km Lax Ha. The historical environmental process and subsequent expansions included consultation with the Iskut Band, Tahltan Band, and the Tahltan Central Government.

Project traffic will use Highways 37 and 37A which pass through the Nass Area and Nass Wildlife Area (as defined by the Nisga'a Final Agreement) and the traditional territory of the Gitanyow Nation. Skeena engages with Nisga'a and Gitanyow on matters of mutual interest.

20.6.3 Public and Stakeholders

Skeena will consult with the public and relevant stakeholder groups, including tenure holders, businesses, economic development organizations, businesses, and contractors (e.g., suppliers and service providers), and special interest groups (e.g., environmental, labour, social, health, and recreation groups), as appropriate.

The BC Regional Mining Alliance (BCRMA) is a strategic partnership between Indigenous groups, industry, and provincial government representatives. A primary focus is on northwest BC. Skeena is a part of this unique collaboration aimed at meaningful and productive dialogue to enhance BC mining opportunities, strengthen multi-party relationships and encouraging responsible development.

21.0 CAPITAL AND OPERATING COSTS

21.1 Introduction

The capital and operating cost estimates were prepared as an Association of the Advancement of Cost Engineering International (AACE International) Class 3 estimate with an accuracy of ±15%, and are reported using Q3 2023 Canadian dollars.

21.2 Capital Cost Estimates

21.2.1 Basis of Estimate

The capital cost estimate includes mining, site preparation, process plant, tailings facility, power infrastructure, camp, Owner's, spares, first fills, buildings, roadworks, and off-site infrastructure costs.

The costs are defined as follows:

- Initial capital cost: required to construct all the surface facilities, and open pit development to commence a 3.0 Mt/a operation. Of the total initial capital costs, >90% were derived from first principles bulk material take-offs and equipment sizing calculations, with supporting quotations for major equipment, and contractor supply/installation rates;
- Sustaining costs: include capital costs required to sustain the operation;
- Expansion costs: include the capital costs required to expand the throughput to a 3.5 Mt/a operation;
- Closure costs: include all the costs required to close, reclaim, and complete ongoing monitoring of the mine once operations conclude.

21.2.2 Mine Capital Costs

Mine capital costs include pre-production stripping, mine equipment, and mine infrastructure.

Mining activity commences prior to the process plant achieving commercial production. This includes the movement of 24.5 Mt of waste and the placement of 0.85 Mt of mill feed in a stockpile adjacent to the primary crusher. The costs include all associated management, dewatering, drilling, blasting, loading, hauling, technical and maintenance support, and grade control costs.

The mining equipment capital costs reflect the use of financing of the major equipment and support equipment. Equipment prices were based on current quotations from vendors. A 20% down payment and principal on payments was included in the capital costs. Interest on payments was included in operating costs.

Mine equipment was scheduled for purchase as needed for the mine operations, as determined by the production schedule and equipment productivities.

Mine infrastructure cost allocations included:

- Pit area preparation will include the removal of merchantable timber, grubbing, and any topsoil removed and stockpiled;
- The engineering office equipment includes such items as desktop computers, plotter, copies of the mining and geology software, and survey equipment with associated peripherals;
- A mine truck shop/mine office, tire change and tire wash are included in the cost estimate and will service the mining fleet;
- The mine facilities and services include an emergency station and the general building services for the truck shop.

21.2.3 Process Capital Costs

Costs include ore crushing, handling, ore bin, grinding, flotation, reagent mixing, concentrate dewatering and handling, power, and services. The costs include capital procurement, freight, and all on-site construction services.

Material quantities were based on, as appropriate, piping and instrumentation drawings, equipment lists, and material take-offs.

Fixed equipment pricing was based on vendor quotes.

Bulk materials costs were based on either current Sedgman projects or Sedgman's database of recent pricing for similar work undertaken by fabricators and contractors actively employed in the mining industry.

Freight, labour, and productivity inputs were included as required.

21.2.4 Tom MacKay Storage Facility

Capital cost estimates for the TMSF included:

- TMSF dam earthworks;
- Tailings pipelines;
- Reclaim barge;
- Reclaim pipelines;
- Water management structures.

21.2.5 Infrastructure Capital Costs

21.2.5.1 Onsite Infrastructure

Onsite infrastructure costs included allocations for:

- Bulk earthworks;
- Site preparation;
- On-site light vehicle roads and earthworks;
- Water management and water management structures;
- In-pit and TMSF haul roads;
- Permanent accommodation;
- On-site bulk storage;
- Permanent sewage;
- Landfill;
- 69/13.8 kV main substation.

21.2.5.2 Off-site Infrastructure

Off-site infrastructure allocations included provision for:

- Roads and bridges;
- A 287/69 kV substation and 69 kV transmission line.

21.2.6 Owner (Corporate) Capital Costs

Owner's costs were estimated from first principles and include:

- General and administrative costs for the Owner's project and sustainability team;
- Training, recruitment, and human resources;
- Security and first aid;
- Sustainability and environmental;
- Camp catering, housekeeping, and transportation;
- Information technology and communications;
- Insurance, finance, legal, and offices.

21.2.7 Indirect Costs

Indirect costs included:

- Engineering, procurement, and construction management;
- Temporary construction facilities;
- Freight and logistics;
- Commissioning spares;
- Capital (critical) spares;
- Operating spares;
- Commissioning first fills;
- Vendor installation checks.

21.2.8 Capital Cost Summary

The capital cost estimate for the Project as envisaged in the 2023 FS is summarized in Table 21-1.

21.3 Operating Cost Estimates

21.3.1 Basis of Estimate

The estimate structure is based on major cost categories under Skeena-agreed cost centres.

The operating cost estimate is based on a combination of first-principles calculations, experience, vendor quotes, reference projects, and factors suitable to support the development of the 2023 FS.

Operating costs were split among the following categories:

- Operating labour;
- Maintenance parts and labour;
- Processing consumables;
- Power;
- Mobile equipment;
- General and administrative.

Table 21-1: Capital Cost Estimate

Description	Initial (C $M)	Sustaining (C $M)	Expansion (C $M)	Closure (C $M)
Mining	113.7	426.0	—	—
Ore crushing and reclaim	38.0	3.0	—	—
Process plant	171.8	2.0	8.0	—
Tailings reclaim and water treatment	21.7	65.3	—	—
On-site infrastructure	98.6	52.0	—	—
Off-site infrastructure	30.3	—	—	—
Owner's costs	92.6	—	—	—
Indirect costs	97.5	13.0	1.0	—
Subtotal	664.2	561.3	9.0	—
Contingency	48.7	—	—	—
Closure	—	—	—	175.0
Total	***712.9***	***561.3***	***9.0***	***175.0***

Note: numbers have been rounded.

Maintenance, consumables, and power were broken down into the following cost centres:

- Feed crusher/rehandle;
- Crushing;
- Grinding;
- Flotation;
- Thickening and filtration;
- TMSF;
- Reagent systems;
- Water systems: fresh, process, reclaim;
- Metallurgical laboratory;
- Process general.

Costs were also broken down into:

- Fixed costs: costs that are independent of feed tonnes to the plant, or operating hours;
- Variable costs: costs that are driven by the amount of feed tonnes to the plant, or operating hours.

21.3.2 Mine Operating Costs

Mine operating costs were estimated from base principles with vendor quotations for repair and maintenance costs, where available. Additional costs were estimated using GRE's in-house data, cost data from the commercially-available Infomine database, and GRE staff experience.

Consumables estimates were based on vendor quotes.

The price of diesel provided for the project was $1.36/L delivered to the site and net of applicable tax credits. A price of $0.06/kWh was used for all electric equipment.

Labour costs for the various job classifications were obtained from salary surveys in British Columbia and other operations. A variable burden rate was applied to the base labour rates that includes benefits, short-term bonus, and overtime.

Mine operating costs include stripping, excavation, waste and low grade material handling, and road, stockpile, and waste pile maintenance. Mining production equipment hours were estimated from the equipment productivity estimates, the scheduled tonnages of ore and waste and the number of pieces of equipment required. Mining support equipment hours were calculated from the number of pieces of equipment times the operating hours/day, assuming utilization of 90% and availability of 85%, times the operating days/year.

21.3.3 Process Operating Costs

Process operating costs included provision for:

- Labour: operating labour is assumed to be engaged on a 15-on-13-off day/night roster with a 12 h shift length. The 15-day duration reflects compensation for a day of travel per working rotation. Labour costs include provision for maintenance, management, technical and supervisory staff;
- Maintenance;
- Consumables;
- Power: power costs were determined based on the estimated demand power as calculated by the electrical load sheet, adjusted to include only those items required to operate to process the nominal tonnage. This demand power was then multiplied by the run hours and an overall cost rate, as provided by Skeena, of $0.06/kWh;
- Mobile equipment;
- General and administrative.

21.3.4 Infrastructure Operating Costs

Costs include allocations for maintenance and power.

21.3.5 General and Administrative Operating Costs

G&A costs are expenses not directly related to the production of gold or silver and include expenses not considered in mining, processing, external refining, or transportation costs. These costs were developed using first principles and supported by budgetary vendor quotations where applicable.

21.3.6 Operating Cost Summary

Operating costs are presented in Table 21-2 (mine), Table 21-3 (process), and Table 21-4 (G&A). The average LOM operating costs are summarized in Table 21-5.

Table 21-2: Mine Operating Costs

Category	Total C$/t Mined	Total C$/t Mill Feed
Drilling	0.20	1.83
Blasting	0.43	3.84
Load/haul	1.17	10.55
Dewatering and pumping	0.02	0.19
Dumps and haul roads	0.28	2.54
Mine general	0.21	1.87
Mine technical services	0.05	0.49
Mine maintenance	0.33	2.98
Grade control	0.13	1.18
Mine equipment financing interest payments	0.12	1.09
Total	***2.96***	***26.54***

Note: numbers have been rounded.

Table 21-3: Process Operating Costs

Area	Initial Years 1–5		Expansion Year 6+		LOM	
	C$M	C$/t milled	C$M	C$/t milled	C$M	C$/t milled
Feed crusher/rehandle	8.8	0.56	17.7	0.73	26.5	0.67
Crushing	4.9	0.31	7.7	0.32	12.6	0.32
Grinding	141.8	9.06	205.2	8.48	346.9	8.71
Flotation	74.1	4.74	112.1	4.63	186.2	4.67
Thickening and filtration	6.6	0.42	9.3	0.38	15.9	0.40
TMSF	8.0	0.51	8.3	0.34	16.3	0.41
Reagent systems	6.1	0.39	8.0	0.33	14.1	0.35
Water system: fresh, process, reclaim	0.4	0.03	0.6	0.02	1.0	0.02
Metallurgical laboratory	1.9	0.12	3.0	0.12	4.9	0.12
Process general	61.0	3.89	78.0	3.23	139.0	3.49
Total	***313.5***	***20.03***	***450.0***	***18.60***	***763.5***	***19.16***

Note: Numbers have been rounded.

Table 21-4: General and Administrative Costs

Operating Cost	Initial Years 1–5		Expansion Year 6+		LOM	
	C$M	C$/t milled	C$M	C$/t milled	C$M	C$/t milled
General administration	5.9	0.37	8.1	0.34	14.0	0.35
Accounting	0.5	0.03	0.7	0.03	1.2	0.03
Camp operations	51.7	3.30	49.6	2.05	101.3	2.54
Environmental	5.3	0.34	7.0	0.29	12.2	0.31
Human resources	2.8	0.18	3.0	0.12	5.8	0.14
Information technology	5.0	0.32	6.1	0.25	11.1	0.28
Medical services	1.4	0.09	1.8	0.08	3.2	0.08
Personnel transportation	12.6	0.80	12.8	0.53	25.3	0.64
Safety	4.2	0.27	5.5	0.23	9.7	0.24
Security	0.9	0.06	1.2	0.05	2.1	0.05
Supply chain	4.8	0.31	6.5	0.27	11.3	0.28
Emergency response	0.8	0.05	1.0	0.04	1.8	0.05
General site services	12.9	0.82	14.6	0.60	27.4	0.69
Water treatment	41.5	2.65	58.1	2.40	99.6	2.50
Total G&A costs	***150.1***	***9.59***	***176.1***	***7.28***	***326.2***	***8.19***

Note: numbers have been rounded.

Table 21-5: Operating Cost Summary Table

	Initial Years 1–5		Expansion Year 6+		LOM	
	C$M	C$/t milled	C$M/a	C$/t milled	C$M	C$/t milled
Mining	710.5	45.40	347.0	14.34	1,057.5	26.54
Processing	313.5	20.03	450.0	18.60	763.5	19.16
G&A	150.1	9.59	176.1	7.28	326.2	8.19
Total	***1,174.2***	***75.03***	***973.1***	***40.22***	***2,147.3***	***53.89***

Notes: numbers have been rounded. Year 1–5 costs represent the costs for the initial phase and include pre-production costs. Year 6+ costs represent the costs in the expansion phase. Mining declines and more material is reclaimed from stockpiles after Year 6 toward Year 12.

22.0 ECONOMIC ANALYSIS

22.1 Forward-Looking Information Statement

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 several 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:

- Mineral Resource and Mineral Reserve 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 underground mining methods as envisaged;
- Proposed capital and operating costs;
- Interpretations and assumptions as to agreement terms;
- Assumptions as to closure costs and closure requirements;
- Assumptions as to environmental, permitting, and social risks;

Additional risks to the forward-looking information include:

- Changes to costs of production from what are estimated;
- Unrecognized environmental risks;
- Unanticipated reclamation expenses;
- Unexpected variations in quantity of mineralized material, grade, or recovery rates;
- Geotechnical or hydrogeological considerations during mining being different from what was assumed;
- Failure of mining methods to operate as anticipated;
- Failure of plant, equipment, or processes to operate as anticipated;

Changes to assumptions as to the availability of electrical power, and the power the 2023 FS assumes that permits must be obtained in support of operations, and approval for development to be provided by Skeena's Board.

22.2 Methodology Used

An engineering economic model was developed to estimate annual pre-tax and post-tax cash flows and sensitivities of the Project based on a 5% discount rate.

Tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations.

22.3 Financial Model Parameters

22.3.1 Mineral Resource, Mineral Reserve, and Mine Life

Mineral Resource estimates were provided in Section 14, Mineral Reserve estimates in Section 15 and the mine plan, including the forecast mine life, outlined in Section 16.

22.3.2 Metallurgical Recoveries

Metallurgical recovery forecasts were provided in Section 13.

22.3.3 Treatment and Refining Charges

Treatment and refining charges are discussed in Section 19.

22.3.4 Metal Prices

Metal price forecasts were included in Section 19.

22.3.5 Capital Costs

Capital cost estimates were summarized in Section 21.

22.3.6 Operating Costs

Operating cost estimates were provided in Section 21.

22.3.7 Royalties

Royalties were outlined in Section 4.6.

22.3.8 Taxes

At the effective date of the Report, the Project was assumed to be subject to the following tax regime:

- Federal income tax of 15% and provincial income tax of 12%;
- BC Minerals Tax, assuming a net current proceeds rate of 2% and a net revenue tax rate of 13%.

Total tax payments are estimated to be C$1,561 M over the LOM.

22.3.9 Closure Costs and Salvage Value

Closure costs were provided in Section 20.4. In the financial model, closure costs beyond 2041 have been discounted to 2041 dollars and are assumed to be incurred in 2041.

22.3.10 Financing

No finance costs were assumed.

22.3.11 Inflation

No price inflation or escalation factors were considered.

22.4 Economic Analysis

The economic analysis was performed assuming a 5% discount rate.

The pre-tax net present value discounted at 5% (NPV 5%) is C$3,058 M, the internal rate of return (IRR) is 52.8%, and payback period is 1.13 years.

On an after-tax basis, the NPV 5% is C$1,973 M, the IRR is 42.7%, and the payback period is 1.19 years.

A summary of the Project economics is included in Table 22-1 and shown graphically in Figure 22-1. The cashflow on an annualized basis is provided in Table 22-2 and Table 22-3. Closure costs expected beyond Year 15 have been discounted to Year 15 dollars and incurred in Year 15 for the purpose of the financial model.

22.5 Sensitivity Analysis

A sensitivity analysis was conducted on the base case pre-tax and after-tax NPV and IRR of the Project, using the following variables: metal price, capital costs, operating costs, gold grade, and silver grade. The Project sensitivity to the discount rate and foreign exchange rate were also assessed in the 2023 FS.

Figure 22-2 shows the pre-tax sensitivity analysis to NPV and IRR, and Figure 22-3 shows the NPV and IRR results post-tax.

On an NPV basis, the Project is most sensitive to changes in metal prices and gold grades, and then to a lesser extent, to operating costs and capital costs. The Project is least sensitive to changes in the silver grades.

Table 22-1: Forecast Cashflow Summary Table

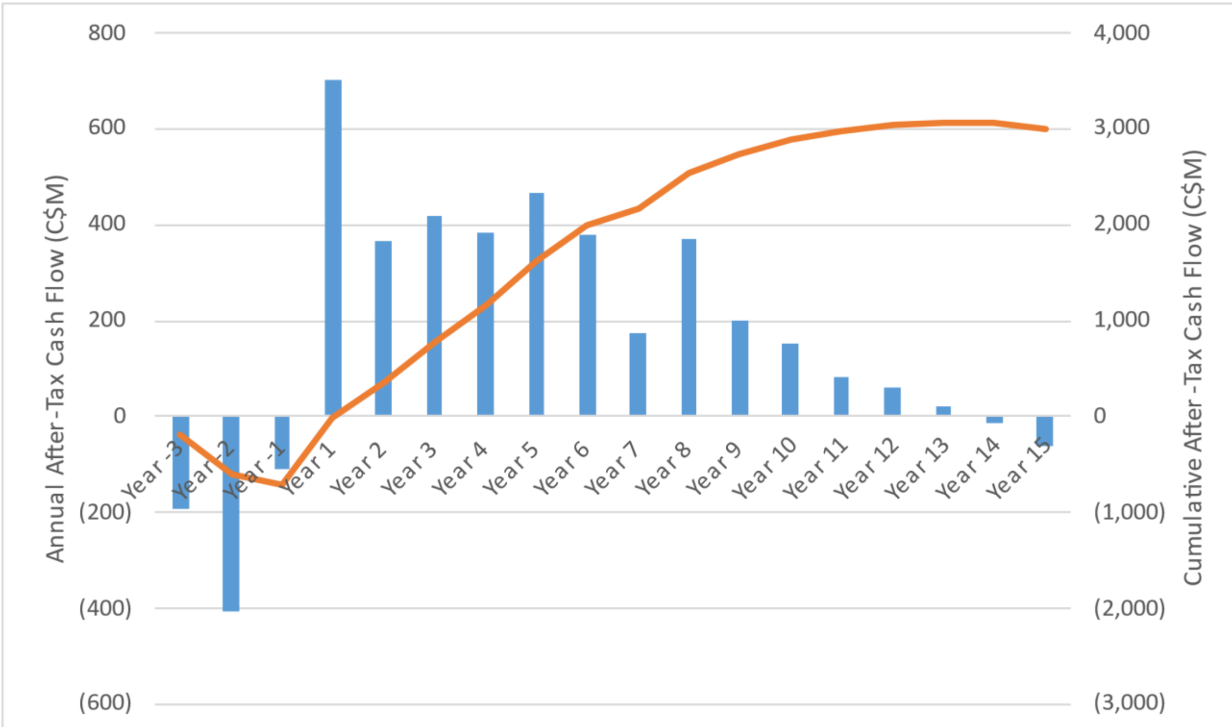
Parameter	Value
Base Case Economic Assumptions	
Gold price (US$/oz)	1,800
Silver price (US$/oz)	23
Exchange rate (US$/C$)	0.74
Discount rate (%)	5
Contained Metal	
Contained gold (koz)	3,336
Contained silver (koz)	87,969
Mining	
Strip ratio (waste: ore)	7.98:1
Total material mined (excluding rehandle) (Mt)	357.7
Total ore mined (Mt)	39.8
Processing	
Processing life (years)	12
Processing throughput (Mtpa)	3.0 (Years 1–5) 3.5 (Years 6–12)
Average diluted gold grade (g/t)	2.6
Average diluted silver grade (g/t)	68.7
Production	
Gold recovery (% to concentrate)	83
Silver recovery (% to concentrate)	91
LOM gold production (koz)	2,769
LOM silver production (koz)	80,052
LOM AuEq production (koz)	3,891
LOM average annual gold production (koz)	228
LOM average annual silver production (koz)	6,583
LOM average annual AuEq production (koz)	320
Operating Costs Per Tonne	
Mining cost (C$/t mined)	2.96
Mining cost (C$/t milled)	26.54
Processing cost (C$/t milled)	19.16
G&A cost (C$/t milled)	5.69
Water treatment cost (C$/t milled)	2.50
Total operating costs (C$/t milled)	53.89

Parameter	Value
Other Costs	
Transport to smelter (C$/dmt concentrate)	154
Gold refining costs (C$/oz payable)	34
Silver refining costs (C$/oz payable)	1.65
Treatment costs (C$/dmt concentrate)	172
Royalty (NSR) (%)	2
Cash Costs and All-in Sustaining Costs	
LOM cash cost (US$/oz Au) net of silver by-product	133
LOM cash cost (US$/oz AuEq) co-product	568
LOM AISC (US$/oz Au) net of silver by-product	300
LOM AISC (US$/oz AuEq) co-product	687
Capital Expenditures	
Pre-production capital expenditures (C$M)	713
Expansion capital expenditures (C$M)	9
Sustaining capital expenditures (C$M)	561
Closure expenditures (C$M)	175
Economics	
After-tax NPV (5%) (C$M)	1,973
After-tax IRR	42.7
After-tax payback period (years)	1.2
After-tax NPV/initial capital costs	2.8
Pre-tax NPV (5%) (C$M)	3,058
Pre-tax IRR (%)	52.8
Pre-tax payback period (years)	1.1
Pre-tax NPV/initial capital costs	4.3
Average annual after-tax free cash flow (Year 1–5) (C$M)	467
Average annual after-tax free cash flow (Year 1–12) (C$M)	313
LOM after-tax free cash flow (C$M)	2,993

Notes:

- Cash costs are on an ounce payable basis and are inclusive of operating mining costs, processing costs, site G&A costs, royalties, smelting, refining, and transports costs.
- All-in sustaining costs (AISC) are on an ounce payable basis and include cash costs plus sustaining capital and closure costs.
- Pre-production capital expenditure of C$713 M is exclusive of initial working capital, primarily C$43.3 M of pre-production mining operating costs associated with establishing initial ore stockpile inventory.

Figure 22-1: Cashflow Forecast Figure



Note: Figure prepared by GRE, 2023.

Table 22-2: Cashflow Forecast On An Annualized Basis (Year -3 to Year 6)

Item	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Processing									
Ore processed (Mt)	0.00	0.00	0.68	2.96	3.01	3.00	3.00	3.00	3.51
Gold recovered (Moz)	0.00	0.00	0.04	0.39	0.28	0.31	0.29	0.31	0.31
Silver recovered (Moz)	0.00	0.00	1.06	7.92	7.57	10.11	8.89	12.95	6.47
Revenue									
Gold revenue ($M)	0.00	0.00	85.39	907.57	637.66	725.31	671.70	721.05	711.10
Silver revenue ($M)	0.00	0.00	31.32	233.86	223.60	298.51	262.56	382.47	190.95
Penalties ($M)	0.00	0.00	-0.29	-36.27	-6.19	-3.94	-2.01	-2.36	-0.25
Refining & transport costs ($M)	0.00	0.00	-10.69	-67.32	-55.41	-62.53	-62.10	-74.78	-72.62
Net smelter revenue ($M)	0.00	0.00	105.73	1,037.85	799.66	957.36	870.15	1,026.39	829.17
Cost of production									
Mining operating costs ($M)	15.45	34.49	64.71	107.53	113.74	127.44	123.53	123.62	114.90
Mining capitalized waste ($M)	-14.97	-33.10	-56.03	0.00	0.00	-33.53	-17.42	-21.79	-31.54
Processing ($M)	0.00	0.00	14.24	59.65	59.95	60.50	59.76	59.46	65.28
Site general ($M)	0.00	0.00	4.74	29.07	29.09	29.07	29.07	29.07	29.09
Total cost of production ($M)	***0.48***	***1.39***	***27.65***	***196.24***	***202.78***	***183.48***	***194.94***	***190.35***	***177.74***
Royalties ($M)	0.00	0.00	2.11	20.76	15.99	19.15	17.40	20.53	16.58
Total operating costs ($M)	***0.48***	***1.39***	***29.77***	***217.00***	***218.77***	***202.62***	***212.34***	***210.88***	***194.32***
Capital costs									
Non-sustaining, sustaining capital, closure ($M)	178.08	372.20	130.24	72.26	58.24	60.07	33.02	43.26	12.29
Mining - capitalized waste ($M)	14.97	33.10	56.03	0.00	0.00	33.53	17.42	21.79	31.54
Working capital ($M)	0.00	0.00	0.00	8.73	0.00	0.00	0.00	0.00	0.00
Total capital costs ($M)	***193.05***	***405.31***	***186.27***	***80.99***	***58.24***	***93.60***	***50.43***	***65.05***	***43.82***
Corporate income tax and mineral tax									
Corporate income tax ($M)	0.00	0.00	0.00	17.60	134.60	151.87	138.69	178.78	131.57
BC mineral tax ($M)	0.00	0.00	0.32	18.25	20.97	91.68	86.33	105.81	82.12

Item	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Total non-production taxes ($M)	***0.00***	***0.00***	***0.32***	***35.84***	***155.57***	***243.55***	***225.02***	***284.59***	***213.69***
Pre-tax net cash flow (C$ M)	***-193.53***	***-406.70***	***-110.31***	***739.87***	***522.65***	***661.13***	***607.37***	***750.46***	***591.03***
After-tax net cash flow (C$ M)	***-193.53***	***-406.70***	***-110.63***	***704.02***	***367.08***	***417.59***	***382.35***	***465.87***	***377.34***

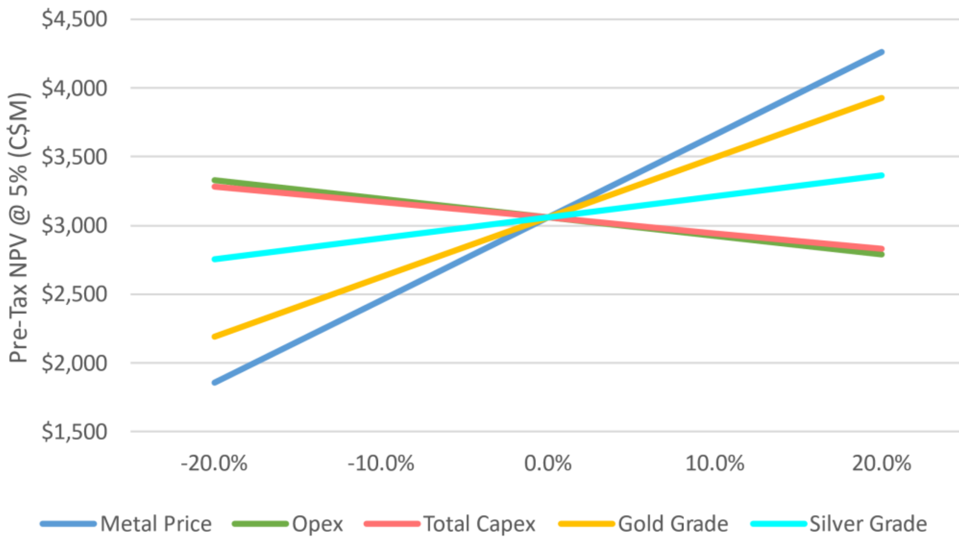
Table 22-3: Cashflow Forecast On An Annualized Basis (Year 7 to Year 15)

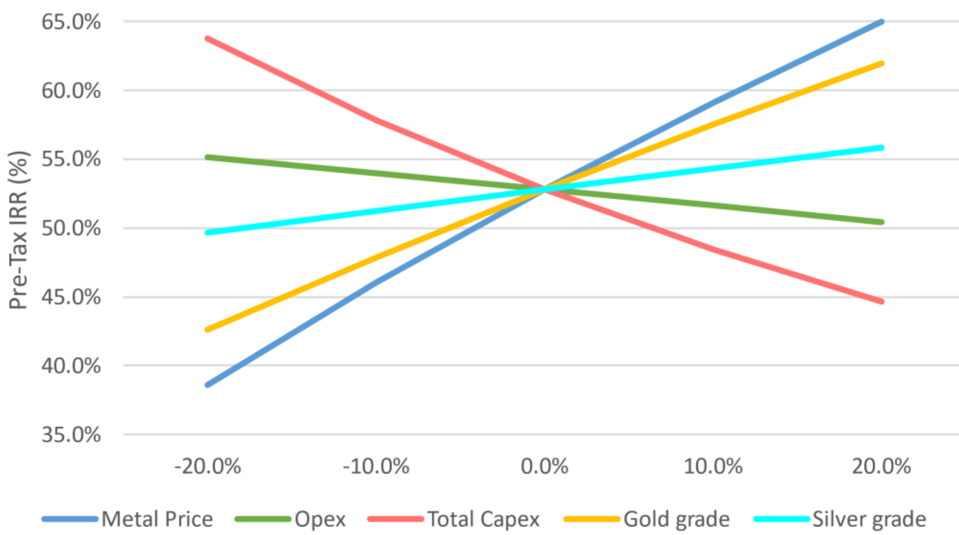
Item	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Processing										
Ore processed (Mt)	3.50	3.50	3.50	3.51	3.50	3.17	0.00	0.00	0.00	39.84
Gold recovered (Moz)	0.17	0.25	0.16	0.11	0.08	0.06	0.00	0.00	0.00	2.77
Silver recovered (Moz)	4.18	9.79	6.21	2.43	1.40	1.06	0.00	0.00	0.00	80.05
Revenue										
Gold revenue ($M)	400.92	570.58	374.87	264.51	181.38	147.52	0.00	0.00	0.00	6,399.56
Silver revenue ($M)	123.56	289.11	183.48	71.65	41.38	31.34	0.00	0.00	0.00	2,363.80
Penalties ($M)	-1.18	-0.39	-3.32	-1.49	-0.71	-0.47	0.00	0.00	0.00	-58.86
Refining and transport costs ($M)	-55.47	-84.44	-42.91	-48.06	-46.38	-41.74	0.00	0.00	0.00	-724.46
Net smelter revenue ($M)	467.83	774.86	512.12	286.61	175.66	136.65	0.00	0.00	0.00	7,980.04
Cost of production										
Mining operating costs ($M)	84.62	91.27	56.15	0.09	0.00	0.00	0.00	0.00	0.00	1,057.55
Mining capitalized waste ($M)	-45.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-253.84
Processing ($M)	67.43	64.27	63.72	64.41	64.30	60.56	0.00	0.00	0.00	763.52
Site general ($M)	29.07	29.07	29.07	19.95	19.94	19.94	0.00	0.00	0.00	326.20
Total cost of production ($M)	***135.66***	***184.60***	***148.94***	***84.45***	***84.24***	***80.49***	***0.00***	***0.00***	***0.00***	***1,893.43***
Royalties ($M)	9.36	15.50	10.24	5.73	3.51	2.73	0.00	0.00	0.00	159.60
Total operating costs ($M)	***145.01***	***200.10***	***159.18***	***90.18***	***87.75***	***83.23***	***0.00***	***0.00***	***0.00***	***2,053.03***
Capital costs										

Item	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Total
Non-sustaining, sustaining capital, closure ($M)	32.02	4.36	33.68	9.76	3.75	0.08	0.90	13.65	61.48	1,119.31
Mining - capitalized waste ($M)	45.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	253.84
Working capital ($M)	0.00	0.00	0.00	0.00	0.00	0.00	-8.73	0.00	0.00	0.00
Total capital costs ($M)	***77.48***	***4.36***	***33.68***	***9.76***	***3.75***	***0.08***	***-7.83***	***13.65***	***61.48***	***1,373.15***
Corporate income tax and mineral tax										
Corporate income tax ($M)	43.22	124.49	75.29	20.14	-2.70	-7.79	-15.59	0.00	0.00	990.16
BC mineral tax ($M)	27.81	76.67	43.43	15.29	2.27	0.00	0.00	0.00	0.00	570.95
Total non-production taxes ($M)	***71.03***	***201.15***	***118.72***	***35.43***	***-0.44***	***-7.79***	***-15.59***	***0.00***	***0.00***	***1,561.10***
Pre-tax net cash flow (C$ M)	***245.34***	***570.40***	***319.26***	***186.67***	***84.16***	***53.35***	***7.83***	***-13.65***	***-61.48***	***4,553.86***
After-tax net cash flow (C$ M)	***174.31***	***369.24***	***200.55***	***151.24***	***84.59***	***61.14***	***23.42***	***-13.65***	***-61.48***	***2,992.76***

Note: Costs in Canadian dollars. Closure costs expected beyond Year 15 have been discounted to Year 15 dollars and incurred in Year 15 for the purpose of the financial model.

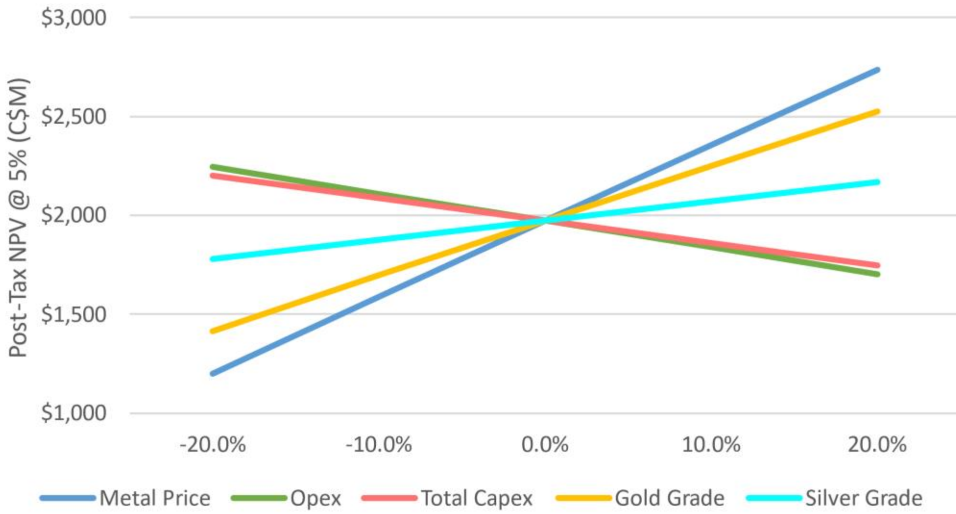
Figure 22-2: Pre-Tax NPV and IRR Sensitivity Results

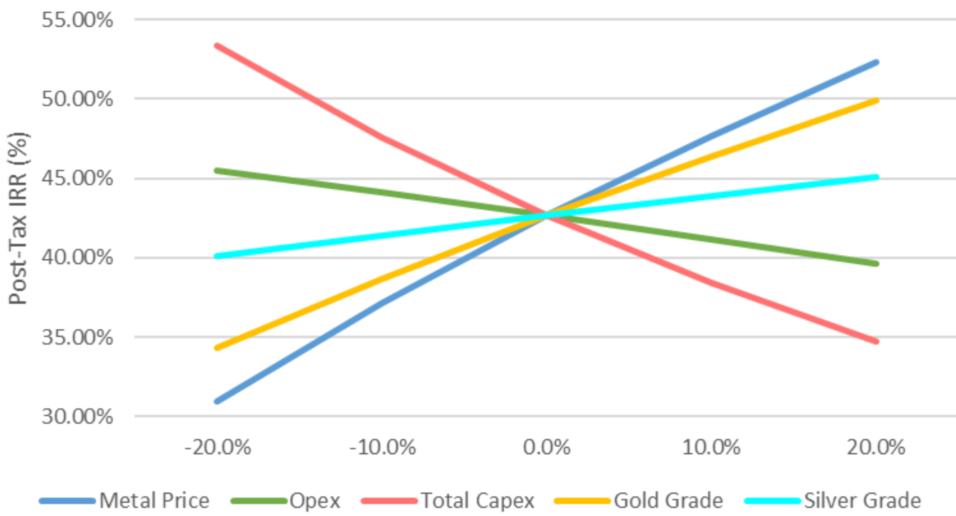




Note: Figure prepared by GRE, 2023.

Figure 22-3: Post-Tax NPV And IRR Sensitivity Results





Note: Figure prepared by GRE, 2023.

Subsequent to the Report effective date, on 18 December, 2023, Skeena concluded a financing package with Franco-Nevada. The package included the sale of a 1.0% NSR royalty on Eskay Creek for C$56 million over all of the land packages that make up the Project. This royalty is payable on all of the Mineral Reserves, and is not included in the economic analysis in Section 22.

Skeena and the QPs reviewed the impact of the additional NSR on the Project economics as summarized in the Report, and confirmed that the additional royalty has no material impact on the Project economics as presented in Section 22.4.

23.0 ADJACENT PROPERTIES

This section is not relevant to this Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this Report.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Introduction

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the reviews and interpretations of data available for this Report.

25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

Mineral tenure held is valid and sufficient to support a declaration of Mineral Resources and Mineral Reserves.

Skeena holds an interest in two surface leases and the Eskay Road access. Skeena will need to acquire surface rights in support of any future mining operations.

Skeena currently holds two water licences. Skeena anticipates needing to apply for additional water licences under the BC *Water Sustainability Act* for the proposed Project.

To the extent known to the QP, there are no other significant factors and risks that may affect access, title or right or ability to perform work on the Project that are not discussed in this Report.

25.3 Geology and Mineralization

The understanding of the Eskay Creek deposit settings, lithologies, mineralization, and the geological, structural, and alteration controls on mineralization is sufficient to support estimation of Mineral Resources and Mineral Reserves.

The Eskay Creek deposit retains exploration upside, along strike and at depth, in particular the potential to identify well-defined, mineralized syn-volcanic feeder structures that propagate through the volcanic pile.

The Eskay Deeps Zone discovery, a new occurrence of Rhyolite-hosted gold–silver mineralization in the Eskay Deeps zone, which has many analogies with the known Eskay Creek deposits (stratigraphic sequence, mineralization and alteration styles, geochemical signature), supports that the strike extension of the entire Eskay Creek Rift north of the NEX Zone has been offset to the northwest of the previously-assumed trend, and that there is significant potential, based on geophysical data, lithogeochemical and structural studies, for this area to host feeder-style mineralization.

25.4 Exploration, Drilling and Analytical Data Collection in Support of Mineral Resource Estimation

The exploration programs completed to date are appropriate for the style of the deposits in the Project area.

Sampling methods are acceptable for Mineral Resource and Mineral Reserve estimation.

Sample preparation, analysis and security are generally performed in accordance with exploration best practices and industry standards at the time the information was collected.

The quantity and quality of the logged geological data, collar, and downhole survey data collected in the exploration and infill drill programs are sufficient to support Mineral Resource estimation.

No material factors were identified with the data collection from the drill programs that could significantly affect Mineral Resource or Mineral Reserve estimation.

The sample preparation, analysis, and security practices are acceptable and meet industry-standard practices at the time that they were undertaken and are sufficient to support Mineral Resource and Mineral Reserve estimation.

The Eskay Creek Mine initiated QA/QC measures into their sample stream in 1997. With progressive years the QA/QC protocol became more comprehensive and detailed. QA/QC submission rates meet industry-accepted standards at the time of the completion of the various campaigns.

Skeena implemented formal QA/QC programs for the 2018–2023 drill campaigns. These included submission of blanks, certified reference materials (standards), duplicates, and completion of a check assay program. In addition to the Skeena-introduced QC samples, ALS Vancouver inserted their own independent check samples.

The QA/QC programs did not detect any material sample biases in the data reviewed that supports Mineral Resource and Mineral Reserve estimation.

The data verification programs concluded that the data collected from the Project adequately support the geological interpretations and constitute a database of sufficient quality to support the use of the data in Mineral Resource and Mineral Reserve estimation.

25.5 Metallurgical Testwork

Metallurgical testwork and associated analytical procedures were appropriate to the mineralization type, appropriate to establish the optimal processing routes, and were performed using samples that are typical of the mineralization styles found within the various mineralized zones.

Samples selected for testing were representative of the various types and styles of mineralization. Samples were selected from a range of depths within the deposit. Sufficient samples were taken so that tests were performed on sufficient sample mass, including individual tests to assess variability.

Recovery forecasts will vary over the proposed LOM plan, based on the proportion of lithologies planned to be treated each year, and the head grades. Gold and silver recovery rates are expected to range from 80.8–84.2% with an average LOM recovery of 83.0% for gold, and range from 89.0–94.2% with an average LOM recovery of 90.5% for silver.

High arsenic levels are expected for the first year before dropping to below penalty levels.

Mercury penalties are expected for all production years; however, mercury will peak at approximately 1.5% of revenues in Year 1 and drop to approximately 0.3% of revenues for the remainder of the mine life.

25.6 Mineral Resource Estimates

The Mineral Resource estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.

Factors that may affect the estimate include: changes to long-term metal price assumptions; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to the density values applied to the mineralized zones; changes to geological shape and continuity assumptions; potential for unrecognized bias in the assay results from legacy drilling where there was limited documentation of the QA/QC procedures; changes to the input values used to generate the AuEq cut-off grade; changes to metallurgical recovery assumptions; changes in assumptions of marketability of final product; changes to the conceptual input assumptions for assumed open pit operations; changes to the input assumptions for assumed underground operations; variations in geotechnical, hydrogeological and mining assumptions; changes to environmental, permitting and social license assumptions.

25.7 Mineral Reserve Estimates

The Mineral Reserve estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.

Factors that may affect the estimate include: metal price and exchange rate assumptions; changes to the assumptions used to generate the gold equivalent grade cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shapes, and geological and grade continuity assumptions; changes to offsets around the old underground workings and additional knowledge related to exact locations of the mined-out voids; density and domain assignments; changes to geotechnical assumptions including pit slope angles; changes to hydrological and hydrogeological assumptions; changes to mining and metallurgical recovery assumptions; changes to the input and design parameter assumptions that pertain to the open pit shell constraining the estimates;

assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain and maintain environmental and other regulatory permits, and obtain the social license to operate.

Operations will need careful water management, effective execution of water diversion to allow access to the northern portion of the pit during later pit phases, and management of snow and rain conditions.

25.8 Mine Plan

Mining will be carried out using a conventional drill, blast, load, and haul surface mining method. Equipment will be conventional for open pit operations.

A geotechnical model that characterizes the rock mass conditions, structural geology, hydrogeology, and seismicity of the open pit area was developed. Recommended inter-ramp slope angles range from 26–51°.

The hydrogeological assumptions used in the 2023 FS were the same as those used in the 2022 FS.

Pit designs were developed for the north and south pit areas. A total of 11 pit phases are planned, for an eight-year mine life, with a three-year pre-production period. The initial four pit phases were designed for the purpose of obtaining a technical sample and necessary NAG waste material to create supporting infrastructure. The north pit will consist of an additional six main phases, while the south pit will consist of a single small phase.

Mine planning indicates that the northern end of the open pit will intersect Tom MacKay Creek, requiring the provision of a water diversion channel to re-route flowing water along a bench of the Phase 9 pit before re-entering the existing Tom MacKay Creek downstream.

25.9 Recovery Plan

The process plant design was based on metallurgical testwork and industry-standard practices. The design is conventional to the mining industry and has no novel parameters.

The processing plant facilities will consist of crushing, grinding and flotation circuits designed to liberate and recover gold from the run-of-mine (ROM) ore. Flotation concentrate will then be thickened, filtered, dried, and stockpiled at the process plant prior to loading into haul trucks for transport.

The Project will be constructed in two distinct phases:

- Initial operation of 3.0 Mt/a for Years 1–5;
- Expansion to 3.5 Mt/a for the remaining mine life, which includes the initial equipment with the addition of the following installed for Year 6 operation.

The process plant will have a total installed power of 38.9 MW with an anticipated operating power draw of 31.3 MW.

Fresh water will be sourced from groundwater wells. Process water will consist predominantly of mine dewatering, contact water, concentrate thickener overflow and, TMSF reclaim water.

Consumables will include: collector (PAX); frother (methyl isobutyl carbinol); flocculant (anionic); crushing liners and wear parts; and grinding media.

25.10 Infrastructure

The key infrastructure required to support LOM planning has been identified. Site facilities will include both mine- and process-related facilities:

- Mine: open pits, MRSA, stockpiles, administration offices, truck shop and warehouse, tire repair shop, mine workshop, mine dry, fuel storage and distribution, mobile equipment, explosives facility;
- Process: process plant, crusher facility, process plant workshop and assay laboratory, TMSF;
- Ancillary: access and haul roads, temporary camp for accommodating construction crew, permanent camp facility, power supply, water management, water treatment, and miscellaneous facilities;
- Off-site: roads, bridges, port, concentrate shipment.

In the current mine plan, tailings and PAG waste rock will be stored in the TMSF. Dams will be constructed at the north and south end of the TMSF to accommodate the storage of tailings and waste rock, as well as provide storage capacity of site contact water to be treated at the water treatment plant.

Site water management during construction involves controlling contact water runoff from the temporary PAG stockpiles, runoff from the roads, drawdown of the TMSF to prepare for construction of the TMSF dams, and erosion and sediment control measures around active construction areas.

Site water management for operations involves controlling surface water around the Project site. Water in contact with mine workings or disturbed areas (groundwater inflows and meteoric inputs to the open pits; runoff from waste rock, ore stockpiles, quarry areas, tailings, laydown areas, etc.) is considered contact water. Non-contact water is runoff from undisturbed areas, including those areas that are being diverted.

Power will be purchased from BC Hydro. The Project will connect to the provincial grid via the Coast Mountain Hydro-owned 287kV transmission line, 2L379.

25.11 Environmental, Permitting and Social Considerations

The Project will be designed, constructed, operated, and decommissioned to meet all applicable BC environmental and safety standards and practices. Skeena will develop and implement an environmental management system that defines the processes by which compliance will be met and demonstrated. The environmental management system will include ongoing monitoring and reporting to relevant parties at the various Project stages.

The main waste management issue for the Project is the prevention and control of metals leaching and ARD from the tailings and waste rock.

Site water management will be a critical component of the Project design. Strategies for water management include collecting surface water from disturbed areas (mine-contact) to manage surface water erosion; recycle mine-contact water whenever possible; treat mine-contact water as required; and monitor water quality to meet discharge standards prior to discharge.

For planning purposes, closure and reclamation strategies have been developed for each mine component. In accordance with the *Mines Act* permit, mine closure, reclamation and post-closure costs must be updated every five years or upon a major amendment to the mine plan to reflect current and projected site wide closure and reclamation liabilities to inform the reclamation security bond

The total closure cost estimate, including water treatment, monitoring and maintenance, demobilization, engineering, and contingency is $174.8 M. At a 4% annual discount rate, the total closure cost estimate in 2023 is $53.7 M. The estimate assumes active water treatment for 100 years post-closure as required by regulatory policy.

For the proposed Project, Skeena will undertake a substituted process to amend an existing Environmental Assessment Certificate or obtain a new Environmental Assessment Certificate.

No permits for Project commercial development will be issued before an Environmental Assessment Certificate is obtained. Consequently, Skeena will apply concurrently for permits within the environmental review process schedule for all permits. Skeena has identified the likely provincial and federal permits that must be approved prior to commencing construction or operational activities.

Skeena is implementing an Engagement Plan for the Project as required by the provincial and federal Environmental Assessment processes and meets the requirements of the Environmental Assessment process order. Skeena recognizes engagement and support of the Project from Indigenous Nations from initial project design until post-closure is critical for the success of the Project.

Skeena will consult with the public and relevant stakeholder groups, including tenure holders, businesses, economic development organizations, businesses, and contractors (e.g., suppliers and service providers), and special interest groups (e.g., environmental, labour, social, health, and recreation groups), as appropriate.

25.12 Markets and Contracts

A market study for the LOM potential concentrate production, which took into account production and grade variation over time was finalized by third party consultants Deno Advisory in October 2023. This study forms the basis for the economic analysis in this Report.

There is a reasonable basis for the assumption that the concentrates can be marketed, as Skeena has engaged with a broad range of potential buyers and has provided concentrate samples for testing by roasters and smelters. It is likely that a comprehensive marketing strategy will be required to obtain the best sales terms. A diversified approach to concentrate sales will be adopted. The most likely market for the majority of the concentrate is China.

Skeena management used a combination of pricing used in other recently-published feasibility studies, long-term analyst prices, and the two-year and three-year trailing average gold and silver prices as of April, 2023 to establish the forecast pricing for the purposes of the 2023 FS. Mineral Resource and Mineral Reserve pricing was set at US$1,700/oz Au and US$23/oz Ag. Cashflow pricing was set at US$1,800/oz Au and US$23/oz Ag.

No commercial contracts have yet been agreed, but there is reasonable expectation that terms and conditions will be within industry norms.

Other major contracts that may be entered into could cover items such as electricity supply, bulk commodities, operational and technical services, mining and process equipment, earthworks projects, security, transportation and logistics, and administrative support services. Such contracts would typically be reviewed and negotiated on a frequent basis and the terms would be typical of similar contracts both regionally and nationally.

25.13 Capital Cost Estimates

The capital cost estimates were prepared as an AACE International Class 3 estimate with an accuracy of ±15%, and are reported using Q3 2023 Canadian dollars.

The capital cost estimate includes:

- Supply and installation of the fixed facilities to operating order;
- Engineering, procurement support, construction, and commissioning management services by scope package;
- Owner's costs;
- Design development, quantity growth allowances.

The capital cost estimate for the Project as envisaged in the 2023 FS includes:

- Initial capital costs: C$712.9 M;
- Sustaining capital costs: C$561.3 M;

- Expansion capital costs: C$8.7 M;
- Closure costs: C$174.8 M.

25.14 Operating Cost Estimates

The operating cost estimates were prepared as an AACE International Class 3 estimate with an accuracy of ±15%, and are reported using Q3 2023 Canadian dollars.

Operating costs were split among the following categories:

- Mining;
- Processing;
- G&A.

The LOM operating costs include:

- Mining: C$1,057.5 M, or C$26.54/t milled;
- Processing: C$736.5 M or C$19.16/t milled;
- G&A: C$326.2 M or C$8.19/t milled;
- Total: C$2,147.3 M or C$53.89/t milled.

25.15 Economic Analysis

The economic analysis was performed assuming a 5% discount rate. The pre-tax net present value discounted at 5% (NPV 5%) is C$3,058 M, the internal rate of return IRR is 52.8%, and payback period is 1.13 years. On an after-tax basis, the NPV 5% is C$1,973 M, the IRR is 42.7%, and the payback period is 1.19 years.

On an NPV basis, the Project is most sensitive to changes in metal prices and gold grades, and then to a lesser extent, to operating costs and capital costs. The Project is least sensitive to changes in the silver grades.

25.16 Risks and Opportunities

25.16.1 Risks

25.16.1.1 Risk Workshop

A risk workshop was completed as part of the 2023 FS. Risks were ranked on probability and consequences, and focused on the proposed Project execution plan, schedule, and permitting timelines. Each risk identified had a mitigation action proposed.

25.16.1.2 Resource Estimation

The current understanding of the distribution and variability of the suite of elements that can be deleterious in concentrates is based on incomplete data, as epithermal and base metal elements were only selectively assayed in the legacy drill programs and the metallurgy elements were not assayed. It is expected that more information obtained from future drill programs will provide more complete data on elemental distributions within key lithologies and domains, which in turn is likely to affect the domain and grade-shell outlines as interpreted in the current Mineral Resource estimate. The risk is that the variability is much higher than currently estimated, and that the model underestimates the deleterious elemental tonnages and grades that the 2023 FS mine plan and concentrate marketability assumptions are based on.

25.16.1.3 Mining

Mining through voids during open pit operations is a generally manageable risk where such voids are known to exist. However, unidentified voids may exist, and present a risk to mine and production plans if alternate schedules have to be derived, or new safety measures implemented.

Additional data interpretation tasks are in progress to update geotechnical parameters based on new ground water hydrogeological modeling. The updated numerical groundwater flow model will be calibrated to inform geotechnical evaluations and depressurization assumptions.

The sampling program designed to segregate PAG and NAG waste rock must be adhered to during mining operations to minimize economic and water quality impacts.

Grade control and mining near the ore contacts present a risk of potentially mining too much dilution material or losing high grade material. Performance of grade control methods and mining techniques should be continually evaluated to manage this risk.

In the event of heavy snow fall, the mining operations can be impacted affecting the mining output and may even lead to suspension of operations for up to a few days. A weather specialist is needed, who can determine when mining roads need to be closed during snow events or when special protocols need to be followed.

After winters, if temperatures increase too quickly, wet conditions can become problematic in pits due to rapid snow melt causing water to report to the lowest bench of the pits at a rate greater than the peak pumping capacity. These extreme freshets are mitigated by storing the excess water on the lowest bench and adjusting the mining plan to excavate higher benches for the few days required for the pumping system to catch up and remove the water. Also, constant, and continuous removal of snow from the pits and working areas to TSMF will reduce the risk of extreme freshets.

The support equipment fleet will be responsible for the usual road, pit, and MRSA maintenance requirements, but due to the climate conditions expected, will have a larger role in snow removal and water management. This is considered an important, but manageable operating risk to meet production targets.

25.16.1.4 Tom MacKay Storage Facility

The embankment foundation conditions may require a more comprehensive grout curtain and grout blanket design than is included in the estimate. This may impact the capital and sustaining capital expenditure. This risk can be quantified through additional data collection and modelling on foundation conditions at the TMSF dams, and on the geochemical characteristics of waste materials and contact water (i.e., water quality for groundwater seepage). Beyond mitigation by design, monitoring, and pump back of seepage may be appropriate as required to meet water quality requirements determined through regulatory processes.

The ability and timing to construct TMSF non-contact water diversions may be limited by topographical and access constraints. This may impact sizing and design of the water treatment plant, and downstream flows/water quality predictions. This risk can be managed through a more detailed water management plan including surge/contingency capacity into water treatment plant treatment rates and contingency storage capacity in the TMSF.

There is a risk that the water treatment system will be unable to meet water quality discharge limits due to the plant efficiency or downtime/availability. This may require additional storage of water within the TMSF. This risk can be managed through design contingency and adequate characterization of water quality source terms and water quality predictions.

There is a risk of loss of equipment depositing PAG waste in the TMSF due to depth of existing water in the TMSF, and some uncertainty over foundation conditions. This may impact the capital cost and sustaining capital cost estimates if damaged or lost equipment must be replaced. It will also impact the ability to meet water quality requirements if PAG waste must be stored on surface for longer.

Material characterization may result in additional quantities of PAG waste rock, or metals leaching characteristics associated with the NAG waste rock that may require more material to be stored in the TMSF. This may result in additional capital and sustaining capital expenditure associated with constructing a larger TMSF. This risk can be managed through material characterization programs and updates to material handling management plans.

25.16.1.5 Mine Haul Roads

Additional slope stabilization methods may be required to improve cut slope stability for exposed rock cut slopes along the haul road alignment. This may impact the capital cost estimate. This risk can be managed through design and conservative assumptions with respect to cut slope stability.

Haul road construction is required to provide access to the TMSF to support TMSF drawdown and PAG deposition activities. Delays to road construction may affect Project schedule and impact the capital cost estimate. This risk can be managed through detailed construction executing planning and adequate resourcing of construction equipment and operators.

Non-metal leaching or low metal leaching material is required to construct stream crossings and across wetlands. A minimum 20 m buffer needs to be maintained either side of a stream/creek. There is a risk that sufficient material for haul road construction is not available from open pit mining at the timing required and needs to be sourced from additional borrow sources or off-site quarries. This may impact the capital cost estimate and Project schedule. This risk can be managed through conservative assumptions with respect to material characterization and additional characterization programs in the field.

25.16.1.6 Water Management

The ability to construct non-contact water diversions for the TMSF and MRSA will impact estimates of contact water. The efficiency of diversion structures may be affected by snow and debris accumulation reducing flow capacities. This may result in an increase in design treatment capacity for the water treatment plant and impact the capital cost estimates. This risk can be managed through contingency in design of the water treatment plant and inclusion of freeboard in the design of surface water management structures.

There is limited footprint available to construct contact water runoff collection infrastructure, particularly around the MRSA. This may result in larger pump systems being required to manage contact water runoff, particularly during storm events and freshet, resulting in increased capital and operating costs to install and operate the pump systems. This risk can be managed through sequencing of mine development to minimize disturbance footprints, and reduced contact water volumes.

Open pit groundwater inflows are still being characterized. High groundwater inflows may result in increased contact water volumes. This risk can be managed through conservative assumptions around groundwater inflow estimates, and characterization programs and updated groundwater models to refine estimates.

25.16.1.7 Construction

The ability to construct the TMSF and other Project infrastructure components to meet the proposed Project schedule and mill commissioning dates may be impacted by factors such as weather, permitting, or other construction constraints. This could affect the Project schedule and the capital cost estimate. This risk can be managed through detailed construction execution and sequencing and adequate construction resourcing.

There is potential for freezing conditions to affect tailings, reclaim and surface water pipelines during operations. This may impact the Project schedule and operating and sustaining capital cost estimates if pipelines are damaged and need replacement. This risk can be managed through design, and inclusion of heat-tracing of pipelines, if required.

25.16.1.8 Permitting Constraints

There is an overall risk to the Project in relation to Project permitting in relation to potential Project delays, including:

- Project schedule;
- Road and bridge construction;

This may result in a delay in being able to place mine rock within mine rock storage areas and tailings deposition. Mitigation strategies include:

- Early engagement with regulatory agencies and Indigenous Nations;
- Development of feasible mitigations and contingencies for mine rock including PAG handling and water management.

25.16.2 Opportunities

25.16.2.1 Resource Estimation

There is upside Project potential if mineralization currently classified as Inferred can be upgraded to higher confidence categories. There is also potential for mineralization that is currently outside the estimate boundaries, or discovery of previously unknown mineralization, to be included in estimation with support of drilling and testwork.

25.16.2.2 Mining

There is potential for steeper slope design, when additional geotechnical data such as waste rock strength and joint orientations, are available from mapping, drill hole logging and testing. Development of a numerical groundwater flow model should be calibrated and developed under transient conditions to also inform subsequent geotechnical evaluations and depressurization assumptions. Steeper pit slopes would reduce the cost associated with waste stripping and provide an opportunity to improve economics.

As the metallurgical and marketing information is better understood, the use of stockpiles will likely be modified to allow for improved blending of mill feed material. Stockpile space is fairly limited near the crusher, so a location for lower value material would be useful to ensure high value stockpiles have adequate capacity. This could result in better process performance and improved project economics.

Ongoing testwork results should be monitored to see if a portion of the PAG waste material can be effectively neutralised by blending with NAG waste. The ability to blend a portion of this material could result in less PAG material being sent to the TMSF and therefore lower waste haulage and deposition costs. Effective definition of PAG areas during mine operations will provide better PAG material management destination options. It will also improve the confidence in segregation when assigning more NAG waste to waste facilities other than the TMSF.

25.16.2.3 Processing

Optimization of flotation reagent chemistry could lead to higher recoveries and/or reduced operating costs improving Project economics.

25.16.2.4 Tom MacKay Storage Facility

Potential opportunities associated with the TMSF include:

- Potential to use contact water from the MRSA and open pits for use in milling of ore at the process plant to reduce reclaim water requirements from the TMSF, and reduce pumping of contact water to the TMSF. Additional characterization of water quality of contact water runoff is required to determine suitability for use in the mill and make up water in the mine water treatment plant;
- Potential to thicken the tailings to reduce the volume of water being pumped to the TMSF, and increase the retention of water at the process plant, reducing mill reclaim requirements from the TMSF;
- Potential that additional material characterization programs result in less PAG waste being generated from the open pits, resulting in reduced storage capacity requirements in the TMSF (and therefore a smaller TMSF);
- Optimization of the closure cover for the TMSF to refine quantities of NAG cover and finalize the size of the pond/wetland system at closure which will achieve long term geochemical stability.

25.16.2.5 Mine Haul Roads

Potential opportunities associated with the haul roads include:

- Potential for optimization of haul road alignments to reduce footprint and improve constructability of stream crossings;
- Potential to use gabion baskets or mechanically-stabilized earth walls for stream crossing construction to reduce fill requirements for stream crossings and reduce the need for non metal leaching and low metal leaching rockfill;
- Potential to explore single-lane traffic for stream-crossings to reduce width of stream crossings, further reducing fill requirements.

25.16.2.6 Water Management

Potential opportunities associated with water management include:

- Potential to reduce open pit dewatering requirements through inclusion of pit depressurization and groundwater interception wells to intercept groundwater flows prior to coming into contact with the pit walls. This will reduce contact water estimates;
- Potential to sequence construction of the MRSA and progressively reclaim benches and exposed faces of the MRSA to reduce contact water runoff from the MRSA;
- Potential to develop the MRSA in a manner that provides water quality source control and improve water quality during operations and closure, including the use of a reduced permeability cover.

25.16.2.7 Permitting

Early definition of permitting requirements can be used to inform engineering designs and support development of mitigations which are permittable. This would allow permitting concurrently with the Environmental Assessment Certificate application development.

25.17 Conclusions

Under the assumptions in this Report, the Project shows a positive cash flow over the life-of-mine and supports the Mineral Reserve estimates. The projected mine plan is achievable under the set of assumptions and parameters used.

26.0 RECOMMENDATIONS

There are no material recommendations for additional work arising from the 2023 FS. Work proposed in that study would be completed as part of detailed engineering studies or conducted during mine start-up and ramp-up activities, and budget for that work is included in the capital or operating cost estimates, as relevant. As a result, the QPs have no meaningful recommendations to make.

27.0 REFERENCES

Alldrick, D.J., 1995: Shallow Subaqueous Hot Spring Au-Ag: *in* British Columbia Mineral Deposit Profiles, Volume 1, ed. D.V. Lefebure and G.E. Ray, British Columbia Ministry of Energy and Mines, Open File 1995-20, pp 55–57.

Amin, Y., 2023: Eskay Creek DFS Project, Design Report: report prepared by Integrated Sustainability Ltd. for Skeena Resources, 4 December, 2023.

Ausenco Engineering Canada Inc. , 2021: Skeena Resources Ltd. Eskay Creek Feasibility Study Seismic Hazard Analysis - Revision B: report prepared for Skeena Resources, 26 October, 2021.

Bartsch, R.D. 1993: Volcanic Stratigraphy and Lithogeochemistry of the Lower Jurassic Hazelton Group, Host to the Eskay Creek Precious and Base Metal Volcanogenic Deposit: M.Sc. thesis, Vancouver, University of British Columbia.

Base Metallurgical Laboratories, 2021: Metallurgical Testwork: information on testwork including comminution and flotation, Project BL0594, prepared by Base Metallurgical Laboratories for Skeena Resources, 19 February, 2021.

Base Metallurgical Laboratories, 2021: Metallurgical Testwork: information on testwork including comminution and flotation, Project BL07774, prepared by Base Metallurgical Laboratories for Skeena Resources, 27 May, 2021.

Base Metallurgical Laboratories, 2022: Metallurgical Testwork: information on testwork including flotation, Project BL1053, prepared by Base Metallurgical Laboratories for Skeena Resources, 15 September, 2022.

Base Metallurgical Laboratories, 2023: Metallurgical Testwork: information on testwork including comminution and flotation, Project BL1038, prepared by Base Metallurgical Laboratories for Skeena Resources, 22 September, 2023.

BCG Engineering Inc., 2023: Feasibility Study Update – Open Pit Slope Design Criteria: report prepared by BCG Engineering Inc. for Skeena Resources, 30 October, 2023.

Blue Coast Research, 2019: Metallurgical Testwork: information on testwork including comminution, cyanide leaching, gravity and flotation, Project PJ5262, prepared by Blue Coast Research for Skeena Resources, December 2019.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014: CIM Definition Standards – for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions: adopted by the CIM Council, May, 2014.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2019: Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines: adopted by CIM Council on November 29, 2019.

Canadian Securities Administrators (CSA), 2011: National Instrument 43-101, Standards of Disclosure for Mineral Projects, Canadian Securities Administrators.

Childe, F.C. 1996: U-Pb Geochronology and Nd and Pb Isotope Characteristics of the Au-Ag-rich Eskay Creek VMS Deposit, Northwestern British Columbia: Economic Geology, V. 91, pp. 1209–1224.

Deno Advisory, 2023: A Marketing Report for Skeena Resources Eskay Creek Concentrate: report prepared for Skeena Resources, October 2023, 41 p.

Donnelly, D.A., 1976: A Study of the Volcanic Stratigraphy and Volcanogenic Mineralization on the Kay Claim Group, Northwestern British Columbia: BSc thesis, Vancouver, University of British Columbia, 61 p.

Edmunds, F.C., and Kuran, D.L. 1992: The 1992 Exploration Program: Geological and Diamond Drilling Results: internal report for International Corona Corporation, Vancouver, British Columbia, 27 p.

Edmunds, F.C., Kuran, D.L., and Rye, K.A. 1994: The Geology of the 21 Zone Deposits at Eskay Creek Northwestern British Columbia, Canada: Black Hills Fifth Western Regional Conference of Precious Metals, Coal and the Environment, pp. 154–175.

Evenchick, C.A. 1991: Structural Relationships of the Skeena Fold Belt West of the Bowser Basin, Northwest British Columbia: Canadian Journal of Earth Sciences, V. 28, pp. 535–-541.

Gale, D., Mann, R.K., MacNeil, K.D., Stewart, M., Newton, A., and Chastain, E. 2004: The 2004 Eskay Creek Exploration Program: internal report for Barrick Gold Inc., Vancouver.

George, S., Nelson, J.L., Alberts, D., Greig, C.J. and Gehrels, G.E., (2021): Triassic–Jurassic Accretionary History and Tectonic Origin of Stikinia From U-Pb Geochronology and Lu-Hf Isotope Analysis, British Columbia: Tectonics. Vol 40. 10.1029.

Goreman, W., 1982: Habitat Utilization by Ungulates and Other Wildlife in the Proposed Reservoir Areas on the Stikine and Iskut Rivers: A Summary Report of the 1979 and 1980 Field Studies: report prepared for BC Hydro Power and Authority, Report No. ESS-25.

Government of British Columbia, 2019: Population Estimates for Caribou Herds of British Columbia. BC Caribou Recovery Program, BC Government: accessed 12 December 2023 https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/caribou/bc_caribou_herds_population_estimates.pdf.

Hallam Knight Piésold Ltd. and Homestake Canada Inc., 1993: Application for a Mine Development Certificate: report prepared for Prime Resource Group Inc., November, 1993.

Hemmera Resource Consultants, 1997: An Application for the Approval of a Material Alteration to the Eskay Creek Mine Development Certificate 94-01 and Amendment to Existing Permits: document prepared for Prime Resources Group Inc., 5 March, 1997.

Hemmera Resource Consultants, 2000: Tom Mackay Lake Waste Rock & Tailings Project (Environmental Assessment) Eskay Creek Mine: report prepared for Homestake Canada Inc., 7 February, 2000.

Kalanchey, R., Elfen, S., Weston, S., Ulansky, S., Dance, A., Zurowski, G., and Hamilton, W., 2019: NI 43-101 Technical Report on Preliminary Economic Assessment: report prepared by Ausenco Engineering Canada Inc., Hemmera Envirochem Inc., SRK Consulting (Canada) Inc. and AGP Mining Consultants Inc. for Skeena, effective date 7 November 2019.

Knight Piésold Ltd. 2023a: Eskay Creek Mine – Hydrometeorology Report: report prepared by Knight Piésold Ltd. for Skeena Resources Limited. Ref. No. VA101-002/34-1. January, 2023.

Knight Piésold Ltd. 2023b: Eskay Creek Mine – 2023 Definitive Feasibility Study Basis of Estimate: report prepared by Knight Piésold Ltd. for Skeena Resources Limited. Ref. No. VA101-003/37-7. November, 2023.

Knight Piésold Ltd. 2023c: Eskay Creek Mine – 2023 Definitive Feasibility Study – Waste and Water Management Design Report: report prepared by Knight Piésold Ltd. for Skeena Resources Limited. Ref. No. VA101-002/37-3. December, 2023.

MacDonald, A.J., Heyden, P. van der, Lefebure, D.V., and Alldrick, D.J. 1992: Geochronology of the Iskut River Area – An Update (104A and B): Geological Fieldwork 1991, British Columbia Ministry of Energy, Mines and Petroleum Resources, Paper 1992-1, pp. 495–501.

Maven Water and Environment, 2023: Skeena Eskay Creek DFS Pit Lake Closure Water Treatment Estimate 3201_2312_06A: estimate prepared for Skeena Resources, 12 December, 2023.

Murray, K., Fard, M.A.H., Papini, G., Hasanloo, D., Mehrfert, Pl, Ulansky, S. Schmitt, R., Hamilton, W., Stilwell, I., and Schmid, C, 2022: Eskay Creek Project, NI 43-101 Technical Report and Feasibility Study: report prepared by Ausenco Engineering Canada Inc., Ausenco Sustainability Inc., SRK Consulting (Canada) Inc., ERM, AGP Mining Consultants Inc., and BGC Engineering Inc., for Skeena, effective date September 6, 2022; amended and restated report date: September 19, 2022.

Nelson, J., Waldron, J., van Straaten, B., Zagorevski, A., and Rees, C. 2018: Revised Stratigraphy of the Hazelton Group in the Iskut River Region, Northwestern British Columbia; Geological Fieldwork 2017, British Columbia Geological Survey Paper 2018-1, pp. 15–38.

Okane Consultants, 2023: Eskay Creek Revitalization Project – DFS Reclamation and Closure Cost Estimate: report prepared by Okane Consultants for Skeena Resources, October 2023.

Raponi, R., Elfen, S., Ulansky, S., Schmitt, R., Dance, A., Hamilton, W., Tosney, R., 2021: NI 43-101 Technical Report and Prefeasibility Study, Canada: report prepared by Ausenco Engineering Canada Inc. for Skeena Resources, effective date 22 July 2021.

Roth, T. 1995: Mineralization and Facies Variations in the Eskay Creek 21 Zone Polymetallic Sulphide-Sulfosalt Deposit, Northwestern British Columbia; Victoria '95 GAC/MAC Annual Meeting, Final Program with Abstracts, V. 20, pp. A-91.

Roth, T., Thompson, J.F.H. and Barrett, T.J. 1999: The Precious Metal-Rich Eskay Creek Deposit, Northwestern British Columbia; Reviews in Economic Geology, V. 8, pp. 357–372.

Rubin, C.M., Saleeby, J.B., Cowan, D.S., Brandon, M.T., and McGroder, M.F., 1990: Regionally Extensive Mid-Cretaceous West-vergent Thrust System in the Northwestern Cordillera: Implications for Continental Margin Tectonism; Geology, V. 18, pp. 276–280.

Ulansky, S., and Carlson, G., 2021: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena Resources, effective date 7 April 2021.

Ulansky, S., Uken, R., and Carlson, G., 2018: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena Resources, effective date 6 July 2018.

Ulansky, S., Uken, R., and Carlson, G., 2019: Independent Technical Report on the Eskay Creek Au-Ag Project, Canada: report prepared by SRK Consulting (Canada) Inc. for Skeena Resources, effective date 28 February 2019.