

# KSM PROJECT—Evidence for Substantially Started Determination Request



KSM Mining ULC  
1330 Main Street  
P.O. Box 2536  
Smithers, BC  
V0J 2N0

January 15, 2024

## CONTENTS

Acronyms and Abbreviations	1
Definitions	1
1.0 Introduction	2
1.1 Project Overview and Indigenous, Stakeholder and Public Relations	5
1.2 Engagement on Substantially Started Determination Request	7
1.3 Project Compliance and Enforcement	9
2.0 EAO Substantial Start Determination Considerations	9
2.1 What time, effort, and resources have been invested to physically develop one or more main project elements?	9
2.1.1 Access Roads	11
2.1.2 Camps	18
2.1.3 Mine Site Facilities	24
2.1.4 Electrical Power Supply and Distribution	30
2.1.5 Fish and Wetland Compensation	33
2.1.6 Processing and Tailing Management Area Facilities	34
2.2 How have the activities undertaken to date contribute to the development of the overall project?	38
2.3 Is the activity or component identified in the CPD as part of the project?	40
3.0 Comparison to Other Projects Determined to Be Substantially Started	41
4.0 Project Benefits	42
4.1 Local Employment and Procurement	42
4.2 Critical Minerals and Metals	43
5.0 Summary	44
6.0 References	46

Appendix A	Seabridge Strategy for Early Project Construction and Financing Full Mine Construction
Appendix B	Letters of Support for Substantially Started Determination
Appendix C	Satellite Imagery of Mine Site and Process Tailing Management Area Pre- and Post-Issuance of Environmental Assessment Certificate

## List of Tables

Table 2-1: Summary of Construction Disturbance By Project Component	39
Table 2-2: Summary of Construction Activity by Project Component in the CPD	40
Table 5-1: Summary of KSMCo’s Actions to Advance KSM Project	44

## List of Figures

Figure 1-1: KSM Project Location	5
Figure 1-2: KSM Project Layout	6
Figure 2-1: Project Access Roads	11
Figure 2-2: General Location of Project Camps	18
Figure 2-3: Project Development in the Mine Site	24
Figure 2-4: General Location of Electrical Power Infrastructure	30
Figure 2-5: Project Development in the PTMA	35

## List of Photos

Photo 2-1: TCAR Looking Southeast With Treaty Creek on the Right	12
Photo 2-2: Soil Spoil Pile Area at KM 14 of the TCAR	12
Photo 2-3: Drill and Blast Quarry at KM 8.5 on the TCAR	13
Photo 2-4: BIRB Location Pre-EAC Approval (2014) West Bank	14
Photo 2-5: BIRB Location Pre-EAC Approval (2014) East Bank	14
Photo 2-6: Temporary and Permanent BIRB	14
Photo 2-7: BIRB With Security Building and Boat Launch	14
Photo 2-8: Historic Mine Access Trail in 2014	15
Photo 2-9: CCAR Pioneering Road 2022	15
Photo 2-10: CCAR Looking Southwest	15
Photo 2-11: NTAR Looking Southeast Over South Cell of Tailing Management Facility.	16

Photo 2-12: Treaty Saddle Road Construction Commencing	17
Photo 2-13: Treaty Saddle Road with NTAR Tree Clearing on Right	17
Photo 2-14: Forestry Plantation in 2015 on Future Camp 11 Location	19
Photo 2-15: Camp 11 From East Corner of Pad Looking West	19
Photo 2-16: Camp 11 Accommodations From Southwest Corner of Pad Looking East	19
Photo 2-17: Camp 9 Location as Viewed in 2020 and Photo 2-18: Camp 9 Earthworks Looking Southwest Over the Mitchell Valley	20
Photo 2-19: Camp 9 Earthworks Looking Northwest Over the Mitchell Valley	20
Photo 2-20: Heavy Lift of Equipment Tracks and Photo 2-21: Equipment Assembly at Camp 9	21
Photo 2-22: Camp 5 Location in 2015 and Photo 2-23: Camp 5 Footprint Looking Southeast	22
Photo 2-24: Sulphurets (KSM) Camp Accommodations Area Looking East	23
Photo 2-25: Sulphurets (KSM) Camp With Accommodations on the Left and Laydown Areas on the Top and Right	23
Photo 2-26: Crusher Pad Location	25
Photo 2-27: Crusher Pad Tree Clearing Complete	25
Photo 2-28: Geotechnical Drill and Pad on the Cleared MTT Pad	26
Photo 2-29: Ground Level Depiction of MTT Laydown Clearing Activity	27
Photo 2-30: TWTP # 6 General Location	28
Photo 2-31: TWTP #6 Footprint	28
Photo 2-32: Road Right-of-Way Between Camp 9 and Mitchell Creek	29
Photo 2-33: Treaty Switching Station Location Prior To Development	31
Photo 2-34: Treaty Switching Station With Hwy 37 on The Left	31
Photo 2-35: Treaty Transmission Line Tree Clearing on Left With TCAR (10.5 Km) on the Right	32
Photo 2-36: Representative Tower Pad Construction	33
Photo 2-37: Access Track to Tower 8 Northeast of Camp 11	33
Photo 2-38: Constructed Glacier Creek FHOP Looking Northwest Along Highway 37	34
Photo 2-39: Water Supply Well Access Road Looking Northwest Towards the Primary Freshwater Well Location	36
Photo 2-40: FLT1 Footprint at 70% Completion Located At Treaty Transmission Line Terminus	37

## ACRONYMS AND ABBREVIATIONS

Agreement	Nisga’a Final Agreement
BC	British Columbia
CCAR	Coulter Creek Access Road
CPD	Certified Project Description
EAC or Certificate	Environmental Assessment Certificate M#14-01
EAO	Environmental Assessment Office
FHOP	Fish Habitat Offsetting Project
ha	hectare
ICEA	Iron Cap Exploration Adit
km	kilometre
KSM	KSM Project
KSMCo	KSM Mining ULC
m	metre
MTT	Mitchell-Treaty Twinned Tunnels
NTAR	North Treaty Access Road
NTL	Northwest Transmission Line
OPC	Ore Preparation Complex
Project	KSM Project
PTMA	Processing and Tailing Management Area
Seabridge Gold	Seabridge Gold Inc.
TCAR	Treaty Creek Access Road
TWTP	Temporary Water Treatment Plant

## DEFINITIONS

Closure	The decommissioning and reclamation of Project components that are no longer required.
Construction	Tree clearing or ground disturbance related to the building of new Project components (as defined in Schedule B of KSM Project EAC #M-01).
Earthworks	Engineered works carried out in and with granular soils i.e., the movement of earth by means of excavation and filling.
Grubbing	Removal of trees, shrubs, and stumps. Performed following tree clearing, preceding construction.
Life of Project	Construction, operations, closure, and post-closure.
Life of Mine	No more than 52 years or operations where ore extraction and/or milling is occurring.
Tree clearing	Removal of trees.

## 1.0 INTRODUCTION

KSM Mining ULC (KSMCo), a wholly owned subsidiary of Seabridge Gold Inc. (Seabridge Gold) and Holder of Environmental Assessment Certificate #M14-01 (EAC or Certificate), is seeking a substantially started determination for the KSM Project (KSM or Project). Section 31 of the British Columbia (BC) *Environmental Assessment Act* requires that an environmental assessment certificate holder have “substantially started” the project before the certificate deadline.

The BC Ministers of Environment and Energy and Mines issued the EAC on July 29, 2014, under the 2002 *Environmental Assessment Act*, approving the Project with conditions. The EAC was amended on October 1, 2018 to change the holder of the Certificate from Seabridge Gold to KSMCo. On March 21, 2019, the EAC was amended to extend the expiry date to July 29, 2024 and on November 16, 2021 to extend the expiry date to July 29, 2026 due to the impacts of the global COVID-19 pandemic. The EAC expires on July 29, 2026. The federal Minister of the Environment (federal minister) issued a Decision Statement (DS) on December 19, 2014, under the *Canadian Environmental Assessment Act, 2012* and a Project Recommendation under Chapter 10, sections 8 and 9 of the Nisga’a Final Agreement (Agreement).

The term “substantially started” is not defined in the *Environmental Assessment Act*. Based on the definition of “project” in the Act and the objective of the Act, the substantially started determination should address “primarily physical activities affecting the land environmentally, as contrasted with bureaucratic activities, for example, which do not.” The Environmental Assessment Office’s (EAO) Substantial Start Determination Policy (EAO 2021) provides guidance on the substantially started determination process. The EAO’s policy states that a determination as to whether a project has been “substantially started” is made in light of all relevant factors, including:

- What time, effort, and resources have been invested to physically develop one or more main project elements?
- How have the activities undertaken to date contributed to the development of the overall project? For example, are the activities in relation to a significant or important step, or are they ancillary, secondary, or temporary?
- Is the activity or component identified in the Certified Project Description (CPD) as part of the project?

The EAO 2021 policy also states that:

*Although... the decision maker should focus less on the money expended and more on what has taken place physically on the site, there is some latitude to consider other factors... Financial information can be provided in order to give an indication of scope of the construction and to assist in corroborating the significance of physical works.*

The determination of “substantially started” is a compliance decision and not a duplication of the environmental assessment process, which concluded in 2014 that the advancement of the KSM Project was in the public’s interest. The *Reasons for Ministers’ Decision* (BC EAO 2014) concluded “The EA Certificate for the Project includes legally enforceable conditions which gives us confidence to conclude that the Project will be constructed, operated and decommissioned in a way that no significant adverse effects are likely to occur”. The November 16, 2021 amendment decision extending the EAC confirmed the Project was in the public interest.

To advance the Project, KSMCo has:

- Spent a total of \$997 million between 2002 to 2023:
  - \$805 million was spent between 2015 to 2023, after the issuance of the EAC.
  - \$444 million was spent between 2021 and 2023, including over 140,212 on-site person days, to advance 363 hectares (ha) of construction disturbance. Approximately 79% of the total contract value was awarded to Indigenous-owned or affiliated companies.
- Completed or initiated construction of 94 of the 336 components in the Project’s CPD as follows:
  - Completed 100% of the construction of the 17 km of the Treaty Creek Access Road (TCAR) and installed the Bell-Irving River bridge;
  - Partially constructed up to KM 3.3 or 10% of the Coulter Creek Access Road (CCAR), and initiated construction of the North Treaty Access Road (NTAR) and Treaty Saddle Road;
  - Constructed and occupied Camp 11 (Treaty Marshalling Yard Camp);
  - Completed tree clearing, grubbing, and earthworks of Camp 9 (Mitchell Initial Camp) site;
  - Completed tree clearing of Camp 3 and Camp 5 (Treaty Plant Camp);
  - Expanded and upgraded the Sulphurets (KSM) Camp;
  - Completed tree clearing of mine site components (Crusher Pad, Mitchell-Treaty Twinned Tunnels (MTT) Portal Pad, Mitchell Ore Preparation Complex (OPC) Pad, Mitchell MTT Area Laydown, temporary Water Treatment Plant (TWTP) #6 footprint and muck pad, and mine site road right-of-way from Camp 9 to the Crusher Pad;
  - Completed tree clearing, grubbing, stripping and earthworks of the Treaty Switching Station pad and initiated installation of the foundations for the Station’s main infrastructure;
  - Completed 16.5 km of tree clearing for the Treaty transmission line corridor. In addition, engineered access tracks and associated pads were constructed for tower structures 1 thru 13. Access tracks will facilitate the movement of the specialized heavy equipment required for foundation construction and tower installation.

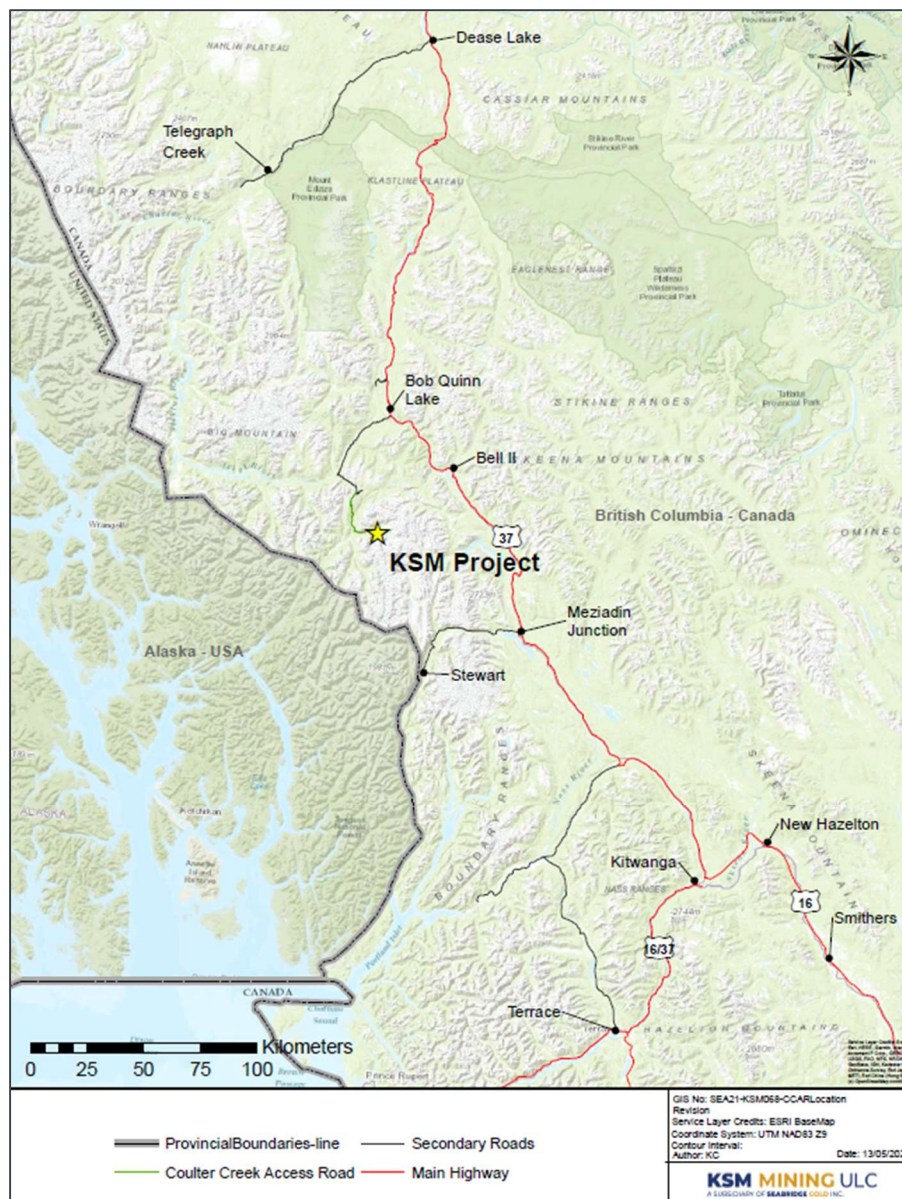
- Initiated partial access development and geotechnical drilling for an additional 59 tower locations;
- Completed tree clearing of the Substation 1 (Treaty substation (FTL1)) footprint;
- Completed construction of the Glacier Creek Fish Habitat Offsetting Project; and
- Completed tree clearing of Water Supply Well Access Road and the Treaty OPC Access Road located in the Treaty OPC.
- Received 67 provincial and 7 10 federal authorizations approving construction works and activities.
- Addressed 8 EAC conditions and advanced 26 of the 47 EAC conditions.
- Developed strong relationships with Indigenous groups. Impact benefit agreements are in place with the Nisga'a Nation and the Tahltan Nation. Capacity funding agreements are in place with the Tsetsaut Skii km Lax Ha and Gitxsan Hereditary Chiefs. A Wilp Sustainability Agreement is in place with the Gitanyow Hereditary Chiefs' Office. Letters of support for a positive substantially started decision have been received from the Nisga'a Nation and the Gitxsan Hereditary Chiefs (see Appendix B for letters of support).
- Supported the establishment of the Treaty Creek Limited Partnership (January 2023) between the Nisga'a Nation and Tahltan Nation, specifically created to optimize the nations' participation in the KSM Project.
- Built solid relationships with local communities as demonstrated by the letters submitted by the Village of Hazelton, District of New Hazelton, Town of Smithers, District of Stewart, City of Terrace, and Regional District of Kitimat-Stikine, which support a favourable substantially started decision (see Appendix B for letters of support).

The Project's 52-year mine life will provide a significant economic anchor for northwest BC, the rest of BC as a whole, and Canada. KSM will also contribute to the supply of critical metals and minerals, supporting green energy projects across Canada, including BC.

It is the opinion of KSMCo that a favorable substantial start determination should be granted for the KSM Project. A significant amount of time, effort and resources has been invested to physically develop several main Project elements that are important to the overall development of the overall Project. Please refer to Appendix A for a discussion on how KSMCo will continue to advance KSM and how the development work completed to date fits into the overall Project development.

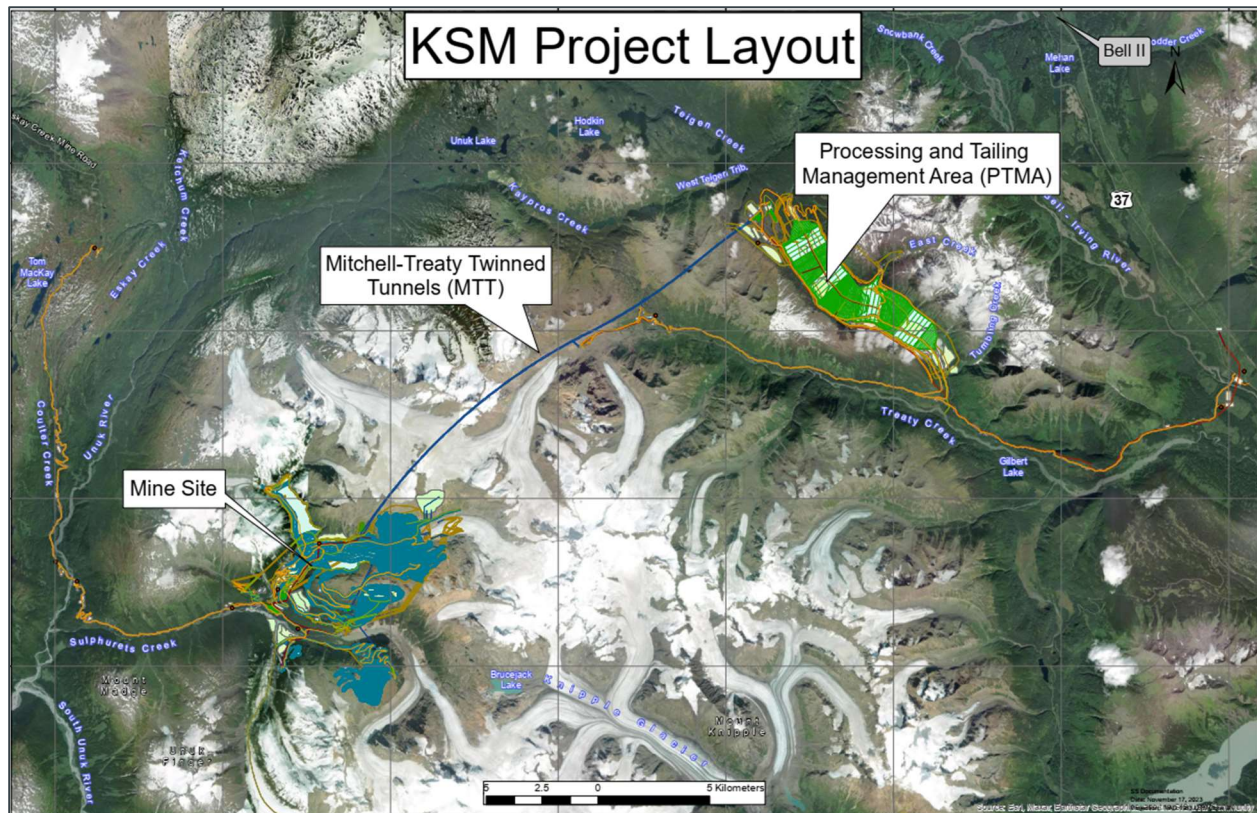
## 1.1 PROJECT OVERVIEW AND INDIGENOUS, STAKEHOLDER AND PUBLIC RELATIONS

The KSM Project is an open pit and underground gold, copper, silver, and molybdenum mine. The Project is on provincial Crown land in the Coast Mountains of northwestern BC, approximately 65 km northwest of Stewart, within 30 km of the BC-Alaska border (Figure 1-1). The Project is within the Nass Area as defined in the Nisga'a Final Agreement. Aspects of the Project are within the traditional territories of the Tahltan Nation and Tsetsaut Skii km Lax Ha. The traditional territories of the Gitanyow and Gitxsan nations are downstream of the Project.



**FIGURE 1-1: KSM PROJECT LOCATION**

The Project will process 130,000 tonnes per day over a 52-year mine life. Four deposits will be mined: Kerr, Sulphurets, Mitchell and Iron Cap. The Project is accessible by paved provincial Highway 37 which will be used to transport workers and equipment. The designated Mine Site and Processing and Tailing Management Area (PTMA), connected by the MTT (Figure 1-2), are currently accessible by helicopter. Two new roads are in development; the CCAR to access the Mine Site and the TCAR to access the PTMA.



**FIGURE 1-2: KSM PROJECT LAYOUT**

KSMCo established Project offices in Smithers in 2011 and Terrace in 2022 to support public engagement and maximize employment and contract opportunities for local communities and Indigenous groups. To date, KSMCo has:

- Supported the Nisga’a Nation and Tahltan Nation partnership (2023) to optimize the nations’ participation in KSM. The Treaty Creek Limited Partnership has been established through their respective development corporations, Tahltan Nation Development Corporation and Nisga’a Growth Corporation.
- Signed agreements with Indigenous groups:
  - Benefit agreements were signed with the Nisga’a Nation in 2014 and the Tahltan Nation in 2019. The agreements include monetary payments, employment and contracting opportunities, environmental commitments, and education and training.

- Gitanyow Huwilp Sustainability Agreement with the Gitanyow Hereditary Chiefs’ Office was signed in 2014 for certain programs relating to wildlife, fish, and water quality monitoring.
- Capacity funding agreements with Gitxsan and Tsetsaut Skii km Lax Ha.
  - Signed a Facilities Agreement with BC Hydro in 2022 covering the design and construction of facilities by BC Hydro to supply hydro-sourced electricity for the Project. A letter from BC Hydro describing over a decade of collaboration with the objective of securing green, renewable energy for the Project is included in Appendix B.
  - Established the Seabridge Gold Community Sponsorship and Donation Program, which has donated over \$1.4 million to community events in northwest BC over the past 11 years.
  - Established the Seabridge Gold Student Bursary Program in 2016, which awards an average of \$100,000 annually, totalling over \$770,000 dollars to students residing in northwest BC.
  - Developed sustainability program aligned to supporting local communities and businesses, leveraging hydroelectric power, and understanding opportunities for climate change mitigation.

The KSM Project represents a monumental opportunity for responsible development, economic growth, and a sustainable future for BC and Canada.

## **1.2 ENGAGEMENT ON SUBSTANTIALLY STARTED DETERMINATION REQUEST**

KSMCo began engaging with Indigenous groups and local governments on the substantially started determination request in April 2023. This engagement included:

- Face-to-face meetings with the President of Nisga’a Lisims Government, representatives of the Tahltan Central Government, and the Mayor and Councils of the District of New Hazelton and the Town of Smithers.
- Virtual meetings with the Tsetsaut Skii km Lax Ha, Mayor and Councils of the Village of Hazelton, City of Terrace, and District of Stewart, and the Chair and Directors of the Regional District of Kitimat-Stikine.

During site tours with Indigenous groups and local governments, KSMCo discussed the construction works and activities that were being advanced to secure a positive substantial start determination.

KSMCo provided a draft of this report to the Nisga’a Lisims Government, Tahltan Central Government, Tsetsaut Skii km Lax Ha, Gitanyow Hereditary Chiefs’ Office and Gitxsan Hereditary Chiefs’ Office for review and comment in December 2023 and followed up with Indigenous groups to discuss their comments on the draft report.

Letters supporting a positive substantial start determination have been submitted by the Nisga'a Nation, Gitksan Hereditary Chiefs, Village of Hazelton, District of New Hazelton, District of Stewart, Town of Smithers, City of Terrace, and the Regional District of Kitimat-Stikine (Appendix B). Seabridge has discussed the substantial start determination request with the Tahltan Central Government and a request for a letter of support is being considered by the Tahltan Executive.

## **1.3 PROJECT COMPLIANCE AND ENFORCEMENT**

Pursuant to Condition 1 of the EAC, KSMCo has submitted nine compliance reports on the status of compliance with certificate conditions on the following dates: February 23, 2015, December 21, 2016, December 30, 2017, December 28, 2018, December 20, 2019, December 30, 2020, December 17, 2021, December 16, 2022, December 28, 2023.

The EAO Compliance and Enforcement officers have conducted four inspections of the Project as follows: December 9, 2020 (IR2020-059), December 5, 2022 (IR2022-063), June 8, 2022 (IR2022-031) and June 20, 2023 (20230033\_IR001).

The KSMCo compliance reports and EAO inspection records can be found on EAO's electronic Project Information Centre.

## **2.0 EAO SUBSTANTIAL START DETERMINATION CONSIDERATIONS**

This section provides factual information to address the factors identified in EAO's Substantially Started Determination Policy (EAO 2021) that the EAO considers relevant to the determination:

- What time, effort, and resources have been invested to physically develop one or more main project elements?
- How have the activities undertaken to date contributed to the development of the overall project? For example, are the activities in relation to a significant or important step, or are they ancillary, secondary, or temporary?
- Is the activity or component identified in the CPD as part of the project?

Seabridge Gold has raised and committed to KSMCo the substantial sums of capital required to finance the engagement of technical experts, the extensive planning, the employment of contractors and workers, and all the essential resources necessary to advance the Project and would not have occurred unless the Project was being undertaken in a real and tangible way. It is the opinion of KSMCo that a favourable substantial start designation should be granted to KSM.

### **2.1 WHAT TIME, EFFORT, AND RESOURCES HAVE BEEN INVESTED TO PHYSICALLY DEVELOP ONE OR MORE MAIN PROJECT ELEMENTS?**

Significant time, effort and resources have been spent to secure permits and raise capital on public markets to physically develop the Project.

Since 2000, KSMCo has spent over \$997 million on the Project, of which over \$805 million was spent between 2015-2023, after the EAC approval. From 2021 to the end of 2023, KSMCo has spent over \$444 million on construction activities to develop on-site permanent physical works and 86% of the 2022/23 spend stayed in BC. On-site person days totalled 140,212 from 2021 to 2023.

KSMCo currently holds 67 provincial and 7 federal authorizations. Provincial authorizations under the *Mines Act*, *Environmental Management Act (Waste Discharge Regulation and Municipal Wastewater Regulation)*, *Land Act*, *Forest Practices Code of BC Act*, *Forest Practices and Range Act*, *Wildlife Act*, *Water Sustainability Act*, *Drinking Water Protection Act* and Drinking Water Protection Regulation, authorize construction activities such as TCAR, CCAR and camp construction and discharges to the environment. Federal authorizations under the *Fisheries Act* authorize fish habitat offsetting projects and the *Canadian Navigable Waters Act* mitigates impacts on public navigation. Other federal authorizations include a licence under the *International Waters Improvement Act* and Schedule 2 listing under the Metal and Diamond Mining Effluent Regulations.

KSMCo completed eight conditions and advanced 26 of the 47 conditions in Schedule B of the EAC. Construction activities are consistent with the requirements environmental management plans and standard operating procedures. Clearing and construction works are preceded by demarcating areas around environmental sensitive and cultural features, and conducting wildlife presence surveys, fish and wildlife habitat evaluations, and stream assessments. Environmental monitors monitor construction sites for compliance with permits. Health and safety programs required certified fallers be used to fell timber. Safety trails were constructed and utilized where steeper slopes or distance from helicopter landing pads necessitated them.

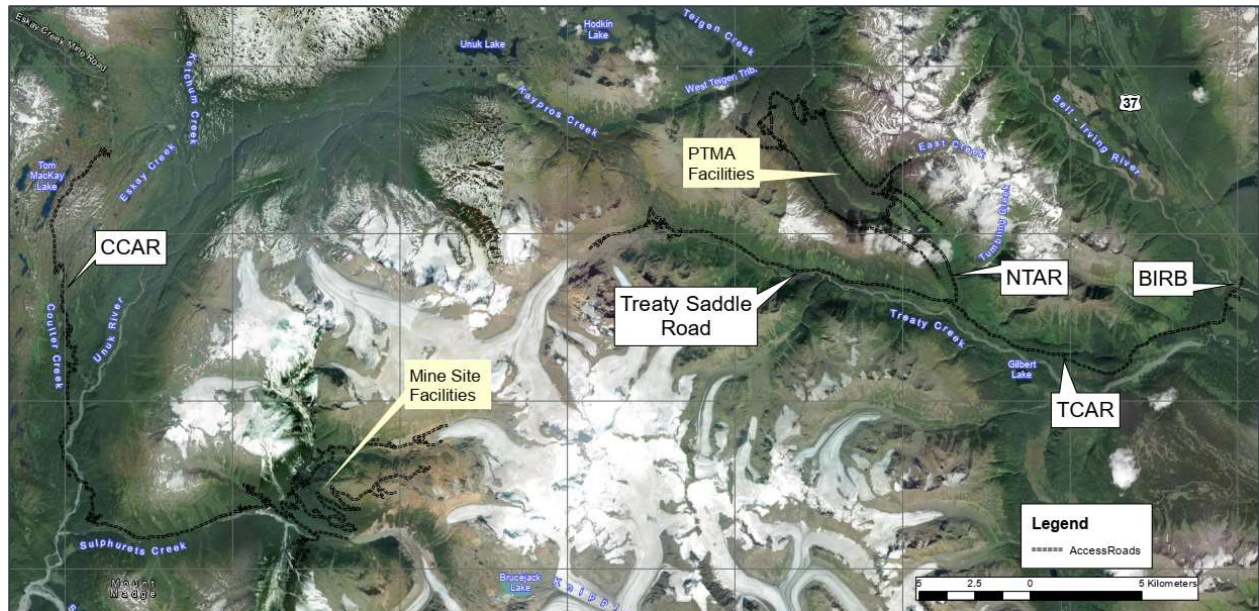
KSMCo has advanced the construction of Project components under the following elements identified in the CPD:

- Project Access
- Project Camp Facilities
- Electrical Power Supply and Distribution
- Fish and Wetland Compensation
- Mine Site Facilities; and
- Processing and Tailing Management Area Facilities.

Photographs are provided with the description of each Project component to show the component and/or the extent of disturbance. For overview purposes, satellite imagery is provided in Appendix C to show areas prior to the issuance of the EAC in comparison to latest snow free coverage. While the earliest imagery obtainable from the Sentinel-2 satellite was from August 2017, no disturbance was created between December 2014 and August 2017.

## 2.1.1 ACCESS ROADS

Figure 2-1 identifies the access roads where there has been construction activity. Provided below is a description of each road and construction activities.



**FIGURE 2-1: PROJECT ACCESS ROADS**

### 2.1.1.1 TREATY CREEK ACCESS ROAD

The TCAR is a 17 km two-lane road that will provide access to the PTMA. During mine construction, the TCAR will be used to: move supplies, equipment, and crews; advance construction of the NTAR and installation of towers for the Treaty transmission line; and develop facilities in the PTMA. During mine operations, ore concentrate will be hauled along the TCAR to Highway 37. The TCAR will be in place for the life of Project.

**Progress to date** – Construction of 17 km of the TCAR, from its junction with Highway 37 to its junction with the NTAR, has been completed. Activities included engineering design, field surveys verifying ground conditions, tree clearing of road right of way, grubbing, road pioneering, drill and blast road benching, ditching, installations of erosion and sediment controls, gravelling, bridge installations and road final grade. Disturbance totals 128.5 ha including the road, soil material borrow pit (or soil spoil pile) areas, excess soil distribution areas, and log processing areas. Photos 2-1 and 2-2 show aerial views of a constructed section of the TCAR. Photo 2-3 shows the drill and blast quarry at KM 8.5.



*PHOTO 2-1: TCAR LOOKING SOUTHEAST WITH TREATY CREEK ON THE RIGHT*



*PHOTO 2-2: SOIL SPOIL PILE AREA AT KM 14 OF THE TCAR*



**PHOTO 2-3: DRILL AND BLAST QUARRY AT KM 8.5 ON THE TCAR**

#### **2.1.1.2 BELL-IRVING RIVER BRIDGE**

The Bell-Irving River bridge (BIRB) is at the start of the TCAR at Highway 37. The bridge is a three span, 119 metre (m) long composite superstructure with two steel girders and precast concrete deck panels. The abutments and piers consist of precast concrete caps supported by steel pipe piles. The bridge will be in place for the life of Project.

**Progress to date** – At the time of EAC award, there was a historical forestry road providing unmaintained access for the 0.5km section from Highway 37 to the Bell-Irving River (Photos 2-4 and 2-5). A temporary bridge was installed to enable equipment to access the west side of the river and provide a work platform to erect the permanent structure (Photo 2-6). Bridge construction was completed in 2022 (Photo 2-7). Construction activities consisted of earthworks on the approaches to the bridge (0.1 ha), riprap installations, pre-structural assembly, cantilever installation, and erosion and sediment control measures. To meet EAC Condition 33, a gate was installed on the east bank that will restrict access across the bridge to the west side of the Bell-Irving River. In July 2023 additional work was completed, including installation of a boat launch, security building, washroom, generator, sewage tank, and highway berms and jersey barriers. A 2023 Load Rating Report confirms the bridge has adequate capacity to support L150 design vehicles, ore concentrate trucks, multi-axle spreader wing dolly, 40-ton rock truck, 5-axle 250-ton mobile crane and stripped rotary drill rig.



*PHOTO 2-4: BIRB LOCATION PRE-EAC APPROVAL  
(2014) WEST BANK*



*PHOTO 2-5: BIRB LOCATION PRE-EAC APPROVAL  
(2014) EAST BANK*



*PHOTO 2-6: TEMPORARY AND PERMANENT BIRB*



*PHOTO 2-7: BIRB WITH SECURITY BUILDING AND BOAT  
LAUNCH*

### 2.1.1.3 COULTER CREEK ACCESS ROAD

The 35 km long CCAR will be used to transport mine personnel, operating equipment, and supplies to support mine development, such as explosives and equipment repair components, and provide alternative emergency access to the Mine Site for the life of mine.

**Progress to date** – The first few kilometers of the CCAR follow a historic mine access trail (Photo 2-8). Completed partial construction to road subgrade elevation up to KM 3.3 and some surfacing done for erosion and sediment control. Geotechnical drilling for the Unuk and Mitchell River bridge abutments

has also been completed. Disturbance totals 4.5 ha. Photo 2-10 shows a constructed and surfaced section of the CCAR. Camp 3 (Eskay Staging Camp) is situated near the junction of the CCAR and Eskay Mine Road and was utilized for crews constructing the CCAR. Camp 3 is currently dismantled and thus is not included as a separate and permanent camp component. The cleared area is included in the CCAR disturbance as it will continue to function as a laydown area for the life of mine.



*PHOTO 2-8: HISTORIC MINE ACCESS TRAIL IN 2014*



*PHOTO 2-9: CCAR PIONEERING ROAD 2022*



*PHOTO 2-10: CCAR LOOKING SOUTHWEST*

#### 2.1.1.4 NORTH TREATY ACCESS ROAD

The NTAR (formerly referred to as the North Treaty lower road) starts at approximately KM 17 on the TCAR and ends at the PTMA. The NTAR will be in place for the life of Project.

**Progress to date** – Construction consisting of tree clearing for the entire length (13 km) of the road has been completed. Disturbance totals 30 ha. Field surveys verifying ground conditions and design engineering has also been completed. Geochemical drilling has been completed on the first 7.6 km and this data will be used to further refine rock useability and handling plans. Photo 2-11 shows a representative section of construction on the NTAR.



*PHOTO 2-11: NTAR (~5KM FROM JUNCTION WITH TCAR) LOOKING SOUTHEAST OVER SOUTH CELL OF TAILING MANAGEMENT FACILITY.*

### 2.1.1.5 TREATY SADDLE ROAD

The 15 km Treaty Saddle Road starts at approximately KM 17 on the TCAR and continues west up the Treaty Creek Valley. It will provide access to the Mitchell-Treaty Saddle portals. The road will be in place for the life of mine.

**Progress to date** – Construction has been initiated on the first 1.5 km of the Treaty Saddle Road. Road construction and earthworks have been completed on 1.0 km of the road while tree clearing extends another 0.5 km. Disturbance totals 5.7 ha. Progress to date enables equipment to be mobilized past the NTAR junction to continue road construction and avoid congestion with NTAR and transmission line construction activities. Photo 2-13 shows the constructed section of the Treaty Saddle Road.



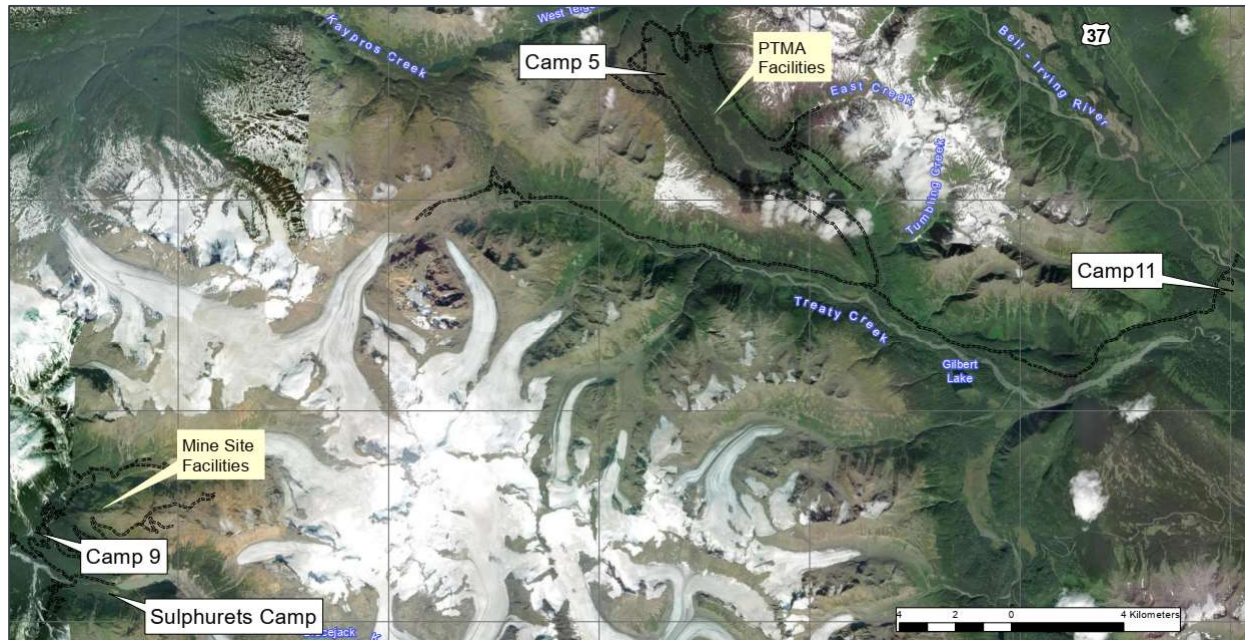
*PHOTO 2-12: TREATY SADDLE ROAD CONSTRUCTION COMMENCING*



*PHOTO 2-13: TREATY SADDLE ROAD WITH NTAR TREE CLEARING ON RIGHT*

## 2.1.2 CAMPS

Figure 2-2 identifies the camps where there has been construction activity. Provided below is a description of each camp and construction activities.



**FIGURE 2-2: GENERAL LOCATION OF PROJECT CAMPS**

### 2.1.2.1 CAMP 11 (TREATY MARSHALLING YARD CAMP)

Camp 11 provides accommodation for workers developing the TCAR, NTAR and Treaty transmission line. The camp will be in place and utilized for the life of mine.

**Progress to date** – Camp 11 was constructed and occupied in 2022. Disturbance totals 30.5 ha. The camp has 210 rooms, a multi helicopter port, and material laydown areas. Camp pad construction included tree falling, burning, grubbing, rough grading, finish grade perimeter ditching, and development of intermediate and perimeter roads. Significant effort and resources were required to construct sediment ponds to manage surface run-off during heavy precipitation or snowmelt events. Photos 2-15 and 2-16 show views of the camp.



***PHOTO 2-14: FORESTRY PLANTATION IN 2015 ON FUTURE CAMP 11 LOCATION***



***PHOTO 2-15: CAMP 11 FROM EAST CORNER OF PAD LOOKING WEST***



***PHOTO 2-16: CAMP 11 ACCOMMODATIONS FROM SOUTHWEST CORNER OF PAD LOOKING EAST***

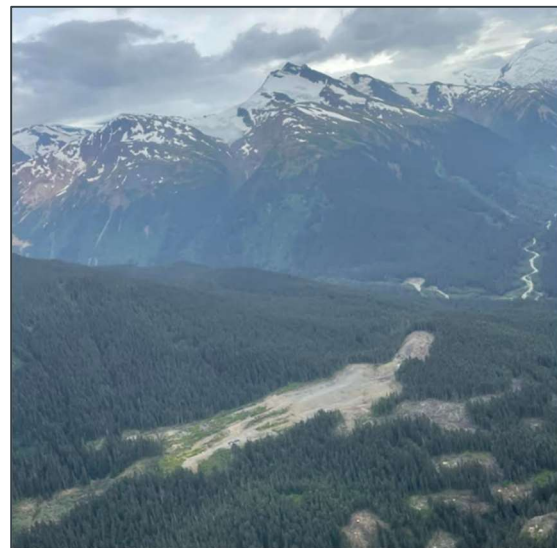
### 2.1.2.2 CAMP 9 (MITCHELL INITIAL CAMP)

Camp 9 (Mitchell Initial Camp) will accommodate 140 workers on the Mine Site, as well as an incinerator, sewage treatment plant, truck wash, mechanical shop, offices, accommodation complex, parking, fence, gate, and water treatment/storage. Following construction, Camp 9 will be transitioned to Camp 10 (housing 400 workers) and will be in place for the life of Project.

**Progress to date** – Camp 9 construction included tree clearing, grubbing, and earthworks (Photos 2-18 and 2-19) of the full footprint. Disturbance totals 15.8 ha. The earthworks utilized cut and fill techniques to construct various pads for infrastructure. A full complement of civil equipment was helicopter heavy-lifted to this site to support further road and pad construction (Photos 2-20 and 2-21). Currently on site are four tracked excavators, three articulated rock trucks, one tracked excavator drill, three tracked bulldozers, one smooth drum roller/compactor, two passenger vehicle pickups, and a mechanic’s service truck. Lift costs were more than \$3 million. This equipment is expected to remain on the Mine Site for the life of mine.



*PHOTO 2-17: CAMP 9 LOCATION AS VIEWED IN 2020.*



*PHOTO 2-18: CAMP 9 EARTHWORKS LOOKING SOUTHWEST OVER THE MITCHELL VALLEY*



*PHOTO 2-19: CAMP 9 EARTHWORKS LOOKING NORTHWEST OVER THE MITCHELL VALLEY*



*PHOTO 2-20: HEAVY LIFT OF EQUIPMENT TRACKS.*



*PHOTO 2-21: EQUIPMENT ASSEMBLY AT CAMP 9*

### 2.1.2.3 CAMP 5 (TREATY PLANT CAMP)

Camp 5 will accommodate up to 700 people during construction of the MTT, Treaty Process Plant, and the Tailing Management Facility. Camp 5 will evolve into the Treaty Operating Camp following the Construction phase. Camp 5 will be in place for the life of Project.

**Progress to date** – Tree clearing of the entire Camp 5 footprint was completed. Disturbance totals 7.5 ha. Photo 2-23 shows the cleared Camp 5 footprint, which will include a sewage treatment plant, bunk houses, recreation and food services buildings, generators, and parking area.



*PHOTO 2-22: CAMP 5 LOCATION IN 2015*



*PHOTO 2-23: CAMP 5 FOOTPRINT LOOKING SOUTHEAST*

#### 2.1.2.4 SULPHURETS (KSM) CAMP

Sulphurets (KSM) Camp is a historic exploration camp that has been upgraded since the EAC was issued in 2014. The camp is currently a fly in camp with room for 50 persons that is operated seasonally. The area accommodates multiple helicopters and is used to marshal material in the Mitchell area.

**Progress to date** – The camp was expanded from 3 ha to 4 ha in 2018. The additional area was cleared and grubbed to relocate core samples and an incinerator (Photos 2-24 and 2-25). This improved the usability of the camp accommodation area and allowed for scheduled upgrades. Improvements in 2022 included renovations to provide single occupancy rooms, replace canvas tent style roofs with wood, upgrade power generators from 35 to 50 kW and convert from individual room diesel heaters to more efficient heating. Additional upgrades to showers, washrooms, laundry facilities, kitchen facilities, and water systems were also implemented. The camp area will be used during the initial years of mine operations to support construction and operational mine expansion drilling and house drill crews.



***PHOTO 2-24: SULPHURETS (KSM) CAMP ACCOMMODATIONS AREA LOOKING EAST***



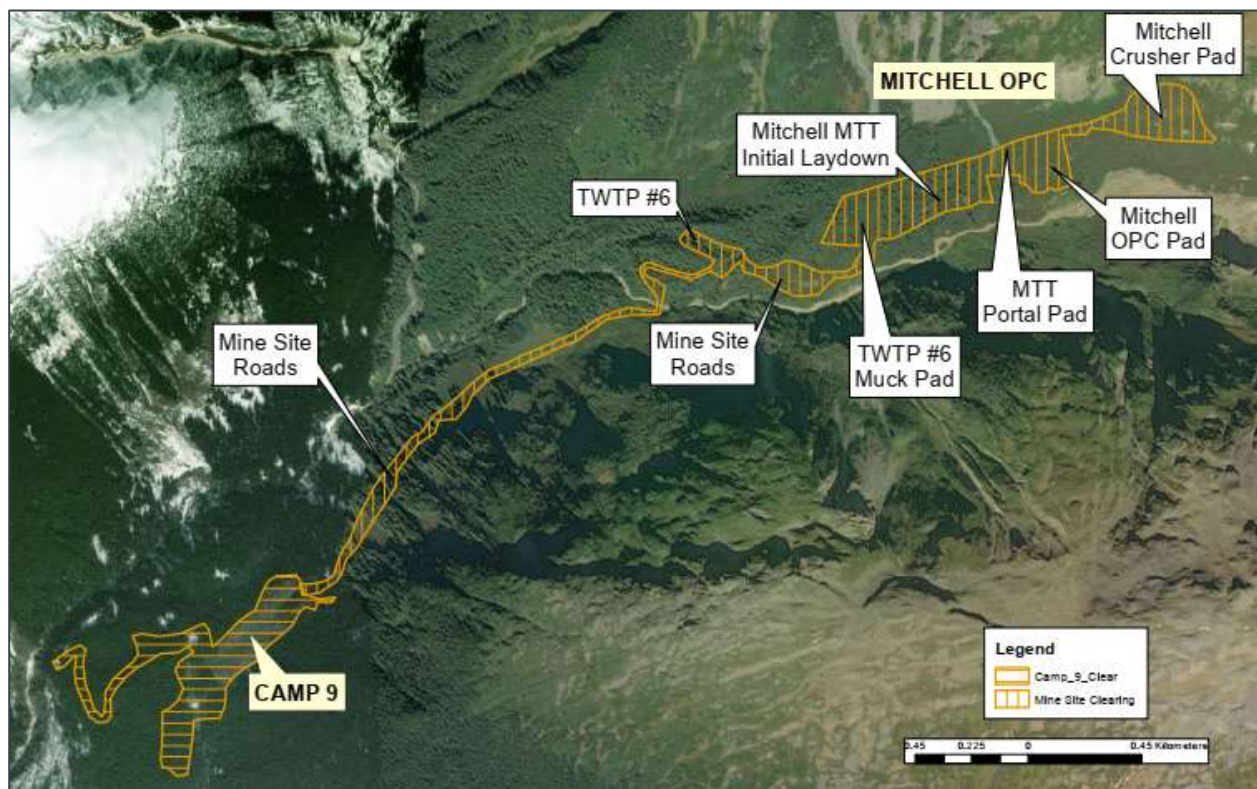
***PHOTO 2-25: SULPHURETS (KSM) CAMP WITH ACCOMMODATIONS ON THE LEFT AND LAYDOWN AREAS ON THE TOP AND RIGHT***

### 2.1.3 MINE SITE FACILITIES

Construction activities have been conducted on 39.7 ha in Project component footprints on the Mine Site (Figure 2-1). This disturbance is exclusive of Camp 9 (15.8 ha) and Sulphurets Camp (1.0 ha) accounted for in Section 2.1.2. Areas have been cleared to improve access for further site investigation and geotechnical drilling to support design engineering and permitting for Mine Site components. Work crews and equipment were transported to all Mine Site construction areas by helicopter.

The Mitchell OPC is the central hub of the Mine Site and will include facilities for rock crushing, ore storage, fuel storage, electrical substation, and connecting haul and site roads. It is also the location of the MTT west portal and associated laydown pads, portal pads, conveyor, and transportation tunnels. Many components in the Mitchell OPC are designed to be dual purpose as they will have a specific function during construction and will be re-purposed during operation. Construction has targeted the components within the Mitchell OPC identified below.

Figure 2-3 shows the cleared areas in the Mine Site. For overview purposes, satellite imagery is provided in Appendix C to show areas prior to the issuance of the EAC in comparison to latest snow free coverage. While the earliest imagery obtainable from the Sentinel-2 satellite was from August 2017, no disturbance was created between December 2014 and August 2017.

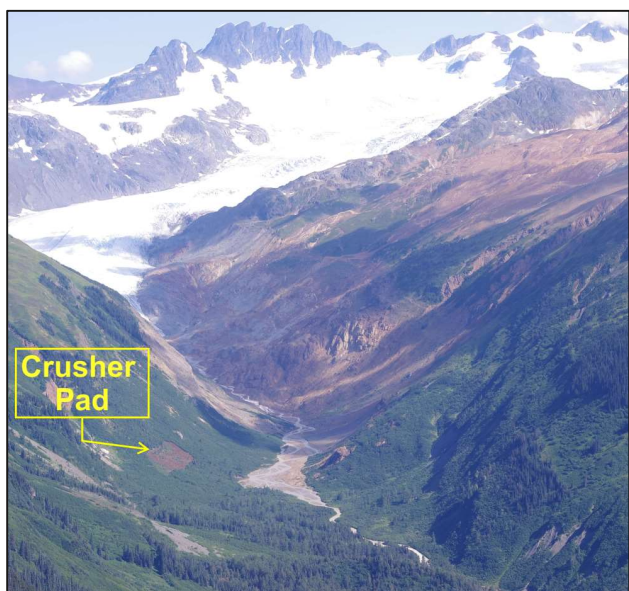


**FIGURE 2-3: PROJECT DEVELOPMENT IN THE MINE SITE**

### 2.1.3.1 MITCHELL CRUSHER PAD

The Mitchell Crusher Pad will house the Primary Crusher. The northern portion of the Crusher Pad overlaps the Iron Cap Exploration Adit (ICEA) portal pad, and both will be utilized to support mining activities.

**Progress to date** – The Crusher Pad is shown on Photo 2-26. The pad has been cleared for trees as shown on Photo 2-27, which will facilitate further geotechnical drilling and site investigation that is required before starting earthworks. Disturbance totals 6.3 ha. During mine operations, the portal pad will be incorporated into the Mitchell Crusher Pad that will house the Primary Crusher. The Primary Crusher Pad which will remain in place until mine closure.



*PHOTO 2-26: CRUSHER PAD LOCATION*



*PHOTO 2-27: CRUSHER PAD TREE CLEARING COMPLETE*

### 2.1.3.2 MTT PORTAL PAD

The MTT portal pad is the starter pad to enable MTT portal development by providing better access and a flat work area for equipment and infrastructure.

**Progress to date** – Tree and vegetation clearing of the MTT portal pad has been initiated. Disturbance totals 1.6 ha. Geotechnical drilling was also conducted in 2023 to support design engineering (Photo 2-28). Once the MTT is commissioned, the MTT portal pad will be overlain by the Mitchell OPC pad. This pad will be utilized for the life of Project.



*PHOTO 2-28: GEOTECHNICAL DRILL AND PAD ON THE CLEARED MTT PAD*

### 2.1.3.3 MITCHELL OPC PAD

The Mitchell OPC pad will be expanded to include the MTT portal pad as mentioned in Section 2.1.3.2. During the construction of ICEA infrastructure, this area will be utilized to store topsoil and overburden. During mining, ore stockpiles will also be maintained on this pad to ensure an uninterrupted supply of ore for transport through the MTT to the Treaty OPC. This pad will be utilized for the life of Project as continued access through the MTT will be required post-closure to provide access for operation of the WTP and inspection and maintenance of remaining facilities.

**Progress to date** – Tree clearing has been completed on most of the Mitchell OPC pad. Disturbance totals 3.5 ha.

#### 2.1.3.4 MITCHELL MTT LAYDOWN

During the construction of the MTT, this area will be utilized to store equipment and supplies. Prior to this, all waste rock removed from the ICEA will be encapsulated within a waste rock pile at this location. The waste rock pile is designed to hydrologically isolate the waste rock, using both a liner and a cover.

**Progress to date** – Tree clearing of the waste rock pile footprint within the MTT Laydown has been completed (Photo 2-29). Disturbance totals 1.5 ha. This laydown will be utilized for the life of Project as continued access through the MTT will be required post-closure.



*PHOTO 2-29: GROUND LEVEL DEPICTION OF MTT LAYDOWN CLEARING ACTIVITY*

#### 2.1.3.5 TEMPORARY WATER TREATMENT PLANT #6 MUCK PAD

The TWTP #6 muck pad is located to the west of the MTT Laydown. This pad will hold excavated material from the MTT. Any contact water from this location will be diverted to TWTP #6. As operations continue, the Rock Storage Facility will eventually overlie this area and will remain for the life of Project.

**Progress to date** – Tree clearing of the TWTP #6 muck pad has been completed. Disturbance totals 6.5 ha.

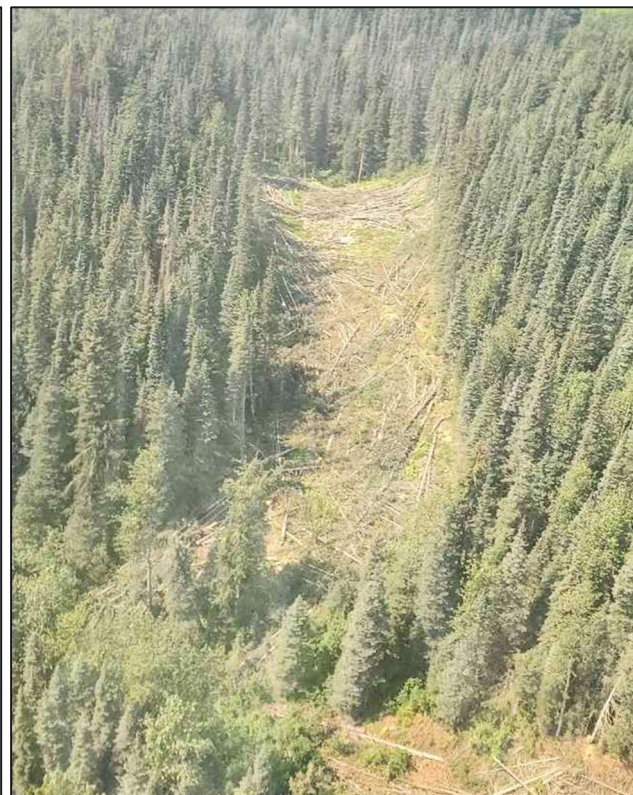
### 2.1.3.6 TEMPORARY WATER TREATMENT PLANT #6

The TWTPs will treat drainage from the tunnel portals, temporary tunnel muck pads, and other key locations. TWTP #6 and associated ponds and pads will store contact water from the MTT portal and muck pads, the ICEA, and ICEA waste rock pile.

**Progress to date** – Tree clearing of the TWTP #6 footprint has been completed. Disturbance totals 1.1 ha. Photo 2-31 shows the cleared TWTP #6 footprint. As operations continue, the Rock Storage Facility will eventually overlie this area and will remain for the life of Project.



*PHOTO 2-30: TWTP # 6 GENERAL LOCATION*



*PHOTO 2-31: TWTP #6 FOOTPRINT*

### 2.1.3.7 MINE SITE ROADS

The Mitchell OPC and adjacent elements have construction, site, and haul roads within their footprints. Key road footprints were prioritized for construction. The road from Camp 9 to the MTT portal pad is critical for transporting workers and support staff, equipment, and consumables to construction fronts. During mine operation, most of this road will be utilized as a haul road to bring ore to the Primary Crusher. Mine site roads will be in place for the life of Project.

**Progress to date** – Photo 2-32 depicts the advancement of construction on the road right-of-way between Camp 9 and Mitchell Creek. Helicopter landing pads were cleared and installed at predetermined distances for crew access and safety reasons. Tree clearing has progressed up both sides

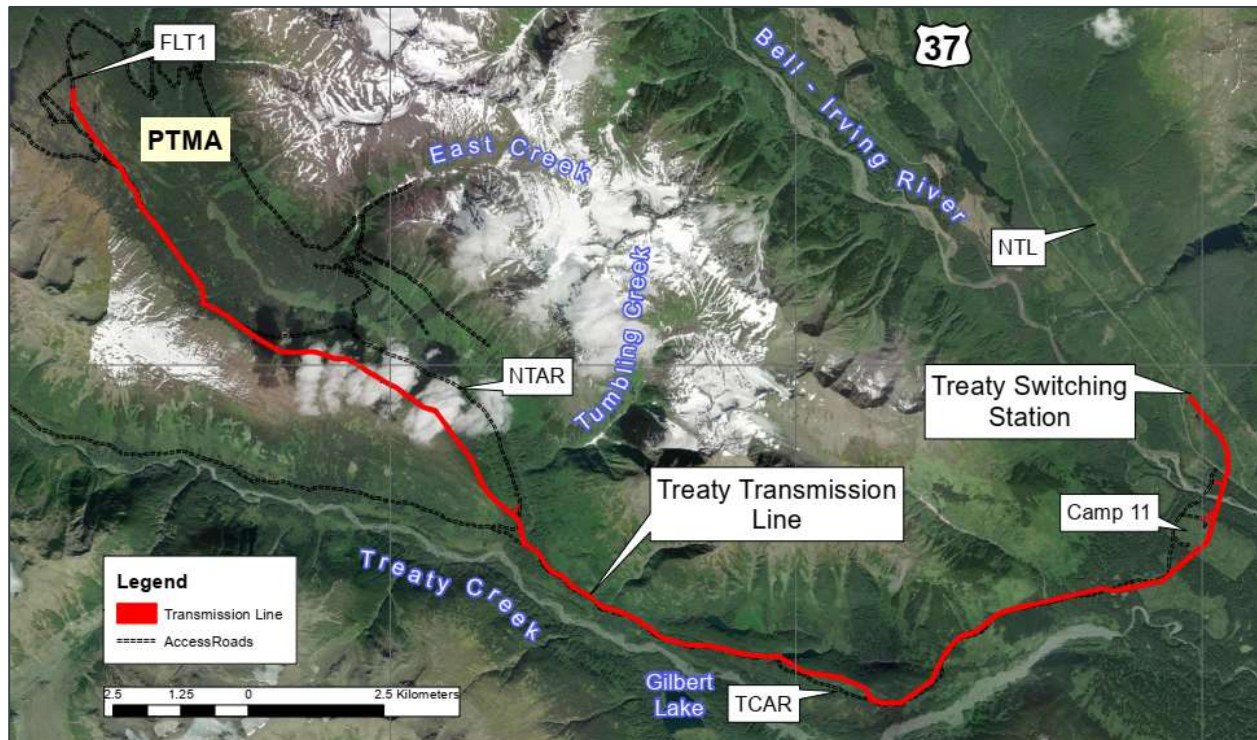
of the Mitchell Creek Valley, connecting Camp 9 to the MTT and the ICEA portal pads. Nearly 5 km of road right-of-way with disturbance of 19.2 ha has been cleared of trees and tall shrubs.



*PHOTO 2-32: ROAD RIGHT-OF-WAY BETWEEN CAMP 9 AND MITCHELL CREEK*

## 2.1.4 ELECTRICAL POWER SUPPLY AND DISTRIBUTION

Figure 2-4 shows the location of the electrical power infrastructure. Construction activities associated with power infrastructure are described below.



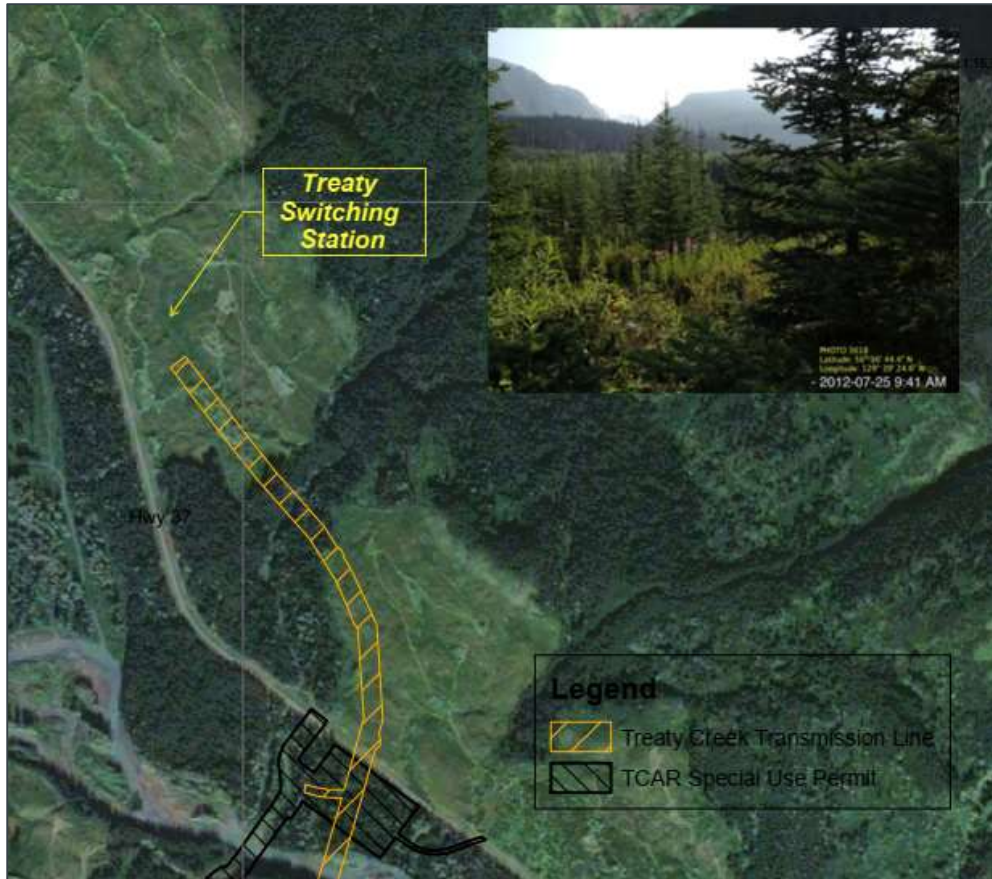
**FIGURE 2-4: GENERAL LOCATION OF ELECTRICAL POWER INFRASTRUCTURE**

### 2.1.4.1 TREATY SWITCHING STATION

The Treaty Switching Station will tie into the BC Hydro 287 kV Northwest Transmission Line (NTL) and provide the main feed to the FLT1 Substation. The switching station is being constructed and will be owned by BC Hydro. KSMCo is funding the construction under the 2022 Facilities Agreement. The switching station will be in place for the life of Project.

**Progress to date** – The Facilities Agreement includes two phases, construction power and subsequent operations power. Construction of the MTT with available and reliable green hydro power will realize significant economic and environmental advantages compared to previously planned diesel-based power generation. Over \$80 million has been paid to date to advance switching station construction and pre-pay for required BC Hydro system reinforcements.

Construction consisting of tree clearing, grubbing, stripping and pad earthworks has been completed at the switching station. The first of the foundations have been installed for the main infrastructure and a control building has been erected. Disturbance totals 8.1 ha. Photo 2-33 shows the switching station location prior to development while Photo 2-34 depicts construction as of October 2023.



**PHOTO 2-33: TREATY SWITCHING STATION LOCATION PRIOR TO DEVELOPMENT**



**PHOTO 2-34: TREATY SWITCHING STATION WITH HWY 37 ON THE LEFT**

#### 2.1.4.2 TREATY TRANSMISSION LINE

The Project’s power requirements for construction are currently being met by diesel generation. The approximately 30 km Treaty transmission line will provide hydro-electric power during the later stages of construction and for the life of Project.

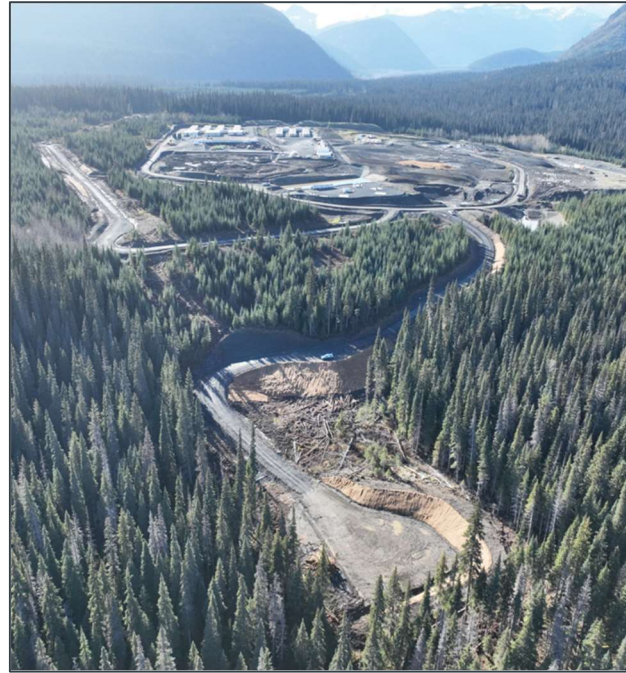
**Progress to date** – Construction consisting of tree clearing has been completed along a 16.5 km section of the transmission line that parallels the TCAR, equating to 58% of the total length of the transmission line. Geotechnical drilling and partial access construction has been completed for tower locations 1 through 69 and towers 72 through 74 out of a total 120 planned structures. Access track and tower pad full construction consisting of earthworks and road surfacing was completed for tower locations 1 through 13. Disturbance totals 67.8 ha for the transmission line corridor while an additional 118 ha has been cleared where the corridor overlaps with the TCAR right-of-way. This disturbance is accounted for in section 2.1.1.1 (TCAR). Photo 2-35 shows a cleared section of the Treaty transmission line corridor while Photos 2-36 and 2-37 illustrate constructed access tracks to tower pad locations.



**PHOTO 2-35: TREATY TRANSMISSION LINE TREE CLEARING ON LEFT  
WITH TCAR (10.5 KM) ON THE RIGHT**



*PHOTO 2-36: REPRESENTATIVE TOWER PAD CONSTRUCTION*



*PHOTO 2-37: ACCESS TRACK TO TOWER 8 NORTHEAST OF CAMP 11*

## 2.1.5 FISH AND WETLAND COMPENSATION

For construction activities to proceed, KSMCo is constructing fish and fish habitat offsetting projects to mitigate the Project’s impacts to fish and fish habitat. The Glacier Creek FHOP, located immediately south of the TCAR and Highway 37 junction, is the first site to be constructed. It offsets the incidental death of fish and loss of fish habitat associated with construction of the Tailing Management Facility (dams, waste piles and Treaty Creek pipeline outlet) and construction of the TCAR, CCAR and transmission line.

### 2.1.5.1 GLACIER CREEK FISH HABITAT OFFSETTING PROJECT

The Glacier Creek FHOP will create functional aquatic and riparian habitat that supports all freshwater life stages of Dolly Varden and Coho. The design considers terrestrial and wetland habitat values and their role in the establishment and maintenance of high-quality fish habitat.

**Progress to date** – Construction of the Glacier Creek FHOP has been completed. Disturbance totals 14.5 ha. To construct the FHOP ponds, significant planning was needed to excavate and control water infiltration to protect both the work and the Bell-Irving River riparian environment. Activities included tree clearing, grubbing, soil stockpiling, sheet piling, deep well points, mass excavation, spawning gravel placement, pond cover log installation, and area revegetation. Photo 2-38 shows the constructed Glacier Creek FHOP. The FHOP will be in place for the life of Project.

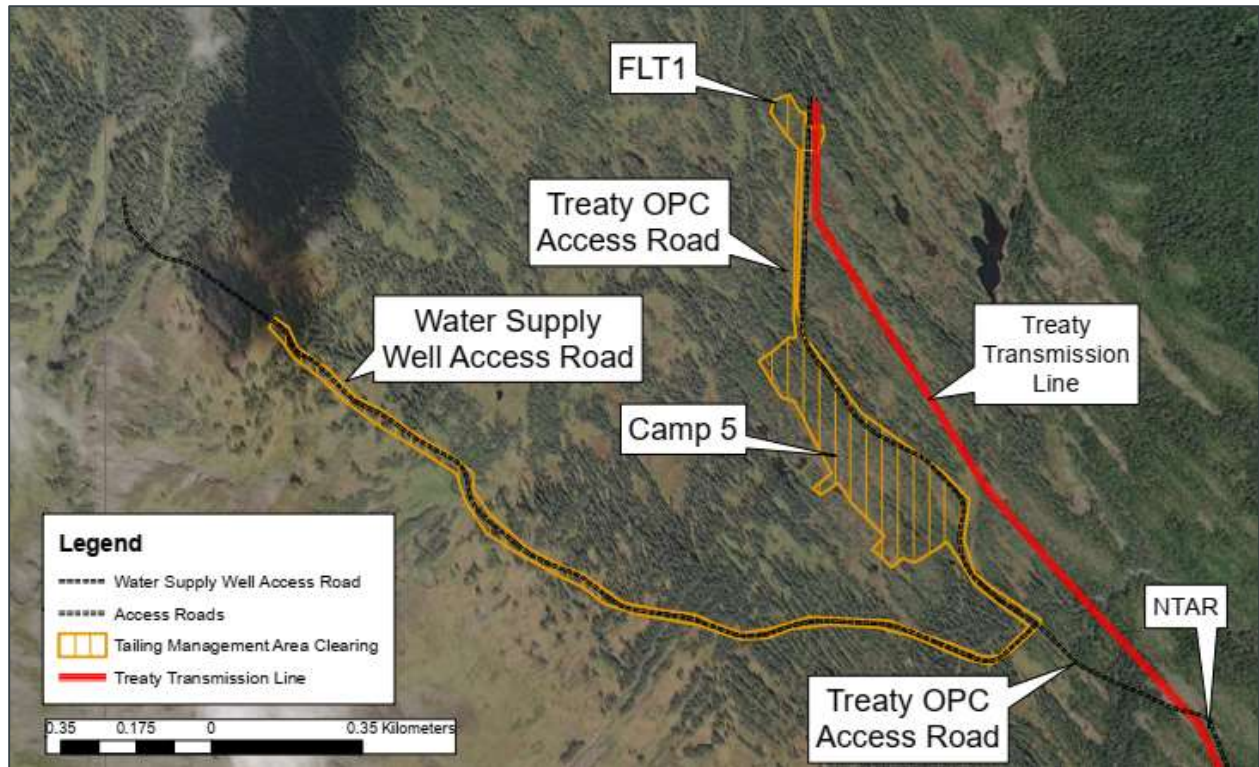


*PHOTO 2-38: CONSTRUCTED GLACIER CREEK FHOP LOOKING NORTHWEST ALONG HIGHWAY 37*

## **2.1.6 PROCESSING AND TAILING MANAGEMENT AREA FACILITIES**

Construction has been carried out on a total of 9.5 ha in the PTMA (Figure 2-5) and focused on infrastructure required early in the mine construction schedule. Areas have been cleared to provide improved access for further site investigation, earthworks, and geotechnical drilling to support design engineering for components.

Figure 2-5 shows the cleared areas in the PTMA. Camp 5 is discussed in section 2.1.2.3. For overview purposes, satellite imagery is provided in Appendix C to show areas prior to the issuance of the EAC in comparison to latest snow free coverage. While the earliest imagery obtainable from the Sentinel-2 satellite was from August 2017, no disturbance was created between December 2014 and August 2017.



**FIGURE 2-5: PROJECT DEVELOPMENT IN THE PTMA**

### 2.1.6.1 TREATY ORE PREPARATION COMPLEX

Once the ore is initially crushed in the Mitchell OPC, it will be transported through the MTT to the Treaty OPC where secondary crushing, screening, and processing will occur. Fresh and potable water for the Treaty OPC will be supplied from nearby water wells, including the primary well to be located at the northwest end of the Water Supply Well Access Road.

**Progress to date** – Construction in the Treaty OPC has targeted road locations that are required during mine construction and operation. Tree clearing was completed in the Water Supply Well Access Road and the Treaty OPC Access Road rights of way. Disturbance totals 8.5 ha (Photo 2-39). These roads will be in place for the life of Project.



*PHOTO 2-39: WATER SUPPLY WELL ACCESS ROAD LOOKING NORTHWEST TOWARDS THE PRIMARY FRESHWATER WELL LOCATION*

#### **2.1.6.2 SUBSTATION 1 (TREATY SUBSTATION (FTL1))**

The Treaty transmission line will terminate at Substation 1 (now named the Treaty FLT1 Substation) in the PTMA. The power will be stepped down from 287 kV to 138 kV for routing through the MTT to the Mitchell OPC. Additional step-downs to 25 kV will also occur to facilitate power distribution around the Treaty Process Plant site. The FLT1 will enable the use of green hydro-electric power during mine construction and operation.

**Progress to date** – Construction has been undertaken in the FLT1 footprint (Photo 2-40). The entire footprint has been cleared of trees and disturbance totals 1.0 ha. The clearing will enable further geotechnical drilling and site investigation concurrently with transmission line construction, erection, and development. Tree clearing conducted for the transmission line will connect to this facility. The Treaty Substation will be in place for the life of Project.



*PHOTO 2-40: FLT1 FOOTPRINT AT 70% COMPLETION LOCATED AT TREATY TRANSMISSION LINE TERMINUS*

## **2.2 HOW HAVE THE ACTIVITIES UNDERTAKEN TO DATE CONTRIBUTE TO THE DEVELOPMENT OF THE OVERALL PROJECT? FOR EXAMPLE, ARE THE ACTIVITIES IN RELATION TO AN A SIGNIFICANT OR IMPORTANT STEP, OR ARE THEY ANCILLARY, SECONDARY, OR TEMPORARY?**

The construction activities described in Section 2.1 represent a significant and important step to develop the overall Project. The KSMCo would not have undertaken any of the development activities described in this report if not for the intention to develop the Project. All components constructed to date are exclusively for the Project and for the long-term operation of the Project. They serve no ancillary purpose.

Given the remote location of this Project, this work would not have been possible without significant effort and expenditures. Table 2-1 provides a summary of the disturbance for project components under the main elements in the CPD. Construction activities to date have resulted in a total disturbance of approximately 363 ha.

**TABLE 2-1: SUMMARY OF CONSTRUCTION DISTURBANCE BY PROJECT COMPONENT**

Certified Project Description Project Elements	Details	Area of Disturbance (ha)	Percentage of footprint (%)
<b>Project Access</b>			
Treaty Creek Access Road	Fully constructed 17 km of 2 lane access road.	128.5	100%
Bell-Irving River Bridge	Erected 119 m 3-span bridge over Bell-Irving River. Includes river boat launch, security building and access gate, washroom and sewage tank, generator facility, and concrete road dividers.	0.1	100%
Coulter Creek Access Road	Partial construction to road subgrade elevation up to KM 3.3 and some surfacing done for erosion and sediment control (includes Camp 3).	4.5	10%
North Treaty Access Road	Conducted tree clearing activity on full 13 km length of access road.	30.0	100%
Treaty Saddle Road	Fully constructed 1 km of the road and cleared another 0.5 km. Enables equipment to be mobilized past the NTAR junction to continue road construction and avoid congestion with NTAR and transmission line construction activities.	5.7	15%
<b>Project Camp Facilities</b>			
Camp 11 - Treaty Marshalling Yard Camp	Camp 11 was completed and occupied in 2022. The camp has 210 rooms, a multi helicopter port, and material laydowns.	30.5	100%
Camp 9 - Mitchell Initial Camp	Tree clearing, grubbing, and earthworks has been completed at Camp 9. A full complement (15 pieces) of civil equipment was helicopter heavy-lifted to this site to support further road and pad construction.	15.8	100%
Camp 5 - Treaty Plant Camp	Tree clearing on the full Camp 5 footprint was completed.	7.5	100%
Sulphurets (KSM) Camp	Expanded (1 ha) and significantly upgraded historic exploration camp.	1.0	100%
<b>Electrical Power Supply and Distribution</b>			
Treaty Creek Switching Station	Construction consisting of tree clearing, grubbing, stripping and pad earthworks has been completed at the switching station. The first of the concrete foundations are installed for the main station infrastructure.	8.1	100%
Treaty Transmission Line Corridor	Construction has been carried out via the completion of tree clearing along a 16.5 km section of the transmission line that parallels the TCAR, equating to 58% of the total length of the transmission line corridor. Access track and tower pad full construction consisting of earthworks and road surfacing was completed for tower locations 1-13 (out of 120).	67.8	58%
<b>Fish and Wetland Compensation</b>			
Glacier Creek Fish Habitat Offsetting Project	FHOP fully constructed. Monitoring ongoing to ensure required water quantity/quality thresholds are met prior to allowing fish usage.	14.5	100%
<b>Mine Site Facilities</b>			
Mitchell Crusher Pad	Tree clearing activity initiated on significant portion of pad footprint.	6.3	50%
MTT Portal Pad	Tree clearing activity initiated on significant portion of pad footprint.	1.6	52%
Mitchell OPC Pad	Tree clearing activity initiated on majority of pad footprint.	3.5	60%
Mitchell MTT Laydown	Tree clearing activity initiated on majority of laydown footprint.	1.5	67%
TWTP #6 Lined Muck Pad	Tree clearing activity initiated on majority of pad footprint.	6.5	85%
TWTP #6	Tree clearing activity completed on full plant footprint.	1.1	100%
Mine Site Roads (Mitchell Valley)	Tree clearing activity initiated on significant portion (~ 5 km) of road footprint.	19.2	45%
<b>Processing and Tailing Management Area Facilities</b>			
Water Well and Camp Access Roads	Tree clearing activity initiated on significant portion (~ 3.5 km) of road footprint.	8.5	44%
Treaty Substation (FLT1)	Tree clearing activity completed on full substation footprint.	1.0	100%
<b>TOTAL</b>		<b>363.2</b>	

## 2.3 IS THE ACTIVITY OR COMPONENT IDENTIFIED IN THE CPD AS PART OF THE PROJECT?

Table 2-3 identifies the Project components in the CPD. Construction related to camps is discussed in this document although the CDP only includes one reference to camps. Section 7 (Project Construction) states: “Work on the PTMA will include construction of the Treaty Process Plant and related support infrastructure, including but not limited to administration buildings, camp and fuel storage.” Camps are required for all phases of the Project and EAC Condition 46 requires a Health and Medical Services Plan be developed and submitted to the EAO, Nisga’a Nation, Tahltan Nation, Tsetsaut Skii km Lax Ha, NH, Regional District of Kitimat Stikine and the District of Stewart for review a minimum of 45 days prior to when a combined total of 500 or more Project employees or contractors occupies one or more Project work camps. Further the EAO inspected KSM camps in 2022 (Camp 11 – see Inspection Record IR2022-031) and 2023 (Camp 11 and Sulphurets Camp - see Inspection Record 20230033\_IR001).

Fish habitat offsetting projects are also discussed in this report as they are required to be constructed by Fisheries and Oceans Canada before there are impacts to fish and fish habitat. Condition 10.7 of the CPD refers wetland compensation sites. Wetland impacts are being mitigated by fish habitat compensation projects as noted in Condition 10.7. The EAO inspected the Glacier Creek FHOP in 2022 (see Inspection Report IR2022-031).

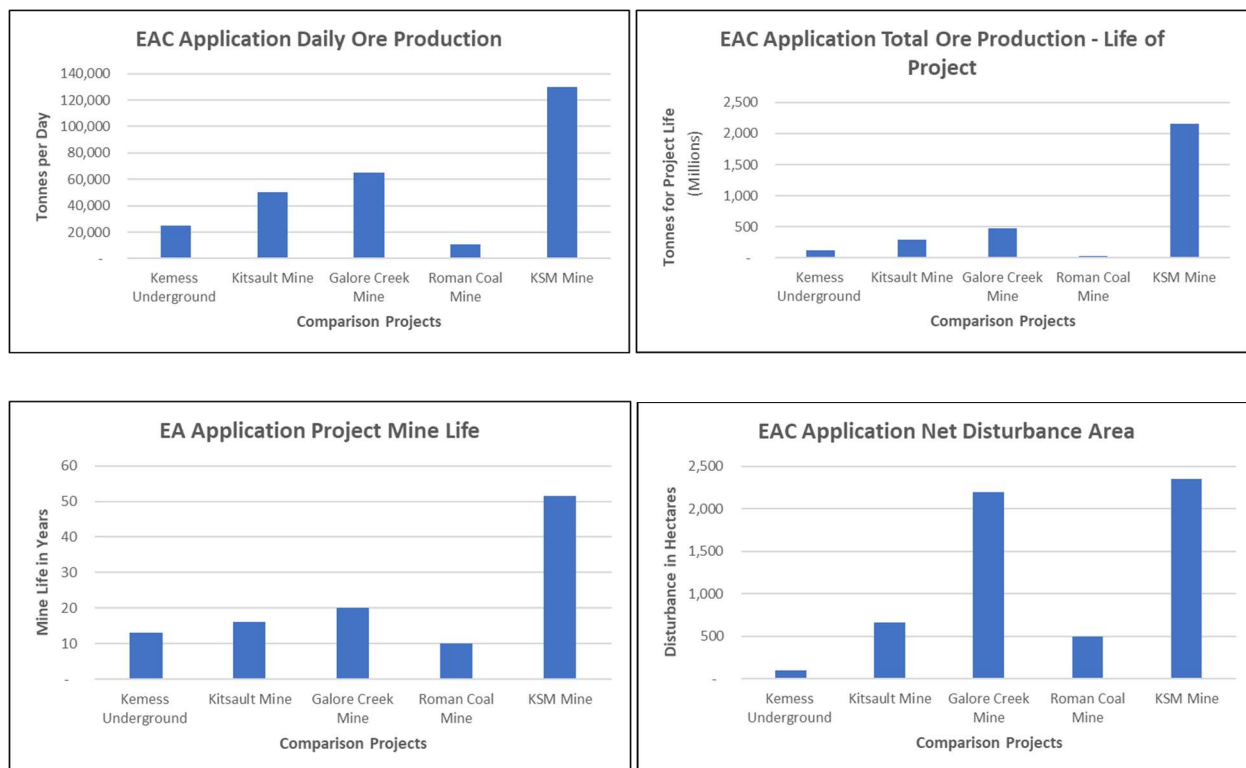
**TABLE 2-2: SUMMARY OF CONSTRUCTION ACTIVITY BY PROJECT COMPONENT IN THE CPD**

CPD (Section #)	Components
Access Roads (Section 5.1.1)	CCAR
Access Roads (Section 5.1.2)	TCAR
Access Roads (Section 5.1.3)	Other Roads (NTAR – formerly North Treaty lower road)
Access Roads (Section 5.1.3)	Other Roads (Treaty Saddle Road)
Mine Site Facilities (Section 3.6)	Mitchell OPC
Mine Site Facilities (Section 3.10)	MTT portal pad and laydown area
Mine Site Facilities (Section 3.19) <sup>1</sup>	Substation 1 (Treaty Substation (FTL1))
Electrical Power Supply and Distribution (Section 6)	Treaty Switching Station
Electrical Power Supply and Distribution (Section 6)	Treaty transmission line
PTMA (Section 4.1)	Treaty OPC
Project Construction (Section 7)	Temporary water treatment facilities at tunnel portals and other key locations (TWTP #6)
Project Construction (Section 7)	Camp 11
Project Construction (Section 7)	Camps 3, 5 & 9
Project Construction (Section 7)	Sulphurets (KSM) Camp
Wetlands Management Plan (Section 10.7)	Glacier Creek Fish Habitat Offsetting Project

<sup>1</sup> Section 3.19 of the CDP refers to Substation 2 at the Mitchell OPC in the Mine Site and Substation 1 in the PTMA.

### 3.0 COMPARISON TO OTHER PROJECTS DETERMINED TO BE SUBSTANTIALLY STARTED

Requests, submissions, reports, and other information available from previous “substantially started” determinations are available on EAO’s website and offer some guidance regarding the substantially started threshold. Kemess Underground, Kitsault, Galore Creek and Roman Coal received substantially started decisions although these projects are not directly comparable to KSM as their life of mine is shorter and they have smaller footprints and fewer components. The difference in scale between these projects is illustrated by the graphs below which utilize information included in the project applications from EAO’s electronic Project Information Centre.



#### Summary of Mine Projects determined to be Substantially Started

- Kemess Underground Project was deemed substantially started in January 2022. The project disturbed 30 ha, spent \$112 million on physical works, and had 72,250 person-days on site – all of which are less than the KSM equivalents. The EAO expressly recognized the applicant’s consultation and engagement with Indigenous nations as a factor relied on to determine substantial start.
- The Galore Creek Mine was issued a substantially started determination based on: tree clearing on the majority of access road rights-of-way; construction of 40 km of an access road (total length 140 km); commencement of construction of a tunnel portal in Galore

Creek valley; and completion of fish habitat compensation works (Galore Creek Mining Company 2018).

- The Kitsault Mine was issued a substantially started determination based on clearing and development of 30.4 ha (plant site access road, laydown area, plant site area, and coarse ore stockpile area) and tree clearing on 34 ha. The number of on-site person days was 14,400 and total expenditure of \$59.7 million (Avanti Kitsault Mine Ltd. 2017).
- The Roman Coal Mine was issued a substantially started determination based on limited earthworks, access road construction and water management ditches/ponds (EAO 2017).

Based on the comparison to other projects that have been issued a substantially started decision, the KSM Project has developed and cleared larger areas of disturbance (approximately 363 ha), more on-site person days (140,212 person days from 2021-2023) and expended more money to advance the KSM Project (\$444 million).

## 4.0 PROJECT BENEFITS

The Project is a major investment project for BC. The capital and operating costs of the Project are estimated to be \$54.6 billion and an estimated \$47.9 billion would be injected into the BC economy (EcoTec Consultants 2018). Total fiscal revenues are estimated at \$7.6 billion for the BC government, \$7.8 billion for the federal government, and \$1.7 billion shared between governments of other provinces and territories. The Project would provide an estimated 1,550 on-site jobs annually during the five-year construction period and 1,400+ on-site jobs annually during operations. The estimated gross domestic product contribution is \$30.6 billion for BC and \$50.7 billion nationally.

### 4.1 LOCAL EMPLOYMENT AND PROCUREMENT

KSMCo is committed to hiring people from local communities and giving priority to qualified local, regional, and Indigenous contractors. This commitment is met by:

- Stipulating employment targets and mandatory reporting in KSMCo's Contractor agreements.
- Require all service providers to ask employees working on KSM activities whether they self-identify as members of any Canadian Indigenous groups. Self-identification is made on a voluntary basis and strictly for the purposes of collecting data to develop, monitor, evaluate and enhance programs to better engage Indigenous communities.

In 2022/2023, KSMCo awarded 121 contracts (unique purchase orders including material purchases) and 79% of the total contract values was with Indigenous companies. In 2022 and 2023, Project employment was 317 and 235 persons, respectively.

## 4.2 CRITICAL MINERALS AND METALS

Copper, gold, molybdenum, and silver from the Project are four of BC's critical minerals and metals that are the building blocks for the green and digital economy and achieving net-zero carbon emission targets in BC and Canada:

- **Copper**—The KSM Project is the world's third largest undeveloped copper resource (Seabridge 2022). Copper is a highly efficient conductor of electricity and heat, and used in renewable energy systems that generate power from solar, wind, hydro, and thermal sources. Copper is also used in electric vehicles. Roughly three times more copper is used for electric vehicles compared to conventional gas-powered vehicles. Other common uses of copper include creation of alloys such as brass and bronze, utilization in industrial machinery and plumbing items, and employed in medical applications.
- **Gold**—Gold also plays a role in the green transition. The largest industrial use of gold is in the electric and electronics industries, where it is used for plating contacts, terminals, printed circuits, and semiconductor systems, due to gold's high electrical conductivity and inertness. Gold can also reduce air conditioning requirements and power consumption in large offices when used in a similar way on windows.
- **Molybdenum**—Molybdenum is a refractory metal with a melting point of 2620°C. It has a small expansion coefficient, high conductivity, and good thermal conductivity. It is commonly used in creation of steel alloys, as a lubricant, catalyst, pigment, or corrosion inhibitor. This mineral is an essential component in wind turbines.
- **Silver**—Silver is used to make mirrors, electrical products, coins, ornaments, and jewellery. Silver is used as a catalyst in oxidation reactions, and in alloys with nickel or palladium to make electrical contacts. Silver is also used as a conductor in photovoltaic cells within solar panels.

Key findings of a recent study of the economic impacts of critical minerals conducted for the Mining Association of British Columbia<sup>2</sup> found:

- Combined, the construction of sixteen proposed critical mineral mines, including KSM, represents an estimated \$36 billion in near-term investment, 300,000 person-years of employment, \$38.3 billion in GDP, \$80 billion in economic output, and \$11 billion in tax revenues.
- The estimated long-term economic benefits created by the 16 mines' ongoing operations over an average 24.1-year mine life include \$800 billion in economic output, \$398.3 billion of GDP, 2,155,000 person-years of employment, and \$154.5 billion in tax revenues.

---

<sup>2</sup> Mansfield Consulting Inc. 2023.

## 5.0 SUMMARY

KSMCo is requesting a substantially started determination for the KSM Project pursuant to Section 31 of the *Environmental Assessment Act*. This report provides the information that is required by the EAO to make a substantially started determination. Table 5-1 identifies KSMCo actions since the issuance of the EAC.

**TABLE 5-1: SUMMARY OF KSMCo’s ACTIONS TO ADVANCE KSM PROJECT**

<ul style="list-style-type: none"> <li>• Since the issuance of the EAC, KSMCo has advanced Project construction by approximately 363 ha of disturbance, with a total spend of over \$444 million and 140,212 on-site person days.</li> </ul>
<ul style="list-style-type: none"> <li>• Completed or initiated construction of 94 of the 336 components in the Project’s CPD; as follows:           <ul style="list-style-type: none"> <li>○ Constructed 100% or 17 km of the TCAR and installation of the Bell-Irving River bridge;</li> <li>○ Partially constructed up to KM 3.3 of the CCAR, and initiated construction of the NTAR and Treaty Saddle Road;</li> <li>○ Constructed and occupied Camp 11 (Treaty Marshalling Yard Camp);</li> <li>○ Completed tree clearing, grubbing, and earthworks of Camp 9 (Mitchell Initial Camp) site;</li> <li>○ Completed tree clearing of Camp 3 and Camp 5 (Treaty Plant Camp);</li> <li>○ Expanded and upgraded the Sulphurets (KSM) Camp;</li> <li>○ Completed tree clearing of Mine Site components (Crusher Pad, Mitchell-Treaty Twinned Tunnels (MTT) Portal Pad, Mitchell Ore Preparation Complex (OPC) pad, Mitchell MTT Laydown, Temporary Water Treatment Plant (TWTP) #6 footprint and muck pad, and Mine Site road right-of-way from Camp 9 to the Crusher Pad);</li> <li>○ Completed tree clearing, grubbing, stripping and earthworks of the Treaty Switching Station pad and initiated installation of the foundations for the main infrastructure;</li> <li>○ Completed tree clearing of 16.5 km of the Treaty transmission line corridor and full access track and tower pad construction for tower structures 1 thru 13.</li> <li>○ Initiated partial access development and geotechnical drilling for an additional 59 tower locations;</li> <li>○ Completed tree clearing of the Treaty Substation (FTL1) footprint;</li> <li>○ Completed construction of the Glacier Creek FHOP Project; and</li> <li>○ Completed tree clearing of Water Supply Well Access Road and the Treaty OPC Access Road located in the Treaty OPC.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Spent a total of \$997 million between 2002 to 2023, of which over \$805 million was spent between 2015 to 2023, after the issuance of the EAC.</li> </ul>
<ul style="list-style-type: none"> <li>• Received 67 provincial and 7 federal authorizations approving construction works and activities.</li> </ul>
<ul style="list-style-type: none"> <li>• Addressed 8 EAC conditions and advanced 26 of the 47 EAC conditions.</li> </ul>

- Developed strong relationships with Indigenous groups. Impact benefit agreements are in place with the Nisga’a Nation and the Tahltan Nation. Capacity funding agreements are in place with the Tsetsaut Skii km Lax Ha and Gitxsan Hereditary Chiefs. A Wilp Sustainability Agreement is in place with the Gitanyow Hereditary Chiefs’ Office. Letters of support received from the Gitxsan Hereditary Chiefs and the Nisga’a Nation. Seabridge has discussed the substantial start determination request with the Tahltan Central Government and the request for letter of support is being considered by the Tahltan Executive.
- Supported the establishment of the 2023 Treaty Creek limited Partnership between the Nisga’a Nation and Tahltan Nation, specifically created to optimize the nations’ participation in KSM.
- Built solid relationships with local communities as demonstrated by the letters submitted by the Village of Hazelton, District of New Hazelton, Town of Smithers, District of Stewart, City of Terrace, and Regional District of Kitimat-Stikine which support a favourable substantially started decision.

KSMCo is of the view that the information provided in this report demonstrates a significant investment has been spent to secure permits and raise capital on public markets to physically develop the Project. The 52-year mine life will provide a significant economic anchor for northwest BC, the rest of BC, and Canada. KSM will contribute to the supply of critical minerals and metals, supporting green energy projects across Canada, including within BC.

## 6.0 REFERENCES

- Avanti Kitsault Mine Ltd. 2017. Kitsault Mine Request for Determination on Substantially Started. July 24, 2017.
- BC EAO. 2014. In the matter of the Environmental Assessment Act S.B.C. 2002, c.43 (Act) and in the matter of an Application for an Environmental Assessment Certificate (Application) by Seabridge Gold Inc. (Proponent) for the KSM Project (Project). Reasons for Ministers' Decision. July 29, 2014
- BC EAO. 2017. Roman Coal Project Inspection Record. June 21, 2017.
- BC EAO. 2018. In the Matter of the Environmental Assessment Act S.B.C. 2002, c.43 (Act) and In the matter of a Substantially Started Determination under Section 18(5) of the Act for the Kitsault Mine Project of Avanti Kitsault Mine Ltd. Reasons for Associate Deputy Minister Determination. March 18, 2018.
- BC. EAO. 2021. Substantial Start Determination Policy, Version 1.0, June 15, 2021.
- EcoTec Consultants. 2018. Assessment of the Economic Benefits Generated by the KSM Mine Project.
- Galore Creek Mining Corporation. 2011. Galore Creek Copper-Gold-Silver Mine Project Overview. November 28, 2011.
- Government of British Columbia. 2023. Draft British Columbia's Critical Minerals Strategy: Discussion Paper. November 2023.
- Government of Canada. 2022. The Canadian Critical Minerals Strategy. Available at: [The Canadian Critical Minerals Strategy - Canada.ca](https://www2013.international.gc.ca/critical-minerals-strategy-strategie-minerale-critique-canada.aspx)
- Mansfield Consulting Inc. 2023. Critical Minerals Economic Impact Study. Economic Impacts of New and Extended Critical Mineral Mines & Precious Metals Mines, Prepared for the Mining Association of British Columbia. December 2023.
- Seabridge Gold. 2022. Sustainability Report. Available at: [https://ucarecdn.com/ce5b2018-6ac6-4db7-8a7a-ea8f63126f13/2022SEA\\_SustainabilityReportcompressed.pdf](https://ucarecdn.com/ce5b2018-6ac6-4db7-8a7a-ea8f63126f13/2022SEA_SustainabilityReportcompressed.pdf)

## **APPENDIX A SEABRIDGE STRATEGY FOR EARLY PROJECT CONSTRUCTION AND FULL MINE FINANCING**

## SEABRIDGE STRATEGY FOR EARLY PROJECT CONSTRUCTION AND FINANCING FULL MINE CONSTRUCTION

Seabridge understands from its review of past decisions in respect of a project being “substantially started” that the determination is a narrow one; the decision-maker is simply tasked with deciding if the project has been advanced to the point where it can be considered to have been “substantially started”. Accordingly, it should be beyond the scope of review in a “substantially started” determination to assess the likelihood of a project obtaining the required financing to complete full construction of the proposed mine or to consider whether the proponent is actively pursuing completion of full construction of the proposed mine. This is reflected in the case of the positive determinations for the Kitsault and the Kemess Underground projects, as no final investment decision had been made for the projects at the time of the determination. Nonetheless, Seabridge thinks it worthwhile to present how the construction work done to date at KSM, together with other initiatives it has been pursuing, have advanced the Project towards achieving full construction of the mine.

Seabridge has consistently maintained that the KSM Project cannot be fully constructed and operated without a major gold or copper mining company as its joint venture partner; one with the financial and technical ability to construct and operate the Project in an environmentally responsible and socially acceptable manner. This major mining company will also want to make the project design presented in the Feasibility Study reflect its priorities and its own internal policies, practices and risk tolerance. KSM’s four mineral deposits, Mitchell, Sulphurets, Kerr and Iron Cap, have different relative percentages of aggregate gold and copper values, with some having higher valued gold content and others having higher valued copper content. This variation offers a lot of flexibility for mine planning purposes but, conversely, also increases the range of possible mine development strategies, including the sequencing of mining the deposits, to maximize the economic value of the Project. A gold focused joint venture partner may choose to prioritize gold dominant deposits, whereas a copper focused joint venture partner may choose to prioritize copper dominant deposits. This range of possible development plans isn’t present in a single deposit mine and Seabridge believes it should leave the selection of which development plan to pursue in a Feasibility Study to the new majority owning joint venture partner and operator that will have its own set of viewpoints, priorities, and practices.

Although many KSM Project details presented in a Feasibility Study will be determined based on the choices made by the joint venture partner, as explained above, certain of the infrastructure for the Project, including the main access roads, the camps, the hydro transfer station, the fish habitat offsetting ponds and the locations of the processing plant, the tailings management facility and the MTT, will remain constant regardless of potential changes to the other design details.

During its discussions with potential joint venture partners, Seabridge learned that potential partners were uncomfortable with the approaching deadline for achieving the “substantially started” designation. If potential partners acquired a majority interest in the KSM Project, they would be in the

position of having to commence construction at KSM on a timeline that would meet the deadline for achieving “substantially started” and have to invest the hundreds of millions of dollars needed to meet the “substantially started” threshold, before they could complete a Feasibility Study and determine whether they wanted to build the mine. To remove this impediment to a transaction, Seabridge changed its strategy for developing the KSM Project. Seabridge decided it would commence construction and seek a joint venture partner once market conditions improved, with a view to transitioning construction activity at the Project to the joint venture partner once the partner was comfortable with making the investment.

The steps Seabridge has taken in furtherance of its strategy and the ways in which Seabridge is advancing the KSM Project towards securing a partner, reaching a final investment decision and proceeding with full mine construction are set forth below.

#### Raising Funds for Construction

If Seabridge was going to initiate construction of the KSM mine itself, Seabridge’s Board of Directors needed to believe the KSM Project would be built into a mine in the near term. In order to take the burden of achieving the “substantially started” designation away from potential partners and still preserve the KSM EA Certificate, Seabridge estimated that it would need to raise in excess of CAN\$400 million to complete construction to the point of the Project being “substantially started”.

In a demonstration of Seabridge’s conviction that the KSM Project would be built, Seabridge raised US\$375 million to undertake its investment in KSM construction by selling: 1) a US\$225 million secured note to Sprott Resource Streaming and Royalty Corp (“**Sprott**”) and the Ontario Teacher’s Pension Plan (“**OTPP**”) in 2022 under which, upon repayment of the principal, Sprott will use the principal to purchase a silver royalty on production from KSM; and 2) a US\$150 million secured note to Sprott in 2023, under which, upon repayment of the principal, Sprott will use the principal to purchase a net smelter returns royalty on production from KSM.

At the time of the announcement of the 2022 funding agreements, Michael Harrison, Managing Partner at Sprott, commented on the potential of KSM as follows:

“We are very pleased to enter into this partnership with Seabridge and Ontario Teachers’ to provide catalytic capital to advance KSM. KSM is Canada’s largest gold-copper-silver development project and an outstanding economic opportunity that we confidently expect to become one of our longest-life silver royalties. Seabridge has done an excellent job exploring, engineering and de-risking KSM, including securing an approved Environmental Assessment and building strong relationships with its local indigenous peoples.”

At the time of their investment, Christopher Metrakos, Managing Director, Natural Resources, at OTPP described KSM as "a world class Canadian mining project" and expressed his confidence that it would ultimately be developed in saying "we are proud that our funding will accelerate its development."

The funds raised totalled approximately CAN\$490 million. This money would not have been raised if both Sprott and the OTPP did not believe in the long-term viability of the KSM Project, as a key environmentally responsible source of copper and gold.

#### Completing Early Construction Activities

The completion of the early construction activities described in this document serves to advance the KSM Project in several ways. First, establishing road access is a priority for all projects as it permits reliable year-round access without the safety issues and costs that come with helicopter supported construction. Second, the work that is at greatest risk of causing construction delays and cost overruns is the work needed to be done to get the pads built as the foundations for the placement of Project infrastructure. Building up from the pads is more controlled and predictable. All work done in these two areas helps to reduce the risks of building the Project. Third, any work that can be done to shorten the timeline to receiving revenue from a project improves returns, and so advancing items on the construction critical path helps the attractiveness of the KSM Project. Fourth, by Seabridge paying costs that would be included in upfront capital in advance of a partner transaction, it reduces the Project's upfront capital costs to be borne by the joint venture and improves project economics.

The work selected by Seabridge to be completed in its early construction activities has focused on: (i) infrastructure that would remain constant regardless of the design choices made in the Feasibility Study; and (ii) pursuing road access and other civil earthworks in ways that would attack the construction critical path. Of course, reaching the point of having "substantially started" the Project also eliminates the risk that the Certificate will be lost. All of this work has significantly reduced risks of the KSM Project and improved its economics, making it a more attractive project for a joint venture partner, and advances its development into an operating mine.

By building the site infrastructure at KSM over the last few years, Seabridge now faces increased annual operating costs at KSM of approximately \$28.3 million Cdn to maintain a presence at the site and to ensure that the Project remains in compliance with its permit conditions as well as approximately US\$24.375 million in annual payments due under the Secured Notes. Seabridge understood these costs in advance of commencing this work and the fact that it proceeded further demonstrates Seabridge's conviction that the KSM Project will be built into a mine in the near term. Further, it is, therefore, in Seabridge's best interests to continue to advance the Project to its operating status as a producing mine so as to minimize the long-term impact of the annual holding costs.

### Collecting Feasibility Study Level Data

Completing a Feasibility Study requires extensive data in respect of the project site and all locations of its infrastructure. This data is needed for the design work of the Feasibility Study. As Seabridge has been advancing with early construction it has also continued with the collection of the data it expects will be needed for Feasibility Study design work. It could even be considered that Seabridge has commenced the initial phase of a Feasibility Study. This will shorten the period for completion of a Feasibility Study once a major mining company is in place to advance the KSM Project and thereby shorten the time to a final investment decision to construct a mine.

### Process to Attract a Partner

Just before the COVID-19 pandemic shutdowns in March 2020, Seabridge believed it was about to commence joint venture discussions with two major mining companies towards a transaction that would involve them commencing work on a Feasibility Study for the KSM Project and advancing it towards a final investment decision. However, the pandemic disrupted capital markets and caused major mining companies to abandon plans for acquisitions and focus on managing their existing projects. Difficult market conditions lasted well into 2022 but have improved recently. The recent acquisition of Newcrest Mining Limited by Newmont Corporation and of Teck Resource Limited's coal assets by Glencore plc are both evidence that major mining companies are again pursuing significant acquisitions, globally.

Since market conditions were improving, Seabridge engaged RBC Capital Markets in early 2023 to initiate a process for seeking a joint venture partner to earn a majority interest in the KSM Project and become the operator. As part of its earn in, Seabridge expects the partner to complete a Feasibility Study and make a final investment decision to build the KSM Project. In excess of 10 major mining companies entered into non-disclosure agreements and five companies engaged in detailed due diligence and completed KSM site tours in 2023. Multiple companies are continuing in the process to become a KSM Project joint venture partner at the date of this application. We anticipate an announcement in 2024 on the finalization of joint venture deal for KSM.

In addition to the general improvement in market conditions and the improvements to the Project arising from the construction activities to date as explained above, the following factors are what make Seabridge believe that one or more major mining companies will soon proceed with a joint venture transaction to acquire a majority interest in the KSM Project and work towards completing a Feasibility Study and ultimately a positive final investment decision:

- (a) Mining companies have not been making discoveries and building mines at a rate necessary to replace their production of minerals from their existing deposits and the productivity of their deposits is declining. They are at a point that they need to acquire new projects to be able to maintain their production levels looking ahead 5-10 years. KSM represents a significant mineral

endowment and multi-generational economic opportunity and is regarded as the world’s largest undeveloped gold resource project and the world’s 3rd largest undeveloped copper resource (Mining.com 2023).

- (b) The International Energy Agency has estimated that demand for copper is expected to quadruple by 2030 to support the transition to greener energy. Many mining companies also foresee a significant increase in demand for copper and are looking for advanced copper deposits that can be brought into production in the short term and finding ones of scale that are available for acquisition are scarce. KSM has very large copper reserves and is at an advanced permitting stage, making it an attractive prospect for nearer term copper production.
- (c) Mining companies are looking to meet greenhouse gas emissions targets and to do so want new projects with low carbon emissions. KSM is designed to be powered through the BC Hydro grid, which is 97% hydroelectric power, making KSM a very low GHG emissions source of copper compared to other projects globally.
- (d) Seabridge has proposed a joint venture transaction that doesn’t require a partner to pay Seabridge to buy an interest in the Project up front but, instead, involves the partner acquiring its interest by investing in the Project and retaining a right to stop making further investments if it no longer wishes to proceed, allowing a partner to invest only as its confidence in the potential for building the Project grows. The potential partners in the process are attracted by this structure.
- (e) British Columbia is considered a good mining jurisdiction, with a stable political and legal system that makes investment in KSM less risky than many other jurisdictions that host large copper deposits.

Once a joint venture transaction concludes, there are several steps in advancing a project to a final investment decision. The process for major mining companies, when evaluating a project such as KSM with a large capital outlay, would be to complete the following steps (much of which would be pursued concurrently):

- Initiate and complete a final project Feasibility Study.
- Provide the basis for detailed design to support Mines Act and Environmental Management Act permitting to authorize the construction and operation of major mine components. These components include the Tailing Management Facility, open pits, rock storage facilities, diversion tunnels, Water Storage Facility, Water Storage Dam, Water Treatment Plant, ore stockpiles and Mitchell and Treaty Ore Preparation Complexes (OPC).

- Demonstrate within a reasonable confidence that the Project can be constructed and operated in a technically sound and economically viable manner and secure all necessary permits for construction.
- Obtain commitments to advance the required funds for the Project from banks or other sources.
- Complete the evaluation and approval process required by the company's Board of Directors for the project construction to proceed.

This process will take time for a Project of the size and cost of KSM. However, the companies that are advancing in the process to acquire an interest in the KSM Project have significant financial assets and cash flows and Seabridge's financial advisors have included in their information to potential partners various financing structures that they believe could be used to fund KSM's capital costs. Accordingly, when the date arrives that a partner is ready to proceed with building the KSM Project, Seabridge believes the necessary financing will be available.

The information set forth above in this section explains that the construction activities completed in the last few years at KSM were part of a larger strategy to continue advancing the Project towards attracting a joint venture partner and progressing to a positive final investment decision. The strategy includes continuing to progress the Project through a Feasibility Study with a joint venture partner and in the process transitioning control of work activities at the Project to the company that can see Project construction to completion. Where the determination as to whether the Project has been "substantially started" is focused on the physical aspects of the work, in many other ways the construction activities completed by Seabridge have advanced KSM in a real but tangible way to keep it on course towards completion of full construction of the KSM mine.

## **APPENDIX B LETTERS OF SUPPORT FOR SUBSTANTIALLY STARTED DETERMINATION**



**Nisga'a Lisims Government**

T 250 633 3000 / F 250 633 2367  
1-866-633-0888  
PO Box 231 / 2000 Lisims Dr  
New Aiyansh BC / Canada V0J 1A0  
[NISGAANATION.CA](http://NISGAANATION.CA)

December 11, 2023

**BC Environmental Assessment Office**

836 Yates St.  
Victoria, BC V8W 1L8

Dear Sirs/Mesdames:

**Re: Nisga'a Nation Support for KSM Project's "Substantially Started" Determination**

We understand that KSM Mining ULC (KSM) plans to submit an application to the Environmental Assessment Office for a Substantially Started Determination (the Determination) pursuant to Section 31 of the *Environmental Assessment Act (British Columbia)* regarding its KSM Project's Environmental Assessment Certificate (#M14-01).

We understand that KSM has spent \$997 million to date on the KSM Project (and \$805 million since issuance of the Environmental Assessment Certificate).

KSM has also constructed the following physical works to date:

- 17.7 kilometers of the Treaty Creek Access Road
- 3.2 kilometers of the Coulter Creek Access Road
- access roads for the first 13 poles of the Transmission Line
- Camp 11
- Hodder Camp
- the Camp 9 pad
- the Glacier Creek Fish Habitat Offsetting Project
- the Treaty Creek Terminal Switching Station pad (through BC Hydro)
- tree clearing for the North Treaty Creek Access Road, numerous Transmission Line poles and associated access roads, FLT1 substation, Mitchell Portal, Camp 5 and certain Water Storage Dam areas
- the Bell Irving River Bridge

This letter is to confirm that the Nisga'a Nation supports KSM's application for this Determination and agrees that the KSM Project has been substantially started in a real and tangible way.

Through its Benefits Agreement with KSM, the Nisga'a Nation, its businesses and their partners, and its members have had significant involvement with, and received benefits from, the work to date at the KSM Project. We hope that the Environmental Assessment Office approves KSM's application, and issues a positive Determination, so that the Nisga'a Nation and its businesses and members can continue to receive employment, contracting and other opportunities in connection with the KSM Project into the future.

Yours truly,

**NISGA'A LISIMS GOVERNMENT**

*Andrew Robinson*  
Andrew Robinson (Dec 11, 2023 14:47 PST)

Andrew Robinson  
Chief Executive Officer



**GITXSAN TREATY SOCIETY**  
**OFFICE OF THE GITXSAN HEREDITARY CHIEFS**

**GITXSAN LETTER OF SUPPORT – SUBSTANTIALLY STARTED—Dec 12, 2023**

Dear Sirs/Mesdames:

**Re: Gitksan Support for KSM Project's "Substantially Started" Determination**

We understand that KSM Mining ULC (KSM) plans to submit an application to the Environmental Assessment Office for a Substantially Started Determination (the Determination) pursuant to Section 31 of the Environmental Assessment Act (British Columbia) regarding its KSM Project's Environmental Assessment Certificate (#M14-01).

We understand that KSM has spent \$997 million to date on the KSM Project (and \$805 million since issuance of the Environmental Assessment Certificate). KSM has also constructed the following physical works to date:

More specifically, KSM Co has constructed the following physical works:

- 17.7 kilometers of the Treaty Creek Access Road
- 3.2 kilometers of the Coulter Creek Access Road
- access roads for the first 13 poles of the Transmission Line
- Camp 11 – a permanent 210 bed camp (near Highway 37 to support processing facilities construction and operations)
- Hodder Camp – a 48 bed camp (near Bell II to support processing facilities construction and operations)
- the Camp 9 pad (in the Mitchell Valley to support mining operations)
- the Glacier Creek Fish Habitat Offsetting Project
- the Treaty Creek Terminal Switching Station pad under contract with BC Hydro (located where the Treaty Creek Access Road meets Highway 37)
- tree clearing for the North Treaty Creek Access Road, Transmission Line (up to pole 47 out of 120) and associated access roads, the FLT1 substation (to step down power from the transmission line for the ore
- processing facilities), the Mitchell Portal, Camp 5 (in the Treaty Valley near the ore processing facility) and certain Water Storage Dam areas
- the Bell Irving River Bridge

This letter is to confirm that the Gitksan Hereditary Chiefs Office supports KSM's application for this Determination and agrees that the KSM Project has been substantially started in a real and tangible way. We hope that the Environmental Assessment Office approves KSM's application, and issues a positive Determination, so that the Gitksan Nation and its businesses and members can continue to receive employment, contracting and other opportunities in connection with the KSM Project into the future.

Sincerely,

Clifford Sampare

KSM, GITXSAN PARTICIPANT, GITXSAN NATION

(signed Dec 12, 2023)

*Corporation of the*  
**VILLAGE OF HAZELTON**

*Office of the Mayor*

P.O Box 40  
4310 Field St.  
Hazelton, B.C. V0J 1Y0



Tel (250) 842-5991  
Fax (250) 842-5152  
[www.hazelton.ca](http://www.hazelton.ca)

November 22, 2023

Seabridge Gold Inc.  
KSM Project  
PO Box 2536  
Smithers, BC V0J 2N0

**Re: BC Environmental Office – Environmental Assessment Certificate #M14-01**

Dear BC Environmental Office:

The Village of Hazelton Mayor and Council were provided an update on the KSM Project that is located in northwestern BC. Council passed a resolution in support of KSM Mining ULC's application for substantially started, so that its current Environmental Assessment Certificate #M14-01 will be extended.

KSMCo has obtained a multitude of permits, conducted a significant number of geotechnical, geochemical, engineering and environmental studies, and collected many years of baseline data. They have spent \$818 million on the KSM Project with \$625 million spent after the issuance of this Environmental Assessment Certificate. Included in these expenditures is construction on the following physical works:

- 17. 7 km of the Treaty Creek Access Road;
- 3.2 km of the Coulter Creek Access Road;
- Access roads for the first 13 poles of the transmission line;
- Camp 11- a permanent 210 bed camp;
- Hodder Camp - a permanent 48 bed camp;
- Camp 9 pad;
- The Glacier Creek Fish Habitat Offsetting Project;
- The Treaty Creek Terminal Switching Station Pad (through BC Hydro);
- Tree clearing for the North Treaty Creek Access Road, Transmission Line (up to pol 47) and associated access roads, FLTI substation, Mitchell Portal, Camp 5, and certain Water Storage Dam areas; and
- The Bell Irving Bridge, boat launch, snow dump and chain up area.

Thank you for accepting this letter of support for the KSMCo's extension of its Environmental Assessment Certificate, #M14-01. This is an important project for not just the northwest, but all of British Columbia. We look forward to hearing a positive response to KSMCo's application.

*Corporation of the*  
**VILLAGE OF HAZELTON**

*Office of the Mayor*

P.O Box 40  
4310 Field St.  
Hazelton, B.C. V0J 1Y0



Tel (250) 842-5991  
Fax (250) 842-5152  
[www.hazelton.ca](http://www.hazelton.ca)

If you have any questions, please contact our CAO, Robyn Carlé, at 250-842-5991 or [cao@hazelton.ca](mailto:cao@hazelton.ca).

Yours truly,

A handwritten signature in black ink that reads "Julie Maitland". The signature is written in a cursive, flowing style.

**Julie Maitland**  
Mayor

4670-10th Ave. Box 340 New Hazelton, BC V0J 2N0

P: 250.842.6571 F: 250.842.6077 www.newhazelton.ca



November 07, 2023

Seabridge Gold Inc.  
KSM Project  
PO Box 2536  
Smithers, BC V0J 2N0

**Attention: BC Environmental Office – Environmental Assessment Certificate #M14-01**

Dear BC Environmental Office:

At its regularly scheduled Council meeting, Mayor and Council for the District of New Hazelton were provided with an update on the KSM Project that is situated in northwestern BC. Council passed Resolution No. 8240/23 in support of KSM Mining ULC's application for extension of its currently Environmental Assessment Certificate, M14-01.

To date, KSMCo has spent \$818 million on the KSM Project with \$625 million spent after the issuance of this Environmental Assessment Certificate. Included in these expenditures is construction on the following physical works:

- 17.7 km of the Treaty Creek Access Road;
- 3.2 km of the Coulter Creek Access Road;
- Access roads for the first 13 poles of the transmission line;
- Camp 11 – a permanent 210 bed camp;
- Hodder Camp – a permanent 48 bed camp;
- Camp 9 pad;
- The Glacier Creek Fish Habitat Offsetting Project;
- The Treaty Creek Terminal Switching Station Pad (through BC Hydro);
- Tree clearing for the North Treaty Creek Access Road, Transmission Line (up to pole 47) and associated access roads, FLT1 substation, Mitchell Portal, Camp 5, and certain Water Storage Dam areas; and
- The Bell Irving Bridge, boat launch, snow dump and chain up area.

In addition, KSMCo has obtained a multitude of permits, conducted a significant number of geotechnical, geochemical, engineering and environmental studies, and collecting many years of baseline data. It was very heartening to know approximately 80% of KSMCo's spending is occurring within British Columbia and it is expected that over the life span of the project, the \$54.6 billion investment, it is projected that 88% will be spent right here at home in BC. It is expected that this project will inject \$30.6 billion into the BC economy over the lifespan of the mine and will provide approximately 280,698 FTEs of employment during its peak at 6,644 during the first year of production.



DISTRICT OF NEW HAZELTON

4670-10th Ave. Box 340 New Hazelton, BC V0J 2N0 P: 250.842.6571 F: 250.842.6077 [www.newhazelton.ca](http://www.newhazelton.ca)

Thank you for accepting this letter of support for the KSMCo's extension of its Environmental Assessment Certificate, #M14-01. If you have any questions, please do not hesitate to reach out to our Chief Administrative Officer, Wendy Hunt. Wendy can be reached via email at [whunt@newhazelton.ca](mailto:whunt@newhazelton.ca), phone at 250-842-6571, or via regular mail as per this letterhead. We look forward to hearing a positive response to KSMCo's application.

Warm regards,

Gail Lowry,  
Mayor





PO Box 879, 1027 Aldous Street, Smithers, BC V0J 2N0  
Telephone (250) 847-1600 ~ Fax (250) 847-1601 ~ www.smithers.ca

November 30, 2023

FILE: 0550-20

**VIA EMAIL: [mbacon@seabridgegold.ca](mailto:mbacon@seabridgegold.ca)**

SEABRIDGE GOLD INC.  
1330 Main Street, PO Box 2536,  
Smithers, BC, V0J 2N0

Dear Ms. Miller,

**RE: KSM Project Substantially Started Determination**

Having thoroughly reviewed the comprehensive information provided by Seabridge Gold Inc. at the November 7 Regular Meeting of Council, Council acknowledges the significant contributions and progress made in advancing the KSM Project. The extensive physical works undertaken, including the construction of access roads, camps, habitat offsetting projects, and crucial infrastructure, underscore the commitment and tangible efforts invested in the project.

Council recognizes the socio-economic impact the KSM Project has had and will continue to have on our region and the broader province of British Columbia. The projected \$54.6 billion in spending over a 59-year period, with a substantial portion directly benefiting our province, reflects the significant positive contribution to the local economy.

Council is pleased to extend its support to Seabridge Gold Inc. in its application for a Substantially Started Determination through the B.C. Environmental Assessment Office.

Council wishes Seabridge Gold Inc. success in the Substantially Started Determination application process and expresses sincere hope for the timely and favorable consideration of your request by the B.C. Environmental Assessment Office.

Sincerely,

A handwritten signature in black ink, appearing to read "David", with a long horizontal flourish extending to the right.

David Schroeter  
Director of Corporate Services

DS/sl



## DISTRICT OF STEWART

Canada's Most Northerly Ice-Free Port

November 2, 2023

Seabridge Gold Inc.  
106 Front Street East, Suite 400  
Toronto, ON M5A 1E1

To whom this may concern:

**RE: Letter of Support KSM Project – Request for Substantially Start Determination Pursuant to the British Columbia Environmental Assessment Act**

Please accept this letter as our confirmation of support for the application for a Substantially Started Determination (SSD) pursuant to Section 31 of the British Columbia 2018 Environmental Assessment Act.

At the October 23, 2023 Regular Council meeting, Council considered the KSM Mining correspondence regarding the Letter of Support for the KSM Project – Request for Substantially Start Determination Pursuant to British Columbia Environmental Assessment Act.

and made the following motion:

“MOVED & SECONDED THAT Council send a letter of support for the KSM Project Request for Substantially Start Determination Pursuant to the British Columbia Environmental Assessment Act.”

CARRIED

Sincerely,

A handwritten signature in black ink, appearing to read "Angela Brand Danuser".

Angela Brand Danuser  
Mayor

## THE CITY OF TERRACE



CITY HALL  
3215 EBY STREET  
TERRACE, B.C. V8G 2X8  
250-635-6311 PH.  
250-638-4777 FAX  
[www.terrace.ca](http://www.terrace.ca)

*October 24, 2023*

*British Columbia Environmental Assessment Office  
c/o  
Seabridge Gold Inc.  
1330 Mail Street, PO Box 2536  
Smithers, BC V0J 2N0*

*To Whom It May Concern:*

**Re: Substantially Started Determination for Seabridge Gold's KSM Project**

*Please accept this letter as an expression of the City of Terrace's support for a "Substantially Started" determination for Seabridge Gold's KSM Project.*

*City Council recently welcomed a presentation from Seabridge Gold on the tremendous developments and impressive infrastructure that are part of their KSM Project. These developments include construction on multiple camps, the Glacier Creek Fish Habitat Offset Program, construction of the Bell-Irving River Bridge, and the ongoing construction of the BC Hydro Treaty Creek Terminal, among a considerable number of other works. Each of these endeavors has required significant investment of resources and has contributed positively to the overall well-being of the economy in the Northwest.*

*Beyond their direct investments in infrastructure, Seabridge Gold has demonstrated that they are committed to community engagement and development and have proven to be an important part of the business community in Terrace and the surrounding region. Consequently, the City of Terrace would very much like to see the continuation of their advancement in the region and are confident in offering our support in establishing a Substantially Started determination for their KSM Project.*

*Sincerely,*



*Sean Bujtas  
Mayor*



300-4545 Lazelle Avenue  
Terrace, B.C. V8G 4E1  
Tel 250-615-6100  
Fax 250-635-9222

Our file no. 6875 20 09

December 18, 2023

Elizabeth Miller  
Vice President of Environment and Social Responsibility  
Seabridge Gold Inc.

Via Email – [elizabeth@seabridgegold.com](mailto:elizabeth@seabridgegold.com)

Dear Elizabeth Miller,

**Re: KSM Mine Project – Letter of Support for a Substantially Start (SSD)  
Determination Application to the British Columbia Environmental Assessment Office**

At the December 15, 2023, Regional District of Kitimat-Stikine (RDKS) Regular Board meeting, the Board passed the following resolution:

R267-2023

MOVED/SECONDED THAT the Regional District of Kitimat-Stikine provide a letter of support to Seabridge Gold Inc., for their application to the Environmental Assessment Office for an extension to their Environmental Assessment Certificate for the KSM Mine Project.

Carried.

The RDKS Board has supported past requests from the proponent on various offset projects and tenure applications for the KSM Mine Project. A successful SSD will allow the proponent to continue further planned work, engagement with affected First Nations and local government, interest groups and other stakeholders.

Yours truly,

A handwritten signature in cursive script that reads "Cyra Yunkws".

Cyra Yunkws  
Chair



Chris O'Riley  
President & Chief Executive Officer  
Email: [chris.oriley@bchydro.com](mailto:chris.oriley@bchydro.com)

January 11, 2024

BC Environmental Assessment Office  
836 Yates Street  
Victoria, BC V8W 1L8

Dear Sirs/Mesdames,

**Re: BC Hydro and the KSM Project**

We understand that Seabridge Gold Inc.'s wholly-owned subsidiary, KSM Mining ULC (KSM), plans to apply to the Environmental Assessment Office for a Substantially Started Determination (the Determination) under the Environmental Assessment Act (British Columbia) regarding its KSM Project's Environmental Assessment Certificate #M14-01 (the Certificate).

The British Columbia Hydro and Power Authority (BC Hydro) and KSM have been working together for over a decade to secure green, renewable energy for the KSM Project. Since 2014, KSM has spent over \$5.5 million with BC Hydro to fund early engineering and system impact studies to help secure both construction-phase and operations-phase power for the KSM Project.

In addition, in 2022 BC Hydro and KSM signed a Facilities Agreement for the construction of BC Hydro's new Treaty Creek Switching Station (TCT), which will connect the KSM Project to BC Hydro's Northwest Transmission Line. Through the end of 2023 KSM has paid BC Hydro over \$83 million towards the construction of the TCT, and associated system reinforcements to existing BC Hydro infrastructure. To date completed construction activities include site preparation, clearing and road access to TCT, along with the construction of a control building to continue work throughout the winter months. Materials for the switching station have also been procured, and construction activities are ongoing to connect TCT to BC Hydro's system.

As part of the work on TCT, BC Hydro awarded over \$20 million to the Tahltan First Nation for clearing and site preparation at site. BC Hydro and KSM support the Treaty Creek Limited Partnership (TCLP), a new partnership between the Tahltan Nation Development Corporation and the Nisga'a Growth Corporation. As such BC Hydro is currently in discussion to award three contracts to the TCLP that are valued at ~\$35 million and includes general construction of TCT and the installation of piles and concrete on site.

BC Hydro will continue to support the proponent in their development of the KSM Project should a positive Substantially Started Determination be made.

Sincerely,

Chris O'Riley

British Columbia Hydro and Power Authority, 18<sup>th</sup> floor, 333 Dunsmuir Street, Vancouver, BC V6B 5R3  
[bchydro.com](http://bchydro.com)

## **APPENDIX C SATELLITE IMAGERY OF MINE SITE AND PROCESS TAILING MANAGEMENT AREA PRE- AND POST- ISSUANCE OF ENVIRONMENTAL ASSESSMENT CERTIFICATE**

**APPENDIX C: SATELLITE IMAGERY OF MINE SITE AND PROCESS TAILING MANAGEMENT AREA PRE- AND POST-ISSUANCE OF ENVIRONMENTAL ASSESSMENT CERTIFICATE**

Satellite imagery is provided to show areas prior to the issuance of the EAC in comparison to latest snow free coverage (August 2023). While the earliest imagery obtainable from the Sentinel-2 satellite was from August 2017, no disturbance was created between December 2014 and August 2017. All disturbance visible in 2017 was existing as of December 2014 (EAC award date).

Plate B-1: Mine Site Area, August 2017



Plate B-2: Mine Site Area, August 2023

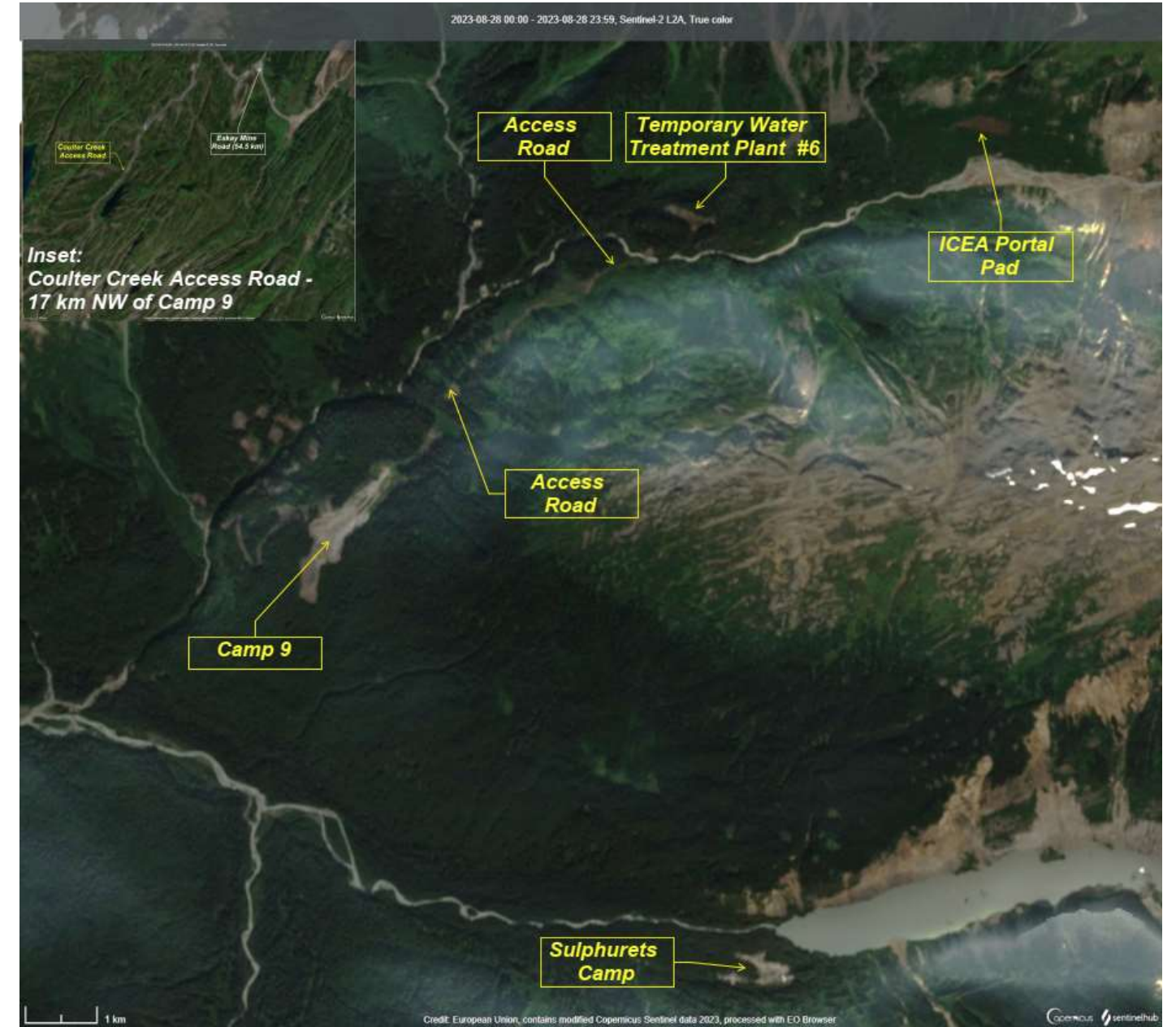


Plate B-3: PTMA Area, Existing Disturbance Pre-EAC Award



Plate B-4: PTMA Area, Construction related disturbance as of October 2023

