

PUBLIC EASEMENT PLAN

Donlin Gold Project

January 2022



2525 C St., Suite 450
Anchorage, Alaska 99503

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	BACKGROUND	2
2.1	Omnibus Act Quit Claim Deed Rights-of-Way.....	2
2.1.1	Temporary Closures of Omnibus Act Quit Claim Deed Rights-of-Way	3
2.2	RS-2477 Rights-of-Way	3
2.2.1	Vacation and Disposal of RS-2477 Rights-of-Way	3
2.2.2	Temporary Closures of RS-2477 Rights-of-Way	3
2.3	ANCSA Section 17(b) Public Easements.....	3
2.3.1	Termination of a Section 17(b) Easement	4
2.3.2	Relocation of a Section 17(b) Easement	4
2.3.3	Temporary Closure of a Section 17(b) Easement	5
3.0	PUBLIC EASEMENTS AFFECTED BY THE PROJECT	5
3.1	FAS 231 (Omnibus Easement): Crooked Creek to Iditarod	6
3.2	RST Easements (Codified RS 2477 Easements).....	6
3.2.1	RST 545 Return Creek – Crooked Creek.....	6
3.2.2	RST 546: Return Creek Landing-Crooked Creek Ruins Trail.....	6
3.2.3	RST 547: Donlin Creek – Dome Creek.....	6
3.2.4	RST 548: Dome Creek – Anaconda – Bell Creek Trail.....	7
3.2.5	RST 549: Snow Gulch – Anaconda Creek Trail	7
3.2.6	RST 550: Crooked Creek Cabin – American Creek Trail	7
3.2.7	RST 1475: Willow Creek – Flat Creek Trail	7
3.3	EIN Easements (17(b) Easements).....	8
3.3.1	EIN 8 C3, L	8
3.3.2	EIN 9 D1, L	8
3.3.3	EIN 10 D1	9
3.3.4	EIN 11 D1	9
3.3.5	EIN 15 D1	10
4.0	PROPOSED PUBLIC EASEMENT ACTIONS	10
4.1	Step 1: Existing Public Access Easements	10
4.2	Step 2: Donation of Public Access Easements and Vacation/Termination of Easements	10
4.3	Step 3: Creation of Alternative Access Around the COA.....	12
4.4	Step 4: Closure of the Donated Easements in the COA.....	13
4.5	Step 5: Post-mine Life Public Access Easements.....	13
5.0	PRIVATE PARCEL (Plat No. 96-1)	13
6.0	FAS 231 ALTERNATIVE ACCESS CHARACTERISTICS.....	13
7.0	SUMMARY	14
8.0	REFERENCES.....	14

TABLES

Table 3-1: Public Easements Affected by the Project 5
Table 4-1: Easement Donations 11

APPENDICES

Appendix A – Figures

- Figure 1: Existing and Proposed Public Easements and Donated Easements.
- Figure 2: Easements During and Post-Mine Life

Appendix B – Alternative Access Characteristics Report

Appendix C – Donlin Gold Leased Areas

ACRONYMS AND ABBREVIATIONS

17(b)	Section 17(b)(3) of the Alaska Native Claims Settlement Act
AAC	Alaska Administrative Code
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation and Public Facilities
ANCSA	Alaska Native Claims Settlement Act
AS	Alaska Statute
ATV	All-Terrain Vehicle
BLM	Bureau of Land Management
Calista	Calista Corporation
CFR	Code of Federal Regulations
COA	Core Operating Area
DE	Donated Easement
Donlin Gold	Donlin Gold LLC
EIN	Easement Identification Number
FAS	Federal-Aid Secondary
FLPMA	Federal Land Policy Management Act
G. V. W.	Gross Vehicle Weight
Lymans	Spencer and Carolyn Lyman
P.L.	Public Law
PLO	Public Land Order
QCD	Quit Claim Deed
R	Range
ROW(s)	Right-of-Way/Rights-of-Way
RS	Revised Statute
RST	Revised Statute Trail
S.	Section
SM	Seward Meridian
T	Township
TKC	The Kuskokwim Corporation
U.S.C.	United States Code
USGS	U.S. Geological Survey

UNITS OF MEASURE

ft	foot/feet
km	kilometer(s)
m	meter(s)
mi	mile(s)

1.0 INTRODUCTION

Donlin Gold LLC (Donlin Gold) is proposing development of an open pit, hardrock gold mine, 277 miles (mi) (446 [kilometers [km]]) west of Anchorage, 145 mi (233 km) northeast of Bethel, and 10 mi (16 km) north of the village of Crooked Creek, Alaska on the north bank of the Kuskokwim River.

The mine would be an active industrial site. The mine workers employed by Donlin Gold will be trained to work in a safe manner and to avoid or mitigate hazards by following strict protocols and procedures. The inherent hazards of an active mine property may not always be apparent to the public engaged in hunting, exploring, hiking, or simply traveling by all-terrain vehicle (ATV). Based on Donlin Gold's experience at the site, the amount of current public access and use is low, however access control measures need to be in place to protect the public and mine workers. Donlin Gold has established a Core Operating Area (COA) to identify the area where public access would be excluded to protect the public from potential hazards associated with hazardous operations at the mine during mine development, operations, and post mining reclamation activities.

The COA boundary was determined by outlining the sites where the public has the potential to come in contact with mine workers or mine operations. A conservative approach to defining the boundary was used because of the potential for significant human health and safety impacts associated with the presence of untrained and unsupervised members of the public coming into contact with mine operations. The following parameters were used to delineate the COA:

- Lands controlled by Donlin Gold under agreements with Calista Corporation (Calista), The Kuskokwim Corporation (TKC), and Spencer and Carolyn Lyman (Lymans) where mineral exploration activities or extraction activities are planned or have the potential to occur.
- Heavy equipment operation areas.
- Explosive handling and planned blasting areas, including allowances for fly rock from blasting.
- Preventing the accidental discharge of electrical detonators as a result of the unregulated use of radio transmitters.
- Controlling access to ancillary facilities and existing historic structures to protect the property from damage or theft.
- Controlling access to environmental monitoring sites that are sensitive to unmanaged interference.
- Maintenance of a suitable buffer from hunting activity around the mine site to prevent unintended bullet strikes.
- Mine Safety and Health Administration (MSHA) and Department of Homeland Security (DHS) site control and safety requirements.

There are currently 15 public access easements and/or rights-of-way (ROWs) (together referred to in this Public Easement Plan as "public easements" or "easements") that intersect the COA. The rights to public access provided by these easements conflict with the imperative of excluding public access within the COA to protect the safety of the general public from the potential hazards

of developing and operating a mine. Additionally, in many cases the proposed land improvements would either block or overlay the footprint of an easement. This Public Easement Plan describes the affected public easements and the proposed plan to both protect public safety and ensure that public access is supported by alternative means.

2.0 BACKGROUND

Three categories of public easements would be affected by the Donlin Gold Project Public Easement Plan. Brief descriptions of the legal authority of the public easements are presented below.

- A Quit Claim Deed (QCD) was issued from the United States Department of Commerce in 1959 to the State of Alaska under the authority of the Alaska Omnibus Act of the same year. Included in the property rights conveyed to the State of Alaska with the Omnibus Act QCD was a ROW for Federal-Aid Secondary (FAS) Route 231 from Crooked Creek to Iditarod, Alaska.
- Revised Statute (RS) 2477. The Mining Act of 1866, Section 8, gave rise to RS-2477 ROWs. Congress repealed the law in 1976 with the Federal Land Policy Management Act (FLPMA). However, the establishment of new RS-2477 ROWs in Alaska was effectively ended with the issuance of Public Land Order (PLO) 4582 in 1969. PLO 4582 reserved and appropriated federal public domain lands previously available for the establishment of RS-2477 ROWs. RS-2477 ROWs established prior to PLO 4582 and FLPMA continue as valid existing rights.
- Section 17(b)(3) of the Alaska Native Claims Settlement Act (ANCSA) (17(b)) provides for the reservation of public easements when the United States conveys lands under ANCSA to Alaska Native Corporations. 17(b) easements allow access from public land to public land, across lands conveyed under ANCSA. State-owned submerged lands beneath navigable waters are included in this definition of public lands. Federal regulations that guide the Bureau of Land Management (BLM) in the reservation and administration of ANCSA Section 17(b) easements are presented in 43 Code of Federal Regulation (CFR) 2650.4 through 2650.7.

Further details regarding the three categories of public easements described above and their administration is provided in Sections 2.1, 2.2, and 2.3 of this Public Easement Plan.

2.1 Omnibus Act Quit Claim Deed Rights-of-Way

Section 21(a) of the Alaska Omnibus Act, enacted on June 25, 1959, directs the Secretary of Commerce to convey to the State of Alaska all lands or interests in lands "owned, held, administered by, or used by the Secretary in connection with the activities of the Bureau of Public Roads in Alaska." On June 30, 1959, pursuant to Section 21(a) of the Alaska Omnibus Act, the Secretary of Commerce issued a QCD to the State of Alaska in which all rights, title, and interest in the real properties owned and administered by the Department of Commerce in connection with the activities of the Bureau of Public Roads were conveyed to the State of Alaska. Although not all of the conveyed ROWs were considered "constructed," the system mileage of the Omnibus

Act ROW segments included 2,200 mi (3,541 km) classified as "primary" system routes, 2,208 mi (3,553 km) of "secondary class A" routes, and 990 mi (1,593 km) of "secondary class B" routes for a total (rounding up) of 5,399 mi (8,689 km) of ROW.

2.1.1 Temporary Closures of Omnibus Act Quit Claim Deed Rights-of-Way

The State of Alaska may restrict the use of an easement or ROW reserved under Alaska Statute (AS) 38.04.050, 38.04.055, or other law in order to protect the public safety (AS.38.04.58).

2.2 RS-2477 Rights-of-Way

RS-2477 (Trails) was originated by the Mining Act of 1866, Section 8, and later re-designated as Section 2477 of the Revised Statutes 1878 (43 United States Code [U.S.C.] 932). RS-2477 provided a federal offer for road easements over public lands. The intent of the grant was to protect the access rights of miners in the early 1800s, when there was a virtually complete absence of federal presence on the public domain lands. The Alaska Department of Transportation and Public Facilities (ADOT&PF) and the Alaska Department of Natural Resources (ADNR) have joint jurisdictional authority for RS-2477s. Essentially, if a road is listed on the "State Highway System" and the ROW is based on an RS-2477 grant, ADOT&PF has jurisdiction. Otherwise, all other RS-2477s are under the management of ADNR. All asserted RS-2477s in the immediate vicinity of the Donlin Gold COA are not listed in the "State Highway System" and are therefore under the jurisdiction of ADNR. Asserted RS2477 claims must be perfected by a court of competent jurisdiction to be valid on federal lands.

2.2.1 Vacation and Disposal of RS-2477 Rights-of-Way

A vacation plat requires the joint approval of ADNR and ADOT&PF and the written approvals of both agencies and their Commissioners on the final plat. Although ADNR manages the regulatory process for the vacation of RS-2477 ROWs that are not on the "State Highway System," ADOT&PF and its Commissioner must still concur with the vacation of non-State Highway System RS-2477 ROW. To ensure that public access is not degraded or eliminated, the vacation statute and regulations establish a requirement that equal or better alternative means of access is available or will be provided through realignment. AS 19.30.410, Vacation of ROWs, and 11 Alaska Administrative Code [AAC] 51.065, Vacation of easements (g) through (k), provide statutory provisions and regulations governing the vacation of an RS-2477 ROW.

2.2.2 Temporary Closures of RS-2477 Rights-of-Way

The State of Alaska may restrict the use of an easement or ROW reserved under AS 38.04.050, 38.04.055, or other law in order to protect the public safety (AS.38.04.58).

2.3 ANCSA Section 17(b) Public Easements

Pursuant to Section 17(b) of ANSCA, easements were reserved for public access across lands conveyed to Alaska Native Corporations. The easement reservations are described in the Interim Conveyances and Patents to ANCSA corporations and graphically depicted on BLM Section 17(b)

easement quadrangle maps. The intent was to provide transportation easements for access to public land across ANCSA lands and site easements for changes in transportation mode, such as one-acre site easements at bodies of water and near airstrips. These easements are specific as to use, location, and size (42 CFR 2650-4-7(a)(4)). If the location of the easement is not accurately shown on the easement quadrangle map but is still reasonably compatible with the terms and descriptions contained in the Interim Conveyance or patent, the map can be corrected by a written recorded agreement between the easement administrator (federal agency) and the land owner (the ANCSA corporation). Unless there has been a transfer of administration, the BLM administers the easement.

2.3.1 Termination of a Section 17(b) Easement

43 CFR 2650.4 – 7 (a)(13) states:

“The Director shall terminate a public easement if it is not used for the purpose for which it was reserved by the date specified in the conveyance, if any, or by December 18, 2001, whichever occurs first. He may terminate an easement at any time if he finds that conditions are such that its retention is no longer needed for public use or governmental function. However, the Director shall not terminate an access easement to isolated tracts of publicly owned land solely because of the absence of proof of public use. Public easements which have been reserved to guarantee international treaty obligations shall not be terminated unless the Secretary determines that the reasons for such easements no longer justify the reservation. No public easement shall be terminated without proper notice and an opportunity for submission of written comments or for a hearing if a hearing is deemed to be necessary by either the Director or the Secretary.”

Also, as per BLM ANCSA Section 17(b) Easement Management Handbook regarding permanent closure procedures:

“IX. B. The termination and release procedures must be followed for permanent restriction or elimination of uses. Field Offices will coordinate and consult with the State Office on proposed actions.”

2.3.2 Relocation of a Section 17(b) Easement

The process to relocate a Section 17(b) easement generally includes accepting a new easement donation in exchange for the release or termination of the existing easement. Section VII. B and E. of the BLM ANCSA Section 17(b) Easement Management Handbook provides the guidance to relocate Section 17(b) easements. When the BLM accepts a donation for a 17(b) easement, it is an acquisition of an interest in public lands, and the BLM must follow all requirements and procedures pursuant to the BLM Acquisition Manual Handbook H-2101-1, the Pre-Acquisition Environmental Assessments Manual Handbook H-2101-04, and Department of Justice Standards. A Certificate of Inspection and Possession (CIP) must be performed by the federal agency involved in the acquisition.

2.3.3 Temporary Closure of a Section 17(b) Easement

Generally, the BLM will not close an ANCSA 17 (b) easement to public use except for emergency closures. The procedures for temporary closures are found in the BLM ANCSA Section 17(b) Easement Management Handbook and 43 CFR § 8364. The BLM Instruction Memorandum No. 2007-037 clarifies that easements may be temporarily closed, or the uses temporarily restricted to reduce environmental degradation on the easement, or for public safety using existing authorities. The proposed Donlin Gold Mine and its effect on 17(b) easements does not constitute an emergency in nature.

3.0 PUBLIC EASEMENTS AFFECTED BY THE PROJECT

Thirteen (13) public easements intersect the proposed mine facilities COA (Table 3-1). Figure 1 (all figures are presented in Appendix A) depicts the public easements and proposed alternative access during construction, mining, and reclamation and closure (mine operations).

Table 3-1: Public Easements Affected by the Project

Type ¹	File #	Name	Legal Description (SM) ^{2, 3}
FAS	231	Crooked Creek to Iditarod	T22N R49W S. 3, 10, 15, 16, 21, 22 T23N R49W S. 10, 11, 14, 23, 26, 27, 34
RST	545	Return Creek-Crooked Creek	T22N R49W S. 17, 21
RST	546	Return Creek Landing-Crooked Creek Ruins Trail	T23N R49W S. 28, 33, 34
RST	547	Donlin Creek-Dome Creek-Crooked Creek via Omega	T22N R48W S. 4, 5, 7, 8, 9 T22N R49W S. 2, 3, 11, 12 T23N R48W S. 18, 19, 20, 28, 29, 32, 33 T23N R49W S. 13,
RST	548	Dome Creek - Anaconda - Bell Creek Trail	T22N R48W S. 4 T23N R48W S. 20, 21, 22, 28, 33, 34
RST	549	Snow Gulch-Anaconda Creek Trail	T22N R48W S. 5, 6, 8, T23N R48W S. 30, 31, 32
RST	550	Crooked Creek Cabin-American Creek Trail	T22N R49W S. 2 T23N R49W S. 26, 27, 35
RST	1475	Willow Creek-Flat Creek Trail	T23N R48W S. 6 T23N R49W S. 1, 12, 13, 14, 23
EIN	8 C3 L		T23N R49W S. 28, 33, 34
EIN	9 D1 L		T23N R48W S. 18, 19, 20, 21, 22 T23N R49W S. 13, 14, 23
EIN	10 D1		T22N R48W S. 4, 5, 7, 8 T22N R49W S. 2, 3, 11, 12 T23N R48W S. 33, 34

¹ FAS= Federal-Aid Secondary; RST = Revised Statute Trail; EIN = Easement Identification Number

² All protracted land survey system references in this document are within the Seward Meridian (SM). Legal description includes only the portions of the easement within the COA.

³ T = Township; R = Range; S. = Section

Type ¹	File #	Name	Legal Description (SM) ^{2, 3}
EIN	11 D1		T23N R48W S. 3, 10, 15, 22
EIN	15 D1		T22N R49W S. 21

3.1 FAS 231 (Omnibus Easement): Crooked Creek to Iditarod

The FAS 231 connects the village of Crooked Creek with Iditarod and was generally used as a winter trail (Figure 1). This highway easement is in a river valley and parallels Crooked Creek on the east side. FAS 231 traverses the COA in a north-south direction. Generally, all other easements (RST or 17(b)) in the vicinity of the COA either originate or terminate at this easement. The FAS 231 easement width is 100 feet (ft) (30.5 meters [m]) (Burton, 2014).

3.2 RST Easements (Codified RS 2477 Easements)

The following are descriptions of the RST easements (or portions) in the COA.

3.2.1 RST 545 Return Creek – Crooked Creek

RST 545 is described as originating at the junction of Crooked Creek and the Flat – Crooked Creek Trail (RST 75)⁴. RST 545 connects to FAS 231 in T22N R49W S. 21 (Figure 1). The trail trends northwest, crosses Crooked Creek and Eagle Creek, and terminates 1 mi (1.6 km) east of Return Creek. The route is approximately 8 mi (13 km) long and is within the U.S. Geological Survey (USGS) quadrangles Iditarod A-5 and Sleetmute D-7 (scale 1:63,360) (ADNR-DMLW, 2015).

3.2.2 RST 546: Return Creek Landing-Crooked Creek Ruins Trail

RST 546 is described as a tractor trail, originating at the junction of Crooked Creek and Grouse Creek (Figure 1). The trail parallels Grouse Creek northwest for 3 mi (4.8 km), then continues west 4 mi (6.4 km) and terminates at Return Creek, near a mine and some abandoned airstrips in T23N R50W S. 28. The trail is within the USGS quadrangle Iditarod A-5 (scale 1:63,360) and is approximately 7 mi (11.3 km) long (ADNR-DMLW, 2015).

3.2.3 RST 547: Donlin Creek – Dome Creek

RST 547 is described as originating at the junction of Dome Creek, Donlin Creek, and the Willow Creek – Flat Creek Trail (RST 1475) (Figure 1). The route trends southeast 2.5 mi (4.0 km) along Dome Creek, then south for 3.5 mi (5.6 km), then continues west 5 mi (8.0 km) and terminates at the junction of Omega Gulch and the Flat – Crooked Creek Trail (RST 75). The trail is within the USGS quadrangle Iditarod A-5 (scale 1:63,360) and is approximately 11 mi (17.7 km) long (ADNR-DMLW, 2015). RST 547 is entirely within the COA on TKC and Calista lands. Based on Donlin Gold's experience at the site, there is no known public use of this trail.

⁴ RST 75 Flat-Crooked Creek Trail was nominated as a potential RS-2477 ROW. The trail was found to be instead an Omnibus ROW (FAS 231) and thus rejected as an RST ROW. However, the ADNR casefile summaries describing the individual RSTs still make reference to RST 75.

3.2.4 RST 548: Dome Creek – Anaconda – Bell Creek Trail

RST 548 is described as originating at the junction of Dome Creek and RST 547 (Donlin Creek-Dome Creek-Crooked Creek via Omega Trail) (Figure 1). The trail trends southeast, paralleling Dome Creek for 3 mi (4.8 km), then trends east for 0.5 mi (0.8 km), skirting the base of Anaconda Mountain. The route continues south 1.5 mi (2.4 km) then trends east to the termination at a stream. The route is within the USGS quadrangle Iditarod A-5 (scale 1:63,360) and is approximately 6.5 mi (10.5 km) long (ADNR-DMLW, 2015). RST 548 originates in the COA in T23N R48W S. 20 and trends east. In T23N R48W S. 21, the trail splits into two routes. One route trends south-southeast and exits the eastern boundary of the COA at T23N R48 W S. 3. This portion of the trail terminates at a small creek on BLM land. A second route trends east and connects to RST 76 in T23N R48W S. 23. This route segment of RST 548 provides connectivity between FAS 231 and RST 1475, RST 547, and RST 76. These trails cross Calista, TKC, and BLM lands. Based on Donlin Gold's experience at the site, there is no known recent public use of this trail.

3.2.5 RST 549: Snow Gulch – Anaconda Creek Trail

RST 549 is currently listed as "Dome Creek-Bell Ridgetop Trail." However, based on confirmation from ADNR (ADNR-DMLW, 2015), this trail is referred to as "Snow Gulch-Anaconda Creek." The route is within the USGS quadrangle Iditarod A-5 (scale 1:63,360) and is approximately 4 mi (6.4 km) long (Figure 1). The trail is entirely within the COA (T23N R48W S. 30, 31, 32 and T22N R28W S. 5, 6, and 8) on TKC and Calista lands. There is no known recent public use of this trail.

3.2.6 RST 550: Crooked Creek Cabin – American Creek Trail

ADNR describes RST 550 as originating at the junction of Crooked Creek and the Flat – Crooked Creek Trail (RST 75). The trail trends south, traverses Lewis Gulch and terminates at American Creek (Figure 1). The trail is within the USGS quadrangle Iditarod A-5 (scale 1:63,360) and is approximately 2 mi (3.2 km) long (ADNR-DMLW, 2015). RST 550 trail is entirely within the COA on land owned by TKC.

3.2.7 RST 1475: Willow Creek – Flat Creek Trail

RST 1475 is described as the Willow Creek-Flat Creek Trail, approximately 12 mi (19.3 km) south of the Iditarod Historic Trail. The route trends southwest from Willow Creek, across Bonanza Creek Flats, up Little Eldorado Creek, and then to Donlin Creek and Crooked Creek. The route is within the USGS quadrangles Iditarod A-4, A-5, B-4, and B-5 (scale 1:63,360) and is approximately 26 mi (41.8 km) long (ADNR-DMLW, 2015). RST 1475 enters the COA at T23N R49W S. 1 and continues south parallel to Donlin Creek, then intersects Dome Creek and EIN 9 D1 L then trends generally southwest across S. 13, 23, and 14, terminating at the junction of Flat Creek and FAS 231. North of the COA, RST 1475 traverses State-owned land until the point where it enters the COA where the land ownership changes to TKC for 5 mi (8.1 km) as it reaches the FAS 231 (Figure 1). Current or recent use of RST 1475 is unknown but based on aerial inspection it does not appear to have been used in recent years, or even decades, as the trail is

barely visible. The platted location of this trail places it west of Donlin Creek, but in actuality the trail trends over Donlin Creek where there are visible trails.

3.3 EIN Easements (17(b) Easements)

3.3.1 EIN 8 C3, L

EIN 8 C3, L is comprised of two segments (Figure 1). The eastern segment starts at the FAS 231 within the COA and trends northwest for approximately 1.4 mi (2.3 km) to the crossing of the COA boundary, onto State-owned land. The western segment starts in T23N R50W S. 26 and trends west through Calista land, follows Return Creek and continues onto BLM lands selected by the State of Alaska in T23N R51W S. 26.

The eastern EIN 8 C3, L was reserved to the United States in patent 50-94-0009 granted to TKC for an existing easement access trail from FAS 231 in T23N R49W S. 34, northwesterly paralleling Grouse Creek to public land. The portion of the eastern segment within T23N R49W S. 28 was reserved to the United States in patent 50-2007-0148 to Calista Corporation, subject to the State of Alaska's claimed RS 2477 right-of-way if valid.

The purpose of EIN 8 C3, L two segments is to allow access to public lands (State of Alaska owned and selected lands) from FAS 231 through ANCSA lands (Figure 1). EIN 8 C3, L is a 50-ft (15.2-m) wide easement for an existing access trail that intersects Grouse Creek and Return Creek. Uses for a 50-ft wide easement are described as follows in the patents:

“travel by foot, dogsled, animals, snowmobiles, two-and three-wheel vehicles, small and large all-terrain vehicles, track vehicles, and four-wheel drive vehicles”

The portion of the easement's western segment outside the COA was reserved to the United States in patent 50-2007-0148 to Calista Corporation, subject to the State of Alaska's claimed RS 2477 right-of-way if valid. The western segment would not be changed by the easement plan.

3.3.2 EIN 9 D1, L

EIN 9 D1, L was reserved to the United States in patent 50-94-0009 granted to TKC and in patent 50-2007-0148 to Calista Corporation.

The EIN 9 D1, L is a 50-ft (15.2-m) wide ANCSA Section 17(b) trail easement. Uses are described as follows in the patents:

“travel by foot, dogsled, animals, snowmobiles, two-and three-wheel vehicles, small and large all-terrain vehicles, track vehicles, and four-wheel drive vehicles”

The purpose of this easement is to provide access to public lands from an existing access trail across ANCSA land from FAS 231 easterly to public lands. The trail connects to FAS 231 and follows various segments of RST 1475, RST 547, and RST 548 to complete the easement (Figure

1). Approximately 7.2 mi (11.6 km) of the 7.6-mi (12.2-km) easement falls within the COA boundary.

3.3.3 EIN 10 D1

EIN 10 D1 was reserved to the United States in patent 50-94-0009 granted to The Kuskokwim Corporation and in patent 50-2007-0148 to Calista Corporation.

The EIN 10 D1 is a 50-ft (15.2-m) wide easement for an existing access trail from FAS 231 (T22N R49W S. 3), paralleling Omega Gulch eastward to public land. Uses are described as follows in the patent:

“travel by foot, dogsled, animals, snowmobiles, two-and three-wheel vehicles, small and large all-terrain vehicles, track vehicles, and four-wheel drive vehicles”

This trail is co-located over the southern portion of RST 547, and then heads east crossing RST 547, RST 548, and RST 549 terminating in T23N R48W S. 34. The purpose of EIN 10 D1 easement was to provide for public access across ANCSA lands from the existing FAS 231 eastward to public lands.

Approximately 7.5 mi (12.1 km) of this easement is within the COA.

3.3.4 EIN 11 D1

EIN 11 D1 was reserved to the United States in patent 50-2007-0148 to Calista Corporation.

The EIN 11 D1 is a 50-ft (15.2-m) wide ANCSA 17(b) trail easement for an existing access trail from Georgetown to Flat. The easement is subject to the State of Alaska’s claimed RS2477 right-of-way, if valid. The uses allowed on a 50-foot wide trail easement are described in the patent:

“travel by foot, dogsled, animals, snowmobiles, two-and three-wheel vehicles, small and large all-terrain vehicles, track vehicles, and four-wheel drive vehicles”

The BLM 17(b) easement quadrangle shows this trail starts in T23N R48W S. 23, trends north into the COA and exits the COA boundary at T23N R48W S. 3. The purpose of this easement was to provide public access through ANCSA land in T23N R48W.

It is also of value to note that EIN 11 D1 was sponsored by the State of Alaska Division of Lands to match the State of Alaska’s claimed RST 76. On September 27, 2016 the State of Alaska corrected the location of RST 76. The corrected RST 76 trail runs along the top of a ridge approximately 0.5 mi to 1 mi (0.8 km to 1.6 km) east of the EIN 11 D 1 location, on public lands outside the COA.

3.3.5 EIN 15 D1

EIN 15 D1 was reserved to the United States in patent 50-2007-0213 to The Kuskokwim Corporation. EIN 15 D1 is a 25-ft (7.2-m) easement for a proposed access trail from FAS 231 in T22N R49 W S.21, to the west, paralleling the right bank of Eagle Creek to public lands in T22N R50W S. 24 (Figure 1). The uses allowed on a 25-foot wide trail easement are described as follows in the patent:

“travel by foot, dogsleds, animals, snowmobiles, two-and three-wheeled vehicles, and small all-terrain vehicles (ATV’s) (less than 3,000 lbs. Gross Vehicle Weight (GVW)).

Approximately 1.4 mi (2.2 km) of this easement is within the COA (T22N R49W S. 21) and public access could be hazardous to the public or the mine workers.

4.0 PROPOSED PUBLIC EASEMENT ACTIONS

The private landowners (Calista, TKC, and Lymans) and the easement holders (State of Alaska and BLM), and Donlin Gold have cooperated in the development of this plan to temporarily exclude public access to the COA during mine operations for safety reasons, while maintaining alternative public access in the surrounding areas and trail connectivity that is equal or better.

Currently the FAS 231 functions as a ‘backbone’ where the various RST and EIN easements originate. This easement plan includes the creation of an alternative access trail around the west side of the COA to act as a bypass during mine life and reclamation activities, that maintains connectivity with other easements. Public lands to the east of the COA will be accessible through the creation of new public easements on the north and south sides of the COA. Most public easements within the COA will be replaced with donated easements and the current easements will be vacated (Section 2.2.1) or terminated (Section 2.3.1) as applicable. The donated easements in the COA will then be temporarily closed (Section 2.2.2) to prevent public access during mine operations. Post-mine life, temporary closures will be lifted, re-establishing the public access in the COA. The required actions to implement this plan are divided into steps and described in the following sections:

4.1 Step 1: Existing Public Access Easements

This step includes the current status of the public easements described in Section 3 and depicted in Figure 1 – Step 1 (Appendix A).

4.2 Step 2: Donation of Public Access Easements and Vacation/Termination of Easements

The landowners (TKC, Calista, Lymans) and leaseholder (Donlin Gold)⁵ will enter into a land agreement with the State of Alaska. Under the direction of this agreement the landowners would

⁵ A description of the area lease areas for mining are included in Appendix C.

donate the easements listed in Table 4-1 and depicted in Figure 1 – Step 2 to the State of Alaska. The BLM will acquire a new 17(b) public access easement from TKC south of the COA (DE#7). The donated easements will provide for public access to public lands (State and Federal) during mine development, operations, and post mining reclamation activities.

After the easement donations are complete, the State of Alaska and BLM will complete the following vacations:

- State of Alaska vacations.
 - Public easements, or portions of these, in the COA replaced by easements donated to the State of Alaska by TKC, Calista, Lymans, and Donlin Gold including RSTs 545, 546, 547, 548 and 1475.
 - RST 549. Use of this trail by the public would be infeasible and unsafe after mine closure.
 - RST 550. During construction and operation of the mine, proposed facilities and activities in the area traversed by this trail includes development of the proposed open pit and north overburden soil stockpile. At the end of the mine life the open pit dimensions would be 2.2 mi (3.5 km) by 1 mi (1.6 km) wide, with steep walls up to 1,850 ft (653 m) high. During mine reclamation, a safety berm would be constructed to surround the perimeter of the open pit, which would then start filling with water to form a lake. It is expected that the water will not meet State of Alaska water quality criteria. A water treatment plant will be installed to treat the water from the pit to meet water quality criteria and discharge it into Crooked Creek. Considering these proposed facilities, the use of this trail by the public would be infeasible and unsafe.
- The BLM terminations:
 - All 17b easements within the COA and the entirety of EIN 15. Alternative public access within the COA during mine development, operations, and post mining reclamation activities will be provided by the agreement between the landowners and the State of Alaska. EIN 15 provides access to the State of Alaska land and the new donated easement will be held by the State of Alaska to continue public access.

Table 4-1: Easement Donations

Easement Donation ID.	Landowner	Easement holder
DE #1	TKC	State of Alaska
DE #2	TKC	State of Alaska
	Calista	State of Alaska
DE #3	TKC	State of Alaska
	Calista	State of Alaska
	Lyman	State of Alaska
DE #4	TKC	State of Alaska

Easement ID.	Donation	Landowner	Easement holder
DE #5		TKC	State of Alaska
		Calista	State of Alaska
DE #6		TKC	State of Alaska
		Calista	State of Alaska
DE #7		TKC	BLM

4.3 Step 3: Creation of Alternative Access Around the COA

Once the donation of easements (Table 4-1) on TKC and Calista lands is completed, an alternative access for the FAS 231 will be secured. This will be accomplished through establishing a new public easement on State-owned land that will connect to donated easement (DE) #1 (see Figure 1). This alternative access easement would be approximately 18.6 mi (29.9 km) long and 100 ft (30.5 m) wide west of the COA, where suitable travel terrain exists (Figure 1). The proposed alternative access would carry the same rights for the public as FAS 231. The alternative access route would start at a point along the existing easement, approximately 0.19 mi (0.31 km) south of T22N R49W S. 21. From there, the proposed route would follow DE #1, trend west, across Crooked Creek and then continue northwest, ascending to the top of a ridge. The route would then follow the ridge to a point where it intersects and then follows RST 545 through T23N R50W S. 35. From there, the route trends north, intersects RST 546 in T23N R50W S. 26, continuing northeast through T23N R50W S. 23 where it connects to RST 554. From this point, on the route follows RST 554 trending northeast until it reconnects with the FAS 231 in T24N R49W S. 27.

From the intersection with FAS 231, the new easement would trend east to intersect with RST 1475 in T24N R48W S. 31, then east to terminate at RST 76 in T23N R48W S. 2.

The current FAS 231 is adjacent to Crooked Creek in very wet terrain. The portion of the FAS 231 that would be closed during mine operations is in generally level terrain, on low-lying wetlands, often saturated with water, and summer travel is therefore difficult. During early winter and spring, the area is prone to overflow, creating hazardous conditions for snow machine travel. The alternative access to FAS 231 traverses terrain of steeper grade, but the terrain is generally dryer, as much of the alternative access route trends over the top of ridges. These dryer portions of the proposed alternative access would enhance public access by providing the public with an access route that may be used in the summer without any trail enhancement. Because most of the proposed alternative access route is across gently rolling ridges (generally bare ground) and along the existing RST 554 route, only light brush removal would be required to bring the proposed route to the same level of improvement as the existing FAS 231 route and make the proposed route ready for equal use. A description of the alternative FAS 231 route characteristics is included in Appendix B.

The current portion of FAS 231 proposed for bypass includes approximately 10 mi (16.1 km) on TKC land, and 2.9 mi (4.7 km) on State-owned land. The proposed new alignment includes 6.1 mi (9.8 km) on TKC land, and 12.5 mi (20.1 km) on State-owned land.

4.4 Step 4: Closure of the Donated Easements in the COA

After Step 3 is complete, and prior to the start of construction, the State of Alaska will complete the following actions (see Figure 2):

- Temporarily close easements until mine operations and reclamation activities are completed or until public safety can be assured:
 - The approximately 12.9 mi (20.8 km) of FAS 231 in the COA.
 - All easements donated by TKC and Calista including DE #2, DE #3, DE #4, DE #5, and DE #6.

4.5 Step 5: Post-mine Life Public Access Easements

After mine operations have ceased, temporary closures on the public access through the COA will be lifted. The State of Alaska will complete the following actions (see Figure 2):

- Remove the temporary closure of the FAS 231, DE #2, DE #3, DE #4, DE #5, and DE #6.
 - Because the proposed mining facilities will alter the terrain features, it is likely that some of these easements may no longer be practical as currently depicted on maps due to safety considerations or terrain changes. Furthermore, landowners may prefer that public easements be better aligned with existing roads which would facilitate safer and better public travel. For this reason, reestablished easements will have the flexibility of being reconfigured within a 2-mile corridor of the current location in order to maintain legal access.
- The FAS 231 alternative public access on State-owned lands would remain.

5.0 PRIVATE PARCEL (PLAT NO. 96-1)

T23N R49W S. 14 and 23 includes a privately owned land parcel with record of survey recorded on January 17, 1996 as Plat No. 96-1, in the Kuskokwim Recording District. This parcel is located within the COA, and the proposed petitions would restrict its public access. In 2012 Donlin Gold and the landowners, Spencer and Carolyn Lyman, entered into a lease and assignment agreement that provides Donlin Gold with exclusive control of the property for a period of 20 years, or for as long as required by Donlin Gold's operations. The Lymans have vacated the private parcel and Donlin Gold has assumed full control of this property. Therefore, the proposed petitions restricting the use of the public easements would have no effect regarding the Lymans' access to the property. Both Spencer and Carolyn Lyman are signatories of the petitions as applicable. Supporting documentation is provided in Appendix C.

6.0 FAS 231 ALTERNATIVE ACCESS CHARACTERISTICS

The proposed alternative access was identified following an evaluation of alternatives and assessment of viability conducted by Steve Rowland, P.E. A summary of the criteria and process followed to identify the alternative access, and a description of routes is provided in Appendix B.

7.0 SUMMARY

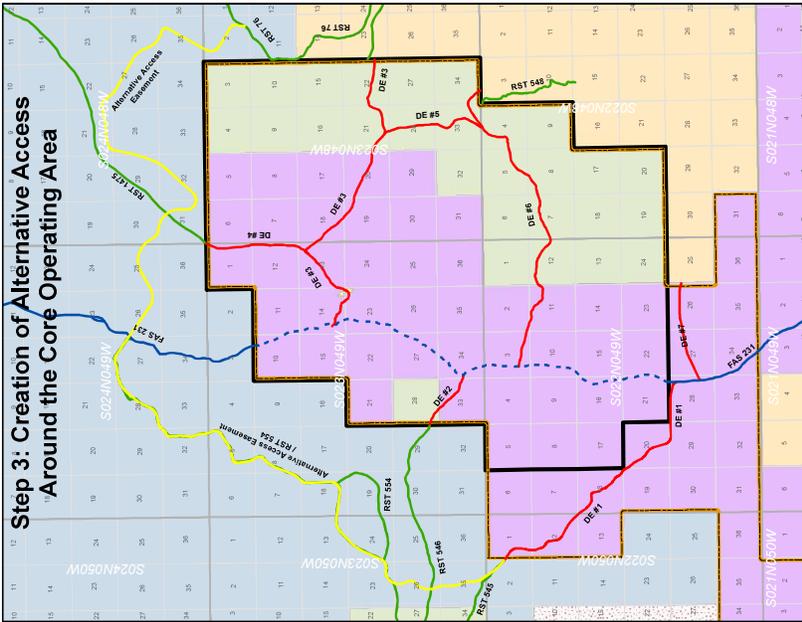
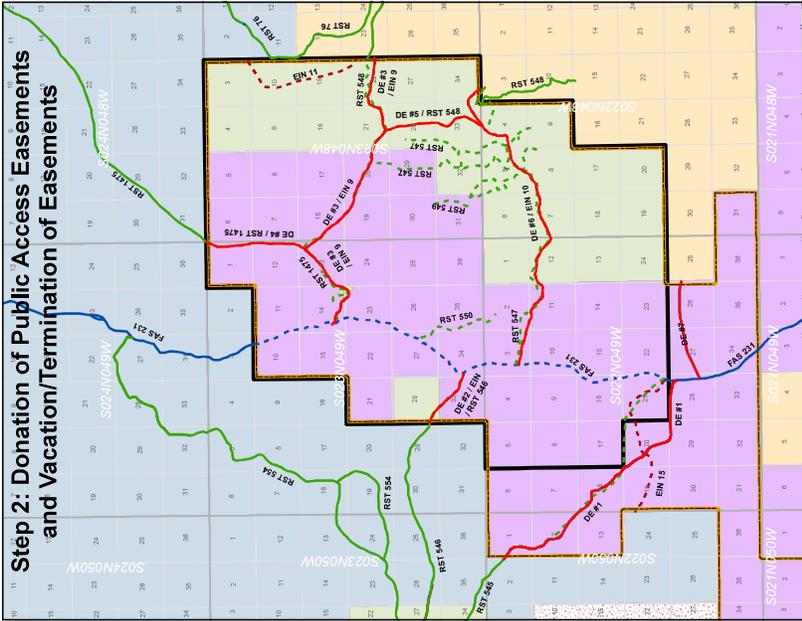
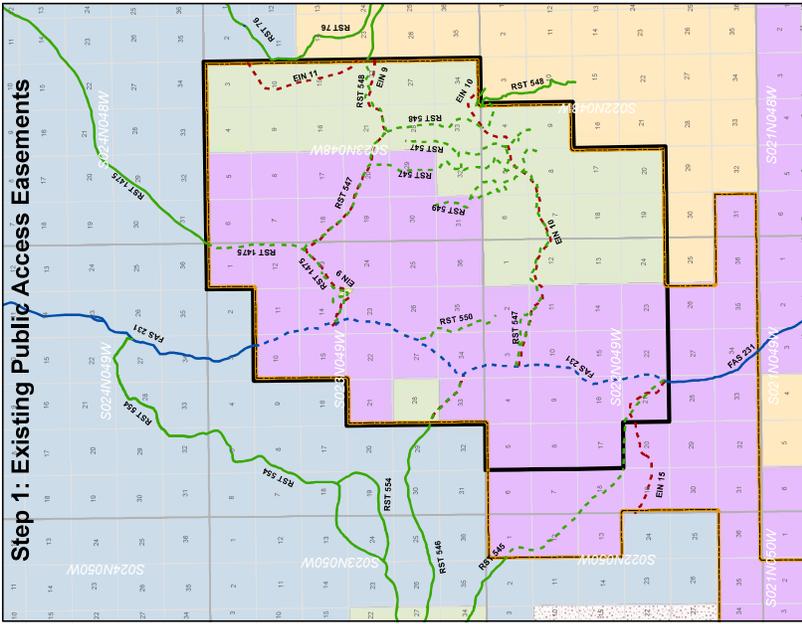
This Public Easement Plan provides Donlin Gold's and the landowners preferred approach to providing continued public access to the public lands around the COA boundary. The proposed approach (Figure 1 and Figure 2) provides the best possible practical public access, while still meeting the project's need to control public access to the site to maintain public health and safety.

8.0 REFERENCES

ADNR-DMLW. (2015, May 7). RS2477 Trails Casefile Online Database. Alaska, USA. Retrieved from http://dnr.alaska.gov/mlw//trails/rs2477/rst_srch.cfm.

Burton, L. A. (2014, October 19). ADOT&PF. (J. Bruno, Interviewer)

Appendix A - Figures



Step 1: Existing Public Access Easements

Step 2: Donation of Public Access Easements and Vacation/Termination of Easements

Step 3: Creation of Alternative Access Around the Core Operating Area

Easements to be Vacated/Terminated or Closed

EIN 8, 17(b) Easement, Terminated Fully
 EIN 9, 17(b) Easement, Terminated Fully
 EIN 10, 17(b) Easement, Terminated Fully
 EIN 11, 17(b) Easement, Terminated Fully
 EIN 15, 17(b) Easement, Terminated Fully
 FAS 231, Omnibus ROW, Temporarily Closed in Part
 RST 545, RS 2477 ROW, Vacated in Part
 RST 546, RS 2477 ROW, Vacated in Part
 RST 547, RS 2477 ROW, Vacated Fully
 RST 548, RS 2477 ROW, Vacated in Part
 RST 549, RS 2477 ROW, Vacated Fully
 RST 550, RS 2477 ROW, Vacated Fully
 RST 1475, RS 2477 ROW, Vacated in Part

Easements to be Donated / Reserved

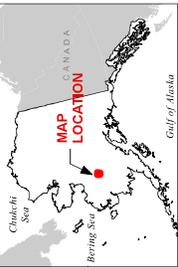
ADL 236624, DMLW Easement
 DE #1, Donated to State of Alaska
 DE #2, Donated to State of Alaska
 DE #3, Donated to State of Alaska
 DE #4, Donated to State of Alaska
 DE #5, Donated to State of Alaska
 DE #6, Donated to State of Alaska
 DE #7, Donated to BLM

Map Notes:

¹FAS and RS 2477 easements are held in trust by the State of Alaska while 17(b) easements are held in trust by the federal government.

²Post mine rehabilitation, DE #2-6 will be constructed, surveyed, and a DNR-DMLW approved survey will be recorded.

³Boundary offset for clarity



Easements¹ to be Vacated or Temporarily Closed

ANCSA Sec. 17 (b) Public Trail Easement (EIN)
 Alaska Omnibus Act Right-of-Way, State-owned FAS Route 231 Crooked Creek to Iditarod (FAS 231)
 RS 2477 Public Rights-of-Way (RST)

Easements¹ to be Vacated or Temporarily Closed

ANCSA Sec. 17 (b) Public Trail Easement (EIN)
 Alaska Omnibus Act Right-of-Way, State-owned FAS Route 231 Crooked Creek to Iditarod (FAS 231)
 RS 2477 Public Rights-of-Way (RST)

Core Operating Area

New Easements²

New Easement Donation
 Alternative Access

Land Status

Lands for mining and mining-related activities leased from The Kuskokwim Corporation and Calista Corporation³
 Lyman-Owned private parcel approximate location (13.9 ac), surface leased from Lyman to Donlin Gold, LLC, Subsurface owned by Calista
 Calista Corp. Patented Lands [1.4 (th)(8)]

The Kuskokwim Corp (surface) and The Calista Corp (subsurface), Patented Lands
 General Grant State Selected, Owned by the US and managed by the BLM
 State-Owned, Tentatively Approved (TA) or Patented Land
 Federal Land (BLM Managed)

DONLIN GOLD

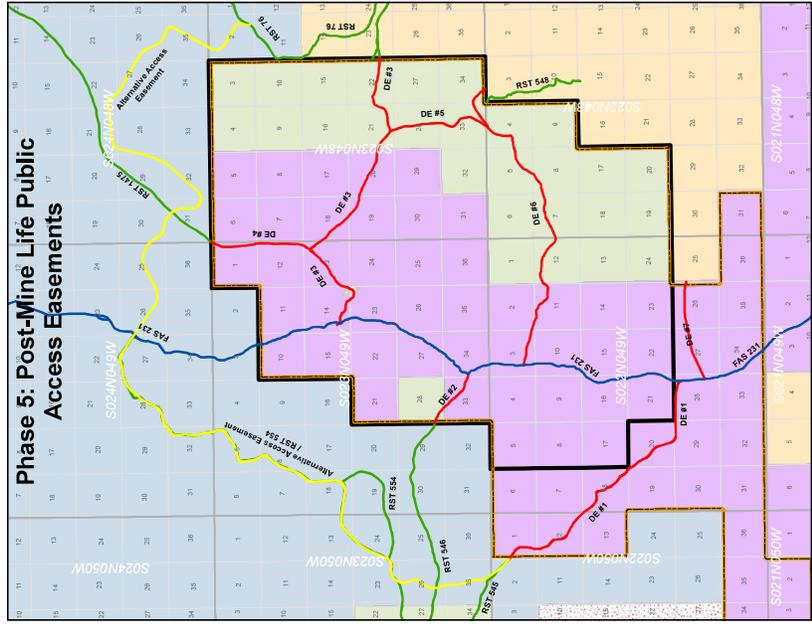
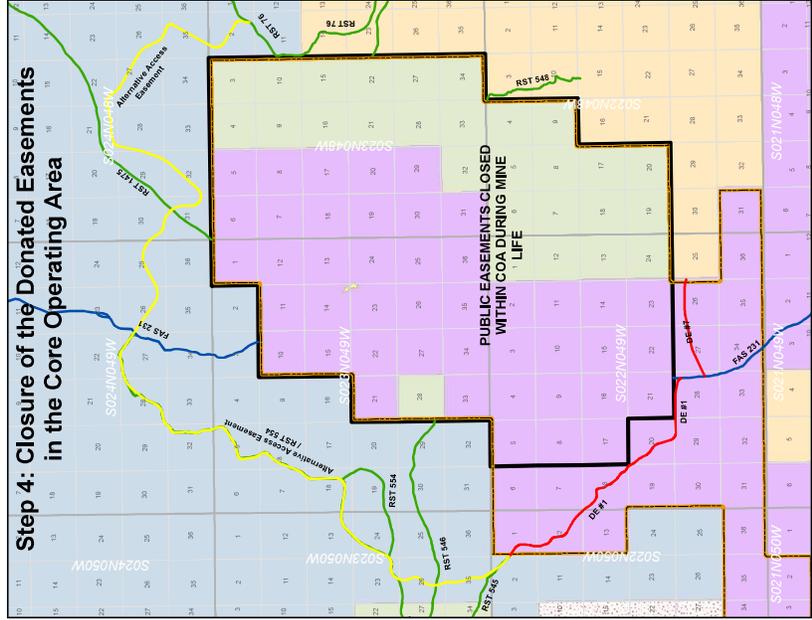
PROPOSED EASEMENT PLAN

DONLIN GOLD PROJECT

SCALE: 0 0.75 1.5 3 mi / 0 1 2 4 km

FIGURE: 1

Seward Meridian, UTM Zone 4, NAD83



Easements to be Vacated/Terminated or Closed

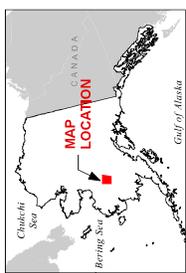
EIN 8, 17(b) Easement, Terminated Fully
 EIN 9, 17(b) Easement, Terminated Fully
 EIN 10, 17(b) Easement, Terminated Fully
 EIN 11, 17(b) Easement, Terminated Fully
 EIN 15, 17(b) Easement, Terminated Fully
 FAS 231, Omnibus ROW, Temporarily Closed in Part
 RST 545, RS 2477 ROW, Vacated in Part
 RST 546, RS 2477 ROW, Vacated in Part
 RST 547, RS 2477 ROW, Vacated Fully
 RST 548, RS 2477 ROW, Vacated in Part
 RST 549, RS 2477 ROW, Vacated Fully
 RST 550, RS 2477 ROW, Vacated Fully
 RST 1475, RS 2477 ROW, Vacated in Part

Easements to be Donated / Reserved

DE #4, Donated to State of Alaska
 DE #5, Donated to State of Alaska
 DE #6, Donated to State of Alaska
 DE #7, Donated to BLM

Map Notes:

¹FAS and RS 2477 easements are held in trust by the State of Alaska while 17(b) easements are held in trust by the federal government.
²Post mine rehabilitation, DE #2-6 will be constructed, surveyed, and a DNR-DMLW approved survey will be recorded.
³Boundary offset for clarity



DONLIN GOLD		PROPOSED EASEMENT PLAN	
DONLIN GOLD PROJECT		FIGURE: 2	
<p>The Kuskokwim Corp (surface) and The Calista Corp (subsurface), Patented Lands</p> <p>General Grant State Selected, Owned by the US and managed by the BLM</p> <p>State-Owned, Tentatively Approved (TA) or Patented Land</p> <p>Federal Land (BLM Managed)</p>		<p>Seward Meridian, UTM Zone 4, NAD83</p>	

Appendix B - Alternative Access Characteristics Report



October 17, 2016

Donlin Gold, LLC
4720 Business Park Blvd., Suite G25
Anchorage, AK 99503

Attn.: James Fueg

Re: Route Characteristics for the Proposed Alternative Access to Public Lands Surrounding the Donlin Gold Core Operating Area Resulting from the Temporary Closure of Omnibus R/W FAS 231, RST 1475, RST 548, RST 547, and EIN 10 D1; REVISION-01

Introduction

Donlin Gold LLC (Donlin Gold) has proposed the development of an open pit gold mine and related infrastructure (proposed project) and designated a Core Operating Area (COA) on the private lands surrounding the project site. This COA will be required for mine operations and to protect the public from the potential hazards associated with mine operations. There are currently 13 federally- or state-managed public access easements and/or rights-of-way (ROWs) that intersect the COA. The right to public access provided by these easements conflicts with the imperative of excluding public access within the COA and, in many cases, the proposed land improvements may block or overlay the footprint of an easement. Rowland Engineering Consultants (RECON LLC, or RECON) has been retained by Donlin Gold to delineate alternative access to the public lands surrounding the COA. The following is RECON's summary of terrain and constructability characteristics for the proposed alternative access routes.

The proposed alternative access was identified following an evaluation of alternatives and assessment of viability conducted by Steve Rowland, PE, between 2013 and 2015. Each of the easements proposed for temporary closure was inspected to determine traditional use and purpose. It was determined through this process that only the Omnibus R/W FAS 231 was used to any substantial degree, and then only for occasional winter travel or freighting. The other easements appear to have had very limited use as historical local routes for transiting the area with mining-related equipment, lacked any evidence of use, or were located in terrain that would not have been utilized as a travel route for any practical purpose. The last reason is particularly true of EIN 11 D1, which would not have been aligned as indicated by the mapped route, which cross-cuts terrain in a manner that inhibits practical travel, while ignoring the nearby proximity of ridgelines that could be traversed relatively easily on foot or with motorized equipment. In addition, RST 1475 is also grossly misrepresented on maps and is shown to traverse terrain that would prohibit any type of functional trail or road development. The observed location of this route is in the valley bottom along Donlin Creek, as opposed to crossing the ridges and side-hilling the slopes to the west of the creek.



Criteria for Identification of the Alternative Access

- Location outside of the boundaries of the COA
- Alignment with the original purpose of the affected route with respect to origin, destination, and transportation mode
- User safety
- Minimization of the overall travel distance
- Facilitation of area-wide travel patterns
- Grade limited to 12% typical and 15% max
- Suitability for winter travel, which was identified as the dominant use
- Potential for development as a functional all-season trail or road route
- Environmental criteria:
 - Minimize stream crossings
 - Minimize impact to wetlands
- Constructability and maintenance criteria:
 - Limit traverse of poor ground conditions, including permafrost
 - Best possible natural drainage
 - Minimize vegetation clearing needs
 - Minimize earthwork requirements
 - Limit cross-slope traverse to allow for winter trail development without significant cut or fill
 - Define alignment using geometry appropriate for future road development

Processes Used to Identify the Alternative Access

- Review of existing alignment descriptions and historic documentation
- Review of available topographic maps, orthophotography, and terrain data to identify alternative options and preliminary routes
- Review of area-wide geologic maps and Donlin Gold project-related geotechnical information
- Review of records of historical use to ascertain type of uses expected for alternative routes
- Reliance on author's extensive history of field studies, knowledge, and observations in the project area
- Observation and inspection of existing trails to confirm historical documentation of use
- Field verification of existing trail locations to ensure alternative routes would provide comparable access
- Location of alternative routes in the field using GIS-grade GPS units and laptop computer with imagery, topographic map layers, and route alternatives displayed in GIS software with real-time GPS positioning.



- Reconnaissance overflights of routes, utilizing a Robinson R44 light helicopter
- Traverse of representative segments of the alternative routes, by the author, on foot or via snowmachine
- Plot of final route relying on a combination of field and GIS data using both GIS mapping software and CAD

Route Descriptions

Each of the routes are shown on the attached Overview Map. Mile post markers included on the map are provided for the following summaries of the route terrain characteristics and constructability.

Alternative to FAS 231, RST 545, RST 546, and RST 1475

The subject route as described starts from FAS231 to the south of the COA and transitions around the western side of the COA before rejoining FAS231 to the north of the COA. It then continues in an easterly direction to join up with RST76 on the northeastern edge of the COA.

MP 0 Departure from existing winter trail (Omnibus R/W FAS 231) just east of Crooked Creek in wetland flat adjacent to floodplain.

MP 0.0-0.3 Proceeds westerly crossing Crooked Creek and associated floodplain. The creek crossing is at a favorable location for winter crossing. Mature timber near active stream channel. Scrub brush and small trees outside active floodplain. Permafrost and ice-rich soils are likely.

MP 0.3-2.0 Proceeds westerly at gradual gradient to crest of low ridge 230 feet above Crooked Creek, then heads northwest descending to crossing of Eagle Creek. Soils are silt and regolith over bedrock. Discontinuous permafrost is likely. Open scrub brush and trees.

MP 2.0 Crosses Eagle Creek at a location suitable for winter crossing.

MP 2.0-3.4 Gradual side-hill ascent to ridge crest and crossing of the proposed mine access road. Cross-slope varies from 20-25%. Mostly open scrub trees and light brush. Potential all-season trail/road would require limited side cut or fill. Soils are shallow colluvium and regolith of weathered bedrock. Route intersects with RST 545 at approximately MP 2.5.

MP 3.4-21.5 Route trends northwest then northeast as it traverses ridgeline that forms divide between Crooked Creek/Flat Creek and Iditarod River drainages. Ridgeline route is free of drainage crossings and has limited grade differential. Elevation over this 18-mile interval varies from approximately 700 to 1100 feet. Soils are typically thin layer of silt over regolith and weathered bedrock. Permafrost is rare. Vegetation cover varies from tundra to low scrub trees and brush. Route roughly follows the existing RST 545 from MP 2.5 to 6.5 and intersects RST 546 at MP 7.9. At MP 8.8 the new route intersects with existing RST 554 and generally follows the same route to MP 18.6 where both routes intersect with the existing Omnibus R/W FAS 231



trail at divide between the heads of Timber Creek and Flat Creek. Route intersects RST 1475 at MP 21.5.

MP 21.5-22.5 Route turns southerly as it descends 400 feet along the nose of a ridge to the crossing of Donlin Creek and associated floodplain. Grades are moderate. Soils are a thin blanket of silt over colluvium and regolith with shallow bedrock. Permafrost potential at toe of slope near Donlin Creek.

MP 22.5 Crossing of Donlin Creek. Narrow channel with gravel bed. Suitable for a winter crossing.

MP 22.5-25.5 Route heads northeast roughly parallel to and to the east of Donlin Creek. Route crosses over several low and broad ridges with minor drainage crossings between ridges. Soils are likely silt over alluvial gravel. Permafrost is likely discontinuous. Vegetation is scrub spruce and light brush that varies from moderate to open cover. Cross-slope and grade are minimal.

MP 25.5-30.0 Route trends southeast toward Lookout Mountain, then southerly as it follows ridge lines and crosses the heads of two drainages before ending at the intersection with RST 76. Grades over this section are often at 10-15%. Cross-slopes are limited. Elevation varies from 800 to 1600 feet. Soils vary from silt and regolith over shallow bedrock to broken and weathered rock. Permafrost is rare.

Alternative Access for EIN 10 D1

Reroute provides access to public lands east of Crooked Creek and immediately south of the COA. The reroute originates from FAS 231 on the east side of the Crooked Creek valley bottom. Length of the reroute is approximately 2.2 miles, which is shorter than the current route by approximately 5 miles. In general, the reroute ascends along the crest of a low ridge south of Crevice Creek. The alignment ascends this ridge at a fairly constant grade of 3–8%. Ground conditions are typically shallow silt over regolith and weathered bedrock. Discontinuous permafrost is likely present over the westernmost 0.5 mile of the reroute. Vegetation is scrub brush and small spruce with some aspen and birch on west half of the route. Winter trail development will not require grading or earthwork.

Constructability, Marking, and Maintenance

The establishment of the alternative access trails for winter travel will require clearing of vegetation taller than 1 ft. Limited earthwork consisting of cut-to-fill grading on cross-slope intervals may be required along the FAS 231 Alternative at the following locations:

MP 2.0–3.7, MP 16, MP 17.1, MP 22.4, MP 29.4

Trail markers may be needed in open areas on the ridgelines. Periodic maintenance for vegetation clearing may be required and the frequency would depend on the rate of vegetation regrowth and trail usage.



Route Photographs



Figure 1 : New Route MP 3.5-4.0

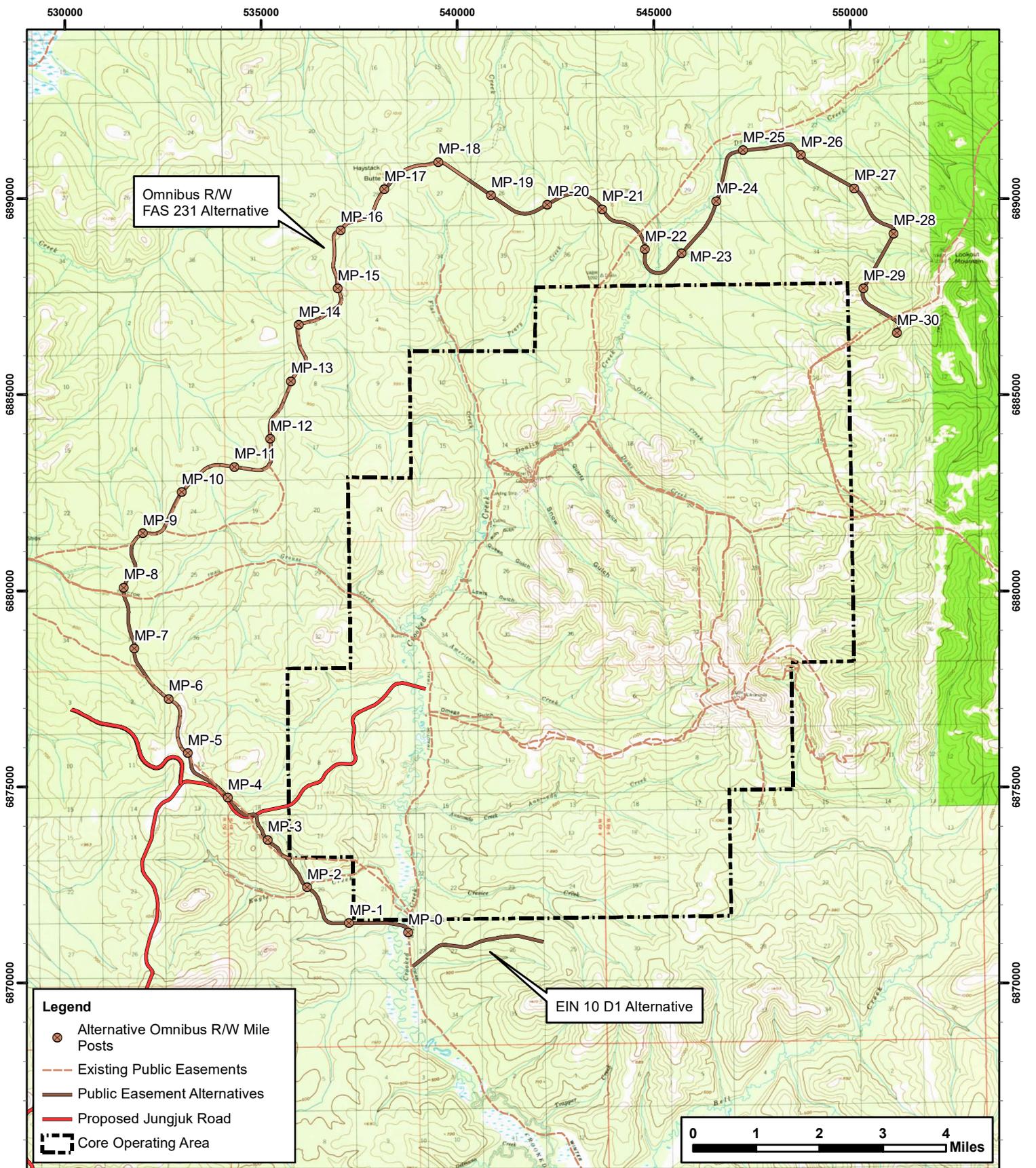


Figure 2: New Route MP 5



Figure 3: View of Omnibus R/W FAS 231 along Crooked Creek just upstream of Eagle Creek

Document Revision History			
Rev #	Date	Revision Notes	Initials
[blank]	17 Oct 2016	Original	MJR
01	17 Oct 2016	Removed references to EIN 21, RST 76, and the port easement.	MJR



Legend

- Alternative Omnibus R/W Mile Posts
- Existing Public Easements
- Public Easement Alternatives
- Proposed Jungjuk Road
- Core Operating Area

EIN 10 D1 Alternative

**DONLIN GOLD
Public Easement Alternatives**

Map and Engineering by RECON LLC
481 W. RECON Cir, Palmer AK 99645
NAD1983 UTM Zone 4N (Meters)
Basemap by CalTopo

OVERVIEW MAP



1:130,000

10/17/2016



1:80,000,000

Appendix C – Donlin Gold Leased Areas

NS, CC

A
L
A
S
K
A

2012-000129-0

Recording Dist: 403 - Kuskokwim

5/14/2012 10:12 AM Pages: 1 of 9



THIS COVER SHEET HAS BEEN ADDED TO THIS DOCUMENT TO PROVIDE SPACE FOR THE RECORDING DATA. THIS COVER SHEET APPEARS AS THE FIRST PAGE OF THE DOCUMENT IN THE OFFICIAL PUBLIC RECORD.

DO NOT DETACH

For Recording in the Kuskokwim Recording District

Return To:
Donlin Gold LLC
Attn: General Manager
4720 Business Park Blvd.
Suite G-25
Anchorage, Alaska 99503

Memorandum of Surface Lease and Assignment of Mining Lease

Notice is hereby given by this Memorandum of Surface Lease and Assignment of Mining Lease (this "*Memorandum*") of that certain Surface Lease and Assignment of Mining Lease, an unrecorded lease (the "*Lease*"), made and entered into effective as of May 9, 2012 (the "*Effective Date*") by and among Spencer W. Lyman and Carolyn Motherway Lyman, each acting in his or her individual capacity and, where any property subject to the Lease is held by them as tenants by the entirety, acting in their capacity as husband and wife, Lyman Resources in Alaska, Inc., an Alaska corporation (Spencer W. Lyman, Carolyn Motherway Lyman, and Lyman Resources in Alaska, Inc. are collectively referred to herein as the "*Lymans*"), and Donlin Gold LLC, a Delaware limited liability company ("*Donlin*"). All terms used herein but not defined herein shall have the meaning ascribed to them in the Lease.

Spencer W. Lyman, Carolyn Motherway Lyman and Lyman Resources in Alaska, Inc.'s addresses are:
PO Box 79 Crooked Creek, Alaska 99575.

Donlin Gold LLC's address is:
4720 Business Park Blvd., Suite G-25 Anchorage, AK 99503

The Lymans own (1) the lands described in Exhibit A, attached hereto (the "*Lyman Lands*"), and (2) the lessee interest in the Lyman Placer Lease described in Exhibit B, attached hereto (the "*Lyman Leasehold*").

Pursuant to the Lease, and for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Lymans (1) leased exclusively to Donlin the Lyman Lands for the purposes stated in the Lease, and (2) assigned exclusively to Donlin, and



Donlin assumed exclusively from the Lymans, the Lyman Leasehold for the purposes stated in the Lease.

1. **Term.** The term of the Lease is as follows:

The commencement date of the Lease is the Effective Date, May 9, 2012.

Primary Term. The primary term of the Lease shall begin on the Effective Date and continue and be for twenty (20) years following Donlin's receipt of notice that the Lymans have terminated their occupancy of the Lyman Lands pursuant to the Lease, which shall be no later than July 15, 2016 ("Rent Commencement Date").

Secondary Term. The secondary term of the Lease shall be for so long following the Primary Term as Donlin Operations, as fully defined in the Lease, but which include mining exploration, development, production, and reclamation activities, are being conducted in the Area of Interest, as that area is defined in Exhibit A to the Lease.



The Primary Term, together with the Secondary Term, are the Lease Term.

2. **Assignment of the Lyman Leasehold and Suspension of the Lyman Placer Lease.** A memorandum of the Lyman Placer Lease was recorded on May 11, 1982 at Book 15, Page 420, Kuskokwim Recording District, State of Alaska. Pursuant to the terms and conditions of the Lease, the Lyman Leasehold has been assigned to Donlin and the Lyman Placer Lease shall be suspended in its entirety for the duration of the Lease Term and completion of Donlin's reclamation activities, until reassignment of the Lyman Leasehold from Donlin to the Lymans as described in the Lease.

3. **Purpose of this Memorandum.** The Lymans and Donlin desire to execute and record this Memorandum to provide notice to third parties of the Lease and of Donlin's and the Lymans' interests and rights thereunder. This Memorandum does not supersede, modify, amend or otherwise change the terms, conditions or covenants of the Lease.

4. **Counterparts.** This Memorandum of Lease may be executed in counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute but one and the same Memorandum.

[Signature page follows]



IN WITNESS WHEREOF, the parties hereto have executed, delivered, and accepted this Memorandum as of the date written below.

Dated this 9 day of May, 2012.

The Lymans:

Spencer W Lyman
SPENCER W. LYMAN

Carolyn Motherway Lyman
CAROLYN MOTHERWAY LYMAN

LYMAN RESOURCES IN ALASKA, INC.,
an Alaska corporation

By: Spencer W Lyman
Name: Spencer W Lyman
Title: President

STATE OF ALASKA)
)ss.
FOURTH JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the 9th day of May, 2012, before me, the undersigned Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared SPENCER W. LYMAN, who executed the within and foregoing Memorandum of Surface Lease and Assignment of Mining Lease, and he acknowledged before me that he signed said instrument as his free and voluntary act and deed, for the uses and purposes therein stated.

WITNESS my hand and official seal on the day, month and year in this certificate first above written.

Angie M. Grant
Notary Public in and for Alaska
My Commission Expires: 02/02/14 (SEAL)



STATE OF ALASKA)
)ss.
FOURTH JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on the 9th day of May, 2012, before me, the undersigned Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared CAROLYN MOTHERWAY LYMAN, who executed the within and foregoing Memorandum of Surface Lease and Assignment of Mining Lease, and she acknowledged before me that she signed said instrument as her free and voluntary act and deed, for the uses and purposes therein stated.

WITNESS my hand and official seal on the day, month and year in this certificate first above written.

Angie M. Grant

Notary Public in and for Alaska

My Commission Expires: 02/06/14 (SE)



STATE OF ALASKA)
)ss.
FOURTH JUDICIAL DISTRICT)

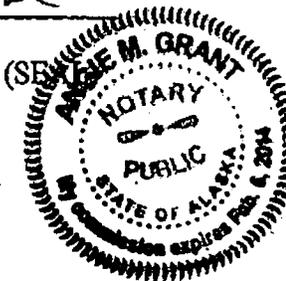
The foregoing Memorandum of Surface Lease and Assignment of Mining Lease instrument was acknowledged before me this 9th day of May, 2012 by (name) Spencer W. Lyman (title) President of LYMAN RESOURCES IN ALASKA, INC., an Alaska corporation, on behalf of the corporation.

WITNESS my hand and official seal on the day, month and year in this certificate first above written.

Angie M. Grant

Notary Public in and for Alaska

My Commission Expires: 02/06/14 (SE)



Donlin:

DONLIN GOLD LLC,
a Delaware limited liability company

By: Stanley T. Foo
Name: Stanley T. Foo
Title: General Manager

STATE OF ALASKA)
FOURTH ~~and~~)ss.
~~THIRD~~ JUDICIAL DISTRICT)

The foregoing Memorandum of Surface Lease and Assignment of Mining Lease was acknowledged before me this 9th day of May, 2012, by (name) Stanley T. Foo, (title) General Manager of DONLIN GOLD LLC, a Delaware limited liability company, on behalf of the limited liability company.

WITNESS my hand and official seal on the day, month and year in this certificate first above written.

Anne M. Grant
Notary Public in and for Alaska
My Commission Expires: 02/02/14

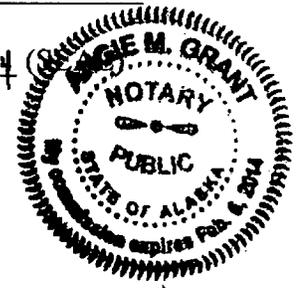


Exhibit A
Lyman Lands

The surface estate in, to, and respecting those lands included within the Record of Survey recorded on January 17, 1996, as Plat No. 96-1, Kuskokwim Recording District, State of Alaska, and as described in the Grant Deed of Surface Estate dated June 7, 1994, and recorded on August 17, 1994, at Book 26, Pages 44-48, Kuskokwim Recording District, State of Alaska, and the Corrective Grant Deed of Surface Estate dated June 8, 2000, and recorded on July 21, 2000 at Book 31, Pages 180-182, Kuskokwim Recording District, State of Alaska.



Exhibit B
Lyman Leasehold

The rights, titles, and interests granted to Lyman Resources in Alaska, Inc. pursuant to that certain Mining Lease Agreement dated April 28, 1982, as amended on April 25, 1988, and further amended April 25, 2012 between Calista Corporation, an Alaska corporation, and Lyman Resources in Alaska, Inc. (Memorandum of Lease Agreement dated April 30, 1982 and recorded on May 11, 1982 at Book 15, Page 420, Kuskokwim Recording District, State of Alaska) (the "*Lyman Placer Lease*"), respecting and affecting the real property in the locations described below:

Seward Meridian

Township 23N, Range 49W, Section 13, SW 1/4
Township 23N, Range 49W, Section 14, S 1/2
Township 23N, Range 49W, Section 23, N 1/2
Township 23N, Range 49W, Section 23, SW 1/4
Township 23N, Range 49W, Section 24, NW 1/4
Township 23N, Range 49W, Section 26, NW 1/4
Township 23N, Range 49W, Section 27, E 1/2
Township 23N, Range 49W, Section 13, SE 1/4
Township 23N, Range 49W, Section 23, SE 1/4
Township 23N, Range 49W, Section 24, NE 1/4
Township 23N, Range 49W, Section 26, SW 1/4
Township 23N, Range 49W, Section 24, SW 1/4
Township 23N, Range 49W, Section 26, NE 1/4



LANDS FOR MINING AND MINING RELATED ACTIVITIES LEASED BY DONLIN GOLD FROM THE KUSKOKWIM CORPORATION AND CALISTA CORPORATION

LANDS LEASED FROM THE KUSKOKWIM CORPORATION

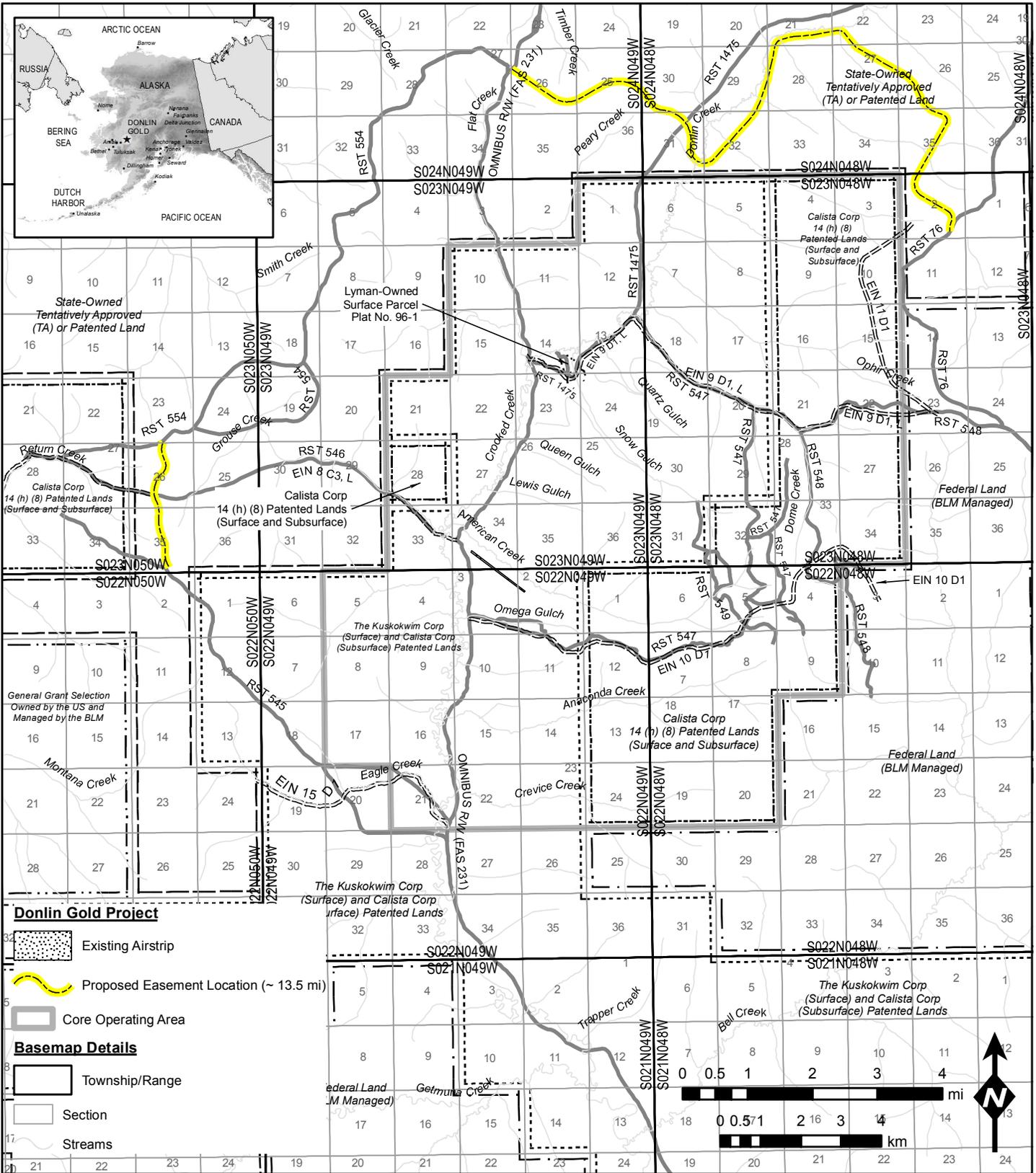
TOWNSHIP-RANGE Seward Meridian	SECTION(S)
Surface Ownership	
T22N48W	31
T22N49W	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
T22N50W	1, 12, 13
T23N48W	5, 6, 7, 8, 17, 18, 19, 20, 29, 30, 31
T23N49W*	1, 10, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36

*Excluding from TKC's surface estate a 13.91 acre parcel located within unsurveyed Sections 14 and 23 as described in the Record of Survey recorded as Plat 96-1 in the Kuskokwim Recording District on January 17, 1996.

LANDS LEASED FROM CALISTA CORPORATION*

TOWNSHIP-RANGE Seward Meridian	SECTION(S)
Subsurface Ownership	
T22N49W	2, 3, 4, 5, 8, 9, 10, 11, 14, 15, 16, 17, 18, N ½ of Section 19, N ½ of Section 20, 21 (all except SW ¼), 22, 23
T23N48W	5, 6, 7, 8, 17, 18, 19, 20, 29, 30, 31
T23N49W	1, 10, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36
Subsurface and Surface Ownership	
T22N48W	4, 5, 6, 7, 8, 9, 17, 18, 19, 20
T22N49W	1, 12, 13, 24
T23N48W	3, 4, 9, 10, 15, 16, 21, 22, 27, 28, 32, 33, 34
T23N50W	S ½ of Section 33

EXHIBIT C: Proposed Easement Location Map



Donlin Gold Project

- Existing Airstrip
- Proposed Easement Location (~ 13.5 mi)
- Core Operating Area

Basemap Details

- Township/Range
- Section
- Streams

Current Trail Easements

- RS 2477 and FAS 231 Easements
- 17b Trail Easements

Land Ownership Details*

- Federal Land (BLM Managed)

- General Grant Selection. Owned by the US and Managed by the BLM
- State-Owned. Tentatively Approved (TA) or Patented Land
- Calista Corporation 14 (h) (8) Patented Lands (Surface and Subsurface)
- The Kuskokwim Corp (Surface) and Calista Corp (Subsurface) Patented Lands

Date Prepared: 05/30/17 Applicant's Name: DONLIN GOLD, LLC.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER
PRE-MINING OPERATIONS

LOCATED WITHIN: T21N R47W, T21N R48W, T21N R49W, T21N R50W, T22N R47W, T22N R48W, T22N R49W, T22N R50W, T23N R47 W, T23N R48W, T23N R49W, T23N R50W, T24N R47W, T24N R48W, T24N R49W, and T24N R50W OF SEWARD MERIDIAN IN KUSKOKWIM RECORDING DISTRICT

Scale: 1" = 134,458 **PROJECT LOCATION MAP**

SHEET 1 OF 3 File #

Seward Meridian, UTM Zone 4, NAD83



MEMORANDUM

Date: February 24, 2022

To: Stuart Greenfield

CC: Catherine Heroy

From: Enrique Fernandez

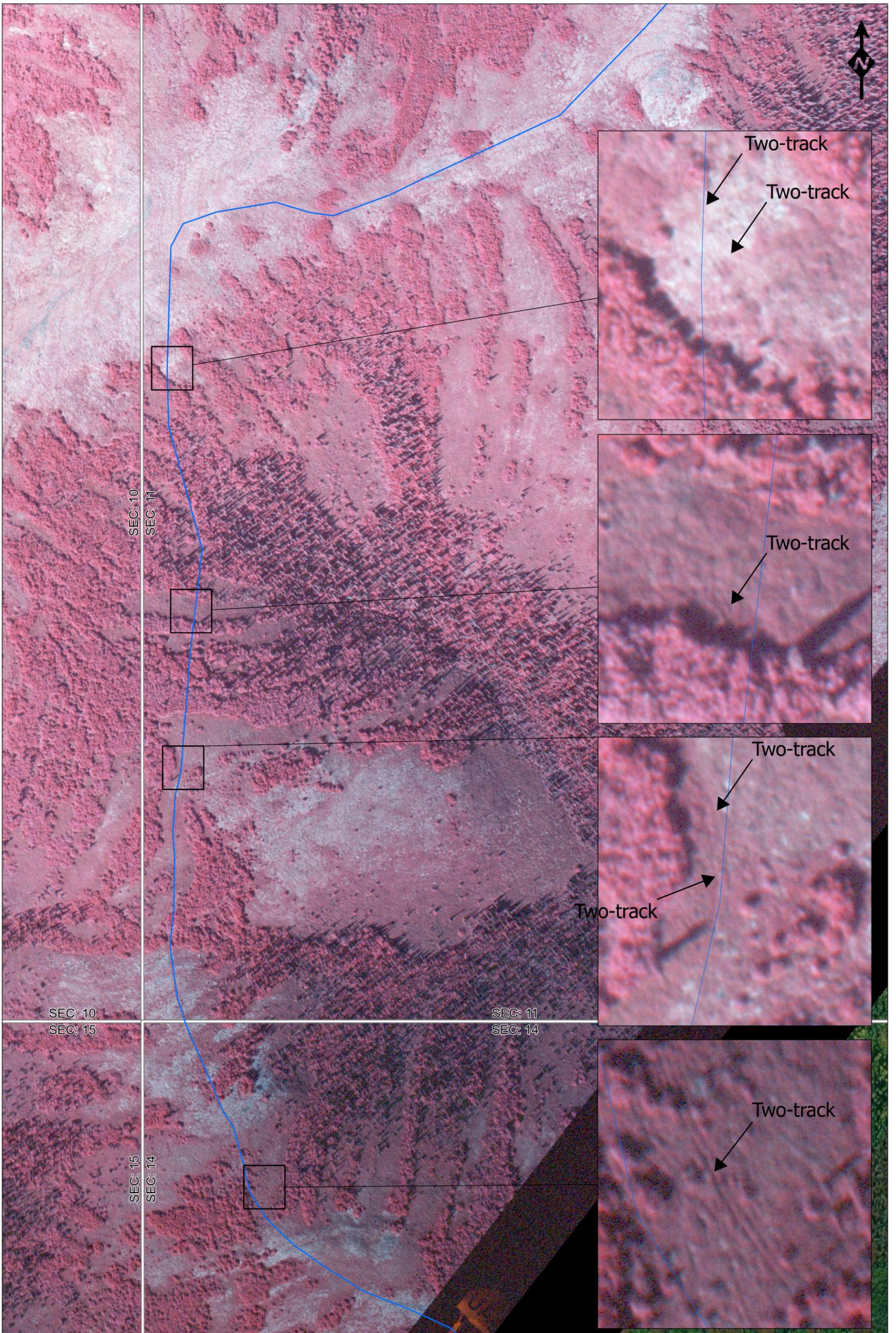
Re: RST 76 Location

The location of RST 76 Flat – Georgetown trail, within Seward Meridian, T23N R48W, was brought into question by Donlin Gold LLC (Donlin Gold) in 2016. Based on review of historic imagery and written descriptions ADNR re-confirmed the location of RST 76 (Stanczyk, 2016). While Donlin Gold agrees with the 2016 ADNR’s revision of the location of RST 76, we believe the segment within Seward Meridian, T23N R48W, Section 11, should be located further to the east. Our rationale for this determination includes the following:

- The 1977 imagery shows trail use marking (see Figure 1) that appear to transit on a north – south direction, east of the east side of T23N R48W, Section 11.
- This route makes sense because rather than climbing up to the top of the summit, it is more likely that travelers chose a shorter, less-steep route.

REFERENCES

2016 Stanczyk, A. Memorandum: Location of RST 76 aka Flat-Georgetown Trail



— Donlin Gold RST 76 Easement Delineation



MERIDIAN: SEWARD
 TOWNSHIP AND RANGE: T23N, R48W
 COORDINATE SYSTEM: UTM Zone 4 NAD83
 IMAGERY DATE: 1977-8-24

RST 76 DELINEATION REVIEW

DONLIN GOLD PROJECT

SCALE:

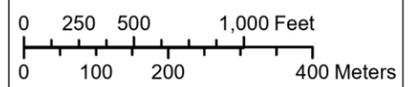


FIGURE:

1