



US Army Corps  
of Engineers  
Alaska District

# Public Notice of Application for Permit

FAIRBANKS FIELD OFFICE  
Regulatory Division (1145)  
CEPOA-RD  
PO Box 35066  
Fort Wainwright, Alaska 99703

<b>PUBLIC NOTICE DATE:</b>	<b>January 13, 2021</b>
<b>EXPIRATION DATE:</b>	<b>February 13, 2021</b>
<b>REFERENCE NUMBER:</b>	<b>POA-2013-00286</b>
<b>WATERWAY:</b>	<b>TANANA RIVER</b>

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Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this Public Notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the Project Manager's email as listed below or to [regpagemaster@usace.army.mil](mailto:regpagemaster@usace.army.mil). All comments should include the Public Notice reference number listed above.

All comments should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Greg Mazer at (907) 347-9059, toll free from within Alaska at (800) 478-2712, by fax at (907) 474-2164, or by email at [Gregory.j.mazer@usace.army.mil](mailto:Gregory.j.mazer@usace.army.mil) if further information is desired concerning this notice.

**APPLICANT:** Peak Gold LLC

**AGENT:** N/A

**LOCATION:** The project site is located at Sections 1-3 & 10-16, T. 16 N, R. 13 E.; Sections 1, 2, 6, 7 & 18, T. 16 N, R. 14 E.; Section 6, T. 16 N, R. 15 E.; Sections 23-25 & 34-36, T. 17 N, R. 13 E.; Sections 19-22, 26, 27, 29-36, T. 17 N, R. 14 E.; Sections 13 & 14, T. 17 N, R. 13 E.; Sections 5, 8, 9, & 16-18, T. 17 N, R. 14 E.; Sections 19, 20, 29, & 32, T. 18 N, R. 14 E.; Copper River Meridian; Latitude 63.1834°, Longitude -142.8937°; within lands owned by and proximal to the Native Village of Tetlin, Alaska. See Sheets 1-31 enclosed with this notice.

PURPOSE: The applicant's stated purpose is to profitably produce gold from land owned by the Native Village of Tetlin utilizing open-pit mining methods and existing proven recovery processes. The need for the project is for the Native Village of Tetlin and Peak Gold, LLC a legal corporation operating in Alaska, to benefit Native peoples and shareholders in a joint partnership to mine the Manh Choh Project, hauling the ore to Fort Knox for processing to meet global demand.

PROPOSED WORK: The proposed project would mine gold near the Native Village of Tetlin. Fill would be permanently placed in 5.2 acres of waters of the U.S. via earthwork needed to extract gold-laden ore, deposit waste rock (non-ore bearing rock), and develop the infrastructure necessary to conduct the operation including hauling the ore to Fort Knox. The waters that would be affected are predominantly wetlands, but also include a small part of a pond and a very small part of a non-fish bearing stream.

Two new gravel roads would be constructed to access the mine sites. The Manh Choh Twin Road would be built parallel to the Tetlin Village Road from the Alaska Highway intersection to approximately 5 miles southward where it would meet the Manh Choh Site Road, which would be built to lead southwest to the two designated mine sites in the Tetlin Hills, approximately 12 miles west of the Native Village of Tetlin. Several material sites would be established along the roads to extract sand and gravel needed to construct project roads and pads. The project would include a minor re-alignment of a section of Tetlin Village Road, but this road will not be used to service mine operations.

Ore extraction would proceed for 4.5 years and all ore would be hauled to Fort Knox for processing; no milling or tailings disposal would occur at the project site. Reclamation would commence immediately after mining is complete.

Surveys in preparation for this project were conducted 2012-2021 and the authorized associated impacts to waters of the U.S. were authorized under Nationwide Permit 6 – Survey Activities. The same project number, POA-2013-286, has been applied to the proposed project, which, if authorized, would be issued an Individual Permit.

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: No avoidance of jurisdiction waters including wetlands is practicable for this project.

b. Minimization: The positions of the proposed roads, pads and materials sites are oriented to minimize direct impacts to wetlands and other waters as much as practicable. The mine sites and waste rock storage areas are within moderately steep hills that are predominantly upland. Wetland impacts would be further minimized by the following:

- Ore would be hauled to Fort Knox for gold processing and thus, no rock crushing, cyanide application or tailings storage would occur at the project site, avoiding potential direct and indirect impacts to aquatic resources that would result from these activities.

- Existing gravel road sections, gravel pads and trenches established during the mine surveys would be utilized by the project as much as practicable to reduce impacts.
- Erosion control measures including contouring and seeding for embankment stabilization would be implemented according to the Stormwater Pollution Prevention Plan that would be submitted to the Alaska Department of Environmental Conservation; these measures would minimize erosion and sedimentation of wetlands and other waters.
- Culverts would be installed in roads and pads, where appropriate, to minimize erosion potential and maintain hydrologic connectivity.
- All runoff from the mine sites and waste rock disposal areas would be conveyed to on-site treatment before discharge. Treatment would primarily occur by microfiltration followed by reverse osmosis and would be sized to handle peak flows from the mine.
- Upon terminating mine operations, the mine surface disturbance would be reclaimed and closed according to Alaska Statute 27.19 and all applicable regulations. Reclamation and associated revegetation of the disturbed areas will induce several indirect benefits to aquatic resources including suppressed erosion and sedimentation.

c. **Compensatory Mitigation:** Peak Gold LLC submitted a Permittee-Responsible Mitigation (PRM) plan designed to compensate for the proposed impacts to aquatic resources. The Tanana Valley Mitigation Bank near Delta Junction does not have credits available. A PRM plan was necessary as there are no mitigation bank credits and no in-lieu fee providers in the service area. The PRM entails replacing dysfunctional culverts at two locations along the Tetlin Village Road to improve hydrologic connectivity with downstream wetlands and waters, reduce erosion and sedimentation, and augment a suite of wetland functions.

**WATER QUALITY CERTIFICATION:** A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

**CULTURAL RESOURCES:** The latest published version of the Alaska Heritage Resources Survey (AHRs) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. Prior to on-the-ground cultural resources survey, the latest published version of the Alaska Heritage Resources Survey (AHRs) was consulted for the presence or absence of historic properties in the project vicinity. In May and June 2021, a Phase I pedestrian ground survey was conducted in the proposed mine development area and in the existing and proposed road corridors to identify high to moderate potential landforms for an intensified Phase II survey and archaeological testing, which was conducted in June and July 2021. No historic-age buildings or historic sites were found. Seven prehistoric archaeological sites were identified in the project vicinity and further evaluated during Phase II testing. Based on the Phase II testing and subsequent data analysis, five of the seven sites meet federal archaeological site significance criteria making them eligible for listing on the National Register of Historic Places. One of these five sites would be adversely affected by the project via establishment of one of the waste rock storage areas. Peak Gold LLC intends to excavate the site, salvage the prehistoric items within, and turn them over to the Native Village of Tetlin prior to constructing the waste rock storage area.

The Corps has made an Adverse Effect determination for the proposed project. This application is being coordinated with SHPO and the ACHP. Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

No EFH species are known to use the project area.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and

320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit will be issued or denied under the following authority:

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

Project drawings are enclosed with this Public Notice.

District Commander  
U.S. Army, Corps of Engineers

Enclosures



# PUBLIC NOTICE

Alaska Department of Environmental Conservation (DEC)  
Wastewater Discharge Authorization Program/401 Certification  
555 Cordova Street, Anchorage AK 99501-2617  
Phone: 907-269-6285 | Email: [DEC-401Cert@alaska.gov](mailto:DEC-401Cert@alaska.gov)

## Notice of Application for State Water Quality Certification

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act (CWA) of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws.

Notice is hereby given that a request for a CWA §401 Water Quality Certification of a Department of the Army Permit application, Corps of Engineers' Reference Number POA-2013-00286, Tanana River, has been received for the discharge of fill materials into waters of the United States (WOUS), including wetlands, as described in the Corps public notice and project figures/drawings (18 AAC 15.180).

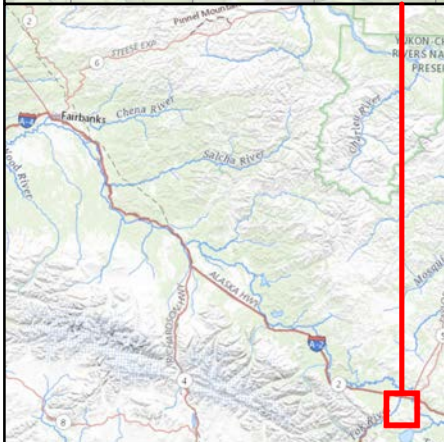
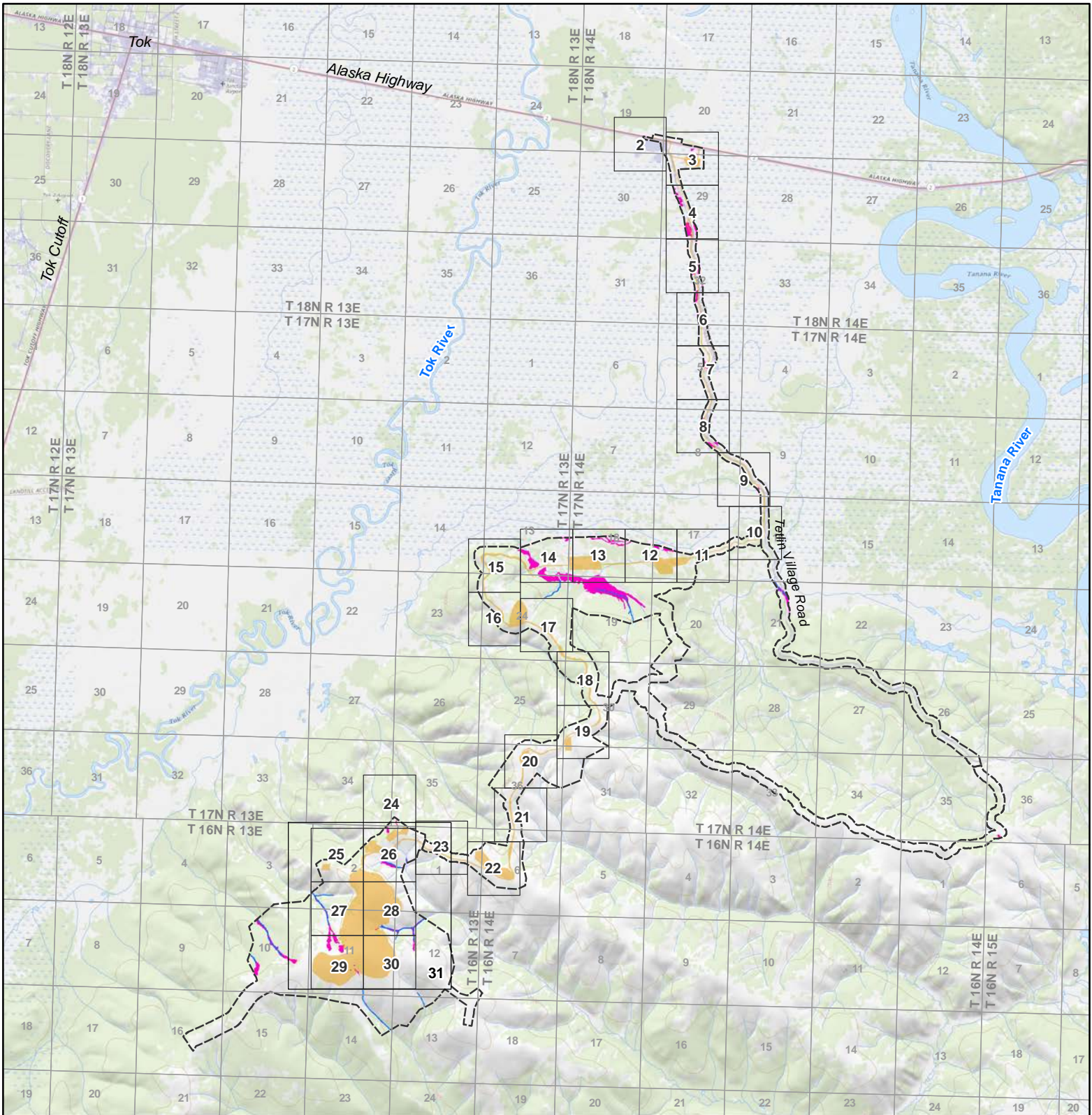
Any person desiring to comment on the project with respect to water quality, may submit comments electronically via email to [DEC-401cert@alaska.gov](mailto:DEC-401cert@alaska.gov) by the expiration date of the Corps of Engineer's public notice. All comments need to include the Corps public notice reference number in the subject heading. Physically mailed comments must be postmarked on or before the expiration date of the public notice.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, will comply with the CWA, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

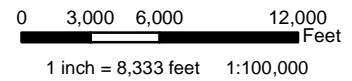
The permit application and associated documents are available for review. For inquires or to request copies of the documents, contact [dec-401cert@alaska.gov](mailto:dec-401cert@alaska.gov), or call 907-269-6285.

### **Disability Reasonable Accommodation Notice**

The State of Alaska, Department of Environmental Conservation complies with Title II of the Americans with Disabilities Act (ADA) of 1990. If you are a person with a disability who may need special accommodation in order to participate in this public process, please contact ADA Coordinator Brian Blessington at 907-269-6272 or TDD Relay Service 1-800-770-8973/TTY or dial 711 within 5 days of the expiration date of this public notice to ensure that any necessary accommodations can be provided.



- Detail Map Grid
  - Public Land Survey Section
  - Wetland Study Area
  - Fill Footprint
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

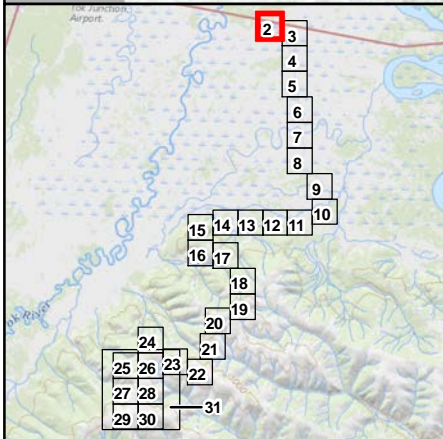
Fairbanks Meridian | TxxN, RxxW, Sxx







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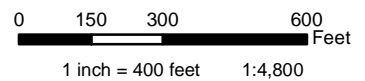
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-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
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Contour Data: 5m IFSAR



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File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

See Supplement Table 15-1 for Public Land Survey Data

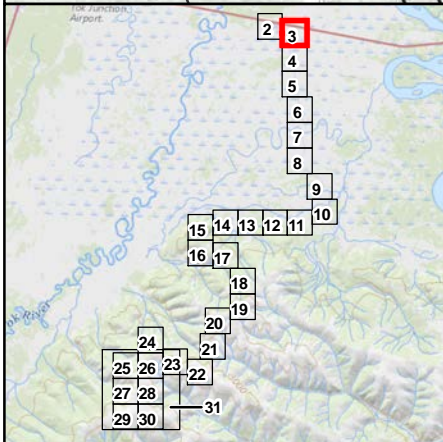
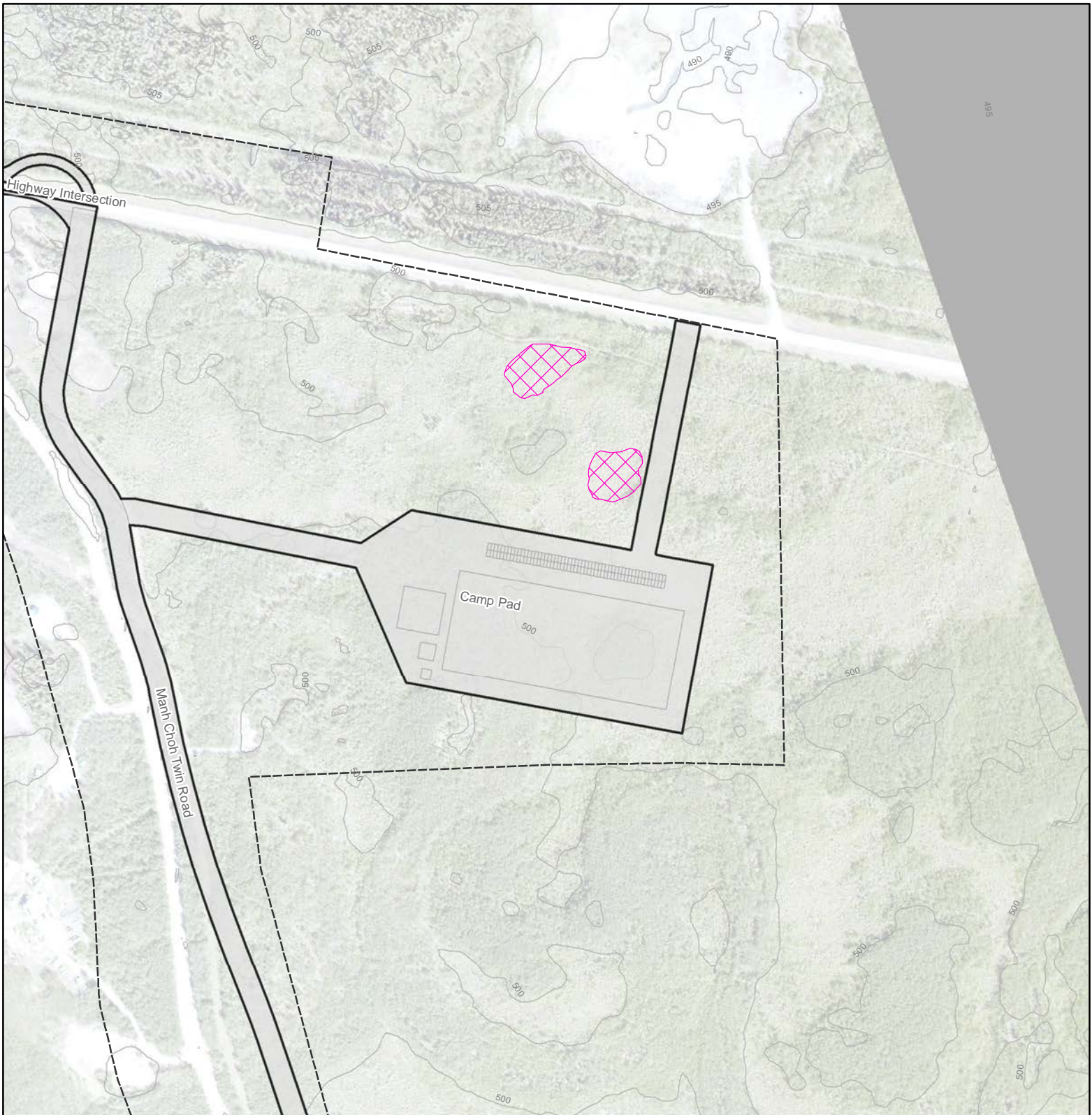
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



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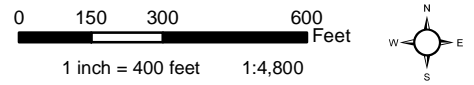
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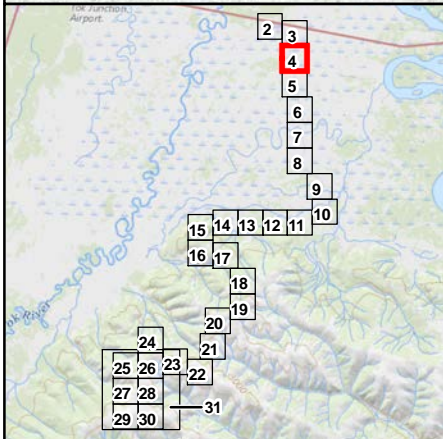
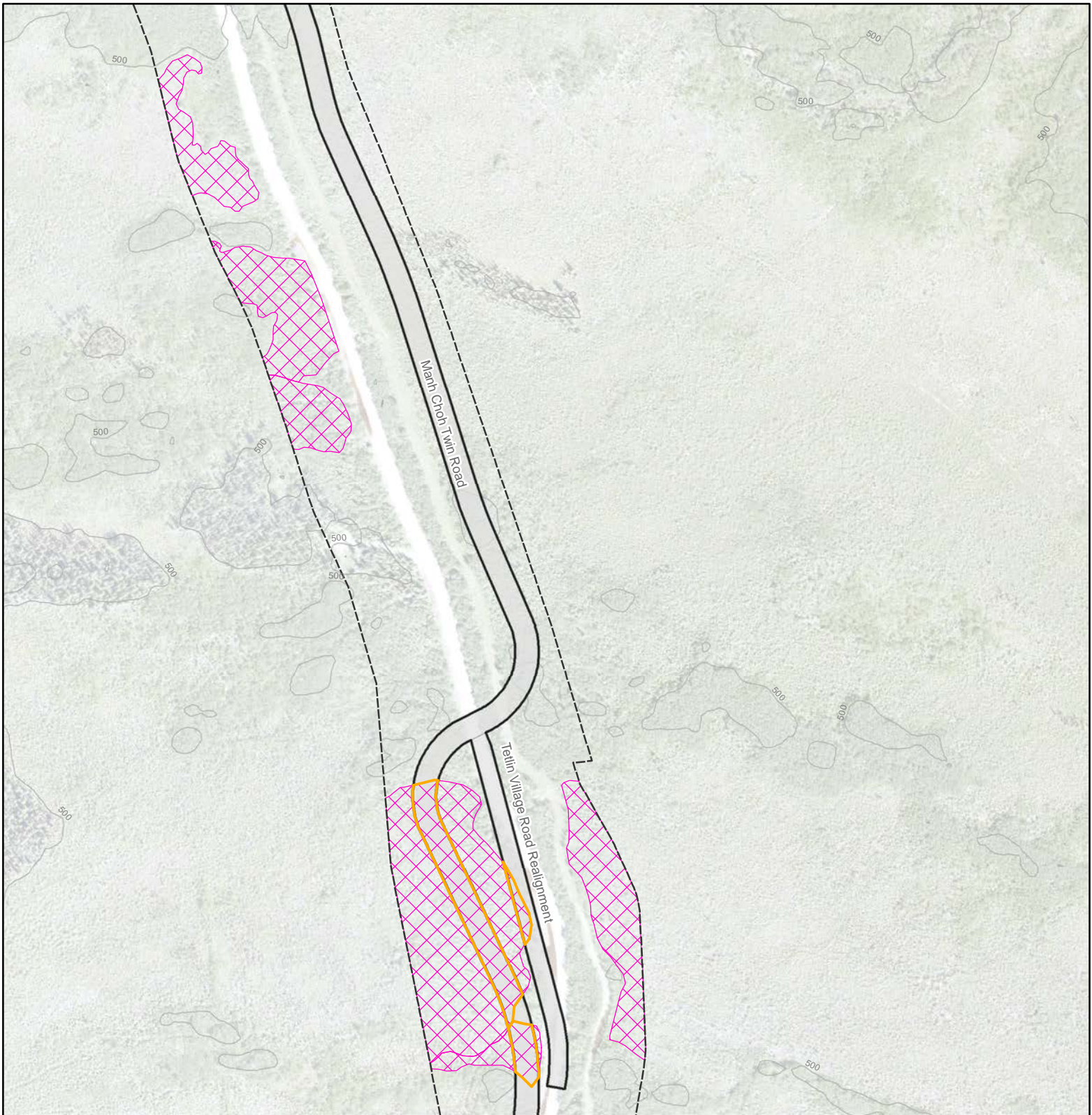









-  Fill Footprint
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-  Stream
  -  Waterbody
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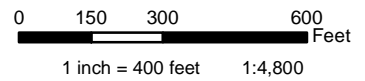


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File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
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-  Fill Footprint
  -  Project Component
  -  Wetland or Water Impact
  -  Wetland Study Area
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File No.: POA-2013-00286

Waterway: Tanana River

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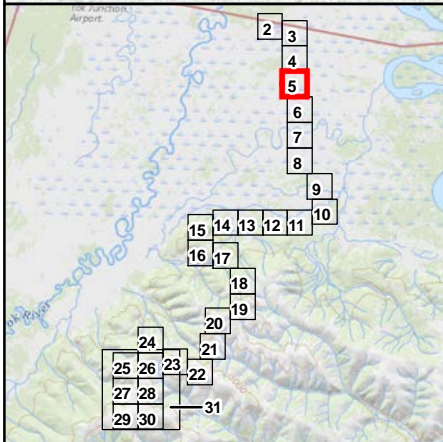
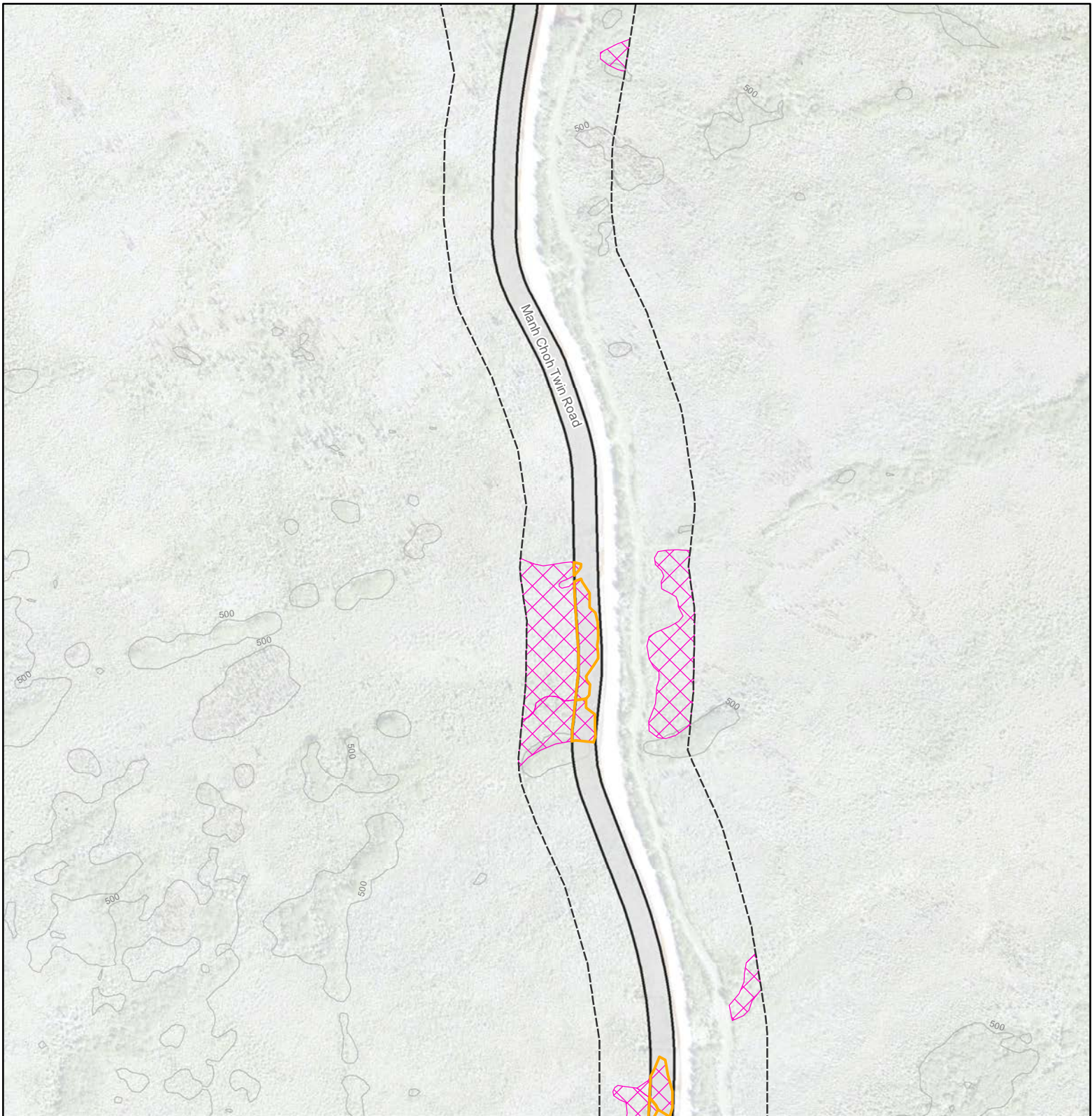
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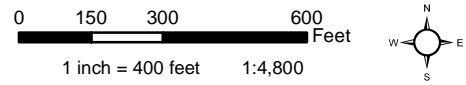
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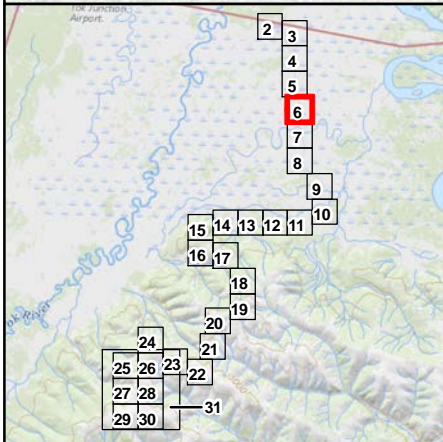
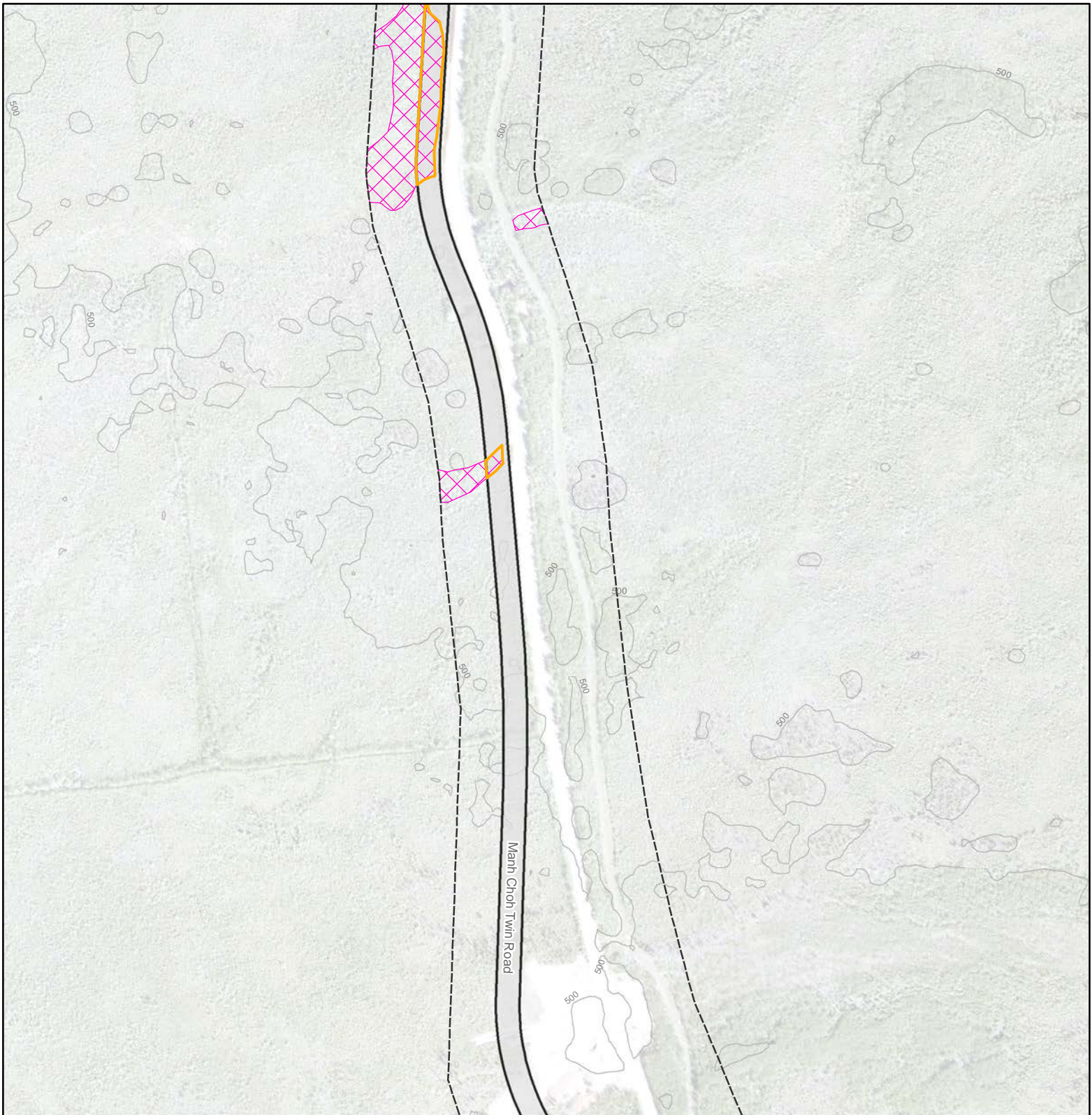









-  Fill Footprint
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  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
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Contour Data: 5m IFSAR

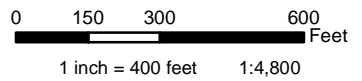


Applicant: Peak Gold, LLC	
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Lat.: 63.1834	Long.: -142.8937
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File No.: POA-2013-00286

Waterway: Tanana River

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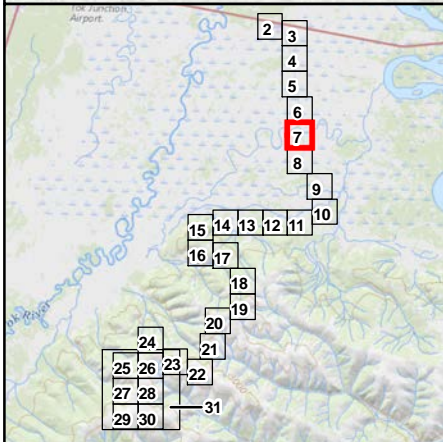
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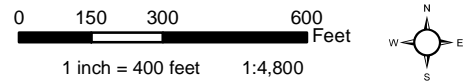
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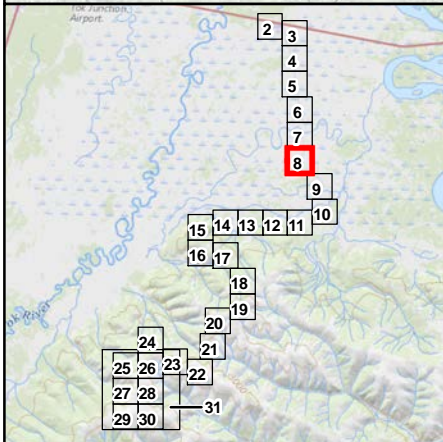









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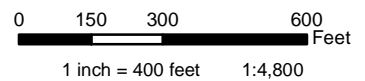


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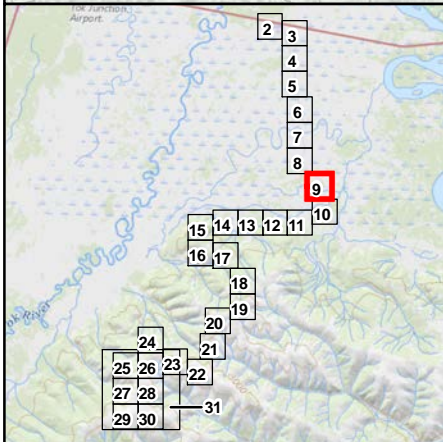
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



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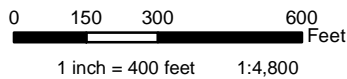
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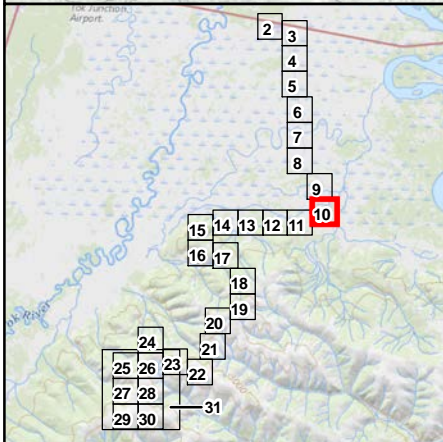
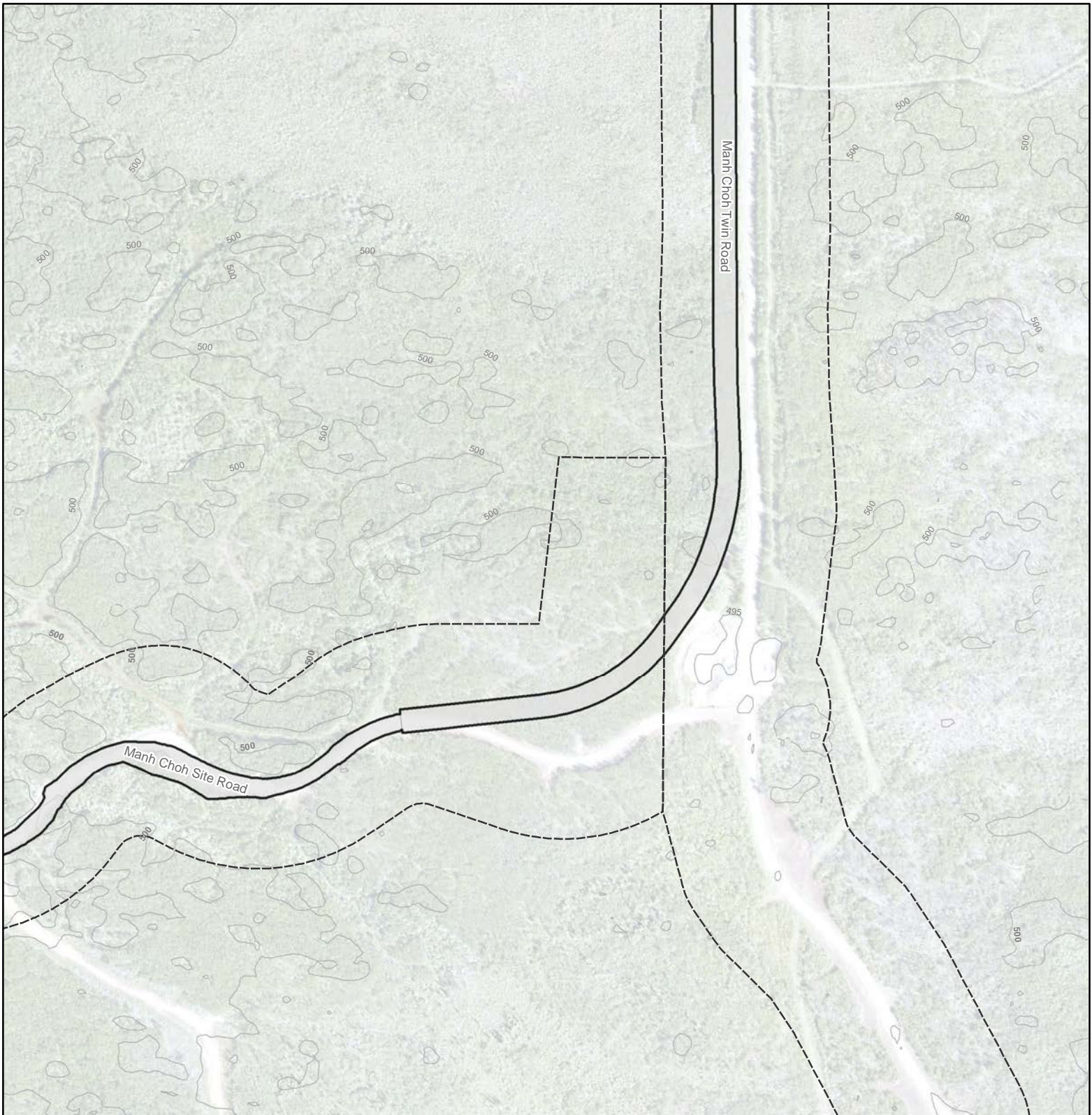








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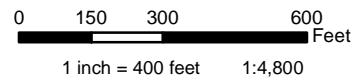


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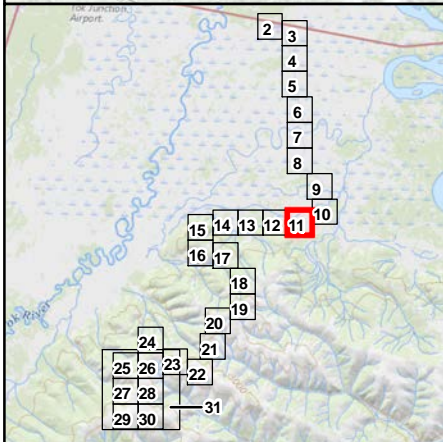
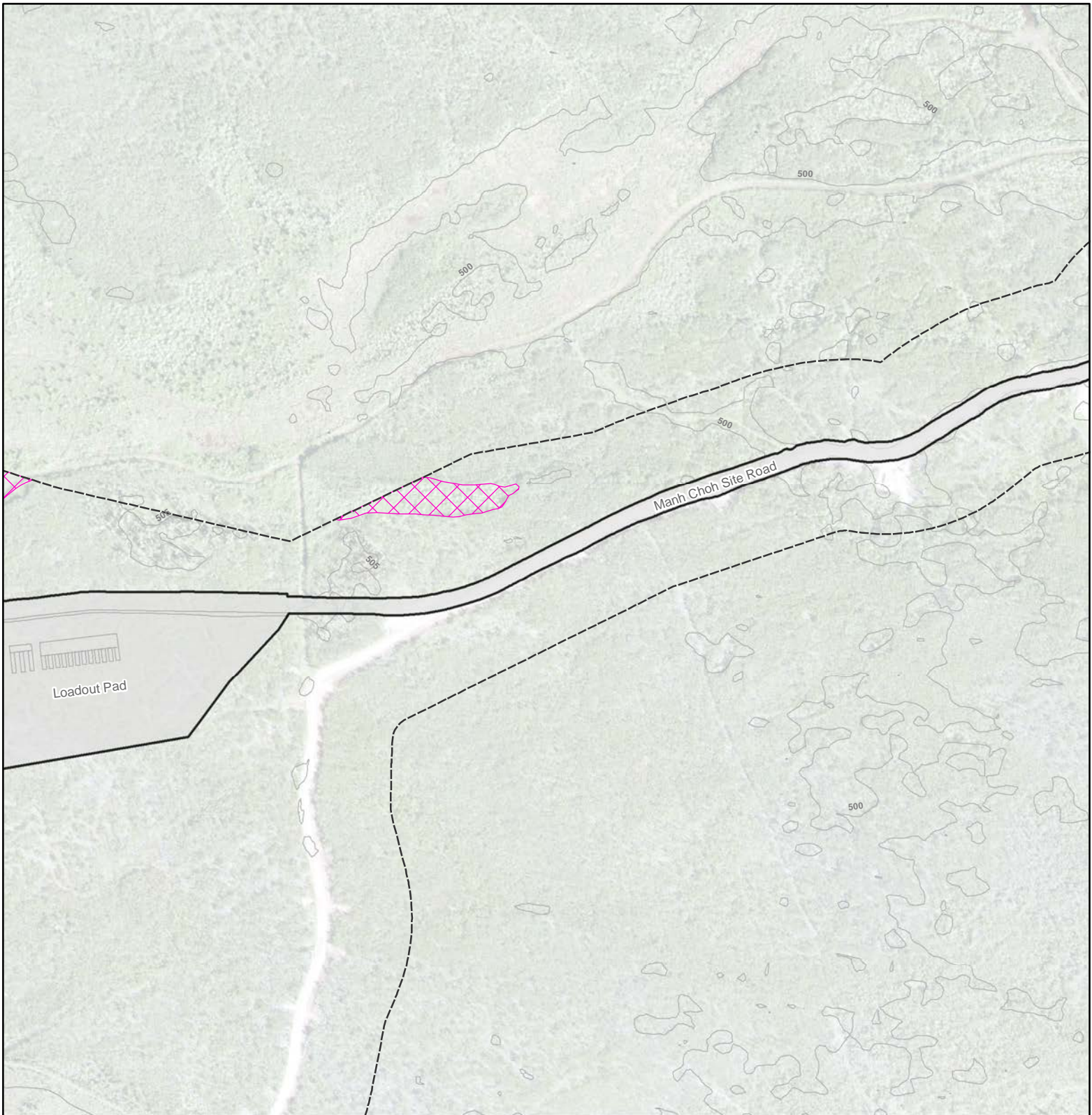
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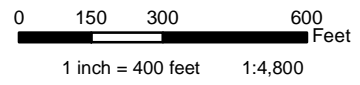
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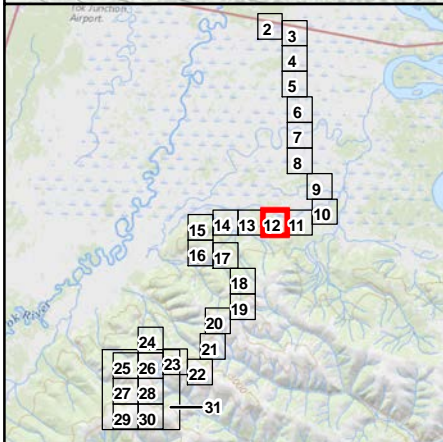
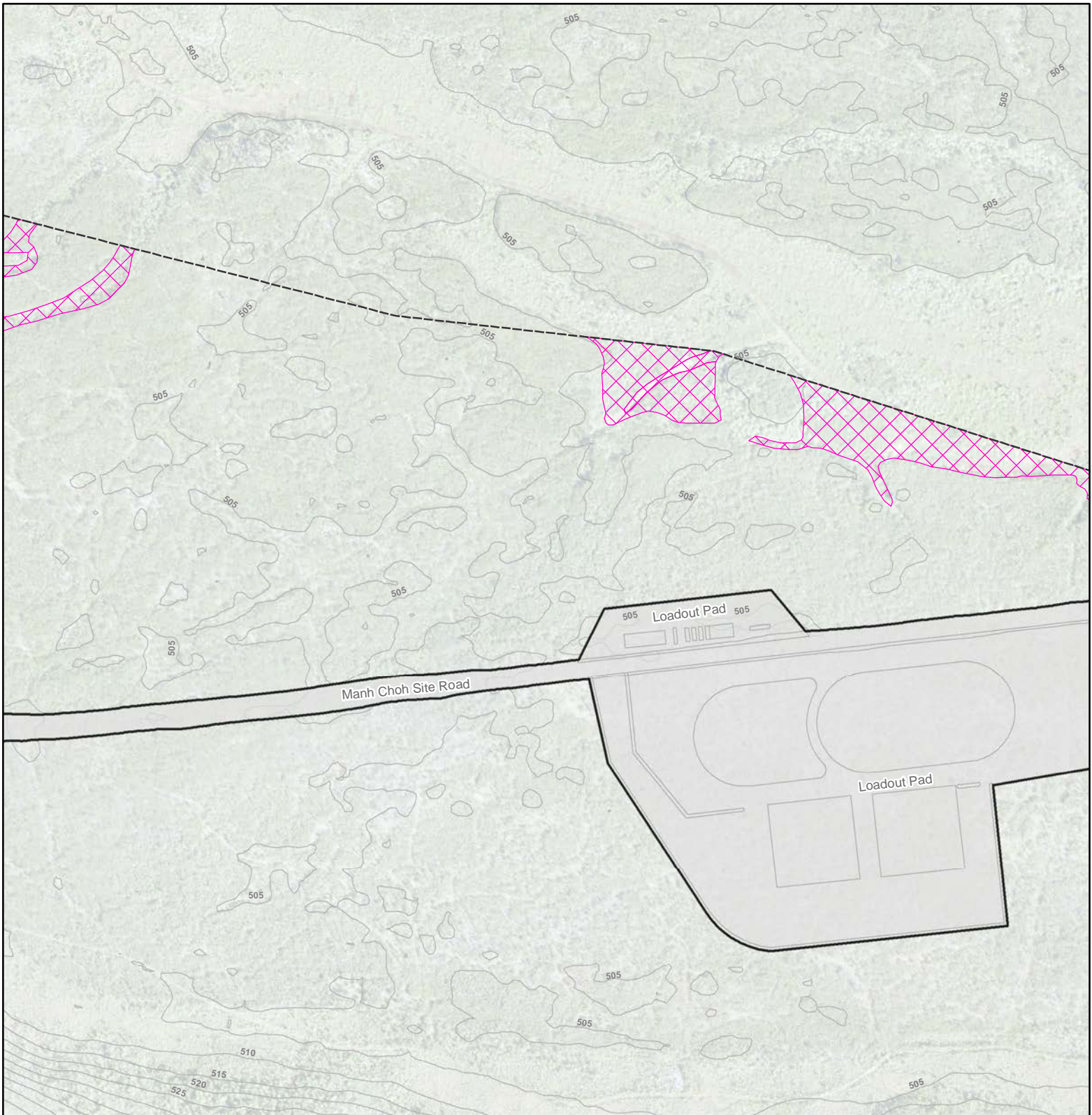








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  -  Wetland

Contour Data: 5m IFSAR

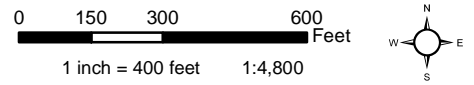


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 11 of 31	December 2021

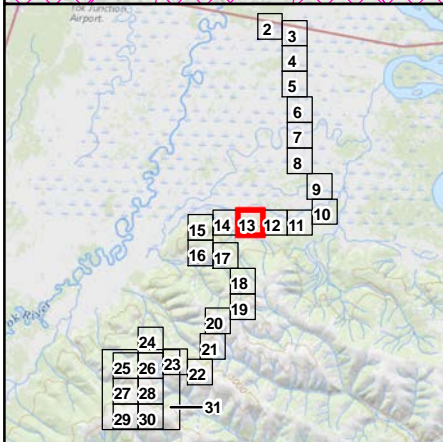








-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR

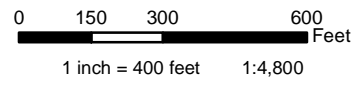


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 12 of 31	December 2021

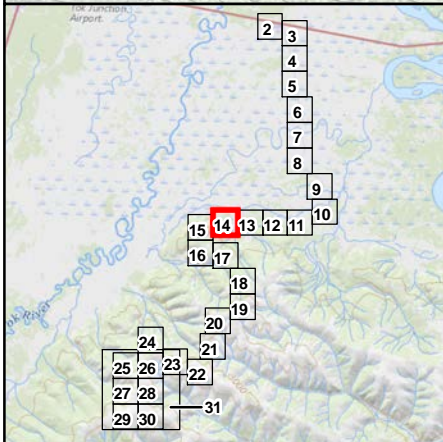
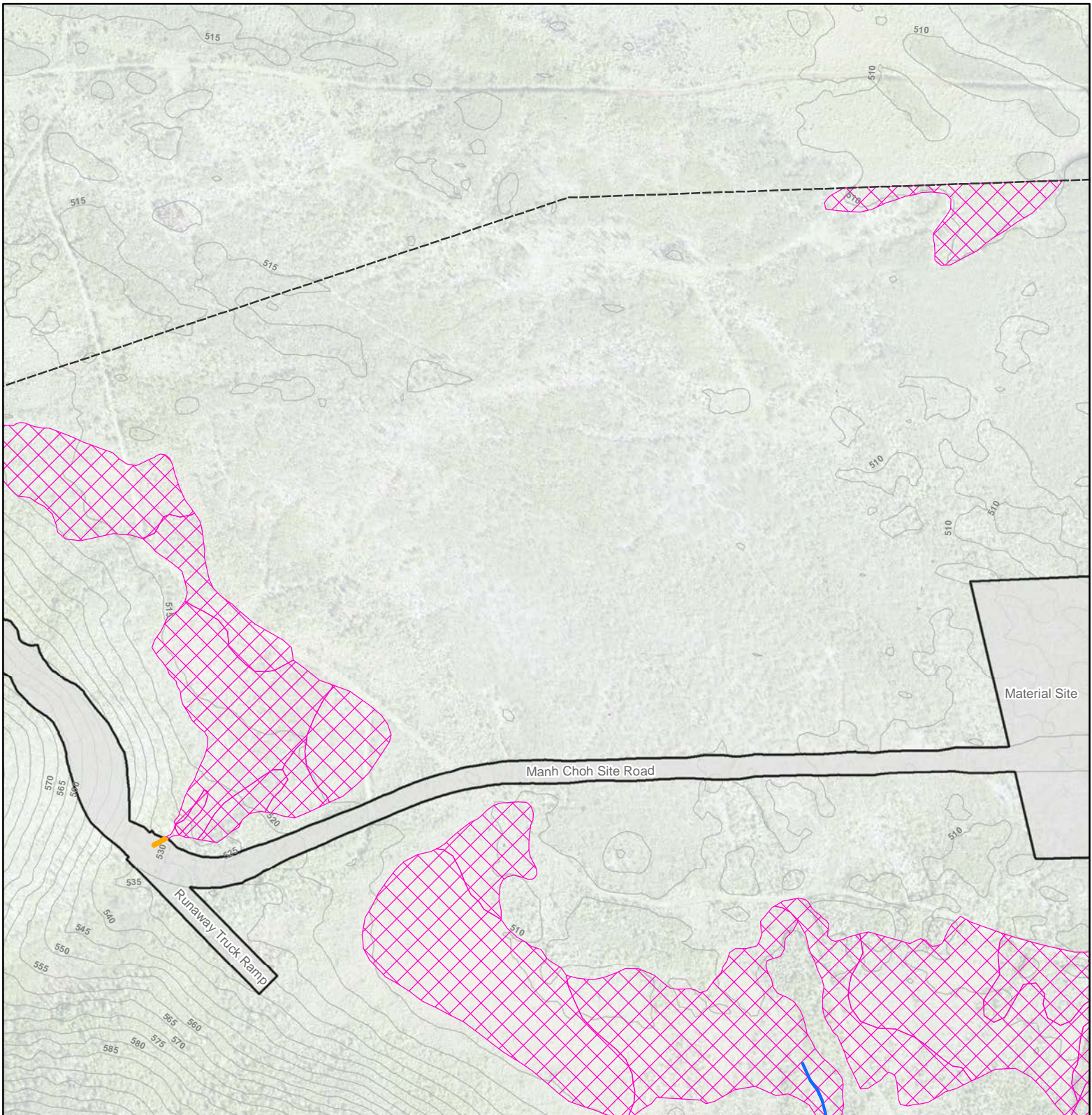









-  Fill Footprint
-  Project Component
-  Wetland Study Area
- Wetlands and Waters**
-  Stream
-  Waterbody
-  Wetland

Contour Data: 5m IFSAR

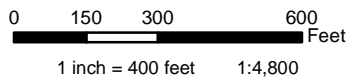


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 13 of 31	December 2021

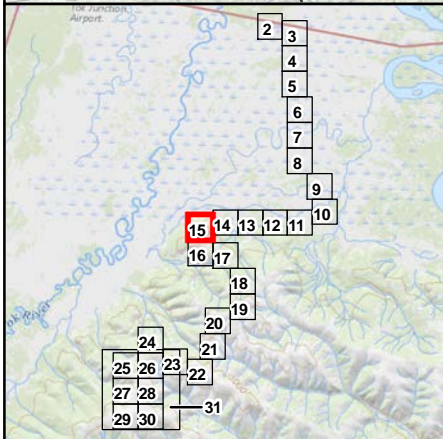








-  Fill Footprint
  -  Project Component
  -  Wetland or Water Impact
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR

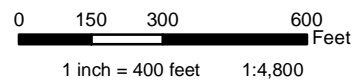


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
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-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

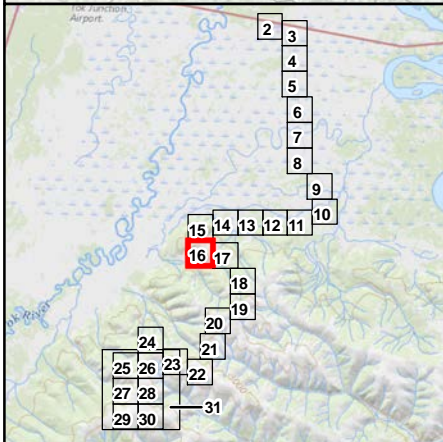
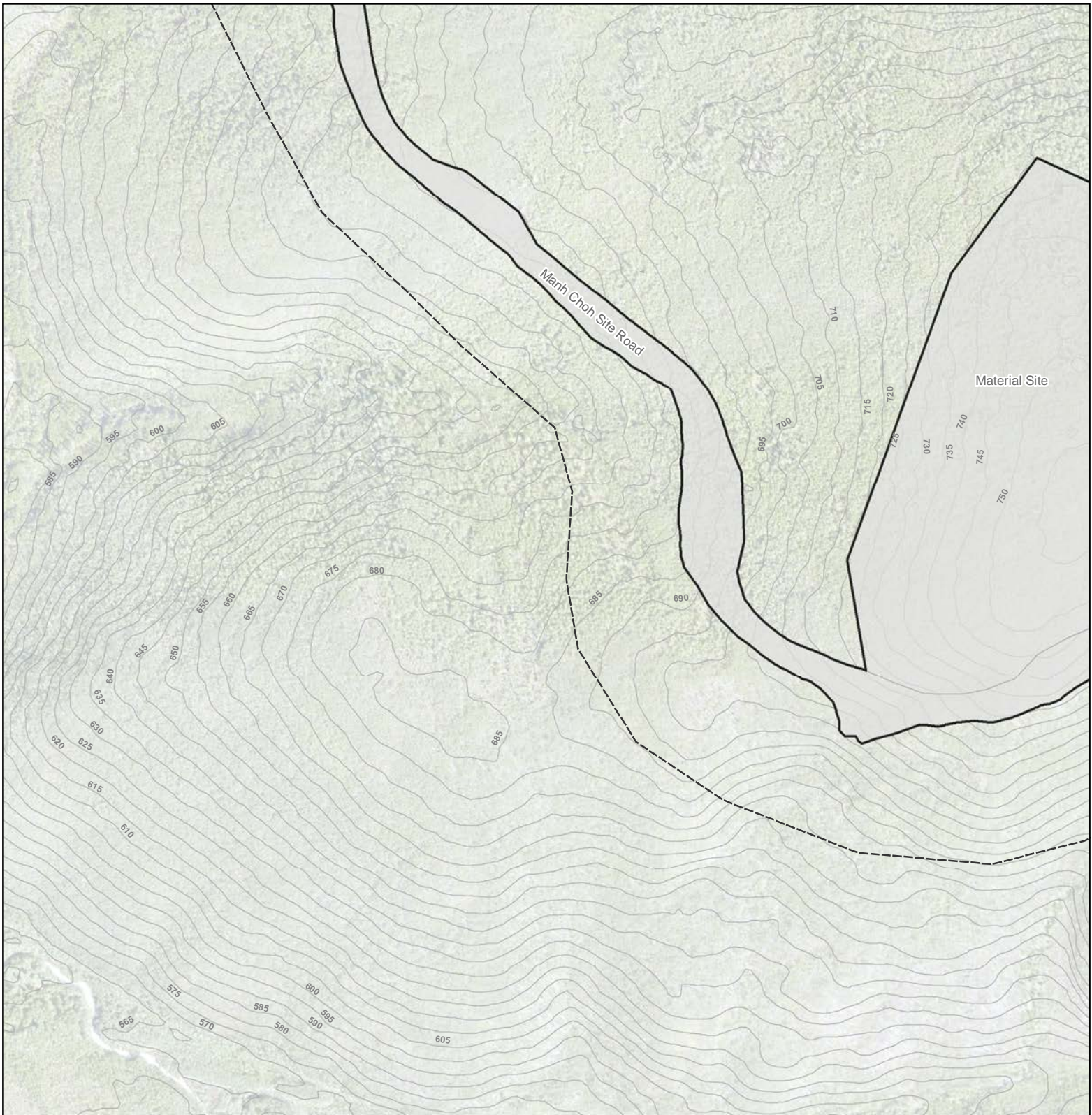
See Supplement Table 15-1 for Public Land Survey Data







Lat.: 63.1834

Long.: -142.8937

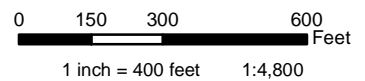
Sheet: 15 of 31

December 2021



-  Fill Footprint
-  Project Component
-  Wetland Study Area
- Wetlands and Waters**
-  Stream
-  Waterbody
-  Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

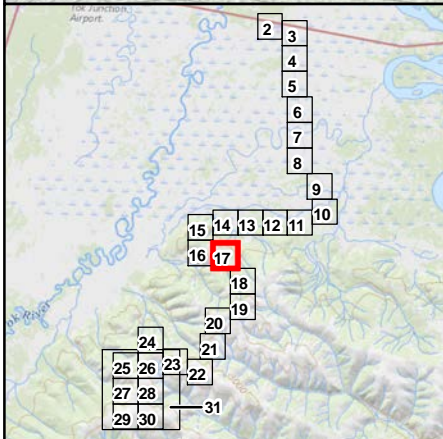
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Lat.: 63.1834

Long.: -142.8937

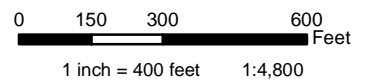
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December 2021

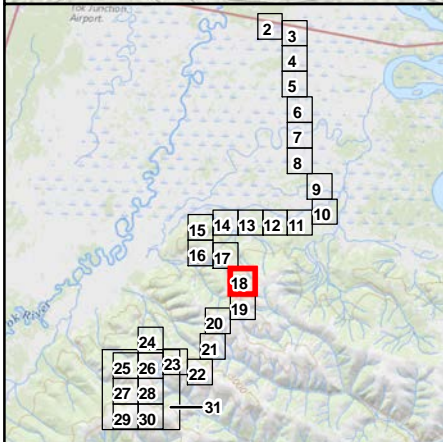








- Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR

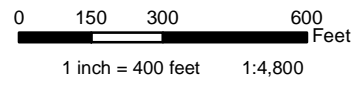


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 17 of 31	December 2021



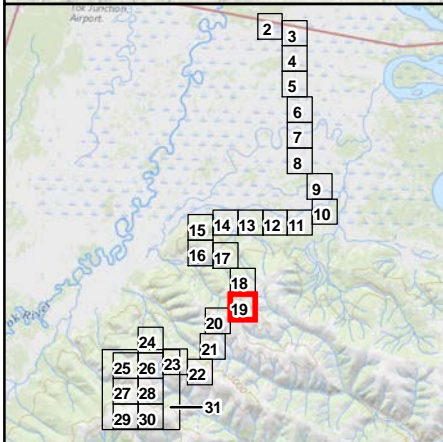
-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland







Contour Data: 5m IFSAR



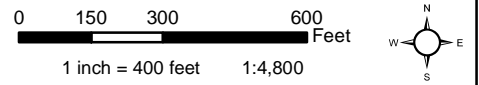
Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 18 of 31	December 2021



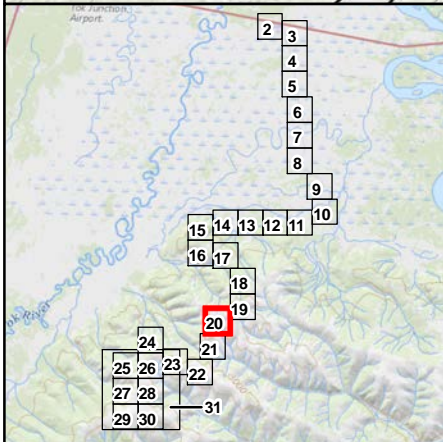


-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR

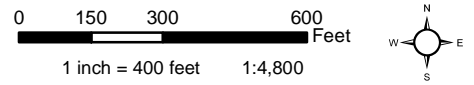


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 19 of 31	December 2021

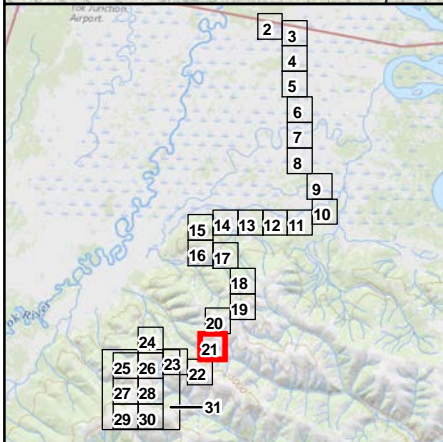








- Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR

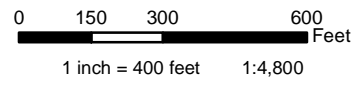


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 20 of 31	December 2021

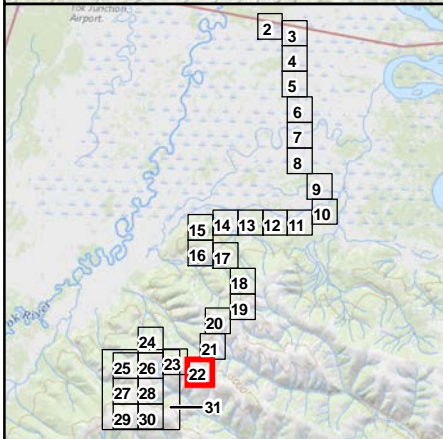








-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR

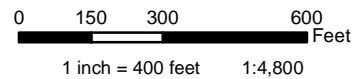


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
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-  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

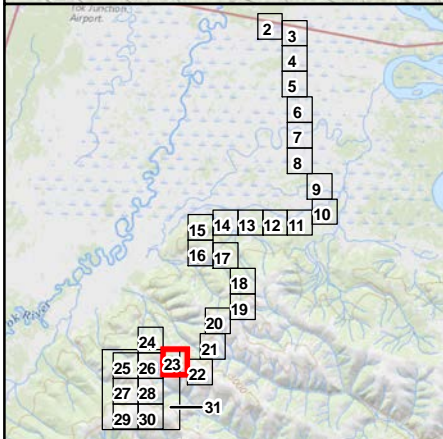
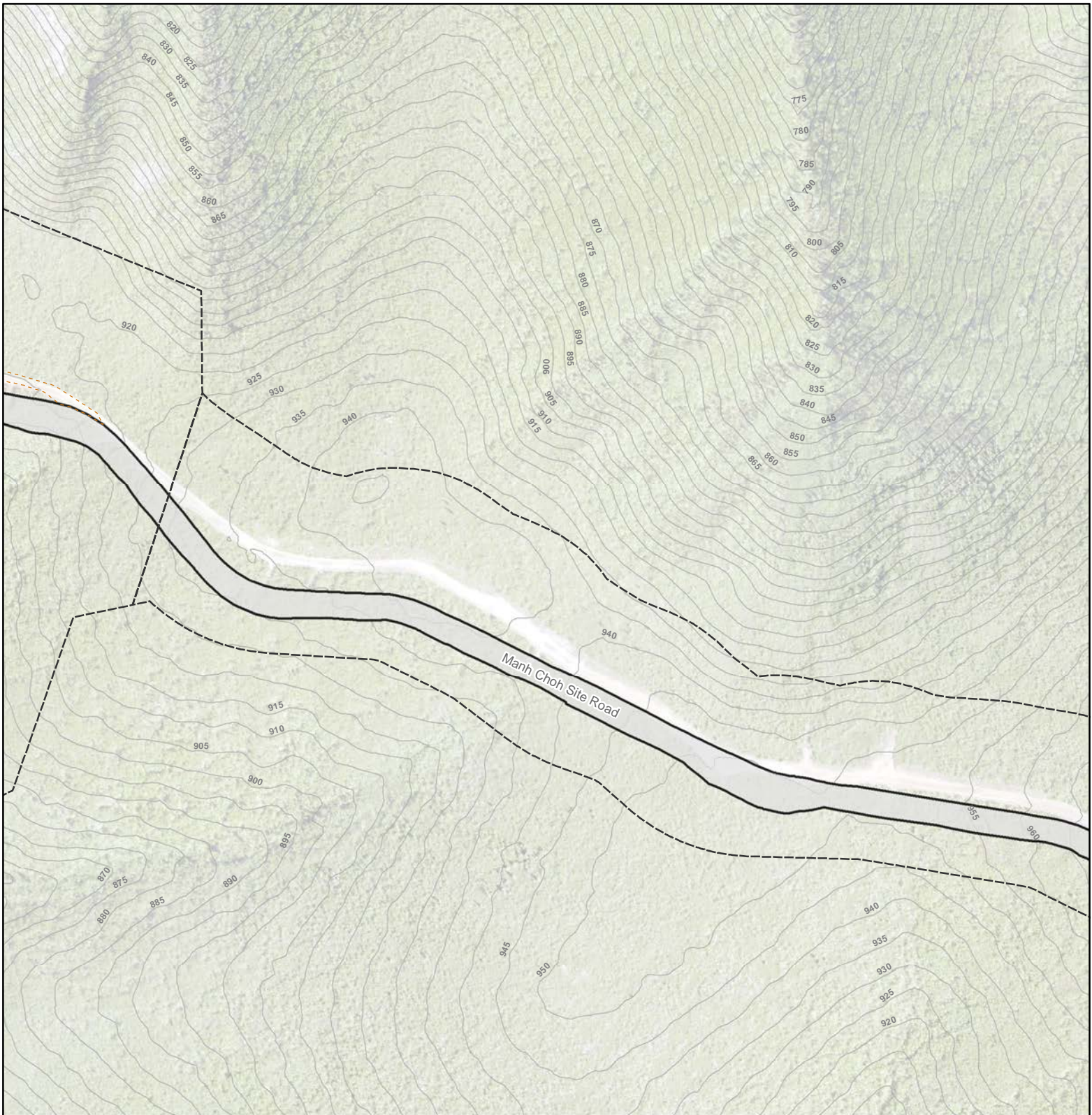
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





Lat.: 63.1834

Long.: -142.8937

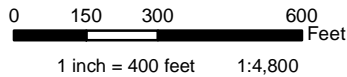
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December 2021



-  Existing Footprint (Utilized as Access)
  -  Fill Footprint
  -  Project Component
  -  Wetland Study Area
- Wetlands and Waters**
-  Stream
  -  Waterbody
  -  Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

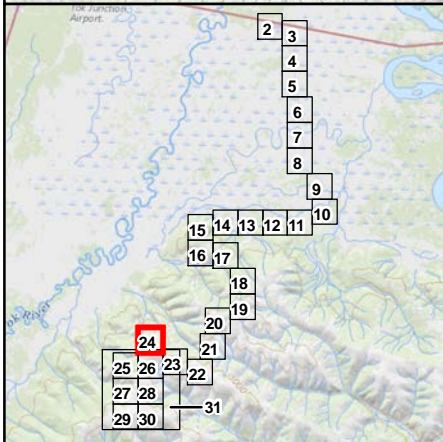
See Supplement Table 15-1 for Public Land Survey Data

Lat.: 63.1834

Long.: -142.8937

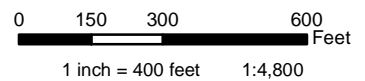
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December 2021



- Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC

File No.: POA-2013-00286

Waterway: Tanana River

Proposed Activity: Manh Choh Mine

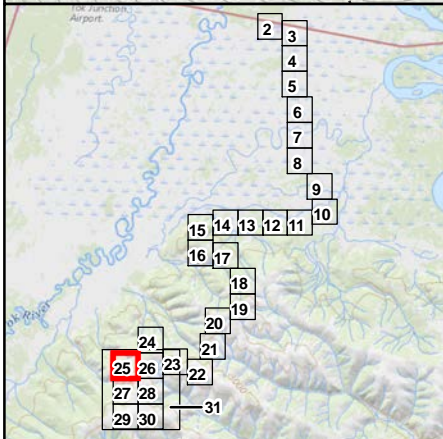
See Supplement Table 15-1 for Public Land Survey Data

Lat.: 63.1834

Long.: -142.8937

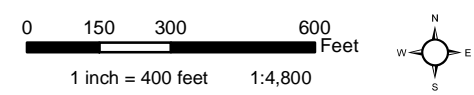
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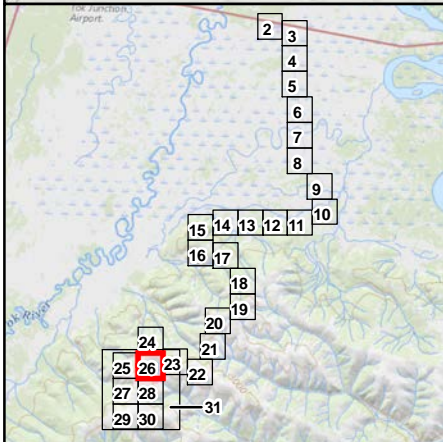
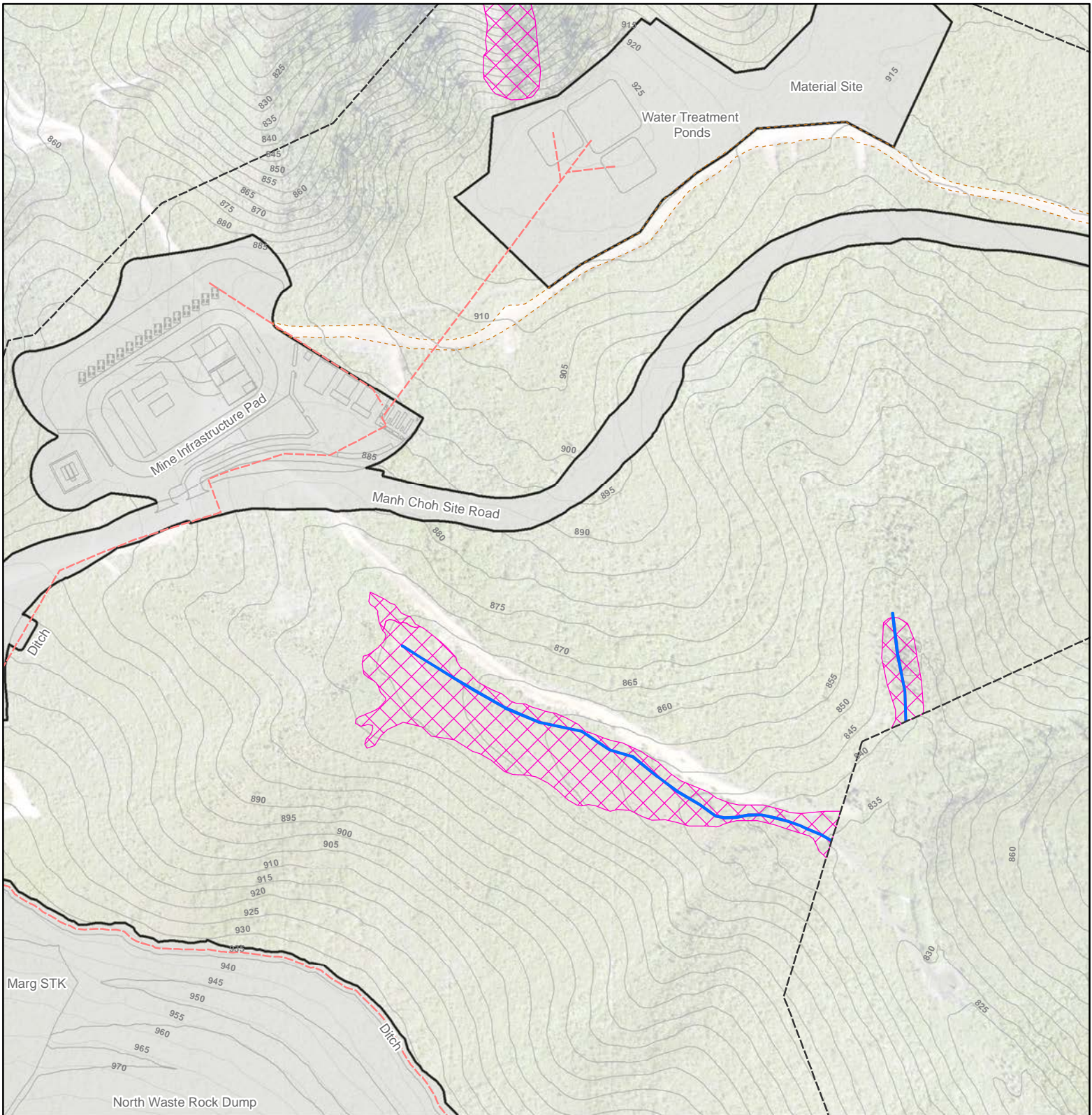


- Aboveground Storm Water Piping
  - Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR

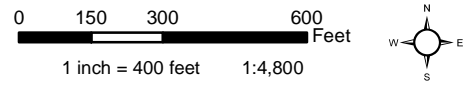


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 25 of 31	December 2021



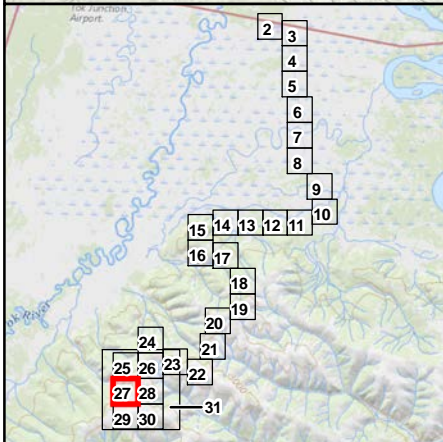
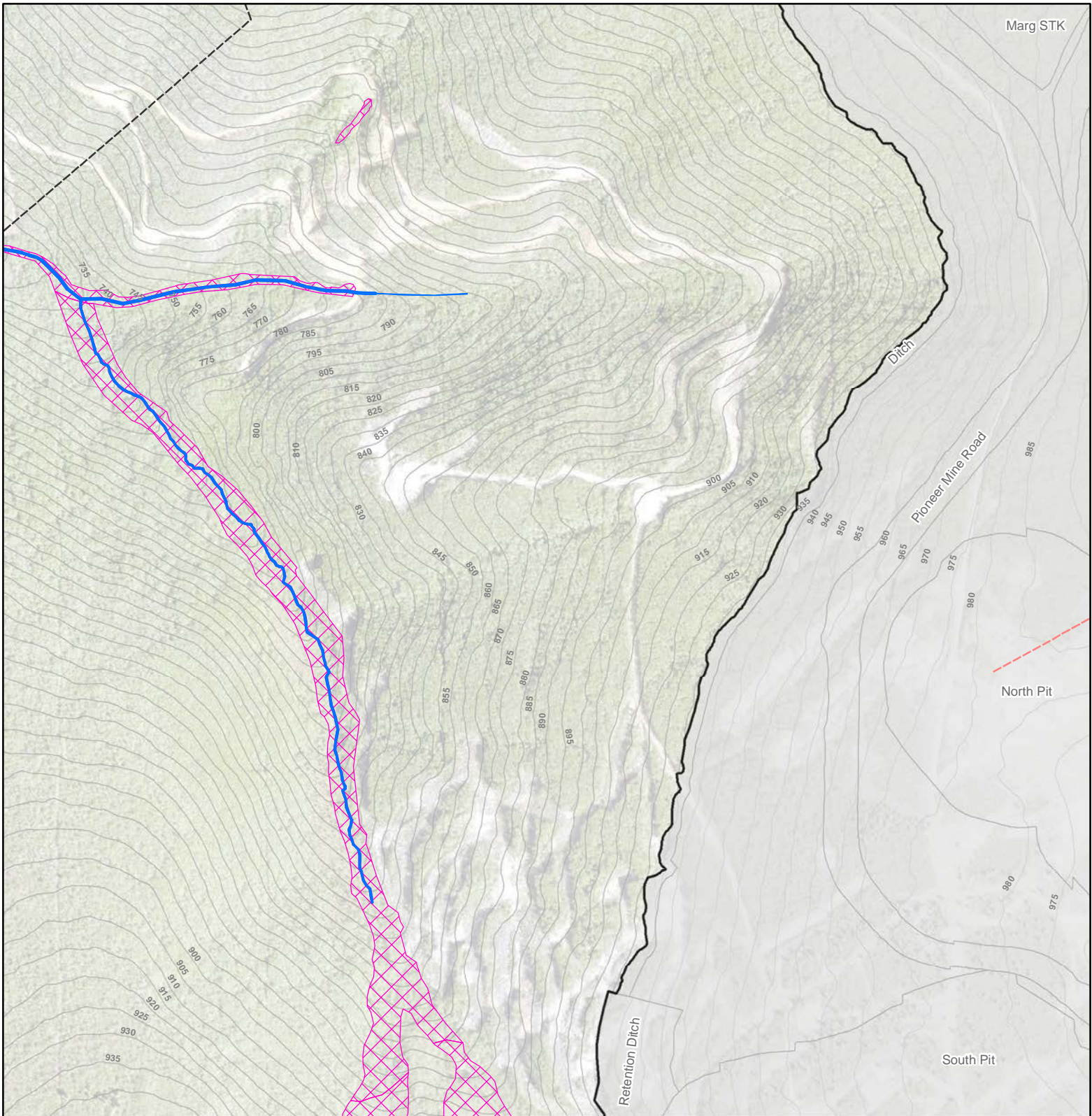
- Aboveground Storm Water Piping
  - Existing Footprint (Utilized as Access)
  - Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR



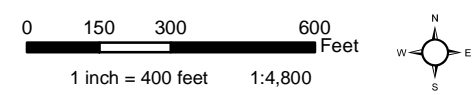
Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 26 of 31	December 2021



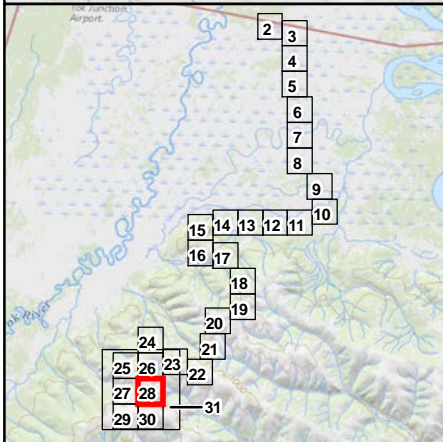
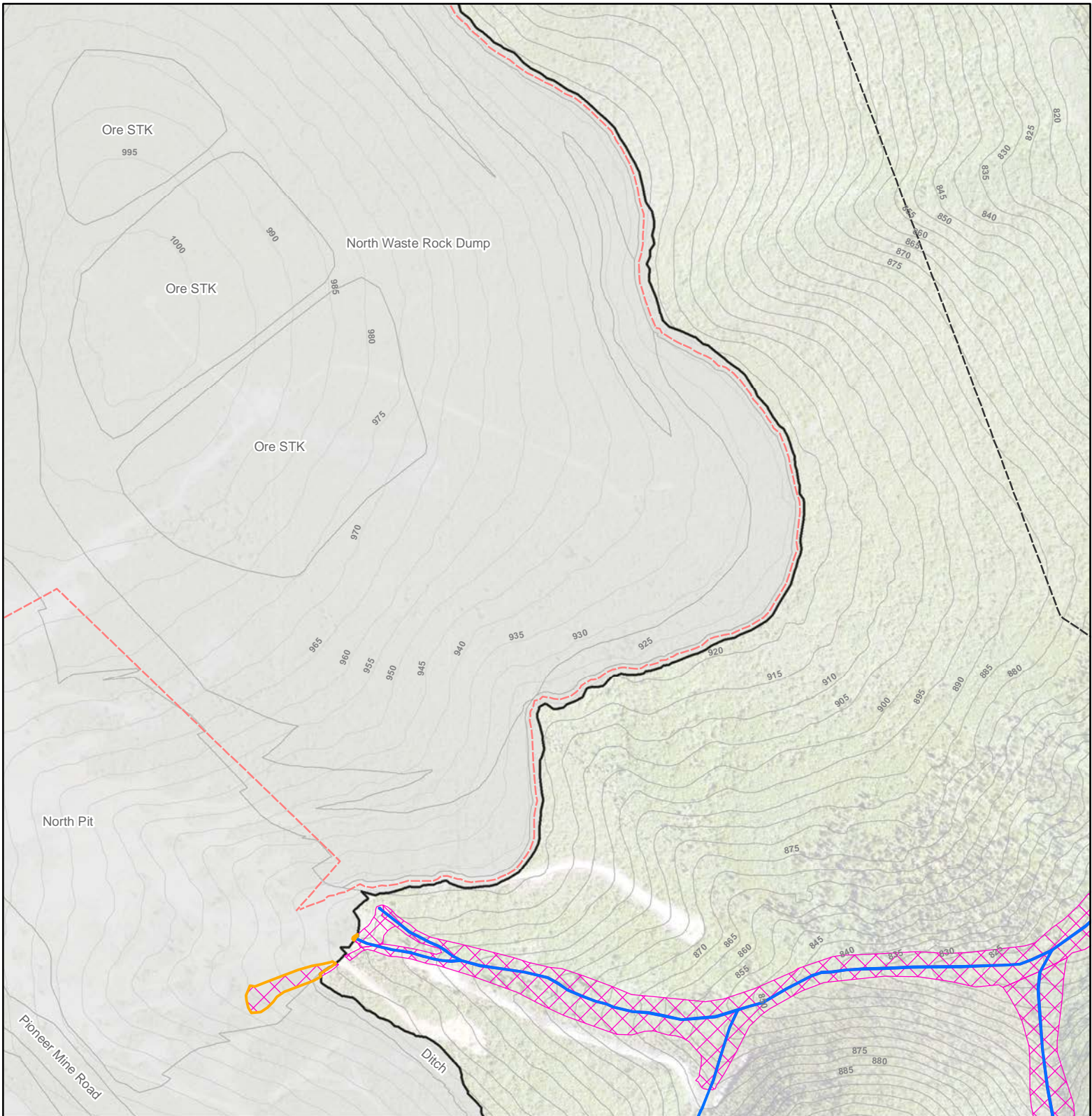


- Aboveground Storm Water Piping
  - Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 27 of 31	December 2021

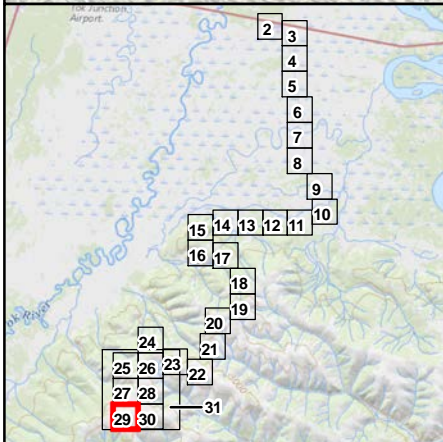
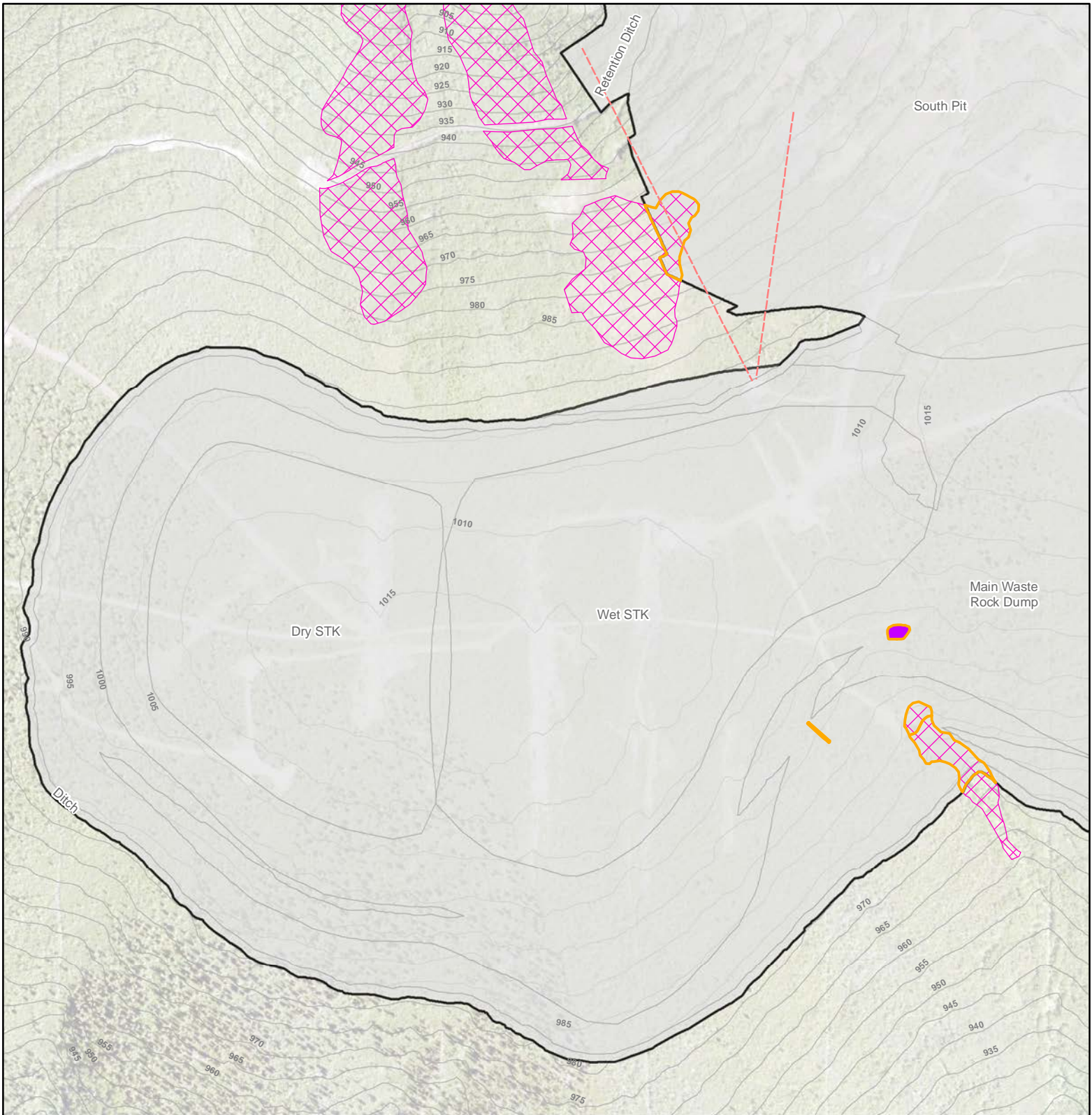


- - - Aboveground Storm Water Piping
  - Fill Footprint
  - Project Component
  - Wetland or Water Impact
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR

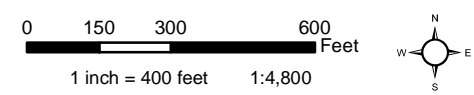


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 28 of 31	December 2021

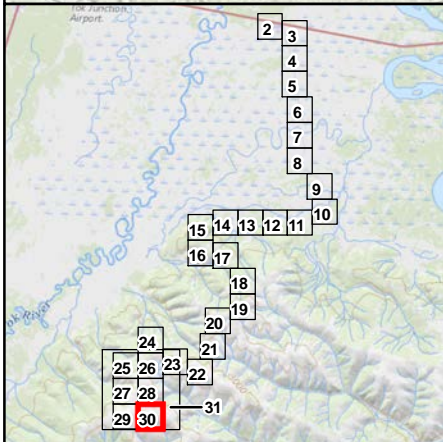
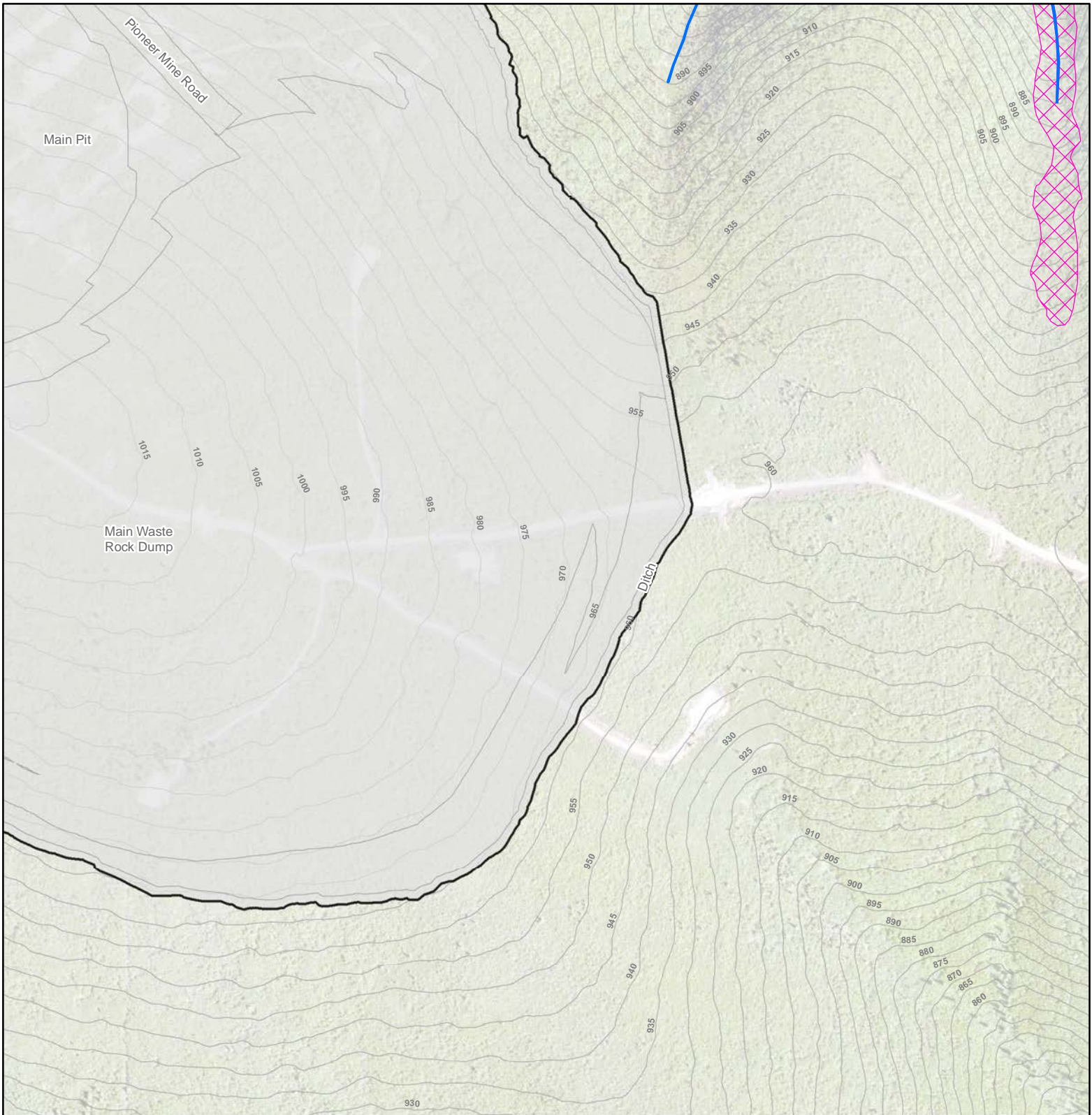


- Aboveground Storm Water Piping
  - Fill Footprint
  - Project Component
  - Wetland or Water Impact
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

Contour Data: 5m IFSAR

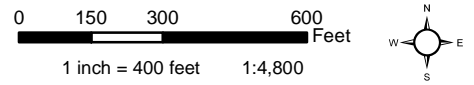


Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 29 of 31	December 2021

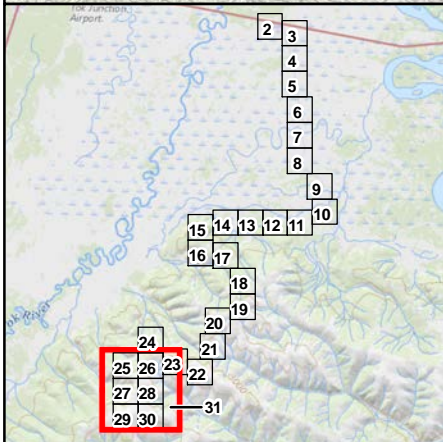
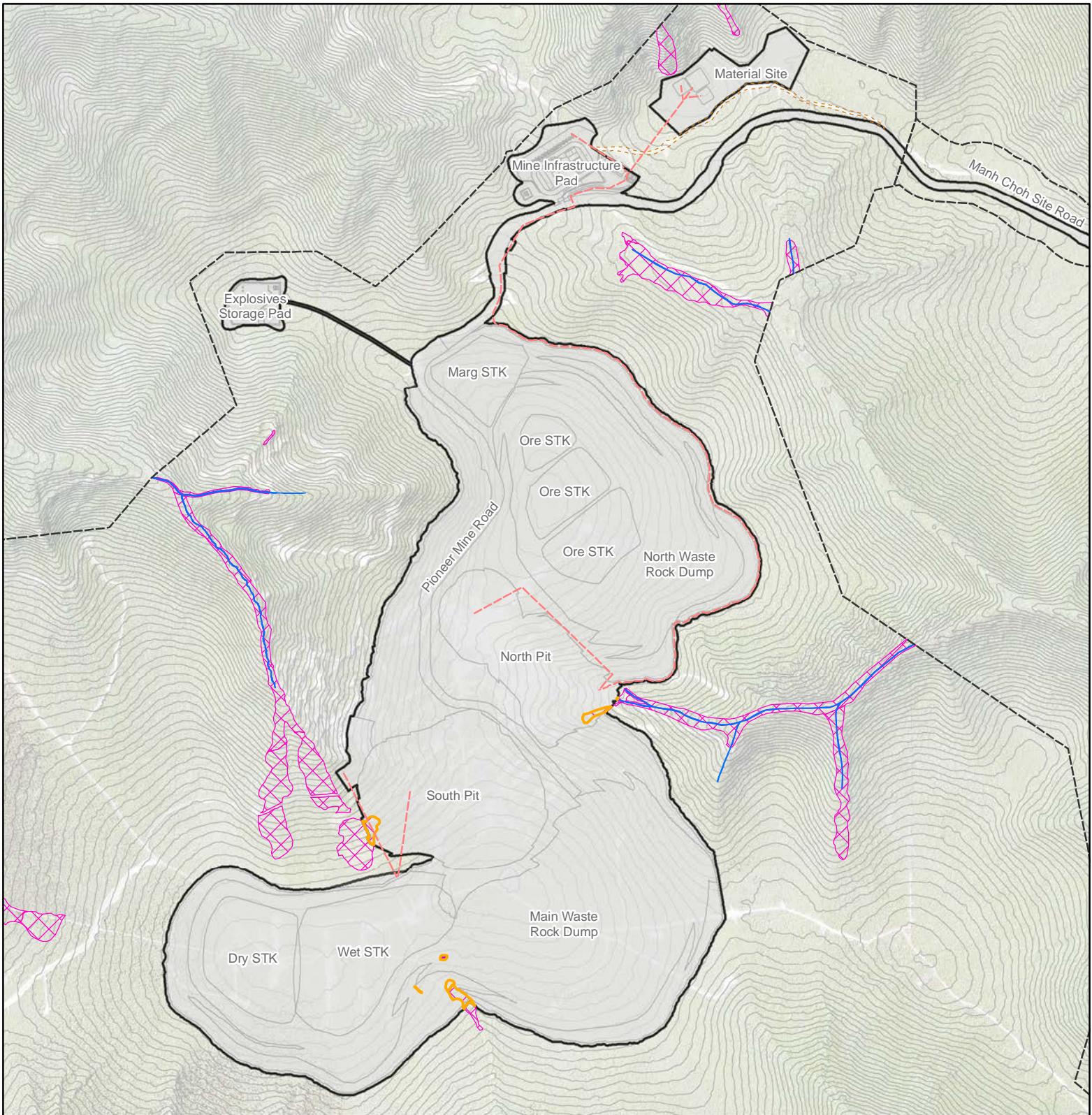


- Fill Footprint
  - Project Component
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland

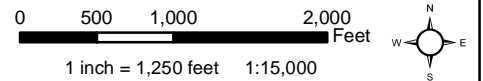
Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
Sheet: 30 of 31	December 2021

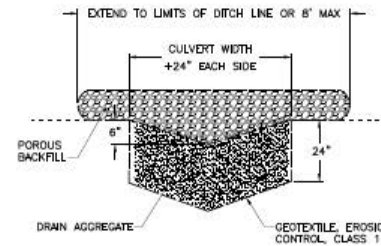
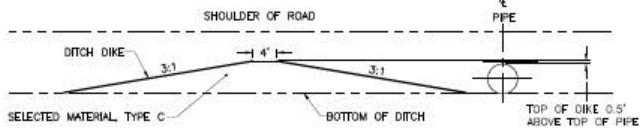
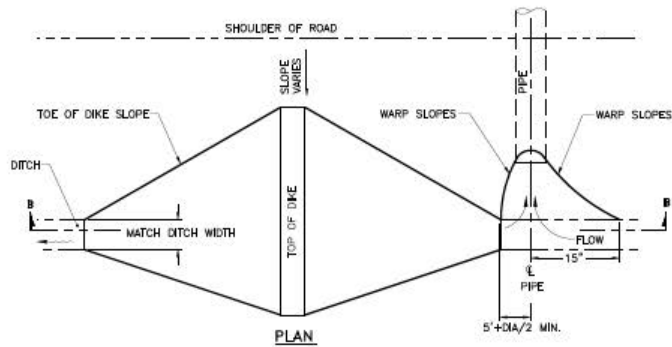
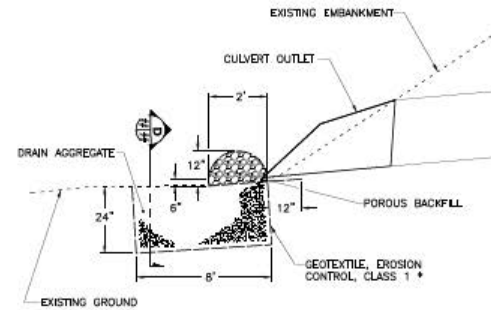
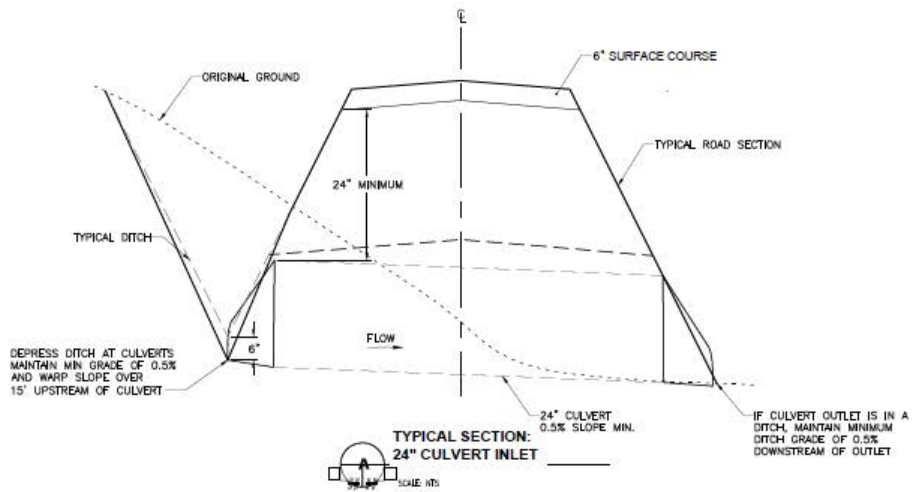


- Aboveground Storm Water Piping
  - Existing Footprint (Utilized as Access)
  - Fill Footprint
  - Project Component
  - Wetland or Water Impact
  - Wetland Study Area
- Wetlands and Waters**
- Stream
  - Waterbody
  - Wetland
- Contour Data: 5m IFSAR



Applicant: Peak Gold, LLC	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
See Supplement Table 15-1 for Public Land Survey Data	
Lat.: 63.1834	Long.: -142.8937
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# Culvert Typical

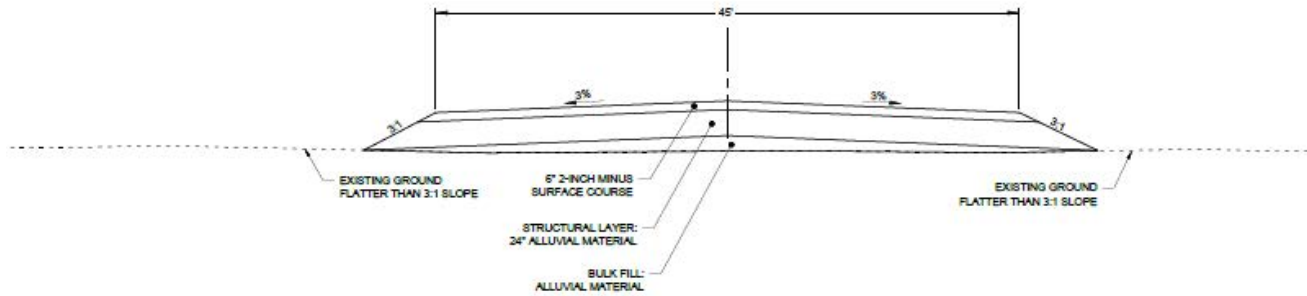


**NOTES:**

1. SEE SUMMARY OF CULVERTS TABLE FOR CULVERT LOCATIONS. FINAL LOCATION TO BE FIELD FIT BY ENGINEER.
2. CULVERT VELOCITY DISSIPATION BERM SHALL BE CONSTRUCTED AT THE OUTLET OF ALL CULVERTS UNLESS DIRECTED BY ENGINEER.
3. AFTER STABILIZATION IN ACCORDANCE WITH AKDEC CGP HAS BEEN ESTABLISHED, SPREAD POROUS FILL TO ±3" THICKNESS AROUND OUTFALL END.

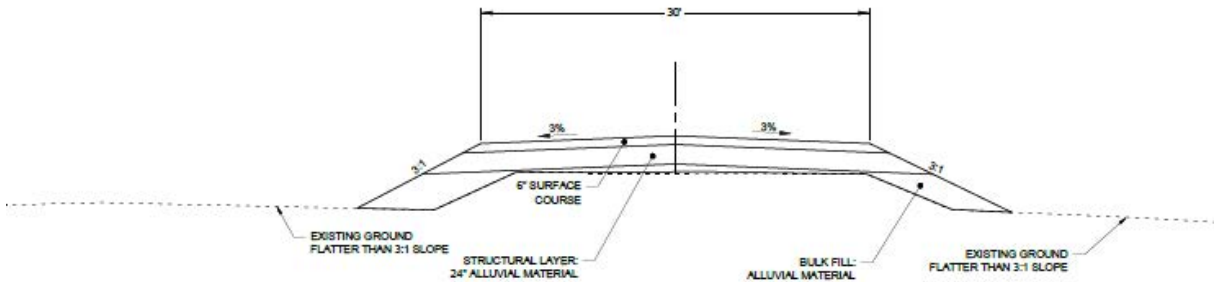
Applicant: Peak Gold LLC.	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
Fairbanks Meridian   See Supplement	
Lat.: 63.1834 N	Long.: 142.8937 W
Sheet: 32 of 36	December 2021

# Road, Flat Cross Section



**A** TYPICAL SECTION 6: MINE TRUCK TRAFFIC; MINE ACCESS ROAD, FLATS; LOADOUT TO HILL  
CX NOT TO SCALE

ASSUME 20.5' WIDE DESIGN VEHICLE, SINGLE LANE

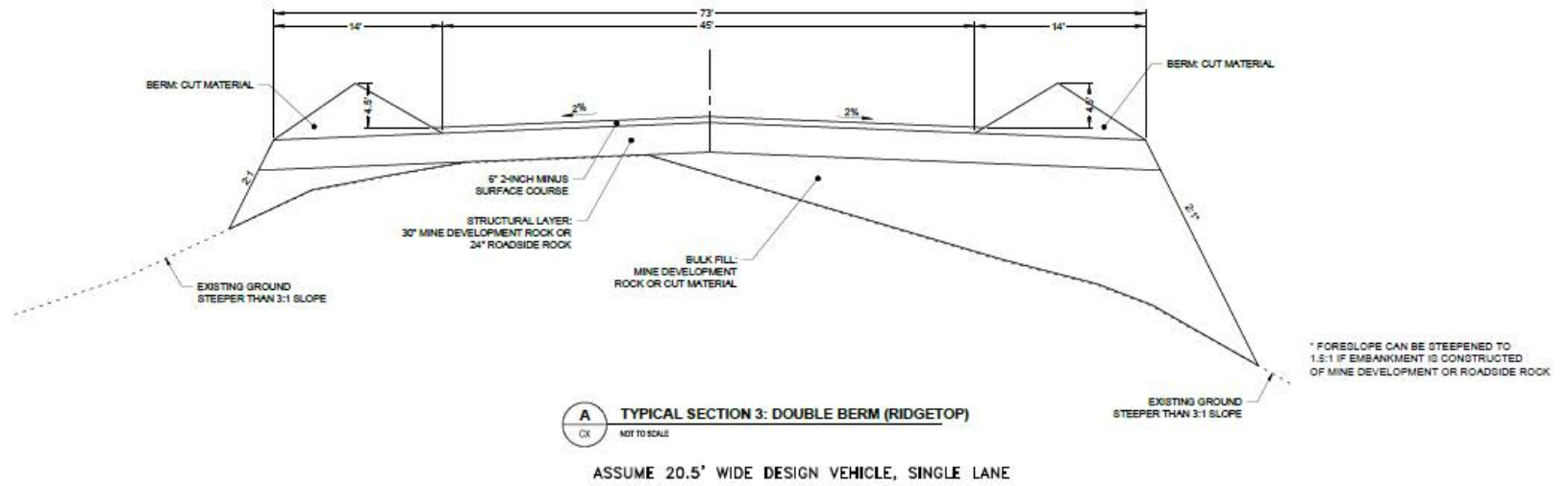


**B** TYPICAL SECTION 7: HIGHWAY TRUCK TRAFFIC; TETLIN VILLAGE ROAD & TETLIN VILLAGE ROAD TO LOADOUT  
CX NOT TO SCALE

ASSUME 8.5' WIDE DESIGN VEHICLE, DOUBLE LANE

Applicant: Peak Gold LLC.	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
Fairbanks Meridian   See Supplement	
Lat.: 63.1834 N	Long.: 142.8937 W
Sheet: 33 of 36	December 2021

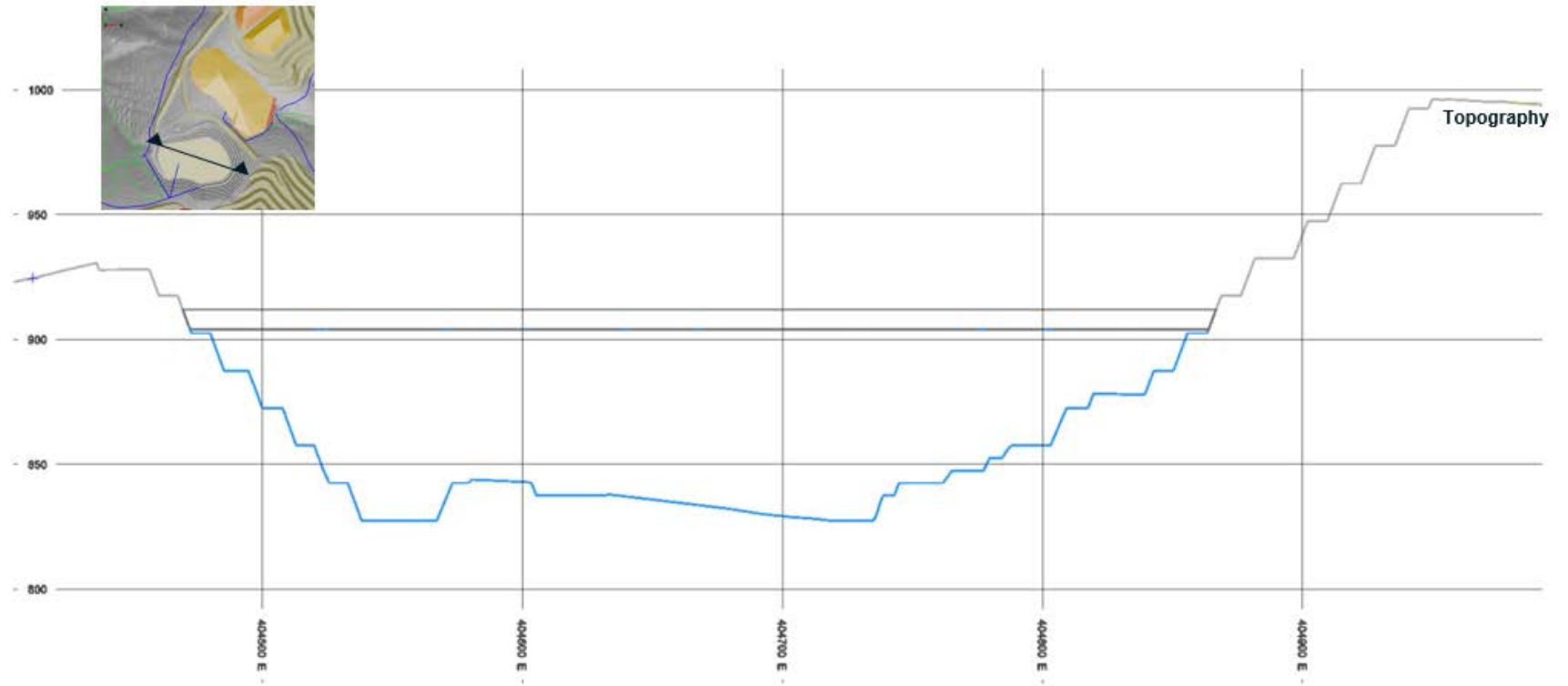
# Road Design, Hillside Cross Section



Applicant: Peak Gold LLC.	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
Fairbanks Meridian   See Supplement	
Lat.: 63.1834 N	Long.: 142.8937 W
Sheet: 34 of 36	December 2021



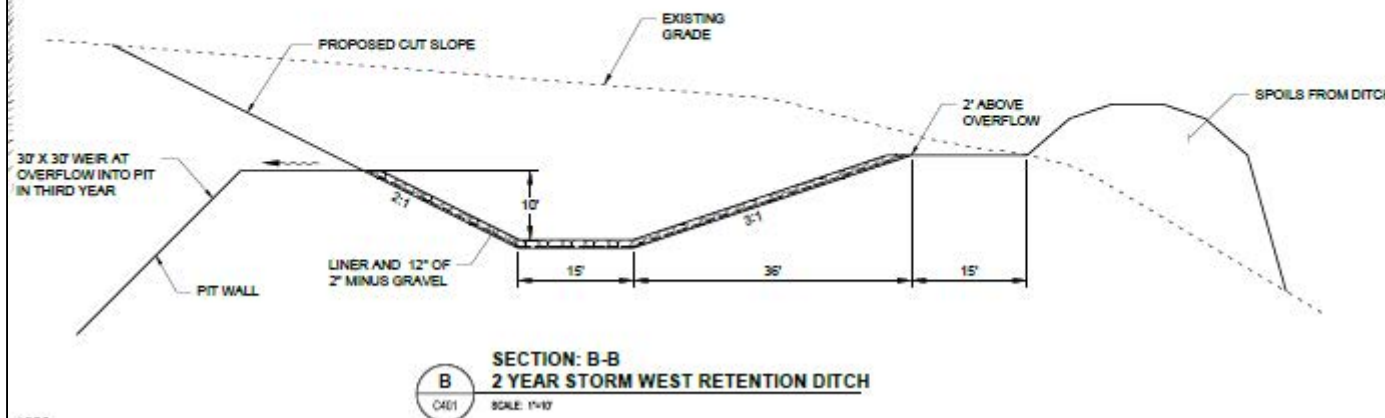
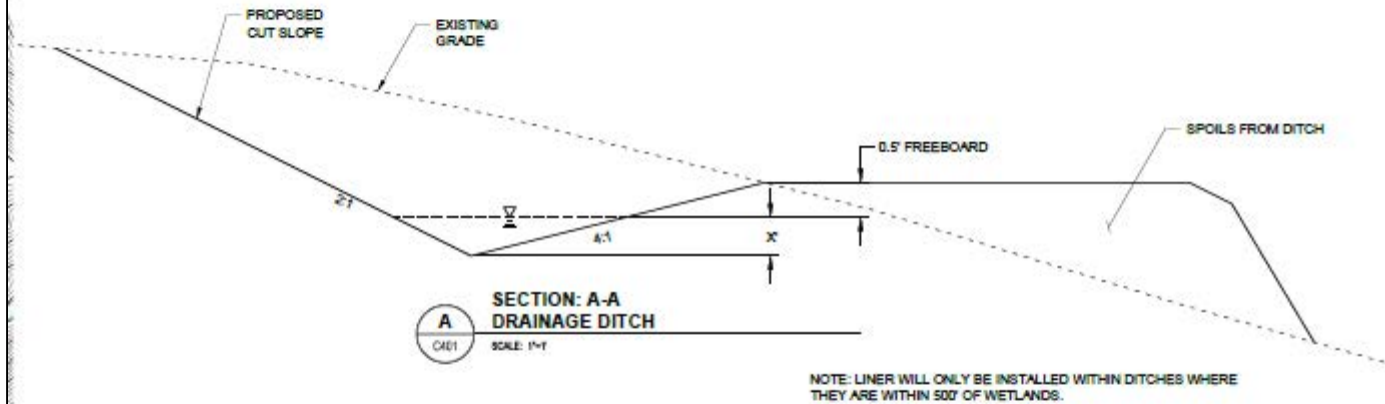
# Mine Pit Cross Section



Applicant: Peak Gold LLC.	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
Fairbanks Meridian   See Supplement	
Lat.: 63.1834 N	Long.: 142.8937 W
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# Drainage Ditch Cross Section

REQUIRED DITCH DEPTH - 100 YEAR STORM				
POINT	FLOW (CF8)	FLOW DEPTH X (FT)	FREEBOARD (FT)	DITCH DEPTH (FT)
A	4.2	0.41	0.50	0.91
B	6.0	0.47	0.50	0.97
C	9.5	0.56	0.50	1.06
D	11.0	0.59	0.50	1.09
E	17.3	0.70	0.50	1.20
F	8.1	0.53	0.50	1.03
G	3.8	0.40	0.50	0.90
H	2.2	0.32	0.50	0.82
I	0.6	0.20	0.50	0.70
J	1.7	0.25	0.50	0.75
K	3.7	0.39	0.50	0.89
L	7.1	0.50	0.50	1.00



Applicant: Peak Gold LLC.	
File No.: POA-2013-00286	
Waterway: Tanana River	
Proposed Activity: Manh Choh Mine	
Fairbanks Meridian   See Supplement	
Lat.: 63.1834 N	Long.: 142.8937 W
Sheet: 36 of 36	December 2021