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TELEPHONE (907) 787-8700

October 3, 2019

Letter No. 43291

Mr. Tom Stokes, State Pipeline Coordinator  
Alaska Department of Natural Resources  
3651 Penland Parkway  
Anchorage, AK 99508

RE: Trans-Alaska Pipeline System, Pipeline Milepost 21.5  
Land Description Modification for Right-of-Way Lease, ADL 63574  
Erosion Protection Revetment at Sagavanirktok River

Dear Mr. Stokes:

Alyeska Pipeline Service Company, agent for the Trans Alaska Pipeline System lessees, hereby applies to modify the description of the TAPS facilities attached to the referenced lease to include lands needed to accommodate the subject new construction. This follows the email alert on the subject sent to you on September 25<sup>th</sup>.

The lands required for construction are described on Attachment A, and a narrative and drawings are enclosed describing the work in further detail. The lands needed to accommodate the new structure after construction will be precisely described upon completion of the as-built survey.

While the water has receded to the point that erosion has ceased for the time being, Alyeska is readying resources to install the structure during the current low-water period before winter conditions complicate construction with low light, snow and ice cover and frozen soils. Therefore, we also enclose a land use permit application for your review and approval advance of an amendment. Please contact me at 787-8170 if we can provide additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter C. Nagel", is written over a circular blue ink stamp.

Peter C. Nagel, SR/WA  
Land and Right-of-Way

Enclosures

cc: SPCS Records

## ATTACHMENT A

Township 7 North, Range 14 East (Umiat Meridian)

Sections 17 NW4NW4 and 18 NE4NE4, those lands adjacent to the Trans Alaska Pipeline right-of-way as shown on the attached drawings as shown on the attached drawings, containing approximately 4.7 acres.

**Trans Alaska Pipeline System, Milepost 21.5  
Revetment at Sagavanirktok River  
Permit Narrative (October 2019)**

**Purpose and Problem Description**

The purpose of this project is to install a flood control structure at Pipeline Milepost 21.5 between existing spur dikes 3A and 4.

Severe floods in August eroded over one hundred feet of bank between dikes 3A and 4 leaving about 30 feet of buffer between the Pipeline and the river. A flood control structure is proposed to protect the Pipeline from anticipated high flows in 2020 during and after spring breakup.

**Site Description**

The project site is located about 22 miles south of Pump Station 1 on the Trans-Alaska Pipeline. In this area the Dalton Highway and the pipeline follow the west side of the Sagavanirktok River floodplain which is over a mile wide. Soils in the area consist of organic silt with some sand, gravel mixed with sand, numerous cobbles and scattered boulders. The vegetation zone is riverine bordered by lowland tundra, which consists of sedges, grasses and mosses. Fish species in the Sag River are the Arctic Char, Arctic Grayling, Burbot and White Fish. The Sag River is classified as an anadromous fish stream, and its side channels are also considered anadromous because of their connection to the main channel.

**Project Description**

This project will install a riprap revetment between spur dikes 3A and 4. The alternative of two rock sills projecting into the river channel approximately 100 feet was discarded because of possible effects of Breakup on the new structure before the channel readjusted over at least one open-water season. The proposed structure will be approximately the same height as the floodplain bank allowing overbank flows to overtop the structure during flood events. This will maintain floodplain connectivity and relieve stresses on the structure.

**Work in and Around Water**

To install the revetment, the excavator bucket only will be in contact with water during construction. No instream work is anticipated.

**Environmental Impacts and Mitigation**

There will be minimal impact to aquatic life because the work is confined to the existing eroding bank. The excavated material will be replaced on top and track walked into the rock structure above the bank or stockpiled on an existing gravel pad offsite. After installation of the structure the reach will have significantly reduced sediment loads to the river due to the bank protection structure.

The impact to local flora will also be minimal since the area has been subjected to disturbances from recent floods and icing events. There is only nominal if any loss in the area of waters of the U.S. (wetlands) in an area abundant in such, and no additional mitigation is planned.

**Approximate Construction Sequence of Work**

Equipment requirements include front-end loaders, backhoes, bulldozers, trucks and off-highway trucks. The work is planned to take about 21 days to complete during the timeframe between October 15 and November 30, 2019.

1. Mobilize personnel and equipment
2. Haul material
3. Shape eroding bank to stable slope as needed
4. Place riprap
5. Dispose of excess material, clean-up work site and demobilize.

The work sequence may be altered depending on field conditions encountered at time of construction.



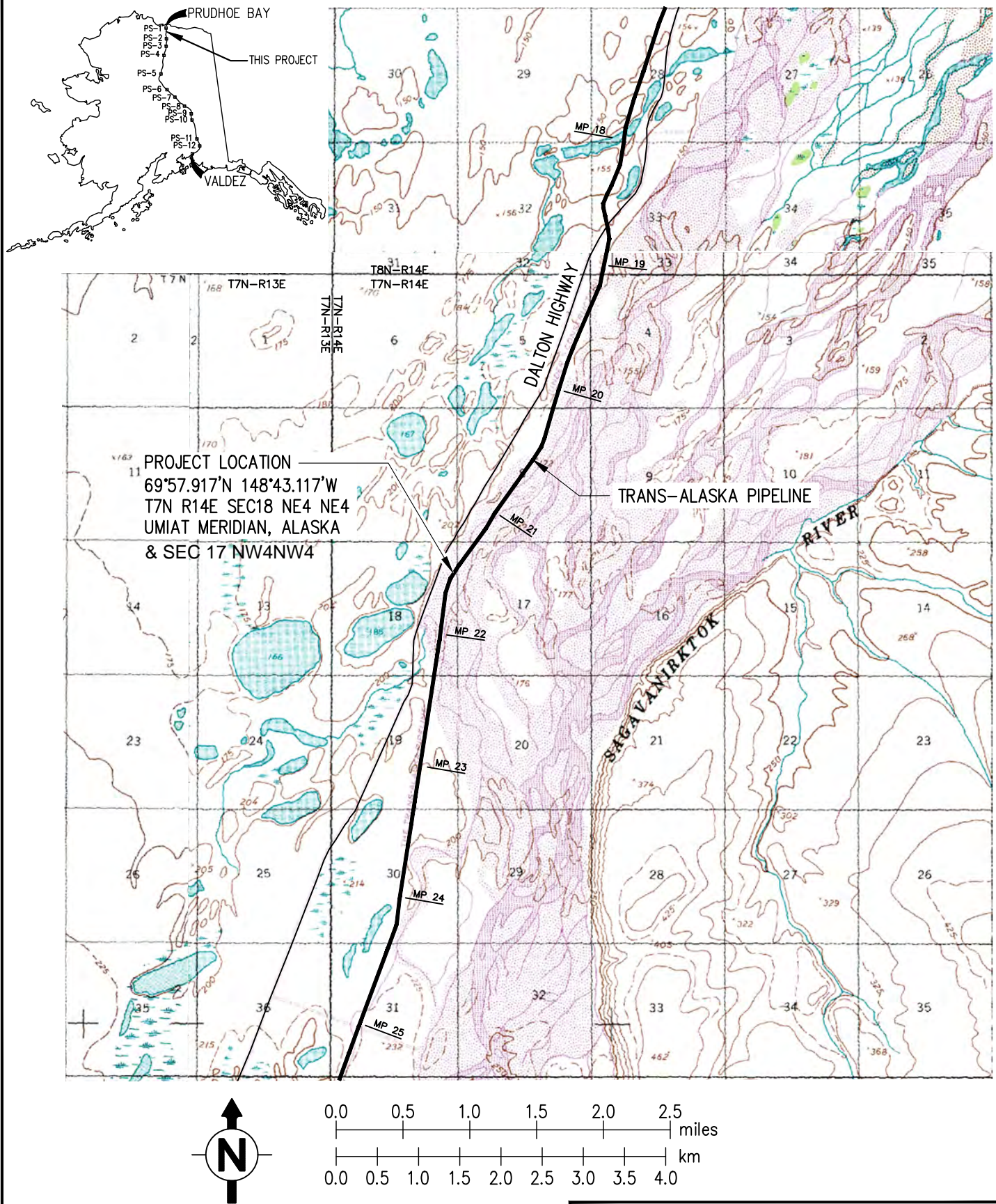
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ADJACENT PROPERTY OWNER: STATE OF ALASKA

ALYESKA PIPELINE SERVICE CO.

PIPELINE MP 21.5 NEW REVETMENT  
LOWER SAGAVANIRKTOK RIVER  
LOCATION AND VICINITY MAP

TRANS ALASKA PIPELINE SYSTEM

DATE: 09/26/19

PLATE 1

REV. A DWN. MTH CKD. AJN APPR. JPD

SCALE: AS NOTED

SHEET 1 OF 3

AUTOCAD DWG. DO NOT REVISE MANUALLY.

FILE DATE: -

PLOT SCALE: -

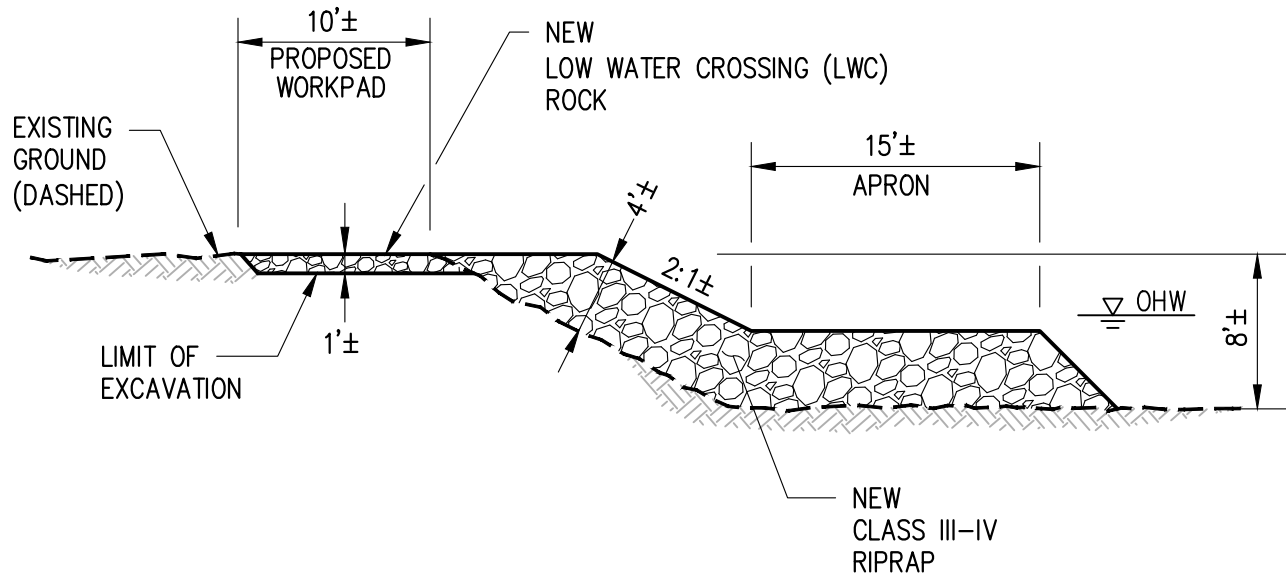
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# ESTIMATED MATERIAL QUANTITIES

	BELOW OHW	ABOVE OHW	TOTAL
CLASS III-IV RIPRAP (CY)	2,100	900	3,000
CLASS III-IV RIPRAP (SF)	12,600	5,400	18,000
LWC ROCK (CY)	0	200	200
LWC ROCK (SF)	0	5,000	5,000



## TYPICAL SECTION

SCALE: 1" = 10'

A  
2

ADJACENT PROPERTY OWNER: STATE OF ALASKA

ALYESKA PIPELINE SERVICE CO.

PIPELINE MP 21.5 NEW REVETMENT  
LOWER SAGAVANIRKTOK RIVER  
SECTION

TRANS ALASKA PIPELINE SYSTEM

DATE: 09/26/19

PLATE 3

REV. A DWN. MTH CKD. AJN APPR. JPD

SCALE: AS NOTED

SHEET 3 OF 3

AUTOCAD DWG. DO NOT REVISE MANUALLY.