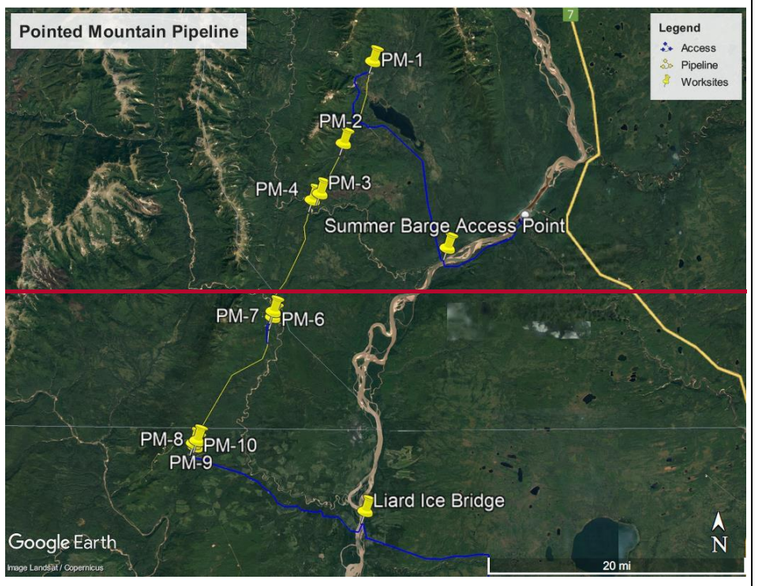
Attachment 2
Abandonment Activities for the Pointed Mountain Pipeline (Pipeline)

Table 1: Project Map and Project Notes

Project Map	Project Notes
	1) Abandonment work will comply with applicable requirements of the *Canadian Energy Regulator Onshore Pipeline Regulations* and *CSA Z662-~~19~~23: Oil and Gas Pipeline Systems*, with the exception of Clause 10.16.3 of CSA Z662-~~19~~ 23 in respect of abandonment in place of certain test lead posts, as further described in paragraph 18 of the Application. 2) All work sites are on Crown land in areas classified as “Non-Agricultural, No Future Development Anticipated”. 3) The Pipeline is currently deactivated with a nitrogen blanket, with the exception of the 1,200 metre segment crossing the Kotaneelee River, which has been removed. 4) Abandonment activities are scheduled to be completed under frozen ground conditions during the winter ~~2022~~2024/~~2023~~ 2025 construction season~~ and during the summer 2023 construction season~~. 5) Refer to Table 2 below for a description of the activities planned for each work site. Representative photos are provided in Table 3 below. 6) Buried small diameter piping to be abandoned in place. Piping to be purged, capped/plugged, or otherwise effectively sealed at pipeline depth, and left unpressurized. ~~7) No exposures found at any of the water crossings (or elsewhere).~~ ~~8)~~7) Aboveground piping and appurtenances associated with the Pipeline to be removed, including: (i) pipeline risers, vent piping, valve stems, cathodic protection rectifiers, accessible test lead posts, and anode wiring to pipeline depth and all other associated aboveground piping to pipeline depth, (ii) all related supports, foundations, and utilities to pipeline depth. ~~9)~~8) Caps or blinds to be installed at disconnected third party connections to the extent that has not already been done as part of deactivation activities. ~~10)~~9) Soils at abandoned facility sites to be tested for contamination and remediated if necessary. ~~11)~~10) Road crossings primarily seasonal and rebuilt each year, with no special treatment deemed necessary due to the small diameter of the piping. ~~12)~~11) Flow and valve diagram is provided in Drawing 1 below for the Pipeline (Drawing PL-9700-302/01, Rev. 12). ~~13)~~12) Clean-up and reclamation will follow physical abandonment activities.

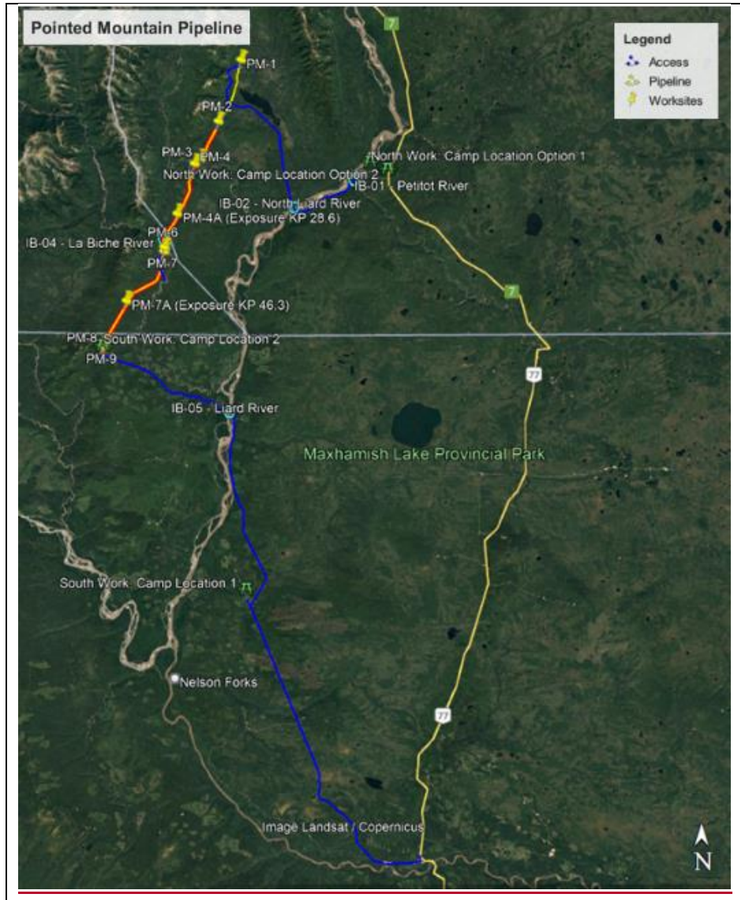
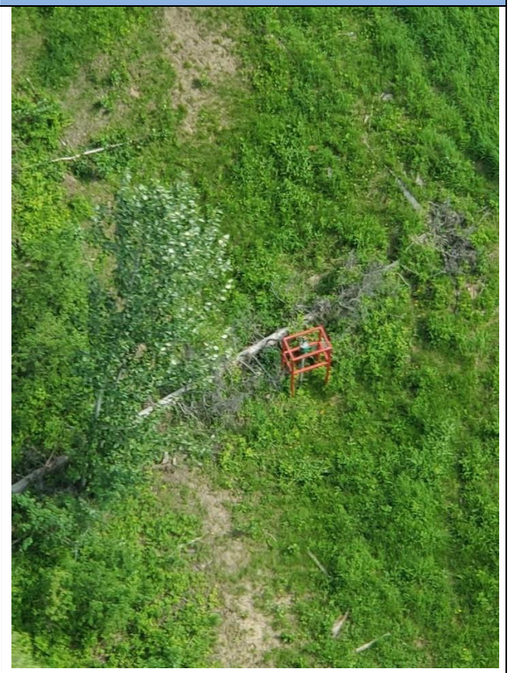

Pointed Mountain Pipeline
Legend
Access
Pipeline
Worksites
PM-1
PM-2
PM-3
PM-4
North Work Camp Location Option 2
North Work Camp Location Option 1
IB-01 - Petitot River
IB-02 - North Liard River
PM-4A (Exposure KP 28.6)
PM-6
IB-04 - La Biche River
PM-7
PM-7A (Exposure KP 46.3)
PM-8 South Work Camp Location 2
PM-9
IB-05 - Liard River
Maxhamish Lake Provincial Park
South Work Camp Location 1
Nelson Forks
Image Landsat / Copernicus
N

Table 2: Key Project Activities

Site #	Site Name & GPS Coordinates	KP	Background and Context	Abandonment Activities
PM-1	Pointed Mountain Launcher (Original) *GPS 60.3968, -123.8263*	KP 0.0	This site is the original launching barrel for the Pipeline. In 2008, the Pipeline was disconnected from this launching barrel; the launcher site was deactivated; and a new launching barrel was installed downstream (PM-7). The launcher is currently isolated from both the adjacent plant and Pipeline through removed piping, and isolated from the producer receiver connection with a paddle blind flange.	Remove pig launcher and associated kicker line, flare, aboveground flare piping, aboveground producer connection piping, valves, structural steel, and riser.
PM-2	Producer Tie-In *GPS 60.3053, -123.8923*	KP 11.1	This site has a pipeline tap, piping, and valve that was historically connected to a third-party producer. The producer has since been disconnected from this tap; however, the tap, piping, and valve have remained in place.	Remove tap, piping, and valve.
PM-3	N2 Vent *GPS 60.2490, -123.9447*	KP 18.04	In 2016, a section of exposed pipe at the Kotaneelee River was removed. The pipe upstream of the Kotaneelee River to the PM-1 KP0.0 Sending Barrel was then filled with nitrogen. The PM-3 site contains a nitrogen riser for maintaining the nitrogen pressure on that segment of pipeline.	Remove riser piping and valve.
PM-4	N2 Vent *GPS 60.2419, -123.9618*	KP 19.25	In 2016, a section of exposed pipe at the Kotaneelee River was removed. The pipe downstream of the Kotaneelee River to the PM-7 KP34.92 Sending Barrel was then filled with nitrogen. The PM-4 site contains a nitrogen riser for maintaining the nitrogen pressure on that segment of pipeline.	Remove riser piping and valve.
PM-4A	Wetland, Tributary of Kotaneelee River *GPS 60.165, -124.0125*	KP 28.6	An exposure of the Pipeline at a wetland that is near a minor water crossing, a tributary of Kotaneelee River, at KP 28.6 was identified. The exposed pipe, as well as a short segment of upstream and downstream pipe at risk of future exposure, will be removed as part of the Project.	Remove pipeline.
PM-6	Producer Tie-In *GPS 60.1179, -124.0482*	KP 34.28	This site contains two pipelines that run from a producer meter building to the Pipeline. In 2008 the Pipeline was deactivated between KP 0.0 and KP 34.92. Therefore, an additional 0.7 km NPS 6 bypass line was built to connect the two producer pipelines from this site to the new sending barrel at KP 34.92. The two pipelines are currently both isolated at the meter building, and at the Pipeline with spectacle blinds.	Remove aboveground producer connection piping, valves, and risers.
PM-7	Pointed Mountain Launcher (Current) *GPS 60.1116, -124.0493*	KP 34.92	This site is the current launching barrel for the Pipeline. In 2008, the original launching barrel at KP0.0 was disconnected, and a new barrel was installed at this location. This launching barrel is currently isolated from both the upstream producer and the Pipeline with spectacle and paddle blind flanges.	Remove pig launcher and associated kicker line, flare, aboveground flare piping, aboveground producer connection piping, valves, structural steel, and riser.
PM-7A	Watercourse, Tributary of La Biche River *GPS 60.0381, - 124.1577*	KP 46.3	An exposure of the Pipeline at a minor water crossing, a tributary of La Biche River, at KP 46.3, was identified. The exposed pipe, as well as a short segment of upstream and downstream pipe at risk of future exposure, will be removed as part of the Project.	Remove pipeline.
PM-8	Above Ground Riser *GPS 59.9732, -124.2171*	KP 54.5	Historically the Pipeline receiving barrel and flare was located at this site. All that remains at this site is an above ground elbow.	Remove above ground elbow.
PM-9	Above Ground Riser *GPS 59.9701, -124.2247*	KP 55.0	Historically the Pipeline receiving barrel was located at this site. All that remains at this site is an above ground elbow and concrete pipe supports.	Remove above ground elbow and concrete pipe supports.
PM-10	Pointed Mountain Receiver *GPS 59.9664, -124.2210*	KP 55.64	This site is the receiving barrel for the Pipeline. In March 2016, this section of the Pipeline (KP34.92 to KP55.64) was deactivated and purged with nitrogen. This launching barrel is currently isolated from the Pipeline and the adjacent flare site with spectacle and paddle blind flanges. Valves are currently providing isolation on the crossover and kicker piping between the Pipeline receiving barrel and the adjacent launching barrel owned by others.	Remove pig receiver and associated kicker line, aboveground piping, valves, structural steel, and riser.

Table 3: Site Photos

PM-1	PM-2	PM-3
 PM-1 Site Overview  PM-1 Flare Riser	 PM-2 Producer Tap	 PM-3 Nitrogen Riser

PM-4	PM-6	PM-7
 PM-4 Nitrogen Riser	 PM-6 Above Ground Bypass Piping	 PM-7 Launcher and Bypass Piping  PM-7 Flare Riser and Supports

PM-8	PM-9	PM-10
 PM-8 Above Ground Elbow and Support	 PM-9 Above Ground Elbow  PM-9 Concrete Pipe Supports	 PM-10 Pointed Mountain Receiver

PM-4A

PM-4A Wetland exposure

PM-4A Wetland exposure

PM-7A

PM-7A Watercourse exposure

PM-7A Watercourse exposure

Drawing 1: Flow and Valve Diagram for Pointed Mountain Pipeline