

**APPENDIX 31-B**  
**KSM PROJECT POTENTIALLY NAVIGABLE STREAMS**

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# Appendix 31-B - KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 5542



Zone	9	Bankfull width (m)	8.9	Slope (%)	5.5	Watercourse:
Easting	416300	Bankfull depth (m)	0.4	Fish Bearing	No	
Northing	6262790					

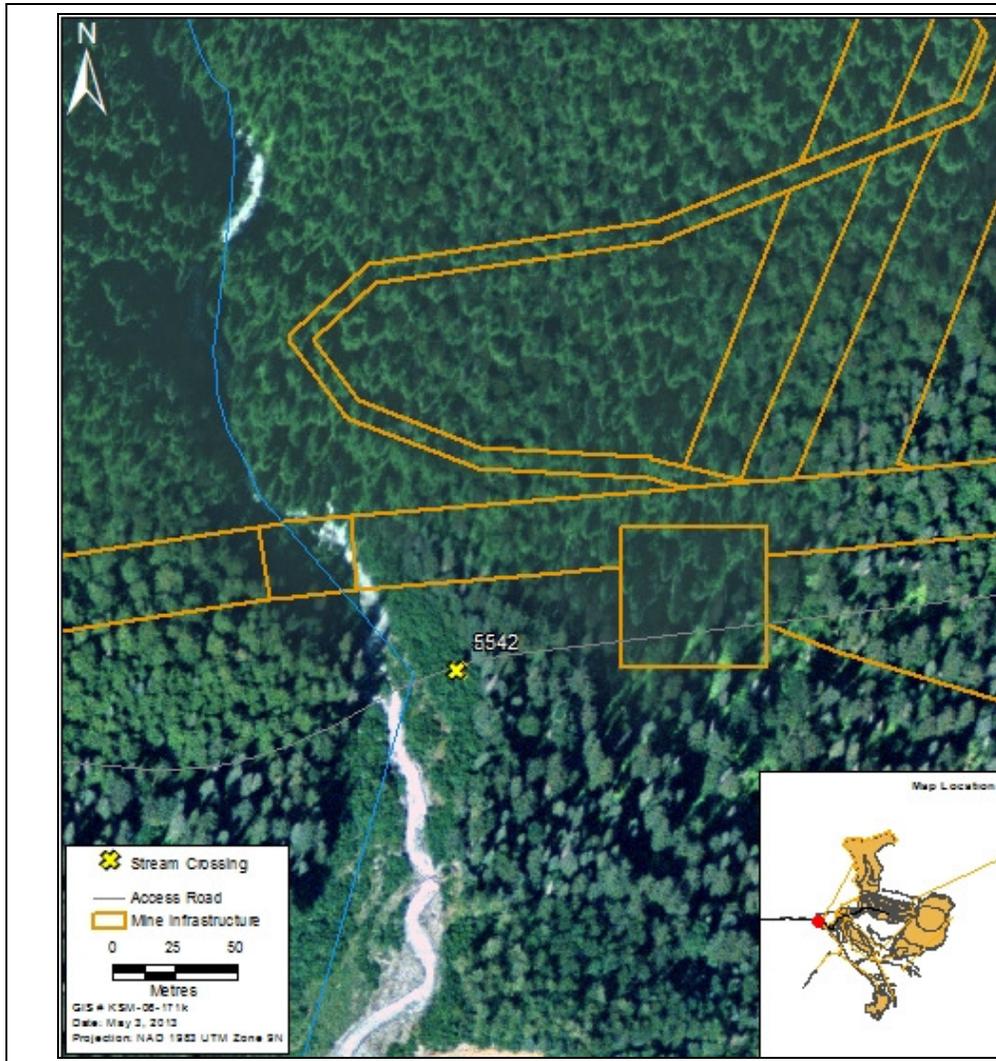


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 5005



Zone	9	Bankfull width (m)	8.7	Slope (%)	40	Watercourse:
Easting	408777	Bankfull depth (m)	-	Fish Bearing	No	
Northing	6263395					

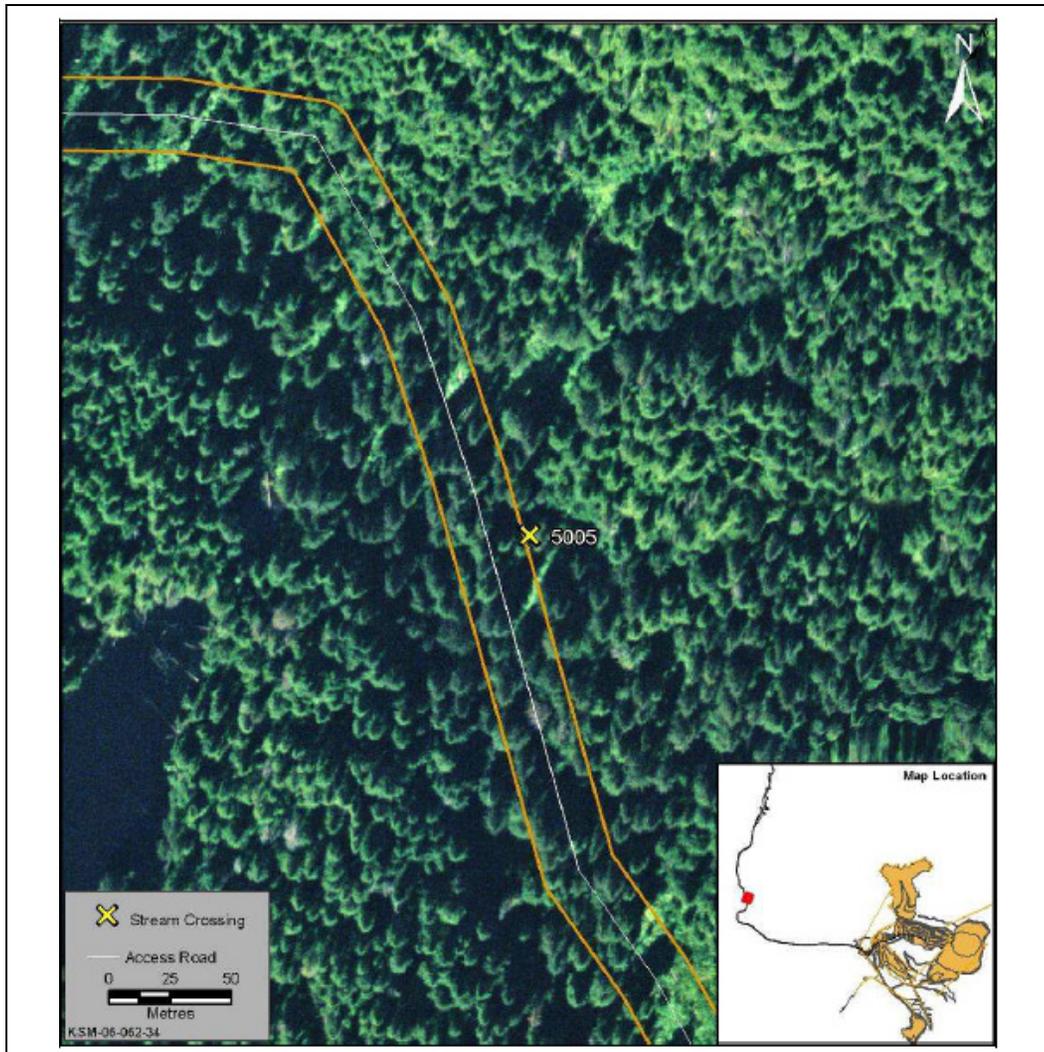


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 5518



Zone	9	Bankfull width (m)	6.8	Slope (%)	3	Watercourse:
Easting	407137	Bankfull depth (m)	1.4	Fish Bearing	Unknown	
Northing	6272593					

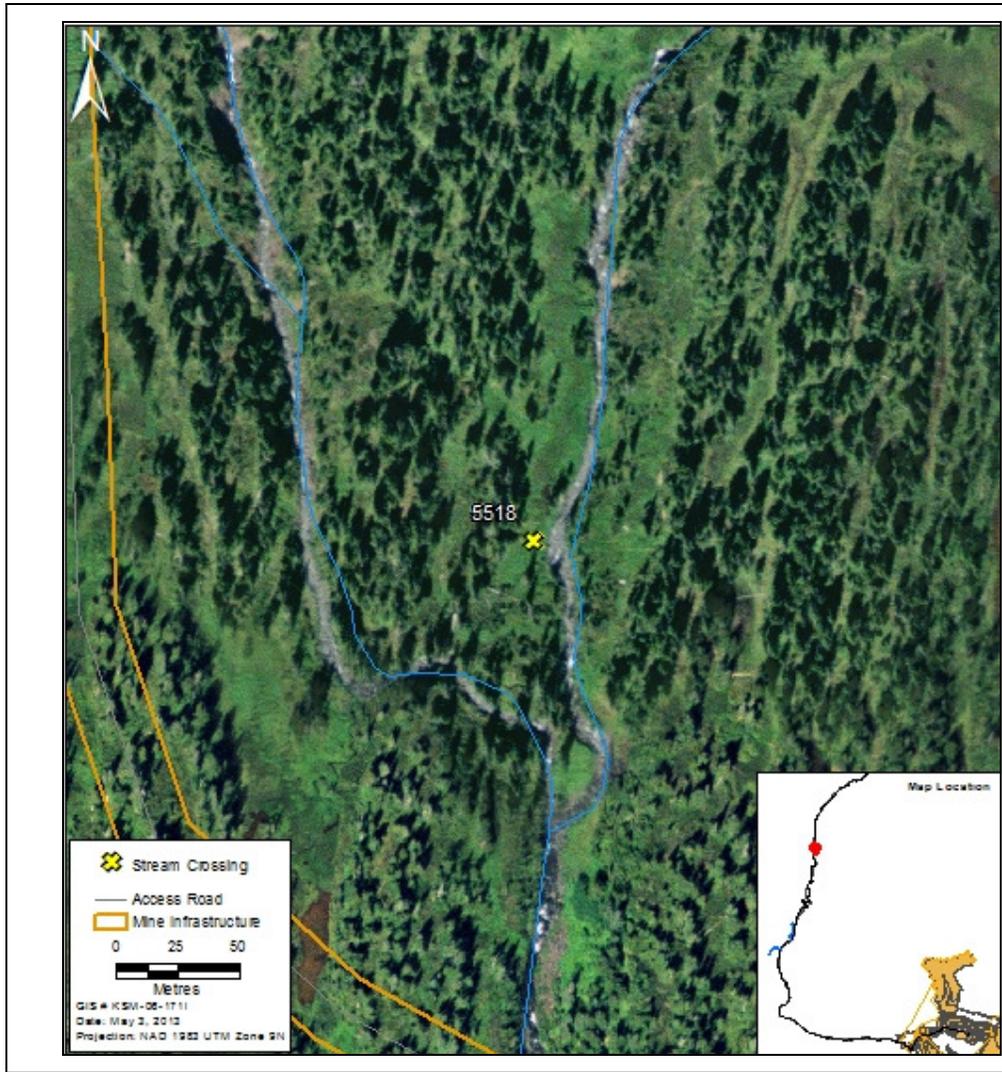


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 2061  
(Coulter Creek)



Zone	9	Bankfull width (m)	16	Slope (%)	1.5	Watercourse:
Easting	407561	Bankfull depth (m)	0.6	Fish Bearing	Yes	
Northing	6266553					

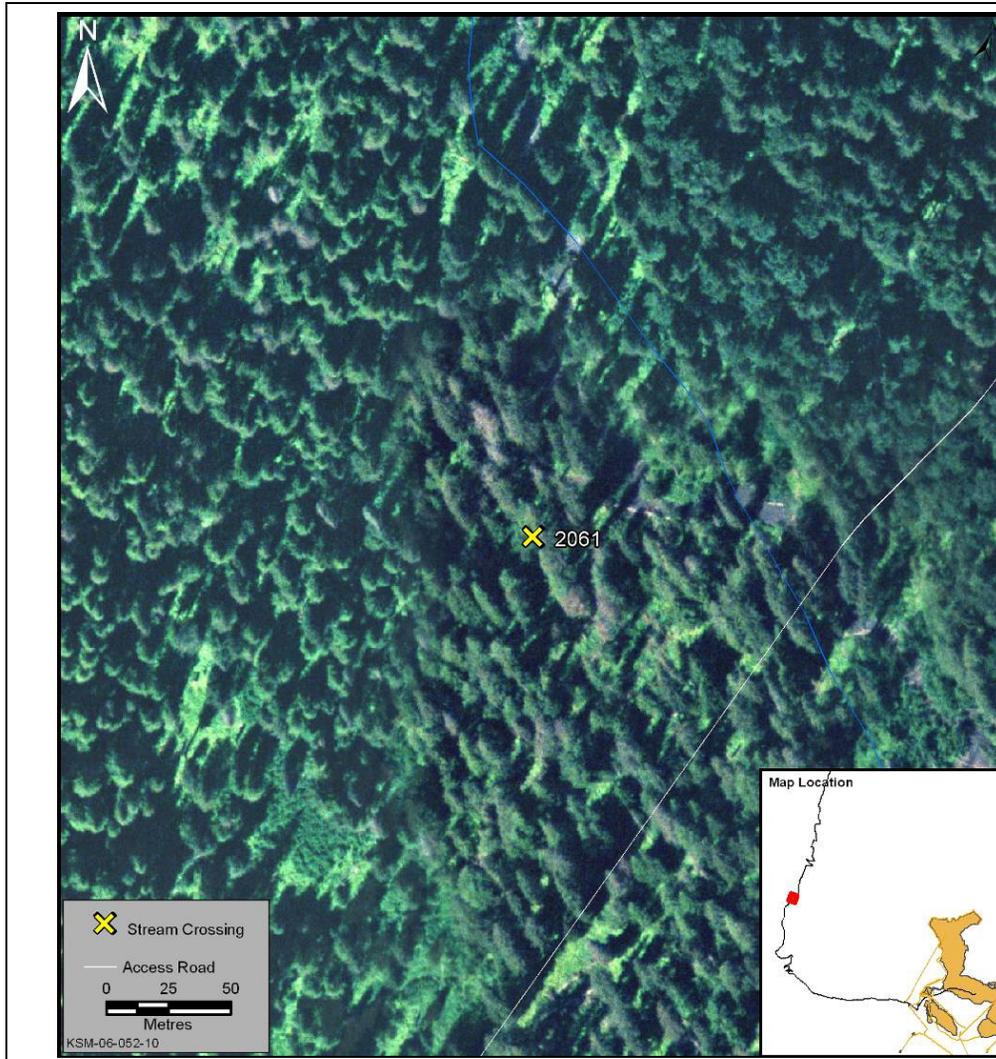


Photo 1 - Upstream view

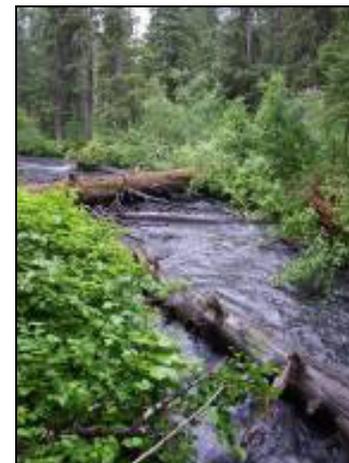


Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 2063



Zone	9	Bankfull width (m)	12.7	Slope (%)	3.5	Watercourse:
Easting	407277	Bankfull depth (m)		Fish Bearing	Yes	
Northing	6265832					

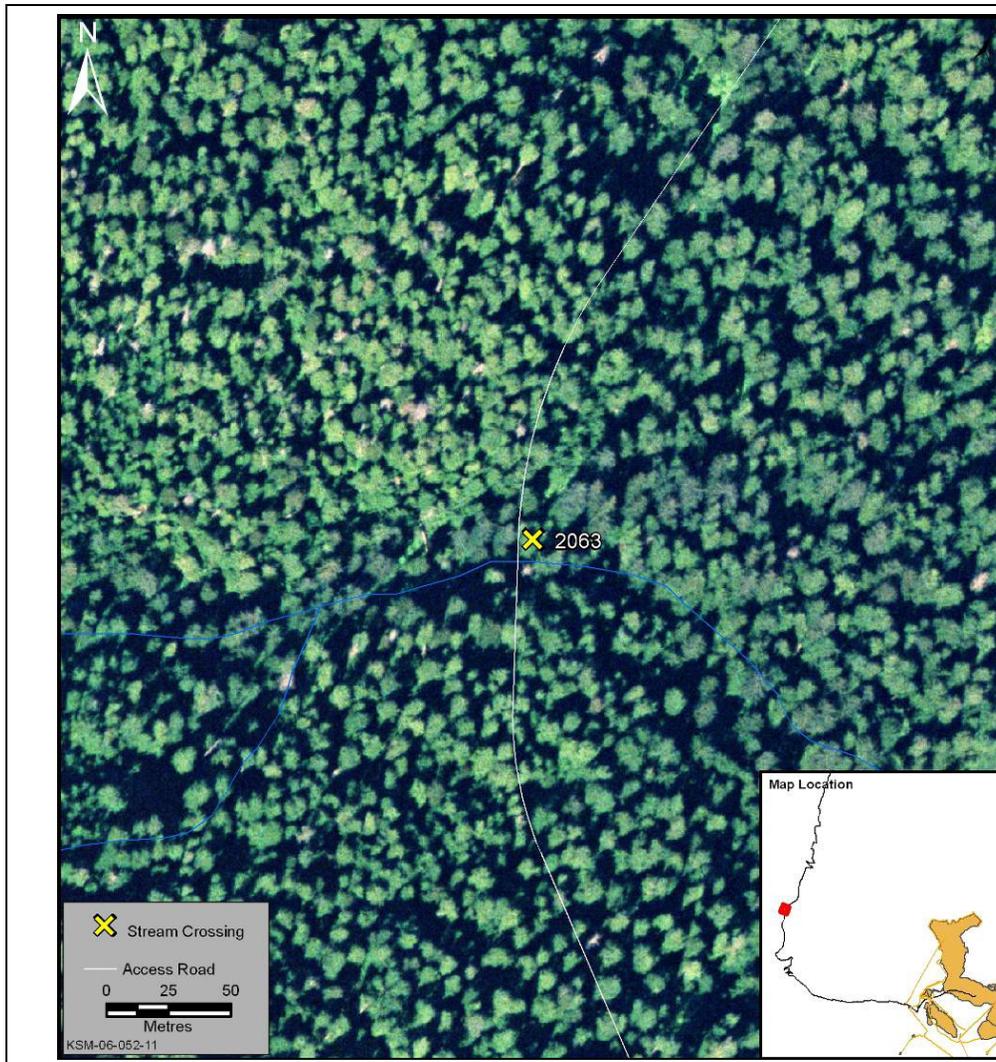


Photo 1 - Upstream view of cascades



Photo 2 - Upstream view showing fallen logs

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 1025  
(Unuk River)



Zone	9	Bankfull width (m)	71	Slope (%)	1	Watercourse:
Easting	408275	Bankfull depth (m)	1.9	Fish Bearing	Yes	
Northing	6263910					

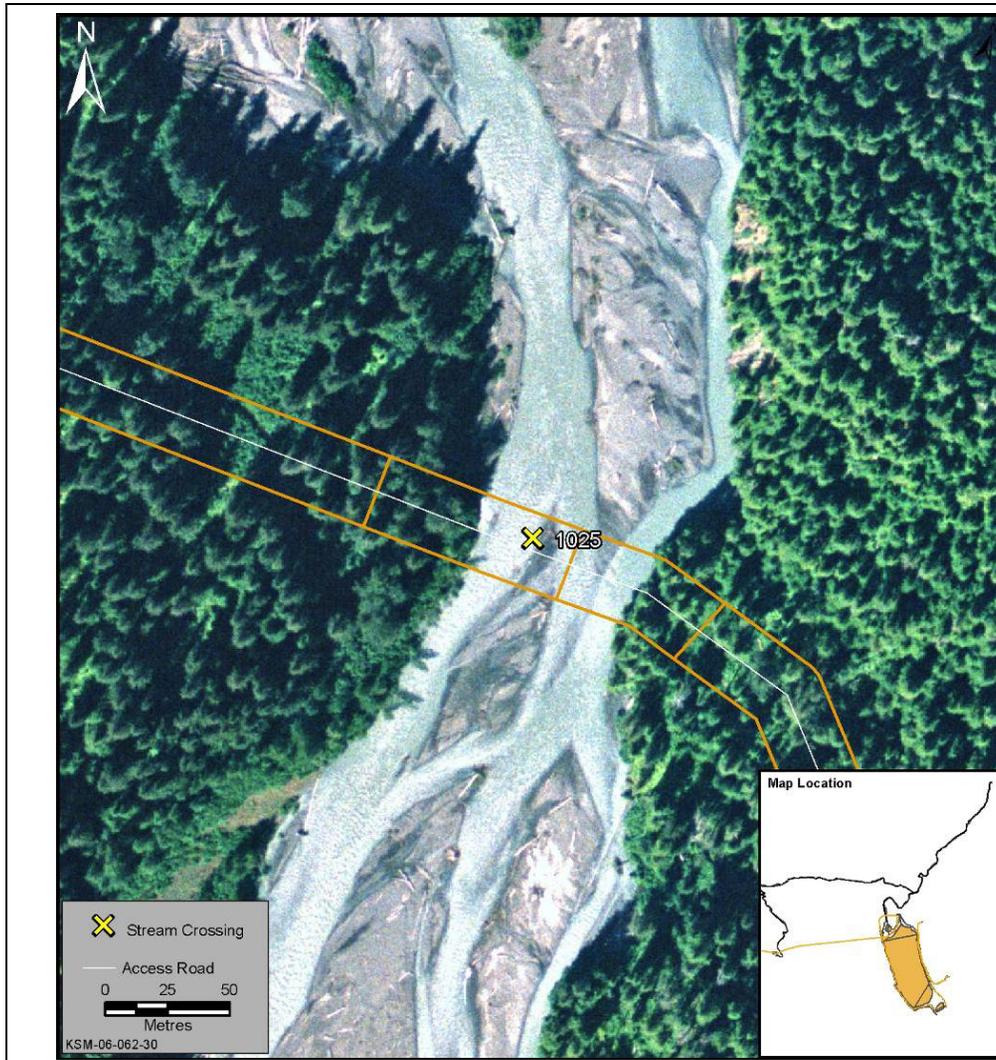


Photo 1 - Across/Upstream view



Photo 2 - Downstream view

# KSM Project

## Potentially Navigable Waters

Coulter Creek Access  
Road - 5007



Zone	9	Bankfull width (m)	7.7	Slope (%)	0.8	Watercourse:
Easting	408404	Bankfull depth (m)	0.4	Fish Bearing	Yes	
Northing	6263727					

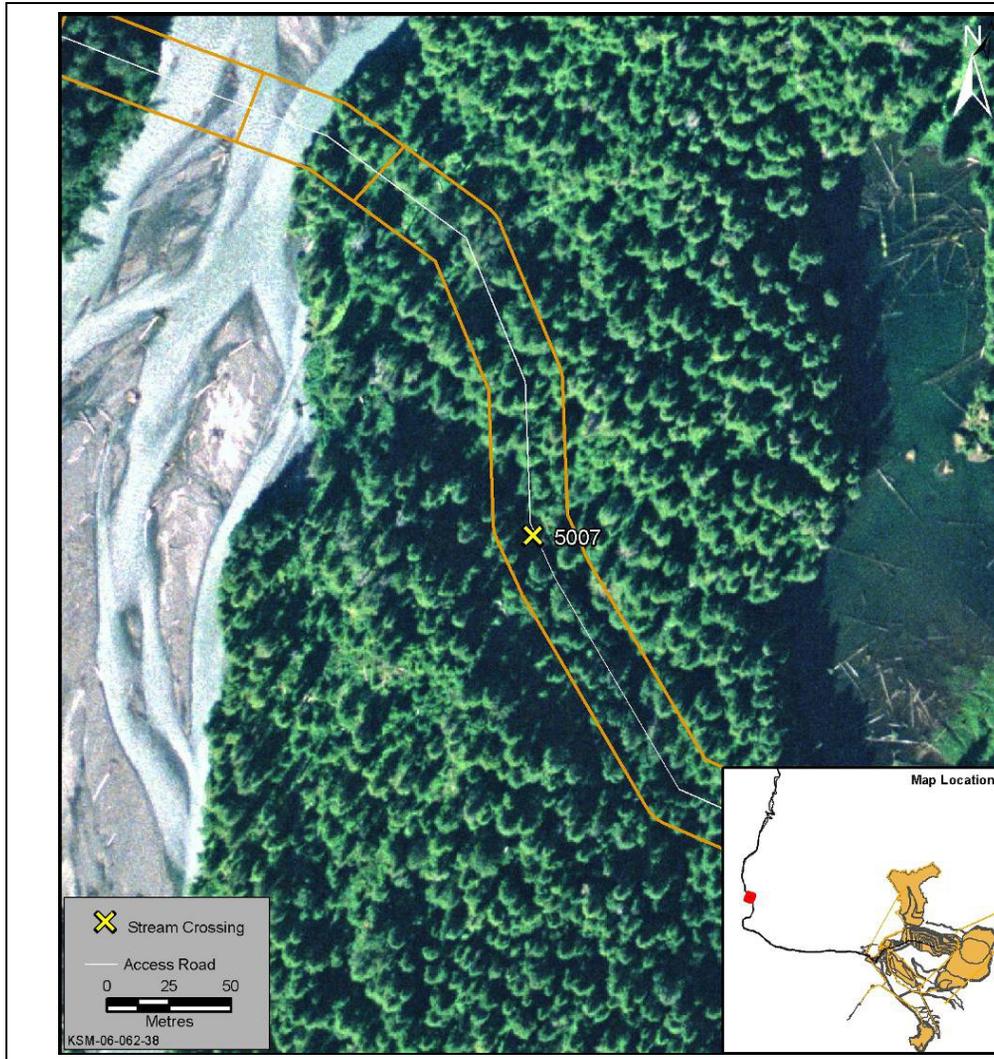


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road - 5001  
(Gingras Creek)



Zone	9	Bankfull width (m)	17.2	Slope (%)	1.2	Watercourse:
Easting	416275	Bankfull depth (m)	5.5	Fish Bearing	No	
Northing	6262627					



Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Coulter Creek Access  
Road, and Mine Site  
Components - 5538  
(Mitchell Creek)



Zone	9	Bankfull width (m)	8.7	Slope (%)	3.5	Watercourse: Reference site used for photos and stream details - 5538 (Mitchell Creek).
Easting	416725	Bankfull depth (m)	--	Fish Bearing	No	
Northing	6262799					

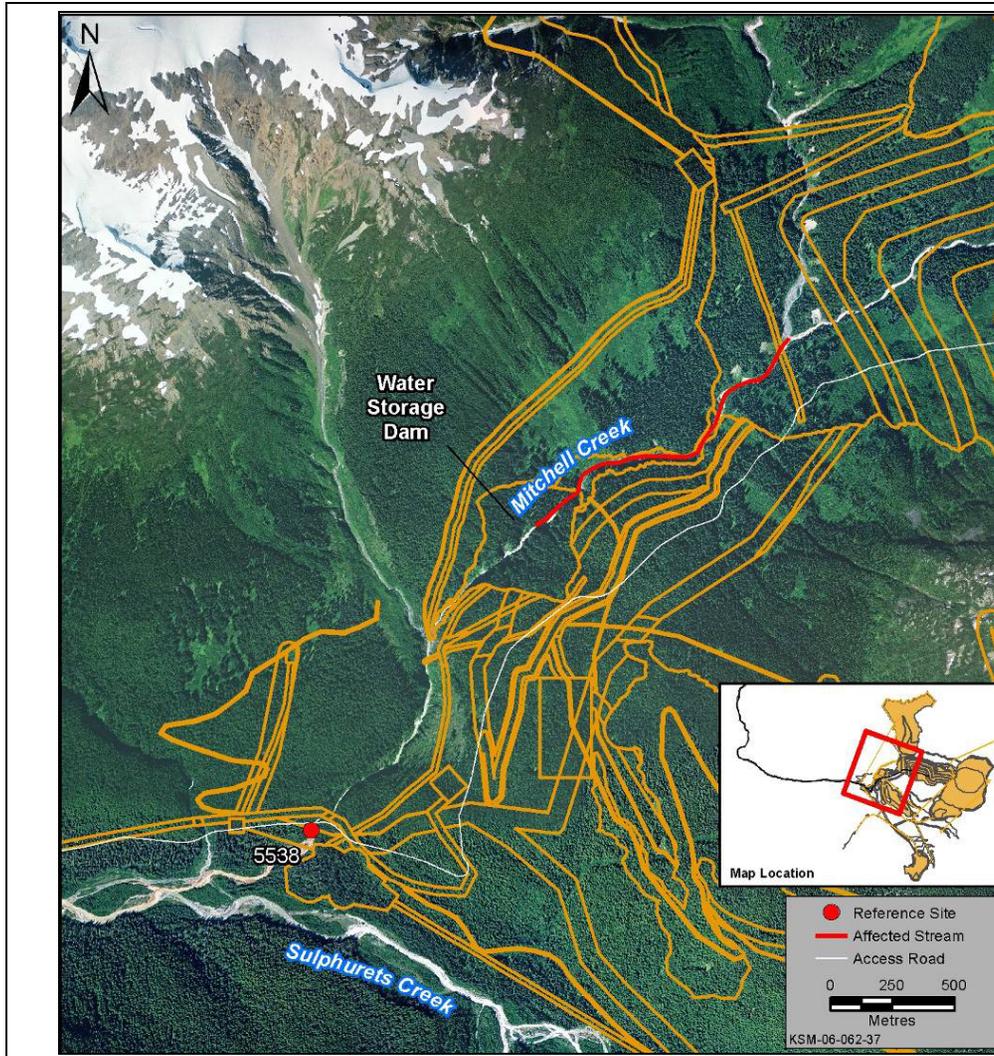


Photo 1 - Downstream view

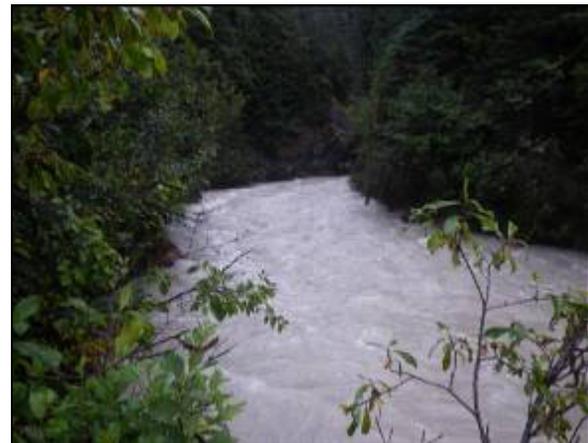


Photo 2 - Upstream view

# KSM Project Potentially Navigable Waters

McTagg Rock Storage  
Facility - 2017, MCT2  
(McTagg Creek)



Zone	9	Bankfull width (m)	10	Slope (%)	10	Watercourse: Reference site used for photos and stream details - MCT2.
Easting	417236	Bankfull depth (m)	-	Fish Bearing	No	
Northing	6267821					

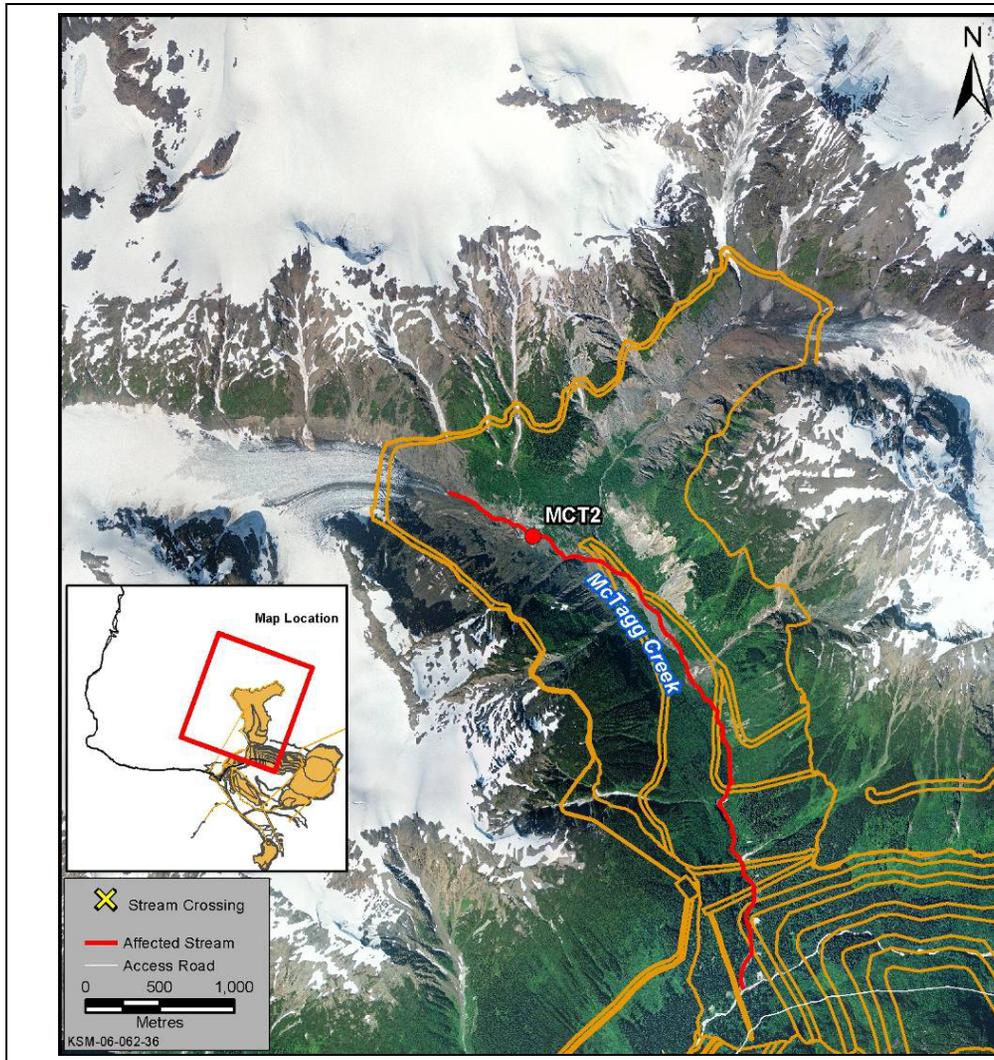


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project

## Potentially Navigable Waters

Mine Site - 1011, SC1  
(Sulphurets Creek)



Zone	9	Bankfull width (m)	17	Slope (%)	17
Easting	419491	Bankfull depth (m)	1.16	Fish Bearing	
Northing	6261371				

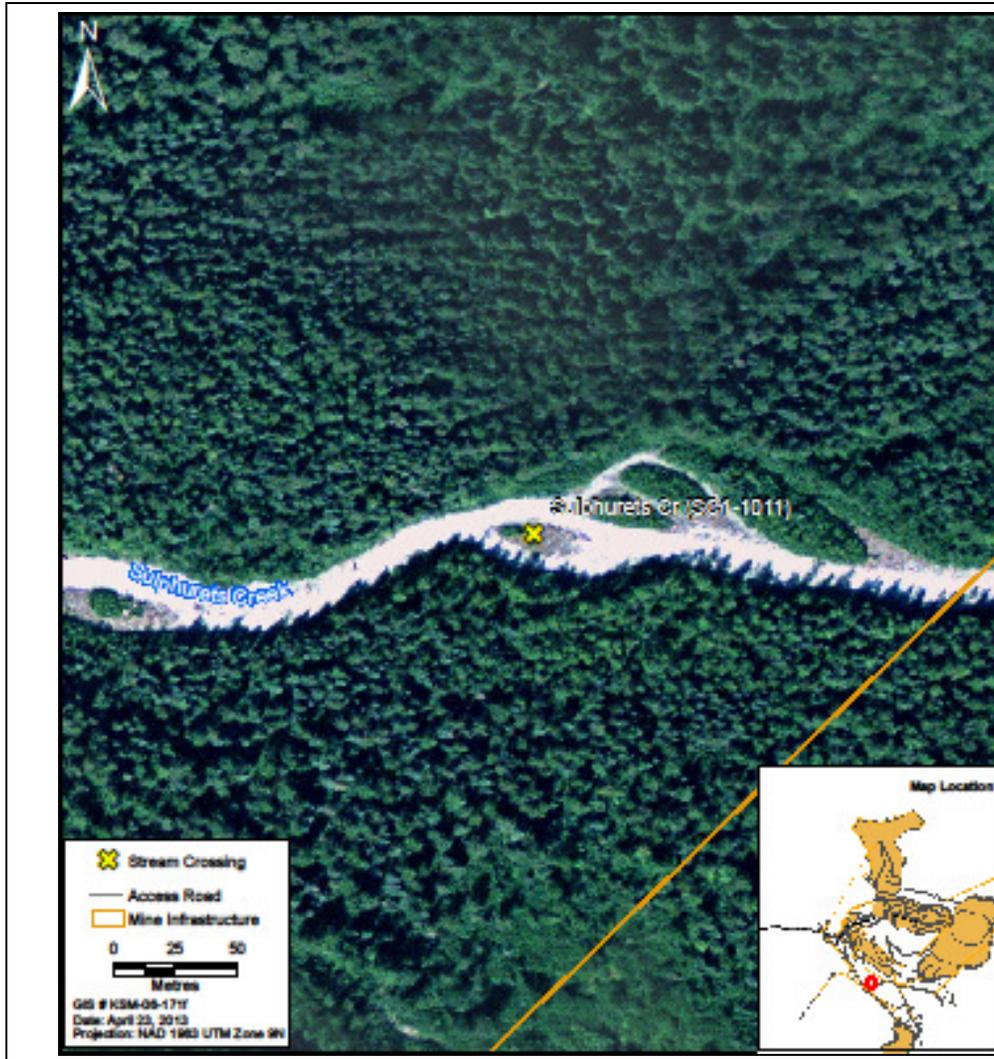


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Mine Site - 3007, SCT  
(Ted Morris Creek)



Zone	9	Bankfull width (m)	21.8	Slope (%)	21.8	Watercourse: near Sulphurets Bridge and Power Plant
Easting	417405	Bankfull depth (m)	2.0	Fish Bearing	No	
Northing	6261506					

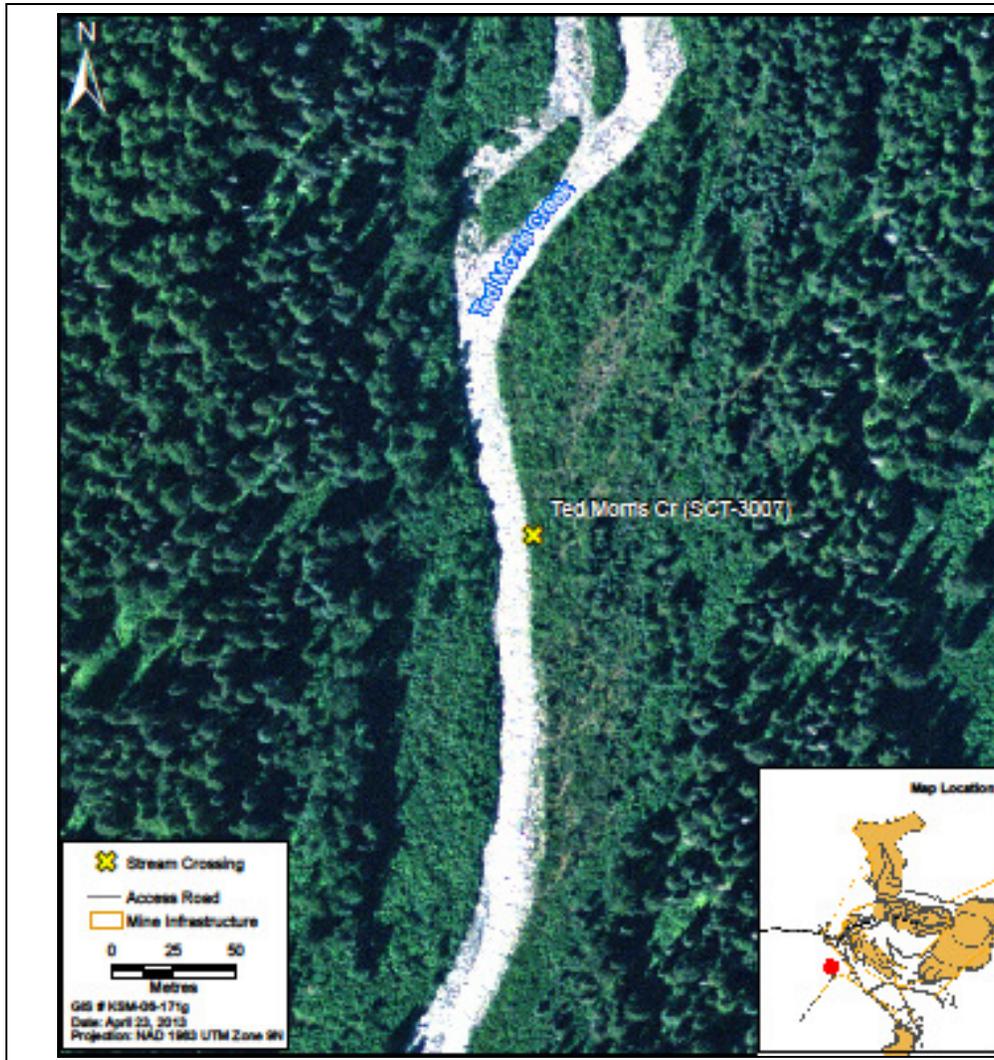


Photo 1 - Downstream view



Photo 2 - Upstream view

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility -Reach 1, TR1  
(North Treaty Creek)



Zone	9	Wetted width (m)	5.5	Bankfull width (m)	5.5	Slope (%)	5.75	Watercourse: Mainstem
Easting	447414	Wetted depth (m)	-	Bankfull depth (m)	0.4	Fish Bearing	Yes	
Northing	6272871	Length (m)	660	Stream Area (m <sup>2</sup> )	3630			

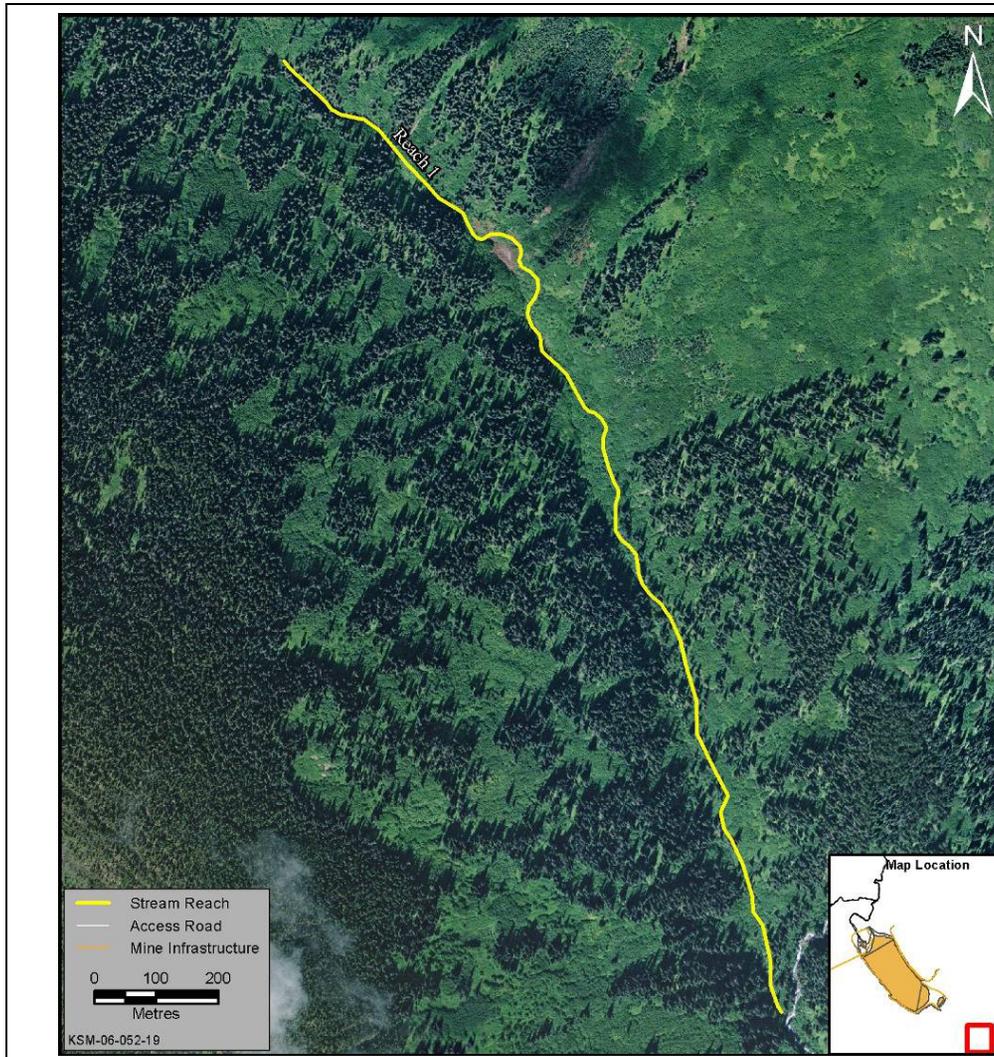


Photo 1 - Downstream view showing vegetation to banks

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - Reach 2, TR2  
(North Treaty Creek)



Zone	9	Wetted width (m)	5.69	Bankfull width (m)	6.07	Slope (%)	2.0	Watercourse: Mainstem
Easting	446613	Wetted depth (m)	0.42	Bankfull depth (m)	0.65	Fish Bearing	Yes	
Northing	6274403	Length (m)	2150	Stream Area (m <sup>2</sup> )	13043			

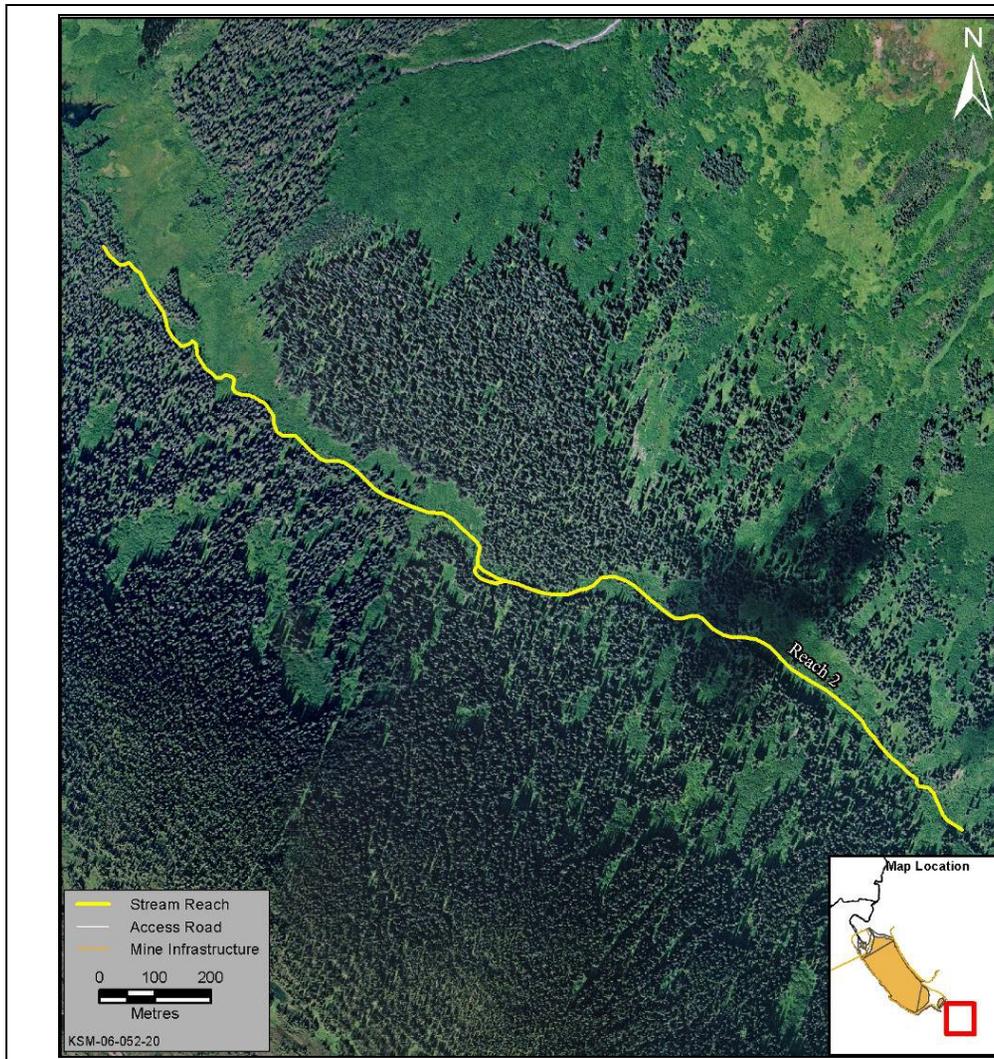


Photo 1 - Upstream view showing vegetation

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1060  
(North Treaty Tributary)



Zone	9	Wetted width (m)	3.3	Bankfull width (m)	3.59	Slope (%)	2.0	Watercourse:
Easting	445377	Wetted depth (m)	0.17	Bankfull depth (m)	0.6	Fish Bearing	Yes	
Northing	6275619	Length (m)	707	Stream Area (m <sup>2</sup> )	2535			

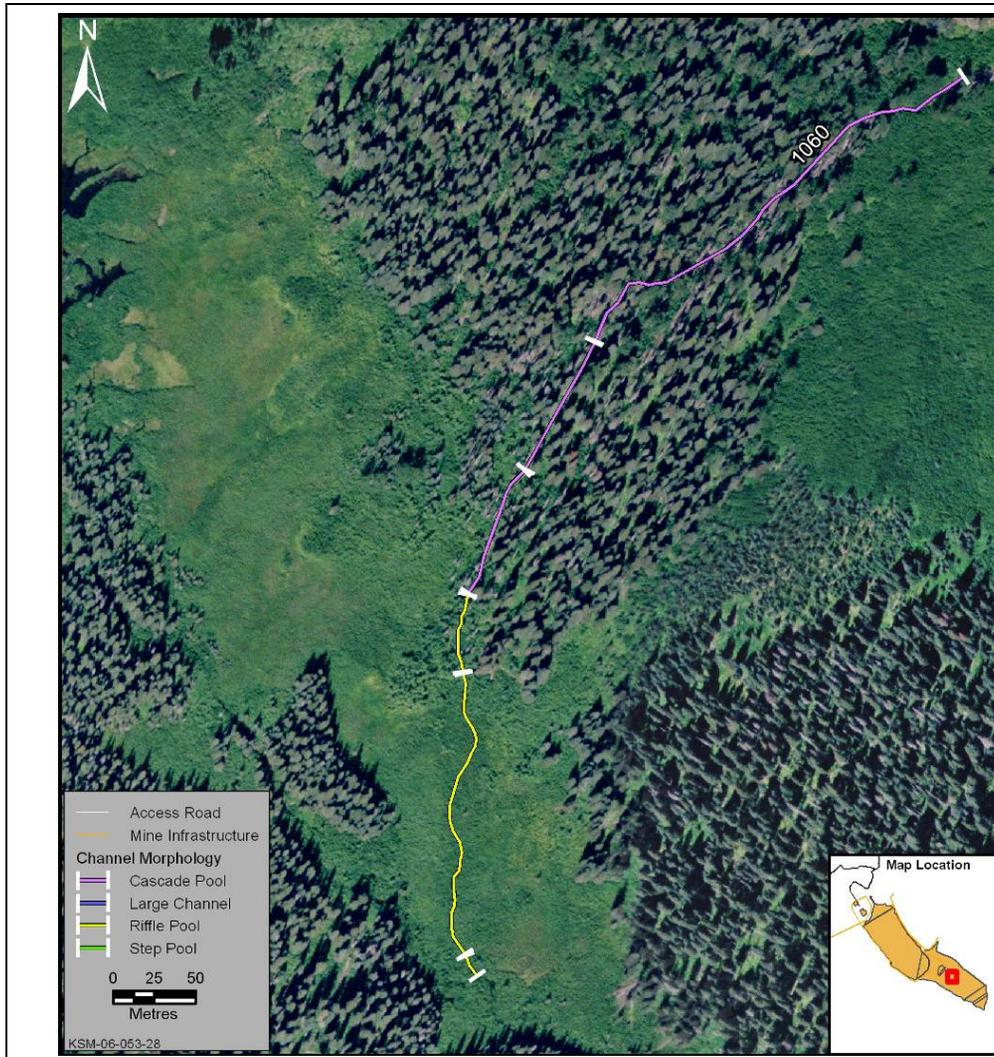


Photo 1 - Showing instream vegetation

# KSM Project Potentially Navigable Waters

Tailings Management  
Facility - 1084



Zone	9	Bankfull width (m)	1.3	Slope (%)	0	Watercourse:
Easting	6275782	Bankfull depth (m)		Fish Bearing	No	
Northing	444891					

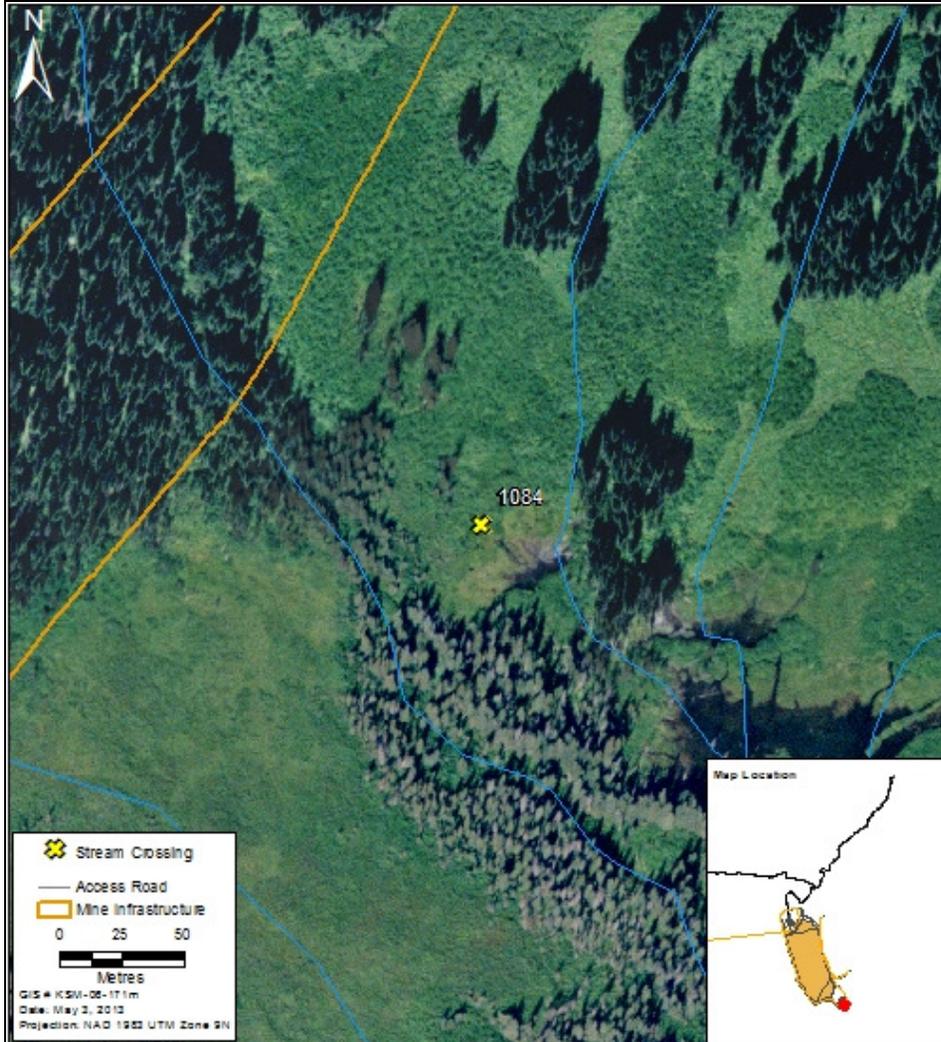


Photo 1 - Upstream view

No downstream photo available

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1010  
(South Teigen Tributary)



Zone	9	Wetted width (m)	6.21	Bankfull width (m)	6.2	Slope (%)	10	Watercourse:
Easting	441404	Wetted depth (m)	0.37	Bankfull depth (m)	0.52	Fish Bearing	Yes	
Northing	6278345	Length (m)	371	Stream Area (m <sup>2</sup> )	2300			

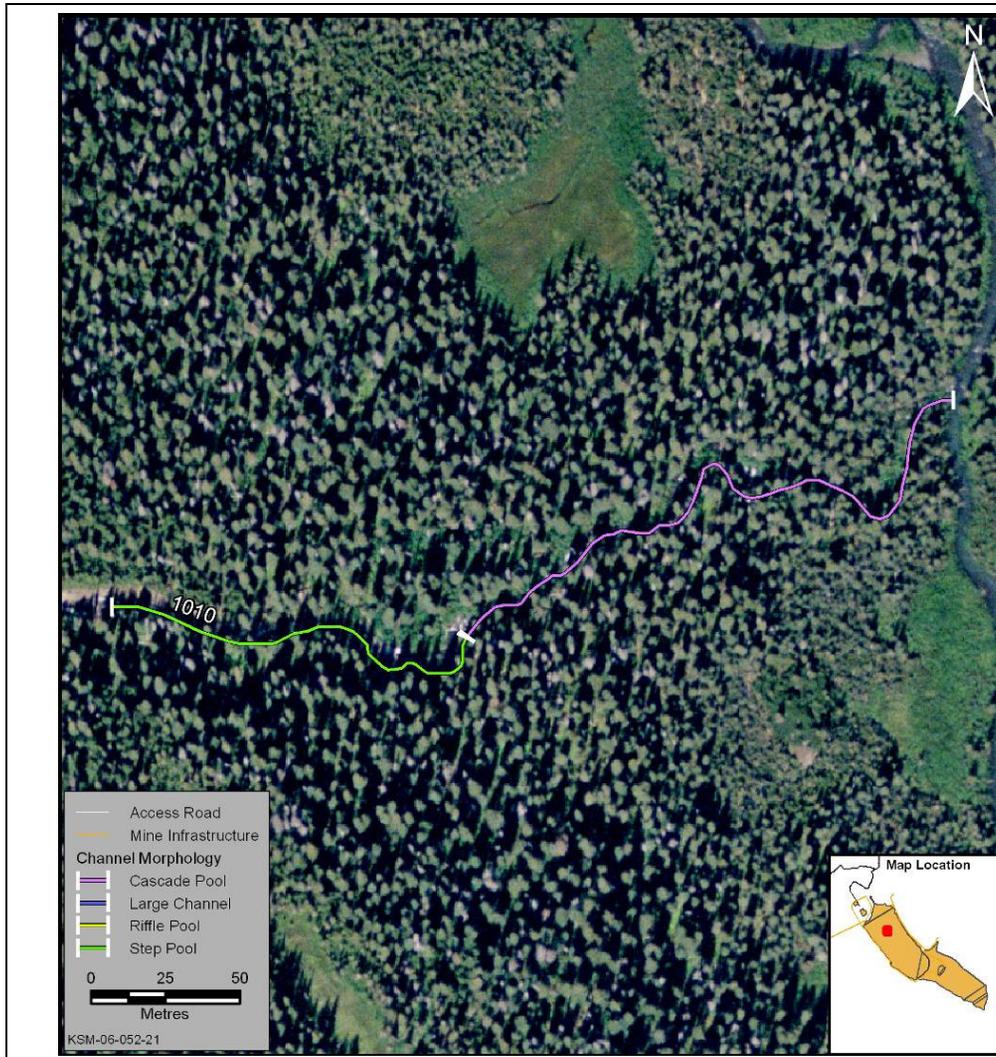


Photo 1 - Upstream view



Photo 2 - Upstream view showing LWD and vertical banks

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1012  
(South Teigen Tributary)



Zone	9	Wetted width (m)	3.4	Bankfull width (m)	3.6	Slope (%)	11.8	Watercourse:
Easting	441490	Wetted depth (m)	0.26	Bankfull depth (m)	0.35	Fish Bearing	Yes	
Northing	6277921	Length (m)	279	Stream Area (m <sup>2</sup> )	1004			

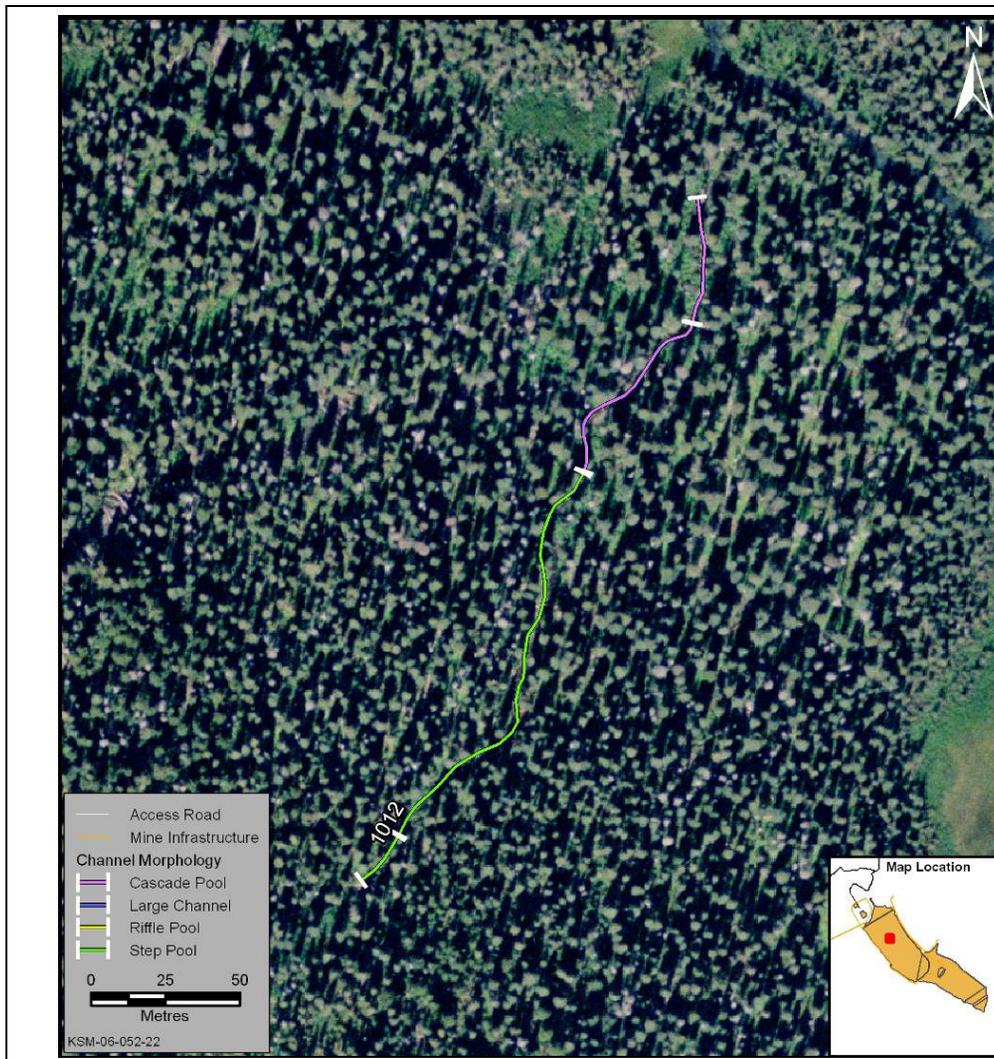


Photo 1 - Downstream view



Photo 2 - Upstream view showing cascades and LWD

# KSM Project Potentially Navigable Waters

Tailings Management  
Facility - 1015



Zone	9	Bankfull width (m)	0.9	Slope (%)	3.0	Watercourse:
Easting	6277686	Bankfull depth (m)	0.7	Fish Bearing	Unknown	
Northing	441810					

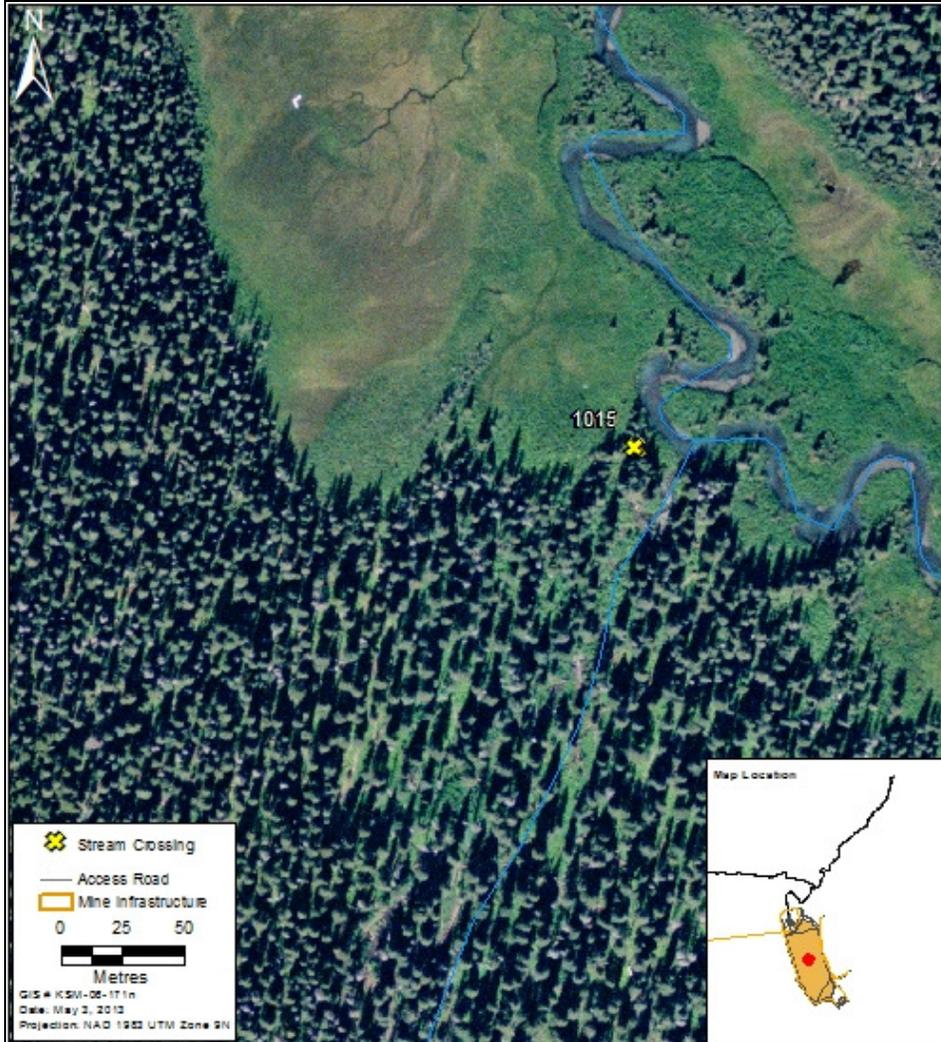


Photo 1 - Upstream view

No downstream photo available

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1016  
(South Teigen Tributary)



Zone	9	Wetted width (m)	2.69	Bankfull width (m)	3.45	Slope (%)	15.5	Watercourse:
Easting	441773	Wetted depth (m)	0.26	Bankfull depth (m)	0.41	Fish Bearing	Yes	
Northing	6277585	Length (m)	520	Stream Area (m <sup>2</sup> )	1794			

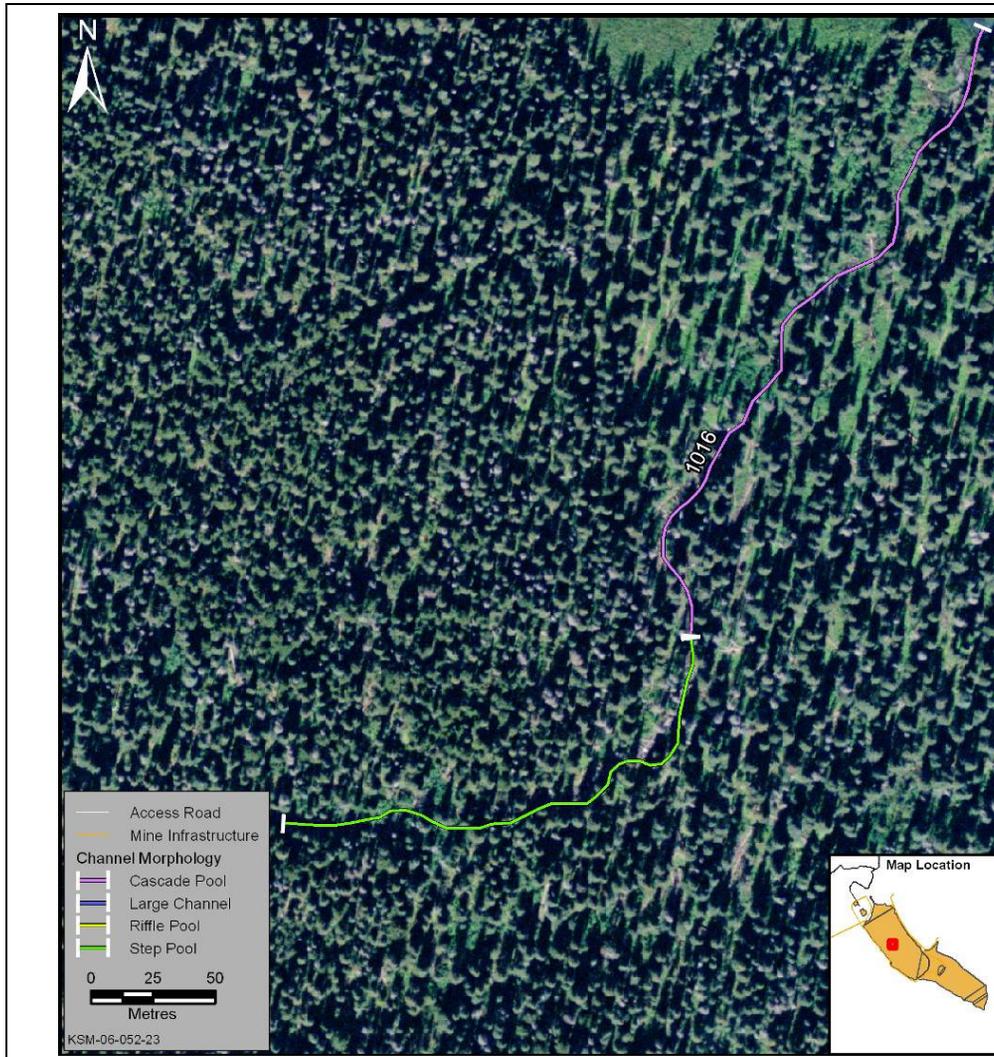


Photo 1 - Across view showing numerous fallen trees



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1017  
(South Teigen Tributary)



Zone	9	Wetted width (m)	3.5	Bankfull width (m)	3.5	Slope (%)	2	Watercourse:
Easting	441928	Wetted depth (m)	-	Bankfull depth (m)	-	Fish Bearing	Yes	
Northing	6277672	Length (m)	70	Stream Area (m <sup>2</sup> )	245			



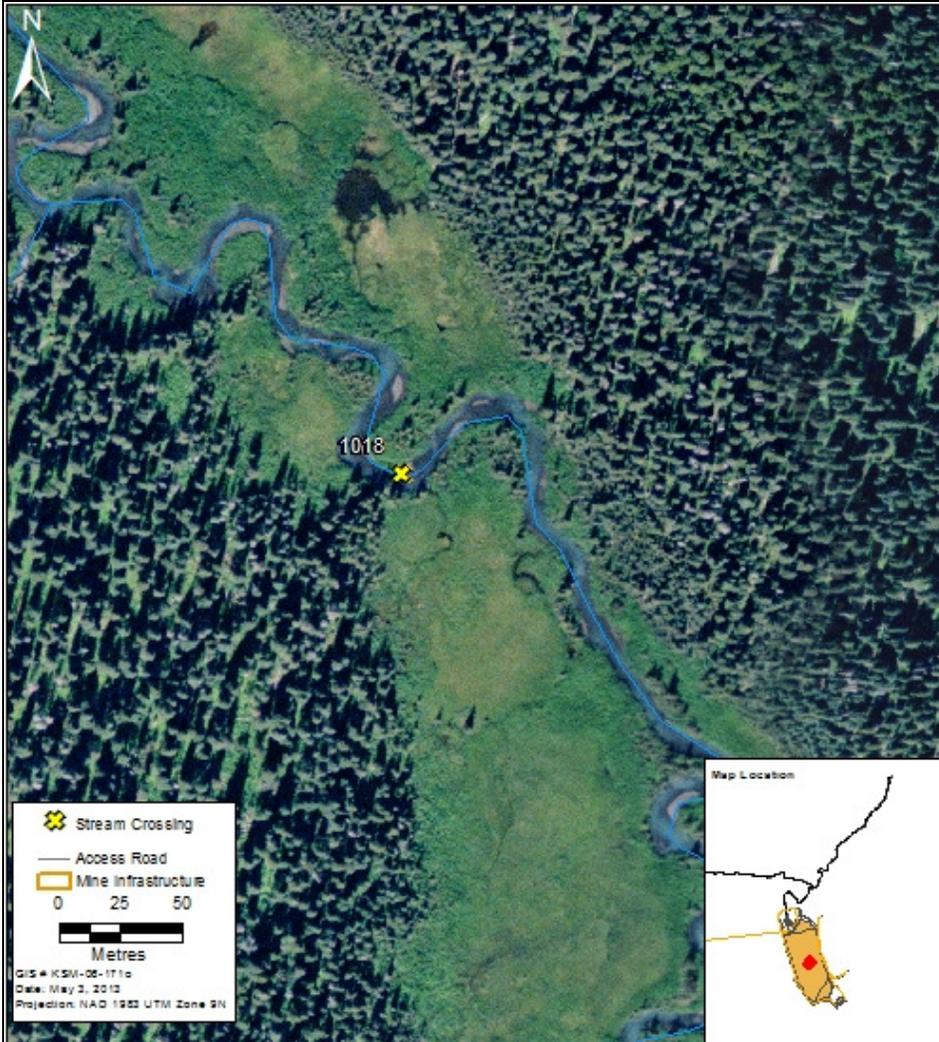
Photo 1 - Upstream view

# KSM Project Potentially Navigable Waters

Tailings Management  
Facility - 1018



Zone	9	Bankfull width (m)	1.5	Slope (%)	0	Watercourse:
Easting	441949	Bankfull depth (m)		Fish Bearing	Unknown	
Northing	6277567					



No upstream photo available

No downstream photo available

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1029  
(South Teigen Tributary)



Zone	9	Wetted width (m)	3.0	Bankfull width (m)	3.0	Slope (%)	1.0	Watercourse:
Easting	443597	Wetted depth (m)	0.29	Bankfull depth (m)	0.4	Fish Bearing	Yes	
Northing	6276031	Length (m)	448	Stream Area (m <sup>2</sup> )	1344			

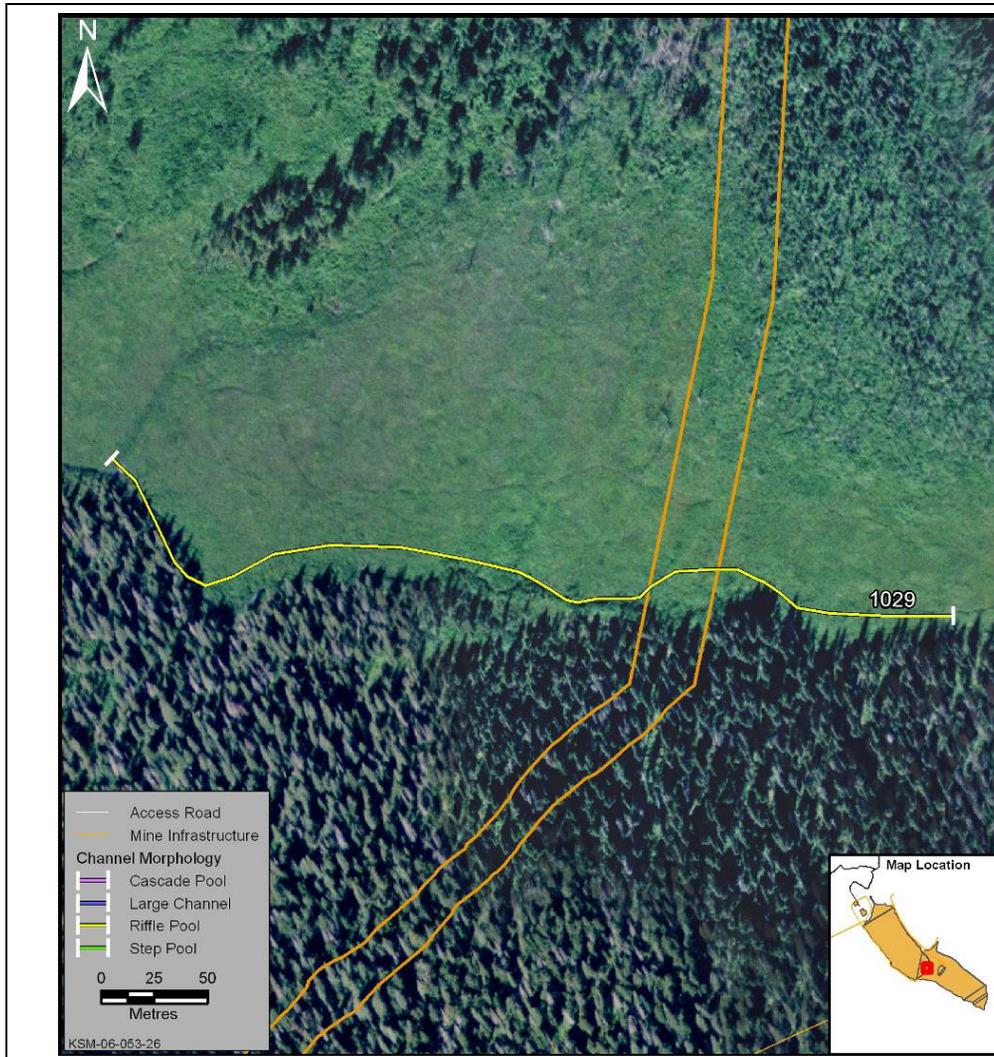


Photo 1 - Downstream view, showing overhanging vegetation

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - 1110  
(South Teigen Tributary)



Zone	9	Wetted width (m)	5.25	Bankfull width (m)	5.25	Slope (%)	2.0	Watercourse:
Easting	440727	Wetted depth (m)	-	Bankfull depth (m)	-	Fish Bearing	Yes	
Northing	6279725	Length (m)	125	Stream Area (m <sup>2</sup> )	656			

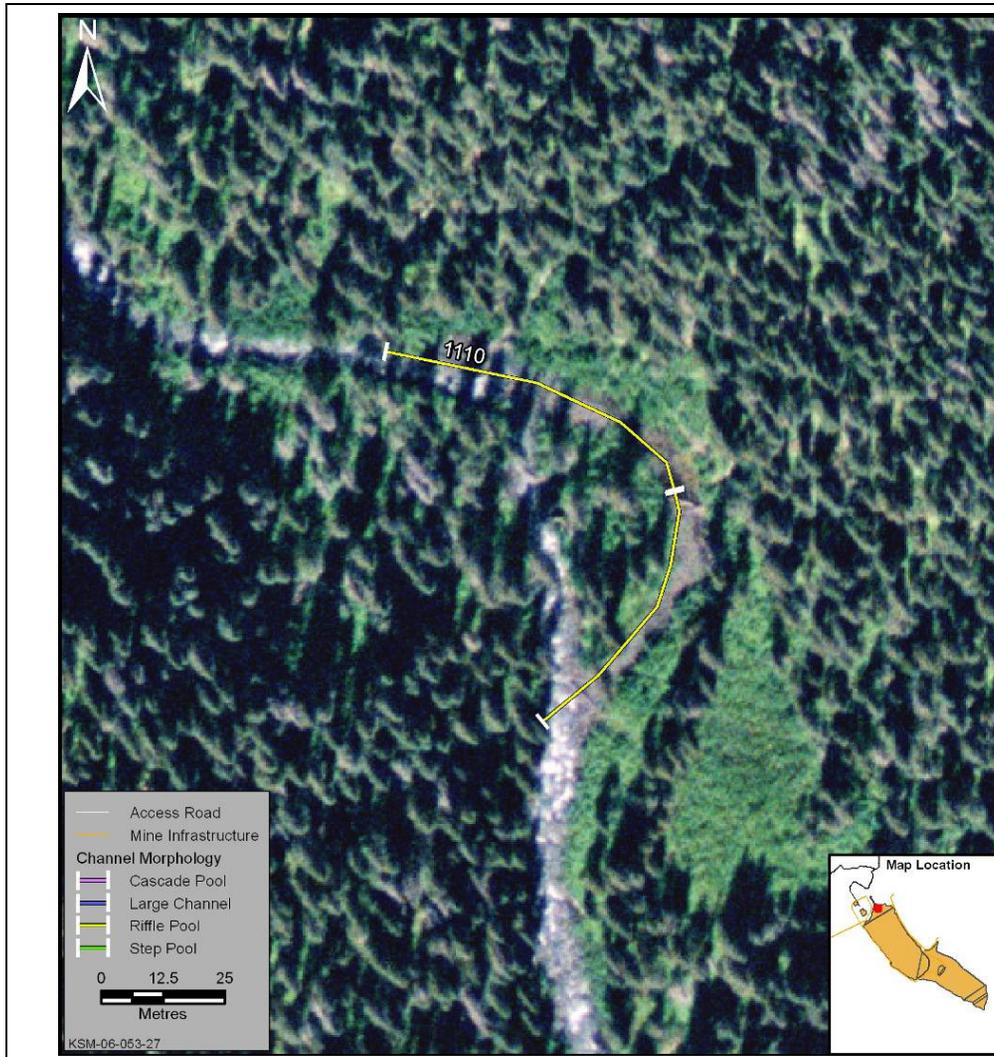


Photo 1 - Downstream view showing boulder/cobble field

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - T4  
(South Teigen Creek)



Zone	9	Wetted width (m)	6.28	Bankfull width (m)	6.7	Slope (%)	2.75	Watercourse: Mainstem, Reach 4
Easting	440415	Wetted depth (m)	0.56	Bankfull depth (m)	0.97	Fish Bearing	Yes	
Northing	6280904	Length (m)	2376	Stream Area (m <sup>2</sup> )	15,922			

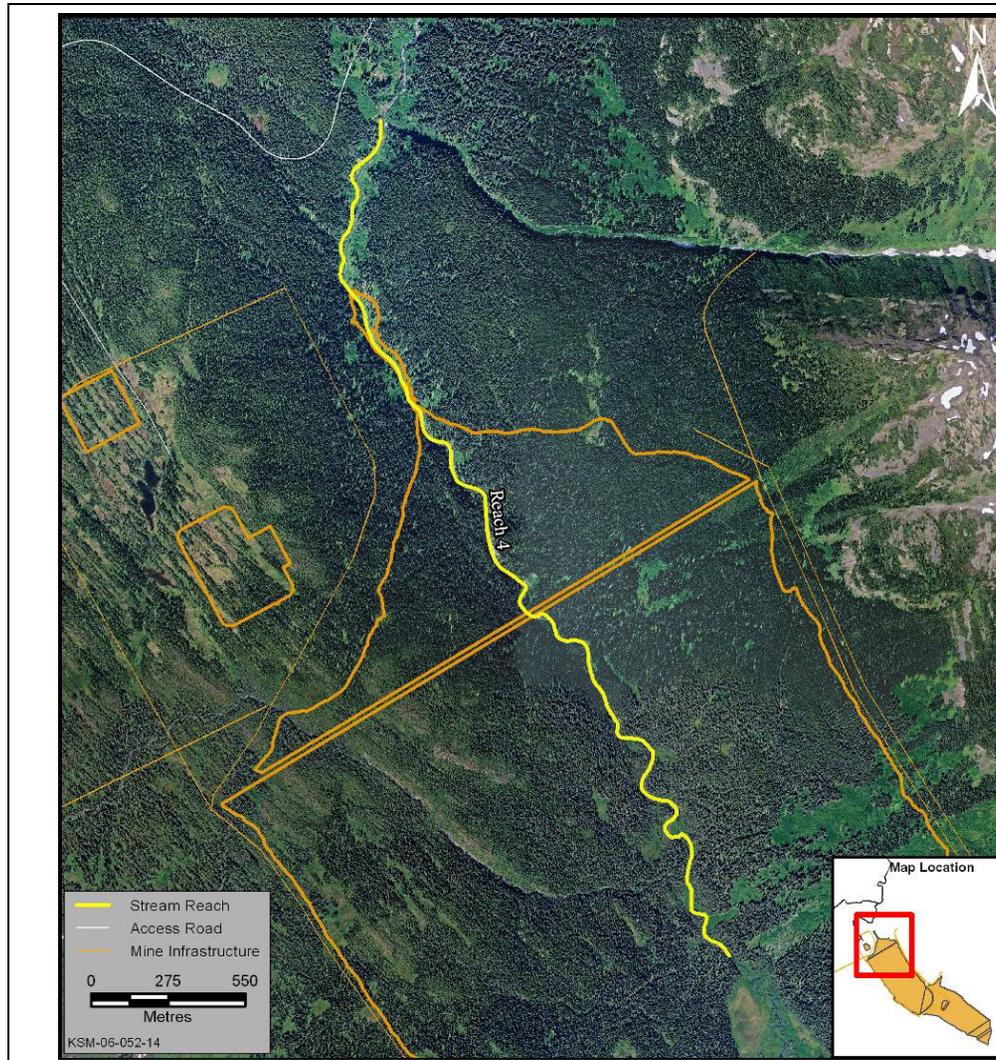


Photo 1 - Downstream view with LWD



Photo 2 - Upstream view

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - T5  
(South Teigen Creek)



Zone	9	Wetted width (m)	6.14	Bankfull width (m)	6.44	Slope (%)	1	Watercourse: Mainstem, Reach 5
Easting	441628	Wetted depth (m)	0.51	Bankfull depth (m)	0.84	Fish Bearing	Yes	
Northing	6278058	Length (m)	2964	Stream Area (m <sup>2</sup> )	19,073			

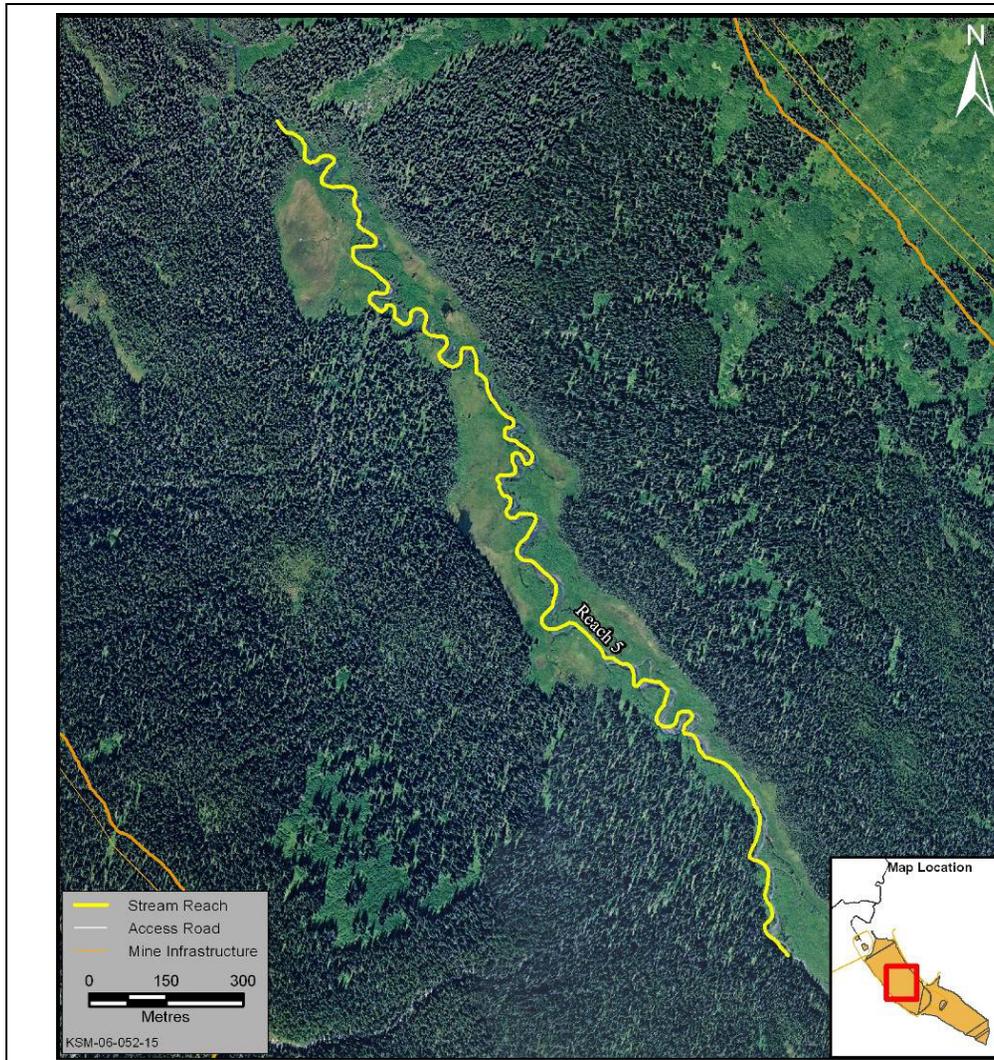


Photo 1 - Downstream view



Photo 2 - Upstream view

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - T6  
(South Teigen Creek)



Zone	9	Wetted width (m)	4.61	Bankfull width (m)	5.06	Slope (%)	5	Watercourse: Mainstem, Reach 6
Easting	442625	Wetted depth (m)	0.28	Bankfull depth (m)	0.55	Fish Bearing	Yes	
Northing	6276430	Length (m)	1220	Stream Area (m <sup>2</sup> )	6167			

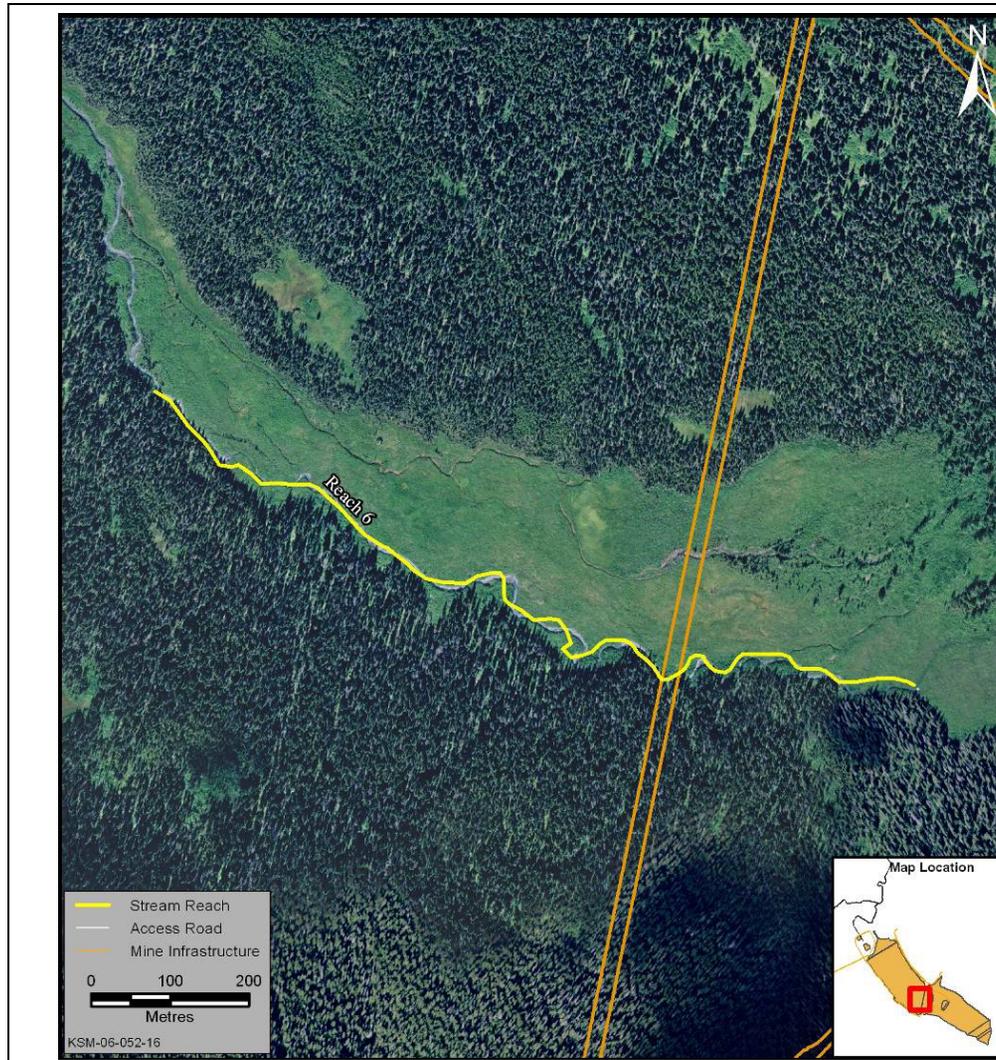


Photo 1 - Upstream view

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - T7  
(South Teigen Creek)



Zone	9	Wetted width (m)	6.0	Bankfull width (m)	6.0	Slope (%)	-	Watercourse: Mainstem, Reach 7
Easting	443585	Wetted depth (m)	0.3	Bankfull depth (m)	0.3	Fish Bearing	Yes	
Northing	6276059	Length (m)	261	Stream Area (m <sup>2</sup> )	1566			

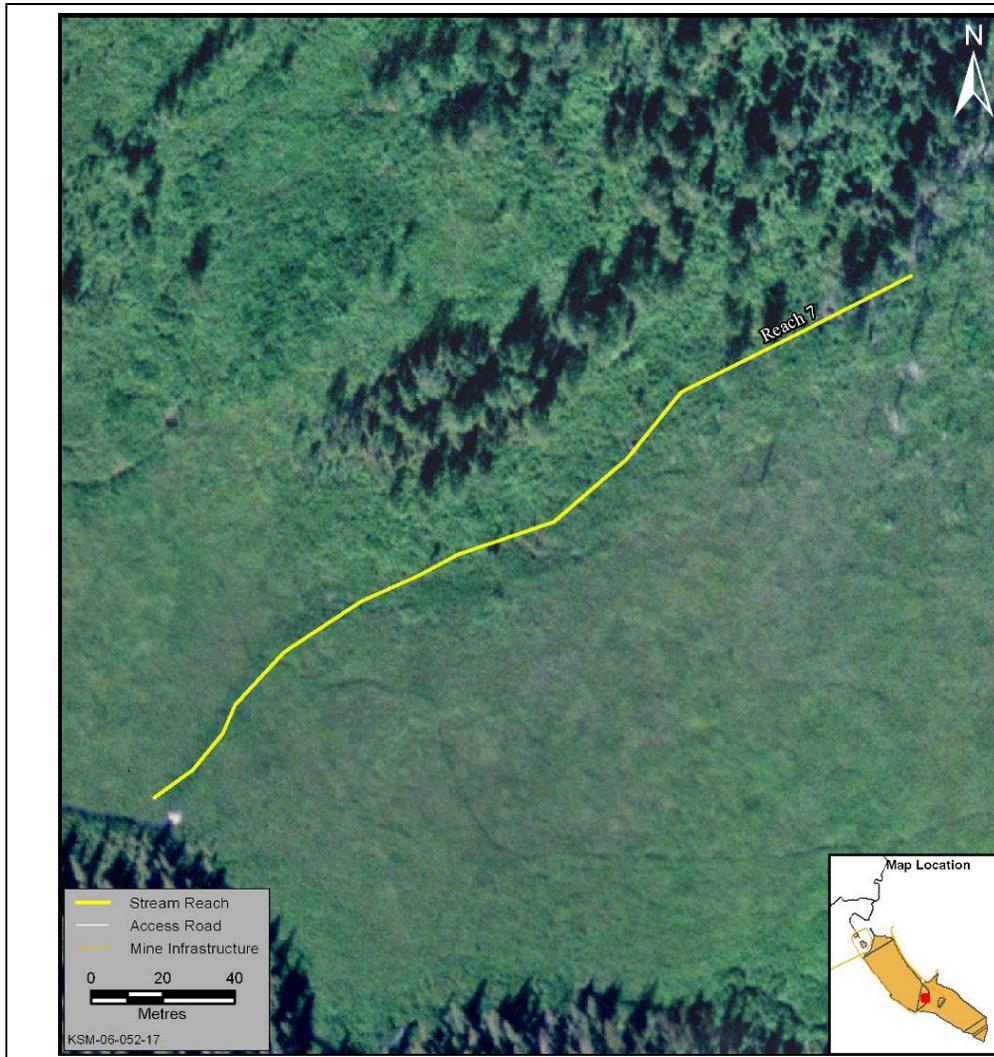


Photo 1 - Upstream view showing vegetation

# KSM Project Potentially Navigable Waters

Tailing Management  
Facility - T8  
(South Teigen Creek)



Zone	9	Wetted width (m)	7.8	Bankfull width (m)	8.0	Slope (%)	6	Watercourse: Mainstem, Reach 8
Easting	443796	Wetted depth (m)	0.5	Bankfull depth (m)	0.7	Fish Bearing	Yes	
Northing	6276204	Length (m)	808	Stream Area (m <sup>2</sup> )				

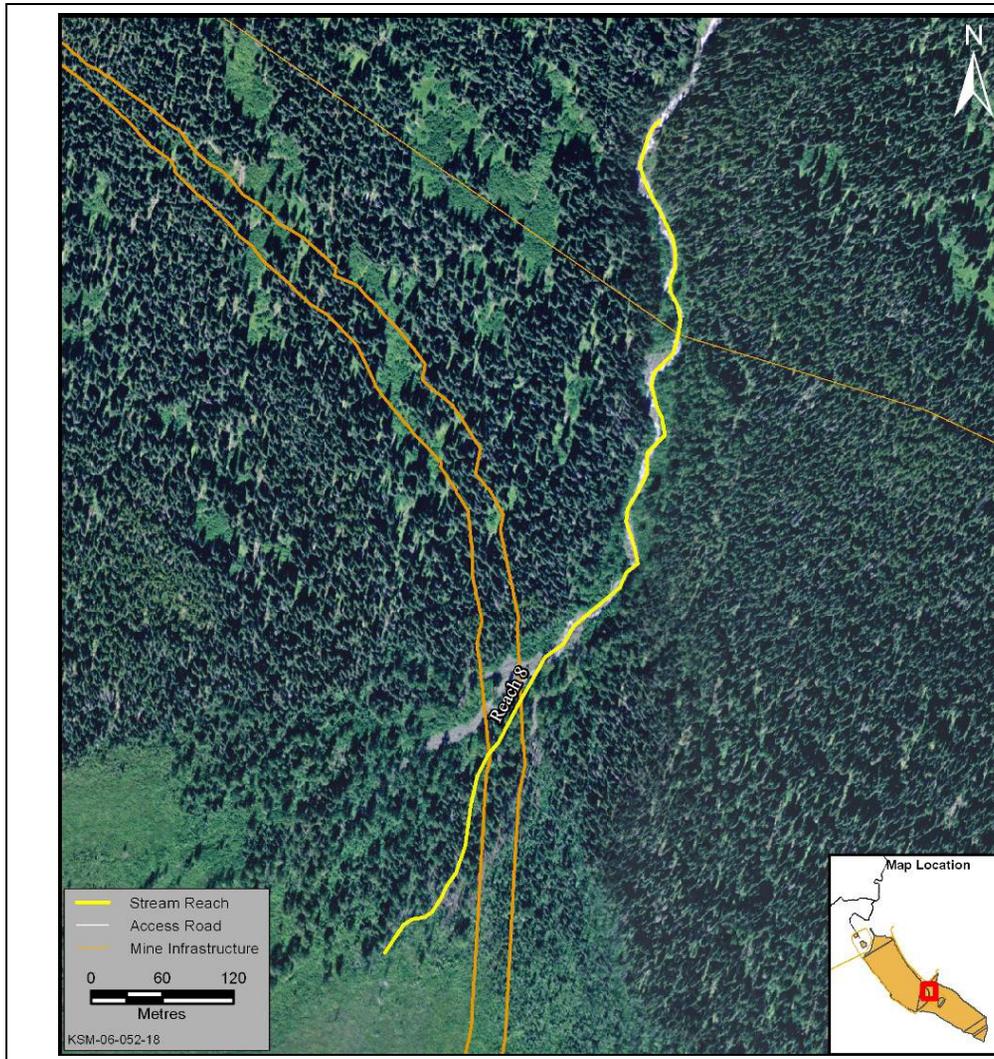


Photo 1 - Upstream view showing boulders

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 143



Zone	9	Bankfull width (m)	5.0	Slope (%)	35	Watercourse:
Easting	439255	Bankfull depth (m)	0.4	Fish Bearing	No	
Northing	6273662					

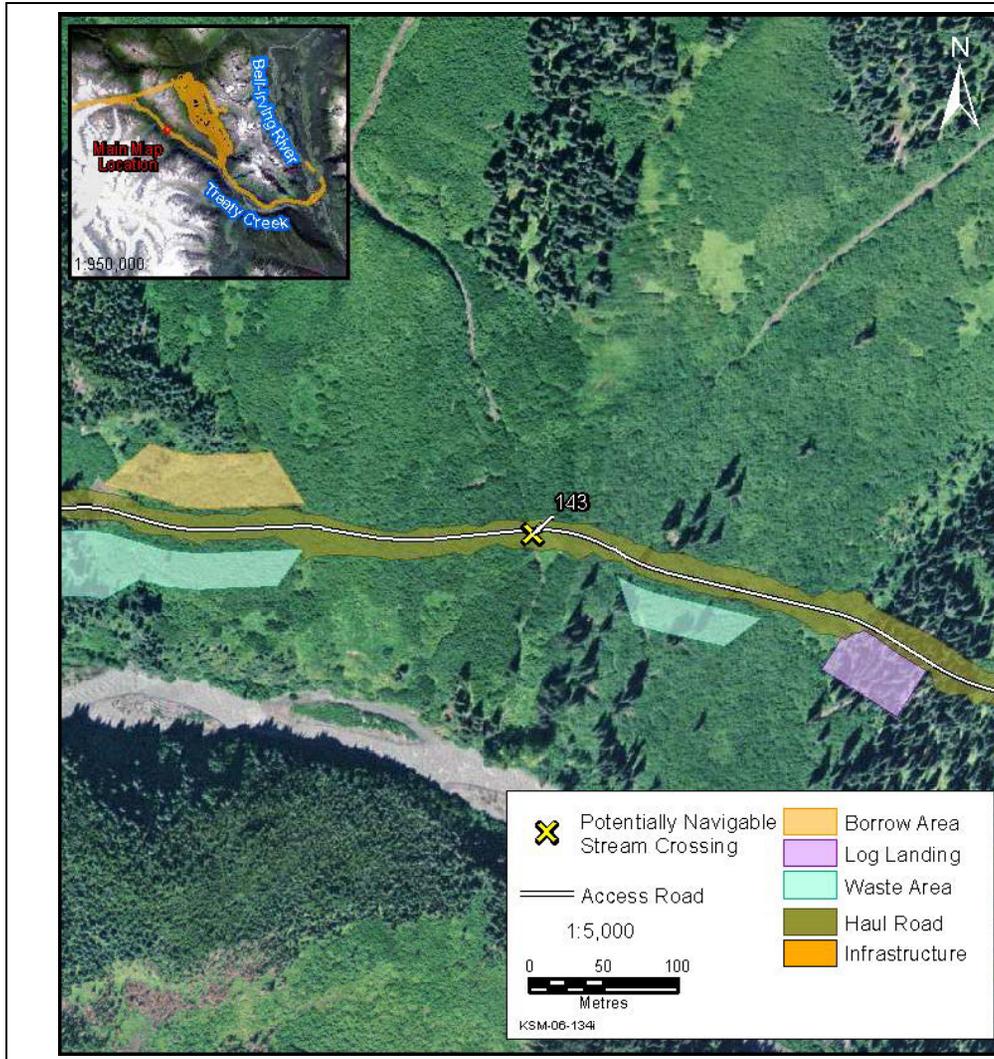


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 141-2



Zone	9	Bankfull width (m)	8.0	Slope (%)	31	Watercourse:
Easting	439755	Bankfull depth (m)	6.0	Fish Bearing	No	
Northing	6273556					

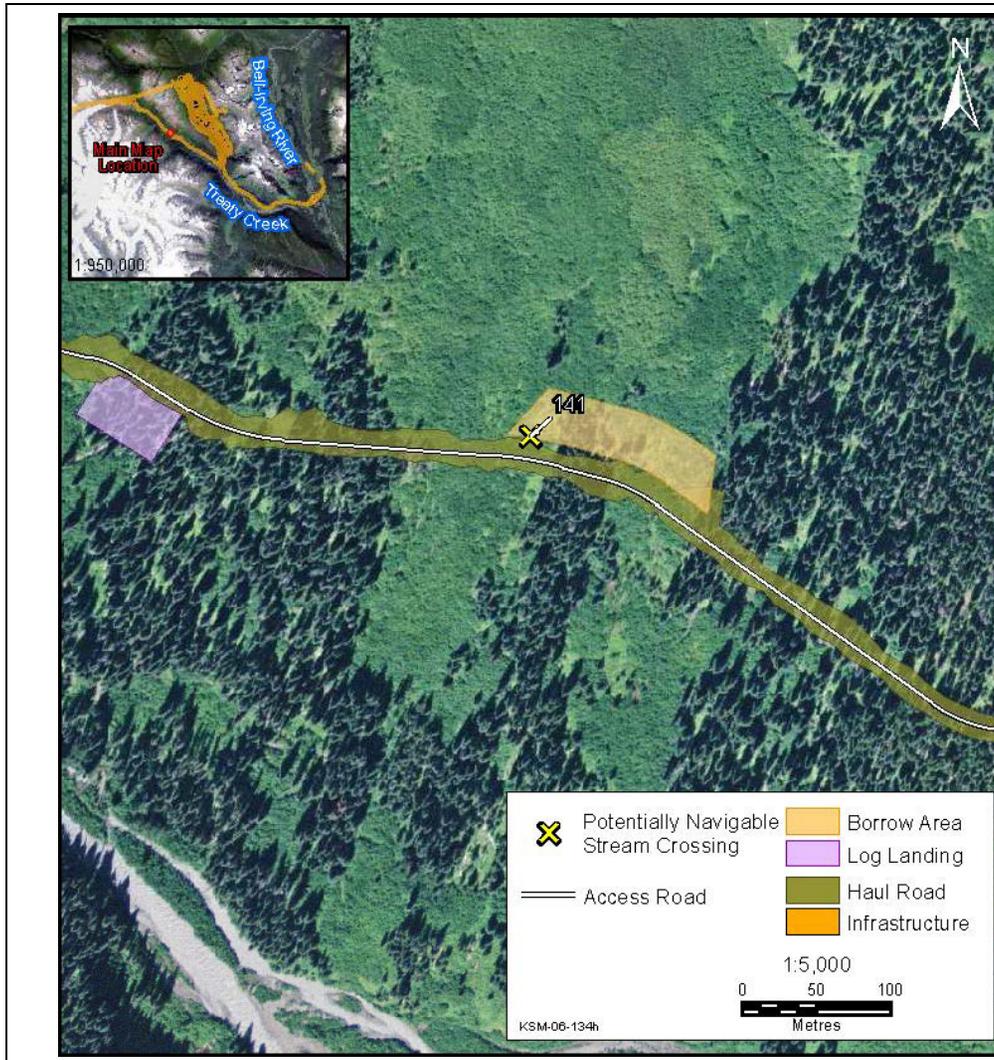


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 243



Zone	9	Bankfull width (m)	4.2	Slope (%)	18	Watercourse:
Easting	443508	Bankfull depth (m)	0.5	Fish Bearing	Yes	
Northing	6272703					

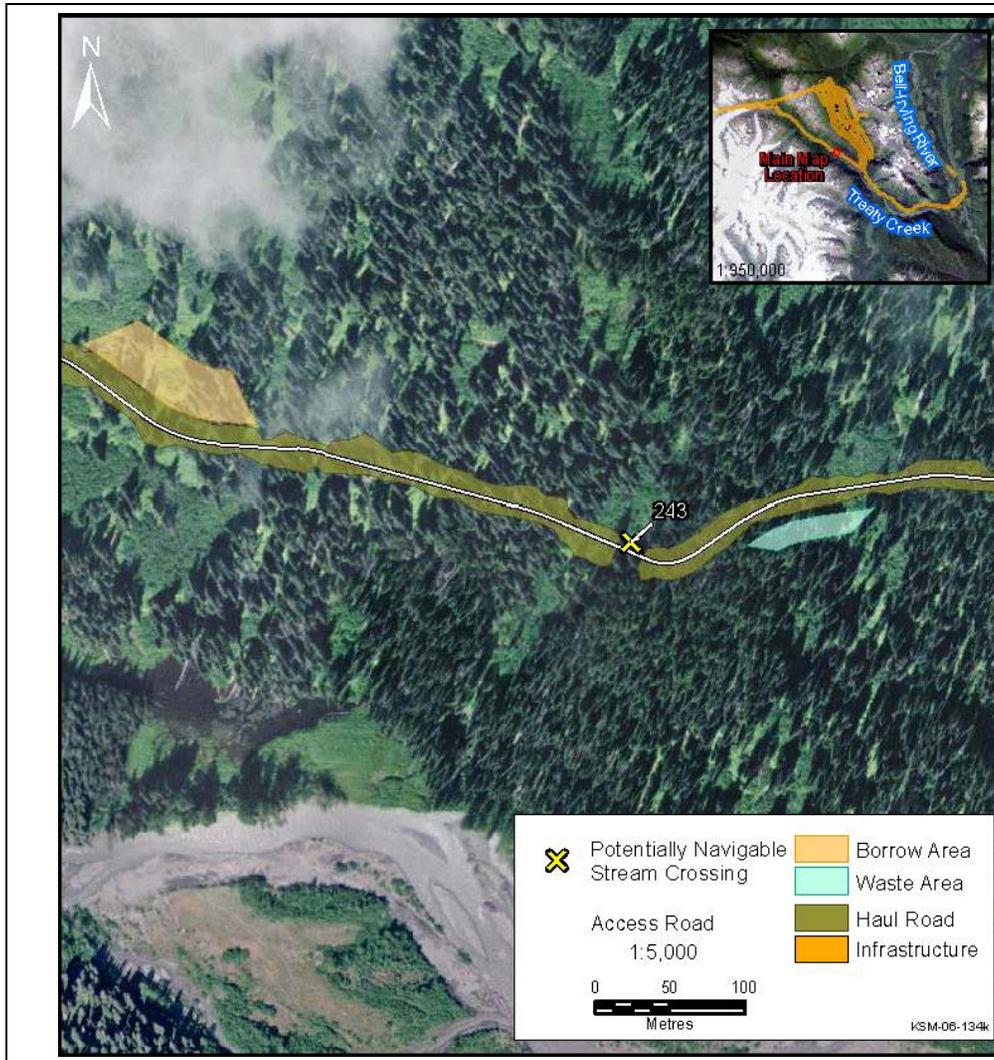


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 139



Zone	9	Bankfull width (m)	3.2	Slope (%)	36	Watercourse:
Easting	443781	Bankfull depth (m)	0.7	Fish Bearing	No	
Northing	6272747					

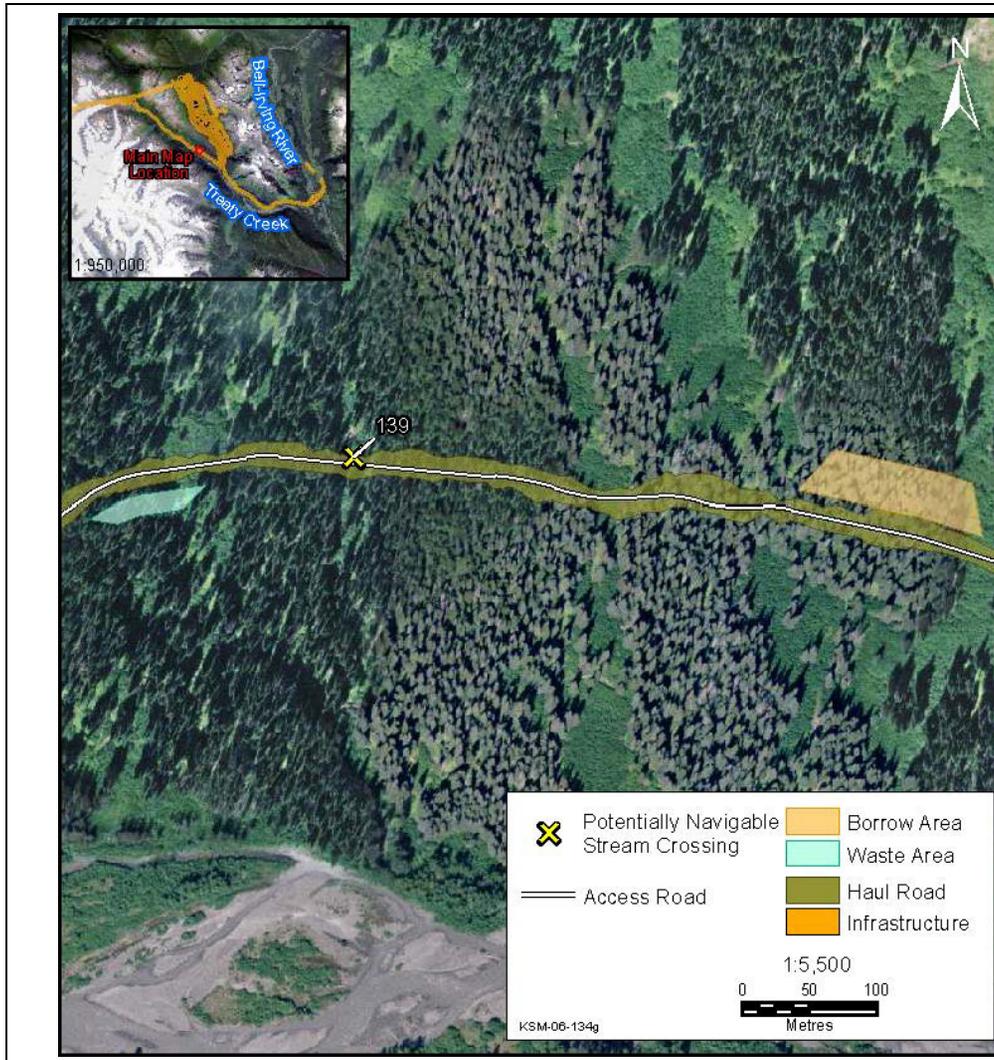


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 210



Zone	9	Bankfull width (m)	4.0	Slope (%)	16	Watercourse:
Easting	455190	Bankfull depth (m)		Fish Bearing	Yes	
Northing	6269430					

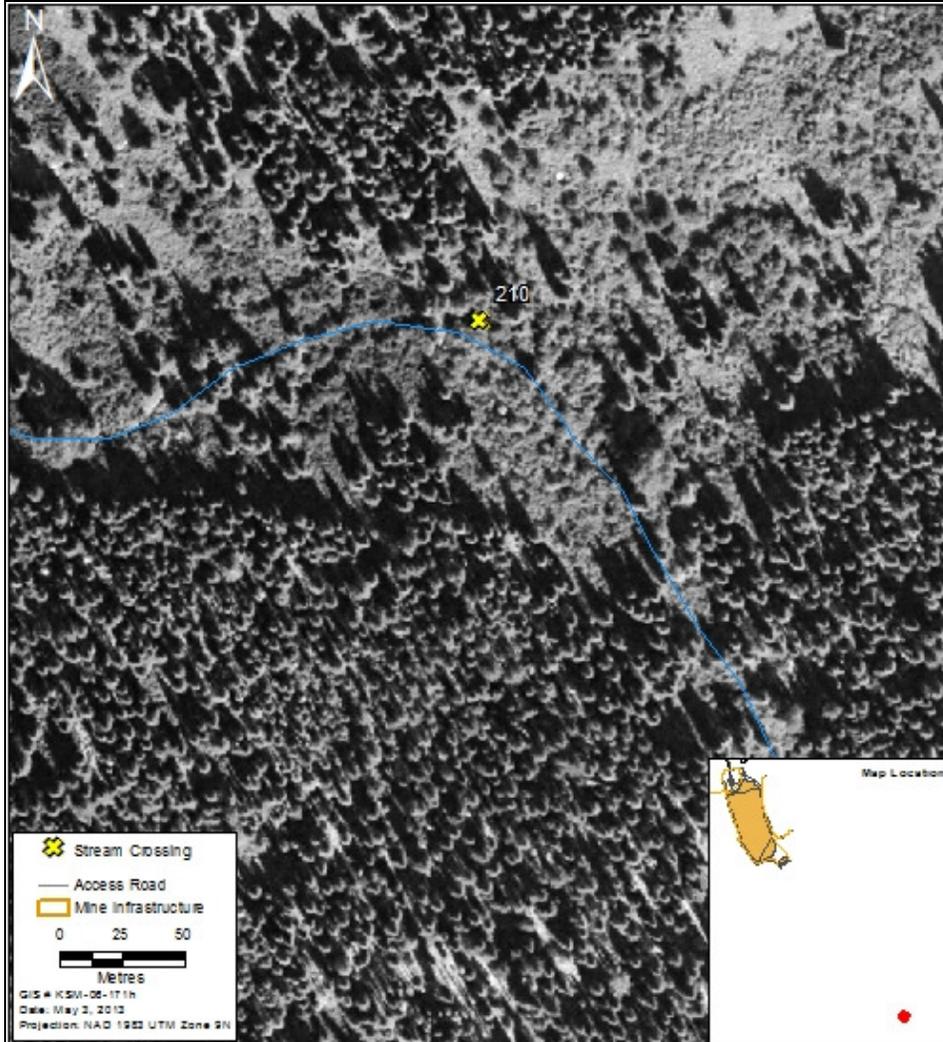


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 4026



Zone	9	Bankfull width (m)	2.5	Slope (%)	11	Watercourse:
Easting	435155	Bankfull depth (m)	0.6	Fish Bearing	No	
Northing	6275052					

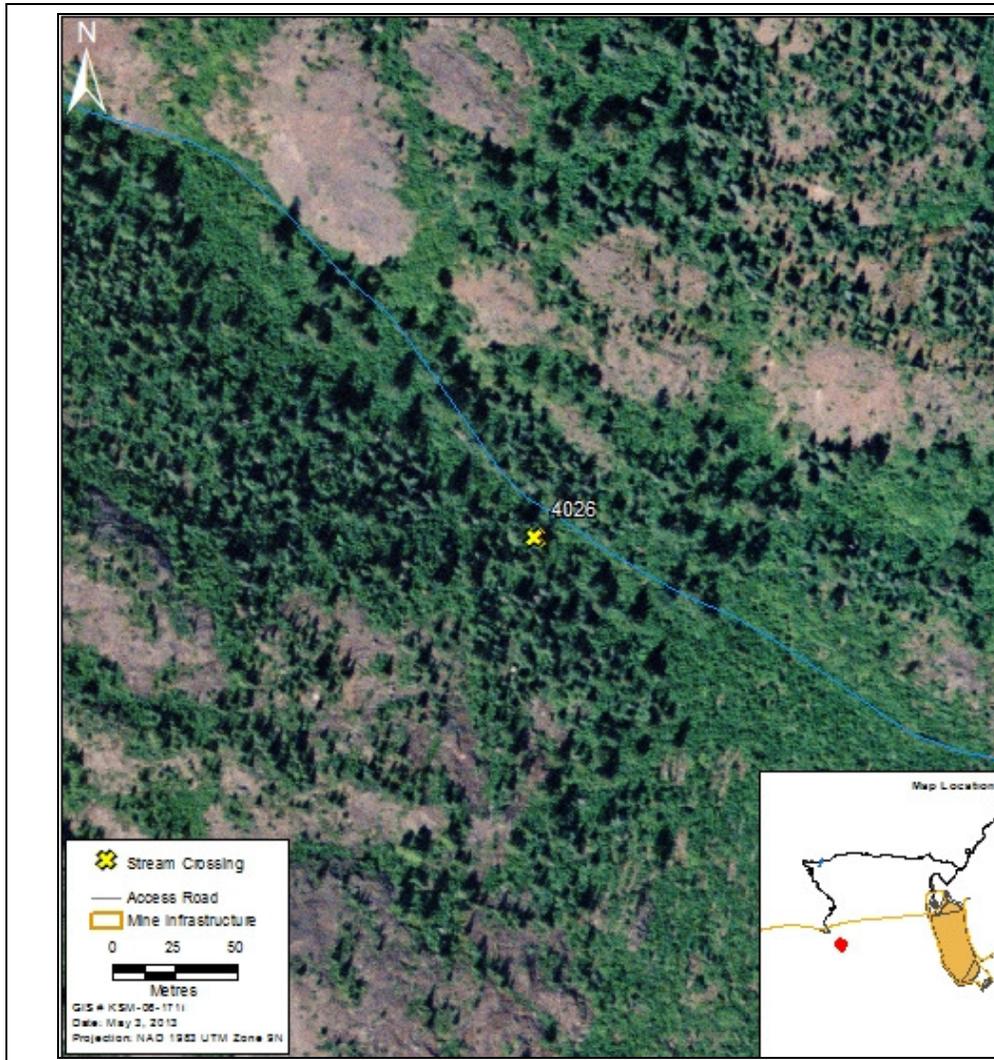


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 114



Zone	9	Bankfull width (m)	15.5	Slope (%)	20	Watercourse:
Easting	448987	Bankfull depth (m)	0.6	Fish Bearing	No	
Northing	6270402					

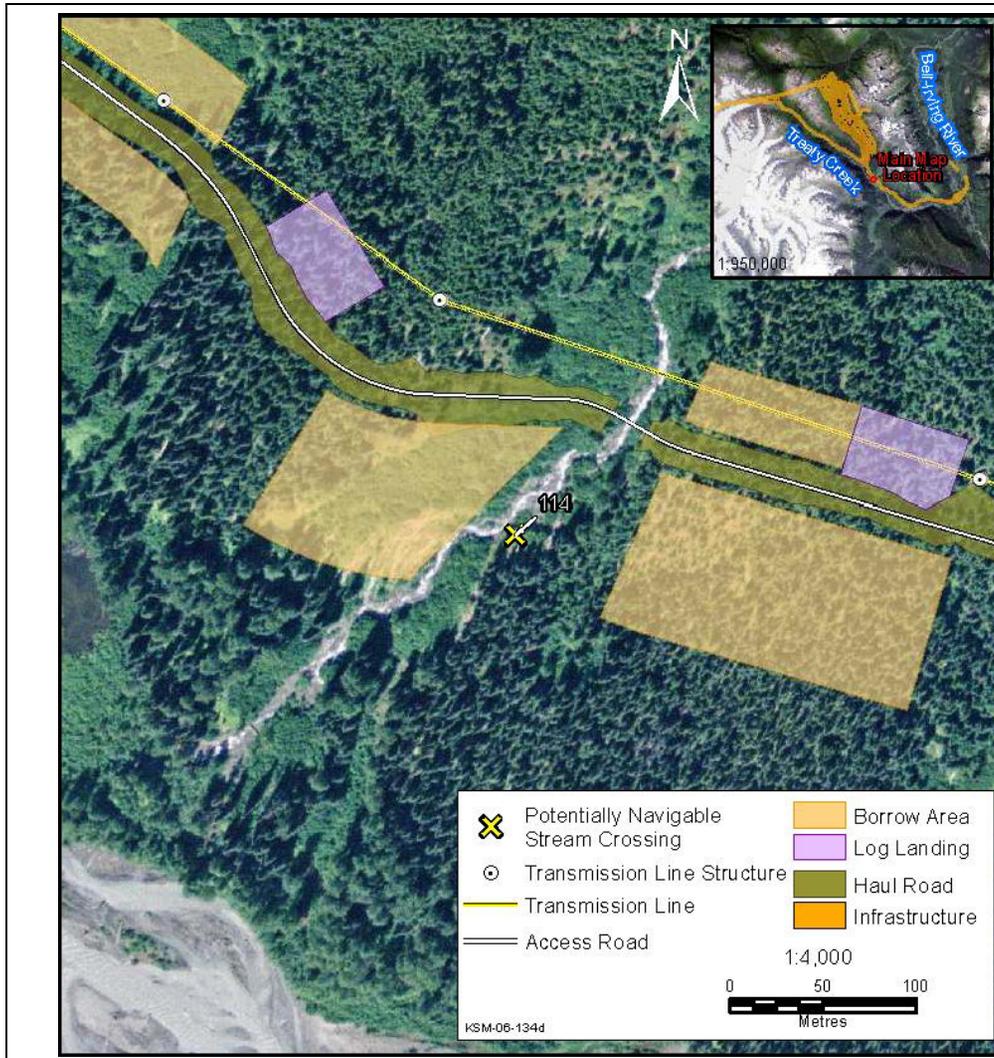


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 244



Zone	9	Bankfull width (m)	5.5	Slope (%)	18	Watercourse:
Easting	452180	Bankfull depth (m)	1.2	Fish Bearing	Yes	
Northing	6269610					



No upstream photos available

No downstream photos available

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 100



Zone	9	Bankfull width (m)	63.3	Slope (%)	19	Watercourse:
Easting	457091	Bankfull depth (m)	3.0	Fish Bearing	Yes	
Northing	6270729					

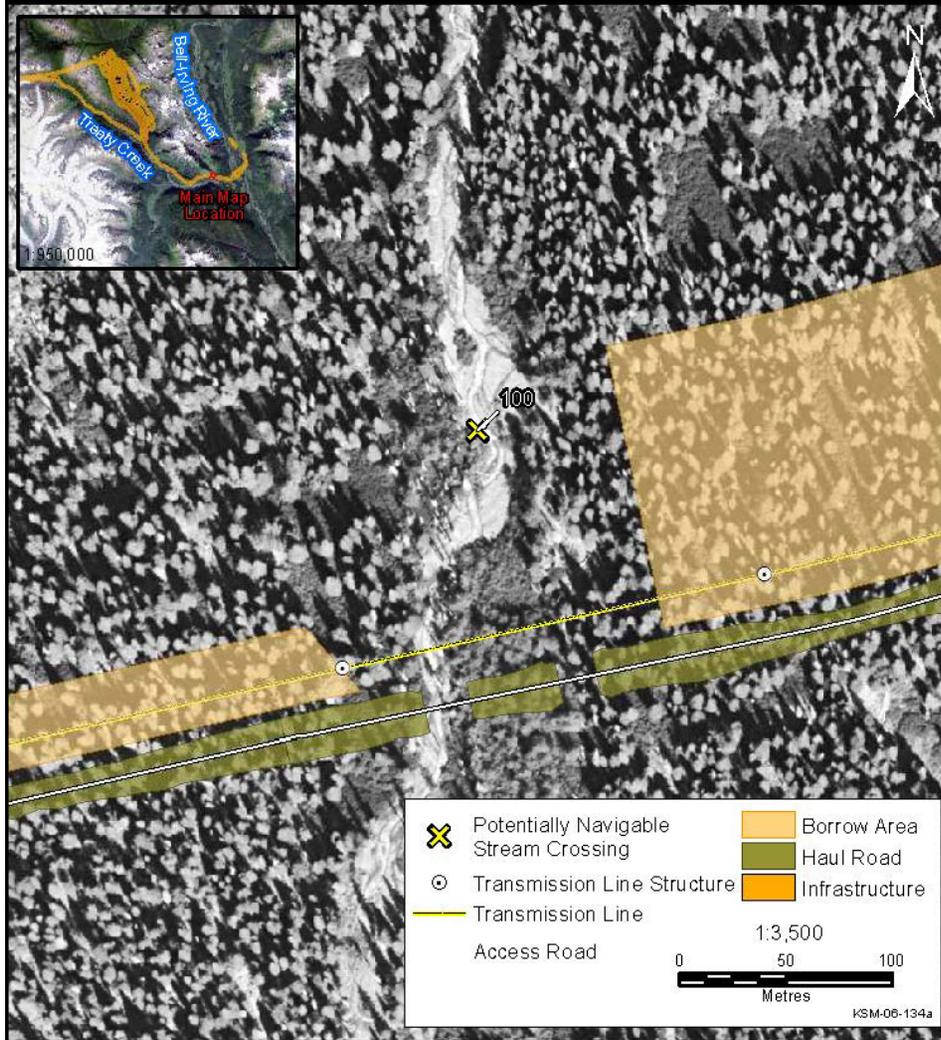


Photo 1 - Across view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 4004  
(Bell-Irving River)



Zone	9	Bankfull width (m)	70	Slope (%)	0.5	Watercourse:
Easting	460039	Bankfull depth (m)		Fish Bearing	Yes	
Northing	6272653					

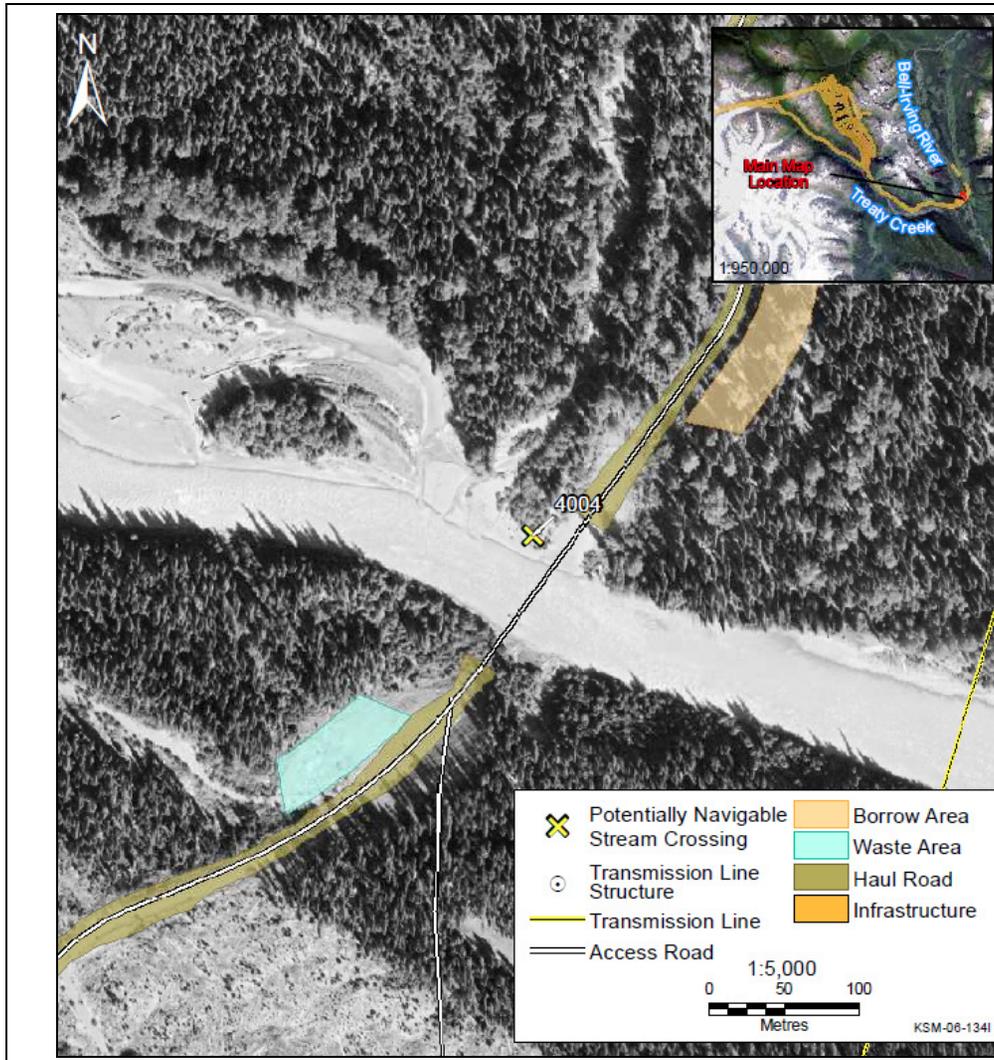


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access  
Road - 107



Zone	9	Bankfull width (m)	5.7	Slope (%)	34	Watercourse:
Easting	433793	Bankfull depth (m)	0.4	Fish Bearing	No	
Northing	66275602					

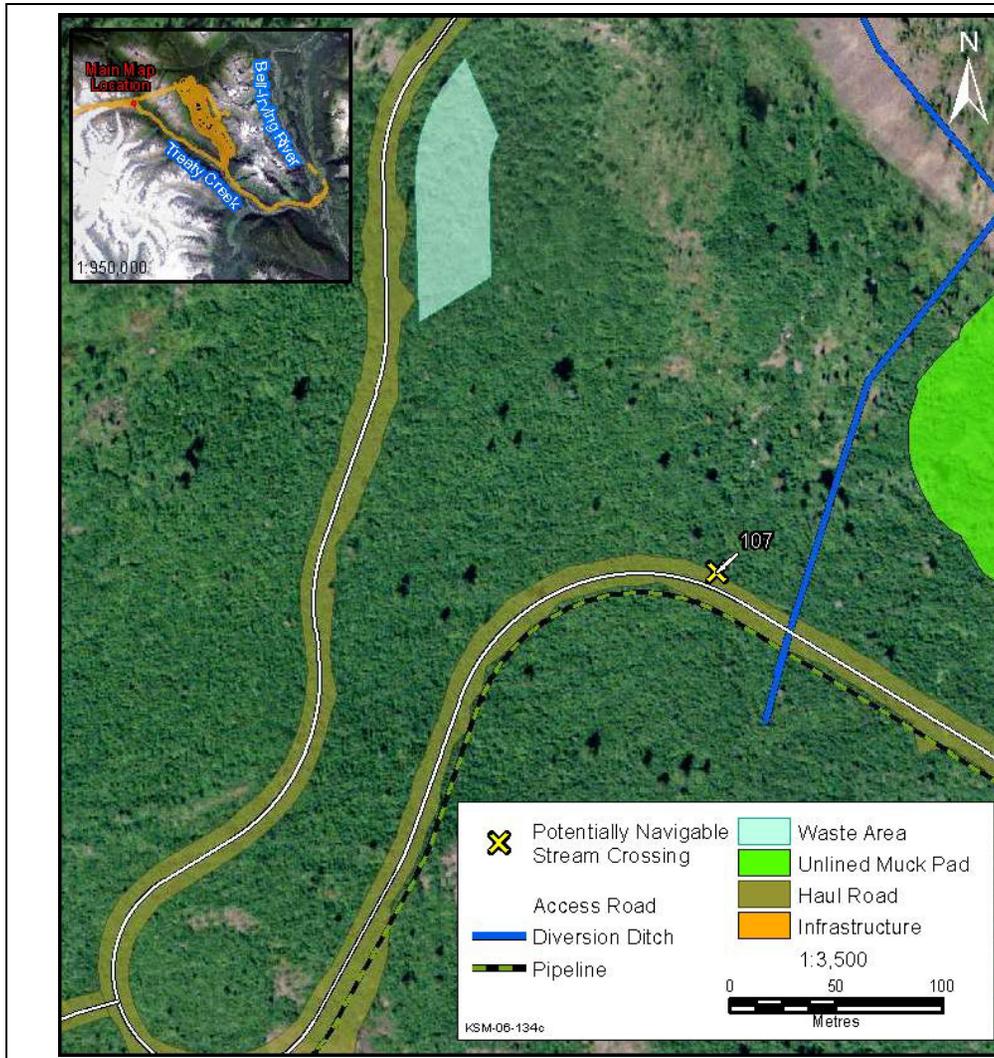


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Treaty Creek Access Road & Fish  
Habitat Compensation- 4011  
(N. Treaty Creek)



Zone	9	Bankfull width (m)	8.9	Slope (%)	2.7	Watercourse: (Treaty Creek 1) Intake would be located on N. Treaty Creek, not Treaty Creek
Easting	447556	Bankfull depth (m)	1.1	Fish Bearing	Yes	
Northing	6271912					

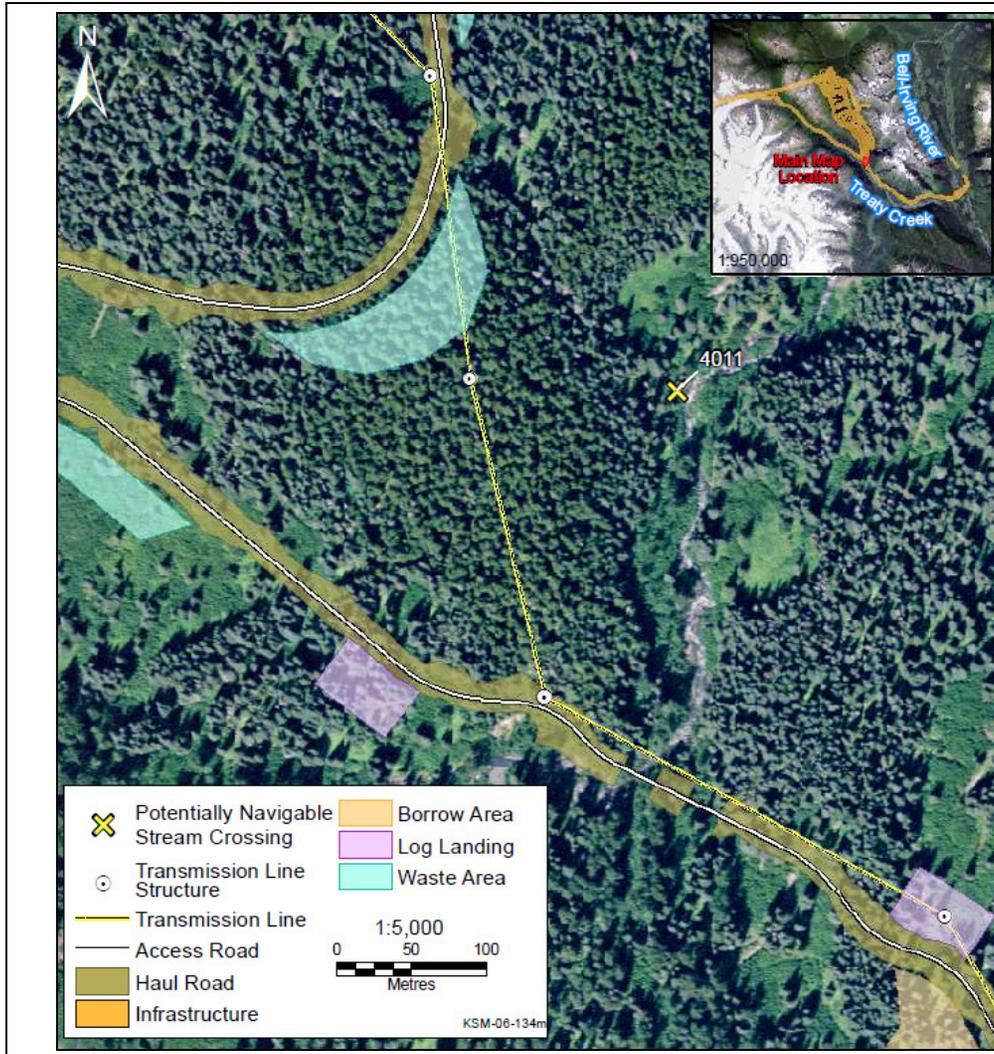


Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Fish Habitat  
Compensation - TC1  
(Teigen Creek) - TEC4



Zone	9	Bankfull width (m)	35	Slope (%)	1.0	Watercourse:
Easting	439735	Bankfull depth (m)	1.3	Fish Bearing	No	
Northing	6283407					

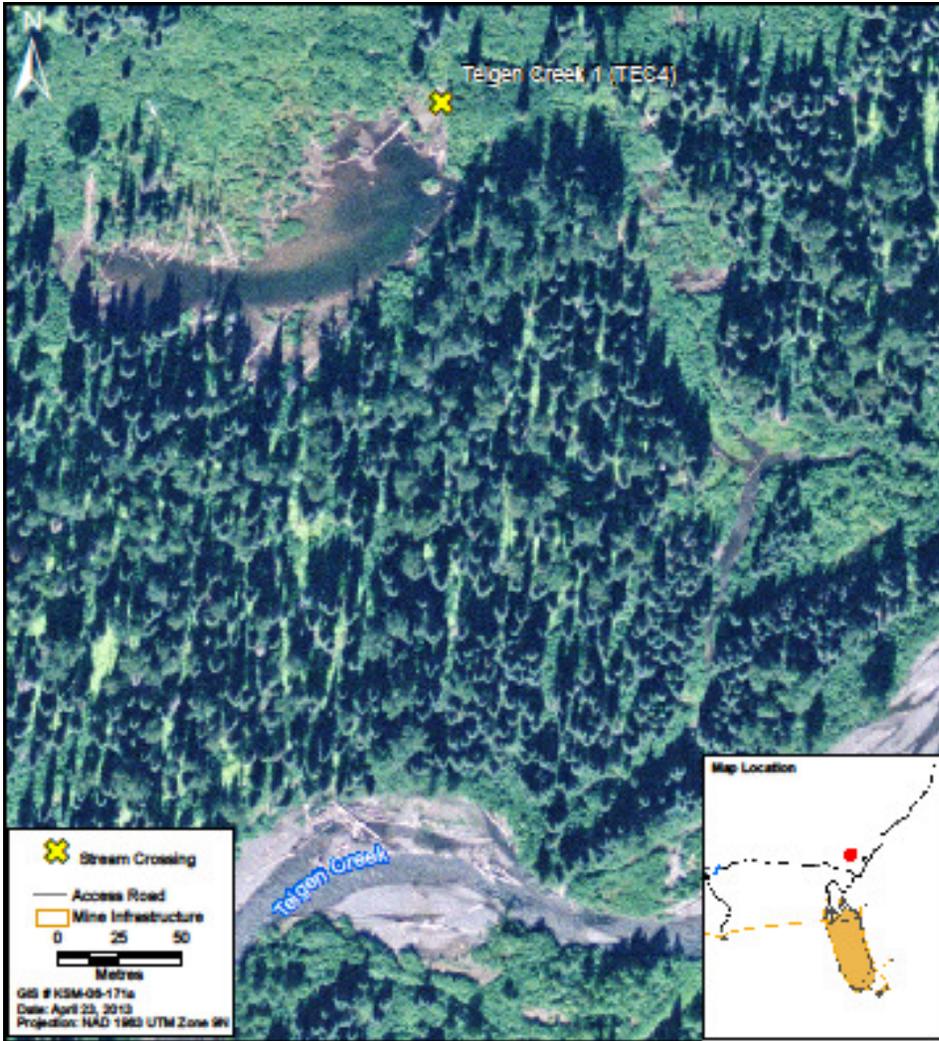


Photo 1 - Aerial view of proposed intake area



Photo 2 - Upstream view

# KSM Project Potentially Navigable Waters

Fish Habitat  
Compensation - GC1  
(Glacier Creek)



Zone	9	Bankfull width (m)	10	Slope (%)	3.0	Watercourse:
Easting	460250	Bankfull depth (m)	0.5	Fish Bearing	Yes	
Northing	6272800					



Photo 1 - Upstream view



Photo 2 - Downstream view

# KSM Project Potentially Navigable Waters

Fish Habitat  
Compensation  
(Taft Creek)



Zone	9	Bankfull width (m)	60+	Slope (%)	1	Watercourse:
Easting	473400	Bankfull depth (m)		Fish Bearing	Yes	
Northing	6261300					



Photo 1 - Upstream view



Photo 2 - Downstream view