Table D.5.1 Spill Report 16-202 and Update No. 1, Tote Road.

Sequence of Events and Actions Taken	
May 20	Environment Canada and INAC inspectors notify Baffinland that directions under the Fisheries Act will be issued to the Company as a result of surface water runoff conditions observed during their inspection. This included conditions at various locations on the Tote Road.
May 20 - present	Siltation control measures (silt fences, silt curtains, flocculent, treated jute) installed at various locations along the Tote Road to address potential sedimentation and turbidy issues
May 20 - present	Operational resources are allocated to deal with sedment issues on Tote Road including remvoal of sediments using exacator, installation of geotextile and riprap in critical locations.
May 31	Several active of areas of sedimenation and turbidity observed and reported to the NT-NU Spill Line and EC and INAC Inspectors. These include stream crossings CV-223 (km 97), BG-17 (Km 90), and BG-29 (km 85). NT-NU Spill Report - 16-202
May 31 to present	Additional resources are dedicated to fixing potential sedimenation prooblems on the Tote Road between km 75 and km 100. These include trucks, excavators, labourers, etc., and a dedicated construction manager.
June 19	Sediment release observed at two additional locations along the Tote Road at stream crossing BG-31 at km 82 and at crossing BG-28 at km 86.3. (**NT-NU Spill Report - 16-202, Update No. 1**).
June 19 to present	Sediment controls put in place to curtail sediment release to Muriel and David Lakes.
	REFER TO TABLE D.5.2 FOR DETAILS OF SPECIFIC ACTIONS TAKEN ON THE TOTE ROAD TO MINIMIZE SEDIMENTATION ISSUES.

Table D.5.2 Spill Report 16-202 and Update No. 1, Tote Road Work Completed

Tote Road Chainage	Reason Work was/is Required	Proposed Control	Comments
km 77	Surface water flow through natural and excavated ditch contributing turbidy to drainage in to outflow of Muriel Lake	Lay geotextile liner in ditch and line with rip rap rock	To be completed.
82-83	Surface water flow through excavated trench/on grade along Tote Roadcausing sediment to deposit on ice of Muriel lake	Install two check dams at km 82.1. Requires strategy for long term stabilization/sediment control	Completed
83-83.2	Surface water flow through excavated ditch of fine sand contributig to turbidity in to head waters of BG30 HADD	Lay geotextile liner in ditch and line with rip rap rock	Completed
83.2-83.4	Surface water flow through excavated ditch of fine sand contributig to turbidity in to head waters of BG30 HADD	Lay geotextile liner in ditch and line with rip rap rock	Completed
83.4-83.6	Surface water flow through excavated ditch of fine sand contributig to turbidity in to head waters of BG30 HADD	Lay geotextile liner in ditch and line with rip rap rock	Completed
83.7-83.9	Surface water flow through excavated ditch of fine sand contributig to turbidity in to head waters of BG30 HADD	Lay geotextile liner in ditch and line with rip rap rock & Check dams	Completed
83.9-84.0	Surface water flow through excavated ditch of fine sand contributig to turbidity in to head waters of BG30 HADD	Lay geotextile liner in ditch and line with rip rap rock & Check dam	Completed
84.0-84.2	Surface water flow through excavated ditch of fine sand contributig to turbidity in to BG29 and feeds the creek in to Muriel Lake	Lay geotextile liner in ditch and line with rip rap rock	Completed
84.2-84.3	Surface water flow through excavated ditch of fine sand contributig to turbidity in to BG29	Lay geotextile liner in ditch and line with rip rap rock	Completed
85.6-85.8	Ditch feeding Lake to BG29 CV contains some sedimentdue to ditch excavation	Lay geotextile liner in ditch and line with rip rap rock, silt curtain drainage in to lake	Completed. Silt Curtain installed.
85.8-86.1	Ditch stabilization required as trench feeds CV in to David Lake	Lay geotextile liner in ditch and line with rip rap rock	Completed
86.2-86.3	Ditch stabilization required as trench feeds CV in to David Lake	Lay geotextile liner in ditch and line with rip rap rock	Completed
86.3-86.5(cv)	Low flow condition only and trench requires significant earthworks in this area.	No mitigation in ditch. Install check dam on north side of culvert inlet	Completed
86.5-86.8	Low flow condition only and trench requires significant earthworks in this area.	No mitigation in ditch. Install check dam across creek drainage at km 86.8	Completed
86.8-87.3	Flooded ditch acting as settling pond with very low flow from pool. Ditch requires significant earthworks in this area	Install check dam at km 86.8	Completed
87.3-87.5(cv)	Large pool in ditch area acting as a settling pond and irregular trench requires significant earthworks.	No immediate action	Not completed yet, requires long term strategy
87.5-87.6(cv)	Ditch stabilization required as trench feeds culver in to David Lake	Lay geotextile liner in ditch and line with rip rap rock and install small check dams	Completed
87.6-88.0	Ditch stabilization required as trench feeds CV in to David Lake	No action at this time. Very small catchment area and ditch is dry.	Not completed yet, requires long term strategy
88.0-88.2(cv)	Ditch stabilization required as trench feeds CV in to David Lake	No action at this time in ditch. Very flat areas with no flow. Install rip rap at NW drainage in to culvert inlet and place a small CD upstream	Check Dam installed.
88.2-88.4	Ditching in culvert feeding David Lake	Lay geotextile liner in ditch and line with rip rap rock, laid geotextile and armoured eroded creek bed that ties in to drainage , and the culvert inlet basin	Completed. Silt Curtain installed.
88.4-88.5 (CV)		No action at this time	

Tote Road Chainage	Reason Work was/is Required	Proposed Control	Comments
88.5-88.6	Open Ditch.	Install Check dam at km 88.6 at north end of pool	Completed
88.7-88.9	Open Ditch.	Southern pool to CV is flat with no drainage. No action at this time.	Not completed.
88.9-89.2	Open Ditch.	Lay geotextile liner in ditch and line with rip rap rock	Not completed.
km 89.9	Permafrost degradation pond culvert plugged and risk of pond overtopping in to David Lake Tributary	Steam clean culvert open and drain pond	Complete June 11.
km 90.2	Erosion from snow melt/creek off of Hill	Stabilize drainage from vegetation down to ditch with rip rap	Complete June 11.
km 90.2-90.4	Base of steep embankment excavated and causing slope instability along the 300 meter stretch.	Geo and armour areas not yet failing to prevent future (0-2 year) failure of slope as in other adjacent areas. Reassessment of areas requires input from permafrost engineer.	Not yet completed.
km 90.3	Steep slopes in two areas along embankment in process of failing due to disturbance at base of slope, and surface run off/permafrost degradation	Sluffed embankment reinforced with rip rap berm and silt fence applied. Permanent engineered solution required for long term stabilization	Immediate actions completed.
~91.4-91.7	Ditching of fine sand on drainage on either side of culvert producing very turbid water feeding creek to David Lake	Construct ditches at crest of km 92 hill. Lay geotextile liner in ditch and line with rip rap rock. Excavate and backhaul excess fine sand to temporary storage location at km 97 laydown	Completed.
km 97	Water draining off rip ripped shoulder and embankment through low lying sediment rich delta to Tom's creek	Install new silt fence at discharge	Completed June.
km97-CV223	Sediment laden snow in draianage. Potential for erosion from slope around culvert inlet	Remove sediment laden snow and armour slopes.	Snow removed from West and East drainages, East culvert slope lined with geo and armoured with rip rap.
Km 96 - CV224	Sediment laden snow in draianage. Potential for erosion from ditches in to culvert drainage	Remove sediment laden snow and armour approach ditches and slopes.	Sediment removed from inlet drainage. Rip rap removed and geotextile lined and rip rapped South East ditch 20 m. SW drainage lined
km 95 - CV001	Sediment laden snow in drainage.	Remove sediment laden snow	Snow Removed.
km 94 - BG004	Potential for erosion from ditches in to culvert drainage	Line NW and SW drainages (~30 m each) with geotextile and armoured with rip rap.	NW and SW drainages (~30 m each) lined with geotextile and armoured with rip rap.
km 90 - BG17	Sediment laden snow in draianage. Potential for erosion from SE ditches in to culvert drainage	Remove sediment laden snow and armour SE approach ditches and slopes.	Sediment laden snow removed from inlet basin. SE drainage ditch lined with geo and armoured with rip rap fro ~70 m down to creek
km 96 CV224	Post completion of controls, ice melted under geo allowing embankment to erode into creek bed	Remove sediment from creek bed and sediment covered snow from drainage & edge of embankment. Extend geotextile liner along SE enbankment and line with rip rap rockt.	Completed.
km 91 BG14	Ditching on in ditch and along embankment creating turbid water feeding creek to David Lake	Repair and reinforce check dam at upstream of CV. Excavate and backhaul excess fine sand to a location to be designated?	Check dam completed. Excess sand removed.

km 97 - CV223

Constructed Drainage Controls Partially Implemented or Completed.

km 91.1

Photos Prior to Construction of Drainage Controls

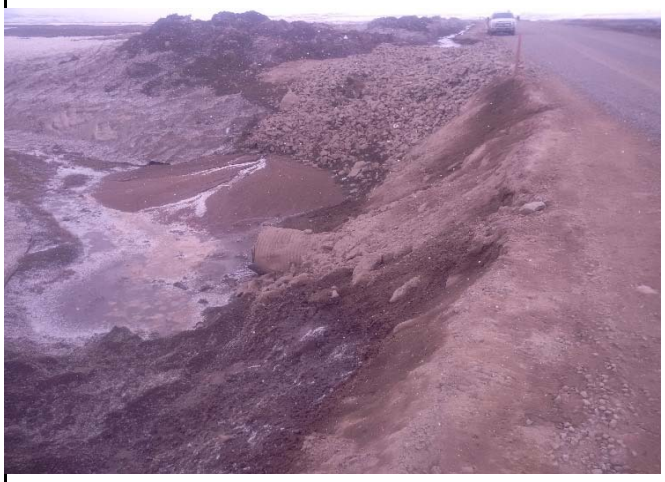
Constructed Drainage Controls Partially Implemented or Completed.

km 82.2

Constructed Drainage Controls Partially Implemented or Completed.

km 96 - CV224

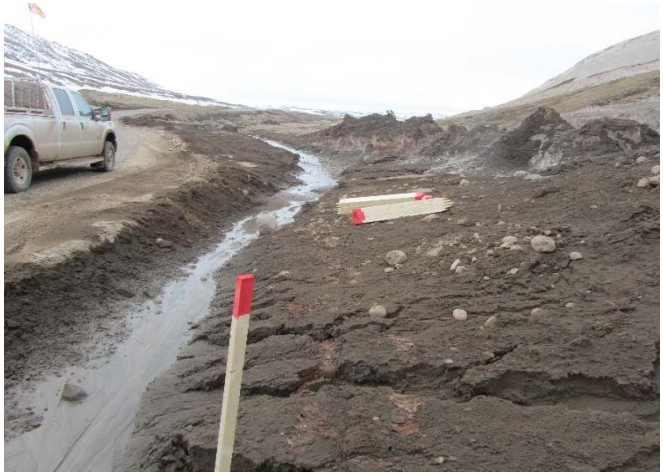
Photos Prior to Construction of Drainage Controls



Constructed Drainage Controls Partially Implemented or Completed.

km 90 - BG17

Photos Prior to Construction of Drainage Controls



Constructed Drainage Controls Partially Implemented or Completed.

Table D.6 Construction of Ditches and Drainage System Around Milne Port Ore Stockpile

Sequence of Events and Actions Taken

Prior to May 20	Ongoing monitoring of surface water adjacent to the ore stockpile to ensure that there was no adverse impacts due to surface water runoff or seepage.
May 20	Environment Canada and INAC inspectors notify Baffinland that directions under the Fisheries Act will be issued to the Company due partially to the incomplete drainage works around the Milne Ore Stockpile Facility and the Mine Crusher Stockpile Area and Crusher Ore Pad. Written Direction provided June 7. INAC letter of non-compliance received on June 16.
May 23	Document provided to Environment Canada and INAC Inspectors: Milne Stockpile Pad Water Drainage System – Excecution Plan and Schedule. Completion date of July 17.
May 24 to present	Silt fences and silt curtain installed along SDLT immediately downstream of Mine Haul Road discovered sedimentation sources. The drainage system ditches are functionally operational by June 7.
June 22	Ditching system presently fully operational, minor items to be included including survey for as-built report and clean-up of the area.

Appendix D.6 – Photos of Milne Ore Stock Pile Drainage Works Construction

Photo 1 – June 6 2016.

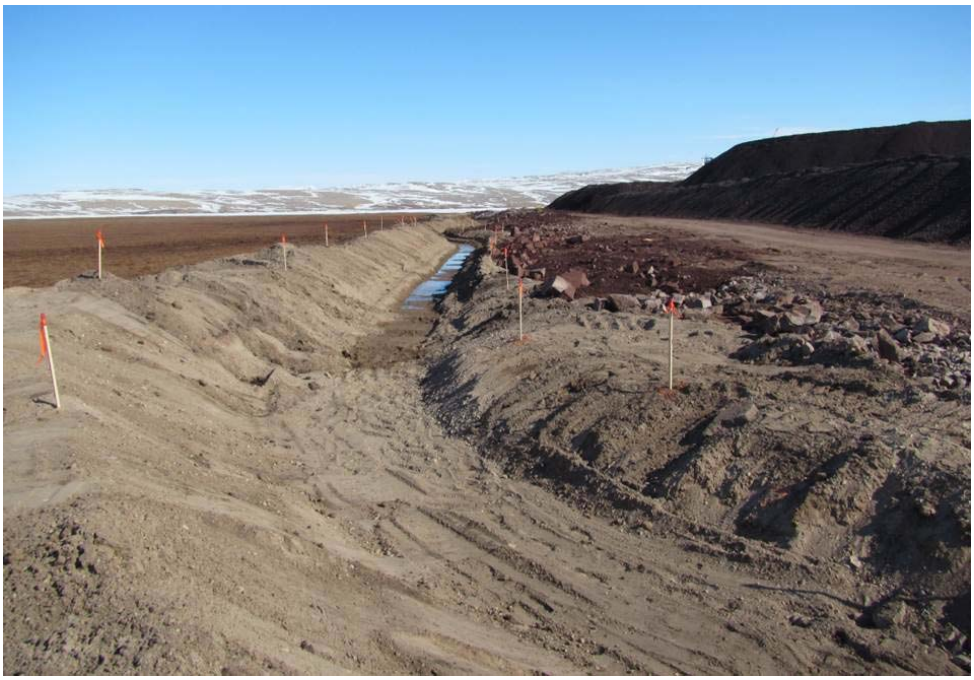


Photo 2 – June 7 2016.

Photo 3 – June 7 2016.

Photo 4 – June 2 2016.

Table D.7 Impacted Snow Removal from Milne Beach and Tote Road Bridges

Sequence of Events and Actions Taken

May 20	Environment Canada and INAC inspectors notify Baffinland that directions under the Fisheries Act will be issued to the Company. One of the items of concern was dirty snow west of the Ore Loader at Milne and on/under bridges on the Tote Road.
May 21-23	Dirty snow removed from Milne Beach using Loader.
May 21 - 25	Crews mobilized to clean under bridges on Tote Road. Effort is partially successful by hampered by warmer temperatures and soft slushy conditions which posed safety hazard.

Appendix D.7 – Photos of Impacted Snow Removal from Milne Beach

Photo 1 – May 20-21 2016.

Photo 2 – May 20-21 2016.

Photo 3 – June 1 2016.

Photo 4-June 1 2016

Photos of removal of Dirty Snow Material from Bridge Km17

Photo 5 – May 21 2016.