

From: Wendy Bidwell
To: [Unger Michelle KIMB](#)
Cc: [Parris Stephen KIMB](#); ["Weeks, Björn"](#); [Kierney Leach](#); [Norman McCowan](#); [Jayda Robillard](#); [Mike Vassal](#); [David Jessiman](#)
Subject: RE: Request for emergency decant at Pine Point (Teck Metals Inc. - MV2017L2-0013)
Date: May-14-18 4:39:10 PM
Importance: High

Good afternoon Michelle,

Based on the information provided, I hereby authorize an emergency decant of the main tailings impoundment area at Pine Point (SNP 35-1a) to the main Post Treatment Effluent Discharge area (SNP 35-1b) location with the following conditions:

- The **maximum** discharge/decant volume is capped at the **201.8 m** Maximum Operating Level elevation. Once this level is reached, an assessment will be made as to whether further decant to the requested 201.6 m Alert Water Level is required. Please track and provide actual volumes discharged to the Inspector.
- Daily sampling of the main tailings impoundment area (pond) for licence EQC parameters. Please forward results to the Inspector for review when available.
- Sampling of SNP 35-4 (Muskeg surface water due north of the SNP 35-1, 4.0 km from Great Slave Lake) downstream of the discharge/decant location prior to, during and at the end of the decant period. Please forward results to the Inspector for review when available.
- Forward photos of the pump set up, discharge point and receiving environment to the Inspector during decant operations.
- Treatment operations at site should commence as soon as feasible in order to create a buffer (space) in the Treatment Pond and potentially divert tailings into this area for treatment as opposed to directly discharging into the receiving environment.
- Provide rationale for the increase in water levels in the main tailings impoundment area, and a contingency plan or updated O&M plan that indicates how this situation can be avoided in future.

In addition, as far as I am aware the licence security deposit has not been paid. Payment of the security is required under the water licence (Part C, item 1 & Schedule 2, item 1)-pursuant to section 35 of the *Waters Act*-prior to operations commencing at site this year, which includes any deposit of waste or discharge to the receiving environment. However, seeing that this is an emergency situation and a controlled release is preferable to a facility breach or overtop event, I will authorize the emergency decant without security payment in place. **NB: Please see that this issue is addressed directly and that security payment is made as soon as is feasible. Security payment will be required prior to consideration of any further request for decants, or the deposit of waste.**

I plan on travelling over to site later this week to inspect decant operations. Please keep me posted as to when decant will commence, so I can time my trip accordingly.

If you have any questions regarding the above, please don't hesitate to contact me.

Regards,

Wendy

Mársi | Kinanaskomitin | Thank you | Merci | Hǎj' | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsi

Wendy Bidwell

Water Resource Officer

South Slave Region

Department of Environment and Natural Resources

Government of the Northwest Territories

Highway #5

PO Box 900

Fort Smith, NT X0E 0P0

Phone: 867-872-6421

Cell: 867-446-3775

Fax: 867-872-4250

www.gov.nt.ca

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please delete it immediately and notify us by telephone. Thank you.

From: Unger Michelle KIMB [mailto:Michelle.Unger@teck.com]
Sent: Monday, May 14, 2018 10:16 AM
To: Wendy Bidwell
Cc: Parris Stephen KIMB; 'Weeks, Björn'
Subject: Request for emergency decant at Pine Point

Wendy, as a follow up to our discussion on Friday I have received the water sample results from the Pine Point TIA (sample location 35-1A). The results are attached but for a quick reference I have summarized these below with the water license maximum and average concentrations. As you can see the zinc level is 1.09 mg/L just above the maximum grab license limits of 1.0 mg/L.

The water levels have increased 0.23 m since May 3rd and as of yesterday are at 202.05 m (picture attached).

I would like to request permission to conduct an emergency decant pond to the alert level of 201.6 m which is an estimate of approximately 280,000 m³ of water. As you can see in the image below we are above the maximum operating level of 201.8 m and would like to discharge prior to mobilization of any treatment equipment. The Engineer of Record is going to be on site on Tuesday and may have additional recommendations, but at this time we know we would like to start conducting an emergency decant.

The discharge location is going to be determined based on a site visit being conducted tomorrow. We will look to see if there are any discharge locations that could possibly infiltrate to ground prior to the receiving environment, however the routine discharge channel quickly infiltrates into the ground/muskeg downgradient of the TIA as well.

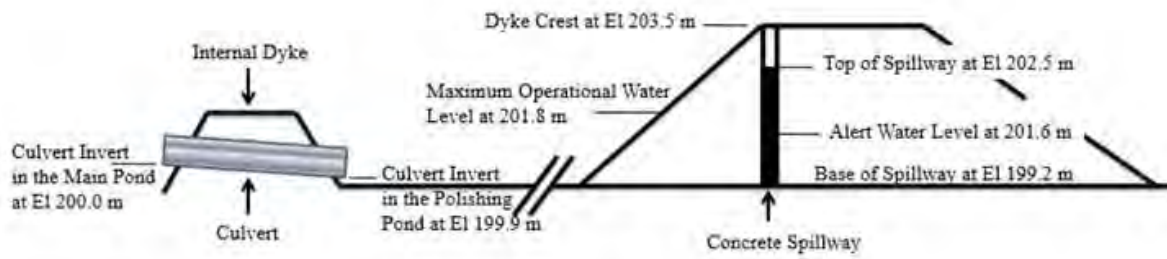
We also reviewed the capacity of the serpentine channel and it is estimated to hold 35,000 m³. The water was sampled on the weekend but we won't get results until Wednesday. We talked about pumping down/discharging the water in the serpentine channel, then discharging to it from the TIA and holding the excess water from the TIA in the serpentine channel however the volume is pretty limited compared to what we need to pump down.

Please review and let me know if you have any additional questions. I would like to mobilize pumps if possible Tuesday or at the latest Wednesday.

Kind regards,

Michelle

Parameter	Lowest Detection Limit	Units	35-1A	Maximum Grab License Limits	Maximum Average Concentration (in mg/L)
Physical Tests (Water)					
pH	0.10	pH	7.61	6.5-9.5	
Total Suspended Solids	3.0	mg/L	5.7	50	25
Anions and Nutrients (Water)					
Ammonia, Total (as N)	0.050	mg/L	<0.050	4.0	2.0
Total Metals (Water)					
Arsenic (As)-Total	0.00010	mg/L	0.00012	1.0	0.5
Copper (Cu)-Total	0.00050	mg/L	0.00661	0.3	0.15
Lead (Pb)-Total	0.000050	mg/L	0.0665	0.4	0.2
Zinc (Zn)-Total	0.0030	mg/L	1.09	1.0	0.5



Not to scale

Plate 2: Water and Infrastructure Elevations