



August 2015
Environmental Update
for SLEMA Board

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August 31, 2015

Outline

1. Mine Update
2. Inspection Update
3. Regulators' Update
4. Aboriginal Update
5. Stakeholders' Update
6. Agency's Activities
7. SLEMA Reviews
8. Water Licence Amendment Application



Acronyms

- AANDC – Aboriginal Affairs and Northern Development Canada
- AEMP – Aquatic Effects Monitoring Program
- ARD – Acid Rock Drainage
- DFO – Fisheries and Oceans Canada
- CCME – Canadian Council of Ministers of the Environment
- CEQG – Canadian Environmental Quality Guidelines
- EC – Environment Canada
- ENR – Department of Environment and Natural Resources, GNWT
- EQC – Effluent Quality Criterion
- GNWT – Government of the Northwest Territories
- MVLWB – Mackenzie Valley Land and Water Board
- PK – Processed Kimberlite
- SLEMA – Snap Lake Environmental Monitoring Agency
- SNP – Surveillance Network Program
- SSWQO – Site-Specific Water Quality Objective
- TDS – Total Dissolved Solids
- WEMP – Wildlife Effects Monitoring Program
- WTP – Water Treatment Plant
- WMP – Water Management Pond



1.1 Mine Update – July 2015

- Production rate: 93.7% of its capacity (91,451 tonnes of kimberlite processed)
- 2,839 m³ of water withdrawn from Snap Lake
- 1,531,925 m³ of treated water discharged into Snap Lake
- 76,026 tonnes of coarse reject and 55,791 m³ of slimes deposited in the North Pile
- No reportable spills
- Water sampled in 8 monitoring stations
 - The monthly average for all parameters met compliance
 - The Total Suspended Solids exceeded the maximum concentration of any grab sample limit on July 29, 2015. Root cause is unknown



1.2 Spill Reporting in August 2015

- No spill reports received in August 2015



2. Inspection Update

- Inspector – Jamie Steele
- Water Licence Inspection
 - July 29 and 30, 2015



2.1 Water Licence Inspection

- Inspection conducted on July 29 and 30, 2015, and reported on August 21, 2015
- Inspected the 10 Million Liter Tank Farm, Mechanical Shop 2, Spill Site for NT#15-236, Refuelling Stations, Laydowns, Landfills and Landfarm
- One concern was noted – 10 Million Liter Tank Farm
 - An exposed piece of liner looked like it had been damaged
 - De Deer staff looked into the concern and assured the Inspector that there was no damage to the liner and it had been recovered with crush



Water World Building 53 – Laydown and surrounding area are clean and well organized

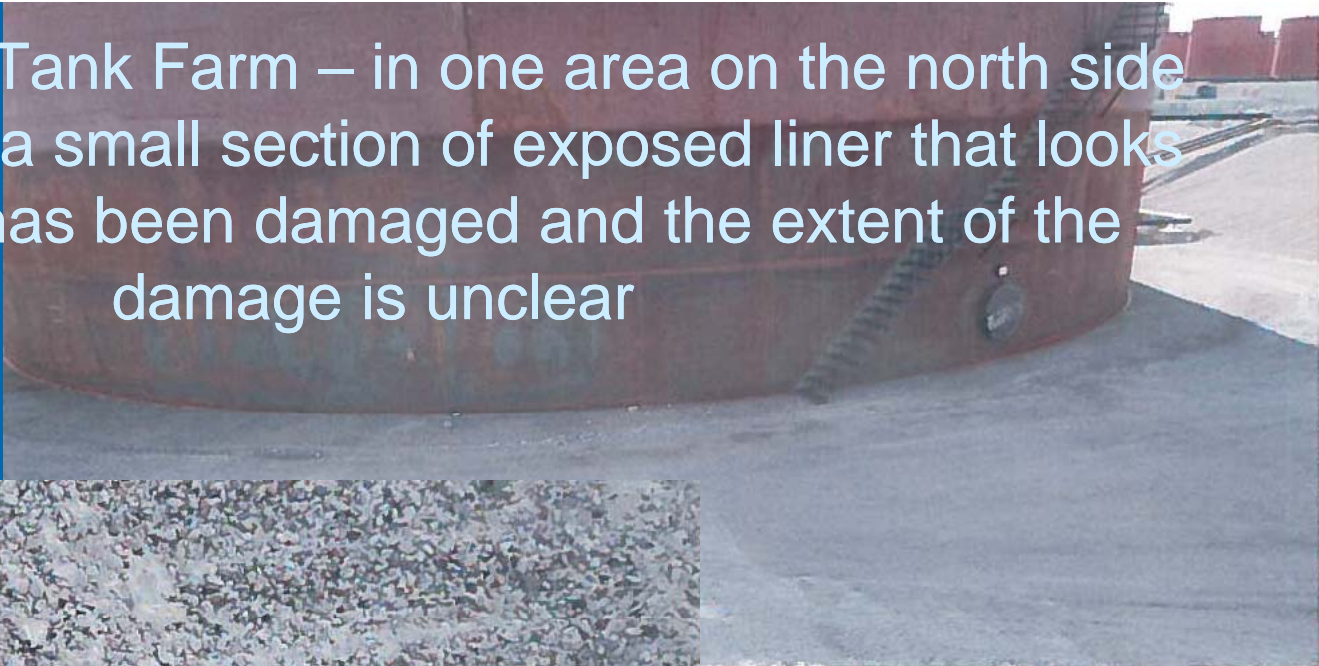


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Fresh Air Raise – Area around the Fresh Air Raise is clean and regularly maintained. The spills in the area have been cleaned up and investigation into the cause of seepage from the building is ongoing



10 Million Liter Tank Farm – in one area on the north side of the tank has a small section of exposed liner that looks as though it has been damaged and the extent of the damage is unclear

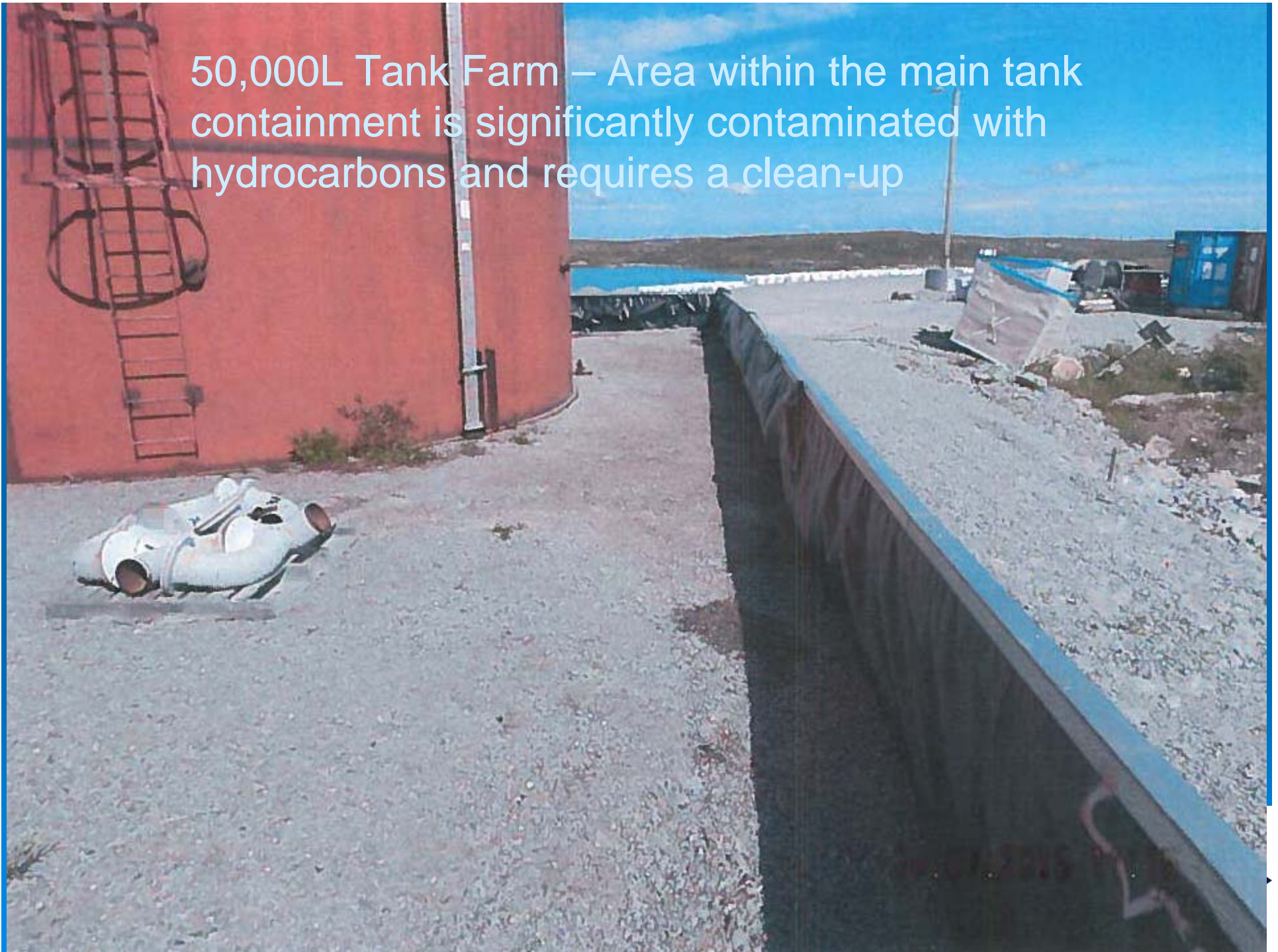


Fuel Farm Unloading Module Building 31 – Area around the hose is heavily stained with hydrocarbons. Clean-up of the area is required



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50,000L Tank Farm – Area within the main tank containment is significantly contaminated with hydrocarbons and requires a clean-up



Electrical Laydown – The laydown requires some minor housekeeping; however, the area in general is neat and well organized



Landfill – Landfill contains inert materials. No evidence of misdirected waste



The current landfarm at the Snap Lake Mine is being used for storage of hydrocarbons such as used oil and mineral oil as well as containment for hydrocarbon impacted soil. The West Cell design plan requires that the landfarm be removed to make room for proposed Kimberlite deposition



Landfarm

- “De Beers has no intention to construct another landfarm as the current ones are not being used for landfarming activities and all hydrocarbon impacted soils are being shipped off site as per the current Waste Management Plan. De Beers is looking into alternate storage arrangements for the hydrocarbons and contaminated soils which includes potentially expanding existing lined storage area in the Waste Management Laydown.”



Winter Road Laydown Area – Spills in the area have been cleaned up



NT Spill #15-236 (200 m³ of processed kimberlite slimes adjacent to a haul road) has been cleaned up. Contaminated materials have been removed by hand and placed in the North Pile



3. Regulators' Update – MVLWB (I)

- Denied the June 5, 2015 request to change the SNP, on August 20, 2015, and provided the following directive:
 - “De Beers is to continue to conduct both 7 day tests for Rainbow Trout and Fathead Minnow for a minimum one year period. Following the one year period, De Beers can request to eliminate one of the tests if they have additional evidence to support the request.”
- Approved the 2014 AEMP Annual Report, on August 20, 2015, and required De Beers to comply with the following item:
 - Environment Canada comments 4 and 5
 - GNWT-ENR comments 12 and 13



3. Regulators' Update – MVLWB (II)

- Approved the North Pile Response Framework – Nitrate Exceedance Memo, on August 20, 2015, conditional on the completion of the item listed below, the submission of a revised North Pile Management Plan – Response Framework and written confirmation of conformity from Board staff
 - “De Beers update the North Pile Management Plan – Response Framework to include both the Board and the GNWT Inspector in the ‘Personnel Notified’ section, if a Yellow or greater situation has occurred.”
 - De Beers to submit the update Plan by September 15 2015



4. Aboriginal Update

- No comments received in August 2015



5. Stakeholders' Update

- No comments received in August 2015



6. Agency's Activities

- Liaison Committee Meeting held on August 6, 2015
 - Informal meeting of the members of the Liaison Committee: SLEMA, De Beers and ENR
 - Topics: Environmental Agreement Annual Report, Liaison Committee, and Incinerator Stack Testing / Regulation of Air Emissions
- Executive Meeting held on August 12
- Meeting of SLEMA staff and ENR staff on August 31
 - Discussed the format of Environmental Agreement Annual Report



7. SLEMA Reviews

- No documents reviewed in August 2015



8. Water Licence Amendment Application

- The Minister of ENR, on July 24, 2015, invoked subsection 47(4) of the Water Act, extending the timeline for consideration by an additional 45 days, to September 16, 2015

