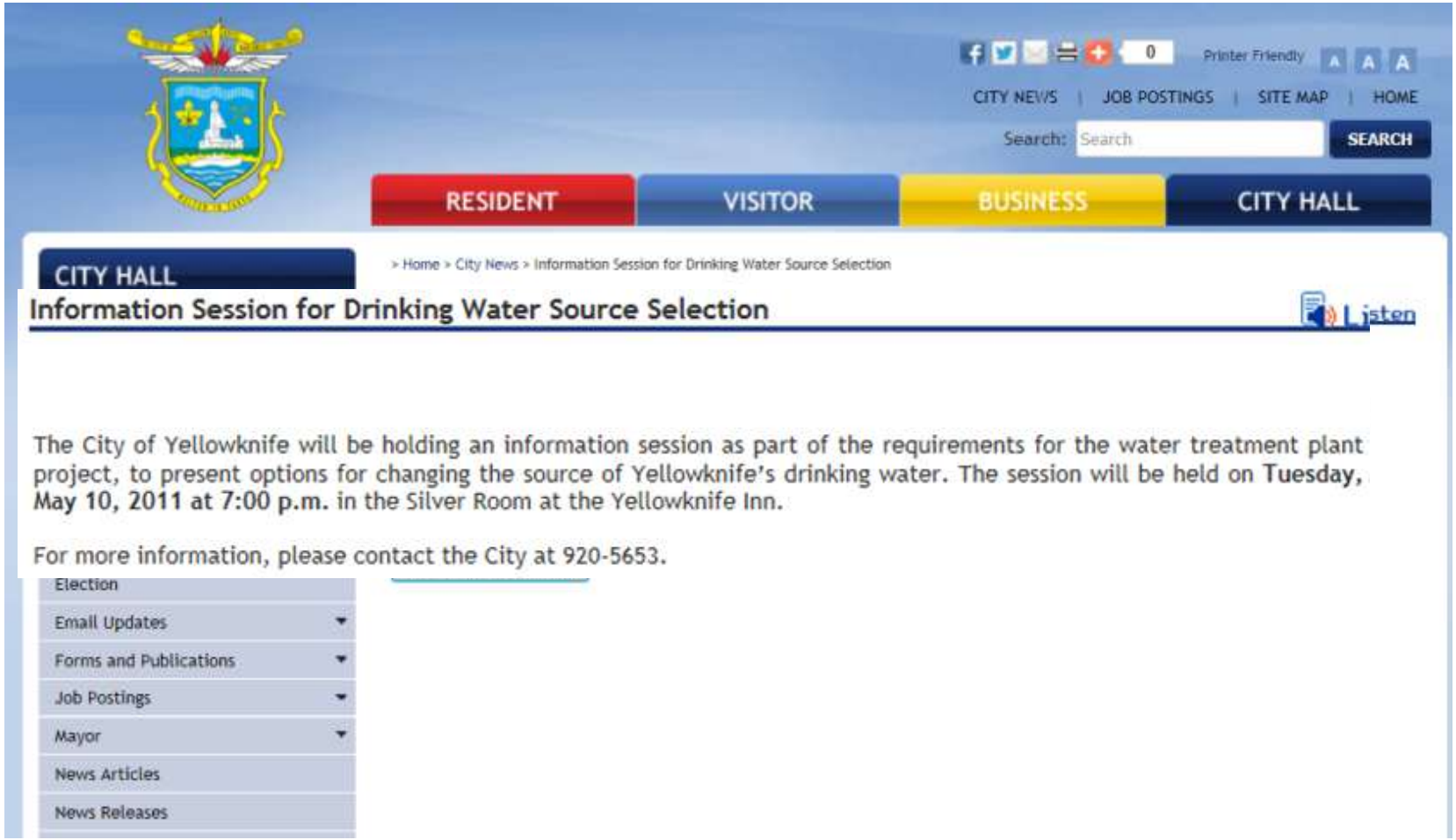
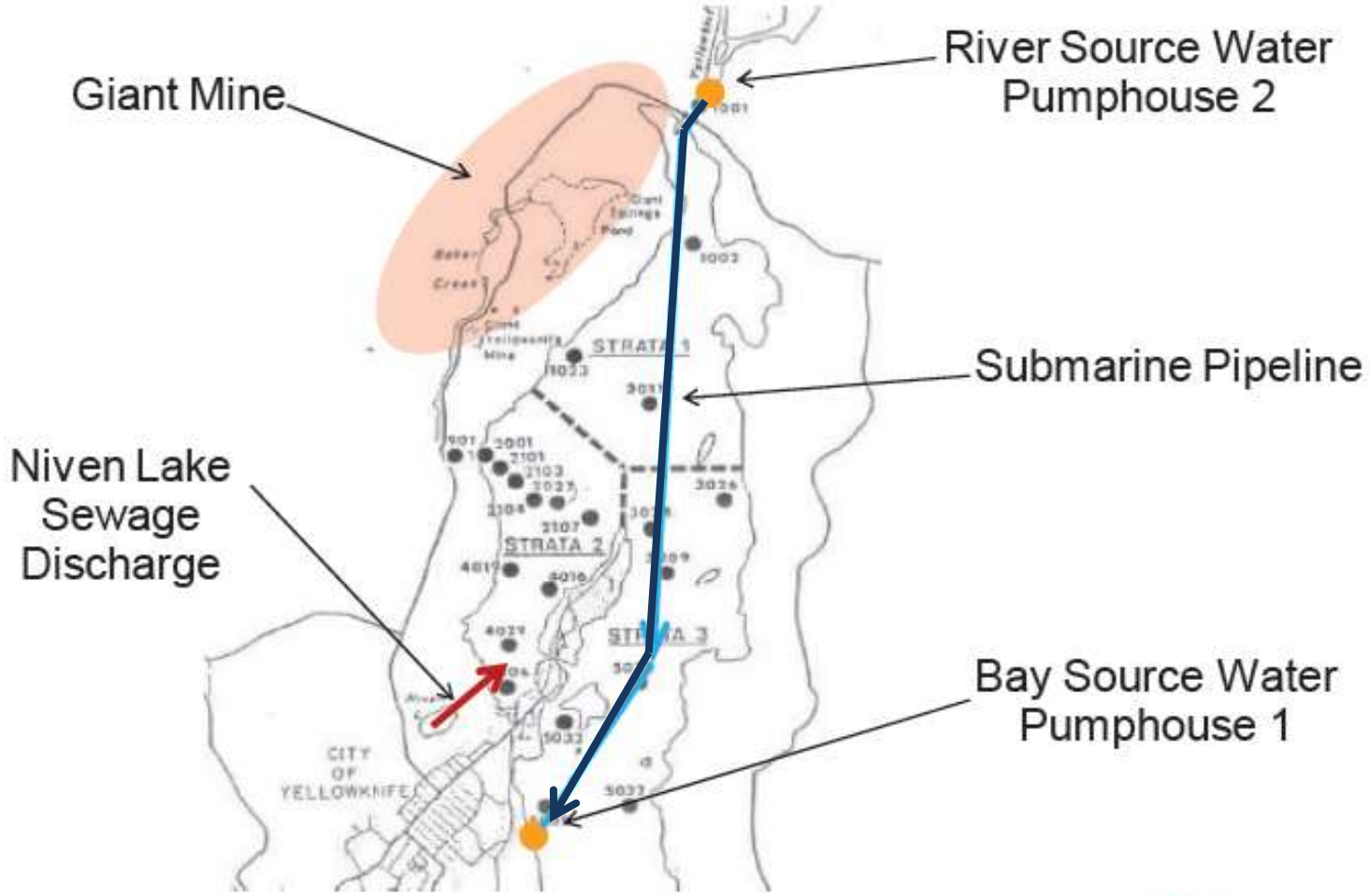
Changing Yellowknife's Drinking Water Supply

Tuesday, May 10, 2011



Orientation of Sources



Giant Mine – What if……..

- Tailings Pond Breach
- Water Discharged into Baker Creek / Back Bay
- Initial Giant Mine work applied a dilution ratio of 200:1 from Baker Creek to South Yellowknife Bay (SWK Consulting, 2009)
- Arsenic Concentration Drops
  - 20,000 ppb to 100 ppb at the Intake
- In the event of a release there would likely NOT be enough time to
  - Procure, install and commission arsenic removal equipment,
  - Commission previously installed equipment

Low Probability Scenario – Tailings Pond Failure

- Tailings Ponds Dam Failure
- 20,000 ppb water release into Baker Creek / Back Bay
- Concentration at Bay Intake 100 ppb
- Passive Arsenic Removal System in Place
- Reduces Arsenic Concentration to below 10 ppb
- Arsenic Removal System provides 3 to 4 months of treatment
- Pre-arranged Media Replacement Program Activated

Potential of Future Arsenic Event

- Event Basis
  - Arsenic greater than 10 ppb in Bay Raw Water
- Statistical Analysis Completed
- Cause: Release of pore water
- Conclusions
  - Short Term Event of less than 10 days in duration: U **Unlikely**
  - Long Term Event exceeds 0.4 (1.0 is a definite occurrence)

This Presentation date
May 11, 2011

Start date of tailings pond spill
May 14, 2011

Friday, May 13, 2011

Residents' arsenic fears cloud city's water plan

Nicole Veerman
Northern News Services
Published Friday, May 13, 2011

SOMBA K'E/YELLOWKNIFE - The city is considering changing its drinking water source to Yellowknife Bay from the Yellowknife River - a switch that would require an arsenic treatment system.

The recommendation, from Edmonton-based AECOM, the company hired by the city to design the new water treatment plant to be constructed next year, was presented to about 30 Yellowknifers Tuesday night during an information session at the Yellowknife Inn.

Richard Tombs, a process engineer for AECOM, told the crowd that the consensus within his company is the city should move "forward with the design of a water treatment plant that utilizes the bay as the raw water source, that includes an arsenic treatment stage to address the annual variations in arsenic and the presence of Giant Mine."

The recommendation came with resistance from residents.

Material Safety Data Sheet

CALEDON LABORATORY CHEMICALS

MATERIAL SAFETY DATA SHEET | ARSENIC TRIOXIDE

PRODUCT CODE NUMBER(S): 1990-1, 1991-1

Lethal dose = 120 mg

PRODUCT IDENTIFICATION

Chemical Name and Synonyms: *Arsenic trioxide; Arsenous trioxide; Arsenic (III) oxide; Diarsenic trioxide*
Chemical Family: *Metal oxide*
Chemical Formula: As_2O_3
Product Use: *Laboratory reagent*
Manufacturer's Name and Address:
Caledon Laboratories Ltd.
40 Armstrong Avenue
Georgetown, Ontario L7G 4R9
Telephone No: *(905) 877-0101*
Fax No: *(905) 877-6666*
Emergency Telephone No: *CANUTEC (613) 996-6666*

HAZARDOUS INGREDIENTS OF MATERIALS

FIRE AND EXPLOSION DATA

Flammability: *Not combustible*
Extinguishing Media: *Use any means suitable for surrounding fire. Fight fire from upwind, from a safe distance. Firefighters must wear protective equipment (NIOSH-approved positive-pressure, full face-piece self-contained breathing apparatus) and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes.*
Flash Point (Method Used): *Not applicable*
Autoignition Temperature: *Not applicable*
Upper Flammable Limit (% by volume): *Not applicable*
Lower Flammable Limit (% by volume): *Not applicable*
Hazardous Combustion Products: *Toxic fumes of arsenic, and arsenic oxides*
Sensitivity to Impact: *None identified*
Sensitivity to Static discharge: *None identified*

How many lethal doses are there?

237,000 tonnes of arsenic trioxide
= 237,000,000 Kilograms (kg)
= 237,000,000,000 Grams (g)
= 237,000,000,000,000 milligrams (mg)
÷ 120 mg (lethal dose)
= 1.975 trillion lethal doses
÷ by 7 billion (world's current population)
= 282 times

Giant Mine Remediation Project Developer's Assessment Report Oct 2010

Table 8.4.3 Arsenic Loadings to Surface Waters

Sources	Estimated Arsenic Releases to Water (kg/year)		
	Current	Post-Remediation	No-Remediation
Inputs to Baker Creek			
Baker Creek Upstream of Giant Mine	220	220	220
Tributaries from West of Giant Mine	67	67	67
Current Water Treatment Plant	290	n/a	n/a
Runoff from Surface Facilities to Baker Creek	220	190	220
Underground Mine to Baker Creek[a]	0	0	7,100
Total Inputs to Baker Creek	800	480	7,607
Inputs to Yellowknife Bay			
From Baker Creek	800	480	7,607
Direct Runoff to Yellowknife Bay	110	69	110
New Water Treatment Plant[b]	n/a	140	n/a
Total Inputs to Yellowknife Bay	910	690	7,717

RAW EMISSIONS

Start	End	Days	kg/day	kg Arsenic Released
01-Jan-48	31-Dec-53	2,160	7,300.0	15,768,000
01-Jan-54	31-Dec-54	360	5,500.0	1,980,000
01-Jan-55	31-Dec-57	1,080	3,300.0	3,564,000
01-Jan-58	31-Dec-58	360	1,600.0	576,000
01-Jan-59	31-Dec-70	4,320	370.0	1,598,400
01-Jan-71	31-Dec-77	2,520	350.0	882,000
01-Jan-78	31-Dec-95	6,480	30.5	197,640
TOTAL				24,566,040

Arsenic going into Yellowknife Bay (in a normal/**good year**)

CURRENTLY	AFTER REMEDIATION
910 kg = enough lethal doses to kill 7.5 million every year	690 kg = enough lethal doses to kill 5.75 million every year

Deaths from arsenic poisoning

In April 1951, arsenic killed a two year old Yellowknives Dene boy on Latham Island (today's Ndilo). A coroner's inquest ruled that the boy had died from "acute gastroenteritis caused by **arsenical poisoning** administered by unknown means."

Subsequent reports clarified the precise cause of death. I.F. Kirkby, the Superintendent of Indian Affairs, reported that the boy had died from **contaminated drinking water**. Giant Yellowknife Gold Mines, Ltd. provided the family with $750 for the loss of their son.

Deaths from arsenic poisoning

But the greatest tragedy occurred in spring 1951: *four children in family camps in Ndilo died.*

The mine owners gave their parents some money, as if it could compensate for the loss.

Testimony of the YK Dene

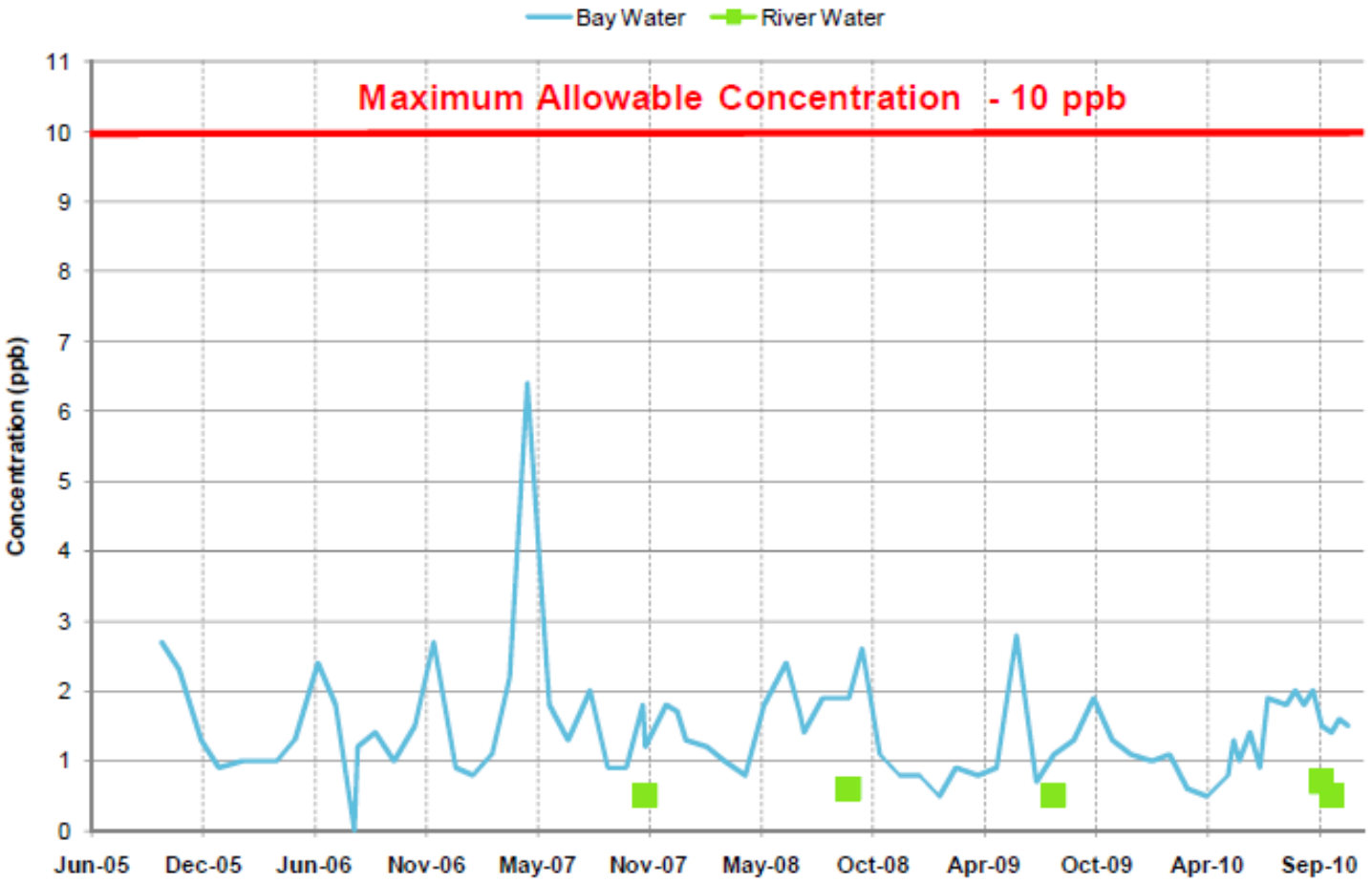
"Before the Yellowknives Dene understood what arsenic was, they were aware of changes that made them wary of the water, fish, berries, and plants near the mine sites. When land users took their sled dogs through the tailings ponds that crossed their traditional trails, the dogs would lose the fur on their paws within a day or two. The Elders can recall people falling off their sled into the tailings ponds, which stayed open year-round, and becoming ill, losing their hair soon after. After many of their sled dogs died without obvious cause, dog owners stopped feeding them fish from Weledeh. ***People, too, started dying from cancer at a rate previously unknown to Yellowknives Dene."***

Rachel Ann Crapeau, November 13, 1998,
YDKFN Taped interview

Cancer deaths (ppb)
National Academy of Sciences 1999

Arsenic Level in Tap Water (in parts per billion, or ppb)	Approximate Total Cancer Risk (assuming 2 liters consumed/day)	
0.5 ppb	1 in 10,000	2 people/year
1 ppb	1 in 5,000	
3 ppb	1 in 1,667	
4 ppb	1 in 1,250	
5 ppb	1 in 1,000	
10 ppb	1 in 500	40 people/year
20 ppb	1 in 250	
25 ppb	1 in 200	
50 ppb	1 in 100	

Arsenic Concentrations



Saturday, May 14, 2011

Saturday, May 14, 2011

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

Northwest Territories | Nunavut | Canada

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR May 16, 2011	REPORT TIME 11:30	X ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER 11 - 159
B	OCCURRENCE DATE: MONTH – DAY – YEAR May 14, 2011	OCCURRENCE TIME unknown		
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Giant Mine	REGION X NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME Deton' Cho/Nuna JV	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO Box 2951 Yellowknife, NT X1A 2R2		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED Historic Tailings/Sediment	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES unknown	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE	SPILL CAUSE Baker Creek rerouting itself	AREA OF CONTAMINATION IN SQUARE METRES unknown	
J	FACTORS AFFECTING SPILL OR RECOVERY Historic Tailings/Sediment	DESCRIBE ANY ASSISTANCE REQUIRED Input on response	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT unknown	

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

Due to icing conditions along Baker Creek all winter, the creek re-routed itself into an area it would not normally flow. Sedimentation has occurred as the water moves over new ground and is entering the Baker Creek system. In addition, the new flow has found its way to an area of historic tailings adjacent to the mine road at the Vee Lake Rd intersection. Some tailings have been downcut and mobilized into the Bake Creek water system. Regulators from DFO, INAC, and Environment Canada have been to site this morning and are providing input on the response. Golder Associates has been contracted to implement a monitoring and sampling program, and a surface water hydrologist with Golder will be onsite today to assist with the response.

Monday, May 16, 2011

Wednesday, May 18, 2011

As of noon Wednesday, the overflowing water had been diverted back into its channel and away from the tailings pond, located at the back of Baker Pond, said Henry Westermann, director of the Giant Mine project for Public Works and Government Services Canada.

Friday, May 20, 2011

News of the

tailings pond spill ….

finally becomes **PUBLIC**

Chief worried about changing water source to Yellowknife Bay

Concerns raised about arsenic as Baker Creek overflows into tailings pond

Nicole Veerman
Northern News Services
Published Friday, May 20, 2011

SOMBA K'E/YELLOWKNIFE - A naturally forming ice dam caused water in Baker Creek to overflow into a tailings pond near the Vee Lake turnoff last weekend, and now the water is draining back into the creek, which leads to Back Bay.

Dettah Chief Ed Sangris points toward Baker Creek, past Giant Mine, Wednesday. Water from the creek started overflowing into a tailings pond last weekend, which Sangris worries could

Dettah Chief Ed Sangris said a mishap like this is proof the city shouldn't move its water source downstream to Yellowknife Bay from the Yellowknife River, as it is proposing right now.

"You know how the city talk about switching the water intake from the river to the bay, well if the mayor's not careful, he's going to kill everybody in Yellowknife because stuff like this goes on," Sangris said, pointing towards the 237,000 tonnes of deadly arsenic trioxide - a byproduct from decades of roasting gold ore at Giant Mine through which the creek runs - stored underground.

"It's going to affect everybody's life, not only the First Nations."

As of noon Wednesday, the overflowing water had been diverted back into its channel and away from

Friday, May 20, 2011

"You know how the city talks about switching the water intake from the river to the bay, well if the mayor's not careful, he's going to kill everybody in Yellowknife because stuff like this goes on. It's going to affect everybody's life, not only the First Nations."

Detah Chief Ed Sangris

Thursday, May 26, 2011

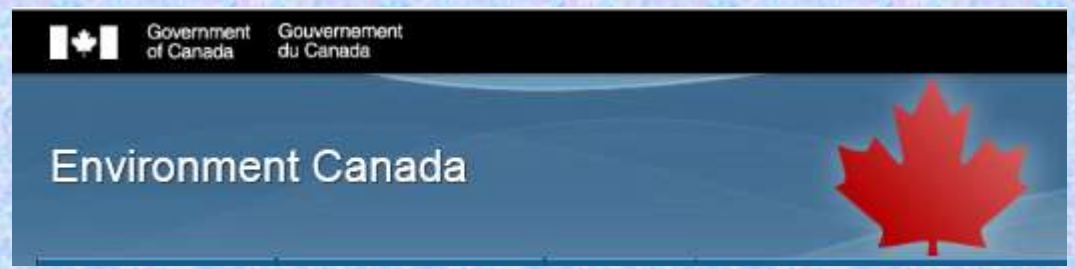
Public Works Canada **couldn't say** what was in:

- the water; or
- the tailings pond …

because it was still being tested.


Aboriginal Affairs and Northern Development Canada
Affaires autochtones et Développement du Nord Canada
Aboriginal Affairs and Northern Development Canada


Government of Canada
Gouvernement du Canada
Fisheries and Oceans Canada


Government of Canada
Gouvernement du Canada
Environment Canada


Government of Canada
Gouvernement du Canada
Public Works and Government Services Canada

Tuesday, May 30, 2011

- An employee with Golder Associates, Hilary Martin, said samples from Yellowknife Bay hadn't come back yet and Martin said people shouldn't drink the water in the bay.
- As of Friday, the government had not put up signs in the area alerting the public to the possible toxic levels in the bay.

Friday, June 3, 2011

“The government is calling this release of toxic tailings an act of nature, but there's nothing natural about arsenic-contaminated mining waste just sitting around waiting to pollute the water."

Dene National Chief
Bill Erasmus

Inspector gives Baker Creek deadline

Feds must come up with a plan to prevent spills by August, or face a fine

Nathalie Heiberg-Harrison
Northern News Services
Published Friday, June 3, 2011

SOMBA K'E/YELLOWKNIFE - A water resource officer with Aboriginal Affairs and Northern Development, formerly called Indian and Northern Affairs, has given some strict orders to his federal counterparts at Giant Mine: come up with a plan to ensure toxic tailings never mix with Baker Creek again, or face a $100,000 fine.

The directorate has until Aug. 1 to submit their plan, and all subsequent work must be done by April 30, 2012.

Michael Martin, the water resource officer who issued the directive, said he had no other choice.

"I had reasonable ground to believe that there was potential for an adverse environmental impact. As an inspector, it's my job to enforce the Waters Act and to lay out penalties that are drawn out in the act."

He said for the protection and safety of Northerners and the environment, it was crucial the Giant Mine team find a permanent remedy so the toxic tailings never come in contact with the water again.

Water samples taken from Baker Creek two weeks ago show arsenic levels 10 times the acceptable level for drinking water after the stream overflowed into a

June 13, 2011

11-159

REPORT ON

Baker Creek Reach 7 Overflow Monitoring Program - Interim Report

Submitted to:
Public Works and Government Services Canada
5101 – 50th Ave
P.O. Box 518 Yellowknife, NT X1A 2N4

Water Testing Results

- On May 16, 2011, the following metals were measured at concentrations above water quality guidelines for the protection of aquatic life and/or human health.

Aluminum	Lead
Antimony	Manganese
Arsenic	Mercury
Cadmium	~~Nickel~~
Chromium	~~Selenium~~
Copper	~~Silver~~
Iron	Zinc

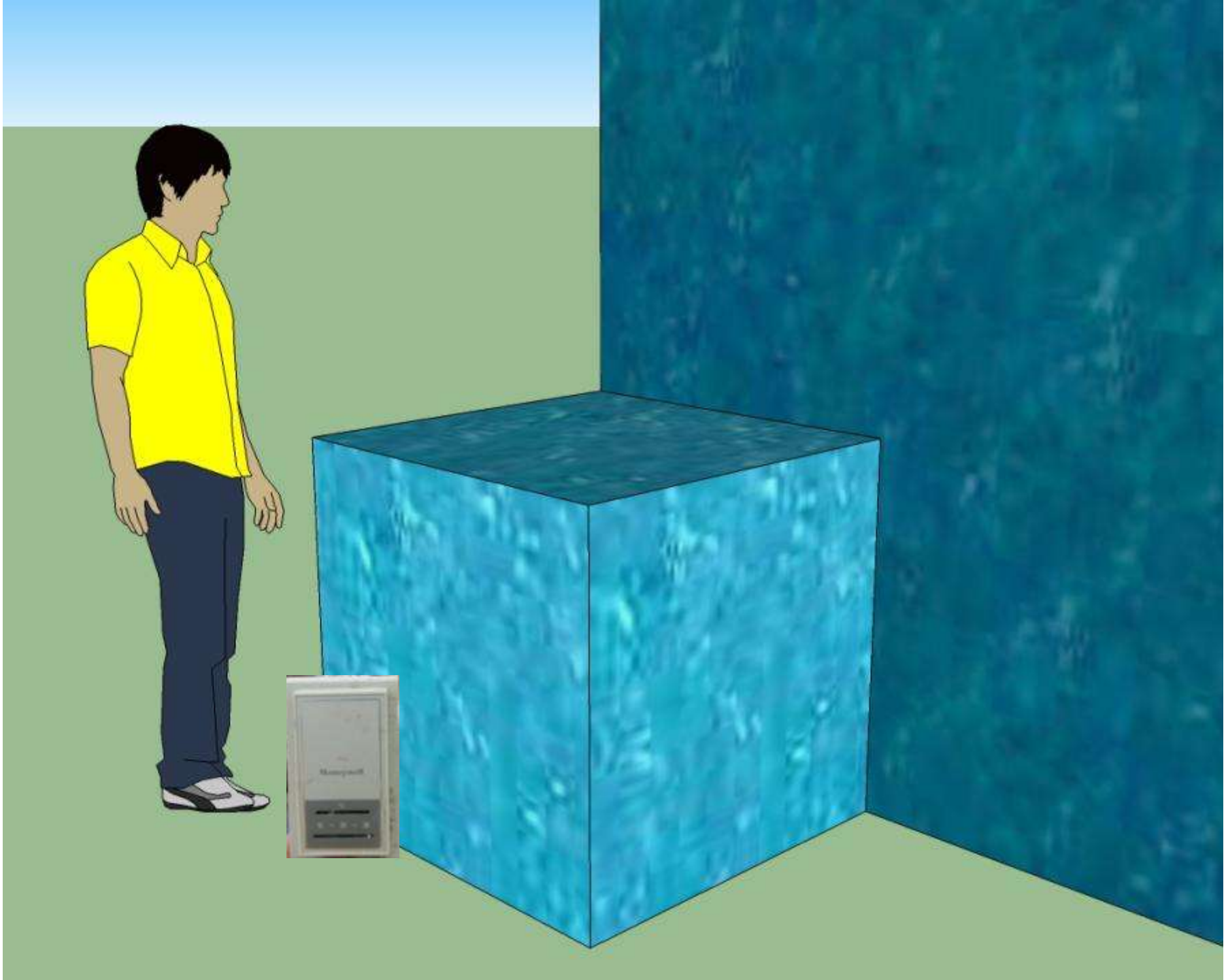
- On May 27, 2011, (over **2 weeks later**) the **concentrations of these metals were all still above aquatic life and drinking water guidelines** except nickel, selenium and silver.

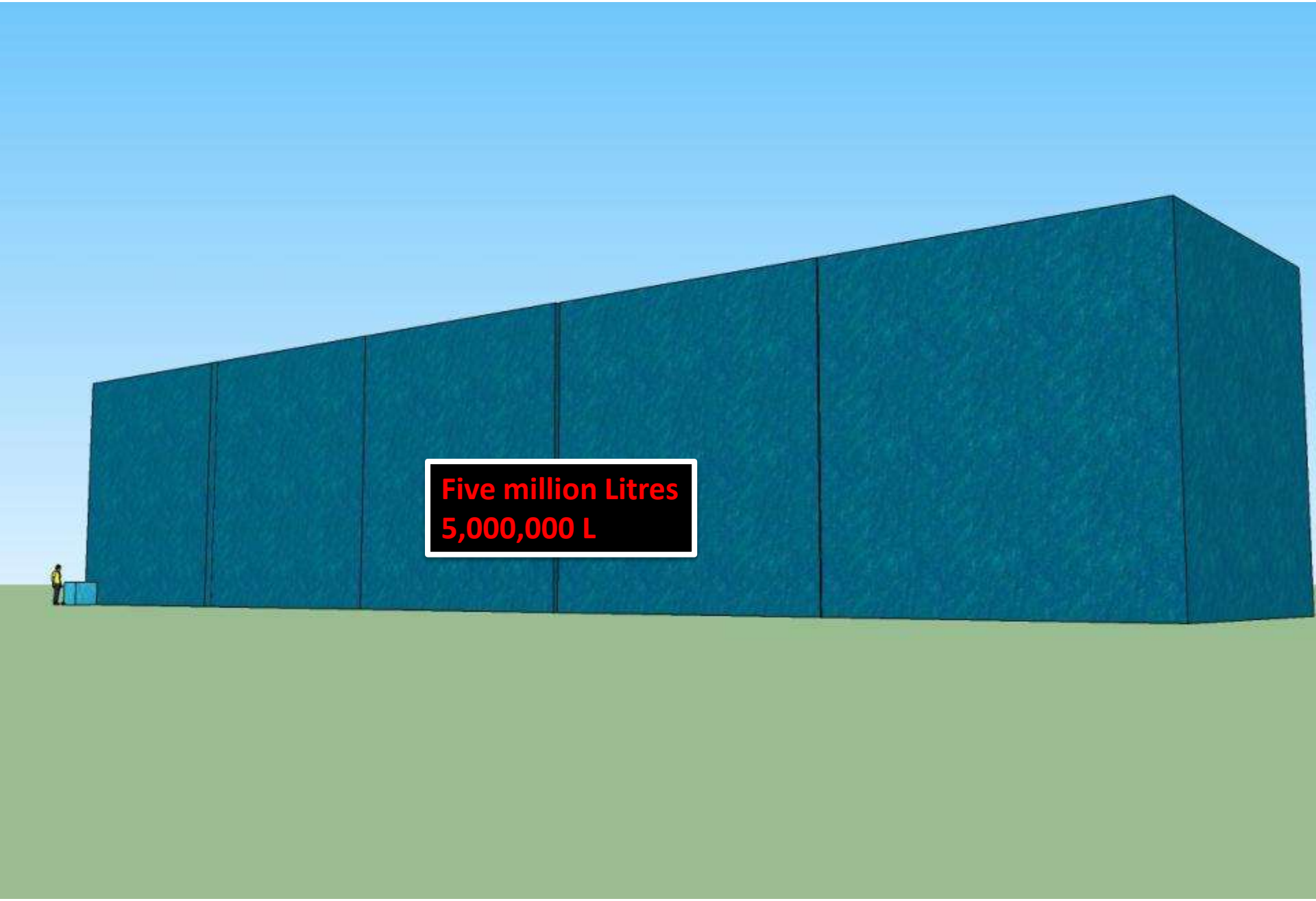
Toxicity of Mercury

1 thermostat contains
3-5 grams mercury

Canadian Drinking Water Quality Guidelines for Mercury
= 1 part per billion (1 ppb)

1 thermostat will contaminate 5 million litres of drinking water.




Five million Litres
5,000,000 L

Wednesday, February 1, 2012

City wants feds to pay for water line

Public works director argues arsenic issues leaves Ottawa on the hook

by Simon Whitehouse
Northern News Services

The city has put the federal government on notice that it wants money to replace a key piece of drinking water infrastructure.

On Jan. 17, Public Works director Dennis Kefalas sent a letter to Vern Christensen , executive director of the Mackenzie Valley Environmental Impact Review Board, requesting that the federal government cover the $10 million needed to replace an underwater pipeline as part of the Giant Mine clean-up plan.

The current line, which runs about eight km between Pumphouse No. 1 on 48 Street and Pumphouse No. 2 at the Yellowknife River, is expected to reach its expiry date by 2020. The city has an eight-year window in which to find funding before a replacement is needed.

Kefalas argues that because contaminated water from Giant Mine was discharged into Yellowknife Bay, it should also be included in the clean-up plan, which is being carried out by the Department of Aboriginal Affairs and Northern Development.

"These replacement costs will be solely on the city to absorb."

The city had originally planned to discontinue collecting water upstream from Giant Mine at the Yellowknife River, and draw water from Yellowknife Bay.

Doing so would have been $7 million cheaper but concerns from residents over arsenic contamination scuttled that plan, particular after Baker Creek overflowed its banks last spring and into a arsenic-contaminated tailings pond and back into the creek and out into Yellowknife Bay.

"Regardless of what the science says the majority of Yellowknife residents believe Yellowknife Bay will continue to be contaminated with arsenic due to historical operations and any proposes remediation processes," wrote Kefalas. "This is the reality of the situation."

In the letter, Kefalas argues part of the Giant Mine Remediation Project should include the costs of the line replacement.

The federal government had funded the original line in 1969 due to public concerns about arsenic contamination in the water source.

"Without financial assistance from other orders of government, these replacement costs will be solely on the city to absorb," Kefalas adds. "The city feels that these costs are undeserved and will place excessive financial burden on the tax base of Yellowknife."

Mayor Gord Van Tighem said the federal government should be providing more money to ensure the health and safety of the drinking water source, given this is the mandate of the Giant Mine clean-up.

Dennis Kefalas

"Since there is a large remediation project going on reflecting the impact of the mine, we thought it was a good idea to put a hand up and say, 'hey, part of what you should be doing is replacing this pipe because everything that we are doing is about public safety," Van Tighem said this week.

Van Tighem admits there is still a "level of uncertainty among residents about what could happen" with a potential contamination of arsenic in the drinking water source and this was affirmed in the Kefalas letter.

The city is currently in the design phase of building a new water treatment plant and new pumphouse.

Christensen told Yellowknifer he could not comment in detail about the letter until the review board reads it.

A decision is to be made next week when the six-member board will be meeting in Yellowknife from Feb. 7 to 9.

"We need to look at the letter to see what the implications would be to the overall process and we haven't completed that yet," said Christensen. "We would be briefing the board on that at the meeting next week and they would have to give some direction on how to manage it."

While Christensen could not comment on the implications of the request, he admitted it "would change the scope of the project, which will take some consideration." Van Tighem was cautious about whether or not he was optimistic about a funding approval.

"It has been in discussion with the people involved in the mine remediation and the discussion has not been negative," he said.

An Aboriginal Affairs spokesperson told *Yellowknifer* the department wasn't prepared to comment at press time.

Monday, February 27, 2012

Yellowknife told "no" to inclusion of pipeline in Giant Mine project

Like Be the first of your friends to like this.

Monday, February 27, 2012 - 3:51 PM

Yellowknife, N.W.T. - The city's plan to replace the submarine potable water pipeline from the Yellowknife River will not be part of the Giant Mine Remediation Project's environmental assessment.

Friday, November 16, 2012

Yk Bay water too risky: MLA

Giant Mine arsenic stores pose unacceptable threat, says Bromley

40 YEARS 1972 - 2012
yellowknifer
WEEKEND
Vol. 41 Issue 71 FRIDAY, NOVEMBER 16, 2012 75 CENTS

MLA fears arsenic in water

Mayor says drinking water from Yellowknife Bay still an option

Svjetlana Mlinarevic
Northern News Services
Published Friday, November 16, 2012

SOMBA K'E/YELLOWKNIFE
A plan to move the city's water source to Yellowknife Bay is still on the table and that's a cause of concern for one MLA.

The submarine water line that runs eight kilometres along the bottom of Yellowknife Bay from Pumphouse No. 2 on the Yellowknife River to Pumphouse No. 1 on 48 Street was built in 1969 and would cost $10 million to replace versus $2 million to draw Yellowknife's water supply directly from Yellowknife Bay.

Weledeh MLA Bob Bromley fears the city will choose the cheaper option downstream of Baker Creek, where arsenic trioxide from decades of roasting gold ore at Giant Mine is still being emitted into the bay.

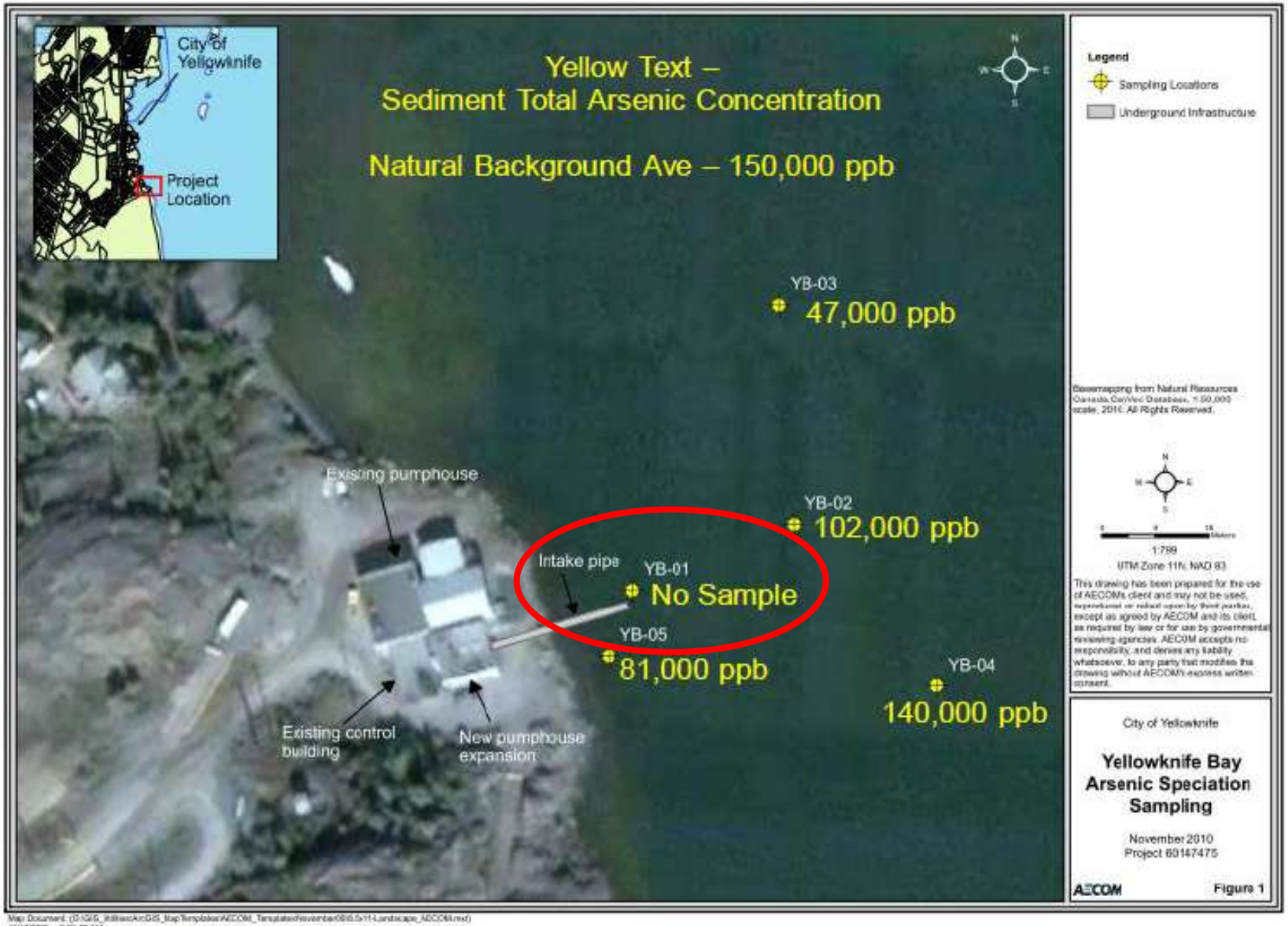
"The biggest concern is that there's a new water source being planned for the city which is now downstream of (Giant Mine)," said Bromley.

"Previous to that, it will have been upstream. (The city has) not done any studies on the flow and currents as to where that water will be in relation to the water intake."

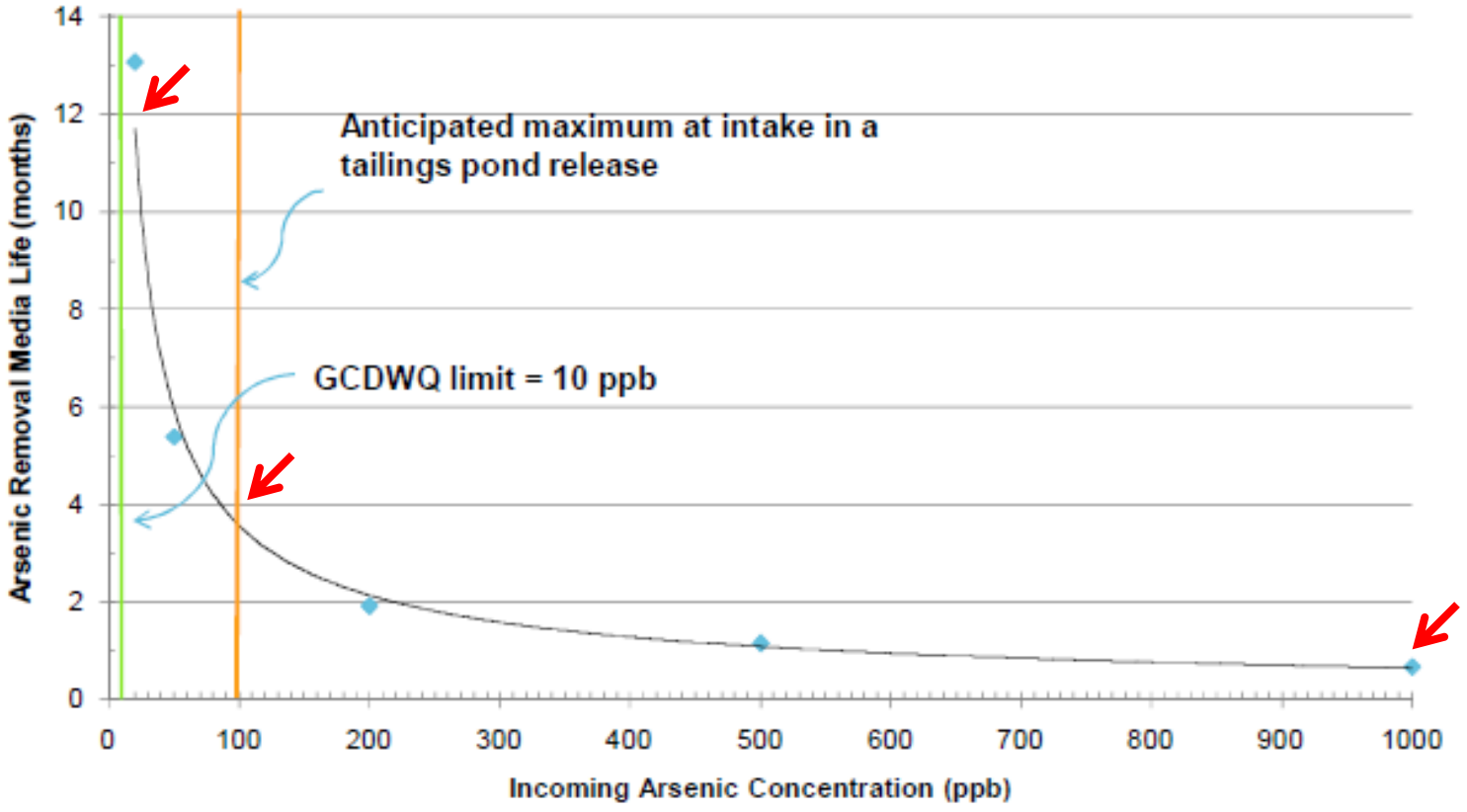
Federal government guidelines state that the maximum allowable concentration of total arsenic in drinking water is 10 parts per billion. Yellowknife Bay is currently at three parts per billion with the highest concentration recorded at 6.5 parts per billion, according to a city study from May 10, 2011.

But only four days later, Baker Creek overflowed its banks and into a tailings pond at Giant Mine before re-entering the creek and into Yellowknife Bay. Water sampling on May 16 showed arsenic levels in the creek 700 times the acceptable level for drinking water.

Newly elected Mayor Mark Heyck acknowledges that the city is still considering moving its water intake to Yellowknife Bay.


City of Yellowknife
Project Location
Yellow Text –
Sediment Total Arsenic Concentration
Natural Background Ave – 150,000 ppb
YB-03
47,000 ppb
Existing purphouse
YB-02
102,000 ppb
Intake pipe
YB-01
No Sample
YB-05
81,000 ppb
YB-04
140,000 ppb
Existing control building
New purphouse expansion
Legend
Sampling Locations
Underground Infrastructure
Basemapping from Natural Resources Canada, CanVec Database, 1:50,000 scale, 2010. All Rights Reserved.
1:799
UTM Zone 11N, NAD 83
This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent.
City of Yellowknife
Yellowknife Bay Arsenic Speciation Sampling
November 2010
Project 60147475
AECOM
Figure 1

Estimate Media Life



May 4, 2013

May. 4. 2013 8:28PM Nana Giant No. 0820 13-136

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

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TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE/MONTH - DAY - YEAR: 05-04-13	REPORT TIME: 2010	☒ ORIGINAL SPILL REPORT OR	REPORT NUMBER: 13-136
B	OCCURRENCE DATE/MONTH - DAY - YEAR: 05-04-13	OCCURRENCE TIME:	☐ UPDATE # TO THE ORIGINAL SPILL REPORT	
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION: GIANT MINE	REGION: ☒ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR		
E	LATITUDE: DEGREES 62 MINUTES 29 SECONDS 54	LONGITUDE: DEGREES 114 MINUTES 21 SECONDS 39		
F	RESPONSIBLE PARTY OR VESSEL NAME: (DCIAN) DETON'CHO/NWT JOINT VENT	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION: Box 2951, YELLOWKNIFE NT X1A2R2		
G	ANY CONTRACTOR INVOLVED: No	CONTRACTOR ADDRESS OR OFFICE LOCATION: N/A		
H	PRODUCT SPILLED: CLAY SEDIMENT	QUANTITY IN LITRES (GALLONS OR CUBIC METRES): UNKNOWN	U.N. NUMBER	
	RECOVERED PRODUCT SPILLED (IF APPLICABLE): N/A	QUANTITY IN LITRES (GALLONS OR CUBIC METRES): N/A	U.N. NUMBER	
I	SPILL SOURCE: RUNOFF WATER	SPILL CAUSE: FAILED BERM	AREA OF CONTAMINATION IN SQUARE METRES: UNKNOWN	
J	FACTORS AFFECTING SPILL OR RECOVERY: SOFT GROUND CONDITIONS	DESCRIBE ANY ASSISTANCE REQUIRED: NONE	HAZARDS TO PERSONNEL, PROPERTY OR EQUIPMENT: NONE	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS: BERM CONSTRUCTED IN SUMMER 2012 TO RETAIN WATER IN C2 CLAY BORROW PIT. WATER BREACHED THE BERM & DOWNCUT INTO CLAY WITH HIGH VELOCITY THEN UNDERCUT A ROCK BERM. FLOW TO BAKER CREEK. INSPECTOR NOTIFIED.			

May 6, 2013

NCS NWT

NATIVE COMMUNICATIONS SOCIETY of the NWT

NEWS ABOUT US PROGRAMMING BLOG STORE CONTACT JOB ALERTS HOME

GIANT MINE'S CLAY BARRIER FAILS, MELT WATER SEEP OUT

Author: CKLB News / Monday, May 06, 2013 / Categories: News

Rate this article: No rating

Contaminated melt water from Giant Mine has seeped into Baker Creek.

The snow on site is melting quickly and, over the weekend, surface water broke through a clay barrier.

Operations Manager Jane Amphlett says there was an obvious flaw in the construction of the barrier

"Well it was constructed out of a clay material and so obviously the material kind of failed so the clay became soupy and the melt water was able to make its way through the clay material."

« May 2013 »

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Categories

News (194)

Tags

Aboriginal politics
Akaitcho Territorial Government
Bob McLeod Clayton Konisenta
Forest Fire GNWT Hay River
Nahanni Butte RCMP
Yellowknife

May 13, 2013

NCS NWT

NATIVE COMMUNICATIONS SOCIETY of the NWT

NEWS ABOUT US PROGRAMMING BLOG STORE CONTACT JOB ALERTS HOME

TEST RESULTS ARE IN, ARSENIC IN BAKER CREEK

Author: CKLB News / Monday, May 13, 2013 / Categories: News

Rate this article: No rating

Test results are in after melt water from Giant Mine seeped into Baker Creek.

Several samples of water were taken and tested.

At the highest point, 0.391 milligrams per litre of arsenic was found.

They're allowed to discharge up to 0.5, so these results are still below the standard set by the Mackenzie Valley Land and Water Board.

This doesn't mean the quality of water is at drinking standards.

The water was not drinkable before the May 5th spill, and it still isn't.

The arsenic in Baker Creek is about 40 times what Health Canada guidelines suggest for drinking water.

But the federal government says this amount will have no effect on the environment.

They say they will not treat the water or remove the arsenic until they get a new water treatment plant, which they won't get until the project goes through the regulatory process. And there's no estimated time for when that is

Giant Mine team does not know how much water was released into Baker Creek last week and they don't know whether the arsenic was naturally occurring or a product of the arsenic trioxide on site.

Iman Kassam / CKLB News

« May 2013 »

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3	4	5	6	7	8	9

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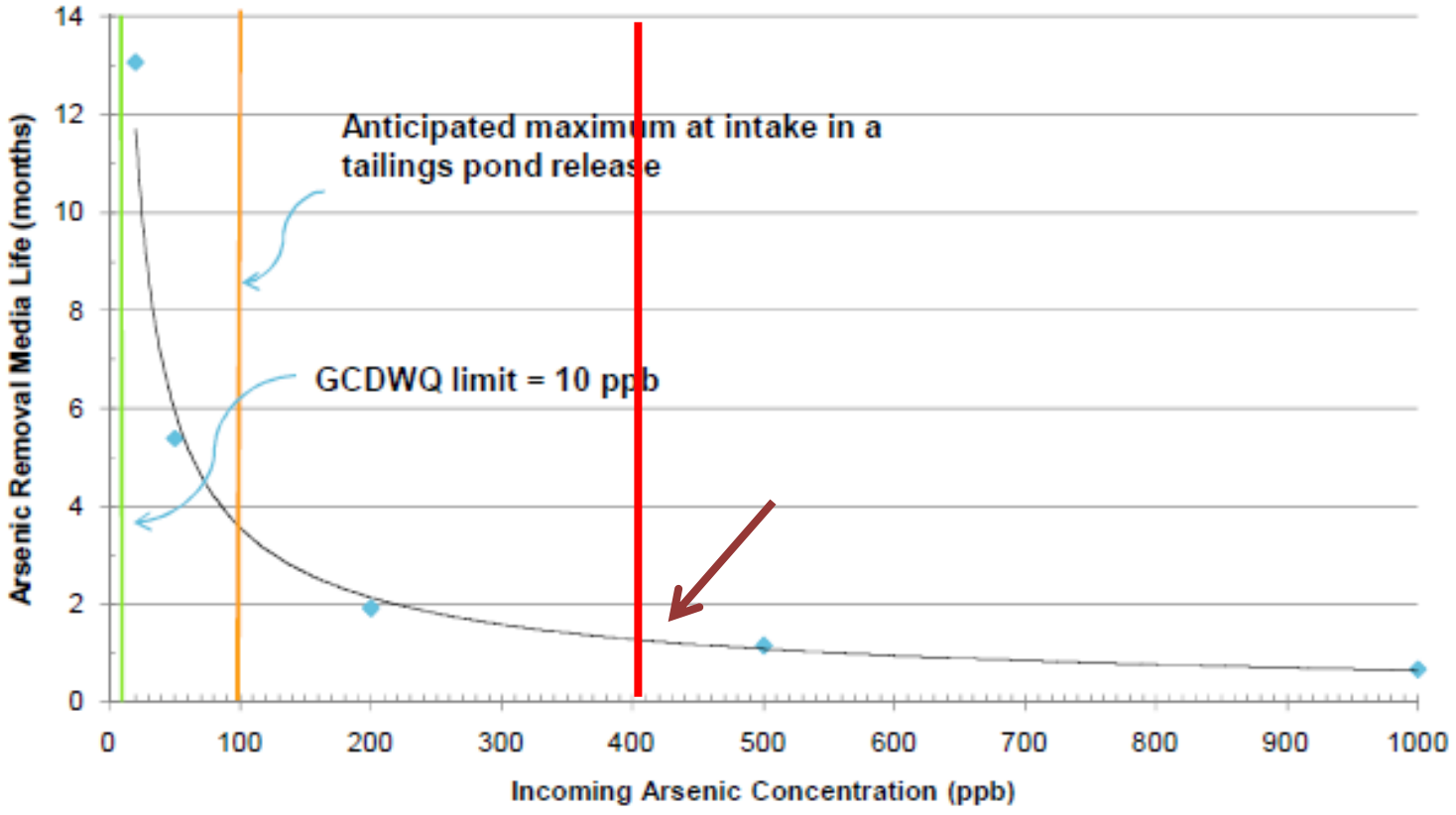
Estimate Media Life



Learn More About...

Hazardous Waste

Hazardous waste is considered a dangerous contaminant that is no longer being used for its intended purpose. These wastes have the potential to harm human health or the environment. They can range from paints, oils and solvents to acids, heavy-metal contianing sludges and pesticides. Hazardous wastes must be handled or disposed of properly to prevent harm to human health and safety and to the environment. The Department of Environment and Natural Resources can provide advice and guidance on the proper way to manage, store and dispose of hazardous wastes.

ENR holds Household Hazardous Waste Collection events in various NWT communities to ensure hazardous waste is properly disposed of and to prevent it from entering community landfills. We take things like fuels, solvents, paints, pesticides, fertilizers, batteries (of less than 1kg), household cleaners, aerosol cans, thermostats and other mercury items, and compact fluorescent bulbs.

Household Hazardous Wastes (HHW) are products used in your home, workplace and places of leisure and recreation. They can be flammable, corrosive, explosive or toxic, and harmful to you and the environment if they are not handled properly. This brochure will help residents properly store, handle and dispose of household hazardous wastes.

Environmentally Friendly Household Cleaners are homemade, alternative cleaners that are less toxic, and just as effective as commercial cleaners. By using these cleaners, fewer harmful chemicals are flushed down drains and into our waterways. This is healthier for you and the environment.

MOVEMENT DOCUMENT / MANIFEST
DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial transport and environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement et le transport.

NT05225-7

Movement Document/ Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consignor
Producteur / expéditeur

Registration No. / Provincial ID No.
N° d'immatriculation - d'id. provincial

Company name/ Nom de l'entreprise

Mailing address/ Adresse postale | City/ Ville | Province | Postal code/ Code postal

E-mail/ Courrier électronique | Tel. No. / N° de tél. ( )

Shipping site address / Adresse du lieu de l'expédition

City/ Ville | Province | Postal code / Code postal

Intended Receiver/ consignee
Réceptionnaire / destinataire prévu

Registration No. / Provincial ID No.
N° d'immatriculation - d'id. provincial

Mailing address/ Adresse postale | City/ Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de l'expédition

City/ Ville | Province | Postal code / Code postal

B Carrier
Transporteur

Registration No. / Provincial ID No.
N° d'immatriculation - d'id. provincial

Company name/ Nom de l'entreprise

Mailing address/ Adresse postale | City/ Ville | Province | Postal code/ Code postal

E-mail/ Courrier électronique | Tel. No. / N° de tél. ( )

Vehicle / Véhicule	Registration No. / N° d'immatriculation	Prov.
Trailer - Rail car No. 1 / 1ʳᵉ remorque - wagon		
Trailer - Rail car No. 2 / 2ᵉ remorque- wagon		

Port of entry / Point d'entrée — International use only
Port of exit / Point de sortie — International use only

Carrier Certification: I certify that I have received waste or recyclable material from the generator/ consignor for delivery to the receiver/ consignee as set out in Part A and that the information contained in Part B is complete and correct.
Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.

Name of authorized person (print)
Nom de l'agent autorisé (caractères d'imprimerie) | Tel. No. / N° de tél. ( )

Year/ Année | Month/ Mois | Day/ Jour | Signature

Reference No. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés

C Receiver / consignee
Réceptionnaire / destinataire

Registration No. / Provincial ID No.
N° d'immatriculation - d'id. provincial

Receiver/ consignee information same as in Part A
Les renseignements du réceptionnaire/ destinataire est le même qu'à la Partie A
☐ Yes/ Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

Company name / Nom de l'entreprise

Mailing address / Adresse postale

City / Ville | Province | Postal code / Code postal

E-mail / Courrier électronique | Tel. No. / N° de tél. ( )

Receiving site address / Adresse du lieu de destination

Date received / Date de réception: Year / Année | Month / Mois | Day/ Jour
Time / Heure ☐ AM ☐ PM

If waste or recyclable material is to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire

Registration No./Provincial ID No. / N° d'immatriculation/d'id. provincial

Prov. code / Code prov.	Shipping name / Appellation réglementaire	Class / Classe / Sub. class(es) / Classe(s) sub.	UN No. / N° ONU	Packing group / Gr. d'emballage chimique	Quantity shipped / Quantité expédiée	Units L or/ ou Kg / Unités	Packaging/Container No. / N°	Codes Int. - ext.	Phys. state / État phys.	Quantity received / Quantité reçue	Units L or/ ou Kg / Unités	Comments / Commentaires	Handling Code / Code de manutention	Shipment Accepted / Envoi Accepté	Refused / Refusé	Decont. Pack. / Vehicle
(i)																
(ii)																
(iii)																
(iv)																

Notice No. / N° de notification	Notice Line No. / N° de ligne de la notification	Shipment / Envoi	Of / De	D or R code / Code E ou R	C code / Code C	Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE	H code / Code H	Y code / Code Y	National code in country of / Code du pays: Export / Exportation	Import / Importation	Customs code(s) / Code(s) de douanes
(i)											
(ii)											
(iii)											
(iv)											

International use only

If handling code "Other" (specify)
Si code de manutention « autre » (spécifier)

Receiver / consignee certification: I certify that the information contained in Part C is correct and complete / Attestation du réceptionnaire / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets.

Name of authorized person (print)
Nom de l'agent autorisé (caractères d'imprimerie)

Signature | Tel. No. / N° de tél. ( )

Special handling / Manutention spéciale
☐ Attached /Ci-joint ☐ As follows/ Ci-contre

Generator / consignor certification: I certify that the information contained in Part A is correct and complete.
Attestation du producteur / expéditeur : J'atteste que tous les renseignements à la partie A sont exacts et complets.

Name of authorized person (print)
Nom de l'agent autorisé (caractères d'imprimerie) | Signature | Tel. No. / N° de tél. ( )

Date shipped / Date d'expédition: Year / Année | Month / Mois | Day/ Jour
Time / Heure ☐ AM ☐ PM

Scheduled arrival date/ Date d'arrivée prévue: Year/ Année | Month/ Mois | Day/ Jour

MOE 04-1917 (07/07)

Instructions for completion and distribution on reverse / Instructions pour compléter et distribuer au verso

Copy / Copie 1 (white / blanche

YK, Ndilo, Detah deserve answers!

Q: How expensive are the filters?
Q: Do you need a different filter for each type of toxin (one filter for mercury; one filter for arsenic; one filter for lead, etc.)
Q: How many filters would the City have to stock?
Q: How much will it cost to dispose of the filters which will then be Hazardous Waste?

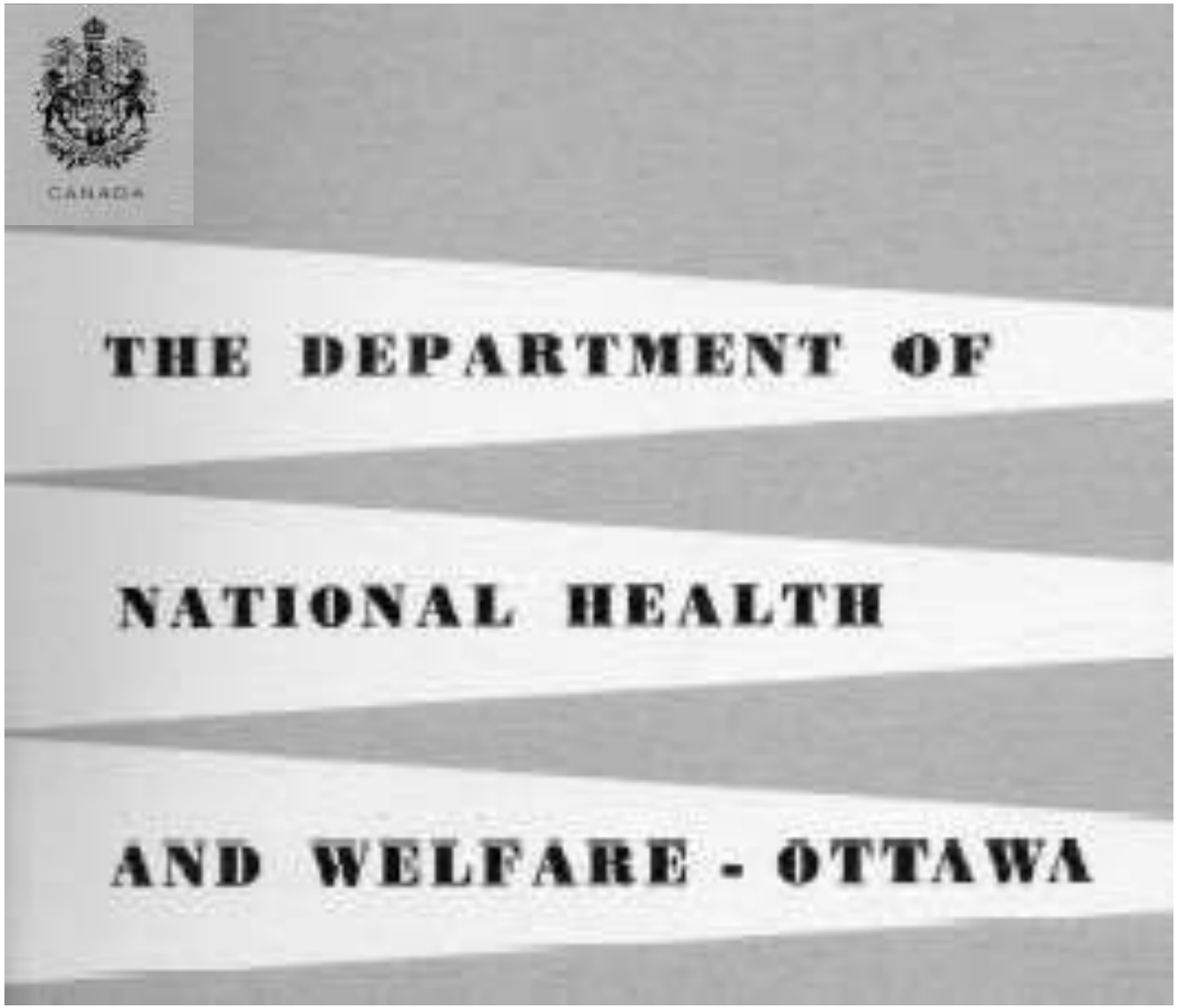
More questions to answer …

- Q: Is the City going to spend more money over a 50-year period than the $10 million it would cost to replace the submarine pipeline before 2020?
- Q: Is the City really going to save money by drawing drinking water from Yellowknife Bay?
- Q: Why take the risk given the history of toxic spills?

Even more unknowns to answer …

- Q: How will the City prepare for “large spills” of toxins into Yellowknife Bay?
- Q: How will the City protect the drinking water from unknown spills (they don’t know when the spill started)?
- Q: Has the City prepared an Emergency Plan for a catastrophic tailings pond spill?

REMINDER


CANADA
THE DEPARTMENT OF
NATIONAL HEALTH
AND WELFARE - OTTAWA