From: Andrew Keim
To: Andrew.Tam@forces.gc.ca
Cc: Erik Allain; Drew.Craig@forces.gc.ca; Phyllis Beaulieu
Subject: RE: 3BC-ALT1015 Alert Berm Water Discharge Notice (Follow Up)
Date: Thursday, July 25, 2013 9:47:10 AM

Hi Andrew,

Thank you for the prompt reply.

At this juncture I see no reason why you can not move to a controlled direct discharge from the three sites.

I would ask however that an additional confirmatory sample be collected at each location at the mid point of the discharge and the end of the discharge to ensure that we are still on track and that we do not get any surprises after the fact.

I assume this will meet with your approval.
If you have any questions or if I can be of any further assistance please let me know.

Andrew Keim
Water Resources Officer
Field Operations Unit
Aboriginal Affairs and Northern Development Canada
Nunavut Regional Office
P.O. Box 100
Iqaluit, Nunavut X0A 0H0
Andrew.Keim@aandc-aadnc.gc.ca
Phone: (867) 975-4289
Fax: (867) 979-6445
B.B (867) 222- 6488
>>> <Andrew.Tam@forces.gc.ca> 7/25/2013 11:29 AM >>>
Hi Andrew:

Good to hear from you.

I'm back in Trenton now, I was off on leave until yesterday.

Please find my responses to your three questions below:

For ALT-9 (Upper Tank Farm), DND has ruled out historical lead paint as the white tanks were painted (recently) in 1994; for ALT-8 (Airfield Tanks), the historical orange paint was confirmed in 2011 to contain lead. For ALT-9, the possible lead source could be associated with fuel tank cleaning residual waste in the berms that may not have been completely removed at the time of the last interior tank cleaning (years ago). For confirmation, I will have some gravel grab samples collected in mid-Aug when staff can safely access the base of the berm adjacent to the fuel tank, any residuals should be detected on the gravel near the tank man-hole ports.

For July I sampled at the same June locations for the berm waters; however, this time I took two grab samples from ALT-9 as this site had never previously tested presence for lead; for 2011 & 2012, lead was below detection and license limits. The second grab sample was for confirmation to rule out sampling error for this July's sampling efforts. As you have observed in Alert, spring freshet has been delayed by 2-3 wks, sampling error could have been a factor as the standing water in all three berms collected in June were at beginning of the melt; by July, the snow/ice within the berms had significantly melted.

Fuel test results - I have not received any results from our lab testing side yet; The test is to be done in parallel when we get Alert fuel samples for Env Can's Sulphur test. I have sent a follow up to expedite this process, so I will advise when results are received. As well, the June 2013 berm water results did not detect any presence of BTEX/Phenols/Oil&Grease in ALT-8 and 9, so this argument can help to rule out any recent hydrocarbon spills within the berms. For 2011 and 2012, BTEX/Phenols/Oil&Grease in ALT-8 and 9 were also all below detection and license limits.

Hope this helps. If you require more info, please let me know.

Regards,

Andrew Tam, M.Sc., Ph.D. (Candidate)
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Government of Canada | Gouvernement du Canada

From: Andrew Keim [mailto:Andrew.Keim@aandc-aadnc.gc.ca]
Sent: Thursday, 25, July, 2013 09:50 AM
To: Tam A@CFB Trenton WENV@Trenton
Cc: Erik Allain; Craig DA@CFB Trenton WENV@Trenton
Subject: RE: 3BC-ALT1015 Alert Berm Water Discharge Notice (Follow Up)

Good Morning Andrew,

Yes, we made it back more or less in one piece. Erik ended up going directly on to Kivalliq and spending another few days flying shot gun in the helicopter and fighting off the mosquitoes (they are nearly the same size over there).
Are you back in Trenton now ?..

As for the request to direct discharge, and in review:

Sample results collected on the 4th of June at ALT-8, ALT-9, and ALT-10, showed that Lead exceeded the limit set by the Water License Effluent Quality Limits (Part D, Para. 11) at 16.5, 18.8 and 7.0 ug/L, respectively.

Samples were then collected again at the same locations on July 5th, 2013 and have returned results showing that the any concentration of lead would be below detectable limits and licensed limits..

Before I would entertain your request could you answer the following?

Has a source for the lead contamination been identified at this point?

Could it be attributed to sampling error at these three sites?..
Have the results of the fuel testing I asked for been received yet ?..

Thanks very much.

Andrew Keim
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>>> <Andrew.Tam@forces.gc.ca> 7/25/2013 8:16 AM >>>
Good morning Andrew and Erik,

Hope you made it back to Iqaluit alright.

Good news regarding the lead concentration in the CFS Alert fuel tank facility secondary containment systems.

The attached Analytical Results (Page 7) of the re-sampled berm waters on 05 Jul 13 did not detect any lead (<1.0 ug/L) for:
the Airfield Fuel Tank Berm (ALT-8),
the Upper Fuel Tank Berms (ALT-9), and
the Day Tank Berm (ALT-10).

For ALT-9, I took two grab samples, they are shown as ALT-9-1 and ALT-9-2 in the attached certificate of analysis.

As you are aware, all berm water are currently being treated using the Oil/Water and Lead Filtration System; I have also collected the treated discharge water from the Filtration System, those samples were sent to the lab this week for analysis.

Andrew, based on the new results, DND would like to request your permission to cease using the filtration system and to conduct straight discharges to expedite the de-watering of all berms before winter returns by late-Aug.

May DND proceed with this as soon as possible?

DND will also ensure that all discharges will continue to be diffused at the final discharge locations to avoid/prevent ground rutting, erosion of sediments, and damage to permafrost.

As well, the attached certificate of analysis also contains the results of the July SNP results for ALT-4 (Main Station Landfill) and ALT-5 (Battery Dump); please note both ALT-6 (Millionaire's Dump) and ALT-7 (Dump#3) were dry.

Regards,

Andrew T.

Andrew Tam, M.Sc., Ph.D. (Candidate)
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-----Original Message-----
From: Andrew Keim [mailto:Andrew.Keim@aandc-aadnc.gc.ca]
Sent: Thursday, 27, June, 2013 13:47 PM
To: Tam A@CFB Trenton WENV@Trenton
Subject: Re: 3BC-ALT1015 Alert Berm Water Discharge Notice

Last reply deleted from BB.

Andrew, as per our conversation. Please proceed with discharge utilizing filter system for lead removal. Please conduct sampling to ensure discharge meets criteria and collect samples of fuel to determine if lead is present. If you require further clarification please let me know.
Andrew Keim
Aboriginal Affairs and Northern Development- Government of Canada
1 867 975 4289
1 867 222 6488

>>> <Andrew.Tam@forces.gc.ca> 6/27/2013 1:39:54 PM >>>
Thank you Andrew. Seems to be working now.

Cheers,
Andrew Tam

-----Original Message-----
From: Andrew Keim [mailto:Andrew.Keim@aandc-aadnc.gc.ca]
Sent: Thursday, 27, June, 2013 13:37 PM
To: Tam A@CFB Trenton WENV@Trenton
Subject: Re: 3BC-ALT1015 Alert Berm Water Discharge Notice

I sent a reply which was bounced. Acknowledge receipt of this email please.
Andrew Keim
Aboriginal Affairs and Northern Development- Government of Canada
1 867 975 4289
1 867 222 6488

>>> <Andrew.Tam@forces.gc.ca> 6/27/2013 8:07:55 AM >>>
Good morning Andrew,

Just a reminder on the Berm Water notice for Alert.

Cheers,

Andrew T.

> _____
> From: Tam A@CFB Trenton WENV@Trenton
> Sent:Tuesday, 25, June, 2013 15:42 PM
> To:'Andrew.Keim@aandc-aadnc.gc.ca'
> Cc:'Phyllis Beaulieu'; Craig DA@CFB Trenton WENV@Trenton; St-Onge
MWO G@CFB Trenton WENV@Trenton
> Subject:RE: 3BC-ALT1015 Alert Berm Water Discharge Notice
>
> Hi Andrew,
> > <<3BC-ALT1015 SNP Results ALT8-9-10 June 2013.pdf>>
> Apologies, please find attached the Certificate of Analysis.
>
> Regards,
> Andrew Tam
>
> _____
> From: Tam A@CFB Trenton WENV@Trenton
> Sent:Tuesday, 25, June, 2013 14:58 PM
> To:Andrew.Keim@aandc-aadnc.gc.ca
> Cc:Phyllis Beaulieu; Craig DA@CFB Trenton WENV@Trenton; St-Onge MWO
G@CFB Trenton WENV@Trenton
> Subject:3BC-ALT1015 Alert Berm Water Discharge Notice
>
> Good afternoon Andrew,
>
> As per our earlier conversation today and as per Nunavut Water Board
(NWB) Licence 3BC-ALT1015, Part D, Para. 14, the Department of National Defence (DND) would like to
provide notice of our intent to discharge water from the Fuel Storage Facilities at CFS Alert, Nunavut.
>
> DND would like to discharge water from the following secondary
containment berms:
>
> ALT-8 - Airfield Tank Farm Secondary Containment;
> ALT-9 - Upper Tank Farm Secondary Containment; ALT-10 - Day Fuel Tank
> Farm Secondary Containment.
>
> Attached is the Certificate of Analysis containing the water
analytical results for 3BC-ALT1015 sites.
>
> Please note that due to the large area of ALT-8, I have collected two
samples labelled: ALT-8 from the southern portion of the Airfield Tank Farm and ALT-8.2 from the northern
portion of the Airfield Tank Farm.
>
> As well, ALT-11 (Landfarm, aka Biopile) does not require discharging
as the berm water is re-used to re-hydrate the contaminated soils located within the Landfarm during summer
treatment season.
>
> For the discharge of berm water at ALT-8, ALT-9, and ALT-10, the
analytical results for Lead exceeded the limit of the Water Licence Effluent Quality Limits (Part D, Para. 11) at
16.5, 18.8 and 7.0 ug/L, respectively.
>
> In addition, the Phenol sample for ALT-10 was broken in transit to the
laboratory, and as a result, no data could be collected.
>
> For the Lead and Phenol issues at ALT-8, ALT-9, and ALT-10, DND would

like to propose utilizing the Portable Oil/Water Filtration System
(OWFS) to pump and treat this effluent water. DND will collect samples of the treated effluent water from the OWFS for laboratory testing, and the results will be submitted to you and the NWB. DND will further investigate the source of the Lead concentration at these facilities.
>
> Please accept this notice and if there are no further concerns, DND
will proceed with discharging water as described above from the secondary containments in 10 days from this notice.
>
> If you have any questions or concerns, please do not hesitate to
contact me.
>
> Finally, may I please request a confirmation of receipt for this
email?
>
>
> Regards,
>
> Andrew Tam, M.Sc., Ph.D. (Candidate)
> Assistant 8 Wing Environment Officer | Officier de l> '> environnement
de la 8ième escadre adjoint
> Environmental Management | Gestion d'environnement
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