



North Mackenzie District
P.O. Box 2100
Inuvik, NT X0E 0T0

Telephone: 867-777-8900
Fax: 867-777-2090

November 9, 2011

Northwest Territories Water Board
P.O. Box 2531
Inuvik, NT X0E 0T0

Attn: Freda Wilson, Office and Finance Administrator

**RE: Industrial Water Use N7L1-1831
CLASS B - INDUSTRIAL
Mackenzie River – Arvoknar Channel**

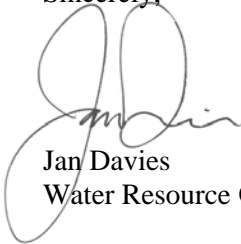
Dear Ms. Wilson,

Please find the enclosed Inspection Report for your review and records.

An electronic copy (un-editable Adobe pdf.) has also been provided by e-mail.

If you have any questions or concerns regarding the enclosed, and/or if additional information is required please contact me at (867) 777-8909.

Sincerely,



Jan Davies
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Industrial Water Use Inspection Report and Cover Letter (4 pages)



North Mackenzie District
P.O. Box 2100
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November 9, 2011

Shell Canada Limited
400 – 4 Avenue S.W.
P.O. Box 100, Station M
Calgary, AB T2P 0J4

Attn: Randall Warren

**RE: Industrial Water Use N7L1-1831
CLASS B - INDUSTRIAL
Mackenzie River – Arvoknar Channel**

Dear Mr. Warren,

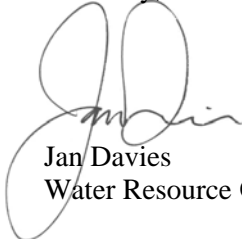
An inspection of the Shell Canada Limited Water Licence N7L1-1831 (expiry on September 30, 2013) was conducted on August 24, 2011. The operation under the above mentioned Industrial Water Use was inspected to assess compliance and ensure that the terms and conditions were met. Enclosed is a copy of the Inspection Report (3 pages) for your review and records.

Unfortunately, there was one violation during this inspection period. Our records indicate that the 2011 Annual Report as required under Part B, Item 1 of the Water Licence by September 30, 2011 has not been received by the Northwest Territories Water Board. Please review and address the violation and other concerns throughout the Inspection Report.

Please note that it is the Licensee's responsibility to ensure compliance with all of the terms and conditions of its Water Licence. A copy of this report will be sent to the Northwest Territories Water Board for their review and public records.

If you have any questions regarding the enclosed and/or if additional information is required, please do not hesitate to contact me at (867) 777-8909.

Sincerely,



Jan Davies
Water Resource Officer

Cc: Conrad Baetz, District Manager, North Mackenzie District, Inuvik, NT

Enclosure: Industrial Water Use Inspection Report (3 pages)



INDUSTRIAL WATER USE INSPECTION REPORT

LICENCE #:	N7L1-1831	EXPIRY DATE:	September 30, 2013
LICENCEE:	Shell Canada Limited	PREVIOUS INSPECTION:	April 7, 2011
COMPANY REP:	Randall Warren	INSPECTION DATE:	August 24, 2011

WATER SUPPLY

Source:	Mackenzie River – Arvoknar Channel	Quantity Used:	N/A, see water records
Owner/Operator:	Shell Canada Limited	Meter Reading:	N/A

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Intake Facilities	N/A	Storage Structures	N/A	Treatment Systems	N/A	Recycling	N/A
Flow Meas. Device	N/A	Conveyance Lines	N/A	Pumping Stations	N/A	Chem. Storage	N/A
						Modifications	N/A

Water Supply Comments:

- N/A

WASTE DISPOSAL

Well Waste:	Off-Site Removal	A	Drilling Sump	N/A	Downhole	N/A	Land spread	N/A
Solid Waste:	Open Dump	N/A	Landfill	A	Burn & Bury	N/A	Under ground	N/A
	Owner / Operator	N/A	Sludge Disposal	N/A	Other	N/A		
Tailings:	Tailings Pond	N/A	Natural Lake	N/A	Under ground	N/A		
Sewage:	Sewage Treat. System	N/A	Camp Sump	N/A	Natural Water Body	N/A	Wetland Treatment	N/A
	Continuous Discharge	N/A	Inter. Discharge	N/A	Seasonal Discharge	N/A	Trench	N/A

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Discharge Quality	N/A	Construction	N/A	Disch. Meas. Dev.	N/A	Freeboard	N/A
Decant Structures	N/A	O&M Plan	N/A	Dams, Dykes	N/A	Seepages	N/A
Dyke Inspections	N/A	A&R Plan	N/A	Erosion	A ¹	Spills	A
Conveyance Lines	N/A	Pond Treatment	N/A	Runoff Diversion	N/A	Sump Treatment	N/A
Sump Liners	N/A		SNP Samples Collected		N/A		
Periods of Discharge	N/A		Effluent Discharge Rate		N/A		

Waste Disposal Comments:

Concerns:

1. River has eroded away the river bank and all the way to the former sump area. From photos taken at different time periods, it appears that the erosion is progressing further and larger as time progresses (see Figures 2, 4, 5, 6).
2. Subsidence and what appears to be a sink hole developing on the northwest corner of the former sump area. Rest of backfilled sump appears to be stable and the cap has been well sloped and compacted (see Figure 6). Continued monitoring is needed but the long term solution would be to give this matter the appropriate action such as filling in the subsidence. This would aid in ensuring long term stability.

Notes:

- Drilling sump was excavated and waste material transported to approved Landfills - Solid Waste Disposal Facilities down south.
- Residual contamination from the sump presence still on site to the north of the backfilled sump.



INDUSTRIAL WATER USE INSPECTION REPORT

GENERAL CONDITIONS

Indicate: **A - Acceptable** **U - Unacceptable** **N/A - Not Applicable** **N/I - Not Inspected**

Ore & Waste Rock Stockpiles	N/A	Records & Reporting	U ¹	Surv. Net. Prog.	N/A
Geotechnical Inspection	N/A	Posting, Signage	N/A	Contingency Plan	A
Restorations Activities	A ²	New Construction	N/A	Fuel Storage	N/A
Mine Water Discharge	N/A	Chemical Storage	N/A	Annual Report	U ¹

General Condition Comments:

Concerns:

1. It appears the 2011 Annual Report has not been submitted. This is a violation of Part B: General Conditions, Item 1 of the Water Licence. Please note the Annual Reports are due no later than September 30, 2011 and 2012 respectively and a Final Report is due no later than September 1, 2013.
2. Due to erosion and the river bank receding into the former sump area that was backfilled, the thermistor closest to the river is lying in the river. The soil surrounding it has now been washed away. This equipment should be retrieved, downloaded, and decommissioned as it can now be a hazard (see Figures 5 and 6).

Note:

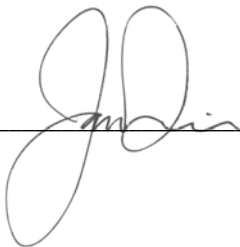
- Sand bar – borrow site appears to have re-established itself well. Can still see the imprint of the excavation but site looks stable (see Figures 1 and 3).

NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE

Part B: General Conditions, Item 1,

“The Licensee shall file annual reports no late than September 30 of 2011 and 2012 respectively and will file a Final Report no later than September 1, 2013 with the Board and an Inspector...”

Inspector’s Signature:





INDUSTRIAL WATER USE INSPECTION REPORT

Inspection Images:



Figure 1
Sand bar borrow source for backfilling the Unipkat I-22 sump excavation, June 14, 2011 – DFO photo.

Figure 2
Unipkat I-22 sump was excavated then backfilled but now has erosion of the bank and former sump area, June 14, 2011 – DFO photo.

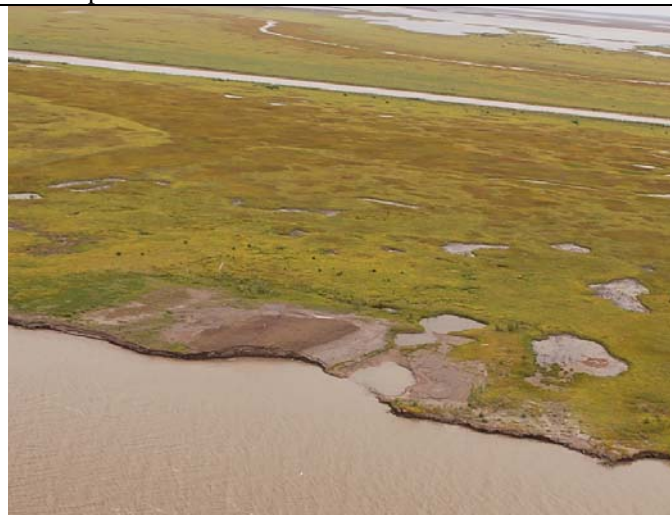


Figure 3
Sand bar borrow source for backfilling the Unipkat I-22 sump excavation, August 24, 2011.

Figure 4
Unipkat I-22 area with further erosion (than seen in Figure 2 above). More subsidence and sediment taken from river banks, August 24, 2011.



Figure 5
Area erosion showing how much of site has been decreased. Please note the thermistor at the edge of the former sump site that is now lying in the river, all the soil around it is gone, August 24, 2011.

Figure 6
Sump backfill area with erosion of southeast corner. Subsidence and what appears to be a sink hole on the northwest corner of the former sump area, August 24, 2011.