Indian and Northern Affairs Canada
www.inac.gc.ca

Nunavut District Office P.O. Box 100 Iqaluit, NU X0A 0H0

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Tel.: (867) 975-4298 Fax: (867) 979-6445

Your file - Votre référence

Our file - Notre référence

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November 29, 2002

John Knapp Manager of Operations Cominco Ltd., Polaris Operations Polaris, NU X0A 0Y0 N4L2-0262

(Expires on December 31, 2002)

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APR 1

Public Registry

RE: October 5, 2002 Water Licence Inspection - Report

The Water Resources Officer (WRO) appreciates the assistance provided during the tour of Polaris Mine's water use and waste disposal facilities. Enclosed for your records is a copy of the <u>Industrial Water Use Inspection Report</u> performed on October 5, 2002. During the inspection the following observations were noted.

- Water Supply: The Water Intake Facility at Frustration Lake was well kept and clean (Photo 1). There was some damage caused by ice to the side of the Water Intake Facility, this damage does not affect the operation of the facility (Photo 2). The Water Treatment Plant located in the accommodation complex was operational at the time of inspection (Photo 4). Enclosed analyses of water samples taken at Frustration Lake, 10 meters from the water Intake Facility SNP (262-1) (Photo 3) indicate that Total Dissolved Solids (118 mg/L vs 500 mg/L), Colour (10 TCU vs 15 TCU), pH (7.95 vs 6-8.5), Cadmium (0.0004 mg/L vs 0.005 mg/L), Cyanide (0.004 mg/L vs 0.2 mg/L) and Zinc (0.075 mg/L vs 1.0 mg/L) are found to be within the Guidelines for Canadian Drinking Water Quality.
- Waste Disposal: Sewage is collected at the Sewage Treatment Plant located below the main entrance of the Mill Barge complex (Photo 5 & 6). Collected sewage is treated in the Sewage Treatment System prior to discharge to ocean (Photo 7). The level of sewage in the Sewage Treatment System appeared to be low at the time of inspection. The level of effluent in the Sewage Treatment System may affect the quality of treatment attained, and the quality effluent emitted from the Sewage Treatment System. Enclosed analysis of samples taken from the Sewage Treatment Facility (Photo 8) indicate that pH (7.38 vs 6-



9.5), Cadmium (0.0011 mg/L vs 0.01 mg/L), Copper (0.031 mg/L vs 0.14 mg/L), Lead (0.279 mg/L vs 0.14 mg/L), are within the Water Licence Discharge Criteria. However concentration of Zinc (1.784 mg/L vs 1.0 mg/L) exceed Maximum Average Concentration as listed in the Water Licence. The Solid Waste Disposal Facility was a well-kept waste facility with no observed wind blown refuse despite not being fenced. The tipping face of the dump was kept to a minimum (Photo 13). A large portion of the dump had been covered and partially contoured to match the surrounding landscape (Photo 15). All food and combustible waste are burned at the Burn Pit prior to burial. The Burn Pit electric fence was in operation to discourage animals from foraging at the dump (Photo 14). Red Dog Pit has begun to be used as a reclamation burial pit for demolition refuse at the Polaris Mine (Photo 9). Red Dog Pit has been drained of excess standing water (Photo 10 & 12). Demolition waste is consolidated with the aid of a mechanical shear in Red Dog Pit (Photo 11).

- Tailings Disposal: The Sludge Thickening Plant was undergoing demolition during the inspection (Photo 17). Inspection of the Sludge Plant Emergency Dump Pit revealed the berms to be in good repair, with no breaches or visible seepage observed (Photo 18). The Emergency Dump Pit is schedule for pump out prior to pit decommissioning. The annual decant of Garrow Lake via the use of the Siphon Discharge Structure (Photo 19) that drains Garrow Lake to Garrow Creek (Photo 20) had been completed prior to the inspection. Enclosed analysis of samples taken at Garrow Lake 20 meters from the Siphoning Discharge Structure (SNP 262-7) at a depth of 1 meter indicate that pH (7.97 vs 6.5-9), Cadmium (0.0004 mg/L vs 0.01 mg/L), Copper (0.056 mg/L vs 0.14 mg/L), Lead (0.003 mg/L vs 0.14 mg/L) and Zinc (0.185 mg/L vs 1.0 mg/L) are within the Water Licence Maximum Average Concentrations.
- Fuel and Chemical Storage: The fuel storage area is fully bermed. The cleanup of fuel spill (02-394)10,000 liters of fuel oil is well under way. Most of the contaminated soil has been removed and dumped in the boar hole (Photo 22). The soil has been removed to the permafrost layer. Diversion channels have been excavated along the spill path to intercept any leaching fuel oil. Absorbent mats have been placed in sumps and ditches along the flow path of the spilled fuel oil to absorb any fuel that may be emitted from the soil over time. Most of the free floating fuel oil from within the Tank Farm berm has been contained within a waste oil tank located within the berm. A diversion channel should be constructed to eliminate the runoff from the east slope adjacent the Tank Farm, from accumulating within the Tank Farm berm. Enclosed analysis of water taken from the shore where the fuel oil spill occurred indicates that virtually no Oil and Grease could be found in the ocean. To ensure that no further spills are a result of non compliance with company fuel handling Standard Operating Procedures additional training should be implemented stressing the proper use of transfer equipment and engineered safe quards.

Non-Compliance of Act: Two unauthorized discharges, Spill (02-128) 750 liters of Jet A-1 fuel and Spill (02-394) 10,000 liters of Bent Horn crude are in contravention of Section 12 of the Nunavut Land Claims Agreement and the Nunavut Waters and Nunavut Surface Rights Tribunal Act for the use of water and Disposal of waste.

If there are any concerns or questions in regards to this inspection, please contact me at (867) 975 4298 or bodykevichc@inac.gc.ca.

Sincerely,

Constantine Bodykevich

Water Resources Officer (WRO)

INAC, Nunavut District

cc. -Nunavut Water Board, Gjoa Haven (Dionne Filiatrault)

- -CG&T, Igaluit (Doug Sitland)
- Baffin Health & Social Services, Igaluit (Bruce Trotter)
- EC Environmental Protection, Yellowknife (Anne Wilson)
- INAC Water Management, Iqaluit (Michelle Mc Christie)

Affaires indiennes et du Nord Canada www.ainc.gc.ca

INDUSTRIAL WATER USE INSPECTION REPORT

Date: October 5, 2002 Company Rep. (Name/Title): John Knapp/ Maznager of Operations

Licensee: TeckCominco Ltd., Polaris Mine Licence No.: N4L2-0262

WATER SUPPLY

Source(s) Frustration Lake Quantity used: 572,444 cubic Meter Reading: 052387 cubic

meters meters

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected Intake Facilities: A Storage Structure: A Treatment Systems: A Recycling: NA Flow Meas. Device: A Conveyance Lines: A Pumping Stations: A Modifications: NA

Comments: The Water Intake facility at Frustration Lake was very clean and well maintained. The Water Treatment Facility located in the accommodation complex was also a very clean and well maintained facility. Meter readings were attained from the Water Treatment Facility.

WASTE DISPOSAL

Tailings: Tailings Pond: Natural Lake: X Underground:

Sewage: Sewage Treatment System: X Tailings Pond: Natural Water Body:

Continuous Discharge: X Intermittent Discharge:

Solid Waste: Open Dump: Landfill: X Burn & Bury: X Underground:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Discharge Quality: SAMPLED Decant Structure: A Dyke Inspections: A Conveyance Lines: A Pond Treatment: NA Runoff Diversion: U

Discharge Meas. Device: NA Dams, Dykes: A Erosion: A

Freeboard: A Seepages: A Spills: 02-128, 02-394

Effluent Discharge Rate: A Samples Collected: Frustration Lake (262-1), tailings, sewage

effluent

Comments: Due to lack of runoff diversion, excessive melt water from the east slope adjacent to the Tank Farm accumulated within the Tank Farm berm contributing to the unauthorized release of fuel oil (02-394). The Solid Waste Disposal Facility and Sewage Treatment Plant were operating within Licence criteria.

GENERAL CONDITIONS

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Ore & Waste Rock Stockpiles: A Records & Reporting: A SNP: A

Geotechnical Inspection: A Posting/Signage: A Contingency Plan: A
Restoration Activities: A New Construction: A Fuel Storage: U
Mine Water Discharge: A Chemical Storage: A Annual Report: A

Comments: The decommissioning of the Sludge Thickening Complex and deposition of demolition waste in Red Dog Pit is in accordance with best practices.

Violations of Act or Licence: There has been 2 unauthorized discharges if fuel and or fuel oil during the 2002 season. Spill (02-128) a release of 750 liters of Jet A-1 Turbo fuel, on February 17, 2002 and spill (02-394) 5000 to 10,000 liters of P20 Bent Horn crude oil on June 25, 2002.

General Comments: Of major concern is the P20 spill (02-394) that occurred on June 25, 2002. Initially the spill was contained by engineered safeguards (the Tank Farm berm). Failure to follow company published Standard Operating Procedures (SOP) with respect to Tank Farm operations caused the initial loss of P20 fuel from the storage tank. The subsequent discharge of the contained P20 fuel oil into the environment was also directly attributed to employees not following Standard Operating Procedures. Further training of all company and contracting staff is required with respect to SOP and fuel handling procedures.

Constantine Bodykevich

Inspector's Name

Inspector's Signature

Polaris Mine Inspection Pictures 2002

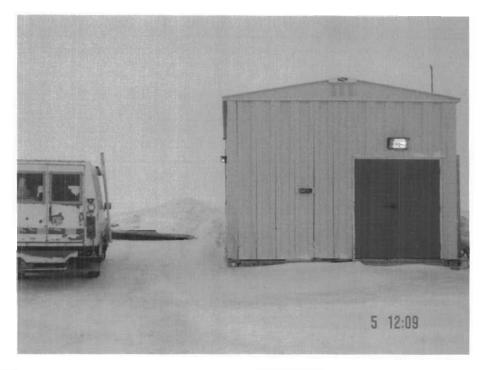


Photo # 1. Water Intake Facility at Frustration Lake.



Photo # 2. Ice damage to Water Intake Facility at Frustration Lake.

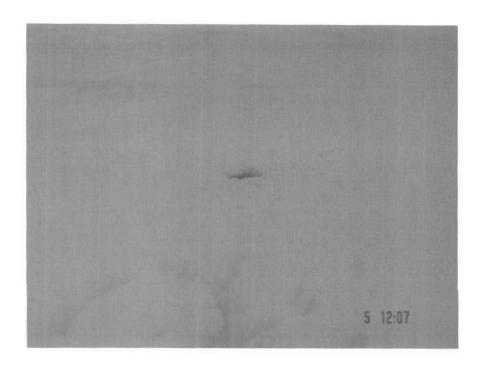


Photo # 3. Location of potable water sample, 10 metres from Water Intake Facility at Frustration Lake.



Photo # 4. Water Treatment Facility in accommodation complex.



Photo # 5. Sewage consolidation line located below Mill Barge complex main entrance.



Photo # 6. Sewage Treatment Facility draped in black tarp, attached to Mill Barge complex.



Photo #7. Sewage Treatment System, blue intake pipe on photo right.



Photo #8. Location of Sewage Treatment System sample.

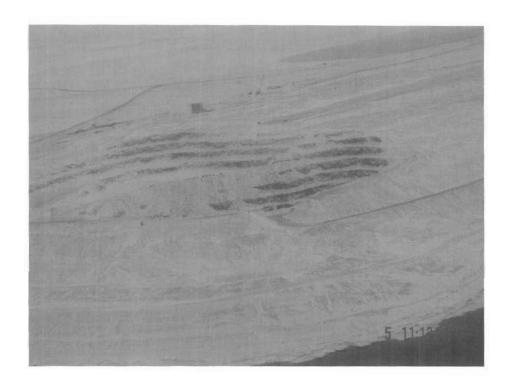


Photo #9. Red Dog Pit, reclamation burial pit.



Photo # 10. Red Dog Pit, sea-lift containers in background. Maximum depth of water 1.5 metres.



Photo # 11. Mechanical shear on back-hole in Red Dog Pit for consolidation of demolition debris.



Photo # 12. Centre of Red Dog Pit, excess water has been removed to less than 30 centimetres.



Photo # 13. Solid Waste Disposal area tipping face.



Photo # 14. Electric fenced at Solid Waste Disposal area Burn Pit.



Photo # 15. Areal photo of Solid Waste Disposal Facility, Burn Pit in photo centre and land fill to the front of the photo.



Photo # 16. Boar Hole, disposal location of contaminated soil from Fuel Oil Spill (02-394).



Photo #17. Decommissioning of Sludge Thickening Facility on Garrow Lake.



Photo # 18. Sludge Thickening Facility emergency dump pit. All berms in good condition with no leaks.



Photo # 19. Garrow Lake Siphon Discharge Structure.



Photo # 20. Garrow Lake siphon lines in foreground. Garrow Creek in background.



Photo # 21. Garrow Lake tailings line discharge 500 metres to left of photo centre.

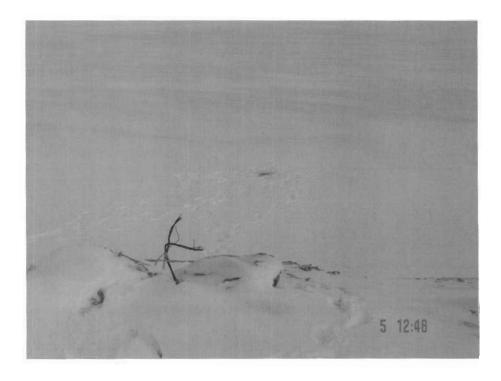


Photo # 22. Garrow Lake location of tailings effluent sample, 10 metres from Garrow Lake Siphoning Structure.



Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Pot. Water 262-1

Taiga Sample ID: 223661

Client Project:

Sample Type:

Received Date: 08-Oct-02

Location: Polaris Mine

Sampling Date: 05-Oct-02

Report Status:

Final

	·				
Test Parameter	Result	Units	Detection Limit	Analysis Date	
ysicals					
Alkalinity	74.7	mg/L	0.3	31-Oct-02	
Colour	10		5	16-Oct-02	
Conductivity, Specific	195	μS/cm	0.3	31-Oct-02	
pH	7.95	pH units	0.05	31-Oct-02	
Solids, Total Dissolved	118	mg/L	10	18-Nov-02	
Solids, Total Suspended	8	mg/L	3	18-Nov-02	
Turbidity	2.8	NTU	0.1	18-Oct-02	
ri <u>ents</u>					
Ammonia as N	0.010	mg/L	0.005	29-Nov-02	
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	17-Dec-02	
Organic Carbon, Dissolved	1.6	mg/L	0.2	17-Jan-03	
Organic Carbon, Total	3,0	mg/L	0.2	17-Jan-03	
Ortho-Phosphate as P	0.002	mg/L	0.002	21-Oct-02	
Phosphorous, Dissolved	0.071	mg/L	0.004	21-Nov-02	
Phosphorous, Total	0.085	mg/L	0.004	29-Oct-02	



Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Pot. Water 262-1

Taiga Sample ID: 223661

Tel: (867)-669-2788 Fax: (867)-669-2718

20 .		*
TVI 21	OT	Ions
VAWOY.	477	MATE

	Calcium	12.7	mg/L	0.05	05-Dec-02
	Chloride	6.6	mg/L	0.2	17-Nov - 02
	Fluoride	0.04	mg/L	0.03	24-Oct-02
	Hardness as CaCO3	52.8	mg/L	0.17	05-D c- 02
	Magnesium	5.12	mg/L	0.02	05-Dec-02
	Potassium	0.55	mg/L	0.03	06-Dec-02
	Silica, Reactive	0.51	mg/L	0.02	06-Nov-02
	Sodium	3.56	mg/L	0.02	06-Dec-02
	Sulphate	13	mg/L	3	05-Nov-02
	Sulphide	< 0.05	mg/L	0.05	08-Oct-02
Org	ganic				
	Cyanide, Total	0.004	mg/L	0.003	21-Nov-02
Me	tals, Total				
	Aluminum	<30	μg/L	30	16-Dec-02
	Antimony	1.5	µg/L	0.5	16-Dec-02
	Barium	166	μg/L	1	16-Dec-02
	Beryllium	<2	μg/L	2	16-Dec-02
	Cadmium	0.4	µg/L	0.3	16-Dec-02
	Cesium	< 0.4	μg/L	0.4	16-Dec-02
	Chromium	<3	μg/L	3	16-Dec-02
	Cobalt -	<1	μg/L	1	16-Dec-02

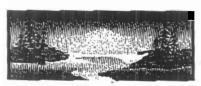


Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Pot. Water 262-1	Table Satisfies and			223661
Copper	3	μg/L	2	16-Dec-02
Iron	147	μg/L	30	02-Dec-02
Lead	63	μg/L	1	16-Dec-02
Lithium	<3	μg/L	3	16-Dec-02
Manganese	2	$\mu g/L$	1	16-Dec-02
Molybdenum	<1	μg/L	1	16-Dec-02
Nickel	1	μg/L	1	16-Dec-02
Rubidium	< 0.5	μg/L	0.5	16-Dec-02
Selenium	< 10	μg/Ľ	10	16-Dec-02
Silver	< 0.3	μg/L	0.3	16-Dec-02
Strontium	709	μg/Ľ	1	16-Dec-02
Thallium	< 0.4	μg/L	0.4	16-Dec-02
Titanium	<3	μg/L	3	16 - Dec-02
Uranium	0.4	μg/L	0.3	16-Dec-02
Vanadium	<1	μg/L	1	16-Dec-02
Zinc	7 5	μg/L	10	16-Dec-02



Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: 262-4

Taiga Sample ID: 223662

Client Project:

Sample Type: TAILings

Received Date: 08-Oct-02

Tel: (867)-669-2788 Fax: (867)-669-2718

Sampling Date: 05-Oct-02

Report Status:

Final

Location: Polaris Mine

		_		
Test Parameter	Result	Units	Detection Limit	Analysis Date
hysicals				
Alkalinity	88.3	mg/L	0.3	31-Oct-02
Colour	5		5	16-Oct-02
Conductivity, Specific	8110	μS/cm	0.3	31-Oct-02
рН	7.97	pH units	0.05	31-Oct-02
Solids, Total Dissolved	4890	mg/L	10	18-Nov-02
Solids, Total Suspended	35	mg/L	3	18-Nov-02
Turbidity	0.7	NTU	0.1	18-Oct-02
utrients				
Ammonia as N	0.023	mg/L	0.005	29-Nov-02
Nitrate+Nitrite as N	0.213	mg/L	0.008	17-Dec-02
Organic Carbon, Dissolved	0.9	mg/L	0.2	17-Jan-03
Organic Carbon, Total	3.0	mg/L	0.2	17-Jan-03
Ortho-Phosphate as P	0.004	mg/L	0.002	21-Oct-02
Phosphorous, Dissolved	0.014	mg/L	0.004	26-Nov-02
Phosphorous, Total	0.019	mg/L	0.004	07-Nov-02



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowkille, INT. XIA 2NO

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: 262-4

Taiga Sample ID: 223662

3.4.		T
IVIa	lor	Ions

	Calcium	98.2	mg/L	0.05	05-Dec-02
	Chloride	2500	mg/L	0.2	26-Nov-02
	Fluoride	0.11	mg/L	0.03	24-Oct-02
	Hardness as CaCO3	1040	mg/L	0.17	05-Dec-02
	Magnesium	192	mg/L	0.02	05-Dec-02
	Potassium	45.1	mg/ĭ.	0.03	06-Dec-02
	Silica, Reactive	0.77	mg/L	0.02	19-Dec-02
	Sodium	1280	mg/L	0.02	06-Dec-02
	Sulphate	372	mg/L	3	05-Nov-02
	Sulphide	< 0.05	mg/L	0.05	08-Oct-02
Metals	Jotal Total				
	Aluminum	<30	μ g/L	30	16-Dec-02
	Antimony	1.0	μg/L	0.5	16-Dec-02
	Barium	68	μg/Ľ	1	16-Dec-02
	Beryllium	<2	μg/L	2	16-Dec-02
	Cadmium	0.4	μg/L	0.3	16-Dec-02
	Cesium	< 0.4	μg/L	0.4	16-Dec-02
	Chromium	<3	μg/L	3	16-Dec-02
	Cobalt	<1	μg/L	1	16 - Dec-02
	Copper	56	μg/L	2	16-Dec-02
	Iron	50	µg/L	30	02-Dec-02

Report Date: Wednesday, March 12, 2003

Page 5 of 22

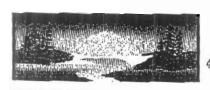


Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: 262-4	The same of the sa	Taiga S	ample ID:	223662
Lead	3	μg/L	1	16-Dec-02
Lithium	44	μg/L	3	16-Dec-02
Manganese	4	μg/L	1	16-Dec-02
Mercury	< 0.01	μg/L	0.01	04-Nov-02
Molybdenum	2	μg/L	1	16-Dec-02
Nickel	3	μg/L	1	16-Dec-02
Rubidium	9.1	μg/L	0.5	16-Dec-02
Selenium	<10	μg/L	10	16-Dec-02
Silver	< 0.3	μg/L	0.3	16-Dec - 02
Strontium	1430	$\mu g/L$	1	1 6- Dec-02
Thallium	< 0.4	μg/L	0.4	16-Dec-02
Titanium	<3	μg/L	3	16-Dec-02
Uranium —	0.8	μg/L	0.3	16-Dec-02
Vanadium	<1	μg/L	1	16-Dec-02
Zinc	185	ug/L	10	16-Dec-02



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Sewage Taiga Sample ID: 223663

Client Project: Sample Type: sewage

Received Date: 08-Oct-02

Tel: (867)-669-2788 Fax: (867)-669-2718

Location: Polaris Mine Sampling Date: 05-Oct-02

Report Status:

Final

Test Parameter	Result	Units	Detection Limit	Analysis Date
hysicals				
Alkalinity	93.4	mg/L	0.3	31-Oct-02
Colour	15		5	16-Oct-02
Conductivity, Specific	282	μS/cm	0.3	31 - Oct-02
pH	7.38	pH units	0.05	31-Oct-02
Solids, Total Dissolved	165	mg/L	10	18 - Nov-02
Solids, Total Suspended	12	mg/L	3	18-Nov-02
Turbid ity	7.5	NTU	0.1	18-Oct-02
Vutrients				
Ammonia as N	2.21	mg/L	0.005	29-Nov-02
Biological Oxygen Demand	40	mg/L	2	08-Oct-02
Chemical Oxygen Demand	80	mg/L	1	08-Oct-02
Nitrate+Nitrite as N	0.543	ng/L	0.008	17-Dec-02
Organic Carbon, Dissolved	6.4	mg/L	0.2	17-Jan-03
Organic Carbon, Total	8.4	mg/L	0.2	17 - Jan-03
Ortho-Phosphate as P	0.568	mg/L	0.002	21-Oct-02
Phosphorous, Dissolved	0. 7 97	mg/L	0.004	26-Nov-02



Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID; Sewage			Taiga Sample ID: 223663			
	Phosphorous, Total	1.15	mg/L	0.004	07-Nov-02	
Majo	or Ions					
	Calcium	14 .1	mg/L	0.05	05-Dec - 02	
	Chloride	13.8	mg/L	0.2	26-Nov-02	
	Fluoride	0.05	mg/L	0.03	24-Oct-02	
	Hardness as CaCO3	58.9	mg/L	0.17	05-Dec-02	
	Magnesium	5.75	mg/L	0.02	05-Dec-02	
	Potassium	3.40	mg/L	0.03	06-Dec-02	
	Silica, Reactive	1.21	mg/L	0.02	06-Nov-02	
	Sodium	10.6	mg/L	0.02	06-Dec-02	
	Sulphate	25	mg/L	3	05-Nov-02	
Meta	ls, Total					
	Aluminum	45	μg/L	30	09 - Jan-03	
	Antimony	1.0	μg/L	0.5	09-Jan-03	
	Barium	157	μg/L	1	09-Jan-03	
	Beryllium	<2	$\mu g/L$	2	09 - Jan-03	
	Cadmium	1.1	$\mu g/L$	0.3	09-Jan-03	
	Cesium	< 0.4	μg/L	0.4	09-Jan-03	
	Chromium	<3	μg/L	3	09 -J an-03	
	Cobalt	<1	μg/L	1	09-Jan-03	
	Copper	31	μg/L	2	09-Jan-03	
	Iron	296	μg/L	30	02-Dec-02	

Report Date: Wednesday, March 12, 2003

Page 8 of 22



Taiga Environmental Laboratory 4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788 Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Sewage	mana, a management of management of problems of the second	Taiga Sample ID: 223663				
Lead	279	μg/L	1	09-Jan-03		
Lithium	<3	μg/L	3	09-Jan-03		
Manganese	32	μg/L	1	09-Jan-03		
Molybdenum	<1	$\mu g/L$	1	09-Jan-03		
Nickel	2	μg/L	1	09 - Jan-03		
Rubidium	2.4	μg/L	0.5	09 - Jan-03		
Selenium	<10	μg/L	10	09-Jan-03		
Silver	< 0.3	$\mu g/L$	0.3	09 - Jan-03		
Strontium	760	μg/L	1	09-Jan-03		
Thallium	< 0.4	μg/L	0.4	09-Jan-03		
Titanium	<3	μg/L	3	09-Jan-03		
Uranium	0.4	μg/L	0.3	09-Jan-03		
Vanadium	<1	μg/L	1	09 - Jan-03		
Zinc	1784	μg/L	10	09 - Jan-03		
Subcontracted Organics						
Phenols	2.8	ug/L	U.5	Q4-1VUv-02		



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

- CERTIFICATE OF ANALYSIS -

Prepared For: Nunavut Regional Officer, Operati Indian Affairs and Northern D Attn: Con Bodykevitch

Sample ID: Spill Site 262-X

Taiga Sample ID: 223664

Client Project:

Sample Type:

Received Date: 08-Oct-02

Location: Polaris Mine

Sampling Date: 05-Oct-02

Report Status:

Final

Test Parameter	Result	Units	Detection Limit	Analysis Date
Organic				
Oil and Grease	< 0.2	mg/L	0.2	26-Nov- 02