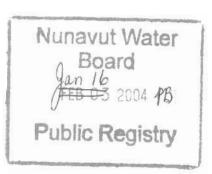
January 16, 2004

Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0E 1J0



of the latest designation of the latest desi	Time to the second seco
INTE	RNAL
PC	do
MA	
FO	
LA	Seeks Street Street, Seeks Start or
BS	THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED AND ADDRESS
ST	St. STransport St. State of Control
TA1	THE THE STATE OF THE
TA2	Mark I had many the h
RC	MINISTER STEELS, THE
ED	BATTER SPECIAL VALUE
CH	
BRD	Anthony mendalation of the Party of
EXT.	OF SHIPPING STREET

Re: City of Iqaluit Water Licence

Dear Sir or Madam:

Please find attached the City of Iqaluit's Water Licence Application. A hard copy, including all relevant drawings and reports, is currently being forwarded to the Nunavut Water Board office in Gjoa Haven.

The Iqaluit Sewage Treatment Plant is currently in the pre-design stage. Once a preliminary design is accepted it will be submitted to the Nunavut Water Board. A copy of the final design will be forwarded upon receipt from the consultant.

If you have any questions or comments or require any further assistance please do not hesitate to contact the undersigned.

Sincerely,

Prad Sokach, PEng.

Director of Engineering

NUNAVUT WATER BOARD

SCANNED

FEB 0 3 2004

Renewal

REF. #C40116 NWB310A Hater Licence 1 LAE - Part 1-3

City of Iqaluit Water Licence NWB3IQA9900 Application for Renewal

December 22, 2003

Municipality of Iqaluit Water Licence Renewal

- 1. Executive Summary(English and Inuktitut)
- 2. Water Licence Application
- 3. Additional Information for Water Licence Application Form
- 4. Water Licence Application Supplementary Questionnaire For Municipalities
- 5. Drawings
- 6. Reports
- 7. Spill Reports
- 8. Bibliography

Executive Summary

Enclosed is the City of Iqaluit, Nunavut's water licence application. The City is seeking a three-year licence, valid through 2006, to obtain water for municipal use from Lake Geraldine. The City requests an annual water use of 1,100,000 m³.

Lake Geraldine supplies raw water to the City. During the spring and summer, water flows fill the lake from the surrounding watershed. During the winter, there is no overland flow so there must be sufficient storage for over-winter consumption. Water is stored over the winter by a dam on Lake Geraldine. From the dam outfall, water is transmitted by gravity to the water treatment plant where it is treated by sand filtration, chlorination and lime stabilization. Treated water is stored in two clear wells (combined capacity of 575 m³), two filtered water tanks (combined capacity of 110 m³) and a main storage reservoir (2280 m³) located at the water treatment plant prior to entering the main distribution system. Networks of pipes or trucks deliver water to the City. The water treatment plant is currently being expanded to meet the demands of the growing population and modified to include ultraviolet treatment.

USPJY9C

 $\Delta C = C + \Delta C +$





Application for: (check one)

P.O. Box 119 GJOA HAVEN, NU X0E 1J0

Tel: (867) 360-6338 Fax: (867) 360-6369 KATIMAYINGI kNK5 wmoEp5 vtmpq NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN

WATER LICENCE APPLICATION FORM

New Amendment Renewal	Assignment
LICENCE NO: (for NWB use only)	
1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE	2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)
City of Iqaluit P.O. Box 460 Iqaluit, Nunavut X0A 0H0	
Phone: 867-975-8500 Fax: 867-975-8505 e-mail: bsokach@city.iqaluit.nu.ca	Phone: N/A Fax: e-mail:
3. LOCATION OF UNDERTAKING (describe and a Undertaking)	ttach a topographical map, indicating the main components of the
Latitude: 63°45' N Longitude: 68°31' W NTS Map No. 2	25 N/9, 25 N/10, 25 N/15, 25 N/16 Scale_1/50000_
4. DESCRIPTION OF UNDERTAKING (attach plan	ns and drawings)
The City of Iqaluit requires the taking of water from Lake Go	eraldine for Municipal purposes, both residential and commercial.
Drawings attached.	
 TYPE OF UNDERTAKING (A supplementary que undertakings listed in "bold") 	estionnaire <u>must</u> be submitted with the application for
Industrial Remote/Tourism (Camps
Mine Development Municipal Power	
Exploratory Drilling Other (describe):	

6. WATER USE	
√ To obtain water	To divert a watercourse
To modify the bed or bank o	
To alter the flow of , or store	
	e, water Other (describe):
To cross a watercourse	
7. QUANTITY OF WATER	R INVOLVED (litres per second, litres per day or cubic metres per year,
	be used and quality to be returned to source)
morading over quality to	be some quality to be retained to somethy
The City of Iqaluit is requesting ar	annual water use volume not to exceed 1,100,000 m ³ .
8. WASTE (for each type of	waste describe: composition, quantity, methods of treatment and disposal, etc.)
1 -	
_√ Sewage	Waste oil
√ Solid Waste	Greywater
√ Hazardous	Sludges
✓ Bulky Items/Scrap Metal	Other (describe):
	TIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and
location; attach if necessar	y)
Land Use Permit	
Land Cot I time	
DIAND	Yes No If no, date expected
Regional Inuit Association	Yes No If no, date expected
Commissioner	Yes No If no, date expected
10. PREDICTED ENVIRON	MENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION
MEASURES (direct, indirect, cum	
NIRB Screening	Yes No If no, date expected
11, INUIT WATER RIGHTS	
	atially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and
the rights of mult under Article 20	of the Nunavut Land Claims Agreement?
No	

11. (Continued) If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?
N/A
12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)
13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)
City of Iqaluit Dam Safety Review For Lake Geraldine Dam, Trow Consulting Engineers Ltd, March 2002. Municipality of Iqaluit Water Treatment Plant Pre-Design Brief, Earth Tech (Canada) Inc., March 2002. Water and Sewer Study, Trow Consulting Engineers Ltd., May 2002. City of Iqaluit Dam Safety Review for Sewage Lagoon, Trow Consulting Engineers Ltd., October 2002.
14. THE FOLLOWING DOCUMENTS <u>MUST</u> BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN
Supplementary Questionnaire (where applicable: see section 5) Yes No If no, date expected
Inuktitut/English Summary of Project Yes No If no, date expected
Application fee \$30.00 (c/o of Receiver General for Canada) YesNo If no, date expected
15. PROPOSED TIME SCHEDULE
Annual (or) V Multi Year
Start Date: January 2004 Completion Date: December 2006
Brad Sokach Director of Engineering Signature Date Director of Engineering Signature Date
For Nunavut Water Board use only APPLICATION FEE Amount: \$ Receipt No.:

Receipt No.:

WATER USE DEPOSIT

Amount: S

3. Additional Information for Water Licence Application Form

Additional Information for the Water Licence Application Form for the City of Iqaluit

(1) Name and Mailing Address of Applicant/Licencee

Contact: Brad Sokach

City of Iqaluit P.O. Box 460 Iqaluit, Nunavut XOA 0H0

Ph: 867-975-8500 Fax: 867-975-8505

(4) Description of Undertaking

Water Supply, Treatment, Storage and Distribution

The infrastructure system in the City of Iqaluit was first installed in the 1960's. The system now consists of:

- · a raw water supply dam,
- a water treatment plant,
- a main water storage reservoir,
- a water booster station,
- a water distribution system
- and, 4 re-heat and re-circulation stations.

Lake Geraldine supplies raw water to the City. During the spring and summer, water flows fill the lake from the surrounding watershed. During the winter, there is no overland flow so there must be sufficient storage for over-winter consumption.

Water is stored over the winter by a dam on Lake Geraldine. From the dam outfall, water is transmitted by gravity to the water treatment plant where it is treated by sand filtration, chlorination and lime stabilization. Treated water is stored in two clear wells (combined capacity of 575 m³), two filtered water tanks (combined capacity of 110 m³) and a main storage reservoir (2280 m³) located at the water treatment plant prior to entering the main distribution system.

Networks of pipes or trucks deliver water to residents. To prevent the water from freezing in the distribution system, re-heat stations continuously circulate and temper the water. Bleeders also maintain circulation.

(5) Type of Undertaking

Municipal

(6) Water Use

To obtain water to service the City of Igaluit.

(8) Waste Generated

Sewage:

The sewage production rate for the City of Iqaluit is estimated to be 1,800 m³ per day. The retention time of the sewage lagoon varies between 6 and 14 days. The lagoon provides a primary facultative treatment before release into Koojesse Inlet.

Solid Waste:

The landfill consists of a approximately 1.5 hectare solid waste management site. Wastes are currently spread in lifts, compacted and then covered to reduce predation by wildlife, odour and scattering of debris through wind. The quantity of solid waste generated by the City of Iqaluit is approximately 40,000m³ per year.

Hazardous Waste:

Hazardous waste is currently set aside at the landfill site and stored to await shipment to a southern destination for disposal. It is sent south once per year.

Bulky Waste:

Scrap metals and bulky waste are currently stored at the most southerly portion of the landfill site. These are separated from the regular waste stream, compacted and covered.

Waste Oil:

Waste oil is currently collected and stored at the public works garage. It is separated from the regular waste stream and sent to a local contractor who sends the waste to a southern destination for disposal or uses it for heating fuel.

(13) Studies Undertaken to Date

City of Iqaluit Dam Safety Review For Lake Geraldine Dam, Trow Consulting Engineers Ltd, March 2002.

Municipality of Iqaluit Water Treatment Plant Pre-Design Brief, Earth Tech (Canada) Inc., March 2002.

Water and Sewer Study, Trow Consulting Engineers Ltd., May 2002.

City of Iqaluit Dam Safety Review for Sewage Lagoon, Trow Consulting Engineers Ltd., October 2002.

4. Water Licence Application Supplementary Questionnaire for Municipalities

NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYINGI

Water Licence Application Supplementary Questionnaire For Municipalities

I.	GEN	NERAL
	1	Date: November 24, 2003
	2.	Applicant: City of Iqaluit Municipality and Region
	3.	Contacts: Brad Sokach Name of Contact
		Director of Engineering Position
		867-975-8500 867-975-8505 Telephone # Fax #
	4.	Community Status: Village Town√_ City Hamlet Settlement Corporation
	5.	Indicate the status of the municipality's licence on the date of the application New Application V Renewal Water Licence # NWB31QA9900
П.	ATT	ACHMENTS
	1.	Attach current or up-to-date detailed map(s) showing the locations of the:
		a. raw water intake; b. water storage and treatment facilities; c. fuel and chemical storage; d. sewage treatment facilities (lagoon, honey bag pit, wetland);
		e. wastewater treatment area and discharge outlets;
		f. solid waste disposal areas and drainage patterns;
		g. hazardous waste disposal area;
		 transportation access routes; existing water bodies/courses and any changes to these water bodies/courses that have or may occur as a result of water use or waste disposal facilities, locations of environmental monitorin sites. (Outline drainage basin);
		 Traditional use areas outlined on site map and areas around the community used for recreation camping, fishing, etc.
		 abandoned and/or restored water treatment, sewage, and solid waste disposal facilities.
		Are maps attached? ✓ Yes _ No
		If no, please indicate when they will be available.

Indicate which organization has provided the various maps or diagrams.

Town of Iqaluit Water Licence Renewal – Overall Plan: Dillon Consulting Ltd.

Town of Iqaluit Waste Management Plan – Existing Waste Disposal Sites: UMA Engineering Ltd.

Solid Waste Disposal Area: UMA Engineering Ltd.

III. WATER SUPPLY

Wate	er Source
1.	Type of source: Lake River Well Other
2.	Name of water source and alternative, if any.
	Lake Geraldine
	Primary Source Secondary Source
3.	Usual break-up & freeze-up period:
	Broak up
Wate	r Intake
**************************************	Please provide short descriptions for the following:
	a. Freshwater intake facility
cast i	water leaves Lake Geraldine and enters the water treatment plant through a 360 m long, 250 mm diameter from intake pipe, insulated with 50 mm of foam glass and protected with a gauge metal jacket. The injection impered water from the plant prevents the line from freezing.
	b. Operating capacity of pumps used
Raw	water supply is gravity fed to the water treatment plant
	c. Intake screen size
Not a	applicable as there is no intake screen.
Wate	er Storage
removed .	Type of water storage facility. (check where applicable) √ Reservoir/Pond _√_ Storage tank None Other

17				. *			
D	escr	1	D	11	0	n	ľ
			Ī.		-		

2.	If "reservoir" checked:				
	Is the reservoir lined? Yes _	_√_No			
	What type of liner?	When was i	t installed?		
Water	Treatment				
<u>1</u> ,	Indicate the quality of the water.				
	Summer:	_√ good	fair	роог	
	Fall:	good		poor	
	Winter:	_√ good		poor	
	Spring:	good	fair	poor	
2.	Describe.				
	The water is of good to excellent of dissolved solids. Treated water is				
3. Ty	pe of water treatment.				
	Filtration and chlorina	tion			
	Chlorination only None				
	✓ Other <u>UV, Chlorina</u>	ation Filtration Ca	ustic Soda ad	dition	
	J Chief CV, Chiefina	actors I milations Co	astro soua au	GILLOIL	

Water Use and Distribution

1. Volume of water use:

Distribution	Estimated number of people on the system A	Estimated average water consumption (Litres/capita/day) B	Total water consumption (Litres/day)	
PIPED	3600	277	997,200	
TRUCKED	2400	123	295,200	
TOTAL			1,292,400	

Ge

Gen	eral condition of the:
a.	Water supply facility
	If unsatisfactory, explain.
b.	Storage facility
	If unsatisfactory, explain.
C.	Distribution system
	If unsatisfactory, explain.
Mo	difications
	Are there any changes <i>planned</i> for the water supply system

If yes, please attach a copy of the plan, or describe changes. Provide information on the implementation schedule.
1. Increase the capacity of the water treatment plant by constructing 4 new filters, extending the existing building structure to house them and install new backwash pumps.
2. Utilize UV treatment as the primary means of disinfection.
3. Replace the existing lime handling system with a caustic soda system.
 Provide a PLC – based control system and desktop computer, to automate certain plant functions and provide data logging capability.
Water treatment plant upgrade is currently underway and scheduled for completion in February 2004.
 Does the community believe changes needed to the water supply, storage or treatment facilities? Describe.
No
Identification
Are there signs identifying drinking water sources presently used by the municipality? √_ Yes No
IV. SEWAGE DISPOSAL
1. What type(s) of sewage treatment does the community have?
Wetland
Honey bag Combination/Other: describe
Combination/Other: describe
Lagoon (if applicable)
Has there been any operating problems with the lagoon?
Yes V No If yes, describe
Mechanical System (if applicable)
F 18 6 6

	1.	Describe (type, specifications, operation and maintenance program for the mechanical wastewater treatment system).
	N/A	
	2.	Are sludges produced?Yes✓_No
		If yes, describe how the sludges are disposed of:
		nd (if applicable)
	1.	Describe the Wetland wastewater treatment system.
	N/A	
	Honey	Bag Pit
	1.	Does the municipality use a honey bag pit? Yes√No
		If yes, describe the location, drainage, and operation/maintenance of the site:
	Comn	nercial, Industrial and/or Hazardous Wastes
	Tables	Are there any sources of commercial or industrial <i>liquid</i> waste being discharged or deposited to the wastewater treatment system that may affect the quality of the effluent or leachate produced? (The municipality should be aware that any commercial or industrial discharge has to be approved by the municipality)
		Yes√No
		If yes, indicate sources, types and quantities.
	Sewag	ge Discharge
1.	Are fi	sh, shell fish and other wildlife harvested in or near the discharge area? Yes No
		If yes, indicate species harvested, and level of harvest.
Cana	al Car	dition of the savage treatment facilities
1		dition of the sewage treatment facilities al condition of the

Page 7 of 23

Sewage collection system

1.

	b. Discharge control system		
	c. Dams, diversion dykes, berms√_ Satisfactory Unsatisfactory If unsatisfactory, explain.		
Modif	ications		
	Are there any changes <i>planned</i> in the sewage treatment facilities? No		
	ripality is currently in the pre-design stage of converting the non-commissioned sewage treatment plant to ventional secondary activated sludge treatment plant.		
2.	Does the municipality or residents believe changes are needed to the sewage treatment facilities? Describe.		
the qu	n general the public may perceive that the retention time and treatment of sewage is not adequate, i.e. that ality of discharge could be improved. The lagoon was design to provide only primary treatment. The new will address these concerns.		
Abana	donment and Restoration		
¥ .	List and describe abandoned or restored sewage treatment facilities. Refer to original attachment maps.		
N/A			
	Page 8 of 23		

Are t

Identification

Are there signs identifying past and present sewage disposal sites?

Yes V No

V. SOLID WASTE DISPOSAL

Briefly describe how solid wastes are collected and delivered to the disposal area.

Residential waste is placed into waste box or holding room by residents. It is picked up twice a week by the Municipality. Commercial waste is placed in waste box or waste room and picked up daily by the Municipality.

- Is the solid waste site fenced? _√_ Yes __ No

If no, describe

Waste Reduction

Does the municipality burn garbage?

Yes _√_No

If yes, describe how and when this is done.

2. Has the municipality considered measures for waste reduction such as recycling or reuse?

✓ Yes No

If yes, describe

Municipality currently employs a recycling program.

Animal Carcasses Pit

Animai Carcasses Pu	
Yes	ipality have an area for the disposal of animal carcasses?
Waste Oil Pit	
1. Describe the waste	e oil storage area.
The state of the s	lected and stored at Public Works yard. It is separated from the regular waste stream and ctor who sends the waste to a southern destination for disposal or uses it for heating fuel.
Bulky Scrap Metal We	uste Disposal Area
_√_Ye	cipality have a scrap metal or bulky waste disposal area? S No escribe its location and operation plan.
Scrap metal and bulky	waste is currently stored at the existing landfill. It is separated and compacted.
Commercial, Industri	al and/or Hazardous Wastes Disposal Area
area? (The mun approved by th _√_ Y	commercial or industrial waste being discharged or deposited in the solid waste disposal nicipality should be aware that any discharge of commercial or industrial waste has to be the municipality) Yes No indicate sources, types and quantity.
	lassified as waste which does not come from a residential area. It includes waste which , office buildings and schools etc. This does not include hazardous waste.
	pality use a hazardous waste disposal area? Yes No its:

2	1 ocation

Hazardous waste is stored inside the fenced Solid Waste site on the northeast side. Commercial and Industrial waste is held at the place of business generating it and disposal is the responsibility of the generator.

b. Structure

N/A

c. Operation and maintenance (describe special handling/disposal methods for these wastes)

A Household Hazardous waste collection program takes place four times per year and individuals may also bring it to the facility throughout the year. After each collection the waste is neutralized or recycled. Every two to four years waste that cannot be neutralized or recycled is shipped south for proper disposal.

General Condition of the Solid Waste Disposal Area

- Comment on the general conditions of the:

Modifications

Are there any changes planned for the solid waste disposal area?

_√_No __Yes

If yes, attach a copy of the plan, or describe changes. Provide information on the implementation schedule.

2. Are changes needed to the solid waste disposal area? Describe.

No

Abandonment and Restoration

List and describe abandoned or restored solid waste facilities.
 Indicate their location on a map.

Upper Base, North 40 Dump, Dump Site #1 - Sylvia Grinnell Park Dump, Dump Site #2 - Summer Camp Dump, Dump Site #3 - The Existing Landfill, Dump Site #4 - Municipal Dump, Dump Site #5 - Apex Dump.

lden	tification		
	Are there signs identifying past and present solic	d waste disposal sites?	
	Yes <u>√</u> No		
VI.	INSPECTION AND MONITORING		
1	117		
1	When were municipal facilities inspected by:	Data: Halmania	
	Indian and Northern Affairs Inspector Municipal and Community Affairs	Date: <u>Unknown</u> Date: <u>Unknown</u>	
	Other:	Date: Unknown	
		Date. Chancern	
2.	Is there a system in place for reporting spills?		
	ii yes, describe.		
	Department of Public Works and Engineering person		
	cular mobile radios and in some cases, cellular phor		ate
1111111	ediately with City dispatch who in turn can contact	a response team.	
3.	Is there a contingency plan for clean up of spills Yes V No	?	
	If yes, describe.		
	W 17		
4.	Have any spills occurred in the past five years?		
	YesNo		
	If yes, describe and show on a map the location	s of the spills. What action has been take	en to
	clean the affected areas?		
Plea	se see attached Spill Reports		
Moi	nitoring Program		
7	Is water sampling and analysis done?		
	√ YesNo		
	If Vac anomar the questions a to a		
	If Yes, answer the questions a to e		
a.	Briefly describe how samples are taken and sent	t to the laboratory.	

Page 12 of 23

Water sampling started in September 2003. Results will be made available as soon as possible. In general, sampling and analysis is conducted in accordance with the methods prescribed in the current edition of the "Standard Methods for Examination of Water and Wastewater."

b.	Briefly describe any monitoring done for wastewater effluent and leachate.
	No monitoring done.
€.	Who is responsible for water sampling? Name: Bob Brouillet
	Position:Water Treatment Plant Operator
	Telephone #: 867-979-5643
	Fax #:867-979-4166
	Level of training:Water Treatment Plant Operator Level I
d	Recognized laboratory performing analysis of samples.
	Name:Taiga Environmental Laboratory
	Address: Box 1500, 4601 - 52 nd Avenue, Yellowknife, NWT
	Telephone #:867-669-2788
	Fax #:867-669-2718
ė	Are any changes planned in the water quality monitoring program?
T	The City plans to monitor water quality as per the Surveillance Network Program.
P	PUBLIC CONCERNS
Brand	What concerns does the municipality or residents have regarding the municipal water supply or waste disposal facilities? List the concerns and describe what steps have been taken to address those concerns.
	None

VII.

VIII. you ha	we diffi	PUBLIC HEALTH (Help may be obtained from the Regional Environmental Health Officer if culty with this section.)
		Despite repeated attempts the City has been unable to contact the Regional Environmental Health Officer.
		Date:
	2.	Municipality:
	3.	Contact: (Environmental Health Officer Contact)
		Telephone #: <u>867-979-7656</u>
		Fax #:867-979-7659
	4	Have there been any problems or health/environmental concerns with drinking water?
		If yes, describe
	5	Have there been any problems or health/environmental concerns with sewage disposal/treatment? Yes√_ No
		If yes, describe
	6.	Have there been any problems or health/environmental concerns with solid waste disposal? Yes
		If yes, describe

Moni	toring Program			
¥ .	Does the Regional Health Board perform water quality sampling?			
	No			
	Unable to complete the rest of this section as Health Board representatives did not return repeated phone calls.			
a.	Briefly describe the sampling methodology.			
b	Briefly describe any monitoring of wastewater effluent and leachate.			
C.	Who is responsible for sampling? Name:			
	ivame.			
	Position:			
	Telephone #:			
	Fax #:			
	Level of training:			
d.	Recognized laboratory performing analysis of samples.			
	Name:			
	Address:			
	Telephone #:			
	Fax #:			
e.	Are any changes planned in the water quality monitoring program? YesNo If yes, describe.			

IX.	TECHNICAL INFORMATION (Assistance may be obtained from the Regional Community Government ($CG\&T$) office if you have difficult with this section).			
The (he City has been unable to contact a representative	e from CG&T		
i i	Date: November 2003			
2.	. Municipality: City of Iqaluit			
3.	Contact: Kriss Sarson (Community Government and Transportation	on Representative)		
	Telephone #: 867-975-5314			
	Fax #: 867-975-5318			
4.	Population (according to most recent census	s results): Approximately 6000		
5.	Estimated growth rate over next 5 years: Ap	pproximately 3%		
6.	그녀는 아이들에 이렇게 하는데 아이들 맛있다면 하는데 얼마를 하는데 하는데 아이들은 아이들은 아이들은 아이들이 아이들이 아이들이 아이들이 아이들이	Has any baseline data collection and evaluation been undertaken with respect to the physical, biological, and chemical characteristics of the main water bodies in the area? YesNo		
	Unknown			
	If yes, provide a summary of program detail	ls or site title, authors, cities, and dat	tes:	
	Prepared by <u>Title</u>		Completion Date	
	If no, are such studies being planned? No Yes (If yes, when and be	oy whom);		
	Unknown			
7.		n of baseline data on main water boo	dies in the area?	

	If yes, specify.		
	Unknown		
8.		ta collection and evaluation been undertake environment potentially affected by the proj Yes	
	If yes, provide detail	ils below.	
	Prepared by	Title	Completion Date
Attac 1.	information: a. details of po b. details of all c. details of the d. details of all	on or drawing(s) of the present solid waste do not size and elevation; I retaining structures (dimensions, materials the drainage basin and existing and proposed I decant, siphon mechanisms etc., including	of construction, etc.); drainage modifications; sewage treatment facilities;
	f. distance from	rding direction and path of wastewater flow m watercourses and fish bearing waters; I construction of liners;	from the area,
		d groundwater collection systems; and ctures.	
2.	Attach detailed plan	n or drawing(s) of the present sewage treat	ment system. The drawing(s) should

include the following:

a. b. c. d. e. (m	details of the drainage basin and existing and proposed drainage modifications; details regarding direction and path of wastewater flow from the area; indications of the distance from watercourses and fish bearing waters; all sources of seepage presently encountered near these areas, including volumes (m³/day) and directions.		
g.	The direction of each flow.		
3.	Are drawings for the solid waste disposal area and sewage treatment system attached? √ YesNo		
	If yes, who has provided them?		
	Waste Disposal area – UMA Engineering Ltd. ge treatment Facilities -		
	If no, indicate when they will be available.		
Hydro	ology		
1.	Effects on surface water flow: Are any stream channels altered? Is the natural storage or water level of any lake or pond changed?		
	Is a storage reservoir created in a natural channel? ✓ Yes No		
	If yes to any of the above, briefly describe the expected change in flow or storage:		
	are no expected changes; all are from previous projects that have been approved operation for several years.		
· .	Drainage Area: What is the drainage area?3.85 _km² What is the average elevation of the drainage basin?110metres ASL Is the drainage basin outlined on an attached map?√_YesNo		

Describe the drainage basin characteristics, (vegetation, general soil type, lakes, swamps and permafrost areas, etc.)

A rolling terrain surrounds the community. The subsoil is made up of glacial drifts over a predominantly granite Precambrian bedrock. The layer of overburden, silty sand, gravel and boulders vary from 0 to 18 m thick and has numerous surface depressions. As a result ponds are prevalent in the summer months. The depth of thaw in the permafrost ranges from 1 to 1.8 m. The water table is very high and segregated lenses may be found. The vegetation consists of lichens, mosses, hardy flowers and grasses.

3.	Channel characteristics	
	Is the course of any channel changed?	Yes <u>√_</u> No
	If yes, describe measures to maintain stream bed and	bank stability.
4.	Will the cross-section of any watercourse be changed If yes, describe the change and its effect on the flow	
Water	Supply	
1.	What is the rate of withdrawal from the source?	2000 m³/day.
2.	Is water drawn from the source intermitte	ntly _√_continuously
3.	If it is drawn intermittently, during what month(s) is it drawn?	
4.	For what period is it drawn (days/weeks/months)? C	ontinuously 365days/year
5.	What is the rate of flow of source (if river) or size (i	f lake)? Approximately 20ha
6.	At the intended rate of water usage, describe the effective which water will be drawn.	ects on the river or lake from

No effect

Water Intake

Î.	Please provide short descriptions of the following: a. freshwater intake facility
long, prote	water leaves Lake Geraldine and enters the water treatment plant through a 360 m 250 mm diameter cast iron intake pipe, insulated with 50 mm of foam glass and cted with a gauge metal jacket. The injection of tempered water from the plant nts the line from freezing.
b.	operating capacity of the pumps
Raw	water supply is gravity fed to the water treatment plant.
C.	intake screen size
Not a	applicable as there is no intake screen
₩ate	r Storage
and the second s	Is a dam or dyke being used to store or alter the flow of water?YesNo
2.	What are the dimensions of the dam or dyke? Length: 117.3 m Width: 1.63 m Height: 8.14 m U/S slope: 1.25H:1.0V D/S slope: 1.5H:1V – 3H:1V
3.	Does the proposed dam create a reservoir in a natural watercourse?
4	Will the dam or dyke affect fish migration or movement? Yes

Water Treatment

	Indicate the capacity of the treatment facility1050 m ³ /day	
2.	What is the capacity of the water storage facility? 2967 m ³	
3.	Describe the method of water treatment (i.e., backwash, flocculation, sedimentation, chemicals used), and provide the results of the most recent bacteriological and chemical analysis. Attach a diagram, if possible.	
UV treatment provides primary disinfection. Caustic soda is then added to adjust Ph levels. At the end of the system chlorine is added to provide continuous disinfection. Water is then stored.		
4	Are there any changes planned in the water treatment facilities? No	
1. Increase the capacity of the water treatment plant by constructing 4 new filters, extending the existing building structure to house them and install new backwash pumps.		
2. Utili	ze UV treatment as the primary means of disinfection.	
3. Replace the existing lime handling system with a caustic soda system.		
4. Provide a PLC – based control system and desktop computer, to automate certain plant functions and provide data logging capability.		
Water treatment plant upgrade is currently underway and scheduled for completion in February 2004.		
Sewag	re Disposal	
1.	Indicate the level of sewage treatment:	
2.	Indicate the capacity of the sewage treatment facility 18,900 m ³	

3.	Based on current population projections, the facility does not currently meet the community's needs.	
4 .	Average depth of the wastewater lagoon 2.0 m.	
5.	What is the design freeboard? n.	
6.	Indicate the retention time of the sewage while in the treatment facility_7 days.	
7	Indicate the estimated rate of discharge of wastewater_17 L/sec.	
8.	Indicate the location of the discharge point West Dyke at Koojesse Inlet.	
9.	Is the discharge:seasonal√_continuous	
	If the discharge is seasonal, during what month(s) is it done?	
10.	Are there any changes planned in the sewage disposal facilities? No ✓ Yes If yes, attach a copy of the plan or indicate changes and include an implementation schedule.	
	Include excerpt from MACA Capital Plan if available.	
Municipality is currently in the pre-design stage of converting the non-commissioned sewage treatment plant to a conventional secondary treatment plant.		
Solid)	Waste Disposal	
1,	Indicate the capacity of the disposal area <u>250,000</u> m ³ .	
2.	The average depth of the solid waste disposal site 4.5-5.0 m.	
3.	The current facility will meet community needs until the year <u>2009-2010</u> .	
4.	Do any natural watercourse enter the solid waste disposal area? What methods are used to decrease the amount of runoff water entering these areas?	

A drainage ditch has been constructed to divert water around the facility.

5.	Indicate the volume of water that may enter these areas from any source(s) and attach all pertinent details of the diversions.					
	This is currently being studied.					
	<u>Source</u> <u>Volume</u>					
6. Please describe any diversions of watercourses:						
	Ditches have been constructed around the landfill to divert water from entering the facility.					
7	Are there any changes planned in the solid waste disposal facilities?					
	Include excerpt from MACA Capital Plan if available.					
Othe	r					

 Describe any additional details on the existing municipal facilities which should be considered by the Nunavut Water Board during it review.

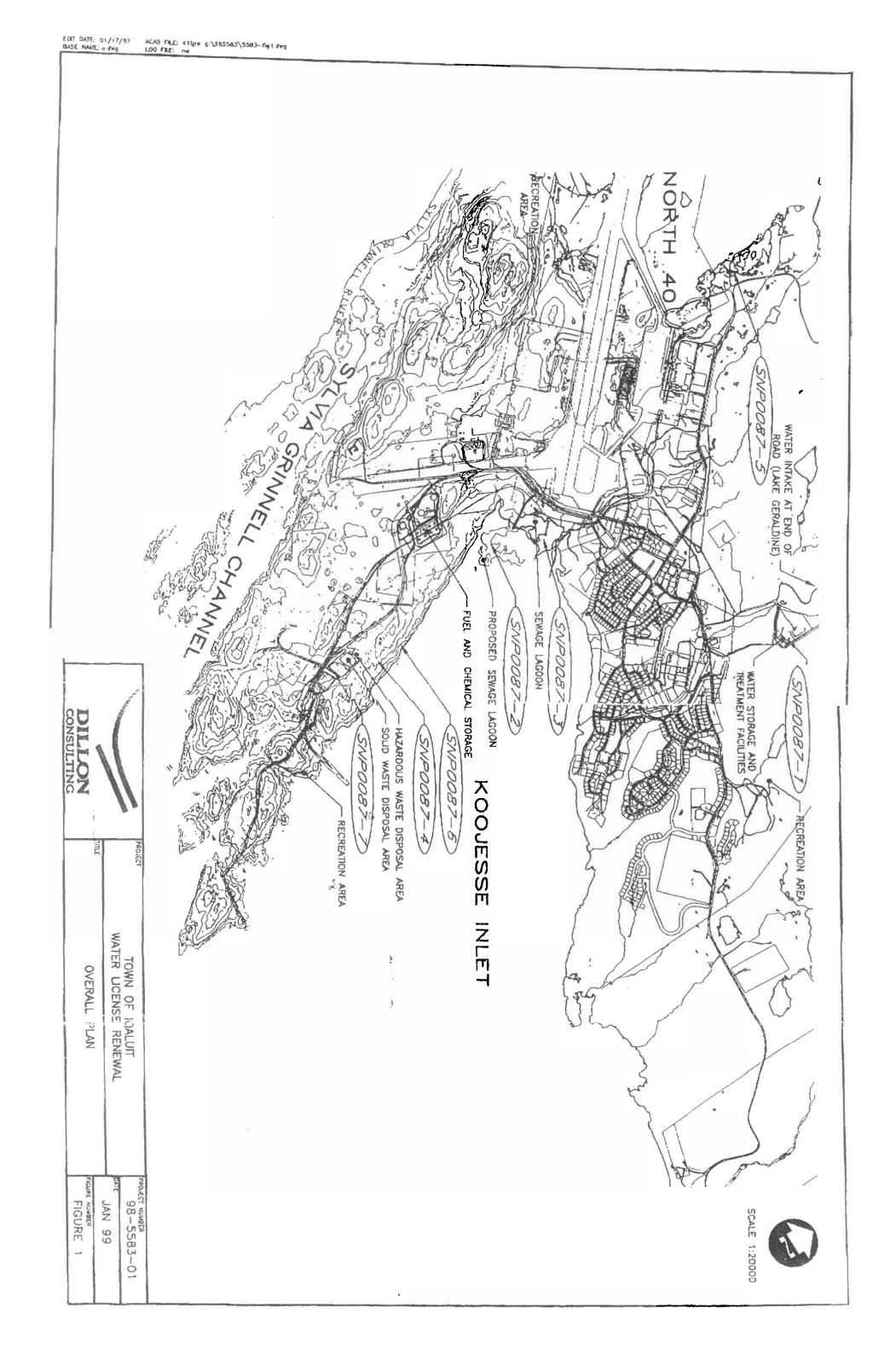
The Municipality of Iqaluit is devoted to being responsible environmentally to the community and complying with the regulatory requirements set out in the water licence. It strives to supply the highest level of service possible to the fast growing community. It not only responds to current needs but is committed to solid planning for the future. The Municipality is dedicated to continuously improving infrastructure associated with the water supply system, solid waste management and sewage treatment facilities.

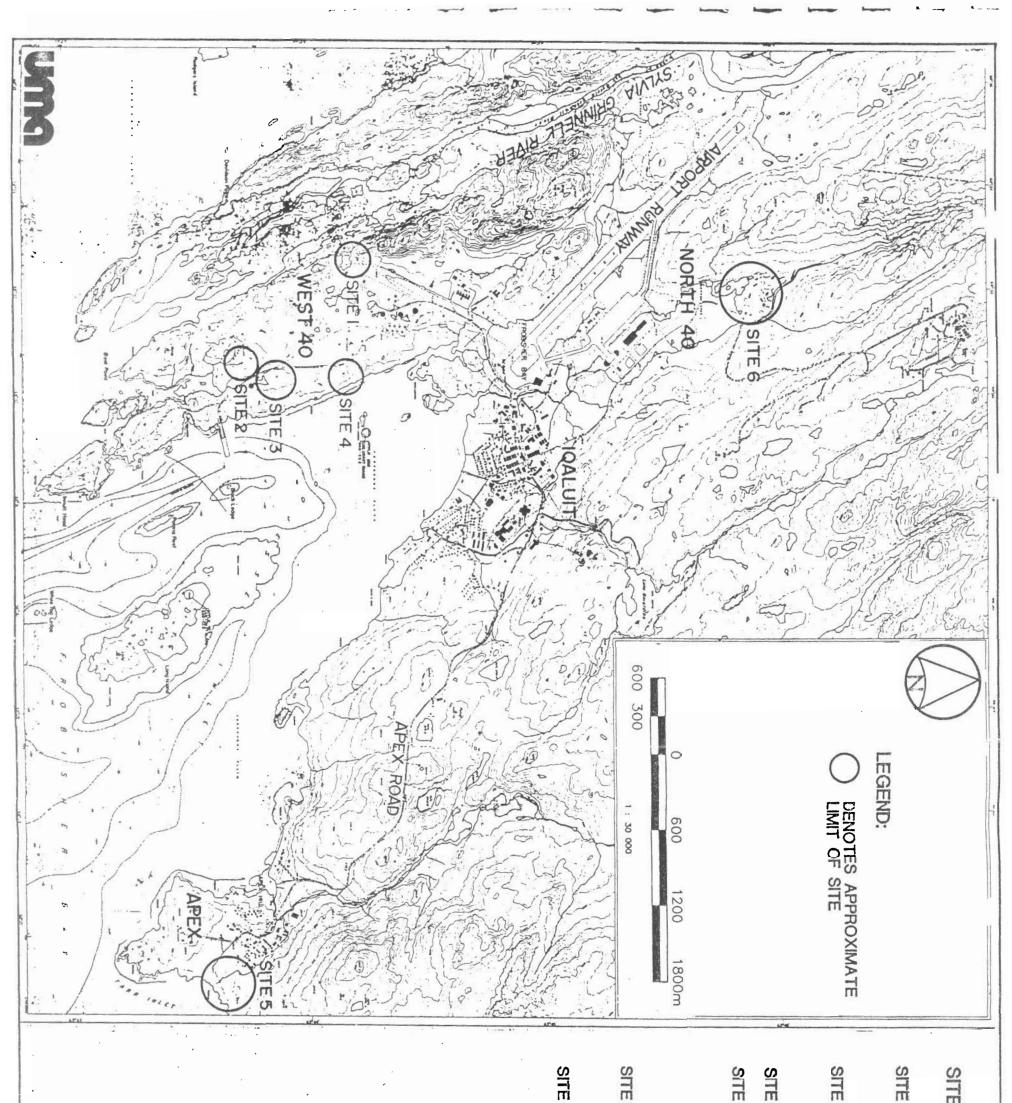
5. Drawings

Town of Iqaluit Water Licence Renewal, Overall Plan, Figure 1, Dillon Consulting Ltd.

Existing Waste Disposal Sites, Figure 1, UMA Engineering Ltd.

Solid Waste Facility Operation and Maintenance Manual, Dillon Consulting Ltd.





SITE EXPLANATIONS

- 1 Inactive metal waste site used by the military.
 The exposed areas consist mostly of scrap metals, barrels and truck bodies.
- 2 Inactive municipal waste site used for less than a one year period, subsequent to the closure of Site No. 5.
- 3 Inactive metal waste site of unknown origin.
- Active municipal waste site situated on old honey bag disposal area presently used for all municipal wastes, with the exception of large bulky wastes. Waste is burned at this site, therefore the exposed wastes are mainly non—organic. This site has been developed beyond capacity.
- 5 Inactive municipal waste site used until 1979. Substantial amounts of gravel were used to cap the site, however the face is still exposed.
- E 8 Active bulky waste site currently used for disposal/ storage of scrap metal, bulk materials and 45 gallon steel drums. The gravel extraction and waste disposal operations are in conflict on this site.

TOWN OF IQALUIT WASTE MANAGEMENT PLAN

EXISTING WASTE DISPOSAL SITES

Figure 1



6. Reports

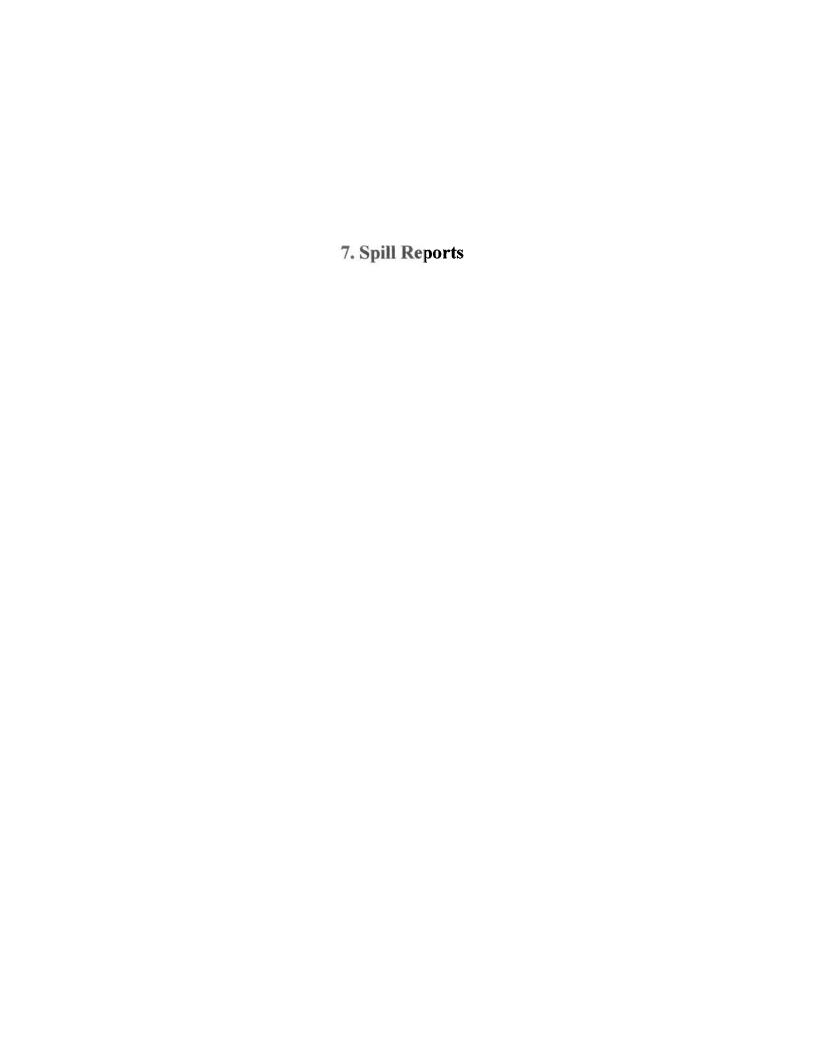
The following reports are available for review at the City of Iqaluit's Engineering office.

City of Iqaluit Sewage Lift Station Spill Contingency Plan, Dillon Consulting Ltd., May 2003.

Town of Iqaluit Landfill Operation And Maintenance Manual For Site 3 in West 40, UMA Engineering Ltd., December 1994.

City of Iqaluit Spill Reports (April 2001 - Present).

Municipality of Iqaluit Water Treatment Plant Pre-Design Brief, Earth Tech (Canada) Ltd., March 2002.





N.W.T. SPILL EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

Daring 1842 Darige 1200 1200 1200 1200

24-Hour Report Line oc Dobisa of Cos Dobisan Dapas Phone/DSbcDC (403) 920-8130

		1 1 1 2 1 1 1		Fax/76-378 (403) 873-692
A Report date and time	7-30 PM. B Date and D-5% de 7-5% de 18-5% de 18-	time of spill (if known	C	riginal report >-"\C D="\bD\D\" pdate no. *\b\D'\b'\b'\b'\b'\b'\b'\b'\b'\b'\b'\b'\b'\b'
D Location and map coordin	nates (if known) and direction (if moving) NDMME (1644LYDMM)	, Ψ. (ΔΥΓ'5'K')	0 /	
Party responsible for spill	•	-		
	mated quantities (provide metric volumes d*f**6**<* (d*f**6**6 D**P**f***6**f**5***** d***	Weights if possible)	4.5 110	*
G Cause of spill	CARREN SER		Tally system	Andrewski vije Katackijo odvo 20 in Sv
H Is spill terminated?	If spill is continuing, give estimated re	A Principle of the Control of the Co	ble? K Extent	of contaminated area (in square metres if possible) OPPING INFACTOR (INDICATE AREA OF CONTAMINATION OF CONT
Factors affectingspill or re PY AYCOC'S days D'CS QY2547CS)	covery (weather conditions, terrain, snow dopology (Va. baλchlotho, as	cover, etc.) %ΔΔ-"le"le" d>">DE-"le"le".	Containment (ma DがイクンドのD Pa	stural depression, dyles, etc.) - איי באייל בייאר בייאר בייאר (מובד באייארב) בייאר
N Action, if any, taken or proj %ωΔε-ΣΟς, %ωΔε-ΣΟΓΔ ⁶⁴ ςς	posed to contain, recover, clean up or dis D°C3 %ΔΔεΗΓΟΎσΟΥΝΟΣ (CD/ΥΓΠΟΡΩ/Υ),	spose of product(s) and contamina of boncoator, hall of Docator	ated materials ΔΓCDσΦΦΦC JACT	(dAt 5° 5°) (JL) dAMP4°.
	a a a a a a a a a a a a a a a a a a a			tet.
Do you require assistance? Δbζ [®] (D)λ Δ'β Λ'β no yes, det Δ'β Δ - 4.2		Possible hazardsto persons 4(C'a)A'and'8''''''' Δ'bJda' D'C' oftDa'	, property, or envira משחר לא ליבי מיפט ליבי	mment; eg: fire, drinking water, fish or wildlife ペルト バュ - ΔΡ ລσ. ゴブゴ σаb°CD/ゴンσ.
Q Comments and/orrecomm	nendations IMD/\\Δ' (I'L.) D°C.3°σ' ba	∇ ^C LQ,٩>D⊀ _C		FOR SPILL LINE USE ONLY
				Lead Agency Δ"baሷታ"ጋናሊኖልና ል አረ୮" bLቦታዔ"ጋና-
				Spill significance dA
				Lead Agency contact and time Δ°5a Δን "ጋናኪ" በና መላቸ ይሆን "ኔግር ቴውስ "ይግርያም የተመጠረ የተመጠረ መጠረ ነው። የተመጠረ ነው። የተመ
				is this life now closed? C ^c a De ^a br _e 5De ^c 4 LD3D ^c 2
Reported by $D\sigma^*b^*D^*$	Position, Employer, Location 16.20-20-11. Δ**baΔ5-1. Δ**baΔ5-1.			Telephone D'baDC
Reported to	Position, Employer, Location δράθης Δ°δαΔές, Δ°δαΔές Δ°δαδάς Δ°δαδας			Telephone D'SEDC
1	1 6 0 1 0 300 0			



N.W.T. SPILL KEPORT (Oil, Gas, Hazardous Chemicals of Other Materials)

pachar data Dabish (Dardas, Lit. decense

24-Hour Report Line 24-Hour Report Line 24-Hour Report Line Δ655Δ Φσ⁶65ΔD Κ⁶α ⁵⁶0⁷⁶ D⁵6ΔD⁶ Phone/D⁵6ΔD (403)920-8130 Fax//650⁸6 (403)873-6924

leunones DC 11 di	081/D NO 0 DC	D.C. D.C.	Fax/769	J°J° (403)873-692
A Report date and time SEPT 12/6	B Date and D Saturation	d time of spill (if known) JAN STAR TO GODALYDOCO	C - Original report '> '- ''' C Do DO DO TO TO Update no. Do "BO PO PO" - "" Do LOC	Spill number
D Location and map coordinates	(if known) and direction (if moving) רֹי בור ("לאלב" בור") ("לאלב" בור") ("לאלב" בור")	LIG (ATPOSES) A.E.	ic Hill I can	75.05
Francis Feller	SD DITCHING	Down King	100 - A EMA.	
Party responsible for spill Pada dananca	HUNGCIPALITY OF	Tancer		
P/ P/ 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6	ed quantities (providemetric volume ช่องไร้ ((ปีโฮโป) ให้ที่ฮโกโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮโฮ	''• ዝ'<'9	Sp ':	
G Cause of spill Pr dATTCOR CHEMISE PART	86	COOLITEES	the orthit.	1 7 75 3 4 V
Is spill terminated?	If spill is continuing, give estimated to dance "bonn" about "bonn" about "	J Is further spillage possible: dΔ*b*σ>Δ*a, d*b* yes/ Δ</td <td>L POST WILLIA 98 STATE (</td> <td>(in square metresif possible) ひっつっしし</td>	L POST WILLIA 98 STATE ((in square metr es if possible) ひっつっしし
■ Pパ ハッセCDペッ ものと」、Dペペッ 本書	ery (weather conditions, terrain, sno CDa/יור של וויב "משלב"ל הילה בים".	24	Containment (natural depression, d D°243-85AD PC-4J A294-7L49	
SEL ACIE TOUR ST SPILL TO PLANS OF SELE	WS LERE CAL PREJECT FURTH AGE AND DI		SIZAH. WERE HIXED	KHED
	TO DUMPING		LAGOUN	
Do you require assistance? באל "(Dלה מ"ג" \ ^? אור אור איי איי איי איי איי איי איי איי איי אי			operty, or environment; eg: fire, drin ΠΊΡΟΝ Ο ΝΕΙΝΟΝΙΚΟΙ Ο ΘΕΙΝΟΝΙΚΟΙ Ο ΙΕΙΝΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΙ Ο ΘΕΙΝΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΙ ΙΕΙΝΟΝΙΚΟΙΚΟΙ ΙΕΙΝΟΝΙΚΟΙ Ι	king water, fishor wildlife , ΔΓ΄Ι΄ σΟ°Ե°Φ/ΙΙ΄,σσ,
Comments and/or recomments	#tions D'6D/°5Δ° Δ¶Δ D°62°5° 6		FOR SPILL	LINE USEONLY
			Lead Agency Δ°baΔ>*Jε~¢Å	984L# PFLA28#De-
			Spill significance	
			Lead Agency co Δ"6αΔγ"] Γκ. "δί "6D2" 6 "CDκ" 6 (304L, PTL22P
			Is this file now cl C°a Do"babbe	
Reparted by	Position, Employer, Location δωΔ'ΟΓ* Δ'*δαΔές, Δ'*δαΔές	Nt. at 11.	Telephone	744
HING FREDA	FOREST ABELLE	C. Halthalli	(27.)	LA THE ST
Reported to	Position, Employer Location	746, 2	Telephone D'SLDC	
Lemma Harris	1000 - 1200	AND THE PROPERTY OF THE SHAPE A	9.7	in on the



N.W.T. SPILL . EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

pachar dollar Dobbish Anna Mar Area

24-Hour Report Line
24-Hour Report Line
25-26 Δ65526 Dσ66500 Δ65206
Phone/D56206 (403) 920-8130

Fax/d65046 (403) 873-6934

Tellione Della	DOLLA DO O VENTO.	D-6.7 (4.1.)		Fax/76 28 (403) 873-692
A Reportdate and time	B Date and the Dat	me of spill (if known) CHOPLYPY CH	(1)	Original report ソラニペイ DoがbD/D4つ Update no. Doがb/D5でラームVC
	es (if known) and direction (if moving) חֹרְיֵּר (יֵשׁאַלְאַלְּאַלְּיִר (יִּיִּאַ לַּאַלְאַלִּיּר (יִּיִּאַ בַּוֹּיִאַ אַרְיַּאַר אַרַיִּיִּאַ אַרָּי	Lo (Asperso) H. 1+1 154	MUST	H"S BEHIND
Party responsible for spill	MUNICIPALITY			
E Party responsible for spill	THE PACIFIC	a delle		
Products) spilled and estima ۱۹/۲ ۱۹/۲ څخه ط۱۹۸۵ المحالات الم	ated quantities (provide metric v alu mes/ ችቦታዬ፣ረ፥ ዜ ጎቦታኒ ውሃትቦ*ታኒስ ኔቴና ፈዛናል	weights if possible) ざらい	F1C.6	1000 LITRES
G Pa da ADP	E was BRUNG	,1		
H Is spill terminated?	If spill is continuing, give estimated rat	1 94.P. DD. 0 V D.P. (3		xtent of contaminated area (insquare metres if possible)
1 64. V. 406. 9847. D.62 4	overy (weather conditions, terrain, snow of PCDa/MT at 1/2 bo/Chorboto og 1	cover, etc.) DOLCHOLD (A) >>> D/Lollo,	M Containmen	of (natural depression, dykes, etc.) Padd Areka-biller (and Areka, drzstans)
O GORAGE F	Sed to contain, recover, clean upor dispress to be defined and according to the contain of the contained and the contain	S REMOUSE SELVER	CINE	SEVACE LAGGORN SEVACE LAGGORN WAS PRINCEEN REFE SEWAGE TRICKS
Do you require assistance? Δετα CD ω 45 α Α΄ ? γes, desc	ribe:	Possible hazards to perso d'(c'a)Δ'and'b'') Δα'α' Δ'b''λ' Δα'α' Δ'b''λ' σ'της δα'α' Δ'b''λ' σ'της δα'α' Δ'b''λ' σ'της δα'α' σ'της δα'α' Δ'b'' σ'της δα'α' Δ'' Δ'' Δ'' Δ'' Δ'' Δ'' Δ'' Δ'' Δ''	, monitoria e i	nvironment; eg: fire, drinkingswater, fish or wildlife אלים איניים איני
And the same of th	ndations PBP/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	CLQ.92D4c		FOR SPILL LINE USE ONLY
				Lead Agency Δ"ቴሬΔケ"ጋርሊ"Åና ፌ ዚተጉ ቴLቦንቴ"ጋና-
				Spill significance ฮล์รั่ ๖๑๕๓๖๒๖
				Lead Agency cont act and time Δ"ቴፌሊታ"ጋራ _ሲ "ልና ዜ ዲዮ ቴ <u></u> ኒቦንቴ"ጋና ቴ <mark>ሪ</mark> ትቴ"ርፆራን
				Is this file now close⊈? C°a ספיטתיטטליי באטלי?
Reported by	Position, Employer, Location 6.00 Στο Δούδο Δού	, of		Telephone D°b∠DC
Cherry trema	Positizan, Employer, Location	S. S. C. C. L. C.	31 2496	Telephone
Reported to P°J° as Da°6DQx's	'baΔ'Dr' Δ'baΔ'zc', Δ'baA'z''n'l	u, a.,		D ^s b _C DC

Northwest Territories

N.W.T. SPILL (EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

other Materials)

Fax//bc26dc (403) 873-6924 Orginal report Report date and time B Date and time of spill (if known) בוכ־מאלא לב־אל אלאל (ב־הב־מאלאל לב־אל אלאל אלי) Spill number 19=00 Do-60104" בישל ביללים ביללים ביללים ביללים ביללים לבים להבים 404' a 400 Update no. _ 10/ 12 3 to PM 11 Dass 10 8 200 200 Location and map coordinates (if known) and direction (if moving) Party responsible for spill Product(s) spilled and estimated quantities (provide metric volumes/weights if possible) P/ P/ 300 JAC BAM O'TO B'C (O'TO') D'FT" + 'T' 3' + O C' O'TO' 200 1 x u Cause of spill G PZ darror J Is further spillage possible? Is spill terminated? If spill is continuing, give estimated rate Extent dicontaminated area (in square metes if possible) 98400 POPULDGS mo/ 4% / yes/ A yes/ A // no/ 1th Containment (natural depression, dykes, etc.)

Deardstant Prof. Area (2007) (2007) Area (2007) Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.) P/ Λ^2 CD2° d Λ 4E D*2° d 4°P°CDa/1°D° J (/c "ball-"bo" ba. a "ba Δ e" ba" ba' ba' ba' d 3°7D/Lo" ba. 16-1-45270 N Action, if any, takemor proposed to contain, recover, clean up or dispose of product(s) and contaminated materials δωΔεγδίζους δυθώνος δυθώ west do : ,; 1-111 Possible hazards to persons, property, or environment; eg: fire, drinking water, fist or wildlife פרלים אל מת של אים באלים היים. אלאחר אל אים באלים באלים באלים האלים Do you require assistance? yes, describe: لد کموده - ۱ FOR SPILL LINE USEONLY OFFCOCOSON SOLD OF LOS OF LOS OF LOS OFF such Lead Agency - "CONTILL "TYPP JULY DE JULY POLLY POLLY Spill significance dat bode tothe Lead Agency contact and time is this tile now closed? Ca Dobaboto LDSDC? Position, Employer, Location Telephone Reported by bodOF Δ badzo, Δ bady nit, a DECDC Kobert 4.70 Utilian to do Position. Employer Location Telephone Reported to Podo DobDCDKs Bod Or A bad > . A bad on The. D&CDC

In Con The

Northwest Jerritories

N.W.T. SPILL , EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

2 CMΓ 3642 Dobb (Dobb Ac MAC) 48(5 accord)

24-Hour Repart Line
24-S Δ655 Φ Δ656 Φ Δ656 Φ Δ656 Φ Δ656 Φ Δ656 Φ Δ656 Φ Δ666 Φ Δ666

Phone/D'6_DC (403) 920-8130 Fax/26'0'6' (403) 873-6924

and the same and t		1 00/10 2 0 (403) 073-0924
A Report date and time A DEST PREMISS SYNDERS DESTRUCTOR A DESTRUCTION OF THE DESTRUCTI	nd time of spill (if known) dan = J & Y.M. (if known) C \ J \ D \ D \ C \ D \ S \ S \ S \ S \ S \ S \ S \ S \ S	Update no. 10 - 10 10 10 10 10 10 10 10 10 10 10 10 10
D Location and map coordinates (if known) and direction (if movin		
	& occloss - love	DAMIE CILLION
Party responsible for spill	Igint	
Product(s) spilled and estimated quantities (provide metric volum PAT PATS & BORT BORTS OF CONTROL DIPPING FITS &		25/2 10000
G PH dartor	and the contract	
H Is spill terminated? If spill is continuing, give estimated אליים בייש שיים בייש אליים בייש שיים בייש אליים בייש בייש אליים בייש בייש אליים בייש אליים בייש בייש בייש בייש בייש בייש בייש ב	d rate J Is further spillage possible? who σ Δ = π σ δ σ ζ γ γ γ γ ν σ ν σ	Extent of contaminated area (in square metres if presible) \$\int_{\text{\int}}^{\text{\int}} \delta \cdot \frac{\text{\int}}{\text{\int}} \delta \cdot \delta \cdot \frac{\text{\int}}{\text{\int}} \delta \cdot \delta \cdot \frac{\text{\int}}{\text{\int}} \delta \cdot
Factors affecting spill or recovery (weather conditions, terrain, si P/C 1/2000 diff D°C 3 d°P CD a/n° 3 J (/c % a A c lo lo lo d/? 35° P° 3)	on Sode Lotto 10 12 to 1	mment (natural depression, dykes, etc.) β'ΔΟ΄ Ρ΄- ΟΙ΄ Δ/ "Ψ- "/ Ly" (ραΓ Δ/ " Δ΄, (Ι/7-Δ))
N Action, if any, taken or proposed to contain, recover, cleanup or "bada-bdg, "bada-bdg" (* real bada-bdg of the contain of t	dispose of product(s) and contaminated materia (,^bb^bnCDa^d, \Lb_5b^bCCP P^CACCD_d^b	als < dA<* (dA<*5°67) 0'L> dA*AD<*.
$\leq \langle \langle \langle \rangle \rangle \rangle = \langle \langle \langle \rangle \rangle \rangle = \langle \langle \langle \rangle \rangle = \langle $	- and 10 50 mg	1
ground is dile	The Follow	Meet 18 sold
Do you require assistance? Δbt "CD5n.d"b" Λ" no yes, describe:	Possible hazards to persons, property, Δ°C (a M°a a 48°) (Δα°ας, Λ΄θΠ΄ > D κας Δ°S α κ΄ ο κ΄ κ΄ ο α κ΄ ο α κ΄ α α κ΄ ο α α α κ΄ ο α α α α α α α α α α α α α α α α α α	or environment: eg fire, drinking water, fish or wildlife D°C > QCNJC A° > - ΔΡ° > σ, ΔΓ΄ J° σ D° b°CD/J° > σ.
Q Comments and/or recommendations D'bD/*\Δ' 4'L> D°C+σ'	$P^{\nabla}\nabla^{-}LQ_{i}A_{i}D_{i}C_{i}$	FOR SPILL LINE USE ONLY
		Lead Agency
		Δ"bally")ch" "A C ball" bLly"b")c-
		Spill significance
		Lead Agency contact and time ልግቴልልታግጋሩኪ "ልና ታልላና"
		Is this tile now closed? Ca Do bath LDtDe?
Reported by Position, Employer, Location boΔ ^c OΓ* Δ*baΔ ^c c*, Δ*		Telephone D'scDC
Reported to Position, Employer: Location	tale is travers so	Telephone
Podos DorbDCDto, Δobalico, Δobalico, Δobalico	allof Ti	DECDC

Northwest Territories

(867) 920 - 8130 N.W.T. SPILL EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

COUNT ANT OF DEPTH DAY, LIP, O'C'L'ED'

24-Hour Report Line Phone/DicDC (403) 920-8130

TETTIONS DETTIN GOTTE	DO O DE MA	(2 (K.))			(403) 873-692
A Report date and time 10-5 78 78 15-5 16-72 19-75 16		e of spill (if known) 5J 871990 5J (803/03/	c) C	Ortginal report /> -= Update no	20/2 2/96
D Location and map coordinates (if known) and	かしつ のついいのしょとなられて	MOD TOUR	NG O	FFEN DER	B.C.C.
Party responsible for spill ALCON	CIPALITY	OF I	CVAL	417	
F Product(s) spilled and estimated quantities (pr			1000	GALS	
G Cause of spill BY BATTOR LINE BLO	CVACE				
	uing, give estimated rate	J Is further spillage pos dA3630204 ACC yes/A Yn		Extent of contaminated to the armond darker and a second	a area-(in square metres if possible) خام (المعروب المعروب (المعروب المعروب ا
Factors affecting spill or recovery (weather con P/C A'RCDE' dARJ' D'ES d'PCDaPN'S J (RO ARS-STATE)	nditions, terrain, snow co δρά-νονδος, ρα δρ	Actorbo d> borloba,	INI 00910	inment (natural depressi %%ADC PCQUC AZCACCAZ	on.対kes, etc.) パ ^や LoaT A/や\A ^c , タイアンケント・コ
N Action, if any, taken or proposed to contain, re SELU AGE JULE AWD PLEMOUED	BE NE	STED W	L H 67 VLCD-0.	3 NOVO	L. MADY.
Do you require assistance? Δετος Δετος Δετος γες, describe: Δετος Δε	P	Possible hazards to perso d°C°aDd°and°b°D° Da°a D°C'a o°tha°	C. VAULLANGY .	or environment; eg: fire	, drinking water, fish or wildlife P ユモ、ΔΓリケーマトット(ひんり)コース・ロース・ロース・ロース・ロース・ロース・ロース・ロース・ロース・ロース・ロ
Q Comments and/or recommendations D%D/%	16 (14L) (16 P°C) 6 (16 P°C) 16 P°C)	.Q.9≯D ⊀.		D % (D ν Ν) Lead Agend Δ % b Δ Δ γ % D δ δ δ δ γ % b Δ δ γ % D δ δ δ γ % D δ δ δ γ % D δ δ δ γ % D δ γ δ δ γ % D δ δ γ δ δ γ % D δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ γ δ δ δ γ δ δ δ δ γ δ	eance
				Is this file n	pw cl c ed? なPく。 (DケPぐ)
Da.P. D.	mployer, Location "badbe", A"badb" TOCK	ما		Telephone D'bad'	111-5648
Reported to Postion, Er	mployer, Location "bad>c", A"bad>"174,	,l		Telephone P%LDC	

Northwest Derillories Della De	7d_Δ°, ικ', σ°ς (*03) 920-813 '\Δ° Δ°ς (*03) 873-692
A Report date and time A PERMITS SEYLOWING DOWNFORD B Date a DESME MAR 17/CQ 11:144 MAR	C Original report Option of spill (if known) Option of s
D Location and map coordinates (if known) and direction (if moving and	
E Party responsible for spill AGENT C. PALITY	ERS AV. 4 - AVS
Product(s) spilled and estimated quantities (provide metric volum איני איני איני איני איני איני איני אינ	
G Cause of spill POSSIBLE BLOCK. FLOW FROM NOW	**
H Is spill terminated? JAN 10 10 10 10 10 10 10 10 10 10 10 10 10	If rate J is further spillage possible? K Extent of contaminated area (in squaremetres if possible)
Factors affecting spill or recovery (weather conditions, terrain, sn PM MRRCDC BARLY DOCS OFFICE AMPS J MC BOACLOVES, a 1/735453) ACM	ow cover, etc) Δ Containment (natural depression, dykes, etc) Δ Φ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ
N Action, if any, taken or proposed to contain, recover, clean up or South of the South of the Section of the S	dispose of product(s) and contaminated materials (Last-Start Cock, 13-12-14-14-14-14-14-14-14-14-14-14-14-14-14-
Do you require assistance? Δ64 Φλα 486 Λ62 yes, describe: Δ - α 20 Δ5 2 J	P Possible hazards to persons, property, or environment; eg: fire, drinking water fish or wildlife dictada and book as a solution of the driving and the condition. A solution of the condition o
Comments and/or recommendations D'bD/"\Δ" Φ'Lɔ D""(3" σ' C)	FOR SPILL LINE USE ONLY (1) でしていい。 はんてい しいというしょ しゅん Agency ないしょう かったい なんてい しいともっかっているい はんてい しいともっかっているい はんてい しいともっかい しゃん とっしゅうしょ しゅん Agency contact and time ないしょう かったい ないしょう ないしょう ないしょう ないしょう ないしょう ないしょう ないしょう はいまま はいまま はいまま はいまま はいまま はいまま はいまま はいま
Recorded by Davillon Conference Location	C*a Þø*bn.>D<" L)>D </th
Heported by Position, Employer, Location bod of A bod of A bod of Municipal Control of the Augusti Palare.	0F January 979- 5648
Reported to Position, Empoyer, Location もっからして A to Location もっからして A	Telephone D'SCDC



N.W.T. SPIL. IEPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line

Phone/D56_DC (408) 920-8130

Narthwest TerritoriesCNG[9840c Darper Octor	Δ ^c , L/c, α (C ₆ ^c) ^c C D ^c C > α/ γ C		Phone/D&cDC (403) 920-8130 Fax//b'D'b'd' (403) 873-6924
A Report date and time D'S YP' JJS'S BYJO'N'SJ 2:40 ARRIC	B Date and DESTE do	time of spill (fknown) 10 3 BY JUNE J. FBDALD	(1) C	Odginal report Spill number AAA' & NC Jobate no
	s (if known) and direction (if moving)	BES	DE H	SHLICE
BETWEEN #	we list on	1ND M.14.	THE STATE OF THE S	
Party responsible for spill		100 1011	* 1	_
1 1	v			
	ted quantities (provide metric volumes	/weights if possible)		
	لعيهيرد الميكعية كصليعيلي عبلي عبود الاي	7.4(4.)	BL AGE	
	ECC LITIE			The state of the s
G PA ANYCON PAR	TIME LIMIE	JULIC MAGE	if-si-Bu	E GREAGE)
CALLED 50	EL 40c 70	BACK UP	1010	HS 4-409
	If spill is continuing give estimated ra と da くら ちゅっか と生のでする	J is further spillage po	K Exter	t of contaminated area (in square metes if possible) 4. Contaminated area (in square metes if possible) 4. Contaminated area (in square metes if possible) 4. Contaminated area (in square metes if possible)
Factors affecting spill or recov	very (weather conditions, terrain, snow	cover, etc.)		
ALTACON BALL DIES DE	PrCDarnos I/c "bode" borlo", pa	'δοΔ∈ [∿] ίσ [∿] ίο ^ς ΦΣ'γΣ/Ισ [∿] ίο,) - C. F .=	atural depression, dykes, etc.) CAL ALCOVER (COL ALCOVER)
N # Action, if any, taken or propos	ed to contain, recover, clean up or dis	pose of product(s) and contam	ninated materials	De De Casson
health bally all				6. TELEVICE TO THE SECOND SECO
TO LACE	C MILA SELL	10C LO.1 H	Tillow	THEN REMOVE
Do you require assistance? באל משלים Do you require assistance?		P Possible hazards to person	ons, property, or environs, property, or environs, מאל מאלים ביים מיים ביים מיים ביים מיים מיים מי	onment; eg: fire, drinking water, fish or wildlife
yes, descri Δ - a a a Δ		۵°6عره ۱۳۶۰ و۲۸۵۰	unan	The same of the sa
Comments and/or recommend	ما °ن و کا کا ۱۵۰ ۱۵۵ ۱۵۵ اماد المعادمة المعادمة المعادمة المعادمة المعادمة المعادمة المعادمة المعادمة المعادمة	7-14,9704,		FOR SPILL LINE USEONLY
				Lead Agency Δ"baΔ5">>cn"å' dA4" bL196">'-
				Spill significance
				dat' baacitoit-
				Lead Agency contact and time Δ°6aΔ5°5~c~°Δ° dΔ<6° bLΓλξ∞3° 'bD>'b"(Do'l d'L3 '6\/Jd"n") JOON CONTROL OF CON
				Is this file now closed? Č*a Do*ba>D<% LO>D </td
Reported by	Position. Employer, Location δωΔ'ΟΓ* Δ'δδαΔ'ς*, Δ'δδαΔ'ς*	that is a second	. ,	Telephone
Comment of the second		ge C.		9712 5648
Reported to	Position, Employer, Location			Telephone
PED DOPPOCOK	"baΔ'Dr" Δ"baΔ"c". Δ"baΔ>"n"	ll, cl		DibaDC



N.W.T. SPILL (EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

ωα^CNOT 304ω^C Dσ⁶6 (D⁶/4ωΔ. L/². 4^C(⁶ω^C)^C

lettimes DC I	1/1 001/D DO 0 75	17. D. (2) (1.1.)	Fax/76 J 8 (403) 8 /3-692
A Report date and time	B Date as be selected as a part of the selec	nd time of spill (i' known) dan's J "b'Y JA"M" SJ "BBALAD"()	C Original report Yo "c" (T Do" bDYD 4" Update no. Do" bYD' b" o" o" o (b) C
D Location and map coon	dinates (if known) and direction (آmoving ما ۱۹۵۲) ۱۹۵۲ کے حالا کا ۱۹۵۲ ۱۹۵۲ کا ۱۹۵ کا ۱۹۵۲ کا ۱۹۵۲ کا ۱۹۵۲ کا ۱۹۵۲ کا ۱۹۵۲ کا ۱۹۵ کا ۱۹۵ کا ۱۹۵ کا ۱]) -[-ὑ: (Δ>ι(-ς•<)	,
全		1.7%	
Party responsible for sp	ell		
	stimated quantities (provide metricvolum 3		
G PA MY COR			
Is spill terminated? dAx* _ ~ b MCD <br ges/ \Delta no/ \	If spill is continuing, give estimated to device both the new just	J is further spillage possible' المائة ماكات منظائة المائة المائ	DISTRIBUTED TO STORE STUDIO 129 DE STUDIO
Factures affecting spill of PY # 4CDC 6A71' D'	recovery (weather conditions, terain, sn c d PPCDa/PP J (/c baΔe lo lia), 1	ow cover, etc.)	Containment (natural depression, dykes, etc.) DOWN ASTADO POOLS APONTO- PLAN (DOL APONTA), APPLAN (DOL APONTA)
N Action if any taken or p SoartDC, BoartDC,	proposed to contain, recover, cleanup or Σ' D°C > %ρΔα-ΣΡΔ'σΔ'%ζ' (CD/'ΓΝΟΣΑ-Δ')	dispose of product(s) and contaminated (, ω "6" CD« D« Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ	
			·
	ce? describe: לע ² ל A ב ב	P Possible hazards to persons, pr d'C'a) A and bill Ashar, All Abda be a attac	operty, or environment; eg: fire, drinking water, fish or wildlife מבלב ל פרא מלחשל בייץ מלא מלא בייץ מלא מלא בייץ מלא מלאלאלים. מבלב ל מלא מלאלים אונים לייצים אונים מלא מלאלים אינים
Q Comments and/or record	mmendations D&D/*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	%a∆-∩1°d>D<°	FOR SPILL LINE USE ONLY 4) 56 (D 46 4 66 d d 4 6 d 6 6 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d 6 6 d d
			Lead Agency \[\Delta^{\infty} \cdot \cdo
			Spill significance dAt' "baa-"-lo"-l-
			Lead Agency contact and time \[\D^\bar{\alpha} \D^\alpha \D^\bar{\alpha} \D^\bar{\alpha} \D^\bar{\alpha} \D^\bar{\alpha} \D^\bar{\alpha} \D^\alpha \D^\bar{\alpha} \D^\alpha \
			Is this file now closed? C*a Do*bn/Dd* LJYDC?
Reported try	Position. Employer: Location 16.00 Γ's Δ'96.07c", Δ'96.05	ማበካሁ. ፈና	Telephone P\$LPC
Reported to	Position, Employer, Location δωΔ΄ ΣΓ' Δ΄ δαΔΣς ', Δ΄ ταΔΣ	ant, al	Telephone P-6-DC



N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

2011 1947 1947 Dapples Depth 10 to 1947 1965 1965

Territories DOINI OSILA DO O DENTAL DOS	Fax//b') 873-6924
אר סיבים איבים ביצוריים ביצוריים ביצוריים ביצוריים ביצוריים אר אינים אר ביצוריים ביצורים ביצורים ביצוריים ביצוריים ביצוריים ביצוריים ביצוריים ביצורים ביצוריים ביצורים ביצ	f spill (if known) Original report Port Derborder Original report Derborder Original report Derborder Original report Derborder Derbor
9 07 02 170	2 Chamber of stock
D Location and map coordinates (if known) and direction (if moving) are don't o'Lo as John of (SDALYDYC) o'Lo als LDC ad Location D	(1) 1 · 1 · 1
E Party responsible for spill Party danines	und on beach Igaluit
City of Igaluit	
F Product(s) spilled and estimated quantities (produide metric volumes/meig אור איים אורים אורים אירים אייני (אורים על מארים איינים א	its if possible)
Cause of spill	((Ugal) 3(1)
old repair clamp	that broke down
H Is spill terminated? If spill is continuing, give estimated rate /c da*<< *b_nn /*b-nn**d*<	Is further spillage possible? Some different of contaminated area (in square metres if possible)
J yes/ ∆ no/ ₫°b	yes/A Ino/ 10 103 meter of sand
Factors affecting spill or recovery (weather conditions, terrain, snow cover pro Atomic deproductions) for boards of the boards	Containment (natural depression, dykes, etc.) 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
N Action, if any, taken or proposed to contain, recover, clean up or dispose δρας-δρος, δρας-δροσώς δροσώς αξόνος αξοδρώς ποξοδρώς μεθών	of product(s) and contaminated materials (DazhC, \sights\GCDC D^CS DCDodGC dACG (dACS-5) dLs dACADC.
New regar claup was insta	led. A permanent repair is
being scednaled in the	I sand were removed to sewing lagrow
Op you require assistance?	Possible hazards to persons, property, or environment; eg: fire, drinking water, fish or wildlife
Δβς CD λα σ β α λ σ yes, describe: o no yes, describe: d b Δ - α 2 Δ Δ λ 3 J	الادعام عدماه عن المقال المحافظة المحافظة المحافظة المحافظة عدم المحافظة ا
Comments and/orrecommendations PSD/NΔC (PL3 PC3°σC SbΔcfQ	FOR SPILL LINE USEONLY DOCA LA LO
	Lead Agency Δ'*baΔ'> "> - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	Spill significance
	Lead Agency contact and time Δ**bαΔ**⊃σπ*Δ° δΔ⊀Γ° bLΓΥξ**⊃°
	\$P\$%P#CDQ\$P 9,5770,U=7
Robert Hanson	is the the convelence?
Rope. There	is this file now closed? C*= D\sigma*b=\forall \forall \foral
Reported by sition, Employer, Location	Telephone D'ScDC
	Constation 1-107-979-6004
Reported to Potas DoboCode bador Abado Abado Abado Mil. a	D.PC DC
by the first and the first of t	10 10 man



N.W.T. SPILL . (EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

Dall 1842 Dalle Dalle 1000 1000 1000 1000 1000

ISTRITORES DOLITIME	001/TD NO 0 VE 2/7	7. D.6. dul.		Fax//bc) bdc (403) 873 -6 924
A Reportdate and time	B Date and District August 100	Time of spill(if known) ANS J (B) 2 (2 A) A 1 / O 2 (2 A) A	Up	ginal report c" Do"bb/Dt" date no bb/bb/b"> bb/bb/b" 250()	Spill number
Location and map coordinates (if known) and direction (if moving) (%) ALS a.3 LDC - 4 L # 2		12 723	2.00	
E Party esponsible for spill Pade atminer City of I	galuit	r			
Priso dar bons of	i quintities (provide metric volumes 1895: (1976-1) DPF19-575-6-5 199 WACJC LSV		3000) 'a	
IVAFIC Accid	ext A Vaa	hit a tire hid	vent		
	spill is continuing, give estimated r - JARC BARL ABERTS JRC			f contaminated area (i	in square metres if possible)
	y (weather conditions, terrain, snov Dar'n') (/c bbΔcbobb, ba NA	v cover, etc.) Bode rootles 127507Lorbo,	Containment (natu	ural depression, dy US AZSSSSILES (kes, etc.) ספר מיילב אליים
1 Shan-to Shan-tordsocc Das	"hadestaged acorstacons	spose of product(s) and contaminated and months to the pres and the first the man the	(Dage 10 40 250 1	Eent all Make	e vepans
Do yourequire assistance? Δb		Possible hazards to persons, pro Φ'('a) Σαλ Φ'')' Δο 'ω', Λ'θΠ Δ'b) το "P'') σ'τΠο'	pperty, or environm	ment; eg: fire, drink חשל - באל אבר באל באל בריים,	ing water, fish or wildline ΔΓ [*] J [*] σδ th b th CD/J [*] 2σ _π
W _	hit the	1 1	-		LINE USE ONLY
hicaking it	off in sie	le ota conc c point who	ľ		- - የተገፉ የተገፉ የ
the Hydren	should sce	al itself el	used.	Lead Agency con \[\Delta^6	5C = 5 PTL 2 PP = J2 VP
The gute off	new helen	all the line	ff		
Stations o	1907				
				Is this file now clo C°a Dσ*bnかかか	
Per Brow. Het	Position, Employer, Location 1600 15° Δ* ba Δ5° 10 Δ* ba	or man Igalu	it	Telephone D'SCRC 16.7 91	74 5648
Reported to	Position. Employer, Location %ρΔΟΓ* Δ*βαΔλσ*, Δ*βαΔλ**()			Telephone D'bcDC	u C
SAME	5 27 .21) 13 "	5-



N.W.T. SPILL .REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line -4-0° Δ6550° Dσ668702° 250050 DG600° Phone/D%cDC (403) 920-8130

Fax//656 (403) 873-6924

A Report date and time O'S 19" UP 2 9710" O 3	9:30 AM JE	and time of spill (if known) 1 400" 20 / 03 8		Original report 75'-"\C Do"\D/D\" Update no. Do"\D/D\" "\" "\" "\" "\" "\" "\" "\" "\" "\"
D Location and map coordinates (if ar day d'L. on "Jd" a VDM" LOCATED BES Party responsure for spill		- O'L'L' (A'P'S'S') BET	WEEN 4	ARDS CREEK OSPITAL AND HIGH SCHOOL
	quantities (provide metric volu			
G Cause of spill PIPE	JOINT ON		ERUICE	RIPPED APART
	pillise continuing, give estimate またい とった とった とった とった とった とった とった とうしょう とうしょう とうしょう とうしょう とうしょう とうしょう	J dh'b'σ)Δ'an 1844	no/ 1 50	ent of contaminated area (in square metres if possible) で かんしょう はっかい かっかんしょ はっかくくり
PAR ANGER AND PRES SEPTICE ANGER ANGER AND PRESENTATION TERRAIN			DITCH	(natural depression, dykes, etc.) PCAS ACOLOMICOLE (LOCAL ACOLOMICA) AND CREEK
N Action, if any, taken or proposed to % Δα->DC, % ΔΔα->DC 9°C 9°C 9°C 9°C 9°C 9°C 9°C 9°C 9°C 9°	FROZEN IN REMOVE W	of solution of the cold	aminated materials P°C ΔΓCP σ O°C JAH ED THE	= (6A+55+67) OFLS #8*AD+4.
Do you require assistance? Δbt (Dt. 45 %?) yes, describe: Δ - Δ - Δ - Δ - Δ - Δ - Δ - Δ - Δ - Δ -		مد ماهی د که ۵ مهنوی	sons, property, or envir ら、ハイカイントロックペン ルメンロル	ronment; eg: fire. drinkling water, fish or wildlife לארטי ביל באר ביא באר באר באל באל באר באל
COLLECTED AND MAY	WHERE	THE 50 HARD TO E PROBL	REACH	FOR SPILLLINE USE ONLY D'CD * '\ '' data' D'bc 'ADC '') DO '' Lead Agency A"bady" Dca ''A' dat '' bl p' b'' Spill significance dat' bade 'bat '' Lead Agency contact and time A"bady" Dca ''A' dat '' bl p' b'' Sby'b" CD o't dil '' by Jd" A'' J
Reported by A S FRED A Reported to Phd of DarbD(Dr)	Position, Employer, Location % ΔΩΓ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ	REMAN JOALUI	IQALUIT F NU	Is this file now closed? C'a Da"baldot" LDyde? Telephone D'bald Telephone D'bald Telephone D'bald Telephone D'bald Telephone



N.W.T. SPILL EPORT (Oil, Gas, Hazardous Chemicals or other Materials)

عو اللا علاج و همه المور المهرم على البرد مردرة مريد المرد المرد

Fax/26'0'6403) 920-8130

A Report date and time	8:30mg	Date and time PEB//	e of spill (if known) LC-719 (if known)	C C	Original report /*> '-" /* '-" Updateno. Do" Do" Do" Do" Do" Do" Do" D	Spill number
D Location and map coordinates as day of Location and map coordinates as day of a NON LIFT STATION Party responsible for spill Party responsible for spill M	(if known) and direction (if known) and direction (if known) and direction (if known) and direction	(if moving) Jarlage - dalage Towar	DS OCEA			
F Product(s) spilled and estimate	d quantities (provide me የቴፕሩና (ላዣኇጌ ውየዣንታ ው ጒ ኤኤፌድ	, 50 ((1)	3.5	WACE.	SOUR TO POWER TO	10000 GAUS
H Is spill terminated?	Family spill is continuing, give	estimated rate	J Is further spillage po	ssible? K	Extent of contaminated area (% 5.5% dYNR* 3A "ADX" (D	
yes/ A no/を Factors affecting spill orrecove Pが ハヤくしゃ はれば かむ かい イアンケーン HIGH TIDE	AND CLACKS	in I	25	M Containm	nent (natural depression, dy ADC Production of ADC	kes, etc)
	d to contain, recover, clo SoΔC-YPG'SOR'C GCDY EMPT IA GCKIA	0 50				1°004°. ND
Do you require assistance? Δb 4 °C D > α 0 b °A '? γ 10 yes, describ Δ - ω α Δ 5 '		Р	Possible hazards to pesso የርናፈጋል" _ፌ ሊ ላጜ"ነን" ልልጁ ልዬኔጚልና ውየኖኋ ማናፈበልና		environment, eg: fire, drink *°° - Δ° - Δ° - Δ° - σ,	ing water, fish or wildlife ΔΓ΄ J΄ «Φ"δ"CD/ J΄»,
Q Comments and/or recommenda		>°C3°+6° 800cP	d,β≻D⊀ _c		FOR SPILL Di CD (1) \ \(\frac{1}{2} \)	act and time
Reported by Data 10 16 HRIS TREDA Reported to Podus Contactor Reported to	Position, Employer, L. 1800 A Dr. A Boat C Position, Employer, L. 1800 A Dr. A Boat C	OKEMIAN ocation	CITTOF 1	- WALLIT	Is this file now close C*a. Do*ba, bD C** L Telephone D*ba, bC Telephone D*ba, bC	



2011 11/2 Dabis (Dada, U/r, decessor

Territories DOTIVI	98/20, NQ. P. 750	7. D.6.7 44.6.0	Fax/45766 (408) 873-692
A Report date and time	B Date and	time of spill (if known) ברב"ח"לאלא" (ה"ל) ברב"ר" ("אלאלא" לרב"ר")	C Original report Spill number
MAR. 12 2003	9.30 AM HAK	12/2003 7.57	Update no
	if known) and direction (fmoving) ・ ねみとうひぐく) イトュームコーレクシェイン	Lau (0-11-4) K.(.14.	32. A
	Men 109		
Paty responsible for spill	MENDICIPALITI O	IGALLIT (CIT	~)
	quantities (provide metric volume "לייל" (לירביט פיףיריביה"בים לל	s/weights if possible) క్రేమాగారా మాగారా	00 - 1000 CALS
CA PY ANYCOC	BUCKACE Rem. 109	BETWEEN MIH	30 - HH-31
the state of the s	spill is continuing, give estimated	rate Is further spillage possible?	Le Catalata and a later
	- Most Pant Appendict	J statuter spiritage possible? dΔ%=σ2Δ=α-4%= yes/ Δ - no/ 4%</td <td>Extent of contaminated ame (in square metres if possible) "Ba" OMME JA" ADY" (D') "YLJ OX" AY" (T) "Ba" Z</td>	Extent of contaminated ame (in square metres if possible) "Ba" OMME JA" ADY" (D') "YLJ OX" AY" (T) "Ba" Z
L Factors affecting spill or recover PAC かそくひで はみせら ひゃく はみかい はなかい	y (meather conditions, terrain, snov Ded ^A N'sJ (/c 'baΔc ^h lo [†] ta', ac	bode to to arborlate. IVI D	omtainment (natural depression.dykes, etc.) "MJ%"ΔΦ' P'-CU' ΔΛ' ΔΛ' Lea Γ ΔΛ' Δ΄, ΔΛ' Δ΄, ΔΛ' Δ΄, Δ΄ Δ΄ Δ΄ Δ΄ ΤΑ
N boator, boatorous ores	"Ball-brows of acotomically,	spose of product(s) and contaminated r	naterials Dedoct data (datasas) of Lada and the
C Da un vaculus essistence?		D Possible begards to persons ever	
O Do you require assistance? Δ6 Κ************************************		1 decasa and boss and hold	penty, or environment; eg: fire, drinkning water, fish or wildlife שלבי ליל פאל פאל באר ביא מראל - ביא מראל באל באל באל באליים אוניים איניים אוניים אוניים אוניים איניים אוניים איניים אוניים אוניי
yes, describe Δ - a 2 a Δ 5 2		4 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	· conservable
O Comments and/or recommendate	ions D'6D/"\A' O'Ls D %5"&" 6.	PQ-L0,9704c	FOR SPILL LINE USE ONLY 4) (0 C C C C C C C C C C C C C C C C C C
			" Proc. 1/18 29 0 0 1 1 1 2 5
			Lead Agency
			Δ"ba Δ5") C. ~ MF JAKT LLTY'6") C-
			Spill significance dAt' balc'tet-
			Lead Agency contact and time Δ°6αΔ5°07cπ°6 dA4Γ° 6LΓ5%°7° %D2°6°CDσ°6 ØL5 %YJJ°N°5J
			Is this file now closed? C"a Do"babbd" LDbDe?
Reported by	Pasition, Employer, Location \$\frac{1}{2}\delta \Delta \D	M. at iting at	Telephone
CALLES TREDIT	1. C. C. 1. 1. 1. 1.	er par h errothers	261) 47-5016
Reported to Phd as DataCDd 44	Position, Employer, Location % ΔΩΓ Δ δ δ Δ Δ λ σ λ Δ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ Δ λ σ δ Δ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ Δ λ σ δ δ δ δ δ δ δ δ δ δ δ δ δ δ δ δ δ δ	(to a)	Telephone D°b∠DĆ



NWT SPILL REPORT

(Oil, Gas, Hazardous Chemicals or other Materials)

24 - HourReport Line Phone: (857) 920-8130 Fax: (857) 873-6924

A Report Date and Time 9.15	B Date and Time of spill (if known) 8.00AH	C Original Report Spill Number Update no. Spill Number
D Location and map coordinates (if known) A V 331 E Partty responsible for spill C 17	and direction (if moving) ACCLOS FROM	1 JUANUE ST. HOUSE
Partty responsible for spill		
		ACE FOUGACE TO STOCK
G Cause of spill LINE	BUCKAGE BETWEEN	
Is spill terminated? If spill is continuing yes 1000	ng, giæestimated rate spillage possible? yes no	K Extent of contaminated area (in square meters if possible)
Factors effectingspill or recovery (weather	DIF	trainment (natural depression, dikes, etc.)
	n, recover, clean up or dispose of product(s) and contaminated response of the second	W And REHOUX
Do you require assistance?	Possible hazards to person, property, or	r environment; eg: fire; drink water, fish or wildlife
Q Comments or resommendations		FOR SPILL LINE USE ONLY
		Llead agency
		Spill significance
		Lead Agency contact and time
		lls this file now closed? ☐ yes ☐ no
Reported by	CITY OF TOHERT, Tarken	M. (867) (17) 5648
Reported to	Positian: Employer, Location	Telephone



N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line 24-0° Absac DobbsADFasbosb DsbcDc

Phone/DibcDC(403) 920-8130

Dalle 1844 Dable Dable (Darder, L/c, december Fax//b C > \$ (403) 873-6924 A Report date and time inginal report B Date and time of spill (if known) Spill number 19-5-KL DasPDYD40 dAF aLDC 30A4 Update no. _ JULY JULY 20/03 9:3014 001501016°010" a100 D Location and map coordinates (if known) and direction (if moving) 20 dae dils sa "Ja" aspana (1602/50x9 als al" LDC- - d'ili (12-16-5x) LIFT STATION # (SEWAGE) BUFRFLOW TO OCEAN. Party responsible for spill MUNICIPALITY OF LOAMUIT. 1000-20002 SENAGE. CORP. WHILE CHANGENG Cause of spill NUNAUUT TOWER LINES NEAR G P/ dar-KCDP HOSPITAL HOORED UP ONE LINE RESUUTED IN wront. CAUSINO LIFT STATION FUMS TO RUN IN REJERS CHANGE PHASE Is further spillage possible? H Is spill terminated? If spill is continuing, give estimated rate /c dasc % and #5cnp disc 98, 9, 90 Ju av 1, 8, 65 Vjes/ A no/ 1°b 1/no/ 1/5 yes/ A ENLINE WIN. Factors affecting spill or recovery (weather conditions, terrain, snow cover, etc.)

PLY ATCORS JAHLS DES JOPECDAPAS JULY BOAS LOT LOS SO BALENDES DES JOPECDAPAS JULY BOAS AND PEGJS APONE THE CONTRIBUTION (DAT APONES)

SAND AND FEDE, N Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials \$\frac{\beta_c}{\beta_c}\text{PCPC}\$\text{CDC}\$\text{DCPc}\$\text{CDC}\$\text{DCPc}\$\text{CDC}\$\text{DCPc}\$\text{CDC}\$\text{DCPc}\$\text{CDC}\$\text{CDCPc}\$\text{CD UNABLE . BY TIME MOADER was S.TE STILL 生だり STUFFED MAD THAN O Do you require assistance? Possible hazards to persons, property, or environment; eg: fire, drinking water, fish or wildlite מיכם אל מי Δ62°C05206°A7 yes, describe: UNKNOWED. لد تحکومه -FOR SPILL LINEUSE ONLY Comments and/orrecommendations D'50/%4 (PL) D°C3 or 6504 (PV)DC SOCOCOSONS TO SCAUP STANDSCO Lead Agency A "bady "Den "A" JART #1756") --Spill significance dat "bode - Lo" L-Lead Agency contact and time Δ°ba35°)>c~(%): ΔΔ4Γ) £Γ5'8'>>> %D&S*(CDe*)\ Δ'Lo '6YM*(N'S) Is this file now closed? C'a Do'babbt LD5000

CITY OF IDAMUIT

Telephone

Telephone

DECDC

979-5648

D'bo DC

Position, Employer, Location 8.3407 A "Salze", A "Salze", A "Salze", a T

"bad'Or" 1"ball-", 1"bad" 1"L. .

TOREMAN

ITICIOGE

Position, Employer, Location

Reported by

Reported to

Pida DabDCDK

TREADA

Do"6"D"



N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

24-Hour Report Line 24-0° A6550° D0665AD2° 256056 D5600°

Phone/D56_DC (403) 920-8130 Fax/26526 873-6924

	10 V X 2 VI V	1 an 10 0 0 13-092
A Disa Desponde Desponde Disign	dd time of spill (if known) dd (1004) c.Lc. (1004) c.Lc. (1004)	Opiginal report Spill number المحادث المحاد
July 20/03 9:30 AM July D. Location and map coordinates (if known) and direction (if moving	20/03 9:20 Am	De.PD.D.P. a.z. 7/DC
D as de de sa "Va" à vant 1802/1500 (1) al al "1000 co	*L*6* (Δ*P*5*<5)	2
LIFT STATION & (3E)	WAGE) OVER	FLOW TO OCEAN,
Epol darrier MUNICIPALITY OF IGAN	21.7	5
F. Productは spilled and estimated quantities (provide metric volume provide metric volume provide metric volume provide defensive (マーカール シャーアップ・ション・カート・カート・カート・カート・カート・カート・カート・カート・カート・カート	es/weights if possible)	1000 L
SEWAGE		
GPI BAYON HOSPITAL HOOKED O		
H Is spill terminated? H is spill terminated? H is spill terminated? If spill is continuing, give estimated Action and the control of the		Extent of contaminated area (in square metres if possible) "bo" TOPPE damage (in Square metres if possible)
yes/ no/ d'b	yes/ \(\Delta \) \(\d\) \\ \\ \d\)	AMKNOWN ALULA GRANDE DESCRIPT DESCRIPTION
Factors affecting spill or recovery (weather conditions, terrain, sn. P/ ハマロベ はけら ひゃっと からしゅんかっ」 (/と ちゃんとしゅん。 ロロアととでは カルカ スカカ アルカミ カルカ アルカミ	ow cover, etc.) δωδατιστιστ (Δ) γρογιστία. Μ οτλ	tainment (natural depression, dykes, etc.) 15°6'AD' P'-QJ' A/"4" (bal A/"4")
N Action, if any, taken or proposed to contain, recover, clean up or balance, balance of the bal	. 5"6"NCDallel. 55"L"5"CDP D"P5 ACCD0	Q. (904, (904, 7, 2) A. (7 90, 404;
BEEN STUPPED (LESS T	HAY 30 M'NZ)	SITE SPILL HAD
5 AL S. 10.7732		
Do you require assistance?	Possible hazards to persons, proper	ty, or environment; eg: fire, drinking water, fish or wildlife
Δετοςοτησε Λ΄? yes, describe:	151 - 2 5 N=0 110 5	So pres dense is - Apriso, Aris opishicopisa.
Comments and/or recommendations D'SDY" \\ \D' \Cappa \\ \D' \\ \D		FOR SPILL LINE USE ONLY
Q		40 CaC (00 20 00 20 00 00 00 00 00 00 00 00 00 0
		Lead Agency 4"ba 45" Den "A" dAtt blit" b")-
		Spill significance
		Lead Agency contact and time
		PD5.2 CP2.6 4.67 20.474.0.77 70.02.29
		is this file naw closed?
		("a Do"bažot" LDYD(")
Reported by Position, Employer, Location % 2007 " 1" balts" A" balts	ML T CITY OF ICAL	The state of the s
	CHAN	979-5648.
Reported to Position, Employer, Location 93°5 DorbDCDe 954°51° A"badre, A"badre, A"badre	n°t, ±0	Telephone



N.W.T. SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Matérials)

IN J C N . bigb (Dodo) Life, deceans

Phone 56 CDC (403) 920-8130



Territories	96/42 DO	LOPIO VENTO	67 04,-Uc)			Fax 6	0°dc (403) 873-692
A Report date and time 09/04/03	8:15 A:u		of spill (if known) J ** S	150°<9 C	Update	report	Spill number
D Location and map coordinate:			(∇,·L,ed,s <c)< td=""><td></td><td></td><td></td><td></td></c)<>				
E Party responsible for spill	of I	salu	,+				
F Product(s) spilled and estimate Property of the Banks of							
G Cause of spill Pr day CDC O wev	Failur	re N	J PC				
H is spill terminated? If spill is continuing, give estimated rate J is further spillage possible? K Exter 15.5° JANS ODA LA (15°) K Exter				Extent of con	t of contaminated mea fin square metres if possible) מ'רחרל אמ'מסיי (מ'רביל אליבירילי) אני		
Factors affecting spill or recover PAR ARCHER JARYS DRES JOHN ARREST LINE 1. C-1	ery tweather condition	as, terrain, snow con letto to to be bell on the form	er. etc.)	M Contain	nment (natural o 5500° P°-00° Z	tepression dyl	kes, etc.) ኔቁር ልፖ ^ፍ ኒልና,
N Action, if any, taken or propose bode to be hade to be the high of the high	ed troontain, recover a balch19° of 9° (° 0°)	, clean up ordispos CD/TNCDa/M, 2°6 PCTQ O	e of product(s) and co *NCDa/*(, _j\gamma^*\CD #REC*	ntaminated material of DTC APCD of the APCDD of the	als (* dat* (dat*	j*of) (1°L± d6)	*\$\D\rangle^c,
Do you require assistance? ΔΕς**CD5η Φ'5*Α*? no yes, describ 4°5 Δ - α - α - α Δ		Р	Possible hazards to p $4^{\circ}C^{\circ}a)\Delta^{\circ}a$ a a a b a b a			eg: fire, #mki . حد ٔ ۱۵۲ - د ٔ	ng water, fish or wildlife ΔΓ ⁵ J ⁵ σD ⁵ b ⁵ CD/J ⁵ σσ.
Q Comments and/or recommend		د ک ^{ار} ث'ه: المصطور	J3504°		F	OR SPEL	LINE USE ONLY
					V . sf	d Agency	-: C « 9.179 « 1799
					d∆≺ Lea	ا ماد المدار. d Agency ant	
							75,44,577,8° 5
		g Na			Ca	is file now stos	
Reported by Pobert Bruillet	Position. Employe	E. Albady Mel. o	C 1	et Irali	Tele Dibe	phone DC G7 G7	79 5648
Reported to	Pasition, Employe	r, Location	5		D'Sc	phone DC	
Din GvilNe:	Director	of tub	lic Work	. City of	Jac. 36	7 97	5 1774

Bibliography

City of Iqaluit Dam Safety Review For Lake Geraldine Dam, Trow Consulting Engineers Ltd., March 2001.

Municipality of Iqaluit Water treatment Plant Pre-Design Brief, Earth Tech (Canada) Inc., March 2002.

Water and Sewer Study, Trow Consulting Engineers Ltd., May 2002.

City of Iqaluit Dam Safety Review for Sewage Lagoon, Trow Consulting Engineers Ltd., October 2002.

City of Iqaluit Public Works, Chris Freda.

City of Iqaluit Public Works, Bob Brouillet.