P.O. Box 119
Gjoa Haven, NU X0E 1J0
Tel: (867) 360-6338
Fax: (867) 360-6369

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

WATER LICENCE APPLICATION FORM

Application for: (check one)

_X_ New ___ Amendment ___Renewal ___Assignment

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

HAMLET OF ARVIAT
P.O. BOX 150
ARVIAT, NUNAVUT
XOC-OEO

Phone: **(867) 857-2841**
Fax: **(867) 857-2519**
e-mail: ronsuluk@attcanada.ca or hamletav@attcanada.ca

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Phone:
Fax:
e-mail:

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

SEE ATTACHED SKETCH.

Latitude: 61°06' Longitude: 94°04' NTS Map No. _____ Scale_____

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

RESIDENTIAL SUBDIVISION CONSTRUCTION- REQUIRES THE DRAINAGE AND FILL OF PONDS.

5. TYPE OF UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in **"bold"**)

___ Industrial
___ **Mine Development**
___ **Advanced Exploration**
___ **Exploratory Drilling**
___ **Remote/Tourism Camps**
X Municipal
___ Power
___ Other (describe): _____

6. WATER USE

___ To obtain water
_X To modify the bed or bank of a watercourse
_X To alter the flow of , or store, water
___ To cross a watercourse
___ To divert a watercourse
___ Flood control
___ Other (describe): _____

7. **QUANTITY OF WATER INVOLVED** (litres per second, litres per day or cubic metres per year, including both quantity to be used and quality to be returned to source)

AREA OF POND- 43,630.59 M^2
DEPTH OF POND- 1.2 M deepest point.

8. **WASTE** (for each type of waste describe: composition, quantity, methods of treatment and disposal, etc.)

___ Sewage
___ Solid Waste
___ Hazardous
___ Bulky Items/Scrap Metal
___ Waste oil
___ Greywater
___ Sludges
___ Other (describe):_____

9. **PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing address and location; attach if necessary)

Land Use Permit
COMMISSIONER'S LAND USE PERMIT NOT REQUIRED SINCE A SUBDIVISION PLAN HAS BEEN SUBMITTED FOR APPROVAL.

DIAND	___ Yes _X No	If no, date expected _**NOT REQUIRED**_
Regional Inuit Association	___ Yes _X No	If no, date expected _**NOT REQUIRED**_
Commissioner	___ Yes _X No	If no, date expected _**NOT REQUIRED**_

10. **PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** (direct, indirect, cumulative impacts, etc.)

NIRB Screening ___ Yes _X No If no, date expected **NOT REQUIRED**_

CONSULTANT STUDY: METHOD OF DRAINING POND TO REDUCE SEDIMENT FLOW. DATE EXPECTED: JUNE 15, 2003.

11. **INUIT WATER RIGHTS**

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit 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?

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

HAMLET OF ARVIAT
P.O. BOX 150
ARVIAT, NUNAVUT

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

FISH HABITAT STUDY- TESTING OF WATER AND MITIGATION OF SEDIMENTS FROM DRAINING OF POND. June 15/03

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) _X Yes ___ No If no, date expected _____

Inuktitut/English Summary of Project _X Yes ___ No If no, date expected _____

Application fee $30.00 (c/o of Receiver General for Canada) _X Yes ___No If no, date expected _____

15. PROPOSED TIME SCHEDULE

___ Annual (or) ___ Multi Year

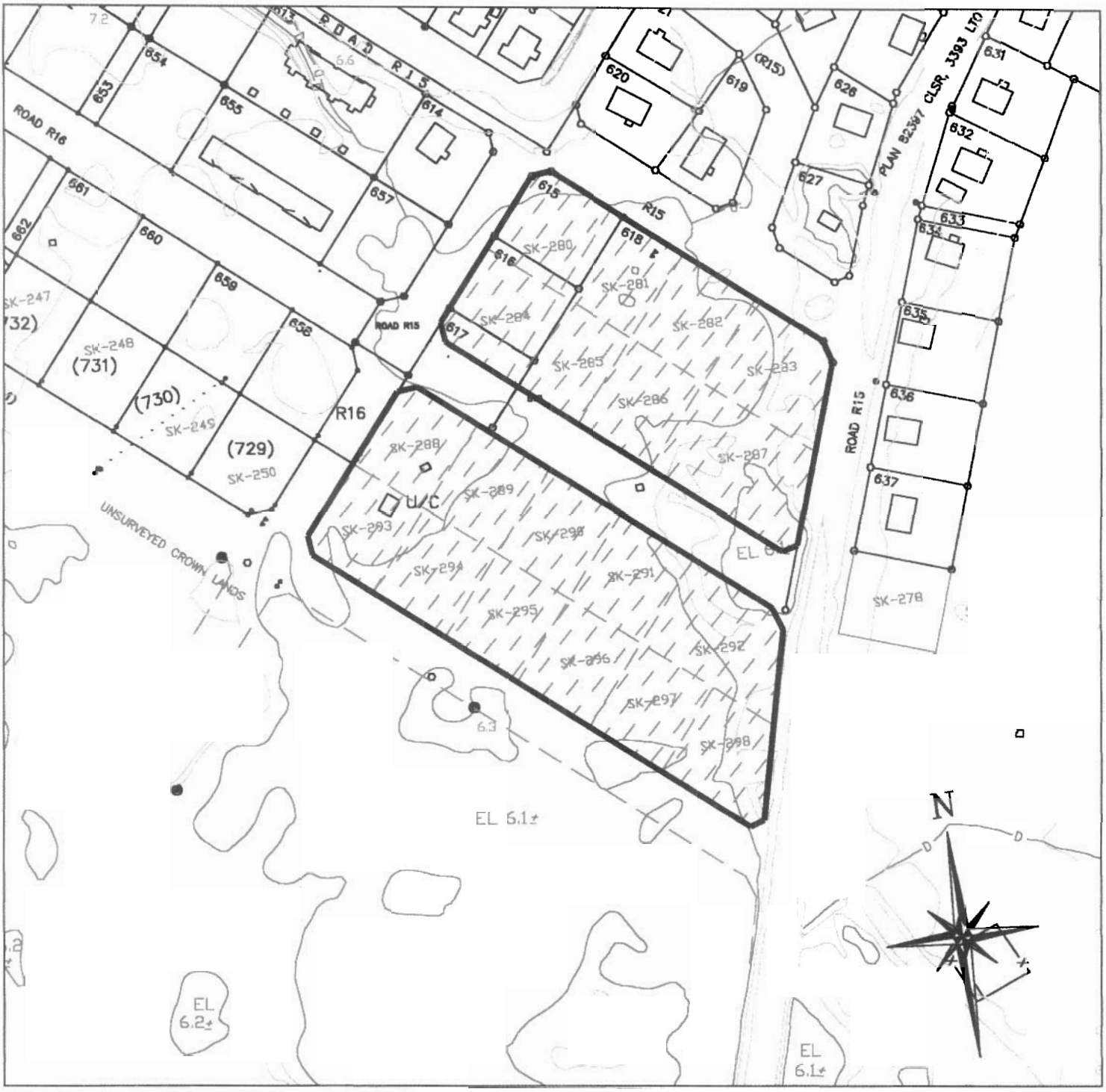
Start Date: **JULY 2003** Completion Date: **AUGUST 2003**

RONALD SULUK	LAND ADMINISTRATOR		May 21/03
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board use only

APPLICATION FEE **Amount: $_____** **Receipt No.:**

WATER USE DEPOSIT **Amount: $_____** **Receipt No.:**



ARVIAT HAMLET COUNCIL

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ARVIAT, N.U.

Hamlet of Arviat
Arviat, Nunavut

Proposed new subsivision

Proposed residential subdivision

SCALE 1: 2000

40 30 20 10 0 20 40 60 80 100


Pond to be drained
(Water elevation– 6.1 m)
Alternate water basin– elevation 5 m
Distance to water basin
742.6
Water elevation– 6.1 m
Drainage ditch
Direction of flow
Esker (elevation– 7 m)
Airport property
Drainage basin (elevation– 2.3 m)
Water elevation– 7 m
N
Esker (elevation– 10 m)
Sewage lagoon

TEL: (867) 360-6338
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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

Water Licence Application Supplementary Questionnaire for Municipalities

I. GENERAL

1. Date: May 20/03

2. Applicant: Hamlet of Arviat
Municipality and Region

3. Contacts: Ronald Suluk
Name of Contact

Planning & Land Administrator
Position

(867) 857-2841
Telephone #

(867) 857-2519
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
__ Renewal - Water Licence #

II. ATTACHMENTS

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;
h. transportation access routes;
i. 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 monitoring sites. (Outline drainage basin);
j. Traditional use areas outlined on site map and areas around the community used for recreation, camping, fishing, etc.
k. 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.

III. WATER SUPPLY

Water Source

1. Type of source: __ Lake __ River __ Well ✓ Other

2. Name of water source and alternative, if any.

3. Spring thaw runoff
Primary Source Secondary Source

3. Usual break-up & freeze-up period: May 1, October 1
Break-up Freeze-up

Water Intake

1. Please provide short descriptions for the following:

   a. Freshwater intake facility

   N/A

   b. Operating capacity of pumps used

   N/A

   c. Intake screen size

   N/A

Water Storage

1. Type of water storage facility. (check where applicable)

   ___ Reservoir/Pond ___ Storage tank ___ None ✓

   ___ Other _____Description:

2. If "reservoir" checked:

   Is the reservoir lined? ___ Yes ___ No

   What type of liner? _____ When was it installed?

Water Treatment

1. Indicate the quality of the water.

Summer:	___ good	___ fair	✓ poor
Fall:	___ good	___ fair	✓ poor
Winter:	___ good	___ fair	✓ poor
Spring:	___ good	___ fair	✓ poor

2. Describe.

Pond is not suitable for drinking. Water comes from runoff of Spring-thaw. Only about 3-4 feet deep.

3. Type of water treatment.

___ Filtration and chlorination
___ Chlorination only
✓ None
___ Other

Description

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) A x B
PIPED			
TRUCKED			
		TOTAL	

____ Other: Date: _____

2. Is there a system in place for reporting spills?
___ Yes ___ No
If yes, describe.

3. Is there a contingency plan for clean up of spills?
___ Yes ___ No
If yes, describe.

4. Have any spills occurred in the past five years?
___ Yes ___ No
If yes, describe and show on a map the locations of the spills. What action has been taken to clean the affected areas?

Monitoring Program

1. Is water sampling and analysis done ?
___ Yes ___No

If Yes, answer the questions a to e

a. Briefly describe how samples are taken and sent to the laboratory.

b. Briefly describe any monitoring done for wastewater effluent and leachate.

c. Who is responsible for water sampling ?
Name: _____

Name:

Address:

Telephone #:

Fax # :

e. Are any changes planned in the water quality monitoring program?
__ Yes __No
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).*

1. Date: May 20/03
2. Municipality: Arviat
3. Contact: Robert Charlie
(Community Government and Transporation Representative)
Telephone # ~~(867)857-2~~ (867) 645-~~8115~~ 8115
Fax # (867) 645-8143
4. Population (according to most recent census results): 2000
5. Estimated growth rate over next 5 years:
6. 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?
__Yes ✓No

If yes, provide a summary of program details or site title, authors, cities, and dates:

Prepared by	Title	Completion Date

a. details of pond size and elevation;
b. details of all retaining structures (dimensions, materials of construction, etc.);
c. details of the drainage basin, and existing and proposed drainage modifications;
d. details of all decant, siphon mechanisms etc., including sewage treatment facilities;
e. details regarding direction and path of wastewater flow from the area;
f. distance from watercourses and fish bearing waters;
g. location and construction of liners;
h. leachate and groundwater collection systems; and
i. control structures.

2. Attach detailed plan or drawing(s) of the present *sewage treatment system*. The drawing(s) should include the following:

a. details of all retaining structures (dimensions, materials of construction, etc.);
b. details of the drainage basin, and existing and proposed drainage modifications;
c. details regarding direction and path of wastewater flow from the area;
d. indications of the distance from watercourses and fish bearing waters;
e. all sources of seepage presently encountered near these areas, including volumes (m^3/day) and directions.
f. The volume of seepage flow (m^3 / day); and
g. The direction of each flow.

3. Are drawings for the solid waste disposal area and sewage treatment system attached?
✓ Yes ___No

If Yes, who has provided them ?

If no, indicate when they will be available.

Hydrology

1. Effects on surface water flow:
Are any stream channels altered? __Yes ✓No
Is the natural storage or water level of any lake or pond changed? ✓Yes __No
Are there changes in water flow downstream of the project? __ Yes ✓No

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:
The pond would be drained and filled with gravel to create new residential subdivision.

2. Drainage Area:
What is the drainage area? 0.3 km^2
What is the average elevation of the drainage basin? 2.3 metres
Is the drainage basin outlined on an attached map? ✓Yes ___No

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

Marsh, sand

3. Channel characteristics:
Is the course of any channel changed? ___ Yes ✓No

If yes, describe measures to maintain stream bed and bank stability.

4. Will the cross-section of any watercourse be changed? ___ Yes ✓ No
If yes, describe the change and its effect on the flow capacity of the channel.

Water Supply

1. What is the rate of withdrawal from the source? _____ m^3/day.

2. Is water drawn from the source ✓ intermittently ___continuously

3. If it is drawn intermittently, during what month(s) is it drawn?
May / June (spring thaw)

4. For what period is it drawn (days/weeks/months)?
3-5 week

5. What is the rate of flow of source (if river) or size (if lake)?

6. At the intended rate of water usage, describe the effects on the river or lake from which water will be drawn.

Water Intake

1. Please provide short descriptions of the following:
   a. freshwater intake facility

   b. operating capacity of the pumps

   c. intake screen size

HAMLET OF ARVIAT
P.O. BOX 150
ARVIAT, NUNAVUT XOC-OEO

Phone: (867) 857-2841 Facsimile: (867) 857-2519

May 23, 2003

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

RE: Summary of Project: Water license application- Hamlet of Arviat

To Whom It May Concern:

The Hamlet of Arviat is proposing to drain the pond to create new lands for a residential subdivision. Presently, there are not enough lots available for development and might not meet the demands for the couple of years. The area around and on the pond is pretty much the remaining land available for development in the immediate vicinity.

The plan is to drain the pond and fill with gravel to build a new subdivision for residential use. The gravel would need to settle for at least a year to be stable enough for construction.

The first option of drainage is towards the local dumpsite, by upgrading the existing drainage ditch to allow complete drainage of the pond. The other option is to drain across the road onto a dry flatland.

The pond is not deep enough to sustain any fish since it freezes to the bottom and almost dries out in the middle of summer. The water mainly comes from thaw water during spring.

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ARVIAT, NUNAVUT XOC-OEO

Phone: (867) 857-2841 Facsimile: (867) 857-2519

ᐱᓇᒃᓗᑦ 23, 2003

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

RE: ᐃᒪᖏᒻᒧ ᓂᐃᓴᑕᑭᖏᒻᒧᑦ ᐅᖃᓕᑭᐱᐊ - ᐄᑐᓂᒃᑯᑦ ᐅᖅᑎᐅᓂ

ᑭᓇᐅᔭᖅᑕᖏᒻᒧᑦ:

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ᐃᒪᖏᓐᖓᔪᖅ ᐃᓱᒪᓕᐅᖅᑐᖏᓐᖓᔪᖅ, ᑕᒪᓐᓇᕐᓂᖅᑐᖏᓐᖓᔪᖅ ᐅᑭᐅᒍᑦ ᐅᖃᓕᑭᐱᐊ ᑲᓇᑕᖏᓐᖓᔪᖅ ᐃᒪᐃᓴᖅᑕᐅᖏᓐᖓᔪᖅ.