



P.O. Box 119  
GJOA HAVEN, NU X0E 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369  
KATIMAYINGI

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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN

## WATER LICENCE APPLICATION FORM

Application for: (check one)

☒ **New**   ☐ **Amendment**   ☐ **Renewal**   ☐ **Assignment**

### LICENCE NO:

(for NWB use only)

#### 1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

**Mars Society**  
**1111 W. 8<sup>th</sup> Ave, unit A**  
**Lakewood, CO 80215**  
**Attn: Dr. Robert Zubrin, President**

Phone: 303-980-0890  
Fax: 303-980-0753  
e-mail: Zubrin@aol.com

#### 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)

Latitude: 75 degrees 26' N Longitude: 89 degrees 50' W NTS Map No. 58 H Scale 1/50,000

#### 4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

The Flashline Mars Arctic Research Station is an 8 m diameter, 8 m tall fiberglass cylinder which simulates the crew module that might be used on a human mars mission. It houses a crew of up to seven people. During the summer, this crew attempts to conduct geologic and microbiological field exploration of the surrounding area while operating under many of the same constraints as would be faced by a human crew on Mars. The purpose of this activity is to learn what field exploration strategies would be most effective on Mars.

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

<input type="checkbox"/> Industrial	<input type="checkbox"/> Remote/Tourism Camps
<input type="checkbox"/> Mine Development	<input type="checkbox"/> Municipal
<input type="checkbox"/> Advanced Exploration	<input type="checkbox"/> Power
<input type="checkbox"/> Exploratory Drilling	<input checked="" type="checkbox"/> Other (describe): <input type="checkbox"/> Scientific, see part 4. _____

## 6. WATER USE

<input checked="" type="checkbox"/> To obtain water	<input type="checkbox"/> To divert a watercourse
<input type="checkbox"/> To modify the bed or bank of a watercourse	<input type="checkbox"/> Flood control
<input type="checkbox"/> To alter the flow of , or store, water	<input type="checkbox"/> Other (describe): _____
<input type="checkbox"/> To cross a watercourse	

## 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)

150 liters per day. This water will be taken from a creek located 300 meters northwest of the station. No water will be returned to the source. The station is located on a ridge, and our gray water is discharged under rocks on the slope southeast of the station. We have no black water waste, since all solid waste is incinerated and urine is stored and returned to Resolute Bay for proper disposal.

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

The station is located on a ridge, and our gray water is discharged under rocks on the slope southeast of the station, which is the direction opposite the creek located 300 m to the northwest from which we draw water. We have no black water waste, since all solid waste is incinerated and urine is stored and returned to Resolute Bay for proper disposal.

<input type="checkbox"/> Sewage	<input type="checkbox"/> Waste oil
<input checked="" type="checkbox"/> Solid Waste	<input checked="" type="checkbox"/> Greywater
<input type="checkbox"/> Hazardous	<input type="checkbox"/> Sludges
<input type="checkbox"/> Bulky Items/Scrap Metal	<input type="checkbox"/> Other (describe): _____

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

### Land Use Permit

DIAND	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	If no, date expected _____
Permit N2003J0001 currently being processed			
Regional Inuit Association	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, date expected _____
Commissioner	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If no, date expected _____

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

NIRB Screening ☒ Yes ☐ No If no, date expected \_\_\_\_\_

**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) **None**

**13. STUDIES UNDERTAKEN TO DATE** (list and attach copies of studies, reports, research, etc.)  
**V. Pletser, R. Zubrin, and K. Quinn, "Simulation of Martian EVA at the Mars Society Arctic Research Station," presented to World Space Congress, Houston, Texas, October, 2002. (attached)**

**14. THE FOLLOWING DOCUMENTS MUST 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) ☒ Yes ☐ No If no, date expected \_\_\_\_\_

**15. PROPOSED TIME SCHEDULE**

☐ Annual (or) ☒ Multi Year

Start Date: June 1, 2003 Completion Date: May 31, 2006

\_\_\_\_\_  
**Name (Print)**

\_\_\_\_\_  
**Title (Print)**

\_\_\_\_\_  
**Signature**

**Date**

**For Nunavut Water Board use only**

**APPLICATION FEE**

**Amount: \$** \_\_\_\_\_

**Receipt No.:**

**WATER USE DEPOSIT**

**Amount: \$** \_\_\_\_\_

**Receipt No.:**

PLEASE CHARGE \$30 CDN APPLICATION FEE TO OUR CREDIT CARD.

VISA, 4788 2195 0000 7550 EXPIRES AUGUST 2004

NAME ON CARD: ROBERT ZUBRIN, MARS SOCIETY INC.