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KATIMAYINGI

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN

Effective January 1, 2004

WATER LICENCE APPLICATION FORM

Application for: (check one)

__ New X Amendment ___Renewal ___Assignment

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Wolfden Resources Inc.
309 Court Street South
Thunder Bay, Ontario
P7B 2Y1

Phone: **(807) 346-1668**_____
Fax: **(807) 345-0284**_____
e-mail: **dave.stevenson@wolfdenresources.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)

The Ulu gold deposit is located in the Nunavut Territory of Canada at longitude 110° 58' W and latitude 66° 54' N on NTS map sheet 76L14 and 76L 15. It is situated 155 km north of Lupin, 220 km southeast of Kugluktuk, 365 km southwest of Cambridge Bay and 530 km north of Yellowknife.

The exploration site is located in treeless tundra where rock and glacial features dominate the landscape, accessible year-round only by aircraft. Bulk items were brought to site via winter road and during exploration activity, day to day supplies are flown to camp. The area is characterized by severe climate with typical temperatures ranging throughout the year between -50°C in winter to +30°C in summer. Permafrost in this area generally extends to several hundred meters.

The facilities at the Ulu project consist of a "Weatherhaven" camp with sleeping, dining and recreation quarters (50 person capacity), a vehicle repair shop, power house, warehouse, cold storage, office and change rooms. Also at site are a fuel storage tank farm, fresh water and sewage systems, garbage incinerator, waste rock and ore storage areas. The camp is expected to accommodate 40 – 50 staff during the 8 month exploration season (March – October).

Latitude: **66° 54' 27.8"** Longitude: **110° 58' 24.1"** NTS Map No. **76L 14/15** Scale: **None**

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

Water Licence #NWB1ULU0008 was issued for the purposes of authorizing the use of water and disposal of waste into water in conjunction with exploration activities at the site. This licence amendment application is only for the deferment of the requirement for all mine water and run-off to be directed to the retention pond as outlined in Part

D, Item 1. In lieu of this, WRI is proposing an Interim Water Management Plan to monitor and manage the mine water and runoff from the Waste Rock and Ore Storage Pads. Plans and drawings of the undertaking were previously submitted. An overview of the exploration camp layout is included (Figure 1 and 2) for the convenience of the reviewers. Besides the deferment of this requirement, not changes to the undertaking are proposed.

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

__ **Industrial**
__ **Mining and Milling**
__ **Municipal** (includes camps/lodges)
__ Power
__ Agricultural
__ **Conservation**
__ Recreational
X **Miscellaneous** (includes exploration/drilling) (describe):

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

X To obtain water
__ To modify the bed or bank of a watercourse
__ 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 (cubic metres per day including both quantity to be used and quality to be returned to source)

Ulu is currently consuming and therefore discharging on average 5 cubic meters of water per day from West Lake and to East Lake, respectively. Our water license allows us to consume up to 100 cubic meters per day.

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

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

*** see page 6**

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

Land Use Permit KTL304C007

DIAND __ Yes __ No If no, date expected _____

Regional Inuit Association X Yes __ No If no, date expected _____
Kitikmeot Inuit Association, P.O. Box 360, Kugluktuk, Nunavut, X0B 0E0

Commissioner __ Yes __ 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 _____

The rationale for the licence amendment is outlined in the attached letter dated March 14, 2006 addressed to Mr. Phillipe di Pizzo and the appended Interim Water Management Plan (March 2006).

Overall there will be minimal environmental impact as a result of this amendment application. The intent of the Interim Water Management Plan is to outline the steps that will be taken to ensure that there will not be an uncontrolled discharge of water from the pads at concentrations over the licenced discharge limits. As part of the plan, if necessary mitigation plans would be developed (including berming, ditching, and collection of the runoff water at the toe of the pads or whatever other means are possible) to ensure that water is not discharged at levels above the allowable limits.

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)

Gartner Lee Ltd., c/o Ms Glenda Fratton, 840 7th Avenue SW, Suite 1605, Calgary, Alberta, T2P 3G2
Gartner Lee was hired by Wolfden Resources Inc. to perform environmental services related to the Ulu and High Lake projects.

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

Key documents supporting this licence amendment application are listed below:

- **August 5, 2005 letter from Mr. David Stevenson, Wolfden Resources Inc. to Mr. Philippe di Pizzo, Nunavut Water Board;**
- **Ulu Interim Water Management Plan (March 2006) prepared by Gartner Lee Limited for Wolfden Resources Inc. (attached); and**
- **March 14 letter from Mr. David Stevenson, Wolfden Resources Inc. to Mr. Phillipe di Pizzo, Nunavut Water Board (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 **X** No If no, date expected _____

This minor licence amendment applications is only for the purposes of deferring the requirement for all mine water and run-off to be directed to the retention pond as outlined in Part D, Item 1. In lieu of this, WRI is proposing an Interim Water Management Plan to monitor and manage the mine water and runoff from the Waste Rock and Ore Storage Pads. Because there no changes to the undertaking proposed, a supplementary questionnaire is not included.

Inuktitut/English Summary of Project **X** Yes __ No If no, date expected _____

Application fee $30.00 (Payee Receiver General for Canada) **X** Yes __ No If no, date expected _____

Water Use fee (see Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)
Paid March 17, 2005 for July 1, 2004 to June 30, 2005 ___ Yes ___ No If no, date expected _____

15. PROPOSED TIME SCHEDULE

__ Annual (or) __ Multi Year

Start Date:_____ Completion Date: _____

David B. Stevenson	**Exploration Manager, Ulu**	_____	_____
Name (Print)	**Title (Print)**	**Signature**	**Date**

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APPLICATION FEE **Amount: $_____** **Pay ID No.:** _____

WATER USE DEPOSIT **Amount: $_____** **Pay ID No.:** _____

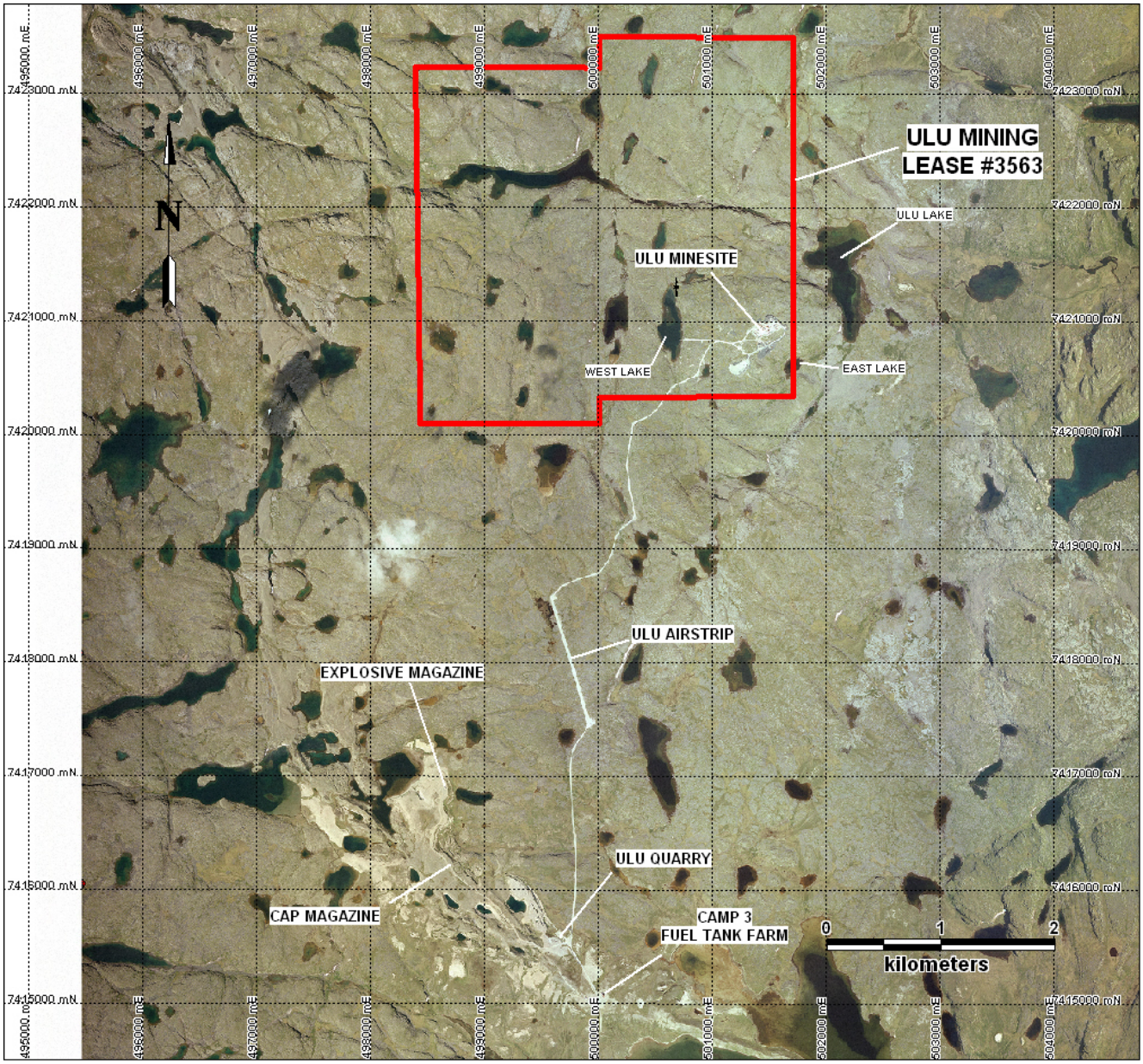

Figure 1. Ulu Mine Site Facilities

Figure 2. Ulu Site Facilities

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

Sewage and domestic greywater from the camp facilities is treated on-site using a Rotating Biological Contactor (RBC) process. Treated sewage effluent is discharged to East Lake via a 550 meter, insulated two-inch pipeline. The treatment system is an aerobic, fixed-film biological treatment process designed to remove both biochemical oxygen demand (BOD) and total suspended solids (TSS) from the wastewater. Sludge removed from Ulu's RBC and sewer lift station are deposited on the up-hill side of the ore pad and covered with waste rock, a distance of 420 meters from East Lake. Runoff from the ore pad flows to East Lake. Less than 2 cubic meters of sludge was deposited on the ore pad in 2004.

Runoff from the toe of the Ore Storage and Waste Rock Pads drains towards East Lake. Flow has been present at the toe of the Ore Storage Pad only during spring freshet and periods of high rainfall. The water quality at this location is summarized below. The quantity of flow is too small to measure and only occurs intermittently.

Table 1 Summary of Ore Storage Pad Run-off Water Quality (2005)

	Maximum Grab Licence Discharge Limits (mg/L)	**Parameter Concentration (mg/L)**	**Parameter Concentration (mg/L)**
		June 18, 2005	Aug. 4, 2005
Routine Parameters			
pH	6.0 – 9.5	7.36	7.68
Nitrate + Nitrate (as N)		0.193	2.42
Ammonia (as N)		0.046	
Total Suspended Solids	50	12	134
Sulphate		416	436
Metals (Total)			
Total Aluminum		0.035	0.041
Total Arsenic	1.00	0.00145	0.00177
Total Cadmium		0.000065	0.00018
Total Chromium		<0.0005	<0.001
Total Copper	0.60	0.00159	0.00214
Total Iron		0.532	1.01
Total Lead	0.40	0.00021	0.00012
Total Nickel	1.00	0.00282	0.0046
Total Zinc	1.00	0.0077	0.0165

Solid waste from the accommodation camp, kitchen and repair shops is burned in a packaged waste incinerator. The incinerator is diesel fired and located on the down wind side of the facilities. Burning is carried out on a regular basis to prevent the buildup of burnable wastes around the site, especially food wastes which may attract bears and other scavengers. Waste oil burners are used for the disposal of used oils and solvent while waste greases and other lubes are incinerated with the burnable solid wastes. Other wastes, such as waste metals, used tires and batteries, will be transported to an approved landfill site on an annual basis.

14. **THE FOLLOWING DOCUMENTS <u>MUST</u> BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN**

Inuktitut/English Summary of Project **X** Yes __ No If no, date expected _____

Matyi 14, 2006

Mista Phillipe di Pizzo
Ataniuyuq Hivuliqti
Nunavut Imaligiyit Katimayit
Titigaqaqvia 119
Uqhuqtuuq, NU
X0B 1J0

Mista di Pizzo-mun:

Pityutaa: Tukhiqtugut Ihuaqhigiaqnianut tamna Laisauyuq nappaa NWB1ULU0008 – WOLFDEN RISUASIS NANMINILGIT – ULU HIVUNMUKHIMAYUQ HAVIKHAQHIUQTUT HAVANGA

Wolfden Risuasis Naminilgit (Wolfden-kut) titigaqtut tukhigaqhutik tamna ihuaqhigiaqnianut tamna laisauyuq NWB1ULU0008, piplugu tamna Ulu Uyagakhiuqniqmun Havikhaqhiuqniq tamnalu Pivaliatitnia havanga. Piluaqtumik, Wolfden-kut tukhigaqtut tamna utaqitquplugu tamna piyagiaqaqnia tapkuat tamaita uyagakhiuqvikmi imaqtai tapkuatlu kuuktaqnii tugaqtitaunii talvunga Hiamaktailivikmun tamnalu Kivittiqhiivik/Halumaqhaivik Tahigaq titigaqhimaniagut talvani Ilanga D, Titigaq 1 tamnalu Titigaq 7 taphumani Imaqmun Laisauyumi. Pipolugu una, uuktugutiqaqtugut tamna Atulaktukhaq Imaqmun Aulattiniqmun Upalungaiyaut taphumunga Nunavut Imaligiyit Katimayit ihumagiyakhai. Tapkuat pityutai ukuat titigaqhimayut ataani.

Malikhugu Imaqmun Laisanga NWB1ULU0008, Wolfden-kut piyungnautilgit atuqnianik immaq tamnalu iqaqnii iqakut tapkuat pityutainut hivunmukhimayut havikhaqhiuqniq, piplugit tapkuat pittailitai tapkuatlu atugiaqaqnii tapkuaniittut Laisuayumi. Malikhugu Ilanga D (Atugiaqaqtut Tugangayut tapkununga Iqakut Iqaqnii), Titigaq 1 uqaqhimayuq:

> *Tamaita uyagakhiuqviup immaqtai, nalautauhimakpata, piyalgit tugaqtitaulutik talvunga Hiamaktailivik Tahigaq tamnaluniit angiqtauhimaniagut tapkuat Katimayit.*

Malikhugu Ilanga D, Titigaq 7 uqaqhimayuq:

> *Tamna Laisataqhimayuq piyalik tunihiluni tapkununga Katimayinut angiqtauyukhanik… taphuminga uuktugutmik iqaqniinik tapkuat uyagakhiuqviup immaqtai tapkuatlu amiakut kuuktaqnii immait talvangat Hiamaktailivikmun tamnalu Kivittiqhiivik/Halumaqhaivik Tahiqat. Tapkuat uuktugutit piyalgit ilaqaqlutik, kihimiungitkaluaqtitlugit, tahapkuat:*
>
> *a) Atugaulat kuvipkagauniinut Uyagakhiuqviup Immaqtai/Kuuktaqnii Immait (ilautitlugu Kivataani Tahiq, atugiaqaqat);*
> *b) Uniqtutiaqhimanii aktilangi qanugittuniilu Uyagakhiuqviup Immaqtai/Kuuktaqnii Immait; tamnalu*
> *c) Atugaulat halumaqhaqniinut iqaqniinutlu.*

Titigaqhimaniitigut hivuani (Aagasi 5, 2005), tamna Hiamaktailivik Tahigaq tamnalu Kivittiqhiivik Tahiqat hanayauhimayut, kihimik tamna imaqmun laisauyuq pinahugiinaqtai ilihimatagahugiplugit. Talvani Aagasi 5, 2005 titiqami tapkununga Nunavut Imaligiyit Katimayit, Wolfden-kut uuktugutilgit tamna atulaktukhaq immap aulatauniinut upalungaiyaut ilihimalaq malikhugu atuqtakhat tamna nunap iluanuktaqvik matuyaunianut, pigaluaqtitlugu tapkuat atugiaqaqnii titigaqhimayut talvani Ilanga D, Titigaq 1 tamnalu 7 taphumani Imaqmun Laisauyumi. Wolfden-kut pihimayut, pigiaqhugu, ihumagitqikhaqnii havikhaqhiuqniqmun atugakhaliat tapkuatlu ihumaliuqtut atulitqikniinik nunap iluani havakniq talvani Ulu-mi tapkuatlu upalungaiqhimayut angmatqiknianik tamna nunap iluanuktaqvik upingangani 2006. Ilagiplugu una havagut, Wolfden-kut upalungaiyaqhimayut

agyaqtuqniinik mikhaani 11,300 tansinik iqakunik uyaqanik 6,400 tansinik iqakunik uyaqanik tahamunga nunap qanganut. Tapkuat havikhait tapkuatlu iqakut uyaqat iliuqagauniat atuni tutquqhimavikni tungavikni. Tapkuat aktilangi tapkuat hunat ahivaqtauyukhat ukiuq mikitqiyautluaqtut tahapkunangat uuktugutauyunit talvani 2005-mi ilagiplugit tapkuat Iqakut Uyaqat tapkuatlu Havikhait Tutquqhimaniinut Upalungaiyautit (WROSP) tuniyauhimayut tapkununga Nunavut Imaligiyit Katimayit talvani Matyi 2005: 105,000 tansit tapkuat havikhat tapkuatlu 126,900 tansit iqakut uyaqat. Tapkuat havagutit ilaqaqniaqmiyut amuqaqtauniinik kitutliqak hikut tapkuat kihingukuuyut talvani nunamut itiqtaqviani, tamnalu aulatauni tapkuat ilagiyai auktuqtut immat.

Wolfden-kut ukpiguhuktut tapkuat aktilangi tapkuat kuukniit imaqtangugutauyut tahapkunangat huliyauniinit huli naamaktumik piyaulat malikhugit tapkuat atulaktukhat immap aulatauniinut upalungaiyautit. Taimaittumik upalungaiyautit pilat qanugiliuqniinut tapkuat pityutauyut tapkuninga pilaqniinik kuuktaqniit tapkunangat hikunguqtaqniinit amuqhaktauniinit atuqtitlugu tamna nunap iluanuktaqvik angmatqikhaqtaunia. Attataqhimayuq tamna uuktugut Atulaktukhaq Immap Aulatauniannut Upalungaiyaut pivaliatitauhimayuq tapkunangat Gartner Lee Nanminilgit (2006) tapkununga Nunavut Imaligiyit Katimayit ihmagiyauyukhaq ukunani ihuaqhigiagutini tukhiqtugauyuq.

Ukpiguhuktunga tapkuat qulaani piqaqtitnii naamagiakhainik tuhaqtakhat ihumagiyakhaphiknut ukuninga tukhigautinik tapkuat ihuaqhigiaqniinut tamna imaqmun laisauyuq NWB1ULU0008. Piyaqaguvit kitunikliqak ilagiagutinik tuhaqtakhanut tungahuklutit tugaqvigiinagialiuyunga.

Uvamningaqtuq,

Wolfden Risuasis Naminilgit

David B. Stevenson, M.Sc., P.Geo.
Havikhaqhiuqniqmun Maaniyauyuq, Ulu