

GJOA HAVEN, NT XOE 1JO

kNK5 wmoEp5 vtmpq

Tel: (867) 360-6338

NUNAVUT WATER BOARD

FAX: (867) 360-6369 NUNAVUT IMALIRIYIN KATIMAYINGI

Water Licence Application
Supplementary Questionnaire
for Advanced Exploration
(Underground drilling, bulk sampling, etc.)

Nunavut Water Board FEB 0.9 2006 Public Registry

SECTION	N 1 : GENERAL3
SECTION	V 2 : GEOLOGY AND MINERALOGY8
SECTION	13: EXPLORATION OPERATION9
SECTION	4 : THE MILL OR PROCESSING PLANT11
SECTION	5: THE CONTAINMENT AREAS13
SECTION	6: WATER TREATMENT15
SECTION	7: ENVIRONMENTAL MONITORING PROGRAM16
SECTION	8: ENVIRONMENTAL ASSESSMENT AND MONITORING18
<u>Figure 1</u>	20
Figure 2	
<u>Figure 3</u>	
Figure 4	

# **SECTION 1:**

## **GENERAL**

1.	Applicant	Dundee Precious 1 (Company, corporate		
		300-889 Harboursio (Postal address)	e Drive, North V	ancouver, B.C. V7P 3S1
		604-985-2572 (Telephone number		80-0731
		ilaitin@dundeeprec (E-Mail)	ous.com	
Corporate Add	ress (If differ	ent from above)		
		Dundee Precious Me (Corporate Office A Suite 3060, Royal B South Tower, 200 B Toronto, Ontario, M (416) 365-5191 (Telephone number) <u>lbeak@dundeepre</u> (E-Mail)	Idress) ank Plaza ay Street, P.O.Bo 5J 2J1 (416) ( (Fax)	<u>x 30</u> 365-9080
Project Name _	Goose Lake E	<u>xploration</u>		
Location Sout	h east of Bathur	st Inlet on NTS 76g/09,10		
Closest Commu	nity <u>Bathur</u>	st Inlet		
Latitude/Longitu Show the location	ide <u>Lat. 65</u> on of the proje	° 32' 40" Long, 112° dect on a general location	25' 37" on map.	
Environmental N	/anager_ <u>John</u> (Name)		604-985-2572 Ext :	
or Project Manag	ger <u>Percy</u>	Pacor (Title)	604-985-2572 Ext.	

2.

	3.Indicate the status of the c (Check the appropriate spa	exploration activity on the date of application.  ace.)
	Design Under construction	
	In operation	
	Suspended	X
	Care and Maintenance	
	Abandoned	
4.	If a change in the status anticipated date of such char	of the exploration activity is expected, indicate the nature and nge.
a bette tying to KTL30 from B	oring, an exploration camp, grab sam r understanding of what the surface of ogether. This work started during th 04C017. The normal work will conti boot Lake and Boulder Lake claims is	is that have been done to date including diamond drilling, environmental ples and water sampling, we want to start a trenching activity. It is needed to give drilling has outlined but not given definite answers to how the mineralization is esummer of 2005, after getting an amendment to Land Use Permit nue with a start up date in at Goose Lake, while the amendment to the drilling is scheduled to start about the beginning of April. The drilling will continue until to the beginning of July and ending at freeze up. The early winter start up begins mas break.
5.	Indicate the present (or purp	osed) schedule for the exploration activity.
	Hours per week	84 (when on rotation)
	Days per week	7 (when on rotation)
	Weeks per year	26
	Number of employees	_40
	Number of Inuit employees	_12
6.	Estimate the term (life) of the	exploration activity.
	15 Years	(Months / Year)
7.	How will the project effect th	e traditional uses on Inuit Owned Lands?

Firstly the area does not appear to be a caribou calving ground. The exploration work is shut down before the raptors start nesting. The footprints of the camp and diamond drilling on the tundra will not interfere with any of the traditional use of the land. Good clean camp practices of burning kitchen waste daily will keep the scavenging animals away from camp there fore keeping hunting patterns the same as pre Goose camp. Any drilling from the ice will not use salt in the water to keep the string of rods and bits from freezing in the hole. If it becomes necessary to use brine to keep the bits from freezing in the permafrost, a recovery system will be used so that all the brine water will be removed at the end of the drilling. The sewage will be incinerated and the Greywater will be in a sump which will be filtered and limed. The kitchen and combustible items will be burned and buried. The metal waste will be removed for sale or to a landfill either north or further south.

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

The elders have not been contacted since this is and ongoing water license with the only change being a few trenches. It is the same area that the Access to Inuit Owned Land application was reviewed for permit number KTL304C017 that went through the NIRB screening in June 2004. With this amendment we are only adding a few more drill holes further from camp.

9. Has the proponent consulted Inuit Organizations in the area? If so, list them.

Same answer as in Item 8.

10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?

Dundee precious Metals Inc. has not consulted the surrounding communities, as the closest community is on the other side of Bathurst Inlet which could never be affected with anything that happened at Goose Lake. It is such a small amount of water involved and being so well monitored that there is a small chance of any spill or drainage from the exploration site. In the unlikely situation of a small spill, the spill contingency plan lays out in detail the steps to take to clean up the spill removing any hazardous material.

11. Attach a detailed map drawn to scale showing the relative locations (or proposed locations) of the exploration activity, sewage and solid waste facilities, and containment areas. The plan should include the water intake and pumphouse, fuel and chemical storage facilities. Ore and waste rock storage piles, piping distribution systems, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

There is a map called (Figure 1, 2, 3 & 4) which shows the camp and new drilling area. As well there are also the maps NTS 1:50,000 76G/09, 10 showing the diamond drilling areas for 2006.

12. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, audits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

The only infrastructure that was built before Dundee Precious Metals taking over control of this property was the exploration camp. Since taking over, the camp has been refurbished and extended as needed. The location of everything around the Goose lake camp is shown on the Figure 1, 2, 3 & 4. The general area is shown on NTS 1:50,000 map 76G09 & 10.

13. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake screen size.

At Goose Lake a 100-CFM Honda gas pump is set up on the dock with a hose out to the intake. The intake is a standard screen with ¼" spacing to prevent fish from becoming trapped. At the diamond drill sites the pump is a diesel, which pumps from the unnamed lake to the drill. There is also a screen on the water intake.

14. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

Each day of operation the camp and drilling will use a maximum of 130 cubic metres of water. None of this water will return to a lake or stream until it has been treated or filtered. No water used will be released until there is no change to the environment by doing so.

15. Will any work be done that penetrates regions of permafrost?

The holes that are drilled with their collar on land penetrate the permafrost. The holes that are drilled on lake ice are without permafrost. In spite of not contacting permafrost, Dundee Precious Metals still has the drillers put casing down and recover all the sludge from the hole as well as re-circulate the water used for drilling. All the drill cuttings are contained and removed to an approved designated area.

16. If "YES" above, is the permafrost continuous or discontinuous?

When drilling on land the permafrost is continuous to the depth we are presently drilling. Drilling from the ice on a lake, the bottom of the lake does not have permafrost and we haven't encountered any permafrost from such drilling.

17. Were (or will) any old workings or water bodies (be) dewatered in order to conduct the exploration activity?

No.

	Water body (if unnamed give Latitu		
	Total volume <u>N/A</u> cubic m	netres	
	Receiving Watercourse	N/A	
	Dewatering flow rate into above	<u>N/A</u> cubic metres / sec	
	Chemical characteristics of discharg	ge:	
	T/Pbmg/L	Total Ammonia	mg/L
	T/Cumg/L	Suspended solids	mg/L
	T/Almg/L	Specific conductivity	uhmo/cm
	T/HCNmg/L	pH	THE STREET WHITE A STREET WAS ASSOCIATED ASS
	T/Hgmg/L		
	T/Znmg/L		
	T/Cd mg/L		
	T/As mg/L		
	T/Nimg/L		
	T/Mn mg/L		
19.	Was (or will) the above discharge (be	e) treated chemically ?	
	N/A		
20.	If "YES" above, describe the applied	treatment.	
	N/A		
21.	Briefly describe what will be done wi	ith the camp sewage.	
	All camp sewage is incinerated with e	electrical toilets. The residue will be	nut in the grev-wate
sump	and limed.		g

### **SECTION 2:**

#### **GEOLOGY AND MINERALOGY**

22. Briefly describe the physical nature of the mineralization, including known dimensions and approximate shape.

The mineralization is hosted by an iron formation, which has been folded into a tight anticline that plunges moderate to steeply to the northwest. The approximate dimensions (current extent) of the mineralization is 600m X 250m.

23. Briefly describe the host rock in the general vicinity of the mineralization (from the surface to the mineralized zone.)

The mineralization is hosted by oxide iron formation and silica iron formation.

24. Provide a geological description of the mineralized zone. (If possible, include the percentage of metals.)

The mineralized zones are comprised of quartz with varying percentages of arsenopyrite (0.5 - 10%), pyrrhotite (0.5 - 25%), pyrite (0.5 - 3%) and trace amounts of chalcopyrite and sphalerite.

25. Describe the geochemical tests which have been (or will be) performed on the ore, host rock, and waste rock to determine their relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. static tests, kinetic tests.)

As we pass from the exploration program toward a production water license we will initiate more geochemical testing and ARD testing for baseline studies and potential problems with contamination from a mine.

26. Estimate the percentage of sulphide in the mineralization:

pyrite	<u>0.5 - 3%</u>
pyrrhotite	0.5 - 2.5%
pyrite / pyrrhotite mixture	Same as pyrrhotite
arsenopyrite	0.5 – 10%

## **SECTION 3:**

#### **EXPLORATION OPERATION**

27.	Che prop	ck off the type (coerty and briefly des	or proposed scribe the m	l type) of expetthed in more	oloration detail.	operation that will be used	on th
	a)	Reverse circulat	ion to obtai	n bulk sample		No Plan	
	b)	Trenching		<b>F</b>		100 X 100m area	***************************************
	c)	Conventional or	en pit			N/A	
	d)	Decline				N/A	
	e)	Conventional un	derground			<u>N/A</u>	decement.
	f)	Strip mining act	ivity			<u>N/A</u>	**********
	g)	Other Exploration	on activity	(please exp	lain)	Diamond Drilling, geological map	ping,
					samplii	ng, core logging, surface geophysic	<u>s.</u>
consis	Pleas large Diamo	bulk sample.  ond drilling will make use bulk samples taken for	tonne number are to the most of assaying as very some grab sa	es per of samples to be taken fro the sampling. Ar- vell mapping done mples which will	om differe ound the ca e along the make up or	ent areas (note location) to form there is a proposed series of tre length of the trench. The sampling ally a few pounds. The work on Boo	nches will
29.	Indica	ate the <u>present or reservent</u> es on the property:	proposed av	verage rate of	explorato	ory production from all mine	ralized
	***************************************	<u>N/A</u>	tonn	es ore / day			
30.		ne the water usage e and volume of wa			ge) in th	e exploration activity, indica	ate the
		Source	Use		Volume	$e\left( \mathbf{m}^{3}/\operatorname{day}\right)$	
	1. 2.	Camp Diamond Drill	Potable Drilling		45 cubic 84 cubic		

31.	If applicable, indicate or estimate the volume of natural ground water presently gaining access to the mine workings.
	$\underline{\hspace{1cm}}$ $\hspace{$
32.	If applicable, outline methods used underground or on surface to decrease mine water flow (For example: recycling)
All dian	nond drilling at Goose Lake, Boot Lake and Boulder Lake claims is done using a re-circulating water system.
33.	List the brand names and constituents of the drill additives to be used.
freezing	While drilling in permafrost Dundee Precious Metals uses two additives. One is calcium chloride (salt) to lower the point of the water used to remove the sludge from the drill holes. However, being granular it causes a lot of friction

so the second additive, Visco is added for lubrication. Visco is a biodegradable polymer

## **SECTION 4:**

## THE MILL OR PROCESSING PLANT

34.	Is there (or will there be) a portable mill processing plant be operating on the property in conjunction with the exploration activity?			n the property in	
	Y	es	X	No	
35.	If "yes" indicate the provolume of the discharge	posed point of	discharge for	the mill or process	plant water and the
	Point of discharge		N/A		
	Volume of discharge	***************************************	N/A		m <sup>3</sup> / day
36.	Attach a copy of the portaddition of all the variou	able mill or pro s reagents (che	cessing plant micals) that a	flow sheet. Indicate (or will be) used.	e the points of
	N/A				
37.	Indicate the proposed rat	e of milling.			
	X not applica	ble (check)	)	tonnes	day
38.	List the types and quantit milled.)	ies of all reage	nts used in th	e mill or processing	plant (in kg/tonne ore
	N/A				
	Reagent: N/A	Amou	nt in kg/tonn	e ore milled:	
39.	If applicable, is the (prop	osed) milling c	ircuit based o	n autogenous grind	ing?
	YesNo		Partially		

40.	Based on present production or bench test results, describe the chemical and physical
	characteristics of liquid mill or processing plant wastes directed to the tailing deposition area

T/Cu	mg/L	Total Ammonia	mg/L
T/Pb	mg/L	Suspended solids	mg/L
T/Zn	mg/L	Specific conductivity	uhmo/cm
T/Ag	mg/L	pH	And and an
T/Mn	mg/L	Alkalinity	CaCo <sub>3</sub> /L
T/Ni	mg/L	Hardness	mg/L
T/Fe	mg/L	Total cyanide	mg/L
T/Hg	mg/L	Oil and Grease	mg/L
T/As	g/L	vac	
T/Cd	mg/L		
T/Cr	mg/L		
T/A1	mg/L		

# 41. Provide a geochemical description of the solid fraction of the tailings.

Cu	mg/g
Pb	mg/g
Zn	mg/g
Ag	mg/g
Mn	mg/g
Cr	mg/g
Cd	mg/g

Al	mg/g
Fe	mg/g
Hg	mg/g
Ni	mg/g
As	mg/g
CN	mg/g

### **SECTION 5:**

#### THE CONTAINMENT AREAS

42. What is the (Proposed) method of disposal of the mine water, mill or process plant tailings (ie. sump, subaqueous, surface tailings pond, settling pond)?

The greywater for the camp is contained in a sump which is filtered and has lime spread over it to prepare it for release to the environment. The diamond drill sludge and water are caught from each hole and placed in a disposal area where the sludge dries and the water filters away, taken up by the plants or evaporates thereby purifying itself for release into the environment.

43. Attach detailed scale plan drawings of the proposed (or present) containment area. The drawings must include the following:

N/A

- a) details of pond size and elevation;
- b) details of all retaining structures (length, width, height, materials of construction, etc.);
- c) details of the drainage basin;
- d) details of all decant, siphon mechanisms etc., including water treatment plant facilities;
- e) details with regard to the direction and route followed by the flow of wastes and / or waste water from the area; and
- f) indicate of the distance to nearby major watercourses.
- 44. Justify your choice of location for the containment area design by rationalizing rejection of other options. Consider the following criteria in your comparisons: subsurface strata permeability, abandonment, recycling/reclaiming waters, and assessment of runoff into basins. Attach a brief summation.

N/A

45. The <u>average</u> depth of the <u>existing or proposed</u> containment area is <u>dependent on the volume of water encountered</u> metres.

N/A

46. Indicate the total capacity for the <u>existing or proposed</u> containment area by using water balance and stage volume calculations and curves. (Attach a description of inputs and outputs along with volume calculations.)

N/A

47. Has any evaporation and/or precipitation data been collected at the site? <u>NO</u> if so, please include the data.

48.	Will the <u>present or proposed</u> containment area contain the entire production from the mill or processing plant complex for the life of the project?
N/A	
49.	Will the proposed tailings deposition area engulf or otherwise disturb any existing watercourse?
N/A	
50.	If "Yes", attach all pertinent details (Name of watercourse, present average flow, direction of flow, proposed diversions, etc.)
N/A	
51.	Describe the proposed or present operation, maintenance and monitoring of the containment area.
N/A	

### **SECTION 6:**

#### WATER TREATMENT

52. If applicable, will the minewater, mill or process plant water be chemically treated before being discharged to the containment area? If so, explain the treatment process (Attach flow sheet if available.

N/A

53. Will (treated) effluent be discharged directly to a natural water body or will polishing or settling ponds be employed? Describe location, control structures, and process of water retention and transfer. Attach any relevant design drawings.

N/A

54. Name the first major watercourse the discharge flow enters after it leaves the area of company operations.

N/A

#### **SECTION 7:**

#### ENVIRONMENTAL MONITORING PROGRAM

55. Has Traditional Knowledge in the area been considered? If so, how? If not, why not?

The last time that Miramar required a water license there were no public concerns, therefore since nothing has changed with the new water license we felt that until we needed the license to start production we would not have any Traditional Knowledge input at this time. It would also give Dundee Precious Metals time to make visits to the communities to start gathering the Traditional Knowledge that would be necessary later for the production water license.

Has any baseline data been collected for the main water bodies in the area prior to 56. development?

Dundee Precious Metals feels that this license is for the period prior to development and is gathering information on the water quality while the exploration work is continuing. Dundee is still in the first stage of exploration.

57. If "Yes", include all data gathered on the physical, biotic and chemical characteristics at each sampling location. Identify sampling locations on a map.

None gather to date.

Provide an inventory of hazardous materials on the property and storage locations. 58.

The following is a list of hazardous material at a maximum amount. While work is going on the amount fluctuates as more is brought in while the process continues to use these supplies up.

Fuel: diesel

148,000 litres

Gasoline

4,000 litres

Jet A

41,000 litres

Propane

200 pounds

#### Drilling supplies

Salt (not hazardous) 140,000 pounds

Viscos

200 gallons

59. Provide a conceptual abandonment and restoration plan for the site, detailing the costs to carry out the plan and a proposal for a financial assurance which covers the costs to carry out the plan.

At the end of the exploration program remove all the casings from the diamond drill holes.

Removing or cutting off the casings.

\$6,000.00

Burn & bury the camp

\$7,200.00

Remove Equipment			\$25,000.00
**	Barrels		\$25,000.00
čš	Tanks		\$25,000.00
44	Fuel		\$25,000.00
		Total	\$113,200.00

We have submitted a promissory note for \$142,000 to cover the security needed to close this Water License. At this time there is a greater amount of security on hand than appears to be needed to close the license. At any time there is probably no more than seventy percent of the supplies on site, and going into a closure mode there would even be less.

## **SECTION 8:**

#### **ENVIRONMENTAL ASSESSMENT AND SCREENING**

60.	Has this project ever undergone an initial environmental review? If yes, by whom and when.		
No			
61.	Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (eg. Wildlife, soils, air quality), ie. In addition to water treated information requested in this questionnaire?		
	Yes No <u>x</u> Unknown		
62.	If "Yes" please attach copies of reports or cite titles, authors and dates.		
63.	If no, are such studies being planned?No		
	Briefly describe the proposals.		
64.	Has authorization been obtained or sought from the Department of Fisheries and Oceans dewatering or using any waterbodies for containment of waste?		
No			
65.	Has a socio-economic impact assessment or evaluation of this project been undertaken? (this would include a review of any public concerns, land, water and cultural uses of the area implications of land claims, compensation, local employment opportunities, etc.)		
	Yes		
In the	e Land Use Application a total of twelve Inuit people were estimated to be able to get jobs depending on the availability of people and the qualifications of the people available.		
66.	If "Yes" please describe the proposal briefly.		

<b>47</b>	If (NI a)) is much a st. factor of the land of the state
67.	If "No" is such a study being planned? Yes No _x
68.	Describe any cumulative impacts the project may create?
A builtundra Contin the bui	cumulation of greywater in one sump may cause a build up of soap residue in the sump. d up of dry sludge in the designated disposal area may over time change the composition of the within the dumping site.  uing to bury ash under the tundra may at some point start to allow the permafrost to melt near rying site.  oblem with fuel spills that did not get properly treated at the time of the spill.
69.	Does the project alter the quantity or quality or flow of waters through Inuit Owned Lands?
No	
70.	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?
No	
71.	If no compensation arrangement has been made, how will compensation be determined?
	me point in the future when contamination of the water has been proven the negotiations or ion will settle how the compensation will be determined.