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

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## GENERAL

Corporate Address (If different from above)

Show the location of the project on a general location map.

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3. Indicate the status of the exploration activity on the date of application.  
(Check the appropriate space.)

Design	_____
Under construction	_____
In operation	_____
Suspended	_____
Care and Maintenance	<u>  X  </u>
Abandoned	_____

4. If a change in the status of the exploration activity is expected, indicate the nature and anticipated date of such change.

No Change expected.

5. Indicate the present (or purposed) schedule for the exploration activity.

Hours per week	_____
Days per week	_____
Weeks per year	_____
Number of employees	_____
Number of Inuit employees	_____

6. Estimate the term (life) of the exploration activity.

      Unknown       (Months / Year)

7. How will the project effect the traditional uses on Inuit Owned Lands?

The project is in care and maintenance. There are no plans to change the scope of activity from the historical work done at the Ulu site.

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?  
No, There are no activities on site at this time.
9. Has the proponent consulted Inuit Organizations in the area? If so, list them.  
No, There are no activities on site at this time.
10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?  
No, There are no activities on site at this time.
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. See figure 2 Ulu Site Plan of the  
Ulu A&R Plan
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.  
See in attached Ulu A&R Plan section 1.3

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.

See A&R Plan section 3.2.1

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.

See A&R Plan section 3.2.1

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

Unknown at this time.

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

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

Not at this time, if the underground mine workings need to dewatered Zinifex Canada Inc. will provide the data requested in question 18. Currently the mine openings are closed and access to the underground is restricted.

18. If “YES” above, indicate the name of the water body, the total volume of water to be discharged and the chemical characteristics of the water.

Water body (if unnamed give Latitude/Longitude) \_\_\_\_\_

Total volume \_\_\_\_\_ cubic metres

Receiving Watercourse \_\_\_\_\_

Dewatering flow rate into above \_\_\_\_\_ cubic metres / sec

Chemical characteristics of discharge:

T/Pb	_____mg/L	Total Ammonia	_____ mg/L
T/Cu	_____mg/L	Suspended solids	_____ mg/L
T/Al	_____mg/L	Specific conductivity	_____ uhmo/cm
T/HCN	_____mg/L	pH	_____
T/Hg	_____mg/L		
T/Zn	_____mg/L		
T/Cd	_____mg/L		
T/As	_____mg/L		
T/Ni	_____mg/L		
T/Mn	_____mg/L		

19. Was (or will) the above discharge (be) treated chemically ?

20. If “YES” above, describe the applied treatment.

21. Briefly describe what will be done with the camp sewage.

See Section 3.2.2 of the A&R Plan.

## SECTION 2 :

## GEOLOGY AND MINERALOGY

22. Briefly describe the physical nature of the mineralization, including known dimensions and approximate shape.
  - See section 1.4 of the A&R Plan
  - See Section 2 of the Waste Rock and Ore Storage Technical Input
23. Briefly describe the host rock in the general vicinity of the mineralization (from the surface to the mineralized zone.)
  - See section 1.4, 3.4 and 3.5 of the A&R Plan
  - See Section 2 of the Waste Rock and Ore Storage Technical Input
24. Provide a geological description of the mineralized zone. (If possible, include the percentage of metals.)
  - See section 1.4 of the A&R Plan
  - See Section 2 of the Waste Rock and Ore Storage Technical Input



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.) See section 3.4 of the Ulu A&R Plan.

See Section 4 of the Waste Rock and Ore Storage Technical Input

26. Estimate the percentage of sulphide in the mineralization:  
See section 3.4 of the Ulu A&R Plan.

pyrite	_____
pyrrhotite	_____
pyrite / pyrrhotite mixture	_____
arsenopyrite	_____

### **SECTION 3 :**

#### **EXPLORATION OPERATION**

27. Check off the type (or proposed type) of exploration operation that will be used on the property and briefly describe the method in more detail.

a)	Reverse circulation to obtain bulk sample	_____
b)	Trenching	_____
c)	Conventional open pit	_____
d)	Decline	_____
e)	Conventional underground	_____ X _____
f)	Strip mining activity	_____
g)	Other Exploration activity (please explain)	_____

28. Indicate the size and number of samples that will be obtained.  
None at this point the mine is care and maintenance.

\_\_\_\_\_ tonnes  
\_\_\_\_\_ number of samples

Please note if smaller samples are to be taken from different areas (note location) to form one large bulk sample.

There are no plans for bulk sampling, Zinifex Canada Inc. will make a investigating future plans for the Ulu Site.

29. Indicate the present or proposed average rate of exploratory production from all mineralized sources on the property:

\_\_\_\_\_ 0 \_\_\_\_\_ tonnes ore / day

30. Outline the water usage (or proposed water usage) in the exploration activity, indicate the source and volume of water for each use.

	Source	Use	Volume (m <sup>3</sup> / day)
1.	West Lake	_____	50
2.	_____	_____	_____

31. If applicable, indicate or estimate the volume of natural ground water presently gaining access to the mine workings.

Unknown \_\_\_\_\_ m<sup>3</sup> / day

32. If applicable, outline methods used underground or on surface to decrease mine water flow. (For example: recycling)

See section 3.3 of the Ulu A&R Plan

33. List the brand names and constituents of the drill additives to be used.

See Ulu Spill Contingency Plan in attachments for all potential drill additives and MSDS sheets

**SECTION 4:**      Not Applicable

**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 ?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

35. If “yes” indicate the proposed point of discharge for the mill or process plant water and the volume of the discharge.

Point of discharge \_\_\_\_\_

Volume of discharge \_\_\_\_\_ m<sup>3</sup> / day

36. Attach a copy of the portable mill or processing plant flow sheet. Indicate the points of addition of all the various reagents (chemicals) that are (or will be) used.

37. Indicate the proposed rate of milling.

\_\_\_\_\_ not applicable (check)    or \_\_\_\_\_ tonnes / day

38. List the types and quantities of all reagents used in the mill or processing plant (in kg/tonne ore milled.)

Reagent:\_\_\_\_\_Amount in kg/tonne ore milled:\_\_\_\_\_

39. If applicable, is the (proposed) milling circuit based on autogenous grinding ?

Yes \_\_\_\_\_ No \_\_\_\_\_ 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 _____
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	
T/Cd _____mg/L	
T/Cr _____mg/L	
T/Al _____mg/L	

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

Cu _____mg/g	Al _____mg/g
Pb _____mg/g	Fe _____mg/g
Zn _____mg/g	Hg _____mg/g
Ag _____mg/g	Ni _____mg/g
Mn _____mg/g	As _____mg/g
Cr _____mg/g	CN _____mg/g
Cd _____mg/g	

## **SECTION 5 :**

**THE CONTAINMENT AREAS** There is no change planned for the existing site.

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) ?

There are no tailings being produced at the site

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

45. The average depth of the existing or proposed containment area is dependent on the volume of water encountered metres.
46. Indicate the total capacity for the existing or proposed containment area by using water balance and stage volume calculations and curves. (Attach a description of inputs and outputs along with volume calculations.)
47. Has any evaporation and/or precipitation data been collected at the site ? \_\_\_\_\_ if so, please include the data.
48. Will the present or proposed containment area contain the entire production from the mill or processing plant complex for the life of the project ?
49. Will the proposed tailings deposition area engulf or otherwise disturb any existing watercourse?

50. If “Yes”, attach all pertinent details (Name of watercourse, present average flow, direction of flow, proposed diversions, etc.)
51. Describe the proposed or present operation, maintenance and monitoring of the containment area.

## **SECTION 6:**

**WATER TREATMENT**     The same methods will employed as in the past.

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.
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.

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

**SECTION 7:** The current SNP plan will be used.

#### **ENVIRONMENTAL MONITORING PROGRAM**

55. Has Traditional Knowledge in the area been considered? If so, how? If not, why not?
56. Has any baseline data been collected for the main water bodies in the area prior to development ?
57. If “Yes”, include all data gathered on the physical, biotic and chemical characteristics at each sampling location. Identify sampling locations on a map.



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

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.

**SECTION 8 :** See attached Reports.

#### **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 \_\_\_\_\_ Unknown \_\_\_\_\_X

62. If “Yes” please attach copies of reports or cite titles, authors and dates.

63. If no, are such studies being planned ? \_\_\_\_\_  
When or if the site goes into full production  
Briefly describe the proposals.

64. Has authorization been obtained or sought from the Department of Fisheries and Oceans for dewatering or using any waterbodies for containment of waste?

Unknown

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 \_\_\_\_\_ No \_\_\_\_\_ Unknown   x  

66. If “Yes” please describe the proposal briefly.

67. If “No” is such a study being planned ? Yes \_\_\_\_\_ No   X

The site is care and maintenance, plans to carry out a study are dependent on the direction that Zinifex Canada Inc. goes with the site.

68. Describe any cumulative impacts the project may create?

Unknown

69. Does the project alter the quantity or quality or flow of waters through Inuit Owned Lands?

Unknown

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.

71. If no compensation arrangement has been made, how will compensation be determined?

A historical IBA had already been established.