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Tel: (867) 360-6338

NUNAVUT WATER BOARD

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# WATER LICENCE APPLICATION FORM

Nunavut Water Board

FEB 2 4 2004

Application for: (check one)

Public Parist

New Amendment	Renewal	Assignment	INTERNAL
		- New York	
1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE Felicia Chang Strongbow Resources Inc.		DRESS OF CORPORAT FFICE IN CANADA (if a	f 1 V
1300-409 Granville Street Vancouver, B.C. V6C 1T2	Рhопе: Fax:	Ñ/A	TA1 TA2 RC
Phone: (604) 608-1282  Fax: (604) 668-8366  E-mail: nvr_fchang@telus.net; info@strongbowresources.com	e-mail:	1,616.5	CH BRD EXT.
3. LOCATION OF UNDERTAKING (describe Undertaking) Location of the Tree River Project include all o (F66897), VT1 and VT2 (F73977, F73978), and of the West Kitikmcot Region is under Mineral	r parts of IOL pa VT16 to VT21 (I	arcel CO-69 and mineral (24951 to F24956). Exploi	claims CJ1 (F66896), CJ2 ration of Inuit Owned Lands
Please see attached maps.  Possible camp location at: Phase I: Latitude: 67° 00' 38" N Longitud Phase II: Latitude: 67° 04' 10" N Longitud	e: 112° 09' 30" le: 112° 04' 20"	W NTS Map No.: 86 P/ W NTS Map No.: 86 P/	01 Scale: 1:100,000 /01 Scale: 1:100,000
4. DESCRIPTION OF UNDERTAKING ( Please see attached project description.	attach plans and o	lrawings)	
5. TYPE OF UNDERTAKING (A supplemental undertakings listed in "bold")	nentary questionna	ire <u>must</u> be submitted with	the application for
Mine Development Municipa Advanced Exploration Power	escribe): Mapping		mpling and possible ground
	geophysi	cal surveys.	

6. WATER USE		
I To obtain water	To divert a verterance	
	the state of the s	
To alter the flow of, or store	, water Other (describe):	
To cross a watercourse		
7. QUANTITY OF WATER	NVOLVED (litres per second, litres per day or cubic metres per year,	
including both quantity to l	be used and quality to be returned to source)	
For the designated camp sites on IOL parcel CO-69: 50 litres per day (includes consumption, cooking, and washing).  Greywater sump would be backfilled.		
For drilling and exploration cam	p (if required): approximately 20,000 litres per day (includes ~19,000 / lost to rock at the	
drill bit and 1,000 l accumulated and washing).	as sludge) and 200 litres per day for the 16-person camp (includes consumption, cooking,	
and washing).		
8. WASTE (for each type of	waste describe: composition, quantity, methods of treatment and disposal, etc.)	
VI III III (IDI DOMI I I I DO	waste debelled. Volkposition, quadris, membra sa a cambilit und disposal, cit.)	
<b>▽</b> 6	▼ Waste oil	
X Sewage		
X Solid Waste	X Greywater	
Hazardous	X Sludges	
Bulky Items/Scrap Metal	Other (describe):	
Solid Waste will be incinerated. W	aste oil and non-combustible waste will be removed from site for proper disposal.	
Greywater, sewage, and sludges/su		
	FIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and	
location; attach if necessary	/)	
Land Use Permit		
DIAND	Yes No If no, date expected: May 15/2004	
Regional Inuit Association	Yes No If no, date expected: May 15/2004	
Regional mair Association		
Commissioner	Yes No If no, date expected:	
	,	
<ol> <li>PREDICTED ENVIRON MEASURES (direct, indirect, curr</li> </ol>	MENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION sulative impacts, etc.)	
NIRB Screening	Yes No If no, date expected: Conducted as part of approval process for	
5	this license.	
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		
	o an agreement with the Designated Inuit organization to pay compensation for any loss ne alteration. If no compensation agreement has been made, how will compensation be	

Contractors will be determined once the exploration program has been finalized. Expediting will be conducted by Nunavut Expediting Services Ltd. (Yellowknife & Cambridge Bay) and Discovery Mining Services (Yellowknife). Nuna Logistics		
12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)  Contractors will be determined once the exploration program has been finalized. Expediting will be conducted by Nunavut Expediting Services Ltd. (Yellowknife & Cambridge Bay) and Discovery Mining Services (Yellowknife). Nuna Logistics maintains the road used to haul fuel to Lupin Mine. Contracts have yet to be awarded for drilling and helicopter services required for Phase II of the project.		
13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)		
Area has been explored intermittently since the 1970's. Please refer to the attached list of filed exploration reports.		
14. THE FOLLOWING DOCUMENTS <u>MUST</u> 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 Yes No If no, date expected: ASAP; will forward electronic and hard copy.		
Application fee \$30.00 (c/o of Receiver General for Canada) X YesNo If no, date expected		
15. PROPOSED TIME SCHEDULE		
Annual (or) 🗵 Multi Year		
Start Date: May 15/2004 Completion Date: May 15/2006		
Felicia Chang Geologist February 23/2004 Name (Print) Title (Print) Signature Date		
Por Naggaval Water Board use only APPLICATION PEE: Amount: 8 Receipt No.:  WATER USE DEPOSIT Amount: S Receipt No.:		



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# EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

App	licant: S	Strongbow Resources I	nc. Lice	nce No:	(y)
ADI	MINIST	RATIVE INFORMA	TION	(For NWB Use On	(9)
1.	Enviro	nment Manager:	Tel:	Fax:	E-mail:
<ol> <li>3.</li> </ol>	E-mail: Does th Yes. Mineral	nvr karmstrong@telune applicant hold the ne	s.net; nvr fchang@ ccessary property rig 6tbw-03-01 signed with	Nunavut Tunngavik Inc.	
4.	No.	pplicant an 'operator' i		y (i.e., the holder of the	property rights)?
5.	[ ]			ed schedule of on site acon: May 15, 2006 (Expl	
CAN	MP CLA	ASSIFICATION			
6.	Туре о	[]Permanent			
		re the design population. What will be the fluctua		he maximum population	expected on site at
		accommodations will be r nodate approximately 9-16		s and the camp site for Pha	se II will be designed to
	1998				Page 1 of 6

8. Provide history of the site if it has been used in the past.

Is the same or any assess of the president leasted one

Bathurst Inlet - 185 km (southeast of project area)

To the proponent's knowledge, there have been no previous camp sites at the two proposed Strongbow camp locations. However, it is believed that there are previous camp sites in the vicinity of the project area but the proponent is uncertain of the exact locations of these camps.

#### CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

The proposed camp site for Phase I will be located north of Cracker Lake, which is situated on the VT17 mineral claim (F24952). If Phase II drilling occurs, the proposed exploration camp will be built on the CJ2 claim (F66897). The exact camp location for both phases may still be moved clsewhere on these lakes should physical conditions indicate this is advisable (i.e. if the location turns out to be a swampy or poorly drained area).

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

Camp locations were selected as they are proximal to the exploration areas and show favourable topography and surface conditions. Land use applications for the Tree River project area, which consists of IOL parcel CO-69 and adjacent mineral claims (CJ1, CJ2, VT1, VT2, and VT16 to VT21), are being processed by the KIA and DIAND Land Administration, respectively.

11.	is the camp or any aspe	ect of the project located on:
[X]	Crown Lands Pe	ermit Number (s)/Expiry Date: Pending
[ ]	Commissioners Lands	Permit Number (s)/Expiry Date:
[X]	Inuit Owned Lands	Permit Number (s)/Expiry Date: Pending
12.	Closest Communities (	distance in km):
12.	Kugluktuk – 140 km (nort	
	Umingmaktok – 190 km (i	

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Many local stakeholders are aware of Strongbow's exploration plans through the agreement with NTI. Direct contact with local communities is underway.

14. Will the project have impacts on traditional water use areas used by the nearby communities?
Will the project have impacts on local fish and wildlife habitats?

No.

#### PURPOSE OF THE CAMP

15.		Mining (Exploration) Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.)
		(Omit questions # 16 to 21)
	00	Other(Omit questions # 16 to 22)
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- O Preliminary site visit
  - Prospecting
  - Geological mapping
  - Geophysical survey
  - Diamond drilling
  - O Reverse circulation drilling
  - Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
  - Other: Channel sampling of specific bedrock targets
- 17. Type of deposit:
  - O Lead Zinc
  - O Diamond
  - O Gold
  - O Uranium
  - O Other:

#### DRILLING INFORMATION

- Drilling Activities
  - Land Based drilling; 15 holes (see Figure 2)
  - O Drilling on ice; none

Tentative drill hole locations are shown in Figure 2 but will be subject to changes. The NWB office will be notified of these changes as the Phase II program becomes finalized.

19. Describe what will be done with drill cuttings?

Cuttings will be pumped to sumps and backfilled upon completion.

20. Describe what will be done with drill water?

Most of the drill water will be recycled or lost through the rock at the drilling face. Cuttings and sludges will be stored in sumps.

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

Polydrill 550, 133, calcium (or sodium) chloride may be required for permafrost. (MSDS sheets to follow)

22. Will any core testing be done on site? Describe.

No. Core will be split and half will be sent out to a laboratory for analysis.

#### SPILL CONTINGENCY PLANNING

23. Does the proponent have a spill contingency plan in place? Please include for review.

Please see attached spill response plan.

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24. How many spill kits will be on site and where will they be located?

One spill kit will be located at the drill and another will be located near the fuel storage at camp.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

Fuel will be stored near camp, approximately 100m from the normal high water mark. Drill additives will be stored at the same site. Please see attached MSDS sheets.

### WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

A nearby lake will act as primary water sources for the proposed camp sites during Phases I and II. Water sources for a possible Phase II drill program will depend on the locations of proposed drill holes.

- 27. Estimated demand (in L/day \* person):
  - O Domestic Use: 50 litres per day (Phase I); 200 litres per day (Phase II)

Water Source: "Camp" Lake

O Drilling Units: 20,000 litres per day (Phase II)

Water Source: To be determined based on location of drill holes and exploration camp.

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? Describe:

At camp, a small supply pump will be used with screened supply end to prevent dirt and or fish becoming entrapped.

If drilling is conducted, a similar pump and nozzle system will be utilized.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

No.

30. Will drinking water be treated? How?

No.

31. Will water be stored on site?

A small amount of water will be stored at site each day, for domestic cooking and washing purposes.

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#### WASTE TREATMENT AND DISPOSAL

- 32. Describe the characteristics, quantities, treatment and disposal methods for: Please note that estimations are based on a 16-person exploration camp.
  - Camp Sewage (blackwater)
     Disposed of in a pit (10-20I/day)
  - Camp Greywater
     Stored in a sump and buried at end of program (~150l/day)
  - Solid Waste

Waste will be incinerated in a barrel and non-combustibles will be removed from site (~200l/day)

- Bulky Items/Scrap Metal
   Stored on site and removed during and at the end of the program
- Waste Oil/Hazardous Waste
   Waste oil will be burned with garbage (~1l/week); Hazardous waste will not be encountered
- Empty Barrels/Fuel Drums
   Empty drums will be removed from site
- O Other:
- 33. Please describe incineration system if used on site. What types of wastes will be incinerated?

A burning barrel will be used for waste food, paper and wood.

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non-combustible waste will be flown from site on regular service flights and at the end of the program.

 Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for sumps (if applicable).

Camp sumps will be located at least 50 metres from any high water mark. Drilling sumps (if applicable) will be located at least 100m from nearest high water mark.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No leachate monitoring will be done.

#### **OPERATION AND MAINTENANCE**

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Water supply and waste treatment and disposal methods have been used many times for similar projects in Nunavut.

#### ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

Please see attached Abandonment and Restoration Plan.

#### BASELINE DATA

- 39. Has or will any baseline information be collected as part of this project? Provide bibliography.
  - O Physical Environment (Landscape and Terrain, Air, Water, etc.)
  - O Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
  - O Socio-Economic Environment (Archaeology, Land and Resources Use, O Demographics, Social and Culture Patterns, etc.)
  - O Other:

No bascline information has been collected.

#### REGULATORY INFORMATION

- 40. Do you have a copy of
  - O Article 13 Nunavut Land Claims Agreement
  - NWB Water Licensing in Nunavut Interim Procedures and Information Guide for Applicants
  - NWB Interim Rules of Practice and Procedure for Public Hearings
  - NWTWB Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
  - O NWTWB Guidelines for Contingency Planning
  - O DFO Freshwater Intake End of Pipe Fish Screen Guideline
  - O Fisheries Act s.35
  - RWED Environment Protection- Spill Contingency Regulations
  - Canadian Drinking Water Quality Guidelines
  - O Public Health Act Camp Sanitation Regulations
  - Public Health Act Water Supply Regulations
  - O TERRITORIAL LAND USE ACT AND REGULATIONS

YOU SHOULD CONSULT THE ABOVE DOCUMENT, GUIDELINES, AND LEGISLATION FOR COMPLIANCE WITH EXISTING REGULATORY REQUIREMENTS.

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# Project Description West Kitikmeot Project – Tree River Area, West Kitikmeot Region, Nunavut

#### 1.0 Introduction

Strongbow Resources Inc.'s Tree River project is located approximately 140 km southeast of Kugluktuk. Project properties consist of 18,599.21 ha of land, comprised of Inuit Owned Lands (IOL) parcel CO-69 and mineral claims CJ1, CJ2, VT1, VT2, and VT16 to VT21, inclusive. The mineral claims tie onto the east boundary of CO-69 and are subject to Crown (Federal) surface rights. Strongbow's right to explore CO-69 is governed by Mineral Exploration Agreement STBW-03-01 signed with Nunavut Tunngavik Incorporated (NTI) in March 2003.

The project area was relatively unexplored until the 1990's when BHP Minerals Ltd. conducted a limited amount of prospecting and bedrock mapping. The Tree River project encompasses bedrock formations that are prospective for both gold and base metal mineralization. In 2004, Strongbow proposes an exploration program with the goal of testing the significance of several gold showings located within the project area.

## 2.0 Proposed Program

# Timing and General Description

The proposed exploration program will be conducted over a three to four week period in summer 2004. The exact timing and nature of Strongbow's field program has not been finalized, however work will consist of mapping, prospecting, and channel sampling. If the results from this initial, phase I work warrant further exploration, a second phase of field work may be proposed for 2005. The exact areas for follow up work will be determined based on the results of the 2004 season.

Phase I work will be conducted in the summer of 2004 by a 2-3 person team of geologists that will carry out a combination of mapping, prospecting, and channel sampling in order to identify and delineate mineralized zones. Specific target sites for ground-based field work are being finalized but will mostly likely focus on the VT claims, immediately east of CO-69. Further work will also be conducted on a showing located on the VT/CO-69 border. It is anticipated that the program should be completed within 2-3 weeks, weather dependant. Helicopter support and food and equipment supplies will be provided for the exploration crew when required from a nearby established camp. The exact base camp from which this service will be provided will be determined closer to the start of the program, however the most likely candidate is Strongbow's proposed camp at Canoe Lake.

Areas of interest will generally be accessed on foot and the geologists will spend anywhere from 1 to 8 hours at each site locating mineralized zones, mapping bedrock

lithologies, and collecting prospecting-type rock samples (1-5 kg each) for geochemical assays. Bedrock mapping will involve daily traverses on foot, cataloguing bedrock formations within the area with the aid of air photos and satellite images. The main focus of the 2004 program will involve the channel sampling of a quartz pebble conglomerate unit that was mapped in 2003. Channel samples will be cut from exposed bedrock using a circular saw with a diamond studded blade. Two, parallel lines, approximately 3-4cm apart, will be cut across exposures of the conglomerate unit. Rock samples will be extracted at regular, 20cm to 50cm intervals, from the 'channel' between the two cuts. Where exposure is good, individual channels will be cut at regular intervals of approximately 100 m along strike of the horizon. The total number of samples collected will depend on the number of channels cut but may be on the order of 200-300. The summer program may also include a limited amount of ground geophysical surveys over the conglomerate horizon in an effort to determine its geophysical character.

Dependant on results of the Phase I program, a second phase exploration program including limited exploration drilling and further mapping, prospecting/sampling may be considered for the spring or summer of 2005. If drilling occurs, it will be during a spring program for lake-based targets or a summer program for land-based targets. The entire Phase II program is anticipated to run for approximately 4-6 weeks. The drill used for these programs would be a Boyles 25 or equivalent with drill moves and crew changes accomplished using a Hughes 500 helicopter. Drilling sludges will be stored in sumps and later buried. Garbage will be collected and returned to camp daily for incineration. Non-combustible garbage will be flown out from site for proper disposal. Personnel requirements for a Phase II program will include 9-16 persons: 4-6 geologists, 2 geotechnicians (Phase III only), 5 drillers (Phase III only), 1 helicopter pilot, 1 engineer, and 1 cook.

#### Camp

Accommodations for Phase I will be minimal, sufficient to accommodate three people over the 3 weeks of the program. Pup tents will be used as sleeping quarters and two additional tents for kitchen/dry and office use. The proposed camp site is north of Cracker Lake but may be subject to change as it is dependent on where the majority of the channel sampling, mapping, and prospecting will be conducted.

The Phase II program will involve establishing a temporary exploration camp, however the exact location of this camp will only be determined after the program has been planned. The appropriate authorities and regulatory bodies will be notified of the final camp placement. As Phase II may involve diamond drilling, the camp would consist of six or seven 14'x16' Jutland-style tents with wooden floors and frames (1 kitchen, 1 dry, 1 office, 3 to 4 sleeping tents) in order to accommodate the number of personnel involved in this program. All sewage and grey-water will be buried in pits, and garbage will be incinerated daily in burn barrels. Scrap metal and other non-combustible garbage will be collected and removed from the site by back-hauls during the program and as part of the demobilisation from site at the end of the program. Empty fuel drums and other

remaining equipment from the present program will be removed from site at the end of the land use operation.

#### Fuel

Fuel requirements for the Phase I exploration program are extremely minimal as the building of an exploration camp or helicopter for field work use will not be involved. It will only consist of small propane tanks required for cooking, 2 diesel drums for camp use, and 2 Jet B drums for helicopter refueling purposes. If the Phase II program occurs, an estimation of fuel consumption based on 10 short drill holes (< 200 m) would increase requirements to approximately 40 drums Jet B (8, 200 l; for 3 weeks of helicopter time), 4 drums diesel (800 l; for camp), and 1-2 100 lb propane tanks (for cooking). Fuel on the property will be staged such that enough fuel is present at any given time to meet short term requirements; all empty drums will be backhauled on flights bringing new fuel to camp. All fuel will be stored and used as per Strongbow Resources Spill contingency plan (attached). Small fuel caches of 4-6 drums of sealed Jet B fuel may be located on the property. Such caches will be located the requisite distance from the high water mark and their locations will be registered with the appropriate authority.

## Wildlife

All exploration sites, including any camp and/or drill sites will be kept as clean as possible in order to limit the potential of attracting wildlife. To reduce the chances for bear/human interaction the guidelines will be followed that were established in the GNWT Renewable Resources pamphlets 'Safety in Grizzly and Black Bear country' and 'Black Bears and Grizzlies of the NWT'. To avoid disturbance of caribou and nesting birds, all contract aircraft (helicopters and fixed-wing) will fly at altitudes of greater than 300m above ground level whenever possible.

#### Reclamation

Upon completion of the land use operation, all materials (drill, tents, pumps, fuel barrels, etc.) will be removed from the site. The wooden tent floors will be burned and buried and the sumps and sewage pits will be filled in. After the clean up has been completed there will be little or no indication of the previous land use operation. Strongbow will notify the KIA Land Administration if any additional evidence for undocumented previous land use activities is encountered. Strongbow will endeavor to assist in properly disposing of waste from such sites within the scope and capacity of the proposed program.

# Strongbow Resources NTI Mineral Exploration Agreement, West Kitikmeot Region, Nunavut Executive Summary

Strongbow Resources' Tree River project is located approximately 140 km southeast of Kugluktuk. The project consists of mineral claims as well as Inuit Owned Lands that Strongbow is able to explore under agreement with Nunavut Tunngavik Inc. The project area contains rock formations considered prospective for gold, base metals, and diamonds. Strongbow is proposing a 2004 field program to explore the property in 2004.

The proposed program for the Tree River project will be conducted over 2-3 weeks in the summer by a 2 or 3 geologists. This Phase I program will examine areas of potential gold mineralization within the property. The program will involve mapping and prospecting of bedrock formations. Some outcrops will be sampled using a rock saw, hammer, and chisel. The work will be conducted on foot over most of the areas of interest. A small camp (2-3) tents will be set up near the work area. The crew will receive helicopter support and food and equipment supplies from a nearby established base camp. If the results of Phase I warrants further work, a second phase of the program will be conducted in 2005. Phase II will involve diamond drilling, mapping and prospecting/sampling over newly established mineral targets. A temporary exploration camp will be built to accommodate personnel, which will consist of 4 to 6 geologists, 2 geotechnicians, 5 drillers, 1 helicopter pilot, 1 engineer, and 1 cook. The entire program is anticipated to run for approximately 4 to 6 weeks.

At the end of the proposed program, all camp materials, fuel drums and the drill (if required) will be removed from the site. All garbage will be incinerated at site, with non-combustible garbage (scrap metal etc.) collected and removed. Once the clean up is complete, there will be no remaining evidence of the camp.