

# **BLJZZARD CLAIMS**

**Geological Assessment Report** 

Greenwood Mining Division NTS 82E10W

> 49°37'36"N 118°55'05"W

> > for

POWER RESOURCE CORP. #501 - 905 WEST PENDER ST. VANCOUVER, B.C. V6C 1L6

> Owner Dave Heyman 111754

by RENÉE BRICKNER

November 2000

GEOLOGICAL SURVEY BRANCH



## SUMMARY

The Blizzard Property is located in south central British Columbia, 54 km southeast of Kelowna in the Greenwood Mining District. Power Resources Corp holds a 100% interest in the property. The Blizzard Property covers an area of 4 square kilometers fully encompassing an epigenetic strata bound sediment hosted uranium deposit.

Mineralization is contained in fluvial sediments of Eocene to Miocene age. These sediments are underlain by a monzonite intrusion and are capped by late Tertiary basalt. Pleistocene glaciation selectively eroded the area resulting in the preservation of basalt caps. The preservation of the basalt caps in turn has protected underlying sedimentary units that host Uranium mineralization. The topographic relief in the area varies between 4300ft to 4500ft.

The region contains several uplifted areas that represent basalt caps protecting underlying sedimentary units. Consequently, Power Resources staked further ground in the area to the south of the Blizzard Property. The Donen 1-6 Properties lie 3 km south of the Blizzard Property and are also 100% owned by Power Resources Corp.

Previous economic evaluation of the Blizzard Property has estimated ore reserves to be 2,200,000 tonnes of grading 0.1815 percent uranium at a cutoff grade of 0.021 percent uranium over a 1-metre interval. Other reports have indicated a potential reserve of 4736 tonnes of  $U_3O_8$  in the deposit.

Over 16% of the Worlds electricity is generated from uranium in nuclear reactors with over 430 nuclear reactors operating in 32 countries. In addition over 400 small nuclear reactors power some 250 ships including submarines, icebreakers and aircraft carriers. The benefits of such energy sources allow ships to stay a sea for long periods without having to make refueling stops.

The Greenwood Mining Division, in particular the area in and around the Blizzard Property, is known for its Uranium deposits. Production in the 1970's at the Hydraulic and Haynes deposits indicate that the area has a potential for further uranium production.

Work on the property, twenty years ago, defined the Blizzard Property as a Uranium Deposit. In today's market, new environmental regulations and commodity prices may have an effect on the status of the property.

In July 2000 a 5 day field trip was conducted on the Blizzard Property and surrounding area. The program included biogeochemical testing on the property to determine Uranium concentrations in flora growing on the basalt cap, near the basalt cap overlying granodiorite basement rock and flora located off the Blizzard Property to try to determine background levels. The purpose is to experiment with alternate methods of Uranium detection and enrichment in an environmentally friendly manner.

## TABLE OF CONTENTS

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Summary	2
Introduction	6
Location and Access	6
Claim Data	6
History and Previous work	6
Regional Geology	10
Local Geology	10
Assessment Work	12
Results	12
Conclusions	15
Recommendations	15
Cost Statement	16
References	17
Statement of Qualifications	18
Appendix I Biogeochemical Assay Results	19
Appendix II Donen 1-6 Sample Results and Comparison	22
Appendix III Photos	23
Appendix IV Analytical Instrumentation	24

List of Figures	Following page
Property Location Map	5
Location Map	6
Geology Map	7
Claim Map	9

## INTRODUCTION

The Blizzard Property, formerly the combined Patricia, Beverly, Moraig and Blizzard Claims, consists of 16 claim units measuring four squared kilometers. Staked by David Heyman in 1997, Power Resources has a 100% right and interest in the property. The property is located in the Greenwood Mining Division, British Columbia approximately 54km southeast of Kelowna.

This report and the following work was written and completed at the request of Power Resources Corp. It reviews previous work and reports on work carried out since 1967 as well as the assessment work conducted on the property last year by Power Resources Corp. Recommendations are made for further exploration consisting of further biogeochemical sampling, geophysical surveys, and a drill program in order to confirm previous work and interpretation of the property.

## LOCATION AND ACCESS

The Blizzard Property consists of 16 claim units measuring four squared kilometers and is located 54 km southeast of Kelowna, British Columbia to the north of Lassie Lake. The property is accessible by road from Kelowna via Highway 33 for ~65km, then by Trapping Creek and Lassie Lake logging roads for an additional ~33km. The logging roads completely encompass the property and cut through the property along the western and southern edges. Additional roads remain from previous works that cross cut the property but are overgrown and inaccessible by vehicle.

The property ranges in elevation from ~1300 m to ~1400 m. The property contains a topographic high of moderate relief, which is the result of a basalt cap situated in the centre of the property. The cap slopes are low incline except for bluffs along the northwestern side of the cap. Percent of exposed rock on the property is low and variable. On the basalt cap, average outcrop is about up to 25% where as the lower elevations average <1% outcrop. On average, the property contained ~5% exposure.

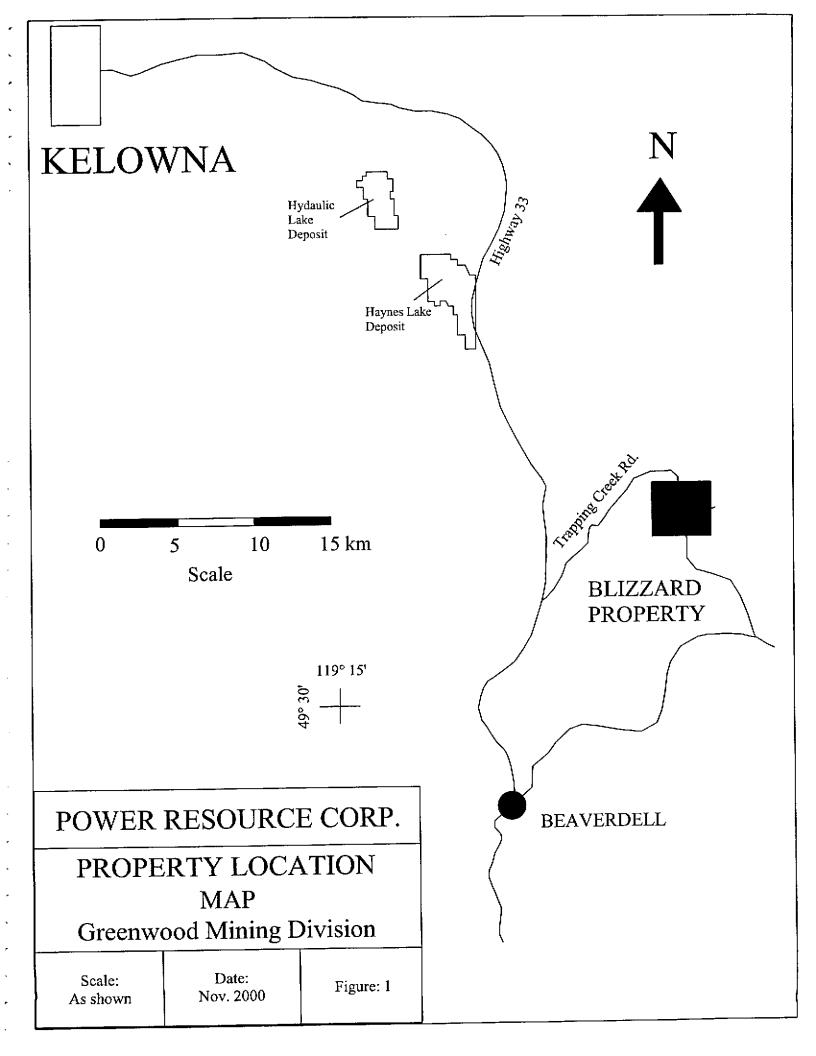
## CLAIM DATA

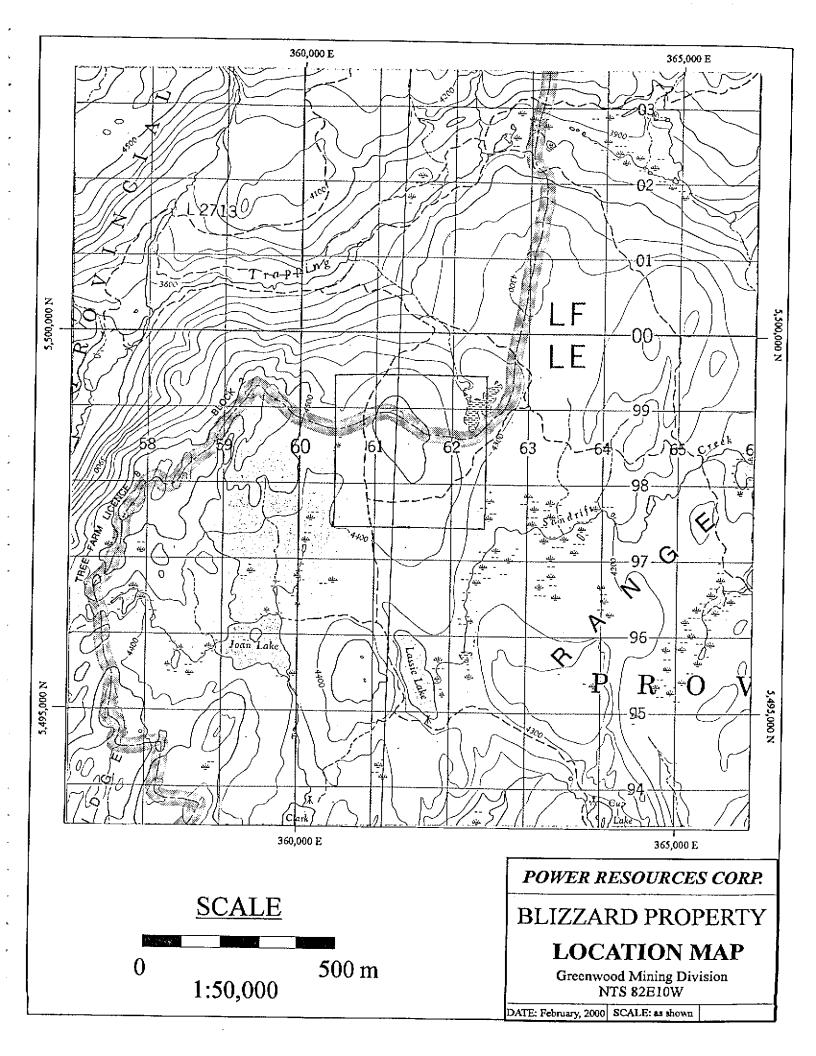
Claim Name	Tenure No.	No. of Units	Expiry Date
Blizzard	358775	16	Aug. 28, 2000

Location Map (Figure 1)

## PREVIOUS WORK

Lacana Mining Corporation staked the Patricia, Beverly, Moraig and Blizzard properties in 1976. It was then optioned to a joint venture group comprised of Norcen Energy Resources Limited, Campbell Chibougaman Mines Ltd. E & B Explorations Ltd. and Ontario Hydro. Before the 1980 Uranium moratorium, a combined total of 478 holes were drilled on the mentioned properties. Drilling included percussion and diamond drilling with a combined





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total of 21,184 meters. Following drilling, ore reserves were estimated to be 2,200,000 tonnes grading 0.0815 percent uranium at a cutoff grade of 0.021 per cent uranium over a one meter interval.

## **REGIONAL GEOLOGY**

The regional area is underlain by biotite gneisses of Proterozoic age called the Moanshee Group. The Moanshee Group is reported to have spectrometer background readings ranging from 3000-5000 counts per minute. Overlying these is the Anarchist Group; a thick interbedded volcanic and sedimentary sequence of greenstones and greywackes of Paleozoic age. Low background spectrometer readings for the Anachist Group is reported to be below 2000 counts per minute.

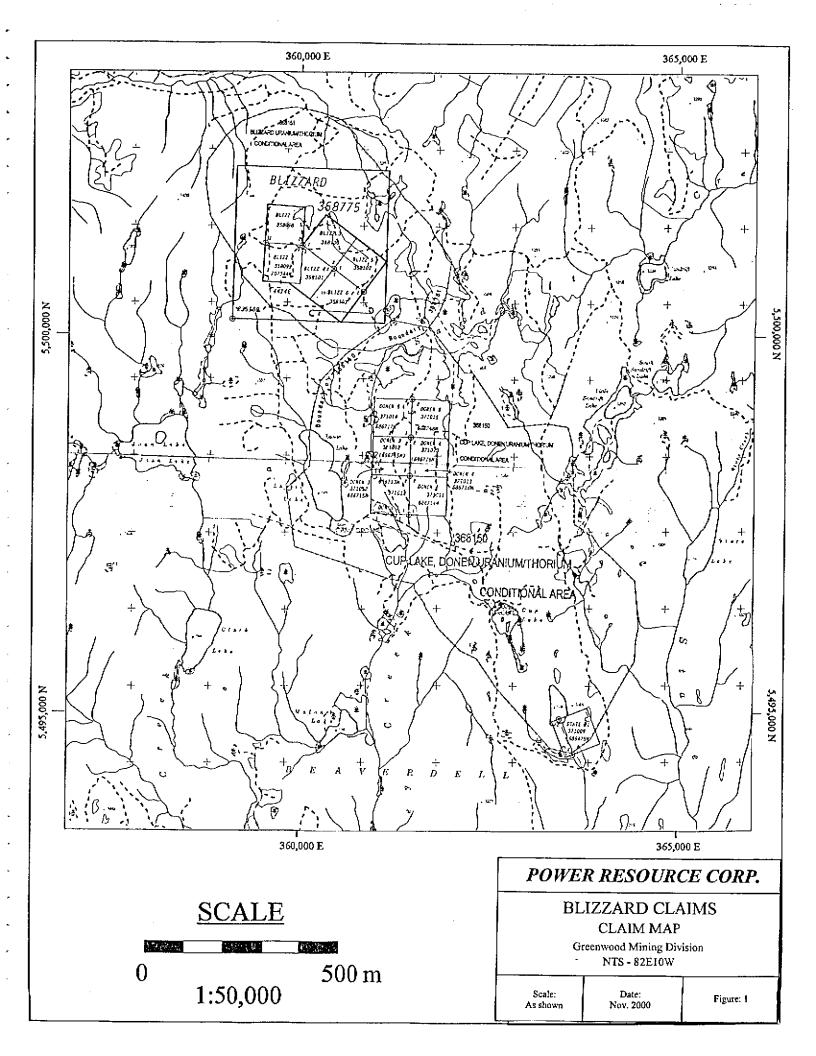
The Cretaceous Valhalla hornblende granodiorite and Nelson biotite granodiorite plutonic rocks intrude the Anarchist Group. The Valhalla and Nelson granodiroites are reportedly believed to be the source of uranium mineralization found in the area. Spectrometer readings from the Valhalla and Nelson intrusives range between 2000-3000 counts per minute. Early Tertiary rocks include poorly sorted and well-lithified conglomerate and sandstone with carbonaceous siltstone beds, of the Kettle River Group overly the Cretaceous intrusive rocks. The Kettle River Group is overlain by the Middle Tertiary (Oligocene) Phoenix Group volcanics, which in turn is intruded by the Coryell syenite intrusion. Late Tertiary poorly consolidated sediments post date the Coryell syenite intrusives and have been identified, through drilling, as the target for uranium exploration. This unit is very poorly exposed. An olivine basalt cap, consisting of porphyritic dacite and dacite tuff, overlies the loosely consolidated sediments thus protecting the unit from Pleistocene glaciation and preserving the Uranium mineralization.

## LOCAL GEOLOGY

The Blizzard Property consists of 2 km by 2km property area. The property boundary covers an area characterized by a topographic high, which marks the location of a basalt cap. Previous drilling in 1979 shows several basalt caps in the area to overlie loosely consolidated sediments which host Uranium mineralization. Also identified on the property is Cretaceous granodiorite intrusives.

Previous mapping of the Blizzard property describes the basalt cap to be a dark grey fine- to medium-grained crystalline olivine basalt, weakly to moderately magnetic with weak, local rusting on weathered surfaces.

The Cretaceous basement rocks are described as having varying texture between fine grain aphanitic equigranular mass to pegmatitic hetrogranular segregation within a biotite granodiorite. Weathered surfaces tend to be slightly buff colored and samples collected from the basement rock tend to be weakly to moderately magnetic.



Small diabase dykes were located on the property cross cutting the Cretaceous basement granodiorite. Limited outcrop of identified dykes did not allow for accurate measurements such as strike, dip or dyke width.

## ASSESMENT WORK

The Blizzard Property has been identified as hosting a uranium deposit. Current uranium prices in addition to political and environmental factors may change the status of deposit to a resource status. It was recommended that work on the property be targeted towards alternative exploration methods to test for uranium mineralization. These alternative exploration methods are more economical but yet remain unproven.

The Blizzard Property offers a unique opportunity to test alternative methods on a proven deposit as alternative results can be analysed in an area of proven mineralization and later collaborated as to their accuracy and effectiveness.

The July 2000 work program included biogeochemical sampling used to test uranium levels in the local flora. Alternative methods such as biogeochemical analysis can be beneficial in the exploration for mineral deposits in glaciated terrains. Metals present in the ground may be absorbed by the root systems of the local flora transferring the metals to the plant. The metals may originate from the soil, bedrock or ground water. The root system of a large tree may penetrate to depths allowing for metal representation from deep underlying bedrock thus representing several sources such as soil groundwater and bedrock. Though conifers generally have shallow root systems diffusion and upward migration of elements allows for a good biogeochemical response. For the purpose of this study the Lodgepole Pine was chosen as our plant type. The Lodgepole Pine is generally one of the most useful and chemically informative of plant types. The first general assessment of the property showed the Lodgepole Pine to be abundant and wide spread. (It was later concluded on a more detailed survey that the Lodgepole Pine was not as abundant as previously thought.) Due to relogging on the property, it would have been impossible to choose a tree type that represented different geologically underlain areas.

A four-day work program was designed to tie in both the Blizzard and Donen 1-6 (located 3 km to the southeast of the Blizzard Claims and also owned by Power Resources) mineral claims as both claims are related geologically and geographically. Both properties have had extensive exploration in the past thus making both an ideal target for alternate exploration practices. The Blizzard and Donen properties contain essentially the same geological lithologies and both host similar uranium deposit models. The comparison of results from both properties allows for further support on the results obtained by biogeochemical testing.

## RESULTS

The July 2000 work program consisted of collecting biogeochemical samples from the Blizzard Claim and the nearby Donen 1-6 Claims. Since all claims are in the same area and

are characterized by the same geological units a comparison of samples collected between the properties was used.

Samples were collected from scraping the bark of Lodgepole Pine trees and sent to Activation Laboratories Ltd. in Ancaster, Ontario for analysis (Analytical Instrumentation – Appendix IV). The Lodgepole Pine is a two-needled conifer and contains thick bark. It is the most widespread tree in the province and it can grow in all sorts of environments.

A total of 15 biogeochemical samples were collected, 7 samples from the Blizzard Property. The samples were collected from scraping the bark from the trunks of the Lodgepole Pine trees. Seven samples were collected from the Blizzard Property and two additional samples were collected from two locations of varying distance for comparison.

Some problems that must be taken into consideration are subtle variations that may occur to offset the reliability of the biogeochemical samples. Such factors include; type of tree, which part of the tree is being sampled, time of year and age of tree. To minimize such variations we collected samples from one tree type (Lodgepole Pine) and from trees of similar age. All the samples were bark scrapings that eliminates sample type variations and the time of year is of no concern because bark mineralization is not affected by seasonal changes.

Sample	U	· · · · · · · · · · · · · · · · · · ·	linates	Estimated	Description
#	(ppm)	UTM		Elevation (ft)	
BZS-	4.4	4937400	11855684	4450	Overlying granodiorite
001			·		basement rock
BZS-	4.7	4937091	11855396	4460	Overlying granodiorite
002					basement rock
BZS-	2.7	4937171	11855942	4395	Overlying granodiorite
003					basement rock
BZS-	1.2	4937762	11855461	4580	Located on Basalt Cap
004					
BZS-	0.6	4937689	11855463	4575	Located on Basalt Cap
005					
BZS-	-0.1	4937809	11855091	4490	Questionable whether sample
006					was taken from Lodgepole pine (sample discarded)
BZS-	0.9	4938201	11855226	4230	Approximately 0.5 km north of
007	[ [				Property
BZS-	7.6	4938020	11858839	3440	Approximately 3 km west of
008					Property
BZS-	2.9	4941161	11906080	Unknown	Approximately 15 km
009			<u> </u>		northwest of Property

The following table outlines the sample results from the Blizzard Property. (Figure 4 and Appendix I)

No sample was collected for a standard as variations were expected to occur between geographical and geological areas. Only relative comparisons can be used to determine uranium enrichment in the samples.

Sample BZS-001 was taken from an area overlying granodiorite basement rock. The sample contained 4.4 ppm of uranium, which is considered enriched for the purpose of this report. The sample was collected from a young tree that had been planted in 1989 (reforestation) at an estimated elevation of 4450 ft.

Sample BZS-002 was taken from an area overlying granodiorite basement rock. The sample returned 4.7 ppm of uranium and is considered enriched. The greater value in this sample relative to BZS-001 may be due to the closer proximity to the contact between the underlying granite and basalt cap thus being closer to the sediment hosted deposit at an estimated elevation of 4460 ft.

**Sample BLS-003** was taken an area overlying the granodiorite basement rock at an elevation of 4395 ft. The sample returned 2.7 ppm uranium.

**Sample BLS-004** was taken from the top of the basalt cap on the northwestern portion of the property at an elevation of 4580 ft. The sample returned 1.6 ppm uranium.

Sample BZS-005 overlies the basalt cap and is located in an area where the basalt cap is thickest at an elevation of 4575. The sample, with a reported value of 0.6 ppm, is not considered enriched in uranium.

Sample BLS-006 was taken on the basalt cap at an elevation of 4490 ft. It is inconclusive whether sample BLS-006 was in fact a Lodgepole pine. Later views suggested that sample BLS-006 should be excluded due to this discrepancy though it should still be analyzed so to compare results from different tree species.

**Sample BZS-007** was taken from an area overlying granodiorite basement rock at an elevation of 4230 ft. The sample is located 500 m north of the boundary and is the furthest from the edge of the basalt cap. A depleted value of 0.9 ppm is reported.

**Sample BZS-008** was taken from a location approximately 5 km off the Blizzard Property. The purpose of collecting samples off the property was to compare reported values in an area known to contain uranium with a sample originating in an area not known to contain uranium. The area where sample BZS-008 was collected is a low-lying area at approximately 3440 ft elevation. The sample reported a uranium value of 7.6 ppm, which is the highest value of all samples collected.

**Sample BZS-009** was taken from a location approximately 25 km off the Blizzard Property. Again the purpose of collecting such samples located off the property was to compare reported values. The area where sample BZS-009 was collected is a low-lying area of unknown elevation. The sample reported a uranium value of 2.9 ppm, which is considered enriched in uranium relative to the samples located on the Blizzard Property.

Appendix II table shows Samples taken from the Donen 1-6 claims for property comparison.

#### CONCLUSION

Analytical results from this report show that those samples collected from an area overlying the basalt cap are deficient in Uranium while those collected overlying the basement granodiorite rocks are elevated in uranium.

Differences in relative uranium content may be affected by several factors. Such factors include, but are not limited to, the following:

- 1) Underlying lithological uranium enrichment. Previous work on the Blizzard Property concluded that the granodiorite basement rocks were the initial source of uranium thus explaining the granodiorite basement rocks elevated uranium levels. This would in turn create elevated uranium levels in the overlying flora. On the other hand, the basalt cap is depleted in uranium and unless fractures are present to allow uranium seepage, little uranium mobilization through ground water would occur to elevate uranium levels at surface the observer would expect depleted levels in the flora overlying the basalt cap.
- 2) Another factor may be topographic elevation. Uranium is relatively mobile in groundwater and any uranium at or near surface would be highly susceptible to ground water movement. As such, areas of high elevation would be continually leached of uranium if a uranium source were present. Areas of low elevation would be in turn saturated with uranium from other sources of higher elevation. Since the basalt cap tends to be higher in elevation then the granodiorite basement rock the flora overlying the basalt would be depleted and the flora overlying the low lying granodiorite would be elevated in uranium due to the mobility of uranium in ground water.

In order to better interpret the varying levels of uranium on the Blizzard Property a more conclusive sampling program must be implemented. Sampling along a 25 m by 25 m grid would better identify subtle levels of uranium between similar and different rock units as well as allow comparison between samples taken from areas overlying identical lithologies but with topographic elevation variations.

The Lodgepole Pine tree is a suitable tree type as the trees ability to pick up heavy minerals, such as uranium, through its root system is favourable to this type of study. Results from sample 6, different tree type, show a tree species that is less responsive in reflecting uranium levels. For all intense purposes, the chosen tree type was best suited for this study.

#### RECOMMENDATION

Previous assessment on the Blizzard Property has defined a uranium deposit. In today's market, new environmental regulations, commodity prices and political constraints may have an effect on the status of the property. On the other hand, as nuclear power plants regain favour due to increased safety standards and the increasing prices of fossil fuels uranium may become a more widely accepted energy source in the future.

Previous exploration on the Blizzard Property has outlined a uranium deposit. Further work on the property should be in the form of alternative exploration methods as the property provides an ideal area to test alternative methods such as biogeochemical analysis and geophysics. Such methods, though not proven to identify mineralization, are more cost effective. Further biogeochemical analysis coupled with an areomagnetic survey is recommended in addition to a radiometric survey to determine areas of elevated radioactivity. In order to better interpret the varying levels of uranium on the Blizzard Property using biogeochemical analysis, a more conclusive sampling program must be implemented.

## STATEMENT OF COSTS

GEOLOGICA	AL MAPPING			
	Geologist:	\$250/day for 2 days	\$	535.00
	Geological Assistant:	\$150/day for 2 days	\$	321.00
SAMPLES AI	NALYSIS			
	Sample Preparation (bio	geochemical samples)		
	8 samples @ \$	6.69	\$	53.52
		ation (biogeochemical samples)		
	8 samples @ \$	6.42	S	51.36
ACCOMMOI	DATIONS Lodging 1 night @ \$82.8 Meals 2 days @ \$80/day	0/night	\$ \$	82.80 160.00
OTHER				
	Geological compilation,			
	Gold Brick Exploration		\$	800.00
	Equipment purchases (gen		\$	87.55
	Equipment rental GPS (\$2		\$	40.00
	Truck Rental (\$40.00/day	)	\$	80.00
	Mileage (916km @ \$0.2	5/km)	\$	229.00
	Gas		\$	92.75

TOTAL BUDGET PHASE ONE

\$2,532.98

Total \$2,532.98

## REFERENCES

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Brickner, R.D., 1999. Assessment Report

McWilliams, G.H., Barclay, J. E., 1978. Assessment Report Rotary Drilling Program Patricia and Moraig Jan 1, Jan 2, Jan 3 Claims, Greenwood Mining Division, Assessment Report # 6640 Part 1

McWilliams, G.H., Barclay, J. E., 1978. Diamond Drilling Project, Blizzard and Beverly Claims, Greenwood Mining Division, British Columbia. Assessment Report # 6640 Part 2

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http://www.worldwideminerals.com/WWS/InvRel.nsf/Public/Uranium, Uranium Fact Sheet, Uranium History

## QUALIFICATIONS

I, Renee D. Brickner, of 304 – W. 2555 Discovery St., Vancouver, British Columbia hereby certify:

- I am a graduate of the University of Saskatchewan (1999) and hold a B.Sc.H. with a major in Geology.
- I have experience in mineral exploration in the Yukon Territory, British Columbia and Ontario as well as having done educational research in Northeastern British Columbia.
- I have prepared this report for Power Resource Corp. of #501-905 W. Pender St. Vancouver, British Columbia and have been working in my field on a full time basis since graduation.
- I have not received or expect to receive any interest in the properties Power Resource Corp. and do not beneficially own, directly or indirectly, any securities of the company.
- This report is based on examination of reports and information previously compiled and information and work originally conducted during a 1999 and 2000 work program.

I consent to the use of this report, or summary thereof, in a statement of material facts or for use in documents filed with any regulatory authority.

Dated at Vancouver, British Columbia, this 1<sup>st</sup> day of October 2000.

Renée Brickner, B.Sc. Geo.

## APPENDIX I

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# Analytical Assays from the Donen 1-6 Claim (DNS or DNR)

And

Assays from the Blizzard Claim (BLS or BZS)

Quality Analysis...



Innovative Technologies

Invoice No.: 20206 Work Order: 20526 Invoice Date: 13-SEP-00 Date Submitted: 28-AUG-00 Your Reference: DONEN/BLIZZARD Account Number: P011

POWER RESOURCES 501-905 W. PENDER ST. VANCOUVER, BC V6C 1L6 ATTN: RENEE BRICKNES

CERTIFICATE OF ANALYSIS

15 VEGETATIONS (PREP.REV3) 3 ROCKS (PREP.REV3) were submitted for analysis. were submitted for analysis.

The following analytical packages were requested. Please see our current fee schedule for elements and detection limits.

REPORT 20206 CODE 5D-U-TOTAL - DNC

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

CERTIFIED BY :

E.HOFFMAN/GENERAL MANAGER

**ACTIVATION LABORATORIES LTD.** 

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613

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Sample ID	U
	ррт
BZS-001	4.4
BZS-002	4.7
BLS-003	2.7
BLS-004	1.2
BZS-005	0.6
BLS-006	-0.1
BZS-007	0.9
BZS-008	7.6
BZS-009	2.9
DNS-001	-0.1
DNS-002	1
DNS-003	1.1
DNS-004	1.8
DNS-005	0.9
DN\$-006	0.3
DNR-001	0.6
DNR-002	1
DNR-003	1
DNR-003 Pulp Dup	1.2

Page 1 of 1

## APPENDIX II – Donen 1-6 Claim Results and Comparison

Bark	Uranium	Coord	linates	Description
Samples	(ppm)	Northing	Westing	-
_		4936137	11854093	Old, thick Lodgepole Pine (LP), overlying
DNS-001	-0.1			basalt cap
DNS-002	1.0	4936075	11854176	Old thick LP overlying basalt
DNS-003	1.1	4935840	11854056	Old thick LP overlying basalt
DNS-004	1.8	4935623	11854049	Old thick LP overlying basalt cap near lithological contact
DNS-005	0.9	4936327	11854122	Old, thick LP overlying granodiorite
DNS-006	0.3	4936248	11854011	Old, thick LP, overlying granodiorite, near lithological contact

Relative to the Blizzard Property samples, the Donen 1-6 samples are much lower in uranium. In addition, the Donen 1-6 samples exhibit less variation in uranium content then those taken from the Blizzard Property and surrounding area.

All but two of the samples taken are from areas overlying the basalt cap. Sample number 005 and 006 are assumed to be in an area overlying the granodiorite basement rock although not outcrop is available for confirmation.

Samples 001-004 are from areas of higher elevation although none of the samples taken from the Donen 1-6 claims exhibit a large variation in elevation relative to the Blizzard Property. The samples collected on the Donen 1-6 Claims have an elevation variation of a hundred feet maximum and the Blizzard samples have an elevation variation of about 200 feet (>1000 feet if you include samples collected off the property).

The smaller variations in uranium content on the Donen 1-6 samples combined with the smaller variations in the sample location elevations may indicate that the elevation of a sample may have direct results with a samples uranium levels. It would then be expected that samples collected in areas of greater elevation variations would have greater uranium level variations between samples.

Such theories would require a greater number of biogeochemical samples from both properties in areas of varying elevation and varying underlying lithologies.

## **APPENDIX III – Photos**



Photo shows reforestation of the Lodgepole Pine - Sample BZS-001



Photo showing Lodgepole Pine vs. other vegetation types on the property - Sample BLS-003

## **APPENDIX IV – Analytical Instrumentation**

All biogeochemical and geochemical samples were sent to Activation Laboratories Ltd. (Actlabs) in Ancaster, Ontario.

For biogeochemical samples, a minimum of 15 grams of sample material (tree bark) was required to obtain representative results.

#### Preparation

The samples were prepared by Actlabs using dry ashing. The samples are heated at 475°C for 24 hours and the ash is then weighed and put into vials.

Analysis

The samples underwent Delayed Neutron Counting (DNC) analysis. For the purpose of this analysis a McMaster Nuclear Reactor was used. The samples sit in the Nuclear Reactor for 15 seconds where the Nuclear Reactor irradiates the samples. The samples are then moved, all electronically, to a BF3 Delayed Neutron Counter. DNC detects neutrons fission as a result of the irradiation from the Nuclear Reactor. The DNC is able to detect the fission uranium as it is emitted from the samples as the measured neutrons emitted from the sample is directly proportional to the amount of uranium in the sample.