

11.0 BUILDING 3121: BEAVER CREEK VISITOR RECEPTION CENTRE

11.1 Description of Existing Water Supply System

Building 3121, the Beaver Creek Visitor Reception Centre (VRC) is currently served by a water supply system that delivers water from a well located in pit in the reception centre parking lot and is approximately 6 m from the building. The well location and other details about the surrounding area are provided in Figure 3121-A in Appendix A11. The coordinates of the wellhead, as measured by a handheld GPS device, were recorded as:

- UTM ZONE 7
- Northing: 6916712
- Easting: 506373

There is no treatment or disinfection system for the water supply to this building. A schematic detailing the well supply system is provided as Figure 3121-B in Appendix A11.

11.2 Description of Existing Wastewater Systems

There is a septic tank located south of the VRC approximately 18 m from the well. Septic effluent is discharged to ground via a septic field to the south of the tank approximately 33 m from the well. Conceptual hydrogeology (outlined in Section 10.4) indicates that the septic system is likely upgradient from the well. A site plan showing the septic system is given by Figure 3121-A in Appendix A11.

11.3 Water Quality Results

11.3.1 Water Quality Results from Previous Sampling

Bacteriological

Two samples were collected from the Beaver Creek Visitor Reception Centre water system between May and June 2005 and were tested for total coliform and *E. coli* by Yukon Environmental Health Services using the presence/absence test method. Results are tabulated in Table 3121-1 in Appendix A11. Coliform bacteria and *E. coli* were reported as absent in both samples for which results are provided.

Potability

Water samples were previously collected from the Beaver Creek VRC water system on September 21, 2004 and June 15, 2005. The samples were submitted to Northwest Labs in

Surrey, BC and ALS Environmental in Vancouver, BC for potability analyses. The results of these analyses are summarized in Table 3121-2 in Appendix A11. EBA reviewed the analytical results to compare them with the Canadian Drinking Water Quality Guidelines (CDWQG) to observe general water quality, identify and recommend additional sampling and analytical, and to identify indicators of potential contamination as follows:

- The water quality results indicated that all health based and aesthetic objectives were met for the parameters analyzed;
- Though they did not exceed the CDWQG aesthetic objectives, chloride and nitrate concentrations were found to be elevated with respect to general groundwater quality in the Beaver Creek area;
- The water quality results indicated that the groundwater from which this system receives its water supply is a calcium bicarbonate type water; and,
- The hardness (as CaCO₃) was 335 mg/L during the first sampling event and 346 mg/L during the second sampling event and is considered very hard.

11.3.2 Identification of Additional Analytical Testing Required

Additional analytical for the Beaver Creek VRC that was identified to be included during the water system assessments is detailed below:

- UV absorbance and UV transmissivity, as well as tannins and lignin, to determine potential for UV treatment as a disinfection option for this water system;
- Total organic carbon (TOC);
- As nitrates and chlorides were found to be elevated, samples were taken to test for nutrients and indicators of potential surfacewater or septic sources including chloride, nitrate, nitrite, and ammonia; and,
- Measurements in the field for total dissolved solids, conductivity, pH, and temperature.

Additional Analytical Results

A water sample was obtained during the water system assessment on July 27, 2005, and was submitted to ALS Environmental in Vancouver, BC for analysis. These results are summarized in Table 3121-2 in Appendix A11 and the laboratory reports are included in Appendix B.

- The chloride concentration was 29.5 mg/L, which is elevated with respect to the general groundwater quality in the Beaver Creek area;

- The nitrate concentration was 5.17 mg/L, which is elevated with respect to the general groundwater quality in the Beaver Creek area; and
- The water quality results from additional analytical sampling indicated that all other health based and aesthetic objectives were met for the parameters analyzed.

11.3.3 Indicators of Potential Contamination

Chloride, nitrate and nitrite concentrations can indicate impacts from surfacewater sources or septic waste. Chloride concentrations were reported to be 23.7 mg/L during the first sampling event, 32.7 mg/L during the second sampling event, and 29.5 mg/L during the most recent sampling event. Chloride concentrations were above the normal background ranges for groundwater in the area. Nitrate concentrations were reported to be 2.9 mg/L during the first sampling event, 4.95 mg/L during the second sampling event, and 5.17 mg/L during the most recent sampling event. Nitrate concentrations were above the normal background ranges for groundwater in the area. These water quality results suggest that the aquifer from which the groundwater is obtained for the Beaver Creek VRC may be under the influence of surfacewater sources or septic wastes.

11.4 Conceptual Hydrogeology

There is no log available for this well. Most of the wells in the Beaver Creek area indicate coarse sand and gravel with cobbles and small boulders to depths of at least 30 m. The well logs also indicate that discontinuous lenses of finer-grained sediments persist throughout the area, but in general the sediments are dominated by coarse alluvium. Some discontinuous permafrost is also interpreted to persist throughout the Beaver Creek area. The variability of sediments in the Beaver Creek area indicates limited aquifer protection from surficial sources of contamination. A study previously completed in the Beaver Creek area by EBA determined that the direction of groundwater flow in the vicinity of the site is north to northeasterly.

11.5 Potential Contaminant Sources

Potential contaminant sources identified during the water system assessment are compiled in field notes in Appendix A11. Photos of potential contaminant sources are also provided in Appendix A11.

Potential contaminant sources within 30 m of the wellhead are:

- An above ground fuel storage tank (AST) at 19 m.

The wellhead is located in the parking lot at the visitor reception centre, and is potentially subject to fuel and/or sewage spills from automobiles and recreational vehicles. The Alaska Highway (19 m) has also been identified as a potential contaminant source. The closest location of effluent discharge with respect to the well is a septic field located 33 m upgradient from the wellhead.

11.5.1 Spills Records and Contaminated Sites Search Results

The Government of Yukon Environmental Programs Branch and Environment Canada Environmental Protection Branch did not identify any recorded spill events or contaminated sites issues for this site or neighbouring sites.

11.6 Identified Water System Deficiencies and Associated Risk

11.6.1 High and Medium Risk Deficiencies

- Poor surface completion of the wellhead (located in a pit below grade);
- Poor location of the well (located in the reception centre parking lot where it may be subject to fuel and sewage spills from automobiles and recreational vehicles);
- There is no surface sanitary seal (grout or bentonite seal as required by the Canadian Groundwater Association's Guidelines for Water Well Construction);
- By definition of the Draft Yukon GUDI Assessment Guideline, the well is potentially under the direct influence of surface water because the depth of the well is unknown and the well construction does not meet the requirements of the Guidelines for Water Well Construction;
- The well is located within 30 m of potential sources of contamination, including an above ground fuel storage tank at 19 m and an active parking lot;
- The septic system for the visitor reception centre is located upgradient from the well. The nearest point of the effluent discharge field is 33 m upgradient;
- Water quality results report elevated concentrations of nitrates and chlorides, and may indicate that the aquifer from which ground water is obtained for this site is under the influence of surfacewater or septic sources. A likely source is the septic system directly upgradient from the well; and,
- There is no treatment or disinfection system.

11.6.2 Low Risk Deficiencies

- The pump control system is not up to standards; and,
- The pressure switch is located too far away from the pressure tank.

11.7 Mitigative Options for Deficiencies

Mitigative options were developed to address the deficiencies identified in the previous section. Deficiencies are categorized by recommended level of priority (with Priority 1 being most critical).

11.7.1 Priority 1

The following recommendations are provided in order to mitigate deficiencies that are of immediate concern for the VRC. Priority 1 remedial recommendations include:

- The casing should be extended to at least 500 mm above the base of the well pit, and a localized near surface bentonite seal installed immediately around the wellhead, while leaving the remainder of the base of the well pit for drainage;
- The well and water system should be superchlorinated; and
- A disinfection treatment consisting of filtration to 1 micron absolute, and a UV system that is NSF/ANSI certified should be installed. Pretreatment (softening) will likely be required. This is a conceptual design recommendations based on the information available for planning and budgeting purposes. Engineering input will be required for final system specifications.

11.7.2 Priority 2

Priority 2 upgrade options to mitigate long-term risk and meet the proposed regulation are presented below:

Option 1: New Well Construction

- For this option, it is recommended that a new well should be drilled and the current well be decommissioned. It is recommended that a new well be installed to meet the following conditions:
 - The well should be equipped with a surface seal to at least 6 m and the casing should be extended above grade (500 mm) within a lockable enclosure that is inaccessible to animals and unauthorized personnel;

- The well must be located at a distance greater than 30 m from any potential source of contamination, including the above ground storage tank and all parts of the septic system;
- The water from the new well must meet all CDWQG health based guidelines. If there are any exceedences in the CDWQG health-based guidelines then a treatment system must be designed and installed as necessary. A disinfection system may be recommended.

Option 2: New Cluster Well Construction

- Option 2 presents the option of a cluster well installation to provide water supply to the Grader Station, Health Centre, Visitor Reception Centre and Fire Hall. The advantages would include combined savings on capital costs, reduced life cycle costs, added control and system security, and reduced maintenance requirements. For this option, it is assumed that a heated building enclosure would be constructed to house the well and treatment system.

11.7.3 Priority 3

- Priority 3 deficiencies would be mitigated with Priority 2 upgrades.

11.8 Cost Estimates for Mitigative Options

Engineering costs for mitigative options are estimated to be 20% of construction costs, and would include inspection and completion reporting. The costs for materials and labour (not including engineering) are provided in the sections below. An additional contingency allowance of 20% is suggested for budgetary purposes.

11.8.1 Priority 1

The estimated costs for the recommended Priority 1 upgrades are detailed below:

- Casing extension and well cap installation - **\$600;**
- Re-plumb so that domestic comes off of piping prior to tank, and install double check valve for backflow protection - **\$500;**
- Well and water system superchlorination - **\$200;** and
- UV system installation with required pre-filtration - **\$2,400.**
- Softener system for pre-treatment - **\$2,000.**

The estimated total cost for Priority 1 recommended upgrades is estimated at **\$3,900** including materials and labour.

11.8.2 Priority 2

Option 1: New Well Construction

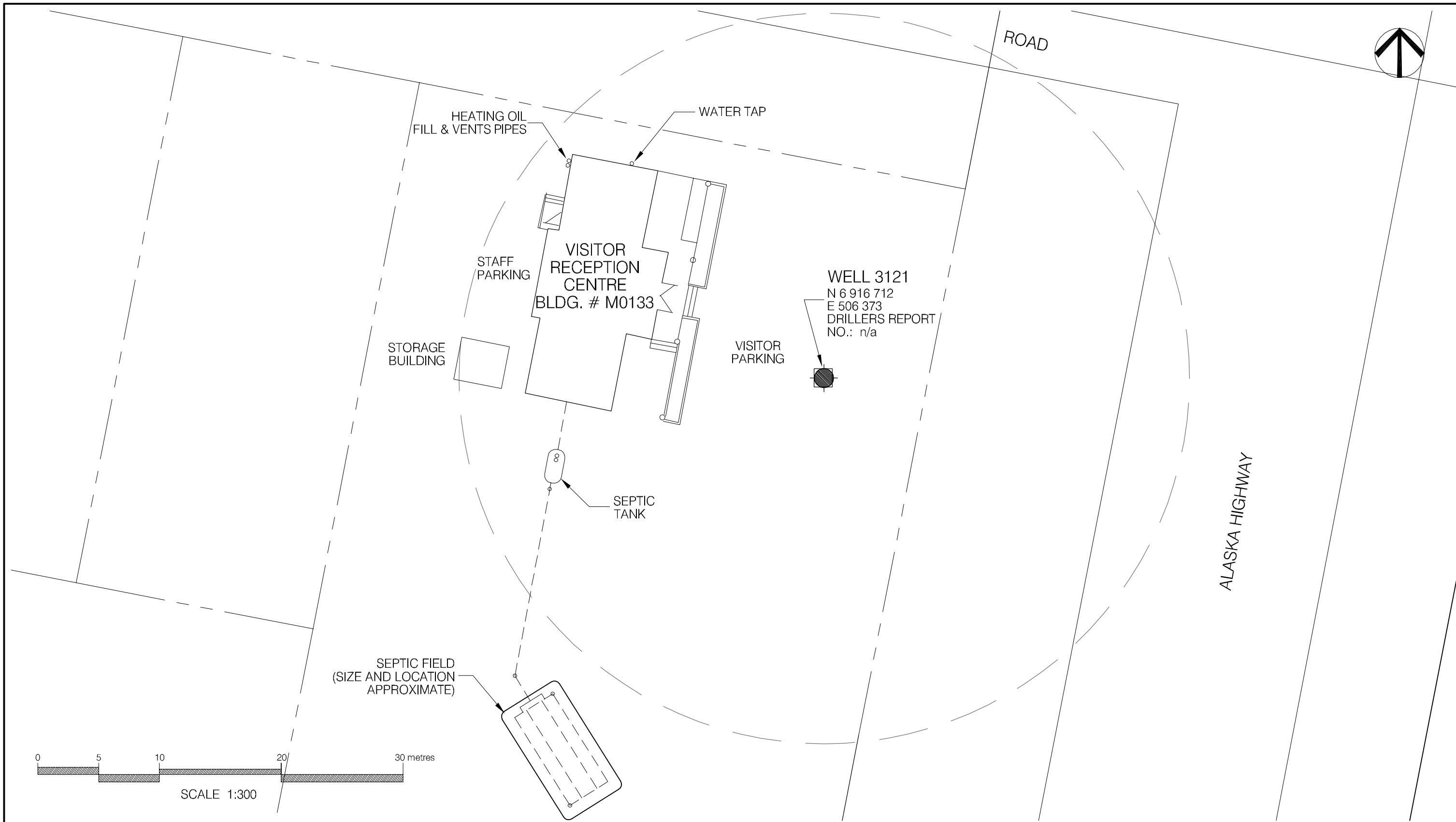
- The estimated cost for the Option 1 which includes the construction of a new well to serve the Fire hall and Library building is approximately **\$30,000** for drilling, testing and hook-up, assuming that the well would be approximately 30 m deep and constructed as described above.

It is recommended that the existing well be kept plumbed in to the fire storage tanks for back-up water supply.


Option 2: New Cluster Well Construction

- The estimated cost for Option 2, consisting of a cluster well installation to provide water supply from a central well to the Grader Station, Health Centre, Visitor Reception Centre and Fire Hall would be in the order of **\$25,000** per system. The estimated capital costs include supplies and labour for well construction, testing, treatment and distribution piping.

It is recommended that the existing well be kept plumbed in to the fire storage tanks for back-up water supply.




NOTES:
 1. UTM COORDINATES OBTAINED WITH A HAND HELD GPS USING NAD83 SYSTEM AND ARE CONSIDERED TO BE ACCURATE TO 10.0 m, APPROXIMATELY.

 30 m RADIUS FROM WATER WELL FOR CONSIDERATION OF PROXIMITY TO POTENTIAL CONTAMINANT SOURCES.

No.	DESCRIPTION	DATE	APPROVED
0	ISSUED FOR CLIENT REVIEW	DD/MM/YY	XXX
REVISION			

EBA Engineering Consultants Ltd.

DESIGNED BY: R. MARTIN
 DRAWN BY: J. BUYCK
 DATE: AUG. 2005
 SCALE: AS SHOWN
 PROJECT No.: 1260002.003
 ACAD FILENAME: 003-WESTERN REGION

CLIENT:

 Highways and Public Works
 Property Management Branch

SMALL PUBLIC WATER SYSTEMS ASSESSMENT
 WESTERN REGION

GOVERNMENT OF YUKON
 HIGHWAYS & PUBLIC WORKS

BEAVER CREEK VISITOR RECEPTION
 CENTRE BUILDING # 3121
 SITE LOCATION DIAGRAM
 WELL ID: 3121

REVISION	ISSUE
	0
FIGURE No.	FIGURE 3121-A

**Western Region – Visitor Reception Centre
Building # 3121**

DISTRIBUTION & TREATMENT SYSTEM DATA

Item	Description	Manufacturer	Model	Part No.	Serial No.	Size
1	SUB PUMP	MONARCH	RS655E		802	
2	PRESSURE TANK	THE WATER WORKER	W3001		94934	10 GALLON
3	PRESSURE SWITCH	SQUARE D	FSG 5			
4	PRESSURE GAUGE	WINTERS	2"-(0-100)			
5						
6						
7						
8						
9						
10						

TABLE 3121- 1: SUMMARY OF BACTERIOLOGICAL RESULTS

		Number of Sampling Events	Time Period over which Sampling was Done	Any Positive Total Coliform Results? (yes or no)	Fraction of Positive Total Coliform Results vs. Total Sampling Events	Any positive E.Coli results? (yes or no)	Most Recent Sampling Event Available for EBA Review	Is Most Recent Result Positive?
Building #	Building Name							
3121	Beaver Creek Visitor Reception Centre	2	May -05 to Jun-05	no	0/2	no	16-Jun-05	no



Table 3121-2: Water Quality Results

SOURCE:		Building 3121- Beaver Creek Visitor Reception Centre			GCDWQ Criteria				
Location/ Resident	Beaver Creek								
Address									
Treatment	None								
Disinfection	None								
Source of Water	On-site well								
Purpose of Sampling	Base Line	Base Line	Additional Analytical						
Sample Location			Washroom tap						
Date Sampled	21-Sep-04	15-Jun-05	27-Jul-05	Lower	Upper Limit				
Physical Tests (ALS)				AO	MAC	AO			
Colour (CU)	<5	<5.0	-			15			
Conductivity (uS/cm)		709	-						
Total Dissolved Solids	351	427	-			500			
Hardness CaCO3	335	346	-	AO >200 = poor, > 500 unacceptable ^A					
pH	8.05	8.09	-	6.5		8.5			
Turbidity (NTU)	0.5	0.42	-		1	5			
UV Absorbance			0.0180						
% UV Transmittance			95.9						
Dissolved Anions (ALS)									
Alkalinity-Total CaCO3	286	297	-						
Chloride Cl	23.7	32.7	29.5			250			
Fluoride F	<0.05	0.036	-		1.5				
Silicate SiO4			-						
Sulphate SO4	26.0	28.6	-			500			
Nitrate Nitrogen N	2.9	4.95	5.17		10				
Nitrite Nitrogen N	<0.05	<0.10	<0.0010		3.2				
Ammonia Nitrogen N			<0.020						
Total Phosphate PO4			-						
Total Metals (ALS)									
Aluminum T-Al	<0.005	<0.010	-						
Antimony T-Sb	<0.0002	<0.00050	-		0.006				
Arsenic T-As	0.0008	0.00069	-		0.025				
Barium T-Ba	0.123	0.120	-		1				
Boron T-B	0.029	<0.10	-		5				
Cadmium T-Cd	0.00001	<0.00020	-		0.005				
Calcium T-Ca		108	-						
Chromium T-Cr	0.002	<0.0020	-		0.05				
Copper T-Cu	0.012	0.0094	-		1				
Iron T-Fe	0.04	<0.030	-			0.3			
Lead T-Pb	0.0006	<0.0010	-		0.01				
Magnesium T-Mg		18.6	-						
Manganese T-Mn	<0.005	<0.0020	-			0.05			
Mercury T-Hg		<0.00020	-		0.001				
Potassium T-K		2.43	-						
Selenium T-Se		<0.0010	-		0.01				
Sodium T-Na	4.7	4.5	-			200			
Uranium T-U	<0.0005	0.00053	-		0.02				
Vanadium T-V			-						
Zinc T-Zn	0.084	0.056	-			5			
Organic Parameters									
Tannin and Lignin			0.11						
Total Organic Carbon C			1.54						
Field Chemistry (EBA)									
pH			7.82	6.5		8.5			
TDS (ppm)			352			500			
EC (uS/cm)			700						
Temperature (°C)			7.8						
Free Available Chlorine									

Notes:

A. Guidelines indicated for hardness are not CDWQG, rather they are general aesthetic guidelines
 - exceedences are indicated in yellow highlighting.

Italics and underline indicates exceedence of proposed MAC (ie. arsenic)

Bold with Yellow highlighting indicates exceedence of CDWQG Aesthetic Objective (AO)

Bold Underline with Yellow highlighting indicates exceedence of CDWQG MAC

Results are expressed as milligrams per litre except for pH and Colour (CU)

Conductivity (umhos/cm), Temperature (°C) and Turbidity (NTU)

< = Less than the detection limit indicated.

AO = Aesthetic Objective

MAC = Maximum Acceptable Concentration (Health Based)



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SMALL PUBLIC WATER SYSTEM ASSESSMENT

PART A: EBA Site Inspection

Inspector: Ryan Martin, Luke Lebel

Date July 27, 2004

WELL ID #	Owner	Location Description
3121	YTG	Beaver Creek Visitor Reception Centre

1. Well Location and Potential Contaminant Sources

a. General location of well: (Community, Subdivision, etc.)

Beaver Creek

b. Specific location: (Road or street, Building number, name of owner and/, legal description,

Mile 1202 Alaska Highway

c. GPS location: N 6916712 E 506373

d. Is there electric power? Yes No

e. Is there outside water access? Yes No

f. Does the well system have:

15 or more service connections to a piped distribution system? If so how many _____

Visitor Reception Centre

5 or more delivery sites on a trucked distribution system? If so how many _____

g. Nearest building, specify Visitor Reception Centre

h. Distance from well to building ~ 6 m

i. If there is an effluent disposal field, is its location known? Yes No

j. Distance from well to nearest point of known field: septic tank @ ~18m, field @ 33m

k. Well location relative to field: upslope downslope lateral

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l. Is there any part of a sewage disposal system(s) or other potential sources of pollution that may pose a health and safety risk within 30 m? Yes No

m. Is the well located within 300 m from a sewage lagoon or pit? Yes No unlikely

n. Is the well located within 120 m from a solid waste site or dump, cemetery? Yes No unlikely

o. Is the infrastructure protecting the wellhead, pumphouse, storage tank and/or water treatment plant designed and secured to prevent:

Unauthorized access by humans? Yes No

Enclosure covered by heavy manhole, but no lock

Entrance by animals? Yes No

Access possible - mushrooms growing on pit floor

p. Is well site subject to flooding? Yes No

located at low point in VOR's parking lot

q. Is the well site well drained? Yes No

r. Is there a buried fuel tank on the property? Yes No unlikely

If yes, is it in use abandoned

Is the location known? Yes No

Distance from the well to known buried tank _____

s. Are there any other known contaminant sources on the property?

Yes No Describe _____

If yes, specify the source: dump sewage lagoon cemetery other

Potential Source 1: Alaska Hwy; Distance from well to Potential Source 1: ~19m

Potential Source 2: Indoor AST; Distance from well to Potential Source 2: ~19m

Potential Source 3: Parking area; Distance from well to Potential Source 3: well located in parking area

Potential Source 4: _____; Distance from well to Potential Source 4: _____

t. Are there other wells on this property? Yes No

How many? _____ in use abandoned require proper sealing

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2. Well and Wellhead information:

- a. When was well installed? Year unknown Month _____
- b. Type: drilled dug sand point other _____
- c. Is there a drillers log for the well: Yes No
- d. Is there a surface seal to 6 m Yes No unknown unlikely
- e. Surface casing: Yes Diameter _____ No
- f. Well casing: Diameter 15cm Material: steel plastic concrete
- g. Depth of well: unknown measured (if possible) reported from log
- h. Static water level below ground: unknown
 measured (if possible) reported from log flowing
- i. (If granular) Is the well completed: open end casing with a well screen
 with slotted pipe unknown other unknown
- j. (If bedrock) Does the well have a liner? yes No steel plastic
- k. If there is a well screen: length unknown slot size(s) _____
Location of screen: from _____ to _____ from log reported
- l. Is there a sump below the screen? Yes No unknown
- m. Is the well head: in pumphouse in pit pitless adaptor in a building
located in parking lot
 in a wooden enclosure other, describe _____
- n. If the well head is located in a wooden enclosure,

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- i. Is the well head below grade? describe in detail ~0.45m below grade
- ii. Are there signs of ponding on the enclosure(e.g. water stains, etc.)? Yes No
- iii. Is the wellhead enclosed by fiberglass insulations? Yes No
- iv. Any evidence of rodents? Specify No
- v. Does the well casing have a proper seal cap? Yes No

If no, describe condition split gasket cap

3. Water Supplying This Well:

- a. By definition is the water from a surface water source or under the direct influence of surface water?
 Yes No farther investigation required.

If yes is there treatment or disinfection Yes No

Explain (filtration, disinfection etc...) _____

4. Aquifer Supplying This Well:

- a. The aquifer is: bedrock granular sediment unknown
likely
- b. Does water level and/or well capacity show seasonal fluctuation? Yes No *unlikely*

5. Pump Installation:

- a. Is the well equipped with a pump? yes No
- b. Type of pump: hand electric submersible jet
 shallow well centrifugal other, _____
- c. Description: Manufacturer _____ Model _____
horsepower _____ capacity _____ voltage _____

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- d. Date installed: _____ By: _____
- e. For submersible pump, depth of setting below surface _____
- f. Drop pipe for submersible pump: steel plastic
- g. Pump delivers water to: pressure tank elevated tank other
- h. Are there automatic pump controls: Yes No
- i. Is there provision for taking water samples before water reaches storage? Yes No
- j. Is there a water meter on the system? Yes No
- k. Is the pump and piping protected from freezing? Yes No
If yes, describe: styrofoam insulation and heat trace
- l. Comments on pump installation: _____

6. Conclusions

a. Comments on overall installation:

Electrical to pump is not wired to code.

b. Recommendations: _____

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PART B: EBA Site Inspection

Inspector: BERT ALBISSEZ

Date July 27/05

WELL ID #	Owner	Location Description
<u>3121</u>	<u>YTG</u>	<u>VRC- BEAVER CREEK</u>

6. Water Treatment

a. Is well water treated? Yes No; Type of treatment:

chlorination iron and or manganese removal other _____

b. Is water entering plumbing or piped distribution system treated with chlorine or another treatment that is as effective as chlorine used to achieve disinfection throughout the system?

Yes No If so how _____

c. If treated with chlorine, is the free residual chlorine concentration less than 0.2 mg/L

Yes No _____ reading.

Tested at _____ (location)

d. Is testing for chlorine residual concentration done at the tap (eg. Kitchen faucet) or from representative points in a piped distribution system, including a point from tap at the end line

Yes No If yes how often? _____

e. If the drinking water is being transported by water delivery truck does it have a minimum chlorine free residual of 0.4 mg/L at the time of fill. Yes No

7. Water Quality (observations):

a. Does the water stain plumbing? yes No slight severe

Type of stain: brown red black

b. Does the water contain sediment? Yes No occasional constant

c. Is there an unpleasant odour? Yes No H₂S Other _____

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- d. Is there an unpleasant taste? Yes No brackish Other _____
- e. Is there a history of bad bacterial analyses? Yes No
- f. Is there a chemical analysis? Yes No adequate incomplete
- g. Is there analysis of trihalomethanes (THMs) where the water source is a surface water supply or a well under the direct influence of surface water? Yes No
- h. Is the drinking water tested daily with an accurate reading chlorine test kit capable of reading in the range 0 to 3.5 mg/L of free chlorine residual in increments of 0.1mg/L? Yes No unknown
- i. If yes is the test performed in accordance with manufactures directions? Yes No unknown
- j. Is a record of the date, time, name of person performing the test and results of the drinking water sample kept? Yes No

TANK AND PIPING DETAILS

Tank Room

Is there a water tank? Yes No Details: PRESSURE TANK.

Where is it located?
Comments: FURNACE ROOM

Is the room in which the water tank is located heated to maintain an optimum temperature of 4°C for stored water?

YES NO

Comments: _____

Are there windows in the add-on that may allow direct sunlight onto the water holding tank? YES

NO

Comments: _____

Are there other heat sources near the tank? YES NO

Comments: _____

Is there waterproof flooring with a sealed base to contain spills? YES NO

Comments: _____

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Overall Tank

What are the tank size and dimensions?

What material is the tank constructed of? _____

Is tank and associated piping constructed of safe materials (i.e. CSA approved and material that does not affect the taste of the water)? YES NO

Comments: _____

Tank Inlet, Outlet and Lid

Is there adequate access on the tank for cleaning (i.e. min 15" access lid)? YES NO

Does the lid have a tight seal and is it watertight when closed? YES NO

Does the tank have an overflow or high level whistle? YES NO

Is the water tank drain accessible? YES NO

WATER TANK AND WATER QUALITY CONDITION

Are there signs of staining or biofouling? YES NO

Comments: _____

Is there any sediment or scum in bottom of tank? YES NO

Comments: _____

Is there any odour associated with the water or tank? YES NO

Have there been any bacteriological analyses conducted previously? YES NO

Does the tank appear that it has been cleaned recently? YES NO

Are the tanks easily assessed for the purpose of cleaning and disinfection? YES NO

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8. Conclusions

a. Comments on overall installation:

THE PUMP CONTROL SYSTEM DOES NOT MEET CODE.

b. Recommendations:

REPIPE THE PUMP CONTROLS WITH MATERIAL THAT MEETS THE PLUMBING CODE. REPLACE THE PRESSURE SWITCH - IT DATES BACK TO 1970. INSTALL TREATMENT IF REQUIRED TO SUIT UV INSTALLATION. INSTALL UV (NSF55 CERTIFIED) STERILIZER. INSTITUTE B. ANNUAL WELL MAINTENANCE PROGRAM SERVICE UV SYSTEM REGULARLY.



Photo 0562: 3121 Beaver Creek Visitor Reception Centre looking east



Photo 0559: 3121 Wellhead enclosure in parking lot



Photo 0561: 3121 Wellhead in pit



Photo 0563: 3121 Septic field at rear to south of building



Photo 0564: 3121 Septic field looking south



Photo 0099: 3121 Point of entry and pressure tank