

APPENDIX B

Water Supply Source Assessment Application

Water Supply Source Assessment

Step One Application

1) Name of proponent: Shediac Camping Resort Ltd., 1330 Amirault Street, Unit 32, Dieppe, NB, E1A 8M7, Mr. Pierre Vautour, Phone 506-866-9111.

2) Locations of drill targets (including property PID) and the purpose of the proposed water supply? The proposed recreational camp site will be a resort having 10 rental cottages and 250 separate serviced lots for Recreational Vehicles. The water supply will provide water for drinking, washing and other normal residential and food service activities within the park. The property PID is 70429899. The drill targets are shown in Figure 1 in red ink as 25-meter diameter circles and identified as 1 and 2. It is proposed that, after drilling, the most promising of the two new test wells be selected for pump testing and the other new well be used as an observation well. There is an existing well located at the northern boundary of the property, adjacent to the existing residences located north of the site, as shown in Figure 1. This well is 100 feet (30.48 meters) in depth and has an estimated safe yield of 13 igpm (0.98 L/s. A copy of the well log is attached; however, the copy is of poor quality. It is proposed that this existing well be used as a second observation well.

3) Required water quantity (in m³/day) and/or required pumping rate: The projected water requirement can be calculated using a number of design rates. Table 5-2 (Guide for Non-Residential Water Demand) in the Water System Design Manual, August 2001 gives the Water Usage Design Volume for a trailer, with bath, connected to sewer (per

person) which is the highest water use in the Park classification in Table 5.2 and thus represents a maximum usage estimate (200 L/d/person). I have used an estimate of 3 people per site which is, again, on the high side. This provides an estimated 24-hour water demand for 260 sites (10 cottages and 250 serviced sites) of 200*260*3 = 156,000 L/D or 156 m3/D (23.8 igpm). Alternatively, we can use the reference "Water Use In Forest Service Recreation Areas", US Dept of Agriculture, 2007, which recommends a design rate of 30 US gal per site per person (approximately 115 L per site per person), which yields an estimate of 89,700 L/D (13.7 igpm or 89.7 m3/D). The reference states that the reduction of the design rate is based on the reduced toilet flush volume that has taken place over the last two decades. Or, alternatively, the Atlantic Canada Wastewater Guidelines Manual (2006) provides the estimate of 180 Ls per day per space for wastewater, which yields an estimate of 46,800 L per day (7.1 igpm or 46.8 m3/D). At this point in the process the mid-range estimate of 89,700 L/D (13.7 igpm) seems most reasonable.

4) List alternate water supply sources in area (including municipal systems): There are no practical alternatives to the proposed groundwater supply. The existing Shediac municipal supply distribution system stops approximately 1000 meters away from the proposed site. A surface water supply would be unsuitable due to potential contamination issues and in any event, the closest potential source is salt water.

5) Discuss area hydrogeology as it relates to the project requirements. The surficial overburden at the site is red sandy till of approximately 0 to 35 meters (0 to 115 feet) in thickness. The overburden is not used for ground water supplies in the area.

The bedrock in the area is mapped as Pennsylvanian age sedimentary rocks composed of red and grey conglomerate, sandstone, siltstone, and shale, which also forms the local bedrock aquifer. The bedrock is known to be relatively transmissive (readily conducts the flow of ground water). The bedrock units or layers tend to be lenticular (i.e. of variable lateral extent and thickness) and are thought to have formed as a result of sedimentary particles deposited from flowing water (alluvial deposition). The individual beds average less than 1 meter in thickness; however, the total bedrock unit can be several hundred meters thick. This bedrock aquifer covers a large portion of New Brunswick, stretching from the Fredericton area northeast to Shippigan and southeast to the Shediac area.

Based on common knowledge of the area, the bedrock aquifer has been successfully developed for private residential wells by a number of individuals over the general area. The general conditions found in the aquifer are suitable for water supply development. Local well drillers with knowledge of the area confirmed the potential for water supply development in terms of private wells. The near surface layers of sandstone may be soft and prone to caving in the well annulus resulting in the need for greater casing lengths than might normally be used. **NBDELG Well Log Data:** A search of the NBDOE well log database for records located within a 300 m radius around the proposed development was carried out May 11, 2016 and the search yielded 16 well logs. A summary of the information contained in the well logs is provided in Table 1, immediately below.

 Table 1: Summary of hydrogeologic information derived from search of NBDOE well
 log database (300 meter search radius).

Well Depth	Estimated Yield	Depth to Bedrock	Casing Length
(feet)	(igpm)	(feet)	(feet)
Average: 107.8	Average: 41.6	Average: 22.9	Average: 72.5
Median: 100	Median: 32.5	Median: 22	Median: 62
Minimum: 80	Minimum: 6	Minimum: 2	Minimum: 40
Maximum: 201	Maximum: 100	Maximum: 49	Maximum: 152

As can be seen from the above information the average well in the area is approximately 108 feet deep with an estimated yield of approximately 41.6 igpm (272,329 L per day). As expected in any rock unit the yields are variable with a minimum yield of 6 igpm being estimated. Based on the average estimated safe yield of 41.6 igpm for the existing domestic wells, the relatively shallow depth of those wells (107.8 feet (32.9 meters), the development of a water supply providing 13.7 igpm (89,700 L per day) would appear to be a reasonable expectation. The higher the flow that can be developed from a production well without having undue effects on existing wells would result in lower storage requirements.

NBDELG Well Water Chemistry Data: A search of the NBDOE well chemistry database for locations in a 300 m radius around the proposed development was carried out May 11, 2016 and the search yielded 12 inorganic chemistry records. The precise locations of the wells from which the ground water chemistry was obtained are not available due to right to privacy considerations for the property owners. These well chemistry analytical results are provided in Table 2, which follows. The average value of the measured result and the Canadian Drinking Water Quality Guideline (CDWQG) are included in the table for the purpose of comparison. Any parameter which exceeds the Canadian Drinking Water Quality Guideline concentration is bolded and shaded for ease of recognition in the data table.

Out of the 12 chemistry records available, a single well had elevated chloride (572 mg/L), elevated sodium (412 mg/L), elevated pH (9.72 pH units) and elevated total dissolved solids (1067 mg/L). This is almost certainly the result of drilling to deep and encountering salt water. Such water supplies should be replaced with an alternative, such as a shallower well developed in the surface aquifer, which is very productive at this location.

Out of the 12 chemistry records available, five wells had an exceedence of the CDWQG for iron of 0.3 mg/L and four wells exceeded the CDWQG concentration for

Table 2

CDWQG = Canadian Drinking Water Quality Guideline

NBDOE Groundwater Chemistry Database

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Parameter	ALK_T (mg/L)	Al (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Br (mg/L)	COND (µSIE/cm)	Ca (mg/L)	Cd (µg/L)
	94.9	0.025	1.5	0.011	0.14	0.1	214	19.3	0.5
	98.2	0.025	1.5	0.01	0.204	0.1	213	26.6	0.5
	89.6	0.025	2.7	0.01	0.358	0.1	279	29	0.5
	93.8	0.025	1.9	0.01	0.265	0.1	235	25.3	0.5
	107	0.025	1.5	0.026	0.516	0.101	480	48.1	0.5
	105	0.025	4.3	0.014	0.084	0.267	2130	5.33	0.5
	101	0.025	1.5	0.038	0.569	0.12	522	53	0.5
	94.8	0.025	2.6	0.013	0.295	0.1	439	25.6	0.5
	88.3	0.063	2.6	0.033	0.13	0.1	253	8.86	0.5
	87.4	0.025	1	0.2	0.222	0.1	217	14.1	0.5
	92.7	0.025	1.5	0.011	0.168	0.1	198	21.8	0.5
	85.5	0.025	1.5	0.01	0.171	1.19	368	20.8	0.5
Mean	94.9	0.028	2.0	0.032	0.260	0.2	462	24.8	0.5
CDWQG			<10	<5.0	<1.0				<5.0

Parameter	CI (mg/L)	Cr (µg/L)	Cu (µg/L)	E_coli P/A (P/A)	F (mg/L)	Fe (mg/L)	HARD (mg/L)	K (mg/L)	Mg (mg/L)
	9.11	10	10	Ab	0.1	0.123	67.4	1.05	4.66
	8.92	10	10	Ab	0.157	0.179	95.9	0.9	7.17
	28.8	10	10	Ab	0.12	0.034	105	1.4	8.02
	13.1	10	10	Ab	0.141	0.046	91.8	1.2	6.98
	71.2	20	13	Ab	0.1	0.829	165	1.5	11
	572	10	10	Ab	0.1	0.273	21.1	1.5	1.89
	88.9	10	10	Ab	0.1	0.065	182	1.4	12
	76.8	10	10	Ab	0.136	0.206	90.3	1.4	6.4
	16.9	10	10	Ab	0.106	0.459	29.2	0.9	1.72
	13	10	10	Ab	0.1	0.352	48.8	1.14	3.3
	4.92	10	10		0.1	0.609	72.3	1.12	4.34
	59.3	10	10	Ab	0.117	3.79	78.2	1.17	6.37
Mean	80.2	11	10		0.11	0.580	87.3	1.22	6.15
CDWQG	<250	<50	<1000		<1.5	<0.3			

Table 2

CDWQG = Canadian Drinking Water Quality Guideline

NBDOE Groundwater Chemistry Database

Parameter	Mn (mg/L)	NO2 (mg/L)	NO3 (mg/L)	NOX (mg/L)	Na (mg/L)	PH (pH)	Pb (µg/L)	SO4 (mg/L)	Sb (µg/L)
	0.048	0.05	0.05	0.05	22.1	8.15	1	7.85	1
	0.074	0.05	0.05	0.05	9.11	7.95	1	6.79	1
	0.005	0.05	0.35	0.4	13.4	8.17	1	8.34	1
	0.007	0.05	0.05	0.05	11.7	8.17	1	6.68	1
	0.063	0.05	2	2	29	8.04	5.3	8.11	1
	0.02	0.05	0.05	0.05	412	9.72	1.9	10.8	1
	0.022	0.05	1.7	1.8	32.1	8.01	1	9.88	1
	0.032	0.05	0.05	0.1	<mark>63.8</mark>	8.25	1	8	1
	0.02	0.05	0.05	0.05	45.7	8.55	2.9	11.4	1
	0.026	0.05	0	0.05	25.8	8.32	1	6.74	1
	0.056	0.05	0.05	0.05	17.7	8.14	1.29	7.15	1
	0.179	0.05	0.05	0.05	54.2	8.3	3	6.81	1
Mean	0.046	0.05	0.37	0.39	61.38	8.31	1.8	8.21	1.0
CDWQG	<0.05	<10	<10	<10	<200	6.5-8.5	<10	<500	6

Parameter	Se (µg/L)	TC-P/A (P/A)	TURB (NTU)	TI (μg/L)	U (µg/L)	Zn (µg/L)	TDS (mg/L)
	1.5	Ab	1.03	1	0.5	7	122
	1.5	Ab	1.47	1	0.5	5	119
	1.5	Ab	1.5	1	1.1	5	145
	1.5	Ab	0.22	1	0.5	5	122
	1.5	Ab	7.5	1	1	33	243
	1.5	Ab	1.3	1	0.5	5	1067
	1.5	Ab	0.65	1	1.5	6	266
	1.5	Ab	1	1	0.7	7	240
	1.5	Ab	5.5	1	0.5	8	139
	1	Ab	1.6	1		10	
	1.5		3.1	1	0.5	12	114
	1.5	Ab	30.1	1	2	8	204
Mean	1.5		4.6	1	0.8	9	253
CDWQG			<1.0		<20	<5000	<500

manganese of 0.05 mg/L. The guidelines for iron and/or manganese are based on esthetic considerations, not health. Iron and/or manganese can cause staining of plumbing fixtures and laundry. Iron and/or manganese can usually be readily removed by commercial water softeners at the hardness observed in this water or by filters. The presence of Iron and/or manganese in the groundwater from this aquifer is not uncommon and is commonly the result of natural conditions.

Out of the 12 chemistry results provided, a total of one well had a pH value elevated above the upper bound of 8.5 for the CDWQG (plus the salt water well). The observed value of 8.55 is not considered a significant difference. Elevated pH values may lead to encrustation in plumbing systems. The criterion is not related to health. pH can be easily treated in water treatment systems.

A total of 10 out of the 12 chemistry records available had elevated turbidity present in the samples. The elevated levels of turbidity may be related to the relative newness of the wells and they may not have had sufficient time, or use, to clear naturally. Most new wells clear naturally with time and use. At levels in excess of 5 NTUs turbidity may become noticeable to consumers and therefore, objectionable. The turbidity may be the result of elevated concentrations of iron and or manganese or the presence of particulate in the water. In either case, turbidity can be treated by water softeners and/or particulate filters. The observed water chemistries are of acceptable drinking water quality and can be considered to be typical of this bedrock unit. The elevated turbidity observed in a number of the well in the sample sets may be related to the newness of the wells and the fact that they have not been pumped sufficiently to clear the water Elevated turbidity values may also impact analytical results leading to overestimates of iron and manganese concentrations or other trace metals. Overall, the review of the inorganic ground water chemistry provided in the NBDOE water quality database for the area did not reveal or indicate significant problems with other water quality parameters.

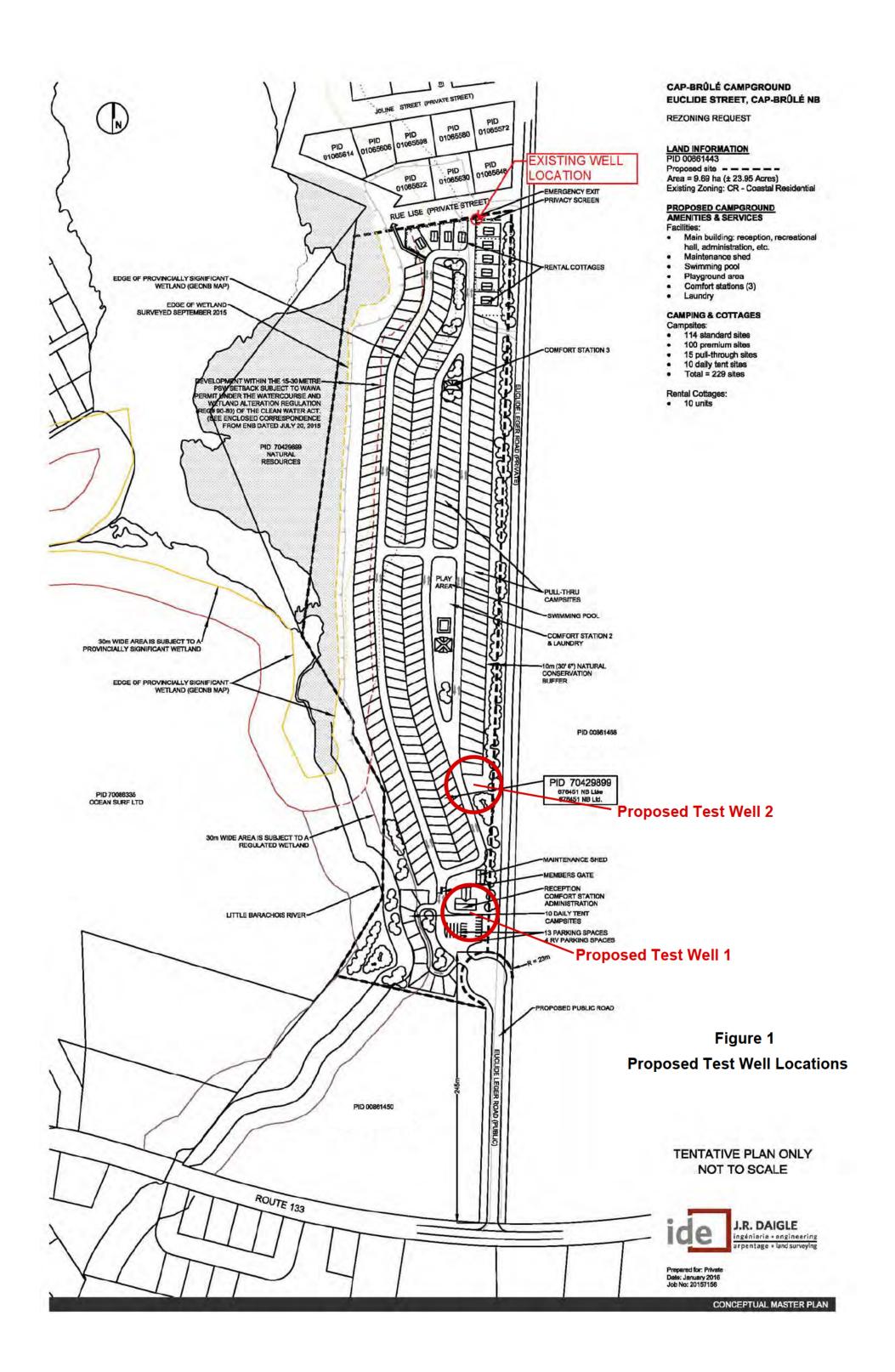
6) Outline proposed hydrogeological testing and work schedule: It is proposed that a minimum of two wells be drilled, constructed and tested before the end of August. It is our intention to initiate the drilling program as soon as possible, pending approval of the Step One Application. The well with the highest capacity will be used as the production well and the second well used as an observation well. Pump testing of the production well would be carried out during the summer period, 2016, contingent on acceptable weather conditions. The report would be submitted to New Brunswick Department of the Environment within two weeks of the completion of the pump test.

7) Identify any existing pollution or contamination hazards within a (minimum) 500 m radius of the proposed drill targets. If groundwater use problems (quantity or quality) have occurred in the past, then these should be identified. Historical land use that might pose a contamination hazard (i.e. tannery, industrial, disposal, etc.) should also be discussed. **The**

actual proposed drill targets as shown in Figure 1 are located in undeveloped fields. Most of the property was farmed in the past. The existing land use in the general area is residential/recreational and undeveloped fields. The actual proposed new expansion site is undeveloped field. The existing residential development relies on private individual wells for the water supply but is connected to the Shediac municipal sanitary sewer system. Based on the existing land use in the area, the potential contamination of ground water resources by previous land uses does not appear to be an issue for the proposed development.

- 8) Identify any groundwater use problems (quantity or quality) that have occurred in the area.No systematic groundwater use problems are known for this area.
- 9) Identify any watercourse(s) (stream, brook, river, wetland, etc.) within 60 m of the proposed drill targets. The center of Drill Target 1 is located approximately 60 meters east of the Little Barachois River, but is outside the 30-meter setback.
- 10) Identify site supervisory personnel involved in the source development (municipal officials, consultants and drillers: Mr. Doug Craig (Craig Hydrogeologic Inc., 506-659-3064) and Mr. Val LeBlanc, (Eastern Well Drillers, 506 532 9797).
- 11) Figure 1 (site plan): Please See Attached.

12) Figure 2 (land use/zoning map): A copy of a zoning map and the re-zoning document are attached to this Application.



ARRÊTÉ 09-1FF

35940517 2016-05-18 16:00:19

Établi en vertu de la LOI SUR L'URBANISME

Arrêté modifiant l'arrêté adoptant le plan rural de la Communauté rurale Beaubassin-est

En vertu des pouvoirs que lui confère l'article 77.2 de la *Loi sur l'urbanisme*, le conseil de la Communauté rurale Beaubassin-est, dûment réuni, adopte ce qui suit :

L'arrêté 09-1 intitulé « Arrêté adoptant le plan rural de la Communauté rurale Beaubassin-est » est modifié afin de :

 Rezoner des lots ayant les NID 70269758, 70269766, 70269774, 70269782, et une portion du lot ayant NID 00861443, de la zone RC-Résidentielle côtière à la zone CG-Commerce général afin d'aménager un terrain de camping sous réserve des termes et conditions imposées à l'annexe « A ».

PREMIÈRE LECTURE PAR TITRE :

<u>3 mai 2016</u> Date

DEUXIÈME LECTURE PAR TITRE :

<u>3 mai 2016</u> Date

LECTURE DANS SON INTÉGRALITÉ :

4 mai 2016 Date

TROISIÈME LECTURE PAR TITRE ET ADOPTION : <u>4 n</u>

<u>4 mai 2016</u> Date

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ANNEXE « A »

RÉSOLUTION DU CONSEIL ÉTABLIE EN VERTU DE L'ARTICLE 39 DE LA *LOI SUR L'URBANISME*

CONSIDÉRANT QUE le requérant pour les propriétés portant les NID 70269758, 70269766, 70269774, 70269782, et une portion du lot ayant NID 00861443, a fait une demande afin de rezoner lesdites propriétés de la zone RC-Résidentielle côtière à la zone CG-Commerce général afin d'aménager un terrain de camping;

ET CONSIDÉRANT QUE le conseil a approuvé cette demande sujette à des conditions,

IL EST RÉSOLU QUE :

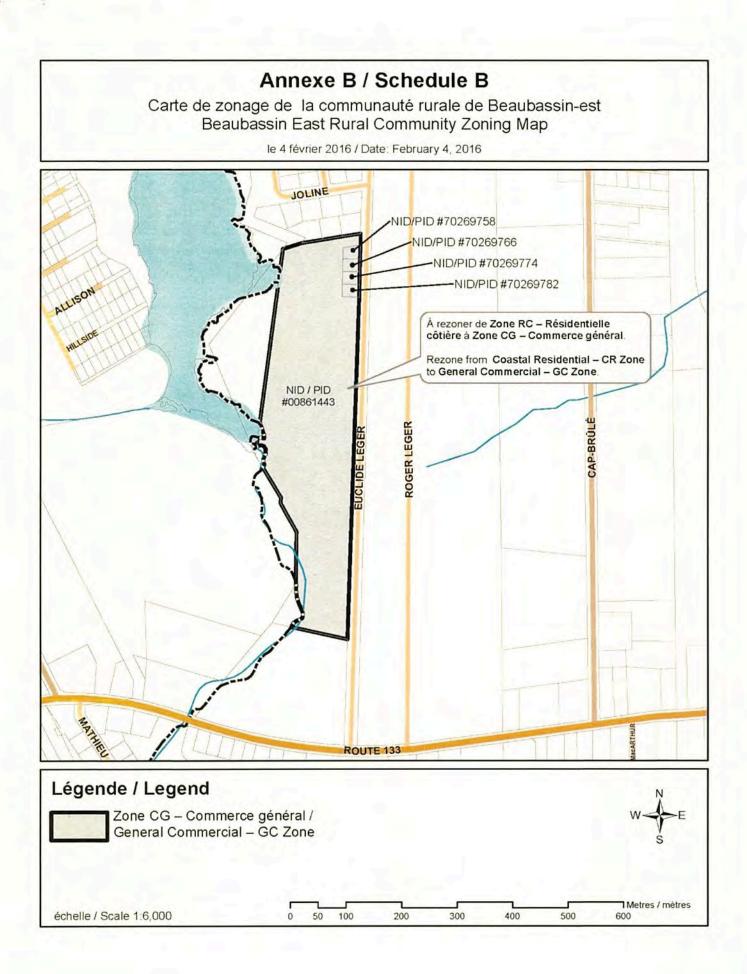
1. Nonobstant toutes autres dispositions au contraire, les terrains, bâtiments et constructions aménagés sur la propriété ci-haut mentionné sont soumis aux termes et conditions suivants :

- a. Que les propriétés à être rezonées sont telle que spécifiée à l'annexe B de cet Arrêté ;
- b. Que le projet soit enregistré pour une étude d'impact sur l'environnement provincial,
- c. Que le plan de site final reflète les recommandations de l'étude d'impact sur l'environnement, et inclue la démarcation de la zone ENM, les accès/sorties, les zones tampons, les zones humides, l'emplacement et le nombre de sites de camping et/ou chalets, l'emplacement de bâtiments, l'aménagement paysager et le stationnement,
- d. Que le plan de site final reçoive l'approbation par résolution du conseil de la Communauté rurale de Beaubassin-est,
- e. Que la portion du développement dedans la zone Élévation du niveau de la mer (ENM) requiert des vannes d'arrête pour les services d'égout et d'eau,
- f. Que les services d'électricité dedans la zone Élévation du niveau de la mer (ENM) soient imperméables et que les prises électriques soient situées à une hauteur de 4,3 mètres CGVD28,
- g. Qu'un plan de drainage soit fait par un ingénieur qui est licencié pour pratiquer au Nouveau-Brunswick,
- h. Que si le chemin Euclide Leger est utilisé comme accès, la portion du chemin consacrée au terrain de camping devra être améliorée au standard provincial de Classe « A » sans coût au Ministère des Transports et Infrastructure,

- i. Qu'un rapport d'inspection des distances de visibilité préparé par un arpenteur licencié et une étude d'impact sur la circulation préparée par un ingénieur qui est licencié pour pratiquer au Nouveau-Brunswick soient complétés,
- j. Que le plan des services d'égout sur le site reçoive l'approbation de la Commission des Égouts Shediac et Banlieues;
- k. Que tout bâtiment et/ou structure futur sur le site devra obtenir un permis d'aménagement / construction et être en conformité avec le Plan rural et l'arrêté de construction en vigueur au moment de l'application ;
- Que les travaux de construction principaux de l'aménagement proposé devront commencer au plus tard 2 ans à compter de la date d'entrée en vigueur de la modification de zonage sinon le rezonage sera révoqué ; et
- m. que nonobstant l'article 10.1(1) du plan rural, il sera permis d'installer plus qu'un bâtiment principal sur le terrain, tel que des salles de toilettes et lavage, un bureau d'administration/réception, une salle de récréation, et jusqu'à 23 chalets à louer;
- n. que la portion du terrain ayant NID 008861443 destiné à l'utilisation du terrain de camping soit loti et consolidé avec les propriétés ayant les NID 70269758, 70269766, 70269774, et 70269782
- o. En cas de violation des termes et conditions mentionné ci-haut, des modifications qui y sont apportées ou des dispositions du plan rural de Beaubassin-est, par le propriétaire du bien-fonds portant les NID 70269758, 70269766, 70269774, 70269782, et une portion du lot ayant NID 00861443, ou par ses héritiers, ayants droit ou successeurs, ou par tout autre propriétaire ou exploitant dudit bien-fonds, le conseil peut, en agissant de façon raisonnable et après avoir donné l'occasion de remédier à la violation, dans la mesure où il est possible d'y remédier, déclarer l'arrêté nul, et le propriétaire, ou ses héritiers, ayants droit ou successeurs, ou tout autre propriétaire ou exploitant du bien-fonds pour toute autre fin, sauf celles autorisées par le plan rural de Beaubassin-est et de la *Loi sur l'urbanisme*.

2. Sous réserve du paragraphe (1), les dispositions prévues à la zone Commerce général (CG) ainsi que les dispositions générales de l'Arrêté adoptant le plan rural de Beaubassin-est, s'appliquent mutatis mutandis.

Adopté par le conseil par résolution (# 16-09) le 4 mai 2016.



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WELL GROUTED? YES	S L NO L]	- chi					
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DRILLING FLUIDS USED: YE	SLI NOL					SINFECTER		
TYPE:		- Pr.			TYPE _	for		
DRILLER'S COMMENTS	La min	i land	DBILLIN	G COMP	ANY:	HE	ULAN Du	May
			COMPLI	-	11-3	0,6	1.0	
The second s		Standard The India	COMPLI	ETION D	YR.	MO.	DAY	
				2210	P. C. S.			WHITE - NB DENV
G.P.S. (OPTIONAL)							and the last	BLUE - Homeowner / Voucher
			ENCONCTO	UCTER		RDANCE	Cond Gurow	YELLOW - Homeowner
I CERTIFY THAT THE WEL WITH THE WATER WELL F	EGULATION	UNDER THE NEW	BRUNSWIC	K CLEA	N WATEF	ACT.	LOV	PINK - Drilling Company
Signature of Driller	and the second s	all he be a second		ture of H		1-	and the second	and the second s
Signature of Driller			oignai	1	11 k	45		KEEP THIS REPORT WITH YOUR
				ja,	n n	15	101	IMPORTANT DOCUMENTS

TEL NO. FAX NO. SIGNATURE OF WELL OWNER WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES WELL / WATER USE:	FROM (FT) FROM (FT) Ground Level 2 3 2 5 2 5 2 7 2 5 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7	RESERVE? NO 2: 10 (FL) 2 3 2 4 4 9 6 7 700	the strategy of the state of the	6 8 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C	x TYPE
FOLLOWING CONTACT INFORMATION: ATTENTION OF: TEL NO. FAX NO. SIGNATURE OF WELLOWNER WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES. YES. WO WELL / WATER USE: INDUSTRIAL ABANDONED DOMESTIC ZEVELORATORY MUNICIPAL MONITORING HEAT RUMP OBSERVATION OTHER METHOD: CABLE TOOL ROTARY IN DIAM. FROM STEEL: IN DIAM. FROM FT. TO FT. TO SLOTTED IN DIAM. FROM FT. TO IN DIAM. FROM	FROM (FT.) Ground Level 727 33 75	NO [] 10 (FL) 10 3 28 24 44 6 1 1 1 1 1 1 1 1 1 1 1 1 1	VES N DRILLER COLOUR Davi Pol Ban Roal Roal Ban	SLOG*	
TEL NO. FAX NO. SIGNATURE OF WELL OWNER WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES MO WELL / WATER USE: INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT RUMP OBSERVATION OTHER OTHER: METHOD: CABLE TOOL ROTARY IN DIAM. FROM FT. TO FT. TO FT. SIGNATURE OF CASING ABOVE GROUND: FT. TO FT. TO FT. TO SIGNATURE	Ground Level 74 33 33 33	10. 23 28. 49. 67	Dary Pol Ban Real Ban Real	6 8 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C	KIYPE Aisd Elen
TEL NO. FAX NO. SIGNATURE OF WELLOWINER WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? Yes WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? Yes WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? Yes Yes INDUSTRIAL ABANDONED DOMESTIC ExpLORATORY MUNICIPAL MONITORING HEAT RUMP OBSERVATION OTHER OTHER: METHOD: CABLE TOOL ROTARY OTHER LENGTH OF CASING ABOVE GROUND: STEEL: IN DIAM. FROM PVC: IN DIAM. FROM FT. TO FT. SLOTTED IN DIAM. FROM	Ground Level 74 33 33 33	10. 23 28. 49. 67	Dary Pol Ban Real Ban Real	6 8 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C	and Elan
SIGNATURE OF WELLOWNER WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES YES NO WELL / WATER USE: INDUSTRIAL ABANDONED DOMESTIC WELL / WATER USE: INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL HEAT PUMP OBSERVATION OTHER METHOD: CABLE TOOL ROTARY OTHER METHOD: CASING INSTALLED: LENGTH OF CASING ABOVE GROUND: STEEL: IN DIAM. FROM FT. TO FT. TO FT. TO SLOTTED IN DIAM. FROM FT. TO IN DIAM. FROM	Ground Level 74 33 33 33	10. 23 28. 49. 67	Dans Pol Ban Ral Bung	Eand Eand Eand Eand Eand Eand	KTYPE Cind Elan LETaz
WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES YES NO WELL / WATER USE: INDUSTRIAL INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT PUMP OBSERVATION OTHER METHOD: CABLE TOOL ROTARY NETHOD: CABLE TOOL ROTARY NOTHER CABLE TOOL ROTARY OTHER CABLE TOOL ROTARY VENC: IN DIAM. FROM FT. TO FT. TO FT. TO SLOTTED	Level / (2) 	23 24 49 67	Real .	Share Send Share	ector
WAS THE COST OF THIS WELL FINANCED BY NB HOUSING? YES YOO WELL / WATER USE: INDUSTRIAL INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT PUMP OBSERVATION OTHER OTHER: METHOD: CABLE TOOL ROTARY IN DIAM. FROM FT. IN DIAM. FROM FT. TO IN DIAM. FROM FT. TO IN DIAM. FROM FT. TO IN DIAM. FROM	Level / (2) 	23 24 49 67	Real .	Eme Eane Eane Enerol Elecco	Elan Elan
YES NO WELL / WATER USE: INDUSTRIAL INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT RUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:	23	24 49 67	Real .	Eand Eand Eline Eline	Etan Etan
YES NO WELL / WATER USE: INDUSTRIAL INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT RUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:	28	49	Real .	Eard Send Share Ferre	estar
WELL / WATER USE: INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT PUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:	28	67	Rune	Eand Share Eano	Etars LETar
INDUSTRIAL ABANDONED DOMESTIC EXPLORATORY MUNICIPAL MONITORING HEAT PUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:	ig.	67	Rune	Share Eeuo	<u>iela</u> :
INDUSTRIAL Image: Abandomed Bownitter EXPLORATORY MUNICIPAL MONITORING HEAT PUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER: METHOD: CABLE TOOL ROTARY OTHER CABLE TOOL ROTARY OTHER CABLE TOOL ROTARY OTHER CASING INSTALLED: ENGTH OF CASING ABOVE GROUND: FT. STEEL: IN DIAM. FROM 6 FT. TO PVC: IN DIAM. FROM FT. TO FT. SLOTTED IN DIAM. FROM FT. TO FT.	. 3		Gring		<u>i clar</u>
HEAT FUMP OBSERVATION OTHER TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:		700	yuz .		
TYPE OF WORK COMPLETED: NEW WELL DEEPENED OTHER:					
OTHER:					
OTHER:					
METHOD: CABLE TOOL ROTARYOTHER CASING INSTALLED: LENGTH OF CASING ABOVE GROUND:FTIN. STEEL: IN DIAM. FROMFT. TOFT. PVC: IN DIAM. FROMFT. TOFT. SLOTTED IN DIAM. FROMFT. TOFT.					<u></u>
CABLE TOOL ROTARY OTHER CASING INSTALLED: LENGTH OF CASING ABOVE GROUND: 3 FT. STEEL: IN DIAM. FROM 6 FT. TO PVC: IN DIAM. FROM FT. TO FT. SLOTTED IN DIAM. FROM FT. TO FT.					
CASING INSTALLED: 7 FT. 8 LENGTH OF CASING ABOVE GROUND: 7 FT. 8 STEEL:					
CASING INSTALLED: 7 FT. 8 LENGTH OF CASING ABOVE GROUND: 7 FT. 8 STEEL:					
LENGTH OF CASING ABOVE GROUND: FT IN. STEEL: IN DIAM. FROM FT. TO FT. PVC: IN DIAM. FROM FT. TO FT. SLOTTED IN DIAM. FROM FT. TO FT.			1 9 ²		
STEEL:			1		**
PVC: IN DIAM. FROMFT. TOFT. SLOTTEDIN DIAM. FROMFT. TOFT.					· · · ·
SLOTTED IN DIAM, FROM FT. TO FT.				the second second	· · · ·
				A	
SCREENS. TYPE: SLOT SIZE DRIVE SHOE			14		1
Colimenta.			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		20 A 19			
YES NO	Sec.	· · · · · ·			
SETBACKS: SEE BACK FOR DETAILS SEPTIC TANK (1) THE FT.		the second		a for the second	
SEPTIC TANK (2) FT. FIELD (2) FT. FIELD (1) FT.	23.54			for the second	
RIGHT OF WAY OF ANY PUBLIC ROAD		14. A.L.	in the second		·
CENTER OF ROAD (1) 75 1-7 (2)	· · ·			1	
SETBACKS MEASURED (NEW CONSTRUCTION)		IF INSUFFIC	CIENT SPACE PLEAS	SE USE ADDITIONAL SI	HEETS
APPROXIMATE SETBACKS AS INDICATED BY HOMEOWNER (EXISTING CONST.)		. ¹ 4	100		10-
				EPTH TO BEDROCK:	
AGUITEN LEGI. METHUL AM ILE DAILEN LI FUME LI			1 m	D FT. 2 igpm /	
INITIAL WATER LEVEL: 10 FT BELOW TOP OF CASING	FRACTUR	RE ZONES: 3	Igpm AT 90	FT. 4 5 Igpm/	IT P. FT.
			ni i niomerica f		-
FINAL WATER LEVEL: 75 FT. BELOW TOP OF CASING					4
ESTIMATED SAFE YIELD:	(Recommen	AKE SETTIN		FT. BELOW TOP OF CA	SING
WELL GROUTED? YES WINO	PUMP TY	PE: SUE		JET TURBINE	¶, j j
	OTHER _				
	WELL DIS	INFECTED?	YES O NO	Digen auto	4 * 34 2
	TYPE	Lan	~		<u></u>
		110	ind A.	de	
DRILLER'S COMMENTS MUCEN Land DRILLING COMPAN	VY:C	pt C 1	All Drue	1, my	and the second
COMPLETION DAT	F. 1 3	10.1611	0		17
	YR.	MO	YAC		1 2.2 -
		i			
	1.1.1				NEW YORK
	· · · · · ·	· · ·		BLUE - Hom	
G.P.S. (OPTIONAL)	in the second	Buch .		YELLOW - Hom	
I CERTIFY THAT THE WELL HEREIN DESCRIBED HAS BEEN CONSTRUCTED IN	ACCOR	DANCE			ing Company
WITH THE WATER WELL REGULATION UNDER THE NEW BRUNSWICK GLEAN					1. 2. 1

Cape Brule Campground Water Supply 110516

200		4.
300	meter	radius
500	motor	raurus

	Well Depth (Feet)	Estimated Yield (igpm)	Depth to Bedrock (Feet)	Casing Length (Feet)	
			`	``´´	
	115	30	38	80	
	110	12	8	69	
	201	25	4	152	
	81	50	24	60	
	90	25	20	60	
	80	60	17	50	
	90	70	20	60	
	160	35	2	120	
	80	70	26	60	
	100	60	33	<mark>6</mark> 6	
	100	70	37		
	120	15	49	72	
	90	6	37	40	
	85	100	6	45	
	120	25	5	92	
	102	12	40	62	
	Well	Estimated	Depth to	Casing	
	Depth	Yield	Bedrock	Length	
	(Feet)	(igpm)	(Feet)	(Feet)	
					_
an	100	32.5			Median
ge	107.8				AVERA
	201	100			max
	80	6	2	40	min
t	16				



Well Driller's Report

2016/05/11 Date printed

Drilled I	ру									
Well Us	e			Work	Туре	Drill Metho	d		Work C	Completed
Drinkin	g Water	, Domes	tic	New	••	Rotary				5/2002
	Casing	Informa	ition		Casing ab	ove ground 2ft		Driv	e Shoe Used? Ye	es
	Well Log	Casing	Гуре	C	Diameter	From	End	Slo	otted?	
	1949	Steel		6	inch	Oft	80ft			
Aquife	r Test/Y	ield					Estim	atad		
Method		Initial \ Level (Pumping Rate) Duration	Final Water Level (BTC)	Safe \		Flowing Well?	Rate
Air		0	,	30 igpm of casina)	ı 1hr	12ft	30 ig	pm	No	0 igpm
Well Gr	outing				Drilling Fluids L	Jsed	Disinfect	ant	Pump Insta	alled
	Thoro io n	o Crout in	formation	N	lone		N/A		N/A	
	nere is n	o Grout In	normation	•				_	Intake Setting	(BTC)
							Qty 0	ig	Oft	
Driller's	Log								Overall Well Dep	oth
Well Log	From	End	Colou	r		Rock Type			115ft	
1949	Oft	8ft	Brown			Overburden			Bedrock Level	
1949	8ft	23ft	Brown			Clay and Shale			Oft	
1949	23ft	38ft	Grey			Clay and Shale			on	
1949	38ft	46ft	Grey			Sandstone				
1949	46ft	62ft	Brown			Clay and Shale				
1949	62ft	67ft	Grey			Sandstone				
1949	67ft	77ft	Brown			Clay and Shale				
1949	77ft	81ft	Brown			Sandstone				
1949	81ft	115ft	Grey			Sandstone				
Water E	Bearing	Fracture	Zone		Setbacks]		
Well Log	Depth		Rate			There is no	Setback inf	orma	tion	
1949	82ft		5 igpm		L	1101013110		onna		
1949 1949	111ft		25 igpm							
1040	1111		zo ighin							



Well Driller's Report

Date pri	inted	2016/0	5/11									
Drilled b	ру											
Well Us	se			Wor	k Туре	e	Drill Method	ł		Wor	rk Comple	eted
Drinkin	g Water,	Domes	tic	New	/ Well		Rotary			0	7/14/2003	3
	Casing	Informa	tion		С	asing abov	ve ground 2ft		Driv	ve Shoe Used?	? Yes	
	Well Log	Casing T	уре		Diamet	ter	From	End	Slo	otted?		
	6757	Steel			6 inch		Oft	69ft				
Aquife	r Test/Yie	eld						Fs	stimated			
Mathad		Initial V		Pumpin Rate	-	Duration	Final Water Level (BTC)		afe Yield	Flowing Well?	П	-
Method		Level (Duration	,		0:	-		ate
Air		0f <i>(BTC</i> -	t Below top	12 igpr of casina)	n	1hr	20ft	1	2 igpm	No	ΟI	gpm
Well Gr	outing				Drilling	g Fluids Us	sed	Disin	fectant	Pump In	nstalled	
Т	There is no	Grout in	formation	ı.	None	-		N/A		N/A Intake Set	tting (BTC)	
								Qty	0 ig	Oft		
Driller's	Log									Overall Well	Denth	
Well Log	From	End	Colou	ır		R	Rock Type			110ft	Dopui	
6757	Oft	8ft	Brown				Verburden					
6757	8ft	25ft	Brown				andstone			Bedrock Leve 65ft	51	
6757	25ft	45ft	Brown			C	lay and Shale			oon		
6757	45ft	47ft	Grey				oapstone					
6757	47ft	52ft	Grey				andstone					
6757 6757	52ft 65ft	65ft 110ft	Brown Grey				lay and Shale					
0/0/	JUIL	TIOIL	arey			3	ันกันอิเปกษ					
Water B	Bearing F	racture	Zone		Set	backs						
Well Log	Depth		Rate				There is no S	Setbac	k informa	ation.		
6757	764		C lana		L							

Well Log	Depth	Rate	
6757	75ft	6 igpm	
6757	100ft	6 japm	



		_											
Date pri	inted	2016/0	5/11										
Drilled k Well Us Drinkin	se	, Domest	Work Type Domestic New Well			-					Work 05/	Comp /05/20	
	Casing	Information	tion	Casing above ground 2ft			Drive Shoe Used? Yes						
	Well Log Casing Type		уре		Diamete	r	From	End	Slo	otted?			
	8111	Steel		1	6 inch		Oft	152ft					
Aquifer Method	r Test/Y	Initial V		Pumpin Rate	-	uration	Final Water Level (BTC)	Sat	timated fe Yield		Flowing Well?		Rate
Air		Level (I Of <i>(BTC</i> -	t	25 igpr of casina)		1hr	20ft		igpm		No		igpm
Well Grouting There is no Grout informatior				Drilling Fluids Used			-	ectant ne Puck	Pump Installed ks Submersible Intake Setting (BTC))	
								Qty	0 ig		100ft		
Driller's	Log									Over	all Well D	≏nth	
Well Log	From	End	Colou	ır		R	ock Type			201f		opur	
8111 8111 8111	Oft 2ft 4ft	2ft 4ft 21ft	EMPT Brown Brown	Y VALUE		S	verburden and and Shale and			Bedr Oft	ock Level		
8111	21ft	28ft	Grey				roken Sandstone						
8111 8111	28ft 35ft	35ft	Grey				andstone						
8111 8111	49ft	49ft 70ft	Brown Grey				lay and Shale andstone						
8111	70ft	78ft	EMPT	/ VALUE			onglomerate						
8111	78ft	91ft	Grey				andstone						
8111 8111	91ft 100ft	100ft 106ft	Brown Grey				lay and Shale oft Sandstone						
8111	106ft	121ft	Grey				onglomerate and	Sandst	one				
8111	121ft	137ft	Grey				Sandstone						
8111	137ft	150ft	Brown				lay and Shale						
8111	150ft	201ft	Grey			S	andstone						

Water Be	earing Frac	cture Zone	Setbacks	Setbacks						
Well Log	Depth	Rate	Well Log	Distance	Setback From					
8111	72ft	4 igpm	8111	300ft	Right of any Public Way Road					
8111	106ft	6 igpm								
8111	166ft	10 igpm								
8111	194ft	15 igpm								



Well Driller's Report

Date prir	nted	2016/05	5/11										
Drilled b Well Use Drinking	9	Domesti	c		k Type Drill Method v Well Rotary			I				Comp /06/20	
	Casing	Informati	ion		Casing above ground 2ft			Drive Shoe Used? Yes					
F	Well Log Casing Type 8663 Steel			Diameter 6 inch		m	End S 60ft		otted?				
Aquifer Method Air	Test/Yie	Initial W Level (B Oft	BTC)	Pumping Rate 50 igpm	Duratio	n Level	Water (BTC) ift	Safe	mated e Yield igpm		lowing Well? No		Rate igpm
Well Gro	5	Grout info	ormation	N	rilling Fluids one	Used		Disinfe Chlorin Qty		s I	Pump Ins N/A Intake Settir Oft)
Driller's Well Log	_og From	End	Colou	r		Rock Type	e			Overa 81ft	all Well D	epth	
8663 8663 8663 8663	4ft 24ft 30ft 36ft 41ft 55ft	24ft 30ft 36ft 41ft 55ft 81ft	Brown Grey Grey Brown Brown a Grey	nd grey	Clay and Shale Sandstone Soapstone Clay and Shale grey Sandstone and Shale Sandstone					Bedro Oft			
	Oft	4ft	EMPTY	VALUE		Overburde							
		racture	Zone		Setbacks								
Well Log 8663	Depth 67ft		Rate 50 igpm		Well Log 8663	Distance 40ft		etback F i ght of an		Way R	oad		



Date pri	nted	2016/0	5/11								
Well Us	Drilled by Well Use Drinking Water, Dom			Work New	c Type Well	Drill Method Rotary			Work Completed 05/27/2005		
	Casing	Informat	tion		ove ground 2ft		e Shoe Used?	Yes			
	Well Log Casing Type 10464 Steel				Diameter inch	From Oft	End 60ft	Slo	otted?		
Aquifer Method Air	Test/Yie	Initial V Level (I Of	BTC)	Pumping Rate 25 igpm of casina)	Duration	Final Water Level (BTC) 10ft	Safe	mated Yield igpm	Flowing Well? No		ate gpm
Well Gro T	Duting There is no	Grout inf	formation	N	Drilling Fluids None	Used	Disinfe Chlorin Qty		Pump Ins s Submers Intake Settir 55ft	ible	
10464 10464 10464 10464 10464 10464	Log From 0ft 3ft 20ft 22ft 34ft 41ft 53ft 60ft 72ft	End 3ft 20ft 22ft 34ft 41ft 53ft 60ft 72ft 90ft	Colou Brown Brown Brown Grey Brown Grey Grey Grey	ir and grey		Rock Type Overburden Clay and Shale Sandstone Clay and Shale Sandstone Sandstone and Sh Sandstone Conglomerate and Coarse Sandstone	Sandsto		Overall Well Do 90ft Bedrock Level 20ft	epth	
Water B	earing F	racture	Zone		Setbacks						

Well Log	Depth	Rate
10464	56ft	2 igpm
10464	65ft	10 igpm
10464	74ft	15 igpm

10464	60ft	Right of any Public Way Road	
Well Log	Distance	Setback From	
Setbacks			



Date pri	nted	2016/05	5/11							
Drilled b	у									
Well Us	Э			Work	Туре	Drill Meth	od		Work	Completed
Drinkin	g Water,	Domest	ic	New	Well	Rotary			07/	11/2007
	Casing	Informat	ion		Casing at	ove around 2ft	•	Driv	e Shoe Used? Y	/es
	Casing	monnat			Casing above ground 2ft			DIIV		03
		Casing Ty	/pe		iameter	From	End	Slo	otted?	
	12816	Steel		6	inch	Oft	50ft			
Aquifer	Test/Yi	eld					Es	timated		
Method		Initial W Level (E		Pumping Rate	l Duratior	Final Wate Level (BT	ou	fe Yield	Flowing Well?	Rate
Air		7ft		60 igpm f casina)	1hr	7ft	60) igpm	No	0 igpm
Well Gro	outing				rilling Fluids	Used	Disinf	ectant	Pump Inst	alled
Т	here is no	o Grout inf	ormation.		one		Chlori	ine Puck	s N/A Intake Setting	g (BTC)
							Qty	0 ig	Oft	
Driller's	Log								Overall Well De	pth
Well Log	From	End	Colour			Rock Type			80ft	
12816	Oft	17ft	Brown			Clay and Shale			Bedrock Level	
	816 17ft 25ft Grey Sandstone 17ft									
	25ft	39ft	Brown			Clay and Shale				
	39ft 42ft	42ft 46ft	Grey Brown			Sandstone Clay and Shale				
	46ft	80ft	Light gre	N N		Sandstone				
				-						
Water B	earing F	racture	Zone		Setbacks					
Well Log	Depth		Rate		Well Loa	Distance	Setback	From		

Well Log	Depth	Rate
12816	55ft	40 igpm
12816	70ft	20 igpm

Setbacks	;		
Well Log	Distance	Setback From	
12816	35ft	Right of any Public Way Road	



Date pri	nted	2016/0	5/11										
Drilled b Well Us Drinkin	•	Domes	tic		k Type Well		Drill Methoo Rotary	ł			Work (09/(Comp 03/20(
	Casing	Informa	tion	Casing above ground 2f			round 2ft	Drive Shoe Used? Yes					
	Well Log Casing Type 17623 Steel		Diameter 6 inch			From Oft	End 60ft						
Aquifer Method Air	Test/Yie	Initial V Level (10	BTC)	Pumping Rate 70 igpm of casina)	Durati	on Le	inal Water evel (BTC) 10ft	Sa	timated fe Yield) igpm		Flowing Well? No	-	Rate igpm
Well Gro	Duting There is no	Grout in	formation	N	Drilling Fluid None	ls Used		-	ectant ine Puck 0 ig		Pump Insta N/A Intake Setting Oft		I
Driller's											all Well De	pth	
17623 17623 17623	From 0ft 20ft 24ft 38ft 47ft	End 20ft 24ft 38ft 47ft 90ft	Colou Brown Grey Brown Brown Grey	r		Soaps Clay a	and Shale stone and Shale stone and Sha	ale		90ft Bedr 20ft	ock Level		
Water B	earing F	racture	Zone		Setbacks					ļ			
Well Log 17623 17623	Depth 50ft 68ft		Rate 8 igpm 70 igpm		Well Log 17623	Distan 170ft		etback ight of a	From any Public	c Way F	Road		



Date pri	nted	2016/05	5/11										
Drilled b	•				-								
Well Us		-			Туре		Drill Method					Completed	
Drinkin	g Water,	Domest	IC	New	Well	Rota	ary				10/0	2/2008	
	Casing	Informat	ion		Casing a	bove grour	oove ground 2ft			Drive Shoe Used? Ye			
	Well Log Casing Type		уре	D	Jiameter	Fro	m	End	Slo	tted?			
	17637	Steel		6	inch	Oft	Oft						
Aquifer	· Test/Yie	əld						Esti	mated				
Method		Initial W Level (E		Pumping Rate) Duratio		Water (BTC)	Safe	Yield		wing ell?	Rate	
Air		25f <i>(BTC - L</i>		35 igpm of casina)	ı 1hr	2	5ft	35 i	gpm	١	No	0 igpm	
Well Gro	outing				Prilling Fluids	Used		Disinfe	ctant		mp Insta	alled	
Т	here is no	Grout inf	ormatio	None			Chlorine Pucks N/A Intake Setting (BTC)				I (BTC)		
								Qty	0 ig	Oft			
Driller's	Log									Overall	Well De	nth	
Well Log	From	End	Color	ur		Rock Type	е			160ft		pui	
17637	Oft	2ft	EMPT	Y VALUE		Overburde	n			Bedrock	clevel		
	2ft	36ft	Grey			Sandstone)			Oft			
	36ft	55ft	Brown			Clay and S				on			
	55ft	72ft	Grey			Soapstone							
	72ft	76ft	Grey			Conglomer		Sandstor	ne				
	76ft 90ft Brown Clay and Shale 90ft 92ft Grey Soapstone												
	9011 92ft	921t 95ft	Grey	•									
	95ft	110ft	Brown			Clay and S							
	110ft	150ft	Grey	Sandstone									
	150ft	160ft	Grey				Conglomerate and Sandstone						

Water Be	earing Fra	cture Zone	Setbacks						
Well Log	Depth	Rate	Well Log	Distance	Setback From				
17637	126ft	5 igpm	17637	38ft	Right of any Public Way Road				
17637	137ft	20 igpm	17637	100ft	Right of any Public Way Road				
17637	150ft	10 igpm	Approximate setbacks indicated by homeowner (existing construction						



Date pri	nted	2016/05	5/11										
Drilled b	у												
Well Us	е			Work	к Туре	Di	ill Metho	d			Work	Comple	ted
Drinkin	g Water	, Domest	ic	New	Well	R	otary				08/	/01/2007	7
	Casing	Informat	ion		Casing	above gro	ound 2ft		Driv	/e Sh	oe Used? `	Yes	
	Well Log	Casing Ty	ype	[Diameter		From	End	SI	otted?)		
	18230	Steel		6	6 inch		Oft	60ft					
Aquifer Method	Test/Yi	eld Initial W Level (E		Pumping Rate	g Durat		nal Water vel (BTC	r Sa	stimated afe Yield		Flowing Well?	R	ate
Air		8ft	t	70 igpm of casina)			8ft		0 igpm		No		gpm
Well Gro	outing				Drilling Fluid	ds Used		Disin	fectant		Pump Ins	talled	
Т	here is no	o Grout inf	ormation		None			Chlor	ine Puck	Ś	N/A Intake Settir	ng (BTC)	
								Qty	0 ig		Oft		
Driller's	Log									Ove	rall Well D	epth	
Well Log	From	End	Colou	r		Rock T	уре			80ft		- 1	
	Oft	26ft	Brown			-	d Shale			Bed	rock Level		
	26ft	32ft	Grey			Sandst				26ft			
	32ft 44ft	44ft 80ft	Brown Grey			Clay an Sandst	d Shale						
10200	7711	5011	arey			Candou							
Water B	earing F	racture	Zone		Setbacks	6]				
Well Log			Data					2 - 411					

Well Log	Depth	Rate
18230	50ft	11 igpm
18230	72ft	70 igpm

Setbacks	;		
Well Log	Distance	Setback From	
18230	90ft	Right of any Public Way Road	



Well Driller's Report

Duto pri	nted	2016/0	5/11										
Drilled b	ру												
Well Us	e			Wor	к Туре	Drill Metho	d		Work Completed				
Drinkin	g Water,	Domest	tic	New	Well	Rotary				09/	17/2007		
	Casing Information				Casing above ground 2ft			Drive Shoe Used? Yes					
Well Log Casing Type			Гуре		Diameter	From	End	Slo	otted?				
	18259	Steel			6 inch	Oft	66ft						
Aquifer	· Test/Yie	eld					Estir	nated					
Method		Initial V Level (Pumpin Rate	g Duratio	Final Wate n Level (BTC	r Safe	Yield		owing Vell?	Rate		
Air		8f <i>(BTC</i> -	ft Below top	60 igpr of casina)	n 1hr	8ft	60 i	gpm		No	0 igpm		
Well Gro	outing				Drilling Fluids	Used	Disinfeo	ctant		ump Inst	talled		
Т	here is no	Grout in	formation).	None		Chlorine	e Puck	•	/A take Settin	g (BTC)		
							Qty (0 ig	Of				
Driller's	Log								Overall		enth		
	Log From	End	Colou	ır		Rock Type			Overal 100ft	l Well De	epth		
Well Log 18259	<u> </u>	10ft	Colou Brown	Ir		Rock Type Overburden			100ft	l Well De	epth		
Well Log 18259 18259	From Oft 10ft	10ft 33ft	Brown Brown	Ir		Overburden Clay and Shale			100ft		epth		
Well Log 18259 18259 18259	From 0ft 10ft 33ft	10ft 33ft 36ft	Brown Brown Grey	Ir		Overburden Clay and Shale Sandstone			100ft Bedroc		epth		
Well Log 18259 18259 18259 18259 18259	From 0ft 10ft 33ft 36ft	10ft 33ft 36ft 38ft	Brown Brown Grey Brown	ır		Overburden Clay and Shale Sandstone Clay and Shale			100ft Bedroc		epth		
Well Log 18259 18259 18259 18259 18259 18259	From 0ft 10ft 33ft	10ft 33ft 36ft	Brown Brown Grey	Ir		Overburden Clay and Shale Sandstone Clay and Shale Clay and Shale			100ft Bedroc		epth		
18259 18259 18259	From Oft 10ft 33ft 36ft 38ft	10ft 33ft 36ft 38ft 44ft	Brown Brown Grey Brown Grey	Ir		Overburden Clay and Shale Sandstone Clay and Shale	DNe		100ft Bedroc		epth		
Well Log 18259 18259 18259 18259 18259 18259 18259	From 0ft 10ft 33ft 36ft 38ft 44ft 57ft	10ft 33ft 36ft 38ft 44ft 57ft 100ft	Brown Brown Grey Brown Grey Brown Grey	Ir	Setbacks	Overburden Clay and Shale Sandstone Clay and Shale Clay and Shale Clay and Shale	ONE		100ft Bedroc		epth		
Well Log 18259 18259 18259 18259 18259 18259 18259 18259	From Oft 10ft 33ft 36ft 38ft 44ft 57ft Gearing F	10ft 33ft 36ft 38ft 44ft 57ft 100ft	Brown Grey Brown Grey Brown Grey Zone		Setbacks	Overburden Clay and Shale Sandstone Clay and Shale Clay and Shale Clay and Shale Sand and Sandst			100ft Bedroc		epth		
Well Log 18259 18259 18259 18259 18259 18259 18259	From 0ft 10ft 33ft 36ft 38ft 44ft 57ft	10ft 33ft 36ft 38ft 44ft 57ft 100ft	Brown Brown Grey Brown Grey Brown Grey		Setbacks Well Log 18259	Overburden Clay and Shale Sandstone Clay and Shale Clay and Shale Clay and Shale Sand and Sandst	one Setback Fi		100ft Bedroc Oft	ck Level	epth		



Well Driller's Report

Date pri	nted	2016/0)5/11								
Drilled b Well Us Drinkin	•	Domes	tic		k Type Well	Drill Rot	Methoo ary	t			Completed
	Casing	Informa	ation		Casing	above grou	nd 2ft	Di	rive Sho	e Used? Y	/es
					There is no	casing info	rmation.				
Aquifer Method Air	Test/Yie	Initial \ Level (10		Pumpin Rate 70 igpr of casina)	Durati	on Leve	l Water I (BTC) I 0ft		ld F	Flowing Well? No	Rate 0 igpr
Well Gro T	outing here is no	Grout in	oformatior		Drilling Fluic None	ls Used		Disinfectant Chlorine Pur Qty 0 ig	cks	Pump Inst Submersi Intake Settin 55ft	ble
	From Oft	End 37ft	Colou Brown	ir		Rock Type Clay and	Shale		100ft	all Well De	epth
28180	37ft 43ft 55ft	43ft 55ft 100ft	Grey Brown Grey			Sandston Clay and Sandston	Shale		37ft		
Water B		racture			Setbacks						
Well Log 28180 28180 28180	Depth 38ft 41ft 85ft		Rate 7.5 igpm 4 igpm 70 igpm		Well Log 28180 28180	Distance 50ft 80ft	R	etback From ight of any Pub ight of any Pub			



Well Driller's Report

Drilled b Well Us	•			10/0-	L. T	•				10/	Completed	
		D (k Typ		Drill Method			Work Completed		
Drinkin	g Water,	Domest	IC	New	Well		Rotary			07/	/31/2014	
	Casing Information					asing abo	ve ground Oft		Drive	Shoe Used? \	Yes	
	Well Log	Casing T	уре	I	Diame	ter	From	End	Slot	ted?		
	30109	Steel		(6 inch		Oft	72ft				
Δαμίξοι	r Test/Yie	ald						_				
Aquilo	1030/10	Initial V	Vater	Pumpin	g		Final Water		imated e Yield	Flowing		
Method		Level (I		Rate	-	Duration	Level (BTC)	••••	0	Well?	Rate	
Air		8f	t	15 igpn	n	1hr	8ft	15	igpm	No	0 igpn	
		(BTC -	Below top	of casina)								
Well Gr	outing				Drillin	g Fluids Us	sed	Disinf	ectant	Pump Inst	talled	
	There is no	Grout inf	ormation		None	y		Chlori	ne pellets	N/A Intake Settin	ng (BTC)	
								Qty	0 ig	Oft		
Driller's	Log									Overall Well De	enth	
Well Log	From	End	Colou	r		F	lock Type			120ft	opui	
30109	16ft	25ft	Grey			s	andstone			Bedrock Level		
30109	49ft	53ft	Grey				hale			Oft		
30109	53ft	57ft	Grey				andstone			511		
30109	57ft	59ft	Grey				hale					
30109 30109	59ft	65ft	Brown			-	hale andstone					
30109 30109	65ft Oft	120ft 5ft	Grey Grey				andstone					
30109	5ft	16ft	Brown				hale					
30109	25ft	49ft	Brown				lay and Shale					

There is no Setback information.

	5		
Well Log	Depth	Rate	
30109	78ft	2.5 igpm	
30109	82ft	11 igpm	



Date pri	inted	2016/0	5/11										
Drilled b	су												
Well Us	e			Wo	rk Type		Drill Metho	d			Work	Comple	ted
Drinkin	g Water,	Domes	tic	New Well Rotary						05/23/2012			
	Casing	Informa	tion		Casin	g abov	e ground 2ft	10in	Driv	ve Sho	e Used? Y	′es	
	Well Log	Casing 1	Гуре		Diameter		From	End	Sl	otted?			
	31782	Steel			6 inch		Oft	40ft					
Aquifer	r Test/Yi	eld Initial \	Water	Pumpi	ng		Final Wate		stimated afe Yield	I	-lowing		
Method		Level (Rate	-	ation	Level (BTC				Well?	Ra	ate
Air)ft	20 igp		0min	60ft	6	3 igpm		No	0 i c	pm
		(BTC -	Below top	• •					0.				
Well Gro	outing				Drilling Flu	ids Us	ed	Disin	fectant		Pump Inst		
Well Log	Grout Typ	be l	From	End	None			Blead	h (Javex	.)	Submersi Intake Setting		
31782	Other	:	35ft	40ft				Qty	0 ig		75ft		
Driller's	Ιοα									0			
Well Log	From	End	Colou	r		Ro	ock Type			90ft	all Well De	pth	
31782	Oft	10ft	Brown			Sa	ind				ock Level		
31782	10ft	20ft	Red				ay and Sand			Oft			
31782	20ft	37ft	Brown				ay and Sand			on			
31782 31782	37ft 71ft	71ft 81ft	Grey				ale Indstone						
31782 31782	81ft	90ft	Brown Grey				Indstone						
Water B	Bearing F	racture	Zone		Setbacl	(S							
Well Log	Depth		Rate		Well Log	Dis	tance	Setback	From				
31782	60ft		15 igpm		31782	66f		Septic Ta					
31782	70ft		2 igpm		31782	80fi		_each Fi					
31782	79ft		4 igpm		31782	79fi		Center o	f road				
31782	82ft		1 igpm]								



Well Driller's Report

Date pri	nted	2016/0	5/11											
Drilled b	ру													
Well Us	e			Wor	·k Ty	ре	Dril	I Method	t			Work	Comp	leted
Drinkin	g Water	, Domes	tic		lew Well (NEW Rotary (ROTARY)						09/	26/199	96	
				WE	LL)									
	Casing Information					Casing above ground 2ft				Driv	be Used? Y	/es		
	Well Log Casing Type				Diam	neter	From		End	SI	otted?	tted?		
	90773100) Steel			6 inc	h	0	t	45ft					
Aquifer	· Test/Yi	ield							Fs	timated				
1		Initial V	Vater	Pumpir				al Water	Sa	fe Yield		Flowing		
Method		Level (BTC)	Rate		Duration	Lev	el (BTC)				Well?	I	Rate
Air		01	ft	100 igp	m	1hr		10ft	10	0 igpm		No	0	igpm
		(BTC -	Below ton	of casina)										
Well Gro	outing				Drilli	ng Fluids L	Jsed		Disinf	ectant		Pump Inst	alled	
т	here is n	o Grout in	formatio	n	None	e			N/A			N/A		
		o orout m	Tormation						~	<u>.</u>		Intake Settin	g (BTC))
									Qty	0 ig		Oft		
Driller's	Log										Over	all Well De	epth	
Well Log	From	End	Colo	ur			Rock Ty	ре			85ft			
90773100	Oft	6ft	Brown				Overburg	len			Bedr	ock Level		
90773100	6ft	18ft	Brown				Soft San	dstone			Oft			
90773100		41ft	Brown				Clay and				on			
90773100		62ft	Brown				Sandstor							
90773100	62ft	85ft	Grey				Sandstor	1e						
Water B	earing f	Fracture	Zone		Se	etbacks								
Well Log	Depth		Rate				The	re is no S	Setback	informa	ation.			
00773100			100 ianm											

90773100 70ft

100 igpm



Well Driller's Report

		-										
Date pri	nted	2016/05	5/11									
Drilled b	у											
Well Us	е			Wo	rk Typ	be	Drill Metho	bd		Wor	k Com	pleted
Drinkin	g Water,	Domesti	с	New Well (NEW			Rotary (R	OTAR	Y)	04/29/2000		
	J		-		LL)	X			,			
	Casing I	nformati	on		(Casing abo	oove ground 2ft			ve Shoe Used?	'Yes	
	Well Log Casing Type				Diam	eter	From	Enc	l Slo	otted?		
	91729800 Steel				6 inch		Oft	92ft				
Aquifer	Test/Yie	eld							stimated			
		Initial W	ater	Pumpi	na		Final Wate		afe Yield	Flowing		
Method		Level (E		Rate		Duration	Level (BTC			Well?		Rate
Air		Oft	,	25 igp	m	1hr	10ft		25 igpm	No		0 igpm
<i>/</i>				of casina			TOR	-	-o igpiii			orgpin
Well Gro	outina				Drillin	ng Fluids L	lsed	Disir	nfectant	Pump In	stalled	1
					None	•	5564	N/A		Submer		
Т	here is no	Grout info	ormatior	۱.						Intake Set		C)
								Qty	0 ig	Oft	3.	- /
Driller's										Overall Well	Depth	
Well Log	From	End	Colou	ır			Rock Type			120ft		
91729800	44ft	50ft	Light b	rown			Sandstone			Bedrock Leve	el	
91729800		65ft	Brown				Clay and Shale			Oft		
91729800		67ft	Grey				Soapstone					
91729800		69ft	Brown				Shale					
91729800 91729800		74ft 76ft	Grey Grey				Clay Sandstone					
91729800		88ft	Brown				Clay and Shale					
91729800		120ft	Brown				Sandstone					
91729800		5ft		VALUE			Sand					
91729800		8ft	Brown				Sandstone					
91729800		18ft	Red				Shale					
91729800	18ft	30ft	Red				Clay					
91729800	30ft	44ft	Brown				Sandstone					

Water Bearing Fracture Zone

Well Log	Depth	Rate
91729800	94ft	5 igpm
91729800	110ft	20 igpm

Setbacks

There is no Setback information.



Well Driller's Report

Date pri	nted	2016/05	5/11							
Drilled b Well Us Drinkin	•	Domest	ic		k Type Well	Drill Methoo Rotary	Ŀ		rk Complet 07/20/2001	ed
	Casing I	nformat	ion		Casing at	oove ground 2ft		Drive Shoe Used	? Yes	
	Well Log 92356500		/pe		Diameter 3 inch	From Oft	End 62ft	Slotted?		
Aquifer Method Air	Test/Yie	Initial W Level (E Oft	BTC)	Pumping Rate 12 igpm	Duration	Final Water n Level (BTC) 20ft		eld Flowing Well?	Ra 0 ig	
Well Gro	Outing There is no	Grout inf	ormation.		Drilling Fluids None	Used	Disinfecta N/A Qty 0 i	N/A Intake Se	nstalled etting (BTC)	
Driller's Well Log	Log From	End	Colour			Rock Type		Overall Well 102ft	Depth	
92356500 92356500 92356500 92356500 92356500 92356500 92356500	83ft Oft 4ft 18ft 40ft	83ft 102ft 4ft 18ft 40ft 52ft 60ft	Brown Grey Unknown Brown Red Brown Brown	Rock Co	blour	Sandstone Sandstone Fill Sandstone Clay Clay Sandstone Shale		Bedrock Lev Oft	el	
Water B Well Log	earing F		Zone		Setbacks	There is no s	Setback info			

Well Log	Depth	Rate
92356500	62ft	5 igpm
92356500	75ft	7 igpm