



**ANNUAL REPORT
FOR THE MUNICIPALITY OF ARCTIC BAY**

YEAR BEING REPORTED: 2009

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence # **3BM-ARC 0810** issued to the Municipality of Arctic Bay.

- i)- iii) tabular summaries of all data generated under the "Monitoring Program";
monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;
Attached are quantities of water used as reported in our On Tap Water Delivery System and the estimated discharge of sewage waste based on quantities used.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January 2009	2,427,699	Same
February 2009	1,702,135	Same
March 2009	1,767,045	Same
April 2009	1,461,360	Same
May 2009	1,601,877	Same
June 2009	1,525,553	Same
July 2009	1,402,241	Same
August 2009	1,552,167	Same
September 2009	1,845,338	Same
October 2009	2,047,738	Same
November 2009	1,796,698	Same
December 2009	1,853,089	Same
ANNUAL TOTAL	20,982,940	Same

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- iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;
Water Truckfill station is hooked up with the power line. The Generator is kept there standby for emergency. The heat trace was repaired. The Filling station is working fine.
- v. a list of unauthorized discharges and summary of follow-up action taken;
The Sewage lagoon overflow once during winter. INAC inspector was notified and spill emergency station was informed. The Liquid was frozen once overflow to the wetland.
- vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;
Design for the abandonment and restoration of the existing Sewage Lagoon was approved by the NWB. This will be implemented once the new Lagoon is commissioned. The Contractor is on site and currently building the new lagoon. The existing Lagoon will be decommissioned sometime in 2010/2011.
- vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
Hamlet waste management plan will be implemented as soon as the fund is available.
- viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
N/A
- ix. updates or revisions to the approved Operation and Maintenance Plans.
O&M manual of the new Sewage Lagoon will be updated once the construction is completed.

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ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Spill Report and Lab test results are attached.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

It is expected that Department of Community Government Services of Government of Nunavut will be dealing soon with the regulatory agencies on the non compliance issues of the Hamlet Water Licence.

C.O.C.: 78467

REPORT No. B09-35453

Report To:

Hamlet of Arctic Bay
Box 150
Arctic Bay, NU, X0A 0A0
Attention: Sam Willie

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa, Ontario, K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 11-Nov-09

JOB/PROJECT NO.: Fall Sewage Lagoon Sample

DATE REPORTED: 19-Nov-09

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

Client I.D.:					Fall Sewage Lagoon Sample			
Sample I.D.:					B09-35453-1			
Date Collected:					04-Nov-09			
Parameter	Units	M.D.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210	13-Nov-09/O	418			
Total Suspended Solids	mg/L	3	SM 2540	14-Nov-09/O	212			
Ammonia (N)-Total	mg/L	0.01	EPA 350.2	16-Nov-09/O	65.8			
Total Kjeldahl Nitrogen	mg/L	0.05	EPA 351.2	17-Nov-09/O	83.9			
Phosphorus-Total	mg/L	0.01	EPA 385.4	17-Nov-09/O	10.7			
Aluminum	mg/L	0.01	SM 3120	18-Nov-09/O	4.24			
Antimony	mg/L	0.0005	EPA 200.8	13-Nov-09/O	< 0.0005			
Arsenic	mg/L	0.0005	EPA 200.8	13-Nov-09/O	0.0026			
Bismuth	mg/L	0.02	SM 3120	18-Nov-09/O	< 0.02			
Boron	mg/L	0.005	SM 3120	18-Nov-09/O	0.059			
Cadmium	mg/L	0.005	SM 3120	18-Nov-09/O	< 0.005			
Chromium	mg/L	0.002	SM 3120	18-Nov-09/O	0.006			
Cobalt	mg/L	0.005	SM 3120	18-Nov-09/O	0.006			
Copper	mg/L	0.002	SM 3120	18-Nov-09/O	0.318			
Lead	mg/L	0.02	SM 3120	18-Nov-09/O	< 0.02			
Manganese	mg/L	0.001	SM 3120	18-Nov-09/O	0.046			
Mercury	mg/L	0.00002	SM 3112	13-Nov-09/O	0.00017			
Molybdenum	mg/L	0.01	SM 3120	18-Nov-09/O	< 0.01			
Nickel	mg/L	0.01	SM 3120	18-Nov-09/O	< 0.01			
Selenium	mg/L	0.001	EPA 200.8	13-Nov-09/O	0.040			
Silver	mg/L	0.005	SM 3120	18-Nov-09/O	< 0.005			
Tin	mg/L	0.05	SM 3120	18-Nov-09/O	< 0.05			
Titanium	mg/L	0.005	SM 3120	18-Nov-09/O	0.011			
Vanadium	mg/L	0.005	SM 3120	18-Nov-09/O	< 0.005			
Zinc	mg/L	0.005	SM 3120	18-Nov-09/O	0.451			

M.D.L. = Method Detection Limit

Site Analyzed=K-Kingston, W-Windsor, O-Ottawa, P-Peterborough, M-Moncton

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.



Gord Murphy
Lab Supervisor

<input type="checkbox"/> Regulated - Drinking Water <input type="checkbox"/> Non Regulated - Drinking Water		<input type="checkbox"/> Provincial Water Quality Objectives <input type="checkbox"/> Provincial Sediment Quality Guideline		<input type="checkbox"/> MISA Guidelines <input type="checkbox"/> Landfill Analysis		<input type="checkbox"/> Clean Up Criteria (A B C D E F) <input type="checkbox"/> Other:	
Client: Hamlet of Arctic Bay Contact: Sam Willie Tel: 867 439 8917 Fax: 867 439 8767 Email: sao_ab@ginj.com				Address: Hamlet of Arctic Bay P.O. Box 150 Arctic Bay NW X0A0A0			
Waterwork's / Project: Fall Sewage Lagoon Sample Quote No.: 10191				Project Name: Fall Sewage Lagoon Sample			
Lab No.	Sample Identification	Date Collected (dd-mm-yy)	Time Collected	Reportable (Y/N)	Indicate Test For Each Sample By Using A Check Mark In The Box Provided		
1	GLASS TKN	04-11-09	1300	Y	BOD	TSS	TRC/TB
2	"	"	"	"			
3	HNO3	04-11-09	1300	Y			
4	"	"	"	"			
5	Clear: Partic Solids	04-11-09	1300	Y			
1. Fall Sewage Lagoon Sample 04-11-09 Bios Sample passed holding for BOD/TSS					Laboratory Use Only Received By (print): Heather Signature: Heather Date (dd-mm-yy) Received: 11-11-09 Time Received: 3:35 pm Laboratory Prepared Bottles: <input type="checkbox"/> YES <input type="checkbox"/> NO		
Sample Submission Information Sampled By (print): Sam Willie Submitted By (print): " Signature: [Signature] Date (dd-mm-yy): 04-11-09 Time: 1330					No. of Containers Shipped: 1 Coden: 10191 Method of Shipment: Air		

Sample Matrix Legend: DW=Drinking Water WW=Waste Water SW=Surface Water GW=Groundwater LS=Liquid Sludge SS=Solid Sludge S=Soil Sed=Sediment PC=Paint Chips F=Filter

CHARGE **20**
 SHIPPING

5/6

Kingston Lab - 285 Dabon Ave., Kingston, ON K7K 6Z1, Tel: (613) 544-2001 Fax: (613) 544-2770, Email: contactkingston@caduceonlabs.com
 Ottawa East Lab - 2378 Holly Lane, Ottawa, ON K1V 7P1, Tel: (613) 506-2123 Fax: (613) 576-1144, Email: contactottawa@caduceonlabs.com (Shipping & Suppl)
 Ottawa West Lab - 49 Cammell Dr., Ottawa, ON K2C 5S8, Tel: (613) 228-1148, Email: contactottawa@caduceonlabs.com (Administration)
 Moncton Lab - 150 Lutz St., Moncton, NB E1C 5E9, Tel: (506) 855-4471 Fax: (506) 857-4044, Email: contactmoncton@caduceonlabs.com

ColC, Aug. 2003, Revision No: 6



NT-NU SPILL REPORT

OIL, GASOLINE, THERMOIDS AND OTHER FLAMMABLE LIQUIDS

WIND 24-HOUR SPELL REPORT LINE

2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 26

$$= \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} e^{-\frac{1}{2}\lambda^2} d\lambda = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} e^{-\frac{1}{2}\lambda^2} d\lambda$$

• **Prüfung:** 2.2.2020, 14:00 Uhr, 120 Minuten

REPORT FILE 336 5509

1 Sewage Leaks	Natural Seepage	spill to wet land treatment
2 Hayne Fall Freeze up	NON	away NON

The Waste water is spill to out side wall of "new lined" granular material sewage lagoon.
Spilled waste water is freezing onto out side wall and wetlands treatment area

NAME (LAST, FIRST, MIDDLE)	POS. OR TITLE	EMPLOYER	LOCAL PHONE (AREA NO. - EXT.)	TELEPHONE
L. SAM WILLIE	Foreman	Hawkins & Hart, Inc.	807-439-9917	
M. J. Schumaker	Silo	" "	807-439-9917	

REPORT LINE USE ONLY			
N	REPORTED BY	DATE	LOCATION
	TIME	DATE	REPORTED BY
	ON	AT	FOR
	CONTACT NAME	CONTACT TIME	REMARKS
<p>RE: REPORT NO. 12345</p>			

61.