



**POST CLASS C-2 RAO STATUS REPORT
12 SWANTON STREET
WINCHESTER, MA 01890
RTN 3-18598**

PREPARED FOR:

Bossi Realty Trust
12 Swanton Street
Winchester, MA 01890

PREPARED BY:

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1.0 Introduction

REMSERV, Inc. has prepared a Post-Class C-2 Response Action Outcome (RAO) Status Report for a historical gasoline release at 12 Swanton Street in Winchester, MA in association with Release Tracking Number (RTN) 3-18598 (Figure 1). This Post-Class C-2 RAO Status Report documents the quarterly ground water monitoring program conducted at the 12 Swanton Street site on April 23, 2013 and has been prepared on behalf of Bossi Realty Trust, the owner of the 12 Swanton Street property.

2.0 Site Description

The site is located at 12 Swanton Street in Winchester, MA at the approximate UTM coordinates 4702910 mN, 324875 mE (Figure 1). The site is currently occupied by an automotive repair and used car sales facility. The site formerly dispensed gasoline and diesel fuel. The property consists of a 1,806 square foot building on a 0.31-acre lot (Figure 2). The site is entirely asphalt paved except for landscaped islands located in the northeast and southwest of the property and a smaller landscaped island located in the northwest of the site. The site building is connected to municipal water and sanitary sewer. Nearby properties are also on the municipal water and sanitary system.

2.1 Property Abutters

The property abutters are as follows:

North: Swanton Street, with residential properties on the opposite (north) side of Swanton Street from the site.

South: A commercial parking lot with residential properties on the opposite (south) side of the parking lot from the site.

East: A commercial Laundromat building, formerly including a convenience store and a photographic developing facility. Washington Street bounds the commercial property to the east.

West: A commercial building, including a dry cleaning facility and a restaurant.

2.2 Topography

The site is located at an elevation of approximately 49 feet above Mean Sea Level (based upon the National Geodetic Vertical Datum of 1929). The topography is relatively flat with a mild grade from east to west. The regional topography rises sharply to the east culminating in the Middlesex Fells Reservation located approximately 1,224 feet east of the site. The area to the west slopes gently to the Aberjona River approximately 2,021 feet west of the site (Figure 1).

2.3 Natural Resources

The site is located in the Mystic River Drainage Basin. Storm water from the site drains to a series of catch basins located along the southern side of Swanton Street. The catch basins discharge to the Aberjona River, located approximately 2,021 feet west of the site (Figure 1). The Aberjona River drains to the Mystic Lakes, which drain to the Mystic River and ultimately to Boston Harbor. The Mystic River is designated as a Class B Waterway.



The site is not located within 500 feet of an Area of Critical Environmental Concern (ACEC), vernal pools, reservoirs, private wells, a mapped Zone II, a Zone A of a Class A surface water body, a priority productive aquifer, a sole source aquifer, fish habitats, or habitats of species of Special Concern or Threatened or Endangered Species (Figure 1). The Middlesex Fells Reservation is located approximately 1,160 feet to the east (Figure 1). Three (3) reservoirs located within the Middlesex Fells Reservation provide drinking water to the Town of Winchester.

3.0 Release Description (RTN 3-18598)

In May 1999, six (6) underground storage tanks (USTs) were removed from the site under a permit issued by the Winchester Fire Department. The USTs consisted of three (3) gasoline USTs (4,000-gallon, 3,000-gallon, and 2,000-gallon), one (1) 3,000-gallon diesel UST, one (1) 500-gallon waste oil UST and one (1) 500-gallon heating oil UST.

On July 8, 1999, the MA DEP Northeast Regional Office (NERO) was notified of a 72-hour reportable condition at the site when a soil headspace reading exceeding 100 parts per million (ppm) was obtained from soil samples collected from within 10 feet of a UST outer wall. Approximately 20 cubic yards of soil were stockpiled when the six (6) USTs were removed from the site in May 1999. The four (4) gasoline USTs, the dispensing island, and the 250-gallon waste oil UST were located in front of the site building (Figure 2). The 500-gallon heating oil UST was located at the rear of the building. The MA DEP issued a Notice of Responsibility (NOR) dated November 19, 1999 to Bossi Realty Trust for a gasoline release associated with the UST system.

4.0 Ground Water Quality Monitoring

On April 23, 2013 REMSERV, Inc. conducted Post-Class C-2 RAO ground water monitoring events at the 12 Swanton Street site. During the sampling event REMSERV, Inc. sampled monitoring wells MW-1, MW-4, B101-MW, B103-MW and B104-MW (Figure 2). REMSERV, Inc. gauged the depth to ground water and for the potential presence of light non-aqueous phase liquid (LNAPL) in each well using a Heron H.01L oil-interface probe. REMSERV, Inc. utilized a Geotech Geopump 2 peristaltic pump to evacuate ground water from each well using dedicated polyethylene and silicon tubing and the US EPA low-flow sampling method (less than 0.3 liter per minute)(1). The evacuated ground water passed through a YSI 556 flow cell which logged monitored natural attenuation (MNA) parameters (including dissolved oxygen, oxidation-reduction potential (ORP), pH, and temperature) during a three well volume evacuation period.

Ground water samples were collected directly into laboratory-cleaned and preserved glassware and submitted to Alpha Analytical Laboratories of Westborough, MA (Alpha) for laboratory analysis according to the MA DEP Volatile Petroleum Hydrocarbon (VPH) Method. The results of laboratory analyses are summarized in Table 1 and laboratory analytical data sheets are attached as Appendix I.

4.1 Ground Water Gauging

During the April 23, 2013 event, depths to ground water at the site ranged between 11.07 feet (B101-MW) and 12.11 feet (MW-1) below ground surface. LNAPL was not identified in any of the monitoring wells gauged during the sampling event. Ground water elevation contours based on the April 23, 2013 water table gauging data indicating an approximate ground water flow direction to the west-northwest (Figure 2).



4.2 April 23, 2013 VPH Method Analytical Results

Analytical results from the April 23, 2013 sampling event identified the following VPH Method fractions and target analytes at concentrations exceeding the laboratory minimum detection limits:

VPH Fractions

- C₅-C₈ Aliphatics in MW-1 (305 ug/L), B101-MW (373 ug/L), B103-MW (2,770 ug/L), and B104-MW (2,130 ug/L);
- C₉-C₁₂ Aliphatics in MW-1 (205 ug/L); MW-4 (13,000); B101-MW (367 ug/L); B103-MW (4,740 ug/L); and B104-MW (4,550 ug/L); and
- C₉-C₁₀ Aromatics in MW-1 (100 ug/L), MW-4 (12,400 ug/L), B101-MW (384 ug/L), B103-MW (2,800 ug/L), and B104-MW (2,430 ug/L).

No other VPH Method fractions were identified at concentrations exceeding the laboratory minimum detection limits (Table 1).

VPH Target Analytes

- Toluene in B103-MW (60.5 ug/L), and B104-MW (155 ug/L);
- Ethylbenzene in MW-1 (5.8 ug/L), MW-4 (317 ug/L), B101-MW (2.12 ug/L); B103-MW (733 ug/L), and B104-MW (517 ug/L);
- Total xylenes in MW-1 (4.58 ug/L), MW-4 (1,600 ug/L), B103-MW (1,079 ug/L), and B104-MW (1,546 ug/L);
- Methyl tert-butyl ether (MTBE) in B103-MW (16.8 ug/L); and
- Naphthalene in MW-4 (390 ug/L), B103-MW (176 ug/L), and B104-MW (117 ug/L).

No other VPH Method target analytes were identified at concentrations exceeding the laboratory minimum detection limits during the April 23, 2013 ground water sampling event (Table 1).

4.5 Monitored Natural Attenuation Field Parameters

During the purging of each monitoring well on the April 23, 2013 sampling events REMSERV, Inc. monitored natural attenuation (MNA) parameters (pH, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) to assess ongoing ground water contaminant reduction at the site through biodegradation. These parameters are secondary lines of evidence that biodegradative processes are occurring or have occurred in site ground water. Measurements were recorded at 15-second intervals during the evacuation phase for each monitoring well using a YSI 556 sonde equipped with a flow cell. Stabilized monitored natural attenuation (MNA) parameters for each monitoring well are summarized in Table 2.

4.5.1 Oxidation-Reduction Potential (ORP)

Oxidation-reduction potential (ORP) is the measurement of a solution's ability to lose (oxidation) or accept (reduction) electrons. Aerobic biodegradation of ground water contamination can result in reduced ORP values as oxygen becomes depleted during the oxidation of contaminants.



The ORP values identified during the April 23, 2013 ground water sampling event ranged from -127.7 mV in B104-MW to 56.4 mV in B101-MW. Negative ORP values were identified in monitoring wells MW-4 (-68.7 mV), B103-MW (-99.3 mV), and B104-MW (-127.7 mV). Positive ORP values were identified in monitoring wells MW-1 (8 mV) and B101-MW (56.4 mV).

The negative ORP values identified in monitoring wells MW-4, B103-MW, and B104-MW are associated with the monitoring wells with the greatest historic concentrations of dissolved VPH, and suggest the depletion of dissolved oxygen due to aerobic biodegradation in ground water in the vicinity of these wells. The presence of positive ORP values in monitoring wells MW-1 and B101-MW are indicative of lower biodegradation rates associated with the lesser groundwater impacts in these monitoring wells and with the breakdown of petroleum compounds.

4.5.2 Dissolved Oxygen (DO)

Dissolved oxygen in ground water (DO) is an indication of the available oxygen for aerobic degradation of contaminants by naturally occurring bacteria. The DO concentrations may suggest the capacity of the site to sustain aerobic breakdown of BTEX (benzene, toluene, ethylbenzene, and xylenes) contamination. Depleted DO concentrations may also indicate aerobic degradation has occurred or is presently occurring. The recommended minimum DO concentration for aerobic breakdown of BTEX is 0.5 mg/L (2).

Stabilized DO concentrations identified during the April 23, 2013 sampling event ranged between 0.22 mg/L in B104-MW to 8.5 mg/L in MW-4. Monitoring wells B101-MW, B103-MW and B104-MW exhibited DO values less than 0.5 mg/L during the April 2013 event

The DO concentrations identified in monitoring wells B101-MW, B103-MW, and B104-MW are less than the recommended minimum DO values for aerobic biodegradation. REMSERV, Inc. interprets this data as characteristic of an oxygen-depleted environment indicative of ongoing biodegradation.

4.5.3 pH

The US EPA reports optimal microbial activity under neutral pH conditions of about six to eight (2). Stabilized pH values identified during the April 23, 2013 ground water sampling event ranged between 6.31 in B101-MW to 6.60 in B104-MW. All of the monitoring wells (MW-1, MW-4, B101-MW, B103-MW, and B104-MW) exhibited pH values within the optimum six to eight range.

4.5.4 Temperature (°C)

Ground water temperatures identified during the April 23, 2013 ground water sampling event ranged between 11.20°C in MW-4 to 11.65°C in B101-MW

5.0 Conclusions

REMSERV, Inc. has completed a Post-Class C-2 RAO Status Report for the property at 12 Swanton Street, Winchester, MA in association with RTN 3-18598. On April 23, 2013 REMSERV, Inc. sampled ground water monitoring wells MW-1, MW-4, B101-MW, B103-MW, and B104-MW for monitored natural attenuation (MNA) parameters (redox potential (ORP), dissolved oxygen (DO), pH, and temperature) and for laboratory analysis according to the MA DEP VPH Method.



REMSERV, Inc. will continue ground water sampling at the site as part of the Post-Class C-2 RAO monitoring program. REMSERV, Inc. will document the results of the ground water monitoring program in future Post-Class C RAO Status Reports associated with RTN 3-18598.

6.0 References

1. US EPA: "Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells." US EPA EQASOP-GW 001, January 2010.
2. "How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers" (EPA 510-B-94-003; EPA 510-B-95-007; and EPA 510-R-04-002). Environmental Protection Agency (EPA), 2004

TABLE 1 - GROUND WATER ANALYTICAL RESULTS

Bossi Realty Trust
 12 Swanton Street
 Winchester, MA
 RTN 3-18598

Sample ID	Sampling Date	PVC Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m-p-Xylene (ug/L)	o-Xylene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Naphthalene (by VPH) (ug/L)	Naphthalene (by EPH) (ug/L)	2-Methylnaphthalene (ug/L)	Phenanthrene	Fluorene	C ₂ -C ₄ Aliphatics (ug/L)	C ₅ -C ₇ Aliphatics (ug/L)	C ₈ -C ₁₀ Aromatics (ug/L)	C ₁₁ -C ₁₄ Aliphatics (ug/L)	C ₁₅ -C ₁₈ Aliphatics (ug/L)	C ₁₉ -C ₂₂ Aromatics (ug/L)
GW-1 Standard	---	---	---	---	5	1,000	700	NS	NS	10,000	70	140	140	10	40	30	300	700	200	700	14,000	200
GW-2 Standard	---	---	---	---	2,000	50,000	20,000	NS	NS	9,000	50,000	1,000	1,000	2,000	NA	NA	3,000	5,000	7,000	5,000	NS	50,000
GW-3 Standard	---	---	---	---	10,000	40,000	5,000	NS	NS	5,000	50,000	20,000	20,000	20,000	10,000	40	50,000	50,000	50,000	50,000	50,000	5,000
UCLs	---	---	---	---	100,000	100,000	100,000	NS	NS	100,000	100,000	100,000	100,000	100,000	100,000	400	100,000	100,000	100,000	100,000	100,000	100,000
*MW-1 (GW-2, GW-3)	10/24/00	NM	13.70	---	11	40	37	110	28	138	16	BDL	2.3	1.4	BDL	BDL	1,400	340	440	BDL	BDL	BDL
	04/01/05	NM	10.87	---	11.4	12.4	26.8	50.8	9.6	60.4	BDL	10.8	BDL	BDL	BDL	BDL	753	159	300	BDL	BDL	BDL
	12/19/06	102.12	12.37	---	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.569	BDL	BDL	BDL	370	229	111	BDL	BDL	BDL
	08/10/07	102.12	13.08	89.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/07	102.12	12.97	89.15	BDL	BDL	3.99	BDL	BDL	BDL	3.46	BDL	NA	NA	NA	NA	474	128	150	NA	NA	NA
	03/04/08	102.12	11.05	91.07	BDL	BDL	BDL	2.38	BDL	2.38	BDL	BDL	BDL	NA	NA	NA	92.8	77.8	BDL	NA	NA	NA
	07/03/08	102.12	12.87	89.25	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	340	114	128	NA	NA	NA
	12/15/08	102.12	12.09	90.03	BDL	BDL	2.91	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	311	121	106	NA	NA	NA
	03/31/09	102.12	11.93	90.19	BDL	2.7	9.72	24.1	10.1	34.2	BDL	BDL	NA	NA	NA	NA	461	161	263	NA	NA	NA
	06/08/09	102.12	12.66	89.46	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	338	136	87.4	NA	NA	NA
	09/03/09	102.12	12.79	89.33	BDL	BDL	2.23	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	125	BDL	98.6	NA	NA	NA
	01/15/10	102.12	12.48	89.64	BDL	BDL	3.51	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	290	64.4	97.8	NA	NA	NA
	03/18/10	102.12	8.12	94.00	2.85	95.9	686	1,340	279	1,619	14.4	173	NA	NA	NA	NA	2,770	2,410	2,500	NA	NA	NA
	06/18/10	102.12	12.66	89.46	BDL	BDL	2.77	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	286	122	80.5	NA	NA	NA
	10/05/10	102.12	13.34	88.78	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	92	97	BDL	NA	NA	NA
	04/06/11	102.12	11.53	90.59	BDL	7.54	21.7	78	35.2	113.2	4.12	13	NA	NA	NA	NA	460	83.8	494	NA	NA	NA
	10/14/11	102.12	12.20	89.92	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	145	103	BDL	NA	NA	NA
03/27/12	102.12	12.50	89.62	BDL	BDL	6.86	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	321	176	82.3	NA	NA	NA	
07/16/12	102.12	12.62	89.50	BDL	BDL	5.71	BDL	BDL	BDL	BDL	BDL	4.11	NA	NA	NA	NA	253	265	286	NA	NA	NA
04/22/13	102.12	12.11	90.01	<2.00	<2.00	5.80	2.58	2.00	4.58	<3.00	<4.00	NA	NA	NA	NA	NA	305	205	100	NA	NA	NA
*MW-3	10/24/00	NM	13.20	---	1,900	23,000	4,500	17,000	7,200	24,200	BDL	830	170	140	1.1	1.4	30,000.0	21,000.0	17,000.0	1,500.0	BDL	630
*MW-4	10/24/00	NM	13.34	---	1,900	41,000	6,200	25,000	12,000	32,000	3,500	1,100	280	170	1.7	1.3	47,000	29,000	18,000	1,300	BDL	800
(GW-2, GW-3)	04/01/05	100.52	10.43	---	BDL	1,950	4,480	17,500	7,640	25,140	BDL	1,090	379	108	BDL	BDL	22,400	5,830	16,200	4,200	BDL	400
	12/19/06	100.52	11.58	---	BDL	103	1,430	6,200	1,830	8,030	BDL	594	275	106	BDL	BDL	2,440	5,450	10,700	BDL	BDL	277
	08/10/07	100.52	12.28	88.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	03/04/08	100.52	10.50	90.02	BDL	BDL	1,750	7,790	2,180	9,970	BDL	854	NA	NA	NA	NA	BDL	6,590	13,800	NA	NA	NA
	07/03/08	100.52	12.06	88.46	BDL	BDL	1,280	5,580	1,470	7,050	BDL	BDL	NA	NA	NA	NA	BDL	BDL	11,700	NA	NA	NA
	12/15/08	100.52	11.05	89.47	BDL	BDL	1,050	4,900	1,000	5,900	BDL	809	NA	NA	NA	NA	BDL	6,700	13,600	NA	NA	NA
	03/31/09	100.52	11.22	89.30	BDL	BDL	761	3,890	484	4,374	BDL	679	NA	NA	NA	NA	BDL	5,360	15,300	NA	NA	NA
	06/08/09	100.52	11.93	88.59	BDL	BDL	758	3,760	609	4,369	BDL	629	NA	NA	NA	NA	BDL	7,760	13,100	NA	NA	NA
	09/03/09	100.52	11.94	88.58	BDL	BDL	1,020	5,130	1,010	6,140	BDL	869	NA	NA	NA	NA	BDL	BDL	16,100	NA	NA	NA
	01/15/10	100.52	11.66	88.86	BDL	BDL	720	3,590	643	4,233	BDL	554	NA	NA	NA	NA	BDL	BDL	15,400	NA	NA	NA
	03/18/10	100.52	8.16	92.36	BDL	BDL	483	2,590	271	2,861	BDL	631	NA	NA	NA	NA	BDL	7,330	14,200	NA	NA	NA
	06/18/10	100.52	11.91	88.61	BDL	BDL	764	3,850	532	4,382	BDL	615	NA	NA	NA	NA	2,580	4,870	19,000	NA	NA	NA
	10/05/10	100.52	12.85	87.67	BDL	BDL	416	2,050	310	2,360	BDL	305	NA	NA	NA	NA	1,910	4,560	11,400	NA	NA	NA
	04/06/11	100.52	10.80	89.72	BDL	BDL	427	2,490	246	2,736	BDL	620	NA	NA	NA	NA	BDL	BDL	16,800	NA	NA	NA
	10/14/11	100.52	11.44	89.08	BDL	BDL	359	1,790	120	1,910	BDL	487	NA	NA	NA	NA	BDL	7,750	11,800	NA	NA	NA
	03/27/12	100.52	11.97	88.55	BDL	BDL	444	2,260	143	2,403	BDL	450	NA	NA	NA	NA	2,020	16,100	17,100	NA	NA	NA
	07/16/12	100.52	12.00	88.52	BDL	BDL	534	2,630	242	2,872	BDL	614	NA	NA	NA	NA	4,640	18,300	21,800	NA	NA	NA
04/22/13	100.52	11.49	89.03	<2.500	<2.500	317	1,450	150	1,600	<150	390	NA	NA	NA	NA	<2.500	13,000	12,400	NA	NA	NA	
B101-MW (GW-3)	04/01/05	100.00	9.99	90.01	BDL	7.2	58.5	212	12.3	224.3	BDL	92.4	44.5	96.3	BDL	BDL	1,110	1,110	4,230	300	BDL	600
	12/19/06	100.00	11.15	88.85	BDL	BDL	4.42	BDL	BDL	BDL	BDL	BDL	6.18	11.3	0.572	BDL	683	247	725	BDL	BDL	194
	08/10/07	100.00	11.83	88.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/07	100.00	11.72	88.28	BDL	BDL	BDL	22.3	BDL	22.3	BDL	BDL	NA	NA	NA	NA	1,680	562	2,230	NA	NA	NA
	03/04/08	100.00	10.07	89.93	BDL	BDL	5.31	6.29	BDL	6.29	4.45	12.1	NA	NA	NA	NA	679	215	1,150	NA	NA	NA
	07/03/08	100.00	11.60	88.40	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	796	BDL	994	NA	NA	NA
	12/15/08	100.00	10.58	89.42	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	504	190	406	NA	NA	NA
	03/31/09	100.00	10.78	89.22	BDL	BDL	3.19	3.76	BDL	3.76	BDL	BDL	NA	NA	NA	NA	834	258	805	NA	NA	NA
	06/08/09	100.00	11.52	88.48	BDL	BDL	2.4	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	367	262	591	NA	NA	NA
	09/03/09	100.00	11.52	88.48	BDL	BDL	2.05	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	692	186	461	NA	NA	NA
	01/15/10	100.00	11.26	88.74	BDL	BDL	BDL	2.46	BDL	2.46	BDL	BDL	NA	NA	NA	NA	616	60.8	490	NA	NA	NA
	03/18/10	100.00	7.78	92.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	122	85.0	BDL	NA	NA	NA
	06/18/10	100.00	11.39	88.61	BDL	BDL	2.33	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	374	221				

TABLE 1 - GROUND WATER ANALYTICAL RESULTS

Bossi Realty Trust
12 Swanton Street
Winchester, MA
RTN 3-18598

Sample ID	Sampling Date	PVC Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m-p-Xylene (ug/L)	o-Xylene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Naphthalene (by VPH) (ug/L)	Naphthalene (by EPH) (ug/L)	2-Methylnaphthalene (ug/L)	Phenanthrene	Fluorene	C ₂ -C ₄ Aliphatics (ug/L)	C ₅ -C ₇ Aliphatics (ug/L)	C ₈ -C ₁₀ Aromatics (ug/L)	C ₁₁ -C ₁₄ Aliphatics (ug/L)	C ₁₅ -C ₁₈ Aliphatics (ug/L)	C ₁₉ -C ₂₂ Aromatics (ug/L)		
GW-1 Standard	---	---	---	---	5	1,000	700	NS	NS	10,000	70	140	140	10	40	30	300	700	200	700	14,000	200		
GW-2 Standard	---	---	---	---	2,000	50,000	20,000	NS	NS	9,000	50,000	1,000	1,000	2,000	NA	NA	3,000	5,000	7,000	5,000	NS	50,000		
GW-3 Standard	---	---	---	---	10,000	40,000	5,000	NS	NS	5,000	50,000	20,000	20,000	20,000	10,000	40	50,000	50,000	50,000	50,000	50,000	5,000		
UCLs	---	---	---	---	100,000	100,000	100,000	NS	NS	100,000	100,000	100,000	100,000	100,000	100,000	400	100,000	100,000	100,000	100,000	100,000	100,000		
B102B-MW (GW-2, GW-3)	04/01/05	100.97	11.35	89.62	230	1,600	680	2,560	1,910	4,470	87.4	368	114	30.6	BDL	BDL	4,620	2,250	6,910	400	BDL	500		
	12/19/06		11.83	89.14	No Sample Collected																			
	08/10/07	100.96	Monitoring Well Dry During Sampling Event																					
	03/04/08		11.44	89.52	111	471	112	409	245	654	16.1	BDL	NA	NA	NA	NA	606	337	368	NA	NA	NA		
	07/03/08		Monitoring Well Dry During Sampling Event																					
	12/15/08		Monitoring Well Dry During Sampling Event																					
	03/31/09		Monitoring Well Dry During Sampling Event																					
	06/08/09		Monitoring Well Dry During Sampling Event																					
	09/03/09		Monitoring Well Dry During Sampling Event																					
	01/15/10		Monitoring Well Dry During Sampling Event																					
	03/18/10		9.26	91.70	10.6	45.0	6.17	37.2	35.5	72.7	BDL	BDL	NA	NA	NA	NA	53.9	67.9	BDL	NA	NA	NA		
	06/18/10		Monitoring Well Dry During Sampling Event																					
	10/05/10		Monitoring Well Dry During Sampling Event																					
	04/06/11		Monitoring Well Dry During Sampling Event																					
10/14/11		Monitoring Well Dry During Sampling Event																						
03/27/12		Monitoring Well Dry During Sampling Event																						
B103-MW (GW-2, GW-3)	04/01/05	101.04	10.39	90.65	168	4,560	1,790	6,090	2,480	8,570	BDL	392	165	105	BDL	BDL	17,400	2,560	8,950	2,400	BDL	600		
	12/19/06		11.72	89.32	68.6	2,570	1,330	3,760	1,410	5,170	BDL	253	189	48.5	BDL	BDL	4,940	2,950	3,920	BDL	BDL	191		
	08/10/07	101.04	12.42	88.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90	NA	NA	NA		
	12/31/07		12.53	88.51	BDL	797	1,030	2,310	630	2,940	BDL	261	NA	NA	NA	NA	3,930	1,940	4,140	NA	NA	NA		
	03/04/08		10.64	90.40	BDL	476	764	2,580	585	3,165	BDL	303	NA	NA	NA	NA	4,390	2,360	4,320	NA	NA	NA		
	07/03/08		12.21	88.83	BDL	435	1,090	2,130	424	2,554	BDL	208	NA	NA	NA	NA	3,220	1,620	3,240	NA	NA	NA		
	12/15/08		11.43	89.61	BDL	310	833	1,280	339	1,619	BDL	BDL	NA	NA	NA	NA	2,550	2,040	2,540	NA	NA	NA		
	03/31/09		11.36	89.68	BDL	308	1,090	2,130	394	2,524	BDL	226	NA	NA	NA	NA	2,030	1,760	2,970	NA	NA	NA		
	06/08/09		12.04	89.00	12.4	272	890	1,120	220	1,340	BDL	211	NA	NA	NA	NA	884	2,120	2,550	NA	NA	NA		
	09/03/09		12.13	88.91	BDL	194	1,050	819	157	976	BDL	258	NA	NA	NA	NA	BDL	BDL	3,660	NA	NA	NA		
	01/15/10		11.84	89.20	BDL	120	900	896	188	1,084	BDL	255	NA	NA	NA	NA	1,610	1,690	2,860	NA	NA	NA		
	03/18/10		7.85	93.19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	BDL	BDL	BDL	NA	NA	NA		
	06/18/10		12.06	88.98	BDL	145	1,040	2,150	634	2,784	BDL	207	NA	NA	NA	NA	4,320	6,110	3,780	NA	NA	NA		
	10/05/10		12.80	88.22	BDL	261	764	1,650	379	2,029	BDL	147	NA	NA	NA	NA	2,980	1,720	2,570	NA	NA	NA		
	04/06/11		11.00	90.04	BDL	122	1,120	1,280	657	1,937	BDL	270	NA	NA	NA	NA	4,940	BDL	5,720	NA	NA	NA		
	10/14/11		11.59	89.45	BDL	123	1,050	2,070	366	1,416	BDL	227	NA	NA	NA	NA	2,250	3,940	2,560	NA	NA	NA		
	03/27/12		13.09	87.95	BDL	171	884	1,210	377	1,587	BDL	189	NA	NA	NA	NA	2,460	5,550	3,350	NA	NA	NA		
	07/16/12		12.10	88.94	13.1	149	706	779	276	855	21.7	144	NA	NA	NA	NA	2,280	3,630	2,330	NA	NA	NA		
	04/22/13		11.55	89.49	<2.00	60.5	733	940	139	1,079	16.8	176	NA	NA	NA	NA	2,770	4,740	2,800	NA	NA	NA		
B104-MW (GW-2, GW-3)	04/01/05	101.68	10.77	90.91	36.8	338	843	2,080	780	2,860	38.6	181	88.1	48.3	BDL	BDL	8,890	1,520	3,750	400	BDL	400		
	12/19/06		12.18	89.50	BDL	43.2	329	875	285	1,160	BDL	BDL	71.1	39.3	BDL	0.464	1,690	777	1,830	BDL	BDL	157		
	08/10/07	101.68	12.90	88.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	12/31/07		12.96	88.72	BDL	134	496	1,300	306	1,606	BDL	107	NA	NA	NA	NA	2,780	1,070	2,460	NA	NA	NA		
	03/04/08		11.08	90.60	BDL	291	618	1,320	368	1,688	BDL	157	NA	NA	NA	NA	2,330	1,310	2,800	NA	NA	NA		
	07/03/08		12.68	89.00	BDL	81.1	444	1,020	175	1,195	BDL	BDL	NA	NA	NA	NA	2,480	BDL	2,360	NA	NA	NA		
	12/15/08		11.91	89.77	BDL	78.0	418	1,060	205	1,265	BDL	BDL	NA	NA	NA	NA	2,210	1,520	2,120	NA	NA	NA		
	03/31/09		11.78	89.90	BDL	100	741	1,750	635	2,385	BDL	176	NA	NA	NA	NA	1,860	1,780	3,250	NA	NA	NA		
	06/08/09		12.48	89.20	BDL	84.5	434	938	191	1,129	BDL	109	NA	NA	NA	NA	619	1,420	2,060	NA	NA	NA		
	09/03/09		12.64	89.04	BDL	59.8	437	1,020	188	1,208	BDL	140	NA	NA	NA	NA	2,220	1,350	2,360	NA	NA	NA		
	01/15/10		12.34	89.34	BDL	59.7	370	922	196	1,118	BDL	BDL	NA	NA	NA	NA	595	BDL	2,330	NA	NA	NA		
	03/18/10		8.01	93.67	BDL	BDL	50.0	248	50.3	298.3	BDL	BDL	NA	NA	NA	NA	BDL	525	666	NA	NA	NA		
	06/18/10		12.55	89.13	BDL	216	698	1,510	264	1,774	BDL	131	NA	NA	NA	NA	2,950	950	2,940	NA	NA	NA		
	10/05/10		12.94	88.74	BDL	880	528	1,330	314	1,644	BDL	104	NA	NA	NA	NA	1,740	926	2,360	NA	NA	NA		
	04/06/11		11.48	90.20	BDL	468	785	1,990	517	2,507	BDL	233	NA	NA	NA	NA	3,660	554	3,790	NA	NA	NA		
	10/14/11		12.10	89.58	BDL	57.5	527	1,080	161	1,241	BDL	145	NA	NA	NA	NA	1,750	2,340	1,980	NA	NA	NA		
	03/27/12		12.43	89.25	BDL	372	630	1,570	307	1,877	BDL	141	NA	NA	NA	NA	3,070	5,230	2,990	NA	NA	NA		
	07/16/12		12.70	88.98	BDL	548	722	1,780	364	2,144	BDL	163	NA	NA	NA	NA	3,430	5,530	3,200	NA	NA	NA		
	04/22/13		12.03	89.65	<2.00	155	517	1,240	306	1,546	<30.0	117	NA	NA	NA	NA	2,130	4,550	2,430	NA	NA	NA		

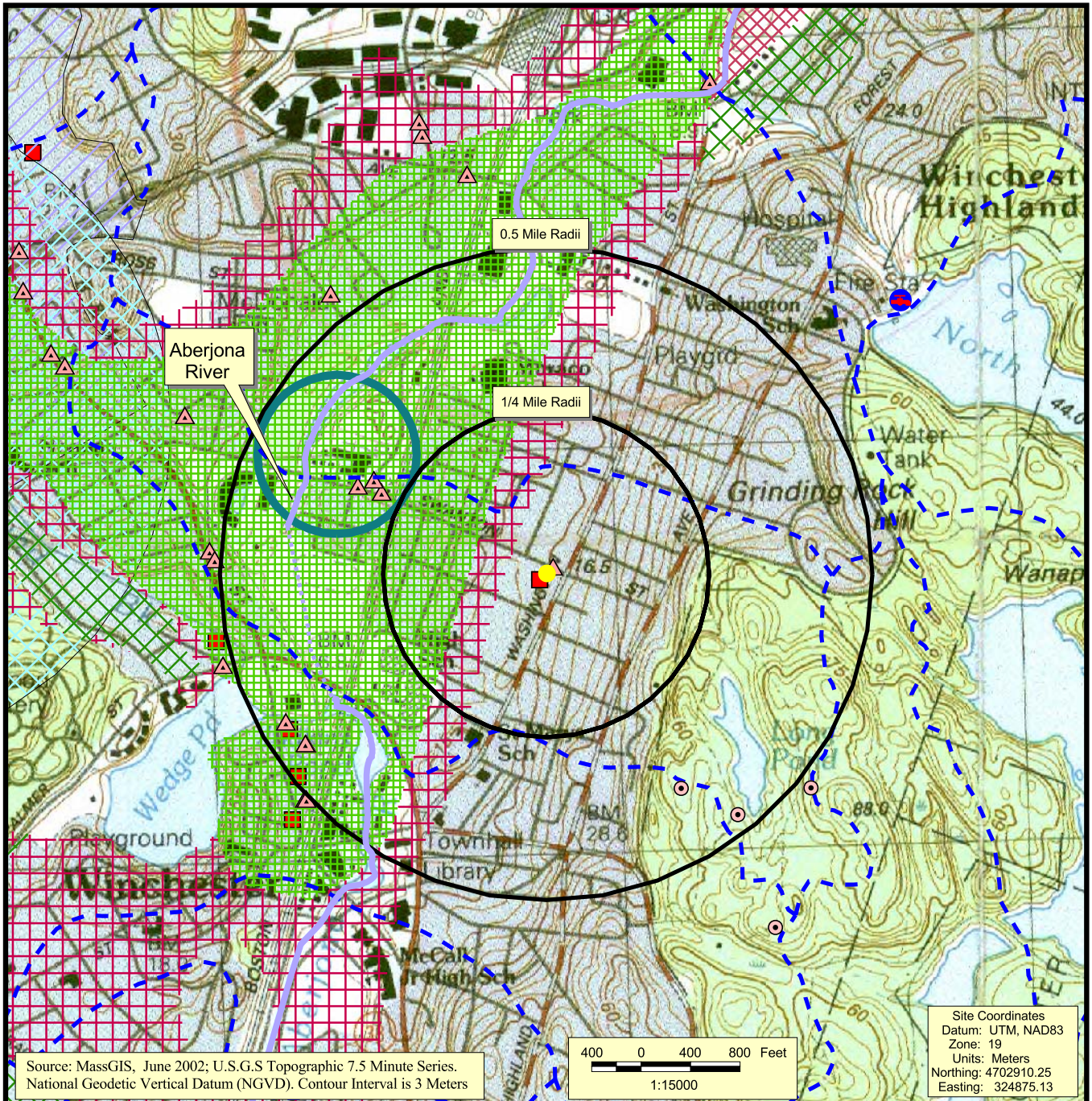
LEGEND
BDL Below Laboratory Detection Limits
NS No Standard Published
NM Not Measured
NR Not Reported
NA Not Analyzed
* Monitoring well installed by previous consultant
Bolded values indicate concentrations above site applicable standards.
Note: All concentrations and standards reported in ug/L.

TABLE 2 - MNA PARAMETERS
Bossi Realty Trust
12 Swanton Street
Winchester, MA
RTN 3-18598

Sample ID	Sampling Date	pH	Temperature (Celsius)	Dissolved Oxygen (mg/l)	Oxidation-Reduction Potential (mV)
MW-1	12/31/07	6.34	13.43	4.98	-128
	3/4/08	6.31	10.92	7.07	143
	7/3/08	4.75	15.12	0.23	27
	12/15/08	6.24	14.52	0.45	-168
	3/31/09	6.25	11.09	0.39	-7
	6/8/09	6.03	14.68	0.30	7
	9/3/09	5.23	18.53	0.40	-26
	1/15/10	6.35	13.42	0.62	-0.4
	3/18/10	5.96	11.97	0.15	11.1
	6/18/10	6.22	15.22	0.15	16.8
	4/6/11	6.35	11.26	0.30	11
	10/14/11	6.21	18.10	0.17	-33.9
	3/27/12	6.43	12.30	0.50	9.3
	7/16/12	5.87	17.21	0.14	20
4/23/13	6.36	11.31	5.30	8	
MW-4	3/4/08	6.01	11.45	0.20	-38
	7/3/08	5.43	15.53	0.17	-67
	12/15/08	6.18	14.67	0.31	-205
	3/31/09	6.26	10.79	0.15	-29
	6/8/09	6.03	14.30	0.19	-16
	9/3/09	4.92	18.00	0.37	-12
	1/15/10	6.30	13.16	0.51	-30
	3/18/10	5.87	11.66	0.17	0.0
	6/18/10	5.86	15.83	0.11	-41.1
	4/6/11	6.25	11.75	0.29	-36.6
	10/14/11	6.21	18.20	0.18	-92.6
	3/27/12	6.38	11.70	0.21	-27.4
	7/16/12	6.05	17.28	0.11	27
	4/23/13	6.33	11.20	8.50	-68.7
B101-MW	12/31/07	6.50	14.37	0.70	-166
	03/04/08	5.99	12.01	0.41	117
	07/03/08	5.26	15.40	0.16	-24
	12/15/08	6.30	14.84	0.34	-194
	03/31/09	6.16	11.12	0.48	33
	06/08/09	6.13	14.88	0.24	-49
	09/03/09	5.19	18.20	0.40	-23
	1/15/10	6.36	13.72	1.48	-24.9
	3/18/10	5.37	11.82	2.01	245.3
	6/18/10	6.22	15.10	0.17	22.7
	4/6/11	6.10	11.32	0.38	43.4
	10/14/11	6.30	18.30	0.18	-68.2
	3/27/12	6.35	11.80	0.34	-2.3
	7/16/12	6.17	16.35	0.16	-58
4/23/13	6.31	11.65	0.42	56.4	
B102B-MW	3/18/10	5.27	11.89	4.40	213.4
B103-MW	12/31/07	6.61	13.63	2.98	-93
	03/04/08	6.90	11.63	0.20	-68
	07/03/08	5.29	15.96	0.29	-57
	12/15/08	6.68	14.15	0.32	-274
	03/31/09	6.40	11.07	0.44	-41
	06/08/09	6.23	14.65	0.29	-66
	09/03/09	5.98	17.60	0.35	-56
	1/15/10	6.56	12.90	0.46	-55.9
	3/18/10	5.97	11.16	8.49	235.9
	6/18/10	5.83	16.01	0.15	-71.1
	4/6/11	6.53	11.61	0.17	-88.2
	10/14/11	6.52	17.80	0.17	-96.6
	3/27/12	6.60	11.70	0.18	-108.7
	7/16/12	6.28	17.96	0.12	-90
4/23/13	6.59	11.60	0.33	-99.3	
B104-MW	12/31/07	6.67	13.13	0.23	-215
	03/04/08	6.70	11.53	0.21	-112
	07/03/08	5.35	15.68	0.21	-92
	12/15/08	6.81	14.34	0.22	-306
	03/31/09	6.39	10.87	0.27	-87
	06/08/09	6.22	14.05	0.19	-80
	09/03/09	6.18	17.15	0.28	-72
	1/15/10	6.63	12.61	0.51	-81.5
	3/18/10	6.28	8.53	3.89	114.2
	6/18/10	6.50	15.19	0.08	-102.0
	4/6/11	6.46	11.30	0.23	-73.6
	10/14/11	6.65	18.00	0.23	-145.3
	3/27/12	6.68	11.60	0.19	-62.9
	7/16/12	6.43	16.92	0.08	-70.0
4/23/13	6.60	11.35	0.22	-127.7	

Notes:

Monitored Natural Attenuation parameters measured during ground water evacuation using a YSI 600XL multiparameter sonde equipped with a flowcell.

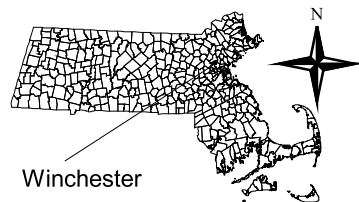


Legend

- 12 Swanton Street, Winchester, MA
- DEP Tier Classified Oil or Hazardous Material Sites
- ▲ DEP Underground Storage Tank
- ⊙ Certified Vernal Pools
- NHESP-Estimated Habitats for Rare Wildlife. ("NHESP 1999-2001 Estimated Habitats of Rare Wildlife: Use with Wetlands Protection Act")
- Solid Waste Facility

- DEP Approved Zone IIs
- Interim Wellhead Protection Area
- ACEC
- Public Water Supply Wells**
 - Community Groundwater Well
 - Community Surface Water Well
 - Proposed Well
 - Non Community Well

- Non-potential Drinking Water Source Area**
 - High Yield (>300 gpm)
 - Medium Yield (100-300 gpm)
 - Low Yield (<50 gpm)
- Potential Drinking Water Source Area**
 - High Yield (>300 gpm)
 - Medium Yield (100-300 gpm)
 - Low Yield (<50 gpm)
 - Protected Open Space
 - Major Basin/Subbasin



SITE LOCUS
 Bossi Realty Trust
 12 Swanton Street
 Winchester, MA
 RTN 3-18598

REM SERU
 Remediation & Environmental
 Management Services, Inc.
 35 Winthrop Street
 Winchester, MA 01890
 Phone: (781) 721-4455
 Fax: (781) 721-4456

July 2010

Figure 1

E:\MASS-GIS-DATA\Site-locus-maps\Bossi12swanton_sl.apr

Swanton Street

Landscaped Area

Landscaped Area

B101-MW
(88.61)

MW-4
(88.61)

Former
Waste Oil
UST

Former
Dispenser
Island

Former
Canopy

MW-1
(89.46)

B102

B102A

B102B-MW

B103-MW
(88.98)

B104-MW
(89.13)

Former USTs

MW-3
(destroyed)

Bossi's Auto Repair
12 Swanton Street

Former
Fuel Oil
UST

MW-2
(destroyed)

Landscaped Area

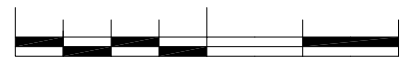
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LEGEND

- B101-MW (88.61) Monitoring Well (GW Elev. (ft.))
- B102 Soil Boring
- MW-1 (89.46) Monitoring Well (destroyed)

- Property Boundary
- Fence
- Guard Rail

89.00 ft. — — Ground Water Elevation Contour
June 18, 2010



Scale in Feet

SITE PLAN

Bossi Realty Trust
12 Swanton Street
Winchester, MA
RTN 3-18598

REM SERU
 REMEDIATION & ENVIRONMENTAL
 MANAGEMENT SERVICES, INC.
 35 WINTHROP STREET
 WINCHESTER, MASSACHUSETTS

Figure: 2
Project: 24124-1
Date: July 2010
Scale: 1" = 20'
Approved by: TPS
Designed by: JFD

APPENDIX I – LABORATORY ANALYTICAL DATA



ANALYTICAL REPORT

Lab Number:	L1307324
Client:	REMSERV 35 Winthrop Street Ext. Winchester, MA 01890
ATTN:	Thomas Simmons
Phone:	(781) 721-4455
Project Name:	BOSSI'S
Project Number:	24124-1
Report Date:	04/30/13

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1307324-01	B101-MW	WINCHESTER, MA	04/23/13 14:12
L1307324-02	B103-MW	WINCHESTER, MA	04/23/13 16:11
L1307324-03	B104-MW	WINCHESTER, MA	04/23/13 15:46
L1307324-04	MW-1	WINCHESTER, MA	04/23/13 14:54
L1307324-05	MW-4	WINCHESTER, MA	04/23/13 16:42

Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

Case Narrative (continued)

MCP Related Narratives

Sample Receipt

The samples were received at the laboratory above the required temperature range. The samples were hand-delivered to the laboratory in a cooler but were not on ice.

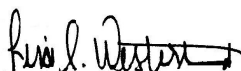
VPH

In reference to question G:

L1307324-02, -03, and -05: One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 04/30/13

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

SAMPLE RESULTS

Lab ID: L1307324-01
 Client ID: B101-MW
 Sample Location: WINCHESTER, MA
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 04/26/13 18:22
 Analyst: GT

Date Collected: 04/23/13 14:12
 Date Received: 04/24/13
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Petroleum Hydrocarbons - Westborough Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
C5-C8 Aliphatics	373		ug/l	50.0	--	1
C9-C12 Aliphatics	753		ug/l	50.0	--	1
C9-C10 Aromatics	384		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	373		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	367		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	2.12		ug/l	2.00	--	1
p/m-Xylene	ND		ug/l	2.00	--	1
o-Xylene	ND		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	118		70-130
2,5-Dibromotoluene-FID	128		70-130

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

SAMPLE RESULTS

Lab ID: L1307324-02 D
 Client ID: B103-MW
 Sample Location: WINCHESTER, MA
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 04/26/13 19:40
 Analyst: GT

Date Collected: 04/23/13 16:11
 Date Received: 04/24/13
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Petroleum Hydrocarbons - Westborough Lab

C5-C8 Aliphatics	2850		ug/l	250	--	5
C9-C12 Aliphatics	9360		ug/l	250	--	5
C9-C10 Aromatics	2800		ug/l	250	--	5
C5-C8 Aliphatics, Adjusted	2770		ug/l	250	--	5
C9-C12 Aliphatics, Adjusted	4740		ug/l	250	--	5
Benzene	ND		ug/l	10.0	--	5
Toluene	60.5		ug/l	10.0	--	5
Ethylbenzene	733		ug/l	10.0	--	5
p/m-Xylene	940		ug/l	10.0	--	5
o-Xylene	139		ug/l	10.0	--	5
Methyl tert butyl ether	16.8		ug/l	15.0	--	5
Naphthalene	176		ug/l	20.0	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	118		70-130
2,5-Dibromotoluene-FID	129		70-130

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

SAMPLE RESULTS

Lab ID: L1307324-03 D
 Client ID: B104-MW
 Sample Location: WINCHESTER, MA
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 04/27/13 08:03
 Analyst: GT

Date Collected: 04/23/13 15:46
 Date Received: 04/24/13
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	2280		ug/l	500	--	10
C9-C12 Aliphatics	9050		ug/l	500	--	10
C9-C10 Aromatics	2430		ug/l	500	--	10
C5-C8 Aliphatics, Adjusted	2130		ug/l	500	--	10
C9-C12 Aliphatics, Adjusted	4550		ug/l	500	--	10
Benzene	ND		ug/l	20.0	--	10
Toluene	155		ug/l	20.0	--	10
Ethylbenzene	517		ug/l	20.0	--	10
p/m-Xylene	1240		ug/l	20.0	--	10
o-Xylene	306		ug/l	20.0	--	10
Methyl tert butyl ether	ND		ug/l	30.0	--	10
Naphthalene	117		ug/l	40.0	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	112		70-130
2,5-Dibromotoluene-FID	122		70-130

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

SAMPLE RESULTS

Lab ID: L1307324-04
 Client ID: MW-1
 Sample Location: WINCHESTER, MA
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 04/26/13 19:01
 Analyst: GT

Date Collected: 04/23/13 14:54
 Date Received: 04/24/13
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	305		ug/l	50.0	--	1
C9-C12 Aliphatics	314		ug/l	50.0	--	1
C9-C10 Aromatics	100		ug/l	50.0	--	1
C5-C8 Aliphatics, Adjusted	305		ug/l	50.0	--	1
C9-C12 Aliphatics, Adjusted	205		ug/l	50.0	--	1
Benzene	ND		ug/l	2.00	--	1
Toluene	ND		ug/l	2.00	--	1
Ethylbenzene	5.80		ug/l	2.00	--	1
p/m-Xylene	2.58		ug/l	2.00	--	1
o-Xylene	2.00		ug/l	2.00	--	1
Methyl tert butyl ether	ND		ug/l	3.00	--	1
Naphthalene	ND		ug/l	4.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	104		70-130
2,5-Dibromotoluene-FID	115		70-130

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

SAMPLE RESULTS

Lab ID: L1307324-05 D
 Client ID: MW-4
 Sample Location: WINCHESTER, MA
 Matrix: Water
 Analytical Method: 100, VPH-04-1.1
 Analytical Date: 04/27/13 08:42
 Analyst: GT

Date Collected: 04/23/13 16:42
 Date Received: 04/24/13
 Field Prep: Not Specified

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Petroleum Hydrocarbons - Westborough Lab						
C5-C8 Aliphatics	ND		ug/l	2500	--	50
C9-C12 Aliphatics	27400		ug/l	2500	--	50
C9-C10 Aromatics	12400		ug/l	2500	--	50
C5-C8 Aliphatics, Adjusted	ND		ug/l	2500	--	50
C9-C12 Aliphatics, Adjusted	13000		ug/l	2500	--	50
Benzene	ND		ug/l	100	--	50
Toluene	ND		ug/l	100	--	50
Ethylbenzene	317		ug/l	100	--	50
p/m-Xylene	1450		ug/l	100	--	50
o-Xylene	150		ug/l	100	--	50
Methyl tert butyl ether	ND		ug/l	150	--	50
Naphthalene	390		ug/l	200	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	105		70-130
2,5-Dibromotoluene-FID	119		70-130

Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 100, VPH-04-1.1
Analytical Date: 04/26/13 12:37
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-05 Batch: WG604263-3					
C5-C8 Aliphatics	ND		ug/l	50.0	--
C9-C12 Aliphatics	ND		ug/l	50.0	--
C9-C10 Aromatics	ND		ug/l	50.0	--
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	--
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	--
Benzene	ND		ug/l	2.00	--
Toluene	ND		ug/l	2.00	--
Ethylbenzene	ND		ug/l	2.00	--
p/m-Xylene	ND		ug/l	2.00	--
o-Xylene	ND		ug/l	2.00	--
Methyl tert butyl ether	ND		ug/l	3.00	--
Naphthalene	ND		ug/l	4.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	96		70-130
2,5-Dibromotoluene-FID	107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOSSI'S

Project Number: 24124-1

Lab Number: L1307324

Report Date: 04/30/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-05 Batch: WG604263-1 WG604263-2								
C5-C8 Aliphatics	94		86		70-130	9		25
C9-C12 Aliphatics	91		78		70-130	15		25
C9-C10 Aromatics	91		83		70-130	9		25
Benzene	91		82		70-130	11		25
Toluene	91		83		70-130	10		25
Ethylbenzene	90		82		70-130	9		25
p/m-Xylene	91		83		70-130	9		25
o-Xylene	90		82		70-130	9		25
Methyl tert butyl ether	98		86		70-130	12		25
Naphthalene	99		78		70-130	23		25
1,2,4-Trimethylbenzene	91		83		70-130	9		25
Pentane	94		87		70-130	8		25
2-Methylpentane	96		87		70-130	9		25
2,2,4-Trimethylpentane	94		85		70-130	10		25
n-Nonane	93		80		30-130	15		25
n-Decane	81		72		70-130	12		25
n-Butylcyclohexane	93		80		70-130	14		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOSSI'S

Project Number: 24124-1

Lab Number: L1307324

Report Date: 04/30/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-05 Batch: WG604263-1 WG604263-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	85		74		70-130
2,5-Dibromotoluene-FID	92		82		70-130

Project Name: BOSSI'S

Lab Number: L1307324

Project Number: 24124-1

Report Date: 04/30/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1307324-01A	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-01B	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-02A	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-02B	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-03A	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-03B	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-04A	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-04B	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-05A	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)
L1307324-05B	Vial HCl preserved	A	N/A	12.9	Y	Absent	VPH-DELUX-10(14)

*Values in parentheses indicate holding time in days

Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: Data Usability Report



Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

Data Qualifiers

due to obvious interference.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: BOSSI'S
Project Number: 24124-1

Lab Number: L1307324
Report Date: 04/30/13

REFERENCES

- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised December 19, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 6010C, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8330, 8151A, 8260B, 8260C, 8270C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9030B, 9040B, 9045C, 6010B, 6010C, 6020, 6020A, 7471A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8270D, 8330, 8151A, 8081A, 8081B, 8082, 8082A, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; Colilert QT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. *Organic Parameters:* SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. *Organic Parameters:* EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010C, 9030B. *Organic Parameters:* EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012B, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. *Organic Parameters:* EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C,

3546, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. **Organic Parameters:** 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (**Inorganic Parameters:** Chloride EPA 300.0. **Organic Parameters:** 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. NELAP Accredited.

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. **Organic Parameters:** EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. **Organic Parameters:** EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. **Organic Parameters:** 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NJ-DEP.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. **Organic Parameters:** EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500NO3-F, 5310C. **Organic Parameters:** EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. **Organic Parameters:** EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. **Organic Parameters:** EPA 5030B, 5035, 3540C, 3546, 355B0, 3580A, 3630C, 6020A, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. **Organic Parameters:** EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. **Organic Parameters:** EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd In Lab: 4/24/13

ALPHA Job #: L1307324

Client Information

Client: REMSEY INC
Address: 35 WINTHROP ST
WINCHESTER MA
Phone: 781 721 4455
Email: REMSEY@REMSEY.COM

Project Information

Project Name: BOSSI'S
Project Location: WINCHESTER, MA
Project #: 24124-1
Project Manager: T SIMMONS
ALPHA Quote #:

Report Information - Data Deliverables

PEX EMAIL

Billing Information

Same as Client info PO #:

Additional Project Information:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)
Date Due: 5/1/13

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program MCP Criteria GW-1

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS	VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 824.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PPT3	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input checked="" type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	TOTAL # BOTTLES
		Date	Time													
<u>07324-01</u>	<u>B101-MW</u>	<u>4/23/13</u>	<u>1412</u>	<u>GW</u>	<u>APM</u>							<u>+</u>				<u>2</u>
<u>02</u>	<u>B103-MW</u>	<u>4/23/13</u>	<u>1011</u>	<u>GW</u>	<u>APM</u>							<u>+</u>				<u>2</u>
<u>03</u>	<u>B104-MW</u>	<u>4/23/13</u>	<u>1546</u>	<u>GW</u>	<u>APM</u>							<u>+</u>				<u>2</u>
<u>04</u>	<u>MW-1</u>	<u>4/23/13</u>	<u>1454</u>	<u>GW</u>	<u>APM</u>							<u>+</u>				<u>2</u>
<u>05</u>	<u>MW-4</u>	<u>4/23/13</u>	<u>1642</u>	<u>GW</u>	<u>APM</u>							<u>+</u>				<u>2</u>

Container Type Preservative
P= Plastic A= None
A= Amber glass B= HCl
V= Vial C= HNO₃
G= Glass D= H₂SO₄
B= Bacteria cup E= NaOH
C= Cube F= MeOH
O= Other G= NaHSO₄
E= Encore H= Na₂S₂O₈
D= BOD Bottle I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type V
Preservative B

Relinquished By: [Signature] Date/Time: 4/24/13 10:45
Received By: [Signature] Date/Time: 4/24/13

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO. 01-01 (rev. 12-Mar-2012)