Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives

Walpole Park South

Walpole, Massachusetts

RTN 4-3021915

Submitted to: Massachusetts Department of Environmental Protection

July 26, 2006

Massachusetts Department of Environmental Protection Southeast Regional Office Bureau of Waste Site Cleanup 20 Riverside Drive Lakeville, MA 02347

Re: Phase III Identification, Evaluation and Selection of Comprehensive Remedial

Action Alternatives
Walpole Park South
Walpole, Massachusetts
RTN 4-3021915

Dear Sir/Madam:

On behalf of Walpole Park South, Rizzo Associates, Inc. has prepared this Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives for Release Tracking Number 4-3021915 pursuant to 310 CMR 40.0850. The findings of this report were used to develop a Remedial Action Plan for the Site. This report is subject to the Statement of Limitations and Conditions in Appendix A. The original Massachusetts Department of Environmental Protection BWSC-108 transmittal form is attached to this report, and a copy of the form is in Appendix B.

Please contact us if you have any questions regarding this submittal.

Very truly yours,

Raymond C. Johnson, P.G., L.S.P. Senior Vice President

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#### 1.0 Introduction

This Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives (Phase III) report for Release Tracking Number (RTN) 4-3021915 is being submitted to the Massachusetts Department of Environmental Protection (DEP) pursuant to the Massachusetts Contingency Plan (MCP) 310 CMR 40.0850. The RTN has been revised to reflect the reassignment of Disposal Sites in the Town of Walpole from the DEP Northeast Regional Office to the Southeast Regional Office, effective May 1, 2006. The purpose of the Phase III is to review alternative methods for groundwater and soil treatment, and to evaluate whether there are one or more financially and technically feasible remedial alternatives that can be implemented to reduce risk at the Site to a level where a Temporary or Permanent Solution can be achieved. A Phase I – Initial Site Investigation Report and Tier IB Classification were submitted to DEP in June 2004 by GeoHydroCycle, Inc. (GHC), and a Tier IB Permit was issued by DEP on July 26, 2004.

The Site was designated as a Public Involvement Plan (PIP) site after receipt of a petition signed by sixteen residents of the Town of Walpole, initially submitted to the Department of Environmental Protection (DEP), and subsequently forwarded by the DEP to Walpole Park South. A Draft PIP was presented during a public meeting held at Walpole Town Hall on February 16, 2005. Based on comments raised during that meeting and the public comment period, a final PIP was issued on April 6, 2005. Opportunities for public input will continue in accordance with the provisions of the PIP. Additional Phase II field investigations, including the installation of additional soil borings and groundwater monitoring wells, and the collection and analysis of soil and groundwater samples, have been implemented since mid-2005. The details of the additional testing and the results of supplemental soil and groundwater testing are summarized in a Phase II – Comprehensive Site Assessment report being submitted concurrently with this report.

#### 1.1 Site Description

The Site encompasses approximately 54 acres of land located at the intersection of US Route 1 and Pine Street in Walpole, Massachusetts as shown on Figure 1. The Site is divided into eight lots, seven of which contain buildings occupied by office and warehouse space that are leased to commercial and/or light industrial businesses. The current configuration of the Site and the configuration of the individual building lots are depicted on Figure 2. An access road, Walpole Park South Drive, crosses the Site from Route 1 along the southeast boundary of Walpole Park South, to Pine Street on the southwest boundary of the property. The buildings, driveways and parking areas cover the majority of the Site. The remainder of the property consists of landscaped areas adjacent to the buildings, wooded land and unpaved open areas. Prior to construction of the existing buildings the Site was vacant land, portions of which were reportedly used as a gravel pit. Development of the Site and building construction commenced in 1986.

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The property is abutted to the north by vacant wooded land, to the west by single-family residences, to the south by Pine Street, across which are commercial properties including a truck repair and painting facility, and to the east by Route 1, across which are commercial and industrial properties.

#### 1.2 Responsibility for Conducting the Response Actions

The party implementing the response action is Walpole Park South. The contact information for Walpole Park South is as follows:

Mr. Donnell Murphy, Trustee Walpole Park South Post Office Box 123 Walpole, MA 02081-2552 508-668-1200

Walpole Park South has retained a Licensed Site Professional (LSP) to manage and oversee development and implementation of the PIP, and response actions performed to address the requirements of the MCP:

Mr. Raymond C. Johnson, P.G., L.S.P. Rizzo Associates, Inc. 1 Grant Street Framingham, MA 01701-9005 508-903-2356

# 2.0 Summary of Phase II Comprehensive Site Assessment

A Phase II Comprehensive Site Assessment report being submitted concurrently with this report documents assessment activities implemented at the Site to date, and the findings of a Method 2 risk characterization based on that data. The purpose of the Phase II investigation was to obtain data to characterize the nature and extent of releases of oil and/or hazardous materials (OHM) at the Site, quantify the risks posed by such releases, and assess the need to conduct further remedial actions at the Site. The information presented in the Phase II Comprehensive Site Assessment report is summarized below.

- Monitoring wells were initially installed at the Site in December 1986 to comply with requirements issued by the Walpole Board of Health (BOH) as a part of the approval to develop the property.
- Annual groundwater sampling was performed during the period from 1987 to 2003 as required by the BOH, and samples of surface water and/or sediment in eight storm water catch basins located in the southwest portion of the Site, upgradient from monitoring well MW-6, were also collected.

- In September 2000 two additional monitoring wells, designated MW-8 and MW-9, were
  installed in the southwest portion of the Site. Sampling of the catch basins and the
  installation and sampling of MW-8 and MW-9 were implemented as part of
  investigations relating to the detection of chloroform and bromodichloromethane in
  groundwater samples collected from MW-6 in 1999 and 2000.
- In April 2002 it was noted that the lead concentrations reported by the laboratory for groundwater samples collected from monitoring wells MW-3 and MW-6 were 0.059 milligrams per liter (mg/l) and 0.023 mg/l, respectively; concentrations which exceeded the then applicable MCP reportable concentration of 0.020 mg/l for groundwater classified as RCGW-1. To further evaluate this condition confirmatory groundwater sampling was performed in May 2002. The results of this sampling indicated lead concentrations in samples collected from MW-3 and MW-6 of 0.046 mg/l and 0.018 mg/l, respectively. Based on these sampling results it was concluded that the detected lead concentrations represented a 120-day notification condition under the MCP. Therefore, a RNF was prepared and received by the DEP on July 2, 2002. In response to the notification, DEP issued a Notice of Responsibility (NOR) on August 15, 2002 and assigned RTN 3-21915 to the reported release.
- Based on further review of the historic groundwater monitoring results, it was determined that additional compounds detected at concentrations exceeding then applicable RCGW-1 reportable concentrations had not been previously reported to DEP. These compounds included methylene chloride, total chromium, arsenic, tetrachloroethene (PCE), cadmium, and antimony. Of these compounds, only lead and antimony were detected in samples collected after October 1993, the effective date of the MCP revisions which established specific reportable concentrations for oil and hazardous materials. Methylene chloride is a commonly used laboratory solvent and was only detected once at a concentration exceeding its reportable concentration, in a sample collected from MW-4 in March 1987. PCE was only detected once at a level exceeding its reportable concentration, in the sample collected from MW-1 in March 1988. Cadmium was detected above its reportable concentration once, in the sample collected in March 1991 from MW-5D. Total chromium was detected at levels exceeding its reportable concentration three times, all samples collected from MW-3, most recently in March 1991. Arsenic has been identified in samples from MW-1, MW-3 and MW-5D, but has not been reported at levels exceeding the current RCGW-1 standard since March 1988.
- In January 2004, seven additional monitoring wells were installed by GHC (GHC-1 to GHC-7) to further characterize soil and groundwater conditions and to evaluate whether a source of the compounds detected in groundwater could be identified. Groundwater samples were collected from both new and existing wells in February and April 2004.
- In general, the annual groundwater sampling has shown that the presence of elevated levels of these compounds is sporadic and intermittent, as the detected compounds have

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not been present in all sampled monitoring wells, and compounds detected in specific wells have not been present in all of the samples collected from those wells. The results of the testing do not indicate a plume of impacted groundwater that can be clearly delineated, nor do they identify the source or sources of the detected compounds. The data do not suggest a correlation between the groundwater conditions at the Site and the activities of the tenants in the Site buildings.

- In an internal memorandum dated July 9, 2004, the DEP Drinking Water Program (DWP) found that "the groundwater contamination levels at the site are all low, compared to most waste sites," and "heavy metals have fairly low mobility in groundwater." DEP concluded "the site does not appear to pose a threat to the Walpole municipal wells, because of the low groundwater contamination levels and the distance from the site to the wells."
- To further characterize soil and groundwater conditions at the Site, and to better evaluate the source, nature and extent of impacts to soil and groundwater, a Phase II Comprehensive Site Assessment was implemented by Rizzo Associates. The Phase II Investigation included the installation of 7 soil borings and completion of 3 of the soil borings as groundwater monitoring wells; sampling and analysis of soil and groundwater from select soil borings and monitoring wells; surveying to determine the locations and relative elevations of each newly installed monitoring well casing; gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and hydraulic conductivity testing of three groundwater monitoring wells.
- For the 7 soil samples submitted for laboratory analysis as a part of the Phase II investigation, no VOCs or metals were reported at concentrations above the applicable MCP method 1 standards except for a reported beryllium concentration of 0.87 mg/kg in the RIZ-2 soil boring which exceeds the Method 1 S-1/GW-1, GW-2 and GW-3 standards of 0.7 mg/kg and the Method 1 S-2/GW-1, GW-2 and GW-3 standards of 0.8 mg/kg. Naturally occurring beryllium is often found in Massachusetts at concentrations similar to that found at RIZ-2. Based on the fact that this soil sample was collected from undisturbed native soil at a depth of 15 to 17 feet below the ground surface, and soil conditions elsewhere on the Site, it is believed that the beryllium is naturally occurring and not related to a release on the Site.
- For the 36 groundwater samples that were submitted for laboratory analysis over three sampling rounds performed as a part of this Phase II investigation, VOCs and/or dissolved metals concentrations greater than one or more of the applicable MCP Method 1 standards were reported in 9 wells. Compounds exceeding the MCP Method 1 standards included bromodichloromethane, chloroform, and lead; however, the detections of these compounds are distributed around the Site, and do not indicate a specific on-site source or sources, or a plume that can be readily delineated. The reported concentrations of dissolved metals have been inconsistent over the three sampling events, a pattern that

is consisted with that observed previously at the Site. Lead was identified at a concentration greater than the method detection limit in well MW-9 in only one of the four Phase II groundwater sampling events.

- Chloroform and/or bromodichloromethane were detected in three monitoring wells located on the southeast portion of the Site, near and downgradient from US Route 1. Although these compounds were previously detected on the Site they were identified in a monitoring well on the northwest property boundary, and were attributed to releases of disinfection by-products from a swimming pool on the abutting property. They have not been detected previously in wells near the southeast property boundary, and based on the well locations and direction of groundwater flow they do not appear to be related to onsite releases. Rather, they may be related to releases of chlorinated water in this area or to the use of roadway deicing compounds. Water Quality Reports for 2004 and 2005 issued by the Walpole Sewer & Water Department indicated that bromodichloromethane and chloroform are detected in samples collected from the municipal water system and state that these compounds are a "by-product of drinking water disinfection." This is a typical occurrence in this area of Massachusetts.
- Since concentrations of several compounds in groundwater exceed the MCP Method 1 GW-1 and GW-3 standards, and the Site is located within a Zone II for a public water supply, the risk characterization concluded that a condition of No Significant Risk to human health and the environment has not been achieved at this Site for groundwater.
- The only reported exceedence of a reportable concentration for soil is the beryllium detected in one sample collected in February 2006. Although exceeding the applicable Method 1 standard, this is likely a naturally occurring background condition.
- Based on the results of the risk characterization, further Comprehensive Response
  Actions are necessary to attempt to achieve a Temporary Solution or a condition of No
  Significant Risk and a Permanent Solution at the Site. An evaluation of comprehensive
  remedial actions is presented in this Phase III report.

# 3.0 Existing Site Conditions

In general, the investigations performed to date have evaluated the physical characteristics of the Site and identified the presence of metals in soil and groundwater, and several VOCs in groundwater. The metals are compounds that can be naturally occurring and are widely found in common products used on properties near the Site. The VOCs are primarily trihalomethanes, compounds that are disinfection by-products formed by a reaction between organic material in soil or groundwater and chlorinating or brominating compounds used for disinfection, including disinfection of drinking water. Available information also documents formation of these compounds in areas where roadway deicing chemicals are used. Below is a summary of the physical characteristics and environmental fate and transport characteristics that were considered while evaluating potential alternatives for remediation of the identified VOC contamination.

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#### 3.1 Physical Characteristics

Soil borings advanced at the Site have identified primarily medium to coarse sand and gravel with occasional layers of fine sand overlying bedrock at the Site. The depth to bedrock ranges from approximately 13 feet below the ground surface (bgs) in the southwest portion of the Site, to greater than 40 feet bgs on the northern and eastern portions of the Site.

The depth to groundwater at the Site has been measured at depths ranging from 5 to 18 feet below the ground surface. The direction of groundwater flow in overburden at the Site is generally to the east and northeast, toward School Meadow Brook.

#### 3.2 Environmental Fate and Transport

The metals that have been detected in groundwater at the Site, although they exceed the applicable MCP Method 1GW-1 standards, are present at relatively low concentrations and generally have limited mobility in groundwater. This fact is substantiated by the comments made by DEP in July 2004 as previously discussed in this document. The VOCs identified at the Site are more mobile than metals in the subsurface due to their solubility and volatility, but are expected to rapidly attenuate over a relatively short distance. Movement of dissolved phase VOCs is influenced by advective flow, although factors such as adsorption and dispersion can result in retardation such that VOCs migrate at a slower rate than the ambient groundwater velocity. Dense non-aqueous phase liquids (DNAPL) have not been observed at the Site, and the relatively low concentrations and specific compounds detected make the likelihood that DNAPL is present extremely low. Further, since these compounds are usually generated as disinfection by-products, or by reactions associated with roadway deicing compounds, they are by nature only present in the dissolved phase.

Based on the extensive subsurface testing completed to date, it does not appear that there is a specific on-site source of the identified compounds, nor is there a clearly definable plume.

# 4.0 Evaluation of Alternative Treatment Options

This section presents our Evaluation of Remedial Alternatives pursuant to the MCP 310 CMR 40.0850, which includes the identification, evaluation, and selection of comprehensive remedial action alternatives for the Site. As mentioned above, the Phase II Comprehensive Environmental Site Assessment identified sporadic and intermittent detection of metals and VOCs in groundwater at the Site at concentrations exceeding the applicable MCP Method 1 Risk Characterization Standards. Beryllium was detected in one soil sample at a concentration slightly above the applicable RCS-1 reportable concentration, in a sample of undisturbed native soil present at a depth of 15-17 feet below the ground surface. It is likely that the beryllium in that sample is naturally occurring, a condition that is often found in this part of Massachusetts.

This analysis has been prepared to review alternative methods for treatment of groundwater to evaluate whether there are one or more financially and technically feasible remedial alternatives

that can be implemented to reduce risk at the Site to a level where a Permanent Solution can be achieved.

In evaluating remedial alternatives, feasible technologies were considered based on their ability to address the conditions identified to date on the Site. The initial screening (Section 4.1) evaluated remedial alternatives based on their ability to target these contaminant characteristics. The detailed evaluation (Section 4.2) compared those remedial alternatives that were selected for further evaluation based on the initial screening.

#### 4.1 Initial Screening

An initial screening of groundwater remediation alternatives was conducted to identify feasible remedial action alternatives that may be capable of reducing or eliminating the detected compounds and their associated risk. The results of our initial screening are presented in Table 1, which provides site-specific reasons for selection or rejection of individual remedial alternatives for continued evaluation. The remedial alternatives selected for further evaluation are discussed and compared in Section 4.2.

**Table 1 Remedial Alternatives Initial Screening** 

Remediation Alternative	Selected for Evaluation	Comments
Groundwater Pump and	Yes	Pump and treat is a proven technology for removal of contaminants from the subsurface.
Treat		Pump and treat would be difficult to implement at the Site based on the size of the property, the volume of groundwater that would need to be withdrawn and treated, and the limited saturated thickness in some portions of the Site.
		<ul> <li>Pump and treat would not eliminate the potential for recontamination from off-site sources.</li> </ul>
		Since there is no definable plume or identified source on the Site, design and operation of the remedy would be complicated and expensive.
		The time necessary to achieve a Permanent Solution using conventional pump and treat technology is difficult to determine since it would be limited by the pumping rate, source(s) of contaminants, and concentration trends over time.
		<ul> <li>Groundwater pump and treat may be capable of achieving a Temporary or Permanent Solution at the Site.</li> </ul>
In-situ Chemical Oxidation	No	<ul> <li>In-situ chemical oxidation (ISCO) can would be of limited effectiveness for the detected VOCs and would not be effective for treatment of metals in groundwater.</li> </ul>
		ISCO would be unlikely to result in a Temporary or Permanent Solution at the Site.

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Remediation Alternative	Selected for Evaluation	Comments
		Since there is no definable plume or identified source on the Site, design and operation of the remedy would be complicated and expensive.
Permeable Reactive Barriers	No	A permeable reactive barrier (PRB) may be effective for treatment of some of the compounds detected in groundwater at the Site, but this remedy is typically used where there is a clearly definable plume of known extent.
		Considering the size of the property and the intermittent and sporadic presence of conditions that exceed GW-1 standards, implementation of this technology is neither financially or technically feasible for the Site.
		A PRB would be unlikely to result in a Temporary or Permanent Solution at the Site.
Bioremediation/ Bio-Barrier	on/ No	<ul> <li>Bioremediation involves the use of naturally-occurring or augmented bacteria to degrade contaminants.</li> </ul>
		The primary advantage of bioremediation compared to other remedial alternatives is the potential completeness of the degradation process, assuming suitable site conditions.
		<ul> <li>Creating the environment for bioremediation to succeed can be difficult, and bioremediation may be feasible for VOCs but would not be effective for metals treatment</li> </ul>
		As with the PRB option, considering the size of the property and nature and extent of impacts, implementation of this technology is neither financially or technically feasible for the Site.
		Bioremediation would be unlikely to result in a Temporary or Permanent Solution at the Site.
Electrical Resistance	No	This technology may be effective for VOCs but would not impact metals in groundwater.
Heating		The capital and initial operation cost for ERH would be very high (approximately \$1,000,000 or more).
		<ul> <li>Operation can be restarted or extended as needed if remedial goals have not been met.</li> </ul>
		<ul> <li>ERH would be unlikely to result in a Temporary or Permanent Solution at the Site.</li> </ul>

Remediation Alternative	Selected for Evaluation	Comments
Surfactant Flushing	No	Surfactant flushing in combination with groundwater pump and treat uses surfactants to reduce the interfacial tension and to decrease the capillary forces that keep residual product in place, resulting in an increase in the contaminant mass that is removed per unit of groundwater extracted.
		This method is used primarily for source area treatment where it is necessary to mobilize or expedite mobilization of residual source material that is retained in the soil. This condition does not appear to exist at the Site.
		This technology would not be feasible for implementation at the Site because of the size of the property and the sporadic and intermittent nature presence of the compounds of concern
		<ul> <li>Surfactant flushing would be unlikely to result in a Temporary or Permanent Solution at the Site.</li> </ul>
Air Sparging and Vapor Extraction	No	<ul> <li>Although an air sparging and vapor extraction system would likely be effective for removal of dissolved-phase VOCs, it would not be effective for metals.</li> </ul>
		Air sparging and vapor extraction would be unlikely to result in a Temporary or Permanent Solution at the Site.
Soil Excavation and Disposal/ Treatment	No	No specific source area has been identified, and the sporadic and intermittent nature of positive analytical results suggests that the detected compounds may be originating from releases at one or more off-site properties.
		<ul> <li>Soil excavation and disposal/treatment would be prohibitively expensive and impractical to implement considering the conditions at the Site, including the presence of structures, roadways and subsurface utilities.</li> </ul>
Monitored Natural	Yes	Monitored natural attenuation (MNA) is applicable to the conditions at the Site.
Attenuation		MNA was selected for further evaluation because there are limited feasible remedial methods and considering the sporadic and intermittent detection of COCs over time.

### 4.2 Detailed Evaluation of Selected Technologies

The two remedial alternatives that were selected for further evaluation were compared based on their benefits, limitations, costs, and ability to meet the requirements of the MCP, in accordance with 310 CMR 40.0858:

• The comparative effectiveness of the alternative in terms of achieving a Permanent Solution;

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- The comparative short-term and long-term reliability of the alternatives, including the degree of certainty that the alternative will be successful;
- The comparative difficulty in implementing each alternative in terms of technical complexity;
- The comparative costs of the alternatives;
- The comparative risks of the alternatives;
- The comparative benefits of the alternatives; and
- The comparative timeliness of the alternatives in terms of achieving a level of No Significant Risk as described in the MCP.

A summary and discussion of each of the feasible remedial alternatives is presented below.

#### 4.2.1 Groundwater Pump and Treat

Groundwater pump and treat is an established remedial technology that is effective for containing groundwater migration with limited effectiveness for source removal. A properly designed groundwater pump and treat system can contain contaminant plume migration and mitigate downgradient impacts. However, pump and treat would be of limited usefulness at the Site considering the intermittent and sporadic nature of positive analytical results. Implementation of a system that would result in full groundwater capture at the Site would require withdrawal and treatment of an extremely large volume of groundwater, and would be a very difficult and costly remedy. In addition, if contaminants are originating off-site, this alternative would need to continue in operation for an indeterminate period of time.

The capital cost to implement groundwater pump and treat to capture groundwater throughout the Site is very high, estimated to be in the range of \$500,000 to \$1,000,000, and would include the installation of up to ten groundwater extraction wells, a groundwater recharge gallery, and pumps, controls, piping, and a treatment structure. In addition, due to the likely long-term operational duration of a pump and treat system to achieve remedial goals, operation, maintenance and monitoring costs would be substantial, estimated to be in the range of at least \$50,000 to \$100,000 annually.

#### 4.2.2 Monitored Natural Attenuation

Monitored natural attenuation (MNA) is a remedial approach that is recognized by the DEP and US Environmental Protection Agency as appropriate for locations where contaminant concentrations are relatively low, plume extent is limited or difficult to delineate, or where other remedial actions are infeasible to implement. Considering the low concentrations of metals and VOCs at the Site, the sporadic and intermittent detection of metals or VOCs in groundwater at the Site, and the absence of a specific source or source area for the detected compounds, MNA is an appropriate remedial action for the Site at this time. Implementation of a regular program of groundwater monitoring and sampling will permit ongoing characterization and evaluation of

groundwater conditions, and will permit a determination of trends in concentrations over time. In the event that the MNA monitoring indicates increasing trends, results in delineation of a specific plume, or indicates one or more sources or source areas, a reevaluation of remedial actions can be made to evaluate whether one or more alternative remedial actions should be pursued.

The cost for MNA will depend on sampling frequency, the number of wells sampled during each event, and the selected analyses. Assuming four quarterly rounds of monitoring each year, twelve wells for each sampling round, and samples analyzed for metals and VOCs, the estimated annual cost for this alternative is approximately \$30,000 to \$40,000.

#### 5.0 Remedial Action Plan

In developing this remedial action plan, an initial screening and detailed evaluation of available remedial action alternatives were conducted. Remedial action alternatives that were evaluated during the detailed evaluation included groundwater pump and treat and monitored natural attenuation. Table 2 presents a summary and relative comparison of each of the remedial alternatives based upon the detailed evaluation criteria (310 CMR 40.0858).

**Table 2 Remedial Alternatives Detailed Evaluation Summary** 

Remediation Alternative	Effective	Reliability	Difficulty	Costs	Risks	Benefits	Timeline
Conventional Groundwater Pump and Treat	High (containme nt)	High	Moderate to high	High (capital) High (long term O&M)	Low to Moderate (potential to draw contaminati on to the Site from off-site source(s).	Moderate (on-site) Moderate (down- gradient)	Moderate to Long
Monitored Natural Attenuation	Moderate	High	Low	Low (capital)	Low	High (on- site)	Moderate to Long
				Low to Moderate (long term O&M)		Moderate (down- gradient)	

#### 5.1 Selection of Remedial Action Alternative

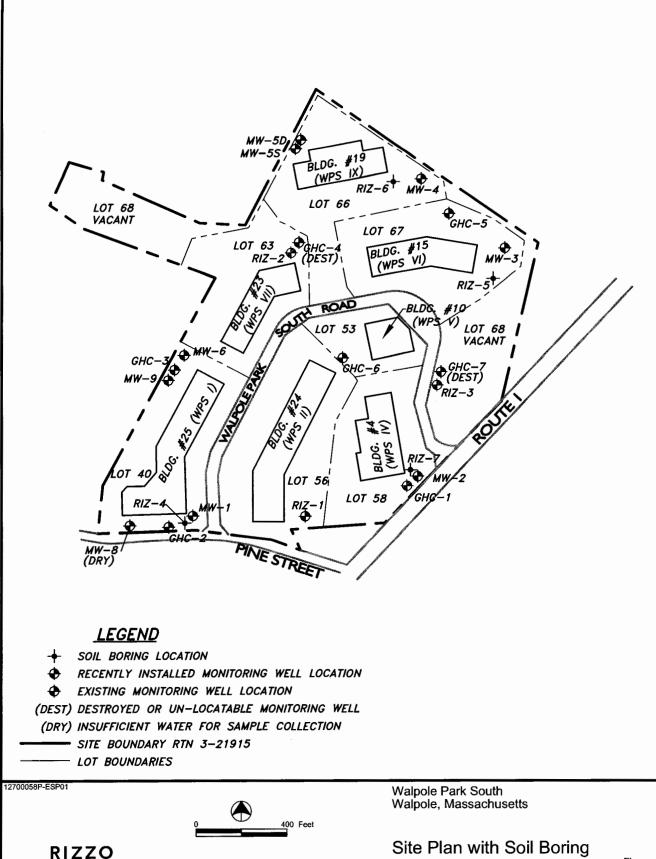
Based on the current understanding of Site conditions and an evaluation of the available remedial action alternatives, MNA was selected as the remedial action approach for the Site. This approach provides ongoing evaluation of groundwater conditions at a reasonable cost, and will allow for ongoing characterization of changes over time.

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Although MNA has been identified as the appropriate remedial action for the Site, as additional data on groundwater conditions is developed it may be determined that implementation of one or more other technologies should be considered. In that case, feasible remedial alternatives will be evaluated and a determination made of whether the approach should be modified or changed. If changes to the remedial program are determined to be applicable, supplemental Phase III and Phase IV reports will be prepared to discuss the selection (Phase III) and design (Phase IV) of the remedy or remedies.

#### 5.2 Implementation Schedule

In accordance with the MCP, the Phase IV RIP is due by July 26, 2007. However, it is anticipated that MNA monitoring will commence prior to that date, likely in September or October 2006, to expedite the ongoing monitoring process and develop additional data regarding conditions at the Site.



ASSOCIATES

A TETRA TECH COMPANY

Site Plan by GeoHydroCycle, Inc. Dated 5/14/04 Figure 2

and Monitoring Well

Locations

EST

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Appendix A
Statement of Limitations and Conditions

### **Appendix A: Limitations**

- 1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with the Terms and Conditions in our contract.
- 2. In preparing this report, Rizzo Associates has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Rizzo Associates at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, Rizzo Associates did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.
- 3. Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, Rizzo Associates renders no opinion as to the presence of hazardous materials or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the Site or structure. In addition, Rizzo Associates renders no opinion as to the presence of hazardous material or oil, or the presence of indirect evidence relating to hazardous material or oil, where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces.
- 4. Rizzo Associates did not perform testing or analyses to determine the presence or concentration of asbestos at the Site or in the environment at the Site.
- 5. It is ENGINEER's understanding that the purpose of this report is to assess the physical characteristics of the subject Site with respect to the presence on the Site of hazardous material or oil. This stated purpose has been a significant factor in determining the scope and level of services provided for in the Agreement. Should the purpose for which the Report is to be used or the proposed use of the site(s) change, this Report is no longer valid and use of this Report by CLIENT or others without ENGINEER's review and written authorization shall be at the user's sole risk. Should ENGINEER be required to review the Report after its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as agreed between ENGINEER and the CLIENT.
- 6. The conclusions and recommendations contained in this report are based in part, where noted, upon the data obtained from a limited number of soil samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
- 7. Any water level readings made in test pits, borings, and/or observation wells were made at the times and under the conditions stated on the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

- 8. Except as noted within the text of the report, no quantitative laboratory testing was performed as part of the site assessment. Where such analyses have been conducted by an outside laboratory, Rizzo Associates has relied upon the data provided and has not conducted an independent evaluation of the reliability of these data.
- 9. The conclusions and recommendations contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data may be preliminary screening level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed, and the conclusions and recommendations presented herein modified accordingly.
- 10. Chemical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the Site.
- 11. This Report was prepared for the exclusive use of the CLIENT. No other party is entitled to rely on the conclusions, observations, specifications, or data contained therein without the express written consent of ENGINEER.
- 12. The observations and conclusions described in this Report are based solely on the Scope of Services provided pursuant to the Agreement. ENGINEER has not performed any additional observations, investigations, studies, or testing not specifically stated therein. ENGINEER shall not be liable for the existence of any condition, the discovery of which required the performance of services not authorized under the Agreement.
- 13. The passage of time may result in significant changes in technology, economic conditions, or site variations that would render the Report inaccurate. Accordingly, neither the CLIENT, nor any other party, shall rely on the information or conclusions contained in this Report after six months from its date of submission without the express written consent of ENGINEER. Reliance on the Report after such period of time shall be at the user's sole risk. Should ENGINEER be required to review the Report after six months from its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between ENGINEER and the CLIENT.
- 14. ENGINEER has endeavored to perform its services based upon engineering practices accepted at the time they were performed. ENGINEER makes no other representations, express or implied, regarding the information, data, analysis, calculations, and conclusions contained herein.
- 15. The services provided by ENGINEER do not include legal advice. Legal counsel should be consulted regarding interpretation of applicable and relevant federal, state, and local statutes and regulations and other legal matters.

### **Statement of Limitations and Conditions**

# Attachment to Opinion of Massachusetts Licensed Site Professional

#### Rizzo Associates, Inc.

Name of Licensed Site Professional:	Raymond C. Johnson
LSP Registration Number:	6118
Date of Opinion:	July 26, 2006
Client to Whom Opinion was Rendered:	Walpole Park South
Date of Agreement between Rizzo Associates and Client pursuant to which Opinion was Rendered:	December 29, 2005
Response Tracking No./Site No.:	4-3021915

This Statement of Limitations and Conditions is an integral part of, and is incorporated by reference into, the Opinion of Massachusetts Licensed Site Professional referenced above.

#### Limitations

#### 1. Purpose of Opinion

- A. This Opinion is being provided in compliance with the requirements set forth in the Massachusetts Contingency Plan ("MCP"), 310 CMR 40.0000 et seq. Specifically, the LSP has prepared this Opinion at the request of the Client identified above as part of a Phase III Remedial Action Plan. This stated purpose has been a significant factor in determining the scope and level of services required to render this Opinion.
- B. Should the purpose for which this Opinion is to be used change, this Opinion shall no longer be valid.

#### 2. General

A. This Opinion was prepared for the sole and exclusive use of the Client, subject to the provisions of the MCP. No other party is

entitled to rely in any way on the conclusions, observations, specifications, or data contained herein without the express written consent of Rizzo Associates, Inc. and the LSP who rendered this opinion. Any use of this Opinion by anyone other than Client, or any use of this Opinion by Client or others for any purpose other than the stated purpose set forth above, without the LSP's review and the written authorization of Rizzo Associates, Inc. and the LSP, shall be at the user's sole risk, and neither Rizzo Associates, Inc. nor the LSP shall have any liability or responsibility therefor.

B. This Opinion was prepared pursuant to an Agreement between Rizzo Associates, Inc. and the Client referenced above which defines the scope of work and sets out agreements regarding waivers of consequential damages, limitations on liability, and other important conditions and restrictions pursuant to which the Opinion is rendered. All uses of the Opinion are subject to and deemed acceptance of the conditions and restrictions contained in such Agreement. A copy of the Agreement or relevant excerpts from the Agreement will be made available upon requests to any authorized person seeking to use the Opinion.

### 3. Scope of Services

The observations and conclusions described in this Opinion are based solely on the Services provided pursuant to the Agreement with the Client and any approved additional services authorized by Client. Without limitation of any other applicable limitations or conditions, neither Rizzo Associates, Inc. nor the LSP shall be liable for the existence of any condition, the discovery of which would have required the performance of services not authorized under the Agreement. To the best of the knowledge and belief of Rizzo Associates, Inc. and the LSP who signed this Opinion, no inquiry of an attorney-at-law having being made, no laws, regulations, orders, permits or approvals are applicable to the response actions to which this opinion relates except, if and to the extent applicable, M.G.L. c. 21A, Sections 19-19J, 309 CMR, M.G.L. c. 21 E and 310 CMR 40.0000. Accordingly, this opinion is not intended to and does not address compliance with any other laws, regulation, orders, permits or approvals.

#### 4. Changed Circumstances

The passage of time may result in changes in technology, economic conditions or regulatory standards, manifestations of latent conditions, or the occurrence of future events which would render this Opinion inaccurate or otherwise inapplicable. Neither Rizzo Associates, Inc. nor the LSP shall be liable or responsible for the consequences of any such changed circumstances or conditions on the accuracy of this Opinion. In addition, under no circumstances shall the Client nor any other person or entity rely on the information or conclusions contained in this Opinion after six months from its date of submission without the express written consent of Rizzo Associates, Inc. and the LSP. Reliance on the Opinion after such period of time shall be at the user's sole risk.

- **5.** Should Rizzo Associates, Inc. or the LSP be required or requested to review or authorize others to use this Opinion after its date of submission, Rizzo Associates, Inc. shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between Rizzo Associates, Inc. and the Client. Nothing herein contained shall be deemed to require Rizzo Associates, Inc. or the LSP to undertake any such review or authorize others to use this Opinion.
- **6.** The conclusions stated in this Opinion are based upon:
  - Visual inspection of existing physical conditions;
  - Review and interpretation of site history and site usage information which was made available or obtained within the scope of work authorized by the Client;
  - Information provided by the Client;
  - Information and/or analyses for designated substances or parameters provided by an independent testing service or laboratory on a limited number of samples; and
  - A limited number of subsurface explorations made on dates indicated in documentation supporting this Opinion;

upon which the LSP has relied and presumed accurate, and upon which the LSP is entitled to reasonably rely. The LSP was not authorized and did not attempt to independently verify the accuracy or

#### Statement of Limitations and Conditions Attachment to Opinion of Massachusetts Licensed Site Professional

completeness of information or materials received from the Client and/or from laboratories and other third parties during the performance of its services. Neither Rizzo Associates, Inc. nor the LSP shall be liable for any condition, information, or conclusion, the discovery of which required information not available to the LSP or for independent investigation of information provided to the LSP by the Client and/or independent third parties.

7. This Opinion is rendered for the limited purpose stated above, and is not and should not be deemed to be an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made by this opinion, and any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. Without limiting the generality of the foregoing, no warranty or guarantee is made that all contamination at a site or sources or contamination has been detected or identified, that any action or recommended action will achieve all of its objectives, or that this Opinion or any action as to which this Opinion relates will be upheld by any audit conducted by the DEP or any other party.

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Appendix B
Copy of BWSC-108 Transmittal Form

# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

**BWSC108** 

Release Tracking Number

4 - 3021915

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

A. SITE LOCATION:  1. Site Name: Walpole Park South
2. Street Address: Route 1 and Pine Street
3. City/Town: Walpale 4. ZIP Code: 02081-2561
5. UTM Coordinates: a. UTM N: 4664551 b. UTM E: 314471
6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
a. Tier IA b. Tier IB c. Tier IC d. Tier II
7. If applicable, provide the Permit Number:
B. THIS FORM IS BEING USED TO: (check all that apply)
1. Submit a Phase I Completion Statement, pursuant to 310 CMR 40.0484.
2. Submit a Revised Phase I Completion Statement, pursuant to 310 CMR 40.0484.
3. Submit a Phase II Scope of Work, pursuant to 310 CMR 40.0834.
4. Submit an <b>interim Phase II Report</b> . This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.
5. Submit a final Phase II Report and Completion Statement, pursuant to 310 CMR 40.0836.
6 Submit a Revised Phase II Report and Completion Statement, pursuant to 310 CMR 40.0836.
7. Submit a Phase III Remedial Action Plan and Completion Statement, pursuant to 310 CMR 40.0862.
8. Submit a Revised Phase III Remedial Action Plan and Completion Statement, pursuant to 310 CMR 40.0862.
9. Submit a Phase IV Remedy Implementation Plan, pursuant to 310 CMR 40.0874.
10. Submit a Modified Phase IV Remedy Implementation Plan, pursuant to 310 CMR 40.0874.
11. Submit an As-Built Construction Report, pursuant to 310 CMR 40.0875.
12. Submit a Phase IV Status Report, pursuant to 310 CMR 40.0877.
13. Submit a Phase IV Completion Statement, pursuant to 310 CMR 40.0878 and 40.0879.
Specify the outcome of Phase IV activities: (check one)
a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome.
b. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
c. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
d. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.
(All sections of this transmittal form must be filled out unless otherwise noted above)



Revised: 2/15/2005

#### Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

**BWSC108** 

Release Tracking Number

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### COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

B. THIS FORM IS BEING USED TO (cont.): (check all that apply) 14. Submit a Revised Phase IV Completion Statement, pursuant to 310 CMR 40.0878 and 40.0879. 15. Submit a Phase V Status Report, pursuant to 310 CMR 40.0892. 16. Submit a Remedial Monitoring Report. (This report can only be submitted through eDEP.) i. Initial Report ii. Interim Report a. Type of Report: (check one) iii. Final Report b. Frequency of Submittal: (check all that apply) i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard. ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration. iii. A Remedial Monitoring Report(s) submitted concurrent with a Status Report. i. Phase V ii. Remedy Operation Status iii. Class C RAO c. Status of Site: (check one) d. Number of Remedial Systems and/or Monitoring Programs: \_ A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form. 17. Submit a Remedy Operation Status, pursuant to 310 CMR 40.0893. 18. Submit a Status Report to maintain a Remedy Operation Status, pursuant to 310 CMR 40.0893(2). 19. Submit a Modification of a Remedy Operation Status, pursuant to 310 CMR 40.0893(5). 20. Submit a Termination of a Remedy Operation Status, pursuant to 310 CMR 40.0893(6). 21. Submit a Phase V Completion Statement, pursuant to 310 CMR 40.0894. Specify the outcome of Phase V activities: (check one) a. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement (BWSC104) will be submitted to DEP. b. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP. c. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and/or that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP. 22. Submit a Revised Phase V Completion Statement, pursuant to 310 CMR 40.0894. 23. Submit a Post-Class C Response Action Outcome Status Report, pursuant to 310 CMR 40.0898.

#### Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

**BWSC108** 

Release Tracking Number

3021915

#### COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

#### C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

- > if Section B indicates that a Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- > if Section B indicates that a Phase II Scope of Work or a Phase IV Remedy Implementation Plan is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- > if Section B indicates that an As-Built Construction Report, a Remedy Operation Status, a Phase IV, Phase V or Post-Class C RAO Status Report, a Status Report to Maintain a Remedy Operation Status and/or a Remedial Monitoring Report is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit

information which I know to be false, inaccurate or materially incompl	ete.	
1. LSP#: <u>6118</u>		
2. First Name: Raymond 3. Las	st Name: Johnson	
4. Telephone: 508 - 903 - 2000 5. Ext.: 2356	6. FAX: 508-903-20	01
7. Signature: Raymond C Johnson  8. Date: 7/26/06 (mm/dd/yyyy)	9. LSP Stamp:	RAYMOND C. JOHNSON No. 6118 CONTRACTOR OF THE PROPERTY OF THE

Revised: 2/15/2005 Page 3 of 5

# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

#### BWSC108 .

Release Tracking Number

4 - 3021915

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:
1. Check all that apply:   a. change in contact name   b. change of address   undertaking response actions
2. Name of Organization: Walpole Park South
3. Contact First Name: Donnell 4. Last Name: Murphy
5. Street: P.O. Box 123 6. Title: Trustee
7. City/Town: Walpole 8. State: MA 9. ZIP Code: 02081-2522
10. Telephone: 508-668-1200 11. Ext.: 12. FAX: 508-668-1201
E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS:
1. RP or PRP a. Owner b. Operator c. Generator d. Transporter
e. Other RP or PRP Specify:
2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
4. Any Other Person Undertaking Response Actions Specify Relationship:
F. REQUIRED ATTACHMENT AND SUBMITTALS:
Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.
3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.
4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.
5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.
6. If submitting a Modification of a Remedy Operation Status, check here to certify that a statement detailing the compliance history, as per 310 CMR 40.0893(5), for the person making this submittal is attached.
7. If submitting a Modification of a Remedy Operation Status, check here to certify that written consent of the person who submitted the Remedy Operation Status submittal, as per 310 CMR 40.0893(5), is attached.
8. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Name. Send corrections to the DEP Regional Office.
9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



# Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

# COMPREHENSIVE RESPONSE ACTION TRANSMITTAL

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**BWSC108** 

FORM & PHASE I COMPLETION STATEMENT
Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)
G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:  1. I. Donnell Murphy, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made amily aware that there are significant penalties, including, but not limited to, possible fines and improporment, for willfully submitting false, inaccurate, or incomplete information.  2. By:  3. Title:  Signature  4. For: Walpole Park South 5. Date: 7/26/06 (mm/dd/yyyy)
6. Check here if the address of the person providing certification is different from address recorded in Section D.  7. Street:
8. City/Town: 9. State: 10. ZIP Code:
11. Telephone: 12. Ext.: 13. FAX:
YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.  Date Stamp (DEP USE ONLY:)

Appendix C **Copies of Public Notification Letters** 

One Grant Street
Framingham, MA 01701-9005
(508) 903-2000
(508) 903-2001 fax
www.rizzo.com

RIZZO

ASSOCIATES
A TETRA TECH COMPANY

July 26, 2006

Mr. Joseph Denneen, Chairman Board of Selectmen Town of Walpole 135 School Street Walpole, MA 02081

Re: Notice of Phase III Remedial Action Plan Submittal

Walpole Park South Walpole, Massachusetts RTN 4-3021915

Dear Mr. Denneen:

On behalf of Walpole Park South, Rizzo Associates, Inc. is providing this notification that a Phase III – Remedial Action Plan will be filed with the Department of Environmental Protection (DEP) for the above referenced Disposal Site on or about August 1, 2006.

This notification is being made pursuant to the requirements of the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000. In accordance with the requirements of the MCP (310 CMR 40.1403(3) (e)), a summary of the Phase III report conclusions is attached to this letter. The report will be available for review at the DEP Southeast Regional Office located at 20 Riverside Drive in Lakeville, Massachusetts by appointment. A copy of the report will also be available in the Public Information Repository at the Walpole Public Library.

Please contact the undersigned if you have any questions.

Very truly yours,

Raymond C. Johnson, P.G., L.S.P.

Senior Vice President

Attachment

C: Mr. Michael E. Boynton, Town Administrator P:\12700000\12700058\Rpts\Phase II report documents\Letter\_public-notice\_Town\_PhaseIII\_July2006.doc

#### Conclusion of Phase III - Remedial Action Plan

An initial screening and detailed evaluation of available remedial action alternatives were conducted to develop a Remedial Action Plan for Walpole Park South (the Site). Alternatives selected for initial screening included groundwater pump and treat, in-situ chemical oxidation, permeable reactive barriers, bioremediation/biobarrier, electrical resistance heating, surfactant flushing, air sparging and vapor extraction, soil excavation and treatment/disposal, and monitored natural attenuation. Remedial action alternatives that were selected for evaluation during the detailed evaluation included groundwater pump and treat and monitored natural attenuation. The current soil and groundwater conditions at the Site are discussed in the Phase II – Comprehensive Site Assessment report being submitted concurrently with the Phase III report.

Based on the current understanding of Site conditions and an evaluation of the available remedial action alternatives, MNA was selected as the remedial action approach for the Site. This approach provides ongoing evaluation of groundwater conditions at a reasonable cost, and will allow for ongoing characterization of changes over time.

Although MNA has been identified as the appropriate remedial action for the Site, as additional data on groundwater conditions is developed it may be determined that implementation of one or more other technologies should be considered. In that case, feasible remedial alternatives will be evaluated and a determination made of whether the approach should be modified or changed. If changes to the remedial program are determined to be applicable, supplemental Phase III and Phase IV reports will be prepared to discuss the selection (Phase III) and design (Phase IV) of the remedy or remedies.

In accordance with the MCP, the Phase IV RIP is due by July 26, 2007. However, it is anticipated that MNA monitoring will commence prior to that date, likely in September or October 2006, to expedite the ongoing monitoring process and develop additional data regarding conditions at the Site.

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One Grant Street
Framingham, MA 01701-9005
(508) 903-2000
(508) 903-2001 fax
www.rizzo.com

RIZZO ASSOCIATES

A TETRA TECH COMPANY

July 26, 2006

Ms. Robin Chapell, Health Agent Town of Walpole Board of Health 135 School Street Walpole, MA 02081

Re: Notice of Phase III Remedial Action Plan Submittal

Walpole Park South Walpole, Massachusetts RTN 4-3021915

Dear Ms. Chapell:

On behalf of Walpole Park South, Rizzo Associates, Inc. is providing this notification that a Phase III – Remedial Action Plan will be filed with the Department of Environmental Protection (DEP) for the above referenced Disposal Site on or about August 1, 2006.

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Please contact the undersigned if you have any questions.

Very truly yours,

Raymond C. Johnson, P.G., L.S.P.

Senior Vice President

Attachment

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#### Conclusion of Phase III - Remedial Action Plan

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