July 15, 2011

Mr. Leonard Pinaud
Massachusetts Department of Environmental Protection
Southeast Regional Office
Bureau of Waste Site Cleanup
20 Riverside Drive, Lakeville, Massachusetts 02347

Dear Mr. Leonard Pinaud:

Re: Public Comment Draft
Draft Phase II Comprehensive Site Assessment
100 Neponset Street
Walpole, Massachusetts
RTN 4-3024222

On behalf of Baker Hughes, Inc. (Baker Hughes), AMEC Earth and Environmental (AMEC) is providing this Public Comment Draft of the Phase II Comprehensive Site Assessment (CSA) for the Bird Machine Company Site, Release Tracking Number (RTN) 4-3024222, which is located at 100 Neponset Street in Walpole, Massachusetts.

A copy of the executive summary of the Draft Phase II CSA, including a summary of the findings and conclusions, is presented attached herein.

The public comment period for the Phase II CSA report will begin on July 15, 2011and will extend through August 15, 2011. Comments can be submitted to Chris Clodfelter of Baker Hughes at the following address:

Chris Clodfelter
Senior HS&E Specialist
Baker Hughes Incorporated
2929 Allen Parkway
Suite 2100
Houston, Texas 77019-2118
Office: 713.439.8329 | Fax: 713.439.8383

During this public comment period, Baker Hughes will present the document at a public meeting, tentatively scheduled for August 16, 2011.

Copies of the Draft Phase II CSA will be available at the MassDEP Southeast Regional Office (File Review Telephone Number: 508-946-2718) and at the Walpole Public Library (Telephone Number: 508-660-7341).

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Please contact me if you have any questions regarding the Public Involvement process for this document.

Sincerely,

Kim M. Henry
LSP No. 7122

cc:

Mr. Michael Boynton, Walpole Town Administrator
Ms. Robin Chapell, Walpole Health Agent
Ms. Landis Hershey, Walpole Conservation Agent
Ms. Deborah Burke, Key Petitioner
Public Involvement Plan Mailing List

Enclosure:

Draft Phase II CSA Executive Summary

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COPY OF DRAFT PHASE II CSA - EXECUTIVE SUMMARY

On behalf of Baker Hughes, Inc. (BHI), AMEC completed a Phase II Comprehensive Site Assessment (CSA) for portions of the former Bird Machine Company (BMC) Property located in Walpole, Massachusetts. These areas are part of Release Tracking Number (RTN) 4-3024222 under the Massachusetts Contingency Plan (MCP), and are referred to as "the Site." The purpose of the Phase II CSA was to determine the Site boundaries and to develop the required information to support a human health and environmental risk characterization.

The Site is located in the central portion of the 108-acre former BMC Property. Manufacturing operations have occurred at the property since at least 1832, probably due to the availability of water power from the Neponset River which was dammed to create a mill pond. Industries have included a shingle mill, woolen mill, emery mill, and rag sorting plant, prior to the beginning of operations by BMC in 1920. BMC primarily manufactured and repaired industrial centrifuges on the Property. BHI acquired BMC in 1989, when it became an operating unit within Baker Process, Inc., a wholly-owned subsidiary of BHI. Baker Hughes Process Systems, Inc. is the present owner of the Property. Manufacturing operations at the Property were discontinued in 2004, and most buildings associated with the former BMC were demolished by 2008.

The Neponset River flows around the Site from the south to the northeast, and Ruckaduck Pond is located to the west. Historical aerial photographs and facility plans indicate that the Neponset River was rerouted along the south edge of the Site at different times throughout the 1900's to facilitate the expansion of buildings and the addition of new ones. Therefore, much of the Site is built on sand and gravel fill, at depths of up to eight feet. The water table beneath the Site is approximately 3 to 5 feet below the ground surface (bgs). The direction of groundwater flow in the aquifer beneath the Site is generally toward the Neponset River or its associated wetlands. However, in specific areas of the MBA there appears to be considerable variation in flow direction depending on water table conditions. The water table in the areas adjacent to the River is less than 1 foot bgs. The horizontal direction of groundwater flow is toward the River from both sides. The vertical direction of flow is upward, discharging to the River, where measurements were available on the west riverbank. Vertical flow in the vicinity of Ruckaduck Pond is expected to be downward since the dam impounds surface water at an elevation above the water table.

The Phase II investigations included test pitting, soil borings, well installations, and the sampling and analysis of soil and groundwater between 2004 and 2011. Due to the discovery of various releases at the property, the Site includes multiple RTNs which have been linked together to facilitate administrative compliance with MCP requirements. Three separate exposure areas were identified and evaluated in this CSA: the Manufacturing Building Area (MBA), the Lead Release Area 3 (LRA3), and the South Rail Spur (SRS). The risk characterization included results for a fourth area evaluated in a previous RTN, the Neponset River Site, due to its proximity to these three exposure areas. Release Abatement Measures (RAMs) were conducted at several locations within MBA and LRA3 to reduce the concentrations of Oil and/or Hazardous Materials (OHM) at the Site.

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The nature and extent of remaining soil contamination at MBA includes metals (primarily antimony, mercury, nickel, and zinc) and extractable petroleum hydrocarbon (EPH) compounds at depths of up to eight feet bgs. The concentrations of metals and semivolatile organic compounds (SVOCs) have been reduced significantly by the soil excavation RAMs. The remaining elevated concentrations in soil are under and around the former locations of manufacturing buildings. Groundwater sampling indicates contaminant concentrations above drinking water standards in several areas: arsenic and chlorinated volatile organic compounds (cVOCs) in the area adjoining the river downgradient of the former manufacturing buildings, EPH and polycyclic aromatic hydrocarbons (PAHs) in a single well beneath the former buildings, and chlorobenzenes in a single well in the North Parking Area. It does not appear that these groundwater contaminants represent a significant source of contamination to river sediment or surface water.

The nature and extent of remaining soil contamination at LRA3 includes metals (especially lead, nickel, and antimony) and EPH. The highest concentrations of soil contaminants are generally found between two and four feet bgs, or below the depths of RAM excavations. The RAM excavation boundary generally delineates the elevated concentrations remaining under the area. Groundwater sampling indicates an increase in concentrations of nickel in the downgradient well adjoining the river compared to upgradient locations, though still below drinking water standards. The most recent sampling round in this area was May 2008, less than a year after the final soil RAM excavation. Therefore, the downgradient detections of nickel in groundwater may not reflect expected improvements in the aquifer from the cleaner fill materials recently emplaced in this portion of LRA3. It does not appear that nickel in groundwater represents a significant source of contamination to river sediment or surface water.

The nature and extent of soil contamination at SRS includes metals (especially antimony, barium, chromium, lead, nickel, silver, and zinc) and EPH at up to five feet bgs. The highest concentrations of soil contaminants are generally found in fill materials, which include a black abrasive grit. The lateral extent of fill material was visually confirmed in the field. Groundwater sampling indicates an increase in concentrations of nickel in the downgradient well adjoining the river compared to the upgradient well, though still below drinking water standards. It does not appear that nickel in groundwater represents a significant source of contamination to river sediment or surface water.

The results of the human health and environmental risk characterization indicate that the three Exposure Areas on the Site, as well as the adjoining Neponset River Site, achieve a condition of No Significant Risk of harm to health, safety, public welfare, and the environment, with one exception. Based on the exceedances of drinking water standards in MBA groundwater and considering the location of the Site in a Potential Drinking Water Supply Area, the Site does not achieve a condition of No Significant Risk to human health.

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