BAKER HUGHES

PHASE V STATUS & REMEDIAL MONITORING REPORT

FORMER BIRD MACHINE COMPANY SITE
RTN 4-3024222

FEBRUARY 19, 2024

CONFIDENTIAL

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BAKER HUGHES

PROJECT NO.: 3651230345
FEBRUARY 19, 2024

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EXECUTIVE SUMMARY

On behalf of Baker Hughes, WSP USA Environment & Infrastructure, Inc. (WSP, formerly WSP USA Massachusetts Inc.) completed this Phase V Status and Remedial Monitoring Report (RMR) for the former Bird Machine Company (BMC) Site located in Walpole, Massachusetts. Baker Hughes is submitting this RMR pursuant to 310 CMR 40.0890 of the Massachusetts Contingency Plan (MCP). This RMR documents the operation of a Comprehensive Remedial Action that is expected to be a Permanent Solution for the Site, and that was installed as described in the Phase IV Final Inspection Report (FIR; AMEC 2012). A Permanent Solution will achieve a condition of No Significant Risk (NSR) for current and reasonably foreseeable site uses. As documented in the Class C-2 Response Action Outcome (RAO) Statement submitted to the Massachusetts Department of Environmental Protection (MassDEP) on December 16, 2011, the Site already achieves the requirements of a Temporary Solution (AMEC 2011a).

Release Abatement Measures (RAMs) have been conducted at several locations between 2005 and 2011 to reduce the mass and concentrations of contaminants at the Site. The Phase II Comprehensive Site Assessment (CSA) reports (AMEC 2011b, AMEC 2011c) indicate that a condition of NSR exists for all areas of the Site except groundwater, where some monitoring well concentrations exceed drinking water criteria (Massachusetts Maximum Contaminant Levels or MMCLs). It is unlikely that groundwater at the Site will be used for drinking water, but the Site is within a Potential Drinking Water Source Area designated by the Town of Walpole (Walpole 2007). Considering this designation, groundwater at the Site is categorized as GW-1 under the MCP. The CSA reports found no current pathway between Site contaminants and the Town's water supply wells to the northeast, but the potential for contaminant movement from a portion of the Site warrants further monitoring.

Areas of groundwater contamination exceeding MMCLs were identified for arsenic, chlorinated Volatile Organic Compounds (cVOCs), and 1,4-dichlorobenzene (DCB). A Monitored Natural Attenuation (MNA) remedy consisting of active monitoring of natural processes was selected to achieve clean up goals and was installed in accordance with Phase IV of the MCP. MNA is considered an Active Remedial Monitoring Program under the MCP and has been designed and constructed to provide a Permanent Solution that achieves a condition of NSR, as described in the FIR (AMEC 2012).

The August 2013 Phase V Status and Remedial Monitoring Report (RMR; AMEC 2013a) coincided with one year of initial process monitoring as described in the FIR. At that time, it was determined that initial process monitoring had confirmed that key MNA processes were underway and a transition to long-term performance monitoring was appropriate. Long-term monitoring is designed to confirm that site conditions remain

suitable for MNA, and that overall contaminant concentrations and mass are decreasing within a reasonable timeframe.

The long-term monitoring program performed until 2018 included quarterly sampling at six locations within the plumes that have had significant fluctuations in recent contaminant concentrations above the MMCLs, semi-annual sampling at nine other wells within the horizontal and vertical extent of the plume areas where previous quarterly sampling shows little variation in concentrations, and annual sampling at 23 wells along the plume lateral or vertical edges where concentrations are below MMCLs. The results over the first five years of monitoring showed consistent results with concentrations at many wells below ½ the MMCL, which is the selected remedial goal for the Site. As a result, some monitoring wells were selected for reduced sampling frequency, or removal from the long-term monitoring program. These changes were implemented beginning in the third quarter of 2018. The current Operation, Maintenance, and Monitoring (OMM) program is summarized in Table 1 and includes performance of long-term monitoring in March (quarterly), June (quarterly, semi-annual, and annual), September (quarterly), and December (quarterly and semi-annual). Analytes for long-term monitoring consist of the contaminants exceeding MMCLs and their primary breakdown products.

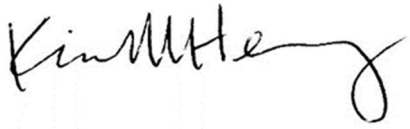
Groundwater sampling results from the September 2023 and December 2023 rounds indicate that MNA processes continue to reduce the overall mass and concentrations of contaminants at the Site. Concentrations within the DCB plume have continued to decline steadily, and the remedial goals have now been achieved for all wells within the plume. While some wells in the interior of the cVOC plume continue to show fluctuating concentrations above the MMCL, the plume is stable or contracting as evidenced by the overall decreasing contaminant trends. Recent arsenic results indicate that the overall plume is stable (i.e. not expanding), however concentrations within the plume interior can vary significantly. No significant changes to the Conceptual Site Model (CSM) are warranted based on the latest measurements. Groundwater sampling data collected during the current reporting period are presented in this RMR and a more detailed interpretation of results will be included in the forthcoming August 2024 RMR.

SIGNATURES

PREPARED BY

Samantha Mizusawa
Senior Geologist

APPROVED BY *(must be reviewed for technical accuracy prior to approval)*



Kim Henry, LSP
Program Manager

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ACRONYMS

BGS	BELOW GROUND SURFACE
BMC	BIRD MACHINE COMPANY
BWSC	BUREAU OF WASTE SITE CLEANUP
CFS	CUBIC FEET PER SECOND
CMR	CODE OF MASSACHUSETTS REGULATIONS
COC	CONTAMINANTS OF CONCERN

CSA	COMPREHENSIVE SITE ASSESSMENT
CVOC	CHLORINATED VOLATILE ORGANIC COMPOUNDS
DCB	1,4-DICHLOROBENZENE
DDA	DEMOLITION DEBRIS AREA
EPH	EXTRACTABLE PETROLEUM HYDROCARBONS
FIR	FINAL INSPECTION REPORT (310 CMR 40.0878)
FT	FEET
LRA3	LEAD RELEASE AREA 3
LSP	LICENSED SITE PROFESSIONAL
MASSDEP	MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
MBA	MANUFACTURING BUILDING AREA
MCP	MASSACHUSETTS CONTINGENCY PLAN
MG/L	MILLIGRAMS PER LITER
MMCL	MASSACHUSETTS MAXIMUM CONTAMINANT LEVEL FOR DRINKING WATER
MNA	MONITORED NATURAL ATTENUATION
MV	MILLIVOLTS
NAPL	NON-AQUEOUS PHASE LIQUID
ND	NOT DETECTED BY LABORATORY ANALYSIS
NSR	NO SIGNIFICANT RISK
OHM	OIL OR HAZARDOUS MATERIAL
OMM	OPERATION, MAINTENANCE, AND MONITORING

PCE	TETRACHLOROETHYENE
PPB	PARTS PER BILLION (FOR GROUNDWATER, MICROGRAMS PER LITER)
RAM	RELEASE ABATEMENT MEASURE
RAP	REMEDIAL ACTION PLAN
RC	REPORTABLE CONCENTRATION
RMR	REMEDIAL MONITORING REPORT
ROS	REMEDY OPERATION STATUS
RTN	RELEASE TRACKING NUMBER
SRS	SOUTH RAIL SPUR
SVOC	SEMIVOLATILE ORGANIC COMPOUND
TCB	1,2,4-TRICHLOROBENZENE
TCE	TRICHLOROETHENE
USEPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
USGS	UNITED STATES GEOLOGICAL SURVEY
VC	VINYL CHLORIDE
VOC	VOLATILE ORGANIC COMPOUNDS

1 SITE BACKGROUND

On behalf of Baker Hughes, WSP USA Environment & Infrastructure, Inc. (WSP), completed this Phase V Status Report & Remedial Monitoring Report (RMR) for the former Bird Machine Company (BMC) Site located in Walpole, Massachusetts. This document is submitted pursuant to 310 CMR 40.0892 of the Massachusetts Contingency Plan (MCP). This Report documents operation of Monitored Natural Attenuation (MNA), an Active Remedial Monitoring Program, which is the selected remedy to achieve a Permanent Solution for the Site. The Site location is indicated in **Figure 1** and the following is general information pertaining to the MCP status.

Release Tracking Number (RTN):	RTN 4-3024222
Tier Classification:	Tier IB
Site Address:	100 Neponset Street Walpole, Massachusetts 02071-1037
Person Undertaking Response Actions:	Baker Hughes 12645 West Airport Boulevard Sugar Land, Texas 77478 Contact: Mr. Chris Clodfelter Phone: (832) 668-0112
Licensed Site Professional (LSP):	Kim M. Henry (License #7122) WSP USA Environment & Infrastructure, Inc. 100 Apollo Drive, Suite 302 Chelmsford, Massachusetts 01824 Phone: (978) 467-5988

A Tier 1B Permit Application was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on January 10, 2008, including a revised Tier Classification and updated Phase I information combining several linked sites under the subject RTN. Tier 1B permit #W204776 for this RTN was effective on February 28, 2008 and expired on February 28, 2013. Because Remedy Operation Status (ROS; AMEC, 2013b) was achieved and a ROS Opinion filed with the MassDEP on February 13, 2013, renewal of the permit was not required under the MCP.

This RMR is organized as follows:

- Section 1 – Site Background
- Section 2 – Operation, Maintenance, and Monitoring
- Section 3 – OMM Modifications Since the Preceding Report
- Section 4 – Evaluation of Effectiveness
- Section 5 – Recommendations and CSM
- Section 6 – References

1.1 DISPOSAL SITE DESCRIPTION

The Site, defined in the MCP as the area where the release "has come to be located," is in the central portion of the 108-acre Property. The approximate universal transverse mercator

coordinates for the Site are 4,664,600 North and 312,700 East (World Geodetic System 1984/North American Datum 1983), based on the United States Geological Survey (USGS) Franklin Quadrangle Map, 1987. The Site Location Map, **Figure 1**, shows the regional location of the Site and positions of the nearest municipal water supply wells. Access to the property and Site is obtained via Neponset Street; this road and other Site features are depicted on an aerial photo in **Figure 2**. The Neponset River flows around the Site from the south to the northeast. Ruckaduck Pond is located to the west and was formerly used for waterpower, with dams maintaining an elevation several feet above the downstream river. An outlet from Ruckaduck Pond (formerly used to power a turbine) channels water through the Site via an underground pipe, discharging to the river on the east side.

As documented in the Phase II CSA, historical maps [including Sanborn Library, LLC Fire Insurance (Sanborn) Maps] were reviewed to determine the previous owner/operators of the property and the operations history. The Property appears to have been developed by 1832 with a "shingle mill" and two houses south of the Site, and a small pond in the present location of Ruckaduck Pond. A map dated 1852 indicates "Smith's Mill" and three houses in the same area. A map dated 1888 indicates the Walpole Emery Mill in the same area, and Old Colony Railroad in its present location along the western edge of the Site. Sanborn maps from 1918 indicate that a railroad spur and three "factory" buildings had been constructed, and an open channel or “tailrace” had been constructed downstream of one of the factory buildings to convey water used for powering machinery back to the Neponset River. The BMC reportedly started operations at the property in 1919.

The 1927 and 1944 Sanborn Fire Insurance Maps indicate larger industrial buildings at the property, including a machine shop, casting shed, lumber shed, assembling, welding shop, and office. A 1940 USGS Topographic Map which contains more detailed topography in the vicinity of the Site, indicates the boundary of the Cedar Swamp, and shows Cedar Swamp Brook. Historical aerial photographs and facility plans from 1931 to 1978 indicate that the Neponset River was rerouted at different times to facilitate the expansion of buildings and the addition of new structures. The open tailrace channel was filled in and replaced with a buried 24-inch concrete pipe in 1966. The industrial buildings on the Property were expanded several times in the 1960s and 1970s.

BMC primarily manufactured and repaired industrial centrifuges on the Property. Baker Hughes Incorporated acquired BMC in 1989. BMC became an operating unit within Baker Process, Inc., a wholly owned subsidiary of Baker Hughes Incorporated. Baker Hughes 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, except for a fire pump house (building no. 9), garage (19), and guard shack (21) (**Figure 3**). The garage (19) was demolished in 2016 during RAM activities for construction of a solar photovoltaic array farm. Other site features which remain included floors and frost walls of demolished buildings 1, 3, 5, 19, 20, 22, and 23; frost walls of demolished buildings 4, 4A, 6A, 7A, 8, 8A, 12, and 15; and pavement around the former buildings except where it was removed for RAM excavations. **Figure 3** also shows remaining subsurface drains that lead to outfalls in the Neponset River. These drains were connected to the former buildings (roof drains or sanitary lines) or to surface catch basins, a few of which still remain as indicated in the figure. Note that the drain line connecting the pond and the river was installed within a former masonry-lined tail race; the masonry was observed in place near the southeast wall of former building 1 during building demolition and may still exist on either side of the drain in other areas. **Figure 3** shows several subsurface structures which were left in place following building demolition: a 10,000-gallon concrete wastewater sump that was cleaned and filled with sand; several sections of Transite pipe

encased in concrete; a 5,000-gallon steel wastewater tank that was closed in place near former building 4 by filling with concrete; and a reinforced-concrete base for a wastewater pump station adjacent to the 5,000-gallon tank. The RAM excavation areas in **Figure 3**, and the areas above the structures left in place, have been filled to grade with sandy soil.

The Property is zoned Limited Manufacturing, which allows a wide range of commercial, institutional, and residential uses. The Property is also grandfathered for industrial use. Beginning in 2016 a portion of the site was leased to Bird Machine Solar Farm, LLC (BMSF) for re-development as a solar photovoltaic array farm. Construction activities were conducted as a RAM because disturbance of soil within the Disposal Site boundary was required to install support pilings and subsurface utilities. Construction activities were completed in late 2016 and included surrounding the entire solar farm with a chain link fence. Current human receptors at the Site are limited to occasional trespassers and utility workers periodically inspecting or working on the solar panels.

The area surrounding the property has a mixture of residential and recreational (undeveloped forests and wetlands) uses. In 2005 there were 273 residences with an estimated 743 residents located within ½-mile of the Site (Weston, 2005). There are no inhabited houses or private water supply wells within 500 feet (ft.) of the Site. There are no schools, day-care centres, playgrounds, or parks within 500 ft. of the Site. The 1987 USGS Franklin quadrangle map depicts the Boyden School located approximately 0.35 mile southeast of the Property, and 0.5 miles southeast of the Site. The nearest public water supply wells are slightly over one-mile northeast of the Site as indicated in **Figure 1**.

1.2 RELEASE HISTORY AND RESPONSE ACTIONS

The Site includes multiple RTNs due to the discovery of various releases at the property during past investigations. Timing of releases is not well known, and the Site was used for manufacturing from at least 1832 to 2004. The RTNs were linked together to facilitate administrative compliance with MCP requirements. Three exposure areas were identified and evaluated in the October 2011 Phase II CSA Report (AMEC 2011b): the Manufacturing Building Area (MBA), the Lead Release Area 3 (LRA3), and the South Rail Spur (SRS). A separate exposure area was addressed in the December 2011 Phase II CSA Addendum (AMEC 2011c); the Demolition Debris Area (DDA). All four areas are shown on **Figure 2**. Release Abatement Measures were conducted at several locations within the DDA, MBA, and LRA3 to reduce the mass and concentrations of contaminants at the Site. The CSAs indicate that a condition of No Significant Risk exists for all areas of the Site except groundwater within the MBA, where some monitoring well concentrations exceed drinking water criteria.

The remaining contamination at the MBA includes metals (primarily antimony, barium, lead, nickel, and zinc) and Extractable Petroleum Hydrocarbon (EPH) compounds in soil. The concentrations of metals and Semivolatile Organic Compounds (SVOCs) have been reduced significantly by soil excavation RAMs. The remaining elevated concentrations in soil are under and around the former locations of manufacturing buildings. These soil concentrations were found to pose No Significant Risk for current and future foreseeable uses of the Site.

Groundwater sampling indicates that elevated concentrations of arsenic and cVOCs are present in the area adjoining the river downgradient of the manufacturing buildings. Groundwater concentrations in these areas exceed drinking water criteria. Historically, chlorobenzenes have been elevated in two wells located in the north parking area; however, for the past several years, concentrations have remained below the MMCL. The updated extent of these exceedances is provided in Section 4 based on the results of recent monitoring. It is

unlikely that groundwater at the Site will be used for drinking water, but the Site is within a Potential Drinking Water Source Area designated by the Town of Walpole (Walpole 2007). Considering this designation, groundwater at the Site is categorized as GW-1 under the MCP.

1.3 HYDROGEOLOGICAL CHARACTERISTICS

The southeastern portion of the Site includes sand and gravel fill up to 10 feet thick; the fill is generally thickest where the Neponset River was rerouted. Beneath the fill layer, a 5-foot to 10-foot thick silty sand layer is present, which thins to a few feet in the west where bedrock is at a depth of 10 feet or less. The bedrock surface slopes downward to the east and is typically 20 to 30 feet deep near the river. Where bedrock deepens, the silty sand is underlain by a coarser silty sand and gravel in thicknesses of up to 20 feet. Cross sections including the latest contaminant findings are presented in Section 4.

Most borings at the Site were not cored into rock, and drilling refusals are generally interpreted as the bedrock surface unless inconsistent with borings that were cored or hammered to confirm rock. A bedrock low of about 45 ft. below ground surface (bgs) occurs in the east-central portion of the Site near monitoring well MW-708. Bedrock cored during the FIR monitoring well installations consisted of two distinct rock types, conglomerate and shale. The interpreted bedrock surface map is provided in **Figure 4**.

Bedrock at MW-702 to the northwest and MW-710 to the east consisted of alternating layers of consolidated to unconsolidated conglomerate containing a mixture of angular to rounded boulders and sand. The layers consisted of approximately 5-foot thick consolidated rock alternating with approximately 3-foot thick unconsolidated boulders and sand. These alternating layers are consistent with highly fractured and weathered conglomerate material having been repeatedly faulted and folded. Bedrock at MW-708, a few hundred feet west of MW-710, consisted of slightly weathered shale in approximately 2-centimeter thick bedding layers. These layers were oriented vertically, suggesting previous faulting and folding in the area.

The water table beneath the Site occurs approximately 1 to 5 ft. bgs in either fill or sand. Bedrock is believed to impede vertical flow as it is generally less transmissive than the shallow sand aquifer, depending on competency. Groundwater in the sand aquifer appears to be discharging to the Neponset River or its associated wetlands during much of the year. The water table in the areas adjacent to the river is typically 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. Vertical flow near Ruckaduck Pond is expected to be downward since the dam impounds surface water at an elevation above the water table. Mapped shallow and deep piezometric surfaces for the recent monitoring events are presented in Section 4.

Groundwater flow directions in specific areas of the MBA vary depending on water table conditions. Groundwater elevations were mapped for monitoring events in October 2006, July 2008, and April 2009 in the Remedial Action Plan (RAP; AMEC 2011d) and, based on river flow records, these three times appear to represent a range of typical median, low, and high-water tables, respectively. Significant changes in the water table surface are apparent between the three events, particularly in the southeast portion of the Site. Aside from precipitation and river flow, another difference between the events was that in 2006 the MBA buildings and pavement were still intact; while in 2007 the buildings were demolished and some pavement removed. Removal of the impervious structures may have affected infiltration patterns. Lateral

groundwater seepage velocities in the sandy soils are estimated to range between 0.1 and 0.9 feet per day in the MBA, based on these three mapped events.

2 OPERATION, MAINTENANCE, AND MONITORING [310 CMR 40.0892(2)(A)]

The MNA remedy consists of an Active Remedial Monitoring Program as defined at 310 CMR 40.0006.

Initial process monitoring was conducted in the first year of OMM (August 2012 – August 2013) through quarterly sampling and measurements of water levels in the monitoring wells and river. Following the first year of initial process monitoring, it was determined that key MNA processes were underway and a transition to long-term performance monitoring was appropriate. Long-term monitoring is designed to confirm that site conditions remain suitable for MNA, and that overall contaminant concentrations and mass are decreasing within a reasonable timeframe.

Analytes for long-term monitoring consist of the contaminants exceeding MMCLs and their primary breakdown products. Analytes for the current reporting period are summarized in **Table 2** and include arsenic and volatile organic compounds (VOCs). The long-term monitoring program initially included continued quarterly sampling at 6 locations within the plumes that have had significant fluctuations in recent contaminant concentrations above the MMCLs, semi-annual sampling at 9 other wells within the horizontal and vertical extent of the plume areas where previous quarterly sampling shows little variation in concentrations, and annual sampling at 23 wells along the plume lateral or vertical edges where concentrations are below MMCLs. The results over the first five years of monitoring showed consistent results with concentrations at many wells below ½ the MMCL, which is the selected remedial goal for the Site. As a result, some monitoring wells were selected for reduced sampling frequency, or removal from the long-term monitoring program. Five of the seven wells in the DCB plume were removed from sampling; four of these wells are consistently non-detect (MW-700S, MW-701S, NP-MW-602, and NP-MW-603), and the fifth well (MW-702D) is consistently detected at a concentration below ½ the MMCL. Seven of the 25 wells in the VOC plume were removed from the sampling program due to non-detect concentrations, including LR-MW-124, LR-MW-129, MW-710D, MW-708S, MW-708D, MW-711S, and MW-712S. Four additional wells (MW-707D, MW-709D, MW-710S, and MW-711D) were removed from semi-annual sampling to annual sampling due to consistently low concentrations detected. Due to the fluctuating concentrations, no modifications were made to monitoring wells in the arsenic plume. These changes were implemented beginning in the third quarter of 2018.

The type and frequency of current OMM activities under this program are summarized in the following sub-sections.

2.1 CURRENT MONITORING NETWORK DESIGN AND OPERATION

Long-term performance monitoring is currently performed at 4 monitoring wells on a quarterly basis (March, June, September, and December), 5 monitoring wells on a semi-annual basis

(June and December), and 17 monitoring wells on an annual basis (June). The current OMM sampling plan for long-term performance monitoring is provided in **Table 1**. Prior to sample collection, synoptic groundwater measurements are obtained from 59 monitoring wells. The locations of monitoring wells are indicated in **Figure 5**.

Groundwater sampling is performed with low-flow sampling techniques using a peristaltic pump. Each monitoring well is equipped with dedicated polyethylene tubing, with the intake at the approximate center of the saturated screen section and at least two feet above the bottom of the well to prevent the disturbance of any sediment which may be present. The water level is measured and recorded before starting the pump. Sampling records from previously sampled wells are reviewed to determine initial flow rates, or purging will be started at flow rates of approximately 0.2 to 0.5 liters per minute. The flow rate is adjusted to ensure that little or no drawdown (less than 0.3 feet) occurs in the well. If this level of drawdown cannot be sustained, the pumping rate is reduced to the minimum capabilities of the pump to avoid pumping the well dry. The level of the water is not allowed to drop below the intake on the pump to avoid the possible entrainment of air into the sample. If the recharge rate is very low, sampling commences after the well has been purged and groundwater has recharged to a sufficient level to purge one system volume (volume of tubing) and then the appropriate volume of sample is collected.

During the purging of the well, the field parameters (pH, temperature, conductivity, dissolved oxygen, and redox potential) are monitored every 5 minutes, or as appropriate, using a flow-through cell, until the parameters stabilize. Turbidity is monitored at the same time intervals as the other field parameters, but the sample is collected through a tee valve prior to the flow-through cell. Field parameters are considered stabilized when, for three consecutive readings, the temperature is within ± 3%, pH is within ± 0.1, dissolved oxygen is within ± 10% or changes less than 0.3 milligrams per liter (mg/L), redox potential is within ± 10 millivolts (mV), conductivity is within ± 3%, and turbidity is within ± 10%. An attempt is made to purge the well until turbidity of the purged water is less than 5 nephelometric turbidity units (ntu).

After purging is completed, the discharge tubing is disconnected from the flow through cell and groundwater is pumped directly into the proper sample containers. All sample containers are filled by allowing the water to flow gently down the inside of the container with minimal turbulence. Samples requiring dissolved constituent analysis are collected by pumping water through a new 0.45 µm filter into the appropriate sample container using a peristaltic pump and new silicone tubing. Sample containers, preservatives, volumes, hold times, and shipping requirements are summarized in **Table 2**. Each sample is labeled and placed into a cooler with ice for shipment to the laboratory. Sampling activities are documented using pre-printed field data sheets to record well purging and any field screening results.

2.2 CONTROL OF OHM SPILLS AND ACCIDENTS

Site activities consist of groundwater sampling and analysis and water table measurements. Limited amounts of Oil or Hazardous Material (OHM) are associated with these activities, mainly consisting of petroleum or lubricants in vehicles or generators. Equipment containing OHM is operated in paved areas to the extent possible. Safe engineering and construction practices are implemented during all phases of work, as described in the Health and Safety Plan in the FIR.

Spills of OHM will be reported and addressed in accordance with the MCP. Any impacted material resulting from a spill of machine oil or other hazardous substances will be placed in 55-gallon waste disposal drums or other approved containers for waste characterization, off-

site transportation, and disposal. Equipment that comes in contact with contaminant residuals in soil or groundwater will be decontaminated before leaving the Site. Any wash water used will be managed as described in Section 2.3. No spills of OHM occurred during the current reporting period.

2.3 WASTE MANAGEMENT

OMM field activities at the site typically do not generate decontamination water in quantities requiring disposal. Excess groundwater collected during OMM sampling is poured back into the boring or well from which it was obtained as allowed by MassDEP. Development water that cannot be returned to the boring or well, and all excess decontamination water and spill wastes are containerized and characterized for disposal at a licensed offsite waste facility. If contaminant concentrations in development water are below reportable concentrations (RC), then the water can be discharged to the pervious land surface near the well. When waste is generated from site activities, characterization and disposal are conducted within 120-days of generation.

2.4 MEASURES TO AVOID ADVERSE IMPACTS

Field crews periodically traverse and work within wooded and wetland areas east of the Neponset River to gauge and sample several monitoring well locations. The well locations are accessed on foot to minimize adverse impacts to these sensitive areas.

2.5 PERMITS, LICENSES AND APPROVALS

No federal permits or approvals are required to implement OMM activities. The work is conducted under the direction of a Licensed Site Professional under the MCP as indicated in Section 1 and is subject to the Public Involvement requirements of the MCP. The public notification letter for this report is provided in **Appendix A**. The Bureau of Waste Site Cleanup (BWSC) Transmittal Form required under the MCP will be provided in **Appendix B** in the paper copy of this RMR, following final eDEP submittal.

Monitoring well installations within 100-foot wetland buffers and 200-foot Riverfront Area buffers were subject to the wetland protection requirements of the Walpole Conservation Commission and complied with their Order of Conditions. Ongoing site activities, which consist only of monitoring well sampling and gauging, are not subject to Conservation Commission requirements. All waste materials generated during response actions that cannot be reused are transported to appropriately licensed disposal facilities, in accordance with state and federal regulations.

3 OMM MODIFICATIONS SINCE THE PRECEDING REPORT [310 CMR 40.0892(3)(B)]

OMM activities are performed consistent with the current OMM schedule and will include performance of long-term monitoring in March (quarterly), June (quarterly, semi-annual, and annual), September (quarterly), and December (quarterly and semi-annual). Results presented in this report include wells sampled in September and December 2023. A more detailed interpretation of data collected during the current reporting period will be included in the forthcoming August 2024 RMR.

4 EVALUATIONS OF EFFECTIVENESS [310 CMR 40.0892(2)(B)]

MNA is expected to reduce concentrations of contaminants to below drinking water standards in the shallow sand aquifer at the Site, and to achieve or approach background levels. For the purpose of Presumptive Certainty in achieving or approaching background, in accordance with MassDEP Policy WSC-04-160, it is assumed that the background level of arsenic is approached at a level of 5 parts per billion (ppb) which is one-half of the MMCL criterion for this contaminant. Similarly, for cVOCs and chlorobenzenes, background would be approached at one-half of the MMCL standards: 35 ppb for 1,2,4-Trichlorobenzene (TCB); 2.5 ppb for tetrachloroethyene (PCE), trichloroethene (TCE), or DCB; and 1 ppb for vinyl chloride (VC).

The principal MNA processes are expected to include desorption, dilution, and biodegradation, considering site conditions described in the CSA (AMEC 2011c). The Site has relatively high groundwater flow rates with seepage velocities estimated in the range of 37 to 330 ft./yr. through sandy material. Neponset River flow is estimated at 200 to 400 times greater than the groundwater discharge, based on estimates in the CSA. Anaerobic conditions and dechlorination products are observed in wells having organic contaminants. Because releases are believed to be at least decades old, plumes of contaminants likely have achieved steady state or declining concentrations. However, source removals in portions of the vadose and saturated zones during 2005 to 2008 may have affected hydrogeology and plume stability in some areas. Therefore, in the absence of any continuing sources, contaminants sorbed to the aquifer matrix are expected to continue desorbing to groundwater, biodegrading (for organics) in the aquifer, and discharging to the river. Plumes appear to be relatively dilute based on low ratios of contaminant maximum concentrations to solubilities (<0.08%), and plume widths are generally less than 200 feet.

MNA effectiveness will be demonstrated through declining contaminant concentrations and reduced plume size within a reasonable timeframe, and persistence of site conditions favorable to MNA processes. Data analysis includes graphic or tabular displays of the following measurements for contaminants of concern (COCs) and geochemical indicators:

- groundwater flow directions
- groundwater and surface water flow rates
- plume extent (horizontal & vertical)
- concentrations versus time

Data analysis includes evaluation of plume stability and loss of contaminant mass, and where possible estimates of remediation times. Evaluation of progress in achieving cleanup goals can be difficult due to subsurface and/or measurement variability, and seasonal or storm-related variations in groundwater movement. Therefore, multiple lines of evidence will be used to reduce uncertainty in evaluating the overall effectiveness. Groundwater sampling data collected during the current reporting period are presented in this RMR and a more detailed interpretation of results will be included in the forthcoming August 2024 RMR. Following the evaluations in the August 2024 RMR, the CSM will be updated as needed to ensure that it considers all data collected to date.

4.1 FLOW RATES

Water level measurements were collected at shallow and deep (above bedrock) wells at the beginning of each monitoring event, on September 26, 2023 and December 5, 2023. Neponset River flows at the nearest stream gauge in Norwood MA (USGS, 2023) are indicated on **Figure 6**. As previously discussed, a more detailed interpretation of data collected during the current reporting period will be included in the forthcoming August 2024 RMR. Shallow and deep-water table contours will be prepared and provided in the August 2024 RMR.

During the September 26, 2023, synoptic water level round, discharge rates in the Neponset River averaged 113 cubic feet per second (cfs), which is approximately 86 cfs above long-term median values for that date (27 cfs). During the December 5, 2023, water level round, discharge rates in the Neponset River averaged 64 cfs, which is approximately 16 cfs above the long-term median values for that date (48 cfs). The discharge rate for the September round was well above the long-term trend. The relative flow rate for the September synoptic gauging event corresponds to above-average precipitation leading up to the gauging event, 1.88. inches of rain were recorded between September 21 and September 26, 2023, which is above the long-term trend for the same period. The relative flow rate for the December synoptic gauging event corresponds to above-average precipitation; leading up to the gauging event (0.90 inches of rain were recorded between December 1 and December 5, 2023).

The long-term median data illustrated in **Figure 6** suggest that typical river flow is at the annual high in late March to early April, then steadily declines through mid-July when flows reach the annual low. The low-water conditions persist through the summer months, until late September when river elevations begin to slowly increase. This increasing trend continues through the fall and winter months, until the maximum flow rate is again reached in late March. Quarterly sampling is conducted during periods of high flow in March, moderate to low flow in June, low flow in September, and moderate flow conditions in December. In general, during the current reporting period, the shallow water table measurements in September were slightly lower in elevation compared to December. Typically, the September shallow water table measurements are lower in elevation compared to December. The total amount of precipitation (rain) for the months of September and December 2023, was 3.74 inches and 6.10 inches respectively. Five days prior to the September 26, 2023 sampling event, approximately 2 inches of rain was recorded and five days prior to the December 2023, approximately 0.90 inches of rain was recorded.

4.2 GENERAL CHANGES IN CONTAMINANT CONCENTRATIONS

This section of the RMR documents the latest findings regarding the extent of groundwater contamination. Wells sampled during the current reporting period included wells sampled on a quarterly (September and December) and semi-annual basis (December). Wells sampled during the previous reporting period included those sampled on a quarterly basis (March and June), on a semi-annual basis (June), and on an annual basis (June). Sampling and analysis of chlorobenzenes, arsenic, and cVOCs were conducted in March, June, September, and December 2023 from the wells shown on **Table 1**. A more detailed summary of the horizontal and vertical extent of contamination as well as evaluations of contaminant concentration trends over time will be discussed in the forthcoming August 2024 RMR.

Sampling logs are provided in **Appendix C**, and complete laboratory results (including detection limits for compounds not detected) are provided in **Appendix D**. Summaries of detections are provided for COCs in **Table 3**. Table 3 includes recent historic results from 2021 for comparison to the latest results (2023); results from the current reporting period are shown in black font, while older results are shown in grey.

Sampling and analysis of arsenic were conducted in September and December 2023 from the wells shown on **Table 1**. Arsenic detections and temporal trends of wells sampled during the current reporting period will be summarized in detail relative to the MMCL of 10 ppb in the forthcoming August 2023 RMR. However, a brief discussion of results collected during the current reporting period is provided below.

- Arsenic concentrations observed at monitoring well LR-MW-122 (sampled in December 2023 only) were typical of recent trends. Generally, arsenic concentrations at LR-MW-122 (sampled semi-annually) show seasonal fluctuations with lower concentrations observed during the winter months (i.e., December) and higher concentrations observed during the summer months.
- Arsenic concentrations observed at monitoring well MW-706S (sampled in September and December 2023) were noticeably lower when compared to the previous September and December 2022 sampling events (see **Table 3**). Concentrations observed during the current reporting period support an overall declining trend. In general, concentrations fluctuate seasonally with highest concentrations in winter, next highest concentrations in the spring and fall, and lowest concentrations in summer.

Sampling and analysis of cVOCs were conducted in September and December 2023 from the wells shown on **Table 1**. PCE, TCE, and VC detections and temporal trends of wells sampled during the current reporting period will be summarized in detail relative to their respective MMCLs of 5 ppb, 5 ppb, and 2 ppb in the forthcoming August 2024 RMR. However, a brief discussion of results collected during the current reporting period is provided below.

- Samples collected from MB-MW-362 had no compounds detected. Samples collected from MW-704S and MW-710M had one or more compounds detected; PCE was detected from the sample collected at MW-704S and both PCE and TCE were detected from the sample collected at MW-710M. There were no MMCL exceedances.
- Concentrations of cVOCs from MB-MW-374, MW-709S, and MW-713D exceeded either one or more MMCLs for PCE, TCE, and VC. However, concentrations of cVOCs observed during the current reporting period were consistent with long-term trends.
- Concentrations of cis-1,2-DCE and VC were detected at MW-714S during the September 2023 sampling event and cis-1,2-DCE, VC and TCE were detected at MW-714S during the December 2023 sampling event. However, these concentrations were below their respective MMCLs in both the September and December 2023 sampling events. These results are consistent with long-term trends. Historically, PCE and TCE concentrations sharply fluctuate at MW-714S. TCE concentrations exceeded PCE concentrations, suggesting reductive dechlorination may be occurring.

5 RECOMMENDATIONS AND CSM [310 CMR 40.0892(2)(D)]

5.1 CONCEPTUAL SITE MODEL

Groundwater data collected during the current reporting period are generally consistent with historic conditions, and do not warrant changes to the Conceptual Site Model. The current CSM for the site is discussed below.

Arsenic contamination is observed at the water table, DCB contamination is near the bottom of a thin (12-foot thick) sand aquifer and in the underlying shallow bedrock, and PCE contamination is in the deepest part of the sand aquifer (up to 35 ft. bgs). The Neponset River appears to be a groundwater discharge area based on measured horizontal and vertical gradients around the Site. PCE has been identified at one monitoring location east of the river (MW-704S), at higher concentrations in the shallow compared to the deep screen and appears to be discharging to surface water in this area. The PCE concentrations have remained below the MMCL since June 2014 at this location and achieved background concentrations in December 2016 (and have remained consistent with background). Sediment and surface water concentrations in the river suggest that the contaminant discharge from groundwater to the river has not resulted in measurable concentrations of contaminants in the river. A CSA completed for the river where it borders the Site found a condition of No Significant Risk for river receptors (Weston 2007b).

The CSAs for the Site (AMEC 2011b, AMEC 2011c) found no current pathway between Site contaminants and the Town's water supply wells located 1.2 miles to the northeast (**Figure 1**), but the potential for movement in this direction warrants monitoring. The town supply wells draw water from surficial sands and gravel above bedrock, in the High Yield (>300 gpm) aquifer mapped by USGS northeast of the Site. The bedrock surface in the supply well area is 62 to 80 feet bgs, compared to 10 to 40 feet bgs at the Site; bedrock slopes downward to the northeast along the river valley. The potential for contaminant migration to the Town's supply wells would appear to be greatest for chlorinated organic compounds in the form of non-aqueous phase liquid (NAPL) which is denser than water; however, NAPL has not been observed at the Site. The chlorinated organic compounds encountered at the BMC site are present in the dissolved phase rather than as NAPL. In this dissolved form the density contrast has no effect on migration, compared to advection, dispersion, and other processes. Dissolved phase concentrations at the BMC site do not suggest the presence of NAPL.

No significant sources of groundwater contaminants are known to remain at the Site. Source control has occurred through soil excavation RAMs in the areas in and upgradient from arsenic and some cVOC groundwater contamination. The RAM around Building 6/6A, upgradient from arsenic detected in LR-MW-122, included the removal of soil having arsenic above background levels. Fluctuating concentrations at MW-706S suggest that a localized source of arsenic may exist in the unsaturated fill; although a soil investigation conducted in 2018 was unsuccessful in identifying a source of arsenic in the fill. The RAM around Building 7A/7C and LRA 2, upgradient from cVOCs detected in LR-MW-129, included removing soil with metals and oily contamination that was not known to contain cVOCs. Above-ground structures and below-ground tanks associated with former manufacturing operations have been removed as of early

2008, and it is possible that these structures included source materials. Removal of these structures and soil during RAM activities has eliminated known sources of VOCs to groundwater.

The installed well network and sampling procedures described in this report meet the design requirements identified in the FIR. Monitoring wells are focused along plume centerlines and discharge areas. Monitoring locations include shallow, deep, and bedrock screens as appropriate to measure changes in nature and extent of contaminants.

5.2 OMM REVISIONS OR CORRECTIVE MEASURES

MNA will be continued as a Permanent Solution if evaluations of site data demonstrate that natural attenuation is occurring at rates that will achieve drinking water standards and approach background levels in a reasonable timeframe. In the RAP, this timeframe was identified as up to 10 years for MNA. Determination of satisfactory reductions in concentrations considers multiple lines of evidence including temporal trends in individual wells, estimates of mass reduction, and distribution of contaminants and geochemical conditions. The data presented in this report indicate that natural attenuation is occurring in the areas of MMCL exceedances. No significant changes in the CSM are warranted at this time based on the latest measurements, and the estimated remediation timeframe of 10 years from 2012 is assumed to be the same for most of the monitoring wells. However, while MNA is effectively reducing the mass and concentrations overall, some areas did not achieve the remedial goals in 2022.

The effectiveness of the OMM program is continually evaluated to ensure contaminant are not posing an unacceptable risk to receptors and that the Site is progressing towards a Permanent Solution. Many of the monitoring wells currently in the OMM program have years of MNA data showing consistently declining contaminant trends, some of which have achieved the stated remedial objectives (i.e. ½ the MMCL).

If MNA measurements suggest that some portions of the Site will not achieve a Permanent Solution, then supplemental MCP documents for design and construction of contingent remedies will be prepared. The following types of measurements will be considered as evidence of the need for contingent remedies:

- Contaminant concentrations exhibit an increasing trend not expected based on monitoring to date,
- Near-source wells exhibit large concentration increases indicative of a new or renewed release,
- Contaminants are identified in monitoring wells located outside the original plume boundary or other specified compliance boundary,
- Contaminant concentrations are not decreasing at a rate necessary to meet the remediation objectives,
- Changes in land and/or groundwater use could adversely affect the protectiveness of the MNA remedy, and
- Contaminants are identified in locations posing unacceptable risk to human or ecological receptors.

Multiple lines of evidence will be used to determine the need for contingent remedies, to account for the uncertainty associated with variability in subsurface conditions. The evaluations of these types of measurements will be conducted in accordance with United

States Environmental Protection Agency (USEPA) guidance for performance monitoring of MNA (EPA 2004).

5.3 REMEDY OPERATION STATUS

Remedy Operation Status was achieved in February 2013. Based on the data presented in this RMR, MNA is still considered a viable approach to achieve a Permanent Solution, and therefore the Site meets the requirements for Remedy Operation Status. A more detailed interpretation of data collected during the current reporting period will be included in the forthcoming August 2024 RMR.

6 REFERENCES

- AMEC 2011a. Response Action Outcome Statement for RTN 4-3024222, Former Bird Machine Company Site. Prepared by AMEC Earth & Environmental Inc. for Baker Hughes Inc. Final, December 2011.
- AMEC 2011b. Phase II Comprehensive Site Assessment Report for RTN 4-3024222, Former Bird Machine Company Site. Prepared by AMEC Earth & Environmental Inc. for Baker Hughes Inc. Final, October 2011.
- AMEC 2011c. Phase II Comprehensive Site Assessment Addendum for RTN 4-3024222, Former Bird Machine Company Site. Prepared by AMEC Earth & Environmental Inc. for Baker Hughes Inc. Final, December 2011.
- AMEC 2011d. Phase III Remedial Action Plan for RTN 4-3024222, Former Bird Machine Company Site. Prepared by AMEC Earth & Environmental Inc. for Baker Hughes Inc. Final, December 2011.
- AMEC 2012. Phase IV Final Inspection Report, Former Bird Machine Company Site. Prepared by AMEC Earth & Environmental Inc. for Baker Hughes Inc. Final, August 2012.
- AMEC 2013a. Phase V Status and Remedial Monitoring Report, Prepared by AMEC Environment & Infrastructure, Inc. for Baker Hughes Inc. Final, August 2013.
- EPA 2004. Pope, D. et al. Performance Monitoring of MNA Remedies for VOCs in Ground Water. National Risk Management Research Laboratory Office of Research and Development, US Environmental Protection Agency, Cincinnati OH. April 2004.
- USGS 2024. Gauging Data at USGS Station 01105000, Neponset River at Norwood, MA. National Water Information System. https://waterdata.usgs.gov. January 2024.
- Walpole 2007. Letter from John Spillane, Chairman, Town of Walpole Board of Water & Sewer Commissioners, to Dina Kuykendall, Baker Hughes a GE Company. October 25, 2007.
- Weston 2007b. Phase II Comprehensive Site Assessment for Release of Hydrocarbons to the Neponset River Site, RTN 4-3023575. Prepared by Weston Solutions Inc. for Baker Process Inc. January 25, 2007.

TABLES

Table 1: Sampling Frequency of Wells in the Monitoring Program

Table 2: MNA Sampling Parameters and Container Types

Table 3: COC Detections for September 2023 and December 2023 Groundwater Monitoring

Table 1
Sampling Frequency of Wells in the Monitoring Program
Former Bird Machine Company Site Neponset Street, Walpole, MA

Plume	Sampling Frequency	Well ID	Sampling Plan			
			Mar	Jun	Sep	Dec
Arsenic	Quarterly	MW-706S	X	X	X	X
	Semi-Annual	LR-MW-122		X		X
	Annual	LR-MW-121		X		
		MW-703S		X		
		MB-MW-371		X		
		MW-705S		X		
DCB	Quarterly	MW-702B		X		
		NP-MW-601		X		
	Annual	MW-700S				
		MW-701S				
		MW-702D				
		NP-MW-602				
		NP-MW-603				
cVOCs	Quarterly	MW-709S	X	X	X	X
		MB-MW-374	X	X	X	X
		MW-714S	X	X	X	X
	Semi-Annual	MW-704S		X		X
		MW-709D		X		
		MW-710S		X		
		MW-710M		X		X
		MB-MW-362		X		X
		MW-707D		X		
		MW-711D		X		
		MW-713D		X		X
	Annual	MW-704D		X		
		MB-MW-360		X		
		MB-MW-361		X		
		LR-MW-124				
		LR-MW-129				
		MW-710D				
		MB-MW-363		X		
		MW-715S		X		
		MW-708B				
		MW-708D				
		MW-711S				
		MW-713S		X		
		MW-712S				
		MW-714D		X		
		Sub Total Per Event	**4**	**26**	**4**	**9**

Created by: C. Keating 9/6/2018
Approved by: K. Henry 9/6/2018

Table 2. MNA Sampling Parameters and Container Types

Analytes	Method	Containers (number, size, and type)	Preservation Requirements (chemical, temperature, light protection)	Maximum Holding Time (preperation/ analysis)
Arsenic MWs: 121, 122, 371, 703, 705, 706 (see Table 1 for sampling frequency of monitoring wells)				
Arsenic	SW-846 6020A	one, 500 mL, polyethylene	$NH0_3$ to pH<2, Cool to 4º C	6 months from collection
DCB & cVOC MWs: 124, 129, 360-363, 374, 601-603, 700S, 701S, 702D/B, 704S/D, 707D, 708D/B, 709S/D, 710S/M/D, 711S/D, 712S, 713S/D, 714S/D, 715S (see Table 1 for sampling frequency of monitoring wells)				
VOCs	SW-846 8260C	two, 40 mL, septum sealed amber glass vials	HCl to pH<2, Cool to 4º C, protect from light, no headspace	14 days from collection

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	LR-MW-121	LR-MW-121	LR-MW-121	LR-MW-121	LR-MW-121	LR-MW-121	LR-MW-122	LR-MW-122
		Sample Date:	10/12/20	6/23/21	6/21/22	6/21/22	6/27/23	6/27/23	12/23/19	10/14/20
		Lab Sample ID:	L2043814-15	410-46393-1	L2233521-08	L2233521-09	L2337323-07	L2337323-13	L1961461-03	L2044349-07
		Sample Type:	N	N	N	FD	N	FD	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	ND	ND	ND	ND	ND	ND	13.4	45.4
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l								
1,2,3-TRICHLOROBENZENE	NA	ug/l								
1,2,4-TRICHLOROBENZENE	70	ug/l								
1,2-DICHLOROBENZENE	600	ug/l								
1,2-DICHLOROETHANE	5	ug/l								
1,3-DICHLOROBENZENE	100	ug/l								
1,4-DICHLOROBENZENE	5	ug/l								
ACETONE	6300	ug/l								
CHLOROBENZENE	100	ug/l								
CIS-1,2-DICHLOROETHENE	70	ug/l								
NAPHTHALENE	140	ug/l								
p-ISOPROPYLTOLUENE	NA	ug/l								
TETRACHLOROETHENE	5	ug/l								
TRANS-1,2-DICHLOROETHENE	100	ug/l								
TRICHLOROETHENE	5	ug/l								
VINYL CHLORIDE	2	ug/l								

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	LR-MW-122	LR-MW-122	LR-MW-122	LR-MW-122	LR-MW-122	LR-MW-122	LR-MW-122	MB-MW-360
		Sample Date:	12/14/20	6/24/21	12/2/21	6/22/22	12/6/22	6/27/23	12/6/23	10/14/20
		Lab Sample ID:	L2056063-04	410-46393-7	L2166365-11	L2233521-07	L2268477-03	L2337323-10	L2372243-02	L2044349-05
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	2.2	16	15	13.9	5.7	18.2	10.1	
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l								ND
1,2,3-TRICHLOROBENZENE	NA	ug/l								ND
1,2,4-TRICHLOROBENZENE	70	ug/l								ND
1,2-DICHLOROBENZENE	600	ug/l								ND
1,2-DICHLOROETHANE	5	ug/l								ND
1,3-DICHLOROBENZENE	100	ug/l								ND
1,4-DICHLOROBENZENE	5	ug/l								ND
ACETONE	6300	ug/l								ND
CHLOROBENZENE	100	ug/l								ND
CIS-1,2-DICHLOROETHENE	70	ug/l								ND
NAPHTHALENE	140	ug/l								ND
p-ISOPROPYLTOLUENE	NA	ug/l								ND
TETRACHLOROETHENE	5	ug/l								1.6
TRANS-1,2-DICHLOROETHENE	100	ug/l								ND
TRICHLOROETHENE	5	ug/l								ND
VINYL CHLORIDE	2	ug/l								ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MB-MW-360	MB-MW-360	MB-MW-360	MB-MW-361	MB-MW-361	MB-MW-361	MB-MW-361	MB-MW-362
		Sample Date:	6/23/21	6/22/22	6/28/23	10/14/20	6/23/21	6/22/22	6/28/23	12/23/19
		Lab Sample ID:	L2134596-02	L2233521-23	L2337323-17	L2044349-04	L2134596-08	L2233521-18	L2337323-21	L1961461-10
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	3.2
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	2.6
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	4.2
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MB-MW-362	MB-MW-362	MB-MW-362	MB-MW-362	MB-MW-362	MB-MW-362	MB-MW-362	MB-MW-362
		Sample Date:	10/15/20	12/15/20	6/24/21	12/2/21	6/21/22	12/6/22	6/27/23	12/6/23
		Lab Sample ID:	L2044349-14	L2056063-07	L2134596-20	L2166365-08	L2233521-12	L2268477-09	L2337323-09	L2372243-07
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	3.4	3.9	4.2	1.4	3	3.2	1.5	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	1.2	1.6	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	3.1	4.3	3.5	1.3	1.4	1.7	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MB-MW-363	MB-MW-363	MB-MW-363	MB-MW-363	MB-MW-371	MB-MW-371	MB-MW-371	MB-MW-371
		Sample Date:	10/14/20	6/24/21	6/21/22	6/27/23	10/13/20	6/24/21	6/24/21	6/22/22
		Lab Sample ID:	L2044349-08	L2134596-26	L2233521-15	L2337323-11	L2043814-14	410-46393-3	410-46393-4	L2233521-21
		Sample Type:	N	N	N	N	N	N	FD	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l					0.6	ND	ND	1.7
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND				
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND				
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND				
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND				
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND				
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND				
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND				
ACETONE	6300	ug/l	ND	ND	ND	ND				
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND				
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND				
NAPHTHALENE	140	ug/l	ND	ND	ND	ND				
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND				
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND				
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND				
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND				
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND				

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

			Location:	MB-MW-371	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374
			Sample Date:	6/27/23	9/10/19	12/23/19	12/23/19	3/5/20	10/13/20	12/15/20	3/18/21
			Lab Sample ID:	L2337323-06	L1941176-07	L1961461-09	L1961461-05	L2010088-05	L2043814-09	L2056063-10	L2113626-03
			Sample Type:	N	N	N	FD	N	N	N	N
Analyte	MMCL	Units									
Dissolved Metals											
ARSENIC	10	ug/l		ND							
Volatile Organics											
1,1-DICHLOROETHENE	7	ug/l			ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l			ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l			ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l			ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l			ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l			ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l			ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l			ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l			ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l			1.2	1.4	1.5	1.7	4.7	8.4	8.7
NAPHTHALENE	140	ug/l			ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l			ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l			14	6	7.1	25	3.1	2.8	31
TRANS-1,2-DICHLOROETHENE	100	ug/l			ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l			3.7	2	2.2	7.3	3.6	ND	7.3
VINYL CHLORIDE	2	ug/l			ND	1.1	1.1	ND	ND	2.5	1.9

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374	MB-MW-374
		Sample Date:	6/23/21	9/21/21	12/2/21	3/3/22	6/23/22	9/21/22	12/6/22	3/2/23
		Lab Sample ID:	L2134596-07	L2150919-05	L2166365-05	L2211305-03	L2233521-27	L2251930-03	L2268477-08	L2311094-03
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	5.2	2.4	2.1	1.6	1.6	1.3	1.4	1.7
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	21	17	19	19	7.6	6.2	6.4	16
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	5.7	4	5.1	6.1	2.4	1.4	2	5.2
VINYL CHLORIDE	2	ug/l	1.2	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MB-MW-374	MB-MW-374	MB-MW-374	MW-702B	MW-702B	MW-702B	MW-702B	MW-702B
		Sample Date:	6/27/23	9/26/23	12/6/23	9/10/19	10/12/20	6/22/21	6/20/22	6/27/23
		Lab Sample ID:	L2337323-08	L2356702-03	L2372243-10	L1941176-04	L2043814-04	L2134596-01	L2233521-02	L2337323-05
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	9.3	7.3	7.2	8.7	12
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	11	5	14	11	14
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	1.2	ND	1	ND	1.2
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	1.2	ND	1	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	1.4	1	1	ND	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	9	7	7	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	2.3	1.9	2.2	ND	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-703S	MW-703S	MW-703S	MW-703S	MW-704D	MW-704D	MW-704D	MW-704D
		Sample Date:	10/12/20	6/24/21	6/22/22	6/27/23	10/14/20	6/23/21	6/22/22	6/28/23
		Lab Sample ID:	L2043814-01	410-46393-5	L2233521-22	L2337323-03	L2044349-02	L2134596-09	L2233521-19	L2337323-18
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	1.4	ND	2.3	1.5				
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l					ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l					ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l					ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l					ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l					ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l					ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l					ND	ND	ND	ND
ACETONE	6300	ug/l					ND	ND	ND	ND
CHLOROBENZENE	100	ug/l					ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l					ND	ND	ND	ND
NAPHTHALENE	140	ug/l					ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l					ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l					ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l					ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l					ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l					ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-704S	MW-704S	MW-704S	MW-704S	MW-704S	MW-704S	MW-704S	MW-704S
		Sample Date:	12/23/19	10/14/20	12/15/20	6/23/21	12/1/21	6/22/22	12/5/22	12/5/22
		Lab Sample ID:	L1961461-01	L2044349-01	L2056063-09	L2134596-06	L2166365-01	L2233521-20	L2268477-01	L2268477-02
		Sample Type:	N	N	N	N	N	N	N	FD
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	1.4	1.2	ND	1	1.1	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

			Location:	MW-704S	MW-704S	MW-705S	MW-705S	MW-705S	MW-705S	MW-705S	MW-706S
			Sample Date:	6/28/23	12/7/23	10/12/20	10/12/20	6/23/21	6/21/22	6/27/23	9/10/19
			Lab Sample ID:	L2337323-16	L2372243-03	L2043814-05	L2043814-06	410-46393-2	L2233521-04	L2337323-01	L1941176-06
			Sample Type:	N	N	N	FD	N	N	N	N
Analyte	MMCL	Units									
Dissolved Metals											
ARSENIC	10	ug/l				ND	ND	ND	ND	ND	57.5
Volatile Organics											
1,1-DICHLOROETHENE	7	ug/l	ND	ND							
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND							
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND							
1,2-DICHLOROBENZENE	600	ug/l	ND	ND							
1,2-DICHLOROETHANE	5	ug/l	ND	ND							
1,3-DICHLOROBENZENE	100	ug/l	ND	ND							
1,4-DICHLOROBENZENE	5	ug/l	ND	ND							
ACETONE	6300	ug/l	ND	ND							
CHLOROBENZENE	100	ug/l	ND	ND							
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND							
NAPHTHALENE	140	ug/l	ND	ND							
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND							
TETRACHLOROETHENE	5	ug/l	ND	1.1							
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND							
TRICHLOROETHENE	5	ug/l	ND	ND							
VINYL CHLORIDE	2	ug/l	ND	ND							

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S
		Sample Date:	9/10/19	12/23/19	12/23/19	3/5/20	3/5/20	10/13/20	12/14/20	12/14/20
		Lab Sample ID:	L1941176-02	L1961461-02	L1961461-04	L2010088-02	L2010088-03	L2043814-10	L2056063-05	L2056063-03
		Sample Type:	FD	N	FD	N	FD	N	N	FD
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	58.8	42.5	41.8	38.5	41.4	80.9	13.2	12.4
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l								
1,2,3-TRICHLOROBENZENE	NA	ug/l								
1,2,4-TRICHLOROBENZENE	70	ug/l								
1,2-DICHLOROBENZENE	600	ug/l								
1,2-DICHLOROETHANE	5	ug/l								
1,3-DICHLOROBENZENE	100	ug/l								
1,4-DICHLOROBENZENE	5	ug/l								
ACETONE	6300	ug/l								
CHLOROBENZENE	100	ug/l								
CIS-1,2-DICHLOROETHENE	70	ug/l								
NAPHTHALENE	140	ug/l								
p-ISOPROPYLTOLUENE	NA	ug/l								
TETRACHLOROETHENE	5	ug/l								
TRANS-1,2-DICHLOROETHENE	100	ug/l								
TRICHLOROETHENE	5	ug/l								
VINYL CHLORIDE	2	ug/l								

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S
		Sample Date:	3/18/21	3/18/21	6/24/21	9/21/21	9/21/21	12/1/21	12/1/21	3/3/22
		Lab Sample ID:	L2113626-05	L2113626-06	410-46393-6	L2150919-01	L2150919-02	L2166365-02	L2166365-04	L2211305-04
		Sample Type:	N	FD	N	N	FD	N	FD	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	11.4	11.5	96	17.2	18.2	4.5	4.7	4.5
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l								
1,2,3-TRICHLOROBENZENE	NA	ug/l								
1,2,4-TRICHLOROBENZENE	70	ug/l								
1,2-DICHLOROBENZENE	600	ug/l								
1,2-DICHLOROETHANE	5	ug/l								
1,3-DICHLOROBENZENE	100	ug/l								
1,4-DICHLOROBENZENE	5	ug/l								
ACETONE	6300	ug/l								
CHLOROBENZENE	100	ug/l								
CIS-1,2-DICHLOROETHENE	70	ug/l								
NAPHTHALENE	140	ug/l								
p-ISOPROPYLTOLUENE	NA	ug/l								
TETRACHLOROETHENE	5	ug/l								
TRANS-1,2-DICHLOROETHENE	100	ug/l								
TRICHLOROETHENE	5	ug/l								
VINYL CHLORIDE	2	ug/l								

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S
		Sample Date:	3/3/22	6/21/22	9/21/22	9/21/22	12/6/22	12/6/22	3/2/23	3/2/23
		Lab Sample ID:	L2211305-06	L2233521-10	L2251930-01	L2251930-06	L2268477-04	L2268477-05	L2311094-05	L2311094-06
		Sample Type:	FD	N	N	FD	N	FD	N	FD
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l	4.7	11.6	100.3	90.7	69.4	58.2	ND	5.6
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l								
1,2,3-TRICHLOROBENZENE	NA	ug/l								
1,2,4-TRICHLOROBENZENE	70	ug/l								
1,2-DICHLOROBENZENE	600	ug/l								
1,2-DICHLOROETHANE	5	ug/l								
1,3-DICHLOROBENZENE	100	ug/l								
1,4-DICHLOROBENZENE	5	ug/l								
ACETONE	6300	ug/l								
CHLOROBENZENE	100	ug/l								
CIS-1,2-DICHLOROETHENE	70	ug/l								
NAPHTHALENE	140	ug/l								
p-ISOPROPYLTOLUENE	NA	ug/l								
TETRACHLOROETHENE	5	ug/l								
TRANS-1,2-DICHLOROETHENE	100	ug/l								
TRICHLOROETHENE	5	ug/l								
VINYL CHLORIDE	2	ug/l								

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

			Location:	MW-706S	MW-706S	MW-706S	MW-706S	MW-706S	MW-707D	MW-707D	MW-707D
			Sample Date:	6/27/23	9/26/23	9/26/23	12/7/23	12/7/23	10/13/20	6/23/21	6/21/22
			Lab Sample ID:	L2337323-04	L2356702-01	L2356702-06	L2372243-01	L2372243-11	L2043814-07	L2134596-04	L2233521-14
			Sample Type:	N	N	FD	N	FD	N	N	N
Analyte	MMCL	Units									
Dissolved Metals											
ARSENIC	10	ug/l		3.1	4.2	4.4	7.2	8.3			
Volatile Organics											
1,1-DICHLOROETHENE	7	ug/l							ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l							ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l							ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l							ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l							ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l							ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l							ND	ND	ND
ACETONE	6300	ug/l							ND	ND	ND
CHLOROBENZENE	100	ug/l							ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l							ND	ND	ND
NAPHTHALENE	140	ug/l							ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l							ND	ND	ND
TETRACHLOROETHENE	5	ug/l							ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l							ND	ND	ND
TRICHLOROETHENE	5	ug/l							ND	ND	ND
VINYL CHLORIDE	2	ug/l							ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-707D	MW-709D	MW-709D	MW-709D	MW-709D	MW-709D	MW-709S	MW-709S
		Sample Date:	6/29/23	10/13/20	6/24/21	6/21/22	6/28/23	6/28/23	9/10/19	12/23/19
		Lab Sample ID:	L2337323-25	L2043814-11	L2134596-27	L2233521-06	L2337323-23	L2337323-24	L1941176-08	L1961461-12
		Sample Type:	N	N	N	N	N	FD	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	2.5	2.3
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	ND	ND	13	10
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	70	57
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	39	33
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	5.9	8.3

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S
		Sample Date:	3/5/20	10/13/20	12/15/20	3/18/21	3/18/21	6/24/21	6/24/21	9/21/21
		Lab Sample ID:	L2010088-06	L2043814-12	L2056063-12	L2113626-01	L2113626-02	L2134596-22	L2134596-23	L2150919-03
		Sample Type:	N	N	N	N	FD	N	FD	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	2.6	1.9	2.1	2	1.9	2	1.9	1.7
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	11	9.7	10	9.9	9.6	10	10	8.1
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	65	42	53	54	54	54	46	46
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	39	28	30	29	28	30	28	22
VINYL CHLORIDE	2	ug/l	6.1	4.5	5.6	5.4	5.3	5.9	6.1	4.5

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S
		Sample Date:	9/21/21	12/2/21	12/2/21	3/3/22	3/3/22	6/21/22	9/21/22	9/21/22
		Lab Sample ID:	L2150919-06	L2166365-06	L2166365-07	L2211305-02	L2211305-05	L2233521-05	L2251930-02	L2251930-05
		Sample Type:	FD	N	FD	N	FD	N	N	FD
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	1.6	1.7	1.7	1.2	1.2	1.4	ND	1.1
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	5	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	8.1	8.5	8.2	5.6	5.8	7.2	5.9	5.8
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	48	48	48	35	35	35	26	27
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	23	25	25	17	18	19	16	16
VINYL CHLORIDE	2	ug/l	4.6	4.2	4.2	3.4	3.7	3.9	3	3.2

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-709S	MW-710M
		Sample Date:	12/6/22	3/2/23	3/2/23	6/27/23	9/26/23	9/26/23	12/6/23	12/23/19
		Lab Sample ID:	L2268477-06	L2311094-04	L2311094-07	L2337323-12	L2356702-02	L2356702-05	L2372243-05	L1961461-06
		Sample Type:	N	N	FD	N	N	FD	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	1.5	1.3	1.3	1.1	ND	ND	1.1	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	7.2	6.7	6.6	6.7	4.8	4.9	5.7	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	36	38	38	31	28	29	33	3
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	20	20	20	16	14	14	18	2.2
VINYL CHLORIDE	2	ug/l	3.9	3.6	3.5	2.8	2.9	2.9	2.9	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-710M	MW-710M	MW-710M	MW-710M	MW-710M	MW-710M	MW-710M	MW-710M
		Sample Date:	10/15/20	12/15/20	6/24/21	12/2/21	6/21/22	12/6/22	6/28/23	12/6/23
		Lab Sample ID:	L2044349-13	L2056063-11	L2134596-25	L2166365-10	L2233521-11	L2268477-07	L2337323-19	L2372243-04
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	3.2	2.5	1.8	2.3	1.8	2.3	1.8	2.2
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	2.1	1.8	1.2	1.2	ND	1.6	1	1.3
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-710S	MW-710S	MW-710S	MW-710S	MW-711D	MW-711D	MW-711D	MW-711D
		Sample Date:	10/15/20	6/24/21	6/21/22	6/28/23	10/13/20	6/23/21	6/22/22	6/29/23
		Lab Sample ID:	L2044349-12	L2134596-28	L2233521-13	L2337323-20	L2043814-08	L2134596-10	L2233521-25	L2337323-27
		Sample Type:	N	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-713D	MW-713D	MW-713D	MW-713D	MW-713D	MW-713D	MW-713D	MW-713D
		Sample Date:	12/23/19	10/15/20	12/15/20	12/15/20	6/24/21	6/24/21	12/2/21	6/21/22
		Lab Sample ID:	L1961461-08	L2044349-10	L2056063-06	L2056063-02	L2134596-21	L2134596-29	L2166365-09	L2233521-16
		Sample Type:	N	N	N	FD	N	FD	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	13	29	10	9.1	5.4	6.2	2.6	2
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	25	14	22	21	15	14	16	11
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	1.4	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	12	12	9.7	9.1	6.6	6.2	5.7	4.1
VINYL CHLORIDE	2	ug/l	3.5	4	1.9	1.7	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-713D	MW-713D	MW-713D	MW-713S	MW-713S	MW-713S	MW-713S	MW-713S
		Sample Date:	12/6/22	6/28/23	12/6/23	10/15/20	10/15/20	6/24/21	6/21/22	6/28/23
		Lab Sample ID:	L2268477-11	L2337323-15	L2372243-09	L2044349-09	L2044349-11	L2134596-24	L2233521-17	L2337323-14
		Sample Type:	N	N	N	N	FD	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	2.2	1.4	1.3	3.3	3.4	3.4	4.3	3.7
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	13	10	7.6	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	4.9	3.4	2.7	ND	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	1.7	1.7	2	2.2	1.3

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-714D	MW-714D	MW-714D	MW-714D	MW-714S	MW-714S	MW-714S	MW-714S
		Sample Date:	10/13/20	6/23/21	6/23/22	6/29/23	9/10/19	9/10/19	12/23/19	3/5/20
		Lab Sample ID:	L2043814-13	L2134596-11	L2233521-26	L2337323-28	L1941176-05	L1941176-03	L1961461-07	L2010088-01
		Sample Type:	N	N	N	N	N	FD	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND	4.2	4.1	9	9.8
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	13	42
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	23	43
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND	2.5	2.5	2.1	1

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S
		Sample Date:	3/5/20	10/14/20	12/15/20	3/18/21	6/23/21	9/21/21	12/2/21	3/3/22
		Lab Sample ID:	L2010088-04	L2044349-03	L2056063-08	L2113626-04	L2134596-03	L2150919-04	L2166365-03	L2211305-01
		Sample Type:	FD	N	N	N	N	N	N	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	10	ND	8.8	8	8	5.6	9.6	8
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	46	ND	1.1	ND	ND	ND	1.2	1
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	46	ND	7.8	3.3	ND	ND	8.3	4.1
VINYL CHLORIDE	2	ug/l	1.1	ND	1.4	1.2	1.6	1.5	1.2	1.5

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S	MW-714S
		Sample Date:	6/23/22	6/23/22	9/21/22	12/6/22	3/2/23	6/29/23	6/29/23	9/26/23
		Lab Sample ID:	L2233521-28	L2233521-29	L2251930-04	L2268477-10	L2311094-02	L2337323-26	L2337323-29	L2356702-04
		Sample Type:	N	FD	N	N	N	N	FD	N
Analyte	MMCL	Units								
Dissolved Metals										
ARSENIC	10	ug/l								
Volatile Organics										
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	7.8	8	ND	15	13	8.1	8.2	5.3
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	6.2	4.7	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	1	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	22	13	1.1	1.1	ND
VINYL CHLORIDE	2	ug/l	1.6	1.5	ND	1.9	2	1.4	1.4	1.8

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

			Location:	MW-714S	MW-714S	MW-715S	MW-715S	MW-715S	MW-715S	NP-MW-601	NP-MW-601
			Sample Date:	12/6/23	12/6/23	10/14/20	6/23/21	6/22/22	6/28/23	10/12/20	10/12/20
			Lab Sample ID:	L2372243-06	L2372243-08	L2044349-06	L2134596-05	L2233521-24	L2337323-22	L2043814-02	L2043814-03
			Sample Type:	N	FD	N	N	N	N	N	FD
Analyte	MMCL	Units									
Dissolved Metals											
ARSENIC	10	ug/l									
Volatile Organics											
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	ND	ND	ND	ND	ND	ND	12	14
1,2,4-TRICHLOROBENZENE	70	ug/l	ND	ND	ND	ND	ND	ND	10	12
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	1.2	1.5
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	1.2
ACETONE	6300	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	8.3	8.6	ND	ND	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	2	2.1	ND	ND	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	1.6	1.6	ND	ND	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

Table 3. COC Detections for September - December 2023 Groundwater Monitoring
Bird Machine Company

		Location:	NP-MW-601	NP-MW-601	NP-MW-601	NP-MW-601
		Sample Date:	6/24/21	6/20/22	6/20/22	6/27/23
		Lab Sample ID:	L2134596-19	L2233521-01	L2233521-03	L2337323-02
		Sample Type:	N	N	FD	N
Analyte	MMCL	Units				
Dissolved Metals						
ARSENIC	10	ug/l				
Volatile Organics						
1,1-DICHLOROETHENE	7	ug/l	ND	ND	ND	ND
1,2,3-TRICHLOROBENZENE	NA	ug/l	11	13	14	14
1,2,4-TRICHLOROBENZENE	70	ug/l	5.6	8.5	8.1	7.8
1,2-DICHLOROBENZENE	600	ug/l	ND	ND	ND	ND
1,2-DICHLOROETHANE	5	ug/l	ND	ND	ND	ND
1,3-DICHLOROBENZENE	100	ug/l	ND	1.1	1.1	1
1,4-DICHLOROBENZENE	5	ug/l	ND	ND	ND	ND
ACETONE	6300	ug/l	ND	ND	ND	ND
CHLOROBENZENE	100	ug/l	ND	ND	ND	ND
CIS-1,2-DICHLOROETHENE	70	ug/l	ND	ND	ND	ND
NAPHTHALENE	140	ug/l	ND	ND	ND	ND
p-ISOPROPYLTOLUENE	NA	ug/l	ND	ND	ND	ND
TETRACHLOROETHENE	5	ug/l	ND	ND	ND	ND
TRANS-1,2-DICHLOROETHENE	100	ug/l	ND	ND	ND	ND
TRICHLOROETHENE	5	ug/l	ND	ND	ND	ND
VINYL CHLORIDE	2	ug/l	ND	ND	ND	ND

Notes:
ND = Not Detected
Green Fill = Detect > MMCL

Prepared by: AKN 12/20/2023
Checked by: MDM 01/24/2024

FIGURES

Figure 1: Site Location Map

Figure 2: Disposal Site Boundary

Figure 3: Current Site Features

Figure 4: Bedrock Elevations from Drilling

Figure 5: Monitoring Well Locations

Figure 6: USGS Hydrograph for Neponset River

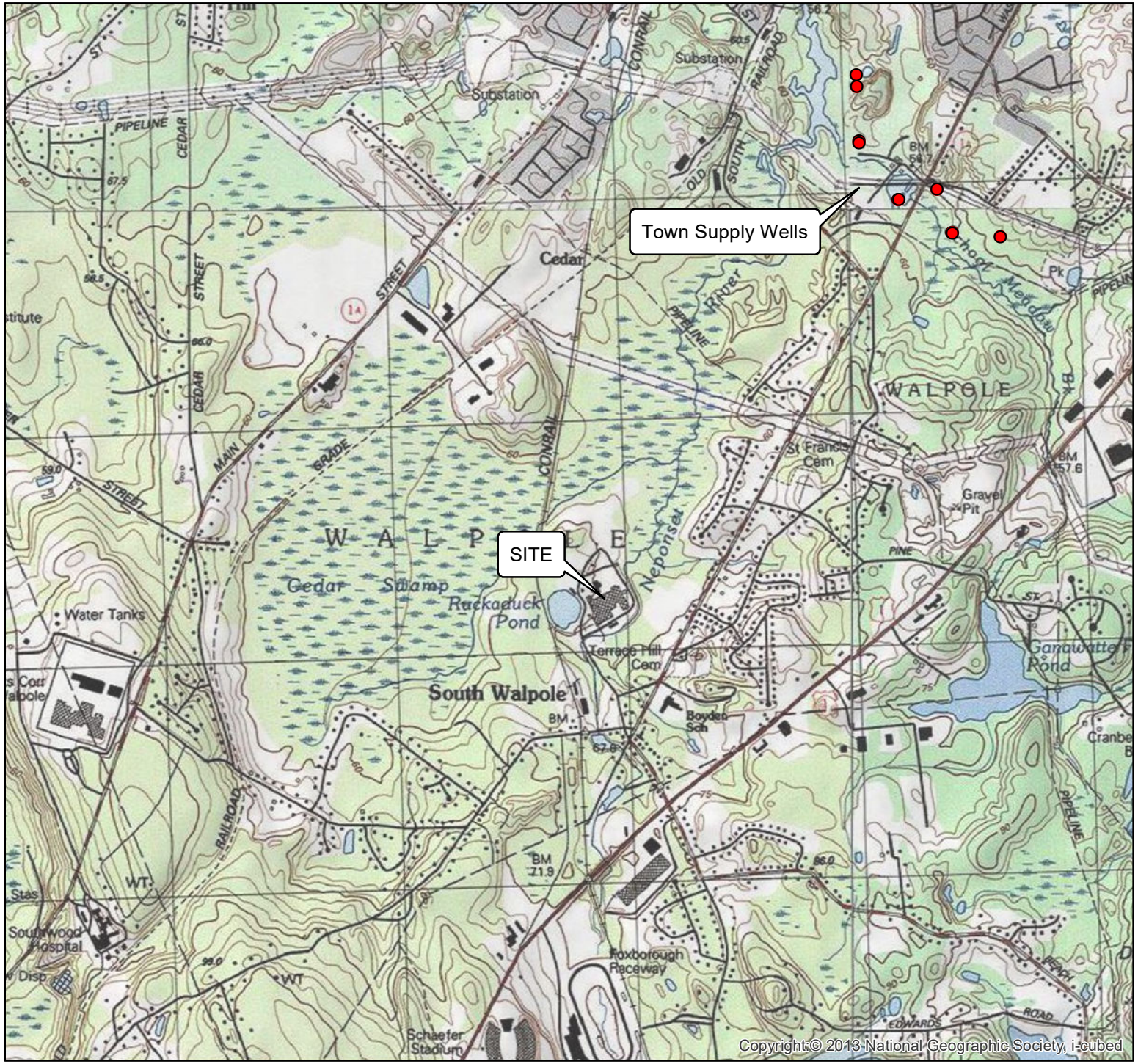

FIGURE 1

SITE LOCATION MAP

Former Bird Machine Company

100 Neponset Street
Walpole, MA

Location of Site

Source: Topo quad provided by National Geographic TOPO! Series: 2008
Town Supply Wells by MassGIS, 2012.

0 2,000 Feet

N

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
(978) 692-9090

H:\BirdMachineCo\Task12\MXD\SiteMap.mxd August 02, 2023 DWN: lindsey.belliveau CHKD: AKN

CEDAR SWAMP BROOK

100-YEAR FLOOD LINE

Demolition Debris Area

Lead Release Area 3

Manufacturing Building Area

RUCKADUCK POND

South Rail Spur Area

NEPONSET RIVER

Neponset Street

Figure 2

Disposal Site Boundary, Former Bird Machine Company

- Property Boundary
- Manufacturing Building Area
- Lead Release Area 3
- South Rail Spur Area
- Demolition Debris Exposure Area
- RTN 4-3024222 Boundary
- 100-Year Flood Elevation
- Inverter Pads
- River Banks
- Boundary of Bordering Vegetated Wetlands

N

Source: Imagery provided by MassGIS, 2019.

0 110 220 Feet

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BUILDING #	BUILDING USE
1	OFFICE
3	BOILER HOUSE
4	LABORATORY
4A	DEVELOPMENT CENTER
5	STORES
6	MANUFACTURING OFFICE/LATHE
6A	BORING MILL
6B	BORING MILL
6C	BORING MILL
6D	MILLS & DRILLS INSPECTION
7	SHEET METAL
7A	FABRICATION
7B	WELDING
7C	WELDING
7D	WELDING
7E	MATERIAL STORAGE
8	ASSEMBLY
8A	ASSEMBLY
9	FIRE PUMP HOUSE
12	RESEARCH & DEVELOPMENT
15	HOUSE
19	GARAGE
20	MICREX BUILDING
22	INDUSTRIAL WASTE & RECLAMATION CENTER
21	GUARD SHACK
23	METAL WAREHOUSE

19
20
FORMER 5000 GAL. WASTEWATER TANK (FILLED W/CONCRETE)
FORMER PUMP CHAMBER CONCRETE BASE
4
7
7C
7B
3
6A
1
6
7A
7D
6C
6D
6B
7E
5
TRANSITE PIPE ENCASED IN CONCRETE
8A
8
FORMER 10,000 GAL CONCRETE SUMP (FILLED WITH SAND)
23
9
22
21
RUCKADUCK POND
NEPONSET RIVER
100-YEAR FLOOD LINE
Neponset Street

Figure 3

Current Site Features

- Catch Basin Location
- 100-Year Flood Elevation
- River Banks
- Storm Drain and Outfalls
- Property Boundary
- Historic Building Frost Walls Remain
- Historic Building Frost Walls and Floors Remain
- RAM Excavation Fill Area

N

Source: Imagery provided by MassGIS, 2019.

0 62.5 125 Feet

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
(978) 692-9090

H:\BirdMachineCo\Task17\MXD\Figure3.mxd August 02, 2023 DWN: lindsey.belliveau CHKD: AKN

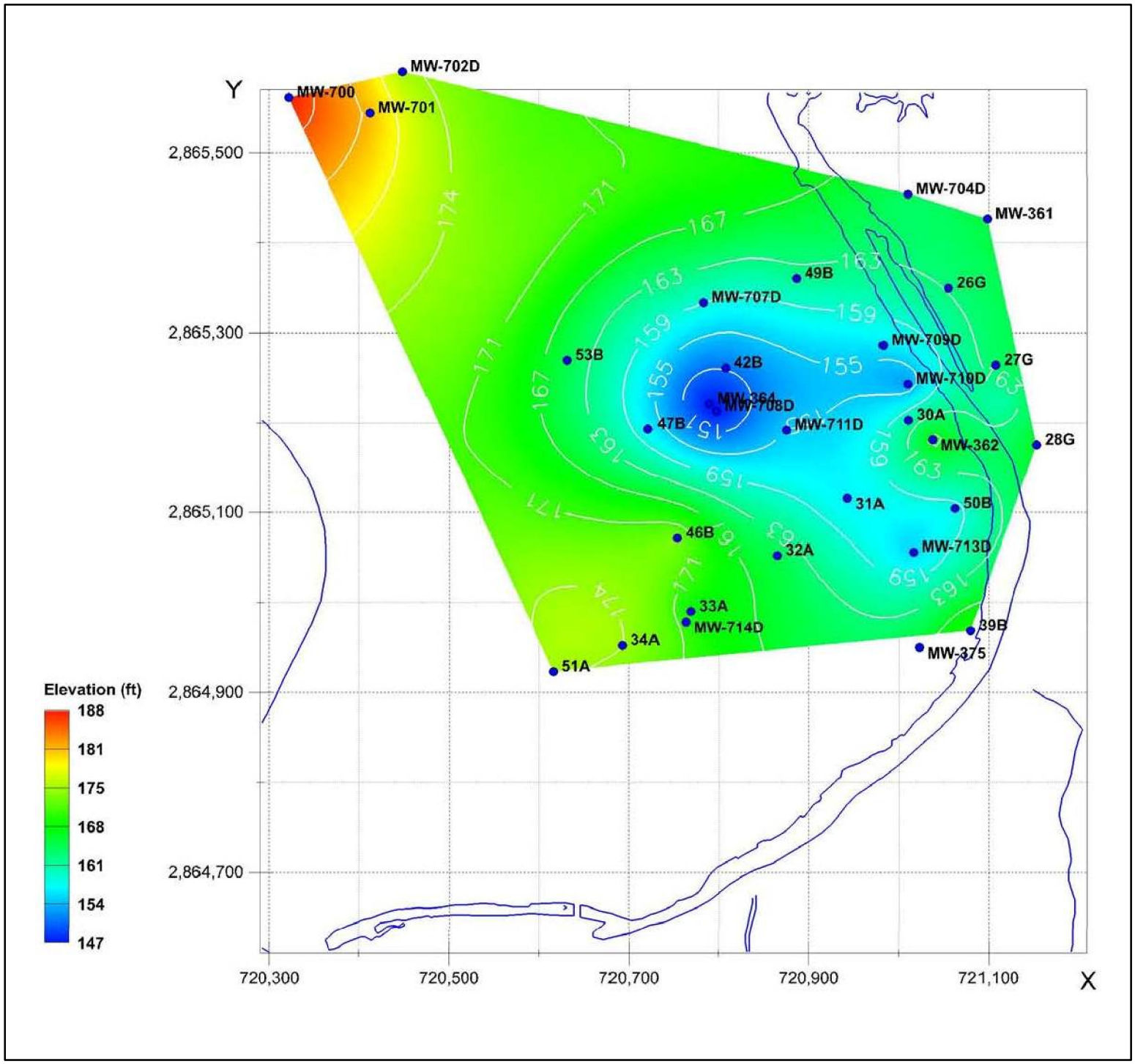


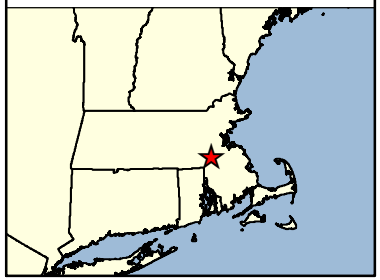
FIGURE 4

BEDROCK ELEVATIONS FROM DRILLING

Former Bird Machine Company

100 Neponset Street
Walpole, MA

Location of Site

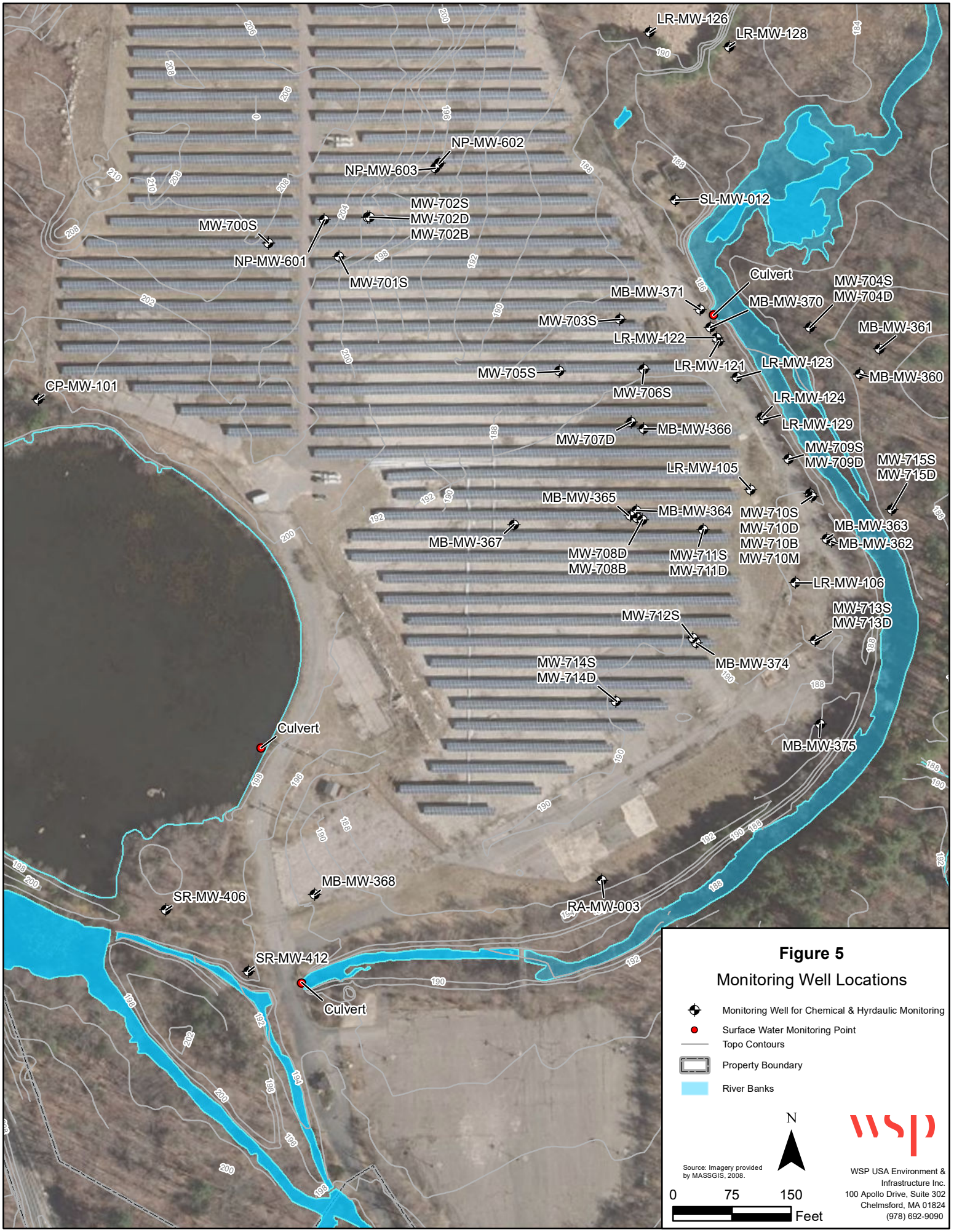


Source: MassGIS, 2001.

N

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
(978) 692-9090

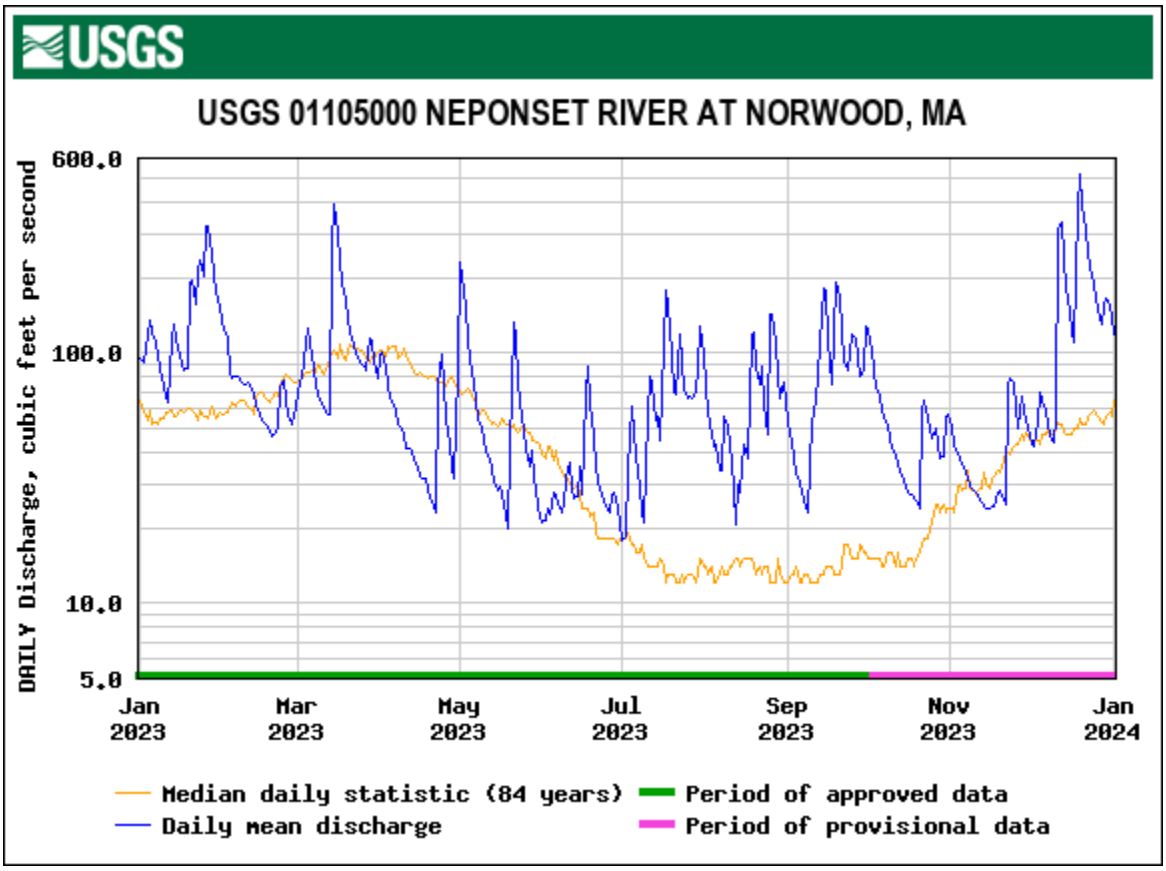
H:\BirdMachineCo\Task19\MXD\Figure4_BedrockElevationsFromDrilling.mxd August 02, 2023 DWN: lindsey.belliveau CHKD: AKN



H:\BirdMachineCo\Task18\MXD\Fig5_MW_Locations.mxd August 02, 2023 DWN: lindsey.belliveau CHKD: AKN

Figure 6. USGS Hydrograph of the Neponset River

Daily Discharge, January 2023 – January 2024



Source: https://waterdata.usgs.gov/

Prepared by: M. Mendes, 1/25/2024
Checked by: S. Mizusawa, 2/8/2024

APPENDIX A

Public Notification Letter

Draft RMR Transmittal Letter Including PIP Mailing List Notice of Document Availability

WSP USA Associates Massachusetts Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA

T: 978-692-9090

www.wsp.com

February 19, 2024

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

Re: Phase V Status and Remedial Monitoring Report
100 Neponset Street
Walpole, Massachusetts
RTN 4-3024222

Dear Mr. Martin,

On behalf of Baker Hughes, WSP USA Environment & Infrastructure Inc. (WSP, formerly WSP USA Massachusetts Inc.) is providing this Phase V Status and Remedial Monitoring Report (RMR) for the Bird Machine Company Site at 100 Neponset Street in Walpole, Massachusetts. Baker Hughes is submitting this RMR pursuant to 310 CMR 40.0890 of the Massachusetts Contingency Plan (MCP). The Site is listed as Release Tracking Number (RTN) 4-3024222 under the MCP.

This RMR documents the operation of a Comprehensive Remedial Action that is expected to be a Permanent Solution for the Site, and that was installed as described in the Phase IV Final Inspection Report. A Permanent Solution will achieve a condition of No Significant Risk for current and reasonably foreseeable site uses. As documented in the Class C-2 Response Action Outcome Statement submitted to the Massachusetts Department of Environmental Protection (MassDEP) on December 16, 2011, the Site already achieves the requirements of a Temporary Solution.

A copy of the Executive Summary of this report is attached to this letter, which is being sent by U.S. Mail to members of the Public Involvement Plan (PIP) mailing list. A paper copy of the RMR is being provided to the PIP repository at the Walpole Public Library (Telephone Number: 508-660-7341) at 143 School Street. The electronic report has been uploaded to the MassDEP (https://eeaonline.eea.state.ma.us/portal#!/search/wastesite) and is also being provided today to the Town of Walpole for upload to their website: https://www.walpole-ma.gov/board-of-health/pages/bird-machine-information.

Comments on this RMR can be submitted to Chris Clodfelter of Baker Hughes at the following address:

Chris Clodfelter
Senior HS&E Specialist
Baker Hughes
12645 West Airport Boulevard
Sugar Land, Texas 77478-6120
Cell: (832) 668-0112
Please contact me at (978) 467-5988 if you have any questions regarding the Public Involvement process for this document

Sincerely,
WSP USA Environment & Infrastructure Inc.

Kim M. Henry
LSP No. 7122

cc: Mr. Jim Johnson, Walpole Town Administrator
Ms. Melissa Ranieri, Walpole Health Director
Ms. Landis Hershey, Walpole Conservation Agent
Public Involvement Plan Mailing List

Enclosure:
Copy of Phase V RMR Executive Summary

Copy of Phase V RMR Executive Summary

On behalf of Baker Hughes, WSP USA Environment & Infrastructure, Inc. (WSP, formerly WSP USA Massachusetts Inc.) completed this Phase V Status and Remedial Monitoring Report (RMR) for the former Bird Machine Company (BMC) Site located in Walpole, Massachusetts. Baker Hughes is submitting this RMR pursuant to 310 CMR 40.0890 of the Massachusetts Contingency Plan (MCP). This RMR documents the operation of a Comprehensive Remedial Action that is expected to be a Permanent Solution for the Site, and that was installed as described in the Phase IV Final Inspection Report (FIR; AMEC 2012). A Permanent Solution will achieve a condition of No Significant Risk (NSR) for current and reasonably foreseeable site uses. As documented in the Class C-2 Response Action Outcome (RAO) Statement submitted to the Massachusetts Department of Environmental Protection (MassDEP) on December 16, 2011, the Site already achieves the requirements of a Temporary Solution (AMEC 2011a).

Release Abatement Measures (RAMs) have been conducted at several locations between 2005 and 2011 to reduce the mass and concentrations of contaminants at the Site. The Phase II Comprehensive Site Assessment (CSA) reports (AMEC 2011b, AMEC 2011c) indicate that a condition of NSR exists for all areas of the Site except groundwater, where some monitoring well concentrations exceed drinking water criteria (Massachusetts Maximum Contaminant Levels or MMCLs). It is unlikely that groundwater at the Site will be used for drinking water, but the Site is within a Potential Drinking Water Source Area designated by the Town of Walpole (Walpole 2007). Considering this designation, groundwater at the Site is categorized as GW-1 under the MCP. The CSA reports found no current pathway between Site contaminants and the Town's water supply wells to the northeast, but the potential for contaminant movement from a portion of the Site warrants further monitoring.

Areas of groundwater contamination exceeding MMCLs were identified for arsenic, chlorinated Volatile Organic Compounds (cVOCs), and 1,4-dichlorobenzene (DCB). A Monitored Natural Attenuation (MNA) remedy consisting of active monitoring of natural processes was selected to achieve clean up goals and was installed in accordance with Phase IV of the MCP. MNA is considered an Active Remedial Monitoring Program under the MCP and has been designed and constructed to provide a Permanent Solution that achieves a condition of NSR, as described in the FIR (AMEC 2012).

The August 2013 Phase V Status and Remedial Monitoring Report (RMR; AMEC 2013a) coincided with one year of initial process monitoring as described in the FIR. At that time, it was determined that initial process monitoring had confirmed that key MNA processes were underway and a transition to long-term performance monitoring was appropriate. Long-term monitoring is designed to confirm that site conditions remain suitable for MNA, and that overall contaminant concentrations and mass are decreasing within a reasonable timeframe.

The long-term monitoring program performed until 2018 included quarterly sampling at six locations within the plumes that have had significant fluctuations in recent contaminant concentrations above the MMCLs, semi-annual sampling at nine other wells within the horizontal and vertical extent of the plume areas where previous quarterly sampling shows little variation in concentrations, and annual sampling at 23 wells along the plume lateral or vertical edges where concentrations are below MMCLs. The results over the first five years of monitoring showed consistent results with concentrations at many wells below ½ the MMCL, which is the selected remedial goal for the Site. As a result, some monitoring wells were selected for reduced sampling frequency, or removal from the long-term monitoring program. These changes were implemented beginning in the third quarter of 2018. The current Operation, Maintenance, and Monitoring (OMM) program is summarized in Table 1 and includes performance of long-term monitoring in March (quarterly), June (quarterly, semi-annual, and annual), September (quarterly), and December (quarterly and semi-annual). Analytes for long-term monitoring consist of the contaminants exceeding MMCLs and their primary breakdown products.

Groundwater sampling results from the September 2023 and December 2023 rounds indicate that MNA processes continue to reduce the overall mass and concentrations of contaminants at the Site. Concentrations within the DCB plume have continued to decline steadily, and the remedial goals have now been achieved for all wells within the plume. While some wells in the interior of the cVOC plume

continue to show fluctuating concentrations above the MMCL, the plume is stable or contracting as evidenced by the overall decreasing contaminant trends. Recent arsenic results indicate that the overall plume is stable (i.e. not expanding), however concentrations within the plume interior can vary significantly. No significant changes to the Conceptual Site Model (CSM) are warranted based on the latest measurements. Groundwater sampling data collected during the current reporting period are presented in this RMR and a more detailed interpretation of results will be included in the forthcoming August 2024 RMR.

APPENDIX B

BWSC Transmittal Form

(To Be Included in Paper Copy Following eDEP Submittal of Final Version)

Massachusetts Department of Environmental Protection

eDEP Transaction Copy

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username:	**KMHENRY**
Transaction ID:	**1677088**
Document:	**BWSC108 Comp. Res. Action Transmittal Form & Phase I**
Size of File:	**379.44K**
Status of Transaction:	**Submitted**
Date and Time Created:	**2/26/2024:10:43:50 AM**

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to “Download a Copy” from the Current Submittals page.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

Release Tracking Number
4 - 3024222

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: BAKER HUGHES INC FMLY BIRD MACHINE CO

2. Street Address: 100 NEPONSET ST

3. City/Town: WALPOLE 4. ZIP Code:

☑ 5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category:

☑ a. Tier I ☐ b. Tier ID ☐ c. Tier II

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 **interim Phase II Report.** 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 Permanent or Temporary Solution.

☐ b. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.

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.)

a. Type of Report: (check one) ☐ i. Initial Report ☑ ii. Interim Report ☐ 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 every six months, concurrent with a Status Report.

☐ iv. A Remedial Monitoring Report(s) submitted annually, concurrent with a Status Report.

c. Status of Site: (check one) ☐ i. Phase IV ☐ ii. Phase V ☑ iii. Remedy Operation Status ☐ iv. Temporary Solution

d. Number of Remedial Systems and/or Monitoring Programs: 1

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 **Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS),** pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).

☐ a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").

☐ b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").

c. Number of Persons Maintaining an ROS not including the primary representative: _____

☐ 20. Submit a **Termination of a Remedy Operation Status,** pursuant to 310 CMR 40.0893(6).(check one)

☐ a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6)(b) for resuming the ROS are attached.

☐ b. Submit a notice of Termination of ROS.

☐ 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 Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ b. The requirements for a Temporary Solution have been met. A completed Temporary Solution 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 **Temporary Solution Status Report,** pursuant to 310 CMR 40.0898.

☐ 24. Submit a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

a. Status of Site: (check one)

☐ i. Phase IV ☐ ii. Phase V ☐ iii. Remedy Operation Status ☐ iv. Temporary Solution

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*** *and/or a* ***Termination of a Remedy Operation Status*** *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 Temporary Solution Status Report,*** *a* ***Status Report to Maintain a Remedy Operation Status,*** *a* ***Transfer or Modification of Persons Maintaining 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 incomplete.

1. LSP#: 7122

2. First Name: KIM M 3. Last Name: HENRY

4. Telephone: 9786929090 5. Ext.: 6. Email: kim.henry@woodplc.com

7. Signature: KIM M HENRY

8. Date: 2/19/2024 (mm/dd/yyyy)

9. LSP Stamp:

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 ☐ c. change in the person undertaking response actions

2. Name of Organization: BAKER HUGHES INC

3. Contact First Name: CHRIS 4. Last Name: CLODFELTER

5. Street: 12645 WEST AIRPORT BLVD 6. Title:

7. City/Town: SUGAR LAND 8. State: TX 9. ZIP Code: 774780000

10. Telephone: 5086680400 11. Ext: 12. Email:

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS: ☐ Check here to change relationship

☑ 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:

☐ 1. 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 Transfer of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for the person making this submittal (transferee) is attached.

☐ 7. If submitting a Modification of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for each new person making this submittal is attached.

☐ 8. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to: BWSC.eDEP@state.ma.us.

☑ 9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, CHRIS CLODFELTER, 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 am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

>*if Section B indicates that this is a* **Modification of a Remedy Operation Status (ROS),** I attest under the pains and penalties of perjury that I am fully authorized to act on behalf of all persons performing response actions under the ROS as stated in 310 CMR 40.0893(5)(d) to receive oral and written correspondence from MassDEP with respect to performance of response actions under the ROS, and to receive a statement of fee amount as per 4.03(3).

I understand that any material received by the Primary Representative from MassDEP shall be deemed received by all the persons performing response actions under the ROS, and I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

2. By: CHRIS CLODFELTER (Signature) 3. Title: _____

4. For: BAKER HUGHES INC (Name of person or entity recorded in Section D) 5. Date: 2/19/2024 (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. Email: _____

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:)

Received by DEP on 2/19/2024 2:55:14 PM

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 1 of: 1

BWSC108 -A

Release Tracking Number
4 - 3024222

A. DESCRIPTION OF ACTIVE OPERATION AND MAINTENANCE ACTIVITY:

1. Type of Active Operation and Maintenance Activity: (check all that apply)

☐ a. Active Remedial System: (check all that apply)
- ☐ i. NAPL Recovery
- ☐ ii. Soil Vapor Extraction/Bioventing
- ☐ iii. Vapor-phase Carbon Adsorption
- ☐ iv. Groundwater Recovery
- ☐ v. Dual/Multi-phase Extraction
- ☐ vi. Aqueous-phase Carbon Adsorption
- ☐ vii. Air Stripping
- ☐ viii. Sparging/Biosparging
- ☐ ix. Cat/Thermal Oxidation
- ☐ x. Other Describe:

☐ b. Active Exposure Pathway Elimination Measure
Active Exposure Pathway Mitigation System to address (check one): ☐ i. Indoor Air ☐ ii. Drinking Water

☐ c. Application of Remedial Additives: (check all that apply)
- ☐ i. To the Subsurface
- ☐ ii. To Groundwater (Injection)
- ☐ iii. To the Surface

☑ d. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section G5)
- ☐ i. Reactive Wall
- ☑ ii. Natural Attenuation
- ☐ iii. Other Describe:

2. Mode of Operation: (check one)
☐ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)
- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☐ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☐ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)
- ☐ f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 7/1/2023 (mm/dd/yyyy) To: 12/31/2023 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
- ☐ ii. Other Describe:

☑ b. Post-system Startup (after first month) or Monitoring Program:
- ☐ i. Monthly
- ☑ ii. Quarterly
- ☐ iii. Annually
- ☐ iv. Other Describe:

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: (mm/dd/yyyy)

☐ 2. MCP Performance Standard MCP Citations(s):

☐ 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

☐ 4. Other Describe:

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name: _____ b. Grade: _____

c. License No: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required

☐ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☐ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: _____ b. GW Recovered (gals): _____

c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____

e. Avg. Soil Gas Recovery Rate (scfm): _____ f. Avg. Sparging Rate (scfm): _____

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____
(mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☐ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☐ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

APPENDIX C

Sampling Logs

September 2023 and December 2023

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Bird Machine
PROJECT NUMBER: 3651230345
PROJECT LOCATION: Walpole, MA
WEATHER CONDITIONS (AM): ~65°F, mostly cloudy
WEATHER CONDITIONS (PM): ~70°F, sunny

TASK NO: 1000.**** DATE: 9/26/23
FIELD CREW: JMM, MP, VP
SAMPLER NAME: Jenna Mello
SAMPLER SIGNATURE: Jenna Mello
CHECKED BY: DATE:

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: YSI
MODEL NO.: ProQuatro
UNIT ID NO.: 22H103077

AM CALIBRATION Start Time: 1210 End Time: 1250

PM CALIBRATION CHECK Start Time: 1538 End Time: 1552

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.04	+/- 0.1 pH Units	7.0	7.02	+/- 0.3 pH Units
pH (10)	SU	10.0	9.99	+/- 0.1 pH Units			
Redox	+/- mV	~~240~~ 231	231.0	+/- 10 mV	~~240~~ 231	227.6	+/- 10 mV
Sp. Conductivity	µS/cm	1413	1413	+/- 3% of standard	1413	1662	+/- 5% of standard
DO (saturated)	%	100	101.1	+/- 2% of standard		105.4	%
DO (saturated)	mg/L[1] (see Chart 1)	~9.76	9.74	+/- 0.2 mg/L	9.49	9.95	+/- 0.5 mg/L of sat. value
DO (<0.1)	mg/L	<0.1	–	< 0.5 mg/L	DO (<0.1)	–	< 0.5 mg/L
Temperature	°C		17.1			~~17.6~~ VP 18	°C
Baro. Press.	mmHg		768.2			762.4	mmHg

TURBIDITY METER

METER TYPE: Geotech
MODEL NO.: Turb meter
UNIT ID NO.: 19062113

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Standard	NTU	10	0.02	10	8.02	+/- 5% of standard
Standard	NTU	20	21.0	20	20.9	
Standard	NTU	100	107	100	107	
Standard	NTU	800	820	800	839	

PHOTOIONIZATION DETECTOR

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		
H_2S	ppmv	25		25		
CO	ppmv	50		50		

OTHER METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

☑ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source:
Lot#/Date Produced:
Trip Blank Source: Lab
Sample Preservatives Source: Lab
Disposable Filter Type: 0.45µm
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L)
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	22370021	9/24
pH (7)	M066-02	3/7/24
pH (10)	22420139	9/17/24
ORP	22130200	4/27
Conductivity	24001219	4/24
10 Turb. Stan.	Lt 5TD	9/22
20 Turb. Stan.	Lt 21D	9/22
100 Turb. Stan.	Lt 22D	9/22
800 Turb. Stan.	& Lt 22D	9/22
PID Span Gas	–	–
O_2-LEL Span Gas	–	–
DO	–	–

NOTES:

100 NTU Slightly outside of Acceptance criteria at am cal.
Sp conductivity outside of acceptance criteria at end of day

WSP

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Bird Machine
PROJECT NUMBER: 3651230345
PROJECT LOCATION: Walpole, MA
WEATHER CONDITIONS (AM): 65°, Mostly cloudy
WEATHER CONDITIONS (PM): 60°, Partly sunny
TASK NO: 1000.**** DATE: 9/26/23
FIELD CREW: JMM, MP, VP
SAMPLER NAME: Mike Pelletier
SAMPLER SIGNATURE:
CHECKED BY: DATE:

MULTI-PARAMETER WATER QUALITY METER

METER TYPE YSI
MODEL NO. ProFesssional plus
UNIT ID NO. 19A103322

AM CALIBRATION

Start Time: 12:10 End Time: 1248

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)
pH (4)	SU	4.0	4.0	+/- 0.1 pH Units
pH (7)	SU	7.0	7.0	+/- 0.1 pH Units
pH (10)	SU	10.0	10.0	+/- 0.1 pH Units
Redox	+/- mV	~~240~~ 231	231.0	+/- 10 mV
Sp. Conductivity	µS/cm	1413	1410	+/- 3% of standard
DO (saturated)	%	100	101.1	+/- 2% of standard
DO (saturated)	mg/L [1 (see Chart 1)]	10.85	10.77	+/- 0.2 mg/L
DO (<0.1)	mg/L	<0.1	—	< 0.5 mg/L
Temperature	°C		12.2	
Baro. Press.	mmHg		767.5	

PM CALIBRATION CHECK

Start Time: 1538 End Time: 1552

Standard Value	Meter Value	*Acceptance Criteria (PM)
7.0	6.99	+/- 0.3 pH Units
240	232.2	+/- 10 mV
1413	~~2005~~	+/- 5% of standard
	98.4	%
10.23	10.16	+/- 0.5 mg/L of sat. value
DO (<0.1)	—	< 0.5 mg/L
	14.9	°C
	766.2	mmHg

TURBIDITY METER

METER TYPE Gelach
MODEL NO. Turbidity Meter
UNIT ID NO. 22074266

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Standard	NTU	~~10~~ <0.1	1.28	~~10~~ <0.1	1.07	+/- 5% of standard
Standard	NTU	20	21.4	20	20.8	
Standard	NTU	100	104	100	102	
Standard	NTU	800	827	800	809	

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

Background	ppmv	<0.1		<0.1	within 5 ppmv of BG
Span Gas	ppmv	100		100	+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

Methane	%	50		50	+/- 10% of standard
O_2	%	20.9		20.9	
H_2S	ppmv	25		25	
CO	ppmv	50		50	

OTHER METER

METER TYPE
MODEL NO.
UNIT ID NO.

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☒ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source:
Lot#/Date Produced:
Trip Blank Source: Lab
Sample Preservatives Source: Lab
Disposable Filter Type: 0.45µm
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L)
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	22370021	9/24
pH (7)	M066-02	3/7/24
pH (10)	2H4-20139	9/17/24
ORP	22130200	4/27/24
Conductivity	24001219	4/24/24
10 Turb. Stan.	Lot 17 D	9/22
20 Turb. Stan.	Lot 21 D	9/22
100 Turb. Stan.	Lot 21 D	9/22
800 Turb. Stan.	Lot 33 D	9/22
PID Span Gas	—	—
O_2-LEL Span Gas	—	—
DO	20470161	11/25/24

NOTES:

Sp Conductivity outside of acceptance criteria as of day

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Bird Machine	WELL ID	MB-MW-374		
SAMPLE ID	MB-MW-374	SITE TYPE	MCP Industrial	DATE	9/26/23
TIME START	1315 END 1350	JOB NUMBER	3651230345.1000.****	BOTTLE TIME	13:55

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED: -

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): / FT.

PROTECTIVE CASING / WELL DIFFERENCE: / FT.

INITIAL DEPTH TO WATER: 4.21 FT.

WELL DEPTH (TOR): 27.03 FT.

PID AMBIENT AIR: --- PPMV

WELL DIAMETER: 2.0 IN.

FINAL DEPTH TO WATER: 4.26 FT.

SCREEN LENGTH: 10 FT.

PID WELL MOUTH: --- PPMV

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

DRAWDOWN VOLUME: 0.008 GAL.
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.00533

PRESSURE TO PUMP: — PSI

TOTAL VOL. PURGED: 1.50 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: — SEC.

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	1320	4.26	165	14.1	326.5	6.40	0.32	5.11	70.6	~25	
10	1325	4.26	165	13.5	323.0	6.43	0.17	3.73	4.8		
15	1330	4.26	165	13.0	337.9	6.34	0.13	3.32	-9.9		
20	1335	4.26	165	12.3	433.2	6.35	0.19	2.80	-13.0		
25	1340	4.26	165	12.2	468.8	6.39	0.17	2.44	-13.9		
30	1345	4.26	165	12.3	471.4	6.47	0.16	2.19	-13.6		
35	1350	4.26	165	12.3	484.9	6.46	0.15	1.88	-13.8		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER [ ] SIMCO BLADDER [X] GEOPUMP

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] LDPE

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	8260C	HCL / 4 deg C	2 x 40 mL	[X]
[ ] Dissolved Arsenic	6020A	NH03 / 4 deg C	500 mL Poly	[ ]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: 1.50

SIGNATURE:

NOTES:

Prepared by:

Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Bird Machine	WELL ID	MW-706S		
SAMPLE ID	MW-706S	SITE TYPE	MCP Industrial	DATE	9/26/23
TIME START	1425 END 1526	JOB NUMBER	3651230345.1000.****	BOTTLE TIME	1520

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED: DUP/MS/MSD

MEASUREMENT POINT: [X] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): VP ~~0~~ 0.83 FT.

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT.

INITIAL DEPTH TO WATER: 1.07 FT.

WELL DEPTH (TOR): 12.19 FT.

PID AMBIENT AIR: --- PPMV

WELL DIAMETER: 2.0 IN.

FINAL DEPTH TO WATER: 2.15 FT.

SCREEN LENGTH: 10 FT.

PID WELL MOUTH: --- PPMV

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓	✓	
COLLAR	✓		

DRAWDOWN VOLUME: 0.1728 GAL.
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.091

PRESSURE TO PUMP: — PSI

TOTAL VOL. PURGED: 2.145 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: — SEC.

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1425	1.07	Begin Purging								
1430	2.08	200	18.0	177.0	6.4	~~0.34~~ VP	22.9	67.4	~10	
1435	2.15	150	17.8	176.5	6.35	0.77	23.9	73.1		
1440	2.15	150	17.8	175.6	6.36	0.15	21.4	70.6		
1445	2.15	150	17.9	176.2	6.32	0.79	20.4	62.9		
1450	2.15	150	17.8	176.5	6.29	0.80	20.2	62.3		
1455	2.15	150	17.6	177.1	6.28	0.76	24.5	64.2		
1500	2.15	150	17.4	177.4	6.29	0.64	29.3	61.3		
1505	2.10	150	17.4	177.6	6.30	0.77	35.8	59.2		Pump slowed change bottles
1510	2.05	150	17.4	177.1	6.28	0.81	36.2	60.2		
1515	2.15	150	17.5	176.9	6.28	0.84	33.2	52.5	↓	
1520	Collect Sample								~10	
1525	Pump off									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[ ] QED BLADDER	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SIMCO BLADDER	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER
[X] GEOPUMP	[X] LDPE	[X] SILICON (Dedicated)	

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[ ] VOCs	8260C	HCL / 4 deg C	2 x 40 mL	[ ]
[X] Dissolved Arsenic	6020A	NH03 / 4 deg C	500 mL Poly	[X]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [NO]

NUMBER OF GALLONS GENERATED: 2.145

NOTES:

Dup-2, MS, and MSD collected.

SIGNATURE:

Prepared by:

Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Bird Machine	WELL ID	MW-709S		
SAMPLE ID	MW-709S	SITE TYPE	MCP Industrial	DATE	9/26/23
TIME START	1315 END 1407	JOB NUMBER	3651230345.1000.****	BOTTLE TIME	1400

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED: DUP/MS/MSD

MEASUREMENT POINT: [✓] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): Flush FT.

PROTECTIVE CASING / WELL DIFFERENCE: ~0.3 FT.

INITIAL DEPTH TO WATER: 2.08 FT.

WELL DEPTH (TOR): 15.04 FT.

PID AMBIENT AIR: --- PPMV

WELL DIAMETER: 2.0 IN.

FINAL DEPTH TO WATER: 2.43 FT.

SCREEN LENGTH: 10.0 FT.

PID WELL MOUTH: --- PPMV

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

DRAWDOWN VOLUME: 0.056 GAL.
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: ~0.032

PRESSURE TO PUMP: — PSI

TOTAL VOL. PURGED: ~1.75 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: — SEC.

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1315	2.08	Begin Purging							~13'	
1320	2.36	150	17.1	334.7	6.47	0.22	20.0	132.5		
1325	2.36	150	17.1	327.1	6.44	0.15	15.5	120.7		
1330	2.38	150	17.0	319.2	6.41	0.10	16.8	111.7		
1335	2.38	150	17.0	315.9	6.40	0.07	12.2	103.3		
1340	2.40	150	16.9	309.1	6.39	0.04	12.1	97.7		
1345	2.42	150	16.9	308.0	6.38	0.01	9.58	90.4		
1350	2.43	150	17.0	305.8	6.38	0.02	10.1	88.2		
1355	2.43	150	17.1	304.8	6.38	0.03	9.33	84.0	↓	
1400	Collect	Sample							~13'	
1407	Pump off									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER; [ ] SIMCO BLADDER; [X] GEOPUMP

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED; [X] HIGH DENSITY POLYETHYLENE; [ ] LDPE

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE; [ ] STAINLESS STEEL; [X] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL: [ ] TEFLON; [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	8260C	HCL / 4 deg C	2 x 40 mL	[X]
[ ] Dissolved Arsenic	6020A	NH03 / 4 deg C	500 mL Poly	[ ]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [NO]

NUMBER OF GALLONS GENERATED: 1.75

SIGNATURE: [signature]

NOTES:

DUP-1, MS, and MSD collected.

Prepared by:

Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Bird Machine	WELL ID	MW-714S		
SAMPLE ID	MW-714S	SITE TYPE	MCP Industrial	DATE	9/26/25
TIME START	1405 END 1445	JOB NUMBER	3651230345.1000.****	BOTTLE TIME	1450

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED: ~

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): - FT.

PROTECTIVE CASING / WELL DIFFERENCE: - FT.

INITIAL DEPTH TO WATER: 9.79 FT.

WELL DEPTH (TOR): 22.44 FT.

PID AMBIENT AIR: --- PPMV

WELL DIAMETER: 2.0 IN.

FINAL DEPTH TO WATER: 10.73 FT.

SCREEN LENGTH: 10 FT.

PID WELL MOUTH: --- PPMV

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

DRAWDOWN VOLUME: 0.15 GAL.
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.0721

PRESSURE TO PUMP: — PSI

TOTAL VOL. PURGED: 2.08 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: — SEC.

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	1410	10.40	200	14.4	479.0	6.54	3.28	16.7	-0.1	~20'	
10	1415	10.57	200	14.8	453.1	6.60	0.15	9.22	-5.5		
15	1420	10.61	200	14.8	445.2	6.64	0.14	7.58	-28.9		
20	1425	10.62	200	14.8	447.4	6.60	0.15	5.12	-19.9		
25	1430	10.67	200	14.8	443.7	6.53	0.14	3.92	-37.8		
30	1435	10.72	200	14.9	438.8	6.51	0.13	2.72	-40.1		
35	1440	10.73	200	14.9	439.1	6.41	0.12	1.79	-39.4		
40	1445	10.73	200	14.8	438.7	6.49	0.12		-41.4		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[ ] QED BLADDER	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SIMCO BLADDER	[ ] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER
[X] GEOPUMP	[X] LDPE	[X] SILICON (Dedicated)	

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	8260C	HCL / 4 deg C	2 x 40 mL	[X]
[X] Dissolved Arsenic	6020A	NH03 / 4 deg C	500 mL Poly	[X]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [NO]

NUMBER OF GALLONS GENERATED: 2.08

SIGNATURE:

NOTES:

Prepared by:

Checked by:

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Bird Machine
PROJECT NUMBER: 36162261871.01.02
PROJECT LOCATION: Walpole, MA
WEATHER CONDITIONS (AM): 29°F, clouds
WEATHER CONDITIONS (PM): 4.90C, cloudy

TASK NO: 2 DATE: 12/6/23
FIELD CREW: VP MP
SAMPLER NAME: Victor Privetera
SAMPLER SIGNATURE:
CHECKED BY: DATE:

MULTI-PARAMETER WATER QUALITY METER

METER TYPE: ProQuatro
MODEL NO.: PS.
UNIT ID NO.: 21K101359 / 21K103639

AM CALIBRATION — Start Time: 0820 End Time: 0905

PM CALIBRATION CHECK — Start Time: 1535 End Time: 1547

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4.0	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.0	+/- 0.1 pH Units	7.0	7.08	+/- 0.3 pH Units
pH (10)	SU	10.0	10.0	+/- 0.1 pH Units			
Redox	+/- mV	238	238	+/- 10 mV	238	234.8	+/- 10 mV
Conductivity	uS/cm	1000	1000	+/- 3% of standard	1000	484	+/- 5% of standard
DO (saturated)	%	100	99.5	+/- 2% of standard		100	
DO (saturated)	mg/L[1] (see Chart 1)	12.34	12.41	+/- 0.2 mg/L	12.66	11.96	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1		< 0.5 mg/L	DO (<0.1)		
Temperature	°C		6.0			5.1	
Baro. Press.	mmHg		757.3			755.9	

TURBIDITY METER

METER TYPE: Geotech
MODEL NO.: Turbidimeter
UNIT ID NO.: 1909 2222

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Standard	NTU	10	0.02	10	0.02	+/- 0.3 NTU of stan.
Standard	NTU	20	19.6	20	15.4	+/- 5% of standard
Standard	NTU	100	103	100	104	+/- 5% of standard
Standard	NTU	800	791	800	860	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

Methane	%	50		50	+/- 10% of standard
O_2	%	20.9		20.9	+/- 10% of standard
H_2S	ppmv	25		25	+/- 10% of standard
CO	ppmv	50		50	+/- 10% of standard

OTHER METER

METER TYPE:
MODEL NO.:
UNIT ID NO.:

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☒ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source:
Lot#/Date Produced:
Trip Blank Source: Lab
Sample Preservatives Source: Lab
Disposable Filter Type: 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L): Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)	36H1235	8/25
pH (7)	36H10997	8/25
pH (10)	36H1024	8/25
ORP	3610894	6/24
Conductivity	3610578	9/24
10 Turb. Stan.	48D	5/24
20 Turb. Stan.	55D	11/24
100 Turb. Stan.	48D	5/24
800 Turb. Stan.	55D	11/24
PID Span Gas		
O_2-LEL Span Gas		
DO		

NOTES: Unable to cal. out Turbidimeter

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Bird marking
PROJECT NUMBER: 36162618 7.01.02
PROJECT LOCATION: Walpole, MA
WEATHER CONDITIONS (AM): 22°F, cloudy
WEATHER CONDITIONS (PM): 28°F, cloudy

TASK NO: 2 DATE: 12/7/23
FIELD CREW: VP MP
SAMPLER NAME: Victor privetera
SAMPLER SIGNATURE:
CHECKED BY: DATE:

MULTI-PARAMETER WATER QUALITY METER

METER TYPE Pro Quatro
MODEL NO. YSI
UNIT ID NO. 21K101639

AM CALIBRATION — Start Time: 0830 End Time: 0900

PM CALIBRATION CHECK — Start Time: 1127 End Time: 1150

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units			
pH (7)	SU	7.0	7.0	+/- 0.1 pH Units	7.0	6.98	+/- 0.3 pH Units
pH (10)	SU	10.0	10.0	+/- 0.1 pH Units			
Redox	+/- mV	238	238	+/- 10 mV	238	235.8	+/- 10 mV
Conductivity	uS/cm	1000	1000	+/- 3% of standard	1000	973	+/- 5% of standard
DO (saturated)	%	100	99.7	+/- 2% of standard		95.3	
DO (saturated)	mg/L [1 (see Chart 1)]	12.99	13.14	+/- 0.2 mg/L	13.34	12.89	+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1		< 0.5 mg/L	DO (<0.1)		
Temperature	°C		3.6			3.1	
Baro. Press.	mmHg		757.5			756.7	

TURBIDITY METER

METER TYPE Geotech
MODEL NO. Turbidimeter
UNIT ID NO. 19092222

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Standard	NTU	10	0.02	10	0.02	+/- 0.3 NTU of stan.
Standard	NTU	20	18.9	20	18.2 ~~20.0~~	+/- 5% of standard
Standard	NTU	100	103	100	104	+/- 5% of standard
Standard	NTU	800	845	800	837	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE
MODEL NO.
UNIT ID NO.

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☒ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source:
Lot#/Date Produced:
Trip Blank Source: Lab
Sample Preservatives Source: Lab
Disposable Filter Type: 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L) Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number		Exp. Date
pH (4)	3GH1235		8/25
pH (7)	3GH10997		8/25
pH (10)	3GH1024		8/25
ORP	3GD894		6/24
Conductivity	3G10578		9/24
10 Turb. Stan.	~~3G10894~~	48D	~~9/24~~ 5/24
20 Turb. Stan.	48D	55D	11/24
100 Turb. Stan.	55D	48D	5/24
800 Turb. Stan.	~~48D~~	55D	11/24
PID Span Gas	~~55D~~		
O_2-LEL Span Gas			
DO			

NOTES: Unable to Cal. out Turbidimeter 20NTU

wsp

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird machine
SAMPLE ID: LR-MW-122-120623
TIME START: 1212 END: 1400
WELL ID: LR-MW-122
SITE TYPE: MCP Industrial
JOB NUMBER: 361622618701.02
DATE: 12/6/23
BOTTLE TIME: 1355

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: ~~MS/MSD~~ DUP
SM 12/15/23

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

INITIAL DEPTH TO WATER	4.50 FT.	WELL DEPTH (TOR)	6.65 FT.
FINAL DEPTH TO WATER	6.25 FT.	SCREEN LENGTH	5 FT.
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))	0.28 GAL.	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.179
TOTAL VOL PURGED (purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)	1.56 GAL.		

PROTECTIVE CASING STICKUP (FROM GROUND)	Flush FT.	PROTECTIVE CASING / WELL DIFFERENCE	See survey FT.
PID AMBIENT AIR	– PPMV	WELL DIAMETER	2.0 IN.
PID WELL MOUTH	– PPMV		
PRESSURE TO PUMP	– PSI		
REFILL TIMER SETTING	– SEC.	DISCHARGE TIMER SETTING	– SEC.

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED		✓	
COLLAR	✓		

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1230	pump	on							~~5.5~~ 5'	Sample depth
1235	5.15	100	10.7	232.7	6.85	1.62	21.7	-78.2		
1240	5.44	100	10.7	230.1	6.84	1.44	10.8	-81.2		
1245	5.85	100	10.7	225.5	6.83	1.45	10.8	-79.4		
1250	5.95	100	10.5	202.6	6.85	2.11	20.4	-75.1		
1255	6.01	100	10.6	207.1	6.85	1.87	17.3	-71.1		
1300	6.21	100	10.7	191.5	6.83	2.84	10.1	-57.2		
1305	6.25	100	10.5	187.7	6.79	4.11	20.5	-43.2		
1305	pump	off								
1325	pump	on								well run dry, let recharge
1330	4.81	100	10.3	174.2	6.72	4.71	15.9	-25.3		
1335	4.90	100	10.5	173.4	6.70	4.91	7.00	21.8		
1340	5.00	100	10.6	162.3	6.68	5.65	3.94	-2.9		
1345	5.09	100	10.1	161.6	6.66	5.52	1.97	3.6		
1350	5.18	100	10.1	160.3	6.65	5.19	0.18	6.2		
1355	Bottles	collected								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] QED BLADDER
- [ ] SIMCO BLADDER
- [x] GEOPUMP

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [x] LDPE

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL
- [ ] TEFLON
- [ ] OTHER _____

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[ ] D,Ss As(FF)	6020B	HNO3/4°C	1x250 mL Plastic	[x]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [NO]
NUMBER OF GALLONS GENERATED: 1.56

SIGNATURE: Vivian Pumarejo

NOTES:
The well's water dropped rapidly and had to recharge

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MB-MW-362-120623
TIME START: 1245 END: 1325
WELL ID: MB-MW-362
SITE TYPE:
JOB NUMBER:
DATE: 12/6/23
BOTTLE TIME: 1320

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: -
MEASUREMENT POINT: ☐ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING ☐ OTHER
PROTECTIVE CASING STICKUP (FROM GROUND): Flush FT.
PROTECTIVE CASING / WELL DIFFERENCE: - FT.
INITIAL DEPTH TO WATER: 1.14 FT.
WELL DEPTH (TOR): 19.49 FT.
PID AMBIENT AIR: - PPMV
WELL DIAMETER: 2 IN.
FINAL DEPTH TO WATER: 1.20 FT.
SCREEN LENGTH: 10 FT.
PID WELL MOUTH: - PPMV
WELL INTEGRITY: CAP YES X NO — N/A —; CASING X — —; LOCKED — X —; COLLAR X — —
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch)): 0.0096 GAL.
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.1026
PRESSURE TO PUMP: - PSI
TOTAL VOL PURGED (purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml): 0.936 GAL.
REFILL TIMER SETTING: - SEC.
DISCHARGE TIMER SETTING: - SEC.

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	12 50	1.20	120	12.9	196.7	6.63	1.62	2.65	-70.2	~17'	
10	1255	1.20	120	12.9	203.8	6.58	0.96	2.43	-65.3		
15	13 00	1.20	120	12.7	204.0	6.56	0.81	0.58	-63.0		
20	13 05	1.20	120	12.8	204.0	6.56	0.80	3.17	-62.0		
25	13 10	1.20	120	12.9	204.9	6.55	0.75	1.29	-61.3		
30	13 15	1.20	120	12.9	205.4	6.55	0.71	1.12	-60.4		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: ☐ QED BLADDER ☐ SIMCO BLADDER ☒ GEOPUMP
TYPE OF TUBING: ☐ TEFLON OR TEFLON LINED ☒ HIGH DENSITY POLYETHYLENE ☐ LDPE
TYPE OF PUMP MATERIAL: ☐ POLYVINYL CHLORIDE ☐ STAINLESS STEEL ☒ SILICON (Dedicated)
TYPE OF BLADDER MATERIAL: ☐ TEFLON ☐ OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☒ VOCs				☒

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)
NUMBER OF GALLONS GENERATED: 0.936

SIGNATURE:

NOTES:

Prepared by:
Checked by:

WSP

PAGE 1 OF 1

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PAGE 1 OF 1

PROJECT: Bird Machine

SAMPLE ID: MW-374-12062023

WELL ID: MB-MW-374

TIME START: 0936 END: 1055

SITE TYPE: MCP Industrial

JOB NUMBER: 361626187.01.02

DATE: 12/6/23

BOTTLE TIME: 1050

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: —

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

INITIAL DEPTH TO WATER: 4.67 FT.

FINAL DEPTH TO WATER: 4.70 FT.

DRAWDOWN VOLUME: 0.0048 GAL
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))

TOTAL VOL PURGED: ~~2.04~~ 2.34 GAL
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

WELL DEPTH (TOR): 26.82 ~~4.16~~ FT.

SCREEN LENGTH: 10 FT.

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: ~~2.34~~ 0.0021

PROTECTIVE CASING STICKUP (FROM GROUND): 2.42 FT.

PID AMBIENT AIR: — PPMV

PID WELL MOUTH: — PPMV

PRESSURE TO PUMP: — PSI

REFILL TIMER SETTING: — SEC

PROTECTIVE CASING / WELL DIFFERENCE: ~~0.503~~ FT

WELL DIAMETER: 2.0 IN

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

DISCHARGE TIMER SETTING: — SEC

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1000	Pump on									
1005	4.70	200	12.5	162.3	6.61	0.66	4.13	6.7	24'	
1010	4.70	200	12.7	160.1	6.59	0.99	1.49	-2.0		
1015	4.70	200	12.8	160.7	6.59	1.13	0.87	-12.6		
1020	4.70	200	12.6	164.3	6.59	0.85	0.90	-16.1		
1025	4.70	200	12.6	174.4	6.59	0.52	0.50	-24.1		
1030	4.70	200	12.9	185.8	6.60	0.37	0.02	-34.0		
1035	4.70	200	12.9	195.4	6.60	0.28	0.02	-39.1		
1040	4.70	200	12.7	196.4	6.60	0.24	0.02	-41.1		
1045	4.70	200	12.9	200.6	6.60	0.22	0.02	-47.6		
1050	Bottle collection									
1053	Pump off									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] QED BLADDER
- [ ] SIMCO BLADDER
- [x] GEOPUMP

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] ~~HIGH DENSITY POLYETHYLENE~~
- [x] LDPE

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL
- [ ] TEFLON
- [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x]	VOCs	8260	HCl	3 x 40ml VOA vial	[x]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: 2.34

SIGNATURE:

NOTES:

Prepared by:

Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Birt Machine
SAMPLE ID: MW-704S-120723
TIME START: 0950 END: 1035
WELL ID: MW-704S
SITE TYPE:
JOB NUMBER:
DATE: 12/7/23
BOTTLE TIME: 1030

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: —

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT.

PROTECTIVE CASING / WELL DIFFERENCE: — FT.

INITIAL DEPTH TO WATER: 3.31 FT.

WELL DEPTH (TOR): 9.76 FT.

PID AMBIENT AIR: — PPMV

WELL DIAMETER: 2 IN.

FINAL DEPTH TO WATER: 8.22 FT.

SCREEN LENGTH: 5 FT.

PID WELL MOUTH: — PPMV

WELL INTEGRITY:

	YES	NO	N/A
CAP	x		
CASING	x		
LOCKED		x	
COLLAR	x		

DRAWDOWN VOLUME: 0.756 GAL
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.6641

PRESSURE TO PUMP: — PSI

TOTAL VOL. PURGED: 1.183 GAL
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: — SEC.

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	0955	3.98	130	8.3	268.7	6.95	3.47	14.2	146.9	~9'	
10	1000	4.45	130	8.5	264.4	6.95	3.40	15.6	147.5		
15	1005	5.35	130	8.4	255.4	6.94	2.77	10.2	143.2		
20	1010	6.44	130	8.5	252.0	6.95	2.63	9.78	118.5		
25	1015	7.14	130	8.4	251.8	6.95	2.34	8.56	96.7		
30	1020	7.79	130	8.3	252.5	6.94	2.13	7.58	86.2		
35	1025	8.22	130	8.4	253.1	6.94	1.56	7.24	79.2		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] QED BLADDER
- [ ] SIMCO BLADDER
- [x] GEOPUMP

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [x] LDPE

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL
- [ ] TEFLON
- [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x] VOCs				[x]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: ~1.183

SIGNATURE:

NOTES:

wsp

Prepared by:

Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-7065-120623
TIME START: 1430 END: 1505
WELL ID: MW-7065
SITE TYPE: MEP Industrial
JOB NUMBER: 36162261870102
DATE: 12/6/23 - 12/7
BOTTLE TIME: 1100

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: DUP1MS/MSD

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

INITIAL DEPTH TO WATER	1.6 FT.	WELL DEPTH (TOR)	12.15 FT.	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey FT.
FINAL DEPTH TO WATER	3.20 FT.	SCREEN LENGTH	10 FT.	PID AMBIENT AIR	— PPMV
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))	0.256 GAL.	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.328	PID WELL MOUTH	— PPMV
TOTAL VOL. PURGED (purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)	0.78 GAL.			PRESSURE TO PUMP	— PSI
				REFILL TIMER SETTING	— SEC.
				PROTECTIVE CASING / WELL DIFFERENCE	see survey FT.
				WELL DIAMETER	2.0 IN.

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING			
LOCKED		✓	
COLLAR		✓	

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1430	Pump	on							-10'	
1435	2.90	150	8.9	159.9	6.51	0.11	0.41	22.6		Site started to get dark
1440	3.20	150	9.4	159.6	6.50	0.12	0.02	20.3		Wrapped up sampling
1445	3.25	150	9.6	159.4	6.49	0.24	0.02	19.7		for the day
1450	3.20	150	9.9	157.5	6.47	0.59	4.74	20.2		
1455	3.1	150	9.8	158.7	6.46	0.53	11.5	16.6		
~~1460~~	3.1	150	9.8	156.5	6.45	0.48	21.8	20.4		will continue
1505	3.1	150	10.0	151.6	6.43	0.65	83.1	29.8		12/7/23 @ 0m
1510	3.1	150	10.3	144.6	6.39	1.03	154	40.7		
1515	3.1	150	10.3	143.7	6.33	1.04	139	43.1		
1520	3.1	150	10.3	147.2	6.33	1.09	112	41.8		
										pump off
0945	pump	on								
0950	2.75	150	8.1	143.4	6.39	0.35	36.2	105.3		
0955	2.91	150	8.4	143.5	6.34	0.50	38.3	97.5		
1000	3.01	150	8.5	141.9	6.33	0.67	34.1	80.8		

12/6 1430 - 12/7 1500

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER [ ] SIMCO BLADDER [X] GEOPUMP

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] LDPE

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] D-15 AS.	602013	HNO3	1x250ml Poly	[X]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [ ] NO [X]

NUMBER OF GALLONS GENERATED: 0.78

SIGNATURE:

NOTES: Done over 2 days due to loosing daylight

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-7065-120623
TIME: START ____ END ____
WELL ID: MW-7065
SITE TYPE: MCP Industrial
JOB NUMBER: 361622618 7.01.02
DATE: 12/6 - 12/7/23
BOTTLE TIME: ____

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: Dup/MS/MSD
MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER ____
PROTECTIVE CASING STICKUP (FROM GROUND): See survey FT.
PROTECTIVE CASING / WELL DIFFERENCE: See survey FT.
INITIAL DEPTH TO WATER: 1.6 FT.
WELL DEPTH (TOR): 12.15 FT.
PID AMBIENT AIR: — PPMV
WELL DIAMETER: 2.0 IN.
FINAL DEPTH TO WATER: ____ FT.
SCREEN LENGTH: 10 FT.
PID WELL MOUTH: — PPMV
WELL INTEGRITY: CAP YES ✓ NO — N/A —; CASING YES ✓ NO — N/A —; LOCKED YES — NO ✓ N/A —; COLLAR YES — NO ✓ N/A —
DRAWDOWN VOLUME: ____ GAL. (Initial - final x 0.16 (2-inch) or x 0.65 (4-inch))
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: ____
PRESSURE TO PUMP: — PSI
TOTAL VOL. PURGED: ____ GAL. (purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)
REFILL TIMER SETTING: — SEC.
DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1005	3.19	150	9.2	143.0	6.32	1.19	34.5	79.6	10'	
1010	3.20	150	9.4	142.3	6.31	0.78	37.2	65.7	↓	
1015	3.20	150	9.2	140.1	6.30	0.70	39.5	61.9	↓	
1020	3.20	150	9.6	141.2	6.29	0.77	41.2	57.2	↓	
1025	3.20	150	9.8	141.3	6.28	0.87	39.6	57.3		
1030	3.20	150	9.7	140.8	6.28	0.92	38.5	53.5		
1035	3.20	150	9.9	140.7	6.27	1.02	33.1	54.8		
1040	3.20	150	9.9	140.6	6.27	1.05	30.1	52.1		
1045	3.20	150	10.0	141.7	6.27	1.07	27.6	50.7		
1050	3.20	150	10.1	141.3	6.27	1.08	22.4	47.5		
1055	3.20	150	10.1	143.3	6.27	1.09	~~27.2~~	45.8		Turb-23.4
1100	Bottles collected									
1105	pump off									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER [ ] SIMCO BLADDER [ ] GEOPUMP
TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [ ] LDPE
TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [ ] SILICON (Dedicated)
TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER ____

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[ ]				[ ]

PURGE OBSERVATIONS
PURGE WATER CONTAINERIZED: YES NO
NUMBER OF GALLONS GENERATED: ____
SIGNATURE:

NOTES:

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-709S-120623
TIME START: 1110 END: 1146
WELL ID: MW-709S
SITE TYPE: MCP Industrial
JOB NUMBER: 361622687.01.07
DATE: 12/6/2023
BOTTLE TIME: 1145

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: —

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

INITIAL DEPTH TO WATER: 2.89 FT.
FINAL DEPTH TO WATER: 3.10 FT.
DRAWDOWN VOLUME: 0.0336 GAL. (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))
TOTAL VOL. PURGED: 1.56 GAL. (purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

WELL DEPTH (TOR): 15.01 FT.
SCREEN LENGTH: 10 FT.
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.0215

PROTECTIVE CASING STICKUP (FROM GROUND): Flush FT.
PID AMBIENT AIR: — PPMV
PID WELL MOUTH: — PPMV
PRESSURE TO PUMP: — PSI
REFILL TIMER SETTING: — SEC.

PROTECTIVE CASING / WELL DIFFERENCE: Same FT.
WELL DIAMETER: 2.0 IN.

WELL INTEGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

DISCHARGE TIMER SETTING: — SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
1110	Begin	pump							12'	
1115	2.92	200	12.8	233.7	6.36	0.21	2.63	87.0		
1120	3.10	200	13.1	235.3	6.33	0.32	5.97	88.1		
1125	3.10	200	13.1	235.0	6.33	0.37	8.51	87.7		
1130	3.10	200	13.0	235.5	6.32	0.23	9.51	86.5		
1135	3.10	200	13.0	234.0	6.32	0.19	9.51	84.0		
1140	3.10	200	13.1	234.8	6.33	0.18	10.0	80.4		
1145	Begin	bottle	collection							
1146	pump	off								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER [ ] SIMCO BLADDER [X] GEOPUMP

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] LDPE

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X]	VOCs	8260	HCL	3x40ml VOA Vial	[X]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [ ] NO [X]
NUMBER OF GALLONS GENERATED: 1.56

SIGNATURE: Vince Pumo

NOTES:

wsp

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-710M-120623
TIME START: 1140 END: 1235
WELL ID: MW-710M
SITE TYPE:
JOB NUMBER:
DATE: 12/6/23
BOTTLE TIME: 1235

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: –
INITIAL DEPTH TO WATER: 1.55 FT.
FINAL DEPTH TO WATER: 2.57 FT.
DRAWDOWN VOLUME: 0.1632 GAL.
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))
TOTAL VOL PURGED: 1.638 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 31.79 FT.
SCREEN LENGTH: 10 FT.
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.0996

PROTECTIVE CASING STICKUP (FROM GROUND): Flush FT.
PID AMBIENT AIR: – PPMV
PID WELL MOUTH: – PPMV
PRESSURE TO PUMP: – PSI
REFILL TIMER SETTING: – SEC.

PROTECTIVE CASING / WELL DIFFERENCE: FT.
WELL DIAMETER: IN.
DISCHARGE TIMER SETTING: – SEC.

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	11 45	2.57	140	13.1	269.4	6.66	0.16	40.9	+106.1	~29'	
10	11 50	2.57	140	13.0	264.9	6.64	0.15	35.2	+100.0	↓	
15	11 55	2.57	140	13.1	262.9	6.63	0.17	22.5	+95.1	↓	
20	11 00	2.57	140	13.2	261.5	6.62	0.20	14.4	+92.6	↓	
25	12 05	2.57	140	13.2	260.7	6.62	0.17	10.5	+89.7	↓	
30	12 10	2.57	140	13.2	259.3	6.63	0.15	6.39	+88.2	↓	
35	12 15	2.57	140	13.2	257.4	6.63	0.14	6.64	+86.2	↓	
40	12 20	2.57	140	13.2	256.3	6.62	0.14	6.44	+84.4	↓	
45	12 25	2.57	140	13.2	255.9	6.63	0.14	6.51	+82.9	↓	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] QED BLADDER
- [ ] SIMCO BLADDER
- [x] GEOPUMP

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [x] LDPE

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL
- [ ] TEFLON
- [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected

		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x]	VOCs				[x]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES / NO
NUMBER OF GALLONS GENERATED: 1.638

SIGNATURE:

NOTES:

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-713D-120623
TIME START: 1345 END: 1435
WELL ID: MW-713D
SITE TYPE:
JOB NUMBER:
DATE: 12/6/23
BOTTLE TIME: 1430

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: –
INITIAL DEPTH TO WATER: 2.60 FT.
FINAL DEPTH TO WATER: 2.69 FT.
DRAWDOWN VOLUME: 0.0144 GAL
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))
TOTAL VOL PURGED: 1.664 GAL
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

WELL DEPTH (TOR): 33.5 FT
SCREEN LENGTH: – FT.
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.00865

PROTECTIVE CASING STICKUP (FROM GROUND): 0 – FT.
PID AMBIENT AIR: – PPMV
PID WELL MOUTH: – PPMV
PRESSURE TO PUMP: – PSI
REFILL TIMER SETTING: – SEC

PROTECTIVE CASING / WELL DIFFERENCE: – FT
WELL DIAMETER: 2 IN

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR	X		

DISCHARGE TIMER SETTING: – SEC

PURGE DATA

	TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	13 50	2.66	160	12.3	328.8	6.86	0.47	15.2	-55.1	~30'	
10	13 55	2.69	160	12.4	325.5	6.82	0.27	14.9	-54.8		
15	14 00	2.69	160	12.3	323.1	6.79	0.23	12.2	-53.8		
20	14 05	2.69	160	12.3	320.4	6.77	0.25	10.3	-53.8		
25	14 10	2.69	160	12.4	316.8	6.75	0.29	8.61	-53.3		
30	14 15	2.69	160	12.2	316.7	6.76	0.30	4.81	-52.9		
35	14 20	2.69	160	12.3	316.3	6.76	0.34	3.04	-52.9		
40	14 25	2.69	160	12.3	316.4	6.76	0.31	1.41	-52.8		

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] QED BLADDER
- [ ] SIMCO BLADDER
- [x] GEOPUMP

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [ ] HIGH DENSITY POLYETHYLENE
- [x] LDPE

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL
- [ ] TEFLON
- [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[x] VOCs				[ ]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES [ ] NO [ ]
NUMBER OF GALLONS GENERATED: 1.66

SIGNATURE:

NOTES:

Prepared by:
Checked by:

WSP

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Bird Machine
SAMPLE ID: MW-7145-120623
TIME START: 0950 END: 1050
WELL ID: MW-7145
SITE TYPE:
JOB NUMBER:
DATE: 12/6/23
BOTTLE TIME: 1035

WATER LEVEL / PUMP SETTINGS

QC SAMPLE COLLECTED ID: DUP/ MS / MSD
SAM 12/15/23

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): - FT.

PROTECTIVE CASING / WELL DIFFERENCE: - FT.

INITIAL DEPTH TO WATER: 6.99 FT.

WELL DEPTH (TOR): 12.97 FT.

PID AMBIENT AIR: - PPMV

WELL DIAMETER: 2 IN.

FINAL DEPTH TO WATER: 7.48 FT.

SCREEN LENGTH: 10 FT.

PID WELL MOUTH: - PPMV

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED		X	
COLLAR		X	

DRAWDOWN VOLUME: 0.0784 GAL.
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.04711

PRESSURE TO PUMP: - PSI

TOTAL VOL. PURGED: 1.664 GAL.
(purge rate (milliliters per minute) x time duration (minutes) x 0.00026 gal/ml)

REFILL TIMER SETTING: - SEC.

DISCHARGE TIMER SETTING: - SEC.

PURGE DATA

TIME (5 min.)	DEPTH TO WATER (ft.) (0.3 ft.)	PURGE RATE (ml/min) (100-400)	TEMP. (deg. C) (3%)	SPEC. COND. (uS/cm) (3%)	pH (units) (+/- 0.1)	DISS. O2 (mg/L) (10%) (>0.5)	TURBIDITY (NTU) (10%) (>5)	ORP (mV) (+/- 10 mV)	SAMPLE DEPTH	COMMENTS
5	9 55	7.55	160	11.1	314.0	6.84	0.22	11.0	65.6	~10'
10	10 00	7.47	160	11.0	224.5	6.88	0.22	4.79	6.4	
15	10 05	7.48	160	11.2	224.9	6.89	0.22	2.78	-5.9	
20	10 10	7.48	160	11.2	302.1	6.90	0.27	2.30	-35.9	
25	10 15	7.48	160	11.2	297.7	6.91	0.33	2.14	-62.3	
30	10 20	7.48	160	11.1	297.5	6.91	0.27	2.60	-87.9	
35	1025	7.48	160	11.0	297.2	6.91	0.25	1.56	-93.4	
40	1030	7.48	160	11.0	297.9	6.91	0.26	1.94	-91.2	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] QED BLADDER [ ] SIMCO BLADDER [X] GEOPUMP

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [ ] HIGH DENSITY POLYETHYLENE [X] LDPE

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] SILICON (Dedicated)

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

To Be Collected	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs				[X]
[ ] MS				[ ]
[ ] MSD				[ ]
[ ] Dup-1				[ ]

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: 1.664

SIGNATURE:

NOTES:

Prepared by:

Checked by:

APPENDIX D

Laboratory Results

September 2023 and December 2023

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine
Project Number: 3651230345.1000
Laboratory Name: Alpha Analytical
SDG Number: L2356702
WSP Sample IDs: MW-706S, MW-709S, MB-MW-374, MW-714S, DUP-1, DUP-2, and TRIP BLANK

Data Reviewed	Analysis	
	VOCs – 8260D	**Dissolved Arsenic- 6020B**
Chain of Custody	√	√
Sample Receipt (Preservation & Temperature)	√	√
Holding Time	√	√
Blanks (Trip or Equipment)	√	None submitted
Method Blanks	√	√
MS/MSD	Sample MW-709S was submitted as the source for the MS/MSD. Bromoform (64%/65%), vinyl chloride (MSD 131%), 1,2,3-trichloropropane (MS 69%), 4-methyl-2-pentanone (MSD 68%), 2-hexanone (64%/68%), and 1,2-dibromo-3-chloropropane (MS 68%) recovered outside the acceptance criteria in the MS and/or MSD. WSP J qualified the vinyl chloride result from samples MW-709S and DUP-1 due to the potential high bias. WSP UJ qualified the bromoform, 1,2,3-trichloropropane, 4-methyl-2-pentanone, 2-hexanone, and 1,2-dibromo-3-chloropropane result from samples MW-709S and DUP-1 due to the potential low bias.	Sample MW-706S was submitted as the source for the MS/MSD. √
LCS/LCSD	√	√

Data Reviewed	Analysis	
	VOCs – 8260D	**Dissolved Arsenic- 6020B**
Field Duplicates	Sample DUP-1 was submitted as a field duplicate of sample MW-709S. √	Sample DUP-2 was submitted as a field duplicate of sample MW-706S. √
Surrogate Recoveries	√	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-709S, MB-MW-374, MW-714S, and DUP-1 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for bromochloromethane (0.0949), 1,2-dichloropropane (0.1664), bromodichloromethane (0.2484), 1,4-dioxane (0.0010), 1,1,2-trichloroethane (0.1490), and 1,2-dibromoethane (0.1797), as well as the average response factor for bromodichloromethane (0.294), 1,4-dioxane (0.00108), 1,1,2-trichloroethane (0.148), and 1,2-dibromoethane (0.174). The continuing calibration standard did not meet the minimum RRF for bromodichloromethane (0.283), 1,4-dioxane (0.00121), cis-1,3-dichloropropene (0.267), trans-1,3-dichloropropene (0.276), 1,1,2-trichloroethane (0.135), and 1,2-dibromoethane (0.159). Also, the continuing calibration standard did not meet the %D method criteria for bromomethane (-23%) and acetone (-21.1%). WSP UJ qualified the non-detected bromomethane and acetone in associated samples due to the potential bias.	None
Other Issues	None	None

Notes:
NA = Not Applicable
ND = Non-Detect
RPD = Relative Percent Difference
√ = Data Reviewed is to be considered acceptable within method/lab criteria and without qualification

Data Reviewer: Denise King
Reviewer: Elizabeth Penta
Date: 11/07/2023

Qualifiers:
J = Estimated
R = Data is rejected and not suitable for use
U = Non-detect
UJ = Reporting limit is considered estimated

Reviewed by: Denise King
Date: 11/07/2023
WSP

ANALYTICAL REPORT

Lab Number:	L2356702
Client:	WSP USA Environment & Infrastructure Inc 100 Apollo Drive Suite 302 Chelmsford, MA 01824
ATTN:	Samantha Mizusawa
Phone:	(978) 392-5306
Project Name:	BIRD MACHINE
Project Number:	3651230345.1000.****
Report Date:	10/11/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2356702-01	MW-706S	WATER	WALPOLE, MA	09/26/23 15:20	09/27/23
L2356702-02	MW-709S	WATER	WALPOLE, MA	09/26/23 14:00	09/27/23
L2356702-03	MB-MW-374	WATER	WALPOLE, MA	09/26/23 13:55	09/27/23
L2356702-04	MW-714S	WATER	WALPOLE, MA	09/26/23 14:50	09/27/23
L2356702-05	DUP-1	WATER	WALPOLE, MA	09/26/23 00:00	09/27/23
L2356702-06	DUP-2	WATER	WALPOLE, MA	09/26/23 00:00	09/27/23
L2356702-07	TRIP BLANK	WATER	WALPOLE, MA	09/21/23 00:00	09/27/23

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

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).	N/A
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)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

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:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L2356702-02 through -05: Initial calibration utilized a quadratic fit for: carbon tetrachloride, hexachlorobutadiene, m/p xylene, styrene

L2356702-07: Initial calibration utilized a quadratic fit for: carbon tetrachloride, hexachlorobutadiene, m/p xylene, styrene

In reference to question H:

The WG1837334-3/-4 LCS/LCSD RPD, associated with L2356702-07, is above the acceptance criteria for 2-butanone (24%).

The WG1837290-6/-7 MS/MSD recoveries, performed on L2356702-02, are outside the acceptance criteria for bromoform (64%/65%), vinyl chloride (131%MSD), 1,2,3-trichloropropane (69%MS), 4-methyl-2-pentanone (68%MSD), 2-hexanone (64%/68%) and 1,2-dibromo-3-chloropropane (68%MS); however, the associated LCS/LCSD recoveries are within overall method allowances. No further action was required.

L2356702-02 through -05 and -07: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: bromochloromethane (0.0949), 1,2-dichloropropane (0.1664), bromodichloromethane (0.2484), 1,4-dioxane (0.0010), 1,1,2-trichloroethane (0.1490), 1,2-dibromoethane (0.1797)

Average Response Factor: bromodichloromethane, 1,4-dioxane, 1,1,2-trichloroethane, 1,2-dibromoethane

L2356702-02 through -05 and -07: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Dissolved Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

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: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 10/11/23

QC OUTLIER SUMMARY REPORT

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC (L2356702-02)	WG1837290-6	Bromoform	MS	64	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-6	1,2,3-Trichloropropane	MS	69	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-6	2-Hexanone	MS	64	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-6	1,2-Dibromo-3-chloropropane	MS	68	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-7	Bromoform	MSD	65	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-7	Vinyl chloride	MSD	131	70-130	02-05	potential high bias
8260D	Batch QC (L2356702-02)	WG1837290-7	Methyl isobutyl ketone	MSD	68	70-130	02-05	potential low bias
8260D	Batch QC (L2356702-02)	WG1837290-7	2-Hexanone	MSD	68	70-130	02-05	potential low bias
8260D	Batch QC	WG1837334-4	Methyl ethyl ketone	LCSD	24	20	07	non-directional bias

ORGANICS

VOLATILES

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-02
Client ID: MW-709S
Sample Location: WALPOLE, MA

Date Collected: 09/26/23 14:00
Date Received: 09/27/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 10/07/23 04:46
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	28		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.9		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-02 Date Collected: 09/26/23 14:00

Client ID: MW-709S Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	14		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	4.8		ug/l	1.0	--	1
1,2-Dichloroethene, Total	4.8		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-02
Client ID: MW-709S
Sample Location: WALPOLE, MA
Date Collected: 09/26/23 14:00
Date Received: 09/27/23
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-03
Client ID: MB-MW-374
Sample Location: WALPOLE, MA

Date Collected: 09/26/23 13:55
Date Received: 09/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 10/07/23 05:10
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	7.0		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-03 Date Collected: 09/26/23 13:55

Client ID: MB-MW-374 Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.9		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.0		ug/l	1.0	--	1
1,2-Dichloroethene, Total	1.0		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-03 Date Collected: 09/26/23 13:55

Client ID: MB-MW-374 Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2356702
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-04
Client ID: MW-714S
Sample Location: WALPOLE, MA

Date Collected: 09/26/23 14:50
Date Received: 09/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 10/07/23 05:34
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.8		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-04 Date Collected: 09/26/23 14:50

Client ID: MW-714S Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	5.3		ug/l	1.0	--	1
1,2-Dichloroethene, Total	5.3		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-04
Client ID: MW-714S
Sample Location: WALPOLE, MA
Date Collected: 09/26/23 14:50
Date Received: 09/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	96		70-130

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-05
Client ID: DUP-1
Sample Location: WALPOLE, MA

Date Collected: 09/26/23 00:00
Date Received: 09/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 10/07/23 05:57
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	29		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.9		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-05 Date Collected: 09/26/23 00:00

Client ID: DUP-1 Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	14		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	4.9		ug/l	1.0	--	1
1,2-Dichloroethene, Total	4.9		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-05 Date Collected: 09/26/23 00:00

Client ID: DUP-1 Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	99		70-130

Project Name: BIRD MACHINE
Lab Number: L2356702
Project Number: 3651230345.1000.****
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-07
Client ID: TRIP BLANK
Sample Location: WALPOLE, MA

Date Collected: 09/21/23 00:00
Date Received: 09/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 10/06/23 08:16
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-07 Date Collected: 09/21/23 00:00

Client ID: TRIP BLANK Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-07 Date Collected: 09/21/23 00:00

Client ID: TRIP BLANK Date Received: 09/27/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/07/23 04:23
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG1837290-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/07/23 04:23
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG1837290-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/07/23 04:23
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-05 Batch: WG1837290-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	95		70-130

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/06/23 05:05
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07 Batch: WG1837334-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/06/23 05:05
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07 Batch: WG1837334-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: BIRD MACHINE **Lab Number:** L2356702

Project Number: 3651230345.1000.**** **Report Date:** 10/11/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 10/06/23 05:05
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07 Batch: WG1837334-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG1837290-3 WG1837290-4								
Methylene chloride	99		97		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		110		70-130	10		20
1,2-Dichloropropane	95		95		70-130	0		20
Dibromochloromethane	92		92		70-130	0		20
1,1,2-Trichloroethane	91		92		70-130	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	95		96		70-130	1		20
Trichlorofluoromethane	110		120		70-130	9		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	96		96		70-130	0		20
trans-1,3-Dichloropropene	89		89		70-130	0		20
cis-1,3-Dichloropropene	87		89		70-130	2		20
1,1-Dichloropropene	99		100		70-130	1		20
Bromoform	81		77		70-130	5		20
1,1,2,2-Tetrachloroethane	87		84		70-130	4		20
Benzene	100		100		70-130	0		20
Toluene	98		98		70-130	0		20
Ethylbenzene	95		94		70-130	1		20
Chloromethane	100		100		70-130	0		20
Bromomethane	120		120		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG1837290-3 WG1837290-4								
Vinyl chloride	120		120		70-130	0		20
Chloroethane	120		120		70-130	0		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	98		100		70-130	2		20
Trichloroethene	92		94		70-130	2		20
1,2-Dichlorobenzene	93		91		70-130	2		20
1,3-Dichlorobenzene	93		91		70-130	2		20
1,4-Dichlorobenzene	95		92		70-130	3		20
Methyl tert butyl ether	92		94		70-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Dibromomethane	97		93		70-130	4		20
1,2,3-Trichloropropane	85		80		70-130	6		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	110		100		70-130	10		20
Acetone	120		120		70-130	0		20
Carbon disulfide	100		99		70-130	1		20
Methyl ethyl ketone	81		84		70-130	4		20
Methyl isobutyl ketone	85		81		70-130	5		20
2-Hexanone	85		86		70-130	1		20
Bromochloromethane	100		100		70-130	0		20
Tetrahydrofuran	95		98		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG1837290-3 WG1837290-4								
2,2-Dichloropropane	100		100		70-130	0		20
1,2-Dibromoethane	92		92		70-130	0		20
1,3-Dichloropropane	93		96		70-130	3		20
1,1,1,2-Tetrachloroethane	92		93		70-130	1		20
Bromobenzene	96		92		70-130	4		20
n-Butylbenzene	94		92		70-130	2		20
sec-Butylbenzene	97		94		70-130	3		20
tert-Butylbenzene	96		94		70-130	2		20
o-Chlorotoluene	91		89		70-130	2		20
p-Chlorotoluene	91		90		70-130	1		20
1,2-Dibromo-3-chloropropane	88		83		70-130	6		20
Hexachlorobutadiene	110		100		70-130	10		20
Isopropylbenzene	94		91		70-130	3		20
p-Isopropyltoluene	96		93		70-130	3		20
Naphthalene	88		88		70-130	0		20
n-Propylbenzene	93		92		70-130	1		20
1,2,3-Trichlorobenzene	93		90		70-130	3		20
1,2,4-Trichlorobenzene	89		87		70-130	2		20
1,3,5-Trimethylbenzene	93		91		70-130	2		20
1,2,4-Trimethylbenzene	91		89		70-130	2		20
Diethyl ether	98		97		70-130	1		20
Diisopropyl Ether	96		95		70-130	1		20
Ethyl-Tert-Butyl-Ether	92		92		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 Batch: WG1837290-3 WG1837290-4								
Tertiary-Amyl Methyl Ether	86		95		70-130	10		20
1,4-Dioxane	112		106		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		91		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	98		96		70-130
Dibromofluoromethane	100		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07 Batch: WG1837334-3 WG1837334-4								
Methylene chloride	98		97		70-130	1		20
1,1-Dichloroethane	100		99		70-130	1		20
Chloroform	95		95		70-130	0		20
Carbon tetrachloride	110		100		70-130	10		20
1,2-Dichloropropane	96		97		70-130	1		20
Dibromochloromethane	97		96		70-130	1		20
1,1,2-Trichloroethane	99		97		70-130	2		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	98		98		70-130	0		20
Trichlorofluoromethane	110		130		70-130	17		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		98		70-130	2		20
Bromodichloromethane	96		98		70-130	2		20
trans-1,3-Dichloropropene	96		96		70-130	0		20
cis-1,3-Dichloropropene	91		91		70-130	0		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	85		85		70-130	0		20
1,1,2,2-Tetrachloroethane	95		99		70-130	4		20
Benzene	100		99		70-130	1		20
Toluene	100		100		70-130	0		20
Ethylbenzene	96		93		70-130	3		20
Chloromethane	110		100		70-130	10		20
Bromomethane	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07 Batch: WG1837334-3 WG1837334-4								
Vinyl chloride	110		110		70-130	0		20
Chloroethane	110		110		70-130	0		20
1,1-Dichloroethene	100		98		70-130	2		20
trans-1,2-Dichloroethene	100		95		70-130	5		20
Trichloroethene	91		90		70-130	1		20
1,2-Dichlorobenzene	94		94		70-130	0		20
1,3-Dichlorobenzene	94		93		70-130	1		20
1,4-Dichlorobenzene	95		92		70-130	3		20
Methyl tert butyl ether	100		100		70-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	99		96		70-130	3		20
Dibromomethane	97		100		70-130	3		20
1,2,3-Trichloropropane	92		94		70-130	2		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	110		100		70-130	10		20
Acetone	120		120		70-130	0		20
Carbon disulfide	100		97		70-130	3		20
Methyl ethyl ketone	94		120		70-130	**24**	Q	20
Methyl isobutyl ketone	98		100		70-130	2		20
2-Hexanone	100		100		70-130	0		20
Bromochloromethane	98		97		70-130	1		20
Tetrahydrofuran	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07 Batch: WG1837334-3 WG1837334-4								
2,2-Dichloropropane	100		100		70-130	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	97		99		70-130	2		20
1,1,1,2-Tetrachloroethane	93		92		70-130	1		20
Bromobenzene	98		96		70-130	2		20
n-Butylbenzene	94		94		70-130	0		20
sec-Butylbenzene	97		95		70-130	2		20
tert-Butylbenzene	96		94		70-130	2		20
o-Chlorotoluene	93		90		70-130	3		20
p-Chlorotoluene	96		93		70-130	3		20
1,2-Dibromo-3-chloropropane	100		100		70-130	0		20
Hexachlorobutadiene	110		100		70-130	10		20
Isopropylbenzene	96		93		70-130	3		20
p-Isopropyltoluene	97		95		70-130	2		20
Naphthalene	94		98		70-130	4		20
n-Propylbenzene	96		92		70-130	4		20
1,2,3-Trichlorobenzene	92		93		70-130	1		20
1,2,4-Trichlorobenzene	88		92		70-130	4		20
1,3,5-Trimethylbenzene	94		94		70-130	0		20
1,2,4-Trimethylbenzene	93		92		70-130	1		20
Diethyl ether	100		100		70-130	0		20
Diisopropyl Ether	100		97		70-130	3		20
Ethyl-Tert-Butyl-Ether	99		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07 Batch: WG1837334-3 WG1837334-4								
Tertiary-Amyl Methyl Ether	92		95		70-130	3		20
1,4-Dioxane	124		118		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	101		98		70-130
Dibromofluoromethane	98		100		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab	Associated sample(s): 02-05	QC Batch ID: WG1837290-6	WG1837290-7	QC Sample: L2356702-02	Client ID: MW-709S							
Methylene chloride	ND	10	8.4	84		8.5	85		70-130	1		20
1,1-Dichloroethane	ND	10	9.2	92		9.2	92		70-130	0		20
Chloroform	ND	10	8.7	87		9.4	94		70-130	8		20
Carbon tetrachloride	ND	10	9.3	93		9.9	99		70-130	6		20
1,2-Dichloropropane	ND	10	8.3	83		8.3	83		70-130	0		20
Dibromochloromethane	ND	10	7.7	77		8.0	80		70-130	4		20
1,1,2-Trichloroethane	ND	10	7.9	79		8.0	80		70-130	1		20
Tetrachloroethene	28	10	38	100		38	100		70-130	0		20
Chlorobenzene	ND	10	8.4	84		8.6	86		70-130	2		20
Trichlorofluoromethane	ND	10	9.7	97		10	100		70-130	3		20
1,2-Dichloroethane	ND	10	8.7	87		9.0	90		70-130	3		20
1,1,1-Trichloroethane	ND	10	8.9	89		9.2	92		70-130	3		20
Bromodichloromethane	ND	10	8.2	82		8.4	84		70-130	2		20
trans-1,3-Dichloropropene	ND	10	7.3	73		7.4	74		70-130	1		20
cis-1,3-Dichloropropene	ND	10	7.6	76		7.6	76		70-130	0		20
1,1-Dichloropropene	ND	10	9.2	92		9.2	92		70-130	0		20
Bromoform	ND	10	6.4	**64**	Q	6.5	**65**	Q	70-130	2		20
1,1,2,2-Tetrachloroethane	ND	10	7.2	72		7.5	75		70-130	4		20
Benzene	ND	10	8.8	88		9.0	90		70-130	2		20
Toluene	ND	10	8.6	86		8.7	87		70-130	1		20
Ethylbenzene	ND	10	8.1	81		8.3	83		70-130	2		20
Chloromethane	ND	10	9.0	90		9.2	92		70-130	2		20
Bromomethane	ND	10	11	110		11	110		70-130	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab	Associated sample(s): 02-05	QC Batch ID: WG1837290-6	WG1837290-7	QC Sample: L2356702-02	Client ID: MW-709S							
Vinyl chloride	2.9	10	15	121		16	**131**	Q	70-130	6		20
Chloroethane	ND	10	12	120		12	120		70-130	0		20
1,1-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
trans-1,2-Dichloroethene	ND	10	9.0	90		9.3	93		70-130	3		20
Trichloroethene	14	10	22	80		22	80		70-130	0		20
1,2-Dichlorobenzene	ND	10	7.8	78		8.0	80		70-130	3		20
1,3-Dichlorobenzene	ND	10	7.9	79		7.9	79		70-130	0		20
1,4-Dichlorobenzene	ND	10	7.9	79		8.0	80		70-130	1		20
Methyl tert butyl ether	ND	10	8.1	81		8.1	81		70-130	0		20
p/m-Xylene	ND	20	17	85		17	85		70-130	0		20
o-Xylene	ND	20	15	75		15	75		70-130	0		20
cis-1,2-Dichloroethene	4.8	10	14	92		14	92		70-130	0		20
Dibromomethane	ND	10	8.0	80		8.4	84		70-130	5		20
1,2,3-Trichloropropane	ND	10	6.9	**69**	Q	7.1	71		70-130	3		20
Styrene	ND	20	16	80		16	80		70-130	0		20
Dichlorodifluoromethane	ND	10	9.2	92		8.9	89		70-130	3		20
Acetone	ND	10	9.4	94		8.2	82		70-130	14		20
Carbon disulfide	ND	10	9.0	90		9.0	90		70-130	0		20
Methyl ethyl ketone	ND	10	8.0	80		8.0	80		70-130	0		20
Methyl isobutyl ketone	ND	10	7.2	72		6.8	**68**	Q	70-130	6		20
2-Hexanone	ND	10	6.4	**64**	Q	6.8	**68**	Q	70-130	6		20
Bromochloromethane	ND	10	9.0	90		9.2	92		70-130	2		20
Tetrahydrofuran	ND	10	8.7	87		7.8	78		70-130	11		20

Matrix Spike Analysis
Batch Quality Control

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
MCP Volatile Organics - Westborough Lab 709S	Associated sample(s): 02-05			QC Batch ID: WG1837290-6			WG1837290-7		QC Sample: L2356702-02			Client ID: MW-
2,2-Dichloropropane	ND	10	7.1	71		7.4	74		70-130	4		20
1,2-Dibromoethane	ND	10	8.0	80		8.0	80		70-130	0		20
1,3-Dichloropropane	ND	10	7.9	79		8.1	81		70-130	2		20
1,1,1,2-Tetrachloroethane	ND	10	7.7	77		8.0	80		70-130	4		20
Bromobenzene	ND	10	8.0	80		8.2	82		70-130	2		20
n-Butylbenzene	ND	10	7.5	75		7.5	75		70-130	0		20
sec-Butylbenzene	ND	10	8.0	80		8.0	80		70-130	0		20
tert-Butylbenzene	ND	10	8.1	81		8.3	83		70-130	2		20
o-Chlorotoluene	ND	10	7.5	75		7.6	76		70-130	1		20
p-Chlorotoluene	ND	10	7.4	74		7.5	75		70-130	1		20
1,2-Dibromo-3-chloropropane	ND	10	6.8	**68**	Q	7.0	70		70-130	3		20
Hexachlorobutadiene	ND	10	8.7	87		8.8	88		70-130	1		20
Isopropylbenzene	ND	10	7.9	79		8.0	80		70-130	1		20
p-Isopropyltoluene	ND	10	8.1	81		8.1	81		70-130	0		20
Naphthalene	ND	10	7.6	76		7.6	76		70-130	0		20
n-Propylbenzene	ND	10	7.8	78		7.8	78		70-130	0		20
1,2,3-Trichlorobenzene	ND	10	7.8	78		7.6	76		70-130	3		20
1,2,4-Trichlorobenzene	ND	10	7.4	74		7.2	72		70-130	3		20
1,3,5-Trimethylbenzene	ND	10	7.7	77		7.9	79		70-130	3		20
1,2,4-Trimethylbenzene	ND	10	7.6	76		7.6	76		70-130	0		20
Diethyl ether	ND	10	8.2	82		8.2	82		70-130	0		20
Diisopropyl Ether	ND	10	8.2	82		8.2	82		70-130	0		20
Ethyl-Tert-Butyl-Ether	ND	10	8.0	80		7.9	79		70-130	1		20

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab	Associated sample(s): 02-05		QC Batch ID: WG1837290-6			WG1837290-7		QC Sample: L2356702-02		Client ID: MW-709S		
Tertiary-Amyl Methyl Ether	ND	10	8.0	80		7.6	76		70-130	5		20
1,4-Dioxane	ND	500	450	90		410	82		70-130	9		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		92		70-130
4-Bromofluorobenzene	94		92		70-130
Dibromofluoromethane	97		100		70-130
Toluene-d8	99		99		70-130

METALS

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2356702
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-01
Client ID: MW-706S
Sample Location: WALPOLE, MA
Sample Depth:
Matrix: Water

Date Collected: 09/26/23 15:20
Date Received: 09/27/23
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.0042		mg/l	0.0005	--	1	10/05/23 08:14	10/09/23 19:08	EPA 3005A	97,6020B	WKP

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2356702
Report Date: 10/11/23

SAMPLE RESULTS

Lab ID: L2356702-06
Client ID: DUP-2
Sample Location: WALPOLE, MA
Sample Depth:
Matrix: Water

Date Collected: 09/26/23 00:00
Date Received: 09/27/23
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.0044		mg/l	0.0005	--	1	10/05/23 08:14	10/09/23 19:40	EPA 3005A	97,6020B	WKP

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2356702
Report Date: 10/11/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab for sample(s): 01,06 Batch: WG1835649-1										
Arsenic, Dissolved	ND		mg/l	0.0005	--	1	10/05/23 08:14	10/09/23 19:35	97,6020B	WKP

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2356702

Report Date: 10/11/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01,06 Batch: WG1835649-2 WG1835649-3								
Arsenic, Dissolved	104		103		80-120	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01,06 QC Batch ID: WG1835649-4 WG1835649-5 QC Sample: L2356702-01 Client ID: MW-706S												
Arsenic, Dissolved	0.0042	0.12	0.1278	103		0.1239	100		75-125	3		20

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2356702-01A	Plastic 250ml HNO3 preserved	A	<2	<2	5.8	Y	Absent		MCP-AS-6020S-10(180)
L2356702-01A1	Plastic 250ml HNO3 preserved	A	<2	<2	5.8	Y	Absent		MCP-AS-6020S-10(180)
L2356702-01A2	Plastic 250ml HNO3 preserved	A	<2	<2	5.8	Y	Absent		MCP-AS-6020S-10(180)
L2356702-02A	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02A1	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02A2	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02B	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02B1	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02B2	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02C	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02C1	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-02C2	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-03A	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-03B	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-03C	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-04A	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-04B	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-04C	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-05A	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-05B	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-05C	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)
L2356702-06A	Plastic 250ml HNO3 preserved	A	<2	<2	5.8	Y	Absent		MCP-AS-6020S-10(180)
L2356702-07A	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)

*Values in parentheses indicate holding time in days

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2356702
Report Date: 10/11/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2356702-07B	Vial HCl preserved	A	NA		5.8	Y	Absent		MCP-8260-21(14)

*Values in parentheses indicate holding time in days

Project Name:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 ten times (10x) 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. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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 lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

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.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	BIRD MACHINE	**Lab Number:**	L2356702
Project Number:	3651230345.1000.****	**Report Date:**	10/11/23

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

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.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 9/27/23

ALPHA Job #: L2356702

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: WSP USA Environment and Infrastructure Inc
Address: 100 Apollo Drive, Suite 302
Chelmsford MA 01824
Phone: 978-627-5682
Email: ~~Sam~~ Samantha.Mizusawa@wsp.com

Project Information

Project Name: Bird Machine
Project Location: Walpole, MA
Project #: 365123034S.1000.~~****~~
Project Manager: Sam Mizusawa
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

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 _____ Criteria _____

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Additional Project Information:

Please put the following on the invoice: ORG# 365
GL code: 573000
PN: 365123034S.1000.~~****~~

ANALYSIS: VOC: ☒ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; DISSOLVED As - 6020B (FF)

SAMPLE INFO
Filtration: ☒ Field ☐ Lab to do
Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	SVOC	METALS	METALS	EPH	VPH	PCB	TPH	DISSOLVED As	Sample Comments	TOTAL # BOTTLES
56702-01	MW-706S	9/26/23	1520	GW	JMM									X	RUN MS/MSD	3
-02	MW-709S	9/26/23	1400	GW	JMM	X									RUN MS/MSD	9
-03	MB-MW-374	9/26/23	1355	GW	MP	X										3
-04	MW-714S	9/26/23	1450	GW	MP	X										3
-05	DUP-1	9/26/23	—	GW	JMM	X										3
-06	DUP-2	9/26/23	—	GW	JMM									X		1
-07	TRIP BLANK	9/21/23	—	—	SB	X										2
						Container Type: V								P		
						Preservative: B								C		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	9/27/23 1124	[signature] APL	9/27 11:24
[signature] APL	9/27 16:55	[signature]	9/27 1655

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

Method Blank Summary
Form 4
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****
Lab Sample ID	: WG1837334-5	**Lab File ID**	: V16231006A05
Instrument ID	: VOA116		
Matrix	: WATER	**Analysis Date**	: 10/06/23 05:05

Client Sample No.	Lab Sample ID	Analysis Date
WG1837334-3LCS	WG1837334-3	10/06/23 03:30
WG1837334-4LCSD	WG1837334-4	10/06/23 03:53
TRIP BLANK	L2356702-07	10/06/23 08:16

Method Blank Summary
Form 4
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****
Lab Sample ID	: WG1837290-5	**Lab File ID**	: V16231007A04
Instrument ID	: VOA116		
Matrix	: WATER	**Analysis Date**	: 10/07/23 04:23

Client Sample No.	Lab Sample ID	Analysis Date
WG1837290-3LCS	WG1837290-3	10/07/23 03:12
WG1837290-4LCSD	WG1837290-4	10/07/23 03:36
MW-709S	L2356702-02	10/07/23 04:46
MB-MW-374	L2356702-03	10/07/23 05:10
MW-714S	L2356702-04	10/07/23 05:34
DUP-1	L2356702-05	10/07/23 05:57
MW-709SMS	WG1837290-6	10/07/23 12:38
MW-709SMSD	WG1837290-7	10/07/23 13:02

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/06/23 03:30		
Lab File ID	: V16231006A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837334-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	95	0
Dichlorodifluoromethane	0.259	0.282	-	-8.9	20	102	0
Chloromethane	0.243	0.27	-	-11.1	20	109	0
Vinyl chloride	0.338	0.376	-	-11.2	20	104	0
Bromomethane	0.305	0.306	-	-0.3	20	98	0
Chloroethane	0.228	0.247	-	-8.3	20	104	0
Trichlorofluoromethane	0.275	0.294	-	-6.9	20	102	0
Ethyl ether	0.078	0.081	-	-3.8	20	97	0
1,1-Dichloroethene	0.174	0.175	-	-0.6	20	99	0
Carbon disulfide	0.579	0.577	-	0.3	20	98	0
Freon-113	0.197	0.197	-	0	20	101	0
Acrolein	0.023	0.025	-	-8.7	20	92	0
Methylene chloride	0.194	0.191	-	1.5	20	94	0
Acetone	10	12.002	-	-20	20	95	0
trans-1,2-Dichloroethene	0.195	0.197	-	-1	20	100	0
Methyl acetate	0.091	0.092	-	-1.1	20	98	0
Methyl tert-butyl ether	0.407	0.411	-	-1	20	95	0
tert-Butyl alcohol	0.011	0.012	-	-9.1	20	97	0
Diisopropyl ether	0.601	0.613	-	-2	20	100	0
1,1-Dichloroethane	0.348	0.36	-	-3.4	20	97	0
Halothane	0.151	0.155	-	-2.6	20	96	0
Acrylonitrile	10	10.113	-	-1.1	20	95	0
Ethyl tert-butyl ether	0.535	0.528	-	1.3	20	96	0
Vinyl acetate	0.364	0.346	-	4.9	20	102	0
cis-1,2-Dichloroethene	0.212	0.209	-	1.4	20	94	0
2,2-Dichloropropane	0.289	0.299	-	-3.5	20	101	0
Bromochloromethane	0.101	0.1*	-	1	20	91	0
Cyclohexane	0.346	0.349	-	-0.9	20	99	0
Chloroform	0.342	0.327	-	4.4	20	85	0
Ethyl acetate	0.136	0.142	-	-4.4	20	99	0
Carbon tetrachloride	10	10.608	-	-6.1	20	97	0
Tetrahydrofuran	10	10.687	-	-6.9	20	93	0
Dibromofluoromethane	0.309	0.304	-	1.6	20	96	0
1,1,1-Trichloroethane	0.302	0.307	-	-1.7	20	94	0
2-Butanone	0.058	0.055	-	5.2	20	90	0
1,1-Dichloropropene	0.267	0.276	-	-3.4	20	98	0
Benzene	0.744	0.748	-	-0.5	20	95	0
tert-Amyl methyl ether	0.513	0.473	-	7.8	20	95	0
1,2-Dichloroethane-d4	0.3	0.279	-	7	20	92	0
1,2-Dichloroethane	0.234	0.241	-	-3	20	93	0
Methyl cyclohexane	10	9.4	-	6	20	98	0
Trichloroethene	0.221	0.201	-	9	20	91	0
Dibromomethane	0.117	0.113	-	3.4	20	91	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/06/23 03:30		
Lab File ID	: V16231006A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837334-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.204	0.195	-	4.4	20	94	0
2-Chloroethyl vinyl ether	0.104	0.107	-	-2.9	20	93	0
Bromodichloromethane	0.294	0.282*	-	4.1	20	90	0
1,4-Dioxane	0.00108	0.00134*	-	-24.1*	20	108	0
cis-1,3-Dichloropropene	0.306	0.279*	-	8.8	20	91	0
Chlorobenzene-d5	1	1	-	0	20	94	0
Toluene-d8	1.212	1.233	-	-1.7	20	94	0
Toluene	0.524	0.521	-	0.6	20	94	0
4-Methyl-2-pentanone	0.055	0.054	-	1.8	20	90	0
Tetrachloroethene	0.244	0.247	-	-1.2	20	97	0
trans-1,3-Dichloropropene	0.309	0.298*	-	3.6	20	94	0
Ethyl methacrylate	0.196	0.19	-	3.1	20	92	0
1,1,2-Trichloroethane	0.148	0.146*	-	1.4	20	95	0
Chlorodibromomethane	0.233	0.227	-	2.6	20	95	0
1,3-Dichloropropane	0.289	0.281	-	2.8	20	92	0
1,2-Dibromoethane	0.174	0.173*	-	0.6	20	94	0
2-Hexanone	10	10.199	-	-2	20	89	0
Chlorobenzene	0.623	0.608	-	2.4	20	94	0
Ethylbenzene	1.063	1.022	-	3.9	20	93	0
1,1,1,2-Tetrachloroethane	0.247	0.23	-	6.9	20	92	0
p/m Xylene	20	19.715	-	1.4	20	94	0
o Xylene	0.425	0.385	-	9.4	20	93	0
Styrene	20	18.706	-	6.5	20	92	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	95	0
Bromoform	0.289	0.246	-	14.9	20	91	0
Isopropylbenzene	1.993	1.912	-	4.1	20	93	0
4-Bromofluorobenzene	0.726	0.731	-	-0.7	20	93	0
Bromobenzene	0.465	0.457	-	1.7	20	95	0
n-Propylbenzene	2.345	2.247	-	4.2	20	92	0
1,4-Dichlorobutane	0.454	0.422	-	7	20	88	0
1,1,2,2-Tetrachloroethane	0.393	0.373	-	5.1	20	90	0
4-Ethyltoluene	1.92	1.848	-	3.7	20	94	0
2-Chlorotoluene	1.494	1.391	-	6.9	20	92	0
1,3,5-Trimethylbenzene	1.616	1.514	-	6.3	20	92	0
1,2,3-Trichloropropane	0.289	0.266	-	8	20	88	0
trans-1,4-Dichloro-2-buten	0.098	0.095	-	3.1	20	96	0
4-Chlorotoluene	1.295	1.238	-	4.4	20	92	0
tert-Butylbenzene	1.434	1.379	-	3.8	20	93	0
1,2,4-Trimethylbenzene	1.577	1.465	-	7.1	20	90	0
sec-Butylbenzene	2.131	2.064	-	3.1	20	94	0
p-Isopropyltoluene	2.118	2.056	-	2.9	20	93	0
1,3-Dichlorobenzene	0.94	0.88	-	6.4	20	93	0
1,4-Dichlorobenzene	0.94	0.895	-	4.8	20	93	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/06/23 03:30		
Lab File ID	: V16231006A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837334-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.112	1.038	-	6.7	20	92	0
n-Butylbenzene	1.585	1.495	-	5.7	20	91	0
1,2-Dichlorobenzene	0.845	0.795	-	5.9	20	92	0
1,2,4,5-Tetramethylbenzene	1.591	1.435	-	9.8	20	90	0
1,2-Dibromo-3-chloropropan	0.058	0.059	-	-1.7	20	93	0
1,3,5-Trichlorobenzene	0.614	0.558	-	9.1	20	88	0
Hexachlorobutadiene	10	10.6	-	-6	20	92	0
1,2,4-Trichlorobenzene	0.565	0.495	-	12.4	20	90	0
Naphthalene	1.232	1.161	-	5.8	20	86	0
1,2,3-Trichlorobenzene	0.477	0.437	-	8.4	20	86	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/07/23 03:12		
Lab File ID	: V16231007A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837290-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	86	0
Dichlorodifluoromethane	0.259	0.275	-	-6.2	20	90	0
Chloromethane	0.243	0.257	-	-5.8	20	94	0
Vinyl chloride	0.338	0.406	-	-20.1*	20	101	0
Bromomethane	0.305	0.375	-	-23*	20	108	0
Chloroethane	0.228	0.268	-	-17.5	20	102	0
Trichlorofluoromethane	0.275	0.292	-	-6.2	20	92	0
Ethyl ether	0.078	0.077	-	1.3	20	84	0
1,1-Dichloroethene	0.174	0.173	-	0.6	20	88	0
Carbon disulfide	0.579	0.578	-	0.2	20	89	0
Freon-113	0.197	0.189	-	4.1	20	88	0
Acrolein	0.023	0.022	-	4.3	20	74	0
Methylene chloride	0.194	0.192	-	1	20	86	0
Acetone	10	12.106	-	-21.1*	20	87	0
trans-1,2-Dichloroethene	0.195	0.191	-	2.1	20	88	0
Methyl acetate	0.091	0.092	-	-1.1	20	88	0
Methyl tert-butyl ether	0.407	0.374	-	8.1	20	79	0
tert-Butyl alcohol	0.011	0.01	-	9.1	20	73	0
Diisopropyl ether	0.601	0.575	-	4.3	20	85	0
1,1-Dichloroethane	0.348	0.351	-	-0.9	20	85	0
Halothane	0.151	0.154	-	-2	20	87	0
Acrylonitrile	10	9.039	-	9.6	20	77	0
Ethyl tert-butyl ether	0.535	0.495	-	7.5	20	82	0
Vinyl acetate	0.364	0.31	-	14.8	20	83	0
cis-1,2-Dichloroethene	0.212	0.213	-	-0.5	20	86	0
2,2-Dichloropropane	0.289	0.302	-	-4.5	20	92	0
Bromochloromethane	0.101	0.104	-	-3	20	86	0
Cyclohexane	0.346	0.336	-	2.9	20	86	0
Chloroform	0.342	0.356	-	-4.1	20	84	0
Ethyl acetate	0.136	0.127	-	6.6	20	80	0
Carbon tetrachloride	10	10.587	-	-5.9	20	88	0
Tetrahydrofuran	10	9.547	-	4.5	20	76	0
Dibromofluoromethane	0.309	0.307	-	0.6	20	88	0
1,1,1-Trichloroethane	0.302	0.301	-	0.3	20	84	0
2-Butanone	0.058	0.047	-	19	20	70	0
1,1-Dichloropropene	0.267	0.264	-	1.1	20	85	0
Benzene	0.744	0.751	-	-0.9	20	86	0
tert-Amyl methyl ether	0.513	0.443	-	13.6	20	80	0
1,2-Dichloroethane-d4	0.3	0.274	-	8.7	20	82	0
1,2-Dichloroethane	0.234	0.239	-	-2.1	20	83	0
Methyl cyclohexane	10	9.517	-	4.8	20	90	0
Trichloroethene	0.221	0.204	-	7.7	20	84	0
Dibromomethane	0.117	0.113	-	3.4	20	83	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/07/23 03:12		
Lab File ID	: V16231007A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837290-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.204	0.194	-	4.9	20	85	0
2-Chloroethyl vinyl ether	0.104	0.096	-	7.7	20	76	0
Bromodichloromethane	0.294	0.283*	-	3.7	20	82	0
1,4-Dioxane	0.00108	0.00121*	-	-12	20	89	0
cis-1,3-Dichloropropene	0.306	0.267*	-	12.7	20	79	0
Chlorobenzene-d5	1	1	-	0	20	87	0
Toluene-d8	1.212	1.224	-	-1	20	86	0
Toluene	0.524	0.515	-	1.7	20	86	0
4-Methyl-2-pentanone	0.055	0.047	-	14.5	20	71	0
Tetrachloroethene	0.244	0.248	-	-1.6	20	89	0
trans-1,3-Dichloropropene	0.309	0.276*	-	10.7	20	80	0
Ethyl methacrylate	0.196	0.172	-	12.2	20	76	0
1,1,2-Trichloroethane	0.148	0.135*	-	8.8	20	81	0
Chlorodibromomethane	0.233	0.215	-	7.7	20	83	0
1,3-Dichloropropane	0.289	0.269	-	6.9	20	80	0
1,2-Dibromoethane	0.174	0.159*	-	8.6	20	79	0
2-Hexanone	10	8.463	-	15.4	20	70	0
Chlorobenzene	0.623	0.594	-	4.7	20	84	0
Ethylbenzene	1.063	1.011	-	4.9	20	85	0
1,1,1,2-Tetrachloroethane	0.247	0.227	-	8.1	20	84	0
p/m Xylene	20	19.674	-	1.6	20	86	0
o Xylene	0.425	0.379	-	10.8	20	84	0
Styrene	20	18.534	-	7.3	20	84	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	88	0
Bromoform	0.289	0.233	-	19.4	20	80	0
Isopropylbenzene	1.993	1.88	-	5.7	20	85	0
4-Bromofluorobenzene	0.726	0.713	-	1.8	20	84	0
Bromobenzene	0.465	0.448	-	3.7	20	86	0
n-Propylbenzene	2.345	2.191	-	6.6	20	83	0
1,4-Dichlorobutane	0.454	0.378	-	16.7	20	73	0
1,1,2,2-Tetrachloroethane	0.393	0.341	-	13.2	20	76	0
4-Ethyltoluene	1.92	1.822	-	5.1	20	86	0
2-Chlorotoluene	1.494	1.359	-	9	20	83	0
1,3,5-Trimethylbenzene	1.616	1.497	-	7.4	20	84	0
1,2,3-Trichloropropane	0.289	0.245	-	15.2	20	75	0
trans-1,4-Dichloro-2-buten	0.098	0.082	-	16.3	20	76	0
4-Chlorotoluene	1.295	1.179	-	9	20	81	0
tert-Butylbenzene	1.434	1.383	-	3.6	20	86	0
1,2,4-Trimethylbenzene	1.577	1.437	-	8.9	20	82	0
sec-Butylbenzene	2.131	2.068	-	3	20	87	0
p-Isopropyltoluene	2.118	2.034	-	4	20	85	0
1,3-Dichlorobenzene	0.94	0.876	-	6.8	20	86	0
1,4-Dichlorobenzene	0.94	0.89	-	5.3	20	86	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2356702		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 10/07/23 03:12		
Lab File ID	: V16231007A01	**Init. Calib. Date(s)**	: 10/03/23	10/03/23	
Sample No	: WG1837290-2	**Init. Calib. Times**	: 04:59	08:57	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.112	1.022	-	8.1	20	84	0
n-Butylbenzene	1.585	1.496	-	5.6	20	84	0
1,2-Dichlorobenzene	0.845	0.785	-	7.1	20	84	0
1,2,4,5-Tetramethylbenzene	1.591	1.424	-	10.5	20	83	0
1,2-Dibromo-3-chloropropan	0.058	0.052	-	10.3	20	75	0
1,3,5-Trichlorobenzene	0.614	0.595	-	3.1	20	86	0
Hexachlorobutadiene	10	10.854	-	-8.5	20	87	0
1,2,4-Trichlorobenzene	0.565	0.502	-	11.2	20	85	0
Naphthalene	1.232	1.085	-	11.9	20	74	0
1,2,3-Trichlorobenzene	0.477	0.445	-	6.7	20	81	0

*** Value outside of QC limits.**

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine
Project Number: 3651230345.1000.****
Laboratory Name: Alpha Analytical
SDG Number: L2372243
WSP Sample IDs: MW-706S_120723, LR-MW-122_120623, MW-704S_120723, MW-710M_120623, MW-709S_120623, MW-714S_120623, MB-MW-362_120623, DUP-1_120623, MW-713D_120623, MW-374_120623, DUP-2_120723, and TRIP BLANK_120123

Data Reviewed	Analysis	
	VOCs – 8260C	**Dissolved Arsenic- 6020B**
Chain of Custody	√	√
Sample Receipt (Preservation & Temperature)	√	√
Holding Time	√	√
Blanks (Trip or Equipment)	√	None submitted
Method Blanks	√	√
MS/MSD	Sample MW-714S_120623 was submitted as the source for the MS/MSD. The MSD recoveries were above the acceptance criteria for vinyl chloride (134%) and choroethane (140%). WSP J qualified the detected vinyl chloride in samples MW-714S_120623 and DUP-1_120623 due to the potential high bias. Choroethane is ND and not impacted by the high bias.	Sample MW-706S_120723 was submitted as the source for the MS/MSD. √
LCS/LCSD	1,4-Dioxane recovered above the acceptance criteria in the LCS/LCSD at 132%/144%. All associated samples are non-detect and not impacted by the potential high bias.	√

Data Reviewed	Analysis	
	VOCs – 8260C	**Dissolved Arsenic- 6020B**
Field Duplicates	Sample DUP-1_120623 was submitted as a field duplicate of sample MW-714S_120623. √	Sample DUP-2_120723 was submitted as a field duplicate of sample MW-706S_120723. √
Surrogate Recoveries	√	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with all samples did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,1-dichloroethane (0.2947), cis-1,2-dichloroethene (0.1412), bromochloromethane (0.0704), chloroform (0.2832), 1,2-dichloropropane (0.1536), bromodichloromethane (0.1996), trichloroethene (0.1597), 1,4-dioxane (0.0008), cis-1,3-dichloropropene (0.1789), 1,1,2-trichloroethane (0.1095), chlorodibromomethane (0.176), 1,2-dibromoethane (0.1273), and 1,2,3-trichlorobenzene (0.3771), as well as the average response factor for cis-1,2-dichloroethene (0.172), bromochloromethane (0.081), chloroform (0.291), trichloroethene (0.18), 1,2-dichloropropane (0.179), 1,4-dioxane (0.00091), 1,1,2-trichloroethane (0.136), 1,2-dibromoethane (0.162), bromodichloromethane (0.236), and cis-1,3-dichloropropene (0.212). The continuing calibration standard did not meet the minimum RRF for 1,4-dioxane (0.00121), cis-1,2-dichloroethene (0.195), bromochloromethane (0.095), 1,2-dichloropropane (0.19), bromodichloromethane (0.265), cis-1,3-dichloropropene (0.231), 1,1,2-trichloroethane (0.159), and 1,2-dibromoethane (0.185). WSP J/UJ qualified above listed analytes in all samples due to the potential bias. Also, the continuing calibration standard did not meet the %D method criteria for 1,4-dioxane at -33%. 1,4-Dioxane is non-detect in all associated samples and not impacted by the potential high bias. The case narrative indicated that the initial calibration verification was outside the acceptance criteria for dichlorodifluoromethane (67%) and ethyl ether (134%). WSP UJ qualified the dichlorodifluoromethane in all samples due to the potential low bias. Ethyl ether is ND in all associated samples and not impacted by the high bias.	None
Other Issues	None	None

Notes:
NA = Not Applicable
ND = Non-Detect
RPD = Relative Percent Difference
√ = Data Reviewed is to be considered acceptable within method/lab criteria and without qualification

Data Reviewer: Denise King
Reviewer: Elizabeth Penta
Date: 12/19/2023

Qualifiers:
J = Estimated
R = Data is rejected and not suitable for use
U = Non-detect
UJ = Reporting limit is considered estimated

Reviewed by: Denise King
Date: 12/18/2023
WSP

ANALYTICAL REPORT

Lab Number:	L2372243
Client:	WSP USA Environment & Infrastructure Inc 100 Apollo Drive Suite 302 Chelmsford, MA 01824
ATTN:	Samantha Mizusawa
Phone:	(978) 392-5306
Project Name:	BIRD MACHINE
Project Number:	3651230345.1000.****
Report Date:	12/14/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2372243-01	MW-706S_120723	WATER	WALPOLE, MA	12/07/23 11:00	12/07/23
L2372243-02	LR-MW-122_120623	WATER	WALPOLE, MA	12/06/23 13:55	12/07/23
L2372243-03	MW-704S_120723	WATER	WALPOLE, MA	12/07/23 10:30	12/07/23
L2372243-04	MW-710M_120623	WATER	WALPOLE, MA	12/06/23 12:30	12/07/23
L2372243-05	MW-709S_120623	WATER	WALPOLE, MA	12/06/23 11:45	12/07/23
L2372243-06	MW-714S_120623	WATER	WALPOLE, MA	12/06/23 10:35	12/07/23
L2372243-07	MB-MW-362_120623	WATER	WALPOLE, MA	12/06/23 13:20	12/07/23
L2372243-08	DUP-1_120623	WATER	WALPOLE, MA	12/06/23 00:00	12/07/23
L2372243-09	MW-713D_120623	WATER	WALPOLE, MA	12/06/23 14:30	12/07/23
L2372243-10	MW-374_120623	WATER	WALPOLE, MA	12/06/23 10:50	12/07/23
L2372243-11	DUP-2_120723	WATER	WALPOLE, MA	12/07/23 00:00	12/07/23
L2372243-12	TRIP BLANK_120123	WATER	WALPOLE, MA	12/01/23 00:00	12/07/23

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

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).	N/A
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)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

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:	BIRD MACHINE	**Lab Number:**	L2372243
Project Number:	3651230345.1000.****	**Report Date:**	12/14/23

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 NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. 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. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. 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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: BIRD MACHINE **Lab Number:** L2372243
Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L2372243-03 through -10, and -12: Initial calibration utilized a quadratic fit for: trans-1,3-dichloropropene, 1,2,4-trichlorobenzene, naphthalene

In reference to question H:

The WG1863290-3/-4 LCS/LCSD recoveries, associated with L2372243-03 through -10, and -12, are above the individual acceptance criteria for 1,4-dioxane (132%/144%), but within the overall method allowances. The results of the associated samples are reported; however, all positive detects for this compound are considered to have a potentially high bias.

The WG1863290-7 MSD recoveries, performed on L2372243-06, are outside the acceptance criteria for vinyl chloride (134%) and chloroethane (140%); however, the associated LCS/LCSD recoveries are within overall method allowances. No further action was required.

L2372243-03 through -10, and -12: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,1-dichloroethane (0.2947), cis-1,2-dichloroethene (0.1412), bromochloromethane (0.0704), chloroform (0.2832), 1,2-dichloropropane (0.1536), bromodichloromethane (0.1996), trichloroethene (0.1597), 1,2-dichloropropane (0.1536), 1,4-dioxane (0.0008), cis-1,3-dichloropropene (0.1789), 1,1,2-trichloroethane (0.1095), chlorodibromomethane (0.176), 1,2-dibromoethane (0.1273), 1,2,3-trichlorobenzene (0.3771)

Average Response Factor: cis-1,2-dichloroethene, bromochloromethane, chloroform, trichloroethene, 1,2-dichloropropane, 1,4-dioxane, 1,1,2-trichloroethane, 1,2-dibromoethane, bromodichloromethane, cis-1,3-dichloropropene

Verification: dichlorodifluoromethane (67%), ethyl ether (134%)

L2372243-03 through -10, and -12: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Case Narrative (continued)

Dissolved Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

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: Michelle M. Morris

Title: Technical Director/Representative

Date: 12/14/23

QC OUTLIER SUMMARY REPORT

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1863290-3	1,4-Dioxane	LCS	132	70-130	03-10,12	potential high bias
8260D	Batch QC	WG1863290-4	1,4-Dioxane	LCSD	144	70-130	03-10,12	potential high bias
8260D	Batch QC (L2372243-06)	WG1863290-7	Vinyl chloride	MSD	134	70-130	03-10,12	potential high bias
8260D	Batch QC (L2372243-06)	WG1863290-7	Chloroethane	MSD	140	70-130	03-10,12	potential high bias

ORGANICS

VOLATILES

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-03
Client ID: MW-704S_120723
Sample Location: WALPOLE, MA

Date Collected: 12/07/23 10:30
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 17:40
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	1.1		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-03 Date Collected: 12/07/23 10:30

Client ID: MW-704S_120723 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-03 Date Collected: 12/07/23 10:30

Client ID: MW-704S_120723 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-04
Client ID: MW-710M_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 12:30
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 18:04
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	2.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-04 Date Collected: 12/06/23 12:30

Client ID: MW-710M_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.3		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-04 Date Collected: 12/06/23 12:30

Client ID: MW-710M_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	113		70-130

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-05
Client ID: MW-709S_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 11:45
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 18:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	33		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.9		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.1		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-05 Date Collected: 12/06/23 11:45

Client ID: MW-709S_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	18		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	5.7		ug/l	1.0	--	1
1,2-Dichloroethene, Total	5.7		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-05 Date Collected: 12/06/23 11:45

Client ID: MW-709S_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-06
Client ID: MW-714S_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 10:35
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 17:16
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.6		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-06 Date Collected: 12/06/23 10:35

Client ID: MW-714S_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	8.3		ug/l	1.0	--	1
1,2-Dichloroethene, Total	8.3		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-06 Date Collected: 12/06/23 10:35

Client ID: MW-714S_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-07
Client ID: MB-MW-362_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 13:20
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 18:51
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-07 Date Collected: 12/06/23 13:20

Client ID: MB-MW-362_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-07 Date Collected: 12/06/23 13:20

Client ID: MB-MW-362_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-08
Client ID: DUP-1_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 00:00
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 19:15
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	1.6		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-08 Date Collected: 12/06/23 00:00

Client ID: DUP-1_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	8.6		ug/l	1.0	--	1
1,2-Dichloroethene, Total	8.6		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-08
Client ID: DUP-1_120623
Sample Location: WALPOLE, MA
Date Collected: 12/06/23 00:00
Date Received: 12/07/23
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-09
Client ID: MW-713D_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 14:30
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 19:39
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	7.6		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-09 Date Collected: 12/06/23 14:30

Client ID: MW-713D_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.7		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.3		ug/l	1.0	--	1
1,2-Dichloroethene, Total	1.3		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-09
Client ID: MW-713D_120623
Sample Location: WALPOLE, MA
Date Collected: 12/06/23 14:30
Date Received: 12/07/23
Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	111		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-10
Client ID: MW-374_120623
Sample Location: WALPOLE, MA

Date Collected: 12/06/23 10:50
Date Received: 12/07/23
Field Prep: None

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 20:02
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	7.0		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-10 Date Collected: 12/06/23 10:50

Client ID: MW-374_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.2		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.0		ug/l	1.0	--	1
1,2-Dichloroethene, Total	1.0		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-10 Date Collected: 12/06/23 10:50

Client ID: MW-374_120623 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: None

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-12
Client ID: TRIP BLANK_120123
Sample Location: WALPOLE, MA
Date Collected: 12/01/23 00:00
Date Received: 12/07/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 141,8260D
Analytical Date: 12/12/23 16:52
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-12 Date Collected: 12/01/23 00:00

Client ID: TRIP BLANK_120123 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-12 Date Collected: 12/01/23 00:00

Client ID: TRIP BLANK_120123 Date Received: 12/07/23

Sample Location: WALPOLE, MA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	108		70-130

Project Name: BIRD MACHINE **Lab Number:** L2372243

Project Number: 3651230345.1000.**** **Report Date:** 12/14/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 12/12/23 16:28
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-10,12 Batch: WG1863290-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 12/12/23 16:28
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-10,12 Batch: WG1863290-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 12/12/23 16:28
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-10,12 Batch: WG1863290-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 Batch: WG1863290-3 WG1863290-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	120		120		70-130	0		20
Carbon tetrachloride	110		120		70-130	9		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	110		110		70-130	0		20
1,1,2-Trichloroethane	110		120		70-130	9		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		110		70-130	0		20
Trichlorofluoromethane	110		110		70-130	0		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	110		110		70-130	0		20
Bromodichloromethane	110		110		70-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	110		110		70-130	0		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	100		100		70-130	0		20
1,1,2,2-Tetrachloroethane	110		110		70-130	0		20
Benzene	120		120		70-130	0		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	120		110		70-130	9		20
Bromomethane	99		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 Batch: WG1863290-3 WG1863290-4								
Vinyl chloride	110		120		70-130	9		20
Chloroethane	120		120		70-130	0		20
1,1-Dichloroethene	110		110		70-130	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	100		110		70-130	10		20
p/m-Xylene	110		115		70-130	4		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	110		110		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	91		92		70-130	1		20
Acetone	110		120		70-130	9		20
Carbon disulfide	110		110		70-130	0		20
Methyl ethyl ketone	99		120		70-130	19		20
Methyl isobutyl ketone	93		97		70-130	4		20
2-Hexanone	91		92		70-130	1		20
Bromochloromethane	120		120		70-130	0		20
Tetrahydrofuran	110		120		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 Batch: WG1863290-3 WG1863290-4								
2,2-Dichloropropane	110		110		70-130	0		20
1,2-Dibromoethane	110		110		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	110		110		70-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	90		90		70-130	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	100		110		70-130	10		20
Hexachlorobutadiene	92		92		70-130	0		20
Isopropylbenzene	98		99		70-130	1		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	96		96		70-130	0		20
n-Propylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	96		97		70-130	1		20
1,3,5-Trimethylbenzene	100		100		70-130	0		20
1,2,4-Trimethylbenzene	98		99		70-130	1		20
Diethyl ether	110		110		70-130	0		20
Diisopropyl Ether	100		100		70-130	0		20
Ethyl-Tert-Butyl-Ether	100		110		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 Batch: WG1863290-3 WG1863290-4								
Tertiary-Amyl Methyl Ether	99		100		70-130	1		20
1,4-Dioxane	**132**	Q	**144**	Q	70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		99		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	93		95		70-130
Dibromofluoromethane	103		102		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 QC Batch ID: WG1863290-6 WG1863290-7 QC Sample: L2372243-06 Client ID: MW-714S_120623												
Methylene chloride	ND	10	12	120		12	120		70-130	0		20
1,1-Dichloroethane	ND	10	12	120		13	130		70-130	8		20
Chloroform	ND	10	12	120		13	130		70-130	8		20
Carbon tetrachloride	ND	10	13	130		13	130		70-130	0		20
1,2-Dichloropropane	ND	10	11	110		12	120		70-130	9		20
Dibromochloromethane	ND	10	11	110		12	120		70-130	9		20
1,1,2-Trichloroethane	ND	10	12	120		12	120		70-130	0		20
Tetrachloroethene	ND	10	12	120		12	120		70-130	0		20
Chlorobenzene	ND	10	11	110		12	120		70-130	9		20
Trichlorofluoromethane	ND	10	12	120		13	130		70-130	8		20
1,2-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
1,1,1-Trichloroethane	ND	10	12	120		13	130		70-130	8		20
Bromodichloromethane	ND	10	12	120		12	120		70-130	0		20
trans-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
cis-1,3-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
1,1-Dichloropropene	ND	10	12	120		12	120		70-130	0		20
Bromoform	ND	10	10	100		11	110		70-130	10		20
1,1,2,2-Tetrachloroethane	ND	10	11	110		12	120		70-130	9		20
Benzene	ND	10	12	120		13	130		70-130	8		20
Toluene	ND	10	12	120		12	120		70-130	0		20
Ethylbenzene	ND	10	11	110		12	120		70-130	9		20
Chloromethane	ND	10	12	120		13	130		70-130	8		20
Bromomethane	ND	10	8.0	80		9.5	95		70-130	17		20

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 QC Batch ID: WG1863290-6 WG1863290-7 QC Sample: L2372243-06 Client ID: MW-714S_120623												
Vinyl chloride	1.6	10	14	124		15	**134**	Q	70-130	7		20
Chloroethane	ND	10	13	130		14	**140**	Q	70-130	7		20
1,1-Dichloroethene	ND	10	12	120		13	130		70-130	8		20
trans-1,2-Dichloroethene	ND	10	13	130		13	130		70-130	0		20
Trichloroethene	2.0	10	14	120		15	130		70-130	7		20
1,2-Dichlorobenzene	ND	10	11	110		12	120		70-130	9		20
1,3-Dichlorobenzene	ND	10	11	110		12	120		70-130	9		20
1,4-Dichlorobenzene	ND	10	11	110		11	110		70-130	0		20
Methyl tert butyl ether	ND	10	10	100		11	110		70-130	10		20
p/m-Xylene	ND	20	24	120		24	120		70-130	0		20
o-Xylene	ND	20	23	115		24	120		70-130	4		20
cis-1,2-Dichloroethene	8.3	10	21	127		21	127		70-130	0		20
Dibromomethane	ND	10	12	120		12	120		70-130	0		20
1,2,3-Trichloropropane	ND	10	11	110		12	120		70-130	9		20
Styrene	ND	20	24	120		24	120		70-130	0		20
Dichlorodifluoromethane	ND	10	10	100		10	100		70-130	0		20
Acetone	ND	10	12	120		13	130		70-130	8		20
Carbon disulfide	ND	10	12	120		13	130		70-130	8		20
Methyl ethyl ketone	ND	10	11	110		12	120		70-130	9		20
Methyl isobutyl ketone	ND	10	8.9	89		9.5	95		70-130	7		20
2-Hexanone	ND	10	9.0	90		9.6	96		70-130	6		20
Bromochloromethane	ND	10	12	120		13	130		70-130	8		20
Tetrahydrofuran	ND	10	11	110		12	120		70-130	9		20

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 QC Batch ID: WG1863290-6 WG1863290-7 QC Sample: L2372243-06 Client ID: MW-714S_120623												
2,2-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
1,2-Dibromoethane	ND	10	12	120		12	120		70-130	0		20
1,3-Dichloropropane	ND	10	12	120		12	120		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		12	120		70-130	9		20
Bromobenzene	ND	10	11	110		11	110		70-130	0		20
n-Butylbenzene	ND	10	9.2	92		9.8	98		70-130	6		20
sec-Butylbenzene	ND	10	11	110		11	110		70-130	0		20
tert-Butylbenzene	ND	10	11	110		11	110		70-130	0		20
o-Chlorotoluene	ND	10	11	110		12	120		70-130	9		20
p-Chlorotoluene	ND	10	11	110		12	120		70-130	9		20
1,2-Dibromo-3-chloropropane	ND	10	10	100		10	100		70-130	0		20
Hexachlorobutadiene	ND	10	8.9	89		9.9	99		70-130	11		20
Isopropylbenzene	ND	10	10	100		11	110		70-130	10		20
p-Isopropyltoluene	ND	10	10	100		11	110		70-130	10		20
Naphthalene	ND	10	9.2	92		10	100		70-130	8		20
n-Propylbenzene	ND	10	11	110		11	110		70-130	0		20
1,2,3-Trichlorobenzene	ND	10	10	100		11	110		70-130	10		20
1,2,4-Trichlorobenzene	ND	10	9.5	95		10	100		70-130	5		20
1,3,5-Trimethylbenzene	ND	10	11	110		11	110		70-130	0		20
1,2,4-Trimethylbenzene	ND	10	10	100		11	110		70-130	10		20
Diethyl ether	ND	10	11	110		12	120		70-130	9		20
Diisopropyl Ether	ND	10	10	100		11	110		70-130	10		20
Ethyl-Tert-Butyl-Ether	ND	10	10	100		11	110		70-130	10		20

Matrix Spike Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-10,12 QC Batch ID: WG1863290-6 WG1863290-7 QC Sample: L2372243-06 Client ID: MW-714S_120623												
Tertiary-Amyl Methyl Ether	ND	10	9.9	99		9.8	98		70-130	1		20
1,4-Dioxane	ND	500	640	128		630	126		70-130	2		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		96		70-130
4-Bromofluorobenzene	94		95		70-130
Dibromofluoromethane	103		101		70-130
Toluene-d8	99		100		70-130

METALS

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-01
Client ID: MW-706S_120723
Sample Location: WALPOLE, MA
Date Collected: 12/07/23 11:00
Date Received: 12/07/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.0072		mg/l	0.0005	--	1	12/13/23 08:55	12/13/23 13:23	EPA 3005A	97,6020B	NTB

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-02
Client ID: LR-MW-122_120623
Sample Location: WALPOLE, MA
Date Collected: 12/06/23 13:55
Date Received: 12/07/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.0101		mg/l	0.0005	--	1	12/13/23 08:55	12/13/23 13:27	EPA 3005A	97,6020B	NTB

Project Name: BIRD MACHINE
Lab Number: L2372243
Project Number: 3651230345.1000.****
Report Date: 12/14/23

SAMPLE RESULTS

Lab ID: L2372243-11
Client ID: DUP-2_120723
Sample Location: WALPOLE, MA
Date Collected: 12/07/23 00:00
Date Received: 12/07/23
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab											
Arsenic, Dissolved	0.0083		mg/l	0.0005	--	1	12/13/23 08:55	12/13/23 13:32	EPA 3005A	97,6020B	NTB

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Mansfield Lab for sample(s): 01-02,11 Batch: WG1862877-1										
Arsenic, Dissolved	ND		mg/l	0.0005	--	1	12/13/23 08:55	12/13/23 12:55	97,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: BIRD MACHINE

Project Number: 3651230345.1000.****

Lab Number: L2372243

Report Date: 12/14/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,11 Batch: WG1862877-2 WG1862877-3								
Arsenic, Dissolved	100		97		80-120	3		20

Matrix Spike Analysis
Batch Quality Control

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,11 QC Batch ID: WG1862877-4 WG1862877-5 QC Sample: L2372243-01 Client ID: MW-706S_120723												
Arsenic, Dissolved	0.0072	0.12	0.1260	99		0.1175	92		75-125	7		20

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2372243-01A	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MCP-AS-6020S-10(180)
L2372243-01A1	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MCP-AS-6020S-10(180)
L2372243-01A2	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MCP-AS-6020S-10(180)
L2372243-02A	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MCP-AS-6020S-10(180)
L2372243-03A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-03B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-03C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-04A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-04B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-04C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-05A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-05B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-05C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06A1	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06A2	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06B1	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06B2	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06C1	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-06C2	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-07A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)

*Values in parentheses indicate holding time in days

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****

Lab Number: L2372243
Report Date: 12/14/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2372243-07B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-07C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-08A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-08B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-08C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-09A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-09B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-09C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-10A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-10B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-10C	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-11A	Plastic 250ml HNO3 preserved	A	<2	<2	3.7	Y	Absent		MCP-AS-6020S-10(180)
L2372243-12A	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)
L2372243-12B	Vial HCl preserved	A	NA		3.7	Y	Absent		MCP-8260-21(14)

*Values in parentheses indicate holding time in days

Project Name:	BIRD MACHINE	**Lab Number:**	L2372243
Project Number:	3651230345.1000.****	**Report Date:**	12/14/23

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	BIRD MACHINE	**Lab Number:**	L2372243
Project Number:	3651230345.1000.****	**Report Date:**	12/14/23

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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 ten times (10x) 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. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

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.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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 lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	BIRD MACHINE	**Lab Number:**	L2372243
Project Number:	3651230345.1000.****	**Report Date:**	12/14/23

Data Qualifiers

ND - Not detected at the reporting limit (RL) for the sample.

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.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name: BIRD MACHINE
Project Number: 3651230345.1000.****
Lab Number: L2372243
Report Date: 12/14/23

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

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.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 2

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

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

Date Rec'd in Lab: 12/07/23

ALPHA Job #: L2372243

Client Information

Client: WSP USA E&I
Address: 100 Apollo Drive
Chelmsford, MA 01824
Phone: 978-427-5683
Email: samantha.mizusawa@wsp.com

Project Information

Project Name: Bird Machine
Project Location: Walpole, MA
Project #: ~~3651230283.0001~~
Project Manager: Sam Mizusawa
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

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 _____ Criteria _____

Additional Project Information:
Please include Following info on Invoice
PN ~~3651230283.0001~~ 3651230345.1000.**** DMK 12/11/2023
org # 3651 GL code 573000

ANALYSIS: ☒ VOC: 8260 ☐ 624 ☐ 524.2 | ☐ SVOC: ☐ ABN ☐ PAH | ☐ METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 | ☐ METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13 | ☐ EPH: ☐ Ranges & Targets ☐ Ranges Only | ☐ VPH: ☐ Ranges & Targets ☐ Ranges Only | ☐ PCB ☐ PEST | ☐ TPH: ☐ Quant Only ☐ Fingerprint | Dissolved As-6020B

SAMPLE INFO: Filtration ☒ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials		Sample Comments	TOTAL # BOTTLES
72243-01	MW-7065-120723	12/7/23	1100	GW	VP	X	Run MS/MSD	3
-02	LR-MW-122-120623	12/06/23	1355	GW	VP			1
-03	MW-7045-120723	12/7/23	1030	GW	MP	X		3
-04	MW-710M-120623	12/6/23	1230	GW	MP	X		3
-05	MW-7095-120623	12/6/23	1145	GW	VP	X		3
-06	MW-7145-120623	12/6/23	1035	GW	MP	X		3
-07	MB-MW-362_120623	12/6/23	1320	GW	MP	X	Run MS/MSD	9
-08	Dup-1_120623	12/6/23	-	GW	MP	X		3
-09	MW-713D-120623	12/6/23	1430	GW	MP	X		3
-10	MW-374-120623	12/6/23	1050	GW	VP	X		3

12/11/2023 DMK

Container Type	V		P
Preservative	B		C

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H= $Na_2S_2O_3$
I= Ascorbic Acid
J= NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Victor Privetera	12/7/23 13:19	AMZ	12/7/23 1319

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 12/07/23

ALPHA Job #: L2372243

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: WSP USA E&I
Address: 100 Apollo Drive
Chelmsford, MA 01824
Phone: 978-477-5683
Email: samantha.mizusawa@wsp.com

Project Information

Project Name: Bird Machine
Project Location: Walpole, MA
Project #: ~~3651220383.0001~~
Project Manager: Sam Mizusawa
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

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 _____ Criteria _____

Additional Project Information:

Please include Following info on invoice
PN ~~3651220383.0001~~ 3651230345.1000.**** DMK 12/11/2023
Org # 3651 GL code 573000

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: VOC: ☒ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Dissolved AS - 6020B	SAMPLE INFO: Filtration ☒ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
12243-11	Dup-2_120723	12/7/23	-	GW	VP									X			1
-12	Trip Blank_120123	12/1/23	-	AQ	PC	X										12/11/23/2023 DMK	2

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Container Type	V
Preservative	B

Relinquished By:	Date/Time	Received By:	Date/Time
Victor Riveiera	12/7/23 13:19	AM	12/7/23 1319

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FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 12/07/23

ALPHA Job #: L2372243

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: WSP USA E&I
Address: 100 Apollo Drive
Chelmsford, MA 01824
Phone: 978-427-5682
Email: samantha.mizusawa@wsp.com

Project Information

Project Name: Burt Machine
Project Location: Walpole, MA
Project #: 36512200283.0001
Project Manager: Sam Mizusawa
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

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)
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☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:
Please include Following info on Invoice
PN 36512200283.0001
Org # 3651 GL code 573000

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☒ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13	METALS: ☐ MCP 14 ☐ RCP 15	EPH: ☐ RCRA5 ☐ RCRA8 ☐ PP13	VPH: ☐ Ranges & Targets ☐ Ranges Only	PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Dissolved As - 6020B	Sample Comments	TOTAL # BOTTLES
72243-01	MW-7065-120723	12/7/23	1100	GW	VP									X	Run MS/MSD	3
-02	LR-MW-122-120623	12/06/23	1355	GW	VP									X		1
-03	MW-7045-120723	12/7/23	1030	GW	MP	X										3
-04	MW-710M-120623	12/6/23	1230	GW	MP	X										3
-05	MW-7095-120623	12/6/23	1145	GW	VP	X										3
-06	MW-7145-120623	12/6/23	1035	GW	MP	X									Run MS/MSD	9
-07	MB-MW-362	12/6/23	1320	GW	MP	X										3
-08	Dup-1	12/6/23	-	GW	MP	X										3
-09	MW-713D-120623	12/6/23	1430	GW	MP	X										3
-10	MW-374-120623	12/6/23	1050	GW	VP	X										3
	Container Type					V								P		
	Preservative					B								C		

SAMPLE INFO
Filtration: ☒ Field ☐ Lab to do
Preservation: ☐ Lab to do

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Victor Privetera	12/7/23 13:19	AMZ	12/7/23 1319

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FORM NO: 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 12/07/23

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Project Manager: Sam Mizusawa
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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☒ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
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☐ Yes ☒ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:
Please include Following info on invoice
PN 36512200283.0001
Org # 3651 GL code 573000

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS: VOC: ☒ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Dissolved AS - 6010B	SAMPLE INFO: Filtration ☒ Field ☐ Lab to do; Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
12243-11	Dup-2	12/7/23	—	GW	VP									X			1
-12	Trip Blank	12/1/23	—	AQ	PC	X											2

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
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E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
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K= Zn Acetate
O= Other

Container Type	V																
Preservative	B																

Relinquished By:	Date/Time	Received By:	Date/Time
Victor Riveiera	12/7/23 13:19	AM	12/7/23 1319

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FORM NO: 01-01 (rev. 12-Mar-2012)

Method Blank Summary
Form 4
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2372243
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****
Lab Sample ID	: WG1863290-5	**Lab File ID**	: V16231212N05
Instrument ID	: VOA116		
Matrix	: WATER	**Analysis Date**	: 12/12/23 16:28

Client Sample No.	Lab Sample ID	Analysis Date
WG1863290-3LCS	WG1863290-3	12/12/23 14:53
WG1863290-4LCSD	WG1863290-4	12/12/23 15:17
TRIP BLANK_120123	L2372243-12	12/12/23 16:52
MW-714S_120623	L2372243-06	12/12/23 17:16
MW-704S_120723	L2372243-03	12/12/23 17:40
MW-710M_120623	L2372243-04	12/12/23 18:04
MW-709S_120623	L2372243-05	12/12/23 18:27
MB-MW-362_120623	L2372243-07	12/12/23 18:51
DUP-1_120623	L2372243-08	12/12/23 19:15
MW-713D_120623	L2372243-09	12/12/23 19:39
MW-374_120623	L2372243-10	12/12/23 20:02
MW-714S_120623MS	WG1863290-6	12/13/23 00:47
MW-714S_120623MSD	WG1863290-7	12/13/23 01:11

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2372243		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 12/12/23 14:53		
Lab File ID	: V16231212N01	**Init. Calib. Date(s)**	: 12/05/23	12/05/23	
Sample No	: WG1863290-2	**Init. Calib. Times**	: 06:01	10:47	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	80	0
Dichlorodifluoromethane	0.208	0.189	-	9.1	20	75	0
Chloromethane	0.231	0.267	-	-15.6	20	95	0
Vinyl chloride	0.223	0.255	-	-14.3	20	90	0
Bromomethane	0.13	0.129	-	0.8	20	87	0
Chloroethane	0.127	0.152	-	-19.7	20	94	0
Trichlorofluoromethane	0.242	0.259	-	-7	20	87	0
Ethyl ether	0.064	0.07	-	-9.4	20	96	0
1,1-Dichloroethene	0.145	0.159	-	-9.7	20	89	0
Carbon disulfide	0.486	0.54	-	-11.1	20	91	0
Freon-113	0.165	0.175	-	-6.1	20	84	0
Acrolein	10	9.831	-	1.7	20	93	0
Methylene chloride	0.165	0.184	-	-11.5	20	95	0
Acetone	10	11.463	-	-14.6	20	99	0
trans-1,2-Dichloroethene	0.161	0.181	-	-12.4	20	92	0
Methyl acetate	0.085	0.098	-	-15.3	20	96	0
Methyl tert-butyl ether	0.331	0.337	-	-1.8	20	88	0
tert-Butyl alcohol	0.00849	0.00949*	-	-11.8	20	103	0
Diisopropyl ether	0.576	0.59	-	-2.4	20	87	0
1,1-Dichloroethane	0.314	0.361	-	-15	20	94	0
Halothane	0.128	0.147	-	-14.8	20	94	0
Acrylonitrile	10	10.742	-	-7.4	20	95	0
Ethyl tert-butyl ether	0.464	0.476	-	-2.6	20	88	0
Vinyl acetate	0.324	0.374	-	-15.4	20	103	0
cis-1,2-Dichloroethene	0.172	0.195*	-	-13.4	20	94	0
2,2-Dichloropropane	0.221	0.243	-	-10	20	94	0
Bromochloromethane	0.081	0.095*	-	-17.3	20	93	0
Cyclohexane	0.336	0.35	-	-4.2	20	85	0
Chloroform	0.291	0.344	-	-18.2	20	99	0
Ethyl acetate	0.119	0.131	-	-10.1	20	91	0
Carbon tetrachloride	0.223	0.254	-	-13.9	20	90	0
Tetrahydrofuran	10	11.266	-	-12.7	20	93	0
Dibromofluoromethane	0.267	0.274	-	-2.6	20	83	0
1,1,1-Trichloroethane	0.257	0.284	-	-10.5	20	92	0
2-Butanone	0.055	0.054	-	1.8	20	78	0
1,1-Dichloropropene	0.216	0.235	-	-8.8	20	88	0
Benzene	0.612	0.713	-	-16.5	20	92	0
tert-Amyl methyl ether	0.379	0.375	-	1.1	20	89	0
1,2-Dichloroethane-d4	0.299	0.287	-	4	20	81	0
1,2-Dichloroethane	0.224	0.26	-	-16.1	20	94	0
Methyl cyclohexane	0.309	0.297	-	3.9	20	82	0
Trichloroethene	0.18	0.205	-	-13.9	20	92	0
Dibromomethane	0.092	0.105	-	-14.1	20	93	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2372243		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 12/12/23 14:53		
Lab File ID	: V16231212N01	**Init. Calib. Date(s)**	: 12/05/23	12/05/23	
Sample No	: WG1863290-2	**Init. Calib. Times**	: 06:01	10:47	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.179	0.19	-	-6.1	20	92	0
2-Chloroethyl vinyl ether	0.081	0.064	-	21*	20	66	0
Bromodichloromethane	0.236	0.265*	-	-12.3	20	94	0
1,4-Dioxane	0.00091	0.00121*	-	-33*	20	109	0
cis-1,3-Dichloropropene	0.212	0.231*	-	-9	20	92	0
Chlorobenzene-d5	1	1	-	0	20	81	0
Toluene-d8	1.235	1.241	-	-0.5	20	80	0
Toluene	0.522	0.577	-	-10.5	20	91	0
4-Methyl-2-pentanone	10	9.321	-	6.8	20	92	0
Tetrachloroethene	0.237	0.264	-	-11.4	20	90	0
trans-1,3-Dichloropropene	10	10.233	-	-2.3	20	92	0
Ethyl methacrylate	0.178	0.164	-	7.9	20	87	0
1,1,2-Trichloroethane	0.136	0.156*	-	-14.7	20	93	0
Chlorodibromomethane	0.212	0.23	-	-8.5	20	92	0
1,3-Dichloropropane	0.272	0.303	-	-11.4	20	92	0
1,2-Dibromoethane	0.162	0.185*	-	-14.2	20	94	0
2-Hexanone	0.098	0.089	-	9.2	20	84	0
Chlorobenzene	0.591	0.638	-	-8	20	91	0
Ethylbenzene	1.002	1.075	-	-7.3	20	89	0
1,1,1,2-Tetrachloroethane	0.219	0.238	-	-8.7	20	91	0
p/m Xylene	0.389	0.432	-	-11.1	20	91	0
o Xylene	0.37	0.408	-	-10.3	20	90	0
Styrene	0.604	0.686	-	-13.6	20	91	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	84	0
Bromoform	0.231	0.236	-	-2.2	20	93	0
Isopropylbenzene	1.897	1.865	-	1.7	20	89	0
4-Bromofluorobenzene	0.841	0.785	-	6.7	20	79	0
Bromobenzene	0.455	0.469	-	-3.1	20	92	0
n-Propylbenzene	2.212	2.297	-	-3.8	20	88	0
1,4-Dichlorobutane	0.544	0.562	-	-3.3	20	94	0
1,1,2,2-Tetrachloroethane	0.361	0.397	-	-10	20	98	0
4-Ethyltoluene	1.822	1.885	-	-3.5	20	88	0
2-Chlorotoluene	1.505	1.59	-	-5.6	20	90	0
1,3,5-Trimethylbenzene	1.551	1.604	-	-3.4	20	87	0
1,2,3-Trichloropropane	0.27	0.292	-	-8.1	20	96	0
trans-1,4-Dichloro-2-buten	0.117	0.116	-	0.9	20	90	0
4-Chlorotoluene	1.333	1.391	-	-4.4	20	90	0
tert-Butylbenzene	1.332	1.361	-	-2.2	20	87	0
1,2,4-Trimethylbenzene	1.517	1.493	-	1.6	20	86	0
sec-Butylbenzene	1.985	2.039	-	-2.7	20	85	0
p-Isopropyltoluene	1.867	1.902	-	-1.9	20	85	0
1,3-Dichlorobenzene	0.904	0.972	-	-7.5	20	92	0
1,4-Dichlorobenzene	0.915	0.965	-	-5.5	20	91	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: WSP USA Environment & Infrastructur	**Lab Number**	: L2372243		
Project Name	: BIRD MACHINE	**Project Number**	: 3651230345.1000.****		
Instrument ID	: VOA116	**Calibration Date**	: 12/12/23 14:53		
Lab File ID	: V16231212N01	**Init. Calib. Date(s)**	: 12/05/23	12/05/23	
Sample No	: WG1863290-2	**Init. Calib. Times**	: 06:01	10:47	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.024	0.938	-	8.4	20	84	0
n-Butylbenzene	10	9.048	-	9.5	20	86	0
1,2-Dichlorobenzene	0.82	0.88	-	-7.3	20	92	0
1,2,4,5-Tetramethylbenzene	10	9.01	-	9.9	20	85	0
1,2-Dibromo-3-chloropropan	0.054	0.055	-	-1.9	20	92	0
1,3,5-Trichlorobenzene	0.574	0.578	-	-0.7	20	89	0
Hexachlorobutadiene	10	9.15	-	8.5	20	86	0
1,2,4-Trichlorobenzene	10	9.629	-	3.7	20	93	0
Naphthalene	10	9.569	-	4.3	20	93	0
1,2,3-Trichlorobenzene	0.433	0.445	-	-2.8	20	94	0

*** Value outside of QC limits.**