MACTEC

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May 7, 2018

Mr. David Szymanski
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2915

Subject: 2017/2018 Periodic Review Report
Alltift Landfill Site
NYSDEC Site No. 915054

Dear Mr. Szymanski:

MACTEC Engineering and Consulting, P.C. (MACTEC), is submitting this Periodic Review Report (PRR) for the Alltift Landfill Site/Ramco Steel Site (site) on behalf of Honeywell International Inc. (Honeywell). The completed Site Management PRR Notice - Institutional and Engineering Controls Certification Form is provided herein as Attachment A, which includes a summary of deed restrictions. Supporting Tables, Figures, and Appendices are included herein as Attachment B. The remainder of this document follows the outline presented in the Site Management Periodic Review Report and IC/EC Certification Submittal reminder notice letter dated March 9, 2018.

I. Introduction

A. Site Summary:
The primary remedial objectives at the Site are to eliminate the potential for direct contact with waste and impacted soils and sediments, and to eliminate the potential for impacted groundwater to discharge to the adjacent wetlands. Remedial construction activities began in November 2003 and were completed in November 2005. The key remedial actions for the site included:

- consolidation and capping of landfill waste and impacted soils and sediments
- construction of groundwater collection and relief trenches for groundwater control (see figures included in Attachment B.1)
- groundwater monitoring
- restoration of ponds and wetlands.

The Alltift Landfill Site is located at 302 Abby Street in the southern portion of the City of Buffalo, Erie County, New York. The Ramco Steel Site is adjacent to the southeastern tip of the Alltift Landfill (see figures included in Attachment B.1).

MACTEC Engineering and Consulting, P.C.
511 Congress Street • Portland, Maine 04101 • Phone: 207-775-5401 • Fax: 207-772-4762

The Alltift Landfill Site is a landfill/waste disposal area that was remediated between November 2003 and November 2005 under an Order of Consent between AlliedSignal (now Honeywell) and the New York State Department of Environmental Conservation (NYSDEC).

The remediation activities included those at the adjacent Ramco Steel Site (NYSDEC Site No. 915046B). The remediation involved consolidation of the wastes present on the Alltift Landfill and Ramco Steel sites into a capped landfill on the Alltift Landfill Site. A groundwater control system was installed at the downgradient toe of the landfill to collect and pump groundwater that emanates from the landfill to a sewer line owned by the Buffalo Sewer Authority (BSA) in accordance with the Buffalo Pollutant Discharge Elimination System (BPDES) Permit. As part of the remedial construction, man-made wetlands were created on the western and southern ends of the Alltift Landfill Site and the adjacent Ramco Steel Site.

On April 5, 2013, the NYSDEC accepted and approved the Construction Certification Report and Operation, Maintenance, and Monitoring Plan for the Alltift Landfill Site/Ramco Steel Site. The NYSDEC then re-classified the Alltift Landfill Site (NYSDEC Site No. 915054) from Class 2 to Class 4, and de-listed the Ramco Steel Site (NYSDEC Site No. 915046B).

During the 2017/2018 reporting period, the following routine OM&M activities were completed in accordance with the Operations, Maintenance, and Monitoring Manual, prepared by Parson Engineers, dated March 2006 (referred to hereafter as the OM&M Manual):

- BSA discharge monitoring
- groundwater monitoring
- quarterly site inspections
- routine maintenance activities.

B. Effectiveness Monitoring: The cap system is intact with suitable vegetative cover, and the wetlands mitigation area appears to be a successfully functioning wetland. Groundwater from the site is flowing into the groundwater capture trench as designed. Analytical results from the BSA monthly discharge sampling are within the BSA permit limits.

C. Compliance: The OM&M activities conducted during the reporting period were performed in accordance with the OM&M Manual.

D. Recommendations: Implementation of the activities specified in the OM&M Manual will continue, as described in Section VI E of this letter.

II. Site Overview

A. Site Location: The site plan is illustrated on the figures included in Attachment B.1. The site is located south of Tifft Street, approximately 1,300 feet west of Hopkins Street, and 5,000 feet east of the intersection of Tifft Street and Route 5. It is bounded on the north by Tifft Street; on the west by a railroad right-of-way and tracks; on the south by several ponds and the Ramco Steel Site; and on the east by Skyway Auto Parts, Inc. Prior to remediation, soils and sediments containing contaminant concentrations exceeding relevant NYSDEC standards were identified at the site.

The site remedy included consolidation and capping of landfill waste and impacted soils and sediments; construction of a groundwater collection trench and a groundwater relief trench; implementation of monthly BSA discharge monitoring; implementation of annual groundwater monitoring; and restoration of ponds and wetlands.

Groundwater collected in the trench is conveyed via a pumping system to a lift station located at the southeastern corner of the site. The lift station then discharges the collected groundwater to the sewer, under a BSA discharge permit. As required by the current BSA discharge permit, samples of the effluent are collected from the lift station on a semi-annual basis and analyzed for compliance with the parameter limits listed in the permit.

B. Chronology: Remediation of the site began in November 2003 and concluded in November 2005. Waste and impacted sediment relocation was completed in September 2004, the construction of the groundwater collection trench was completed in October 2004, and the landfill capping system was completed in June 2005. Planting of wetland and woody vegetation, creating at least 11.2 acres of emergent marsh and open water habitats, was completed in November 2005.

III. Evaluation of Remedy Performance, Effectiveness and Protectiveness

A. The performance, effectiveness, and protectiveness of the remedy is verified by ensuring that the cap system is intact as constructed, that groundwater is being routed to the groundwater collection trench, and that the wetlands area is successfully functioning as designed.

- Ensuring the cap system is intact as constructed: Quarterly site inspections that include monitoring of landfill vegetation, ground inspections, and visual checks for evidence of erosion or subsidence are conducted. Resulting observations from the inspections indicate that the integrity of the cap appears sound (see the quarterly inspection reports included in Attachment B.2).

- Ensuring that groundwater is being routed to the groundwater collection trench: The integrity of the surface drainage and

groundwater collection systems is evaluated during the quarterly site inspections, and maintenance of these systems is performed when problems are identified. Water level measurements collected from site monitoring wells, piezometers, and sumps are used to establish quarterly groundwater elevations at the site (water level measurements and calculated groundwater elevations are included in Attachment B.3 and B.4, respectively). The quarterly groundwater elevations are then used to plot quarterly groundwater contour maps. The contour maps indicate that groundwater at the site is being routed to the groundwater collection trench as designed (quarterly groundwater contour maps are included in Attachment B.5).

- Ensuring that the wetlands area is successfully functioning as designed: In its letter addressed to Honeywell, dated October 24, 2012, the USACE indicated that the terms and conditions of Permit No. 98-976-0162(0) had been met and that no further actions are required.

IV. IC/EC Plan Compliance Report – An IC/EC Plan was submitted to the NYSDEC on December 13, 2012. The IC/EC Plan has been adopted, and a description of the status of institutional and engineering controls is included in Attachment A of this PRR.

V. Monitoring Plan Compliance Report – A separate Monitoring Plan Compliance Report is not required for this site. Monitoring requirements are addressed in the OM&M Manual.

VI. Operations and Maintenance Plan Compliance Report

A. Components of the OM&M Manual – Requirements of the OM&M Manual include the following:

- BSA Discharge Monitoring
- Groundwater Monitoring and Annual Groundwater Sampling
- Landfill Gas Monitoring
- Surface Water Level Measurements
- Quarterly Site Inspections
- Maintenance Activities (including annual mowing of cap, repair of access roads and areas without vegetative cover, repair of areas showing erosion or subsidence, and maintenance of the surface drainage and groundwater collection systems).

B. Summary of OM&M Completed during Reporting Period: BSA discharge monitoring, groundwater monitoring, quarterly site inspections, and other OM&M activities were completed in accordance with the OM&M Manual. The following summarizes the activities completed:

- BSA discharge monitoring was conducted on a semi-annual basis in accordance with the BPDES Permit in effect (Permit #15-12-BU098). Collected samples were submitted to TestAmerica (first semi-annual period) and SGS-Accutest (second semi-annual period), for analyses of the required parameters. Honeywell's OM&M Contractor - Jacobs (formerly CH2M) - prepared and submitted semi-annual discharge monitoring reports that documented the results of the monitoring to BSA. All sample results were within the permit limits (refer to Attachment B.6).
- Groundwater levels for site piezometers, wells and groundwater collection trench sumps were recorded on a quarterly basis. The annual groundwater sampling event completed on October 09, 2017 included collection of aqueous samples from background monitoring well MW-2 and collection system sumps; the samples were analyzed for parameters described in the OM&M Manual. The results are summarized below, and the analytical results are included in Attachment B.7.
- Landfill gas monitoring was last conducted on July 18, 2017 and the results are presented in Attachment B.8.
- Quarterly site inspections were conducted as outlined in the OM&M Manual.
- Routine and non-routine maintenance activities completed during the reporting period included the following:
  - Periodic inspection and cleaning of the lift station flow meter
  - Periodic inspection/maintenance of sump pumps
  - Plowing of snow from the entrance road as necessary
  - Mowing of landfill cover on October 11, 2017

C. Evaluation of Remedial Systems: During the reporting period, the remedial systems appeared to be effectively achieving the objectives of the remedial action, as described in the attached OM&M Report.

D. OM&M Deficiencies: Most of the monitoring wells are fully functional; however, there are three damaged or destroyed wells (MW-1, PZ-14, and PZ-16). The nature and condition of these wells has been further evaluated, and while their condition does not impact the ability to monitor groundwater conditions, the wells be properly decommissioned to limit environmental risk in accordance with NYSDEC Guidance and

Requirements. In accordance with DER-10, decommissioning of monitoring wells is planned for completion in 2018 consistent with the guidance provided in CP-43: Groundwater Monitoring Well Decommissioning Policy.

E. Conclusions and Recommendations: The following conclusions are presented based on the data collected during the reporting period:

- Based on the results of the quarterly inspection reports, which verify that the integrity of the cap is satisfactory and vegetation is established, the remedy remains protective in its ability to eliminate the potential for direct contact with waste and impacted soils and sediments.
- Based on the evaluation of the collected groundwater elevation data, which indicates that impacted groundwater is flowing into the groundwater collection trench as designed, the remedy is eliminating the potential for impacted groundwater to discharge to the adjacent wetlands.
- Based on the analytical results from BSA discharge monitoring, concentrations of effluent parameters are within the BSA permit limits.

The following recommendations were developed based on the data collected during the reporting period:

- BSA Discharge Monitoring – In accordance with the current BSA permit, discharge monitoring will be conducted on a semi-annual basis, with reports issued to BSA and copied to the NYSDEC.
- Groundwater Monitoring – Annual groundwater monitoring will be completed in 2018 with groundwater monitoring results reported in the next annual PRR submittal.
- Water Level Measurements – Collection of water level measurements will be conducted on a quarterly basis.
- Landfill Gas Monitoring – Landfill gas monitoring will continue on an annual basis.
- Surface Water Level Measurements – in conjunction with the site inspections, surface water level measurements will continue to be collected using the top of the weir structure at the north end of Pond A as a reference.
- Site inspections will continue on a quarterly basis.
- Routine OM&M activities will continue on a monthly basis, or more frequently as needed based upon results of site inspections or to respond to groundwater collection system autodialer callouts.
- The next PRR submittal should be completed and submitted to NYSDEC by the end of May 2019.

VII. Overall PRR Conclusions

A. Compliance: Activities were completed during the reporting period as noted above.

B. Performance and Effectiveness of the Remedy: The condition of the cap system and consistent groundwater flow into the groundwater collection trench indicate that the remedy is performing effectively.

C. Future PRR submittals: It is anticipated that the next PRR will be submitted by the end of May 2019.

Closing

Please contact Ryan Belcher at (207) 828-3530 with any questions or comments on this submittal.

Respectfully,

MACTEC Engineering and Consulting P.C.

Ryan Belcher
Senior Engineer

Mark Stelmack, P.E.
Associate Engineer

Attachments

cc: M. Sweitzer (Honeywell)
D. Sutton (City of Buffalo)
K. Boland (CSX)

ATTACHMENT A

PRR NOTICE

IC/EC CONTROLS CERTIFICATION FORM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

3/9/2018

Mark A. Sweitzer
Remediation Manager
Honeywell International Inc.
6100 Philadelphia Pike
Claymont, DE 19703

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Alltift Landfill
Site No.: 915054
Site Address: 302 Abby Street
Buffalo, NY 14202

Dear Mark A. Sweitzer:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **May 21, 2018**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to David Szymanski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: david.szymanski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
David Szymanski, Project Manager
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 915054

Site Name Alltift Landfill

Site Address: 302 Abby Street Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 37.8

Reporting Period: April 21, 2017 to April 21, 2018

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 915054 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
132-12-1-22	CSX Transportation Inc. - Adrian Realty	Ground Water Use Restriction Landuse Restriction O&M Plan

A Declaration of Covenants and Restrictions was placed on this property by the owner on 08/05/2011(Filed 08/11/2011)as a requirment of the ROD dated 3/27/1995 for the Alltift Landfill Site, Site #915054.

Deed Restriction - 106 Abby Street:
No activity that will prevent or interfere with ongoing remediation;
will not disturb cap or cover;
prohibition of any new use without Department waiver;
prohibit use of groundwater;
allow Department access;
no interference with maintenance of wetlands;
will not impede maintenance of water elevation control (headwall);
no interference with ECs and Institutional Controls (ICs);
declaration deemed covenant, runs with the land and binding on sucessors and assigns;and,
any deed of conveyance shall recite the covenants and restrictions.

132.12-1-21	City of Buffalo, Prefecting	Ground Water Use Restriction Site Management Plan IC/EC Plan Monitoring Plan Landuse Restriction O&M Plan

In addition to the Engineering Controls in place after the remediation, this site is under the control of an Environmental Notice placed by the Department filed 3/12/2012.

Institutional Controls - Environmental Notice:

Property subject to provision of OM&M Manual;
no excavation that threatens engineering control(EC);
no disturbance of EC w/out Department waiver;
restrict re-use to commercial/industrial; and,
prohibit use of groundwater.

133.09-1-17	Skyway Auto Parts	Ground Water Use Restriction Landuse Restriction O&M Plan

No Engineering controls are required on this site. A Declaration of Covenants and Restrictions was placed on this property by the owner on 2/15/2012(Filed 3/01/2012)as a requirment of the ROD.

Deed Restriction - 637 Tifft Street

No activity that will prevent or interfere with ongoing remediation;
provide 60 day notice of any change of use;
prohibit groundwater use;
allow access for Department;
declaration deemed covenant, runs with the land and binding on sucessors and assigns;and,
any deed of conveyance shall recite the covenants and restrictions.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
132.12-1-21	Leachate Collection Cover System Fencing/Access Control

Engineering Controls:

Cover system - Part 360 composite cap
Leachate collection trench and sump system
Fencing around entire site

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative _____ Date _____

IC CERTIFICATIONS
SITE NO. 915054

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MARK A. SWEITZER at 6100 PHILADELPHIA PIKE CLAYMONT, DE 19708
print name print business address

am certifying as REMEDIAL PARTY (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

5-4-18
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MARK STELMACK (print name) at MACTEC ENGINEERING & CONSULTING, P.C. 511 CONGRESS ST., SUITE 200, PORTLAND, ME 04101 (print business address),

am certifying as a Professional Engineer for the HONEYWELL INTERNATIONAL, INC. (Owner or Remedial Party)

STATE OF NEW YORK
MARK JAMES STELMACK
080317
LICENSED PROFESSIONAL ENGINEER

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date: MAY 7, 2018

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

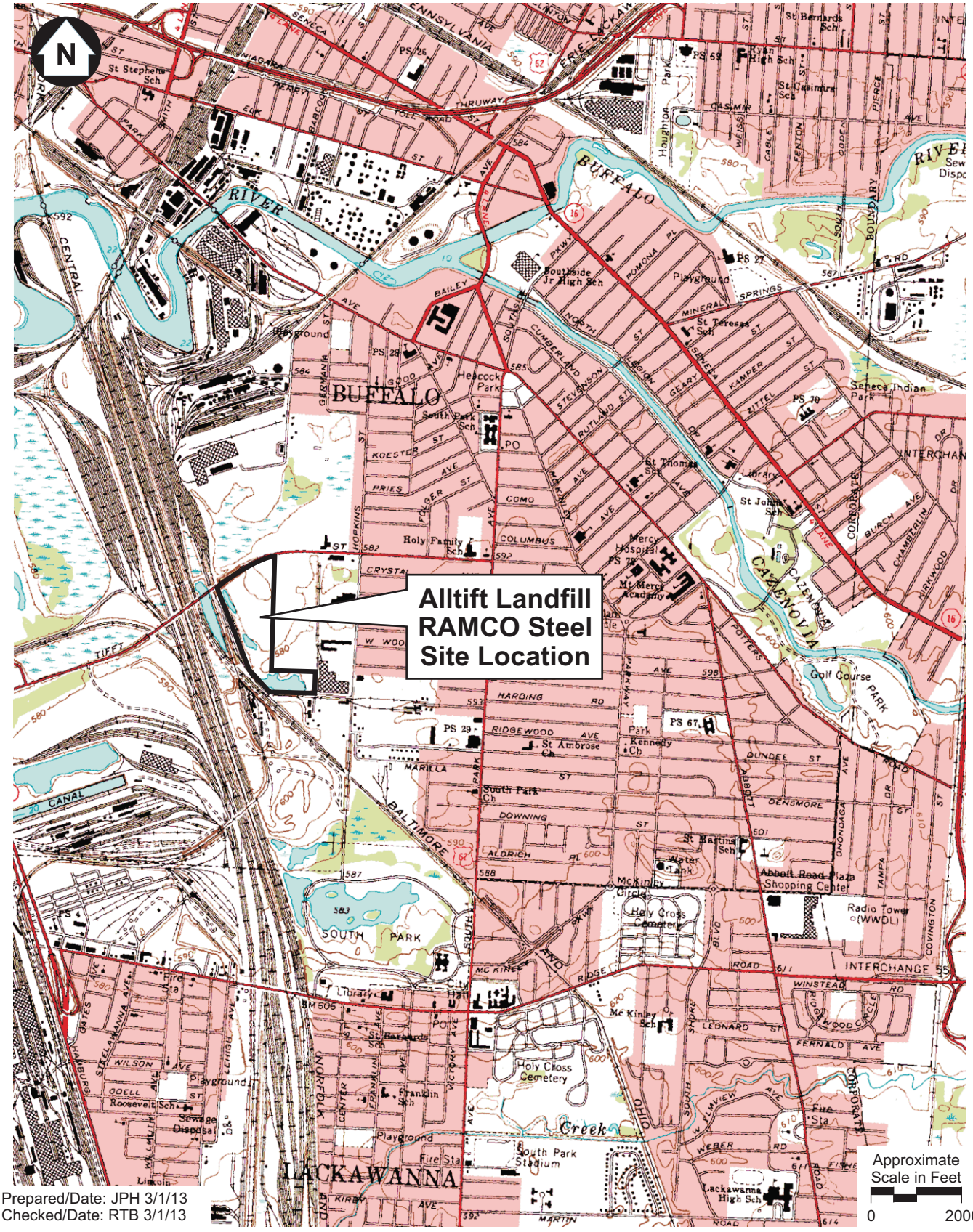
VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

ATTACHMENT B

SUPPORTING TABLES, FIGURES, AND APPENDICES

Attachment B.1 Site Figures



Prepared/Date: JPH 3/1/13
Checked/Date: RTB 3/1/13

Honeywell

amec

Site Location Map
Alltift Landfill/Ramco Steel Site
Project No. 3410120905
Figure 1

PORT2011018a.cdr

MW-1

MW-2

Sump-1

SSA1

SW1

SSA2

Sump-2

Sump-3

Lift Station

Sump-4

Legend

- Monitoring Well
- Sediment
- Surface Water
- Lift Station
- Sump
- Planting Areas
- Coarse Woody Debris
- Open Water
- Deep Water Emergent
- Wet Meadow Emergent
- Approximate Wetland Boundary

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

0 90 180 Feet

Prepared/Date: BRP 04/27/15
Checked/Date: RTB 04/27/15

HONEYWELL

amec

Current Conditions
Site Plan

Project 3410120905 Figure 2

Document: P:\Projects\Honeywell\O,M and M Team\Altift Landfill\4.0 Project Deliverables\4.3 Drawings\GIS\Figures\April 2015\Figure 2 - Current Conditions.pdf 04/27/2015 2:27 PM brian.peters
PDF: P:\Projects\Honeywell\O,M and M Team\Altift Landfill\4.0 Project Deliverables\4.3 Drawings\GIS\MapDocuments\Site_Conditions_11x17P.mxd brian.peters

Attachment B.2 Quarterly Inspection Reports

Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 7/12/17

Weather: Sunny
Assessment by: Robert Davies

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☒	☐	2. Is there a breach in fence? _____
☒	☐	☐	3. Locks on gate? _____
☒	☐	☐	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress?
☐	☒	☐	2. Mowing required? _____
☒	☐	☐	3. Access road drivable?
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☒	☐	1. Obstruction of flow ditches? _____
☐	☒	☐	2. Erosion of ditches? _____
☒	☐	☐	3. Silt & erosion control? _____
☒	☐	☐	4. Culverts in good condition? _____
☐	☒	☐	5. Evidence of overflow or uncontrolled flow? _____
☒	☐	☐	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control

Site Inspection Form

Yes	No	N/A	
☒	☐	☐	1. Does one exist? _____
☒	☐	☐	2. Is system active or passive? active
☐	☒	☐	3. Permanent methane gas probes? _____
☒	☐	☐	4. Locks on monitoring wells? _____
☒	☐	☐	5. Vents in working order?
☒	☐	☐	6. Well seals in place? _____
☒	☐	☐	7. Methane levels within LEL limits?
☒	☐	☐	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☒	☐	☐	1. Does one exist? _____
			2. Collection method:
☒	☐	☐	a. Sump? 2
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☒	☐	☐	a. Automatic? _____
☐	☒	☐	b. Manual? _____
☒	☐	☐	c. Mechanically operable? _____
☐	☒	☐	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☒	☐	☐	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, Instruments and etc.) _____
☒	☐	☐	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

CH2MHILL

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	**H. Treatment Plant**
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

None

No issues noted

Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 10/11/17

Weather: Sunny
Assessment by: Michael Stout

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☒	☐	2. Is there a breach in fence? _____
☒	☐	☐	3. Locks on gate? _____
☒	☐	☐	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress?
☐	☒	☐	2. Mowing required? _____
☒	☐	☐	3. Access road drivable?
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☒	☐	1. Obstruction of flow ditches? _____
☐	☒	☐	2. Erosion of ditches? _____
☒	☐	☐	3. Silt & erosion control? _____
☒	☐	☐	4. Culverts in good condition? _____
☐	☒	☐	5. Evidence of overflow or uncontrolled flow? _____
☒	☐	☐	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control

Site Inspection Form

Yes	No	N/A	
☒	☐	☐	1. Does one exist? _____
☒	☐	☐	2. Is system active or passive? active
☐	☒	☐	3. Permanent methane gas probes? _____
☒	☐	☐	4. Locks on monitoring wells? _____
☒	☐	☐	5. Vents in working order?
☒	☐	☐	6. Well seals in place? _____
☒	☐	☐	7. Methane levels within LEL limits?
☒	☐	☐	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☒	☐	☐	1. Does one exist? _____
			2. Collection method:
☒	☐	☐	a. Sump? 2
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☒	☐	☐	a. Automatic? _____
☐	☒	☐	b. Manual? _____
☒	☐	☐	c. Mechanically operable? _____
☐	☒	☐	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☒	☐	☐	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, Instruments and etc.) _____
☒	☐	☐	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

None

No issues noted

CH2MHILL

Site Inspection Form

Site Name: Alltift
Project Number: 30130
Date: 2/15/~~17~~ 18 RTB 4/20/18

Weather: Sunny and 25 degrees
Assessment by: Michael Stout

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☒	☐	2. Is there a breach in fence? _____
☒	☐	☐	3. Locks on gate? _____
☒	☐	☐	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress?
☐	☒	☐	2. Mowing required? _____
☒	☐	☐	3. Access road drivable?
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☒	☐	1. Obstruction of flow ditches? _____
☐	☒	☐	2. Erosion of ditches? _____
☒	☐	☐	3. Silt & erosion control? _____
☒	☐	☐	4. Culverts in good condition? _____
☐	☒	☐	5. Evidence of overflow or uncontrolled flow? _____
☒	☐	☐	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control

Site Inspection Form

Yes	No	N/A	
☒	☐	☐	1. Does one exist? _____
☒	☐	☐	2. Is system active or passive? active
☐	☒	☐	3. Permanent methane gas probes? _____
☒	☐	☐	4. Locks on monitoring wells? _____
☒	☐	☐	5. Vents in working order?
☒	☐	☐	6. Well seals in place? _____
☒	☐	☐	7. Methane levels within LEL limits?
☒	☐	☐	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☒	☐	☐	1. Does one exist? _____
			2. Collection method:
☒	☐	☐	a. Sump? 2
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☒	☐	☐	a. Automatic? _____
☐	☒	☐	b. Manual? _____
☒	☐	☐	c. Mechanically operable? _____
☐	☒	☐	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☒	☐	☐	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, Instruments and etc.) _____
☒	☐	☐	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
		☒	**H. Treatment Plant**
		☒	1. Building in good condition? (Doors, windows, wells, roof) _____
		☒	2. Visual tank inspection performed? _____
		☒	3. Visual inspection of pipes, valves, fittings etc.? _____
		☒	4. Pump operation/inspection performed? _____
		☒	5. Instruments operation/calibration? _____
		☒	6. Mixer operation/inspection? _____
		☒	7. Proper personal protection equipment? _____
		☒	8. Air compressor system functioning properly? _____
		☒	9. Filter press inspected? _____
		☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
		☒	1. Damage due to burrowing animals? _____
		☒	2. Damage due ice and/or ice flowages? _____
		☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
		☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
		☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
		☒	6. Areas of settlement or displacement of the system? _____
		☒	7. Erosion at the upstream and downstream limits of the system? _____
		☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
		☒	9. Damage to the stone infill within the marine mattresses? _____
		☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

None

No issues noted

Attachment B.3 Water Level Measurements

Alltift Landfill
Buffalo, New York

Piezometer Readings (DTW, ft)	18-Jul-17	10-Oct-17	15-Feb-18
PZ-1	6.26	6.30	6.80
PZ-2	4.84	6.15	4.43
PZ-3	3.85	6.31	5.57
PZ-4	5.98	6.15	4.65
PZ-5	3.68	5.34	3.92
PZ-6	3.68	5.88	5.38
PZ-7	3.90	5.61	4.98
PZ-8	3.38	4.80	4.35
PZ-9	5.92	6.72	5.75
PZ-10	8.65	8.63	7.60
PZ-11	8.02	8.86	7.17
PZ-12	8.81	9.89	8.10
PZ-13	5.93	7.25	5.45
PZ-14	dry	dry	dry
PZ-15	7.21	7.68	6.91
PZ-16	dry	dry	dry
Groundwater Collection Trench Sumps (DTW, ft)			
GWCT-1	7.03	6.91	4.05
GWCT-2	4.00	7.15	5.00
GWCT-3	4.02	6.01	5.41
GWCT-4	3.97	5.45	4.70
Relief Trench Sumps (DTW, ft)			
GWR-1	8.44	8.33	8.80
GWR-2	8.34	8.33	6.10
Lift Station (DTW, ft)			
Lift	11.13	10.22	7.20
Offsite Background Wells (DTW, ft)			
MW-1			
MW-2		11.15	
Overflow Weir (DTW, ft)	1" over	1" over	1" over

Attachment B.4 Quarterly Groundwater Elevations

QUARTERLY GROUNDWATER ELEVATIONS

2017/2018 ANNUAL REPORT

ALLTIFT LANDFILL SITE

BUFFALO, NEW YORK

			7/18/2017		10/10/2017		2/15/2018	
MONITORING POINT	**TOTAL DEPTH (FT.)**	**TOP OF CASING ELEVATION**	**DEPTH TO WATER**	**GROUND WATER ELEVATION**	**DEPTH TO WATER**	**GROUND WATER ELEVATION**	**DEPTH TO WATER**	**GROUND WATER ELEVATION**
PIEZOMETERS								
PZ-1	16.8	585.01	6.26	578.75	6.30	578.71	6.80	578.21
PZ-2	16.9	584.96	4.84	580.12	6.15	578.81	4.43	580.53
PZ-3	16.9	585.05	3.85	581.20	6.31	578.74	5.57	579.48
PZ-4	16.6	585.79	5.98	579.81	6.15	579.64	4.65	581.14
PZ-5	16.9	584.52	3.68	580.84	5.34	579.18	3.92	580.60
PZ-6	17.8	584.74	3.68	581.06	5.88	578.86	5.38	579.36
PZ-7	20.0	584.99	3.90	581.09	5.61	579.38	4.98	580.01
PZ-8	20.7	584.48	3.38	581.10	4.80	579.68	4.35	580.13
PZ-9	15.1	586.86	5.92	580.94	6.72	580.14	5.75	581.11
PZ-10	11.5	589.41	8.65	580.76	8.63	580.78	7.60	581.81
PZ-11	19.5	594.72	8.02	586.70	8.86	585.86	7.17	587.55
PZ-12	21.8	592.78	8.81	583.97	9.89	582.89	8.10	584.68
PZ-13	22.5	589.04	5.93	583.11	7.25	581.79	5.45	583.59
PZ-14	55.0	619.11	dry	*	dry	*	dry	*
PZ-15	17.0	588.79	7.21	581.58	7.68	581.11	6.91	581.88
PZ-16	66.5	629.30	dry	**	dry	**	dry	**
BACKGROUND WELLS								
MW-1	20.4	585.22	NM	***	NM	***	NM	***
MW-2	17.0	586.67	NM	NC	11.15	575.52	NM	NC
GROUNDWATER COLLECTION TRENCH SUMPS								
S1	17.2	585.19	7.03	578.16	6.91	578.28	4.05	581.14
S2	24.8	585.45	4.00	581.45	7.15	578.30	5.00	580.45
S3	17.3	585.25	4.02	581.23	6.01	579.24	5.41	579.84
S4	17.8	585.00	3.97	581.03	5.45	579.55	4.70	580.30

*PZ-14 riser pipe damaged; no depth to water level measurement possible. Tape stops at 10.29 feet below top of casing.

**PZ-16: Tape stops at 32.50 feet below top of casing; indicates that the well is dry at this level.

***Background well MW-1 riser pipe damaged; no depth to water level measurement possible.

NC - Not calculable

NM - Not measured

Attachment B.5 Quarterly Groundwater Contour Maps

Tifft Street

Stone Road

Stone Road

583

585

587

587

585

583

581

PZ-13
(583.11)

PZ-15
(581.58)

PZ-1
(578.75)

PZ-4
(579.81)

Sump-1

PZ-14
(DRY)

PZ-12
(583.97)

PZ-11
(586.70)

PZ-5
(580.84)

PZ-2
(580.12)

Sump-2

Groundwater Collection Trench

PZ-16
(DRY)

PZ-3
(581.20)

PZ-6
(581.06)

Sump-3

PZ-9
(580.94)

PZ-8
(581.10)

PZ-7
(581.09)

Sump-4

PZ-10
(580.76)

Legend

- Piezometer
- Groundwater Collection Sump
- *(583.11)* Measured Groundwater Elevation
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction

N

0 60 120 Feet

Prepared/Date: GR 04/30/18
Checked/Date: ICD 04/30/18

Honeywell Alltift Landfill Site
Buffalo, New York

wood.

Interpreted Groundwater Contours
July 18, 2017
Project 3612172375 Figure 1

C:\HW_ALLTIFT\MAPFILES\2018\ANNUAL\ALLTIFT_FIGURE01_GROUNDWATER_JULY_2017_HTSREV2.MXD GANESH 5/2/2018 12:18:04 PM

Stone Road

Tifft Street

Stone Road

PZ-13
(581.79)

581

PZ-15
(581.11)

PZ-1
(578.71)

PZ-4
(579.64)

Sump-1

583

PZ-12
(582.89)

PZ-14
(DRY)

585

PZ-5
(579.18)

PZ-2
(578.81)

579

PZ-11
(585.86)

Sump-2

Groundwater Collection Trench

PZ-16
(DRY)

PZ-3
(578.74)

585

PZ-6
(578.86)

583

Sump-3

PZ-9
(580.14)

PZ-8
(579.68)

PZ-7
(579.38)

Sump-4

PZ-10
(580.78)

581

Legend

- Piezometer
- Groundwater Collection Sump
- *(581.79)* Measured Groundwater Elevation
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction

N

0 60 120
Feet

Prepared/Date: GR 04/30/18
Checked/Date: ICD 04/30/18

Honeywell Alltift Landfill Site
Buffalo, New York

wood.

Interpreted Groundwater Contours
October 10, 2017
Project 3612172375 Figure 2

C:\HW_ALLTIFT\MAPFILES\2018\ANNUAL\ALLTIFT_FIGURE02_GROUNDWATER_OCTOBER_2017_HTSREV2.MXD ARUN 5/2/2018 12:19:12 PM

Stone Road

Tifft Street

Stone Road

583

PZ-13
(583.59)

PZ-15
(581.88)

581

PZ-1
(578.21)

PZ-4
(581.14)

579

Sump-1

PZ-14
(DRY)

585

PZ-12
(584.68)

587

PZ-5
(580.60)

PZ-2
(580.53)

PZ-11
(587.55)

Sump-2

Groundwater Collection Trench

PZ-16
(DRY)

PZ-3
(579.48)

PZ-6
(579.36)

Sump-3

PZ-8
(580.13)

PZ-7
(580.01)

PZ-9
(581.11)

Sump-4

PZ-10
(581.81)

Legend

- Piezometer
- Groundwater Collection Sump
- *(583.59)* Measured Groundwater Elevation
- Inferred Groundwater Contour
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction

N

0 60 120 Feet

Prepared/Date: GR 04/30/18
Checked/Date: ICD 04/30/18

Honeywell Alltift Landfill Site
Buffalo, New York

wood.

Interpreted Groundwater Contours
February 15, 2018
Project 3612172375 Figure 3

C:\HW_ALLTIFT\MAPFILES\2018\ANNUAL\ALLTIFT_FIGURE03_GROUNDWATER_FEBRUARY_2018_HTSREV2.MXD ARUN 5/2/2018 12:19:42 PM

Attachment B.6 Discharge Monitoring Reports

CH2M
1563 Willis Avenue
Syracuse, New York 13204
O +1 315 468 1663
F +1 315 468-1664
www..ch2m.com

April 27, 2017

Ms. Traserra Adams
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, New York 14213

Subject: **Alltift Landfill/Ramco Steel Site**
Discharge Monitoring Report
2017 First Semi-Annual Report
BPDES Permit Number 15-12-BU098

Dear Ms. Adams:

Enclosed please find the 2017 First Semi-Annual discharge monitoring report for the pumping facility located at the Alltift Landfill/Ramco Steel (Alltift) Site. The total flow to the Buffalo Sewer Authority (BSA) during this period was 1,442,300 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from September 21, 2016 through April 12, 2017 for a total of 203 days. Flow metering readings collected during the reporting period are included as Attachment 1.

A time composite discharge sample was collected from within the pump station on April 12, 2017. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, with the four samples composited in the laboratory per permit requirements. The sample for metals, total suspended solids, total phosphorus, and pH was collected as a composite sample. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with permit limits. The laboratory analytical report is provided as Attachment 2. If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

CH2M,

John W. Formoza
Area Manager

QC Review By: Ryan Belcher (Amec Foster Wheeler)

cc.: Mr. Mark Sweitzer (Honeywell)
Mr. Maurice Moore (NYSDEC)
Mr. Dennis Sutton (City of Buffalo)
Mr. Robert Gersh (Amec Foster Wheeler)

Table 1
Alltift Landfill/Ramco Steel Site
First Semi-annual Report for 2017
Discharge Monitoring Report

BSA Permit No. 15-12-BU098	
Sample Date:	April 12, 2017
Sample Location:	Onsite Pump Station to BSA

BSA Permit Parameter	Input Analytical Results				Converted Analytical Results		BSA Daily Max Discharge Limit		Permit Compliance
	Quantity	Qualifier	Reporting Limit	Unit	Quantity	Unit	Quantity	Unit	
pH	7.2		0.100	SU	7.20	SU	5.0 - 12.0	SU	Yes
Copper	0.0051	J	0.010	mg/L	0.000	lbs/day	7.68	lbs/day	Yes
Zinc	0.0097	J	0.010	mg/L	0.0006	lbs/day	12	lbs/day	Yes
Total Suspended Solids	22.4		4.0	mg/L	22.4	mg/L	250	mg/L	Yes
Total Phosphorus	0.053		0.010	mg/L	0.053	mg/L	15.35	mg/L	Yes
USEPA Test Method 624	ND - 64			µg/L	Monitor Only				
USEPA Test Method 625	ND - 13			µg/L					
Total Flow (average)	4.93			gpm	7,105	gpd	57,600	gpd	Yes

Notes:
J - estimated value below Reporting Limit/Practical Quantitation Limit
ND - Not detected at the reporting limit
µg/L - micrograms per liter
mg/L - milligrams per liter
gpm - gallons per minute
gpd - gallons per day
SU - Standard Units

Flow Calculations	Meter	
Initial Reading (pump station)	4721200	9/21/2016
Final Reading (pump station)	6163500	4/12/2017
Total Days in Period		203
Total Flow for Period	**1,442,300**	**gallons**
Average Flow for Period	**4.93**	**gpm**

Prepared by, Date: Parthiban P, 04/27/17
Checked by, Date: Ryan Belcher, 4/27/2017

Attachment 1 - Flow Meter Readings

Buffalo Alltift Lift Station	
Date	**Totalizer Reading (gallons)**
9/21/2016	4,721,200
11/17/2016	4,854,500
12/7/2016	4,961,000
12/27/2016	5,154,400
2/7/2017	5,420,000
3/31/2017	5,885,800
4/12/2017	6,163,500

CERTIFICATION STATEMENT

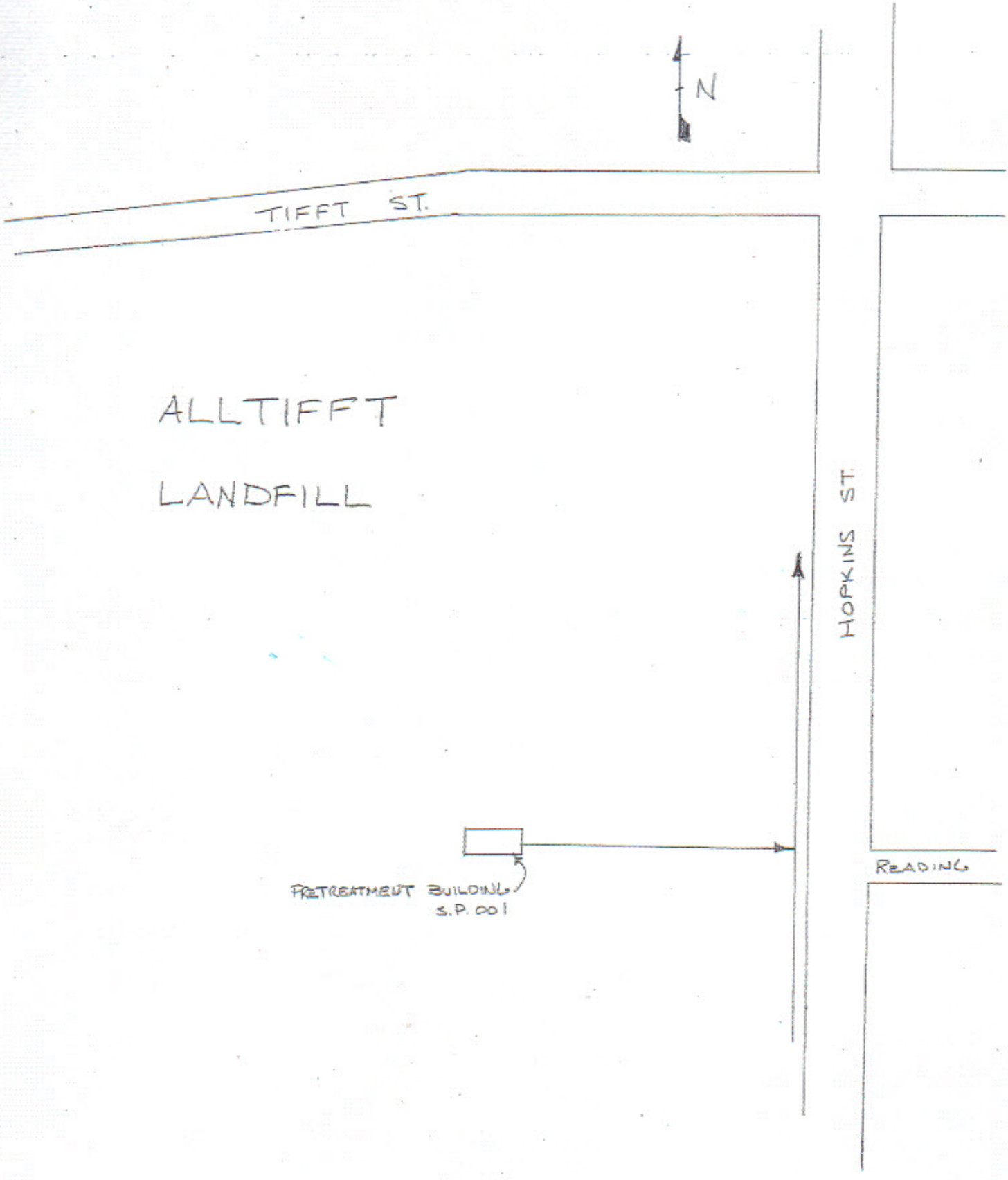
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(Your signature here) 

JOHN W FORMOZA AREA MANAGER 4/27/17

(Print your name & title here) Date

(Print your company name here)


N
TIFFT ST.
ALLTIFFT
LANDFILL
HOPKINS ST.
READING
PRETREATMENT BUILDING
S.P. 001

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 684003.B2.60.101
Field Team M STOUT / B MACERA
Field Conditions

Sampling Event SEMI ANNUAL
Date 4/12/2017
Page 1 of 1

Well/Sample Number BSA LIFT STATION
Start Time 07:30 Finish Time
Initial Depth to Water 9.38
Measure Point: PVC Steel Casing Other:
Purge Method:
Geopump Ded. Pump (Other)
Sample Method: BAILER

Sample ID GRAB 1 - 041217
Duplicate Sample ID GRAB 2 - 041217
Split Sample ID GRAB 3 - 041217
GRAB 4 - 041217
COMPOSITE - 041217

Sample Time 0745
Dupl. Time 0945
Split. Time 1145
1345
1350

Depth to Botton (from meas. pt):
Min. Purge Volume (gal)/(L)
Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
0745 — COLLECT SAMPLE GRAB 1 — 041217								
0945 — COLLECT SAMPLE GRAB 2 — 041217								
1145 — COLLECT SAMPLE GRAB 3 — 041217								
1345 — COLLECT SAMPLE GRAB 4 — 041217								
1350 — COLLECT SAMPLE COMPOSITE - 041217								
PH READING — (7)								

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
624 5mL	VOA	40mL	N	HCL		VOA - 624
625	AMBER	1 LITER	N	N		SVOA - 625
4500 P.E PHOSPHORUS	PLASTIC	250 mL	N	H_2SO_4		4500 P.E PHOSPHORUS, total
200.7	PLASTIC	250mL	N	HNO_3		200.7 - METALS ICP - Cu, Zn
2540 D	PLASTIC	1 LITER	N	N		2540 D - TOTAL SUSPENDED SOLIDS
SM 4500 H+-PH	PLASTIC	125mL	N	N		PH

Remarks: Water is meter reading: 61163.5
Water ~~Meter reading~~ is gold tinged cl/ no noticable odor.

Semi Annual

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-116113-1
Client Project/Site: 30130 - Alltift OM Phase

For:
Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Mr. Rich Galloway

Authorized for release by:
4/24/2017 12:05:24 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-116113-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-116113-1

Comments
No additional comments.

Receipt
The samples were received on 4/12/2017 2:32 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

GC/MS VOA
Method(s) 624: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample was received preserved with hydrochloric acid: Grab1-4 LAB COMPOSITE (480-116113-1) and TB-041217 (480-116113-7). The requested target analyte list contains 2-chloroethyl vinyl ether which is an acid-labile compound that degrades in an acidic medium.

Method(s) 624: The following Volatile sample was composited by the laboratory on 4/19/17 as requested by the client: Grab1-4 LAB COMPOSITE (480-116113-1). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and laboratory standard operating procedures.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 625: The following sample was diluted due to color and appearance: Grab1-4 LAB COMPOSITE (480-116113-1). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP-041217 (480-116113-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-351706.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Client Sample ID: Grab1-4 LAB COMPOSITE — Lab Sample ID: 480-116113-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.74	J	5.0	0.44	ug/L	1		624	Total/NA
1,2-Dichloroethene, Total	13		10	3.2	ug/L	1		624	Total/NA
1,4-Dichlorobenzene	1.3	J	5.0	0.51	ug/L	1		624	Total/NA
Benzene	5.3		5.0	0.60	ug/L	1		624	Total/NA
Chlorobenzene	64		5.0	0.48	ug/L	1		624	Total/NA
trans-1,2-Dichloroethene	1.9	J	5.0	0.59	ug/L	1		624	Total/NA
Trichloroethene	0.98	J	5.0	0.60	ug/L	1		624	Total/NA
Vinyl chloride	7.2		5.0	0.75	ug/L	1		624	Total/NA
4-Chloroaniline	13	J	50	6.4	ug/L	10		625	Total/NA

Client Sample ID: COMP-041217 — Lab Sample ID: 480-116113-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0051	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0097	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Phosphorus, Total	0.053		0.010	0.0050	mg/L	1		SM 4500 P E	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	22.4		4.0	4.0	mg/L	1		SM 2540D	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: TB-041217 — Lab Sample ID: 480-116113-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample ID: Grab1-4 LAB COMPOSITE
Date Collected: 04/12/17 13:45
Date Received: 04/12/17 14:32

Lab Sample ID: 480-116113-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/19/17 13:10	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/19/17 13:10	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/19/17 13:10	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/19/17 13:10	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/19/17 13:10	1
1,2-Dichlorobenzene	**0.74**	**J**	5.0	0.44	ug/L			04/19/17 13:10	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/19/17 13:10	1
1,2-Dichloroethene, Total	**13**		10	3.2	ug/L			04/19/17 13:10	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/19/17 13:10	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/19/17 13:10	1
1,4-Dichlorobenzene	**1.3**	**J**	5.0	0.51	ug/L			04/19/17 13:10	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/19/17 13:10	1
Acrolein	ND		100	17	ug/L			04/19/17 13:10	1
Acrylonitrile	ND		50	1.9	ug/L			04/19/17 13:10	1
Benzene	**5.3**		5.0	0.60	ug/L			04/19/17 13:10	1
Bromoform	ND		5.0	0.47	ug/L			04/19/17 13:10	1
Bromomethane	ND		5.0	1.2	ug/L			04/19/17 13:10	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/19/17 13:10	1
Chlorobenzene	**64**		5.0	0.48	ug/L			04/19/17 13:10	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/19/17 13:10	1
Chloroethane	ND		5.0	0.87	ug/L			04/19/17 13:10	1
Chloroform	ND		5.0	0.54	ug/L			04/19/17 13:10	1
Chloromethane	ND		5.0	0.64	ug/L			04/19/17 13:10	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/19/17 13:10	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			04/19/17 13:10	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/19/17 13:10	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/19/17 13:10	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/19/17 13:10	1
Toluene	ND		5.0	0.45	ug/L			04/19/17 13:10	1
trans-1,2-Dichloroethene	**1.9**	**J**	5.0	0.59	ug/L			04/19/17 13:10	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/19/17 13:10	1
Trichloroethene	**0.98**	**J**	5.0	0.60	ug/L			04/19/17 13:10	1
Vinyl chloride	**7.2**		5.0	0.75	ug/L			04/19/17 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*04/19/17 13:10*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*04/19/17 13:10*	*1*
Toluene-d8 (Surr)	*102*		*77 - 120*		*04/19/17 13:10*	*1*
Dibromofluoromethane (Surr)	*96*		*78 - 120*		*04/19/17 13:10*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		100	8.2	ug/L		04/13/17 08:01	04/16/17 08:14	10
1,2-Dichlorobenzene	ND		100	50	ug/L		04/13/17 08:01	04/16/17 08:14	10
1,2-Diphenylhydrazine	ND		100	7.8	ug/L		04/13/17 08:01	04/16/17 08:14	10
1,3-Dichlorobenzene	ND		100	6.9	ug/L		04/13/17 08:01	04/16/17 08:14	10
1,4-Dichlorobenzene	ND		100	56	ug/L		04/13/17 08:01	04/16/17 08:14	10
2,4,6-Trichlorophenol	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
2,4-Dichlorophenol	ND		50	7.7	ug/L		04/13/17 08:01	04/16/17 08:14	10
2,4-Dimethylphenol	ND		50	14	ug/L		04/13/17 08:01	04/16/17 08:14	10

Client Sample ID: Grab1-4 LAB COMPOSITE
Date Collected: 04/12/17 13:45
Date Received: 04/12/17 14:32

Lab Sample ID: 480-116113-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		100	50	ug/L		04/13/17 08:01	04/16/17 08:14	10
2,4-Dinitrotoluene	ND		100	50	ug/L		04/13/17 08:01	04/16/17 08:14	10
2,6-Dinitrotoluene	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
2-Chloronaphthalene	ND		50	9.1	ug/L		04/13/17 08:01	04/16/17 08:14	10
2-Chlorophenol	ND		50	6.6	ug/L		04/13/17 08:01	04/16/17 08:14	10
2-Nitrophenol	ND		50	7.0	ug/L		04/13/17 08:01	04/16/17 08:14	10
3,3'-Dichlorobenzidine	ND		50	8.2	ug/L		04/13/17 08:01	04/16/17 08:14	10
4,6-Dinitro-2-methylphenol	ND		100	6.6	ug/L		04/13/17 08:01	04/16/17 08:14	10
4-Bromophenyl phenyl ether	ND		50	14	ug/L		04/13/17 08:01	04/16/17 08:14	10
4-Chloro-3-methylphenol	ND		50	11	ug/L		04/13/17 08:01	04/16/17 08:14	10
4-Chloroaniline	**13**	**J**	50	6.4	ug/L		04/13/17 08:01	04/16/17 08:14	10
4-Chlorophenyl phenyl ether	ND		50	13	ug/L		04/13/17 08:01	04/16/17 08:14	10
4-Nitrophenol	ND		150	100	ug/L		04/13/17 08:01	04/16/17 08:14	10
Acenaphthene	ND		50	8.1	ug/L		04/13/17 08:01	04/16/17 08:14	10
Acenaphthylene	ND		50	8.7	ug/L		04/13/17 08:01	04/16/17 08:14	10
Anthracene	ND		50	14	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzidine	ND		800	350	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzo[a]anthracene	ND		50	11	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzo[a]pyrene	ND		50	13	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzo[b]fluoranthene	ND		50	12	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzo[g,h,i]perylene	ND		50	15	ug/L		04/13/17 08:01	04/16/17 08:14	10
Benzo[k]fluoranthene	ND		50	13	ug/L		04/13/17 08:01	04/16/17 08:14	10
bis (2-chloroisopropyl) ether	ND		50	8.4	ug/L		04/13/17 08:01	04/16/17 08:14	10
Bis(2-chloroethoxy)methane	ND		50	7.5	ug/L		04/13/17 08:01	04/16/17 08:14	10
Bis(2-chloroethyl)ether	ND		50	9.3	ug/L		04/13/17 08:01	04/16/17 08:14	10
Bis(2-ethylhexyl) phthalate	ND		100	12	ug/L		04/13/17 08:01	04/16/17 08:14	10
Butyl benzyl phthalate	ND		50	11	ug/L		04/13/17 08:01	04/16/17 08:14	10
Chrysene	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
Dibenz(a,h)anthracene	ND		50	15	ug/L		04/13/17 08:01	04/16/17 08:14	10
Diethyl phthalate	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
Dimethyl phthalate	ND		50	9.1	ug/L		04/13/17 08:01	04/16/17 08:14	10
Di-n-butyl phthalate	ND		50	16	ug/L		04/13/17 08:01	04/16/17 08:14	10
Di-n-octyl phthalate	ND		50	12	ug/L		04/13/17 08:01	04/16/17 08:14	10
Fluoranthene	ND		50	16	ug/L		04/13/17 08:01	04/16/17 08:14	10
Fluorene	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
Hexachlorobenzene	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
Hexachlorobutadiene	ND		50	10	ug/L		04/13/17 08:01	04/16/17 08:14	10
Hexachlorocyclopentadiene	ND		100	50	ug/L		04/13/17 08:01	04/16/17 08:14	10
Hexachloroethane	ND		50	6.0	ug/L		04/13/17 08:01	04/16/17 08:14	10
Indeno[1,2,3-cd]pyrene	ND		50	15	ug/L		04/13/17 08:01	04/16/17 08:14	10
Isophorone	ND		50	7.4	ug/L		04/13/17 08:01	04/16/17 08:14	10
Naphthalene	ND		50	8.6	ug/L		04/13/17 08:01	04/16/17 08:14	10
Nitrobenzene	ND		50	8.1	ug/L		04/13/17 08:01	04/16/17 08:14	10
N-Nitrosodimethylamine	ND		100	50	ug/L		04/13/17 08:01	04/16/17 08:14	10
N-Nitrosodi-n-propylamine	ND		50	8.9	ug/L		04/13/17 08:01	04/16/17 08:14	10
N-Nitrosodiphenylamine	ND		50	4.0	ug/L		04/13/17 08:01	04/16/17 08:14	10
Pentachlorophenol	ND		100	16	ug/L		04/13/17 08:01	04/16/17 08:14	10
Phenanthrene	ND		50	12	ug/L		04/13/17 08:01	04/16/17 08:14	10
Phenol	ND		50	3.5	ug/L		04/13/17 08:01	04/16/17 08:14	10

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Client Sample ID: Grab1-4 LAB COMPOSITE
Date Collected: 04/12/17 13:45
Date Received: 04/12/17 14:32

Lab Sample ID: 480-116113-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		50	14	ug/L		04/13/17 08:01	04/16/17 08:14	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*131*		*52 - 151*	*04/13/17 08:01*	*04/16/17 08:14*	*10*
2-Fluorobiphenyl	*93*		*44 - 120*	*04/13/17 08:01*	*04/16/17 08:14*	*10*
2-Fluorophenol	*54*		*17 - 120*	*04/13/17 08:01*	*04/16/17 08:14*	*10*
Nitrobenzene-d5	*88*		*42 - 120*	*04/13/17 08:01*	*04/16/17 08:14*	*10*
Phenol-d5	*36*		*10 - 120*	*04/13/17 08:01*	*04/16/17 08:14*	*10*
p-Terphenyl-d14	*87*		*22 - 125*	*04/13/17 08:01*	*04/16/17 08:14*	*10*

Client Sample Results

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Client Sample ID: COMP-041217

Date Collected: 04/12/17 13:50
Date Received: 04/12/17 14:32

Lab Sample ID: 480-116113-6

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0051	J	0.010	0.0016	mg/L		04/13/17 09:05	04/17/17 12:24	1
Zinc	0.0097	J B	0.010	0.0015	mg/L		04/13/17 09:05	04/13/17 23:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	0.053		0.010	0.0050	mg/L			04/17/17 12:20	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	22.4		4.0	4.0	mg/L			04/13/17 16:45	1
pH	7.2	HF	0.1	0.1	SU			04/20/17 18:58	1
Temperature	20.8	HF	0.001	0.001	Degrees C			04/20/17 18:58	1

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Client Sample ID: TB-041217
Date Collected: 04/12/17 00:00
Date Received: 04/12/17 14:32

Lab Sample ID: 480-116113-7
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/19/17 13:34	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/19/17 13:34	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/19/17 13:34	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/19/17 13:34	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/19/17 13:34	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/19/17 13:34	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/19/17 13:34	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/19/17 13:34	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/19/17 13:34	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/19/17 13:34	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/19/17 13:34	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/19/17 13:34	1
Acrolein	ND		100	17	ug/L			04/19/17 13:34	1
Acrylonitrile	ND		50	1.9	ug/L			04/19/17 13:34	1
Benzene	ND		5.0	0.60	ug/L			04/19/17 13:34	1
Bromoform	ND		5.0	0.47	ug/L			04/19/17 13:34	1
Bromomethane	ND		5.0	1.2	ug/L			04/19/17 13:34	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/19/17 13:34	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/19/17 13:34	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/19/17 13:34	1
Chloroethane	ND		5.0	0.87	ug/L			04/19/17 13:34	1
Chloroform	ND		5.0	0.54	ug/L			04/19/17 13:34	1
Chloromethane	ND		5.0	0.64	ug/L			04/19/17 13:34	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/19/17 13:34	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			04/19/17 13:34	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/19/17 13:34	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/19/17 13:34	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/19/17 13:34	1
Toluene	ND		5.0	0.45	ug/L			04/19/17 13:34	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			04/19/17 13:34	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/19/17 13:34	1
Trichloroethene	ND		5.0	0.60	ug/L			04/19/17 13:34	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/19/17 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*80 - 120*		*04/19/17 13:34*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*04/19/17 13:34*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*04/19/17 13:34*	*1*
Dibromofluoromethane (Surr)	*101*		*78 - 120*		*04/19/17 13:34*	*1*

Surrogate Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(77-120)	(78-120)
480-116113-1	Grab1-4 LAB COMPOSITE	107	94	102	96
480-116113-7	TB-041217	109	93	101	101
LCS 480-352758/6	Lab Control Sample	104	95	100	99
MB 480-352758/8	Method Blank	108	99	101	101

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(42-120)	(10-120)	(22-125)
480-116113-1	Grab1-4 LAB COMPOSITE	131	93	54	88	36	87
LCS 480-351706/2-A	Lab Control Sample	88	79	51	78	36	85
LCSD 480-351706/3-A	Lab Control Sample Dup	92	80	45	76	32	86
MB 480-351706/1-A	Method Blank	84	93	53	94	39	100

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-352758/8
Matrix: Water
Analysis Batch: 352758

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/19/17 11:22	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/19/17 11:22	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/19/17 11:22	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/19/17 11:22	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/19/17 11:22	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/19/17 11:22	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/19/17 11:22	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/19/17 11:22	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/19/17 11:22	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/19/17 11:22	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/19/17 11:22	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/19/17 11:22	1
Acrolein	ND		100	17	ug/L			04/19/17 11:22	1
Acrylonitrile	ND		50	1.9	ug/L			04/19/17 11:22	1
Benzene	ND		5.0	0.60	ug/L			04/19/17 11:22	1
Bromoform	ND		5.0	0.47	ug/L			04/19/17 11:22	1
Bromomethane	ND		5.0	1.2	ug/L			04/19/17 11:22	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/19/17 11:22	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/19/17 11:22	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			04/19/17 11:22	1
Chloroethane	ND		5.0	0.87	ug/L			04/19/17 11:22	1
Chloroform	ND		5.0	0.54	ug/L			04/19/17 11:22	1
Chloromethane	ND		5.0	0.64	ug/L			04/19/17 11:22	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/19/17 11:22	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			04/19/17 11:22	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/19/17 11:22	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/19/17 11:22	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/19/17 11:22	1
Toluene	ND		5.0	0.45	ug/L			04/19/17 11:22	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			04/19/17 11:22	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/19/17 11:22	1
Trichloroethene	ND		5.0	0.60	ug/L			04/19/17 11:22	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/19/17 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*04/19/17 11:22*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*04/19/17 11:22*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*04/19/17 11:22*	*1*
Dibromofluoromethane (Surr)	*101*		*78 - 120*		*04/19/17 11:22*	*1*

Lab Sample ID: LCS 480-352758/6
Matrix: Water
Analysis Batch: 352758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.6		ug/L		103	52 - 162
1,1,2,2-Tetrachloroethane	20.0	21.8		ug/L		109	46 - 157
1,1,2-Trichloroethane	20.0	22.2		ug/L		111	52 - 150

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-352758/6
Matrix: Water
Analysis Batch: 352758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	21.8		ug/L		109	59 - 155
1,1-Dichloroethene	20.0	20.5		ug/L		102	1 - 234
1,2-Dichlorobenzene	20.0	22.2		ug/L		111	18 - 190
1,2-Dichloroethane	20.0	21.9		ug/L		110	49 - 155
1,2-Dichloropropane	20.0	21.7		ug/L		108	1 - 210
1,3-Dichlorobenzene	20.0	21.5		ug/L		108	59 - 156
1,4-Dichlorobenzene	20.0	21.9		ug/L		109	18 - 190
2-Chloroethyl vinyl ether	20.0	21.6	J	ug/L		108	1 - 305
Benzene	20.0	21.6		ug/L		108	37 - 151
Bromoform	20.0	21.5		ug/L		108	45 - 169
Bromomethane	20.0	19.4		ug/L		97	1 - 242
Carbon tetrachloride	20.0	20.4		ug/L		102	70 - 140
Chlorobenzene	20.0	20.3		ug/L		101	37 - 160
Chlorodibromomethane	20.0	20.7		ug/L		103	53 - 149
Chloroethane	20.0	21.5		ug/L		107	14 - 230
Chloroform	20.0	21.3		ug/L		107	51 - 138
Chloromethane	20.0	22.7		ug/L		114	1 - 273
cis-1,3-Dichloropropene	20.0	21.7		ug/L		109	1 - 227
Dichlorobromomethane	20.0	22.5		ug/L		113	35 - 155
Ethylbenzene	20.0	21.5		ug/L		107	37 - 162
Methylene Chloride	20.0	21.5		ug/L		108	1 - 221
Tetrachloroethene	20.0	20.1		ug/L		100	64 - 148
Toluene	20.0	21.3		ug/L		107	47 - 150
trans-1,2-Dichloroethene	20.0	21.0		ug/L		105	54 - 156
trans-1,3-Dichloropropene	20.0	20.9		ug/L		104	17 - 183
Trichloroethene	20.0	20.0		ug/L		100	71 - 157
Vinyl chloride	20.0	23.6		ug/L		118	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*100*		*77 - 120*
Dibromofluoromethane (Surr)	*99*		*78 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-351706/1-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		04/13/17 08:01	04/16/17 02:35	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		04/13/17 08:01	04/16/17 02:35	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		04/13/17 08:01	04/16/17 02:35	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		04/13/17 08:01	04/16/17 02:35	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		04/13/17 08:01	04/16/17 02:35	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-351706/1-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		04/13/17 08:01	04/16/17 02:35	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		04/13/17 08:01	04/16/17 02:35	1
2-Chlorophenol	ND		5.0	0.66	ug/L		04/13/17 08:01	04/16/17 02:35	1
2-Nitrophenol	ND		5.0	0.70	ug/L		04/13/17 08:01	04/16/17 02:35	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		04/13/17 08:01	04/16/17 02:35	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		04/13/17 08:01	04/16/17 02:35	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		04/13/17 08:01	04/16/17 02:35	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		04/13/17 08:01	04/16/17 02:35	1
4-Chloroaniline	ND		5.0	0.64	ug/L		04/13/17 08:01	04/16/17 02:35	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		04/13/17 08:01	04/16/17 02:35	1
4-Nitrophenol	ND		15	10	ug/L		04/13/17 08:01	04/16/17 02:35	1
Acenaphthene	ND		5.0	0.81	ug/L		04/13/17 08:01	04/16/17 02:35	1
Acenaphthylene	ND		5.0	0.87	ug/L		04/13/17 08:01	04/16/17 02:35	1
Anthracene	ND		5.0	1.4	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzidine	ND		80	35	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		04/13/17 08:01	04/16/17 02:35	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		04/13/17 08:01	04/16/17 02:35	1
bis (2-chloroisopropyl) ether	ND		5.0	0.84	ug/L		04/13/17 08:01	04/16/17 02:35	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		04/13/17 08:01	04/16/17 02:35	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		04/13/17 08:01	04/16/17 02:35	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		04/13/17 08:01	04/16/17 02:35	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		04/13/17 08:01	04/16/17 02:35	1
Chrysene	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		04/13/17 08:01	04/16/17 02:35	1
Diethyl phthalate	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		04/13/17 08:01	04/16/17 02:35	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		04/13/17 08:01	04/16/17 02:35	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		04/13/17 08:01	04/16/17 02:35	1
Fluoranthene	ND		5.0	1.6	ug/L		04/13/17 08:01	04/16/17 02:35	1
Fluorene	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
Hexachloroethane	ND		5.0	0.60	ug/L		04/13/17 08:01	04/16/17 02:35	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		04/13/17 08:01	04/16/17 02:35	1
Isophorone	ND		5.0	0.74	ug/L		04/13/17 08:01	04/16/17 02:35	1
Naphthalene	ND		5.0	0.86	ug/L		04/13/17 08:01	04/16/17 02:35	1
Nitrobenzene	ND		5.0	0.81	ug/L		04/13/17 08:01	04/16/17 02:35	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		04/13/17 08:01	04/16/17 02:35	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		04/13/17 08:01	04/16/17 02:35	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		04/13/17 08:01	04/16/17 02:35	1
Pentachlorophenol	ND		10	1.6	ug/L		04/13/17 08:01	04/16/17 02:35	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-351706/1-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		5.0	1.2	ug/L		04/13/17 08:01	04/16/17 02:35	1
Phenol	ND		5.0	0.35	ug/L		04/13/17 08:01	04/16/17 02:35	1
Pyrene	ND		5.0	1.4	ug/L		04/13/17 08:01	04/16/17 02:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*52 - 151*	*04/13/17 08:01*	*04/16/17 02:35*	*1*
2-Fluorobiphenyl	*93*		*44 - 120*	*04/13/17 08:01*	*04/16/17 02:35*	*1*
2-Fluorophenol	*53*		*17 - 120*	*04/13/17 08:01*	*04/16/17 02:35*	*1*
Nitrobenzene-d5	*94*		*42 - 120*	*04/13/17 08:01*	*04/16/17 02:35*	*1*
Phenol-d5	*39*		*10 - 120*	*04/13/17 08:01*	*04/16/17 02:35*	*1*
p-Terphenyl-d14	*100*		*22 - 125*	*04/13/17 08:01*	*04/16/17 02:35*	*1*

Lab Sample ID: LCS 480-351706/2-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351706

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	31.7		ug/L		63	44 - 142
1,2-Dichlorobenzene	50.0	31.4		ug/L		63	32 - 129
1,3-Dichlorobenzene	50.0	29.5		ug/L		59	1 - 172
1,4-Dichlorobenzene	50.0	29.6		ug/L		59	20 - 124
2,4,6-Trichlorophenol	50.0	42.3		ug/L		85	37 - 144
2,4-Dichlorophenol	50.0	40.7		ug/L		81	39 - 135
2,4-Dimethylphenol	50.0	41.4		ug/L		83	32 - 119
2,4-Dinitrophenol	100	97.6		ug/L		98	1 - 191
2,4-Dinitrotoluene	50.0	43.5		ug/L		87	39 - 139
2,6-Dinitrotoluene	50.0	43.1		ug/L		86	50 - 158
2-Chloronaphthalene	50.0	38.5		ug/L		77	60 - 118
2-Chlorophenol	50.0	37.8		ug/L		76	23 - 134
2-Nitrophenol	50.0	41.9		ug/L		84	29 - 182
3,3'-Dichlorobenzidine	100	74.2		ug/L		74	1 - 262
4,6-Dinitro-2-methylphenol	100	94.7		ug/L		95	1 - 181
4-Bromophenyl phenyl ether	50.0	43.0		ug/L		86	53 - 127
4-Chloro-3-methylphenol	50.0	41.1		ug/L		82	22 - 147
4-Chlorophenyl phenyl ether	50.0	40.2		ug/L		80	25 - 158
4-Nitrophenol	100	50.3		ug/L		50	1 - 132
Acenaphthene	50.0	40.6		ug/L		81	47 - 145
Acenaphthylene	50.0	40.0		ug/L		80	33 - 145
Anthracene	50.0	43.7		ug/L		87	27 - 133
Benzo[a]anthracene	50.0	42.7		ug/L		85	33 - 143
Benzo[a]pyrene	50.0	45.1		ug/L		90	17 - 163
Benzo[b]fluoranthene	50.0	47.3		ug/L		95	24 - 159
Benzo[g,h,i]perylene	50.0	50.5		ug/L		101	1 - 219
Benzo[k]fluoranthene	50.0	42.0		ug/L		84	11 - 162
bis (2-chloroisopropyl) ether	50.0	38.0		ug/L		76	36 - 166
Bis(2-chloroethoxy)methane	50.0	40.0		ug/L		80	33 - 184
Bis(2-chloroethyl)ether	50.0	39.2		ug/L		78	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	41.9		ug/L		84	8 - 158

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-351706/2-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351706

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Butyl benzyl phthalate	50.0	41.3		ug/L		83	1 - 152
Chrysene	50.0	44.1		ug/L		88	17 - 168
Dibenz(a,h)anthracene	50.0	50.4		ug/L		101	1 - 227
Diethyl phthalate	50.0	42.7		ug/L		85	1 - 114
Dimethyl phthalate	50.0	43.4		ug/L		87	1 - 112
Di-n-butyl phthalate	50.0	45.0		ug/L		90	1 - 118
Di-n-octyl phthalate	50.0	42.7		ug/L		85	4 - 146
Fluoranthene	50.0	46.8		ug/L		94	26 - 137
Fluorene	50.0	42.4		ug/L		85	59 - 121
Hexachlorobenzene	50.0	43.5		ug/L		87	1 - 152
Hexachlorocyclopentadiene	50.0	29.7		ug/L		59	5 - 120
Hexachloroethane	50.0	25.2		ug/L		50	40 - 113
Indeno[1,2,3-cd]pyrene	50.0	49.9		ug/L		100	1 - 171
Isophorone	50.0	41.6		ug/L		83	21 - 196
Naphthalene	50.0	36.8		ug/L		74	21 - 133
Nitrobenzene	50.0	39.7		ug/L		79	35 - 180
N-Nitrosodi-n-propylamine	50.0	41.2		ug/L		82	1 - 230
N-Nitrosodiphenylamine	50.0	45.7		ug/L		91	54 - 125
Pentachlorophenol	100	94.3		ug/L		94	14 - 176
Phenanthrene	50.0	44.1		ug/L		88	54 - 120
Phenol	50.0	20.6		ug/L		41	5 - 112
Pyrene	50.0	43.0		ug/L		86	52 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*88*		*52 - 151*
2-Fluorobiphenyl	*79*		*44 - 120*
2-Fluorophenol	*51*		*17 - 120*
Nitrobenzene-d5	*78*		*42 - 120*
Phenol-d5	*36*		*10 - 120*
p-Terphenyl-d14	*85*		*22 - 125*

Lab Sample ID: LCSD 480-351706/3-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 351706

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	31.5		ug/L		63	44 - 142	1	34
1,2-Dichlorobenzene	50.0	30.4		ug/L		61	32 - 129	3	38
1,3-Dichlorobenzene	50.0	28.0		ug/L		56	1 - 172	5	37
1,4-Dichlorobenzene	50.0	28.7		ug/L		57	20 - 124	3	40
2,4,6-Trichlorophenol	50.0	42.2		ug/L		84	37 - 144	0	20
2,4-Dichlorophenol	50.0	40.2		ug/L		80	39 - 135	1	23
2,4-Dimethylphenol	50.0	39.9		ug/L		80	32 - 119	4	18
2,4-Dinitrophenol	100	102		ug/L		102	1 - 191	4	29
2,4-Dinitrotoluene	50.0	45.3		ug/L		91	39 - 139	4	20
2,6-Dinitrotoluene	50.0	44.1		ug/L		88	50 - 158	2	17
2-Chloronaphthalene	50.0	40.7		ug/L		81	60 - 118	6	30
2-Chlorophenol	50.0	34.7		ug/L		69	23 - 134	8	26

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-351706/3-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 351706

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitrophenol			50.0	41.2		ug/L		82	29 - 182	2	28
3,3'-Dichlorobenzidine			100	76.4		ug/L		76	1 - 262	3	31
4,6-Dinitro-2-methylphenol			100	99.4		ug/L		99	1 - 181	5	30
4-Bromophenyl phenyl ether			50.0	47.0		ug/L		94	53 - 127	9	16
4-Chloro-3-methylphenol			50.0	42.4		ug/L		85	22 - 147	3	16
4-Chlorophenyl phenyl ether			50.0	43.7		ug/L		87	25 - 158	8	15
4-Nitrophenol			100	49.8		ug/L		50	1 - 132	1	24
Acenaphthene			50.0	42.3		ug/L		85	47 - 145	4	25
Acenaphthylene			50.0	42.3		ug/L		85	33 - 145	6	22
Anthracene			50.0	47.4		ug/L		95	27 - 133	8	15
Benzo[a]anthracene			50.0	46.2		ug/L		92	33 - 143	8	15
Benzo[a]pyrene			50.0	48.5		ug/L		97	17 - 163	7	15
Benzo[b]fluoranthene			50.0	48.7		ug/L		97	24 - 159	3	17
Benzo[g,h,i]perylene			50.0	53.4		ug/L		107	1 - 219	6	19
Benzo[k]fluoranthene			50.0	45.6		ug/L		91	11 - 162	8	19
bis (2-chloroisopropyl) ether			50.0	35.4		ug/L		71	36 - 166	7	36
Bis(2-chloroethoxy)methane			50.0	38.6		ug/L		77	33 - 184	4	23
Bis(2-chloroethyl)ether			50.0	36.7		ug/L		73	12 - 158	7	33
Bis(2-ethylhexyl) phthalate			50.0	45.4		ug/L		91	8 - 158	8	15
Butyl benzyl phthalate			50.0	45.3		ug/L		91	1 - 152	9	15
Chrysene			50.0	47.0		ug/L		94	17 - 168	6	15
Dibenz(a,h)anthracene			50.0	54.0		ug/L		108	1 - 227	7	18
Diethyl phthalate			50.0	44.3		ug/L		89	1 - 114	4	15
Dimethyl phthalate			50.0	44.2		ug/L		88	1 - 112	2	15
Di-n-butyl phthalate			50.0	47.7		ug/L		95	1 - 118	6	15
Di-n-octyl phthalate			50.0	46.0		ug/L		92	4 - 146	7	15
Fluoranthene			50.0	49.7		ug/L		99	26 - 137	6	15
Fluorene			50.0	44.6		ug/L		89	59 - 121	5	18
Hexachlorobenzene			50.0	46.2		ug/L		92	1 - 152	6	15
Hexachlorocyclopentadiene			50.0	30.1		ug/L		60	5 - 120	1	50
Hexachloroethane			50.0	24.2		ug/L		48	40 - 113	4	43
Indeno[1,2,3-cd]pyrene			50.0	53.2		ug/L		106	1 - 171	6	17
Isophorone			50.0	41.5		ug/L		83	21 - 196	0	21
Naphthalene			50.0	36.0		ug/L		72	21 - 133	2	31
Nitrobenzene			50.0	37.8		ug/L		76	35 - 180	5	27
N-Nitrosodi-n-propylamine			50.0	40.2		ug/L		80	1 - 230	2	23
N-Nitrosodiphenylamine			50.0	47.8		ug/L		96	54 - 125	4	15
Pentachlorophenol			100	99.7		ug/L		100	14 - 176	6	21
Phenanthrene			50.0	46.5		ug/L		93	54 - 120	5	16
Phenol			50.0	19.0		ug/L		38	5 - 112	8	36
Pyrene			50.0	46.8		ug/L		94	52 - 115	8	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*92*		*52 - 151*
2-Fluorobiphenyl	*80*		*44 - 120*
2-Fluorophenol	*45*		*17 - 120*
Nitrobenzene-d5	*76*		*42 - 120*
Phenol-d5	*32*		*10 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-351706/3-A
Matrix: Water
Analysis Batch: 352224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 351706

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl-d14	*86*		*22 - 125*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-351689/1-A
Matrix: Water
Analysis Batch: 352097

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351689

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0016	mg/L		04/13/17 09:05	04/13/17 21:30	1
Zinc	0.00163	J	0.010	0.0015	mg/L		04/13/17 09:05	04/13/17 21:30	1

Lab Sample ID: LCS 480-351689/2-A
Matrix: Water
Analysis Batch: 352097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.200	0.221		mg/L		110	85 - 115
Zinc	0.200	0.225		mg/L		113	85 - 115

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-351912/1
Matrix: Water
Analysis Batch: 351912

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	1.0	mg/L			04/13/17 16:45	1

Lab Sample ID: LCS 480-351912/2
Matrix: Water
Analysis Batch: 351912

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	277	280.0		mg/L		101	88 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-353190/1
Matrix: Water
Analysis Batch: 353190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 480-352366/27
Matrix: Water
Analysis Batch: 352366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.010	0.0050	mg/L			04/17/17 12:20	1

Lab Sample ID: MB 480-352366/51
Matrix: Water
Analysis Batch: 352366

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.010	0.0050	mg/L			04/17/17 12:20	1

Lab Sample ID: LCS 480-352366/28
Matrix: Water
Analysis Batch: 352366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.200	0.202		mg/L		101	90 - 110

Lab Sample ID: LCS 480-352366/52
Matrix: Water
Analysis Batch: 352366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.200	0.202		mg/L		101	90 - 110

GC/MS VOA

Analysis Batch: 352758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-1	Grab1-4 LAB COMPOSITE	Total/NA	Water	624	
480-116113-7	TB-041217	Total/NA	Water	624	
MB 480-352758/8	Method Blank	Total/NA	Water	624	
LCS 480-352758/6	Lab Control Sample	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 351706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-1	Grab1-4 LAB COMPOSITE	Total/NA	Water	625	
MB 480-351706/1-A	Method Blank	Total/NA	Water	625	
LCS 480-351706/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-351706/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 352224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-1	Grab1-4 LAB COMPOSITE	Total/NA	Water	625	351706
MB 480-351706/1-A	Method Blank	Total/NA	Water	625	351706
LCS 480-351706/2-A	Lab Control Sample	Total/NA	Water	625	351706
LCSD 480-351706/3-A	Lab Control Sample Dup	Total/NA	Water	625	351706

Metals

Prep Batch: 351689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	200.7	
MB 480-351689/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-351689/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 352097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	200.7 Rev 4.4	351689
MB 480-351689/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	351689
LCS 480-351689/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	351689

Analysis Batch: 352570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	200.7 Rev 4.4	351689

General Chemistry

Analysis Batch: 351912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	SM 2540D	
MB 480-351912/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-351912/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 352366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	SM 4500 P E	

General Chemistry (Continued)

Analysis Batch: 352366 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-352366/27	Method Blank	Total/NA	Water	SM 4500 P E	
MB 480-352366/51	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-352366/28	Lab Control Sample	Total/NA	Water	SM 4500 P E	
LCS 480-352366/52	Lab Control Sample	Total/NA	Water	SM 4500 P E	

Analysis Batch: 353190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-116113-6	COMP-041217	Total/NA	Water	SM 4500 H+ B	
LCS 480-353190/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Client Sample ID: Grab1-4 LAB COMPOSITE

Lab Sample ID: 480-116113-1

Date Collected: 04/12/17 13:45

Matrix: Water

Date Received: 04/12/17 14:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	352758	04/19/17 13:10	SWO	TAL BUF
Total/NA	Prep	625			351706	04/13/17 08:01	CPH	TAL BUF
Total/NA	Analysis	625		10	352224	04/16/17 08:14	PJQ	TAL BUF

Client Sample ID: COMP-041217

Lab Sample ID: 480-116113-6

Date Collected: 04/12/17 13:50

Matrix: Water

Date Received: 04/12/17 14:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			351689	04/13/17 09:05	MVZ	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	352097	04/13/17 23:16	LMH	TAL BUF
Total/NA	Prep	200.7			351689	04/13/17 09:05	MVZ	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	352570	04/17/17 12:24	LMH	TAL BUF
Total/NA	Analysis	SM 2540D		1	351912	04/13/17 16:45	CDC	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	353190	04/20/17 18:58	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	352366	04/17/17 12:20	RP	TAL BUF

Client Sample ID: TB-041217

Lab Sample ID: 480-116113-7

Date Collected: 04/12/17 00:00

Matrix: Water

Date Received: 04/12/17 14:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	352758	04/19/17 13:34	SWO	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
625	625	Water	1,2-Dichlorobenzene
625	625	Water	1,2-Diphenylhydrazine
625	625	Water	1,3-Dichlorobenzene
625	625	Water	1,4-Dichlorobenzene
625	625	Water	4-Chloroaniline
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 4500 P E	Phosphorus	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: 30130 - Alltift OM Phase

TestAmerica Job ID: 480-116113-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-116113-1	Grab1-4 LAB COMPOSITE	Water	04/12/17 13:45	04/12/17 14:32
480-116113-6	COMP-041217	Water	04/12/17 13:50	04/12/17 14:32
480-116113-7	TB-041217	Water	04/12/17 00:00	04/12/17 14:32

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Michael Stout	Lab PM: John Schove	Carrier Tracking No(s):	COC No: 480-86475-16971.1
Client Contact: John Formoza	Phone: 315-468-1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: Honeywell International Inc				Job #:
Address: 1563 Willis Ave.	Due Date Requested:			
City: Syracuse	TAT Requested (days): 2 Weeks			
State, Zip: NY, 13204				
Phone: 315-468-1663	PO #: 4400032722			
Email: john.formoza@ch2m.com	WO #:			
Project Name: Honeywell - Alltift OM phase / Semi Annual	Project #: 48004175			
Site: Honeywell - Buffalo Sites	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric, E - NaI, F - Met, G - Am, H - Asc, I - Ice, J - DI W, K - EDT, L - EDA, M - Hexane, N - None, O - AsNaO2
480-116113 COC

Location Identification	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_P_E - Phosphorus, Total	200.7 - Metals ICP - Cu, Zn	2540D - Total Suspended Solids	SM4500_H+ - pH	624_5ml - Priority Pollutant List - VOA - 624	625 - Priority Pollutant List - SVOA - 625	Total Number of containers	Special Instructions/Note:
				Preservation Code:		N	N	S	D	N	N	A	N		
BSA Discharge	GRAB 1- 041217	4/12/17	0745	G	W	N	N					2	2	4	Prior to analysis grab samples to be composited by lab
BSA Discharge	GRAB 2- 041217	4/12/17	0945	G	W	N	N					2	2	4	
BSA Discharge	GRAB 3- 041217	4/12/17	1145	G	W	N	N					2	2	4	
BSA Discharge	GRAB 4 - 041217	4/12/17	1345	G	W	N	N					2	2	4	
BSA Discharge	COMP- 041217	4/12/17	1350	C	W	N	N	1	1	1	1			4	
TRIPBLANK	TB- 041217	4/12/17			W	N	N					1		2	TRIB BLANK

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Bethany Macera	Date/Time: 4/12/2017 @1432	Company CH2M	Received by:	Date/Time: 4-12-17 1432	Company TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.0 #1

Page 26 of 27

4/4/2017

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-116113-1

Login Number: 116113
List Number: 1
Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	CH2M
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	Yes: Samples checked, no residual chlorine detected

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November 16, 2017

Ms. Traserra Adams
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, New York 14213

Subject: **Alltift Landfill/Ramco Steel Site**
Discharge Monitoring Report
2017 Second Semi-Annual Report
BPDES Permit Number 15-12-BU098

Dear Ms. Adams:

Enclosed please find the 2017 Second Semi-Annual discharge monitoring report for the pumping facility located at the Alltift Landfill/Ramco Steel (Alltift) Site. The total flow to the Buffalo Sewer Authority (BSA) during this period was 910,800 gallons. The flow was measured from a totalizing meter within the lift station at the Alltift Site from April 12, 2017 through October 10, 2017 for a total of 181 days. Flow metering readings collected during the reporting period are included as Attachment 1.

A time composite discharge sample was collected from within the pump station on October 10, 2017. Four samples were collected over an evenly-spaced work day period for VOCs and SVOCs, with the four samples composited in the laboratory per permit requirements. The sample for metals, total suspended solids, total phosphorus, and pH was collected as a composite sample. A second sample for SVOCs only was collected on November 2, 2017 due to initial SVOC analysis not including the Acid Extractable parameters. A summary of the analytical results, compared to permit limits, is provided in Table 1. All parameters were in compliance with permit limits. The laboratory analytical report is provided as Attachment 2. If you have any questions or require additional information, please contact me at (315) 468-1663.

Sincerely,

CH2M,

John W. Formoza
Area Manager

QC Review By: Ryan Belcher (Amec Foster Wheeler)

cc.: Mr. Mark Sweitzer (Honeywell)
Mr. Maurice Moore (NYSDEC)
Mr. Dennis Sutton (City of Buffalo)
Mr. Robert Gersh (Amec Foster Wheeler)

Table 1
Alltift Landfill/Ramco Steel Site
Second Semi-annual Report for 2017
Discharge Monitoring Report

BSA Permit No. 15-12-BU098	
Sample Date:	10/10/2017 and 11/02/2017
Sample Location:	Onsite Pump Station to BSA

BSA Permit Parameter	Input Analytical Results				Converted Analytical Results		BSA Daily Max Discharge Limit		Permit Compliance
	Quantity	Qualifier	Reporting Limit	Unit	Quantity	Unit	Quantity	Unit	
pH	7.25		0.100	SU	7.25	SU	5.0 - 12.0	SU	Yes
Copper	ND		0.010	mg/L	ND	lbs/day	7.68	lbs/day	Yes
Zinc	ND		0.020	mg/L	ND	lbs/day	12	lbs/day	Yes
Total Suspended Solids	37		4.0	mg/L	37.0	mg/L	250	mg/L	Yes
Total Phosphorus	0.076		0.050	mg/L	0.076	mg/L	15.35	mg/L	Yes
USEPA Test Method 624	ND - 41.8			µg/L	Monitor Only				
USEPA Test Method 625	ND - 10.4			µg/L					
Total Flow (average)	3.49			gpm	5,032	gpd	57,600	gpd	Yes

Notes:
J - estimated value below Reporting Limit/Practical Quantitation Limit
ND - Not detected at the reporting limit
µg/L - micrograms per liter
mg/L - milligrams per liter
gpm - gallons per minute
gpd - gallons per day
SU - Standard Units

Flow Calculations	Meter	
Initial Reading (pump station)	6163500	4/12/2017
Final Reading (pump station)	7074300	10/10/2017
Total Days in Period		181
Total Flow for Period	**910,800**	**gallons**
Average Flow for Period	**3.49**	**gpm**

Prepared by, Date: Adithya G, 11/16/17
Checked by, Date: Ryan Belcher, 11/16/2017

Attachment 1 - Flow Meter Readings

Buffalo Alltift Lift Station	
Date	**Totalizer Reading (gallons)**
4/12/2017	6,163,500
6/21/2017	6,416,900
7/18/2017	6,588,500
8/17/2017	6,809,600
9/20/2017	6,989,900
10/10/2017	7,074,300

CERTIFICATION STATEMENT

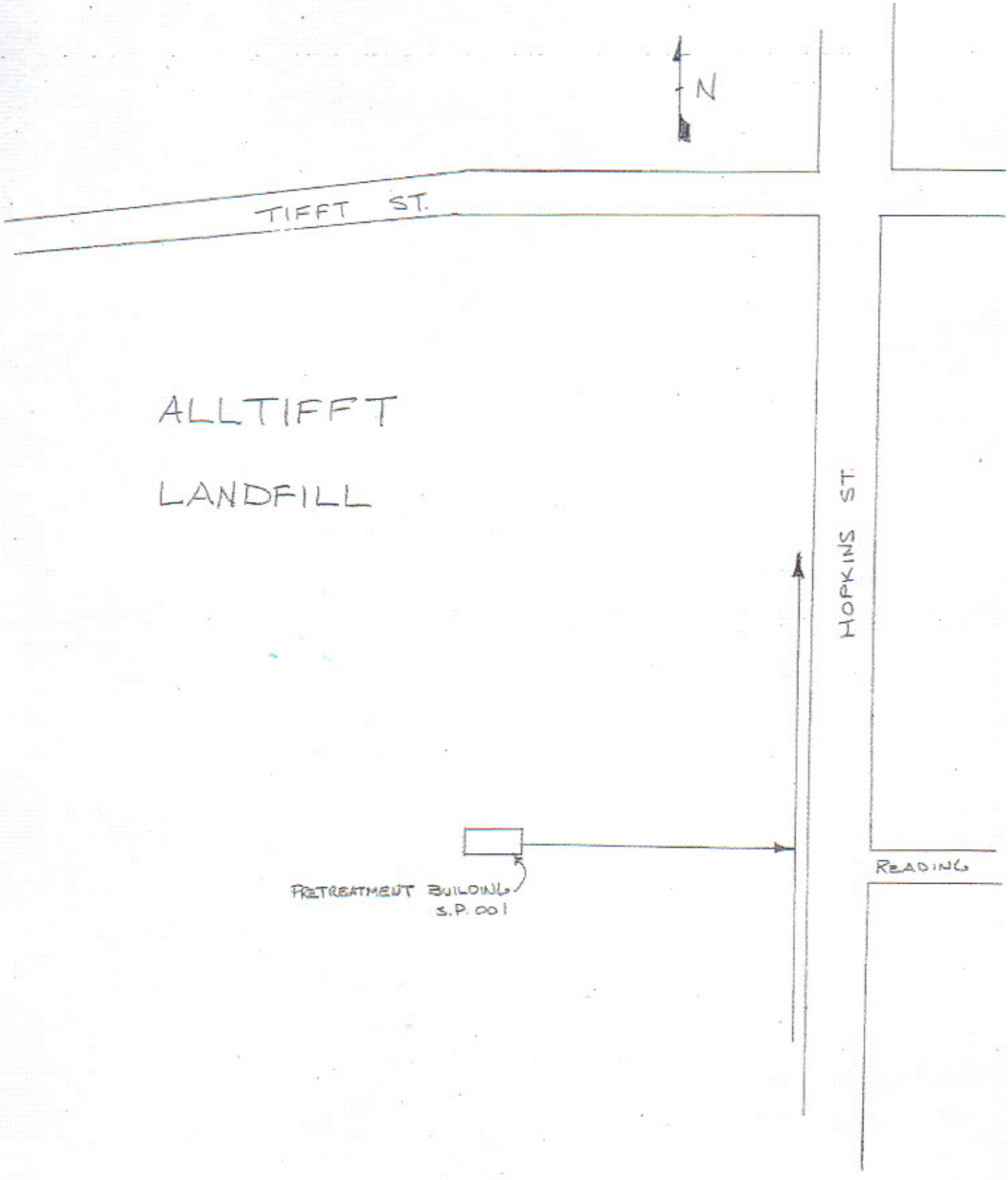
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(Your signature here) John W Formoza

JOHN W FORMOZA AREA MANAGER 11/17/17

(Print your name & title here) Date

(Print your company name here) CH2M


N
TIFFT ST.
ALLTIFFT
LANDFILL
HOPKINS ST.
READING
PRETREATMENT BUILDING
S.P. 001

ch2m:

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA / MIKE STOUT
Field Conditions

Sampling Event SEMI ANNUAL
Date 10/10/2017
Page 1 of 1

Well/Sample Number BSA LIFT STATION
Start Time 7:50 Finish Time
Initial Depth to Water 10:22
Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: BAILER

Sample ID GRAB 1-101017 0800
GRAB 2-101017 Sample Time 1000
Duplicate Sample ID GRAB 3-101017 Dupl. Time 1200
Split Sample ID GRAB 4-101017 Split. Time 1400
COMPOSITE-101017 1405

Depth to Botton (from meas. pt): Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)

Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
0800 — COLLECT SAMPLE GRAB 1-101017								
1000 — COLLECT SAMPLE GRAB 2-101017								
1200 — COLLECT SAMPLE GRAB 3-101017								
1400 — COLLECT SAMPLE GRAB 4-101017								
1405 — COLLECT SAMPLE COMPOSITE-101017								
PH READING — 7.16								

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
B625[INCL 4CHLORDANE]	AG 950mL	950mL	N	N/P		
V8260 PPL	VIALS 40mL	40mL	N	N/P		
PH	P 250mL	250mL	N	N/P		
TPO4	P 250mL	250mL	N	H2SO4		
TSS	1L POLY	1L	N	N/P		
ZN, CU	P 500mL	500mL	N	HNO3		
V8260 PPL	VIALS 40mL	40mL	N	N/P		

Remarks: Water is gold tinged w/ no noticable odor.

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team MIKE STOUT
Field Conditions

Sampling Event SEM1 ANNUAL
Date 11/02/2017
Page 1 of 1

Well/Sample Number BSA LIFT STATION
Start Time 0650 Finish Time

Initial Depth to Water Measure Point: PVC Steel Casing Other: 0700

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: BAILER

Sample ID GRAB 1 - 110217
Duplicate Sample ID GRAB 2 - 110217
Split Sample ID GRAB 3 - 110217
GRAB 4 - 110217

Sample Time 0900
Dupl. Time 1100
Split. Time 1300

Depth to Botton (from meas. pt): Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)

Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
0700 — COLLECT SAMPLE GRAB 1 - 110217								
0900 — COLLECT SAMPLE GRAB 2 - 110217								
1100 — COLLECT SAMPLE GRAB 3 - 110217								
1300 — COLLECT SAMPLE GRAB 4 - 110217								
PH READING - 7.6								

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
B1625 [INCL 4 CHLOROANILINE]	AG 950ML	950ML	N	N/P		

Remarks: Water is gold tinged w/ no noticable odor.
Water Meter: 707-4300 @ 10/10/2017

e-Hardcopy 2.0
Automated Report

Technical Report for

Honeywell International Inc. OMM work

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

R35116-Honeywell OM&M Program PO # 4400045772

SGS Accutest Job Number: JC52863

Sampling Date: 10/10/17

Report to:

AMEC Foster Wheeler
511 Congress Street
Portland, ME 04112
HTS-RES-LAB@Honeywell.com; Ryan.Belcher@amecfw.com

ATTN: Ryan Belcher

Total number of pages in report: 70

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Rocus Peters 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sample Summary

Honeywell International Inc. OMM work

Job No: JC52863

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Project No: R35116-Honeywell OM&M Program PO # 4400045772

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC52863-1	10/10/17	14:00	BM	10/11/17	AQ	Ground Water	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE
JC52863-2	10/10/17	14:05	BM	10/11/17	AQ	Ground Water	COMP-101017/BSA DISCHARGE
JC52863-3	10/10/17	14:05	BM	10/11/17	AQ	Trip Blank Water	TB-0809

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Honeywell International Inc. OMM work	**Job No**	JC52863
Site:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY	**Report Date**	10/25/2017 4:01:38 P

On 10/11/2017, 2 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 2.2 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC52863 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method EPA 624

Matrix: AQ **Batch ID:** VN11178

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC52501-1DUP, JC52501-2MS were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to acid preservation.
- JC52863-1: (pH=7) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

Matrix: AQ **Batch ID:** VT9330

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC52722-1MS, JC52722-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample JC52722-1MSD. Outside control limits due to acid preservation.
- JC52863-3: (pH=6) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

MS Semi-volatiles By Method EPA 625

Matrix: AQ **Batch ID:** OP6921

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 4-Chloroaniline, Benzidine are outside control limits. Outside of in house control limits.
- JC52863-1: There are compounds in BS were outside in house QC limits. The results confirmed by reextraction outside the holding time.
- JC52863-1 for 4-Chloroaniline: This compound in BS is outside in house QC limits bias low.
- JC52863-1 for Benzidine: The percent recovery for this compound in the associated BS is below in-house control limits indicating potential low bias.Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** OP7054

- The data for EPA 625 meets quality control requirements.
- JC52863-1: Confirmation run.

Metals Analysis By Method EPA 200.7

Matrix:	AQ	Batch ID:	MP3492

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC52849-1MS, JC52849-1MSD, JC52849-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Copper are outside control limits for sample MP3492-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry By Method EPA 365.3

Matrix:	AQ	Batch ID:	GP8547

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC53146-1DUP, JC53146-1MS were used as the QC samples for Phosphorus, Total.

General Chemistry By Method SM2540 D-11

Matrix:	AQ	Batch ID:	GN70973

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC52930-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM4500H+ B-11

Matrix:	AQ	Batch ID:	R166416

- The data for SM4500H+ B-11 meets quality control requirements.
- JC52863-2 for pH: Sample received out of holding time for pH analysis.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC52863
Account: Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Collected: 10/10/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC52863-1	**GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE**					
Benzene [a]		4.4	1.0	0.23	ug/l	EPA 624
Chlorobenzene [a]		41.8	1.0	0.23	ug/l	EPA 624
1,2-Dichlorobenzene [a]		0.90 J	1.0	0.21	ug/l	EPA 624
1,4-Dichlorobenzene [a]		1.1	1.0	0.24	ug/l	EPA 624
cis-1,2-Dichloroethene [a]		19.5	1.0	0.54	ug/l	EPA 624
trans-1,2-Dichloroethene [a]		2.0	1.0	0.40	ug/l	EPA 624
Trichloroethene [a]		1.3	1.0	0.24	ug/l	EPA 624
Vinyl chloride [a]		13.9	1.0	0.29	ug/l	EPA 624
4-Chloroaniline [b]		10.4	5.0	0.34	ug/l	EPA 625
1,2-Dichlorobenzene [c]		0.59 J	1.0	0.17	ug/l	EPA 625
1,4-Dichlorobenzene [c]		0.70 J	1.0	0.17	ug/l	EPA 625
Naphthalene [c]		0.51 J	1.0	0.23	ug/l	EPA 625
N-Nitrosodiphenylamine [c]		0.41 J	5.0	0.22	ug/l	EPA 625
JC52863-2	**COMP-101017/BSA DISCHARGE**					
Phosphorus, Total		0.076	0.050		mg/l	EPA 365.3
Solids, Total Suspended		37.0	4.0		mg/l	SM2540 D-11
pH [d]		7.25			su	SM4500H+ B-11
JC52863-3	**TB-0809**					

No hits reported in this sample.

(a) (pH= 7) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.
(b) There are compounds in BS were outside in house QC limits. The results confirmed by reextraction outside the holding time. This compound in BS is outside in house QC limits bias low.
(c) There are compounds in BS were outside in house QC limits. The results confirmed by reextraction outside the holding time.
(d) Sample received out of holding time for pH analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-1	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	N265223.D	1	10/11/17 19:54	PR	n/a	n/a	VN11178
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	6.2	ug/l	
107-13-1	Acrylonitrile	ND	10	1.9	ug/l	
71-43-2	Benzene	4.4	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
74-83-9	Bromomethane	ND	1.0	0.74	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
108-90-7	Chlorobenzene	41.8	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.63	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.5	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
95-50-1	1,2-Dichlorobenzene	0.90	1.0	0.21	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	1.1	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.32	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.32	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.57	ug/l	
156-59-2	cis-1,2-Dichloroethene	19.5	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.0	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.36	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.59	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.55	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.82	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.36	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-1	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	1.3	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.89	ug/l	
75-01-4	Vinyl chloride	13.9	1.0	0.29	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	114%		76-122%
2037-26-5	Toluene-D8 (SUR)	98%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	90%		80-120%
1868-53-7	Dibromofluoromethane (S)	105%		80-120%

(a) (pH= 7) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-1	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	5P43857.D	1	10/17/17 22:20	SB	10/16/17 21:20	OP6921	E5P2135
Run #2 [b]	3E97850A.D	1	10/23/17 19:54	VP	10/18/17 17:30	OP7054	E3E4350

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

BN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
92-87-5	Benzidine [c]	ND	10	0.90	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline [d]	10.4	5.0	0.34	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	0.59	1.0	0.17	ug/l	J
122-66-7	1,2-Diphenylhydrazine	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	0.70	1.0	0.17	ug/l	J
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-1	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

BN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	0.51	1.0	0.23	ug/l	J
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.0	0.82	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	0.41	5.0	0.22	ug/l	J
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%	73%	32-132%
321-60-8	2-Fluorobiphenyl	65%	80%	40-117%
1718-51-0	Terphenyl-d14	37%	91%	33-126%

(a) There are compounds in BS were outside in house QC limits. The results confirmed by reextraction outside the holding time.
(b) Confirmation run.
(c) The percent recovery for this compound in the associated BS is below in-house control limits indicating potential low bias. Associated CCV outside of control limits low.
(d) This compound in BS is outside in house QC limits bias low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	COMP-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-2	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Copper	< 10	10	ug/l	1	10/14/17	10/15/17	GT	EPA 200.7 [1]	EPA 200.7 [2]
Zinc	< 20	20	ug/l	1	10/14/17	10/15/17	GT	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA43010
(2) Prep QC Batch: MP3492

RL = Reporting Limit

Report of Analysis

Client Sample ID:	COMP-101017/BSA DISCHARGE		
Lab Sample ID:	JC52863-2	**Date Sampled:**	10/10/17
Matrix:	AQ - Ground Water	**Date Received:**	10/11/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Phosphorus, Total	0.076	0.050	mg/l	1	10/19/17 09:50	ST	EPA 365.3
Solids, Total Suspended	37.0	4.0	mg/l	1	10/13/17 16:38	TZW	SM2540 D-11
pH [a]	7.25		su	1	10/11/17 15:06	SUB	SM4500H+ B-11

(a) Sample received out of holding time for pH analysis.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB-0809		
Lab Sample ID:	JC52863-3	**Date Sampled:**	10/10/17
Matrix:	AQ - Trip Blank Water	**Date Received:**	10/11/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	T227222.D	1	10/12/17 11:53	CSF	n/a	n/a	VT9330
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	6.2	ug/l	
107-13-1	Acrylonitrile	ND	10	1.9	ug/l	
71-43-2	Benzene	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
74-83-9	Bromomethane	ND	1.0	0.74	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.63	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.5	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.32	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.32	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.57	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.36	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.59	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.55	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.82	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.36	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-0809		
Lab Sample ID:	JC52863-3	**Date Sampled:**	10/10/17
Matrix:	AQ - Trip Blank Water	**Date Received:**	10/11/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.89	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.29	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	96%		76-122%
2037-26-5	Toluene-D8 (SUR)	103%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	97%		80-120%
1868-53-7	Dibromofluoromethane (S)	97%		80-120%

(a) (pH= 6) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
1,2-Dichlorobenzene	95-50-1	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]
1,3-Dichlorobenzene	541-73-1	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]
1,4-Dichlorobenzene	106-46-7	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

CHAIN OF CUSTODY

SGS ACCUTEST

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

GW WB

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FED-EX Tracking # 407739015222 / 7250 6933 1908 | Bottle Order Control # | SGS Accutest Quote # HWINJOMM73509 | SGS Accutest Job # JC52863

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: Honeywell International Inc	Project Name: 30130 - Alltift OM Phase/ Semi Annual - Project # HWINCJOMM73507		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank Equipment Blank Rinse Blank Blank
Street Address: 1563 Willis Ave 13204	Street: 579 Tifft Street	Billing Information (if different from Report to)	
City / State / Zip: Syracuse, New York 13204	City / State: Buffalo, New York 14220	Company Name: Honeywell International Inc	
Project Contact / E-mail: John Formoza John.formoza@ch2m.com	Project #: R35116 - Honeywell OM&M Program	Street Address: 115 Tabor Road	
Phone # / Fax #: 315-532-5608	Client Purchase Order #: 4400045772	City / State / Zip: Morris Plains, NJ 07950	
Sampler(s) Name(s) / Phone #: Bethany Macera	Project Manager: Chuck Geadelmann	Attention: HTS-RES-LAB@Honeywell.com	

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	TPO4 - Phosphorus Total (EPA365.3)	EPA 200.7 MTAL - Cu, Zn	TSS - Total Suspended Solids (2540 C	pH - SM20 4500 H	V624 PPL - EPA 624 -VOA	B625TCL - Priority Pollutant List SVOC	LAB USE ONLY
1	Grab 1-101017/BSA Discharge		10/10/17	0900	BM	GW	5					5								3	2	E43
2	Grab 2-101017/BSA Discharge		10/10/17	1000	BM	GW	5					5								3	2	V1122
3	Grab 3-101017/BSA Discharge	1	10/10/17	1200	BM	GW	5					5								3	2	A39
4	Grab 4-101017/ BSA Discharge		10/10/17	1400	BM	GW	5					5								3	2	C46
5	COMP-101017/BSA Discharge	2	10/10/17	1405	BM	GW	5				1	1	3				1	1	2	1			COMP
6	TB -0809	3		6:30		TB	2						2								2		

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other ____

INITIAL ASESSMENT 2A/2P

LABEL VERIFICATION GO

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format ____
- [ ] Other ____

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Prior to analysis grab samples to be composited by lab

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Bethany Macera	10/10/17 1630	1	10/10/17 16:38	2	10/10/17 19:00
3	fedex	10/10/17 9:45	3	4		4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [ ]

On Ice [X] Cooler Temp. 3.8°C 3.2°C

SGS Accutest Sample Receipt Summary

Job Number: JC52863 **Client:** _____ **Project:** _____

Date / Time Received: 10/11/2017 9:45:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8); Cooler 2: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.2); Cooler 2: (1.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC52863: Chain of Custody
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MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11178-MB	N265213.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	6.2	ug/l	
107-13-1	Acrylonitrile	ND	10	1.9	ug/l	
71-43-2	Benzene	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
74-83-9	Bromomethane	ND	1.0	0.74	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.63	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.5	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.32	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.32	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.57	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.36	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.59	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.55	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.82	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.36	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.89	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.29	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11178-MB	N265213.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	108%	76-122%
2037-26-5	Toluene-D8 (SUR)	97%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	93%	80-120%
1868-53-7	Dibromofluoromethane (S)	103%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.44	59	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VT9330-MB	T227218.D	1	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	6.2	ug/l	
107-13-1	Acrylonitrile	ND	10	1.9	ug/l	
71-43-2	Benzene	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.19	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
74-83-9	Bromomethane	ND	1.0	0.74	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.63	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.5	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.29	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.30	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.67	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.32	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.32	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.57	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.36	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.36	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.59	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.55	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.82	ug/l	
108-88-3	Toluene	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.36	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.24	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.89	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.29	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VT9330-MB	T227218.D	1	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	96%	76-122%
2037-26-5	Toluene-D8 (SUR)	102%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	95%	80-120%
1868-53-7	Dibromofluoromethane (S)	96%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.75	18	ug/l	J
	system artifact	3.92	37	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11178-BS	N265214.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
107-02-8	Acrolein	20	19.1	96	48-145
107-13-1	Acrylonitrile	20	21.7	109	64-137
71-43-2	Benzene	20	20.8	104	78-118
75-27-4	Bromodichloromethane	20	23.2	116	77-119
75-25-2	Bromoform	20	24.5	123	66-128
74-83-9	Bromomethane	20	18.5	93	59-141
56-23-5	Carbon tetrachloride	20	22.9	115	69-137
108-90-7	Chlorobenzene	20	20.3	102	78-116
75-00-3	Chloroethane	20	19.3	97	63-136
110-75-8	2-Chloroethyl vinyl ether	100	103	103	55-147
67-66-3	Chloroform	20	21.7	109	78-122
74-87-3	Chloromethane	20	14.5	73	49-125
124-48-1	Dibromochloromethane	20	23.0	115	75-117
95-50-1	1,2-Dichlorobenzene	20	21.3	107	76-115
541-73-1	1,3-Dichlorobenzene	20	21.5	108	75-114
106-46-7	1,4-Dichlorobenzene	20	21.6	108	75-113
75-71-8	Dichlorodifluoromethane	20	17.0	85	48-129
75-34-3	1,1-Dichloroethane	20	20.5	103	73-124
107-06-2	1,2-Dichloroethane	20	22.8	114	74-127
75-35-4	1,1-Dichloroethene	20	16.8	84	54-122
156-59-2	cis-1,2-Dichloroethene	20	20.1	101	72-115
156-60-5	trans-1,2-Dichloroethene	20	19.9	100	70-121
78-87-5	1,2-Dichloropropane	20	21.4	107	75-118
10061-01-5	cis-1,3-Dichloropropene	20	21.1	106	76-118
10061-02-6	trans-1,3-Dichloropropene	20	21.2	106	70-122
100-41-4	Ethylbenzene	20	21.3	107	76-118
75-09-2	Methylene chloride	20	19.3	97	69-120
79-34-5	1,1,2,2-Tetrachloroethane	20	19.8	99	66-119
127-18-4	Tetrachloroethene	20	21.0	105	66-131
108-88-3	Toluene	20	19.9	100	78-119
71-55-6	1,1,1-Trichloroethane	20	21.6	108	74-130
79-00-5	1,1,2-Trichloroethane	20	20.7	104	74-121
79-01-6	Trichloroethene	20	21.0	105	78-117
75-69-4	Trichlorofluoromethane	20	21.3	107	66-126
75-01-4	Vinyl chloride	20	15.8	79	54-125
1330-20-7	Xylenes (total)	60	63.4	106	76-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11178-BS	N265214.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	105%	76-122%
2037-26-5	Toluene-D8 (SUR)	97%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	93%	80-120%
1868-53-7	Dibromofluoromethane (S)	104%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VT9330-BS	T227220.D	1	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
107-02-8	Acrolein	20	25.9	130	48-145
107-13-1	Acrylonitrile	20	24.9	125	64-137
71-43-2	Benzene	20	18.3	92	78-118
75-27-4	Bromodichloromethane	20	17.4	87	77-119
75-25-2	Bromoform	20	17.8	89	66-128
74-83-9	Bromomethane	20	17.7	89	59-141
56-23-5	Carbon tetrachloride	20	17.6	88	69-137
108-90-7	Chlorobenzene	20	17.5	88	78-116
75-00-3	Chloroethane	20	23.1	116	63-136
110-75-8	2-Chloroethyl vinyl ether	100	116	116	55-147
67-66-3	Chloroform	20	18.0	90	78-122
74-87-3	Chloromethane	20	24.2	121	49-125
124-48-1	Dibromochloromethane	20	16.1	81	75-117
95-50-1	1,2-Dichlorobenzene	20	17.7	89	76-115
541-73-1	1,3-Dichlorobenzene	20	17.2	86	75-114
106-46-7	1,4-Dichlorobenzene	20	17.2	86	75-113
75-71-8	Dichlorodifluoromethane	20	22.4	112	48-129
75-34-3	1,1-Dichloroethane	20	19.7	99	73-124
107-06-2	1,2-Dichloroethane	20	17.0	85	74-127
75-35-4	1,1-Dichloroethene	20	19.4	97	54-122
156-59-2	cis-1,2-Dichloroethene	20	17.2	86	72-115
156-60-5	trans-1,2-Dichloroethene	20	21.0	105	70-121
78-87-5	1,2-Dichloropropane	20	20.2	101	75-118
10061-01-5	cis-1,3-Dichloropropene	20	18.9	95	76-118
10061-02-6	trans-1,3-Dichloropropene	20	18.6	93	70-122
100-41-4	Ethylbenzene	20	18.3	92	76-118
75-09-2	Methylene chloride	20	21.2	106	69-120
79-34-5	1,1,2,2-Tetrachloroethane	20	18.5	93	66-119
127-18-4	Tetrachloroethene	20	16.3	82	66-131
108-88-3	Toluene	20	17.9	90	78-119
71-55-6	1,1,1-Trichloroethane	20	18.7	94	74-130
79-00-5	1,1,2-Trichloroethane	20	18.3	92	74-121
79-01-6	Trichloroethene	20	18.5	93	78-117
75-69-4	Trichlorofluoromethane	20	19.6	98	66-126
75-01-4	Vinyl chloride	20	22.6	113	54-125
1330-20-7	Xylenes (total)	60	56.2	94	76-120

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VT9330-BS	T227220.D	1	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	95%	76-122%
2037-26-5	Toluene-D8 (SUR)	102%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	98%	80-120%
1868-53-7	Dibromofluoromethane (S)	97%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52501-2MS	N265224.D	1	10/11/17	PR	n/a	n/a	VN11178
JC52501-2 [a]	N265217.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Compound	JC52501-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
107-02-8	Acrolein	ND		20	17.9	90	40-154
107-13-1	Acrylonitrile	ND		20	21.6	108	60-142
71-43-2	Benzene	ND		20	22.8	114	59-136
75-27-4	Bromodichloromethane	ND		20	24.9	125	73-125
75-25-2	Bromoform	ND		20	25.3	127	62-134
74-83-9	Bromomethane	ND		20	22.3	112	54-149
56-23-5	Carbon tetrachloride	ND		20	26.4	132	62-147
108-90-7	Chlorobenzene	0.24	J	20	22.0	109	69-128
75-00-3	Chloroethane	ND		20	22.6	113	58-145
110-75-8	2-Chloroethyl vinyl ether	ND		100	ND	0* [b]	10-179
67-66-3	Chloroform	ND		20	23.2	116	71-131
74-87-3	Chloromethane	ND		20	19.4	97	44-136
124-48-1	Dibromochloromethane	ND		20	24.0	120	72-123
95-50-1	1,2-Dichlorobenzene	ND		20	22.2	111	69-123
541-73-1	1,3-Dichlorobenzene	ND		20	22.3	112	71-122
106-46-7	1,4-Dichlorobenzene	ND		20	22.2	111	69-121
75-71-8	Dichlorodifluoromethane	ND		20	23.5	118	42-138
75-34-3	1,1-Dichloroethane	2.9		20	25.2	112	66-132
107-06-2	1,2-Dichloroethane	ND		20	24.4	122	68-140
75-35-4	1,1-Dichloroethene	ND		20	19.2	96	49-127
156-59-2	cis-1,2-Dichloroethene	124		20	142	90	50-134
156-60-5	trans-1,2-Dichloroethene	1.5		20	22.6	106	63-129
78-87-5	1,2-Dichloropropane	ND		20	22.8	114	73-123
10061-01-5	cis-1,3-Dichloropropene	ND		20	22.0	110	71-124
10061-02-6	trans-1,3-Dichloropropene	ND		20	22.0	110	66-127
100-41-4	Ethylbenzene	ND		20	22.9	115	65-130
75-09-2	Methylene chloride	ND		20	20.5	103	65-127
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	19.7	99	62-126
127-18-4	Tetrachloroethene	ND		20	22.9	115	51-145
108-88-3	Toluene	ND		20	21.3	107	66-132
71-55-6	1,1,1-Trichloroethane	2.4		20	26.9	123	63-143
79-00-5	1,1,2-Trichloroethane	ND		20	20.9	105	71-127
79-01-6	Trichloroethene	80.1		20	103	115	46-145
75-69-4	Trichlorofluoromethane	ND		20	25.5	128	57-139
75-01-4	Vinyl chloride	2.2		20	22.6	102	45-136
1330-20-7	Xylenes (total)	ND		60	68.2	114	66-131

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52501-2MS	N265224.D	1	10/11/17	PR	n/a	n/a	VN11178
JC52501-2 [a]	N265217.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Surrogate Recoveries	MS	JC52501-2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	111%	111%	76-122%
2037-26-5	Toluene-D8 (SUR)	97%	97%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	92%	89%	80-120%
1868-53-7	Dibromofluoromethane (S)	104%	102%	80-120%

(a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.
(b) Outside control limits due to acid preservation.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52722-1MS	T227230.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1MSD	T227231.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1 [a]	T227234.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1 [a]	T227235.D	100	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Compound	JC52722-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
107-02-8	Acrolein	ND		200	249	125	200	249	125	0	40-154/18
107-13-1	Acrylonitrile	ND		200	241	121	200	242	121	0	60-142/19
71-43-2	Benzene	ND		200	191	96	200	188	94	2	59-136/13
75-27-4	Bromodichloromethane	ND		200	184	92	200	173	87	6	73-125/13
75-25-2	Bromoform	ND		200	162	81	200	158	79	3	62-134/12
74-83-9	Bromomethane	ND		200	174	87	200	176	88	1	54-149/19
56-23-5	Carbon tetrachloride	ND		200	177	89	200	176	88	1	62-147/14
108-90-7	Chlorobenzene	ND		200	182	91	200	184	92	1	69-128/11
75-00-3	Chloroethane	ND		200	204	102	200	200	100	2	58-145/19
110-75-8	2-Chloroethyl vinyl ether	ND		1000	440	44	1000	127	13	110* [b]	10-179/37
67-66-3	Chloroform	ND		200	185	93	200	187	94	1	71-131/15
74-87-3	Chloromethane	ND		200	203	102	200	199	100	2	44-136/21
124-48-1	Dibromochloromethane	ND		200	157	79	200	156	78	1	72-123/12
95-50-1	1,2-Dichlorobenzene	ND		200	182	91	200	179	90	2	69-123/11
541-73-1	1,3-Dichlorobenzene	ND		200	179	90	200	178	89	1	71-122/11
106-46-7	1,4-Dichlorobenzene	ND		200	177	89	200	177	89	0	69-121/10
75-71-8	Dichlorodifluoromethane	ND		200	206	103	200	210	105	2	42-138/19
75-34-3	1,1-Dichloroethane	ND		200	205	103	200	203	102	1	66-132/18
107-06-2	1,2-Dichloroethane	ND		200	170	85	200	170	85	0	68-140/13
75-35-4	1,1-Dichloroethene	ND		200	192	96	200	194	97	1	49-127/18
156-59-2	cis-1,2-Dichloroethene	85.9		200	257	86	200	257	86	0	50-134/14
156-60-5	trans-1,2-Dichloroethene	ND		200	216	108	200	212	106	2	63-129/18
78-87-5	1,2-Dichloropropane	ND		200	217	109	200	213	107	2	73-123/14
10061-01-5	cis-1,3-Dichloropropene	ND		200	192	96	200	186	93	3	71-124/13
10061-02-6	trans-1,3-Dichloropropene	ND		200	177	89	200	180	90	2	66-127/14
100-41-4	Ethylbenzene	ND		200	198	99	200	199	100	1	65-130/13
75-09-2	Methylene chloride	ND		200	193	97	200	190	95	2	65-127/15
79-34-5	1,1,2,2-Tetrachloroethane	ND		200	185	93	200	185	93	0	62-126/14
127-18-4	Tetrachloroethene	9.3	J	200	181	86	200	189	90	4	51-145/13
108-88-3	Toluene	ND		200	189	95	200	193	97	2	66-132/12
71-55-6	1,1,1-Trichloroethane	ND		200	186	93	200	183	92	2	63-143/15
79-00-5	1,1,2-Trichloroethane	ND		200	183	92	200	188	94	3	71-127/13
79-01-6	Trichloroethene	3300 [d]		200	3220	-40* [c]	200	3220	-40* [c]	0	46-145/12
75-69-4	Trichlorofluoromethane	ND		200	184	92	200	180	90	2	57-139/17
75-01-4	Vinyl chloride	ND		200	201	101	200	193	97	4	45-136/20
1330-20-7	Xylenes (total)	ND		600	596	99	600	594	99	0	66-131/12

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52722-1MS	T227230.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1MSD	T227231.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1 [a]	T227234.D	10	10/12/17	CSF	n/a	n/a	VT9330
JC52722-1 [a]	T227235.D	100	10/12/17	CSF	n/a	n/a	VT9330

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-3

CAS No.	Surrogate Recoveries	MS	MSD	JC52722-1	JC52722-1	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	100%	95%	96%	97%	76-122%
2037-26-5	Toluene-D8 (SUR)	104%	104%	104%	103%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	100%	98%	97%	96%	80-120%
1868-53-7	Dibromofluoromethane (S)	95%	96%	95%	93%	80-120%

(a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.
(b) Outside control limits due to acid preservation.
(c) Outside control limits due to high level in sample relative to spike amount.
(d) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52501-1DUP	N265226.D	1	10/11/17	PR	n/a	n/a	VN11178
JC52501-1 [a]	N265216.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Compound	JC52501-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
107-02-8	Acrolein	ND		ND		nc	10
107-13-1	Acrylonitrile	ND		ND		nc	10
71-43-2	Benzene	ND		ND		nc	12
75-27-4	Bromodichloromethane	ND		ND		nc	10
75-25-2	Bromoform	ND		ND		nc	10
74-83-9	Bromomethane	ND		ND		nc	10
56-23-5	Carbon tetrachloride	ND		ND		nc	10
108-90-7	Chlorobenzene	ND		ND		nc	10
75-00-3	Chloroethane	ND		ND		nc	10
110-75-8	2-Chloroethyl vinyl ether	ND		ND		nc	10
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	10
124-48-1	Dibromochloromethane	ND		ND		nc	10
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	10
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	10
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	10
75-71-8	Dichlorodifluoromethane	ND		ND		nc	10
75-34-3	1,1-Dichloroethane	ND		ND		nc	13
107-06-2	1,2-Dichloroethane	ND		ND		nc	11
75-35-4	1,1-Dichloroethene	ND		ND		nc	14
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	22
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	14
78-87-5	1,2-Dichloropropane	ND		ND		nc	10
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	10
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	10
100-41-4	Ethylbenzene	ND		ND		nc	10
75-09-2	Methylene chloride	ND		ND		nc	10
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	10
127-18-4	Tetrachloroethene	ND		ND		nc	16
108-88-3	Toluene	ND		ND		nc	13
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	10
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	10
79-01-6	Trichloroethene	ND		ND		nc	18
75-69-4	Trichlorofluoromethane	ND		ND		nc	10
75-01-4	Vinyl chloride	ND		ND		nc	14
1330-20-7	Xylenes (total)	ND		ND		nc	14

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52501-1DUP	N265226.D	1	10/11/17	PR	n/a	n/a	VN11178
JC52501-1 [a]	N265216.D	1	10/11/17	PR	n/a	n/a	VN11178

The QC reported here applies to the following samples: **Method:** EPA 624

JC52863-1

CAS No.	Surrogate Recoveries	DUP	JC52501-1	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	114%	108%	76-122%
2037-26-5	Toluene-D8 (SUR)	98%	97%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	91%	90%	80-120%
1868-53-7	Dibromofluoromethane (S)	109%	103%	80-120%

(a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: VN11174-BFB
Lab File ID: N265096.D
Instrument ID: GCMSN
Injection Date: 10/05/17
Injection Time: 20:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11317	18.3		Pass
75	30.0 - 60.0% of mass 95	30546	49.4		Pass
95	Base peak, 100% relative abundance	61776	100.0		Pass
96	5.0 - 9.0% of mass 95	4018	6.50		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	45760	74.1		Pass
175	5.0 - 9.0% of mass 174	3631	5.88	(7.93) [a]	Pass
176	95.0 - 101.0% of mass 174	43957	71.2	(96.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3059	4.95	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN11174-IC11174	N265097.D	10/05/17	21:28	00:41	Initial cal 0.5
VN11174-IC11174	N265098.D	10/05/17	21:57	01:10	Initial cal 1
VN11174-IC11174	N265099.D	10/05/17	22:27	01:40	Initial cal 0.2
VN11174-IC11174	N265100.D	10/05/17	22:56	02:09	Initial cal 2
VN11174-IC11174	N265101.D	10/05/17	23:26	02:39	Initial cal 5
VN11174-ICC11174	N265102.D	10/05/17	23:55	03:08	Initial cal 20
VN11174-IC11174	N265103.D	10/06/17	00:24	03:37	Initial cal 50
VN11174-IC11174	N265104.D	10/06/17	00:54	04:07	Initial cal 100
VN11174-IC11174	N265105.D	10/06/17	01:23	04:36	Initial cal 200
VN11174-ICV11174	N265108.D	10/06/17	02:51	06:04	Initial cal verification 20
VN11174-ICV11174	N265109.D	10/06/17	03:20	06:33	Initial cal verification 20

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: VN11178-BFB
Lab File ID: N265211.D
Instrument ID: GCMSN
Injection Date: 10/11/17
Injection Time: 13:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12265	18.6		Pass
75	30.0 - 60.0% of mass 95	33744	51.3		Pass
95	Base peak, 100% relative abundance	65808	100.0		Pass
96	5.0 - 9.0% of mass 95	4420	6.72		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	49696	75.5		Pass
175	5.0 - 9.0% of mass 174	3820	5.80	(7.69) [a]	Pass
176	95.0 - 101.0% of mass 174	48803	74.2	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	3034	4.61	(6.22) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN11178-CC11174	N265212.D	10/11/17	13:46	00:29	Continuing cal 20
VN11178-MB	N265213.D	10/11/17	14:29	01:12	Method Blank
VN11178-BS	N265214.D	10/11/17	14:58	01:41	Blank Spike
JC52501-1	N265216.D	10/11/17	16:29	03:12	(used for QC only; not part of job JC52863)
JC52501-2	N265217.D	10/11/17	16:58	03:41	(used for QC only; not part of job JC52863)
ZZZZZZ	N265218.D	10/11/17	17:27	04:10	(unrelated sample)
ZZZZZZ	N265219.D	10/11/17	17:57	04:40	(unrelated sample)
ZZZZZZ	N265220.D	10/11/17	18:26	05:09	(unrelated sample)
ZZZZZZ	N265221.D	10/11/17	18:55	05:38	(unrelated sample)
ZZZZZZ	N265222.D	10/11/17	19:25	06:08	(unrelated sample)
JC52863-1	N265223.D	10/11/17	19:54	06:37	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-
JC52501-2MS	N265224.D	10/11/17	20:23	07:06	Matrix Spike
JC52501-1DUP	N265226.D	10/11/17	21:22	08:05	Duplicate
ZZZZZZ	N265227.D	10/11/17	21:51	08:34	(unrelated sample)
ZZZZZZ	N265228.D	10/11/17	22:21	09:04	(unrelated sample)
ZZZZZZ	N265229.D	10/11/17	22:50	09:33	(unrelated sample)
ZZZZZZ	N265230.D	10/11/17	23:19	10:02	(unrelated sample)
ZZZZZZ	N265231.D	10/11/17	23:49	10:32	(unrelated sample)
ZZZZZZ	N265231R.D	10/11/17	23:49	10:32	(unrelated sample)
ZZZZZZ	N265232.D	10/12/17	00:18	11:01	(unrelated sample)
ZZZZZZ	N265233.D	10/12/17	00:47	11:30	(unrelated sample)
ZZZZZZ	N265234.D	10/12/17	01:17	12:00	(unrelated sample)
ZZZZZZ	N265235.D	10/12/17	01:46	12:29	(unrelated sample)
ZZZZZZ	N265236.D	10/12/17	02:15	12:58	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	VN11178-BFB	**Injection Date:**	10/11/17
Lab File ID:	N265211.D	**Injection Time:**	13:17
Instrument ID:	GCMSN		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	N265237.D	10/12/17	02:45	13:28	(unrelated sample)
ZZZZZZ	N265239.D	10/12/17	03:43	14:26	(unrelated sample)
ZZZZZZ	N265240.D	10/12/17	04:13	14:56	(unrelated sample)
VN11179-MB	N265242.D	10/12/17	05:11	15:54	Method Blank
VN11179-BS	N265243.D	10/12/17	05:40	16:23	Blank Spike
JC52773-1MS	N265244.D	10/12/17	06:10	16:53	Matrix Spike
JC52773-1MSD	N265245.D	10/12/17	06:39	17:22	Matrix Spike Duplicate
ZZZZZZ	N265247.D	10/12/17	07:38	18:21	(unrelated sample)
JC52773-1	N265248.D	10/12/17	08:07	18:50	(used for QC only; not part of job JC52863)
ZZZZZZ	N265250.D	10/12/17	09:05	19:48	(unrelated sample)
ZZZZZZ	N265251.D	10/12/17	09:35	20:18	(unrelated sample)
ZZZZZZ	N265252.D	10/12/17	10:04	20:47	(unrelated sample)
ZZZZZZ	N265253.D	10/12/17	10:33	21:16	(unrelated sample)
ZZZZZZ	N265254.D	10/12/17	11:03	21:46	(unrelated sample)
ZZZZZZ	N265255.D	10/12/17	11:32	22:15	(unrelated sample)
ZZZZZZ	N265256.D	10/12/17	12:02	22:45	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: VT9306-BFB
Lab File ID: T226632.D
Instrument ID: GCMST
Injection Date: 09/20/17
Injection Time: 17:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12205	22.0		Pass
75	30.0 - 60.0% of mass 95	28981	52.2		Pass
95	Base peak, 100% relative abundance	55514	100.0		Pass
96	5.0 - 9.0% of mass 95	3831	6.90		Pass
173	Less than 2.0% of mass 174	205	0.37	(0.40) [a]	Pass
174	50.0 - 120.0% of mass 95	51706	93.1		Pass
175	5.0 - 9.0% of mass 174	3961	7.14	(7.66) [a]	Pass
176	95.0 - 101.0% of mass 174	49349	88.9	(95.4) [a]	Pass
177	5.0 - 9.0% of mass 176	3178	5.72	(6.44) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VT9306-IC9306	T226633.D	09/20/17	18:08	00:54	Initial cal 0.5
VT9306-IC9306	T226634.D	09/20/17	18:38	01:24	Initial cal 0.2
VT9306-IC9306	T226635.D	09/20/17	19:08	01:54	Initial cal 1
VT9306-IC9306	T226636.D	09/20/17	19:38	02:24	Initial cal 2
VT9306-IC9306	T226637.D	09/20/17	20:08	02:54	Initial cal 5
VT9306-ICC9306	T226638.D	09/20/17	20:38	03:24	Initial cal 20
VT9306-IC9306	T226639.D	09/20/17	21:09	03:55	Initial cal 50
VT9306-IC9306	T226640.D	09/20/17	21:39	04:25	Initial cal 100
VT9306-IC9306	T226641.D	09/20/17	22:09	04:55	Initial cal 200
VT9306-ICV9306	T226644.D	09/20/17	23:39	06:25	Initial cal verification 20
VT9306-ICV9306	T226645.D	09/21/17	00:09	06:55	Initial cal verification 20

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	VT9307-BFB	**Injection Date:**	09/21/17
Lab File ID:	T226650.D	**Injection Time:**	13:55
Instrument ID:	GCMST		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9967	22.2		Pass
75	30.0 - 60.0% of mass 95	22802	50.8		Pass
95	Base peak, 100% relative abundance	44851	100.0		Pass
96	5.0 - 9.0% of mass 95	2893	6.45		Pass
173	Less than 2.0% of mass 174	148	0.33	(0.35) [a]	Pass
174	50.0 - 150.0% of mass 95	42052	93.8		Pass
175	5.0 - 9.0% of mass 174	3092	6.89	(7.35) [a]	Pass
176	95.0 - 101.0% of mass 174	40684	90.7	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	2623	5.85	(6.45) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VT9307-ICV9306	T226651.D	09/21/17	14:25	00:30	Initial cal verification 20

Instrument Performance Check (BFB)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: VT9330-BFB
Lab File ID: T227216.D
Instrument ID: GCMST
Injection Date: 10/12/17
Injection Time: 07:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	13168	18.0		Pass
75	30.0 - 60.0% of mass 95	34981	47.8		Pass
95	Base peak, 100% relative abundance	73144	100.0		Pass
96	5.0 - 9.0% of mass 95	4596	6.28		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	59883	81.9		Pass
175	5.0 - 9.0% of mass 174	4671	6.39	(7.80) [a]	Pass
176	95.0 - 101.0% of mass 174	58384	79.8	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4003	5.47	(6.86) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VT9330-CC9306	T227217.D	10/12/17	07:43	00:30	Continuing cal 20
VT9330-MB	T227218.D	10/12/17	08:46	01:33	Method Blank
VT9330-BS	T227220.D	10/12/17	10:36	03:23	Blank Spike
JC52863-3	T227222.D	10/12/17	11:53	04:40	TB-0809
ZZZZZZ	T227223.D	10/12/17	12:23	05:10	(unrelated sample)
ZZZZZZ	T227224.D	10/12/17	12:53	05:40	(unrelated sample)
ZZZZZZ	T227225.D	10/12/17	13:23	06:10	(unrelated sample)
ZZZZZZ	T227226.D	10/12/17	13:54	06:41	(unrelated sample)
ZZZZZZ	T227228.D	10/12/17	14:54	07:41	(unrelated sample)
ZZZZZZ	T227229.D	10/12/17	15:28	08:15	(unrelated sample)
JC52722-1MS	T227230.D	10/12/17	15:58	08:45	Matrix Spike
JC52722-1MSD	T227231.D	10/12/17	16:29	09:16	Matrix Spike Duplicate
ZZZZZZ	T227233.D	10/12/17	17:29	10:16	(unrelated sample)
JC52722-1	T227234.D	10/12/17	17:59	10:46	(used for QC only; not part of job JC52863)
JC52722-1	T227235.D	10/12/17	18:29	11:16	(used for QC only; not part of job JC52863)
ZZZZZZ	T227236.D	10/12/17	18:59	11:46	(unrelated sample)
ZZZZZZ	T227237.D	10/12/17	19:29	12:16	(unrelated sample)
ZZZZZZ	T227238.D	10/12/17	19:59	12:46	(unrelated sample)
ZZZZZZ	T227239.D	10/12/17	20:29	13:16	(unrelated sample)
ZZZZZZ	T227240.D	10/12/17	20:59	13:46	(unrelated sample)
ZZZZZZ	T227241.D	10/12/17	21:29	14:16	(unrelated sample)
ZZZZZZ	T227242.D	10/12/17	21:58	14:45	(unrelated sample)
ZZZZZZ	T227243.D	10/12/17	22:28	15:15	(unrelated sample)

Surrogate Recovery Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Method: EPA 624 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC52863-1	N265223.D	114	98	90	105
JC52863-3	T227222.D	96	103	97	97
JC52501-1DUP	N265226.D	114	98	91	109
JC52501-2MS	N265224.D	111	97	92	104
JC52722-1MS	T227230.D	100	104	100	95
JC52722-1MSD	T227231.D	95	104	98	96
VN11178-BS	N265214.D	105	97	93	104
VN11178-MB	N265213.D	108	97	93	103
VT9330-BS	T227220.D	95	102	98	97
VT9330-MB	T227218.D	96	102	95	96

Surrogate Compounds	Recovery Limits
S1 = 1,2-Dichloroethane-D4 (SUR)	76-122%
S2 = Toluene-D8 (SUR)	80-120%
S3 = 4-Bromofluorobenzene (SUR)	80-120%
S4 = Dibromofluoromethane (S)	80-120%

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6921-MB1	5P43832.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135

The QC reported here applies to the following samples: **Method:** EPA 625

JC52863-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
92-87-5	Benzidine	ND	10	0.90	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	

Method Blank Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6921-MB1	5P43832.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135

The QC reported here applies to the following samples: **Method:** EPA 625

JC52863-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.0	0.82	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	10-110%
4165-62-2	Phenol-d5	26%	10-110%
118-79-6	2,4,6-Tribromophenol	69%	35-147%
4165-60-0	Nitrobenzene-d5	70%	32-132%
321-60-8	2-Fluorobiphenyl	66%	40-117%
1718-51-0	Terphenyl-d14	72%	33-126%

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6921-BS1	5P43833.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135
OP6921-BSD	5P43834.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135

The QC reported here applies to the following samples: **Method:** EPA 625

JC52863-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	34.0	68	36.1	72	6	47-110/24
208-96-8	Acenaphthylene	50	32.6	65	35.3	71	8	45-110/24
120-12-7	Anthracene	50	39.7	79	40.0	80	1	52-110/24
92-87-5	Benzidine	100	ND	0* [a]	ND	0* [a]	nc	10-110/65
56-55-3	Benzo(a)anthracene	50	42.3	85	41.3	83	2	53-110/20
50-32-8	Benzo(a)pyrene	50	42.8	86	42.2	84	1	55-110/23
205-99-2	Benzo(b)fluoranthene	50	39.9	80	40.2	80	1	57-110/23
191-24-2	Benzo(g,h,i)perylene	50	43.1	86	42.5	85	1	51-110/23
207-08-9	Benzo(k)fluoranthene	50	40.9	82	40.8	82	0	56-110/22
101-55-3	4-Bromophenyl phenyl ether	50	38.8	78	39.0	78	1	51-112/23
85-68-7	Butyl benzyl phthalate	50	46.7	93	46.6	93	0	50-122/23
91-58-7	2-Chloronaphthalene	50	27.8	56	31.6	63	13	41-110/26
106-47-8	4-Chloroaniline	50	3.8	8* [a]	3.9	8* [a]	3	10-110/44
218-01-9	Chrysene	50	42.4	85	41.1	82	3	52-110/20
111-91-1	bis(2-Chloroethoxy)methane	50	36.8	74	40.7	81	10	36-110/21
111-44-4	bis(2-Chloroethyl)ether	50	37.6	75	42.8	86	13	40-111/21
108-60-1	bis(2-Chloroisopropyl)ether	50	32.0	64	38.1	76	17	37-110/25
7005-72-3	4-Chlorophenyl phenyl ether	50	38.5	77	39.1	78	2	48-110/25
95-50-1	1,2-Dichlorobenzene	50	27.2	54	33.1	66	20	35-110/28
122-66-7	1,2-Diphenylhydrazine	50	40.1	80	42.2	84	5	39-128/23
541-73-1	1,3-Dichlorobenzene	50	25.8	52	31.4	63	20	32-110/28
106-46-7	1,4-Dichlorobenzene	50	26.8	54	32.8	66	20	33-110/27
121-14-2	2,4-Dinitrotoluene	50	42.3	85	41.7	83	1	61-117/25
606-20-2	2,6-Dinitrotoluene	50	41.0	82	41.2	82	0	61-119/23
91-94-1	3,3'-Dichlorobenzidine	100	44.3	44	40.5	41	9	20-110/33
53-70-3	Dibenzo(a,h)anthracene	50	43.0	86	42.8	86	0	55-110/25
84-74-2	Di-n-butyl phthalate	50	43.6	87	43.7	87	0	55-118/25
117-84-0	Di-n-octyl phthalate	50	45.6	91	46.8	94	3	49-124/26
84-66-2	Diethyl phthalate	50	41.3	83	40.3	81	2	54-113/23
131-11-3	Dimethyl phthalate	50	39.7	79	38.8	78	2	56-110/23
117-81-7	bis(2-Ethylhexyl)phthalate	50	47.4	95	46.4	93	2	50-120/22
206-44-0	Fluoranthene	50	41.8	84	40.0	80	4	55-111/23
86-73-7	Fluorene	50	32.7	65	33.1	66	1	51-110/25
118-74-1	Hexachlorobenzene	50	40.5	81	40.8	82	1	47-116/23
87-68-3	Hexachlorobutadiene	50	21.8	44	28.3	57	26	24-110/34
77-47-4	Hexachlorocyclopentadiene	100	40.7	41	53.7	54	28	10-110/39

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6921-BS1	5P43833.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135
OP6921-BSD	5P43834.D	1	10/17/17	SB	10/16/17	OP6921	E5P2135

The QC reported here applies to the following samples: **Method:** EPA 625

JC52863-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-72-1	Hexachloroethane	50	21.7	43	28.1	56	26	28-110/34
193-39-5	Indeno(1,2,3-cd)pyrene	50	42.9	86	42.3	85	1	51-112/24
78-59-1	Isophorone	50	38.4	77	42.2	84	9	42-111/20
91-20-3	Naphthalene	50	30.0	60	35.1	70	16	34-110/25
98-95-3	Nitrobenzene	50	34.7	69	38.7	77	11	39-110/21
62-75-9	n-Nitrosodimethylamine	50	20.7	41	24.0	48	15	15-110/19
621-64-7	N-Nitroso-di-n-propylamine	50	32.7	65	36.3	73	10	33-117/21
86-30-6	N-Nitrosodiphenylamine	50	38.4	77	38.3	77	0	54-110/24
85-01-8	Phenanthrene	50	40.0	80	39.6	79	1	53-110/23
129-00-0	Pyrene	50	43.0	86	41.6	83	3	52-110/22
120-82-1	1,2,4-Trichlorobenzene	50	25.6	51	31.2	62	20	30-110/29

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	60%	70%	10-110%
4165-62-2	Phenol-d5	48%	57%	10-110%
118-79-6	2,4,6-Tribromophenol	83%	81%	35-147%
4165-60-0	Nitrobenzene-d5	69%	79%	32-132%
321-60-8	2-Fluorobiphenyl	59%	65%	40-117%
1718-51-0	Terphenyl-d14	95%	93%	33-126%

(a) Outside of in house control limits.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E3E4280-DFTPP
Lab File ID: 3E96114.D
Instrument ID: GCMS3E
Injection Date: 08/15/17
Injection Time: 22:21

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	143464	37.6		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	164278	43.0		Pass
70	Less than 2.0% of mass 69	325	0.09	(0.20) [a]	Pass
127	40.0 - 60.0% of mass 198	196600	51.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	381781	100.0		Pass
199	5.0 - 9.0% of mass 198	25544	6.69		Pass
275	10.0 - 30.0% of mass 198	107941	28.3		Pass
365	1.0 - 100.0% of mass 198	12925	3.39		Pass
441	Present, but less than mass 443	49960	13.1	(73.6) [b]	Pass
442	40.0 - 100.0% of mass 198	335189	87.8		Pass
443	17.0 - 23.0% of mass 442	67904	17.8	(20.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4280-IC4280	3E96115.D	08/15/17	22:43	00:22	Initial cal 100
E3E4280-IC4280	3E96116.D	08/15/17	23:09	00:48	Initial cal 80
E3E4280-ICC4280	3E96117.D	08/15/17	23:35	01:14	Initial cal 50
E3E4280-IC4280	3E96118.D	08/16/17	00:01	01:40	Initial cal 25
E3E4280-IC4280	3E96119.D	08/16/17	00:27	02:06	Initial cal 10
E3E4280-IC4280	3E96120.D	08/16/17	00:53	02:32	Initial cal 5
E3E4280-IC4280	3E96121.D	08/16/17	01:20	02:59	Initial cal 2
E3E4280-IC4280	3E96122.D	08/16/17	01:46	03:25	Initial cal 1
E3E4280-ICV4280	3E96123A.D	08/16/17	02:12	03:51	Initial cal verification 50
E3E4280-ICV4279	3E96123.D	08/16/17	02:12	03:51	Initial cal verification 50
E3E4280-ICV4280	3E96125A.D	08/16/17	04:06	05:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E3E4310-DFTPP
Lab File ID: 3E97161.D
Instrument ID: GCMS3E
Injection Date: 09/13/17
Injection Time: 09:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	285550	38.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	298825	40.2		Pass
70	Less than 2.0% of mass 69	1510	0.20	(0.51) [a]	Pass
127	40.0 - 60.0% of mass 198	382808	51.5		Pass
197	Less than 1.0% of mass 198	1153	0.16		Pass
198	Base peak, 100% relative abundance	742764	100.0		Pass
199	5.0 - 9.0% of mass 198	47813	6.44		Pass
275	10.0 - 30.0% of mass 198	206742	27.8		Pass
365	1.0 - 100.0% of mass 198	23702	3.19		Pass
441	Present, but less than mass 443	68216	9.18	(78.3) [b]	Pass
442	40.0 - 100.0% of mass 198	452296	60.9		Pass
443	17.0 - 23.0% of mass 442	87138	11.7	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4310-IC4310	3E97162.D	09/13/17	09:37	00:20	Initial cal 100
E3E4310-IC4310	3E97163.D	09/13/17	10:03	00:46	Initial cal 1
E3E4310-IC4310	3E97164.D	09/13/17	10:29	01:12	Initial cal 80
E3E4310-IC4310	3E97165.D	09/13/17	10:55	01:38	Initial cal 2
E3E4310-ICC4310	3E97166.D	09/13/17	11:21	02:04	Initial cal 50
E3E4310-IC4310	3E97167.D	09/13/17	11:47	02:30	Initial cal 5
E3E4310-IC4310	3E97168.D	09/13/17	12:13	02:56	Initial cal 25
E3E4310-IC4310	3E97169.D	09/13/17	12:39	03:22	Initial cal 10
E3E4310-ICV4310	3E97170.D	09/13/17	13:05	03:48	Initial cal verification 50
E3E4310-ICV4310	3E97171.D	09/13/17	13:31	04:14	Initial cal verification 50
E3E4310-ICV4305	3E97173.D	09/13/17	14:27	05:10	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E3E4350-DFTPP
Lab File ID: 3E97838A.D
Instrument ID: GCMS3E
Injection Date: 10/23/17
Injection Time: 14:45

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	211643	38.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	209354	37.6		Pass
70	Less than 2.0% of mass 69	215	0.04	(0.10) [a]	Pass
127	40.0 - 60.0% of mass 198	267719	48.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	557397	100.0		Pass
199	5.0 - 9.0% of mass 198	35616	6.39		Pass
275	10.0 - 30.0% of mass 198	154681	27.8		Pass
365	1.0 - 100.0% of mass 198	22565	4.05		Pass
441	Present, but less than mass 443	50376	9.04	(80.2) [b]	Pass
442	40.0 - 100.0% of mass 198	344533	61.8		Pass
443	17.0 - 23.0% of mass 442	62816	11.3	(18.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4350-CC4310	3E97839.D	10/23/17	14:57	00:12	Continuing cal 25
E3E4350-CC4280	3E97840A.D	10/23/17	15:24	00:39	Continuing cal 25
OP7146-MB1	3E97842A.D	10/23/17	16:18	01:33	Method Blank
OP7146-BS1	3E97843A.D	10/23/17	16:45	02:00	Blank Spike
ZZZZZZ	3E97844A.D	10/23/17	17:12	02:27	(unrelated sample)
ZZZZZZ	3E97845A.D	10/23/17	17:39	02:54	(unrelated sample)
ZZZZZZ	3E97846A.D	10/23/17	18:06	03:21	(unrelated sample)
ZZZZZZ	3E97847A.D	10/23/17	18:33	03:48	(unrelated sample)
ZZZZZZ	3E97848A.D	10/23/17	19:00	04:15	(unrelated sample)
ZZZZZZ	3E97849A.D	10/23/17	19:27	04:42	(unrelated sample)
JC52863-1	3E97850A.D	10/23/17	19:54	05:09	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-
ZZZZZZ	3E97851A.D	10/23/17	20:21	05:36	(unrelated sample)
ZZZZZZ	3E97852A.D	10/23/17	20:48	06:03	(unrelated sample)
ZZZZZZ	3E97855A.D	10/23/17	22:08	07:23	(unrelated sample)
ZZZZZZ	3E97856A.D	10/23/17	22:35	07:50	(unrelated sample)
JC53478-1	3E97857A.D	10/23/17	23:02	08:17	(used for QC only; not part of job JC52863)
OP7146-MS	3E97858A.D	10/23/17	23:29	08:44	Matrix Spike
OP7146-MSD	3E97859A.D	10/23/17	23:56	09:11	Matrix Spike Duplicate
ZZZZZZ	3E97860A.D	10/24/17	00:23	09:38	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	E3E4350-DFTPP	**Injection Date:**	10/23/17
Lab File ID:	3E97838A.D	**Injection Time:**	14:45
Instrument ID:	GCMS3E		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3E97861A.D	10/24/17	00:50	10:05	(unrelated sample)
ZZZZZZ	3E97862A.D	10/24/17	01:16	10:31	(unrelated sample)
ZZZZZZ	3E97863A.D	10/24/17	01:43	10:58	(unrelated sample)
ZZZZZZ	3E97864A.D	10/24/17	02:10	11:25	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E5P2125-DFTPP
Lab File ID: 5P43641.D
Instrument ID: GCMS5P
Injection Date: 10/11/17
Injection Time: 17:43

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	71947	34.9		Pass
68	Less than 2.0% of mass 69	222	0.11	(0.27) [a]	Pass
69	Mass 69 relative abundance	83333	40.5		Pass
70	Less than 2.0% of mass 69	419	0.20	(0.50) [a]	Pass
127	40.0 - 60.0% of mass 198	117690	57.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	205933	100.0		Pass
199	5.0 - 9.0% of mass 198	13892	6.75		Pass
275	10.0 - 30.0% of mass 198	33968	16.5		Pass
365	1.0 - 100.0% of mass 198	3934	1.91		Pass
441	Present, but less than mass 443	19531	9.48	(90.2) [b]	Pass
442	40.0 - 100.0% of mass 198	118701	57.6		Pass
443	17.0 - 23.0% of mass 442	21641	10.5	(18.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2125-IC2125	5P43642.D	10/11/17	18:32	00:49	Initial cal 100
E5P2125-IC2125	5P43643.D	10/11/17	18:57	01:14	Initial cal 80
E5P2125-ICC2125	5P43644.D	10/11/17	19:22	01:39	Initial cal 50
E5P2125-IC2125	5P43645.D	10/11/17	19:47	02:04	Initial cal 25
E5P2125-IC2125	5P43646.D	10/11/17	20:11	02:28	Initial cal 10
E5P2125-IC2125	5P43647.D	10/11/17	20:36	02:53	Initial cal 5
E5P2125-IC2125	5P43648.D	10/11/17	21:01	03:18	Initial cal 2
E5P2125-IC2125	5P43649.D	10/11/17	21:26	03:43	Initial cal 1
E5P2125-ICV2125	5P43650A.D	10/11/17	21:50	04:07	Initial cal verification 50
E5P2125-ICV2124	5P43650.D	10/11/17	21:50	04:07	Initial cal verification 50
E5P2125-ICV2124	5P43651.D	10/11/17	22:15	04:32	Initial cal verification 50
E5P2125-ICV2125	5P43654.D	10/11/17	23:29	05:46	Initial cal verification 50
E5P2125-ICV2125	5P43655.D	10/12/17	00:12	06:29	Initial cal verification 50
E5P2125-ICV2125	5P43656.D	10/12/17	00:37	06:54	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E5P2134-DFTPP
Lab File ID: 5P43813.D
Instrument ID: GCMS5P
Injection Date: 10/16/17
Injection Time: 23:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	60004	30.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	70371	36.0		Pass
70	Less than 2.0% of mass 69	403	0.21	(0.57) [a]	Pass
127	40.0 - 60.0% of mass 198	105485	54.0		Pass
197	Less than 1.0% of mass 198	531	0.27		Pass
198	Base peak, 100% relative abundance	195394	100.0		Pass
199	5.0 - 9.0% of mass 198	12901	6.60		Pass
275	10.0 - 30.0% of mass 198	33912	17.4		Pass
365	1.0 - 100.0% of mass 198	3430	1.76		Pass
441	Present, but less than mass 443	19688	10.1	(89.4) [b]	Pass
442	40.0 - 100.0% of mass 198	117197	60.0		Pass
443	17.0 - 23.0% of mass 442	22011	11.3	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2134-IC2134	5P43814.D	10/17/17	00:07	00:14	Initial cal 100
E5P2134-IC2134	5P43815.D	10/17/17	00:40	00:47	Initial cal 80
E5P2134-ICC2134	5P43816.D	10/17/17	01:05	01:12	Initial cal 50
E5P2134-IC2134	5P43817.D	10/17/17	01:29	01:36	Initial cal 25
E5P2134-IC2134	5P43818.D	10/17/17	01:53	02:00	Initial cal 10
E5P2134-IC2134	5P43819.D	10/17/17	02:17	02:24	Initial cal 5
E5P2134-IC2134	5P43820.D	10/17/17	02:41	02:48	Initial cal 2
E5P2134-IC2134	5P43821.D	10/17/17	03:05	03:12	Initial cal 1
E5P2134-ICV2134	5P43822.D	10/17/17	03:29	03:36	Initial cal verification 50
E5P2134-ICV2134	5P43823.D	10/17/17	03:53	04:00	Initial cal verification 50
E5P2134-ICV2125	5P43824.D	10/17/17	04:17	04:24	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: E5P2135-DFTPP
Lab File ID: 5P43826.D
Instrument ID: GCMS5P
Injection Date: 10/17/17
Injection Time: 09:25

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	60992	30.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	72534	35.9		Pass
70	Less than 2.0% of mass 69	317	0.16	(0.44) [a]	Pass
127	40.0 - 60.0% of mass 198	107725	53.4		Pass
197	Less than 1.0% of mass 198	560	0.28		Pass
198	Base peak, 100% relative abundance	201872	100.0		Pass
199	5.0 - 9.0% of mass 198	14217	7.04		Pass
275	10.0 - 30.0% of mass 198	36642	18.2		Pass
365	1.0 - 100.0% of mass 198	3351	1.66		Pass
441	Present, but less than mass 443	19819	9.82	(88.3) [b]	Pass
442	40.0 - 100.0% of mass 198	124541	61.7		Pass
443	17.0 - 23.0% of mass 442	22437	11.1	(18.0) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E5P2135-CC2134	5P43827.D	10/17/17	09:39	00:14	Continuing cal 50
E5P2135-CC2125	5P43828.D	10/17/17	10:03	00:38	Continuing cal 50
E5P2135-CC2134	5P43831.D	10/17/17	10:54	01:29	Continuing cal 5
OP6921-MB1	5P43832.D	10/17/17	11:43	02:18	Method Blank
OP6921-BS1	5P43833.D	10/17/17	12:07	02:42	Blank Spike
OP6528-BSD	5P43830A.D	10/17/17	12:31	03:06	Blank Spike Duplicate
OP6921-BSD	5P43834.D	10/17/17	12:56	03:31	Blank Spike Duplicate
OP6455-MB4	5P43835.D	10/17/17	13:20	03:55	Method Blank
OP6807-MB2	5P43835.D	10/17/17	13:20	03:55	Method Blank
OP6807-LB1	5P43836.D	10/17/17	13:44	04:19	Leachate Blank
OP6455-LB25	5P43837.D	10/17/17	14:09	04:44	Leachate Blank
OP6455-BS4	5P43838.D	10/17/17	14:33	05:08	Blank Spike
OP6807-BS2	5P43838.D	10/17/17	14:33	05:08	Blank Spike
ZZZZZZ	5P43839.D	10/17/17	14:58	05:33	(unrelated sample)
ZZZZZZ	5P43840.D	10/17/17	15:23	05:58	(unrelated sample)
OP6807-LS1	5P43841.D	10/17/17	15:47	06:22	Leachate Spike
OP6807-MS	5P43841.D	10/17/17	15:47	06:22	Matrix Spike
OP6807-MSD	5P43842.D	10/17/17	16:12	06:47	Matrix Spike Duplicate
ZZZZZZ	5P43843.D	10/17/17	16:37	07:12	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	E5P2135-DFTPP	**Injection Date:**	10/17/17
Lab File ID:	5P43826.D	**Injection Time:**	09:25
Instrument ID:	GCMS5P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC52272-2A	5P43844.D	10/17/17	17:01	07:36	(used for QC only; not part of job JC52863)
ZZZZZZ	5P43845.D	10/17/17	17:26	08:01	(unrelated sample)
ZZZZZZ	5P43846.D	10/17/17	17:51	08:26	(unrelated sample)
ZZZZZZ	5P43847.D	10/17/17	18:15	08:50	(unrelated sample)
ZZZZZZ	5P43848.D	10/17/17	18:40	09:15	(unrelated sample)
ZZZZZZ	5P43849.D	10/17/17	19:05	09:40	(unrelated sample)
ZZZZZZ	5P43850.D	10/17/17	19:29	10:04	(unrelated sample)
ZZZZZZ	5P43851.D	10/17/17	19:54	10:29	(unrelated sample)
ZZZZZZ	5P43852.D	10/17/17	20:18	10:53	(unrelated sample)
ZZZZZZ	5P43853.D	10/17/17	20:42	11:17	(unrelated sample)
JC52863-1	5P43857.D	10/17/17	22:20	12:55	GRAB 1-101017/BSA DISCHARGE THRU GRAB 4-
ZZZZZZ	5P43858.D	10/17/17	22:45	13:20	(unrelated sample)
ZZZZZZ	5P43859.D	10/17/17	23:09	13:44	(unrelated sample)
ZZZZZZ	5P43860.D	10/17/17	23:33	14:08	(unrelated sample)
ZZZZZZ	5P43862.D	10/18/17	00:22	14:57	(unrelated sample)
ZZZZZZ	5P43863.D	10/18/17	00:46	15:21	(unrelated sample)

Surrogate Recovery Summary

Job Number: JC52863
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Method: EPA 625 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC52863-1	3E97850A.D	73	80	91
JC52863-1	5P43857.D	69	65	37
OP6921-BS1	5P43833.D	69	59	95
OP6921-BSD	5P43834.D	79	65	93
OP6921-MB1	5P43832.D	70	66	72

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	32-132%
S2 = 2-Fluorobiphenyl	40-117%
S3 = Terphenyl-d14	33-126%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:				10/14/17		10/14/17	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	16	32				
Antimony	6.0	2	3				
Arsenic	3.0	1.6	2.6				
Barium	200	.3	1				
Beryllium	1.0	.1	.31				
Bismuth	20	3.5	5.5				
Boron	100	1.1	7.8				
Cadmium	3.0	.4	.69				
Calcium	5000	3.5	48				
Chromium	10	.9	1.6				
Cobalt	50	.4	.7				
Copper	10	.8	6.5	0.40	<10	2.5	<10
Iron	100	2.8	20				
Lead	3.0	2.2	2.6				
Lithium	50	1.9	11				
Magnesium	5000	24	59				
Manganese	15	.2	.78				
Molybdenum	20	.3	5.7				
Nickel	10	.5	5.2				
Phosphorus	50	1.4	14				
Potassium	10000	44	290				
Selenium	10	2.6	7.2				
Silicon	200	1.6	32				
Silver	10	1	3				
Sodium	10000	9.7	170				
Strontium	10	.1	.3				
Sulfur	50	3.6	14				
Thallium	2.0	1.5	1.5				
Tin	50	.9	7.6				
Titanium	10	.7	1.3				
Tungsten	50	1.4	7.8				
Vanadium	50	.8	.95				
Zinc	20	.4	2.2	0.10	<20	0.30	<20

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date:				10/14/17		10/14/17	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Zirconium	10	.4	1.2				

Associated samples MP3492: JC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original	MS	Spikelot MPEPA200.7	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Bismuth					
Boron	anr				
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	5.5	2070	2000	103.2	70-130
Iron	anr				
Lead	anr				
Lithium					
Magnesium					
Manganese					
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Sulfur					
Thallium	anr				
Tin	anr				
Titanium					
Tungsten					
Vanadium					
Zinc	290	2420	2000	106.5	70-130

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original MS	Spikelot MPEPA200.7% Rec	QC Limits
Zirconium			

Associated samples MP3492: JC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original	MSD	Spikelot MPEPA200.7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	5.5	2050	2000	102.2	1.0	10
Iron	anr					
Lead	anr					
Lithium						
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin	anr					
Titanium						
Tungsten						
Vanadium						
Zinc	290	2410	2000	106.0	0.4	10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original MSD	Spikelot MPEPA200.7% Rec	MSD RPD	QC Limit
Zirconium				

Associated samples MP3492: JC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:		10/14/17				10/14/17		
Metal	BSP Result	Spikelot MPEPA200.7	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	anr							
Beryllium	anr							
Bismuth								
Boron	anr							
Cadmium	anr							
Calcium								
Chromium	anr							
Cobalt	anr							
Copper	2020	2000	101.0	85-115	2020	2000	101.0	85-115
Iron	anr							
Lead	anr							
Lithium								
Magnesium								
Manganese								
Molybdenum	anr							
Nickel	anr							
Phosphorus								
Potassium								
Selenium	anr							
Silicon								
Silver	anr							
Sodium								
Strontium								
Sulfur								
Thallium	anr							
Tin	anr							
Titanium								
Tungsten								
Vanadium								
Zinc	2090	2000	104.5	85-115	2100	2000	105.0	85-115

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/14/17 10/14/17

Metal	BSP Result	Spikelot MPEPA200.7	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium								

Associated samples MP3492: JC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	5.50	7.00	27.3 (a)	0-10
Iron	anr			
Lead	anr			
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin	anr			
Titanium				
Tungsten				
Vanadium				
Zinc	290	294	1.3	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3492 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/14/17

Metal	JC52849-1 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP3492: JC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Phosphorus, Total	GP8547/GN71255	0.050	0.0	mg/l	0.4	0.38	95.0	80-120%
Solids, Total Suspended	GN70973	4.0	0.0	mg/l				

Associated Samples:
Batch GP8547: JC52863-2
Batch GN70973: JC52863-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Phosphorus, Total	GP8547/GN71255	JC53146-1	mg/l	0.039	0.048	20.7	0-38%
Solids, Total Suspended	GN70973	JC52930-1	mg/l	4.2	4.2	0.0	0-17%

Associated Samples:
Batch GP8547: JC52863-2
Batch GN70973: JC52863-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC52863
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Phosphorus, Total	GP8547/GN71255	JC53146-1	mg/l	0.039	0.4	0.39	87.8	35-137%

Associated Samples:
Batch GP8547: JC52863-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

e-Hardcopy 2.0
Automated Report

Technical Report for

Honeywell International Inc. OMM work

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

R35116/4400045772

SGS Accutest Job Number: JC54624

Sampling Date: 11/02/17

Report to:

CH2M

John.formoza@ch2m.com

ATTN: John Formoza

Total number of pages in report: **13**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Rocus Peters 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sample Summary

Honeywell International Inc. OMM work

Job No: JC54624

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Project No: R35116/4400045772

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC54624-1	11/02/17	00:00	MS	11/03/17	AQ	Ground Water	GRAB 1,2,3,4-110217/BSA DISCHARGE

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Honeywell International Inc. OMM work	**Job No**	JC54624
Site:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY	**Report Date**	11/8/2017 5:46:32 PM

On 11/03/2017, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 2.3 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC54624 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Semi-volatiles By Method EPA 625

Matrix: AQ **Batch ID:** OP7650

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- JC54624-1 for n-Nitrosodimethylamine: Associated CCV outside of control limits high, sample was ND.
- JC54624-1 for Benzo(g,h,i)perylene: Associated CCV outside of control limits low.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC54624
Account: Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Collected: 11/02/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC54624-1	**GRAB 1,2,3,4-110217/BSA DISCHARGE**					
4-Chloroaniline		7.3	5.1	0.35	ug/l	EPA 625
1,2-Dichlorobenzene		0.54 J	1.0	0.17	ug/l	EPA 625
1,4-Dichlorobenzene		0.84 J	1.0	0.18	ug/l	EPA 625
N-Nitrosodiphenylamine		0.49 J	5.1	0.23	ug/l	EPA 625

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GRAB 1,2,3,4-110217/BSA DISCHARGE		
Lab Sample ID:	JC54624-1	**Date Sampled:**	11/02/17
Matrix:	AQ - Ground Water	**Date Received:**	11/03/17
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F171816.D	1	11/08/17 14:11	RL	11/07/17 09:20	OP7650	EF7291
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.84	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	0.91	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	10	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	1.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	0.98	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	5.1	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.40	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	0.94	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
120-12-7	Anthracene	ND	1.0	0.22	ug/l	
92-87-5	Benzidine	ND	10	0.92	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene [a]	ND	1.0	0.35	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.47	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	7.3	5.1	0.35	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	0.54	1.0	0.17	ug/l	J
122-66-7	1,2-Diphenylhydrazine	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GRAB 1,2,3,4-110217/BSA DISCHARGE		
Lab Sample ID:	JC54624-1	**Date Sampled:**	11/02/17
Matrix:	AQ - Ground Water	**Date Received:**	11/03/17
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	0.84	1.0	0.18	ug/l	J
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.56	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.49	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.52	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.34	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.51	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.24	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.27	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.40	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.34	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-20-3	Naphthalene	ND	1.0	0.24	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.66	ug/l	
62-75-9	n-Nitrosodimethylamine [b]	ND	2.0	0.83	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	0.49	5.1	0.23	ug/l	J
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		10-110%
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	87%		35-147%
4165-60-0	Nitrobenzene-d5	87%		32-132%
321-60-8	2-Fluorobiphenyl	78%		40-117%
1718-51-0	Terphenyl-d14	93%		33-126%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: JC54624
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
1,2-Dichlorobenzene	95-50-1	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]
1,3-Dichlorobenzene	541-73-1	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]
1,4-Dichlorobenzene	106-46-7	**EPA 625**	AQ	Accutest is not certified for this parameter. [a]

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

GW

CHAIN OF CUSTODY

SGS ACCUTEST

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE ___ OF ___ L/C

FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote # HWINJOMM73509	SGS Accutest Job # JC54624

Client / Reporting Information

Company Name: Honeywell International Inc
Street Address: 1563 Willis Ave 13204
City State Zip: Syracuse, New York 13204
Project Contact: John Formoza E-mail: John.formoza@ch2m.com
Phone #: 315-532-5608 Fax #:
Sampler(s) Name(s): Mike Stout 315-558-4018 Phone #:

Project Information

Project Name: 30130 - Alltift OM Phase/ Semi Annual - Project # HWINCJOMM73507
Street: 579 Tifft Street
City State: Buffalo, New York 14220
Project #: R35116 - Honeywell OM&M Program
Client Purchase Order #: 4400045772
Project Manager: Chuck Geadelmann

Billing Information (If different from Report to)

Company Name: Honeywell International Inc
Street Address: 115 Tabor Road
City State Zip: Morris Plains, NJ 07950
Attention: HTS-RES-LAB@Honeywell.com

Requested Analysis (see TEST CODE sheet)

625 Priority Pollutant List SVOC + 4-chloroaniline

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge SED- Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank EB-Equipment Blank RB-Rinse Blank TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	625 Priority Pollutant List SVOC + 4-chloroaniline	LAB USE LOW
1	Grab 1- 110217 /BSA Discharge		11/2/17	7:00	MS	GW	2					2				2	EH COMP
2	Grab 2- 110217 /BSA Discharge		11/2/17	9:00	MS	GW	2					2				2	
3	Grab 3- 110217 /BSA Discharge		11/2/17	11:00	MS	GW	2					2				2	
4	Grab 4- 110217 /BSA Discharge		11/2/17	13:00	MS	GW	2					2				2	
5																	
6	Temperature Blank											1					

INITIAL ASSESSMENT ZA TH
LABEL VERIFICATION TOI

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [X] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Prior to analysis grab samples to be composited by lab

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		11/2/17 16:00		2 11/2/17	17:30	2 FED EX
3	FED EX	11/3/17 0920	3	4	Date Time:	4 Received By:
5	Relinquished by:	Date Time:	6 Received By:	Custody Seal #	[X] Intact [ ] Not intact	Preserved where applicable [ ] On Ice 5 Cooler Temp. 3.9 CTP

SGS Accutest Sample Receipt Summary

Job Number: JC54624 **Client:** Honeywell International **Project:** 30130 - Alltift OM Phase

Date / Time Received: 11/3/2017 9:20:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (2.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments -1 Limited Volume

SM089-02
Rev. Date 12/1/16

Responded to by: rocus peters

Response Date: 11/3

Composite sample. Proceed with analysis

JC54624: Chain of Custody
Page 3 of 3

Attachment B.7 Annual Groundwater Monitoring Data

TABLE 1
Summary of Groundwater Analytical Results - 2017
2017/2018 Annual OM&M Report
Alltift Landfill /Ramco Steel Site

Parameter Name	Units	NYSDEC Class GA Standards	MW-2-100917 10/9/2017	SUMP 1-100917 10/9/2017	SUMP 2-100917 10/9/2017	SUMP 3-100917 10/9/2017	SUMP 4-100917 10/9/2017	FDUP-SUMP 4-100917 10/9/2017	SUMP COMP-100917 10/9/2017
Metals (Dissolved)									
ANTIMONY	**mg/L**	**0.003**	0.006 U	-- --	-- --	-- --	0.006 U	0.006 U	0.006 U
ARSENIC	**mg/L**	**0.025**	0.003 U	-- --	-- --	-- --	**0.0179**	**0.0172**	**0.0511**
CADMIUM	**mg/L**	**0.005**	0.003 U	-- --	-- --	-- --	0.003 U	0.003 U	0.003 U
CHROMIUM	**mg/L**	**0.05**	0.01 U	-- --	-- --	-- --	0.01 U	0.01 U	0.01 U
IRON	**mg/L**	**0.3**	**0.54**	-- --	-- --	-- --	**44.3**	**41.9**	**38.2**
LEAD	**mg/L**	**0.025**	0.003 U	-- --	-- --	-- --	0.003 U	0.003 U	0.003 U
MANGANESE	**mg/L**	**0.3**	**0.0787**	-- --	-- --	-- --	**1.17**	**1.15**	**2.05**
MERCURY	**mg/L**	**0.0007**	0.0002 U	-- --	-- --	-- --	0.0003 U	0.0004 U	0.0004 U
VOCs									
BENZENE	**ug/L**	**1**	1.0 U	**0.70** J	**6.5**	1.0 U	**2.0**	**2.0**	-- --
CHLOROBENZENE	**ug/L**	**5**	1.0 U	**11.4**	**41.8**	**0.91** J	**54.5**	**53.4**	-- --
ETHYLBENZENE	**ug/L**	**5**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-- --
XYLENES, TOTAL	**ug/L**	**5**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-- --
1,2-DICHLOROBENZENE	**ug/L**	**3**	1.0 U	1.0 U	**0.40** J	1.0 U	**0.55** J	**0.56** J	-- --
1,4-DICHLOROBENZENE	**ug/L**	**3**	1.0 U	1.0 U	**0.61** J	1.0 U	1.0 U	**0.46** J	-- --
SVOCs									
4-CHLOROANILINE	**ug/L**	**5**	5.0 U	-- --	-- --	-- --	5.0 U	5.0 U	**1.3** J
NAPHTHALENE	**ug/L**	**10**	1.0 U	-- --	-- --	-- --	1.0 U	1.0 U	1.0 U

Note:
Bold - Detected during Laboratory Analysis
J - Analyte Detected Below Reporting Limit
U - Analyte not detected
-- - Not Analyzed
Shading indicates exceedance of NYSDEC Class GA Standard

Prepared By: GR 04/20/2018
Checked By: RTB 04/20/2018

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA + MIKE STOLT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/09/2017
Page ___ of ___

Well/Sample Number MW2
Start Time 0915 Finish Time 0950
Initial Depth to Water 6.77 Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: PERISTALTIC

Sample ID MW2-100917 Sample Time 0945
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 16.95 Min. Purge Volume (gal)/(L) 4.0 Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
0935	4.0	7.33	.996	18.9	11.73	16.28	108	11.15
0945	COLLECT SAMPLE MW2-100917							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
SB, PB, MN, HG, FE, CR, CO, AS	P	500mL	N	HNO_3		
B8270C[4-CHLOROANILINE + NAPTH]	AG	950mL	N	N/P		
V8260[12DCB, 14DCB, BENZ, EBENZ, CHLOROBENZ, TOTAL XYL]	→	→	→	→	→	→
→	40mL VIAL	40mL	N	HCL		

Remarks: Water is clear with no apparent odor

ch2m:

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERIA + MIKE STOUT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/09/2017
Page ___ of ___

Well/Sample Number Sump 4
Start Time 10:59 Finish Time
Initial Depth to Water 6.29 Measure Point: PVC (Steel Casing) Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: MONSOON

Sample ID Sump 4-100917 Sample Time 11:10
Duplicate Sample ID Sump 4-100917-MS Dupl. Time 11:20
Split Sample ID Sump 4-100917-MSD Split Time 11:25
Sump 4-100917-FDUP 11:15

Depth to Botton (from meas. pt): 17.83 Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: (flow-thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
11:04	2.0	6.91	2.95	44.6	4.66	16.19	-167	6.07
11:10	COLLECT SAMPLE SUMP 4-100917							12.0
11:20	COLLECT SAMPLE SUMP 4-100917-MS							12.0
11:25	COLLECT SAMPLE SUMP 4-100917-MSD							12.0
11:15	COLLECT SAMPLE SUMP 4-100917-FDUP							12.0

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
SB, PB, MN, HG, FE, CR, CD, AS	P500mL	500 mL	N	HNO3		
B8270C[4-CHLOROANILINE + NAPTH]	AG950mL	950mL	N	N/P		
V8260C[12DCB, 14DCB, BENZ, EBENZ, CHLOROBENZ, TOTAL]	40mL VIAL	40mL	N	HCL	X4L	→

Remarks: Water is cloudy w/ brown tint. No distinct odors. Equipment deconed per CH2M standards.

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA + MIKE STOUT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/09/2017
Page ___ of ___

Well/Sample Number Sump 3
Start Time 12:40 Finish Time
Initial Depth to Water 5.94 Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: MONSOON

Sample ID Sump 3 - 100917 Sample Time 12:55
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 17.35 Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged (gallons) liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
12:50	2.0	6.8	3.24	66.0	3.69	16.23	-122	6.67
12:55	COLLECT	SAMPLE	SUMP 3	- 100917				12.0

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
VB260[12DCB, 14DCB, BENZ, EBENZ, CHLOROBENZ, TOTAL XYL] →	40mL VIAL	40 mL	N	HCL		→

Remarks: Water has slight cloudy brown tinge. No distinct odor. Equipment decon'd per CH2M standards.

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA + MIKE STOUT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/09/2017
Page ___ of ___

Well/Sample Number Sump 2
Start Time 13:05
Finish Time
Initial Depth to Water 7.01
Measure Point: PVC (Steel Casing) Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: Monsoon

Sample ID Sump 2-100917
Duplicate Sample ID
Split Sample ID

Sample Time 13:20
Dupl. Time
Split. Time

Depth to Botton (from meas. pt): 24.3
Min. Purge Volume (gal)/(L)
Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: (flow thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
13:15	2.0	7.17	4.35	78	3.92	15.70	-128	7.3
13:20	COLLECT SAMPLE Sump 2 - 100917							12.54

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
V8260 12DCB, 14DCB, BENZ, EBENZ, CHLOROBENZ, TOTAL XYL →	40mL VIAL	40mL	N	HCL		

Remarks: Water has slight yellow tinge. No operable odor. Equipment decon'd per CH2M Standards.

ch2m

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA + MIKE STOLT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/09/2017
Page ___ of ___

Well/Sample Number SUMP 1
Start Time 13:27 Finish Time
Initial Depth to Water 7.7 Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: MONSOON

Sample ID SUMP1-100917 Sample Time 13:35
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 17.05 Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
13:32	2.0	7.47	2.09	329	4.34	15.50	-175	6.95
13:35	COLLECT SAMPLE SUMP 1 -100917							12.5

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
VOCs 1,2 DCB, 1,4 DCB, BENZ, EBENZ, CHLOROBENZ, TOTAL XYL.	40ml VIAL	40mL	N	HCL		

Remarks: Water is cloudy w/ no distinct odor. Equip decon'd per. other standards.

ch2m:

Project Name HONEYWELL - BUFFALO
Job Number 693092
Field Team BETHANY MACERA / MIKE STOUT
Field Conditions

Sampling Event ANNUAL SAMPLING
Date 10/9/2017
Page ___ of ___

Well/Sample Number Sump Comp
Start Time 1340 Finish Time
Initial Depth to Water ___ Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: MONSOON

Sample ID Sump Comp-100917 Sample Time 1340
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): ___ Min. Purge Volume (gal)/(L) Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
1340	COLLECT SUMP COMP-100917							___

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
SB,PB,MN,HG,FE,CR,CD,AS	P 500mL	500mL	N	HNO3		
B82310(4-CHLOROANILINE+NAPTH)	AG 950mL	950mL	N	N/P		

Remarks: Sample taken from composite

e-Hardcopy 2.0
Automated Report

Technical Report for

Honeywell International Inc. OMM work

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

4400045772

SGS Accutest Job Number: JC52828

Sampling Date: 10/09/17

Report to:

AMEC Foster Wheeler
511 Congress Street
Portland, ME 04112
HTS-RES-LAB@Honeywell.com; Ryan.Belcher@amecfw.com

ATTN: Ryan Belcher

Total number of pages in report: **65**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Rocus Peters 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sample Summary

Honeywell International Inc. OMM work

Job No: JC52828

HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Project No: 4400045772

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC52828-1	10/09/17	13:40	BM	10/10/17	AQ	Ground Water	SUMP COMP-100917
JC52828-2	10/09/17	13:35	BM	10/10/17	AQ	Ground Water	SUMP 1-100917
JC52828-3	10/09/17	13:20	BM	10/10/17	AQ	Ground Water	SUMP 2-100917
JC52828-4	10/09/17	12:55	BM	10/10/17	AQ	Ground Water	SUMP 3-100917
JC52828-5	10/09/17	11:10	BM	10/10/17	AQ	Ground Water	SUMP 4-100917
JC52828-5D	10/09/17	11:25	BM	10/10/17	AQ	Water Dup/MSD	SUMP 4-100917-MSD
JC52828-5S	10/09/17	11:20	BM	10/10/17	AQ	Water Matrix Spike	SUMP 4-100917-MS
JC52828-6	10/09/17	09:45	BM	10/10/17	AQ	Ground Water	MW-2-100917
JC52828-7	10/09/17	11:15	BM	10/10/17	AQ	Ground Water	FDUP-SUMP 4 100917
JC52828-8	10/09/17	13:40	BM	10/10/17	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Honeywell International Inc. OMM work	**Job No**	JC52828
Site:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY	**Report Date**	10/27/2017 11:18:09 A

On 10/10/2017, 7 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 0.5 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC52828 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method EPA 624

Matrix: AQ **Batch ID:** VN11181

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC52828-5MS, JC52828-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Chlorobenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for Chlorobenzene are outside control limits for sample JC52828-5MSD. Outside control limits due to matrix interference.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP6914

- All samples were extracted within the recommended method holding time.
- Sample(s) JC52828-5MS, JC52828-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals By Method EPA 200.7

Matrix: AQ **Batch ID:** MP3474

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC52828-5MS, JC52828-5MSD, JC52828-5SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Chromium are outside control limits for sample MP3474-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method EPA 245.1

Matrix: AQ **Batch ID:** MP3716

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC52828-5MS, JC52828-5MSD were used as the QC samples for metals.
- JC52828-7 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC52828-1 for Mercury: Elevated sample detection limit due to difficult sample matrix.
- JC52828-5 for Mercury: Elevated sample detection limit due to difficult sample matrix.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC52828
Account: Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Collected: 10/09/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC52828-1	**SUMP COMP-100917**					
4-Chloroaniline		1.3 J	5.0	0.34	ug/l	SW846 8270D
Arsenic		51.1	3.0		ug/l	EPA 200.7
Iron		38200	100		ug/l	EPA 200.7
Manganese		2050	15		ug/l	EPA 200.7
JC52828-2	**SUMP 1-100917**					
Benzene		0.70 J	1.0	0.23	ug/l	EPA 624
Chlorobenzene		11.4	1.0	0.23	ug/l	EPA 624
JC52828-3	**SUMP 2-100917**					
Benzene		6.5	1.0	0.23	ug/l	EPA 624
Chlorobenzene		41.8	1.0	0.23	ug/l	EPA 624
1,2-Dichlorobenzene		0.40 J	1.0	0.21	ug/l	EPA 624
1,4-Dichlorobenzene		0.61 J	1.0	0.24	ug/l	EPA 624
JC52828-4	**SUMP 3-100917**					
Chlorobenzene		0.91 J	1.0	0.23	ug/l	EPA 624
JC52828-5	**SUMP 4-100917**					
Benzene		2.0	1.0	0.23	ug/l	EPA 624
Chlorobenzene		54.5	1.0	0.23	ug/l	EPA 624
1,2-Dichlorobenzene		0.55 J	1.0	0.21	ug/l	EPA 624
Arsenic		17.9	3.0		ug/l	EPA 200.7
Iron		44300	100		ug/l	EPA 200.7
Manganese		1170	15		ug/l	EPA 200.7
JC52828-6	**MW-2-100917**					
Iron		540	100		ug/l	EPA 200.7
Manganese		78.7	15		ug/l	EPA 200.7
JC52828-7	**FDUP-SUMP 4 100917**					
Benzene		2.0	1.0	0.23	ug/l	EPA 624
Chlorobenzene		53.4	1.0	0.23	ug/l	EPA 624
1,2-Dichlorobenzene		0.56 J	1.0	0.21	ug/l	EPA 624
1,4-Dichlorobenzene		0.46 J	1.0	0.24	ug/l	EPA 624
Arsenic		17.2	3.0		ug/l	EPA 200.7
Iron		41900	100		ug/l	EPA 200.7

Summary of Hits

Job Number: JC52828
Account: Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY
Collected: 10/09/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Manganese		1150	15		ug/l	EPA 200.7

JC52828-8 **TRIP BLANK**

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SUMP COMP-100917		
Lab Sample ID:	JC52828-1	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P117935.D	1	10/26/17 17:40	RL	10/15/17 09:30	OP6914	EP5286
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	1.3	5.0	0.34	ug/l	J
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		34-128%
321-60-8	2-Fluorobiphenyl	70%		38-119%
1718-51-0	Terphenyl-d14	74%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP COMP-100917		
Lab Sample ID:	JC52828-1	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	51.1	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	< 10	10	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Iron	38200	100	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Lead	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	2050	15	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Mercury [a]	< 0.40	0.40	ug/l	1	10/24/17	10/24/17	JPM	EPA 245.1 [2]	EPA 245.1 [4]

(1) Instrument QC Batch: MA43004
(2) Instrument QC Batch: MA43070
(3) Prep QC Batch: MP3474
(4) Prep QC Batch: MP3716

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SUMP 1-100917		
Lab Sample ID:	JC52828-2	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265283.D	1	10/13/17 19:10	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.70	1.0	0.23	ug/l	J
108-90-7	Chlorobenzene	11.4	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	113%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	92%		80-120%
1868-53-7	Dibromofluoromethane (S)	100%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP 2-100917		
Lab Sample ID:	JC52828-3	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265284.D	1	10/13/17 19:40	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	6.5	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	41.8	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.40	1.0	0.21	ug/l	J
106-46-7	1,4-Dichlorobenzene	0.61	1.0	0.24	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	114%		76-122%
2037-26-5	Toluene-D8 (SUR)	98%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	91%		80-120%
1868-53-7	Dibromofluoromethane (S)	104%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP 3-100917		
Lab Sample ID:	JC52828-4	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265285.D	1	10/13/17 20:09	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	0.91	1.0	0.23	ug/l	J
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	113%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	93%		80-120%
1868-53-7	Dibromofluoromethane (S)	104%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP 4-100917		
Lab Sample ID:	JC52828-5	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265282.D	1	10/13/17 18:41	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.0	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	54.5	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.55	1.0	0.21	ug/l	J
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	110%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	92%		80-120%
1868-53-7	Dibromofluoromethane (S)	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP 4-100917		
Lab Sample ID:	JC52828-5	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P117826.D	1	10/23/17 11:05	RL	10/15/17 09:30	OP6914	EP5281
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		34-128%
321-60-8	2-Fluorobiphenyl	77%		38-119%
1718-51-0	Terphenyl-d14	82%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SUMP 4-100917		
Lab Sample ID:	JC52828-5	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	17.9	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	< 10	10	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Iron	44300	100	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Lead	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	1170	15	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Mercury [a]	< 0.30	0.30	ug/l	1	10/24/17	10/24/17	JPM	EPA 245.1 [2]	EPA 245.1 [4]

(1) Instrument QC Batch: MA43004
(2) Instrument QC Batch: MA43070
(3) Prep QC Batch: MP3474
(4) Prep QC Batch: MP3716

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2-100917		
Lab Sample ID:	JC52828-6	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265286.D	1	10/13/17 20:38	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	114%		76-122%
2037-26-5	Toluene-D8 (SUR)	99%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	89%		80-120%
1868-53-7	Dibromofluoromethane (S)	106%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-2-100917
Lab Sample ID: JC52828-6 **Date Sampled:** 10/09/17
Matrix: AQ - Ground Water **Date Received:** 10/10/17
Method: SW846 8270D SW846 3510C **Percent Solids:** n/a
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P117934.D	1	10/26/17 17:12	RL	10/15/17 09:30	OP6914	EP5286
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	62%		34-128%
321-60-8	2-Fluorobiphenyl	74%		38-119%
1718-51-0	Terphenyl-d14	89%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2-100917		
Lab Sample ID:	JC52828-6	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	< 10	10	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Iron	540	100	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Lead	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	78.7	15	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Mercury	< 0.20	0.20	ug/l	1	10/24/17	10/24/17	JPM	EPA 245.1 [2]	EPA 245.1 [4]

(1) Instrument QC Batch: MA43004
(2) Instrument QC Batch: MA43070
(3) Prep QC Batch: MP3474
(4) Prep QC Batch: MP3716

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FDUP-SUMP 4 100917		
Lab Sample ID:	JC52828-7	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265287.D	1	10/13/17 21:08	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.0	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	53.4	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	0.56	1.0	0.21	ug/l	J
106-46-7	1,4-Dichlorobenzene	0.46	1.0	0.24	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	113%		76-122%
2037-26-5	Toluene-D8 (SUR)	97%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	89%		80-120%
1868-53-7	Dibromofluoromethane (S)	104%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FDUP-SUMP 4 100917		
Lab Sample ID:	JC52828-7	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P117933.D	1	10/26/17 16:44	RL	10/15/17 09:30	OP6914	EP5286
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		34-128%
321-60-8	2-Fluorobiphenyl	78%		38-119%
1718-51-0	Terphenyl-d14	90%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FDUP-SUMP 4 100917		
Lab Sample ID:	JC52828-7	**Date Sampled:**	10/09/17
Matrix:	AQ - Ground Water	**Date Received:**	10/10/17
		Percent Solids:	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Arsenic	17.2	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Cadmium	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Chromium	< 10	10	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Iron	41900	100	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Lead	< 3.0	3.0	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Manganese	1150	15	ug/l	1	10/13/17	10/13/17	ND	EPA 200.7 [1]	EPA 200.7 [3]
Mercury [a]	< 0.40	0.40	ug/l	1	10/24/17	10/24/17	JPM	EPA 245.1 [2]	EPA 245.1 [4]

(1) Instrument QC Batch: MA43004
(2) Instrument QC Batch: MA43070
(3) Prep QC Batch: MP3474
(4) Prep QC Batch: MP3716

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JC52828-8	**Date Sampled:**	10/09/17
Matrix:	AQ - Trip Blank Water	**Date Received:**	10/10/17
Method:	EPA 624	**Percent Solids:**	n/a
Project:	HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N265279.D	1	10/13/17 17:13	CSF	n/a	n/a	VN11181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	108%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	92%		80-120%
1868-53-7	Dibromofluoromethane (S)	101%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GW WTB

CHAIN OF CUSTODY

SGS ACCUTEST

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www.accutest.com

4077 3091 5288
4077 3091 5255

PAGE ___ OF ___

FED-EX Tracking #: HWINJOMM73609
Bottle Order Control #:
SGS Accutest Quote #:
SGS Accutest Job #: JC52828

Client / Reporting Information

Company Name: Honeywell International Inc
Street Address: 1563 Willis Ave 13204
City: Syracuse, New York 13204
State / Zip:
Project Contact: John Formoza
E-mail: John.formoza@ch2m.com
Phone #: 315-532-5608
Fax #:
Sampler(s) Name(s): Bethany Macera
Phone #:

Project Information

Project Name: 30130 - Alltift OM Phase/ Annual
Street: 579 Tifft Street
City: Buffalo
State: New York
Zip: 14220
Project #: R35116 - Honeywell OM&M Program
Client Purchase Order #: 4400045772
Project Manager: Chuck Geadelmann

Billing Information (if different from Report to)

Company Name: Honeywell International Inc
Street Address: 115 Tabor Road
City: Morris Plains
State: NJ
Zip: 07950
Attention: HTS-RES-LAB@Honeywell.com

Requested Analysis (see TEST CODE sheet)

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	EPA 200.7 MTAL - As, Cd, Cr, Fe, Pb, Mn, Sb, 7470- HG	B625TCL - Priority Pollutant List SVOC 8270 (4-chloroaniline and napthalene)	V624 PPL - EPA 624 -VOA 8260 - 1,2-dichlorobenzene, 1,4 - dichlorobenzene, benzene, chlorobenzene, total xylene, ethylbenzene	LAB USE ONLY
1	Sump Comp - 100917		10/9/17	1340	BM	GW	3			1		2				1	2		B20
2	Sump 1 - 100917		10/9/17	1335	BM	GW	3	3										3	A39
3	Sump 2 - 100917		10/9/17	1320	BM	GW	3	3										3	V118
4	Sump 3 - 100917		10/9/17	1255	BM	GW	3	3										3	
5	Sump 4 - 100917		10/9/17	11:10	BM	GW	6	3		1		2				1	2	3	
6	MW2 - 100917		10/9/17	0945	BM	GW	6	3		1		2				1	2	3	
7	FDUP - Sump 4 100917		10/9/17	11:15	BM	GW	6	3		1		2				1	2	3	
8	Trip Blank		8/9/17	6:30		TB	2	2										2	
9	Sump 4 100917 - MS		10/9/17	11:20	BM	GW	6	3		1		2				1	2	3	
10	Sump 4 100917 - MSD		10/9/17	11:25	BM	GW	6	3		1		2				1	2	3	

INITIAL ASESSMENT
LABEL VERIFICATION

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank EB-Equipment Blank RB-Rinse Blank TB-Trip Blank

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Bethany Macera	10/09/17 1615	1	10/9/17 16:15	2	10/9/17 17:50
3		10/10/17 945	3	4		4
5			5			

Custody Seal # CLIENT SEAL # 754 — [ ] Intact [ ] Not intact — Preserved where applicable — On Ice — Cooler Temp. 2.1 1.9

SGS Accutest Sample Receipt Summary

Job Number: JC52828 **Client:** _____ **Project:** _____

Date / Time Received: 10/10/2017 9:45:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1); Cooler 2: (1.9);

Cooler Temps (Corrected) °C: Cooler 1: (0.5); Cooler 2: (0.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC52828: Chain of Custody
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MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11181-MB	N265266.D	1	10/13/17	CSF	n/a	n/a	VN11181

The QC reported here applies to the following samples: **Method:** EPA 624

JC52828-2, JC52828-3, JC52828-4, JC52828-5, JC52828-6, JC52828-7, JC52828-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.23	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.21	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.21	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	112%	76-122%
2037-26-5	Toluene-D8 (SUR)	99%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	93%	80-120%
1868-53-7	Dibromofluoromethane (S)	101%	80-120%

Blank Spike Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN11181-BS	N265267.D	1	10/13/17	CSF	n/a	n/a	VN11181

The QC reported here applies to the following samples: **Method:** EPA 624

JC52828-2, JC52828-3, JC52828-4, JC52828-5, JC52828-6, JC52828-7, JC52828-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.5	93	78-118
108-90-7	Chlorobenzene	20	18.0	90	78-116
95-50-1	1,2-Dichlorobenzene	20	19.0	95	76-115
106-46-7	1,4-Dichlorobenzene	20	19.2	96	75-113
100-41-4	Ethylbenzene	20	19.0	95	76-118
1330-20-7	Xylenes (total)	60	56.9	95	76-120

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	110%	76-122%
2037-26-5	Toluene-D8 (SUR)	97%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	93%	80-120%
1868-53-7	Dibromofluoromethane (S)	100%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC52828-5MS	N265275.D	1	10/13/17	CSF	n/a	n/a	VN11181
JC52828-5MSD	N265276.D	1	10/13/17	CSF	n/a	n/a	VN11181
JC52828-5	N265282.D	1	10/13/17	CSF	n/a	n/a	VN11181

The QC reported here applies to the following samples: **Method:** EPA 624

JC52828-2, JC52828-3, JC52828-4, JC52828-5, JC52828-6, JC52828-7, JC52828-8

CAS No.	Compound	JC52828-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.0		20	21.2	96	20	22.0	100	4	59-136/13
108-90-7	Chlorobenzene	54.5		20	63.9	47* [a]	20	72.9	92	13* [b]	69-128/11
95-50-1	1,2-Dichlorobenzene	0.55	J	20	19.7	96	20	20.2	98	3	69-123/11
106-46-7	1,4-Dichlorobenzene	ND		20	19.5	98	20	20.0	100	3	69-121/10
100-41-4	Ethylbenzene	ND		20	20.2	101	20	20.6	103	2	65-130/13
1330-20-7	Xylenes (total)	ND		60	59.8	100	60	60.5	101	1	66-131/12

CAS No.	Surrogate Recoveries	MS	MSD	JC52828-5	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	104%	104%	110%	76-122%
2037-26-5	Toluene-D8 (SUR)	98%	99%	96%	80-120%
460-00-4	4-Bromofluorobenzene (SUR)	96%	95%	92%	80-120%
1868-53-7	Dibromofluoromethane (S)	99%	101%	103%	80-120%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: VN11174-BFB
Lab File ID: N265096.D
Instrument ID: GCMSN
Injection Date: 10/05/17
Injection Time: 20:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11317	18.3		Pass
75	30.0 - 60.0% of mass 95	30546	49.4		Pass
95	Base peak, 100% relative abundance	61776	100.0		Pass
96	5.0 - 9.0% of mass 95	4018	6.50		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	45760	74.1		Pass
175	5.0 - 9.0% of mass 174	3631	5.88	(7.93) [a]	Pass
176	95.0 - 101.0% of mass 174	43957	71.2	(96.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3059	4.95	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN11174-IC11174	N265097.D	10/05/17	21:28	00:41	Initial cal 0.5
VN11174-IC11174	N265098.D	10/05/17	21:57	01:10	Initial cal 1
VN11174-IC11174	N265099.D	10/05/17	22:27	01:40	Initial cal 0.2
VN11174-IC11174	N265100.D	10/05/17	22:56	02:09	Initial cal 2
VN11174-IC11174	N265101.D	10/05/17	23:26	02:39	Initial cal 5
VN11174-ICC11174	N265102.D	10/05/17	23:55	03:08	Initial cal 20
VN11174-IC11174	N265103.D	10/06/17	00:24	03:37	Initial cal 50
VN11174-IC11174	N265104.D	10/06/17	00:54	04:07	Initial cal 100
VN11174-IC11174	N265105.D	10/06/17	01:23	04:36	Initial cal 200
VN11174-ICV11174	N265108.D	10/06/17	02:51	06:04	Initial cal verification 20
VN11174-ICV11174	N265109.D	10/06/17	03:20	06:33	Initial cal verification 20

Instrument Performance Check (BFB)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	VN11181-BFB	**Injection Date:**	10/13/17
Lab File ID:	N265264.D	**Injection Time:**	07:30
Instrument ID:	GCMSN		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	13016	19.1		Pass
75	30.0 - 60.0% of mass 95	35931	52.6		Pass
95	Base peak, 100% relative abundance	68272	100.0		Pass
96	5.0 - 9.0% of mass 95	4952	7.25		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	52637	77.1		Pass
175	5.0 - 9.0% of mass 174	4128	6.05	(7.84) [a]	Pass
176	95.0 - 101.0% of mass 174	52104	76.3	(99.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3468	5.08	(6.66) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN11181-CC11174	N265265.D	10/13/17	07:59	00:29	Continuing cal 20
VN11181-MB	N265266.D	10/13/17	08:46	01:16	Method Blank
VN11181-BS	N265267.D	10/13/17	09:32	02:02	Blank Spike
ZZZZZZ	N265269.D	10/13/17	11:23	03:53	(unrelated sample)
ZZZZZZ	N265270.D	10/13/17	12:14	04:44	(unrelated sample)
ZZZZZZ	N265272R.D	10/13/17	13:48	06:18	(unrelated sample)
ZZZZZZ	N265272.D	10/13/17	13:48	06:18	(unrelated sample)
ZZZZZZ	N265273R.D	10/13/17	14:17	06:47	(unrelated sample)
ZZZZZZ	N265273.D	10/13/17	14:17	06:47	(unrelated sample)
ZZZZZZ	N265274.D	10/13/17	14:46	07:16	(unrelated sample)
JC52828-5MS	N265275.D	10/13/17	15:16	07:46	Matrix Spike
JC52828-5MSD	N265276.D	10/13/17	15:45	08:15	Matrix Spike Duplicate
ZZZZZZ	N265278.D	10/13/17	16:44	09:14	(unrelated sample)
ZZZZZZ	N265278R.D	10/13/17	16:44	09:14	(unrelated sample)
JC52828-8	N265279.D	10/13/17	17:13	09:43	TRIP BLANK
ZZZZZZ	N265280.D	10/13/17	17:43	10:13	(unrelated sample)
ZZZZZZ	N265281.D	10/13/17	18:12	10:42	(unrelated sample)
JC52828-5	N265282.D	10/13/17	18:41	11:11	SUMP 4-100917
JC52828-2	N265283.D	10/13/17	19:10	11:40	SUMP 1-100917
JC52828-3	N265284.D	10/13/17	19:40	12:10	SUMP 2-100917
JC52828-4	N265285.D	10/13/17	20:09	12:39	SUMP 3-100917
JC52828-6	N265286.D	10/13/17	20:38	13:08	MW-2-100917
JC52828-7	N265287.D	10/13/17	21:08	13:38	FDUP-SUMP 4 100917
ZZZZZZ	N265288.D	10/13/17	21:37	14:07	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	VN11181-BFB	**Injection Date:**	10/13/17
Lab File ID:	N265264.D	**Injection Time:**	07:30
Instrument ID:	GCMSN		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	N265289.D	10/13/17	22:07	14:37	(unrelated sample)
ZZZZZZ	N265290.D	10/13/17	22:36	15:06	(unrelated sample)
ZZZZZZ	N265291.D	10/13/17	23:05	15:35	(unrelated sample)

Surrogate Recovery Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Method: EPA 624 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC52828-2	N265283.D	113	96	92	100
JC52828-3	N265284.D	114	98	91	104
JC52828-4	N265285.D	113	96	93	104
JC52828-5	N265282.D	110	96	92	103
JC52828-6	N265286.D	114	99	89	106
JC52828-7	N265287.D	113	97	89	104
JC52828-8	N265279.D	108	96	92	101
JC52828-5MS	N265275.D	104	98	96	99
JC52828-5MSD	N265276.D	104	99	95	101
VN11181-BS	N265267.D	110	97	93	100
VN11181-MB	N265266.D	112	99	93	101

Surrogate Compounds	Recovery Limits
S1 = 1,2-Dichloroethane-D4 (SUR)	76-122%
S2 = Toluene-D8 (SUR)	80-120%
S3 = 4-Bromofluorobenzene (SUR)	80-120%
S4 = Dibromofluoromethane (S)	80-120%

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6914-MB1	P117638.D	1	10/17/17	RL	10/15/17	OP6914	EP5269

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC52828-1, JC52828-5, JC52828-6, JC52828-7

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	45%	10-110%
4165-62-2	Phenol-d5	35%	10-110%
118-79-6	2,4,6-Tribromophenol	71%	36-151%
4165-60-0	Nitrobenzene-d5	69%	34-128%
321-60-8	2-Fluorobiphenyl	73%	38-119%
1718-51-0	Terphenyl-d14	85%	26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.27	4.3	ug/l	J
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6914-MB1	M140628.D	1	10/27/17	CS	10/15/17	OP6914	EM5963

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC52828-1, JC52828-5, JC52828-6, JC52828-7

CAS No.	Compound	Result	RL	MDL	Units	Q
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	10-110%
4165-62-2	Phenol-d5	25%	10-110%
118-79-6	2,4,6-Tribromophenol	65%	36-151%
4165-60-0	Nitrobenzene-d5	72%	34-128%
321-60-8	2-Fluorobiphenyl	68%	38-119%
1718-51-0	Terphenyl-d14	82%	26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Internal standard added for SIM te	4.88	4.1	ug/l	J
	Internal standard added for SIM te	13.19	4	ug/l	J
	Internal standard added for SIM te	18.54	4.5	ug/l	J
	Total TIC, Semi-Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6914-BS1	P117639.D	1	10/17/17	RL	10/15/17	OP6914	EP5269
OP6914-BSD	P117640.D	1	10/17/17	RL	10/15/17	OP6914	EP5269

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC52828-1, JC52828-5, JC52828-6, JC52828-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-47-8	4-Chloroaniline	50	27.5	55	25.1	50	9	17-87/39
91-20-3	Naphthalene	50	28.7	57	28.8	58	0	29-110/23

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	51%	54%	10-110%
4165-62-2	Phenol-d5	37%	39%	10-110%
118-79-6	2,4,6-Tribromophenol	73%	75%	36-151%
4165-60-0	Nitrobenzene-d5	63%	60%	34-128%
321-60-8	2-Fluorobiphenyl	67%	64%	38-119%
1718-51-0	Terphenyl-d14	92%	90%	26-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6914-MS	P117655.D	1	10/17/17	RL	10/15/17	OP6914	EP5269
OP6914-MSD	P117656.D	1	10/17/17	RL	10/15/17	OP6914	EP5269
JC52828-5	P117826.D	1	10/23/17	RL	10/15/17	OP6914	EP5281

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC52828-1, JC52828-5, JC52828-6, JC52828-7

CAS No.	Compound	JC52828-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-47-8	4-Chloroaniline	ND		100	29.3	29	100	39.2	39	29	10-110/49
91-20-3	Naphthalene	ND		100	66.0	66	100	63.0	63	5	24-119/33

CAS No.	Surrogate Recoveries	MS	MSD	JC52828-5	Limits
367-12-4	2-Fluorophenol	67%	61%		10-110%
4165-62-2	Phenol-d5	65%	58%		10-110%
118-79-6	2,4,6-Tribromophenol	82%	76%		36-151%
4165-60-0	Nitrobenzene-d5	66%	62%	64%	34-128%
321-60-8	2-Fluorobiphenyl	74%	73%	77%	38-119%
1718-51-0	Terphenyl-d14	100%	96%	82%	26-129%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EM5938-DFTPP
Lab File ID: M140034.D
Instrument ID: GCMSM
Injection Date: 10/11/17
Injection Time: 23:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	35935	31.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	44170	39.2		Pass
70	Less than 2.0% of mass 69	338	0.30	(0.77) [a]	Pass
127	40.0 - 60.0% of mass 198	53370	47.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	112674	100.0		Pass
199	5.0 - 9.0% of mass 198	7809	6.93		Pass
275	10.0 - 30.0% of mass 198	28882	25.6		Pass
365	1.0 - 100.0% of mass 198	3685	3.27		Pass
441	Present, but less than mass 443	13012	11.5	(85.3) [b]	Pass
442	40.0 - 100.0% of mass 198	79023	70.1		Pass
443	17.0 - 23.0% of mass 442	15257	13.5	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM5938-IC5938	M140035.D	10/11/17	23:28	00:28	Initial cal 100
EM5938-IC5938	M140036.D	10/12/17	00:05	01:05	Initial cal 80
EM5938-ICC5938	M140037.D	10/12/17	00:34	01:34	Initial cal 50
EM5938-IC5938	M140038.D	10/12/17	01:04	02:04	Initial cal 25
EM5938-IC5938	M140039.D	10/12/17	01:33	02:33	Initial cal 10
EM5938-IC5938	M140040.D	10/12/17	02:02	03:02	Initial cal 5
EM5938-IC5938	M140041.D	10/12/17	02:32	03:32	Initial cal 2
EM5938-IC5938	M140042.D	10/12/17	03:01	04:01	Initial cal 1

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EM5939-DFTPP
Lab File ID: M140044.D
Instrument ID: GCMSM
Injection Date: 10/12/17
Injection Time: 03:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	38965	30.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	47653	36.9		Pass
70	Less than 2.0% of mass 69	206	0.16	(0.43) [a]	Pass
127	40.0 - 60.0% of mass 198	59984	46.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	129093	100.0		Pass
199	5.0 - 9.0% of mass 198	8397	6.50		Pass
275	10.0 - 30.0% of mass 198	31930	24.7		Pass
365	1.0 - 100.0% of mass 198	4343	3.36		Pass
441	Present, but less than mass 443	14030	10.9	(79.0) [b]	Pass
442	40.0 - 100.0% of mass 198	91429	70.8		Pass
443	17.0 - 23.0% of mass 442	17764	13.8	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM5939-IC5939	M140045.D	10/12/17	03:54	00:15	Initial cal 100
EM5939-IC5939	M140046.D	10/12/17	04:24	00:45	Initial cal 80
EM5939-ICC5939	M140047.D	10/12/17	04:53	01:14	Initial cal 50
EM5939-IC5939	M140048.D	10/12/17	05:22	01:43	Initial cal 25
EM5939-IC5939	M140049.D	10/12/17	05:52	02:13	Initial cal 10
EM5939-IC5939	M140050.D	10/12/17	06:21	02:42	Initial cal 5
EM5939-IC5939	M140051.D	10/12/17	06:50	03:11	Initial cal 2
EM5939-IC5939	M140052.D	10/12/17	07:20	03:41	Initial cal 1
EM5939-ICV5938	M140053.D	10/12/17	07:49	04:10	Initial cal verification 50
EM5939-ICV5939	M140053A.D	10/12/17	07:49	04:10	Initial cal verification 50
EM5939-ICV5938	M140054.D	10/12/17	08:19	04:40	Initial cal verification 50
EM5939-ICV5939	M140055.D	10/12/17	08:48	05:09	Initial cal verification 50
EM5939-ICV5939	M140056.D	10/12/17	09:18	05:39	Initial cal verification 50
EM5939-ICV5939	M140057.D	10/12/17	09:47	06:08	Initial cal verification 50
EM5939-ICV5939	M140058.D	10/12/17	10:26	06:47	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EM5963-DFTPP
Lab File ID: M140624.D
Instrument ID: GCMSM
Injection Date: 10/27/17
Injection Time: 00:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	41517	38.2		Pass
68	Less than 2.0% of mass 69	243	0.22	(0.52) [a]	Pass
69	Mass 69 relative abundance	47003	43.3		Pass
70	Less than 2.0% of mass 69	190	0.18	(0.40) [a]	Pass
127	40.0 - 60.0% of mass 198	56466	52.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	108552	100.0		Pass
199	5.0 - 9.0% of mass 198	7287	6.71		Pass
275	10.0 - 30.0% of mass 198	25918	23.9		Pass
365	1.0 - 100.0% of mass 198	4343	4.00		Pass
441	Present, but less than mass 443	11583	10.7	(74.3) [b]	Pass
442	40.0 - 100.0% of mass 198	74758	68.9		Pass
443	17.0 - 23.0% of mass 442	15598	14.4	(20.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM5963-CC5938	M140625.D	10/27/17	00:42	00:25	Continuing cal 50
EM5963-CC5939	M140626.D	10/27/17	01:11	00:54	Continuing cal 50
OP6987-MB1	M140627.D	10/27/17	01:43	01:26	Method Blank
OP6914-MB1	M140628.D	10/27/17	02:20	02:03	Method Blank
OP6886A-MB1	M140629.D	10/27/17	02:49	02:32	Method Blank
ZZZZZZ	M140631.D	10/27/17	03:47	03:30	(unrelated sample)
ZZZZZZ	M140632.D	10/27/17	04:15	03:58	(unrelated sample)
ZZZZZZ	M140633.D	10/27/17	04:44	04:27	(unrelated sample)
OP6987-MS	M140634.D	10/27/17	05:13	04:56	Matrix Spike
OP6987-MSD	M140635.D	10/27/17	05:42	05:25	Matrix Spike Duplicate
JC53099-16	M140636.D	10/27/17	06:11	05:54	(used for QC only; not part of job JC52828)
ZZZZZZ	M140637.D	10/27/17	06:40	06:23	(unrelated sample)
ZZZZZZ	M140638.D	10/27/17	07:09	06:52	(unrelated sample)
ZZZZZZ	M140639.D	10/27/17	07:38	07:21	(unrelated sample)
ZZZZZZ	M140640.D	10/27/17	08:07	07:50	(unrelated sample)
ZZZZZZ	M140641.D	10/27/17	08:36	08:19	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EP5250-DFTPP
Lab File ID: P117227.D
Instrument ID: GCMSP
Injection Date: 10/02/17
Injection Time: 10:56

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	55424	35.7		Pass
68	Less than 2.0% of mass 69	553	0.36	(0.61) [a]	Pass
69	Mass 69 relative abundance	90268	58.2		Pass
70	Less than 2.0% of mass 69	390	0.25	(0.43) [a]	Pass
127	40.0 - 60.0% of mass 198	84693	54.6		Pass
197	Less than 1.0% of mass 198	853	0.55		Pass
198	Base peak, 100% relative abundance	155088	100.0		Pass
199	5.0 - 9.0% of mass 198	11348	7.32		Pass
275	10.0 - 30.0% of mass 198	43205	27.9		Pass
365	1.0 - 100.0% of mass 198	7740	4.99		Pass
441	Present, but less than mass 443	14691	9.47	(77.2) [b]	Pass
442	40.0 - 100.0% of mass 198	101285	65.3		Pass
443	17.0 - 23.0% of mass 442	19042	12.3	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5250-IC5250	P117228.D	10/02/17	11:11	00:15	Initial cal 1
EP5250-IC5250	P117229.D	10/02/17	11:39	00:43	Initial cal 2
EP5250-IC5250	P117230.D	10/02/17	12:07	01:11	Initial cal 5
EP5250-IC5250	P117231.D	10/02/17	12:35	01:39	Initial cal 10
EP5250-IC5250	P117232.D	10/02/17	13:03	02:07	Initial cal 25
EP5250-ICC5250	P117233.D	10/02/17	13:32	02:36	Initial cal 50
EP5250-IC5250	P117234.D	10/02/17	14:00	03:04	Initial cal 80
EP5250-IC5250	P117235.D	10/02/17	14:28	03:32	Initial cal 100
EP5250-ICV5250	P117236.D	10/02/17	14:56	04:00	Initial cal verification 50
EP5250-ICV5250	P117237.D	10/02/17	15:25	04:29	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EP5252-DFTPP
Lab File ID: P117252.D
Instrument ID: GCMSP
Injection Date: 10/03/17
Injection Time: 09:29

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	48126	33.1		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	86882	59.7		Pass
70	Less than 2.0% of mass 69	159	0.11	(0.18) [a]	Pass
127	40.0 - 60.0% of mass 198	73509	50.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	145605	100.0		Pass
199	5.0 - 9.0% of mass 198	10300	7.07		Pass
275	10.0 - 30.0% of mass 198	34439	23.7		Pass
365	1.0 - 100.0% of mass 198	5254	3.61		Pass
441	Present, but less than mass 443	12381	8.50	(83.2) [b]	Pass
442	40.0 - 100.0% of mass 198	79858	54.8		Pass
443	17.0 - 23.0% of mass 442	14876	10.2	(18.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5252-IC5252	P117253.D	10/03/17	09:48	00:19	Initial cal 100
EP5252-IC5252	P117254.D	10/03/17	10:16	00:47	Initial cal 80
EP5252-ICC5252	P117255.D	10/03/17	10:43	01:14	Initial cal 50
EP5252-IC5252	P117256.D	10/03/17	11:11	01:42	Initial cal 25
EP5252-IC5252	P117257.D	10/03/17	11:40	02:11	Initial cal 10
EP5252-IC5252	P117258.D	10/03/17	12:08	02:39	Initial cal 5
EP5252-IC5252	P117259A.D	10/03/17	13:04	03:35	Initial cal 2
EP5252-IC5252	P117260.D	10/03/17	13:32	04:03	Initial cal 1
EP5252-ICV5252	P117262.D	10/03/17	14:29	05:00	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EP5269-DFTPP
Lab File ID: P117634.D
Instrument ID: GCMSP
Injection Date: 10/17/17
Injection Time: 09:25

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	42802	36.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	75947	64.6		Pass
70	Less than 2.0% of mass 69	397	0.34	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	64607	54.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	117629	100.0		Pass
199	5.0 - 9.0% of mass 198	7935	6.75		Pass
275	10.0 - 30.0% of mass 198	29190	24.8		Pass
365	1.0 - 100.0% of mass 198	4056	3.45		Pass
441	Present, but less than mass 443	11722	9.97	(74.3) [b]	Pass
442	40.0 - 100.0% of mass 198	75326	64.0		Pass
443	17.0 - 23.0% of mass 442	15779	13.4	(20.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5269-CC5250	P117635.D	10/17/17	10:14	00:49	Continuing cal 50
EP5269-CC5252	P117636.D	10/17/17	10:42	01:17	Continuing cal 50
OP6914-MB1	P117638.D	10/17/17	11:44	02:19	Method Blank
OP6914-BS1	P117639.D	10/17/17	12:12	02:47	Blank Spike
OP6914-BSD	P117640.D	10/17/17	12:40	03:15	Blank Spike Duplicate
OP6972-MB1	P117641.D	10/17/17	13:08	03:43	Method Blank
OP6909A-MB1	P117641.D	10/17/17	13:08	03:43	Method Blank
OP6909A-BS1	P117642.D	10/17/17	13:36	04:11	Blank Spike
OP6909A-LB15	P117643.D	10/17/17	14:04	04:39	Leachate Blank
OP6972-LB15	P117643.D	10/17/17	14:04	04:39	Leachate Blank
JC52667-1R	P117646.D	10/17/17	15:29	06:04	(used for QC only; not part of job JC52828)
OP6907-MS	P117647.D	10/17/17	15:57	06:32	Matrix Spike
OP6909A-LS3	P117653.D	10/17/17	17:50	08:25	Leachate Spike
OP6909A-MS	P117653.D	10/17/17	17:50	08:25	Matrix Spike
OP6909A-MSD	P117654.D	10/17/17	18:19	08:54	Matrix Spike Duplicate
OP6907-MSD	P117648A.D	10/17/17	18:47	09:22	Matrix Spike Duplicate
OP6914-MS	P117655.D	10/17/17	19:15	09:50	Matrix Spike
OP6914-MSD	P117656.D	10/17/17	19:43	10:18	Matrix Spike Duplicate
ZZZZZZ	P117657.D	10/17/17	20:11	10:46	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	EP5269-DFTPP	**Injection Date:**	10/17/17
Lab File ID:	P117634.D	**Injection Time:**	09:25
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	P117658.D	10/17/17	20:40	11:15	(unrelated sample)
ZZZZZZ	P117659.D	10/17/17	21:08	11:43	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EP5270-DFTPP
Lab File ID: P117661.D
Instrument ID: GCMSP
Injection Date: 10/18/17
Injection Time: 00:34

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	35479	37.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	59794	62.9		Pass
70	Less than 2.0% of mass 69	134	0.14	(0.22) [a]	Pass
127	40.0 - 60.0% of mass 198	51776	54.5		Pass
197	Less than 1.0% of mass 198	501	0.53		Pass
198	Base peak, 100% relative abundance	95037	100.0		Pass
199	5.0 - 9.0% of mass 198	6983	7.35		Pass
275	10.0 - 30.0% of mass 198	22760	23.9		Pass
365	1.0 - 100.0% of mass 198	3305	3.48		Pass
441	Present, but less than mass 443	8680	9.13	(77.1) [b]	Pass
442	40.0 - 100.0% of mass 198	57009	60.0		Pass
443	17.0 - 23.0% of mass 442	11259	11.8	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5270-IC5270	P117662.D	10/18/17	00:56	00:22	Initial cal 100
EP5270-IC5270	P117663.D	10/18/17	01:26	00:52	Initial cal 80
EP5270-ICC5270	P117664.D	10/18/17	01:54	01:20	Initial cal 50
EP5270-IC5270	P117665.D	10/18/17	02:22	01:48	Initial cal 25
EP5270-IC5270	P117667.D	10/18/17	03:18	02:44	Initial cal 5
EP5270-IC5270	P117668.D	10/18/17	03:46	03:12	Initial cal 2
EP5270-IC5270	P117669.D	10/18/17	04:13	03:39	Initial cal 1
EP5270-IC5270	P117666B.D	10/18/17	05:09	04:35	Initial cal 10
EP5270-ICV5270	P117670.D	10/18/17	05:37	05:03	Initial cal verification 50
EP5270-ICV5270	P117671.D	10/18/17	06:05	05:31	Initial cal verification 50
EP5270-ICV5270	P117672.D	10/18/17	06:33	05:59	Initial cal verification 50
EP5270-ICV5270	P117673.D	10/18/17	07:01	06:27	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample: EP5281-DFTPP
Lab File ID: P117822.D
Instrument ID: GCMSP
Injection Date: 10/23/17
Injection Time: 09:07

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	37051	33.4		Pass
68	Less than 2.0% of mass 69	938	0.85	(1.41) [a]	Pass
69	Mass 69 relative abundance	66566	60.0		Pass
70	Less than 2.0% of mass 69	570	0.51	(0.86) [a]	Pass
127	40.0 - 60.0% of mass 198	60002	54.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	110856	100.0		Pass
199	5.0 - 9.0% of mass 198	8032	7.25		Pass
275	10.0 - 30.0% of mass 198	29453	26.6		Pass
365	1.0 - 100.0% of mass 198	4607	4.16		Pass
441	Present, but less than mass 443	13616	12.3	(82.6) [b]	Pass
442	40.0 - 100.0% of mass 198	81042	73.1		Pass
443	17.0 - 23.0% of mass 442	16490	14.9	(20.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5281-CC5250	P117823.D	10/23/17	09:21	00:14	Continuing cal 50
EP5281-CC5270	P117824.D	10/23/17	09:54	00:47	Continuing cal 50
JC52828-5	P117826.D	10/23/17	11:05	01:58	SUMP 4-100917
ZZZZZZ	P117827.D	10/23/17	11:34	02:27	(unrelated sample)
ZZZZZZ	P117828.D	10/23/17	12:03	02:56	(unrelated sample)
ZZZZZZ	P117829.D	10/23/17	12:31	03:24	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Sample:	EP5286-DFTPP	**Injection Date:**	10/26/17
Lab File ID:	P117930.D	**Injection Time:**	15:59
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	32100	35.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	54472	59.9		Pass
70	Less than 2.0% of mass 69	293	0.32	(0.54) [a]	Pass
127	40.0 - 60.0% of mass 198	48901	53.7		Pass
197	Less than 1.0% of mass 198	603	0.66		Pass
198	Base peak, 100% relative abundance	90989	100.0		Pass
199	5.0 - 9.0% of mass 198	6943	7.63		Pass
275	10.0 - 30.0% of mass 198	21673	23.8		Pass
365	1.0 - 100.0% of mass 198	3433	3.77		Pass
441	Present, but less than mass 443	9919	10.9	(70.2) [b]	Pass
442	40.0 - 100.0% of mass 198	71714	78.8		Pass
443	17.0 - 23.0% of mass 442	14133	15.5	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5286-CC5250	P117931.D	10/26/17	16:11	00:12	Continuing cal 25
JC52828-7	P117933.D	10/26/17	16:44	00:45	FDUP-SUMP 4 100917
JC52828-6	P117934.D	10/26/17	17:12	01:13	MW-2-100917
JC52828-1	P117935.D	10/26/17	17:40	01:41	SUMP COMP-100917

Surrogate Recovery Summary

Job Number: JC52828
Account: HWINJOMM Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC52828-1	P117935.D	63	70	74
JC52828-5	P117826.D	64	77	82
JC52828-6	P117934.D	62	74	89
JC52828-7	P117933.D	65	78	90
OP6914-BS1	P117639.D	63	67	92
OP6914-BSD	P117640.D	60	64	90
OP6914-MB1	P117638.D	69	73	85
OP6914-MB1	M140628.D	72	68	82
OP6914-MS	P117655.D	66	74	100
OP6914-MSD	P117656.D	62	73	96

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	34-128%
S2 = 2-Fluorobiphenyl	38-119%
S3 = Terphenyl-d14	26-129%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	18	32		
Antimony	6.0	2.3	3	0.60	<6.0
Arsenic	3.0	1.9	2.6	-0.50	<3.0
Barium	200	.5	1		
Beryllium	1.0	.2	.31		
Bismuth	20	2.4	5.5		
Boron	100	3.1	7.8		
Cadmium	3.0	.4	.69	-0.10	<3.0
Calcium	5000	4.6	48		
Chromium	10	.6	1.6	-0.20	<10
Cobalt	50	.4	.7		
Copper	10	.9	6.5		
Iron	100	3.5	20	2.9	<100
Lead	3.0	1.2	2.6	0.50	<3.0
Lithium	50	3.3	11		
Magnesium	5000	23	59		
Manganese	15	.1	.78	0.10	<15
Molybdenum	20	.4	5.7		
Nickel	10	.6	5.2		
Phosphorus	50	1.7	14		
Potassium	10000	89	290		
Selenium	10	3	7.2		
Silicon	200	1.4	32		
Silver	10	.7	3		
Sodium	10000	21	170		
Strontium	10	.2	.3		
Sulfur	50	3.3	14		
Thallium	2.0	1.8	1.5		
Tin	50	.7	7.6		
Titanium	10	.5	1.3		
Tungsten	50	1.3	7.8		
Vanadium	50	.6	.95		
Zinc	20	.2	2.2		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/13/17

Metal	RL	IDL	MDL	MB raw	final
Zirconium	10	.4	1.2		

Associated samples MP3474: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	JC52828-5 Original	MS	Spikelot MPEPA200.7	% Rec	QC Limits
Aluminum					
Antimony	4.3	2130	2000	106.3	70-130
Arsenic	17.9	2140	2000	106.1	70-130
Barium	anr				
Beryllium	anr				
Bismuth					
Boron					
Cadmium	0.0	2100	2000	105.0	70-130
Calcium					
Chromium	4.5	2010	2000	100.3	70-130
Cobalt					
Copper	anr				
Iron	44300	68300	25000	96.0	70-130
Lead	0.0	2080	2000	104.0	70-130
Lithium					
Magnesium					
Manganese	1170	3200	2000	101.5	70-130
Molybdenum	anr				
Nickel	anr				
Phosphorus					
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc	anr				
Zirconium					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

	JC52828-5	Spikelot	QC
Metal	Original MS	MPEPA200.7% Rec	Limits

Associated samples MP3474: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	JC52828-5 Original	MSD	Spikelot MPEPA200.7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	4.3	2140	2000	106.8	0.5	10
Arsenic	17.9	2150	2000	106.6	0.5	10
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	0.0	2110	2000	105.5	0.5	10
Calcium						
Chromium	4.5	2030	2000	101.3	1.0	10
Cobalt						
Copper	anr					
Iron	44300	69300	25000	100.0	1.5	10
Lead	0.0	2080	2000	104.0	0.0	10
Lithium						
Magnesium						
Manganese	1170	3150	2000	99.0	1.6	10
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/13/17

Metal	JC52828-5 Original MSD	Spikelot MPEPA200.7% Rec	MSD RPD	QC Limit

Associated samples MP3474: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	BSP Result	Spikelot MPEPA200.7	% Rec	QC Limits
Aluminum				
Antimony	2120	2000	106.0	85-115
Arsenic	2090	2000	104.5	85-115
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	2090	2000	104.5	85-115
Calcium				
Chromium	2090	2000	104.5	85-115
Cobalt				
Copper	anr			
Iron	26000	25000	104.0	85-115
Lead	2120	2000	106.0	85-115
Lithium				
Magnesium				
Manganese	2130	2000	106.5	85-115
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	BSP Result	Spikelot MPEPA200.7	% Rec	QC Limits
Zirconium				

Associated samples MP3474: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/13/17

Metal	JC52828-5 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	4.30	0.00	100.0(a)	0-10
Arsenic	17.9	14.6	18.4 (a)	0-10
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	4.50	6.60	46.7 (a)	0-10
Cobalt				
Copper	anr			
Iron	44300	43400	2.0	0-10
Lead	0.00	6.10	NC	0-10
Lithium				
Magnesium				
Manganese	1170	1160	0.8	0-10
Molybdenum	anr			
Nickel	anr			
Phosphorus				
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	anr			

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3474 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/13/17

Metal	JC52828-5 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP3474: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3716 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/24/17

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.075	.082	0.0053	<0.20

Associated samples MP3716: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3716 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/24/17

Metal	JC52828-5 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	2.8 (a)	3	93.3	70-130

Associated samples MP3716: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3716 Methods: EPA 245.1
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/24/17

Metal	JC52828-5 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.7 (a)	3	90.0	3.6	19

Associated samples MP3716: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated sample detection limit due to difficult sample matrix.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC52828
Account: HWINJOMM - Honeywell International Inc. OMM work
Project: HLAME: 30130-Alltift Landfill, 579 Tifft Street, Buffalo, NY

QC Batch ID: MP3716
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 10/24/17

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	2.0	2	100.0	85-115

Associated samples MP3716: JC52828-1, JC52828-5, JC52828-6, JC52828-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Attachment B.8 Landfill Gas Monitoring Results

TABLE 2
Landfill Gas Monitoring Data - 2013 through 2017
2017/2018 Annual OM&M Report
Alltift Landfill/Ramco Steel Site

Location:	First Quarter - 1/10/2013				Second Quarter - 5/21/2013				Third Quarter - 9/11/2013				Fourth Quarter - 10/24/2013				2014 - 3/18/2014				2015 - 3/12/2015				2016 - 4/7/2016				2017 - 7/18/2017			
	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4	CH_4	CO_2	O_2	LEL CH_4
GV-1	0.1%	0.0%	21.4%	3.0%	0.0%	0.0%	20.3%	0.0%	0.0%	0.0%	20.9%	1.0%	0.0%	0.0%	21.1%	1.0%	0.1%	0.1%	19.1%	1.0%	0.0%	0.1%	21.7%	1.0%	0.0%	0.1%	21.0%	1.0%	0.0%	0.0%	20.2%	0.0%
GV-2	0.1%	0.0%	21.3%	3.0%	0.0%	0.0%	20.2%	1.0%	0.0%	0.0%	20.4%	2.0%	0.0%	0.1%	20.8%	2.0%	0.1%	0.1%	18.9%	2.0%	0.0%	0.1%	21.6%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.2%	0.0%
GV-3	0.1%	0.0%	21.2%	4.0%	0.0%	0.0%	20.2%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.9%	20.1%	0.0%	0.1%	0.1%	19.2%	2.0%	0.1%	0.1%	21.9%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.3%	0.0%
Ground #1	0.2%	0.0%	21.5%	4.0%	0.1%	0.0%	20.4%	2.0%	0.1%	0.0%	20.4%	2.0%	0.0%	0.1%	20.9%	0.0%	0.3%	0.2%	18.5%	4.0%	0.0%	0.1%	20.8%	1.0%	0.0%	0.1%	21.0%	1.0%	0.0%	0.0%	20.9%	0.0%
Ground #2	0.2%	0.0%	21.3%	4.0%	0.1%	0.0%	20.3%	1.0%	0.0%	0.0%	20.6%	0.0%	0.0%	0.1%	20.9%	0.0%	0.2%	0.2%	18.7%	4.0%	0.0%	0.1%	21.8%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.7%	0.0%
Ground #3	0.2%	0.0%	21.3%	3.0%	0.0%	0.0%	20.3%	1.0%	0.0%	0.0%	20.4%	0.0%	0.0%	0.1%	20.8%	0.0%	0.2%	0.2%	18.6%	4.0%	0.0%	0.1%	21.7%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.6%	0.0%
Ground #4	0.2%	0.0%	21.3%	3.0%	0.0%	0.0%	20.3%	2.0%	0.0%	0.0%	20.7%	0.0%	0.0%	0.0%	21.0%	0.0%	0.0%	0.1%	19.6%	3.0%	0.0%	0.1%	21.8%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.4%	0.0%
Sump #1	0.2%	0.0%	21.4%	4.0%	0.0%	0.0%	20.4%	1.0%	0.0%	0.0%	21.2%	0.0%	0.0%	0.1%	20.9%	0.0%	0.0%	0.0%	20.4%	0.0%	0.1%	0.1%	20.9%	1.0%	0.1%	0.1%	21.0%	1.0%	0.0%	0.0%	20.8%	0.0%
Sump #2	0.2%	0.0%	21.3%	4.0%	0.2%	0.1%	20.2%	4.0%	0.7%	17.0%	0.6%	15.0%	0.0%	0.1%	20.8%	0.0%	0.2%	0.4%	18.7%	2.0%	0.0%	0.1%	21.4%	1.0%	0.0%	0.1%	21.0%	1.0%	0.0%	0.0%	20.6%	0.0%
Sump #3	0.2%	0.0%	21.2%	3.0%	0.1%	0.0%	20.3%	2.0%	0.0%	0.0%	20.4%	0.0%	0.0%	0.1%	20.9%	0.0%	0.1%	0.2%	18.9%	3.0%	0.0%	0.1%	21.8%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.5%	0.0%
Sump #4	0.1%	0.0%	21.1%	3.0%	0.0%	0.0%	20.3%	1.0%	0.1%	0.1%	19.9%	0.0%	0.0%	0.1%	20.8%	0.0%	0.2%	0.2%	18.7%	4.0%	0.0%	0.1%	21.8%	1.0%	0.0%	0.1%	21.1%	1.0%	0.0%	0.0%	20.3%	0.0%

Notes:
Ground 1 - Monitoring location in the Northwest corner of Landfill
Ground 2 - Monitoring location on the West side of Landfill
Ground 3 - Monitoring location in the Southeast corner of Landfill
Ground 4 - Monitoring location in the Northeast corner of Landfill
LEL - Lower Explosive Limit
CH4 - Methane
CO2 - Carbon Dioxide
O2 - Oxygen
Landfill Gas Monitoring Frequency revised, as approved, to Annual starting in 2014.