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February 6, 2024

Mr. Tracy Smith
Division of Environmental Remediation
Remedial Bureau D
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: **Wastebeds 1-8**
Revised Integrated Interim Remedial Measure Construction Completion Report
Order on Consent: Index #D7-0002-02-08 Site No. 734081

Dear Mr. Smith:

Enclosed are the revised Wastebeds 1-8 Integrated Interim Remedial Measure Construction Completion Report (CCR) for the Wastebeds 1-8 Site and response to New York State Department of Environmental Conservation comments dated December 16, 2022. This CCR was prepared by Ramboll on behalf of Honeywell. Please contact Brandon Haynes of Ramboll (Brandon.Haynes@ramboll.com or 315-956-6455) or me if you have any questions.

Sincerely,

Shane R Blauvelt

Shane Blauvelt, P.E.
Senior Remediation Manager

Attachments (1 copy, ec)

ec:

Jason Pelton – NYSDEC
Gary Priscott – NYSDEC
Sarah Johnston – NYSDEC
Margaret A. Sheen, Esq. – NYSDEC, Reg 7
Mark Sergott – NYSDOH
Scarlett Mclaughlin – NYSDOH
Michael Spera – AECOM
Tom Mongelli – USEPA
Argie Cirillo, Esq – USEPA
Brian D. Israel, Esq. – Arnold & Porter
Jesse McMahon – O.C. Office of the Environment
Briana Kilkenny – O.C. Office of the Environment
Benjamin Yaus – O.C. Law Department
Joseph Heath, Esq. – Onondaga Nation
Jeanne Shenandoah – Onondaga Nation
Sean Hennessey – NYS Fair Dept. of Ag & Markets
Julie LaFave – NYS Fair Dept. of Ag & Markets
Hazel Powless – HETF
Alma Lowry
Rebecca Serven – Parsons
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Chris Killoren – Ramboll
Thomas Conklin – Ramboll
Robert Trent – Ramboll
Reagan Cuddy – Ramboll
Brandon Haynes – Ramboll
Robert Mutch – Mutch Associates

Response to Comments

This document is being provided in response to the New York State Department of Environmental Conservation's (NYSDEC) comments dated, December 16, 2022, associated with the Wastebeds 1-8 (734081) Integrated Interim Remedial Measure Construction Completion Report. This document has been developed by Ramboll on behalf of Honeywell International, Inc. Comments are provided in bold text, followed by the response.

Comments

The report was submitted to NYSDEC on August 18, 2022, and the following comments were received on December 16, 2022. For ease of review, NYSDEC's comments are listed first in bold italics followed by the response.

Comment 1:
Certification. The certification should include the requirement that all data has been provided electronically to the Department. Please revise.

> **Response:** Added the following certification statement: "*I certify that, to the best of my knowledge, data generated in support of this report have been submitted in general accordance with the Department's electronic data deliverable.*"

Comment 2:
Page 2, last paragraph, sentence 6, Section 1.1. There are currently four outer buildings associated with the Lakeview Amphitheater (two restroom facilities, a box office and a concession stand). Please revise accordingly.

> **Response:** Revised text to state, "*In addition to the back-of-house, stage-house, pavilion, and loading dock, there are four outer buildings (two restroom facilities, a concession stand, and a box office).*"

Comment 3:
Page 3, paragraph 4, Section 2.1. This paragraph discusses the Remediation Area A Hydraulic Control System but not the systems along the Eastern Shoreline and Ninemile Creek. These other systems should also be discussed. In addition, the Remediation Area A system prevents contaminated groundwater from migrating to Onondaga Lake and not Ninemile Creek. Please revise.

> **Response:**
> Text was revised to the following: "*The objective of the Remediation Area A Hydraulic Control System is to mitigate potentially unacceptable upwelling velocities and to minimize, to the extent practicable within the context of the IRM, the migration of contaminated groundwater (benzene, toluene, xylene, and phenol) from the area adjacent to Remediation Area A to Onondaga Lake.*"
>
> Added the following text about the Eastern Shoreline Hydraulic Control System and the Eastern Shoreline Seep Collection System - "*As documented in the NYSDEC's RAD and summarized above, the objective of the Eastern Shoreline Hydraulic Control System is to intercept shallow and*

intermediate groundwater migrating towards Onondaga Lake. The objective of the Eastern Shoreline Seep Collection System is to intercept inland seeps and mitigate discharge to Onondaga Lake and the mitigation wetlands."

Added the following text about the Ninemile Creek Collection System - "*As documented in the NYSDEC's RAD and summarized above, the objective of the Ninemile Creek Hydraulic Control System is to intercept groundwater migrating towards Ninemile Creek. Seep collection systems divert seep flow to the collection trench, which also intercepts and collects shallow groundwater. The system provides hydraulic control for groundwater that may otherwise discharge to NMC."*

The last sentence is Section 2.1 was revised to the following: *In addition, the Ditch A system minimizes transport of Solvay waste substrate and sediment via Ditch A to NMC and Onondaga Lake.*

Comment 4:
Page 12, Section 3.6. Ditch A is discussed in this section but discussion of other major addendums (e.g., Eastern and North Shore sheet pile installation) should be included. In addition, other IRM details such as a discussion of the wet swales (including changes to the wet swale that discharges to Wetland C as a result of the County trail extension) and weir box abandonment should be included.

Response: Added Sections 3.6.10 "*Addendum 4 – Seep Aprons* ", 3.6.11 "A*ddendum 5 – Remediation Area A Hydraulic Control System Sheeting Modification*", and 3.6.12 "*Addendum 6 - Eastern Shoreline Hydraulic Control System Sheeting Modification"* to discuss the Remediation Area A and Eastern Shoreline Hydraulic Control System modifications.

As stated in the, Wastebeds 1-8 OU-1 Cover System Inspection 2021 Annual Report, "*Additionally, per NYSDEC request, surface water runoff was diverted from Inland Wetland C to Onondaga Lake at outlet structure OS-ES-C due to upgradient construction activities related to the Onondaga County West Shore Trail extension in 2019. Connection to Inland Wetland C was restored upon successful revegetation of the upgradient construction area in 2020*". The following text was added to Section 3.6.6: "*The Onondaga County West Shore Trail extension in 2019 (*Barton & Loguidice 2018) *removed a portion of the swale upslope of Wetland C constructed as a part of the IRM Mitigation Wetlands (**Section 3.6.5**) and Vegetated Swales (**Section 3.6.6**). The swale was reconstructed to run along the south side of the trail extension with 2 outlets to the swale that discharges to Wetland C."*

Added Section 3.6.7 "*Weir Box Abandonment*" and the following text was added, "*Weir boxes and associated piping left in place after closure of the wastebeds were identified at various locations around the Site. This infrastructure, detailed in the Record Drawings (**Appendix B**), may present a preferred pathway for potentially impacted groundwater and surface water to migrate to Onondaga Lake. As part of the IRM, the weir boxes were filled with flowable fill or other suitable material, and the pipes were plugged to mitigate potential water migration."*

Comment 5:
Page 12, paragraph 2, Section 3.6.1. In the fifth sentence "states" should be changed to "stakes." Also, a discussion of changes to the revetment on the eastern side of the point due to the construction of the County trail and docks should be included.

Response: Updated "states" to "stakes" in Section 3.6.1 paragraph 2. Added the following text to Section 3.6.1 paragraph 3, "*The Eastern Shoreline revetment was replaced in the spring of 2017 by new construction associated with the Onondaga County boat dock and a trail which provides access to the Lakeview Amphitheater via Onondaga Lake.*"

Comment 6:
Page 12, Section 3.6.2. Additional details regarding the hydraulic control systems should be included in this section (e.g., trench lengths/depths, collection pipe sizes, number of recovery wells and distances apart). Also, the Ditch A collection system should be discussed as a hydraulic control system in this section. Please revise accordingly.

Response: Section 3.6.2 was split into two sections: Section 3.6.2 "*Hydraulic Control Systems*" and Section 3.6.3 "*Seep Collection Systems*". The Eastern Shoreline Hydraulic Control System, Remediation Area A Hydraulic Control System, and Ninemile Creek Hydraulic Control System are discussed in Section 3.6.2. Information about pipe/trench sizing, length, and depth, recovery wells, and passive well spacing was added to this section. The following text was revised for the groundwater collection systems:

- *"Eastern Shoreline Hydraulic Control System*

The Eastern Shoreline HCS consists of an approximately 6,700-linear-foot collection trench and passive recovery wells. The trench is comprised of a 12-inch slotted HDPE pipe installed at approximately 10 feet below ground surface (bgs) and surrounded by sand backfill. 223 passive recovery wells are spaced along the trench at approximately 30-foot intervals. Passive wells were installed through the trench to the top of the silt and clay unit and convey groundwater to the collection trench. The slotted 12-inch collection pipe conveys water to the Eastern Shoreline Pump Station, which pumps it via a 6-inch HDPE pipe to the GWTP for treatment.

Fourteen piezometers were installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells.

- *Remediation Area A Hydraulic Control System*

The Remediation Area A HCS consists of an approximately 1,050-linear-foot collection trench and passive recovery wells. The trench comprises a 6-inch slotted HDPE pipe installed approximately 9 feet bgs and surrounded by sand backfill. 44 passive recovery wells are spaced along the trench at approximately 24-foot intervals. Passive wells were installed through the trench to the top of the silt and clay unit beneath the deltaic deposits and convey groundwater to the collection trench. The slotted 6-inch collection pipe conveys water to the Northern Shoreline Pump Station, which pumps it via a 4-inch HDPE pipe to the Eastern Shoreline Pump Station.

For Field Modification No. 16, an 8-inch HDPE dedicated passive well collection pipe (header pipe) was installed in the collection trench parallel to the existing collection pipe. The header pipe connects directly to the passive recovery wells and conveys groundwater to the Northern Shoreline Pump Station.

Three piezometers were originally installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells. Three clusters of discrete piezometers were installed in November 2015 to supplement the original piezometers due to groundwater density variability along Remediation Area A.

- *Ninemile Creek Hydraulic Control System*

The Ninemile Creek HCS consists of an approximately 1,800-linear-foot collection trench and passive recovery wells. The trench comprises a 6-inch slotted HDPE pipe installed between 10 to 20 feet bgs and surrounded by sand backfill. 53 passive recovery wells convey groundwater to the collection trench. Passive wells are spaced approximately 40 feet apart, except in the area of the Ninemile Creek deltaic deposits where spacing is 20 feet. The slotted 6-inch collection pipe conveys water to the Ninemile Creek Pump Station, which pumps it via a 4-inch HDPE forcemain to the Eastern Shoreline Pump Station.

Five piezometers were originally installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells. One additional piezometer was installed in September 2019 to monitor intermediate groundwater south of the Ninemile Creek Pump Station."

The Eastern Shoreline Seep Collection System and Ditch A Seep Collection System are discussed in Section 3.6.3. The following text was added for the seep collection systems:

"The seep collection systems were installed to isolate groundwater from surface water and collect groundwater discharging in the form of visible seeps. The seep collection systems are:

- *Eastern Shoreline Seep Collection System*

The Eastern Shoreline Seep Collection System trench is comprised of a 6-inch perforated HDPE pipe installed at a varying depth (a minimum of 4.5 feet bgs) and surrounded by stone backfill. Collected seep water is conveyed by gravity flow via a dedicated solid wall 6-inch HDPE pipe to the Eastern Shoreline Pump Station.

- *Ditch A Seep Collection System*

The Ditch A Seep Collection System consists of approximately 5,400 feet of 8-inch perforated HDPE pipe installed at a depth of 24 inches bgs. A drainage divide exists within the ditch alignment; groundwater collected west of the divide is gravity fed to the pH Adjust Building, treated, and then conveyed to the county sewer system, and groundwater collected east of the divide is conveyed to the Eastern Shoreline Pump Station and then pumped via forcemain to the Willis Ave GWTP."

Comment 7:
Page 13, Section 3.6.4. Although restoration of the connected wetland was performed as part of the Wastebeds 1-8 IRM, the connected wetland was dredged and capped as part of the Onondaga Lake remediation. Please revise the text to clarify this and include a reference to the Onondaga Lake Capping and Dredging CCR dated September 2017.

Response: Now Section 3.6.5 paragraph 5, revised text to say, "*The connected wetland was dredged and capped as part of the Onondaga Lake remediation scope (Parsons 2017)*". The reference to the CCR was added in the References.

Comment 8:
Page 13, Section 3.6.5. Although it did not change how the Ditch A groundwater collection system operates, a discussion of how fill was placed over portions of Upper Ditch A to create pedestrian access as part of NYS Fair Orange Lot upgrades and the County Loop-the-Lake trail bridge over Lower Ditch A should be discussed in the text.

Response: Now Section 3.6.8, added the following in paragraphs 2 and 3, "*In 2019, NYSDOT started construction on NYS Fairgrounds Access Improvement Project – Phase 2 (NYSDOT, 2019). As part of the project, a pedestrian bridge was installed, spanning from the orange lot directly to the NYS fairgrounds. The bridge construction over Ditch A included installation of a 14.25-foot embankment over a 48-inch smooth wall HDPE culvert. The culvert conveys water through the embankment and maintains surface water flow along Ditch A.*

In 2020, Onondaga County started construction on the Canalways Trail Extension Project Phase 1 (Barton & Loguidice, 2020). As part of the project, a shared-use path crossing lower Ditch A was installed. The construction of the path over lower Ditch A included removal of the original liner system and stone, ditch regrading to support path installation, and reinstallation of the liner system and stone cover as documented in Canalways Trail Extension Project Phase 1 Record Drawings (Barton & Loguidice, 2020)."

Comment 9:
Page 13, last paragraph, Section 3.7.1. The last sentence (continued on page 14) states that for additional information related to each restoration treatment area (e.g., vegetative cover areas, seep aprons, etc.) refer to Sections 3.10, 3.11, 3.13, and 3.14. However, Section 3.10 and 3.11 are not related to restoration and there are no Sections 3.13 and 3.14. Please revise accordingly and include the additional restoration details.

Response: The text in Section 3.6.1 was revised as follows to add details about the revetment cover areas and vegetated cover system, "*A vegetated on-shore revetment was used to stabilize approximate 1,700 feet of Steep Cliff area adjacent to Onondaga Lake SMUs 3 and 4. The revetment consists of 10-to-18-inch rip-rap and a bank run gravel filter material that acts as a separation layer between the armor stone and underlying soil. Excavation and surface preparation of the existing Steep Cliff area and backfilling of the on-shore revetment were performed in stages limited to 20-foot sections. Following excavation and surface preparation of the Steep Cliff area, approximately 12 inches of bank run gravel was installed above the underlying substrate. 24 inches of rip-rap was then installed on a slope from the cliff toe to elevation 372 feet. The rip-rap was vegetated between elevations 364 and 372 feet with several species of live stakes including Salix discolor, Cornus sericea, Cornus amomum, and Sambucus canadensis. Live stakes were installed through the rip-rap and into the filter material and underlying substrate approximately every 4 feet, in a stratified random fashion.*

The slopes above the armor stone (e.g., above elevation 372) were regraded and covered with 4 inches of topsoil. This area was restored with seed and live stakes to minimize erosion and provide

habitat enhancement. A successional old-field seed mix and biodegradable coconut fiber erosion control blanket were applied to restored areas above the armored portion of the revetment between elevations 372 feet and 380 feet. The erosion control blanket was staked in place with a combination of wooden t-stakes and bio-mat live stakes (pussy willow) to facilitate establishment of woody species above the revetment stone face. Both vegetation systems were installed on existing grade. Record drawings in Appendix B detail the construction of the revetment and slope above the armor stone, including changes documented in Field Modifications No. 8, 10, 11, and 13 (Appendix A).

The Eastern Shoreline revetment was replaced in the spring of 2017 by new construction associated with the Onondaga County boat dock and a trail which provides access to the Lakeview Amphitheater via Onondaga Lake.

The shallow shoreline stabilization system was installed within the lake and extending up to an elevation of 365 feet (pre-construction grade) along the Wastebeds 1-8 shoreline in both SMUs 3 and 4 to achieve consistency of stabilization and restoration approaches. The stabilization system was installed to mitigate erosion caused by wind-wave action and to provide habitat enhancement.

Approximately 7,000 feet along the Eastern Shoreline received a vegetated stabilization system consisting of 6 inches of Type 'H' material beneath a 12-inch topsoil habitat layer. An additional 1,200 feet along the Northern Shoreline received a vegetated stabilization system consisting of 12 inches of Type 'E' (brickyard shale) beneath a 6-inch Type 'H' habitat layer. The Northern Shoreline stabilization system was modified to reduce infiltration into the Northern Shoreline collection trench of Onondaga Lake during high water events. Both the Northern and Eastern shoreline stabilization areas were targeted with a Shoreline Meadow restoration consisting of a mix of seeding, plugs, and live stakes intended to restore species that were once abundant along the shore of Onondaga Lake (OBG 2012c).

Shoreline stabilization systems at elevations below 365 feet (pre-construction grade;) were completed as part of the Onondaga Lake dredging and capping project (Parsons and Anchor QEA 2012) and restored by O'Brien & Gere. Inclusion of the Shoreline Enhancement areas and Dredge Transition zones (Parsons and Anchor QEA 2014) expanded restoration of the existing WB 1-8 IRM shoreline to include approximately 5.1 acres of shoreline enhancement below final elevation 366.5 feet. Vegetation within the shoreline enhancement area was established in the same manner as the shoreline meadow and in accordance with Planting Tables 5, 6 and 7A as presented in the Onondaga Lake Capping, Dredging, Habitat and Profundal Zone (SMU 8) Final Design Habitat Addendum (Parsons and Anchor QEA 2014). Herbaceous plugs and seed were installed from elevation 366.5 feet to 365 feet. The Lake Design called for planting of herbaceous plugs down to mean lake level (approximately 363 feet); however, due to unseasonably high lake water levels at the time of planting, herbaceous plugs were not planted lower than conditions allowed."

The text in Section 3.6.5 was revised as follows to add detail on habitat and vegetated cover, "*Inland wetland areas (A, B, and C), as constructed per the Record Drawings (Appendix B), are located between the existing 365-foot and 370-foot contours. After achieving wetland subgrades, a geotextile construction fabric was installed on top of existing site material and backfilled with 6 inches of Type I – Liner Puncture/Gas Venting Layer Sand. A low permeability layer, consisting of a*

40-millimeter geomembrane liner system, was installed over the sand layer along with an additional geotextile construction fabric intended to protect the liner. The geomembrane liner extended to the top of the berms which were constructed to contain each inland wetland. A 24-inch habitat layer was installed on top of the geomembrane liner to bring the wetland elevation to final grade. This habitat layer consisted of 12 inches of Type H – Habitat Subgrade, beneath 12 inches of topsoil.

Inland wetlands A, B and C were restored using a combination of vegetative establishment strategies including the use of seed and herbaceous plant materials in the form of plugs and bare-root stock. Wetland A was restored using wetland seed mix and wet meadow, shallow emergent, and deep emergent plant species. Wetland B and Wetland C were restored with wetland seed mix and a mix of both wet meadow and shallow emergent plant species.

Approximately 50 native plant species, including some that are locally uncommon (e.g., Spartina pectinata, Zizania aquatic, and Hierochloe odorata), were introduced to the restored wetlands. Initial observations suggest successful establishment of wetland vegetation across the restored inland wetlands, with most herbaceous plugs surviving the first growing season and putting on substantial growth. Initial growth from the wetland seed mix also appeared to be vigorous with wild rice (Zizania aquatic) and beggar ticks (Bidens frondosa), providing significant cover throughout the wetlands."

Section 3.6.6 "*Vegetated Swales*" was added to discuss the vegetated swales, and the following text was added, "*Vegetated storm water swales were constructed and restored to manage water quality treatment volume at the Site. Swales were constructed along Eastern Shoreline, the NMC shoreline between the access pathway and toe of slope and at the top of slope above the access pathway, and Northern Shoreline adjacent to the access pathway (Appendix B).*

These swales were constructed to contain standing surface water following storm events. Therefore, these areas were seeded with a swale seed mix comprised of emergent and wet meadow species capable of establishing quickly and tolerating periodic flooding. In order to not restrict swale flows and protect the liner, woody species were not included in the planting list for this area.

A portion of the Northern Shoreline vegetated swale was eliminated to facilitate construction of the Onondaga County Lakeview Amphitheater. The section of vegetated swale removed was located at the northern end of the shoreline, directly south of the Northern Shoreline Pump Station."

Section 3.6.13 "*Vegetative Cover Systems"* was added to provide details about vegetative cover not discussed in previous sections, and the following text was added, "*The vegetative cover system was installed for areas of the Eastern Shoreline not occupied by inland wetlands, the connected wetland, storm water features, wetland berms, areas of integration with the shoreline stabilization, and access pathways.*

The constructed vegetative cover comprises approximately 3.76 acres of a 24-inch habitat layer consisting of 12 inches of Type H and 12 inches of topsoil planted as described herein. Woody species comprise the majority of the plant species mix, complementing the mostly herbaceous species installed within the adjacent mitigation wetland complex. Woody plantings consisted of both 1-gallon to 2-gallon potted stock and live stakes. A successional old-field seed mix was also

broadcast in these areas to provide early successional habitat during the development of larger trees and shrubs. Trees were planted on approximately 8-foot centers compared to shrubs (potted and live stakes) which were held to a 4-foot spacing.

The limits and a typical cross section of vegetative cover are shown on the Record Drawings included in Appendix B."

Updated reference in Section 3.7.1 to refer to Section 3.6.

Comment 10:
Page 15, Sections 3.9.1, 3.9.2 and 3.9.3. Please clarify that Excavated Material Staging Area A is within the amphitheater footprint and was relocated/covered during amphitheater construction, additional material from the amphitheater and Orange Lot construction was placed in Staging Area B, and additional material from Wastebeds 1-8 OU-1 construction was placed in Staging Area C.

Response: Added the following bullet to the list of items staged at Staging Area B in Section 3.9.1, "*Additional material from former Staging Area A and the amphitheater and Orange Lot construction*". Added the following bullet to the list of items staged at Staging Area C in Section 3.9.2 "*Additional material from Wastebeds 1-8 OU-1 construction*". Added the following text to Section 3.9.3, "Former S*taging Area A was originally located within the amphitheater building footprint. Its material was later relocated to Staging Area B or placed beneath the amphitheater lawn seating area and properly covered during amphitheater construction (Gilbane 2018)."* This text was also added as a note in Table 4.

The Onondaga County Lakeview Amphitheater Construction Completion Report was added to the references.

Comment 11:
Page 17, paragraph 3, bullet 5, Section 4.2.1. "Guar slurry" should be revised to "bio polymer (guar) slurry." Also, please clarify how the use of bio polymer slurry was a green remediation strategy (e.g., less pumping of water/fuel use during trench piping installation).

Response: Revised text to say, "*Use of bio-polymer (guar) slurry during collection trench construction to reduce water pumping and fuel consumption during trench piping installation."*

Comment 12:
Page 21. Section 6. In this section it states the following provides a summary of materials tested during construction. Should "Bills of Lading" be considered a material that is tested? Please revise accordingly.

Response: Revised text to say, "*The following exhibits provide details about materials documented or tested during construction:"*

Comment 13:
Page 22, Section 7. Some additional challenges that should be discussed in this section include: limited work areas (for installation of the NMCHCS); repairs to collection systems (e.g., NMCHCS); scaling issues in pipes, pumps, and recovery wells; variable groundwater

densities; etc.

Response: The following text was added to Section 7:

"***Limited Work Areas***
During the installation of the Ninemile Creek HCS, there were limited work areas adjacent to this portion of the site due to the Ninemile Creek HCS proximity to Ninemile Creek and the adjacent steep slopes just above the location of the collection trench. This limited the allowable weight and size of the equipment along the Ninemile Creek HCS between OP-3 to OP-5. The narrowest part of the working area was subsequently adjacent to the area requiring the deepest excavation for system installation.

Scaling
After hydraulic control system construction, the following operational and system modifications were implemented to mitigate the effect of scaling and sedimentation:

- *Regularly scheduled cleanings and inspections to improve HCS operation and performance.*
- *Several of the recovery wells on the Ninemile Creek and Remediation Area A HCSs were repaired or cleaned.*
- *At the Remediation Area A HCS, a dedicated passive recovery well collection pipe (header pipe) was installed for Field Modification No. 16. This modification separates intermediate groundwater from shallow groundwater in the collection trench to reduce scaling associated with mixing waters.*
- *Regular acid or antiscalant additions are performed at the Ninemile Creek, Northern Shoreline, and Eastern Shoreline pump station wet wells to reduce pump scaling and maintain operational performance.*
  - *Manual acid additions are performed at the Ninemile Creek Pump Station.*
  - *A mobile Conex™ structure is used at the Northern Shoreline Pump Station to support automated antiscalant injections into the wet well.*
  - *A pre-fabricated acid addition structure was constructed at the Eastern Shoreline Pump Station to allow automated injections into the wet well. Design drawings for this structure were developed by Jacobs and are provided in* ***Exhibit 24****.*

Variable Groundwater Densities
At the Ninemile Creek HCS, the density measurements measured in piezometers and passive recovery wells at depths below the trench seem to vary more by location than they do by depth at a single location. The density appears to increase from south/east to the north/west. During an evaluation in 2014, the minimum density measured below the trench was 1.014 grams per cubic centimeter (g/cm^3) at passive recovery well RW-224 and the maximum density measured below the trench was 1.078 g/cm^3 at RW-259. At individual locations, the density profile below the trench is usually relatively uniform or increases slightly with depth. Both the variability and the maximum density measurements from below the trench in the Ninemile Creek HCS are less than they are for the Remediation Area A HCS.

Groundwater density along the Remediation Area A HCS generally varies more by depth than location. During an evaluation in 2015, the minimum density below the collection trench was approximately 1.014 g/cm^3 and the maximum density was 1.124 g/cm^3. Passive recovery wells on the western side of the system exhibited less vertical density variability and lower maximum densities, while passive recovery wells on the northeast side of the system exhibited greater vertical density variability with high maximum densities. Due to the significant density variability of Remediation Area A HCS groundwater, discrete piezometers (PZ-49 through PZ-57) were installed in November 2015."

Comment 14:
Table 1. Construction start and end timeframes should be included in this or a separate table. There also appear to be some redundant reports (e.g., Mar-11 BERA approval and 29-Apr-11 HHRA Report submitted to NYSDEC), please check the table and revise as necessary. In addition, the row dated 17-Jan-13 is not necessary and can be deleted.

Response: Construction start and end timeframes were included in Table 1, and redundant and non-necessary entries have been removed.

Comment 15:
Table 2. Please include additional descriptions (e.g., brickyard shale, clay) in this table to help clarify the "Select Fill" used.

Response: Added additional descriptions in Table 2 to Type "C", "E", "F", "K", and Type "M" fills.

Comment 16:
Table 4. Please clarify where the "Ninemile Creek Spoils" were from since sediment excavated from Ninemile Creek was addressed as part of the Geddes Brook/Ninemile Creek Site and would not have been disposed of at Wastebed 1-8. Also, clarify the origination of the "Crucible Spur Material" (e.g., tributary to Ditch A).

Response: The following note was added to Ninemile Creek Spoils in Table 4: "*This comprises material removed in coordination with Parsons as part of the Ninemile Creek Reaches BC and AB Remedial Action (Parsons 2016).*" This material was disposed of at LCP, and the disposal location was revised accordingly.

The following text has also been added to report Section 3.9.1: "*Sediment and floodplain soil were removed from a portion of Ninemile Creek in coordination with Parsons' remedial activities. Excavated material was transported to LCP for consolidation with other excavated channel and floodplain material. This work is summarized in the Construction Completion Report for the Ninemile Creek Reaches BC and AB Remedial Action (Parsons 2016).*"

Crucible Spur Material was revised to "Ditch A Tributary (Crucible Parking Lot Spur Material)."

Comment 17:
Figure 2. The figure should indicate that the revetment was also installed on the east site of lakeview point/north of Wetland A. Also, seep aprons and/or vegetative cover were installed adjacent to Ditch A. Furthermore, the hatching delineating the biosolids area

should be removed or included in the legend. Please revise the figure as necessary.

Response: The revetment location north of Wetland A on the east side of Lakeview Point was added to the figure. The seep aprons installed along Ditch A were added to the figure (this excludes cover installed as a part of the Wastebeds 1-8 OU-1 Phase 3 scope of work as it is documented and approved under a separate CCR). The hatching associated with the biosolids area was removed from Figure 2 as it is not referenced in the report.

Additionally, the trail extension adjacent to Wetland C, the trail extension to Lakeview Dock, and SMU-3 and SMU-4 were added to the figure. Callouts were also updated as appropriate to indicate certain areas are former staging areas.

Comment 18:
Appendix B-4. Should the Ninemile Creek Flow Diversion drawings be included as part of Appendix B-7 since this was performed as part of Addendum 3 (as stated in Table 2-1)? Please revise as necessary.

Response: Appendix B-4 was removed, and subsequent appendices were renumbered accordingly. Ninemile Creek Flow Diversion drawings were moved to Appendix B-6 (formerly B-7).

Comment 19:
Appendix B-9 and B-10. The cover sheets indicate construction documentation for Addendums 5 and 6 are attached in Exhibit 22 and 23, respectively, but the as-built drawings are not included in those exhibits. Please revise accordingly.

Response: Record drawings for Addendums 5 and 6 have been included in Appendix B, and the references to Exhibits 22 and 23 have been removed. Additionally, cover sheets for appendices B-9 and B-10 were renumbered to B-8 and B-9 per Comment 18.

Comment 20:
Appendix C. CAMP summary forms from 7/16/15 to 8/25/15 indicate mulch screening and placement of mulch and 1-foot cover, which appear to be OU-1 related and not IRM related. Please confirm and revise the document accordingly (e.g., text in Section 3.10).

Response: CAMP summary forms from 7/16/15 to 8/25/15 were removed as they related to OU-1 cover placement and are documented in the Phase 1 – 2015 Remedial Action Construction Completion Report Wastebeds 1-8 Operable Unit 1 (OU-1).

Comment 21:
Appendix C. CAMP summary forms from 6/13/17 to 10/13/17 indicate excavation activities were occurring but no volatile monitoring was performed. Please clarify why volatile monitoring was not performed.

Response: The following text was added to Section 3.10 "*The addendum 3 scope of work CAMP indicated that emissions of volatile organic compounds (VOCs) were not anticipated during remedial activities due to work being performed primarily outside the Wastebeds 1-8 Site boundary (OBG 2017). AQM activities for Addendum 3 remedial actions included dust monitoring at downwind and upwind site perimeters and hydrogen sulfide monitoring when a rotten-egg type odors are observed*

at the downwind site perimeter. No odors were observed during the Addendum 3 remedial activities; therefore, VOC monitoring was not performed as documented in ***Appendix C****."*

Comment 22:
Appendix C. CAMP summary forms from 2/5/18 to 2/8/18 for the DOT stormwater outfall pipe installation are included. Should this be included in this CCR (if so, it should be discussed in the text) or included as part of other Wastebeds 1-8 site documents? Please revise as necessary.

Response: CAMP summary forms from 2/5/18 to 2/8/18 for the DOT outfall pipe installation were removed from this report as discussion of this deviation from the design and the data sheets are included in the WB 1-8 OU-1 Phase 3 CCR, Sections 2.4.3 and 3.6.1.2.1 (submitted December 2020).

Comment 23:
Appendix C. CAMP summary forms from 9/12/17 to 10/24/17 are related to OU-1 vegetative cover placement and should not be included in this CCR. Please revise accordingly.

Response: These CAMP summary forms were removed from this attachment.

Comment 24:
Appendix D. North shore hydraulic control system construction photos should be included if available. In addition, the dates of the following photos do not appear consistent and should be checked and revised as necessary:

Response: Photo dates were corrected, and additional hydraulic control system construction photos were included.

Comment 25:
Appendix E, Addendum 1 photolog. In the description of photo 5 revise "I60" to "I- 690."

Response: Photo 5 was revised per comment.

Comment 26:
Appendix E, Addendum 3 photolog. In photo 19, revise the photo description to "Ninemile Creek hydraulic control system flow diversion."

Response: Photo 19 description was revised per comment.

Comment 27:
Appendix E, Addendum 4 photolog. Please confirm the date of photo 18 is correct.

Response: Photo 18 date was corrected.

Comment 28:
Appendix E, Addendum 5 photolog. Please confirm the dates of the photos for Addendum 5, which are all dated 5/30/18, are correct and revise as necessary.

Response: Dates shown in the Addendum 5 photolog have been revised, and the photos have been reordered chronologically.

Comment 29:
Appendix F. Wetland A and C hydrostatic tests are included but hydrostatic tests for Wetland B and several swale outlet structures at the Eastern and Northern Shore are not included. These should be included or the CCR should discuss why they are not included.

Response: Hydrostatic test reports for these structures are not available. However, structures were coated per Exhibit 13 (Special Coatings), and no evidence of leakage or whitening was observed in or around the structures after installation.

Comment 30:
Appendix F, Wetland A Hydrostatic Testing. The hydro test forms indicate that structures were filled to the top with water, but this does not appear consistent with the pictures. Please clarify and/or discuss as needed.

Response: The structure did not have the sluice gate installed at the time it was hydrostatically tested. For the test, the outfall pipe was plugged, and the structures were filled to the top of the connecting outfall pipe. A note has been added to the three Wetland A structure test forms indicating the correct water level.

Comment 31:
Appendix F, Ninemile Creek Catch Basin Hydrostatic Testing. Testing for catch basins CB-02, -03 and -04 are included but not for CB-01 or OS-NMC-01. Please include or clarify why testing of these structures were not necessary.

Response: Two catch basin structures were installed in place of CB-01 per field mod 17. CB-A1 and CB-A2 were hydrostatically tested, and the reports were added to Appendix F. Hydrostatic test reports for OS-NMC-01 are not available. However, no evidence of leakage or whitening was observed in or around the structure after installation.

Comment 32:
Appendix F, Wetland Outlet Structure OS-ES-A Hydrostatic Testing. The forms in this section appear to be the same as the Wetland A Hydrostatic Testing. Please revise and/or remove, as necessary.

Response: The Appendix F - Wetland Outlet Structure OS-ES-A Hydrostatic Testing section was removed.

Comment 33:
Appendix F, Appendix D, Ditch A and pH Adjustment Building Hydrostatic Testing. The heading for this should not include "Appendix D." Also, duplicate copies of the tests performed under this addendum are included. Please revise accordingly.

Response: Revised heading per comment and removed duplicate tests. Leakage tests from Exhibit 4 were also added to Appendix F per response to Comment 39.

Comment 34:

Exhibit 1B, 1C and 1F. These exhibits indicate that as-builts are present in Appendix 1. However, there is no Appendix 1, should this refer to Appendix B instead? Please revise accordingly.

Response: Exhibits 1B, 1C, and 1F flysheets were intended to refer to the record drawings presented in Appendix B. For consistency, all as-builts were moved to Exhibit 1, and the exhibits were renumbered. Exhibit 1D (previously Exhibit 1B) was revised to include Middle Ditch A as-builts. As-built information for the Advanced Forcemain was moved from Appendix B to Exhibit 1B (previously Exhibit 1C). As-built information for Eastern Shoreline, Ninemile Creek, and Remediation Area A (Northern Shore) was moved from Appendix B to Exhibit 1A (previously Exhibit 1F). Additionally, Addendum 4 as-built drawings previously included in Appendix B were moved to Exhibit 1E.

Comment 35:
Exhibit 1G. It appears that some features related to the Eastern Shoreline Seep collection and Ditch A collection systems are not included on the maps. Also, the surveys of the Groundwater Collection System Features are marked as preliminary. Final maps should be included. Furthermore, the map and table related to the Deep Groundwater Investigation monitoring wells and piezometers are not related to the IRM and should be removed. Please revise.

Response: As-built surveys from 2016 have been included in Exhibit 1A (previously Exhibit 1F) for Eastern Shoreline, Remediation Area A (North Shore), and Ninemile Creek. Surveys in Exhibit 1H (previously Exhibit 1G) previously marked as preliminary have been replaced with final surveys. The map and table related to the Deep Groundwater Investigation have been removed.

Comment 36:
Exhibit 2. The select fill materials listed in this exhibit are inconsistent with those in Table 2. Also, affidavits and analysis for brickyard shale are included but this material is not listed in Exhibit 2 or Table 2. Please revise and/or clarify accordingly.

Response: Per Comment 15, additional descriptions were included in Table 2 for the Select Fill materials. Text in Exhibit 2, page 2 under Type E Select Fill was revised to include "*(e.g. brickyard shale)*".

Comment 37:
Exhibit 2. Information not relevant to select fill materials are included in this exhibit (e.g., Flexterra submittal information, Tug Hill Material Handling Plan, seed mixes). Please revise.

Response: The exhibits not relevant to select fill materials were removed from Exhibit 2. The Flexterra and forcemain seed mix submittals were included in Exhibit 11. The Tug Hill Material Handling Plan was removed from the CCR.

Comment 38:
Exhibit 3. Soil and waste characterization analytical data for only Staging Area C is included. Data for staging areas A and B should also be included. Please revise.

Response: Waste characterization analytical laboratory reports for all three staging areas have been included.

Comment 39:
Exhibit 4. Leakage tests are included in this exhibit but Appendix F included leakage and structure testing. Please revise as necessary.

Response: Leakage tests have been removed from Exhibit 4 and included in Appendix F. An additional section (Appendix F-2) has been added to Appendix F for forcemain pressure tests, and sections have been renumbered accordingly.

Comment 40:
Exhibit 5B. The well installation log for PZ-58 should be included.

Response: The well installation log for PZ-58 was added to Exhibit 5B.

Comment 41:
Exhibit 5. The North Shore well and piezometer installation logs cover sheet, which is labeled "Exhibit 14", should be changed to Exhibit 5C. In addition, installation logs for the North Shore piezometer clusters (PZ-49 to PZ-57) should be included.

Response: Exhibit was labeled "Exhibit 5C" and the piezometer clusters at North Shore were included.

Comment 42:
Exhibit 9. This exhibit includes mechanical piping and appurtenances but a forcemain repair pressure test report from April 30, 2014 is included also. This pressure test report should be included in Appendix F. Please revise accordingly.

Response: Pressure tests dated June 28, 2012, and April 30, 2014, were removed from Exhibit 9 and placed in Appendix F.

Comment 43:
Exhibit 10. The text (e.g., Section 3.6.3) should clarify where and why H-piles were used during the IRM.

Response: The following text was added to Section 3.6.4: "*H-piles were used during the IRM beneath the pump stations and other significant structures, as identified in the Record Drawings (**Appendix B**), to avoid unfavorable structure settlement that could lead to other infrastructure damage associated with the structures (e.g., piping, conduits, etc.).*"

Comment 44:
Exhibit 11. As necessary, information for the applicable IRM addendums (e.g., Addendums 4, 5 and 6) should be included in this exhibit. Also, topsoil information is included in this exhibit that should instead be included in Exhibit 2. Please revise.

Response: A note was added to this exhibit showing the seed mix used for Addendums 4, 5, and 6. Submittals associated with topsoil were removed from Exhibit 11 and included in Exhibit 2.

Comment 45:
Exhibit 14. This exhibit includes the bills of lading. Some bills of lading do not appear to be

related to this IRM based on the dates (2010 and 2011) and/or address (Willis Ave., LCP). Please remove any bills of lading that are not related to the IRM. In addition, please clarify in the text if any material was brought off-site or if these are related to transport of site-related materials to other areas of the site on roads (e.g., from Ditch A to staging areas).

Response: Bills of lading not associated with the 1-8 Integrated IRM were removed from the exhibit. Material disposed of at LCP was associated with the 2-foot soil/sediment removal OBG performed along Ninemile Creek in coordination with Parsons. The following text has been added to Section 3.9.1 of the report: "*Sediment and floodplain soil were removed from a portion of Ninemile Creek in coordination with Parsons' remedial activities. Excavated material was transported to LCP for consolidation with other excavated channel and floodplain material. This work is summarized in the Construction Completion Report for the Ninemile Creek Reaches BC and AB Remedial Action (Parsons 2016).*"

Comment 46:
Exhibit 14. The bills of lading from September/October 2016, and several that are undated at the end of the exhibit, indicate that materials were transported from Staging Area C/Orange Lot to the Pink Lot/State Fairgrounds. This appears to be backwards and a note should be included indicating these are incorrect.

Response: The following note was added to the bills of lading from 9/22/2016 to 10/11/2016, "*The origin of non-RCA, non-DOT regulated solids removed from Ditch A is the Pink Lot/State Fairgrounds, and the destination is Staging Area C/Orange Lot.*"

Comment 47:
Exhibit 19. In this exhibit there are several additional cover sheets labeled Exhibit 19 (i.e., 3rd Party Testing Results, 012-0 CIPP Installation Reports, 014-0 Pre & Post CIPP Installation CCTV Videos, Duraplat[e] 6100, Epoxy Installation and Spark Testing Reports). Should these be revised to be Exbibit 19A, 19B, etc.? Please revise accordingly.

Response: The cover sheets in Exhibit 19 were revised to Exhibit 19A through Exhibit 19H. Additionally, duplicate submittal information was removed.

Comment 48:
Exhibit 21. There appears to be some duplicate information included in this exhibit (e.g., Chenango Corporate Resume). Please confirm and remove duplicates as necessary.

Response: Duplicate information was removed from Exhibit 21.

REPORT

Wastebeds 1-8 Integrated IRM Construction Completion Report

Honeywell

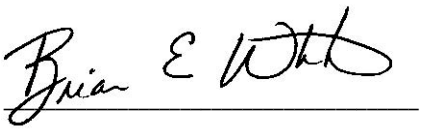
August 2022
Revised February 2024

OBG
Part of Ramboll
Now Known As
Ramboll

CERTIFICATION

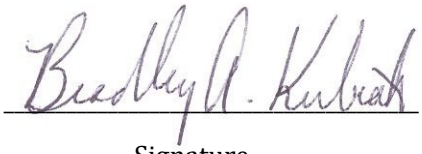
Original Submittal – August 18, 2022

I, **Brian E. White**, certify that I am currently a New York State registered professional engineer. I had primary direct responsibility for the implementation of the remedial program activities, and I certify that the Remedial Design was implemented and that construction activities were completed in substantial conformance with the Department of Environmental Remediation-approved Remedial Contract Documents and subsequent modifications.

72730	August 18, 2022	
NYS Professional Engineer #	Date	Signature

Revised Submittal – February 6, 2024

I, **Bradley A. Kubiak**, certify that I am currently a New York State registered professional engineer. I had primary direct responsibility for the implementation of the remedial program activities, and I certify that the Remedial Design was implemented and that construction activities were completed in substantial conformance with the Department of Environmental Remediation-approved Remedial Contract Documents and subsequent modifications. I certify that, to the best of my knowledge, data generated in support of this report have been submitted in general accordance with the Department's electronic data deliverable.

081039	February 6, 2024	
NYS Professional Engineer #	Date	Signature

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LIST OF ACRONYMS

Acronym	Definition
AMSL	Above Mean Sea Level
AQM	Air Quality Monitoring
BBL	Blasland, Bouck & Lee
bgs	Below Grade Surface
C&S	Calocerinos & Spina
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
CCTV	Closed-Circuit Television
CIPP	Cured-in-Place Pipe
CPP	Citizen Participation Plan
CQAPP	Construction Quality Assurance Project Plan
CWP	Construction Work Plan
DER	Division of Environmental Remediation
GWTP	Groundwater Treatment Plant
HCS	Hydraulic Control System
HDPE	High density polyethylene
I-690	Interstate-690
IC	Installation Commissioning
IRM	Interim Remedial Measure
NEC	National Electric Code
NMC	Ninemile Creek
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
OBG	O'Brien & Gere
OC	Operational Commissioning
O&M	Operations & Maintenance
OIT	Operator Interface Terminal
OP	Observation Ports
OU	Odor Unit; Operable Unit

P&ID	Process and Instrumentation Diagram
RAD	Response Action Document
SMU	Sediment Management Unit
SWPPP	Storm Water Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

This Construction Completion Report (CCR) documents the Integrated Interim Remedial Measure (IRM) for the Wastebeds 1-8 Site (the Site) in Geddes, New York. The IRM was performed pursuant to the Order on Consent (Index # D7-0002-02-08) between Honeywell and the New York State Department of Environmental Conservation (NYSDEC). This report has been prepared in accordance with the requirements of the remedial program administered by the NYSDEC's Division of Environmental Remediation (DER) entitled DER-10/Technical Guidance for Site Investigation and Remediation (NYSDEC 2010) by OBG on behalf of Honeywell International, Inc.

The IRM was developed to mitigate groundwater and seep discharges from the Site to Ninemile Creek (NMC) and Onondaga Lake and mitigate erosion of Solvay waste along the Site's Onondaga Lake Shoreline. The IRM is documented in the NYSDEC's Response Action Document (RAD) (NYSDEC and United States Environmental Protection Agency [USEPA] 2011).

In addition to, and integrated with, the IRM, the design also includes mitigation wetlands, remediation of Ditch A, and a groundwater hydraulic control system (HCS). The groundwater hydraulic control system is designed to reduce groundwater upwelling velocities adjacent to a portion of Onondaga Lake Remediation Area A. Collectively, these are called the "Integrated IRM."

1.1 SITE LOCATION, DESCRIPTION, AND HISTORY

The Site is located in the Town of Geddes, County of Onondaga, New York along the southwestern shore of Onondaga Lake. A Site Location Plan is included as **Figure 1**. The irregularly shaped wastebeds cover approximately 315 acres, extending approximately 2.1 miles along the shoreline, with a maximum width of 0.5 mile. The entire Site, including the wastebeds, measures approximately 404 acres. The Site elevation ranges from approximately 363 to 430 feet above mean sea level (AMSL). NMC borders the Site along the northwest side and flows into Onondaga Lake. A Site Plan depicting these features is included as **Figure 2**.

The wastebeds were constructed over the Geddes Marsh, which resulted from the lowering of the lake level in 1822 to the same level as the Seneca River (Blasland, Bouck & Lee [BBL] 1989). The wastebeds are composed primarily of Solvay waste, which consists of particles of insoluble residues, hydroxides, calcium carbonate, gypsum, sodium chloride (salt), and calcium chloride. These wastes were generated at the former Main Plant during soda ash production using the Solvay process. Soda ash production began in 1884 and continued until 1986. The Solvay waste was hydraulically placed in the wastebeds in slurry form (90 to 95% water and 5 to 10% solid material).

Chlorinated benzene was produced at the Willis Avenue plant between 1918 and 1977. Additional operations reportedly took place at the Willis Avenue plant from 1918 to 1977 including production of hydrochloric acid, caustic soda, caustic potash, and chlorine gas (OBG 1990). The Benzol plant operated from as early as 1903. This plant produced benzene, toluene, xylenes, and naphthalene by the fractional distillation of coke "light oil." The Solvay Process Company operated a coke plant from 1892 through 1923[1]. A phenol production plant operated from 1942 to 1946 (PTI 1992). Materials associated with these operations may have been disposed of in

[1] There is an apparent discrepancy regarding the dates of operation of the coke plant in the referenced *Site History Report* [PTI 1992]; page 54 of the report states that the coke plant was operational from 1892 to 1923, and page 47 of the report states that coke ovens were used through 1924, although the 1924 map on page 14 of the report denotes "coke ovens not present."

Wastebeds 1-8 with the Solvay waste slurry or by alternative means; although there are no records or reports to indicate this occurred.

Wastebeds 1-6 were in use before 1926, although no definitive construction date is available. Wastebeds 7 and 8 were not used until after 1939 and remained in use with Wastebeds 1-6 until 1943, when all wastebeds were closed because of an incident involving Wastebed 7 (BBL 1989). A dike along Wastebed 7 failed on November 25, 1943, and an area along State Fair Boulevard was flooded with Solvay waste.

Subsequent uses of the Site included construction of Interstate-690 (I-690) prior to 1958, construction of the I-690 and New York State Route 695 interchange between 1973 and 1978, and the operation of a landfill on a portion of Wastebed 5 by Crucible Specialty Metals (Crucible) from 1973 to 1988 (Calocerinos & Spina [C&S] 1986). The Crucible Landfill covers approximately 20 acres and contains an estimated volume of 225,100 cubic yards of non-hazardous and hazardous wastes (C&S 1986). The NYSDEC approved the revised Crucible Landfill closure plan in 1986, and the landfill was closed with a cap in 1988. Long-term monitoring of the Crucible Landfill is performed annually, consistent with the landfill closure requirements. The City of Syracuse and Onondaga County used a portion of the wastebeds from 1925 to 1978 for sewage sludge disposal; however, the nature, volume, and exact boundaries of this activity are unknown.

The Site is owned by the State of New York and Onondaga County. The New York State Fair uses a portion of the Site for parking. In 2013, the County constructed the West Shore Bike Trail across a portion of the Site. The trail starts at the eastern end of the Orange lot and continues across the elevated portion of the Site until it crosses NMC and connects to the existing East Shore Trail. In 2015, the County constructed the Onondaga County Lakeview Amphitheater (Lakeview Amphitheater) as an outdoor performance and event complex capable of servicing over 17,500 patrons. In addition to the back-of-house, stage-house, pavilion, and loading dock, there are four outer buildings (two restroom facilities, a concession stand, and a box office). Associated infrastructure includes access roadways and site utilities (power, water, sanitary sewer, drainage, and data/communications). In 2018 the New York State Department of Transportation (NYSDOT)began access improvements, including paving of the Orange Lot and entry and exit ramps to I-690 and 695. The remainder of the Site is currently vegetated (the wastebed slopes along the Onondaga Lake shoreline and east of the mouth of NMC where exposed Solvay waste was covered as a part of the WB 1-8 OU-1 Scope of Work). **Figure 2** illustrates the approximate Site and property boundaries. The Onondaga County Deed requires that this property be maintained as parkland or for other public use.

2. SITE REMEDY SUMMARY

This section includes a summary of the Integrated IRM objectives, a description of the selected remedy, governing documents, and field modifications. **Table 1** provides a summary of the chronology of events from submitting the design documents through completion of construction. **Table 2-1** summarizes field modifications that document changes to the IRM design.

2.1 INTEGRATED IRM OBJECTIVES

In accordance with the NYSDEC's RAD, the IRM objectives were to mitigate the following, to the extent necessary and practicable within the scope of the IRM:

- Direct contact with and ingestion of exposed Solvay waste and other contaminated soil along the eastern shoreline
- Discharge of NMC sand and gravel unit and eastern shoreline groundwater to Onondaga Lake and NMC
- Discharge of shallow and intermediate groundwater to Ditch A
- Direct contact with and discharge of NMC bank seep water and eastern and northern shore seep water to Onondaga Lake and NMC
- Erosion of Solvay waste from the eastern shoreline to Onondaga Lake
- Erosion of Solvay waste along the surf zone of Onondaga Lake (SMU-4) due to wind and wave action
- Erosion of Solvay waste substrate and sediment from the lower reach of Ditch A to Onondaga Lake
- Discharge of seep water from the upper reach of Ditch A to NMC

The objective of the mitigation wetlands was to compensate for the loss of wetland functions and values and open water aquatic habitat disturbed by the Willis Avenue/Semet Tar Beds Sites IRM (Wills/Semet IRM), Wastebed B/Harbor Brook IRM, and Wastebeds 1-8 Integrated IRM by providing a diverse wetland complex comprising aquatic habitat connected to Onondaga Lake and inland wetlands.

The objective of the Remediation Area A Hydraulic Control System is to mitigate potentially unacceptable upwelling velocities and to minimize, to the extent practicable within the context of the IRM, the migration of contaminated groundwater (benzene, toluene, xylene, and phenol) from the area adjacent to Remediation Area A to Onondaga Lake.

As documented in the NYSDEC's RAD and summarized above, the objective of the Eastern Shoreline Hydraulic Control System is to intercept shallow and intermediate groundwater migrating towards Onondaga Lake. The objective of the Eastern Shoreline Seep Collection System is to intercept inland seeps and mitigate discharge to Onondaga Lake and the mitigation wetlands.

As documented in the NYSDEC's RAD and summarized above, the objective of the Ninemile Creek Hydraulic Control System is to intercept groundwater migrating towards Ninemile Creek. Seep collection systems divert seep flow to the collection trench, which also intercepts and collects shallow groundwater. The system provides hydraulic control for groundwater that may otherwise discharge to NMC.

Ditch A is a surface storm water drainage swale that runs along the southern boundary of Wastebeds 1, 7 and 8. Surface water in Ditch A originates from roadways (including I-690), parking lots, topographic highs, and other contributing ditches. The portion of the Ditch A that discharges at the northwestern end into NMC is referred to as Upper Ditch A. The objective of the Ditch A collection and liner systems is to mitigate discharge of seep and groundwater from Wastebeds 1-8 to NMC and Onondaga Lake, while maintaining surface water conveyance. In addition, the Ditch A system minimizes transport of Solvay waste substrate and sediment via Ditch A to NMC and Onondaga Lake.

2.2 DESCRIPTION OF SELECTED REMEDY

In order to meet the objectives described above, the Integrated IRM consists of the following major components:

- Shoreline stabilization systems
- Groundwater and seep hydraulic control systems
- Three groundwater pumping stations and associated force main piping
- Mitigation wetlands
- Ditch A culvert and manhole rehabilitation, accumulated solids removal, and installation of liner system, collection pipe, and temporary stone check dams
- pH Adjustment System

2.3 GOVERNING DOCUMENTS

OBG performed the Integrated IRM construction efforts as a design-build project, therefore, OBG served as the Contractor for construction of this IRM. OBG developed plans (listed below) and submittals, and reviewed Subcontractor submittals for compliance with the design documents. Work was performed in general compliance with the following plans and subsequent NYSDEC-approved field modifications and addenda to the design:

2.3.1 Construction Work Plan

The Construction Work Plan (CWP) (OBG 2013a) outlined means and methods of construction, project schedule, project organization, and project directory. The CWP and its components were reviewed and approved by NYSDEC on March 7, 2013. CWPs for Addenda 1, 2, 3, and 4 were approved by NYSDEC on September 28, 2015, September 13, 2016, August 1, 2017, and November 14, 2017, respectively. The following plans were submitted as part of OBG's CWP.

Material Handling and Disposal Plan. This plan outlined the procedures for excavation, transport, staging and disposal of materials generated during intrusive work.

Water Management Plan. This plan described the equipment and approach for managing construction-generated groundwater and surface water during excavation, by-pass pumping of waters, and other construction activities.

Health and Safety Plan. This plan described the approach and implementation of health and safety procedures

Storm Water Pollution Prevention Plan (SWPPP). This plan provided details of erosion and sedimentation controls and was approved by NYSDEC on June 27, 2012. The SWPPP included a signed Notice of Intent for the work being performed at the Site.

2.3.2 Construction Quality Assurance Project Plan

The Construction Quality Assurance Project Plan (CQAPP) (OBG 2012a) was developed as an Appendix to the NYSDEC-approved Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System 100% Design Report. The CQAPP described the quality control and quality assurance methodologies to be applied in the field and in the lab.

2.3.3 Community Air Monitoring Plan

The Community Air Monitoring Plan (CAMP) (OBG 2012b) provided an outline of the air monitoring activities to be performed during construction of the IRM. Work was performed in accordance with the CAMP.

2.3.4 Citizen Participation Plan

The Citizen Participation Plan (CPP) (OBG 2007) was developed in accordance with NYSDEC's *Citizen Participation in New York's Hazardous Waste Site Remediation Program; A Guidebook*, dated June 1998 (NYSDEC 1998). The CPP was developed to promote public understanding of departmental responsibilities, planning activities, and remedial activities. The CPP provided an opportunity for the public to submit information that may have assisted in development of a comprehensive remedial program that was protective of both public health and the environment and responsive to the public's concerns.

Fact sheets summarizing significant activities in non-technical language were developed for distribution at public meetings and placed at document repositories.

2.3.5 Subcontractor Work Plans

OBG reviewed subcontractor's plans and submittals for compliance with the Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System 100% Design Report (OBG 2012c) and other applicable governing documents. The subcontractors who performed work as part of the Integrated IRM are listed in **Section 3.1**.

2.4 SUMMARY OF FIELD MODIFICATIONS

During construction of the Integrated IRM, field modifications to the design documents were developed and approved by NYSDEC. The following table includes a brief summary of field modifications. Correspondence and details of the field modifications are included in **Appendix A.**

Table 2-1. Field Modifications and Addenda

Number	Description
1	The length and width of the seep aprons along Ninemile Creek were reduced as shown on C-17 and C-18 to coordinate with the standard sized gabion mattresses. A 3-foot wide gabion mattress was included at the base of the seep aprons to act as a buttress during seep apron installation. Type 'J' select fill was specified on sheet C-18 at the location of an additional observed seep.
2	The location of the Northern Shoreline Pumping Station was adjusted, resulting in changes to alignments in the Remediation Area A HCS and the Northern Shoreline Pump Station Force Main.
3	A biaxial geogrid was installed instead of a reno/gabion mattress and Envirogrid™ at the western-most seep apron at Ninemile Creek area.
4	The overhead Solvay Electric service to the Eastern Shoreline Pump Station was rerouted from north of Booster Pump Station No. 3 to south of Booster Pump Station No. 3. The service for the Northern Shoreline Pump Station was modified from a sub-feed from the Eastern Shoreline Pump Station to a new 13.8 kV Solvay Electric service, per utility direction.
5	Data loggers were installed at approximate elevations of 353 feet AMSL for Northern Shoreline and NMC, and 352.5 feet AMSL for Eastern Shoreline so they would be within the water column.
6	Cleanout G13 in the Eastern Shoreline collection pipe and its associated stone access pathway turnaround were not installed. The collection pipe was installed with a 50-foot horizontal bend radius instead of a hard bend as shown in the design, and the associated access area was restored as vegetative cover instead of installing the stone access pathway.

Table 2-1. Field Modifications and Addenda

Number	Description
7	Concrete pads were installed around observation ports located at NMC and the Northern and Eastern Shorelines to promote easy access during maintenance activities and to provide protection from vehicular traffic. Modifications to the NMC observation ports were made due to the field realignment of the NMC groundwater collection trench, which shifted the collection pipe into the stone access pathway and subjected the observation ports to potential traffic loads.
8	The revetment design was modified whereby limits of the proposed revetment grading were shifted on sheets C-11, C-12, C-13, C-14, C-31, C-32, C-34, C-50A, C-50B, C-50C, and C-51. Cross sections were also updated on sheet C-79. The Northern Shoreline Electrical Enclosure area on sheets C-14, C-34, and C-51 was shifted slightly toward the lake to avoid conflict with the toe of the existing slope, expanded to provide adequate clearance between equipment and fence, and its electrical equipment was updated to show manufactured dimensions.
9	The Lower Ditch A channel improvements and Eastern Shoreline Access Pathway entrance were revised based on new topography generated after clearing and grubbing. Revisions included: the elimination of a 186-foot long 6-foot diameter culvert pipe extension, changes to the cover system material in the downstream portion of Lower Ditch A, inclusion of a design detail to install geomembrane liner system on the portion of channel that contains steep side slopes, realignment of the Eastern Shoreline Access Pathway in the vicinity of the Eastern Shoreline Pumping Station and relocation of the point of access, revision of bollard locations and electrical equipment dimensions and locations at the Eastern Shoreline Pump Station, and revisions to the interface between the Onondaga Lake Capping, Dredging, Habitat and Profundal Zone Contract – Remediation Area C and Lower Ditch A.
10	The revetment toe of slope and the vegetative cover were revised as shown on sheets C-11 and C-12. The revetment toe line was extended to the end of the revetment area, and the vegetative cover shown at the base of the revetment was removed.
11	The slope of approximately 225 feet of revetment was revised in Revetment Area 2, as shown on sheets C-12 and C-79. Existing materials in this area were hard and cement-like, and therefore, in order to reduce the volume of excavation, the revetment slope above elevation 372.0' was revised from 1V:2H to maximum 1V:1.5H. The spacing of joint plantings was revised from 3' to 4', which was the original design intent.
12	Three isolation valves installed on the Wastebeds 1-8 force main at the inlet of the Willis Ave GWTP equalization tanks were relocated/modified. The original configuration of these valves made them difficult to maintain. As such, one of the original actuated valves was swapped out with a manual isolation valve and the other actuated valve was retrofitted as a manual chain operated valve.
13	Soft material was encountered and removed during construction of the temporary access road along the Northern Shoreline. Type "K" limestone armor material was used to backfill this area to reach the revetment toe subgrade elevation. Triaxial 140 Geogrid was used below the revetment toe subgrade elevation where required.
14	Additional seep collection was installed within approximately 1-acre of NMC, and Northern and Eastern Shorelines as shown on sheets C-7, C-8, C-10, C-15, C-18, C-22, C-27, C-28, C-29, C-30, C-35, C-36, C-42, C-47, C-48, C-49, C-50 C-52, C-53, C-76 and C-84. Two additional

Table 2-1. Field Modifications and Addenda

Number	Description
	abandoned pipes (NS-ADD-PIPE-01 and SP-122; see sheet C-15) were discovered along Northern Shoreline. No seepage was observed associated with NS-ADD-PIPE-01, and it was buried and no further actions were taken. SP-122 was plugged as a part of the integrated IRM. Seepage was later observed around the exterior of the pipe, and this seepage was directly piped to the nearest clean-out associated with the collection system.
15	A barrier arm gate was included at NMC, NMC guide rail components were revised, bollards were added at the NMC vehicle turnaround near the pump station, spacing was reduced between NMC access pathway markers from 300' to 100', the "Typical Inland Wetland Berm and Vent Detail" shown on sheet C-84 was revised to more clearly indicate the limits of various soil covers, turtle nesting zones shown on sheet C-49, C-50, and C-84 at inland wetland A were revised, language denoting scour protection mats on sheets C-24, C-25, C-26, C-29 and C-30 was revised, and the location of installed observation ports OP-G10 and OP-G18 was revised due to a minor shift of the installed collection trench alignment based on encountered field conditions.
16	A dedicated header system conveys the passive recovery well water to the Northern Shoreline Pump Station. The Remediation Area A HCS water levels will continue to be controlled via the wet well and associated pumping and conveyance system. An interim vacuum extraction system was installed, as shown on sheets G-1, C-1, C-14, C-15, C-16, C-65A, C-80, C-89, C-90 and M-3, to achieve hydraulic control and maintain lake capping schedule.
17	Storm sewer piping on sheet C-17 was reconfigured to accommodate a vehicle access ramp connecting the NMC access pathway to the Staging Area B access pathway, the proposed riprap swale on sheet C-18 was modified to avoid a conflict with the installed electrical duct bank, and visual screening of the NMC pump station was reconfigured to include fabric screening instead of a vegetative visual barrier.
18	Mirafi 565 was removed from the cross-section detail at Northern Shoreline and Eastern Shoreline where Wastebed 1-8 restoration interfaces with Onondaga Lake restoration. Six inches of Type 'H' fill was substituted for 12 inches of topsoil on the Northern Shoreline as shown on sheet C-90, and 12 inches of Type 'E' fill (brickyard shale) was substituted for six inches of Type 'H' fill on the Northern Shoreline as shown on sheet C-90. The use of Type 'E' fill was intended to reduce infiltration into the collection trench of Onondaga Lake during high water events.
19	Per a request made by the Onondaga County Lakeview Amphitheater team, approximately 6,000 cubic yards of future spoils excavated from the Northern Shoreline dedicated passive well collection system were staged at Area B.
20A/B	Existing underground utilities (force main, communication, and electric) associated with the Northern Shoreline conveyance system were relocated to facilitate construction of the Onondaga County Lakeview Amphitheater.
Addendum 1	Scope was modified to include: installation of HDPE piping under I-690, the I-690 Bridge Street on/off ramp, and the Orange Lot ramp; cleaning, inspection and cured-in-place pipe (CIPP) rehabilitation of Ditch A culverts; and installation of mechanical and electrical upgrades at the Eastern Shoreline Pump Station. (See **Exhibit 18**)

Table 2-1. Field Modifications and Addenda

Number	Description
Addendum 2	Cleaning, inspection, survey, and sampling of the Ditch A storm sewer laterals. The pre-design investigation included cleaning and CCTV inspection of approximately 10,000 linear feet of storm sewer laterals that discharge to Ditch A. Also included are survey of various storm sewer structures and pipes and water sampling at a maximum of 30 storm sewer pipes found to have infiltration. The pre-design investigation information aided in refining the remedial design for the Ditch A remedy. The remedy included installation of approximately 5,000 feet CIPP within site storm water laterals and epoxy lining of associated structures. (See **Exhibit 19**)
Addendum 3	Installation of a pH Adjustment Building to treat groundwater collected along Upper Ditch A before discharge to the Onondaga County Department of Water Environment Protection sewer, which ultimately discharges to the Onondaga County Metropolitan Wastewater Treatment Plant (Metro). The system's major components include the Upper Ditch A wet well, wet well pumps, chemical feed pumps, a chemical storage tank, pH adjust tanks, and process piping. A flow diversion from the Ninemile Creek Pump Station to the Ditch A pH adjustment building, which is approximately 560 feet of 6-inch SDR-17 HDPE and 300 feet of 6-inch SDR-9 HDPE, was routed under I-690. Two double-cleanouts installed along the force main alignment and one Drain Vault were installed to provide another cleanout access point and provide a means for the pipes to achieve adequate depth for frost protection. (See **Exhibit 20**) A metering pump was installed adjacent to an existing pH adjustment tank to allow for Sodium Hydroxide to be added when low pH conditions exist.
Addendum 4	A Ditch A liner system was installed, as well as collection pipe and seep aprons to mitigate discharge of seep and groundwater from Wastebeds 1-8 to NMC and Onondaga Lake, while maintaining surface water conveyance. (See **Exhibit 21**) Seep apron extensions to Seeps 1 and 2 were performed in order to mitigate the seepage present on the slope of the Ditch A System. At both locations, a 20' x 20' seep apron and associated geotextiles were installed to convey two seeps expressing leachate on the berm of Wastebeds 7 and 8 to the existing Ditch A seep collection system. In 2020, two storm water pipes on the southwest side of Ditch A were replaced. The storm water pipe between catch basin CB-13 and culvert-26 (located between Ditch A cleanouts CO-18 and CO-19) was replaced by NYSDOT in May 2020. Following pipe replacement, a boot was installed around the new storm water pipe outlet, the HDPE liner was repaired, the geocushion was replaced, and the excavation was backfilled to original grade. The storm water pipe between catch basin CB-2 and culvert-52 (located between Ditch A cleanouts CO-11 and CO-12) was replaced by New York State Department of Ag & Markets in October 2020. Following pipe replacement, the HDPE liner was repaired, the geocushion was replaced, and the excavation was backfilled to original grade.
Addendum 5	At the Northern Shoreline a 585-foot-long and 20-foot-deep physical barrier of steel sheet piling was constructed. The top of sheet piling was installed to 365 feet AMSL which is approximately 1 foot below grade. The joints of the sheets were welded (in pairs) and then installed with hydrophilic sealant in the seams that were not welded. The top 1 foot of the

Table 2-1. Field Modifications and Addenda

Number	Description
	non-welded pairs were secured to each other by welding the top 1 foot of the seam to the adjacent sheet to provide additional stability. (See **Exhibit 22**)
Addendum 6	At the Eastern Shoreline two physical barriers of steel sheet piling that are cumulatively 1300 feet long, and 20 feet deep were constructed. The top of sheet piling was installed to 366.5 feet AMSL which is approximately 1 foot below grade. The joints of the sheets were welded (in pairs) and then installed with hydrophilic sealant in the seams that were not welded. The top 1 foot of the non-welded pairs were secured to each other by welding the top 1 foot of the seam to the adjacent sheet to provide additional stability. (See **Exhibit 23**)
Addendum 7	Activities performed as a part of this Addendum will be submitted under a separate cover.

3. INTEGRATED IRM REMEDIAL ACTION

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System 100% Design Report (OBG 2012c) and subsequent modifications and addenda to the design noted in **Section 2.4**. The Site encompasses specific areas that are referred to throughout this document: namely Ninemile Creek, Eastern Shoreline, Northern Shoreline/Remediation Area A, and the Lower, Middle, and Upper Reaches of Ditch A.

The following sections represent the completed construction components of the Integrated IRM. Record Drawings included in **Appendix B** were developed based on as-built survey information provided in **Exhibit 1**.

3.1 SUBCONTRACTORS AND CONSULTANTS

The following is a list of Subcontractors and Consultants that performed work during IRM construction and a brief summary of their tasks.

- OBG (now known as Ramboll) – Engineer, Construction Manager, and Contractor
- Abscope –Sheet Piling Modifications
- Accutest Laboratories – Analytical testing of soil and water samples
- Adirondack Environmental Service – Lab work for x-ray fluorescence and x-ray diffraction
- Allied Biological – Herbicide application
- Anchor QEA – Geotechnical professional services
- Atlantic Testing Laboratories LTD – Geotechnical testing of imported fill and concrete testing
- Atlas Fence – Site fencing
- Burns Bros Contractors, Inc. – Mechanical installation
- Butler Fence Company, Inc. – Fence and gate installation
- Chenango Contracting, Inc. – Geotextile and geomembrane liner installation
- CME – Geotechnical testing of imported fill and concrete testing
- Corrosion Products and Equipment, Inc. – Coating of pump stations
- CT Male Associates – Surveying Services
- Dan's Excavation Service Inc – Special coatings installation
- Environmental Design and Research – Professional visual services
- George Spak – Herbicide application
- Geo-Solutions, Inc. – Oversight of groundwater trench installation
- Geosyntec – Geotechnical investigation and consultation
- Ground Effects – Seeding and mulching
- Joseph M. McMullen – Environmental professional services
- WM. J. Keller & Sons Construction – Horizontal Directional Drilling work
- Kenney Geotechnical Engineering Services – Third party liner inspection

- Lawntech – Organic amendment placement and hydroseeding
- Lindsey Aggregates – Clean Fill Materials Hauling
- Lockwood Remediation Technologies – Dewatering systems
- NYEG – Well drilling
- O'Connell Electric – Electrical installation
- Parratt Wolff, Inc. – Well drilling
- Precision Industrial Maintenance – Pipe cleaning, inspection and lining
- Rantec Corporation – Guar supplier
- Riccelli Enterprises, Inc. – Clean fill trucking
- Ridley Electric – Electrical Installation
- Robert H. Law, Inc. – Hauling
- S&K Environmental – Revetment Equipment Services
- SS Papadopulos & Associates – Hydrogeological professional services
- Sun Environmental Corp – Pipe and wet well cleaning
- Syracuse Business Services – Aerial photography
- Syracuse Utilities – Directional drilling of force main
- Thew Associates – Surveying
- Tug Hill – Construction of pump stations
- Vari-Tech – Pipe welding
- W. F. Saunders & Sons, Inc. – Trucking
- WD Malone Trucking & Excavating Inc – Horizontal directional drilling
- Whelan & Curry Construction Services Inc – Prefab building erection

3.2 PRE-CONSTRUCTION MEETING

A Pre-Construction meeting was held by OBG on 9/4/2012 to review key topics prior to initiating construction activities.

3.3 SITE PREPARATION AND MOBILIZATION

OBG mobilized equipment, personnel, materials, and supplies necessary to perform the proposed IRM. Mobilization included:

- Temporary Site Facilities including portable toilets
- Equipment and Material storage trailer
- Fracture Tanks and Water Management Equipment
- Air Monitoring Equipment
- Safety and Personal Protective Equipment

Equipment and materials were mobilized on an as needed basis.

Clearing and Grubbing. Clearing consisted of cutting brush and trees from the work area. A portion of the large trees were stockpiled for use as habitat features in the restoration wetlands; the balance of the cleared materials was chipped at an on-Site location. Stumps were removed and chipped.

Utility marker layout. Layouts of utilities are shown on the Record Drawings in **Appendix B**. OBG coordinated the location of utilities in the field with Dig Safely New York, as appropriate and in accordance with the CWP, dated November 2012.

3.4 GENERAL SITE CONTROLS

Construction was performed in accordance with the NYSDEC-approved CWP developed by OBG and subsequent NYSDEC-approved field modifications and addenda to the design. Additional plans for general site controls are summarized below.

Erosion and sedimentation control. Methods used to manage water in work areas were performed in accordance with the Water Management Plan. The areas around perimeters of work areas were managed according to the NYSDEC-approved CWP and SWPPP.

Work zone traffic control. Work zone traffic controls including signage, cones, and barriers were used during construction in order to provide safe passage of construction vehicles in and out of OBG work zones. A Journey Management Plan was also developed to coordinate traffic patterns and control methods with other contractors working on the Site.

Dust control. The NYSDEC-approved Material Handling and Disposal Plan was developed as part of the NYSDEC-approved CWP and describes the measures taken to minimize generation of dust. Dust was monitored at the perimeter of the Site in accordance with the NYSDEC-approved CAMP. Dust monitoring and control was implemented in areas of active construction. Dust was suppressed with application of water via a water truck.

Construction waters. Construction water, defined as waters that enter the work area either as ground water or surface water, was pumped to on-Site storage tanks for settlement prior to discharge to the Willis/Semet Groundwater Treatment Plant (GWTP) for treatment, in accordance with the Water Management Plan. Water and solids generated during Ditch A culvert cleaning activities were collected as a slurry via a vacuum truck and disposed of in a bermed area of Staging Area C.

Egress housekeeping. Stabilized construction entrances were installed to reduce the tracking of mud and soil onto paved roads. Excessive mud tracked onto roads was removed and/or cleaned as necessary.

General site security. On-site personnel and visitors were required to sign-in and sign-out at the OBG field office trailer.

Vehicular traffic was permitted in designated parking areas within the Orange Lot. However, construction-area traffic was restricted to authorized vehicles and personnel only. During nonworking hours, construction entrances were gated and locked and portable equipment was stored in secure locations. Excavations were protected using construction fence and by staging equipment to minimize access.

3.5 SITE ACCESS AND STAGING AREA INSTALLATION

Both permanent and temporary access pathways were constructed across the Site to provide access for construction activities and long-term operations and maintenance. Permanent access pathways were installed such that natural vegetation could occur once construction traffic had ceased. Access pathway details and alignments are shown on the Record Drawings in **Appendix B**.

The Clean Backfill Staging area was installed in the northern corner of the Orange Lot and covers approximately 5 acres of the Site. Excavated Material Staging Areas A, B, and C were constructed at the Northern Shoreline, NMC, and Eastern Shoreline areas of the site, respectively. The areas cover approximately 1.5 acres, 1.5 acres, and 6 acres. Additionally, the Ninemile Creek and Onondaga Lake Support and Staging Area was constructed

adjacent to the NMC Access Pathway, covering approximately 4 acres. The staging areas are illustrated on **Figure 2**. Details regarding staging area construction can be found in the CWP (OBG 2013a).

Areas targeted for access pathways and staging areas were cleared and grubbed, as necessary. Clearing consisted of cutting Phragmites, brush, and trees from the work area and chipping the brush and trees on-site near the Clean Backfill Staging area.

3.6 REMEDIAL ACTION COMPONENTS

3.6.1 Shoreline Stabilization Systems

Slope stabilization systems were used to minimize the erosion of Solvay waste by wind and wave action. Two areas of the Site required stabilization: a steep embankment area (Steep Cliffs) and a shallow sloped shoreline area located along the northern and eastern shorelines of the Site. A vegetated on-shore revetment was used to stabilize approximately 1,700 feet of Steep Cliff area adjacent to Onondaga Lake SMUs 3 and 4. The revetment consists of 10-to-18-inch rip-rap and a bank run gravel filter material that acts as a separation layer between the armor stone and underlying soil. Excavation and surface preparation of the existing Steep Cliff area and backfilling of the on-shore revetment were performed in stages limited to 20-foot sections. Following excavation and surface preparation of the Steep Cliff area, approximately 12 inches of bank run gravel was installed above the underlying substrate. 24 inches of rip-rap was then installed on a slope from the cliff toe to elevation 372 feet. The rip-rap was vegetated between elevations 364 and 372 feet with several species of live stakes including *Salix discolor*, *Cornus sericea*, *Cornus amomum*, and *Sambucus canadensis*. Live stakes were installed through the rip-rap and into the filter material and underlying substrate approximately every 4 feet, in a stratified random fashion.

The slopes above the armor stone (*e.g.,* above elevation 372) were regraded and covered with 4 inches of topsoil. This area was restored with seed and live stakes to minimize erosion and provide habitat enhancement. A successional old-field seed mix and biodegradable coconut fiber erosion control blanket were applied to restored areas above the armored portion of the revetment between elevations 372 feet and 380 feet. The erosion control blanket was staked in place with a combination of wooden t-stakes and bio-mat live stakes (pussy willow) to facilitate establishment of woody species above the revetment stone face. Both vegetation systems were installed on existing grade. Record drawings in **Appendix B** detail the construction of the revetment and slope above the armor stone, including changes documented in Field Modifications No. 8, 10, 11, and 13 (**Appendix A**).

The Eastern Shoreline revetment was replaced in the spring of 2017 by new construction associated with the Onondaga County boat dock and a trail which provides access to the Lakeview Amphitheater via Onondaga Lake.

The shallow shoreline stabilization system was installed within the lake and extending up to an elevation of 365 feet (pre-construction grade) along the Wastebeds 1-8 shoreline in both SMUs 3 and 4 to achieve consistency of stabilization and restoration approaches. The stabilization system was installed to mitigate erosion caused by wind-wave action and to provide habitat enhancement.

Approximately 7,000 feet along the Eastern Shoreline received a vegetated stabilization system consisting of 6 inches of Type 'H' material beneath a 12-inch topsoil habitat layer. An additional 1,200 feet along the Northern Shoreline received a vegetated stabilization system consisting of 12 inches of Type 'E' (brickyard shale) beneath a 6-inch Type 'H' habitat layer. The Northern Shoreline stabilization system was modified to reduce infiltration into the Northern Shoreline collection trench of Onondaga Lake during high water events. Both the Northern and Eastern shoreline stabilization areas were targeted with a Shoreline Meadow restoration consisting of a mix of seeding, plugs, and live stakes intended to restore species that were once abundant along the shore of Onondaga Lake (OBG 2012c).

Shoreline stabilization systems at elevations below 365 feet (pre-construction grade) were completed as part of the Onondaga Lake dredging and capping project (Parsons and Anchor QEA 2012) and restored by O'Brien & Gere. Inclusion of the Shoreline Enhancement areas and Dredge Transition zones (Parsons and Anchor QEA,

2014) expanded restoration of the existing WB 1-8 IRM shoreline to include approximately 5.1 acres of shoreline enhancement below final elevation 366.5 feet. Vegetation within the shoreline enhancement area was established in the same manner as the shoreline meadow and in accordance with Planting Tables 5, 6 and 7A as presented in the Onondaga Lake Capping, Dredging, Habitat and Profundal Zone (SMU 8) Final Design Habitat Addendum (Parsons and Anchor QEA, 2014). Herbaceous plugs and seed were installed from elevation 366.5 feet to 365 feet. The Lake Design called for planting of herbaceous plugs down to mean lake level (approximately 363 feet); however, due to unseasonably high lake water levels at the time of planting, herbaceous plugs were not planted lower than conditions allowed.

3.6.2 Hydraulic Control Systems

The hydraulic control systems were installed to control the movement of shallow and intermediate groundwater, thus creating a hydraulic barrier that mitigates contaminated groundwater and seep water from entering NMC and Onondaga Lake. Trenches and passive wells collect and convey the groundwater and seep water to one of three pump stations that convey the water to the Willis/Semet GWTP. The groundwater collection systems are as follows:

- Eastern Shoreline Hydraulic Control System

  The Eastern Shoreline HCS consists of an approximately 6,700-linear-foot collection trench and passive recovery wells. The trench is comprised of a 12-inch slotted HDPE pipe installed at approximately 10 feet below ground surface (bgs) and surrounded by sand backfill. 223 passive recovery wells are spaced along the trench at approximately 30-foot intervals. Passive wells were installed through the trench to the top of the silt and clay unit and convey groundwater to the collection trench. The slotted 12-inch collection pipe conveys water to the Eastern Shoreline Pump Station, which pumps it via a 6-inch HDPE pipe to the GWTP for treatment.

  Fourteen piezometers were installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells.

- Remediation Area A Hydraulic Control System

  The Remediation Area A HCS consists of an approximately 1,050-linear-foot collection trench and passive recovery wells. The trench comprises a 6-inch slotted HDPE pipe installed approximately 9 feet bgs and surrounded by sand backfill. 44 passive recovery wells are spaced along the trench at approximately 24-foot intervals. Passive wells were installed through the trench to the top of the silt and clay unit beneath the deltaic deposits and convey groundwater to the collection trench. The slotted 6-inch collection pipe conveys water to the Northern Shoreline Pump Station, which pumps it via a 4-inch HDPE pipe to the Eastern Shoreline Pump Station.

  For Field Modification No. 16, an 8-inch HDPE dedicated passive well collection pipe (header pipe) was installed in the collection trench parallel to the existing collection pipe. The header pipe connects directly to the passive recovery wells and conveys groundwater to the Northern Shoreline Pump Station.

  Three piezometers were originally installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells. Three clusters of discrete piezometers were installed in November 2015 to supplement the original piezometers due to groundwater density variability along Remediation Area A.

- Ninemile Creek Hydraulic Control System

  The Ninemile Creek HCS consists of an approximately 1,800-linear-foot collection trench and passive recovery wells. The trench comprises a 6-inch slotted HDPE pipe installed between 10 to 20 feet bgs and surrounded by sand backfill. 53 passive recovery wells convey groundwater to the collection trench. Passive

wells are spaced approximately 40 feet apart, except in the area of the Ninemile Creek deltaic deposits where spacing is 20 feet. The slotted 6-inch collection pipe conveys water to the Ninemile Creek Pump Station, which pumps it via a 4-inch HDPE forcemain to the Eastern Shoreline Pump Station.

Five piezometers were originally installed along the hydraulic control system and screened to monitor intermediate groundwater elevation. The piezometers were spaced approximately 500 feet apart and installed midway between adjacent passive wells. One additional piezometer was installed in September 2019 to monitor intermediate groundwater south of the Ninemile Creek Pump Station.

Details supporting passive recovery well and piezometer spacing are included in the Final Design Report (OBG 2012c). Alignment and construction details for the groundwater collection systems are provided in the Record Drawings in **Appendix B**. Changes to collection system alignment are documented in Field Modifications No. 1, 2, 6, 7, 14, and 15 (**Appendix A**).

3.6.3 Seep Collection Systems

The seep collection systems were installed to isolate groundwater from surface water and collect groundwater discharging in the form of visible seeps. The seep collection systems are:

- Eastern Shoreline Seep Collection System

  The Eastern Shoreline Seep Collection System trench is comprised of a 6-inch perforated HDPE pipe installed at a varying depth (a minimum of 4.5 feet bgs) and surrounded by stone backfill. Collected seep water is conveyed by gravity flow via a dedicated solid wall 6-inch HDPE pipe to the Eastern Shoreline Pump Station.

- Ditch A Seep Collection System

  The Ditch A Seep Collection System consists of approximately 5,400 feet of 8-inch perforated HDPE pipe installed at a depth of 24-inches bgs. A drainage divide exists within the ditch alignment; groundwater collected west of the divide is gravity fed to the pH Adjust Building, treated, and then conveyed to the county sewer system, and groundwater collected east of the divide is conveyed to the Eastern Shoreline Pump Station and then pumped via forcemain to the Willis Ave GWTP.

3.6.4 Groundwater Pumping Stations and Forcemains

Three pump stations and four forcemains were installed to convey the collected ground and seep water from the trenches to the GWTP.

Pump Stations

- Northern Shoreline Pump Station – Conveys northern shoreline groundwater to the Eastern Shoreline Pump Station via forcemain.
- NMC Pump Station – Conveys NMC seep water and former NMC Deltaic Deposit groundwater to the Eastern Shoreline Pump Station via forcemain.
- Eastern Shoreline Pump Station – Conveys the collected Site water to the GWTP.

Forcemains

- NMC Forcemain – conveys water from the NMC Pump Station to the combined forcemain junction.
- Northern Shoreline Forcemain - conveys water from the Northern Shoreline Pump Station to the combined forcemain junction.
- Combined Forcemain – conveys combined water from the NMC and Northern Shoreline Forcemains to the Eastern Shoreline Pump Station.
- Eastern Shoreline Forcemain – conveys the collected Site water to the GWTP

Locations of the pump stations and forcemains are provided in the Record Drawings (**Appendix B**) and were adjusted based on Field Modifications No. 2, 4, 17, and 20A/B (**Appendix A**).

H-piles were used during the IRM beneath the pump stations and other significant structures, as identified in the Record Drawings **(Appendix B),** to avoid unfavorable structure settlement that could lead to other infrastructure damage associated with the structures (e.g., piping, conduits, etc.).

3.6.5 Mitigation Wetlands

The wetland mitigation included the construction of a minimum of 9.5 acres of wetlands. Approximately 2.3 acres were installed as connected wetlands and approximately 7.2 acres were installed as inland wetlands. The wetland mitigation complex is located within the low-lying eastern shoreline of the Site along the southern shoreline of Onondaga lake.

Inland wetland areas (A, B, and C), as constructed per the Record Drawings (**Appendix B**), are located between the existing 365-foot and 370-foot contours. After achieving wetland subgrades, a geotextile construction fabric was installed on top of existing site material and backfilled with 6 inches of Type I – Liner Puncture/Gas Venting Layer Sand. A low permeability layer, consisting of a 40-millimeter geomembrane liner system, was installed over the sand layer along with an additional geotextile construction fabric intended to protect the liner. The geomembrane liner extended to the top of the berms which were constructed to contain each inland wetland. A 24-inch habitat layer was installed on top of the geomembrane liner to bring the wetland elevation to final grade. This habitat layer consisted of 12 inches of Type H – Habitat Subgrade, beneath 12 inches of topsoil.

Inland wetlands A, B and C were restored using a combination of vegetative establishment strategies including the use of seed and herbaceous plant materials in the form of plugs and bare-root stock. Wetland A was restored using wetland seed mix and wet meadow, shallow emergent, and deep emergent plant species. Wetland B and Wetland C were restored with wetland seed mix and a mix of both wet meadow and shallow emergent plant species.

Approximately 50 native plant species, including some that are locally uncommon (e.g., *Spartina pectinata*, *Zizania aquatic*, and *Hierochloe odorata*), were introduced to the restored wetlands. Initial observations suggest successful establishment of wetland vegetation across the restored inland wetlands, with most herbaceous plugs surviving the first growing season and putting on substantial growth. Initial growth from the wetland seed mix also appeared to be vigorous with wild rice (*Zizania aquatic*) and beggar ticks (*Bidens frondosa*), providing significant cover throughout the wetlands.

The connected wetland, as constructed per the Record Drawings (**Appendix B**), is located between inland wetlands A and B. The connected wetland was dredged and capped as part of the Onondaga Lake remediation scope (Parsons 2017). The connected wetland is located between the lakeshore and 368-foot contour and includes a wet meadow**,** shallow emergent, and deep emergent zones. The groundwater collection system is routed inland of the connected wetland.

3.6.6 Vegetated Swales

Vegetated storm water swales were constructed and restored to manage water quality treatment volume at the Site. Swales were constructed along Eastern Shoreline, the NMC shoreline between the access pathway and toe of slope and at the top of slope above the access pathway, and Northern Shoreline adjacent to the access pathway (**Appendix B**).

These swales were constructed to contain standing surface water following storm events. Therefore, these areas were seeded with a swale seed mix comprised of emergent and wet meadow species capable of establishing quickly and tolerating periodic flooding. In order to not restrict swale flows and protect the liner, woody species were not included in the planting list for this area.

A portion of the Northern Shoreline vegetated swale was eliminated to facilitate construction of the Onondaga County Lakeview Amphitheater. The section of vegetated swale removed was located at the northern end of the shoreline, directly south of the Northern Shoreline Pump Station.

The Onondaga County West Shore Trail extension in 2019 (Barton & Loguidice 2018) removed a portion of the swale upslope of Wetland C constructed as a part of the IRM Mitigation Wetlands (**Section 3.6.5**) and Vegetated Swales (**Section 3.6.6**). The swale was reconstructed to run along the south side of the trail extension with 2 outlets to the swale that discharges to Wetland C.

3.6.7 Weir Box Abandonment

Weir boxes and associated piping left in place after closure of the wastebeds were identified at various locations around the Site. This infrastructure, detailed in the Record Drawings (**Appendix B**), may present a preferred pathway for potentially impacted groundwater and surface water to migrate to Onondaga Lake. As part of the IRM, the weir boxes were filled with flowable fill or other suitable material, and the pipes were plugged to mitigate potential water migration.

3.6.8 Addenda 1 and 2 – Ditch A

The Ditch A liner and habitat layer were constructed as detailed in the Record Drawings (**Appendix B**) and as detailed in the Honeywell Wastebeds 1-8 Integrated IRM – 100% Design Report (OBG 2012c). Field Modification No. 9 details changes to the plan for the Lower Ditch A section based on field conditions (**Appendix A**). Submittals for Addenda 1 and 2 are included in **Exhibit 18** and **Exhibit 19**, respectively.

In 2019, NYSDOT started construction on NYS Fairgrounds Access Improvement Project – Phase 2 (NYSDOT, 2019). As part of the project, a pedestrian bridge was installed, spanning from the orange lot directly to the NYS fairgrounds. The bridge construction over Ditch A included installation of a 14.25-foot embankment over a 48-inch smooth wall HDPE culvert. The culvert conveys water through the embankment and maintains surface water flow along Ditch A.

In 2020, Onondaga County started construction on the Canalways Trail Extension Project Phase 1 (Barton & Loguidice, 2020). As part of the project, a shared-use path crossing lower Ditch A was installed. The construction of the path over lower Ditch A included removal of the original liner system and stone, ditch regrading to support path installation, and reinstallation of the liner system and stone cover as documented in Canalways Trail Extension Project Phase 1 Record Drawings (Barton & Loguidice, 2020).

3.6.9 Addendum 3 – pH Adjustment System

The construction of the pH adjustment system included the excavation of the building foundation, installation of building foundation footers and foundation walls, wet well installation, and site work associated with the pH adjustment building, including site grading, construction of access pathways, installation of gravity discharge piping, incoming potable water service, underground duct bank excavation, and storm water drainage structures and conveyance piping. The building and associated infrastructure was constructed in accordance with the record drawings in **Appendix B** and associated submittals in **Exhibit 20**. Details of the operation of the pH adjustment system is provided in the Ditch A pH Adjustment System Operations & Maintenance (O&M) Manual, to be submitted under separate cover.

3.6.10 Addendum 4 – Seep Aprons

To mitigate discharge of seep and groundwater from Wastebeds 1-8 to NMC and Onondaga Lake, while maintaining surface water conveyance, a liner system was installed, as well as collection pipe and seep aprons. (See **Exhibit 21**)

To mitigate the seepage present on the slope of the Ditch A System, seep apron extensions to Seeps 1 and 2 were installed. At both locations, a 20’ x 20’ seep apron and associated geotextiles were installed to convey two seeps expressing leachate on the berm of Wastebeds 7 and 8 to the existing Ditch A seep collection system.

In 2020, two storm water pipes on the southwest side of Ditch A were replaced. The storm water pipe between catch basin CB-13 and culvert-26 (located between Ditch A cleanouts CO-18 and CO-19) was replaced by NYSDOT in May 2020. Following pipe replacement, a boot was installed around the new storm water pipe, the HDPE liner was repaired, the geocushion was replaced, and the excavation was backfilled to original grade. The storm water pipe between catch basin CB-2 and culvert-52 (located between Ditch A cleanouts CO-11 and CO-12) was replaced by New York State Department of Ag & Markets in October 2020. Following pipe replacement, the HDPE liner was repaired, the geocushion was replaced, and the excavation was backfilled to original grade.

3.6.11 Addendum 5 - Remediation Area A Hydraulic Control System Sheeting Modification

To reduce influx of Onondaga Lake water into the Remediation Area A HCS, a physical barrier consisting of steel sheet piles was installed between a section of the collection system and Onondaga Lake. The steel sheet piles consisted of 20-foot-long 2.375-foot wide SCZ-14 Cold Formed Steel Sheet Piles which were installed to an average depth of 1 foot below existing grade. A sacrificial anode cathodic protection system was installed to reduce the corrosion rate and increase the effective life of the sheet pile wall. Additional sheet piling details are provided in **Exhibit 22** and **Appendix B.**

3.6.12 Addendum 6 - Eastern Shoreline Hydraulic Control System Sheeting Modification

To reduce influx of Onondaga Lake water into the Eastern Shoreline HCS and improve the system's ability to maintain the Eastern Lakeshore Pump Station setpoint, steel sheet piles were installed between two sections of the Eastern Shoreline HCS and Onondaga Lake. The steel sheet piles consisted of 20-foot-long, 2.375-foot wide SCZ-14 cold formed Steel Sheet Piles which were installed to an average depth of 1 foot below existing grade. A sacrificial anode cathodic protection system was installed to reduce the corrosion rate and increase the effective life of the sheet pile wall. Additional sheet piling details are provided in **Exhibit 23** and **Appendix B**.

3.6.13 Vegetative Cover Systems

The vegetative cover system was installed for areas of the Eastern Shoreline not occupied by inland wetlands, the connected wetland, storm water features, wetland berms, areas of integration with the shoreline stabilization, and access pathways.

The constructed vegetative cover comprises approximately 3.76 acres of a 24-inch habitat layer consisting of 12 inches of Type H and 12 inches of topsoil planted as described herein. Woody species comprise the majority of the plant species mix, complementing the mostly herbaceous species installed within the adjacent mitigation wetland complex. Woody plantings consisted of both 1-gallon to 2-gallon potted stock and live stakes. A successional old-field seed mix was also broadcast in these areas to provide early successional habitat during the development of larger trees and shrubs. Trees were planted on approximately 8-foot centers compared to shrubs (potted and live stakes) which were held to a 4-foot spacing.

The limits and a typical cross section of vegetative cover are shown on the Record Drawings included in **Appendix B**.

3.7 SITE RESTORATION

Areas disturbed during construction that were not within specific restoration treatment areas (*e.g.*, vegetative cover areas, access pathways, seep aprons, etc.), were restored to resemble a successional old field (**Exhibit 11**).

3.7.1 Topsoil and Seeding

Topsoil placement and seeding of seep aprons, vegetated wet swales, inland wetland berms, vegetative cover areas, staging areas, and the shallow shoreline stabilization area was performed and is detailed in the Record Drawings in **Appendix B**. For additional information related to each restoration treatment area (*e.g.*, vegetative cover areas, seep aprons, etc.) refer to **Section 3.6.**

3.7.2 Site Security

As shown on the Record Drawings in **Appendix B**, fence removed during construction was replaced in kind. Additional chain link fence with screens was installed around pump stations and padlocks were installed on the

gates and the electrical enclosures. Locks were installed on well and observation port covers to minimize unauthorized access.

3.7.3 Restoration of Surfaces

Surfaces and other features disturbed or damaged during the performance of the work were restored to pre-construction condition. Where required, topsoil and seeding were placed to minimize the potential for erosion and maintenance of the restored area.

3.8 IMPORTED BACKFILL

Prior to placement of select fill and topsoil on-Site, the source names and locations of the material, affidavits, and material test reports were reviewed. As required, samples were collected, tested, and evaluated in accordance with the CQAPP and technical specifications included in the Final Design Report (OBG 2012c). Samples were submitted, as applicable, for particle size distribution, laboratory compaction characteristic using modified Proctor effort, and/or analyzed for characteristics of hazardous waste found under 6 NYCRR Part 375 -6.8; Table 375-6.8(a) and Subpart C of 40 Code of Federal Regulations 261.20. The moisture-density relationship of applicable select fill material was estimated by ASTM D698, Method D.

Analytical results for select fill and topsoil materials are provided in **Exhibit 2**. A summary of imported backfill sources with estimated quantities is shown in **Table 2**.

3.9 MATERIAL HANDLING AND CHARACTERIZATION

Material was handled in accordance with the Material Handling and Disposal Plan that was included as part of the NYSDEC-approved CWP (OBG 2013a). Composite samples of the staged excavated material were collected for characterization analysis at Staging Areas A, B, and C. A total of 47 waste characterization samples were collected. Samples were analyzed for the following:

- Total and Toxicity Characteristic Leaching Procedure (TCLP) Volatile Organic Compounds by Method 8260 and 1311/8260, respectively,
- Total and TCLP semivolatile organic compounds by Method 8270 and 1311/8270, respectively,
- Mercury by Method 7471,
- Total and TCLP metals by Method 1311/6010/7470 and 6010/7041,
- Corrosivity by Method 9045,
- Reactivity by Method SW 846 Chapter 7, and
- Ignitability by Method 1010.

The total quantities of materials removed during construction of the IRM can be found in **Table 4**. A summary of the samples collected to characterize the waste, and associated analytical results are included in **Table 5** and electronic copy in **Exhibit 3**. A tracking log of materials excavated during IRM construction and staged on site, including a summary of NYSDEC approvals for consolidation within staging areas, is presented in **Table 6**.

These materials were handled in accordance with the Record of Decision (NYSDEC and USEPA 2014) for this site.

3.9.1 Ninemile Creek Material

Excavated material from along NMC, NMC groundwater and seeps collection trenches, seep aprons, force main, electrical conduit bank, and NMC pump station were direct loaded into off-road dump trucks. The material was then transported, staged, and allowed to dewater, as necessary, at Excavated Material Staging Area B as shown in **Figure 2**. The following were also staged at Staging Area B:

- Soil cuttings from the installation of passive wells

- Material generated during the decommissioning of existing wells and piezometers
- Excavated material from miscellaneous excavations (*e.g.*, utility poles, directional drill for installation of force main on slopes)
- Additional material from former Staging Area A and the amphitheater and Orange Lot construction

Management procedures for construction water from dewatering activities were carried out in accordance with the CWP (OBG 2013a).

Sediment and floodplain soil were removed from a portion of Ninemile Creek in coordination with Parsons' remedial activities. Excavated material was transported to LCP for consolidation with other excavated channel and floodplain material. This work is summarized in the Construction Completion Report for the Ninemile Creek Reaches BC and AB Remedial Action (Parsons 2016).

3.9.2 Eastern Shoreline Material

Excavated material from the Eastern Shoreline groundwater and seeps collection trenches, seep aprons, inland wetlands, force main, electrical conduit bank, and Eastern Shoreline pump station were direct loaded into off-road dump trucks. The material was then transported, staged, and allowed to dewater, as necessary, at Excavated Material Staging Area C as shown in **Figure 2**. The following were also staged at Staging Area C:

- Soil cuttings from the installation of passive wells
- Material generated during the decommissioning of existing wells and piezometers
- Excavated material from miscellaneous excavations (*e.g.*, utility poles, directional drill for installation of force main on slopes)
- Additional material from Wastebeds 1-8 OU-1 construction

Management procedures for construction water from dewatering activities were carried out in accordance with the CWP (OBG 2013a).

3.9.3 Remediation Area A Material

Excavated material from the Northern Shoreline groundwater and seeps collection trenches, force main, electrical conduit bank, and Northern Shoreline pump station were direct loaded into off-road dump trucks. The material was then transported, staged, and allowed to dewater, as necessary, at former Excavated Material Staging Area A as shown in **Figure 2**. The following were also staged at former Staging Area A:

- Soil cuttings from the installation of passive wells
- Material generated during the decommissioning of existing wells and piezometers
- Excavated material from miscellaneous excavations (*e.g.*, utility poles, directional drill for installation of force main on slopes)

Former staging Area A was originally located within the amphitheater building footprint. Its material was later relocated to Staging Area B or placed beneath the amphitheater lawn seating area and properly covered during amphitheater construction (Gilbane 2018). Management procedures for construction water from dewatering activities were carried out in accordance with the CWP (OBG 2013a).

3.9.4 Ditch A Material

Solids and semi-solid material removed during excavations within Ditch A, check dam maintenance, and culvert cleaning were direct loaded into off-road dump trucks or vacuum trucks. The material was then transported, staged, and allowed to dewater, as necessary, at Excavated Material Staging Area C as shown in **Figure 2**. Soil cuttings from pre-design investigation well installation were also transported to Staging Area C.

Management procedures for construction water from dewatering activities were carried out in accordance with the CWP (OBG 2013a).

3.10 COMMUNITY AIR MONITORING PROGRAM

As specified in the CAMP, perimeter Air Quality Monitoring (AQM) was conducted during intrusive site activities which consisted of collection trench excavation and well installation, soil removals, and Ditch A excavations. A total of 375 days of AQM was conducted.

AQM work perimeter limits and/or action levels specified in the CAMP were evaluated as the difference between the downwind perimeter concentration and the upwind (background) perimeter concentration over the same measurement period (background-corrected concentration). Copies of daily air monitoring reports are provided in electronic format in **Appendix C** and include diagrams of the AQM station locations for each monitoring day.

AQM results over the 375 days of perimeter AQM are presented in **Appendix C** and summarized below.

- Total Volatile Organic Compounds – no exceedance of the CAMP work perimeter limit (5 ppm) or action levels (3 ppm and 2 ppm); the maximum 15-minute downwind concentration was 0.8 ppm;
- Odors – no exceedance of the CAMP action level (7 OU); the maximum observed downwind odor level was <2 Odor Units (OU);
- Dust – three exceedances of the CAMP work perimeter limit (150 µg/m^3) and ten exceedances of the control level (100 µg/m^3);
  - Maximum per 375 days of AQM: 3,026 µg/m^3 – this was at an upwind station and not due to site-related activities.
  - Maximum background-corrected per 375 days of AQM: 428 µg/m^3 – this was at a downwind station but determined to not be due to site-related activities.
  - Maximum background-corrected per 375 days of AQM due to site activities: 228 µg/m^3
    - Over the 375 days of AQM there were 10 exceedances above the dust Control Level (100 µg/m^3), and 3 exceedances above the dust Work Perimeter Limit (150 µg/m^3). Water truck dust suppression and stopping work were two methods utilized as corrective actions.
- H_2S – no exceedance of the 10 ppb perimeter action level; the maximum downwind concentration was 5 ppb.

The Addendum 3 scope of work CAMP indicated that emissions of volatile organic compounds (VOCs) were not anticipated during remedial activities due to work being performed primarily outside the Wastebeds 1-8 Site boundary (OBG 2017). AQM activities for Addendum 3 remedial actions included dust monitoring at downwind and upwind site perimeters and hydrogen sulfide monitoring when a rotten-egg type odor was observed at the downwind site perimeter. No odors were observed during the Addendum 3 remedial activities; therefore, VOC monitoring was not performed as documented in **Appendix C**.

3.11 REPORTING AND DOCUMENTATION

Monthly reports were developed for the Integrated IRM and submitted to NYSDEC. The photo log, showing construction progress throughout the IRM, is provided in **Appendix D.** Construction photos of Addenda 1-6 are provided in **Appendix E**.

4 GREEN REMEDIATION TECHNIQUES

This section provides details associated with the use of green remediation concepts and strategies used as part of the IRM, in accordance with DER-31 (NYSDEC 2010) and USEPA Superfund Green Remediation Strategy (September 2010), in order to minimize environmental impacts.

4.1 DESIGN PHASE EFFORTS

The following green remediation concepts were incorporated into the design:

- Specification of passive wells requiring no pumps or energy source
- Specification of high efficiency pump motors
- Specification of various bioengineering techniques that create habitat while also managing site storm water
- Wetlands with extensive habitat features (proper grades and hydrology, rock piles, brush piles, turtle nesting zones, and bird boxes)
- Vegetated revetment provided stabilization and green cover
- Grasslands on the seep apron cover and tree plantings provided upland habitat that complemented wetlands
- Landscape enhancements along the Loop the Lake bike path

4.2 Construction Phase Efforts

The following green remediation concepts were employed during construction:

- Local sourcing of select fill materials
- Use of local labor resources and subcontractors
- Use of biodiesel in heavy equipment
- Minimization of equipment idling, consistent with 6 NYCRR Part 217-3 – Idling Prohibition for Heavy Duty Vehicles
- Use of bio-polymer (guar) slurry during collection trench construction to reduce water pumping and fuel consumption during trench piping installation.
- Use of Onondaga lake water for irrigation to establish vegetation along the Eastern Shoreline and routine equipment maintenance.

4.3 SITE MANAGEMENT EFFORTS

- Dedicated local Operations & Maintenance and Performance Verification & Monitoring staff

5 STARTUP AND COMMISSIONING

To confirm proper installation and operation of system components in a systematic manner, startup and commissioning procedures were performed following project completion. This activity included startup and commissioning procedures for the systems and corresponding components associated with the Eastern Shoreline, Northern Shoreline, and NMC pump stations as well as the pH Adjustment Building.

Details of the operation of the pump station and collection systems are provided in the O&M Plan, to be submitted under separate cover. Startup and Commissioning Documentation is provided in **Exhibit 4**, and pump station and structure leak testing documentation is provided in **Appendix F**.

5.1 STARTUP DOCUMENTATION

The Wastebeds 1-8 Integrated IRM Start-Up Plan (OBG 2013b) summarizes the procedures for start-up of the Wastebeds 1-8 Integrated Interim Remedial Measure Groundwater and Seep Collection Systems (Integrated IRM Collection Systems). The objective of the Start-Up Plan is to demonstrate that the Integrated IRM Collection Systems are accomplishing the respective IRM objectives (OBG 2013b). The Wastebeds 1-8 Integrated IRM: Start-Up Plan was reviewed and approved by the NYSDEC on June 18, 2013 (NYSDEC 2013).

Following operational verification, a start-up summary report was prepared and submitted to NYSDEC for each hydraulic control system (Remediation Area A, Ninemile Creek, Eastern Lakeshore, and pH Adjustment Building) in March 2015 (OBG 2015a), November 2013 (OBG 2013c), March 2015 (OBG 2015b), and November 2018 (OBG 2018), respectively.

5.2 COMMISSIONING DOCUMENTATION

OBG developed commissioning documentation to identify the approach and track startup and commissioning activities. The purpose of the commissioning plan was to identify the overall strategy that would be implemented to start-up the collection and conveyance systems. Installation Commissioning (IC) checklists were developed to verify that the equipment and systems were connected and operational prior to Operational Commissioning (OC) testing.

5.2.1 Pump Station Installation Commissioning

IC procedures included field verification of individual components of the collection system. These procedures were designed to confirm components were properly installed in the correct location, as indicated in the project documents, and were ready for operation. IC involved the following elements:

- Vessel Leak Test Verification
- Force Main Pressure Test Verification
- Equipment Installation Verification
- Instrumentation Installation Verification
- Electrical Installation Verification
- Motor Overload Setting Verification
- Process and Instrumentation Diagram (P&ID) Walk-down Verification

Each wet well and valve vault was visually inspected to verify that the pump stations were installed in general compliance with the design documents. Each wet well and valve vault was hydrostatically tested to verify leakage was within the limits defined in the design documents and applicable code. Testing reports are included in **Appendix F**.

Hydrostatic test reports were reviewed to verify that piping requiring pressure testing had been tested, in accordance with the project documents, prior to being placed in service. Pressure test documentation is provided in **Appendix F.**

Newly installed process equipment was inspected to verify that the installation was in conformance with design documents and manufacturer's recommendations. Equipment tag numbers were field inspected to confirm equipment was installed at the correct locations.

Instrument installations were field inspected to confirm proper installation per design documents and manufacturers' recommendations. Calibration and field testing of instrumentation for proper functionality was conducted. Tagging of instrumentation was field verified. Elevations of level control float switches and sensors were verified to be in accordance with the design documents and functional requirements. Loop checks were performed on each instrument and control device to confirm proper function and communication to the appropriate Operator Interface Terminal (OIT).

Electrical terminations and wire labeling were field inspected to verify that conductors were properly connected to equipment and/or terminal blocks in the appropriate panel and to verify that the installation was in conformance with design documents and manufacturer's recommendations. Power feed (480 volt) conductors were Megger tested prior to circuit energization to confirm the integrity of wire insulation. Documentation of Megger tests are attached in **Exhibit 12**.

Motor overload settings were field verified to confirm they were properly set based on actual motor nameplate data as required by National Electric Code (NEC) 430.32.

The system was inspected to verify proper installation of process equipment and piping in accordance with the electrical drawings and the P&ID, as shown on the Record Drawings in **Appendix B**.

5.2.2 Pump Station Operational Commissioning

OC activities began following completion of IC. During this process, elements of the collection and conveyance systems were tested to confirm that overall system function and performance of individual elements met design and operational requirements. Functionality of individual elements, sub-systems, and the complete system were demonstrated by initially starting up wet wells individually followed by allowing all three wet wells to function as a system. During these activities, pump operation, control sequences, level and flow controls, interlocks, and alarm functions were field verified for proper operation as defined in the design documents. Testing conducted included, but was not limited to:

- Pump start sequence
- Pump stop sequence
- Pump fail alarm indication
- High-high level alarm indication
- Low-low level alarm indication
- Low flow alarm indication
- Pump Station Interlocks

5.2.3 pH Adjust System Installation Commissioning

Installation commissioning procedures for the pH Adjustment Building included field verification of individual components. These procedures were designed to confirm components were properly installed in the correct location, as indicated in the project documents, and were ready for operation. IC involved the following elements:

- Vessel Leak Test Verification (pH Adjustment Tanks, wet well, and acid tanks)
- Mechanical Piping Pressure Test Verification
- Equipment Installation Verification
- Instrumentation Installation Verification

- Electrical Installation Verification
- Motor Overload Setting Verification
- P&ID Walk-down Verification

The wet well and mechanical valves were visually inspected and hydrostatically tested to verify that the system was installed in general compliance with the design documents and applicable codes. Testing reports are included in **Appendix F**.

Newly installed process equipment was inspected to verify that the installation was in conformance with design documents and manufacturer's recommendations. Equipment tag numbers were field inspected to confirm equipment was installed at the correct locations.

Instrument installations were field inspected to confirm proper installation per design documents and manufacturers' recommendations. Calibration and field testing of instrumentation for proper functionality was conducted. Elevations of level control float switches and sensors were verified to be in accordance with the design documents and functional requirements. Loop checks were performed on each instrument and control device to confirm proper function and communication to the appropriate OIT.

Electrical terminations and wire labeling were field inspected to verify that conductors were properly connected to equipment and/or terminal blocks in the appropriate panel and to verify that the installation was in conformance with design documents and manufacturer's recommendations. Power feed (480 volt) conductors were Megger tested prior to circuit energization to confirm the integrity of wire insulation. Documentation of Megger tests are attached in **Exhibit 12**.

Motor overload settings were field verified to confirm they were properly set based on actual motor nameplate data and as required by NEC 430.32.

The system was inspected to verify proper installation of process equipment and piping in accordance with the electrical drawings and the P&ID, as shown on the Record Drawings in **Appendix B**. pH Adjustment Building IC documents are attached as **Exhibit 4**.

5.2.4 pH Adjust System Operational Commissioning

Operational commissioning activities began following completion of IC. During this process, elements of the pH Adjustment system were tested to confirm that overall system function and performance of individual elements met design and operational requirements. Functionality of individual elements, sub-systems, and the complete system were demonstrated by initially starting up wet well pumps individually. During these activities, pump operation, pH control sequences, level and flow controls, interlocks, and alarm functions were field verified for proper operation as defined in the design documents. Testing conducted included, but was not limited to:

- Pump start sequence
- Pump stop sequence
- Pump fail alarm indication
- Pump alternation sequence
- Level and pH interlocks
- High pH alarm indication
- High-high pH alarm indication
- Low pH alarm indication
- Low-low pH alarm function
- Low flow alarm indication

pH Adjustment Building OC documents are attached as **Exhibit 4**.

5.3 WARRANTY INFORMATION

Warranty information for specific equipment is included in the manufacturer's manuals included in **Exhibit 6**. Warranties for the installed equipment are also included in the O&M Plan, to be submitted under a separate cover.

6 CONSTRUCTION QUALITY ASSURANCE/QUALITY CONTROL

Materials used during the remedial action met the Construction Quality Assurance/Construction Quality Control requirements of the NYSDEC-approved CQAPP (OBG 2012a). The following exhibits provide details about materials documented or tested during construction:

- Off-Site Select Fill Testing Data (**Exhibit 2**)
- Compaction Reports (**Exhibit 7**)
- Geomembrane and Third-Party Liner Inspection (**Exhibit 8**)
- Mechanical-Piping and Appurtenances (**Exhibit 9**)
- H-Pile Records **(Exhibit 10)**
- Fertilizer, Seed, and Vegetation **(Exhibit 11)**
- Megger Tests **(Exhibit 12)**
- Special Coatings **(Exhibit 13)**
- Bills of Lading **(Exhibit 14)**
- Geotextiles **(Exhibit 15)**
- Concrete **(Exhibit 16)**
- Bio Polymer Slurry **(Exhibit 17)**

7 CHALLENGES ENCOUNTERED

The following provides a summary and brief description of challenges encountered during construction.

Unpredictable Consistency of Solvay Waste

Solvay waste ranges in consistency from concrete hardpan to toothpaste. This created a myriad of challenges during construction as briefly discussed below:

- During the installation of the Ninemile Creek and Eastern Shoreline collection pipes, several areas of cementitious overburden material were encountered. These areas were mitigated by using a hoe ram attachment on the excavator and breaking the material up before removal.
- Operators and subcontractors were not experienced working in Solvay waste and there was a steep learning curve especially for excavator operators. Excavation sidewalls tended to be unstable and unpredictable and heavy equipment could cause "pumping" even after areas were backfilled and restored.
- During directional drilling activities hardpan was encountered causing the drill head to deflect off-course, however, when softer material was encountered the drill head tended to dive deeper as the Solvay Waste was not strong enough to support the weight.
- Various concrete structures experienced differential settlement, most notably the wetland outlet structures.

Unexpected Subsurface Conditions

During installation of the horizontally bored piping during Addendum 1 (**Exhibit 18**), several subsurface obstructions were encountered, and the alignment of the pipe was necessarily altered to avoid these obstructions.

Guar Biopolymer

The use of guar biopolymer slurry during installation of the collection trenches made visual inspection of the pipe and sand backfill challenging and made it difficult to manage backfill placement and obtain accurate survey data.

Limited Access

Due to the limited access and real estate for staging areas, significant coordination was required with other Honeywell and Onondaga County Amphitheater contractors.

Select Fill

- Topsoil meeting technical specifications and analytical requirements and that was not heavily impacted by invasive species was challenging to source.
- Properly composted, weed free organic matter meeting analytical requirements was challenging to source.
- Use of nutrient-rich topsoil in wetlands in lieu of bank run, or another similar material, likely promoted Typha dominance and increased density of 'weedy' plant species (i.e. ragweed, purple loosestrife, mugwort).

pH Adjustment Building

During the excavations for the wet well and effluent line of the pH Adjustment Building, running sand was encountered, which made digging more challenging.

Limited Work Areas

During the installation of the Ninemile Creek HCS, there were limited work areas adjacent to this portion of the site due to the Ninemile Creek HCS proximity to Ninemile Creek and the adjacent steep slopes just above the location of the collection trench. This limited the allowable weight and size of the equipment along the Ninemile Creek HCS between OP-3 to OP-5. The narrowest part of the working area was subsequently adjacent to the area requiring the deepest excavation for system installation.

Scaling

After hydraulic control system construction, the following operational and system modifications were implemented to mitigate the effect of scaling and sedimentation:

- Regularly scheduled cleanings and inspections to improve HCS operation and performance.
- Several of the recovery wells on the Ninemile Creek and Remediation Area A HCSs were repaired or cleaned.
- At the Remediation Area A HCS, a dedicated passive recovery well collection pipe (header pipe) was installed for Field Modification No. 16. This modification separates intermediate groundwater from shallow groundwater in the collection trench to reduce scaling associated with mixing waters.
- Regular acid or antiscalant additions are performed at the Ninemile Creek, Northern Shoreline, and Eastern Shoreline pump station wet wells to reduce pump scaling and maintain operational performance.
  - Manual acid additions are performed at the Ninemile Creek Pump Station.
  - A mobile Conex™ structure is used at the Northern Shoreline Pump Station to support automated antiscalant injections into the wet well.
  - A pre-fabricated acid addition structure was constructed at the Eastern Shoreline Pump Station to allow automated injections into the wet well. Design drawings for this structure were developed by Jacobs and are provided in **Exhibit 24**.

Variable Groundwater Densities

At the Ninemile Creek HCS, the density measurements measured in piezometers and passive recovery wells at depths below the trench seem to vary more by location than they do by depth at a single location. The density appears to increase from south/east to the north/west. During an evaluation in 2014, the minimum density measured below the trench was 1.014 grams per cubic centimeter (g/cm^3) at passive recovery well RW-224 and the maximum density measured below the trench was 1.078 g/cm^3 at RW-259. At individual locations, the density profile below the trench is usually relatively uniform or increases slightly with depth. Both the variability and the maximum density measurements from below the trench in the Ninemile Creek HCS are less than they are for the Remediation Area A HCS.

Groundwater density along the Remediation Area A HCS generally varies more by depth than location. During an evaluation in 2015, the minimum density below the collection trench was approximately 1.014 g/cm^3 and the maximum density was 1.124 g/cm^3. Passive recovery wells on the western side of the system exhibited less vertical density variability and lower maximum densities, while passive recovery wells on the northeast side of the system exhibited greater vertical density variability with high maximum densities. Due to the significant density variability of Remediation Area A HCS groundwater, discrete piezometers (PZ-49 through PZ-57) were installed in November 2015.

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OBG. 2012b. *Community Air Monitoring Plan*. O'Brien & Gere Engineers, Inc., Syracuse, NY.

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Tables

Table 1
Wastebeds 1-8 Construction Completion Report
Chronology of Events

Date	Event
23-Aug-10	WBs 1-8 Pre-Design Investigation Work Plan Addendum submitted to NYSDEC (Wastebeds 1-8 Integrated IRM and Mitigation Wetlands - Pre-Design Work Plan Addendum
14-Oct-10	WBs 1-8 Pre-Design Investigation Work Plan Addendum approved by NYSDEC
25-Oct-10	Wastebeds 1-8 Integrated IRM and Mitigation Wetlands - Pre-Design Work Plan Addendum approved by NYSDEC
Apr-11	SWPPP Submitted to NYSDEC for Approval
19-May-11	NYSDEC commented on the Wastebeds 1-8 Cover System Pilot Study letter work plan submitted on April 18, 2011
20-May-11	50% Design Final Report submitted to NYSDEC
20-May-11	WB 1-8 IRM Work Plan submitted to NYSDEC
17-Jun-11	Wastebeds 1-8 Integrated IRM, Mitigation Wetland, and Remediation Area A Hydraulic Control System -- SMU-4 Pre-Design Investigation Addendum Summary June 17, 2011 submitted to NYSDEC
06-Jul-11	NYSDEC provided comments to Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System Work Plan
Aug-11	Response Action Document submitted by NYSDEC
15-Aug-11	Appendix K - Groundwater Modeling for Wastebeds 1-8 (DVD) submitted to NYSDEC
16-Aug-11	Supplemental Design Investigation (SDI) WP, Wastebeds 1 through 8 submitted to NYSDEC
17-Aug-11	Cover System Pilot Study Work Plan/Final submitted to NYSDEC
17-Aug-11	Supplemental Design Investigation (SDI) WP, Wastebeds 1 through 8 approved by NYSDEC
26-Aug-11	Ltr Responses to Cover System Pilot Study DEC comments submitted to NYSDEC
30-Aug-11	Cover System Pilot Study Work Plan/Final approved by NYSDEC
31-Aug-11	Revised Final Wastebeds 1-8 Integrated IRM WP - submitted to NYSDEC
13-Sep-11	Revised Final Wastebeds 1-8 Integrated IRM WP - approved by NYSDEC
Oct-11	Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System Stormwater Management Interim Submittal submitted
04-Oct-11	FM 95% Design Submittal Cover letter and drawings submitted to NYSDEC
04-Nov-11	WBs 1-8 Integrated IRM: Interim Submittals (Groundwater, Stormwater, Wetlands, Steep Cliffs) submitted to NYSDEC
11-Nov-11	WBs 1-8 Integrated IRM: Force Main Design - Construction Design Drawings dated Nov 2011 submitted to NYSDEC
Nov-11	Initiated WBs 1-8 Integrated IRM Force Main construction
16-Nov-11	Response to Comments - Integrated IRM, Mitigation Wetlands, and Remediation Area A Hydraulic Control System 50% Design Report, Wastebeds 1-8 submitted to NYSDEC
27-Nov-11	WBs 1-8 Biopolymer Field Trial submitted to NYSDEC
01-Dec-11	NYSDEC approval of WBs 1-8 Integrated IRM: Force Main Design
02-Dec-11	NYSDEC approval of Wastebeds 1-8 Integrated IRM: Biopolymer Field Trail
02-Dec-11	NYSDEC provided comments to Wastebeds 1-8 Integrated IRM: Stormwater Management Interim Submittal
13-Dec-11	Received NYSDEC comments for Revised Electronic for WBS 1-8 Comment/Response Letter
20-Dec-11	NYSDEC provided comments to Wastebeds 1-8 Integrated IRM: Wetlands Interim Submittal

Table 1
Wastebeds 1-8 Construction Completion Report
Chronology of Events

Date	Event
22-Dec-11	NYSDEC provided comments to Wasteds 1-8 Integrated IRM: Steep Cliffs Stabilization Interim Submittal
28-Dec-11	NYSDEC provided comments to Wastebeds 1-8 Integrated IRM: Groundwater Model and Hydraulic Control System Design Interim Submittal
16-Jan-12	Wastebeds 1-8 Integrated IRM: 95% Design Submittal submitted to DEC
Feb-12	Community Air Monitoring Plan submitted to NYSDEC
06-Feb-12	WB1-8 SDI Report for Honeywell submitted to NYSDEC
10-Feb-12	Four Interim Submittals - A through D submitted to NYSDEC
28-Mar-12	Wastebeds 1-8 Integrated IRM: Biopolymer Field Trial submitted to NYSDEC
Mar-12	Completed WBs 1-8 Integrated IRM Force Main construction
12-Apr-12	Supplemental Design Investigation Summary Report Revisions - Pages 3 of Final Revised Text, and second page of boring SB-257 - submitted to NYSDEC
13-Apr-12	Supplemental Design Investigation letter report Rev3 with page updates 3-27-12 submitted to NYSDEC
26-Apr-12	Wastebeds 1-8 Integrated IRM SWPPP submitted to NYSDEC
28-Apr-12	Highway Work Permit Submitted to NYSDOH and Approved by NYSDOH
10-May-12	Supplemental Design Investigation Summary Report Revisions - Pg. 4 Submitted to NYSDEC
15-May-12	Wastebeds 1-8 Biopolymer Field Trial submitted to NYSDEC
18-May-12	NEPA Report - WB's 1-8 (Social Economic and Environmental Conditions and Consequence) submitted to NYSDEC for review
18-May-12	Wastebeds 1-8 Integrated IRM Stormwater Management Interim Submittal Response to Comments submitted to NYSDEC
18-May-12	Wastebeds 1-8 Integrated IRM Middle Ditch A Interim Design Submittal submitted to NYSDEC
27-Jun-12	Wastebeds 1-8 Integrated IRM SWPPP Approved by NOI and NYSDEC
12-Jul-12	WB 1-8 Integrated IRM Advanced Construction Work Plan submitted to NYSDEC
31-Jul-12	Wb 1-8 Integrated IRM Advanced Construction Work Plan approved by NYSDEC
24-Aug-12	Wastebeds 1-8 Integrated IRM SWPPP Approval letter submitted to NYSDEC
27-Aug-12	95% Design Report - Cover Ltr, Comment/ Response/Tables &Figures submitted to NYSDEC
29-Aug-12	95% Design Report - Cover Ltr, Comment/ Response/Tables &Figures Approved by NYSDEC
31-Aug-12	Highway Work Permit submitted to NYSDEC
Aug-12	Initiated WBs 1-8 Integrated IRM construction
14-Sep-12	ELS - Cleared along the eastern shore during the Fair, Installatin of silt fence, Clearing and construction of the clean fill staging area continues.
24-Sep-12	NMC - Test pits to locate NMC slurry line, clearing for NMC access path and completed the install of silt fence along NMC
03-Oct-12	100% Design, CQAPP, CAMP submitted to NYSDEC
05-Oct-12	Cultural Resources Management Report Phase 1B - Ninemile Creek collection Trench Portion submitted to NYSDEC
08-Oct-12	Clearing of trees and shrubs for access into the Remediation Area A shoreline
19-Oct-12	Draft Wbs 1-8 Integrated IRM, Annotated OM&M Plan Outline submitted to NYSDEC
09-Nov-12	Wastebeds 1-8 Final Integrated IRM Construction Work Plan submitted to NYSDEC

Table 1
Wastebeds 1-8 Construction Completion Report
Chronology of Events

Date	Event
09-Nov-12	Cultural Resources Management Report Phase 1B - Ninemile Creek Collection Trench Portion approved by NYSDEC
04-Dec-12	Wastebeds 1-8 Final Integrated IRM Construction Work Plan approved by NYSDEC with comments
11-Jan-13	Response to NYSDEC's December 4, 2012 comment letter on Wastebeds 1-8 Integrated IRM Construction Work Plan submitted to NYSDEC
01-Feb-13	Wastebeds 1-8 Integrated IRM, Mitigation Wetland, and Remediation Area A Hydraulic Control System 100% Design Changes Summary submitted to Honeywell for review
01-Feb-13	Wastebeds 1-8 Integrated IRM, Mitigation Wetland, and Remediation Area A Hydraulic Control System 100% Design Changes Summary submitted to NYSDEC for review
08-Feb-13	Response to NYSDEC's January 4, 2013 comment letter on the Wastebeds 1-8 Integrated IRM Construction Work Plan submitted to NYSDEC
14-Mar-13	WB 1-8 Field Modification #1 approved by NYSDEC
17-Mar-13	Began ditch cleaning work – excavated from station 0+00 to 1+47.
22-Apr-13	WB 1-8 Field Modification #2 approved by NYSDEC
25-Apr-13	Wastebeds 1-8 Integrated IRM SWPPP cover letter submitted to NYSDEC
03-May-13	WB 1-8 Field Modification #3 approved by NYSDEC
15-May-13	WB 1-8 Field Modification #4 approved by NYSDEC
29-May-13	WB 1-8 Field Modification #5 approved by NYSDEC
13-Jun-13	Submittal of Wastebeds 1-8 Integrated IRM: Start-up Plan
20-Jun-13	NYSDEC Approval of Wastebeds 1-8 Integrated IRM: Start-up Plan
26-Jul-13	WB 1-8 Field Modification #6 approved by NYSDEC
Nov-13	Start up of Ninemile Creek Hydraulic Control System
10-Nov-13	Began construction of revetment access path along Remediation Area A Shore, placed jute mesh biodegradable stabilization fabric under revetment road
12-Dec-13	WB 1-8 Field Modification #8 approved by NYSDEC
15-Dec-13	commenced building Eastern Shore revetment road with item 70
10-Feb-14	WB 1-8 Field Modification #7 approved by NYSDEC
18-Feb-14	WB 1-8 Field Modification #10 approved by NYSDEC
06-Mar-14	WB 1-8 Field Modification #11 approved by NYSDEC
18-Mar-14	WB 1-8 Field Modification #12 approved by NYSDEC
20-Mar-14	Force Main Design Field Modifications #1, #2, and #3 approved by NYSDEC
27-Mar-14	WB 1-8 Field Modification #13 approved by NYSDEC
08-Apr-14	WB 1-8 Field Modification #9 approved by NYSDEC
08-May-14	WB 1-8 Field Modification #14 approved by NYSDEC
10-Jul-14	WB 1-8 Field Modification #10 approved by NYSDEC
10-Jul-14	WB 1-8 Field Modification #15 approved by NYSDEC
16-Oct-14	WB 1-8 Field Modification #16 approved by NYSDEC
30-Oct-14	WB 1-8 Field Modification #17 approved by NYSDEC
Nov-14	Field Modification #16 (North Shore header) Construction Initiated
18-Dec-14	WB 1-8 Field Modification #18 approved by NYSDEC
15-Jan-15	WB 1-8 Field Modification #19 approved by NYSDEC
03-Feb-15	WB 1-8 Field Modification #20a approved by NYSDEC
Feb-15	Field Modification #16 (North Shore header) Construction Completed
Mar-15	Start up of Remediation Area A Hydraulic Control System

Table 1
Wastebeds 1-8 Construction Completion Report
Chronology of Events

Date	Event
Mar-15	Start up of Eastern Lakeshore Hydraulic Control System
28-Sep-15	WB 1-8, Addendum #1 Construction Work Plan approved by NYSDEC
17-Nov-15	WB 1-8 Addendum #1 revised IFC Drawings submitted to NYSDEC
18-Nov-15	WB 1-8 Addendum #1 revised IFC Drawings approved by NYSDEC
Dec-15	Addendum #1 Construction Initiated
24-Aug-16	Draft Ditch A PDI lateral storm water culvert sampling summary submitted to NYSDEC for review
26-Aug-16	WB 1-8 Integrated IRM Addendum #2 Drawings and Specifications submitted to NYSDEC
Aug-16	Addendum #1 Construction Completed
13-Sep-16	Addendum #2 Construction Work Plan approved by NYSDEC
29-Dec-16	Revised final Ditch A PDI summary submitted to NYSDEC for review
Feb-17	Addendum #2 Construction Initiated
10-Feb-17	WB 1-8 Integrated IRM Addendum #3 95% Drawing Package submitted for NYSDEC review
12-May-17	WB 1-8, Addendum #3 drawings Issued for Construction
31-May-17	WB 1-8, Addendum #3 Construction Work Plan submitted to NYSDEC for review
28-Jul-17	WB 1-8, Addendum #3, Field Modification #1 submitted to NYSDEC for review
01-Aug-17	WB 1-8, Addendum #3 Construction Work Plan approved by NYSDEC
19-Aug-17	WB 1-8, Addendum #3 Construction of pH Adjust Building started
25-Aug-17	WB 1-8, Addendum #4 Drawings Issued for Construction
29-Sep-17	WB 1-8, Addendum #3, Field Modification #2 submitted to NYSDEC for review
06-Nov-17	WB 1-8, Addendum #4 Construction Work Plan submitted to NYSDEC for review
14-Nov-17	WB 1-8, Addendum #4 Construction Work Plan approved by NYSDEC
Dec-17	WB 1-8, Addendum #2 Construction Completed
27-Jan-18	WB 1-8, Addendum #3 Construction of pH Adjust Building site-work completed
16-Feb-18	WB 1-8, Integrated IRM Ninemile Creek Flow Diversion drawings Issued For Construction
19-Mar-18	WB 1-8, Addendum #4 Construction Start
08-May-18	WB 1-8, Addendum #5, Field Modification Submitted to NYSDEC for review
10-May-18	WB 1-8, Addendum #5, Field Modification approved by NYSDEC
29-May-18	WB 1-8, Addendum #5, Construction Started
06-Jun-18	WB 1-8, Addendum #5, Construction Completed
Aug-18	WB 1-8, Addendum #3 Construction Completed
28-Sep-18	WB 1-8, Addendum #4, Geomembrane and Collection Pipe Installation Complete
13-Oct-18	WB 1-8, Addendum #3 Construction of pH Adjust Building process and electrical work completed
26-Oct-18	WB 1-8, Addendum #4, Restoration Complete
Nov-18	Start up of pH Adjustment
10-Nov-18	WB 1-8, Addendum #3 Construction of pH Adjust Building commissioning completed
21-Dec-18	WB 1-8, Addendum #4, Construction Complete
27-Feb-19	WB 1-8, Addendum #3, Field Modification #3 submitted to NYSDEC for review
18-Oct-19	WB 1-8, Addendum #6, Field Modification Submitted to NYSDEC for review
05-Dec-19	WB 1-8, Addendum #3, Field Modification #4 submitted to NYSDEC for review
Dec-19	WB1-8, Addendum #6 Construction Initiated
May-20	WB1-8, Addendum #6 Construction Completed

Table 2
Honeywell
Wastebeds 1-8 Construction Completion Report
Quantities of Fill Added

Fill Type	Quantity	Units	Fill Location
4" Crushed Minus (Item 75)	32,924.00	ton	Remediation Area A Shoreline
	48,809.00	ton	Eastern Shoreline
	1,376.00	ton	Staging Area C
Type "E" Select Fill (Item 72), Run-of-Bank Gravel (e.g. brickyard shale)	24,463.00	ton	Ninemile Creek
	6,860.00	ton	Eastern Shoreline
	1,561.00	ton	Clean Fill Staging
Type "M" Select Fill (Item 6500-22), Collection Trench Sand	28,050	ton	Hydraulic Control System Groundwater Trench
Type "K" Select Fill (Item 15 Mod), Revetment Rip Rap	18,160	ton	East Shore and Remediation Area A Revetment
Washed Sand (Item 64)	21,657	ton	Eastern Shoreline
4" to 8" (Item 10)	46.38	ton	Eastern Shoreline Habitat Structures
Washed Sand (Item 65)	1,345	ton	Anywhere where Conduits or FRP Pipe were Installed
Type "F" Select Fill (Item 71), Run-of-Crusher Stone	18,268	ton	Access Pathways beneath Structures
	3,499	ton	Ditch A
Bank Run (Item 70-S)	12,154	ton	Eastern Shoreline
	49,108	ton	Ditch A Seep Aprons
	1,811	ton	Remediation Area A Shoreline
Type "C" Select Fill (Item 77), Crushed Stone	5,887	ton	Gas Venting Layers along Wetlands, Sumps during construction, Subbase for Structures
4" Minus Washed (Item 79)	562	ton	
Type H-SA Riccelli Mix (Item 61, 70S, 40), Habitat Subgrade	10995.96	ton	Ditch A
Lt. Rip Rap (fine stone fill) (Item 14)	8,383.60	ton	Ditch A Swale
Unprocessed (Item 40)	60,960	ton	Topsoil - All Restored Areas
	5,136	cy	Ditch A
River Rock (Type "J") Item 74	13,070.09	ton	Ditch A Seep apron

Table 3
Honeywell
Wastebeds 1-8 Construction Completion Report
Monitoring Well and Piezometer Decommissioning Schedule

Well ID	Sheet #	DIAMETER (inches)	Total Depth (feet)	Date of Well Decommission	Notes
PZ-09	C-3	2	33	NA	Cannot Locate
MW-12S*	C-3	2	16	3/19/2013	
PZ-01	C-4	2	23	3/18/2013	
PZ-02	C-4	2	19	3/12/2013	
OW-08I*	C-4	2	25	2/13/2013	
OW-09I*	C-4	2	27	2/13/2013	
TW-05	C-4	2	27	3/12/2013	
TW-04	C-5	2	105	3/12/2013	
PZ-03	C-5	2	20	3/6/2013	
OW-07D**	C-5	2	97	3/7/2013	
OW-10I*	C-5	2	27	3/13/2013	
PZ-10	C-6	2	35	3/13/2013	
PZ-04	C-7	2	16	3/5/2013	
PZ-08	C-7	2	20	3/5/2013	
PZ-11	C-7	2	36	3/1/2013	
MW-02S*	C-8	2	15	3/1/2013	
MW-02I*	C-8	2	35	3/1/2013	
MW-02D**	C-8	2	103	3/5/2013	
OW-03S*	C-8	2	15	2/28/2013	
OW-04S*	C-8	2	15	3/1/2013	
TW-02S*	C-8	4	15	3/1/2013	
PZ-18	C-8	2	12	2/28/2013	
PZ-19	C-8	2	6	2/28/2013	
PZ-14	C-8	2	37	2/28/2013	
PZ-05	C-8	2	18	2/28/2013	
PZ-06	C-9	2	21	2/25/2013	
PZ-12	C-9	2	41	2/27/2013	
PZ-20	C-9	2	22	2/21/2013	
OW-11I*	C-9	2	42	2/25/2013	
OW-12I*	C-9	2	42	2/25/2013	
OW-13I*	C-9	2	42	2/22/2013	PVC broke at approx. 8' bgs. PVC was grouted in place
TW-06	C-9	2	42	2/27/2013	
PZ-07	C-10	2	20	2/21/2013	
PZ-13	C-10	2	63	2/27/2013	
PZ-21	C-10	2	12	2/21/2013	
PZ-22	C-10	2	7	2/21/2013	
MW-28G	C-14	2	36	2/20/2013	
MW-29G	C-15	2	32	2/19/2013	
MW-11I*	C-15	2	58	3/15/2013	
PZ-16	C-17	2	27	2/18/2013	
PZ-15	C-18	2	23	2/18/2013	PVC broke within auger at approx. 8' bgs. Remaining pvc was grouted in place
MW-26G	C-18	2	36	2/26/2013	
NMC-15S			23	3/19/2013	
NMC-15D			33	3/19/2013	
OW-51	C-18	0.75	NA	NA	Cannot Locate
OW-52	C-18	0.75	NA	NA	Cannot Locate
OW-53	C-18	0.75	NA	NA	Cannot Locate
2-	4" pvc		~6'	9/18/2013 and 9/19/2013	
	old crucible well		~7'	2/26/2013	
*	Shallow and Intermediate wells have a 4-inch steel casing to a depth of approximately 3-feet below ground surface.				
**	Deep wells have a 4-inch casing to a depth of approximately 50-feet below ground surface.				

Table 4
Honeywell
Wastebeds 1-8 Construction Completion Report
Quantities of Fill Removed

Waste Characterization	Approximate Quantity	Units	Disposal Location	Notes
Ninemile Creek Spoils	3500	ton	LCP	This comprises material removed in coordination with Parsons as part of the Ninemile Creek Reaches BC and AB Remedial Action (Parsons 2016).
Ninemile Creek Collection Trench Material	2000	c.y.	Staging Area B	
Upper Reach Ditch A Accumulated Solids	2200	c.y.	Staging Area C	
Lower Reach Ditch A Accumulated Solids	1000	c.y.	Staging Area C	
Remediation Area A Pump Station	97	c.y.	Staging Area A*	
ES Pump Station	125	c.y.	Staging Area C	
NMC Pump Station	180	c.y.	Staging Area B	
Eastern Shoreline Collection Trench Material	9250	c.y.	Staging Area C	
	2000	c.y.	Wetland B Subgrade	
	3000	c.y.	Staging Area B	
Remediation Area A Shoreline Collection Trench Material	2500	c.y.	Staging Area A*	
Remediation Area A Shoreline Header System Installation	2000	c.y.	Staging Area A*	
Eastern Shoreline Forcemain	5000	c.y.	Staging Area C	
Eastern Shoreline Seep Collection Apron	1000	c.y.	Staging Area C	
Ditch A Tributary (Crucible Parking Lot Spur Material)	400	c.y.	Staging Area C	
Revetment Toe	2500	c.y.	Staging Area A*	
Ditch A Spoils	19056	c.y.	Staging Area C	

Notes:

Parsons. 2016. *Ninemile Creek Reaches BC and AB Remedial Action Construction Completion Report.* Onondaga County. New York. Prepared on behalf of Honeywell. September 2016.

* Most Staging Area A material was moved to Staging Area B or placed beneath the Lakeview Amphitheater lawn seating area and properly covered during amphitheater construction (Gilbane. 2018)

Gilbane. 2018. *Construction Completion Report - Lakeview Amphitheater Project.* Onondaga County. New York. Prepared on behalf of Onondaga County. Revised September 2018.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-01 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-03 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-01 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-03 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-01 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-03 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-01 LSWR-07-1000CY 10/18/2013 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0069	0.438	0.0050U	0.0030J	0.0050U	0.0078	0.0056
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0057	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-03 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-05 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-01 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-01 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-01 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-03 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-05 SAA-1-1000CYB 4/11/2013 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0064	0.0026J	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-03 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-03 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-01 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-01 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-01 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-03 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-01 SAB-1-1000CYA 3/27/2013 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0013J	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0017J	0.0050U	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0031J	0.0050U	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-03 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-05 SAB-2-1000CY 3/27/2013 Regular sample	WB18-061313A-03 SAB-3-1000CY 6/14/2013 Regular sample	WB18-061313A-05 SAB-4-1000CY 6/14/2013 Regular sample	WB18-061413-01 SAB-5-1000CY 41442 Regular sample	WB18-091113-01 SAB-6-1000CY 9/11/2013 Regular sample	WB18-091113-03 SAB-7-1000CY 9/11/2013 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0050U	0.0013J	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0017J	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0031J	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-01 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-03 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-01 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-01 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-061313A-01 ESFM-4-1000CY 6/13/2013 Regular sample	WB18-050913A-03 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-03 DA-1-1000CY 4/8/2013 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0050U	0.0057	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U	0.025U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-01 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-01 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-01 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-01 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-01 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-05 WB18-DA-LATERALS 8/11/2016 Regular sample	WB18-081116-01 WB18-OU1-TRENCH-01 8/11/2016 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
BENZENE	0.5	mg/L	0.0050U	0.0044J	0.0053	0.0050U	0.0050U	0.0022J	0.0025U
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
VINYL CHLORIDE	0.2	mg/L	0.025U	0.025U	0.025U	0.025U	0.025U	0.0050U	0.0050U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-1
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8260 TCLP Volatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-081116-03 WB18-PLOTSPOILS-01 8/11/2016 Regular sample	WB18-042418-01 WB18-SAC-042418 4/24/2018 Regular sample	WB18-051618-02 WB18-SAC-051618 5/16/2018 Regular sample	WB18-061418-01 WB18-SAC-061418 6/14/2018 Regular sample	WB18-103018-01 WB18-SAC-103018A 10/30/2018 Regular sample	WB18-103018-03 WB18-SAC-103018B 10/30/2018 Regular sample
1,1-DICHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
1,2-DICHLOROETHANE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
1,4-DICHLOROBENZENE	7.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
2-BUTANONE	200	mg/L	0.10U	0.10U	0.10U	0.10U	ND	ND
BENZENE	0.5	mg/L	0.0025U	0.0025U	0.0025U	0.0025U	0.0090	ND
CARBON TETRACHLORIDE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
CHLOROBENZENE	100	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
CHLOROFORM	6	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
TETRACHLOROETHENE	0.7	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
TRICHLOROETHENE	0.5	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND
VINYL CHLORIDE	0.2	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	ND	ND

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-2
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8270 TCLP Semivolatile Organic Compound Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS 8/11/2016 Regular sample	WB18-081116-02 /B18-OU1-TRENCH-(8/11/2016 Regular sample
1,4-DICHLOROBENZENE	7.5	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
2,4,5-TRICHLOROPHENOL	400	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U
2,4,6-TRICHLOROPHENOL	2	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U
2,4-DINITROTOLUENE	0.13	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
2-METHYLPHENOL	200	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
3&4-METHYLPHENOL	200	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
HEXACHLOROBENZENE	0.13	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
HEXACHLOROBUTADIENE	0.5	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U
HEXACHLOROETHANE	3	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U
NITROBENZENE	2	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
PENTACHLOROPHENOL	100	mg/L	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U	0.10U
PYRIDINE	5	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-2
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/8270 TCLP Semivolatile Organic Compound Data

)1		Field Sample ID	WB18-081116-04	WB18-042418-02	WB18-051618-03	WB18-061418-02	WB18-103018-02	WB18-103018-04
		Location	WB18-PLOTSPOILS-01	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
		Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Regulatory	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Limit	Units						
1,4-DICHLOROBENZENE	7.5	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
2,4,5-TRICHLOROPHENOL	400	mg/L	0.050U	0.050U	0.050U	0.050U	ND	ND
2,4,6-TRICHLOROPHENOL	2	mg/L	0.050U	0.050U	0.050U	0.050U	ND	ND
2,4-DINITROTOLUENE	0.13	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
2-METHYLPHENOL	200	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
3&4-METHYLPHENOL	200	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
HEXACHLOROBENZENE	0.13	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
HEXACHLOROBUTADIENE	0.5	mg/L	0.010U	0.010U	0.010U	0.010U	ND	ND
HEXACHLOROETHANE	3	mg/L	0.050U	0.050U	0.050U	0.050U	ND	ND
NITROBENZENE	2	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND
PENTACHLOROPHENOL	100	mg/L	0.10U	0.10U	0.10U	0.10U	ND	ND
PYRIDINE	5	mg/L	0.020U	0.020U	0.020U	0.020U	ND	ND

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-02 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-04 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-02 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-04 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-02 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-04 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-02 LSWR-07-1000CY 10/18/2013 Regular sample
ARSENIC	5	mg/L	0.0051B	0.0036B	0.50U	0.50U	0.50U	0.50U	0.50U
BARIUM	100	mg/L	0.43B	0.42B	0.36B	0.28B	0.35B	0.35B	0.40B
CADMIUM	1	mg/L	0.00090B	0.0050U	0.0012B	0.00080B	0.0011B	0.0012B	0.0015B
CHROMIUM	5	mg/L	0.010U	0.0065B	0.0012B	0.050U	0.010U	0.010U	0.010U
LEAD	5	mg/L	0.50U	0.50U	0.025B	0.0081B	0.50U	0.50U	0.063B
SELENIUM	1	mg/L	0.033B	0.026B	0.037B	0.036B	0.00020U	0.00020U	0.00020U
SILVER	5	mg/L	0.010U	0.019B	0.050U	0.050U	0.035B	0.039B	0.031B
MERCURY	0.2	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.050U	0.050U	0.035B

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-04 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-06 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-02 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-02 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-02 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-04 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-06 SAA-1-1000CYB 4/11/2013 Regular sample
ARSENIC	5	mg/L	0.50U	0.50U	0.014B	0.50U	0.011B	0.0070B	0.0039B
BARIUM	100	mg/L	0.37B	0.36B	0.64B	0.47B	0.34B	0.39B	0.50B
CADMIUM	1	mg/L	0.0022B	0.0017B	0.0013B	0.0039B	0.00070B	0.0014B	0.0015B
CHROMIUM	5	mg/L	0.010U	0.010U	0.010U	0.0053B	0.0014B	0.0011B	0.010U
LEAD	5	mg/L	0.058B	0.055B	0.011B	0.26B	0.0081B	0.015B	0.0055B
SELENIUM	1	mg/L	0.00020U	0.00020U	0.000094B	0.016B	0.015B	0.00020U	0.00020U
SILVER	5	mg/L	0.035B	0.031B	0.50U	0.010U	0.010U	0.018B	0.011B
MERCURY	0.2	mg/L	0.035B	0.033B	0.0036B	0.00020U	0.00020U	0.010U	0.010U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-04 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-04 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-02 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-02 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-02 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-04 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-02 SAB-1-1000CYA 3/27/2013 Regular sample
ARSENIC	5	mg/L	0.0039B	0.50U	0.010B	0.012B	0.50U	0.50U	0.0070B
BARIUM	100	mg/L	0.38B	0.34B	0.32B	0.26B	0.29B	0.26B	0.39B
CADMIUM	1	mg/L	0.0010B	0.0010B	0.0050U	0.0050U	0.00070B	0.0017B	0.0014B
CHROMIUM	5	mg/L	0.010U	0.0013B	0.0051B	0.0070B	0.010U	0.010U	0.0011B
LEAD	5	mg/L	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U	0.015B
SELENIUM	1	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U
SILVER	5	mg/L	0.020B	0.035B	0.019B	0.017B	0.015B	0.036B	0.018B
MERCURY	0.2	mg/L	0.010U	0.010U	0.050U	0.050U	0.010U	0.050U	0.010U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-04 SAB-1-1000CYB 3/27/2013 Regular sample mg/L	WB18-032713A-06 SAB-2-1000CY 3/27/2013 Regular sample mg/L	WB18-061313A-04 SAB-3-1000CY 6/14/2013 Regular sample mg/L	WB18-061313A-06 SAB-4-1000CY 6/14/2013 Regular sample mg/L	WB18-061413-02 SAB-5-1000CY 41439 Regular sample mg/L	WB18-091113-02 SAB-6-1000CY 41528 Regular sample mg/L	WB18-091113-04 SAB-7-1000CY 9/11/2013 Regular sample mg/L
ARSENIC	5		0.0039B	0.0039B	0.50U	0.010B	0.012B	0.50U	0.50U
BARIUM	100		0.50B	0.38B	0.34B	0.32B	0.26B	0.29B	0.26B
CADMIUM	1		0.0015B	0.0010B	0.0010B	0.0050U	0.0050U	0.00070B	0.0017B
CHROMIUM	5		0.010U	0.010U	0.0013B	0.0051B	0.0070B	0.010U	0.010U
LEAD	5		0.0055B	0.50U	0.50U	0.50U	0.50U	0.50U	0.50U
SELENIUM	1		0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U
SILVER	5		0.011B	0.020B	0.035B	0.019B	0.017B	0.015B	0.036B
MERCURY	0.2		0.010U	0.010U	0.010U	0.050U	0.050U	0.010U	0.050U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-02 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-04 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-02 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-02 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-061313A-02 ESFM-4-1000CY 6/13/2013 Regular sample	WB18-050913A-04 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-04 DA-1-1000CY 4/8/2013 Regular sample
ARSENIC	5	mg/L	0.0095B	0.0096B	0.017B	0.010B	0.017B	0.011B	0.0024B
BARIUM	100	mg/L	0.39B	0.41B	0.16B	0.35B	0.12B	0.15B	0.55B
CADMIUM	1	mg/L	0.021	0.054	0.0036B	0.076	0.0022B	0.0043B	0.1
CHROMIUM	5	mg/L	0.0035B	0.0058B	0.0054B	0.0090B	0.013	0.0054B	0.0060B
LEAD	5	mg/L	0.50U	0.011B	0.50U	0.50U	0.50U	0.50U	0.050B
SELENIUM	1	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U
SILVER	5	mg/L	0.020B	0.019B	0.012B	0.50U	0.023B	0.022B	0.50U
MERCURY	0.2	mg/L	0.010U	0.010U	0.010U	0.010U	0.050U	0.010U	0.010U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS 8/11/2016 Regular sample	WB18-081116-02 WB18-OU1-TRENCH-01 8/11/2016 Regular sample
ARSENIC	5	mg/L	0.0050B	0.50U	0.0064B	0.0098B	0.0076B	0.50U	0.50U
BARIUM	100	mg/L	0.80B	0.39B	1.4	1	0.21B	0.42B	0.55B
CADMIUM	1	mg/L	0.019	0.025U	0.0025B	0.061	0.0022B	0.025U	0.010B
CHROMIUM	5	mg/L	0.0010B	0.0056B	0.0026B	0.0036B	0.018	0.050U	0.011B
LEAD	5	mg/L	0.024B	0.50U	0.070B	0.018B	0.0082B	0.50U	0.50U
SELENIUM	1	mg/L	0.00020U	0.00020U	0.000097B	0.00020U	0.00020U	0.000051B	0.00020U
SILVER	5	mg/L	0.022B	0.50U	0.0070B	0.026B	0.034B	0.50U	0.50U
MERCURY	0.2	mg/L	0.010U	0.0075B	0.018B	0.050U	0.050U	0.050U	0.0058B

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-3
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 1311/6010/7470 TCLP Inorganic Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-081116-04 WB18-PLOTSPOILS-0 8/11/2016 Regular sample	WB18-042418-02 WB18-SAC-042418 4/24/2018 Regular sample	WB18-051618-03 WB18-SAC-051618 5/16/2018 Regular sample	WB18-061418-02 WB18-SAC-061418 6/14/2018 Regular sample	WB18-103018-02 WB18-SAC-103018A 10/30/2018 Regular sample	WB18-103018-04 WB18-SAC-103018B 10/30/2018 Regular sample
ARSENIC	5	mg/L	0.50U	0.50U	0.50U	0.50U	0.014 U	0.014 U
BARIUM	100	mg/L	0.84B	0.36B	0.33B	0.56B	0.64 B	0.63 B
CADMIUM	1	mg/L	0.0037B	0.025U	0.025U	0.025U	0.0050 U	0.0050 U
CHROMIUM	5	mg/L	0.0090B	0.050U	0.0043B	0.0056B	0.010 U	0.010 U
LEAD	5	mg/L	0.50U	0.50U	0.028B	0.50U	0.0090 U	0.0090 U
SELENIUM	1	mg/L	0.00020U	0.50U	0.50U	0.00020U	0.000095 U	0.000095 U
SILVER	5	mg/L	0.021B	0.050U	0.050U	0.50U	0.025 U	0.025 U
MERCURY	0.2	mg/L	0.050U	0.00020U	0.00020U	0.050U	0.0095 U	0.0095 U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-02 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-04 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-02 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-04 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-02 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-04 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-02 LSWR-07-1000CY 10/18/2013 Regular sample
REACTIVE CYANIDE	NC	mg/kg	20U	20U	16U	25U	18U	19U	20U
REACTIVE SULFIDE	NC	mg/kg	126B	145B	144B	249B	180U	190U	116B
SOLIDS, PERCENT	NC	%	49.2	49.5	62.4	39.8	55.6	51.3	50.1
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	11.81	11.29	11.56	11.67	11.25	10.96	11.8

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-04 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-06 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-02 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-02 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-02 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-04 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-06 SAA-1-1000CYB 4/11/2013 Regular sample
REACTIVE CYANIDE	NC	mg/kg	18U	17U	14U	20U	15U	14U	14U
REACTIVE SULFIDE	NC	mg/kg	88.7B	170U	140U	200U	150U	107B	91.9B
SOLIDS, PERCENT	NC	%	54.1	59.3	69.5	51.1	66.4	72	72.7
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	10.9	10.62	9.35	11.6	11.35	8.48	8.39

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-04 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-04 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-02 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-02 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-02 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-04 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-02 SAB-1-1000CYA 3/27/2013 Regular sample
REACTIVE CYANIDE	NC	mg/kg	16U	15U	17U	20U	12U	14U	14U
REACTIVE SULFIDE	NC	mg/kg	120B	73.8B	170U	200U	120U	140U	107B
SOLIDS, PERCENT	NC	%	63.4	65.1	57	49.4	80.5	69.3	72
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	10.69	9.09	11.45	10.23	11.05	11.45	8.48

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-04 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-06 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-04 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-06 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-02 SAB-5-1000CY 41439 Regular sample	WB18-091113-02 SAB-6-1000CY 41528 Regular sample	WB18-091113-04 SAB-7-1000CY 9/11/2013 Regular sample
REACTIVE CYANIDE	NC	mg/kg	14U	16U	15U	17U	20U	12U	14U
REACTIVE SULFIDE	NC	mg/kg	91.9B	120B	73.8B	170U	200U	120U	140U
SOLIDS, PERCENT	NC	%	72.7	63.4	65.1	57	49.4	80.5	69.3
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	8.39	10.69	9.09	11.45	10.23	11.05	11.45

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-02 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-04 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-02 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-02 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-061313A-02 ESFM-4-1000CY 6/13/2013 Regular sample	WB18-050913A-04 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-04 DA-1-1000CY 4/8/2013 Regular sample
REACTIVE CYANIDE	NC	mg/kg	17U	14U	17U	28U	22U	21U	15U
REACTIVE SULFIDE	NC	mg/kg	271	231	72.0B	180B	220U	109B	91.9B
SOLIDS, PERCENT	NC	%	57.4	71.2	57.9	35.7	45.8	48.3	66.9
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	10.7	11.11	11.32	11.14	11.98	12.3	8.01

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

Parameter Name	Regulatory Limit	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-02 B18-OU1-TRENCH-(8/11/2016 Regular sample
REACTIVE CYANIDE	NC	mg/kg	15U	14U	21U	14U	24U	13U	15U
REACTIVE SULFIDE	NC	mg/kg	80.3B	140U	83.3B	140U	240U	130U	150U
SOLIDS, PERCENT	NC	%	65.2	69.2	48.6	69.6	41.9	75.4	65.1
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	>200	>200	>200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	9	8.68	6.51	7.85	10.74	7.48	8.72

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-4
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Methods 9045/1010/SW846 Chapter 7 Other Data

)1		Field Sample ID	WB18-081116-04	WB18-042418-02	WB18-051618-03	WB18-061418-02	WB18-103018-02	WB18-103018-04
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
		Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Regulatory	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Limit	Units						
REACTIVE CYANIDE	NC	mg/kg	11U	13U	14U	13U	3.0 U	3.2 U
REACTIVE SULFIDE	NC	mg/kg	110U	130U	140U	130U	81 U	82 U
SOLIDS, PERCENT	NC	%	90.8	74.2	70.9	77.5	72.5	69.2
Ignitability (liquids) Pensky-Martens	NC	Degrees F	>200	>200	>200	>200	> 200	> 200
CORROSIVITY	NC	Pos/Neg	Neg	Neg	Neg	Neg	Neg	Neg
pH	NC	S.U.	8.1	9.49	8.82	7.96	7.83	8.68

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

Regulatory Limit obtained from 40 CFR Part 261.24; [ ] - Exceeds Hazardous Waste Regulatory Limit.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-01 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-03 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-01 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-03 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-01 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-03 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-01 LSWR-07-1000CY 10/18/2013 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,1,2-TRICHLOROETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,1-DICHLOROETHANE	270	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,1-DICHLOROETHENE	330	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	16U	1200U	11000U	2800U	19U	84U	80U
1,2-DIBROMOETHANE	NC	µg/kg	1.6U	120U	1100U	280U	1.9U	8.4U	8.0U
1,2-DICHLOROBENZENE	1100	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,2-DICHLOROETHANE	20	µg/kg	1.6U	120U	1100U	280U	1.9U	8.4U	8.0U
1,2-DICHLOROPROPANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,3-DICHLOROBENZENE	2400	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,4-DICHLOROBENZENE	1800	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
1,4-DIOXANE	100	µg/kg	190U	14000U	140000U	35000U	230U	1100U	1000U
2-BUTANONE	120	µg/kg	16U	1200U	11000U	2800U	19U	48.1J	80U
2-HEXANONE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
4-METHYL-2-PENTANONE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
ACETONE	50	µg/kg	16U	1200U	11000U	2800U	40.6	[394][1]	[164][1]
BENZENE	60	µg/kg	1.6U	[13400][2]	1100U	280U	1.9U	[400][1]	7.1J
BROMOCHLOROMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
BROMODICHLOROMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
BROMOFORM	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
BROMOMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CARBON DISULFIDE	NC	µg/kg	4.8J	580U	5600U	1400U	9.3U	42U	6.1J
CARBON TETRACHLORIDE	760	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CHLOROBENZENE	1100	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CHLOROETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CHLOROFORM	370	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CHLOROMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CIS-1,2-DICHLOROETHENE	250	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
CYCLOHEXANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
Dibromochloromethane	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
DICHLORODIFLUOROMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
ETHYLBENZENE	1000	µg/kg	1.6U	183	1100U	81.2J	1.9U	24.3	2.6J
ISOPROPYLBENZENE	NC	µg/kg	7.8U	580U	360J	54.1J	9.3U	9.4J	40U
METHYL ACETATE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
METHYL TERT-BUTYL ETHER	930	µg/kg	1.6U	120U	1100U	280U	1.9U	8.4U	8.0U
METHYLCYCLOHEXANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
METHYLENE CHLORIDE	50	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-01 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-03 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-01 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-03 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-01 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-03 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-01 LSWR-07-1000CY 10/18/2013 Regular sample
O-XYLENE	260	µg/kg	11.5	[1020][1]	[976J][1]	[451][1]	1.9U	205	9.8
STYRENE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
TETRACHLOROETHENE	1300	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	5.0J
TOLUENE	700	µg/kg	1.6U	[11100][1]	1100U	205J	1.9U	402	14.1
TRANS-1,2-DICHLOROETHENE	190	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
TRICHLOROETHENE	470	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
TRICHLOROFLUOROMETHANE	NC	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
VINYL CHLORIDE	20	µg/kg	7.8U	580U	5600U	1400U	9.3U	42U	40U
XYLENES, M & P	260	µg/kg	0.36J	[2070][1]	[3170][1]	[1680][1]	1.9U	[529][1]	19.9
XYLENES, TOTAL	260	µg/kg	11.9	[3100][1]	[4140][1]	[2130][1]	1.9U	[734][1]	29.7

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-03 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-05 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-01 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-01 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-01 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-03 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-05 SAA-1-1000CYB 4/11/2013 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,1,2-TRICHLOROETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,1-DICHLOROETHANE	270	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,1-DICHLOROETHENE	330	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	21U	84U	16U	19U	16U	12U	13U
1,2-DIBROMOETHANE	NC	µg/kg	2.1U	8.4U	1.6U	1.9U	1.6U	1.2U	1.3U
1,2-DICHLOROBENZENE	1100	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,2-DICHLOROETHANE	20	µg/kg	2.1U	8.4U	1.6U	1.9U	1.6U	1.2U	1.3U
1,2-DICHLOROPROPANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,3-DICHLOROBENZENE	2400	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,4-DICHLOROBENZENE	1800	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
1,4-DIOXANE	100	µg/kg	270U	1100U	200U	240U	200U	150U	170U
2-BUTANONE	120	µg/kg	17.5J	84U	16U	19U	14.8J	12U	13U
2-HEXANONE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
4-METHYL-2-PENTANONE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
ACETONE	50	µg/kg	[253][1]	[420][1]	11.1J	19U	[105][1]	19.8	[85.9][1]
BENZENE	60	µg/kg	[64.2][1]	17	[107][1]	1.9U	1.6U	1.1J	0.79J
BROMOCHLOROMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
BROMODICHLOROMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
BROMOFORM	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
BROMOMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CARBON DISULFIDE	NC	µg/kg	0.71J	42U	3.0J	9.5U	0.96J	0.58J	1.6J
CARBON TETRACHLORIDE	760	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CHLOROBENZENE	1100	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CHLOROETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CHLOROFORM	370	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CHLOROMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CIS-1,2-DICHLOROETHENE	250	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
CYCLOHEXANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
Dibromochloromethane	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
DICHLORODIFLUOROMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
ETHYLBENZENE	1000	µg/kg	2.3	4.0J	3.6	1.9U	1.6U	1.2U	0.39J
ISOPROPYLBENZENE	NC	µg/kg	0.92J	4.0J	0.96J	9.5U	7.9U	5.9U	6.7U
METHYL ACETATE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
METHYL TERT-BUTYL ETHER	930	µg/kg	2.1U	8.4U	1.6U	1.9U	1.6U	1.2U	1.3U
METHYLCYCLOHEXANE	NC	µg/kg	11U	42U	7.9U	9.5U	0.51J	5.9U	6.7U
METHYLENE CHLORIDE	50	µg/kg	4.7J	14.4J	7.9U	9.5U	7.9U	5.9U	1.7J

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-03 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-05 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-01 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-01 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-01 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-03 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-05 SAA-1-1000CYB 4/11/2013 Regular sample
O-XYLENE	260	µg/kg	14.7	24.6	13.5	1.9U	1.6U	1.2U	0.74J
STYRENE	NC	µg/kg	0.97J	42U	7.9U	9.5U	7.9U	5.9U	6.7U
TETRACHLOROETHENE	1300	µg/kg	1.1J	3.7J	7.9U	9.5U	7.9U	5.9U	0.32J
TOLUENE	700	µg/kg	89.3	37.3	13.1	1.9U	0.70J	1.2U	0.58J
TRANS-1,2-DICHLOROETHENE	190	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
TRICHLOROETHENE	470	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
TRICHLOROFLUOROMETHANE	NC	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
VINYL CHLORIDE	20	µg/kg	11U	42U	7.9U	9.5U	7.9U	5.9U	6.7U
XYLENES, M & P	260	µg/kg	37.4	61.7	14.6	1.9U	1.6U	1.2U	1.6
XYLENES, TOTAL	260	µg/kg	52	86.3	28.1	1.9U	0.61J	1.2U	2.3

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-03 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-03 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-01 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-01 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-01 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-03 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-01 SAB-1-1000CYA 3/27/2013 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,1,2-TRICHLOROETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,1-DICHLOROETHANE	270	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,1-DICHLOROETHENE	330	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	19U	16U	21U	21U	13U	11U	12U
1,2-DIBROMOETHANE	NC	µg/kg	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U	1.2U
1,2-DICHLOROBENZENE	1100	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,2-DICHLOROETHANE	20	µg/kg	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U	1.2U
1,2-DICHLOROPROPANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,3-DICHLOROBENZENE	2400	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,4-DICHLOROBENZENE	1800	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
1,4-DIOXANE	100	µg/kg	230U	200U	260U	260U	170U	140U	150U
2-BUTANONE	120	µg/kg	19U	41.2	14.1J	21U	13U	11U	12U
2-HEXANONE	NC	µg/kg	9.3U	3.0J	11U	10U	6.7U	5.4U	5.9U
4-METHYL-2-PENTANONE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
ACETONE	50	µg/kg	[105][1]	[294][1]	[301][1]	21U	19.4	11U	19.8
BENZENE	60	µg/kg	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U	1.1J
BROMOCHLOROMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
BROMODICHLOROMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
BROMOFORM	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
BROMOMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CARBON DISULFIDE	NC	µg/kg	1.2J	1.3J	11U	10U	6.7U	5.4U	0.58J
CARBON TETRACHLORIDE	760	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CHLOROBENZENE	1100	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CHLOROETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CHLOROFORM	370	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CHLOROMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CIS-1,2-DICHLOROETHENE	250	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
CYCLOHEXANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
Dibromochloromethane	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
DICHLORODIFLUOROMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
ETHYLBENZENE	1000	µg/kg	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U	1.2U
ISOPROPYLBENZENE	NC	µg/kg	9.3U	7.9U	0.87J	10U	6.7U	5.4U	5.9U
METHYL ACETATE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
METHYL TERT-BUTYL ETHER	930	µg/kg	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U	1.2U
METHYLCYCLOHEXANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
METHYLENE CHLORIDE	50	µg/kg	9.3U	7.9	10.1J	10U	6.7U	5.4U	5.9U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-03 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-03 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-01 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-01 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-01 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-03 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-01 SAB-1-1000CYA 3/27/2013 Regular sample
O-XYLENE	260	µg/kg	1.9U	0.49J	2.1U	2.1U	1.3U	1.1U	1.2U
STYRENE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
TETRACHLOROETHENE	1300	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
TOLUENE	700	µg/kg	0.60J	1.0J	2.1U	2.1U	1.3U	1.1U	1.2U
TRANS-1,2-DICHLOROETHENE	190	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
TRICHLOROETHENE	470	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
TRICHLOROFLUOROMETHANE	NC	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
VINYL CHLORIDE	20	µg/kg	9.3U	7.9U	11U	10U	6.7U	5.4U	5.9U
XYLENES, M & P	260	µg/kg	1.9U	1.0J	0.58J	2.1U	1.3U	1.1U	1.2U
XYLENES, TOTAL	260	µg/kg	1.9U	1.5J	0.58J	2.1U	1.3U	1.1U	1.2U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-03 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-05 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-03 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-05 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-01 SAB-5-1000CY 41442 Regular sample	WB18-091113-01 SAB-6-1000CY 9/11/2013 Regular sample	WB18-091113-03 SAB-7-1000CY 9/11/2013 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,1,2-TRICHLOROETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,1-DICHLOROETHANE	270	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,1-DICHLOROETHENE	330	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	13U	19U	16U	21U	21U	13U	11U
1,2-DIBROMOETHANE	NC	µg/kg	1.3U	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U
1,2-DICHLOROBENZENE	1100	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,2-DICHLOROETHANE	20	µg/kg	1.3U	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U
1,2-DICHLOROPROPANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,3-DICHLOROBENZENE	2400	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,4-DICHLOROBENZENE	1800	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
1,4-DIOXANE	100	µg/kg	170U	230U	200U	260U	260U	170U	140U
2-BUTANONE	120	µg/kg	13U	19U	41.2	14.1J	21U	13U	11U
2-HEXANONE	NC	µg/kg	6.7U	9.3U	3.0J	11U	10U	6.7U	5.4U
4-METHYL-2-PENTANONE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
ACETONE	50	µg/kg	[85.9][1]	[105][1]	[294][1]	[301][1]	21U	19.4	11U
BENZENE	60	µg/kg	0.79J	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U
BROMOCHLOROMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
BROMODICHLOROMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
BROMOFORM	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
BROMOMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CARBON DISULFIDE	NC	µg/kg	1.6J	1.2J	1.3J	11U	10U	6.7U	5.4U
CARBON TETRACHLORIDE	760	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CHLOROBENZENE	1100	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CHLOROETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CHLOROFORM	370	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CHLOROMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CIS-1,2-DICHLOROETHENE	250	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
CYCLOHEXANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
Dibromochloromethane	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
DICHLORODIFLUOROMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
ETHYLBENZENE	1000	µg/kg	0.39J	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U
ISOPROPYLBENZENE	NC	µg/kg	6.7U	9.3U	7.9U	0.87J	10U	6.7U	5.4U
METHYL ACETATE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
METHYL TERT-BUTYL ETHER	930	µg/kg	1.3U	1.9U	1.6U	2.1U	2.1U	1.3U	1.1U
METHYLCYCLOHEXANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
METHYLENE CHLORIDE	50	µg/kg	1.7J	9.3U	7.9	10.1J	10U	6.7U	5.4U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-03 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-05 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-03 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-05 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-01 SAB-5-1000CY 41442 Regular sample	WB18-091113-01 SAB-6-1000CY 9/11/2013 Regular sample	WB18-091113-03 SAB-7-1000CY 9/11/2013 Regular sample
O-XYLENE	260	µg/kg	0.74J	1.9U	0.49J	2.1U	2.1U	1.3U	1.1U
STYRENE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
TETRACHLOROETHENE	1300	µg/kg	0.32J	9.3U	7.9U	11U	10U	6.7U	5.4U
TOLUENE	700	µg/kg	0.58J	0.60J	1.0J	2.1U	2.1U	1.3U	1.1U
TRANS-1,2-DICHLOROETHENE	190	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
TRICHLOROETHENE	470	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
TRICHLOROFLUOROMETHANE	NC	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
VINYL CHLORIDE	20	µg/kg	6.7U	9.3U	7.9U	11U	10U	6.7U	5.4U
XYLENES, M & P	260	µg/kg	1.6	1.9U	1.0J	0.58J	2.1U	1.3U	1.1U
XYLENES, TOTAL	260	µg/kg	2.3	1.9U	1.5J	0.58J	2.1U	1.3U	1.1U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-01 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-03 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-01 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-01 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-042613A-01 ESFM-4-1000CY 4/26/2013 Regular sample	WB18-050913A-03 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-03 DA-1-1000CY 4/8/2013 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,1,2-TRICHLOROETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,1-DICHLOROETHANE	270	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,1-DICHLOROETHENE	330	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	22U	20U	24U	31U	1700U	1600U	14U
1,2-DIBROMOETHANE	NC	µg/kg	2.2U	2.0U	2.4U	3.1U	170U	160U	1.4U
1,2-DICHLOROBENZENE	1100	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,2-DICHLOROETHANE	20	µg/kg	2.2U	2.0U	2.4U	3.1U	170U	160U	1.4U
1,2-DICHLOROPROPANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,3-DICHLOROBENZENE	2400	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,4-DICHLOROBENZENE	1800	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
1,4-DIOXANE	100	µg/kg	270U	240U	300U	380U	21000U	19000U	180U
2-BUTANONE	120	µg/kg	22U	20U	[140][1]	54.6	1700U	1600U	14.3
2-HEXANONE	NC	µg/kg	11U	9.8U	11.2J	15U	830U	780U	7.0U
4-METHYL-2-PENTANONE	NC	µg/kg	11U	9.8U	8.9J	15U	830U	780U	7.0U
ACETONE	50	µg/kg	[76.2][1]	[800][1]	[1050J][1]	[434][1]	[950J][1]	[2160][1]	[64.0][1]
BENZENE	60	µg/kg	1.2J	[193]	25.1	5.4	170U	160U	1.3J
BROMOCHLOROMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
BROMODICHLOROMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
BROMOFORM	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
BROMOMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CARBON DISULFIDE	NC	µg/kg	11U	1.2J	4.1J	2.4J	830U	780U	0.29J
CARBON TETRACHLORIDE	760	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CHLOROBENZENE	1100	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CHLOROETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CHLOROFORM	370	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CHLOROMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CIS-1,2-DICHLOROETHENE	250	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
CYCLOHEXANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
Dibromochloromethane	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
DICHLORODIFLUOROMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
ETHYLBENZENE	1000	µg/kg	2.2U	2.4	1.1J	3.7	252	140J	0.60J
ISOPROPYLBENZENE	NC	µg/kg	11U	9.8U	12U	15U	1290	1020	7.0U
METHYL ACETATE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
METHYL TERT-BUTYL ETHER	930	µg/kg	2.2U	2.0U	2.4U	3.1U	170U	160U	1.4U
METHYLCYCLOHEXANE	NC	µg/kg	11U	9.8U	12U	15U	128J	149J	7.0U
METHYLENE CHLORIDE	50	µg/kg	11U	2.7J	12U	15U	830U	780U	3.1J

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-01 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-03 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-01 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-01 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-042613A-01 ESFM-4-1000CY 4/26/2013 Regular sample	WB18-050913A-03 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-03 DA-1-1000CY 4/8/2013 Regular sample
O-XYLENE	260	µg/kg	0.75J	12.5	4.6	21.3	[1280][1]	[618][1]	1.0J
STYRENE	NC	µg/kg	11U	1.1J	12U	15U	830U	780U	7.0U
TETRACHLOROETHENE	1300	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
TOLUENE	700	µg/kg	2.4	367	16.9	45.6	74.0J	51.3J	1.3J
TRANS-1,2-DICHLOROETHENE	190	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
TRICHLOROETHENE	470	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
TRICHLOROFLUOROMETHANE	NC	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
VINYL CHLORIDE	20	µg/kg	11U	9.8U	12U	15U	830U	780U	7.0U
XYLENES, M & P	260	µg/kg	2.1J	32.2	14.3	72.7	[4410][1]	[2450][1]	2.4
XYLENES, TOTAL	260	µg/kg	2.8	44.7	18.9	93.9	[5690][1]	[3070][1]	3.4

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-01 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-01 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-01 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-01 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-01 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-05 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-01 B18-OU1-TRENCH-(8/11/2016 Regular sample
1,1,1-TRICHLOROETHANE	680	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
1,1,2-TRICHLOROETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
1,1-DICHLOROETHANE	270	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
1,1-DICHLOROETHENE	330	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
1,2,3-TRICHLOROBENZENE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
1,2,4-TRICHLOROBENZENE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	14U	18U	24U	15U	19U	2.6U	3.3U
1,2-DIBROMOETHANE	NC	µg/kg	1.4U	1.8U	2.4U	1.5U	1.9U	1.3U	1.6U
1,2-DICHLOROBENZENE	1100	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
1,2-DICHLOROETHANE	20	µg/kg	1.4U	1.8U	2.4U	1.5U	1.9U	1.3U	1.6U
1,2-DICHLOROPROPANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
1,3-DICHLOROBENZENE	2400	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
1,4-DICHLOROBENZENE	1800	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
1,4-DIOXANE	100	µg/kg	170U	46U	310U	180U	230U	41U	51U
2-BUTANONE	120	µg/kg	14U	[138][1]	24U	109	19U	13U	16U
2-HEXANONE	NC	µg/kg	7.0U	9.2U	12U	3.6J	9.3U	6.6U	8.2U
4-METHYL-2-PENTANONE	NC	µg/kg	7.0U	9.2U	12U	2.9J	9.3U	6.6U	8.2U
ACETONE	50	µg/kg		[288][1]	[78.2][1]	[1110][1]	49.4	11.4J	16U
BENZENE	60	µg/kg	1.4U	[120][1]	29.3	12.5	1.9U	0.39J	0.82U
BROMOCHLOROMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
BROMODICHLOROMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
BROMOFORM	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
BROMOMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
CARBON DISULFIDE	NC	µg/kg	7.0U	2.5J	1.1J	7.3U	9.3U	0.43J	3.3U
CARBON TETRACHLORIDE	760	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
CHLOROBENZENE	1100	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
CHLOROETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
CHLOROFORM	370	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
CHLOROMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
CIS-1,2-DICHLOROETHENE	250	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
CYCLOHEXANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
Dibromochloromethane	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
DICHLORODIFLUOROMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
ETHYLBENZENE	1000	µg/kg	1.4U	4.7	2.4U	1.1J	1.9U	1.3U	1.6U
ISOPROPYLBENZENE	NC	µg/kg	0.37J	3.6J	12U	0.48J	1.9J	2.6U	3.3U
METHYL ACETATE	NC	µg/kg	7.0U	13.6	12U	7.3U	9.3U	6.6U	8.2U
METHYL TERT-BUTYL ETHER	930	µg/kg	1.4U	1.8U	2.4U	1.5U	1.9U	1.3U	1.6U
METHYLCYCLOHEXANE	NC	µg/kg	7.0U	0.85J	12U	7.3U	9.3U	2.6U	3.3U
METHYLENE CHLORIDE	50	µg/kg	8.6	9.2U	12U	7.3U	9.3U	6.6U	8.2U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-01 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-01 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-01 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-01 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-01 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-05 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-01 B18-OU1-TRENCH-(8/11/2016 Regular sample
O-XYLENE	260	µg/kg	0.36J	20.9	2.4U	3.7	1.6J	1.3U	1.6U
STYRENE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
TETRACHLOROETHENE	1300	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
TOLUENE	700	µg/kg	0.50J	46	1.6J	2	1.9U	1.3U	1.6U
TRANS-1,2-DICHLOROETHENE	190	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
TRICHLOROETHENE	470	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	1.3U	1.6U
TRICHLOROFLUOROMETHANE	NC	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	6.6U	8.2U
VINYL CHLORIDE	20	µg/kg	7.0U	9.2U	12U	7.3U	9.3U	2.6U	3.3U
XYLENES, M & P	260	µg/kg	0.93J	63.5	2.4U	11.5	4.7	1.3U	1.6U
XYLENES, TOTAL	260	µg/kg	1.3J	84.4	2.4U	15.2	6.3	1.3U	1.6U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

)1		Field Sample ID	WB18-081116-03	WB18-042418-01	WB18-051618-02	WB18-061418-01	WB18-103018-01	WB18-103018-03
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
	NYSDEC	Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Part 375.6	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Unrestricred Use	Units						
1,1,1-TRICHLOROETHANE	680	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
1,1,2,2-TETRACHLOROETHANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
1,1,2-TRICHLOROETHANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
1,1-DICHLOROETHANE	270	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,1-DICHLOROETHENE	330	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,2,3-TRICHLOROBENZENE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
1,2,4-TRICHLOROBENZENE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
1,2-DIBROMO-3-CHLOROPROPANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
1,2-DIBROMOETHANE	NC	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,2-DICHLOROBENZENE	1100	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,2-DICHLOROETHANE	20	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,2-DICHLOROPROPANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
1,3-DICHLOROBENZENE	2400	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,4-DICHLOROBENZENE	1800	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
1,4-DIOXANE	100	µg/kg	35U	44U	46U	41U	ND	ND
2-BUTANONE	120	µg/kg	11U	[122][2]	1500U	8.6U	ND	ND
2-HEXANONE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
4-METHYL-2-PENTANONE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
ACETONE	50	µg/kg	11U	[848][3]	1500U	36.9	17.1	29
BENZENE	60	µg/kg	0.53U	0.34J	73U	0.43U	2.9	8.1
BROMOCHLOROMETHANE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
BROMODICHLOROMETHANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
BROMOFORM	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
BROMOMETHANE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
CARBON DISULFIDE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	2.4
CARBON TETRACHLORIDE	760	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
CHLOROBENZENE	1100	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
CHLOROETHANE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
CHLOROFORM	370	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
CHLOROMETHANE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
CIS-1,2-DICHLOROETHENE	250	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
CIS-1,3-DICHLOROPROPENE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
CYCLOHEXANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
Dibromochloromethane	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
DICHLORODIFLUOROMETHANE	NC	µg/kg	5.3U	11U	730U	4.3U	ND	ND
ETHYLBENZENE	1000	µg/kg	1.1U	0.84J	150U	0.86U	ND	ND
ISOPROPYLBENZENE	NC	µg/kg	2.1U	1.0J	290U	1.7U	ND	ND
METHYL ACETATE	NC	µg/kg	5.3U	11U	4380	4.3U	ND	ND
METHYL TERT-BUTYL ETHER	930	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
METHYLCYCLOHEXANE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
METHYLENE CHLORIDE	50	µg/kg	5.3U	11U	730U	4.3U	ND	ND

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-5
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8260 Volatile Organic Compound Data

)1		Field Sample ID	WB18-081116-03	WB18-042418-01	WB18-051618-02	WB18-061418-01	WB18-103018-01	WB18-103018-03
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
	NYSDEC	Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Part 375.6	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Unrestricred Use	Units						
O-XYLENE	260	µg/kg	1.1U	3.4	150U	0.86U	1.7	1.2
STYRENE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
TETRACHLOROETHENE	1300	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
TOLUENE	700	µg/kg	1.1U	1.3J	150U	0.86U	1.5	1.3
TRANS-1,2-DICHLOROETHENE	190	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
TRANS-1,3-DICHLOROPROPENE	NC	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
TRICHLOROETHENE	470	µg/kg	1.1U	2.1U	150U	0.86U	ND	ND
TRICHLOROFLUOROMETHANE	NC	µg/kg	5.3U	11U	90.7J	4.3U	ND	ND
VINYL CHLORIDE	20	µg/kg	2.1U	4.2U	290U	1.7U	ND	ND
XYLENES, M & P	260	µg/kg	1.1U	12.3	150U	0.86U	3.3	2.3
XYLENES, TOTAL	260	µg/kg	1.1U	15.7	150U	0.86U	5	3.5

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-02 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-04 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-02 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-04 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-02 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-04 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-02 LSWR-07-1000CY 10/18/2013 Regular sample
1,1'-BIPHENYL	NC	µg/kg	120U	45.4J	75.6J	37.7J	45.4J	130U	130U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,4-DICHLOROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,4-DIMETHYLPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2,4-DINITROPHENOL	NC	µg/kg	1200U	1300U	910U	1500U	1000U	1300U	1300U
2,4-DINITROTOLUENE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
2,6-DINITROTOLUENE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
2-CHLORONAPHTHALENE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
2-CHLOROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2-METHYLNAPHTHALENE	NC	µg/kg	120U	299	593	373	422	51.7J	130U
2-METHYLPHENOL	330	µg/kg	82.2J	97.5J	91U	150U	100U	130U	130U
2-NITROANILINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
2-NITROPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
3&4-METHYLPHENOL	330	µg/kg	[684][1]	[1080][1]	91U	150U	100U	114J	130U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
3-NITROANILINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	1200U	1300U	910U	1500U	1000U	1300U	1300U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
4-CHLOROANILINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
4-NITROANILINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
4-NITROPHENOL	NC	µg/kg	600U	640U	450U	750U	520U	640U	640U
ACENAPHTHENE	20000	µg/kg	60U	64U	45U	75U	52U	64U	64U
ACENAPHTHYLENE	100000	µg/kg	60U	64U	45U	75U	52U	64U	64U
ANTHRACENE	100000	µg/kg	60U	28.0J	45U	53.9J	52U	64U	64U
ATRAZINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
BENZALDEHYDE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
BENZO(A)ANTHRACENE	1000	µg/kg	24.5J	38.8J	45U	64.4J	29.4J	64U	26.5J
BENZO(A)PYRENE	1000	µg/kg	60U	64U	45U	75U	52U	64U	64U
BENZO(B)FLUORANTHENE	1000	µg/kg	60U	32.8J	45U	63.5J	22.5J	64U	26.7J
BENZO(G,H,I)PERYLENE	100000	µg/kg	60U	64U	45U	75U	52U	64U	64U
BENZO(K)FLUORANTHENE	800	µg/kg	60U	64U	45U	75U	52U	64U	64U
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
BUTYLBENZYL PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
CAPROLACTAM	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-02 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-04 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-02 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-04 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-02 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-04 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-02 LSWR-07-1000CY 10/18/2013 Regular sample
CARBAZOLE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
CHRYSENE	1000	µg/kg	60U	33.8J	34.2J	66.4J	27.4J	64U	64U
DI-N-BUTYL PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
DI-N-OCTYL PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	60U	64U	45U	75U	52U	64U	64U
DIBENZOFURAN	7000	µg/kg	120U	65.2J	50.8J	51.8J	41.8J	130U	130U
DIETHYL PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
DIMETHYL PHTHALATE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
FLUORANTHENE	100000	µg/kg	43.4J	93.8	66.4	172	55.5	39.1J	40.5J
FLUORENE	30000	µg/kg	60U	64U	45U	75U	52U	64U	64U
HEXACHLOROBENZENE	330	µg/kg	120U	130U	91U	150U	100U	130U	130U
HEXACHLOROBUTADIENE	NC	µg/kg	60U	64U	45U	75U	52U	64U	64U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	600U	640U	450U	750U	520U	640U	640U
HEXACHLOROETHANE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	60U	64U	45U	75U	52U	64U	64U
ISOPHORONE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
N-NITROSODIPHENYLAMINE	NC	µg/kg	300U	320U	230U	380U	260U	320U	320U
NAPHTHALENE	12000	µg/kg	548	1770	4200	8860	6470	2220	378
NITROBENZENE	NC	µg/kg	120U	130U	91U	150U	100U	130U	130U
PENTACHLOROPHENOL	800	µg/kg	600U	640U	450U	750U	520U	640U	640U
PHENANTHRENE	100000	µg/kg	35.4J	156	93.9	253	66.8	39.4J	29.4J
PHENOL	330	µg/kg	[487][1]	[866][1]	91U	138J	100U	130U	130U
PYRENE	100000	µg/kg	38.3J	82.3	57	131	44.4J	31.9J	31.3J

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-04 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-06 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-02 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-02 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-02 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-04 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-06 SAA-1-1000CYB 4/11/2013 Regular sample
1,1'-BIPHENYL	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,4-DICHLOROPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,4-DIMETHYLPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2,4-DINITROPHENOL	NC	µg/kg	1100U	1100U	830U	1300U	940U	1200U	1900U
2,4-DINITROTOLUENE	NC	µg/kg	110U	110U	42U	64U	47U	120U	190U
2,6-DINITROTOLUENE	NC	µg/kg	110U	110U	42U	64U	47U	120U	190U
2-CHLORONAPHTHALENE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
2-CHLOROPHENOL	NC	µg/kg	280U	270U	83U	130U	94U	310U	490U
2-METHYLNAPHTHALENE	NC	µg/kg	110U	95.5J	83U	130U	94U	120U	190U
2-METHYLPHENOL	330	µg/kg	110U	110U	83U	130U	94U	120U	190U
2-NITROANILINE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
2-NITROPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
3&4-METHYLPHENOL	330	µg/kg	110U	110U	83U	130U	94U	120U	190U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	280U	270U	83U	130U	94U	310U	490U
3-NITROANILINE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	1100U	1100U	830U	1300U	940U	1200U	1900U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
4-CHLOROANILINE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
4-NITROANILINE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
4-NITROPHENOL	NC	µg/kg	560U	540U	420U	640U	470U	610U	970U
ACENAPHTHENE	20000	µg/kg	56U	54U	42U	64U	47U	61U	97U
ACENAPHTHYLENE	100000	µg/kg	56U	54U	18.1J	64U	47U	61U	97U
ANTHRACENE	100000	µg/kg	27.6J	54U	22.2J	64U	47U	61U	97U
ATRAZINE	NC	µg/kg	280U	270U	83U	130U	94U	310U	490U
BENZALDEHYDE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
BENZO(A)ANTHRACENE	1000	µg/kg	95.9	25.3J	89.2	27.1J	47U	61U	97U
BENZO(A)PYRENE	1000	µg/kg	91.3	54U	86.5	64U	47U	61U	97U
BENZO(B)FLUORANTHENE	1000	µg/kg	118	54U	99.6	64U	47U	61U	97U
BENZO(G,H,I)PERYLENE	100000	µg/kg	47.8J	54U	58.6	64U	47U	61U	97U
BENZO(K)FLUORANTHENE	800	µg/kg	42.0J	54U	42.6	64U	47U	61U	97U
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	110U	110U	83U	84.4J	94U	120U	190U
BUTYLBENZYL PHTHALATE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
CAPROLACTAM	NC	µg/kg	110U	110U	44.5J	130U	94U	120U	190U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-04 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-06 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-02 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-02 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-02 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-04 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-06 SAA-1-1000CYB 4/11/2013 Regular sample
CARBAZOLE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
CHRYSENE	1000	µg/kg	104	23.7J	105	64U	47U	61U	97U
DI-N-BUTYL PHTHALATE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
DI-N-OCTYL PHTHALATE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	56U	54U	18.4J	64U	47U	61U	97U
DIBENZOFURAN	7000	µg/kg	110U	110U	83U	130U	94U	120U	190U
DIETHYL PHTHALATE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
DIMETHYL PHTHALATE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
FLUORANTHENE	100000	µg/kg	223	57.1	198	50.6J	47U	27.7J	97U
FLUORENE	30000	µg/kg	56U	54U	23.5J	64U	47U	61U	97U
HEXACHLOROBENZENE	330	µg/kg	110U	110U	83U	130U	94U	120U	190U
HEXACHLOROBUTADIENE	NC	µg/kg	56U	54U	42U	64U	47U	61U	97U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	560U	540U	420U	640U	470U	610U	970U
HEXACHLOROETHANE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	55.2J	54U	56.6	64U	47U	61U	97U
ISOPHORONE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
N-NITROSODIPHENYLAMINE	NC	µg/kg	280U	270U	210U	320U	240U	310U	490U
NAPHTHALENE	12000	µg/kg	455	4320	193	64U	47U	61U	97U
NITROBENZENE	NC	µg/kg	110U	110U	83U	130U	94U	120U	190U
PENTACHLOROPHENOL	800	µg/kg	560U	540U	420U	640U	470U	610U	970U
PHENANTHRENE	100000	µg/kg	129	54U	85	48.8J	47U	61U	97U
PHENOL	330	µg/kg	110U	110U	83U	130U	94U	120U	190U
PYRENE	100000	µg/kg	159	45.6J	162	44.8J	47U	26.1J	97U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-04 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-04 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-02 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-02 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-02 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-04 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-02 SAB-1-1000CYA 3/27/2013 Regular sample
1,1'-BIPHENYL	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,4-DICHLOROPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,4-DIMETHYLPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2,4-DINITROPHENOL	NC	µg/kg	1000U	1200U	2100U	830U	940U	920U	800U
2,4-DINITROTOLUENE	NC	µg/kg	100U	58U	100U	42U	47U	46U	80U
2,6-DINITROTOLUENE	NC	µg/kg	100U	58U	100U	42U	47U	46U	80U
2-CHLORONAPHTHALENE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
2-CHLOROPHENOL	NC	µg/kg	250U	120U	210U	83U	94U	92U	200U
2-METHYLNAPHTHALENE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
2-METHYLPHENOL	330	µg/kg	100U	120U	200J	83U	94U	92U	80U
2-NITROANILINE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
2-NITROPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
3&4-METHYLPHENOL	330	µg/kg	100U	120U	[1200][1]	83U	94U	92U	80U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	250U	120U	210U	83U	94U	92U	200U
3-NITROANILINE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	1000U	1200U	2100U	830U	940U	920U	800U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
4-CHLOROANILINE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
4-NITROANILINE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
4-NITROPHENOL	NC	µg/kg	510U	580U	1000U	420U	470U	460U	400U
ACENAPHTHENE	20000	µg/kg	51U	58U	100U	42U	47U	46U	40U
ACENAPHTHYLENE	100000	µg/kg	51U	58U	100U	42U	47U	46U	40U
ANTHRACENE	100000	µg/kg	20.4J	58U	100U	42U	47U	46U	40U
ATRAZINE	NC	µg/kg	250U	120U	210U	83U	94U	92U	200U
BENZALDEHYDE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
BENZO(A)ANTHRACENE	1000	µg/kg	56.7	28.9J	100U	42U	47U	39.2J	22.4J
BENZO(A)PYRENE	1000	µg/kg	45.9J	23.5J	100U	42U	47U	42.2J	40U
BENZO(B)FLUORANTHENE	1000	µg/kg	56.2	28.6J	100U	42U	47U	52.4	40U
BENZO(G,H,I)PERYLENE	100000	µg/kg	30.4J	58U	100U	42U	47U	30.0J	40U
BENZO(K)FLUORANTHENE	800	µg/kg	27.0J	58U	100U	42U	47U	30.8J	40U
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	100U	161	210U	83U	94U	92U	80U
BUTYLBENZYL PHTHALATE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
CAPROLACTAM	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-04 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-04 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-02 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-02 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-02 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-04 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-02 SAB-1-1000CYA 3/27/2013 Regular sample
CARBAZOLE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
CHRYSENE	1000	µg/kg	61.5	25.6J	100U	42U	47U	50.8	23.3J
DI-N-BUTYL PHTHALATE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
DI-N-OCTYL PHTHALATE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	51U	58U	100U	42U	47U	46U	40U
DIBENZOFURAN	7000	µg/kg	100U	120U	210U	83U	94U	92U	80U
DIETHYL PHTHALATE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
DIMETHYL PHTHALATE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
FLUORANTHENE	100000	µg/kg	119	49.4J	100U	42U	28.1J	52.5	31.4J
FLUORENE	30000	µg/kg	51U	58U	100U	42U	47U	46U	40U
HEXACHLOROBENZENE	330	µg/kg	100U	120U	210U	83U	94U	92U	80U
HEXACHLOROBUTADIENE	NC	µg/kg	51U	58U	100U	42U	47U	46U	40U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	510U	580U	1000U	420U	470U	460U	400U
HEXACHLOROETHANE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	29.4J	58U	100U	42U	47U	32.6J	40U
ISOPHORONE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
N-NITROSODIPHENYLAMINE	NC	µg/kg	250U	290U	520U	210U	240U	230U	200U
NAPHTHALENE	12000	µg/kg	51U	58U	100U	42U	47U	45.2J	40U
NITROBENZENE	NC	µg/kg	100U	120U	210U	83U	94U	92U	80U
PENTACHLOROPHENOL	800	µg/kg	510U	580U	1000U	420U	470U	460U	400U
PHENANTHRENE	100000	µg/kg	108	58U	100U	42U	47U	28.3J	24.9J
PHENOL	330	µg/kg	100U	120U	[760][1]	83U	94U	92U	80U
PYRENE	100000	µg/kg	126	47.9J	100U	42U	25.9J	48.9	29.8J

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-04 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-06 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-04 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-06 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-02 SAB-5-1000CY 41439 Regular sample	WB18-091113-02 SAB-6-1000CY 41528 Regular sample	WB18-091113-04 SAB-7-1000CY 9/11/2013 Regular sample
1,1'-BIPHENYL	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,4-DICHLOROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,4-DIMETHYLPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2,4-DINITROPHENOL	NC	µg/kg	870U	910U	870U	1100U	2400U	780U	910U
2,4-DINITROTOLUENE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
2,6-DINITROTOLUENE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
2-CHLORONAPHTHALENE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
2-CHLOROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2-METHYLNAPHTHALENE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
2-METHYLPHENOL	330	µg/kg	87U	91U	67.8J	110U	240U	78U	91U
2-NITROANILINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
2-NITROPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
3&4-METHYLPHENOL	330	µg/kg	87U	276	[353][1]	110U	240U	78U	91U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
3-NITROANILINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	870U	910U	870U	1100U	2400U	780U	910U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
4-CHLOROANILINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
4-NITROANILINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
4-NITROPHENOL	NC	µg/kg	430U	450U	430U	560U	1200U	390U	460U
ACENAPHTHENE	20000	µg/kg	43U	45U	43U	56U	120U	39U	46U
ACENAPHTHYLENE	100000	µg/kg	43U	45U	43U	56U	120U	39U	46U
ANTHRACENE	100000	µg/kg	43U	45U	43U	56U	120U	39U	46U
ATRAZINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
BENZALDEHYDE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
BENZO(A)ANTHRACENE	1000	µg/kg	43U	26.9J	43U	35.2J	120U	39U	46U
BENZO(A)PYRENE	1000	µg/kg	43U	45U	43U	25.6J	120U	39U	46U
BENZO(B)FLUORANTHENE	1000	µg/kg	43U	45U	43U	32.5J	120U	39U	46U
BENZO(G,H,I)PERYLENE	100000	µg/kg	43U	45U	43U	56U	120U	39U	46U
BENZO(K)FLUORANTHENE	800	µg/kg	43U	45U	43U	56U	120U	39U	46U
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
BUTYLBENZYL PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
CAPROLACTAM	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-04 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-06 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-04 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-06 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-02 SAB-5-1000CY 41439 Regular sample	WB18-091113-02 SAB-6-1000CY 41528 Regular sample	WB18-091113-04 SAB-7-1000CY 9/11/2013 Regular sample
CARBAZOLE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
CHRYSENE	1000	µg/kg	43U	25.6J	43U	30.2J	120U	39U	46U
DI-N-BUTYL PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
DI-N-OCTYL PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	43U	45U	43U	56U	120U	39U	46U
DIBENZOFURAN	7000	µg/kg	87U	91U	87U	110U	240U	78U	91U
DIETHYL PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
DIMETHYL PHTHALATE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
FLUORANTHENE	100000	µg/kg	43U	43.1J	43U	71.2	120U	39U	46U
FLUORENE	30000	µg/kg	43U	45U	43U	56U	120U	39U	46U
HEXACHLOROBENZENE	330	µg/kg	87U	91U	87U	110U	240U	78U	91U
HEXACHLOROBUTADIENE	NC	µg/kg	43U	45U	43U	56U	120U	39U	46U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	430U	450U	430U	560U	1200U	390U	460U
HEXACHLOROETHANE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	43U	45U	43U	56U	120U	39U	46U
ISOPHORONE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
N-NITROSODIPHENYLAMINE	NC	µg/kg	220U	230U	220U	280U	590U	200U	230U
NAPHTHALENE	12000	µg/kg	43U	20.6J	21.0J	56U	120U	39U	46U
NITROBENZENE	NC	µg/kg	87U	91U	87U	110U	240U	78U	91U
PENTACHLOROPHENOL	800	µg/kg	430U	450U	430U	560U	1200U	390U	460U
PHENANTHRENE	100000	µg/kg	43U	48.2	43U	70.5	120U	39U	46U
PHENOL	330	µg/kg	87U	91U	87U	110U	240U	78U	91U
PYRENE	100000	µg/kg	43U	36.8J	43U	56.3	52.1J	39U	46U

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-02 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-04 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-02 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-02 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-042613A-02 ESFM-4-1000CY 4/26/2013 Regular sample	WB18-050913A-04 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-04 DA-1-1000CY 4/8/2013 Regular sample
1,1'-BIPHENYL	NC	µg/kg	110U	91U	38.1J	35.6J	1980	1550	96U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,4-DICHLOROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,4-DIMETHYLPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2,4-DINITROPHENOL	NC	µg/kg	1100U	910U	1100U	1600U	1300U	1300U	960U
2,4-DINITROTOLUENE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
2,6-DINITROTOLUENE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
2-CHLORONAPHTHALENE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
2-CHLOROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2-METHYLNAPHTHALENE	NC	µg/kg	110U	91U	164	256	14000	17200	96U
2-METHYLPHENOL	330	µg/kg	110U	91U	110U	160U	130U	130U	96U
2-NITROANILINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
2-NITROPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
3&4-METHYLPHENOL	330	µg/kg	110U	91U	110U	160U	130U	130U	96U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
3-NITROANILINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	1100U	910U	1100U	1600U	1300U	1300U	960U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
4-CHLOROANILINE	NC	µg/kg	290U	401	270U	1150	320U	320U	294
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
4-NITROANILINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
4-NITROPHENOL	NC	µg/kg	570U	450U	540U	820U	650U	640U	480U
ACENAPHTHENE	20000	µg/kg	57U	45U	344	82U	65U	64U	33.6J
ACENAPHTHYLENE	100000	µg/kg	57U	45U	44.8J	58.4J	65U	64U	98.6
ANTHRACENE	100000	µg/kg	23.4 J	58.8	564	80.3J	89.9	64U	163
ATRAZINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
BENZALDEHYDE	NC	µg/kg	290U	230U	182J	410U	320U	320U	240U
BENZO(A)ANTHRACENE	1000	µg/kg	74.1	174	[1120][2]	208	138	150	625
BENZO(A)PYRENE	1000	µg/kg	58.5	179	870	223	73.2	79.4	710
BENZO(B)FLUORANTHENE	1000	µg/kg	65.4	168	886	225	146	137	672
BENZO(G,H,I)PERYLENE	100000	µg/kg	60.9	162	501	221	72.1	71.8	504
BENZO(K)FLUORANTHENE	800	µg/kg	49.8 J	153	676	203	42.1J	50.3J	514
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	110U	91U	132	268	130U	130U	93.8J
BUTYLBENZYL PHTHALATE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
CAPROLACTAM	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-02 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-04 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-02 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-02 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-042613A-02 ESFM-4-1000CY 4/26/2013 Regular sample	WB18-050913A-04 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-04 DA-1-1000CY 4/8/2013 Regular sample
CARBAZOLE	NC	µg/kg	110U	91U	328	160U	130U	130U	54.0J
CHRYSENE	1000	µg/kg	89	198	[1100][1]	214	160	165	678
DI-N-BUTYL PHTHALATE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
DI-N-OCTYL PHTHALATE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	110U	45U	159	49.2J	65U	64U	152
DIBENZOFURAN	7000	µg/kg	110U	91U	188	41.2J	2280	1580	21.3J
DIETHYL PHTHALATE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
DIMETHYL PHTHALATE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
FLUORANTHENE	100000	µg/kg	120	254	2420	347	589	470	932
FLUORENE	30000	µg/kg	57U	45U	506	82U	65U	64U	40.5J
HEXACHLOROBENZENE	330	µg/kg	110U	91U	39.5J	267	77.8J	105J	24.4J
HEXACHLOROBUTADIENE	NC	µg/kg	57U	45U	54U	82U	65U	64U	48U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	570U	450U	540U	820U	650U	640U	480U
HEXACHLOROETHANE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	47.1 J	141	[620][2]	165	67	62.5J	[555][2]
ISOPHORONE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
N-NITROSODIPHENYLAMINE	NC	µg/kg	290U	230U	270U	410U	320U	320U	240U
NAPHTHALENE	12000	µg/kg	155	152	566	906	[176000][2]	[125000][2]	25.9J
NITROBENZENE	NC	µg/kg	110U	91U	110U	160U	130U	130U	96U
PENTACHLOROPHENOL	800	µg/kg	570U	450U	540U	820U	650U	640U	480U
PHENANTHRENE	100000	µg/kg	58	202	2130	249	2560	2240	337
PHENOL	330	µg/kg	110U	91U	110U	160U	130U	130U	96U
PYRENE	100000	µg/kg	105	509	1820	288	265	346	785

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-02 B18-OU1-TRENCH-(8/11/2016 Regular sample
1,1'-BIPHENYL	NC	µg/kg	86U	18.3J	130U	29.0J	55.7J	27.6J	100U
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,4,5-TRICHLOROPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,4,6-TRICHLOROPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,4-DICHLOROPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,4-DIMETHYLPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2,4-DINITROPHENOL	NC	µg/kg	860U	930U	1300U	860U	1400U	210U	250U
2,4-DINITROTOLUENE	NC	µg/kg	86U	46U	130U	86U	70U	41U	51U
2,6-DINITROTOLUENE	NC	µg/kg	86U	46U	130U	86U	70U	41U	51U
2-CHLORONAPHTHALENE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
2-CHLOROPHENOL	NC	µg/kg	210U	93U	330U	220U	140U	83U	100U
2-METHYLNAPHTHALENE	NC	µg/kg	44.5J	121	74.4J	116	290	174	100U
2-METHYLPHENOL	330	µg/kg	86U	93U	130U	86U	140U	83U	100U
2-NITROANILINE	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
2-NITROPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
3&4-METHYLPHENOL	330	µg/kg	86U	254	[431][1]	[711][1]	140U	60.4J	100U
3,3'-DICHLOROBENZIDINE	NC	µg/kg	210U	93U	330U	220U	140U	83U	100U
3-NITROANILINE	NC	µg/kg		230U	330U	220U	350U	210U	250U
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	860U	930U	1300U	860U	1400U	210U	250U
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
4-CHLOROANILINE	NC	µg/kg	60.1J	191J	330U	72.6J	350U	210U	250U
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
4-NITROANILINE	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
4-NITROPHENOL	NC	µg/kg	430U	460U	660U	430U	700U	410U	510U
ACENAPHTHENE	20000	µg/kg	37.7J	33.7J	59.2J	231	70U	30.1J	51U
ACENAPHTHYLENE	100000	µg/kg	40.8J	97.1	126	361	70U	104	51U
ANTHRACENE	100000	µg/kg	107	143	273	607	70U	178	43.5J
ATRAZINE	NC	µg/kg	210U	93U	330U	220U	140U	83U	100U
BENZALDEHYDE	NC	µg/kg	210U	230U	67.7J	67.7J	350U	103J	250U
BENZO(A)ANTHRACENE	1000	µg/kg	330	240	827	878	52.7J	462	88
BENZO(A)PYRENE	1000	µg/kg	327	285	[1060][3]	885	70U	325	73.8
BENZO(B)FLUORANTHENE	1000	µg/kg	426	364	[1980][2]	962	70U	479	105
BENZO(G,H,I)PERYLENE	100000	µg/kg	255	248	1060	664	70U	172	59.3
BENZO(K)FLUORANTHENE	800	µg/kg	166	117	659	363	70U	155	42.0J
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	129	279	4110	477	140U	83U	100U
BUTYLBENZYL PHTHALATE	NC	µg/kg	86U	54.4J	129J	524	140U	83U	100U
CAPROLACTAM	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-02 B18-OU1-TRENCH-(8/11/2016 Regular sample
CARBAZOLE	NC	µg/kg	56.7J	35.9J	127J	87.8	140U	39.4J	100U
CHRYSENE	1000	µg/kg	399	300	[1310][1]	997	65.3J	438	85.7
DI-N-BUTYL PHTHALATE	NC	µg/kg	86U	763	130U	84.3J	140U	83U	100U
DI-N-OCTYL PHTHALATE	NC	µg/kg	86U	93U	233	86U	140U	83U	100U
DIBENZO(A,H)ANTHRACENE	330	µg/kg	66.8	58.7	275	175	70U	61.4	51U
DIBENZOFURAN	7000	µg/kg	21.2J	32.9J	58.0J	138	140U	73.1J	100U
DIETHYL PHTHALATE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
DIMETHYL PHTHALATE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
FLUORANTHENE	100000	µg/kg	685	501	2180	1920	122	854	165
FLUORENE	30000	µg/kg	37.0J	43.7J	91.7	272	1020	64.1	51U
HEXACHLOROBENZENE	330	µg/kg	86U	93U	130U	238	140U	83U	100U
HEXACHLOROBUTADIENE	NC	µg/kg	43U	46U	66U	43U	70U	41U	51U
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	430U	460U	660U	430U	700U	410U	510U
HEXACHLOROETHANE	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
INDENO(1,2,3-CD)PYRENE	500	µg/kg	226	246	[1150][2]	[676][2]	70U	202	58.9
ISOPHORONE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
N-NITROSODIPHENYLAMINE	NC	µg/kg	210U	230U	330U	220U	350U	210U	250U
NAPHTHALENE	12000	µg/kg	251	1380	58.3J	429	1030	443	51U
NITROBENZENE	NC	µg/kg	86U	93U	130U	86U	140U	83U	100U
PENTACHLOROPHENOL	800	µg/kg	430U	460U	660U	430U	700U	170U	250U
PHENANTHRENE	100000	µg/kg	434	318	810	1430	366	429	117
PHENOL	330	µg/kg	86U	177	130U	216	140U	83U	100U
PYRENE	100000	µg/kg	673	477	1600	1690	78.1	694	138

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

)1		Field Sample ID	WB18-081116-04	WB18-042418-02	WB18-051618-03	WB18-061418-02	WB18-103018-02	WB18-103018-04
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
	NYSDEC	Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Part 375.6	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Unrestricred Use	Units						
1,1'-BIPHENYL	NC	µg/kg	19.9J	89U	7.1J	81U	ND	ND
1,2,4,5-TETRACHLOROBENZENE	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,2'-OXYBIS(1-CHLOROPROPANE)	NC	µg/kg	69U	89U	92U	81U	ND	ND
2,3,4,6-TETRACHLOROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4,5-TRICHLOROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4,6-TRICHLOROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4-DICHLOROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4-DIMETHYLPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4-DINITROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
2,4-DINITROTOLUENE	NC	µg/kg	35U	44U	46U	41U	ND	ND
2,6-DINITROTOLUENE	NC	µg/kg	35U	44U	46U	41U	ND	ND
2-CHLORONAPHTHALENE	NC	µg/kg	69U	89U	92U	81U	ND	ND
2-CHLOROPHENOL	NC	µg/kg	69U	89U	92U	81U	ND	ND
2-METHYLNAPHTHALENE	NC	µg/kg	97.3	44U	21.2J	14.0J	ND	ND
2-METHYLPHENOL	330	µg/kg	69U	89U	92U	81U	ND	ND
2-NITROANILINE	NC	µg/kg	170U	220U	230U	200U	ND	ND
2-NITROPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
3&4-METHYLPHENOL	330	µg/kg	69U	89U	92U	133	ND	ND
3,3'-DICHLOROBENZIDINE	NC	µg/kg	69U	89U	92U	81U	ND	ND
3-NITROANILINE	NC	µg/kg	170U	220U	230U	200U	ND	ND
4,6-DINITRO-2-METHYLPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
4-BROMOPHENYL PHENYL ETHER	NC	µg/kg	69U	89U	92U	81U	ND	ND
4-CHLORO-3-METHYLPHENOL	NC	µg/kg	170U	220U	230U	200U	ND	ND
4-CHLOROANILINE	NC	µg/kg	170U	220U	230U	200U	ND	ND
4-CHLOROPHENYL PHENYL ETHER	NC	µg/kg	69U	89U	92U	81U	ND	ND
4-NITROANILINE	NC	µg/kg	170U	220U	230U	200U	ND	ND
4-NITROPHENOL	NC	µg/kg	350U	440U	460U	410U	ND	ND
ACENAPHTHENE	20000	µg/kg	43.8	44U	46U	16.4J	ND	ND
ACENAPHTHYLENE	100000	µg/kg	51.1	44U	46U	41U	ND	ND
ANTHRACENE	100000	µg/kg	115	44U	35.5J	34.6J	ND	ND
ATRAZINE	NC	µg/kg	69U	89U	92U	81U	ND	ND
BENZALDEHYDE	NC	µg/kg	170U	220U	230U	200U	ND	ND
BENZO(A)ANTHRACENE	1000	µg/kg	258	51.7	144	113	49.9	31.6 J
BENZO(A)PYRENE	1000	µg/kg	245	42.6J	135	111	43	33.9 J
BENZO(B)FLUORANTHENE	1000	µg/kg	339	50.2	168	136	50.1	37 J
BENZO(G,H,I)PERYLENE	100000	µg/kg	168	23.0J	72.6	75.5	33.9	24.4 J
BENZO(K)FLUORANTHENE	800	µg/kg	130	44U	58.5	49.1	33	27.9 J
BIS(2-CHLOROETHOXY)METHANE	NC	µg/kg	69U	89U	92U	81U	ND	ND
BIS(2-CHLOROETHYL)ETHER	NC	µg/kg	69U	89U	92U	81U	ND	ND
BIS(2-ETHYLHEXYL)PHTHALATE	NC	µg/kg	69U	89U	92U	81U	ND	ND
BUTYLBENZYL PHTHALATE	NC	µg/kg	69U	89U	92U	81U	19.8	ND
CAPROLACTAM	NC	µg/kg	69U	89U	92U	81U	ND	ND

Notes:
U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.
NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.
[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-6
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 8270 Semivolatile Organic Compound Data

)1		Field Sample ID	WB18-081116-04	WB18-042418-02	WB18-051618-03	WB18-061418-02	WB18-103018-02	WB18-103018-04
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
	NYSDEC	Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Part 375.6	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Unrestricred Use	Units						
CARBAZOLE	NC	µg/kg	37.7J	89U	20.8J	20.3J	ND	ND
CHRYSENE	1000	µg/kg	293	44.2	156	125	47.8	30.6 J
DI-N-BUTYL PHTHALATE	NC	µg/kg	69U	89U	92U	81U	ND	ND
DI-N-OCTYL PHTHALATE	NC	µg/kg	69U	89U	92U	81U	ND	ND
DIBENZO(A,H)ANTHRACENE	330	µg/kg	57.5	44U	46U	41U	ND	ND
DIBENZOFURAN	7000	µg/kg	55.3J	89U	92U	81U	ND	ND
DIETHYL PHTHALATE	NC	µg/kg	69U	89U	92U	81U	ND	ND
DIMETHYL PHTHALATE	NC	µg/kg	69U	89U	92U	81U	ND	ND
FLUORANTHENE	100000	µg/kg	546	88.7	276	234	60.1	41.2 J
FLUORENE	30000	µg/kg	44.7	44U	32.5J	19.2J	ND	ND
HEXACHLOROBENZENE	330	µg/kg	69U	89U	92U	81U	ND	ND
HEXACHLOROBUTADIENE	NC	µg/kg	35U	44U	46U	41U	ND	ND
HEXACHLOROCYCLOPENTADIENE	NC	µg/kg	350U	440U	460U	410U	ND	ND
HEXACHLOROETHANE	NC	µg/kg	170U	220U	230U	200U	ND	ND
INDENO(1,2,3-CD)PYRENE	500	µg/kg	191	26.1J	75.8	62	30.9	ND
ISOPHORONE	NC	µg/kg	69U	89U	92U	81U	ND	ND
N-NITROSO-DI-N-PROPYLAMINE	NC	µg/kg	69U	89U	92U	81U	ND	ND
N-NITROSODIPHENYLAMINE	NC	µg/kg	170U	220U	230U	200U	ND	ND
NAPHTHALENE	12000	µg/kg	140	28.2J	153	51.2	ND	34.5 J
NITROBENZENE	NC	µg/kg	69U	89U	92U	81U	ND	ND
PENTACHLOROPHENOL	800	µg/kg	170U	180U	180U	160U	ND	ND
PHENANTHRENE	100000	µg/kg	393	33.5J	182	156	41.1	27.7 J
PHENOL	330	µg/kg	69U	89U	92U	81U	ND	ND
PYRENE	100000	µg/kg	468	73.1	274	233	65.8	43.5 J

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-062613-02 LSWR-1-1000CY 6/26/2013 Regular sample	WB18-062613-04 LSWR-2-1000CY 6/26/2013 Regular sample	WB18-073013-02 LSWR-03-1000CY 7/30/2013 Regular sample	WB18-073013-04 LSWR-04-1000CY 7/30/2013 Regular sample	WB18-091113A-02 LSWR-05-1000CY 9/11/2013 Regular sample	WB18-091113A-04 LSWR-06-1000CY 9/11/2013 Regular sample	WB18-101813-02 LSWR-07-1000CY 10/18/2013 Regular sample
ALUMINUM	NC	mg/kg	3090	3920	2800	6930	3500	3630	5660
ANTIMONY	NC	mg/kg	0.66B	0.67B	6.4U	10U	0.86B	0.59B	0.67B
ARSENIC	13	mg/kg	2.0B	3.0B	6.1	[15.3][1]	3.2	2.5	4.7
BARIUM	350	mg/kg	164	311	79.6	[432][3]	179	257	[717][3]
BERYLLIUM	7.2	mg/kg	0.14B	0.16B	0.16B	0.52	0.17B	0.15B	0.11B
CADMIUM	2.5	mg/kg	0.15B	0.14B	0.44B	0.77B	0.17B	0.22B	0.75
CALCIUM	NC	mg/kg	219000	271000	216000	308000	318000	300000	336000
CHROMIUM	30	mg/kg	6.9	7.2	3.9	10.4	6.5	6.1	14.5
COBALT	NC	mg/kg	2.1B	2.5B	1.7B	3.6B	3.2B	2.4B	3.1B
COPPER	50	mg/kg	7.5	10	8.4	17.5	6.4	6.3	11.7B
IRON	NC	mg/kg	4770	4320	3260	8670	4520	4090	6360
LEAD	63	mg/kg	2.1B	3.2B	3.8	8.7	5.7B	5.8B	6.9B
MAGNESIUM	NC	mg/kg	8020	10500	6550	30600	13100	13600	12800
MANGANESE	1600	mg/kg	222	269	145	390	212	215	243
MERCURY	0.18	mg/kg	0.1	0.059U	0.028B	0.042B	0.017B	0.033B	0.078
NICKEL	30	mg/kg	5.2B	6.0B	4.5B	12.1	8.2B	7.2B	10.3
POTASSIUM	NC	mg/kg	652B	767B	593B	820B	994B	839B	1190
SELENIUM	3.9	mg/kg	3.9U	20U	3.2U	5.2U	2.1U	2.0U	10U
SILVER	2	mg/kg	0.97U	0.42B	1.8	[2.7][1]	2.6U	2.5U	[3.4][1]
SODIUM	NC	mg/kg	3300	6240	1030B	2910	2600	7660	6090
THALLIUM	NC	mg/kg	9.7U	9.9U	3.2U	5.2U	3.9B	3.6B	4.5B
VANADIUM	NC	mg/kg	5.2B	6.3B	4.5B	10.6B	6.7	5.2	10.2
ZINC	109	mg/kg	13.8B	19.8B	10.2	27.1	10.1	12.3	19.1

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-101813-04 LSWR-08-1000CY 10/18/2013 Regular sample	WB18-101813-06 LSWR-09-1000CY 10/18/2013 Regular sample	WB18-121113-02 LSWR-10-250CY 12/11/2013 Regular sample	WB18-022114-02 LSWR-11-1000CY 2/21/2014 Regular sample	WB18-030314-02 LSWR-12-1000CY 3/3/2014 Regular sample	WB18-041113A-04 SAA-1-1000CYA 4/11/2013 Regular sample	WB18-041113A-06 SAA-1-1000CYB 4/11/2013 Regular sample
ALUMINUM	NC	mg/kg	7170	3330	4800	4930	4900	7150	10800
ANTIMONY	NC	mg/kg	0.68B	0.65B	2.8U	0.48B	2.0U	2.0U	0.16B
ARSENIC	13	mg/kg	11.1	3.5	3.9	11.1	2.2	3.1	2.6
BARIUM	350	mg/kg	[461][3]	265	310	92.6	46.5	24.4	48.3
BERYLLIUM	7.2	mg/kg	0.25	0.080B	0.20B	0.36B	0.2	0.28	0.43
CADMIUM	2.5	mg/kg	0.92	0.82	0.79B	0.14B	0.32B	0.51U	0.20B
CALCIUM	NC	mg/kg	240000	279000	194000	104000	66100	109000	26500
CHROMIUM	30	mg/kg	[37.4][1]	18.1	11.7	6.6	7.7	27.4	21.9
COBALT	NC	mg/kg	6.6	2.9B	2.8B	2.7B	4.0B	3.9B	6.5
COPPER	50	mg/kg	14.5	11.0B	13.1	6.2	10.1	11.8	13.4
IRON	NC	mg/kg	6910	3580	8850	4190	9100	8300	16200
LEAD	63	mg/kg	20.3	16	7.7	5.4	6.4	12.5	8.1
MAGNESIUM	NC	mg/kg	13500	9080	7630	20100	6410	20700	12100
MANGANESE	1600	mg/kg	216	169	439	293	151	284	309
MERCURY	0.18	mg/kg	0.15	0.14	[0.23][1]	0.062B	0.045U	0.046	0.051
NICKEL	30	mg/kg	19.7	13.6	8.7	6.8B	11.4	12.6	28.1
POTASSIUM	NC	mg/kg	1020	576B	807B	172B	1130	1980	2450
SELENIUM	3.9	mg/kg	2.6B	1.9B	8.5U	4.0U	1.7B	1.7B	1.9U
SILVER	2	mg/kg	[2.7][1]	[2.5][1]	0.74B	1.4	1.2	0.14B	0.15B
SODIUM	NC	mg/kg	2960	3460	2430	1120B	474B	1310	869B
THALLIUM	NC	mg/kg	5.1U	1.8B	2.8U	2.0U	0.65B	0.30B	0.94U
VANADIUM	NC	mg/kg	16.2	6.9	11.2	9.0B	8.2	13.5	16.3
ZINC	109	mg/kg	29.7	26	22.8	14.8	28.9	19.4	43.7

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-061413-04 SAA-2-1000CY 6/14/2013 Regular sample	WB18-022114-04 SAA-3-1000CY 2/21/2014 Regular sample	WB18-030314A-02 SAA-4-1000CY 3/3/2014 Regular sample	WB18-040114-02 SAA-5-1000CY 4/1/2014 Regular sample	WB18-012815-02 SAA-6-1000CY 1/18/2015 Regular sample	WB18-012815-04 SAA-7-1000CY 1/18/2015 Regular sample	WB18-032713A-02 SAB-1-1000CYA 3/27/2013 Regular sample
ALUMINUM	NC	mg/kg	5510	7570	6730	5530	5680	4790	7150
ANTIMONY	NC	mg/kg	2.0U	3.0U	3.7U	0.77B	0.37B	0.27B	2.0U
ARSENIC	13	mg/kg	3.1	2.1B	5	7.1	2.2B	2.8	3.1
BARIUM	350	mg/kg	47.1	84.6	58.5	33.4B	62.5	25.9	24.4
BERYLLIUM	7.2	mg/kg	0.22	0.4	0.39	0.39	0.35	0.36	0.28
CADMIUM	2.5	mg/kg	0.061B	0.23B	0.24B	0.32B	0.64U	0.50U	0.51U
CALCIUM	NC	mg/kg	80200	178000	241000	194000	90700	62000	109000
CHROMIUM	30	mg/kg	[57.3][1]	11.2	11.2	7.5	6.7	5	27.4
COBALT	NC	mg/kg	6.9	3.6B	3.4B	2.8B	4.1B	2.6B	3.9B
COPPER	50	mg/kg	9	13.4	11	7	9.8	5.4	11.8
IRON	NC	mg/kg	7850	8180	6240	5050	11200	8660	8300
LEAD	63	mg/kg	7.7	5.3B	7.2B	7.3	4.2	3.9	12.5
MAGNESIUM	NC	mg/kg	12700	7410	14100	20500	10100	7020	20700
MANGANESE	1600	mg/kg	261	280	335	302	476	222	284
MERCURY	0.18	mg/kg	0.13	0.055	0.071	0.074	0.039U	0.012B	0.046
NICKEL	30	mg/kg	[35.2][1]	11.8	10.2	8	9.1	5.9	12.6
POTASSIUM	NC	mg/kg	1180	2310	1070B	265B	1120B	767B	1980
SELENIUM	3.9	mg/kg	0.34B	2.4B	2.6B	2.7B	2.6U	2.0U	1.7B
SILVER	2	mg/kg	0.37B	0.76U	0.93U	2.5U	0.64U	0.50U	0.14B
SODIUM	NC	mg/kg	887B	1900	1090B	1230B	526B	456B	1310
THALLIUM	NC	mg/kg	0.31B	7.6U	9.3U	5.0U	0.91B	0.62B	0.30B
VANADIUM	NC	mg/kg	9.7	13.4	11.7	10.6	10.8	8.4	13.5
ZINC	109	mg/kg	19.2	24.3	22.3	16.3	27.3	23	19.4

Notes:

U - not detected, J - estimated value, B - parameter detected in associated lab blank, NC - no criteria.

NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032713A-04 SAB-1-1000CYB 3/27/2013 Regular sample	WB18-032713A-06 SAB-2-1000CY 3/27/2013 Regular sample	WB18-042613A-04 SAB-3-1000CY 4/26/2013 Regular sample	WB18-042613A-06 SAB-4-1000CY 4/26/2013 Regular sample	WB18-061413-02 SAB-5-1000CY 41439 Regular sample	WB18-091113-02 SAB-6-1000CY 41528 Regular sample	WB18-091113-04 SAB-7-1000CY 9/11/2013 Regular sample
ALUMINUM	NC	mg/kg	10800	5510	7570	6730	5530	5680	4790
ANTIMONY	NC	mg/kg	0.16B	2.0U	3.0U	3.7U	0.77B	0.37B	0.27B
ARSENIC	13	mg/kg	2.6	3.1	2.1B	5	7.1	2.2B	2.8
BARIUM	350	mg/kg	48.3	47.1	84.6	58.5	33.4B	62.5	25.9
BERYLLIUM	7.2	mg/kg	0.43	0.22	0.4	0.39	0.39	0.35	0.36
CADMIUM	2.5	mg/kg	0.20B	0.061B	0.23B	0.24B	0.32B	0.64U	0.50U
CALCIUM	NC	mg/kg	26500	80200	178000	241000	194000	90700	62000
CHROMIUM	30	mg/kg	21.9	[57.3][1]	11.2	11.2	7.5	6.7	5
COBALT	NC	mg/kg	6.5	6.9	3.6B	3.4B	2.8B	4.1B	2.6B
COPPER	50	mg/kg	13.4	9	13.4	11	7	9.8	5.4
IRON	NC	mg/kg	16200	7850	8180	6240	5050	11200	8660
LEAD	63	mg/kg	8.1	7.7	5.3B	7.2B	7.3	4.2	3.9
MAGNESIUM	NC	mg/kg	12100	12700	7410	14100	20500	10100	7020
MANGANESE	1600	mg/kg	309	261	280	335	302	476	222
MERCURY	0.18	mg/kg	0.051	0.13	0.055	0.071	0.074	0.039U	0.012B
NICKEL	30	mg/kg	28.1	[35.2][1]	11.8	10.2	8	9.1	5.9
POTASSIUM	NC	mg/kg	2450	1180	2310	1070B	265B	1120B	767B
SELENIUM	3.9	mg/kg	1.9U	0.34B	2.4B	2.6B	2.7B	2.6U	2.0U
SILVER	2	mg/kg	0.15B	0.37B	0.76U	0.93U	2.5U	0.64U	0.50U
SODIUM	NC	mg/kg	869B	887B	1900	1090B	1230B	526B	456B
THALLIUM	NC	mg/kg	0.94U	0.31B	7.6U	9.3U	5.0U	0.91B	0.62B
VANADIUM	NC	mg/kg	16.3	9.7	13.4	11.7	10.6	10.8	8.4
ZINC	109	mg/kg	43.7	19.2	24.3	22.3	16.3	27.3	23

Notes:

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NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-032113-02 ESFM-0.5-1000CY 3/21/2013 Regular sample	WB18-032113-04 ESFM-1-1000CY 3/21/2013 Regular sample	WB18-040813A-02 ESFM-2-1000CY 4/8/2013 Regular sample	WB18-041113A-02 ESFM-3-1000CY 4/11/2013 Regular sample	WB18-042613A-02 ESFM-4-1000CY 4/26/2013 Regular sample	WB18-050913A-04 ESFM-5-1000CY 5/9/2013 Regular sample	WB18-040813A-04 DA-1-1000CY 4/8/2013 Regular sample
ALUMINUM	NC	mg/kg	5270	6020	6950	7300	5630	3790	11400
ANTIMONY	NC	mg/kg	9.8U	10U	0.77B	1.4B	4.5U	1.9B	0.73B
ARSENIC	13	mg/kg	6.7	7.9	10.3	[21.1][4]	[14.9][1]	[15.5][1]	7.7
BARIUM	350	mg/kg	[375][1]	346	140	323	55.9	56.5	128
BERYLLIUM	7.2	mg/kg	0.29	0.42	0.5	0.53B	0.51	0.28B	0.58
CADMIUM	2.5	mg/kg	[4.4][2]	[14.3][3]	[11.1][3]	[27.5][3]	[6.3][2]	[4.6][1]	[12.6][3]
CALCIUM	NC	mg/kg	241000	146000	191000	186000	NA	389000	70200
CHROMIUM	30	mg/kg	[44.8][1]	[145][1]	[120][1]	[329][2]	[59.5][1]	[57.2][1]	[182][2]
COBALT	NC	mg/kg	3.6B	4.7B	4.1B	5.4B	2.9B	3.0B	10
COPPER	50	mg/kg	46.5	[154][1]	[120][1]	[297][3]	[65.4][1]	[58.5][1]	[148][1]
IRON	NC	mg/kg	5750	7730	7860	10800	5570	4800	16500
LEAD	63	mg/kg	46.7	[168][1]	[116][1]	[260][1]	53.8	45.6	[201][1]
MAGNESIUM	NC	mg/kg	13200	17900	11600	18200	17000	11900	11200
MANGANESE	1600	mg/kg	201	294	198	341	204	169	552
MERCURY	0.18	mg/kg	[0.57][1]	[1.2][2]	[1.2][2]	[1.4][2]	[0.30][1]	[0.22][1]	[0.30][1]
NICKEL	30	mg/kg	18.8	[34.3][1]	26.3	[49.6][1]	14.5	15.5	[47.9][1]
POTASSIUM	NC	mg/kg	647B	828B	986B	790B	400B	209B	2430
SELENIUM	3.9	mg/kg	3.5B	1.5B	3.6U	5.8U	2.3B	0.82B	2.9U
SILVER	2	mg/kg	[8.1][1]	[9.3][1]	[4.7][1]	[12.3][1]	1.9	5.4U	[6.1][1]
SODIUM	NC	mg/kg	1360	1070	1120B	1460B	2100B	1880B	609B
THALLIUM	NC	mg/kg	0.98U	1.0U	0.88B	1.4B	0.89B	1.4B	0.32B
VANADIUM	NC	mg/kg	11.8	15.4	15.1	15.3	10.4B	8.7B	26.9
ZINC	109	mg/kg	[143][1]	[522][1]	[504][1]	[1110][1]	[179][1]	[188][1]	[576][1]

Notes:

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NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

Parameter Name	NYSDEC Part 375.6 Unrestricred Use	Field Sample ID Location Sample Date Sample Purpose Units	WB18-050913A-02 DA-2-1000CY 5/9/2013 Regular sample	WB18-102014-02 DA-3-1000CY 10/20/2014 Regular sample	WB18-053013A-02 DA-Add Material-01 5/30/2013 Regular sample	WB18-060413-02 DA-PILE-5900 6/4/2013 Regular sample	WB18-011514-02 SAC-1-1000CY 1/15/2014 Regular sample	WB18-081116-06 WB18-DA-LATERALS/ 8/11/2016 Regular sample	WB18-081116-02 B18-OU1-TRENCH-(8/11/2016 Regular sample
ALUMINUM	NC	mg/kg	9180	6360	11000	5780	6040	4010	8240
ANTIMONY	NC	mg/kg	1.1B	1.0B	4.2U	0.62B	4.5U	0.48B	2.9U
ARSENIC	13	mg/kg	4.1	4.6	9.3	7.4	8.6	10.2	8.3
BARIUM	350	mg/kg	104	207	168	204	50.4	102	144
BERYLLIUM	7.2	mg/kg	0.31	0.31	0.61	0.47	0.25B	0.33	0.6
CADMIUM	2.5	mg/kg	2.5	[6.1][2]	[3.0][1]	[19.5][3]	0.70B	0.56B	1.9
CALCIUM	NC	mg/kg	173000	176000	156000	191000	237000	154000	194000
CHROMIUM	30	mg/kg	[54.1][1]	[136][1]	[192][2]	[791][2]	17.5	[111][1]	[617][2]
COBALT	NC	mg/kg	6.0B	9	15.5	31.2	2.7B	9.9	64.1
COPPER	50	mg/kg	45.6	[60.5][1]	[236][1]	[243][1]	20.6	42.9	[57.0][1]
IRON	NC	mg/kg	12400	11000	37000	15800	5520	17200	15600
LEAD	63	mg/kg	56.9	[70.6][1]	[261][1]	[195][1]	13	38.9	[85.2][1]
MAGNESIUM	NC	mg/kg	17600	11000	22300	18700	25700	7090	24400
MANGANESE	1600	mg/kg	688	445	956	779	246	246	537
MERCURY	0.18	mg/kg	[0.24][1]	[0.49][1]	[2.1][2]	[1.0][2]	0.1	0.085	[0.36][1]
NICKEL	30	mg/kg	22.9	[51.6][1]	[82.2][1]	[370][3]	11.3	[150][1]	[301][1]
POTASSIUM	NC	mg/kg	2320	1350	2460	1490	217B	936B	1390B
SELENIUM	3.9	mg/kg	0.61B	2.1U	2.6B	0.81B	0.98B	0.98B	2.0B
SILVER	2	mg/kg	2.2U	[2.9][1]	[2.1][1]	[7.6][1]	[2.3][1]	0.65U	1.3
SODIUM	NC	mg/kg		1480	4690	1040B	1300B	1690	1220B
THALLIUM	NC	mg/kg	0.33B	5.2U	2.1U	0.44B	2.3U	1.3U	1.5U
VANADIUM	NC	mg/kg	17.9	15.8	52.3	43.6	9.8B	15.4	38.4
ZINC	109	mg/kg	[183][1]	[189][1]	[806][1]	[745][1]	45.3	41.7	[131][1]

Notes:

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[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 5-7
Honeywell
Wastebeds 1-8 Construction Completion Report
Waste Characterization
Method 6010/7471 Inorganic Data

)1		Field Sample ID	WB18-081116-04	WB18-042418-02	WB18-051618-03	WB18-061418-02	WB18-103018-02	WB18-103018-04
		Location	VB18-PLOTSPOILS-0	WB18-SAC-042418	WB18-SAC-051618	WB18-SAC-061418	WB18-SAC-103018A	WB18-SAC-103018B
	NYSDEC	Sample Date	8/11/2016	4/24/2018	5/16/2018	6/14/2018	10/30/2018	10/30/2018
	Part 375.6	Sample Purpose	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample	Regular sample
Parameter Name	Unrestricred Use	Units						
ALUMINUM	NC	mg/kg	9800	14700	10100	25400	8470	10800
ANTIMONY	NC	mg/kg	2.3U	2.6U	2.7U	0.73B	0.58 U	0.56 U
ARSENIC	13	mg/kg	7.7	6.7	6.7	7.9	5.4	5.5
BARIUM	350	mg/kg	160	108	98.7	131	201	158
BERYLLIUM	7.2	mg/kg	0.59	0.7	0.47	1.1	0.4	0.43
CADMIUM	2.5	mg/kg	1.2	0.38B	0.48B	0.62U	2.1	1.4
CALCIUM	NC	mg/kg	119000	51200	104000	8800	171000	153000
CHROMIUM	30	mg/kg	[745][2]	[168][2]	[110][1]	[31.2][1]	[108][1]	[49][1]
COBALT	NC	mg/kg	56.6	17.4	11.3	13.9	9.9	16.1
COPPER	50	mg/kg	[65.0][1]	28	23.9	22.6	39	34.5
IRON	NC	mg/kg	20600	22300	16400	33000	11400	16100
LEAD	63	mg/kg	[79.9][1]	39.6	31.1	14.3	41.1	36.7
MAGNESIUM	NC	mg/kg	36500	12900	14300	8330	12200	19100
MANGANESE	1600	mg/kg	946	448	454	357	366	491
MERCURY	0.18	mg/kg	[0.26][1]	0.082	0.15	0.074	[0.26][1]	0.12
NICKEL	30	mg/kg	[354][1]	[124][1]	[56.7][1]	[36.3][1]	[65.4][1]	[33.1][1]
POTASSIUM	NC	mg/kg	2620	2560	2000	4260	2160	2790
SELENIUM	3.9	mg/kg	2.4	2.6U	2.7U	2.5U	0.92 U	0.89 U
SILVER	2	mg/kg	1.3	0.71	0.68U	0.62U	[2.4 U][1]	0.59 B
SODIUM	NC	mg/kg	300B	707B	887B	264B	1030 B	821 B
THALLIUM	NC	mg/kg	1.1U	1.3U	1.4U	1.2U	1.0 B	0.80 U
VANADIUM	NC	mg/kg	63.1	32.7	24.8	41.2	19.2	24.2
ZINC	109	mg/kg	[136][1]	66	65.3	73.4	[125][1]	86.7

Notes:

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NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives (2006); [ ] - Exceeds Soil Cleanup Objective.

[1] - Does not exceed Restricted Residential Soil Cleanup Objective; [2] - Does not exceed Commercial Soil Cleanup Objective; [3] - Does not exceed Industrial Soil Cleanup Objectives.

Table 6
Honeywell
Wastebeds 1-8 Construction Completion Report
Soil Piles - Sample and Result Tracking

Pile ID	Volume (CY)	Sample Date	Field Sample ID	Lab Report SDG#	Data Due Date	Data Received Date	Pile Acceptable for Onsite Consolidation	Notes
Staging Area A								
SAA-1-1000CY	1,000	4/11/2013	WB18-041113A-03/04 WB18-041113A-06/05	JB34122	5/2/2013	5/10/2013	YES per NYSDEC 5-16 email	Additional sample collected from first 500 due to initial pile at Staging Area B. Graded into Staging Area A.
SAA-2-1000CY	1,000	6/14/2013	WB18-061413-03/04	JB39805	7/5/2013	6/28/2013	Yes per NYSDEC 7-25 email	Graded into Staging Area A
SAA-3-1000CY	1,000	2/21/2014	WB18-022114-03/04	JB60370	3/14/2014	3/7/2014	Yes per NYSDEC 4-3-14 email	Graded into Staging Area A
SAA-4-1000CY	1,000	3/3/2014	WB18-030314A-01/02	JB60982	3/24/2014	3/12/2014	Yes per NYSDEC 4-3-14 email	Graded into Staging Area A
SAA-5-1000CY	1,000	4/1/2014	WB18-040114-01/02	JB63540	4/22/2014	4/22/2014	Yes per NYSDEC 4-28-14 email	Graded into Staging Area A
SAA-6-1000CY	1,000	1/28/2015	WB18-012815-01/02	JB87318	2/18/2015	2/11/2015	Yes per NYSDEC 4-10-15 email	Graded into Staging Area A
SAA-7-1000CY	1,000	1/28/2015	WB18-012815-03/04	JB87318	2/18/2015	2/11/2015	Yes per NYSDEC 4-10-15 email	Graded into Staging Area A
Staging Area B								
Parsons NMC Pile	2,000	3/27/2013	NMC-032713A-01/02 NMC-032713A-03/04 NMC-032713A-05/06	180-19952-1	4/17/2013	4/17/2013	YES per NYSDEC 5-16 email	Three samples collected, first 500cy, first 1,000cy, and final 500cy. Graded into Staging Area B.
SAB-1-1000CY	1,000	3/27/2013	WB18-032713A-01/02 WB18-032713A-03/04	JB32656	4/17/2013	4/18/2013	YES per NYSDEC 5-16 email	Additional sample collected from first 500 due to initial pile at Staging Area B. Graded into Staging Area B.
SAB-2-1000CY	1,000	3/27/2013	WB18-032713A-05/06	JB32656	4/17/2013	4/18/2013	YES per NYSDEC 5-16 email	Graded into Staging Area B.
SAB-3-1000CY	1,000	4/26/2013	WB18-042613A-03/04	JB35545	5/17/2013	6/24/2013	YES per NYSDEC 6-18 email; Contingent on TCLP results not exceeding limits	TCLP data does not exceed limits. Final NYSDEC approval 7-25 email. Graded into Staging Area B.
SAB-4-1000CY	1,000	4/26/2013	WB18-042613A-05/06	JB35545	5/17/2013	6/24/2013	YES per NYSDEC 6-18 email; Contingent on TCLP results not exceeding limits	TCLP data does not exceed limits. Final NYSDEC approval 7-25 email. Graded into Staging Area B.
SAB-5-1000CY	1,000	6/14/2013	WB18-061413-01/02	JB39805	7/5/2013	6/28/2013	Yes per NYSDEC 7-25 email	Graded into Staging Area B.
SAB-6-1000CY	1,000	9/11/2013	WB18-091113-01/02	JB47272	10/2/2013	9/25/2013	Yes per NYSDEC 10-2 email	Graded into Staging Area B.

Table 6
Honeywell
Wastebeds 1-8 Construction Completion Report
Soil Piles - Sample and Result Tracking

Pile ID	Volume (CY)	Sample Date	Field Sample ID	Lab Report SDG#	Data Due Date	Data Received Date	Pile Acceptable for Onsite Consolidation	Notes
SAB-7-1000CY	1,000	9/11/2013	WB18-091113-03/04	JB47272	10/2/2013	9/25/2013	Yes per NYSDEC 10-2 email	Graded into Staging Area B.
WB18-Parsons Material-01	500	9/30/2016	WB18-093016-01/02	JC29001	10/21/2016			
Staging Area C								
ESFM-1-1000CY	1,000	3/21/2013	WB18-032113-01/02 WB18-032113-03/04	JB32267	4/11/2013	4/20/2013	YES per NYSDEC 5-16 email	Additional sample collected from first 500 due to initial pile at Staging Area C. Graded into Staging Area C.
ESFM-2-1000CY	1,000	4/8/2013	WB18-040813-01/02	JB33839	4/29/2013	5/10/2013	YES per NYSDEC 6-18 email	Final data received, no changes to results. Graded into Staging Area C.
ESFM-3-1000CY	1,000	4/11/2013	WB18-041113A-01/02	JB34122	5/2/2013	5/10/2013	YES per NYSDEC 5-16 email	Graded into Staging Area C.
ESFM-4-1000CY	1,000	4/26/2013	WB18-042613A-01/02	JB35545	5/17/2013	6/24/2013	YES per NYSDEC 6-18 email; Contingent on TCLP results not exceeding limits	TCLP data does not exceed limits. Final NYSDEC approval 7-25 email. Graded into Staging Area C.
ESFM-5-1000CY	1,000	5/9/2013	WB18-050913A-03/04	JB36889	5/30/2013	6/4/2013	YES per NYSDEC 6-18 email	Graded into Staging Area C.
DA-1-1000CY	1,000	4/8/2013	WB18-040813-03/04	JB33839	4/29/2013	5/9/2013	YES per NYSDEC 6-18 email	Final data received, no changes to results. Graded into Staging Area C.
DA-2-1000CY	1,000	5/9/2013	WB18-050913A-01/02	JB36889	5/30/2013	6/4/13 (Hard Copy Only)	YES per NYSDEC 6-18 email	Final data received, no changes to results. Graded into Staging Area C.
DA-3-1000CY	1,000	10/20/2014	WB18-102014-01/02	JB79659	11/10/2014	11/5/2014	YES per NYSDEC 12-25-14 email	Graded into Staging Area C.
DA-Add Material-01	400	5/24/2013	WB18-053013A-01/02	JB38580	6/14/2013	6/28/2013	Yes per NYSDEC 7-25 email	Graded into Staging Area C.
DA-5900-Pile	200	6/4/2013	WB18-060513-01/02	JB38999	6/25/2013	6/28/2013	Yes per NYSDEC 7-25 email	Contains material originallty staged as start of DA-3-1000CY.Graded into Staging Area C.
SAC-1-1000CY	1,000	1/15/2014	WB18-011514-01/02	JB57889	2/5/2014	2/11/2014	Yes per NYSDEC 2/18 email	Graded into Staging Area C.
WB18-OU1-Trench-01	500	8/11/2016	WB18-081116-01/02	JC25761	9/1/2016	8/25/2016	Yes per NYSDEC 2/17 email	Graded into Staging Area C.
WB18-PLotSpoils-01	500	8/11/2016	WB18-081116-03/04	JC25761	9/1/2016	8/25/2016	Yes per NYSDEC 2/17 email	Graded into Staging Area C.
WB18-DA-Laterals	500	8/11/2016	WB18-081116-05/06	JC25761	9/1/2016	8/25/2016	Yes per NYSDEC 2/17 email	Graded into Staging Area C.
WB18-SAC-042418	5,000	4/24/2018	WB18-042418-01/02 WB18-051618-01	JC64964	5/15/2018	5/17/2018	Yes per NYSDEC 7/13 email	Graded into Staging Area C.
WB18-SAC-051618	5,000	5/16/2018	WB18-051618-01/02	JC66396	6/6/2018	6/1/2018	Yes per NYSDEC 7/13 email	Graded into Staging Area C.

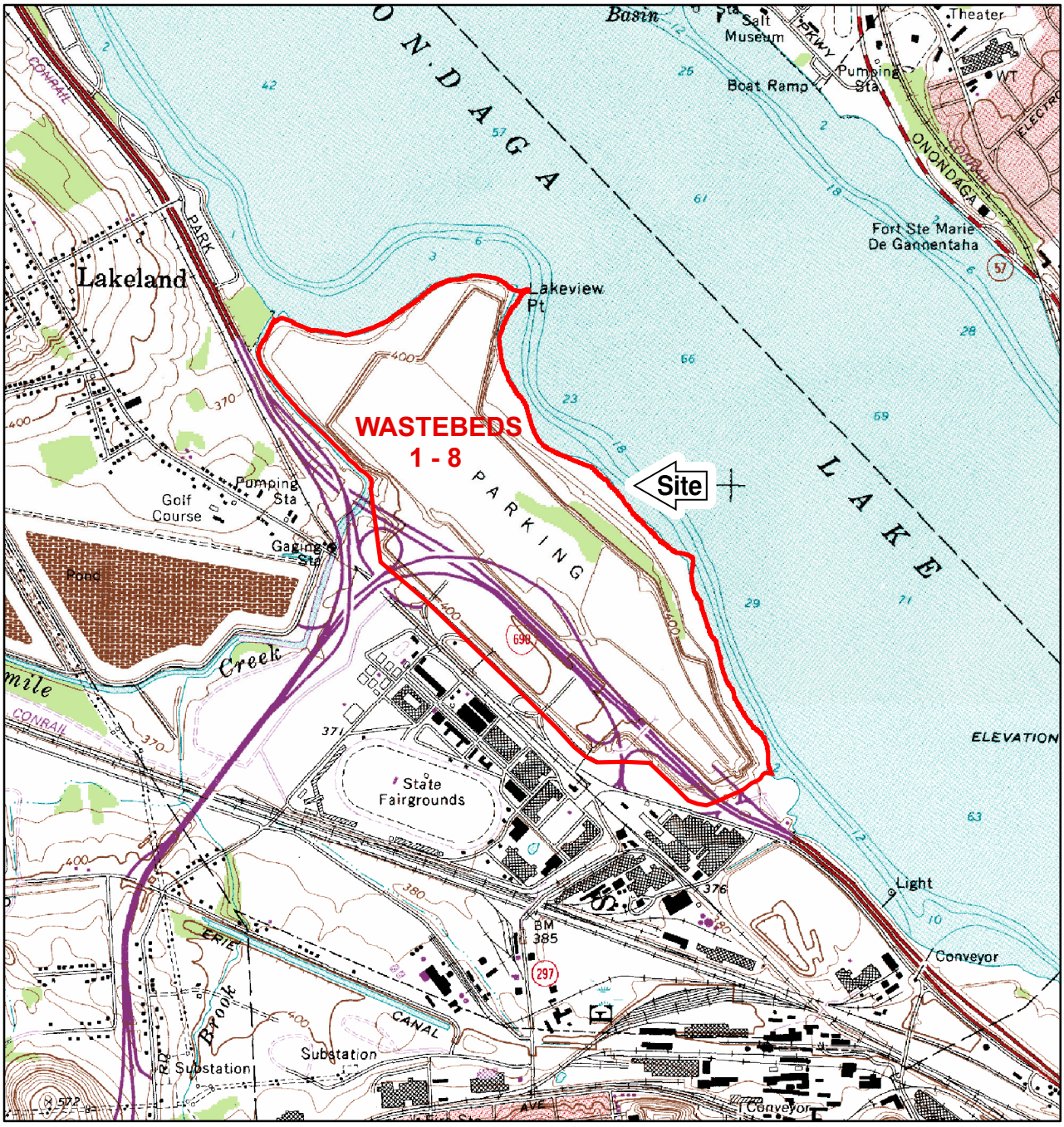
Table 6
Honeywell
Wastebeds 1-8 Construction Completion Report
Soil Piles - Sample and Result Tracking

Pile ID	Volume (CY)	Sample Date	Field Sample ID	Lab Report SDG#	Data Due Date	Data Received Date	Pile Acceptable for Onsite Consolidation	Notes
WB18-SAC-061418	5,000	6/14/2018	WB18-061418-01/02	JC68197	7/5/2018	7/2/2018	Yes per NYSDEC 7/13 email	Graded into Staging Area C.
WB18-SAC-103018A	5,000	10/30/2018	WB18-103018-01/02	JC76955	11/20/2018	1/4/2019	Yes per NYSDEC 1/23 email	Graded into Staging Area C.
WB18-SAC-103018B	5,000	10/30/2018	WB18-103018-03/04	JC76955	11/20/2018	1/4/2019	Yes per NYSDEC 1/23 email	Graded into Staging Area C.
Lake Shore Soil Piles								
LSWR-1-1000CY	1,000	6/26/2013	WB18-062613-01/02	JB40852	7/17/2013	8/5/2013	Yes per NYSDEC 10-24 email	Soil staged between stations 67+00 to 59+50 - Moved to Staging Area C.
LSWR-2-1000CY	1,000	6/26/2013	WB18-062613-03/04	JB40852	7/17/2013	8/5/2013	Yes per NYSDEC 10-24 email	Soil staged between stations 58+50 to 51+00 - Moved to Staging Area C.
LSWR-3-1000CY	1,000	7/30/2013	WB18-073013-01/02	JB43997	8/20/2013	8/15/2013	Yes per NYSDEC 10-24 email	Soil staged between stations 51+00 to 43+50 - Moved to Staging Area C.
LSWR-4-1000CY	1,000	7/30/2013	WB18-073013-03/04	JB43997	8/20/2013	8/15/2013	Yes per NYSDEC 10-24 email	Soil staged between stations 43+50 to 36+75 - Moved to Staging Area C.
LSWR-5-1000CY	1,000	9/11/2013	WB18-091113A-01/02	JB47273	10/2/2013	9/26/2013	Yes per NYSDEC 10-8 email	Soil staged between stations 35+25 to 28+00 - Moved to Wetland B footprint.
LSWR-6-1000CY	1,000	9/11/2013	WB18-091113A-03/04	JB47273	10/2/2013	9/26/2013	Yes per NYSDEC 10-8 email	Soil staged between stations 28+00 to 22+00 - Moved to Wetland B footprint.
LSWR-7-1000CY	1,000	10/18/2013	WB18-101813-01/02	JB50722	11/8/2013	11/21/2013	Yes per NYSDEC 12-5 email	Staged in Wetland B footprint- relocated to Staging Area C due to subgrade
LSWR-8-1000CY	1,000	10/18/2013	WB18-101813-03/04	JB50722	11/8/2013	11/21/2013	Yes per NYSDEC 12-5 email	Staged in Wetland B footprint- relocated to Staging Area C due to subgrade
LSWR-9-1000CY	1,000	10/18/2013	WB18-101813-05/06	JB50722	11/8/2013	11/21/2013	Yes per NYSDEC 12-5 email	Staged in Wetland B footprint- relocated to Staging Area C due to subgrade
LSWR-10-250CY	250	12/11/2013	WB18-121113-01/02	JB55526	1/1/2014	12/20/2013	Yes per NYSDEC 1-28-14	Staged in Wetland B footprint- relocated to Staging Area C due to subgrade
LSWR-11-1000CY	1,000	2/21/2014	WB18-022114-01/02	JB60370	3/14/2014	3/11/2014	Yes per NYSDEC 4-3-14 email and 4-9-2014	Staged in Wetland A footprint, adjacent seep apron, and Staging Area C
LSWR-12-1000CY	1,000	3/3/2014	WB18-030314-01/02	JB60983	3/24/2014	3/20/2014	Yes per NYSDEC 4-3-14 email and 4-9-2015	Staged in Wetland A footprint, adjacent seep apron, and Staging Area C

Notes:
TBD - To Be Determined; NS - Not Sampled; NR - Not Received

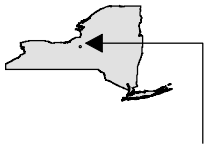
Figures

FIGURE 1



ADAPTED FROM: SYRACUSE WEST, NY USGS QUADRANGLE

HONEYWELL
WASTEBEDS 1 - 8
INTEGRATED IRM
GEDDES, NEW YORK



MAP LOCATION

N

SITE LOCATION PLAN

0 1,000 2,000 4,000
Feet

1:24,000

1163.49480
AUGUST 2022

O'BRIEN & GERE ENGINEERS, INC.

12/12/2013 12:24:35 PM

I:\Honeywell.1163\45176.Wb-1-8-Site-Wid\Docs\DWG\MXD\Add_DitchA_Samp\SITE_LOC.mxd

N

LEGEND

- DITCH A IRM
- SEEP COLLECTION TRENCH
- GROUNDWATER COLLECTION TRENCH
- PARKING LOT
- ACCESS PATHWAYS
- REVETMENT
- SEEP APRON & VEGETATIVE COVER
- VEGETATIVE COVER / RESTORED AREA / SHORELINE STABILIZATION / WET SWALE
- MITIGATION WETLAND
- LAKEVIEW
- ONONDAGA COUNTY AMPHITHEATER FOOTPRINT
- CRUCIBLE LANDFILL
- STAGING AREA
- WASTEBEDS 1-8 SITE

HONEYWELL INTERNATIONAL INC. WASTEBEDS 1 - 8 INTEGRATED IRM GEDDES, NEW YORK

SITE PLAN

0 350 700 1,400
Feet

1163.49480
JANUARY 2024

O'BRIEN & GERE ENGINEERS, INC.