NYC Parks

Thérèse Braddick
Deputy Commissioner
Capital Projects

T 718.760.6602 E therese.braddick@parks.nyc.gov

City of New York
Parks & Recreation

Olmsted Center
Flushing Meadows
Corona Park
Flushing, NY 11368
www.nyc.gov/parks

June 18, 2019

Jenelle Gaylord
Engineering Geologist, Bureau E
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7017

Re: Brookfield Avenue Landfill (DEC Site No. 2-43-006)
OU2 2018 5th-Year Monitoring Report

Dear Ms. Gaylord,

The Brookfield Avenue Landfill (BAL) Second Operable Unit (OU2) Record of Decision (ROD) requires monitoring surface water and sediment in Richmond Creek during the 5th, 10th and 20th years following the completion of the OU1 remedy in 2013. The 2018 monitoring event was conducted in October 2018 in accordance with the requirements of the BAL OU2 ROD and the OU2 Remedial Action Plan (RAP).

Enclosed is a CD containing an electronic copy of the BAL OU2 2018 5th-Year Monitoring Report which summarizes the results of the 2018 monitoring event. The next monitoring event will be scheduled during 2023, the 10th-year following the completion of the OU1 remedy.

Should you have any questions regarding this submittal, please contact this office at your earliest convenience.

Sincerely,

Rupak Raha

Rupak Raha, PE

City of New York Department of Parks and Recreation
Capital Projects Division
Environmental Remediation Unit

Cc: K. Zias (DPR), T. Heneveld (LKB)

BROOKFIELD AVENUE LANDFILL
SECOND OPERABLE UNIT
2018 5TH-YEAR MONITORING REPORT

June 2019

NYSDEC Site No. 2-43-006

Prepared for:

City of New York
Department of Parks and Recreation

Prepared by:

Lockwood, Kessler & Bartlett, Inc.
1 Aerial Way
Syosset, NY 11791

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Executive Summary

The Brookfield Avenue Landfill (BAL) Second Operable Unit (OU2) 2018 monitoring event for surface water and sediment in Richmond Creek was conducted in October 2018 in accordance with the requirements of the BAL OU2 Record of Decision (ROD). The OU2 ROD requires monitoring in the 5th, 10th and 20th years following the completion of the OU1 remedy in 2013. The scope of work was consistent with the OU2 Remedial Action Plan (RAP) and entailed surface-water monitoring at seven locations in Richmond Creek (Creek) during both high-tide and low tide, and three-depth-interval sediment monitoring to a total depth of 30 inches at the same seven locations plus five other locations within the tidal marsh and tributaries between the Creek and the BAL.

The results were evaluated based on applicable standards and guidance values, and compared to the results of the baseline monitoring round performed in October 2013, shortly after completion of the OU1 remedy. The evaluation took into consideration OU2 area's tidal nature and its proximity to other potential sources of contamination in the vicinity of the BAL, such as the Fresh Kills Landfill and the large storm sewer outfall that bisects the BAL which discharges storm water runoff from the surrounding community. The OU2 ROD states that the Fresh Kills Landfill was historically the dominant source of contaminant releases to the Fresh Kills Estuary System, and that releases from the BAL were minor by comparison.

No BAL-related impacts to surface-water quality in the Creek were indicated by the 2018 results. Organic contaminant detections in surface water were limited to very low concentrations of acetone in five of the 14 samples, which may be background and/or laboratory contamination; and one pesticide-related compound (4,4'-DDD) in two low-tide samples. The 4,4'-DDD detections exceeded water-quality standards, but may be associated with the Fresh Kills Landfill as they occurred at the two downstream sample locations closest to it. Metals detections in surface water primarily reflect the brackish conditions in the Creek. The only exceedances of a water-quality standard for metals were for dissolved nickel at the upstream sample location.

The sediment in the Creek, tidal marsh and tributaries is comprised primarily of organic silt. It's dark color and low levels of naturally-occurring hydrogen sulfide indicate a reducing environment. As such, the sediment serves as a sink for contaminants, especially metals. Organic contaminant detections in sediment were generally limited to sporadic, low concentrations, most of which appear to be associated with sources other than the BAL or pre-OU1 remedy releases as they occur in subsurface samples, and as such are biologically isolated. Based on a detailed evaluation, semivolatile organic compounds, pesticide-related compounds and polychlorinated biphenyl concentrations in sediment are currently not a significant concern for BAL OU2.

With the exception of mercury, which exhibits a more widespread distribution indicative of regional contamination, and nickel, which was detected at highest concentration at the upstream sample location, sediment metals concentrations are generally consistent with pre-OU1 remedy releases in that the highest concentrations and majority of sediment guidance value exceedances occurred in subsurface samples that are biologically isolated, primarily from three sample locations adjacent to the East Cell of the BAL. Also with the exception of mercury, sediment metal guidance value exceedances in surficial sediment samples were sporadic and low in magnitude.

Overall, the 2018 surface-water monitoring results are similar to the 2013 baseline monitoring results except for some weather-related differences in certain field parameters and metals concentrations, and collection-related turbidity interference in most of the 2013 low-tide samples. Neither round of results indicates significant BAL-related impacts to Creek surface-water quality.

In sediment, the concentrations of detected organic contaminants appear to have decreased since 2013. Temporal changes in metals concentrations varied by depth, but taken as a whole, sediment metals concentrations also appear to have decreased since 2013, particularly in surficial sediment.

Overall, the results of the 2018 OU2 monitoring round are consistent with the findings in the OU2 ROD, and indicate that the OU2 selected remedy, consisting of the OU1 remediation and landfill post-closure monitoring in conjunction with the OU2 monitoring program, continues to be protective of public health and the environment.

Future OU2 monitoring rounds are required during the 10th and 20th years following completion of the OU1 remedy. This report provides several recommendations related to sample collection and results evaluation based on the 2018 findings. It also recommends that potential reductions in the frequency and/or scope of monitoring be investigated, and that copies of the reports for other monitoring performed within the Fresh Kills Estuary System be obtained and reviewed for relevance to the OU2 RAP.

1.0 Introduction

The Brookfield Avenue Landfill (BAL) Second Operable Unit (OU2) Record of Decision (ROD) requires monitoring the chemical characteristics of surface water and sediment in Richmond Creek (Creek), and sediment quality in the tidal marsh and tributaries adjacent to the BAL, during the 5th, 10th and 20th years following completion of the First Operable Unit (OU1) remedy. The OU2 monitoring program serves to supplement the BAL OU1 post-closure monitoring program. The objective of the OU2 monitoring, as stated in the 2011 OU2 Remedial Action Plan (RAP), is to understand long-term changes in surface-water and sediment quality, considering remediation efforts at this and other contaminant sites in the region, and to supplement data collected as part of the ongoing and long-term monitoring in the Fresh Kills Estuary System. As further stated in the OU2 RAP, it must be noted that surface water in Richmond Creek is also impacted by sources of contaminants outside of OU1/OU2 areas (e.g., urban storm water runoff and the nearby Fresh Kills Landfill).

Construction of the BAL OU1 remedy was substantially complete in 2013 and a baseline OU2 monitoring round was performed in October 2013. The baseline monitoring results were reported in the April 2014 OU2 Baseline Sampling Report prepared by CDM Smith for the New York City (NYC) Department of Environmental Protection (DEP). In accordance with the OU2 RAP schedule, the 5th-year monitoring was performed in 2018 on October 1st through 4th to be consistent with the 2013 baseline monitoring round. This report presents the 2018 results, and includes a detailed comparison to the 2013 baseline monitoring results.

Sample collection was performed by Normandeau Associates, Inc. of Stowe, PA under the supervision of Lockwood, Kessler & Bartlett, Inc. (LKB). Laboratory analyses were performed by Accredited Analytical Resources, LLC of Carteret, NJ – a New York State Department of Health-certified environmental laboratory. Independent validation of a percentage of the laboratory data was performed by Environmental Data Services, Inc. of Virginia Beach, VA, in accordance with the New York State Department of Environmental Conservation (NYSDEC) landfill regulations (6NYCRR Part 363).

The remainder of this report is organized as follows:

Section 2.0 – Describes the work performed during the 2018 monitoring round.

Section 3.0 - Discusses the results of the 2018 monitoring round and compares the results to applicable standards and guidance values. An assessment of the results for the quality assurance/quality control (QA/QC)-related samples is also provided.

Section 4.0 – Compares the 2018 results to the 2013 baseline results.

Section 5.0 – Provides conclusions based on the findings, as well as recommendations for the 10th-year monitoring round in 2023.

Appendix A – Contains a copy of the field notes and water-quality measurements for the surface-water samples.

Appendix B – Contains copies of the field data sheets and soil boring logs for the sediment samples.

Appendix C – Contains laboratory results for the surface-water and sediment samples.

Appendix D - Contains the data validator's data usability summary report (DUSR).

Sections 2.0 through 4.0 are supported by three figures and 19 tables. The figures follow the first page on which they are referenced. The tables are provided at the end of the report text.

2.0 Scope of Work

Surface-water and sediment samples were collected at seven locations in the channel of the Creek, and sediment samples were collected at five additional locations within the tidal marsh and tributaries located between the Creek and the BAL. The sampling locations were selected using the sampling locations shown in Figures 4-1 and 4-2 of the OU2 RAP and Figures 1 and 2 of the April 2014 OU2 Baseline Sampling Report as guides. For future identification, and to ensure consistency between monitoring rounds, the 2018 sampling locations were marked with PVC-pipe stakes and their GPS coordinates were recorded. The 2018 surface-water and sediment sample locations are shown in Figure 1. Their locations relative to the BAL and coordinates are provided in Table 1.

The 2018 sample locations are compared to the OU2 RAP sample locations in Figure 2 and to the 2013 sample locations in Figure 3. While the OU2 RAP required obtaining GPS coordinates for the sampling locations, they were not provided in the OU2 Baseline Sampling Report. As shown in Figures 2 and 3, despite not having prior GPS coordinates and the small scale of the OU2 RAP and Baseline Report figures, the 2018 sample locations were at or near the OU2 RAP locations and 2013 sample locations except for Sample Location BK2-SW/SD-3, which was shifted approximately 400 feet upstream to provide uniform spacing between it and the two adjacent Creek sampling locations, and Sample Location BK2-SD-10, which was close to the OU2 RAP sampling location but not the 2013 sample location, which was shifted to the north due to refusal during sampling. In 2018, samples were able to be collected near the OU2 RAP location.

Since Richmond Creek is tidal, surface-water samples were collected at both high tide and low tide at each sample location to identify tide stage-related variations in surface-water quality, if any. For example, the influences of base flow of fresh surface water from the upstream section of the Creek and/or base flow of groundwater to the Creek on water quality should be more evident at low tide than high tide. However, it should be noted that due to the low permeability of the soils underlying the BAL and the presence of the slurry wall surrounding the landfill cells, base flow of groundwater into the adjacent section of the Creek from BAL should be negligible. Also, as stated in the OU2 ROD, potential influences from other sources downstream of the BAL, such as the nearby Fresh Kills Landfill, were expected to be lessened at low tide. The QA/QC-related samples required by the OU2 RAP were also collected. During the 2013 monitoring round, some of the high-tide sample locations could not be accessed by boat at low tide, resulting in the low tide sample being collected at nearby locations still covered by water. To avoid this during the 2018 monitoring round, sample locations were selected that would be accessible at low tide.



FIGURE 1

LKB CONSULTING ENGINEERS

2018 OU2 SAMPLE LOCATIONS



FIGURE 2

LKB CONSULTING ENGINEERS

COMPARISON OF 2018 AND OU2 RAP SAMPLE LOCATIONS



FIGURE 3

LKB CONSULTING ENGINEERS

COMPARISON OF 2018 AND 2013 SAMPLE LOCATIONS

At low tide, the water in the Creek is very shallow, particularly outside the channel and in the upstream sections. During the 2013 baseline monitoring round, surface-water samples were collected by dipping the sample bottles under the water. Due to the shallow water depth, entrained sediment was unavoidably collected along with most of the 2013 low-tide samples. This resulted in high sample turbidity, and elevated metals concentrations in the 2013 samples due to leaching of the sediment by the nitric acid used to preservative the samples.

To minimize the potential for entrained sediment to interfere with the 2018 surface-water samples, sample locations were kept within the Creek channel where the water is deeper and this sampling was performed prior to the sediment sampling. Moreover, all samples except those for volatile organic compound (VOC) analysis were collected using a portable peristaltic pump and dedicated tubing, rather than by dipping the sample bottles under the water. The end of the tubing was attached to a piece of small-diameter PVC pipe so that it could be extended upstream of the small boat used to access the sample locations, and then lowered into the middle of the water column to collect the samples. Samples for VOC analysis were collected by dipping the sample vials under the water as a precaution to avoid possible loss of VOCs due to volatilization during pumping.

In accordance with the OU2 RAP, field measurements of required water-quality parameters were taken at each surface-water sample location at both high and low tide using a portable meter, and the samples were analyzed for VOCs, semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), total metals and hardness. To assess the influence of turbidity on the metals results, field-filtered samples were also collected and analyzed for dissolved metals. A copy of the surface-water sample field notes is provided in Appendix A. The laboratory results for the surface-water samples are provided in Appendix C. A summary of the 2018 surface-water sample locations and related information is provided in Table 2.

The equipment used to collect the sediment samples varied by location based on the amount of root material present and the consistency of the sediment. Specifically, at eight of the 12 sampling locations the sediment was soft and relatively root-free, so samples were collected using a direct-push piston-core sampler. At the other four sampling locations either dense roots were present or the sediment was predominantly sandy, so samples were collected using a shovel and/or a Vibracore sampler.

At all but one sample location, sediment cores or hand-dug samples were collected to the minimum required 30-inch sampling depth. At Sampling Location BK2-SD-10, refusal was encountered at a depth of 27 inches, which was close to the target sample depth. Each sediment core and discrete-depth hand-dug sample was examined for lithology and physical characteristics, and screened for VOCs and hydrogen sulfide (H_2S) using portable meters.

Samples for laboratory analysis were then collected at each location from the three depth intervals specified in the OU2 RAP: 0-6 inches, 6-12 inches and 24-30 inches (24-27 inches at Sampling Location BK2-SD-10). The QA/QC-related samples required by the OU2 RAP were also collected. The sediment samples were analyzed for SVOCs, pesticides, PCBs, total metals, total organic carbon (TOC) and percent solids. Copies of the field data sheets and soil boring logs for the sediment samples are provided in Appendix B. The laboratory results for the sediment samples are provided in Appendix C. A summary of the 2018 sediment sample locations and related information is provided in Table 3.

The surface-water sample results were evaluated based on:

1) Their position (i.e., upstream, adjacent or downstream) relative to the BAL.
2) Tide stage at the time of collection.
3) Comparison to the Class SC standards in 6NYCRR Part 703.5 or the Class SC guidance values in NYSDEC TOGS 1.1.1, if available (consistent with the Creek's Class SC water-quality classification stated in the OU2 ROD).
4) Comparison to the 2013 baseline results.

The sediment sample results were evaluated based on:

1) Their position relative to the BAL and depth.
2) Variations in sample composition.
3) Comparison to the Saltwater Sediment Guidance Values and the Sediment Guidance Values for PAHs (Polycyclic Aromatic Hydrocarbons) in Tables 6 and 7, respectively, of the June 24, 2014 NYSDEC document "*Screening and Assessment of Contaminated Sediment*".
4) Comparison to the 2013 baseline results.

The presence of the other potential sources of contamination in the vicinity of the BAL noted in the OU2 ROD, including the nearby Fresh Kills Landfill and storm water outfalls (such as the triple 16'-0" x 6'-6" storm sewer that bisects the BAL), were also taken into consideration during evaluation of the results.

The QA/QC-related sample results were evaluated to identify potential influences on the sample results. Specifically, trip blank results were evaluated for the presence of background sources of VOC contamination. Field blank results were reviewed to identify potential sampling equipment-related influences on laboratory results. Duplicate results were compared to assess sample variability. Matrix spike and matrix spike duplicate results were reviewed to assess and verify the precision of the laboratory analyses. The QA/QC-related samples for surface water and sediment are identified in Tables 2 and 3, respectively.

3.0 Evaluation of 2018 BAL OU2 5th-Year Results

3.1 Surface-Water Results

3.1.1 Field Parameter Results

The water-quality parameters measured in the field were: conductivity, dissolved oxygen (DO), temperature, oxidation-reduction potential (ORP), pH, salinity, total dissolved solids (TDS), and turbidity. These results are summarized in Table 4. Overall, they are consistent with Richmond Creek being a tidal coastal surface-water body. The temperature readings are consistent with the monitoring being performed during an unusually warm early October.

Based on these results, tide stage is the dominant factor controlling surface-water quality in Richmond Creek. Specifically, as shown in Table 4, the average concentration of every field water-quality parameter except pH and turbidity was higher at high tide. The higher average concentrations at high tide are attributed to the presence of more saline water in the Creek at high tide. The average pH was basically the same at high and low tide. The average turbidity was higher at low tide. Moreover, at both high and low tides, the lowest concentrations of five of the eight field parameters occurred at Sampling Location BK2-SW-7, which is furthest upstream. The highest ORP reading also occurred at Sampling Location BK2-SW-7.

Based on the field salinity results, the Creek water is brackish (salinity in the range of 0.5 to 35 parts per thousand (ppt)) except at Sampling Location BK2-SW-7, where it is fresh (salinity less than 0.5 ppt), and becomes more brackish at high tide. Overall, salinity levels in the Creek increase from upstream to downstream during both high and low tide. This pattern, and the lower salinities at low tide, are attributed to base flow of fresh surface water from the upstream section of the Creek.

The only potential correlation of the field water-quality results to the proximity of the landfill are: 1) the lower low-tide ORP at Sampling Location BK2-SW-5, and 2) the higher low-tide turbidities at Sampling Locations BK2-SW-4 through BK2-SW-6. These specific results could be attributed to impacts from the BAL (e.g. surface storm water runoff) because these three sampling locations are adjacent to the East Cell.

3.1.2 Organic Parameter Results

The organic parameter analyte groups include: VOCs, SVOCs, pesticides and PCBs. The evaluation of results is combined for these four analyte groups because for the most part these parameters were not detected in the 2018 surface-water samples. Specifically, as shown in Table 5, SVOCs and PCBs were not detected in any of the samples, and VOC and pesticide detections were each limited to low concentrations of just one parameter in a few samples. These detections are discussed in more detail on the following page.

VOC detections were limited to low, primarily estimated (qualified with a "J"), concentrations (2.56 J to 5.01 micrograms per Liter (ug/L)) of acetone in a total of five samples, consisting of two high-tide samples and three low-tide samples. There are no NYSDEC Class SC standards or guidance values for acetone. The TOGS 1.1.1 guidance value for fresh surface water is 50 ug/L and based on its use as a water supply. However, based on it, the low levels of acetone detected in the brackish Creek samples are not a concern with respect to protection of public health and the environment. Moreover, acetone is a widely-used solvent and a known common laboratory contaminant, so the sporadic, low-concentrations detected may be due to background and/or laboratory contamination.

Pesticide detections were limited to 4,4'-DDD (a breakdown product of 4,4'-DDT) at concentrations of 0.00628 ug/L and 0.00620 ug/L in the low-tide samples from the two furthest-downstream locations (Sample Locations BK2-SW-1 and BK2-SW-2, respectively). These two detections exceed the 0.00008-ug/L NYSDEC Class SC standard for human consumption of fish by factors of approximately 75, but are not necessarily associated with the BAL. Specifically, as shown in Figure 1, the much larger Fresh Kills Landfill is located a short distance downstream of these sample locations and is potentially upgradient of them due to the tidal flow in the Creek. Moreover, 4,4'-DDD was not detected at the other surface-water sampling locations further upstream, including those adjacent to the East Cell.

3.1.3 Metals Results

The metals results are also consistent with Richmond Creek being a tidal coastal surface-water body. Specifically, as shown in Tables 6a and 6b, for total and dissolved metals, respectively, the elevated concentrations of metals that are major seawater cations, such as calcium, magnesium, potassium and sodium, as well as the parameter hardness, are consistent with primarily brackish conditions in the Creek indicated by the field water-quality results discussed in Section 3.1.1. Overall, the total and dissolved concentrations of these metals are similar, which is consistent with the relatively low turbidity of the 2018 surface-water samples, and the fact that these metals are present primarily in dissolved form.

The metals results also indicate that most of the metals considered to be toxic to aquatic life, including arsenic, cadmium, chromium, lead and mercury, are either not present in surface water, or only present at low concentrations. NYSDEC Class SC standards exist for several of these toxic metals, primarily for the dissolved form. As shown in Tables 6a and 6b, the only surface-water metals exceedances were for dissolved nickel in the high-tide and low-tide samples from Sample Location BK2-SW-7. However, as this sample location is upstream of the BAL these exceedances are not attributed to the BAL. Accordingly, no BAL-related impacts to surface water are indicated by the 2018 metals results.

3.1.4 QA/QC Sample Results

The QA/QC-related samples for surface water included: two trip blanks, two field blanks, one duplicate and one matrix spike/matrix spike duplicate (MS/MSD). Evaluation of these results did not identify any problems with the results. The specific findings are detailed below.

The trip blanks for October 2nd and 3rd contained methylene chloride at concentrations of 1.63 ug/L and 1.33 ug/L, respectively. This VOC is a common laboratory contaminant and was not detected in any of the surface-water samples. It's detection in the trip blanks is therefore attributed to laboratory contamination.

No laboratory parameters were detected in the two field blanks collected for surface water. Based on these results, the equipment used to collect the surface-water samples did not influence the laboratory results.

A duplicate sample was collected during high tide at Sample Location BK2-SW-4. No organic parameters were detected in the sample or the duplicate. Metals concentrations were comparable for the metals that were detected. Based on these results, sample variability was acceptable.

Recoveries for the MS/MSD were within acceptable ranges. Based on these results, the precision of the laboratory was acceptable.

The laboratory results for Sample ID BK2-SW-9 (the low-tide sample from Sample Location BK2-SW-2) were independently validated. The DUSR (see Appendix D) did not indicate any significant problems with the results that could impact the findings of this report. The results for several parameters were qualitied as estimated. The associated data summary tables have been updated accordingly.

3.2 Sediment Results

3.2.1 Field Parameter Results

Based on the soil boring logs in Appendix B, at 11 of the 12 sampling locations the sediment was very fine-grained and comprised primarily of gray-green silt. Organic matter, consisting of varying amounts of decaying vegetation and/or plant roots, was also present at each at these 11 sampling locations. The very fine-grained texture and dark color of the sediment indicates that reducing conditions are present in the subsurface, which was taken into account during evaluation of the laboratory results. At Sampling Locations BK2-SD-1 through BK2-SD-4, the silt was underlain by light brown clay which may be the underlying Cretaceous-age deposits rather than modern sediment.

At Sampling Location BK2-SD-10 the sediment was coarser in texture and comprised primarily of dark gray silty sand. This sampling location is next to the outfall of the large storm sewer that drains the neighboring area south of the BAL. The coarser lithology of the sediment at this location may be due to higher water velocity near the outfall, which prevents finer-grained sediment from accumulating, and possibly deposition of sand in the storm water runoff.

The VOC and H_2S field screening results for the sediment samples are summarized in Table 7. VOC detections were limited to low concentrations (0.5 and 2 parts per million (ppm)) in just two of the 36 samples. H_2S detections were limited to low concentrations (0.6 to 10.5 ppm, and averaging 2.6 ppm) in 12 of the 36 samples. The H_2S detections are primarily attributed to naturally-occurring sulfate-reducing bacteria in the sediment. The highest VOC and H_2S readings occurred for the 0-6 inch depth sample at the furthest-downstream location (Sample Location BK2-SD-1). Given this shallow sample's proximity to the nearby Fresh Kills Landfill, and the fact that the Creek is tidal, these highest results may be associated with the Fresh Kills Landfill. Moreover, given their proximity to the Richmond Avenue bridge, they could also be associated with accumulated contamination from roadway runoff into the Creek.

3.2.2 Organic Parameter Results

Since the portion of Richmond Creek and the tidal marsh adjacent to the BAL are brackish, the organic parameter results were compared to the Saltwater Sediment Guidance Values (SGVs) and Sediment Guidance Values for PAHs (PAH SGV at 2% TOC) listed in Tables 6 and 7, respectively, of the June 24, 2014 NYSDEC document "*Screening and Assessment of Contaminated Sediment*". As indicated, the guidance values for PAHs (Polycyclic Aromatic Hydrocarbons, a subset of the SVOCs) are based on a sediment TOC concentration of 2%, which is similar to the 1.8% average TOC concentration of the sediment samples. The available SGVs for other SVOCs, as well as for pesticides and PCBs, are divided into three classes (A, B and C) based on their potential to impact aquatic life. Specifically, results that are lower than the Class A SGVs are generally considered by the NYSDEC to have no impact on aquatic life. Results that are above the Class C SGVs are generally considered by the NYSDEC to have a high potential to impact aquatic life. Class B SGVs are the range of values between the Class A and Class C SGVs. Results that fall within the Class B SGV range may have an impact on aquatic life and require further assessment. However, the SGVs are conservative, and results that fall near the low-end of the Class B range are generally considered to be acceptable. The results for each organic parameter group are evaluated on the following pages.

SVOCs – Each of the 36 sediment samples was analyzed for 65 SVOCs. The total SVOC results are summarized in Table 8. As shown in Table 8, SVOCs were only detected in 18 of the 36 samples, primarily those from Sample Locations BK2-SD-1 through BK2-SD-4 in the lower reaches of Richmond Creek; and only from 1 to 10 of the 65 SVOCs analyzed for were detected in a particular sample. At Sample Locations BK2-SD-1 through BK2-SD-3, total SVOC concentrations decrease with depth, suggesting their relatively recent accumulation in the sediment. In contrast, at Sample Location BK2-SD-4, total SVOC concentrations are relatively uniform with depth and highest in the 24-30 inch depth sample, suggesting relatively uniform accumulation over time.

SVOC detections at the five tidal marsh sampling locations were primarily limited to Sample BK2-SD-10C, the deepest sample at Sample Location BK2-SD-10. At the four other tidal marsh sampling locations SVOCs detections were limited to a low, estimated concentration of one SVOC in the 0-6 inch depth sample from Sample Location BK2-SD-9.

The fact that SVOCs were detected more frequently and at higher concentrations in the shallow-depth samples, representing relatively recent accumulation, from the two furthest downstream Richmond Creek sample locations, than in samples from the further upstream Creek sample locations and the tidal marsh sample locations between the Creek and the BAL, suggests that the SVOC detections are not associated with the BAL.

In general, the same SVOCs were detected in the 10 sediment samples in which more than two SVOCs were detected. In total, only 12 different SVOCs were detected in the 18 samples in which SVOCs were detected. Ten of the 12 SVOCs detected are PAHs. The individual SVOC results for these 18 samples are summarized and compared to available SGVs in Tables 9a through 9c. Specifically, the results for the 10 PAHs detected were compared to the PAH SGVs @ 2% TOC. There are no saltwater SGVs for the other two SVOCs detected - Bis(2-ethylhexyl) phthalate and 2,4-Dinitrophenol. Review of Tables 9a through 9c indicates for every detected SVOC for which a SGV exists, the concentrations in the sediment samples are much lower than the SGVs. Accordingly, regardless of their source, SVOCs in sediment are not currently a concern for BAL OU2.

Pesticides – Each of the 36 sediment samples was analyzed for 21 pesticide-related compounds. The results are summarized and compared to the SGVs for pesticides in Table 10. As shown in Table 10, pesticide-related compounds were detected at every sample location except Sample Location BK2-SD-7 upstream of the BAL; and in every depth sample at the other 11 locations except the deepest sample at four locations. However, the detections were limited to five of the 21 parameters analyzed for; and nearly all of the detections are lower than the Class A SGVs. The other detections fall near the low end of the Class B SGV ranges. No pesticide detections exceeded the Class C SGVs. Moreover, the higher concentrations occurred in subsurface samples, consistent with older, pre-remediation

deposition, and are therefore biologically isolated. Accordingly, based on this evaluation, pesticides in sediment are not currently a significant concern for BAL OU2.

PCBs – Each of the 36 sediment samples was analyzed for nine PCB Aroclors. The results are summarized and compared to the SGVs for total PCBs in Table 11. As shown in Table 11, PCBs were detected at nine of the 12 sample locations. However, the detections were limited to only one Aroclor (1254), primarily at concentrations below the Class A SGV for total PCBs (<100 micrograms per kilogram (ug/kg)). Aroclor 1254 was detected most frequently and at the highest concentrations at Sample Locations BK2-SD-1, BK2-SD-2 and BK2-SD-4, in the lower reaches of Richmond Creek. At these three locations, as well as Sample Location BK2-SD-8 in the tidal marsh, the highest Aroclor 1254 concentrations were detected in the 6-12 inch depth samples, consistent with older, pre-remediation deposition, and therefore are biologically isolated.

Five of the Aroclor 1254 detections exceed the Class A SGV for total PCBs, but only by factors of 1.2 to 1.6, and fall near the low end of the Class B SGV range for total PCBs (100-1,000 ug/kg). Moreover, four of these five higher concentrations occurred in 6-12 inch depth samples and are biologically isolated. None of the Aroclor 1254 detections exceeded the Class C SGV (>1,000 ug/kg). Therefore, taken as a whole, sediment PCB levels are currently not a significant concern for BAL OU2.

3.2.3 Metals Results

Each of the 36 sediment samples was analyzed for 23 metals. The results are summarized by depth interval and compared to available SGVs in Tables 12a through 12c. It should be noted that all of the metals analyzed for occur naturally in the environment at varying concentrations, and that SGVs are only available for nine known to be toxic to aquatic life at relatively low concentrations, specifically: arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver and zinc. Also, in evaluating these results, consideration was given to the fact that metals are typically detected in sediment samples because sediment serves as a natural sink for metals due to its chemistry, and that sediment metals concentrations are typically higher in urban areas where sources of metals releases to the environment are more common.

Review of Tables 12a through 12c indicates, as expected, that most of the metals analyzed for were detected in most of the samples. Only two (antimony and thallium) were not detected, and two others (beryllium and selenium) were only detected sporadically at low concentrations. These four metals are trace metals that are typically not detected at significant concentrations in the environment. In contrast to the field parameter and organic parameter results, which generally exhibited the most frequent detections and/or highest concentrations in the furthest-downstream sample locations in Richmond Creek, the highest

concentrations of 18 of the 23 metals analyzed for occurred in just three samples, specifically the subsurface (6-12 inch and/or 24-30 inch depths) samples from Sample Locations BK2-SD-5 and BK2-SD-6, in the section of the Creek adjacent to the East Cell; and in the subsurface samples from Sample Location BK2-SD-11, located in the tidal marsh adjacent to the BAL, between the East and West Cells. The highest concentrations of three of the five other metals also occurred in deeper samples from Sample Locations BK2-SD-1, BK2-SD-3 and BK2-SD-9. The only surficial (0-6 inch depth) sediment sample that exhibited a highest metal concentration was from Sample Location BK2-SD-7, upstream of the BAL. Specifically, Sample BK2-SD-7A contained the highest concentrations of magnesium and nickel. Since this location is upstream, these detections are not attributed to the BAL. In general, sediment metals concentrations were higher in subsurface samples than in surficial samples, and higher at the two Creek sample locations adjacent to the East Cell than at the other Creek sample locations. The primarily subsurface, adjacent to East Cell, distribution of the higher metals concentrations is consistent with pre-remediation deposition, and indicates that most of them are currently biologically isolated.

As shown in Table 12a, most of the exceedances of Class B SGV ranges were for copper, mercury, nickel and zinc, and most occurred at three Creek sample locations and one tidal marsh sample location adjacent to the West Cell, although the exceedances for mercury were more widespread. As shown in Table 12b, in shallow subsurface (6-12 inch depth) samples exceedances of the Class B SGV ranges occurred for more metals and were more widely distributed, consistent with older, pre-remediation accumulation. In particular, exceedances for mercury and/or nickel occurred in every 6-12 inch depth sample. As shown in Table 12c, exceedances of the Class B SGV ranges in the deeper subsurface (24-30 inch depth) samples were limited to Creek sample locations, primarily Sample Location BK2-SD-5, except for mercury and nickel exceedances, which occurred in most of the Creek sediment samples.

The results for the nine metals for which SGVs exist are further summarized in Table 13. Review of Table 13 illustrates that each of these metals was detected at a range of concentrations that fall below the Class A SGVs, within the Class B SGV ranges, and, with the exception of chromium, above the Class B SGV ranges into Class C. However, most of Class B SGV-range detections fall near the middle to low end of the ranges. Moreover, the highest concentrations of eight of these metals, including most of the Class C SGV exceedances, occurred in subsurface samples that are biologically isolated. Moreover, the presence of reducing conditions in the sediment subsurface means that these metals will not be mobile in the environment. The highest concentration of the other metal (nickel) occurred in the surficial sample from upstream Sample Location BK2-SD-7 and is not BAL-related.

Exceedances of the Class C SGVs in surficial (0-6 inch depth) sediment samples were limited to six of the nine metals (copper, lead, mercury, nickel, silver and zinc), each at one to nine of the 12 sampling locations. Except for the mercury exceedances, and the nickel exceedance in Sample BK2-SD-7A which is not BAL-related, these exceedances were sporadic and relatively low in magnitude. The mercury exceedances were higher in magnitude and more widespread, but this reflects in part the fact that the Class C SGV for mercury is very low (>0.71 mg/kg). Based on their more widespread distribution both laterally and with depth, the mercury detections appear to be primarily due to background contamination. Nonetheless, based on the 2018 results, due to its toxicity to aquatic life, mercury is the key metal of concern with respect to BAL OU2 sediment quality.

3.2.4 QA/QC Sample Results

The QA/QC-related samples for sediment included: one field blank, two duplicates, and two MS/MSDs. Evaluation of these results did not identify any problems with the results. The specific findings are detailed below.

The only laboratory parameter detected in the sediment field blank was bis(2-ethylhexyl) phthalate at a low, estimated concentration of 1.22 J ug/kg. This detection is attributed to the fact that this parameter is a common plasticizer used in the production of PVC and the piston-core sampler is constructed of PVC. As noted previously in Section 3.2.2, there is no saltwater SGV for this SVOC. However, this low-level detection is much lower than the freshwater Class A SGV (<360,000 ug/kg) and therefore does not impact the sample results.

Comparison of the results for Samples BK2-SD-2C and BK2-SD-8C with their associated duplicate sample results for detected parameters indicates the variation inherent in duplicate analyses of semi-solid sediment and the difficulty in homogenizing samples. For example, several SVOCs were detected at low concentrations in Sample BK2-SD-2C, but not in the duplicate, whereas concentrations of the pesticide-related compounds detected were approximately twice as high in the duplicate as in the sample. Metals concentrations were similar in Sample BK2-SD-2C and the duplicate, but showed variation in Sample BK2-SD-8C and the duplicate. PCBs were not detected in the samples and the duplicates.

Recoveries for the MS/MSDs were within acceptable ranges. Based on these results the precision of the laboratory was acceptable.

The laboratory results for two sediment samples (Sample IDs BK2-SD-11A and BK2-SD-11B) were independently validated. The DUSR (see Appendix D) did not indicate any significant problems with the results that could impact the findings of this report. The results for certain metals were qualified as estimated. The associated summary tables have been updated accordingly.

4.0 Comparison of 2018 5th-Year Results to 2013 Baseline Results

4.1 Comparison of Sample Locations

As noted previously in Section 1.0, sample location GPS coordinates were not provided in the 2013 Baseline Report which prevented a direct comparison to 2018 sampling locations. However, as shown in Figure 3, overlaying the sample locations on Figures 1 and 2 of the Baseline Report on the 2018 sample location map indicates that the 2018 sample locations were close to the 2013 sample locations except for Sample Location BK2-SW/SD-3, which was shifted approximately 400 feet further upstream to provide more even spacing between it and the two adjacent Creek sample locations; and Sample Location BK2-SD-10, which was near the OU2 RAP location instead of being shifted to the north as was done in 2013 due to refusal. These differences were taken into consideration during comparison of the field and laboratory results.

4.2 Comparison of Surface-Water Results

4.2.1 Field Parameter Results

The average high-tide and low-tide field parameter concentrations for 2013 and 2018 are compared in Table 14. As shown in Table 14, due to the higher ambient air temperatures in October 2018 (75-80 °F) versus October 2013 (65-70 °F), the average water temperature was higher, and ORP and dissolved oxygen concentrations were lower. The average pH was higher in 2018. Based on the salinity readings, conditions in the Creek were less brackish in 2018, resulting in lower specific conductivities as well. The less brackish conditions are attributed to above-average rainfall and associated freshwater runoff in September 2018 (5.64 inches) prior to the early October monitoring round, versus below-average rainfall and associated freshwater runoff in October 2013 (0.51 inches). High-tide turbidities were fairly similar in 2013 and 2018, however, as noted previously in Section 2.0, in 2013, low-tide turbidities were much higher at Sample Locations BK2-SW-1, BK2-SW-2, BK2-SW-3, BK2-SW-4, BK2-SW-6 and BK2-SW-7. These higher turbidities in 2013 were attributed to entrained sediment being collected with the samples. The influence of the higher low-tide turbidities on the 2013 laboratory results, particularly for metals, was taken into consideration during comparison of the results.

4.2.2 Organic Parameter Results

The organic parameter results for the 2013 and 2018 monitoring rounds are summarized and compared in Table 15. Review of Table 15 indicates that the results for all four parameter groups (VOCs, SVOCs, pesticides and PCBs) are basically the same, except for some minor differences that are attributed to the higher turbidities of certain 2013 samples and/or minor

differences between the 2013 and 2018 laboratory method detection limits. The results for each parameter group are compared separately below.

VOCs – Apart from very low (<1 ug/L), estimated concentrations of carbon disulfide in four low-tide samples, VOCs were also not detected during the 2013 monitoring round. Carbon disulfide was not detected in the 2018 samples, but this may be because the laboratory method detection limit was slightly higher (approximately 0.4 ug/L in 2018 vs. approximately 0.2 ug/L in 2013). There is no NYSDEC Class SC standard for carbon disulfide. The fresh water standard is 60 ug/L, suggesting that the low, estimated concentrations detected in 2013 are not a concern with respect to protection of public health or the environment.

SVOCs – Very low, primarily estimated concentrations of certain SVOCs were detected in 13 of the 14 2013 surface-water samples, but not in any of the 2018 samples. This is attributed to the slightly lower laboratory method detection limits for SVOCs in 2013, and to entrained sediment containing SVOCs being collected along with most of the 2013 low-tide samples.

Pesticides – In 2013, certain pesticide-related compounds (primarily 4,4'-DDT breakdown products) were detected at greater frequency and higher concentrations in six of the seven low-tide samples and in one high-tide sample, but this difference is primarily attributed to entrained sediment containing these compounds being collected along with most of the 2013 low-tide samples. Pesticides were not detected at Sample Location BK2-SW-7, located upstream of the BAL, during 2013 or 2018.

PCBs – In 2013, PCBs were detected in seven of the 14 samples, primarily low-tide samples, whereas PCBs were not detected in any of the 2018 samples. The 2013 PCB detections are primarily attributed to entrained sediment containing PCBs being collected along with most of the 2013 low-tide samples.

4.2.3 Metals Results

The 2013 and 2018 total metals results for both high-tide and low-tide samples are compared in Tables 16a and 16b, respectively. Review of Table 16a indicates that the results for the high-tide samples are remarkably similar except for the major seawater cations (calcium, magnesium, potassium and sodium) and arsenic and selenium, which were detected at significantly higher concentrations in the 2013 high-tide samples. The higher concentrations of seawater cations in 2013 are attributed to the more brackish conditions present in the Creek, as documented in this report based on the salinity results. The 2013 arsenic concentrations detected are also consistent with seawater concentrations. The 2013 selenium concentrations are higher than typically present in seawater, and generally increase in a downstream direction. Selenium was not detected in the 2018 high-tide samples. The

decrease in high-tide selenium concentrations since 2013 may be attributed to completion of the OU1 remedy.

Review of Table 16b indicates that for the low-tide sample comparison, except for several metals in the furthest upstream sample from Sample Location BK-2-SW-7, the 2013 results for most metals are much higher. These differences are attributed to entrained sediment containing metals being collected along with most of the 2013 low-tide samples, followed by in-field sample preservation with nitric acid, as documented previously in this report.

The 2013 surface-water samples were not analyzed for dissolved metals, so a comparison of the 2018 dissolved metals results was not performed.

4.3 Comparison of Sediment Results

4.3.1 Field Parameter Results

The 2013 and 2018 sediment samples were examined for lithology and physical characteristics, and field-screened for VOCs and H_2S. Lithologically, the 2018 samples were primarily described as silt, whereas the 2013 samples were primarily described as clay. This distinction is difficult to make in the field, so from a practical standpoint sample lithology was considered to be similar for the two monitoring rounds. The only notable lithologic difference is that the 2013 samples from Sample Location BK2-SD-2 were described as sandy, while the 2018 sample for this location was described as silty. This difference is attributed these two samples being collected just downstream and upstream, respectively, of the tributary containing the outfall from the large storm sewer that drains the neighboring area south of the BAL. In terms of color, virtually all the samples from 2013 and 2018 are described as dark gray or black, consistent with their fine-grained lithology and indicating that anoxic, reducing conditions are present in the subsurface.

In 2013, odors described as “petroleum like” were noted at Sampling Locations BK2-SD-1, BK2-SD-2, BK2-SD-4 and BK2-SD-10, and a sulfide odor was noted at Sampling Location BK2-SD-8. The sediment samples were not analyzed for volatile aromatic hydrocarbons, so the accuracy of the “petroleum like” odor description cannot be verified. However, given the fact that sediment SVOC concentrations are very low and SVOCs are typically associated with petroleum contamination, the odor was most likely just a naturally-occurring odor similar to petroleum. Similarly, the sulfide odor at Sampling Location BK2-SD-8 was most likely associated with naturally-occurring sulfate-reducing bacteria. In 2018, odors were not noted for the sediment samples.

In 2013, above-background VOC readings were reported (but not quantified) for Sample Locations BK2-SD-3, BK2-SD-4, BK2-SD-8 and BK2-SD-9. The 2013 samples were also reportedly screened for H_2S, but no H_2S results are provided in the Baseline Report. In 2018,

VOCs were detected in just two samples at low concentrations, providing further indication that the "petroleum like" odors noted in 2013 were just naturally-occurring odors. H_2S was detected at low concentrations in one-third of the 2018 samples. However, the 2018 H_2S detections are also attributed to naturally-occurring sulfate-reducing bacteria in the sediment because they occurred in samples containing roots and/or decaying accumulated vegetation.

4.3.2 Organic Parameter Results

SVOCs – Due to the number of parameters detected at low, primarily estimated concentrations, the 2013 and 2018 SVOC results are compared on the basis of total SVOC concentration in Table 17. As indicated in Table 17, the distribution of SVOCs in sediment is similar for both rounds in that SVOCs were detected at greatest frequency and higher total concentrations at the furthest downstream Creek sample locations. Overall, sediment total SVOCs concentrations were lower in 2018, but this is partly due to slightly higher laboratory detection limits in 2018, which resulted in fewer SVOCs being detected at low, estimated concentrations.

Pesticides – In 2013, pesticide-related compounds were detected at higher frequency, but this was partly because the laboratory method detection limits were generally slightly lower than in 2018. As a result, in 2013 a number of pesticide-related compounds were detected at very low, estimated concentrations in most of the samples. For example, in the 2013 0-6 inch depth sample from Sample Location BK2-SD-1, a total of 17 compounds were detected, but their total concentration was just 97.26 ug/kg. In contrast, in the 2018 sample from the same location and depth, only three compounds were detected, and their total concentration was 26.95 ug/kg. The total pesticide results for 2013 and 2018 are compared in Table 18. As shown in Table 18, in 2018 sediment pesticide concentrations are lower or similar in 35 of the 36 samples. The only notable increase was in the 6-12 inch depth sample from Sampling Location BK2-SD-8, located in the tidal marsh. Overall, sediment pesticide concentrations appear to have decreased since 2013.

PCBs – In 2013, PCBs were detected in 25 of the 36 sediment samples. Similar to the 2018 results, PCBs were detected at highest frequency and concentrations at the four furthest downstream sampling locations on Richmond Creek. Total PCB concentrations in the 2013 samples ranged from 2.7 J to 1,400 J ug/kg, and averaged 275 J ug/kg. The specific Aroclors detected in 2013 were Aroclor 1248 and Aroclor 1260. In 2018, PCBs were detected in fewer samples (17 of 36), generally at lower concentrations. Total PCB concentrations in the 2018 samples ranged from 12 to 163 ug/kg, and averaged 72 ug/kg. Aroclor 1254 was the only Aroclor detected in 2018. Based on this comparison, sediment total PCB concentrations appear to have decreased since 2013.

4.3.3 Metals Results

Due to the number of sediment sampling locations (12) and samples per location (3), totaling 36 samples per round, and the frequency at which metals are detected in sediment, the 2013 and 2018 results were first compared by sample depth and then by location to identify spatial changes in sediment metals concentrations since 2013. The differences between Sample Location BK2-SD-3, which was shifted further upstream, and Sample Location BK2-SD-10, which was not shifted to the north, were taken into account during the comparison. The sample metals comparisons are provided in Tables 19a through 19c, for the 0-6 inch, 6-12 inch and 24-30 inch depth sample results, respectively. The results for each sample depth are compared below.

As shown in Table 19a, comparison of the 2013 and 2018 results for the 0-6 inch depth Creek sediment samples indicates overall similar metals concentrations at the three furthest upstream locations, and mostly lower metals concentrations in 2018 at three of the four further downstream locations. Metals concentrations in the 0-6 inch depth samples from Sampling Location BK2-SD-2 are generally higher in 2018. This is attributed to recent deposition of sediment from the outfall of the large storm sewer that drains the neighboring area south of the BAL. Comparison of the tidal marsh sampling location results indicates that overall, sediment metals concentrations in 2018 are similar or lower at the first three locations (BK2-SD-8 through BK2-SD-10) and higher at the other two locations.

As shown in Table 19b, comparison of the results for the 6-12 inch depth sediment samples indicates overall similar or higher metals concentrations in 2018 at the two furthest upstream Creek sampling locations, and generally lower metals concentrations at four of the five further downstream Creek sampling locations. Metals concentrations in the 6-12 inch depth samples from Sampling Location BK2-SD-2 are also higher in 2018, and attributed to deposition of sediment from the outfall of the large storm sewer that drains the neighboring area south of the BAL and bisects the central area of the BAL. Comparison of the results for the tidal marsh sampling location indicates that overall, sediment metals concentrations in 2018 are similar or lower at two of the five locations (Sample Locations BK2-SD-9 and BK2-SD-10) and higher at the other three tidal marsh sampling locations.

As shown in Table 19c, comparison of the results for the 24-30 inch depth sediment samples indicates in 2018 generally higher metals concentrations at the three furthest upstream Creek sampling locations, and generally lower metals concentrations at the four Creek sampling locations further downstream. At the tidal Creek sediment sampling locations, 2018 metals concentrations are lower or similar at all five locations.

Taken as a whole, the above comparison indicates that sediment metals concentrations have improved following completion of the OU1 remedy. In Richmond Creek, 2018 sediment metals concentrations at downstream Sample Locations BK2-SD-1, BK-SD-3 and BK2 SD-4 are generally lower, in all three sample depth intervals. Although 2018 sediment metals concentrations are generally higher in the 0-6 inch and 6-12 inch depth intervals at downstream Sample Location BK2-SD-2, which is located at the mouth of the main tributary where stormwater runoff discharges from the triple 16'-0" x 6'-6" storm sewer that collects stormwater from the neighboring area south of the BAL and bisects the central area of the BAL. This is attributed to migration of older, pre-remediation sediment downstream from the tributary to the Creek. At the three Creek sediment sampling locations further upstream, the sediment metals concentration trends vary with depth, but are similar to the 2013 results in all three of the 0-6 inch depth samples, and similar or lower in two of the three 6-12 inch depth samples. At the tidal marsh sampling locations, 2018 sediment metals concentration trends vary with depth and location, but are lower or similar in the 0-6 inch depth interval at all five locations.

5.0 Conclusions and Recommendations

The overall conclusions of this report are:

1) The OU2 ROD selected remedy consisting of the OU1 remediation/monitoring with OU2 monitoring continues to be protective of public health and the environment;

2) The concentrations of certain contaminants in sediment have decreased since the 2013 baseline monitoring round; and

3) The key environmental issue to track during future monitoring rounds is mercury in Creek sediment, although it appears to be primarily due to background contamination.

These overall conclusions are based on the following six specific conclusions and supporting information from this report and in the OU2 ROD:

1) There are currently no significant BAL-related impacts to surface-water quality in Richmond Creek. This conclusion is based on the following information from Section 3.1 of this report:

   - The field parameter results indicate that tide stage is the dominant factor controlling Creek surface-water quality. The only potential BAL-related impacts are minor and include lower ORP and higher turbidity at low tide in the section of the Creek adjacent to the East Cell.
   - VOC detections in surface water were limited to very low concentrations of acetone in five samples, which may be due to background and/or laboratory contamination.
   - One pesticide-related compound (4,4'-DDD) was detected at concentrations exceeding NYSDEC Class SC standards in the low-tide samples at the two furthest downstream sample locations, and these detections not necessarily associated with the BAL. The much larger Fresh Kills Landfill is located a short distance downstream and is potentially upgradient of these sample locations due to tidal flow in the Creek. Also, surface-water quality in the Creek is likely influenced by discharges of stormwater runoff from the surrounding areas.
   - SVOCs and PCBs were not detected in any of the 2018 surface-water samples.
   - The 2018 metals results are consistent with Richmond Creek being a tidal coastal surface-water body, and no BAL-related impacts are indicated by the 2018 results.

2) Organic contaminant concentrations in sediment are currently not a concern for BAL OU2. This conclusion is based on the following information from Section 3.2.2 of this report:

- SVOCs were only detected in 18 of the 36 samples, primarily those from the lower reaches of Richmond Creek. Only 1 to 10 of the 65 SVOCs analyzed for were detected in a particular sample, and only 12 different SVOCs in total were detected. Ten of the 12 SVOCs detected were PAHs, and their concentrations were all lower than the PAH SGVs.
- Although pesticide-related compounds were detected in 29 of the 36 samples from 11 of the 12 sample locations, only five of the 21 compounds analyzed for were detected, and nearly all of the concentrations were lower than their Class A SGV, indicating no impacts on aquatic life. The rest fall near the low end of the Class B ranges, and the highest concentrations occurred in subsurface sediment that is biologically isolated.
- PCBs were detected at nine of the 12 sample locations. However, the detections were limited to Aroclor 1254, primarily at concentrations lower than the <100-ug/kg Class A SGV for total PCBs. The other five Aroclor 1254 detections fall near the low end of the Class B SGV range, and four occurred in subsurface sediment that is biologically isolated.

3) As expected for an urban, aquatic sedimentary environment, most of the 23 metals analyzed for were detected in most of the sediment samples, at a range of concentrations spanning all three classes of SGVs. However, most of the highest concentrations occur in subsurface sediment representing older, pre-remediation deposition, and are biologically isolated. Moreover, the metals in subsurface sediment are immobilized chemically due to reducing conditions. Mercury is the only metal detected routinely at concentrations much higher than its Class C SGV in surficial sediment, but its presence may be primarily due to background contamination. This conclusion is based on the following information from Section 3.2.3 of the report:

- The highest concentrations of 18 of the 23 metals occurred in subsurface samples from just three locations – two Creek locations adjacent to the East Cell and one tidal marsh location. The highest concentrations of three of the other five metals also occurred in subsurface samples. The only surficial sample containing a highest metals concentration was Sample BK2-SD-7A, upstream of the BAL.
- Saltwater SGVs exist for only nine of the 23 metals analyzed for. The highest concentrations of eight of these nine metals, including most of the Class C SGV exceedances, occurred in subsurface sediment that is biologically isolated.

- The fine-grained texture, dark color, and low H_2S concentrations of the sediment indicate that reducing conditions are present in the subsurface. Reducing conditions result in the formation of insoluble metal sulfides that are immobile in the environment.
- Exceedances of Class C SGVs in surficial sediment were primarily limited to mercury. This primarily reflects the fact that the Class C SGV for mercury is very low (>0.71 mg/Kg) due to its toxicity. However, the widespread distribution and concentrations of mercury in sediment suggests that its presence is primarily due to background contamination of an urban sedimentary environment.

4) Overall, the 2018 surface-water results are similar to the 2013 baseline results; however, comparison of the low-tide metals results is not warranted. This conclusion is based on the following information from Section 4.2 of this report:

- The results for all four organic parameter groups are basically the same, except for minor differences that are attributed to the higher turbidities of certain 2013 samples and/or differences between the 2013 and 2018 laboratory method detection limits.
- The metals results for the high-tide samples are remarkably similar except for the major seawater cations, arsenic and selenium, which were detected at significantly higher concentrations in the 2013 samples. The higher seawater cation and arsenic concentrations in 2013 are attributed to the more brackish conditions in the Creek. The lower selenium concentrations in 2018 may be attributed to completion of the OU1 remedy.
- Due to entrained sediment containing metals being collected along with most of the 2013 low-tide samples and subsequent preservation of the samples with nitric acid, metals concentrations in those samples were elevated and did not represent actual surface-water metals concentrations.

5) Overall, sediment quality has improved since completion of the OU1 remedy. This conclusion is based on the following information from Section 4.3 of this report:

- Overall, the distribution of SVOCs in sediment was similar in that SVOCs were detected at greater frequency and higher concentrations in the furthest downstream Creek sample locations. The low levels of SVOCs detected in the downstream section of the Creek may be due to off-site sources such as the Fresh Kills Landfill and/or roadway runoff. Sediment total SVOC concentrations were generally lower in 2018, partly due to slightly higher laboratory method detection limits.

- Pesticide concentrations in sediment have generally decreased since the 2013 baseline round. The decrease reflects in part the higher laboratory detection limits in 2018.
- PCB concentrations in sediment also appear to have decreased since the 2013 baseline round. This decrease may be attributed to completion of the OU1 remedy.
- Overall, sediment metals concentrations are similar at the three furthest upstream Creek sample locations, and lower at three of the four further downstream Creek sample locations. They are higher at Sample Location BK2-SD-2, but this is attributed to downstream migration of sediment from the outfall of the large storm sewer that drains the neighboring area south of the BAL into the Creek.

6. The BAL is a relatively minor source of potential contamination compared to other potential sources in the area, and following completion of the OU1 remedy is unlikely to impact surface-water and sediment quality in OU2. This conclusion is based on the following information from the OU2 ROD:

- Tidal flow causes intermixing of surface water throughout the Fresh Kills Estuary System and from the Arthur Kill. Consequently, potential sources of contamination located downstream can impact water and sediment quality in the Creek.
- The other potential sources of contamination in the area include the much larger Fresh Kills Landfill, which reportedly discharged 16 times more leachate than the BAL, numerous stormwater outfalls, including the one located between the BAL East and West Cells, and industrial sources that discharge to Arthur Kill.
- Surface-water quality in the Creek improved after installation of leachate controls at Fresh Kills Landfill in 1998.
- The contaminants currently present in the section of Creek adjacent to the BAL, such as mercury, were previously detected at higher concentrations downstream, in the section of Creek adjacent to the Fresh Kills Landfill.
- Contaminant concentration gradients indicate that the Fresh Kills Landfill was the dominant source of contamination in the Creek prior to the late 1990s.
- The BAL OU1 remedy was very robust, and included a perimeter low-permeability barrier wall as well as a landfill cap.

The following recommendations are provided for the 10th- and 20th-year monitoring rounds:

1) To minimize the potential for entrained sediment to be collected along with future surface-water samples, they should continue to be collected prior to the sediment samples, and collected using a portable peristaltic pump rather than by dipping the sample bottles under the water.

2) Compare the surface-water and sediment results to the latest Class SC standards and SGVs as they may be revised or amended in the future.

3) Continue to track mercury concentrations in surficial sediment, as mercury in sediment appears to be the key contaminant/media of concern in the BAL OU2 area.

4) Since no significant BAL-related impacts to surface-water quality in Richmond Creek are indicated by either the 2018 or 2013 baseline monitoring results, the OU2 RAP scope of surface-water monitoring could be reduced for future monitoring rounds.

5) Obtain copies of the Fresh Kills Estuary System long-term monitoring program reports to confirm past and present impacts from the Fresh Kills Landfill and other potential contaminant sources in the area.

TABLES 1 - 19

Table 1
Summary of 2018 Sample Locations
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Location Type	Sample Location[3,4]	Location Relative to Brookfield Avenue Landfill (BAL)	Northing[5]	Easting[5]
Richmond Creek Sample Locations[1]	BK2-SW/SD-1	Downstream of BAL, Closest to Fresh Kills Landfill	631439.67	583999.31
	BK2-SW/SD-2	Adjacent to BAL Drainage Tributary and West Cell	631796.64	584935.13
	BK2-SW/SD-3	Adjacent to West End of East Cell	632439.58	585610.80
	BK2-SW/SD-4	Adjacent to Central Portion of East Cell	632491.97	586516.48
	BK2-SW/SD-5	Adjacent to Central Portion of East Cell	632399.81	587200.28
	BK2-SW/SD-6	Adjacent to North End of East Cell	632822.52	588161.15
	BK2-SW/SD-7	Upstream of BAL	633442.47	589758.20
Tidal Marsh/ Tributary Sample Locations[2]	BK2-SD-8	Tidal Marsh Adjacent to West Cell	630786.93	584682.78
	BK2-SD-9	Tidal Marsh Adjacent to West Cell	630960.55	585086.07
	BK2-SD-10	Start of Main BAL Drainage Tributary, Near Outfall	631023.51	585461.06
	BK2-SD-11	Tidal Marsh Adjacent to NW Corner of East Cell	631603.51	585737.68
	BK2-SD-12	Tributary Between East Cell and Richmond Creek	631823.82	585501.40

Notes:

1. Richmond Creek sample locations include surface-water (SW) and sediment (SD) samples.
2. Tidal marsh and tributary sample locations are sediment samples only.
3. High-tide and low-tide samples were collected at each surface water sample location. Sample IDs are in Table 2.
4. Three sediment samples were collected at each sediment sample location. Sample IDs are in Table 3.
5. Sample location Northings and Eastings are in feet based on NAD 83 Datum.

Table 2
Summary of 2018 Surface-Water Samples

Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Samples			
Sample Location	Sample Date	Sample ID	Tide
BK2-SW-1	10/1/2018	BK2-SW-01	High
	10/2/2018	BK2-SW-08	Low
BK2-SW-2	10/1/2018	BK2-SW-02	High
	10/2/2018	BK2-SW-09	Low
BK2-SW-3	10/2/2018	BK2-SW-03	High
	10/2/2018	BK2-SW-10	Low
BK2-SW-4	10/2/2018	BK2-SW-04	High
	10/3/2018	BK2-SW-11	Low
BK2-SW-5	10/2/2018	BK2-SW-05	High
	10/3/2018	BK2-SW-12	Low
BK2-SW-6	10/1/2018	BK2-SW-06	High
	10/3/2018	BK2-SW-13	Low
BK2-SW-7	10/1/2018	BK2-SW-07	High
	10/3/2018	BK2-SW-14	Low

QA/QC-Related Samples		
Sample Date	Sample ID	Sample Type
10/2/2018	Trip Blank	Trip Blank
10/2/2018	BK2-SW-FB	Field Blank
10/2/2018	BK2-SW-04 DUP	Duplicate
10/2/2018	BK2-SW-03 MS	Matrix Spike
10/2/2018	BK2-SW-03 MSD	Matrix Spike Duplicate
10/3/2018	BK2-SW-TB	Trip Blank
10/3/2018	BK2-SW-FB01	Field Blank

Table 3
Summary of 2018 Sediment Samples
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Samples		
Sample Location	Sample Date	Sample ID
BK2-SD-1	10/4/2018	BK2-SD-1A
		BK2-SD-1B
		BK2-SD-1C
BK2-SD-2	10/4/2018	BK2-SD-2A
		BK2-SD-2B
		BK2-SD-2C
BK2-SD-3	10/4/2018	BK2-SD-3A
		BK2-SD-3B
		BK2-SD-3C
BK2-SD-4	10/3/2018	BK2-SD-4A
		BK2-SD-4B
		BK2-SD-4C
BK2-SD-5	10/3/2018	BK2-SD-5A
		BK2-SD-5B
		BK2-SD-5C
BK2-SD-6	10/3/2018	BK2-SD-6A
		BK2-SD-6B
		BK2-SD-6C
BK2-SD-7	10/4/2018	BK2-SD-7A
		BK2-SD-7B
		BK2-SD-7C

Tidal Marsh / Tributary Samples		
Sample Location	Sample Date	Sample ID
BK2-SD-8	10/3/2018	BK2-SD-8A
		BK2-SD-8B
		BK2-SD-8C
BK2-SD-9	10/3/2018	BK2-SD-9A
		BK2-SD-9B
		BK2-SD-9C
BK2-SD-10	10/4/2018	BK2-SD-10A
		BK2-SD-10B
		BK2-SD-10C
BK2-SD-11	10/2/2018	BK2-SD-11A
		BK2-SD-11B
		BK2-SD-11C
BK2-SD-12	10/3/2018	BK2-SD-12A
		BK2-SD-12B
		BK2-SD-12C

QA/QC-Related Samples		
Sample Date	Sample ID	Sample Type
10/4/2018	BK2-SD-FB02	Field Blank
10/4/2018	BK2-SD-2C DUP	Duplicate
10/3/2018	BK2-SD-8C DUP	Duplicate
10/4/2018	BK2-SD-07A MS	Matrix Spike
10/4/2018	BK2-SD-07A MSD	Matrix Spike Duplicate
10/4/2018	BK2-SD-01C MS	Matrix Spike
10/4/2018	BK2-SD-01C MSD	Matrix Spike Duplicate

Table 4
Summary of 2018 Surface Water Field Parameter Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Field Parameters	Sample Location:	BK2-SW-1		BK2-SW-2		BK2-SW-3		BK2-SW-4	
	Sample ID (Tide):	BK2-SW-01	BK2-SW-08	BK2-SW-02	BK2-SW-09	BK2-SW-03	BK2-SW-10	BK2-SW-04	BK2-SW-11
	Units	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)
Temperature	°C	21.94	20.38	21.91	21.02	22.71	20.93	22.93	22.19
pH	SU	7.37	7.36	7.23	7.15	7.40	7.35	7.41	7.33
ORP	mV	165	104	145	134	148	102	154	123
Conductivity	mS/cm	18.6	13.6	17.5	14.8	19.7	12.3	17.6	7.41
Turbidity	NTU	8.7	28.9	9.4	62.6	5.4	49.7	13.3	132
DO	mg/L	6.68	4.22	9.02	8.48	5.23	5.06	6.28	5.80
TDS	g/L	11.5	8.41	10.9	9.16	12.2	7.66	10.9	4.67
Salinity	ppt	11.02	7.82	10.43	8.58	11.70	7.06	10.35	4.08

Field Parameters	Sample Location:	BK2-SW-5		BK2-SW-6		BK2-SW-7		Averages	
	Sample ID (Tide):	BK2-SW-05	BK2-SW-12	BK2-SW-06	BK2-SW-13	BK2-SW-07	BK2-SW-14	High	Low
	Units	(High)	(Low)	(High)	(Low)	(High)	(Low)	Tide	Tide
Temperature	°C	21.87	22.79	21.49	23.36	19.05	18.58	21.70	21.32
pH	SU	7.37	7.40	7.37	7.41	7.06	6.82	7.33	7.26
ORP	mV	145	82	162	126	322	212	177	126
Conductivity	mS/cm	16.7	8.42	15.0	7.42	0.749	0.423	15.1	9.2
Turbidity	NTU	16.6	155	24.4	64.4	9.9	30.6	12.5	74.7
DO	mg/L	8.41	5.35	7.86	6.27	8.25	8.46	7.39	6.23
TDS	g/L	10.4	5.31	9.33	4.67	0.480	0.275	9.4	5.7
Salinity	ppt	9.82	4.68	8.75	4.08	0.37	0.20	8.92	5.21

Notes:

ORP = Oxidation-Reduction Potential.
DO = Dissolved Oxygen.
TDS = Total Dissolved Solids.
°C = Degrees Celsius.
SU = Standard Units.
mV = MilliVolts.
mS/cm = MicroSiemens per centimeter.
NTU = Nephelometric Turbidity Units.
mg/L = Milligrams per Liter.
g/L = Grams per Liter.
ppt = Parts per thousand.

Table 5
Summary of 2018 Surface Water Organic Parameter Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Sample Location	Tide	Sample ID	VOC Results	SVOC Results	Pesticide Results	PCB Results
BK2-SW-1	High	BK2-SW-01	ND	ND	ND	ND
	Low	BK2-SW-08	Acetone 2.89 J ug/L	ND	4,4'-DDD 0.00628 ug/L	ND
BK2-SW-2	High	BK2-SW-02	Acetone 5.01 ug/L	ND	ND	ND
	Low	BK2-SW-09	ND	ND	4,4'-DDD 0.00620 J ug/L	ND
BK2-SW-3	High	BK2-SW-03	ND	ND	ND	ND
	Low	BK2-SW-10	Acetone 3.75 J ug/L	ND	ND	ND
BK2-SW-4	High	BK2-SW-04	ND	ND	ND	ND
	Low	BK2-SW-11	ND	ND	ND	ND
BK2-SW-5	High	BK2-SW-05	Acetone 3.13 J ug/L	ND	ND	ND
	Low	BK2-SW-12	ND	ND	ND	ND
BK2-SW-6	High	BK2-SW-06	ND	ND	ND	ND
	Low	BK2-SW-13	Acetone 2.56 J ug/L	ND	ND	ND
BK2-SW-7	High	BK2-SW-07	ND	ND	ND	ND
	Low	BK2-SW-14	ND	ND	ND	ND

Notes:

VOC = Volatile Organic Compound.
SVOC = Semivolatile Organic Compound.
PCB = Polychlorinated Biphenyl.
ND = Not Detected.
ug/L = Micrograms per Liter.
J = Estimated.
There are no NYSDEC Part 703.5 Class SC standards or TOGS 1.1.1 guidance values for acetone.
NYSDEC Part 703.5 Class SC standards for 4,4'-DDD are 0.00008 ug/L (H(FC)) and 0.000011 ug/L (W).
H(FC) = Standard category for human consumtion of fish.
W = Standard category for wildlife protection.

Table 6a
Summary of 2018 Surface Water Total Metals and Hardness Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	Sample Location:		BK2-SW-01		BK2-SW-02		BK2-SW-03		BK2-SW-04		BK2-SW-05		BK2-SW-06		BK2-SW-07	
	Sample ID (Tide):		BK2-SW-01	BK2-SW-08	BK2-SW-02	BK2-SW-09	BK2-SW-03	BK2-SW-10	BK2-SW-04	BK2-SW-11	BK2-SW-05	BK2-SW-12	BK2-SW-06	BK2-SW-13	BK2-SW-07	BK2-SW-14
	Standard	Category	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)
Aluminum	NS	NA	<200	<200	<200	<200	<200	<200	<200	470	<200	589	262	495	<200	425
Antimony	NS	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.42
Arsenic	NS	NA	4.3	7.6	3.95	8.0	6.91	7.68	6.59	6.15	8.56	6.88	6.35	5.64	<3.0	<3.0
Barium	NS	NA	42.5	53.5	46.3	56.4	39.2	55.1	41.9	48.2	54.0	50.0	54.6	49.4	92.6	60.4
Beryllium	NS	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	7.7	A(C)	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Calcium	NS	NA	148,000	116,000	139,000	91,500	159,000	116,000	148,000	82,200	155,000	87,700	121,000	74,400	27,200	16,200
Chromium	NS	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cobalt	NS	NA	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Copper	NS	NA	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	15.9	<8.0	16.2	<8.0	14.9	<8.0	9.36
Iron	NS	NA	<300	344	<300	419	<300	384	<300	1,040	<300	933	421	943	1,270	1,230
Lead	NS	NA	<5.0	6.18	<5.0	6.1	<5.0	8.23	<5.0	12.0	5.04	13.4	<5.0	14.3	<5.0	5.87
Magnesium	NS	NA	440,000	332,000	411,000	243,000	493,000	331,000	454,000	218,000	460,000	238,000	342,000	191,000	28,900	16,800
Manganese	NS	NA	92.3	149	97.1	197	81.9	153	92.2	157	112	151	136	167	277	193
Mercury	NS	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	NS	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	13.5	<10.0	<10.0	16.2	16.4
Potassium	NS	NA	149,000	107,000	138,000	76,100	160,000	107,000	144,000	70,200	149,000	77,000	114,000	61,600	3,250	2,730
Selenium	NS	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Silver	NS	NA	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Sodium	NS	NA	4,040,000	2,740,000	3,800,000	2,120,000	2,830,000	2,660,000	4,350,000	2,200,000	3,470,000	3,060,000	3,150,000	1,630,000	80,100	48,400
Thallium	NS	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	NS	NA	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Zinc	NS	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	31.4	<25.0	37.2	<25.0	29.0	<25.0	<25.0

Notes:

Results are in units of micrograms per Liter (ug/L).
Standards are the NYSDEC 6NYCRR Part 703.5 Class SC surface water standards.

A(C) = Standard category for fish propagation.
NS = No Standard.
NA = Not Applicable.

Table 6b
Summary of 2018 Surface Water Dissolved Metals Results

Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	Sample Location:		BK2-SW-01		BK2-SW-02		BK2-SW-03		BK2-SW-04		BK2-SW-05		BK2-SW-06		BK2-SW-07	
	Sample ID (Tide):		BK2-SW-01	BK2-SW-08	BK2-SW-02	BK2-SW-09	BK2-SW-03	BK2-SW-10	BK2-SW-04	BK2-SW-11	BK2-SW-05	BK2-SW-12	BK2-SW-06	BK2-SW-13	BK2-SW-07	BK2-SW-14
	Standard	Category	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)	(High)	(Low)
Aluminum	NS	NA	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Antimony	NS	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Arsenic	63	A(C)	4.90	7.12	3.95	7.74	5.78	7.70	6.13	3.62	7.31	<3.0	9.38	4.27	3.03	<3.0
Barium	NS	NA	41.2	58.1	46.3	56.6	40.9	58.0	47.1	40.1	52.3	40.2	50.5	41.6	82.9	49.4
Beryllium	NS	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	NS	NA	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Calcium	NS	NA	147,000	119,000	139,000	86,100	162,000	121,000	151,000	79,100	146,000	79,100	119,000	71,800	26,100	15,800
Chromium	NS	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cobalt	NS	NA	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Copper	5.6 / 7.9	A(C) / A(A)	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Iron	NS	NA	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	448	459
Lead	8 / 204	A(C) / A(A)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.4	<5.0	<5.0	<5.0	<5.0	<5.0
Magnesium	NS	NA	441,000	341,000	411,000	225,000	502,000	347,000	461,000	208,000	440,000	223,000	342,000	183,000	280,000	15,900
Manganese	NS	NA	90.1	166	97.1	210	82.5	168	103	139	123	137	128	151	259	154
Mercury	0.0007 / 0.0026	H(FC) / W	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	8.2 / 74	A(C) / A(A)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	**13.8**	**10.8**
Potassium	NS	NA	148,000	109,000	138,000	69,400	167,000	108,000	151,000	69,100	141,000	75,800	112,000	61,100	3,090	2,660
Selenium	NS	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Silver	NS	NA	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Sodium	NS	NA	4,210,000	2,660,000	3,800,000	1,780,000	4,260,000	2,500,000	3,610,000	1,890,000	3,360,000	1,980,000	3,160,000	1,540,000	73,800	46,700
Thallium	NS	NA	<2.0	<2.0	<2.0	3.13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	NS	NA	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Zinc	66	A(C)	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25

Notes:

Results and standards are in units of micrograms per Liter (ug/L).
Standards are the NYSDEC 6NYCRR Part 703.5 Class SC surface water standards.

A(C) = Standard category for fish propagation.
A(A) = Standard category for fish survival.
HFC) = Standard category for health consumption of fish.
W = Standard category for wildlife protection.
NS = No Standard.
NA = Not Applicable.

Table 7
Summary of Field Screening Results for 2018 Sediment Samples
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Sample Results			
Sample Location	Sample ID	VOCs, ppm	H_2S, ppm
BK2-SD-1	BK2-SD-1A	2	10.5
	BK2-SD-1B	0	0.6
	BK2-SD-1C	0	0
BK2-SD-2	BK2-SD-2A	0	0
	BK2-SD-2B	0	0
	BK2-SD-2C	0	0
BK2-SD-3	BK2-SD-3A	0	2
	BK2-SD-3B	0	1
	BK2-SD-3C	0.5	4.5
BK2-SD-4	BK2-SD-4A	0	0
	BK2-SD-4B	0	1
	BK2-SD-4C	0	0
BK2-SD-5	BK2-SD-5A	0	0
	BK2-SD-5B	0	0
	BK2-SD-5C	0	0
BK2-SD-6	BK2-SD-6A	0	0.7
	BK2-SD-6B	0	0
	BK2-SD-6C	0	0
BK2-SD-7	BK2-SD-7A	0	0
	BK2-SD-7B	0	0
	BK2-SD-7C	0	0

Tidal Marsh and Tributary Sample Results			
Sample Location	Sample ID	VOCs, ppm	H_2S, ppm
BK2-SD-8	BK2-SD-8A	0	0
	BK2-SD-8B	0	0
	BK2-SD-8C	0	2
BK2-SD-9	BK2-SD-9A	0	0
	BK2-SD-9B	0	0.7
	BK2-SD-9C	0	2.2
BK2-SD-10	BK2-SD-10A	0	0
	BK2-SD-10B	0	3.5
	BK2-SD-10C	0	0
BK2-SD-11	BK2-SD-11A	0	0
	BK2-SD-11B	0	0
	BK2-SD-11C	0	0
BK2-SD-12	BK2-SD-12A	0	2.5
	BK2-SD-12B	0	0
	BK2-SD-12C	0	0

Notes:

VOCs = Total Volatile Organic Compounds.
H_2S = Hydrogen Sulfide.
ppm = Parts per million.

Table 8
Summary of Total SVOC Results for 2018 Sediment Samples
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Sample Total SVOC Results, ug/kg			
Sample Location	Sample ID	No. Dectected	SVOC
BK2-SD-1	BK2-SD-1A	10	4,122.5 J
	BK2-SD-1B	9	2,426.3 J
	BK2-SD-1C	1	217 J
BK2-SD-2	BK2-SD-2A	9	2,746 J
	BK2-SD-2B	8	1,639.1 J
	BK2-SD-2C	5	423.6 J
BK2-SD-3	BK2-SD-3A	4	678 J
	BK2-SD-3B	2	236 J
	BK2-SD-3C	ND	ND
BK2-SD-4	BK2-SD-4A	8	2,355 J
	BK2-SD-4B	8	2,199 J
	BK2-SD-4C	10	2,587.6 J
BK2-SD-5	BK2-SD-5A	1	104 J
	BK2-SD-5B	1	157 J
	BK2-SD-5C	ND	ND
BK2-SD-6	BK2-SD-6A	1	132 J
	BK2-SD-6B	ND	ND
	BK2-SD-6C	ND	ND
BK2-SD-7	BK2-SD-7A	ND	ND
	BK2-SD-7B	ND	ND
	BK2-SD-7C	ND	ND

Tidal Marsh and Tributary Sample Total SVOC Results, ug/kg			
Sample Location	Sample ID	No. Dectected	SVOC
BK2-SD-8	BK2-SD-8A	ND	ND
	BK2-SD-8B	ND	ND
	BK2-SD-8C	ND	ND
BK2-SD-9	BK2-SD-9A	1	127 J
	BK2-SD-9B	ND	ND
	BK2-SD-9C	ND	ND
BK2-SD-10	BK2-SD-10A	2	214.2 J
	BK2-SD-10B	1	113 J
	BK2-SD-10C	9	1,155.2 J
BK2-SD-11	BK2-SD-11A	ND	ND
	BK2-SD-11B	ND	ND
	BK2-SD-11C	ND	ND
BK2-SD-12	BK2-SD-12A	ND	ND
	BK2-SD-12B	ND	ND
	BK2-SD-12C	ND	ND

Notes:

SVOC = Semivolatile Organic Compound.
ppb = Parts per billion.
ND = Not Detected.

Table 9a

Summary of Individual SVOC Results for 2018 0-6 Inch Depth Sediment Samples

Brookfield Avenue Landfill OU2

2018 5th-Year Monitoring Round

Detected SVOCs	PAH SGV @ 2% TOC	0-6 Inch Richmond Creek Sample SVOC Results, ug/kg							0-6 Inch Tidal Marsh and Tributary Sample SVOC Results, ug/kg				
		BK2-SD-1A	BK2-SD-2A	BK2-SD-3A	BK2-SD-4A	BK2-SD-5A	BK2-SD-6A	BK2-SD-7A	BK2-SD-8A	BK2-SD-9A	BK2-SD-10A	BK2-SD-11A	BK2-SD-12A
2,4-Dinitrophenol	NA	<44.7	<87.2	<90.2	<103	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Benzo(A)anthracene	16,820	253	173 J	<90.2	132 J	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Benzo(A)pyrene	19,340	254	198 J	<90.2	176 J	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Benzo(B)fluoranthene	19,580	589	344	108 J	382	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Benzo(G,H,I)perylene	21,900	<44.7	<87.2	<90.2	<103	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Benzo(K)fluoranthene	19,600	149	192 J	<90.2	141 J	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Bis(2-ethylhexyl) phthalate	NA	1110	907	274	831	104 J	132 J	<95.1	<111	<114	162	<165	<104
Chrysene	16,860	316	221	<90.2	184 J	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Fluoranthene	14,160	348	223	130 J	206 J	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Indeno(1,2,3-CD)pyrene	22,300	87.5 J	<87.2	<90.2	<103	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Phenanthrene	11,940	118	94.0 J	<90.2	<103	<80.8	<94.3	<95.1	<111	<114	<44	<165	<104
Pyrene	13,960	898	394	166 J	303	<80.8	<94.3	<95.1	<111	127 J	52.2 J	<165	<104

Notes:

PAH = Polycyclic Aromatic Hydrocarbon

SGV = Sediment Guidance Value.

TOC = Total Organic Carbon

ug/kg = Micrograms per kilogram.

J = Estimated.

NA = Not Available.

Table 9b

Summary of Individual SVOC Results for 2018 6-12 Inch Depth Sediment Samples

Brookfield Avenue Landfill OU2

2018 5th-Year Monitoring Round

Detected SVOCs	PAH SGV @ 2% TOC	6-12 Inch Richmond Creek Sample SVOC Results, ug/kg							6-12 Inch Tidal Marsh and Tributary Sample SVOC Results, ug/kg				
		BK2-SD-1B	BK2-SD-2B	BK2-SD-3B	BK2-SD-4B	BK2-SD-5B	BK2-SD-6B	BK2-SD-7B	BK2-SD-8B	BK2-SD-9B	BK2-SD-10B	BK2-SD-11B	BK2-SD-12B
2,4-Dinitrophenol	NA	<56.1	<85.4	<80.6	<81.6	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Benzo(A)anthracene	16,820	153	97.0 J	<80.6	112 J	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Benzo(A)pyrene	19,340	164	124 J	<80.6	143 J	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Benzo(B)fluoranthene	19,580	269	251	<80.6	300	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Benzo(G,H,I)perylene	21,900	<56.1	<85.4	<80.6	<81.6	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Benzo(K)fluoranthene	19,600	116 J	94.1 J	<80.6	87.0 J	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Bis(2-ethylhexyl) phthalate	NA	738	529	134 J	991	157 J	<100	<87.2	<128	<159	113 J	<165	<91.7
Chrysene	16,860	160	134 J	<80.6	130 J	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Fluoranthene	14,160	259	159 J	<80.6	161 J	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Indeno(1,2,3-CD)pyrene	22,300	<56.1	<85.4	<80.6	<81.6	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Phenanthrene	11,940	93.3 J	<85.4	<80.6	<81.6	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7
Pyrene	13,960	474	251	102 J	275	<82	<100	<87.2	<128	<159	<46.2	<165	<91.7

Notes:

PAH = Polycyclic Aromatic Hydrocarbon

SGV = Sediment Guidance Value.

TOC = Total Organic Carbon

ug/kg = Micrograms per kilogram.

J = Estimated.

NA = Not Available.

Table 9c

Summary of Individual SVOC Results for 2018 24-30 Inch Depth Sediment Samples

Brookfield Avenue Landfill OU2

2018 5th-Year Monitoring Round

Detected SVOCs	PAH SGV @ 2% TOC	24-30 Inch Richmond Creek Sample SVOC Results, ug/kg							24-30 Inch Tidal Marsh and Tributary Sample SVOC Results, ug/kg				
		BK2-SD-1C	BK2-SD-2C	BK2-SD-3C	BK2-SD-4C	BK2-SD-5C	BK2-SD-6C	BK2-SD-7C	BK2-SD-8C	BK2-SD-9C	BK2-SD-10C	BK2-SD-11C	BK2-SD-12C
2,4-Dinitrophenol	NA	217 J	<64.7	<77.3	<56.1	<96.2	<80	<85.8	<196	<105	<42.9	<215	<77.8
Benzo(A)anthracene	16,820	<50.7	<64.7	<77.3	212	<96.2	<80	<85.8	<196	<105	88.6 J	<215	<77.8
Benzo(A)pyrene	19,340	<50.7	<64.7	<77.3	180	<96.2	<80	<85.8	<196	<105	68.0 J	<215	<77.8
Benzo(B)fluoranthene	19,580	<50.7	80.8 J	<77.3	312	<96.2	<80	<85.8	<196	<105	136	<215	<77.8
Benzo(G,H,I)perylene	21,900	<50.7	<64.7	<77.3	62.2 J	<96.2	<80	<85.8	<196	<105	<42.9	<215	<77.8
Benzo(K)fluoranthene	19,600	<50.7	<64.7	<77.3	62.2 J	<96.2	<80	<85.8	<196	<105	47.1 J	<215	<77.8
Bis(2-ethylhexyl) phthalate	NA	<50.7	96.4 J	<77.3	<56.1	<96.2	<80	<85.8	<196	<105	294	<215	<77.8
Chrysene	16,860	<50.7	70.2 J	<77.3	255	<96.2	<80	<85.8	<196	<105	85.3 J	<215	<77.8
Fluoranthene	14,160	<50.7	71.2 J	<77.3	529	<96.2	<80	<85.8	<196	<105	171	<215	<77.8
Indeno(1,2,3-CD)pyrene	22,300	<50.7	<64.7	<77.3	63.2 J	<96.2	<80	<85.8	<196	<105	<42.9	<215	<77.8
Phenanthrene	11,940	<50.7	<64.7	<77.3	384	<96.2	<80	<85.8	<196	<105	61.2 J	<215	<77.8
Pyrene	13,960	<50.7	105 J	<77.3	528	<96.2	<80	<85.8	<196	<105	204	<215	<77.8

Notes:

PAH = Polycyclic Aromatic Hydrocarbon

SGV = Sediment Guidance Value.

TOC = Total Organic Carbon

ug/kg = Micrograms per kilogram.

J = Estimated.

NA = Not Available.

Table 10
Summary of Pesticide Results for 2018 Sediment Samples
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Sample Results, ug/kg			
Sample Location	Sample ID	Σ DDT	Σ Chlordane
BK2-SD-1	BK2-SD-1A	17.1	9.84
	BK2-SD-1B	**112**	ND
	BK2-SD-1C	ND	ND
BK2-SD-2	BK2-SD-2A	40.5	16.4
	BK2-SD-2B	**49.0**	19.6
	BK2-SD-2C	8.35	ND
BK2-SD-3	BK2-SD-3A	28.0	1.67
	BK2-SD-3B	30.9	2.42
	BK2-SD-3C	ND	ND
BK2-SD-4	BK2-SD-4A	11.8	2.83
	BK2-SD-4B	**46.2**	13.0
	BK2-SD-4C	43.1	7.24
BK2-SD-5	BK2-SD-5A	8.49	ND
	BK2-SD-5B	7.10	ND
	BK2-SD-5C	12.1	ND
BK2-SD-6	BK2-SD-6A	3.07	ND
	BK2-SD-6B	9.91	1.20
	BK2-SD-6C	ND	ND
BK2-SD-7	BK2-SD-7A	ND	ND
	BK2-SD-7B	ND	ND
	BK2-SD-7C	ND	ND

Tidal Marsh / Tributary Sample Results, ug/kg			
Sample Location	Sample ID	Σ DDT	Σ Chlordane
BK2-SD-8	BK2-SD-8A	21.7	4.67
	BK2-SD-8B	**359**	34.0
	BK2-SD-8C	Heptaclor 2.94	
BK2-SD-9	BK2-SD-9A	39.6	3.67
	BK2-SD-9B	17.0	ND
	BK2-SD-9C	ND	ND
BK2-SD-10	BK2-SD-10A	8.30	3.90
	BK2-SD-10B	7.13	5.35
	BK2-SD-10C	3.36	6.20
BK2-SD-11	BK2-SD-11A	10.7 J	ND
	BK2-SD-11B	**58.5**	5.45 J
	BK2-SD-11C	6.45	ND
BK2-SD-12	BK2-SD-12A	11.7	2.19
	BK2-SD-12B	9.23	ND
	BK2-SD-12C	ND	ND

Saltwater SGVs for Detected Compounds, ug/kg			
Compound	Class A	Class B	Class C
Σ DDT	<44	44-5,700	>5,700
Σ Chlordane	<63	63-1,400	>1,400
Heptaclor	<71	71-1,100	>1,100

Notes:

ug/kg = Milligrams per kilogram.
Σ DDT = Sum of 4,4'-DDD and 4,4'-DDE detected.
Σ Chlordane = Sum of alpha and gamma Chlordane detected.
ND = Not Detected.
J = Estimated.
SGV = Sediment Guidance Value.
Bold Font = Result exceeds Class A SGV.

Table 11
Summary of Total PCB Results for 2018 Sediment Samples
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Sample Results, ug/kg		
Sample Location	Sample ID	[Total PCB]
BK2-SD-1	BK2-SD-1A	87.9
	BK2-SD-1B	**118**
	BK2-SD-1C	ND
BK2-SD-2	BK2-SD-2A	**128**
	BK2-SD-2B	**163**
	BK2-SD-2C	ND
BK2-SD-3	BK2-SD-3A	30.1
	BK2-SD-3B	39.6
	BK2-SD-3C	ND
BK2-SD-4	BK2-SD-4A	35.3
	BK2-SD-4B	**138**
	BK2-SD-4C	68.3
BK2-SD-5	BK2-SD-5A	ND
	BK2-SD-5B	24.2
	BK2-SD-5C	40.8
BK2-SD-6	BK2-SD-6A	ND
	BK2-SD-6B	ND
	BK2-SD-6C	ND
BK2-SD-7	BK2-SD-7A	ND
	BK2-SD-7B	ND
	BK2-SD-7C	ND

Tidal Marsh / Tributary Sample Results, ug/kg		
Sample Location	Sample ID	[Total PCB]
BK2-SD-8	BK2-SD-8A	53.9
	BK2-SD-8B	**153**
	BK2-SD-8C	ND
BK2-SD-9	BK2-SD-9A	74.2
	BK2-SD-9B	ND
	BK2-SD-9C	ND
BK2-SD-10	BK2-SD-10A	15.6
	BK2-SD-10B	12.0
	BK2-SD-10C	ND
BK2-SD-11	BK2-SD-11A	ND
	BK2-SD-11B	ND
	BK2-SD-11C	ND
BK2-SD-12	BK2-SD-12A	28.8
	BK2-SD-12B	ND
	BK2-SD-12C	ND

Saltwater SGVs for Total PCBs, ug/kg		
Class A	Class B	Class C
<100	100-1,000	1,000

Notes:

ug/kg = Micrograms per kilogram.
PCB = Polychlorinated Biphenyls.
[Total PCB] = Total PCB concentration.
ND = Not Detected.
SGV = Sediment Guidance Value.
Bold Font = Result exceeds Class A SGV.

Table 12a
Summary of 2018 0-6 Inch Depth Sediment Metals Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	Saltwater SGVs, mg/kg			0-6 Inch Richmond Creek Sample Results, mg/kg							0-6 Inch Tidal Marsh / Tributary Sample Results, mg/kg				
	Class A	Class B	Class C	BK-SD-1A	BK-SD-2A	BK-SD-3A	BK-SD-4A	BK-SD-5A	BK-SD-6A	BK-SD-7A	BK-SD-8A	BK-SD-9A	BK-SD-10A	BK-SD-11A	BK-SD-12A
Aluminum	NA	NA	NA	2,240	9,460	11,400	11,500	1,140	14,600	10,400	8,400	8,780	2,780	13,400	14,200
Antimony	NA	NA	NA	<2.77	<5.79	<5.5	<6.33	<5.13	<5.76	<6.31	<6.72	<7.03	<2.84	<10.8	<6.75
Arsenic	<8.2	8.2-70	>70	5.31	**21.6**	**33.7**	**23.0**	**27.9**	**51.3**	**9.52**	**27.3**	**30.4**	5.51	**16.4 J**	**35.7**
Barium	NA	NA	NA	19.0	110	96.9	140	80.8	94.4	71.7	38.1	48.5	22.7	76.5	98.3
Beryllium	NA	NA	NA	<0.346	0.745	1.0	0.879	1.02	1.35	0.896	<0.840	<0.878	<0.355	<1.35	1.22
Cadmium	<1.2	1.2-9.6	>9.6	0.644	**3.12**	**5.71**	**3.84**	**6.16**	**5.83**	**1.28**	0.971	<0.878	1.18	<1.35	**5.05**
Calcium	NA	NA	NA	6,610	6,630	5,840	4,980	4,320	3,180	6,790	2,740	3,070	5,000	4,530 J	3,770
Chromium	<81	81-370	>370	19.6	**94.2**	**118**	**112**	**115**	**156**	79.2	67.1	62.4	21.4	**113**	**142**
Cobalt	NA	NA	NA	<3.46	8.3	10.1	9.55	10.8	21.2	22.3	<8.40	<8.78	<3.55	<13.5	12.0
Copper	<34	34-270	>270	**39.5**	**238**	**308**	**287**	**298**	**354**	**46.3**	**155**	**132**	**54.2**	**235**	**360**
Iron	NA	NA	NA	6,660	35,800	37,300	43,100	38,700	48,900	29,000	15,100	14,600	8,930	19,000	37,000
Lead	<47	47-220	>220	**73.1**	**146**	**196**	**168**	**196**	**301**	**132**	**154**	**155**	41.7	**178 J**	**262**
Magnesium	NA	NA	NA	4,940	8,550	7,780	8,070	7,290	8,110	11,200	5,680	5,730	3,800	8,220 J	8,030
Manganese	NA	NA	NA	65.6	236	287	253	289	302	287	147	127	73.7	210	358
Mercury	<0.15	0.15-0.71	>0.71	**0.568**	**3.95**	**4.62**	**5.13**	**3.76**	**5.75**	<0.202	**1.93**	**1.92**	**0.305**	**3.70**	**6.28**
Nickel	<21	21-52	>52	13.5	**48.0**	**65.4**	**57.9**	**69.0**	**140**	**290**	**36.2**	**36.6**	13.2	**49.0**	**59.7**
Potassium	NA	NA	NA	444	1,870	2,290	2,200	2,160	2,750	1,460	1,960	1,920	497	3,020 J	2,840
Selenium	NA	NA	NA	<2.77	<5.79	<5.50	<6.33	<5.13	<5.76	<6.31	<6.72	<7.03	<2.84	<10.8	6.75
Silver	<1.0	1.0-3.7	>3.7	<0.346	**2.03**	**2.53**	**2.46**	**2.44**	**3.23**	<0.788	**1.33**	0.907	0.549	**2.89**	**3.28**
Sodium	NA	NA	NA	1,650	7,690	9,000	6,010	6,550	1,000	2,070	8,570	8,930	947	16,100	11,800
Thallium	NA	NA	NA	<2.08	<4.34	<4.13	<4.75	<3.85	<4.32	<4.73	<5.04	<5.27	<2.13	<4.05 J	<5.06
Vanadium	NA	NA	NA	9.92	36.2	38.9	33.6	40.5	62.5	44.3	45.6	52.2	12.1	64.0	52.9
Zinc	<150	150-410	>410	91.3	**387**	**473**	**418**	**439**	**477**	147	**208**	**174**	115	**256 J**	**434**

Notes:
SGV = Sediment Guidance Value.
mg/kg = Milligrams per kilogram.
J = Estimated.
Bold Font = Result exceeds Class A SGV and is within Class B SGV range.
Shaded = Result also exceeds Class B SGV range and is in Class C.
NA = Not Available.

Table 12b
Summary of 2018 6-12 Inch Depth Sediment Metals Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	Saltwater SGVs, mg/kg			6-12 Inch Richmond Creek Sample Results, mg/kg							6-12 Inch Tidal Marsh / Tributary Sample Results, mg/kg				
	Class A	Class B	Class C	BK-SD-1B	BK-SD-2B	BK-SD-3B	BK-SD-4B	BK-SD-5B	BK-SD-6B	BK-SD-7B	BK-SD-8B	BK-SD-9B	BK-SD-10B	BK-SD-11B	BK-SD-12B
Aluminum	NA	NA	NA	3,810	8,670	15,200	10,300	14,300	12,700	10,500	6,260	2,100	3,850	15,000	14,100
Antimony	NA	NA	NA	<3.69	<5.55	<5.41	<5.02	<5.36	9.09	<5.56	<8.31	<9.54	<2.84	<11.0	<5.55
Arsenic	<8.2	8.2-70	>70	**27.9**	**20.4**	**88.7**	**21.4**	**34.8**	**161**	**8.32**	**74.9**	**80.1**	7.677	**100 J**	**39.7**
Barium	NA	NA	NA	50.8	118	89.7	124	97.4	70.2	49.5	49.5	<47.7	35.7	77.2	84.9
Beryllium	NA	NA	NA	<0.462	0.77	1.5	0.793	1.44	1.33	0.919	<1.04	<1.19	<0.355	1.82	1.16
Cadmium	<1.2	1.2-9.6	>9.6	1.04	**3.00**	**5.24**	**3.59**	**11.0**	**4.59**	1.09	<1.04	<1.19	**1.74**	**2.31**	**5.86**
Calcium	NA	NA	NA	915	6,950	5,180	4,920	5,450	3,020	2,560	3,040	4,700	3,920	4,770 J	5,450
Chromium	<81	81-370	>370	29.8	**90.0**	**101**	**99.9**	**154**	**126**	65.2	**94.1**	14.9	31.5	**205**	**136**
Cobalt	NA	NA	NA	<4.62	8.19	14.3	9.04	14.5	39.4	21.3	26.9	<11.9	3.82	26.6	12.6
Copper	<34	34-270	>270	**91.9**	**237**	**378**	**252**	**408**	**311**	16.3	**343**	**234**	**79.6**	**381**	**342**
Iron	NA	NA	NA	9,230	40,000	48,000	38,300	40,000	53,000	32,400	19,200	13,500	13,800	50,800	40,600
Lead	<47	47-220	>220	**113**	**139**	**220**	**155**	**283**	**413**	30.5	**299**	**68.7**	**65.7**	**426 J**	**252**
Magnesium	NA	NA	NA	2,000	7,420	9,230	7,660	8,500	7,150	6,110	5,000	4,840	3,480	8,470 J	7,920
Manganese	NA	NA	NA	69.4	217	415	237	304	367	360	211	55.7	120	293	371
Mercury	<0.15	0.15-0.71	>0.71	**4.01**	**3.59**	**7.77**	**4.89**	**6.25**	**4.83**	<0.172	**3.49**	**0.346**	**0.772**	**4.90**	**5.29**
Nickel	<21	21-52	>52	20.1	**48.4**	**83.8**	**55.3**	**103**	**223**	**222**	**104**	**52.9**	17.3	**135**	**64.4**
Potassium	NA	NA	NA	744	1,890	3,450	2,040	2,680	2,490	1,580	1,670	1,190	680	3,260 J	2,910
Selenium	NA	NA	NA	<3.69	<5.55	6.19	<5.02	<5.35	7.64	<5.56	10.8	15.4	<2.84	<11.0	<5.55
Silver	<1.0	1.0-3.7	>3.7	0.519	**1.97**	<0.676	**2.27**	**3.98**	**1.35**	<0.695	**1.86**	**1.52**	0.752	**2.84**	**3.35**
Sodium	NA	NA	NA	2,770	7,810	6,600	6,530	7,870	11,600	2,120	13,600	19,900	990	16,900	10,300
Thallium	NA	NA	NA	<2.77	<4.16	<4.06	<3.76	<4.02	<5.04	<4.17	<6.23	<7.16	<2.13	<4.12 J	<4.16
Vanadium	NA	NA	NA	13.2	34.2	49.3	31.1	55.6	74	39.7	62.5	36	15.8	110	51.4
Zinc	<150	150-410	>410	**167**	**372**	**499**	**380**	**591**	**810**	65.2	**325**	**191**	**164**	**702 J**	**452**

Notes:
SGV = Sediment Guidance Value.
mg/kg = Milligrams per kilogram.
J = Estimated.
Bold Font = Result exceeds Class A SGV and is within Class B SGV range.
Shaded = Result also exceeds Class B SGV range and is in Class C.
NA = Not Available.

Table 12c
Summary of 2018 24-30 Inch Sediment Metals Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	Saltwater SGVs, mg/kg			24-30 Inch Richmond Creek Sample Results, mg/kg							24-30 Inch Tidal Marsh / Tributary Sample Results, mg/kg				
	Class A	Class B	Class C	BK-SD-1C	BK-SD-2C	BK-SD-3C	BK-SD-4C	BK-SD-5C	BK-SD-6C	BK-SD-7C	BK-SD-8C	BK-SD-9C	BK-SD-10C	BK-SD-11C	BK-SD-12C
Aluminum	NA	NA	NA	7,870	10,100	14,700	6,660	16,000	18,700	11,200	8,510	9,800	2,490	8,650	16,200
Antimony	NA	NA	NA	<3.38	<3.97	<4.74	<3.51	<6.08	5.23	<5.33	<11.9	<6.41	<2.71	<12.9	<5.19
Arsenic	<8.2	8.2-70	>70	5.8	**50.8**	**13.6**	**46.5**	**55.4**	**77.6**	7.96	7.94	3.48	4.19	<3.23	**12.9**
Barium	NA	NA	NA	58.2	124	31.2	72.2	338	51.3	52.2	<59.5	<32.1	29.8	<64.7	31.2
Beryllium	NA	NA	NA	0.772	0.793	1.1	0.566	1.46	1.39	0.924	<1.49	<0.801	<0.339	<1.62	1.14
Cadmium	<1.2	1.2-9.6	>9.6	<0.423	1.1	1.13	**2.27**	**13.5**	**2.07**	0.984	<1.49	<0.801	1.08	<1.62	**1.65**
Calcium	NA	NA	NA	10,600	2,580	2,230	2,420	6,460	2,710	2,040	3,920	2,490	4,250	4,140	2,630
Chromium	<81	81-370	>370	23.6	68.6	39.4	61.4	**200**	80.2	71.8	17.5	18.1	16.9	20.4	36.4
Cobalt	NA	NA	NA	9.53	8.11	10.4	7.48	16	27.6	23.3	<14.9	<8.01	<3.39	<16.2	9.6
Copper	<34	34-270	>270	24	**248**	18.8	**160**	**564**	**151**	14.9	11.2	11.9	**132**	<9.7	1.9
Iron	NA	NA	NA	26,000	34,900	33,000	22,500	48,100	41,800	34,100	17,300	8,850	9,420	8,830	43,700
Lead	<47	47-220	>220	13.2	**163**	27.8	**120**	**396**	**169**	23.2	10.7	8.74	**82.7**	6.18	30.5
Magnesium	NA	NA	NA	8,130	5,490	6,870	4,600	9,730	8,600	6,150	7,150	5,030	2,940	7,710	7,370
Manganese	NA	NA	NA	421	174	230	139	368	712	345	206	97.0	87.4	148	383
Mercury	<0.15	0.15-0.71	>0.71	<0.0885	**3.35**	<0.123	**2.69**	**8.65**	**2.55**	<0.173	<0.345	<0.151	**0.187**	<0.334	<0.118
Nickel	<21	21-52	>52	**38.9**	**72.7**	**38.8**	**66.8**	**126**	**158**	**250**	**27.7**	15.3	14	**29.4**	**29.7**
Potassium	NA	NA	NA	2,030	1,740	3,070	1,170	3,010	3,070	1,660	2,710	1,250	399	2,970	3,410
Selenium	NA	NA	NA	<3.38	12.5	<4.74	3.97	<6.08	<5.18	<5.33	<11.9	<6.41	<2.71	<12.9	<5.19
Silver	<1.0	1.0-3.7	>3.7	<0.423	0.868	<0.592	0.83	**4.72**	<0.647	<0.666	<1.49	<0.801	0.405	<1.62	<0.649
Sodium	NA	NA	NA	2,560	4,050	5,760	2,960	9,630	7,070	1,940	24,700	9,270	670	29,500	4,220
Thallium	NA	NA	NA	<2.54	<2.98	<3.55	<2.64	<4.56	<3.88	<4.0	<8.92	<4.81	<2.03	<4.85	<3.89
Vanadium	NA	NA	NA	26.6	26.7	44.9	24.1	67.7	51.8	41.1	34.8	19.4	12.7	28.0	41.3
Zinc	<150	150-410	>410	62.7	**313**	68.1	**291**	**763**	**325**	62.4	96.8	49.1	120	32.0	89.3

Notes:
SGV = Sediment Guidance Value.
mg/kg = Milligrams per kilogram.
J = Estimated.
Bold Font = Result exceeds Class A SGV and is within Class B SGV range.
Shaded = Result also exceeds Class B SGV range and is in Class C.
NA = Not Available.

Table 13
Detailed Comparison of 2018 Sediment Metals Results to Saltwater SGVs
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

SGV Metals	Saltwater SGVs, mg/kg			Range of Detections, mg/kg			Detections per SGV Class			Class C Exceedances by Depth		
	Class A	Class B	Class C	Min.	Max.	Avg.	Class A	Class B	Class C	0-6 In.	6-12 In.	24-30 In.
Arsenic	<8.2	8.2-70	>70	3.48	161	35.4	9	21	6	0	5	1
Cadmium	<1.2	1.2-9.6	>9.6	0.64	13.5	3.47	17	17	2	0	1	1
Chromium	<81	81-370	>370	14.9	205	80.6	20	16	0	0	0	0
Copper	<34	34-270	>270	1.90	564	198	8	16	12	5	6	1
Lead	<47	47-220	>220	6.18	426	153	9	19	8	2	5	1
Mercury	<0.15	0.15-0.71	>0.71	0.19	8.65	3.76	9	4	23	9	10	4
Nickel	<21	21-52	>52	13.2	290	79.9	6	10	20	6	9	5
Silver	<1.0	1.0-3.7	>3.7	0.41	4.72	2.04	19	14	3	1	1	1
Zinc	<150	150-410	>410	32.0	810	295	12	13	11	5	5	1

Notes:
SGV = Sediment Guidance Value.
mg/kg = Milligrams per kilogram.

Table 14
Comparison of 2013 and 2018 Surface Water Field Parameter Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Field Parameters	Units	2013 Averages		2018 Averages	
		High Tide	Low Tide	High Tide	Low Tide
Temperature	°C	16.08	18.51	21.70	21.32
pH	SU	6.30	6.94	7.32	7.26
ORP	mV	256	183	177	126
Conductivity	mS/cm	30.2	48.9	15.1	9.20
Turbidity	NTU	15.0	200	12.5	74.7
DO	mg/L	9.35	7.65	7.39	6.23
TDS	g/L	NM	NM	9.4	5.7
Salinity	ppt	17.92	10.15	8.92	5.21

Notes:

ORP = Oxidation-Reduction Potential.
DO = Dissolved Oxygen.
TDS = Total Dissolved Solids.
°C = Degrees Celsius.
SU = Standard Units.
mV = MilliVolts.
mS/cm = microSiemens per centimeter.
NTU = Nephelometric Turbidity Units.
mg/L = Milligrams per Liter.
g/L = Grams per Liter.
ppt = Parts per thousand.
NM = Not Measured.

Table 15
Comparison of 2013 and 2018 Surface Water Organic Parameter Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Sample Location	Tide	Sample ID	[Total VOC]		[Total SVOC]		[Total Pesticide]		[Total PCB]	
			2013	2018	2013	2018	2013	2018	2013	2018
BK2-SW-1	High	BK2-SW-01	ND	ND	0.251 J	ND	ND	ND	ND	ND
	Low	BK2-SW-08	0.26 J	2.89 J	1.604 J	ND	0.0155 J	0.00628	0.017	ND
BK2-SW-2	High	BK2-SW-02	ND	5.01	0.212 J	ND	ND	ND	0.0039 J	ND
	Low	BK2-SW-09	0.27 J	ND	0.553 J	ND	0.0643 J	0.00620	0.13	ND
BK2-SW-3*	High	BK2-SW-03	ND	ND	0.055 J	ND	ND	ND	ND	ND
	Low	BK2-SW-10	ND	3.75 J	0.220 J	ND	0.0129 J	ND	0.048	ND
BK2-SW-4	High	BK2-SW-04	ND	ND	ND	ND	ND	ND	ND	ND
	Low	BK2-SW-11	0.52 J	ND	0.690 J	ND	0.041	ND	0.13	ND
BK2-SW-5	High	BK2-SW-05	ND	3.13 J	0.054 J	ND	ND	ND	ND	ND
	Low	BK2-SW-12	0.42 J	ND	1.210 J	ND	0.0141 J	ND	0.052	ND
BK2-SW-6	High	BK2-SW-06	ND	ND	0.054 J	ND	0.0013 J	ND	0.053 J	ND
	Low	BK2-SW-13	ND	2.56	0.396 J	ND	0.0094 J	ND	ND	ND
BK2-SW-7	High	BK2-SW-07	ND	ND	0.047 J	ND	ND	ND	ND	ND
	Low	BK2-SW-14	ND	ND	0.094 J	ND	ND	ND	ND	ND

Notes:

Results are in units of micrograms per Liter (ug/L).
[Total VOC] = Total volatile organic compound concentration.
[Total SVOC] = Total semivolatile organic compound concentration.
[Total Pesticide] = Total pesticide-related compound concentration.
[Total PCB] = Total polychlorinated biphenyl concentration.
ND = Not Detected.
J = Estimated.
* = 2018 sample location approximately 400 feet upstream from 2013 location.

Table 16a
Comparison of 2013 and 2018 High-Tide Surface-Water Sample Metals Results

Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	BK2-SW-01		BK2-SW-02		BK2-SW-03*		BK2-SW-04		BK2-SW-05		BK2-SW-06		BK2-SW-07	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Aluminum	240 J	<200	210 J	<200	230 J	<200	230 J	<200	290 J	470	420	262	320 J	<200
Antimony	<20 J	<5.0	<20 J	<5.0	<20 J	<5.0	<20 J	<5.0	<20 J	<5.0	<20 J	<5.0	0.35 J	<5.0
Arsenic	19	4.3	32	3.95	21	6.91	20	6.59	20	6.15	20	6.35	13 J	<3.0
Barium	42 J	42.5	43 J	46.3	40 J	39.2	45 J	41.9	48 J	48.2	56 J	54.6	120 J	92,6
Beryllium	<10	<1.0	<10	<1.0	<10	<1.0	<10	<1.0	<10	<1.0	<10	<1.0	0.057 J	<1.0
Cadmium	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<1 J	<4.0
Calcium	270,000	148,000	270,000	139,000	260,000	159,000	270,000	148,000	250,000	82,200	260,000	121,000	92,000 J	27,200
Chromium	<20	<10.0	<20	<10.0	<20	<10.0	<20	<10.0	<20	<10.0	<20	<10.0	8.3 J	<10.0
Cobalt	0.96 J	<20.0	0.92 J	<20.0	0.98 J	<20.0	0.98 J	<20.0	1.1 J	<20.0	1.2 J	<20.0	1.1 J	<20.0
Copper	12 J	<8.0	11 J	<8.0	11 J	<8.0	10 J	<8.0	12 J	15.9	15 J	<8.0	7.6 J	<8.0
Iron	<1,000 J	<300	<1,000 J	<300	<1,000 J	<300	<1,000 J	<300	<1,000 J	1,040	<1,000 J	421	990 J	1,270
Lead	<10 J	<5.0	<10 J	<5.0	<10 J	<5.0	<10 J	<5.0	<10 J	12.0	<10 J	<5.0	5.9 J	<5.0
Magnesium	820,000 J	440,000	820,000 J	411,000	790,000 J	493,000	820,000 J	454,000	770,000 J	218,000	800,000 J	342,000	230,000 J	28,900
Manganese	91	92.3	90	97.1	87	81.9	110	92.2	120	157	150	136	650 J	277
Mercury	0.08 J	<0.5	0.082 J	<0.5	0.067 J	<0.5	0.073 J	<0.5	0.091 J	<0.5	0.14 J	<0.5	0.06 J	<0.5
Nickel	4.4 J	<10.0	4.5 J	<10.0	4.8 J	<10.0	5 J	<10.0	5 J	<10.0	6.6 J	<10.0	12 J	16.2
Potassium	250,000	149,000	250,000	138,000	240,000	160,000	250,000 J	144,000	230,000	70,200	240,000	114,000	61,000 J	3,250
Selenium	69	<10.0	110	<10.0	73	<10.0	73	<10.0	70	<10.0	66	<10.0	41 J	<10.0
Silver	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<10	<4.0	<1 J	<4.0
Sodium	6,500,000 J	4,040,000	6,600,000 J	3,800,000	6,600,000 J	2,830,000	6,600,000 J	4,350,000	6,300,000 J	2,200,000	6,400,000 J	3,150,000	1,500,000 J	80,100
Thallium	<10	<2.0	<10	<2.0	<10	<2.0	<10 J	<2.0	<10 J	<2.0	<10 J	<2.0	<1 J	<2.0
Vanadium	<10 J	<20.0	<10 J	<20.0	<10 J	<20.0	<10 J	<20.0	<10 J	<20.0	<10 J	<20.0	9.9 J	<20.0
Zinc	<50 J	<25.0	<50 J	<25.0	<50 J	<25.0	<50 J	<25.0	<50 J	31.4	<50 J	<25.0	23 J	<25.0

Notes:

Results are in units of micrograms per kilogram (ug/kg).

J = Estimated.

Table 16b
Comparison of 2013 and 2018 Low-Tide Surface Water Sample Metals Results

Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	BK2-SW-01		BK2-SW-02		BK2-SW-03*		BK2-SW-04		BK2-SW-05		BK2-SW-06		BK2-SW-07	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Aluminum	20,000	<200	7,000 J	<200	1,300 J	<200	35,000 J	470	2,000 J	589	1,600 J	495	190 J	425
Antimony	<20 J	<5.0	<20 J	<5.0	<2 J	<5.0	3.2 J	<5.0	<2 J	<5.0	<2 J	<5.0	0.39 J	6.42
Arsenic	50	7.6	29 J	8.0	41 J	7.68	77 J	6.15	35 J	6.88	33 J	5.64	9.8 J	<3.0
Barium	290	53.5	180 J	56.4	88 J	55.1	590 J	48.2	130 J	50.0	130 J	49.4	100 J	60.4
Beryllium	2.1 J	<1.0	<10	<1.0	0.46 J	<1.0	3.3 J	<1.0	<1 J	<1.0	<1 J	<1.0	0.98 J	<1.0
Cadmium	8.6 J	<4.0	1.9 J	<4.0	0.57 J	<4.0	16 J	<4.0	0.77 J	<4.0	0.67 J	<4.0	<1 J	<4.0
Calcium	240,000	116,000	220,000 J	91,500	240,000 J	116,000	230,000 J	82,200	210,000 J	87,700	200,000 J	74,400	80,000 J	16,200
Chromium	180	<10.0	64 J	<10.0	13 J	<10.0	290 J	<10.0	18 J	<10.0	14 J	<10.0	9.5 J	<10.0
Cobalt	19	<20.0	7 J	<20.0	1.9 J	<20.0	29 J	<20.0	2.5 J	<20.0	2.2 J	<20.0	0.91 J	<20.0
Copper	490 J	<8.0	190 J	<8.0	30 J	<8.0	750 J	15.9	43 J	16.2	38 J	14.9	5.8 J	9.36
Iron	60,000 J	344	19,000 J	419	3,100 J	384	110,000 J	1,040	5,200 J	933	4,300 J	943	670 J	1,230
Lead	410	6.18	120 J	6.1	20 J	8.23	710 J	12.0	29 J	13.4	25 J	14.3	3.1 J	5.87
Magnesium	670,000 J	332,000	630,000 J	243,000	710,000 J	331,000	610,000 J	218,000	600,000 J	238,000	570,000 J	191,000	200,000 J	16,800
Manganese	620	149	660 J	197	290 J	153	1,400 J	157	590 J	151	570 J	167	290 J	193
Mercury	9.6	<0.5	2.4	<0.5	0.29	<0.5	13	<0.5	1.0	<0.5	0.52	<0.5	0.045 J	<0.5
Nickel	97	<10.0	36 J	<10.0	14 J	<10.0	180 J	<10.0	20 J	13.5	20 J	<10.0	11 J	16.4
Potassium	200,000	107,000	190,000 J	76,100	210,000 J	107,000	180,000 J	70,200	180,000 J	77,000	170,000 J	61,600	55,000 J	2,730
Selenium	60	<10.0	59	<10.0	150 J	<10.0	88 J	<10.0	120 J	<10.0	120 J	<10.0	37 J	<10.0
Silver	<10 J	<4.0	<10 J	<4.0	<1 J	<4.0	9.8 J	<4.0	<1 J	<4.0	<1 J	<4.0	<1 J	<4.0
Sodium	5,500,000 J	2,740,000	4,800,000 J	2,120,000	5,600,000 J	2,660,000	4,500,000 J	2,200,000	4,500,000 J	3,060,000	4,300,000 J	1,630,000	1,400,000 J	48,400
Thallium	<10 J	<2.0	<10 J	<2.0	<1 J	<2.0	<1 J	<2.0	<1 J	<2.0	<1 J	<2.0	<1 J	<2.0
Vanadium	67	<20.0	22 J	<20.0	8.9 J	<20.0	94 J	<20.0	11 J	<20.0	7.6 J	<20.0	8.7 J	<20.0
Zinc	890 J	<25.0	260 J	<25.0	74 J	<25.0	1,100 J	31.4	84 J	37.2	68 J	29.0	21 J	<25.0

Notes:

Results are in units of micrograms per kilogram (ug/kg).

J = Estimated.

* = 2018 sample location approximately 400 feet upstream from 2013 location.

Table 17
Comparison of 2013 and 2018 Sediment Total SVOC Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Sample Total SVOC Results, ug/kg			
Sample Location	Sample ID	2013	2018
BK2-SD-1	BK2-SD-1A	9,367 J	4,122.5 J
	BK2-SD-1B	15,438 J	2,426.3 J
	BK2-SD-1C	10,187 J	217 J
BK2-SD-2	BK2-SD-2A	4,689 J	2,746 J
	BK2-SD-2B	3,695.4 J	1,639.1 J
	BK2-SD-2C	4,041 J	423.6 J
BK2-SD-3*	BK2-SD-3A	8,285 J	678 J
	BK2-SD-3B	10,195 J	236 J
	BK2-SD-3C	4,509 J	ND
BK2-SD-4	BK2-SD-4A	37,646 J	2,355 J
	BK2-SD-4B	8,069 J	2,199 J
	BK2-SD-4C	15,023 J	2,587.6 J
BK2-SD-5	BK2-SD-5A	9,626 J	104 J
	BK2-SD-5B	1,161.5 J	157 J
	BK2-SD-5C	106 J	ND
BK2-SD-6	BK2-SD-6A	15,144 J	132 J
	BK2-SD-6B	220 J	ND
	BK2-SD-6C	130 J	ND
BK2-SD-7	BK2-SD-7A	ND	ND
	BK2-SD-7B	23 J	ND
	BK2-SD-7C	450	ND

Tidal Marsh and Tributary Sample Total SVOC Results, ug/kg			
Sample Location	Sample ID	2013	2018
BK2-SD-8	BK2-SD-8A	6,989 J	ND
	BK2-SD-8B	240 J	ND
	BK2-SD-8C	1,922 J	ND
BK2-SD-9	BK2-SD-9A	1,610 J	127 J
	BK2-SD-9B	222 J	ND
	BK2-SD-9C	79.5 J	ND
BK2-SD-10**	BK2-SD-10A	7,159 J	214.2 J
	BK2-SD-10B	4,560 J	113 J
	BK2-SD-10C	7,608 J	1,155.2 J
BK2-SD-11	BK2-SD-11A	593.7 J	ND
	BK2-SD-11B	3,320.6 J	ND
	BK2-SD-11C	670 J	ND
BK2-SD-12	BK2-SD-12A	480 J	ND
	BK2-SD-12B	58 J	ND
	BK2-SD-12C	586.2 J	ND

Notes:

SVOC = Semivolatile Organic Compound.
ppb = Parts per billion.
ND = Not Detected.
* = 2018 location approximately 400 feet upstream of 2013 location.
** = 2013 location shifted north due to refusal.

Table 18
Comparison of 2013 and 2018 Sediment Total Pesticide Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Richmond Creek Total Pesticide Results, ug/kg			
Sample Location	Sample ID	2013	2018
BK2-SD-1	BK2-SD-1A	97.3 J	26.9
	BK2-SD-1B	162 J	112
	BK2-SD-1C	136 J	ND
BK2-SD-2	BK2-SD-2A	68.0 J	56.9
	BK2-SD-2B	203 J	68.6
	BK2-SD-2C	128 J	8.35
BK2-SD-3*	BK2-SD-3A	143 J	29.7
	BK2-SD-3B	172 J	33.3
	BK2-SD-3C	4.6 J	ND
BK2-SD-4	BK2-SD-4A	243 J	14.6
	BK2-SD-4B	125 J	119
	BK2-SD-4C	198 J	50.3
BK2-SD-5	BK2-SD-5A	3.52 J	8.49
	BK2-SD-5B	0.57 J	7.10
	BK2-SD-5C	ND	12.1
BK2-SD-6	BK2-SD-6A	304 J	3.07
	BK2-SD-6B	44.0 J	11.1
	BK2-SD-6C	1.02 J	ND
BK2-SD-7	BK2-SD-7A	0.26 J	ND
	BK2-SD-7B	0.96 J	ND
	BK2-SD-7C	0.30 J	ND

Tidal Marsh and Tributary Total Pesticide Results, ug/kg			
Sample Location	Sample ID	2013	2018
BK2-SD-8	BK2-SD-8A	221 J	26.4
	BK2-SD-8B	29.6 J	393
	BK2-SD-8C	5.85 J	2.94
BK2-SD-9	BK2-SD-9A	121 J	43.3
	BK2-SD-9B	51.2 J	17.0
	BK2-SD-9C	0.28 J	ND
BK2-SD-10**	BK2-SD-10A	114 J	12.2
	BK2-SD-10B	58.9 J	12.5
	BK2-SD-10C	287 J	9.56
BK2-SD-11	BK2-SD-11A	125 J	10.7
	BK2-SD-11B	50.3 J	64.0
	BK2-SD-11C	4.99 J	6.45
BK2-SD-12	BK2-SD-12A	2.47 J	13.9
	BK2-SD-12B	0.40 J	9.23
	BK2-SD-12C	34.6 J	ND

Notes:

ug/kg = Micrograms per kilogram.
ND = Not Detected.
J = Estimated.
* = 2018 location approximately 400 feet upstream of 2013 location.
** = 2013 location shifted north due to refusal.

Table 19a
Comparison of 2018 and 2013 0-6 Inch Depth Sediment Metals Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	0-6 Inch Richmond Creek Sediment Sample Results, mg/kg														0-6 Inch Tidal Marsh and Tributary Sediment Sample Results, mg/kg									
	BK-SD-1A		BK-SD-2A		BK-SD-3A*		BK-SD-4A		BK-SD-5A		BK-SD-6A		BK-SD-7A		BK-SD-8A		BK-SD-9A		BK-SD-10A**		BK-SD-11A		BK-SD-12A	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Aluminum	11,000 J	2,240	2,700	9,460	13,000 J	11,400	15,000 J	11,500	18,000 J	1,140	12,000 J	14,600	13,000 J	10,400	6,300 J	8,400	11,000 J	8,780	8,900 J	2,780	8,000 J	13,400	16,000 J	14,200
Antimony	0.84 J	<2.77	0.43 J	<5.79	1.0 J	<5.5	1.7 J	<6.33	1.5 J	<5.13	2.8 J	<5.76	<0.27 J	<6.31	8.8 J	<6.72	2.4 J	<7.03	0.86 J	<2.84	0.32 J	<10.8	<0.24 J	<6.75
Arsenic	18.0 J	5.31	4.20 J	21.6	30.0 J	33.7	25.0 J	23.0	66.0 J	27.9	42.0 J	51.3	5.4 J	9.52	62.0 J	27.3	36.0 J	30.4	15.0 J	5.51	14.0 J	16.4	15.0 J	35.7
Barium	160 J	19.0	24.0	110	210 J	96.9	170 J	140	73.0 J	80.8	83.0 J	94.4	62.0 J	71.7	45.0 J	38.1	71.0 J	48.5	100 J	22.7	41.0 J	76.5	29.0 J	98.3
Beryllium	0.9 J	<0.346	0.19	0.745	0.91 J	1.0	1.0 J	0.879	1.1 J	1.02	1.1 J	1.35	0.78 J	0.896	0.54 J	<0.840	0.95 J	<0.878	0.58 J	<0.355	0.69 J	<1.35	1.1 J	1.22
Cadmium	4.0 J	0.644	0.85	3.12	6.5 J	5.71	5.7 J	3.84	0.67 J	6.16	2.2 J	5.83	0.22 J	1.28	0.78 J	0.971	2.8 J	<0.878	2.6 J	1.18	0.52 J	<1.35	0.11 J	5.05
Calcium	17,000 J	6,610	4,700 J	6,630	5,400 J	5,840	5,900 J	4,980	3,000 J	4,320	3,600 J	3,180	1,800 J	6,790	4,500 J	2,740	4,000 J	3,070	7,300 J	5,000	1,500 J	4,530	1,900 J	3,770
Chromium	84.0 J	19.6	20.0	94.2	140 J	118	130 J	112	75.0 J	115	110 J	156	96.0 J	79.2	49.0 J	67.1	100 J	62.4	74.0 J	21.4	30.0 J	113	35.0 J	142
Cobalt	23.0 J	<3.46	3.0	8.3	13 J	10.1	13.0 J	9.55	16.0 J	10.8	20.0 J	21.2	27.0 J	22.3	5.5 J	<8.40	14.0 J	<8.78	8.3 J	<3.55	7.8 J	<13.5	11.0 J	12.0
Copper	220 J	39.5	50.0	238	360 J	308	360 J	287	180 J	298	330 J	354	20.0 J	46.3	320 J	155	350 J	132	200 J	54.2	51.0 J	235	16.0 J	360
Iron	2,800 J	6,660	8,600 J	35,800	33,000 J	37,300	36,000 J	43,100	35,000 J	38,700	32,000 J	48,900	27,000 J	29,000	11,000 J	15,100	33,000 J	14,600	23,000 J	8,930	20,000 J	19000	34,000 J	37,000
Lead	400 J	73.1	50.0	146	260 J	196	240 J	168	210 J	196	300 J	301	15.0 J	132	310 J	154	270 J	155	140 J	41.7	35.0 J	178	16.0 J	262
Magnesium	14,000 J	4,940	3,900	8,550	9,900 J	7,780	9,800 J	8,070	8,000 J	7,290	8,500 J	8,110	13,000 J	11,200	7,600 J	5,680	7,700 J	5,730	7,900 J	3,800	4,500 J	8,220	7,500 J	8,030
Manganese	440 J	65.6	70.0	236	370 J	287	370 J	253	680 J	289	560 J	302	280 J	287	96.0 J	147	490 J	127	270 J	73.7	190 J	210	410 J	358
Mercury	2	0.568	0.69	3.95	6.4	4.62	4.1	5.13	2.1	3.76	3.2 J	5.75	0.022 J	<0.202	2 J	1.93	3.7 J	1.92	2.3	0.305	2.0 J	3.7	0.11 J	6.28
Nickel	60 J	13.5	14.0	48.0	90.0 J	65.4	72.0 J	57.9	73.0 J	69.0	130 J	140	470 J	290	41.0 J	36.2	70.0 J	36.6	38.0 J	13.2	43.0 J	49.0	32.0 J	59.7
Potassium	1,600 J	444	560	1870	2700 J	2290	3100 J	2200	3300 J	2160	2900 J	2750	1600 J	1460	2500 J	1960	2800 J	1920	1800 J	497	1700 J	3020	3400 J	2840
Selenium	2.1 J	<2.77	0.53 J	<5.79	3.4 J	<5.50	3.4 J	<6.33	2.7 J	<5.13	8.5 J	<5.76	0.87 J	<6.31	9.5 J	<6.72	8.4 J	<7.03	1.9 J	<2.84	1.8 J	<10.8	1.3 J	6.75
Silver	1.9 J	<0.346	0.45	2.03	4.6 J	2.53	4.1 J	2.46	1.1 J	2.44	2.5 J	3.23	0.082 J	<0.788	1.7 J	1.33	2.8 J	0.907	1.9 J	0.549	0.31 J	2.89	<0.12 J	3.28
Sodium	2,300 J	1,650	2,500	7,690	11,000 J	9,000	15,000 J	6,010	11,000 J	6,550	17,000 J	1,000	1,900 J	2,070	36,000 J	8,570	20,000 J	8,930	7,300 J	947	3,800 J	16,100	7,400 J	11,800
Thallium	0.2 J	<2.08	<0.07 J	<4.34	0.3 J	<4.13	0.4 J	<4.75	0.31 J	<3.85	<0.33 J	<4.32	0.17 J	<4.73	<0.33 J	<5.04	0.21 J	<5.27	0.2 J	<2.13	0.11 J	<4.05	0.14 J	<5.06
Vanadium	41.0 J	9.92	11.0	36.2	45.0 J	38.9	41.0 J	33.6	39.0 J	40.5	52.0 J	62.5	39.0 J	44.3	53.0 J	45.6	49.0 J	52.2	31 J	12.1	22.0 J	64.0	37.0 J	52.9
Zinc	380 J	91.3	96.0 J	387	430 J	473	460 J	418	220 J	439	390 J	477	47.0 J	147	120 J	208	390 J	174	270 J	115	75.0 J	256	69.0 J	434

Notes:

mg/kg = Milligrams per kilogram.

J = Estimated.

* = 2018 sample location approximately 400 feet upstream from 2013 location.

** = 2013 sample location shifted north due to refusal.

Table 19b
Comparison of 2018 and 2013 6-12 Inch Depth Sediment Metals Results

Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	6-12 Inch Richmond Creek Sediment Sample Results, mg/kg														6-12 Inch Tidal Marsh and Tributary Sediment Sample Results, mg/kg									
	BK-SD-1B		BK-SD-2B		BK-SD-3B*		BK-SD-4B		BK-SD-5B		BK-SD-6B		BK-SD-7B		BK-SD-8B		BK-SD-9B		BK-SD-10B**		BK-SD-11B		BK-SD-12B	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Aluminum	15,000 J	3,810	3,000	8,670	16,000 J	15,200	14,000 J	10,300	18,000 J	14,300	9,500 J	12,700	15,000 J	10,500	6,100 J	6,260	5,600 J	2,100	3,500	3,850	6,900 J	15,000	18,000 J	14,100
Antimony	1.1 J	<3.69	0.33 J	<5.55	1.5 J	<5.41	1 J	<5.02	0.5 J	<5.36	8.7 J	9.09	<0.29 J	<5.56	3.7 J	<8.31	9.4 J	<9.54	0.37 J	<2.84	0.57 J	<11.0	<0.27 J	<5.55
Arsenic	23 J	27.9	5.3 J	20.4	41 J	88.7	25 J	21.4	32.0 J	34.8	40.0 J	161	6.8 J	8.32	33.0 J	74.9	57.0 J	80.1	4.6 J	7.677	15.0 J	100	14.0 J	39.7
Barium	260 J	50.8	37.0	118	290 J	89.7	160 J	124	48.0 J	97.4	45 J	70.2	60.0 J	49.5	27.0 J	49.5	45 J	<47.7	35	35.7	43 J	77.2	33 J	84.9
Beryllium	0.98 J	<0.462	0.23	0.77	1.1 J	1.5	0.9 J	0.793	1.1 J	1.44	0.52 J	1.33	0.95 J	0.919	0.5 J	<1.04	0.51 J	<1.19	0.26	<0.355	0.62 J	1.82	1.4 J	1.16
Cadmium	8.5 J	1.04	1.1	3.0	9.4 J	5.24	5.2 J	3.59	0.55 J	11.0	3.0 J	4.59	0.25 J	1.09	0.37 J	<1.04	5.4 J	<1.19	1.1	1.74	0.55 J	2.31	0.19 J	5.86
Calcium	16,000 J	915	4,100 J	6,950	5,400 J	5,180	5,000 J	4,920	2,000 J	5,450	3,800 J	3,020	2,400 J	2,560	5,500 J	3,040	4,800 J	4,700	8,700 J	3,920	1,600 J	4,770	2,100 J	5,450
Chromium	130 J	29.8	22.0	90.0	160 J	101	110 J	99.9	63 J	154	47 J	126	89 J	65.2	27 J	94.1	55 J	14.9	28	31.5	38 J	205	37 J	136
Cobalt	13 J	<4.62	3.6	8.19	15 J	14.3	13 J	9.04	13 J	14.5	14 J	39.4	27 J	21.3	3.7 J	26.9	10 J	<11.9	3.9	3.82	7.8 J	26.6	15.0 J	12.6
Copper	380 J	91.9	60.0	237	530 J	378	320 J	252	85 J	408	110 J	311	16 J	16.3	110 J	343	260 J	234	100	79.6	71 J	381	18.0 J	342
Iron	33,000 J	9,230	10,000 J	40,000	36,000 J	48,000	34,000 J	38,300	31,000 J	40,000	14,000 J	53,000	34,000 J	32,400	8,300 J	19,200	19,000 J	13,500	11,000 J	13,800	18,000 J	50,800	50,000 J	40,600
Lead	420 J	113	66.0	139	350 J	220	230 J	155	130 J	283	82 J	413	14 J	30.5	97 J	299	170 J	69.7	53.0	65.7	60 J	426	20.0 J	252
Magnesium	13,000 J	2,000	3,600	7,420	10,000 J	9,230	8,400 J	7,660	7,600 J	8,500	5,900 J	7,150	9,300 J	6,110	8,100 J	5,000	6,800 J	4,840	6,400	3,480	4,000 J	8,470	8,200 J	7,920
Manganese	410 J	69.4	95.0	217	350 J	415	380 J	237	450 J	304	180 J	367	440 J	360	68 J	211	260 J	55.7	130	120	240 J	293	560 J	371
Mercury	4.5	4.01	0.6	3.59	6.1	7.77	3.7	4.89	1.4	6.25	0.81 J	4.83	0.022 J	<0.172	1.0 J	3.49	2.0 J	0.346	1.5	0.772	0.81 J	4.9	0.036 J	5.29
Nickel	59 J	20.1	16.0	48.4	100 J	83.8	71 J	55.3	78 J	103.0	150 J	223	320 J	222	28 J	104	91 J	52.9	17.0	17.3	52.0 J	135.0	44 J	64.4
Potassium	2,200 J	744	630	1,890	2,700 J	3,450	2,700 J	2,040	2,800 J	2,680	2,400 J	2,490	2,100 J	1,580	2,600 J	1,670	2,000 J	1,190	770	680	1,400 J	3,260	3,700 J	2,910
Selenium	3.1 J	<3.69	0.54 J	<5.55	4.6 J	6.19	3.1 J	<5.02	1.3 J	<5.35	12 J	7.64	0.91 J	<5.56	5.3 J	10.8	20 J	15.4	0.6 J	<2.84	2.0 J	<11.0	1.4 J	<5.55
Silver	4.5 J	0.519	0.66	1.97	4.4 J	<0.676	4.0 J	2.27	0.37 J	3.98	0.57 J	1.35	0.079 J	<0.695	0.65 J	1.86	1.7 J	1.52	0.73	0.752	0.49 J	2.84	<0.14 J	3.35
Sodium	2,700 J	2,770	2,000	7,810	11,000 J	6,600	11,000 J	6,530	6,200 J	7,870	20,000 J	11,600	<730 J	2,120	37,000 J	13,600	26,000 J	19,900	2,700	990	3,600 J	16,900	8,600 J	10,300
Thallium	0.33 J	<2.77	0.076	<4.16	0.36 J	<4.06	0.34 J	<3.76	0.25 J	<4.02	0.33 J	<5.04	0.16 J	<4.17	<0.37 J	<6.23	<0.3 J	<7.16	0.084	<2.13	0.1 J	<4.12	0.18 J	<4.16
Vanadium	43 J	13.2	13.0	34.2	63 J	49.3	40 J	31.1	41.0 J	55.6	47.0 J	74.0	50.0 J	39.7	33.0 J	62.5	37.0 J	36.0	12.0	15.8	22 J	110.0	43.0 J	51.4
Zinc	500 J	167	110 J	372	530 J	499	420 J	380	180 J	591	500 J	810	54.0 J	65.2	63.0 J	325	480 J	191	130 J	164	79 J	702	78.0 J	452

Notes:

mg/kg = Milligrams per kilogram.

J = Estimated.

* = 2018 sample location approximately 400 feet upstream from 2013 location.

** = 2013 sample location shifted north due to refusal.

Table 19c
Comparison of 2018 and 2013 24-30 Inch Depth Sediment Metals Results
Brookfield Avenue Landfill OU2
2018 5th-Year Monitoring Round

Metals	24-30 Inch Richmond Creek Sediment Sample Results, mg/kg														24-30 Inch Tidal Marsh and Tributary Sediment Sample Results, mg/kg									
	BK-SD-1C		BK-SD-2C		BK-SD-3C*		BK-SD-4C		BK-SD-5C		BK-SD-6C		BK-SD-7C		BK-SD-8C		BK-SD-9C		BK-SD-10C**		BK-SD-11C		BK-SD-12C	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Aluminum	7,900 J	7,870	12,000 J	10,100	15,000 J	14,700	14,000 J	6,660	18,000 J	16,000	14,000 J	18,700	12,000 J	11,200	3,800 J	8,510	7,000 J	9,800	17,000 J	2,490	9,600 J	8,650	11,000 J	16,200
Antimony	0.65 J	<3.38	1.4 J	<3.97	2.3 J	<4.74	1.1 J	<3.51	<0.22 J	<6.08	<0.41 J	5.23	<0.23 J	<5.33	0.83 J	<11.9	<0.12 J	<6.41	2.2 J	<2.71	10 J	<12.9	2.5 J	<5.19
Arsenic	12.0 J	5.8	31.0 J	50.8	55.0 J	13.6	25.0 J	46.5	7.1 J	55.4	7.6 J	77.6	5.6 J	7.96	6.8 J	7.94	2.1 J	3.48	57.0 J	4.19	81.0 J	<3.23	110 J	12.9
Barium	99.0 J	58.2	280 J	124	230 J	31.2	230 J	72.2	41.0 J	338	27.0 J	51.3	45.0 J	52.2	15.0 J	<59.5	22.0 J	<32.1	830 J	29.8	48.0 J	<64.7	85.0 J	31.2
Beryllium	0.59 J	0.772	0.82 J	0.793	1.1 J	1.1	0.95 J	0.566	1.1 J	1.46	1 J	1.39	0.73 J	0.924	0.32 J	<1.49	0.5 J	<0.801	1.2 J	<0.339	0.61 J	<1.62	0.92 J	1.14
Cadmium	3.3 J	<0.423	7.8 J	1.1	2 J	1.13	8.3 J	2.27	0.28 J	13.5	0.092 J	2.07	0.23 J	0.984	0.19 J	<1.49	0.034 J	<0.801	17 J	1.08	3.1 J	<1.62	1.4 J	1.65
Calcium	6,800 J	10,600	4,800 J	2,580	2,800 J	2,230	5,900 J	2,420	2,300 J	6,460	2,800 J	2,710	1,900 J	2,040	9,700 J	3,920	330 J	2,490	5,700 J	4,250	5,900 J	4,140	2,000 J	2,630
Chromium	65 J	23.6	130 J	68.6	88 J	39.4	140 J	61.4	49 J	200	33 J	80.2	54 J	71.8	44 J	17.5	13 J	18.1	260 J	16.9	45 J	20.4	78 J	36.4
Cobalt	8.1 J	9.53	11 J	8.11	13 J	10.4	13 J	7.48	13 J	16	8.2 J	27.6	13 J	23.3	2.6 J	<14.9	5.5 J	<8.01	14 J	<3.39	12 J	<16.2	16 J	9.6
Copper	180 J	24	400 J	248	450 J	18.8	410 J	160	22 J	564	15 J	151	14 J	14.9	14 J	11.2	10 J	11.9	660 J	132	270 J	<9.7	240 J	1.9
Iron	21,000 J	26,000	27,000 J	34,900	32,000 J	33,000	32,000 J	22,500	31,000 J	48,100	23,000 J	41,800	21,000 J	34,100	8,100 J	17,300	13,000 J	8,850	36,000 J	9,420	14,000 J	8,830	31,000 J	43,700
Lead	160 J	13.2	250 J	163	300 J	27.8	280 J	120	32 J	396	13 J	169	13 J	23.2	7.9 J	10.7	6.7 J	8.74	380 J	82.7	98 J	6.18	220 J	30.5
Magnesium	6,400 J	8,130	6,100 J	5,490	8,100 J	6,870	8,900 J	4,600	8,400 J	9,730	6,200 J	8,600	5,900 J	6,150	9,600 J	7,150	2,300 J	5,030	8,500 J	2,940	8,200 J	7,710	5,800 J	7,370
Manganese	280 J	421	270 J	174	280 J	230	350 J	139	330 J	368	160 J	712	370 J	345	55 J	206	83 J	97	300 J	87.4	190 J	148	370 J	383
Mercury	2.1	<0.0885	7.1	3.35	1.7	<0.123	5.7	2.69	0.079	8.65	0.034 J	2.55	0.032 J	<0.173	<0.11	<0.345	0.013 J	<0.151	12	0.187	0.33 J	<0.334	3.8	<0.118
Nickel	42 J	38.9	62 J	72.7	120 J	38.8	90 J	66.8	93 J	126.0	50 J	158	97 J	250	35 J	27.7	18 J	15.3	81 J	14	200 J	29.4	83 J	29.7
Potassium	1,400 J	2,030	1,800 J	1,740	2,600 J	3,070	2,500 J	1,170	3,000 J	3,010	2,900 J	3,070	1,800 J	1,660	1,700 J	2,710	570 J	1,250	3,000 J	399	2,500 J	2,970	2,300 J	3,410
Selenium	1.6 J	<3.38	3.7 J	12.5	14 J	<4.74	3.4 J	3.97	1 J	<6.08	1.9 J	<5.18	0.77 J	<5.33	3.6 J	<11.9	0.39 J	<6.41	8.1 J	<2.71	46 J	<12.9	10 J	<5.19
Silver	2.2 J	<0.423	4 J	0.868	5.3 J	<0.592	5.2 J	0.83	0.1 J	4.72	<0.2 J	<0.647	0.12 J	<0.666	<0.35 J	<1.49	<0.061 J	<0.801	6.2 J	0.405	1.5 J	<1.62	1.4 J	<0.649
Sodium	4,400 J	2,560	1,500 J	4,050	8,800 J	5,760	10000 J	2,960	5,800 J	9,630	11,000 J	7,070	<580 J	1,940	35,000 J	24,700	1,700 J	9,270	11,000 J	670	29,000 J	29,500	10,000 J	4,220
Thallium	0.19 J	<.54	0.29 J	<2.98	0.4 J	<3.55	0.33 J	<2.64	0.2 J	<4.56	<0.2 J	<3.88	0.13 J	<4.0	<0.35 J	<8.92	0.07 J	<4.81	0.5 J	<2.03	<0.3 J	<4.85	0.19 J	<3.89
Vanadium	29 J	26.6	45 J	26.7	41 J	44.9	44 J	24.1	43 J	67.7	38 J	51.8	31 J	41.1	14 J	34.8	15 J	19.4	75 J	12.7	28 J	28.0	38 J	41.3
Zinc	270 J	62.7	420 J	313	380 J	68.1	480 J	291	64 J	763	52 J	325	52 J	62.4	15 J	96.8	23 J	49.1	780 J	120	470 J	32	280 J	89.3

Notes:

mg/kg = Milligrams per kilogram.

J = Estimated.

* = 2018 sample location approximately 400 feet upstream from 2013 location.

** = 2013 sample location shifted north due to refusal.

APPENDIX A

Field Notes and Water-Quality Measurements for Surface-Water Samples

10-01-2018 CLS

Brookfield Ave Landfill
Staten Island, NY

Arrive@ 0700

Horiba U-53 WF5DKX71

	Temp	pH	Cond	Turb
pre	24.63	3.98	4.52	0.00
post	24.70	4.00	4.49	0.00

Calibration OK @ 1130

BK2-SW7 Time 1250 High Tide

Temp(°F)	pH (SU)	ORP(mV)	Cond ms/cm	Turb NTU	DO mg/L
19.05	7.06	322	0.749	9.91	8.25

TDS	Salinity	Depth
0.480 g/L	0.37 ppt	36"

2 amberglass, 3 plastic, 2 VOAs
(field filter Diss. metals)

*All VOAs sampled by hand and not w/ Peristalic Pump

High Tide: 1325 (sample 1125-1525)
Low Tide: 0708 (sample 0508-0908)

10-01-2018 CLS

BK2-SW6 Time 1345 High Tide Slack

Temp	pH	ORP	Cond	Turb	DO
21.49	7.37	162	15.0	24.4	7.86

TDS	Salinity	Depth
~~24.4~~ 9.33	8.75 ppt	2'9"

2 AG, 3 plastic, 2 VOAs
(Field filter Diss. Metals)

BK2-SW-1 Time 1500 High Tide Out

Temp	pH	ORP	Cond	Turb	DO
21.94	7.37	165	18.6	8.68	6.68

TDS	Salinity	Depth
11.5	11.02 ppt	6'7"

2 AG, 3 plastic, 2 VOAs (1 field filter)

BK2-SW-2 Time 1535 Hi Tide Out

Temp	pH	ORP	Cond	Turb	DO
21.91	7.33	145	17.5	9.43	9.02

TDS	Salinity	Depth
10.9	10.43 ppt	3'11"

2 AG, 3 plastic, 2 VOAs (1 field filter)
Depart @ 1645

10-02-2018 Brookfield CLS
Arrive @ 0700

BK2-SW9 Sample Time 0820 Low Tide

Temp	pH	ORP	Cond	Turb	DO
21.02	7.15	134	14.8	62.6	8.48

TDS	Salinity	Depth
9.16	8.58	1,91' (ft)

2 AG, 3 plastic, 2 VOAs (1 field filter)
* Location # 2

BK2-SW8 Sample Time 0915 Low Tide

Temp	pH	ORP	cond	Turb	DO
20.38	7.26	104	13.6	28.9	4.22

TDS	Salinity	Depth
8.41	7.82	2.2' (ft)

2 AG, 3 Plastic, 2 VOAs (1 field filter)
* Location # 1

BK-SW10 Sample Time 1005 Low Tide

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
20.93	7.35	102	12.3	49.7	5.06	7.66	7.06

Depth: 2.3' (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter)
* Location # 3

10-02-2018 Brookfield CLS

Horiba U-53 WF50KX71

	Temp	pH	Cond	Turb
Pre	20.45	4.03	4.51	0.00
Post	20.52	4.00	4.49	0.00

Calibration OK @ 0745
High Tide: 1426 (sample 1226-1626)
Low Tide: 0818 (sample 0618-1018)

BK2-SW-FB Sample Time 1205
2 AG, 2 plastic (diss. metals Field Filter),
2 VOAs
* All bottles except VOAs filled thru ty tubing on Peristalic pump

BK2-SW5 Sample Time 1250
High Tide In

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
22.87	7.37	145	16.7	16.6	8.41	10.4	9.82

Depth: 3'11" (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter)

10-02-2018 Brookfield CLS

BK2-SW4 Sample Time 1320

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
22.93	7.41	154	17.6	13.3	6.28	10.9	10.35

Depth: 6'3" (ft) High Tide In
2 AG, 3 plastic, 2 VOAs (1 field filter)

BK2-SW4-Dup Sample Time 1320

2 AG, 3 plastic, 2 VOAs (1 field filter)

BK2-SW3 Sample Time 1405

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
22.71	7.40	148	19.7	5.40	5.23	12.2	11.70

Depth: 6'7" (ft) High Tide In
2 AG, 3 plastic, 2 VOAs (1 field filter)

BK2-SW3-MS Sample Time 1405
2 AG, 2 VOAs

BK2-SW3-MSD Sample Time 1405
2 AG, 2 VOAs

Depart @ 1630

10-03-2018 Brookfield CLS

High Tide: 1531 (Sample 1331-1731)
Low Tide: 0939 (Sample 0739-1139)

	Temp	pH	Cond	Turb
pre	21.05	4.03	4.53	0.00
post	21.07	4.00	4.49	0.00

Horiba U-53 WF5DKX71
Calibration ok @ 0730

BK2-SW14 Sample Time 0905
Low Tide Out

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
18.58	6.82	212	0.423	30.6	8.46	0.275	0.20

Depth: 6" (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter)

BK2-SW11 Sample Time 1140
Low Tide In

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
22.19	7.33	123	7.41	132	5.80	4.67	4.08

Depth: 1.7' (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter)
* Location #4

10-03-2018 Brookfield CLS

BK2-SW12 Sample Time 1210
Low Tide In

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
22.79	7.40	82	8.42	155	5.35	5.31	4.68

Depth; 12" (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter)
Location # 5

BK2-SW13 Sample Time 1245
Low Tide In

Temp	pH	ORP	Cond	Turb	DO	TDS	Salinity
23.36	7.41	126	7.42	64.4	6.27	4.67	4.08

Depth: 4.81 (ft)
2 AG, 3 plastic, 2 VOAs (1 field filter
* Location #6

APPENDIX B

Field Data Sheets and Soil Boring Logs for Sediment Samples

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FIELD DATA SHEET

Page 1 of 1

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10/4/18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DJN, CLS, DJS
Arrival & Departure Times: 0840 — 0915
Station ID #: BK2-SD-01
Weather: (Clear) Cloudy Rain Other
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 0

FIELD DATA

Water Depth: 3.4 ft. Tide: (Ebb) Flood Low Slack High Slack Other
Turbidity: ntu pH: Salinity: ppt DO: mg/L ORP: mV
SC: mS/cm H_2O Temp.: °C PID: SEE LOG ppm H_2S: SEE LOG ppm Air Temp.: 69 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-01 Coring Time: 0857 Penetration Depth: 37.0" Core Recovery: 37.0"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-01 MS/MSD Coring Time: 0910 Penetration Depth: 34.0 Core Recovery: 34.0
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on (NA) Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

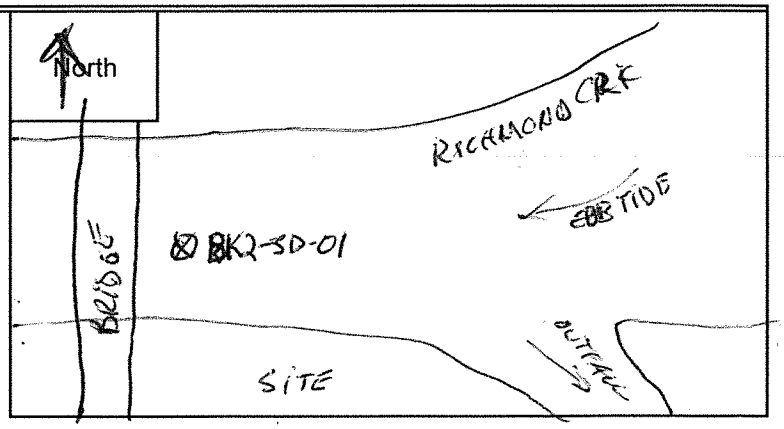
Operator: CLS
File Name: Brookfield
Lat / N: 631439.67 (ft)
Lon / E: 583999.31 (ft)
PDOP: N/A

Coordinate Units: feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH-88957.00

COMMENTS / NOTES

COLLECTED MS/MSD..

Coring Tube Used: 5 FT
Preparer's Initial:



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FIELD DATA SHEET

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: **Richmond Cty, Staten Island**	**State:** **NY**	**Date:** 10/4/18

Field Team Leader(s): **RMK**
Field Team Safety Coordinator: **RMK**
Field Crew: **DJN, CLS, DJS**
Arrival & Departure Times: 0820 – 0831
Station ID #: BK2-SD-02
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 0

FIELD DATA

Water Depth: 1.8 ft. Tide: (Ebb) Flood Low Slack High Slack Other ____
Turbidity: ____ ntu pH: ____ Salinity: ____ ppt DO: ____ mg/L ORP: ____ mV
SC: ____ mS/cm H_2O Temp.: ____ °C PID: SEE LOGS ppm H_2S: SEE LOGS ppm Air Temp.: 68 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-02 Coring Time: 0825 Penetration Depth: 33" Core Recovery: 33"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

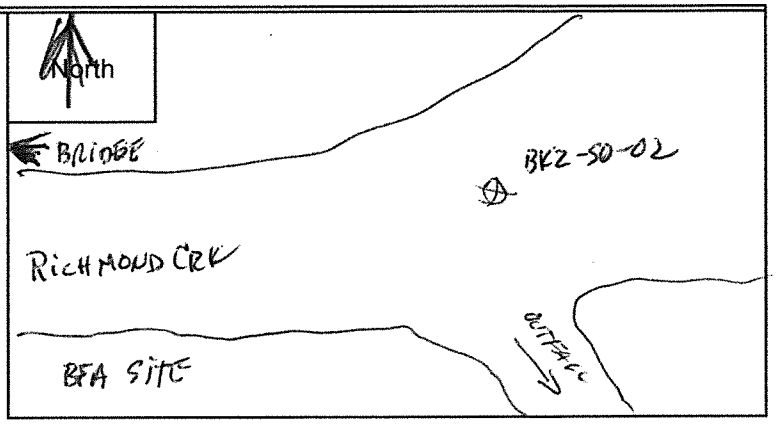
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File Name: Brookfield
Lat / (N): 631796.64
Lon / (E): 584935.13
PDOP: N/A
Coordinate Units: feet
Datum: NAD 1983
Proj.: State Plane 1983 – NY East 3101
GPS Serial #: GEOXH – 8957-CC

COMMENTS / NOTES

MAX PEN – 33".

Coring Tube Used: 5FT
Preparer's Initial:



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FIELD DATA SHEET

Page 1 of 1

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: **Richmond Cty, Staten Island**	**State:** **NY**	**Date:** 10 14 18

Field Team Leader(s): **RMK**
Field Team Safety Coordinator: **RMK**
Field Crew: **DJN, CLS, DJS**
Arrival & Departure Times: 0802 – 0815
Station ID #: BK2-SD-03
Weather: (Clear) Cloudy Rain Other _____
Photos: (Y) N Photo Nos.: _____
Wind Conditions (Speed/Direction): 0

FIELD DATA

LT @ 1050 @ CARTERET – HT @ 1638

Water Depth: 2.7 ft. Tide: (Ebb) Flood Low Slack High Slack Other _____
Turbidity: — ntu pH: — Salinity: — ppt DO: — mg/L ORP: — mV
SC: — mS/cm H_2O Temp.: — °C PID: See Log ppm H_2S: See Log ppm Air Temp.: 68 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-03 Coring Time: 0808 Penetration Depth: 30" Core Recovery: 30"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ Core Recovery: _____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

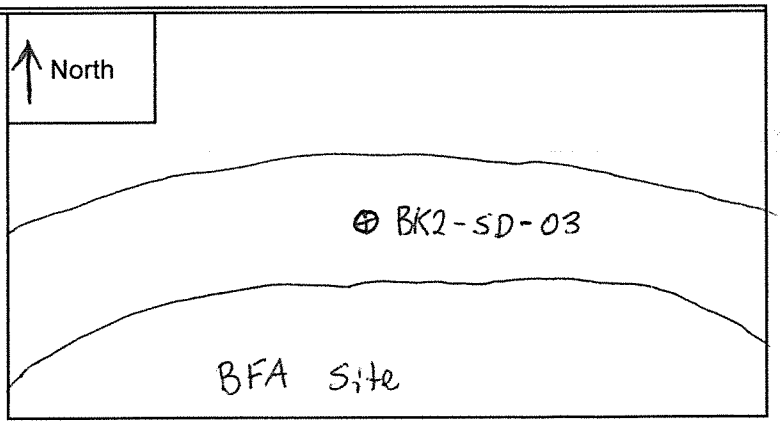
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File Name: Brookfield
Lat / (N): 632439.58
Lon / (E): 585610.80
PDOP: N/A

Coordinate Units: feet
Datum: NAD 1983
Proj.: State Plane 1983 – NY East 3101
GPS Serial #: GEOXH – 88957.00

COMMENTS / NOTES

JUST ABLE TO REACH MAX. DEPTH

Coring Tube Used: 5 FT
Preparer's Initial: [signature]



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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: **Richmond Cty, Staten Island**	**State:** **NY**	**Date:** 10 13 18

Field Team Leader(s): **RMK**
Field Team Safety Coordinator: **RMK**
Field Crew: **DJN, CLS, DJS**
Arrival & Departure Times: 1458 – 1508
Station ID #: BK2-SD-04
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 10-15 mph, W

FIELD DATA

Water Depth: 3.2 ft. Tide: Ebb (Flood) Low Slack High Slack Other ____
Turbidity: ____ ntu pH: ____ Salinity: ____ ppt DO: ____ mg/L ORP: ____ mV
SC: ____ mS/cm H_2O Temp.: ____ °C PID: SEE LOGS ppm H_2S: SEE LOGS ppm Air Temp.: 80 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-04 Coring Time: 1500 Penetration Depth: 41" Core Recovery: 41"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

~~SEDIMENT/PUSH #1~~

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

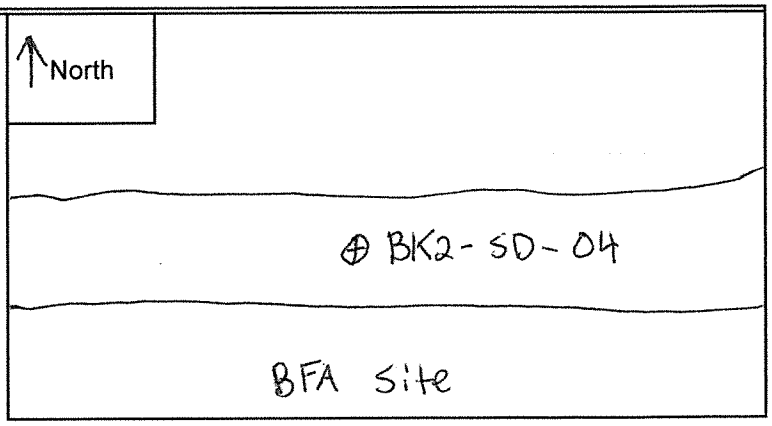
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Operator: CLS
File Name: Brookfield
Lat / (N): 632491.97
Lon / (E): 586516.48
PDOP: N/A

Coordinate Units: feet
Datum: NAD 1983
Proj.: State Plane 1983 – NY East 3101
GPS Serial #: GEOXH-88951.60

COMMENTS / NOTES

Coring Tube Used: 5 FT
Preparer's Initial: [signature]



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FIELD DATA SHEET

Page 1 of 1

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10/3/18

Field Team Leader(s): RMK
Field Crew: DJN, CLS, DJS
Station ID #: BK2-SD-05
Photos: (Y) N Photo Nos.: See Pics

Field Team Safety Coordinator: RMK
Arrival & Departure Times: 1445 - 1455
Weather: (Clear) Cloudy Rain Other
Wind Conditions (Speed/Direction): 10-15 mph; W

FIELD DATA

Water Depth: 1.5 ft. Tide: Ebb (Flood) Low Slack High Slack Other
Turbidity: ntu pH: Salinity: ppt DO: mg/L ORP: mV
SC: mS/cm H_2O Temp.: °C PID: SEE BORING LOGS ppm H_2S: SEE BORING LOGS ppm Air Temp.: 80 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-05 Coring Time: ~~1500~~ 1450 Penetration Depth: 24" Core Recovery: 24"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-05 Coring Time: 1510 Penetration Depth: 30" Core Recovery: 30"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

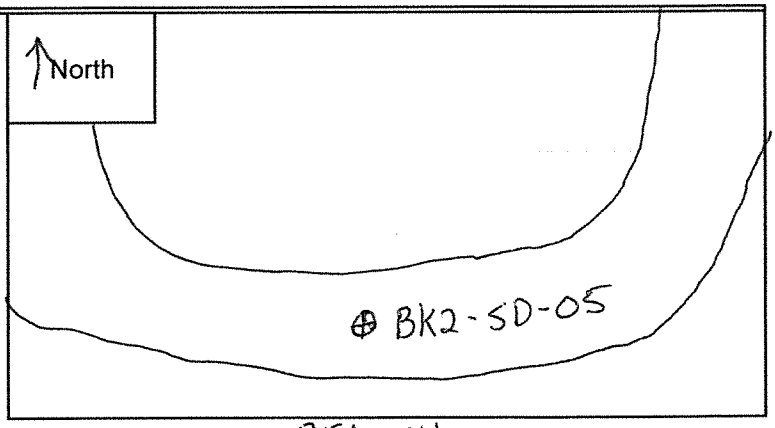
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File Name: Brookfield
Lat / (N): 632999.81
Lon / (E): 587200.28
PDOP: N/A

Coordinate Units: feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH-88957.00

COMMENTS / NOTES

WENT BACK TO 05 AFTER 04 TO TRY AND REACH 30". OK.

Coring Tube Used:
Preparer's Initial:



RFA site

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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10 13 18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DJN, ~~CLS~~ DJS, CLS
Arrival & Departure Times: 1330 - 1430
Station ID #: BK2-SD-06
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 5-10 mph, WEST

FIELD DATA

Water Depth: 3.0 ft. Tide: ~~Ebb~~ (Flood) Low Slack High Slack Other ____
Turbidity: ____ ntu pH: ____ Salinity: ____ ppt DO: ____ mg/L ORP: ____ mV
SC: ____ mS/cm H_2O Temp.: ____ °C PID: SEE LOGS ppm H_2S: SEE LOGS ppm Air Temp.: 80° °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-06 Coring Time: 1345 Penetration Depth: 12" Core Recovery: 12"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-06 Coring Time: 1400 Penetration Depth: 20" Core Recovery: 20"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-06 Coring Time: 1420 Penetration Depth: 30" Core Recovery: 30"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: (Y) N

DGPS DATA

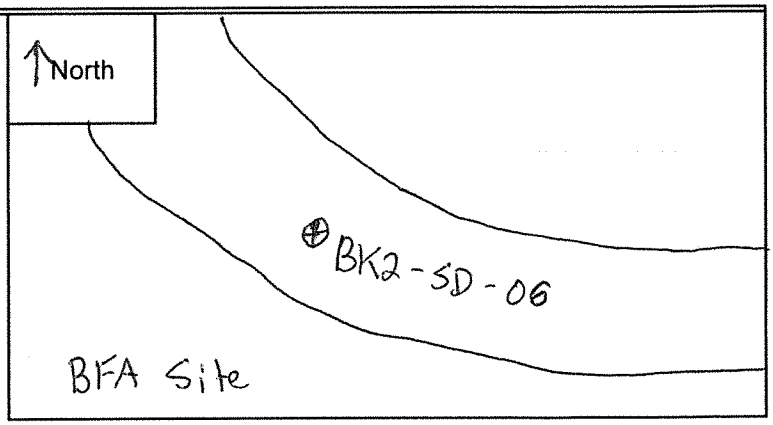
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File Name: Brookfield
Lat / N: 632822.52
Lon / E: 588161.15
PDOP: N/A

Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH-88951.00

COMMENTS / NOTES

TIDE ACCESS ISSUES. CANNOT REACH THIS SITE W/IN 2 HR TIDE WINDOW FOR SED SAMPLING.

Coring Tube Used: 5 FT
Preparer's Initial:



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ATTACHMENT B
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FIELD DATA SHEET

Page 1 of 1

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10/4/18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DJN, CLS, DJS
Arrival & Departure Times: 1230 - 1330
Station ID #: BK2-SD-07
Weather: Clear (Cloudy) Rain Other
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 5-10 mph, E

FIELD DATA

~~Tide~~ DIDN'T REACH THIS POINT YET, STILL FLOWING OUT.

Water Depth: 0 ft. Tide: (Ebb) Flood Low Slack High Slack Other
Turbidity: — ntu pH: — Salinity: — ppt DO: — mg/L ORP: — mV
SC: — mS/cm H_2O Temp.: — °C PID: SEE LOGS ppm H_2S: SEE LOGS ppm Air Temp.: 82 °F

SEDIMENT/PUSH #1

Core ID#: BK-2-SD-07 Coring Time: 1250 Penetration Depth: 22" Core Recovery: 22"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-07 Coring Time: 1300 Penetration Depth: 36" Core Recovery: 36"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-07 Coring Time: 1305 Penetration Depth: 12" Core Recovery: 12"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on (NA) Sampling Equipment Deconned or Replaced: (Y) N

DGPS DATA

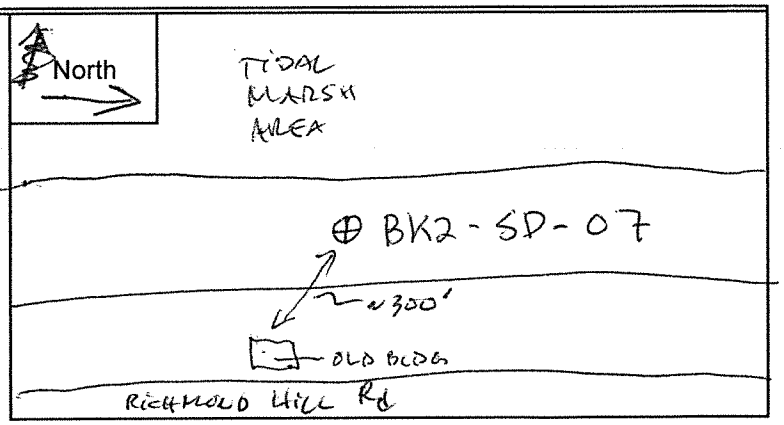
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File Name: Brookfield
Lat / (N): 633442.47
Lon / (E): 589758.20
PDOP: N/A
Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GeoXH-8895.00

COMMENTS / NOTES

ATTEMPTED SEVERAL TIMES MOVING AROUND, BUT FINALLY GOT A GOOD SAMPLE - 3rd PUSH IS FOR PFAS/1,4D; A HORIZON.

WALK-IN BEHIND OLD BLDG. AT INTERSECTION OF RICHMOND HILL Rd & RICHMOND Rd.

Coring Tube Used: 10 FT
Preparer's Initial:



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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10/3/18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: ~~DJN, CLS~~, DJS, DJN, CLS
Arrival & Departure Times: 0815 - 0915
Station ID #: BK2-SD-08
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 5-10 mph West

FIELD DATA

Water Depth: N/A ft. Tide: (Ebb) Flood Low Slack High Slack Other ____
Turbidity: N/A ntu pH: N/A Salinity: N/A ppt DO: N/A mg/L ORP: N/A mV
SC: N/A mS/cm H_2O Temp.: N/A °C PID: See Logs ppm H_2S: See Logs ppm Air Temp.: ~72 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-08A Coring Time: 0830 Penetration Depth: 0"-6" Core Recovery: 0"-6"
Sample Method: Ponar / Vibracore / Piston Core / (Manual) SHOVEL Coring Material: CAB / Aluminum / (SS) Core Diameter (OD): ~~2"~~ ~~3"~~ ~~4"~~
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK-SD-08B Coring Time: 0840 Penetration Depth: 6"-12" Core Recovery: 6"-12"
Sample Method: Ponar / Vibracore / Piston Core / (Manual) SHOVEL Coring Material: CAB / Aluminum / SS Core Diameter (OD): ~~2"~~ ~~3"~~ ~~4"~~
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK-SD-08C Coring Time: 0900 Penetration Depth: 24"-58" Core Recovery: 34"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

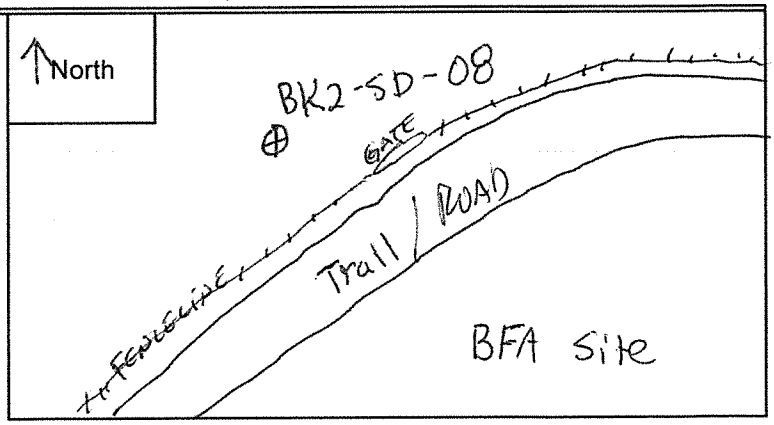
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File Name: Brookfield
Lat / (N): 630786.93
Lon / (E): 584682.78
PDOP: N/A
Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH-8855T.00

COMMENTS / NOTES

1ST 2 SAMPLE HORIZONS WERE COLLECTED BY SHOVEL AND HAND PICKING SAMPLE OFF OF ROOTS. DUG PAST ROOTS (LOGS). STARTED PC @ 24" to 58". FULL RECOV OF 34".

Coring Tube Used: 5 FT.
Preparer's Initial:



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FIELD DATA SHEET

Page 1 of 1

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10 13 18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: ~~DJN, CLS~~ OK, DJS, DJN, CLS
Arrival & Departure Times: 0945 - 1045
Station ID #: BK2-SD-09
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: See pics
Wind Conditions (Speed/Direction): 5-10 mph; West

FIELD DATA

Water Depth: ~~/~~ ft. Tide: Ebb Flood Low Slack High Slack Other NA
Turbidity: ~~/~~ ntu pH: ~~/~~ Salinity: ~~/~~ ppt DO: ~~/~~ mg/L ORP: ~~/~~ mV
SC: ~~/~~ mS/cm H_2O Temp.: ~~/~~ °C PID: See Bkflow ppm H_2S: See Bkflow ppm Air Temp.: 75 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-09A Coring Time: 1015 Penetration Depth: 0-6" Core Recovery: 0-6"
Sample Method: Ponar / Vibracore / Piston Core / (Manual Shovel) Coring Material: CAB / Aluminum / (SS) Core Diameter (OD): ~~2" 3" 4"~~
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-09BPC Coring Time: 1028 Penetration Depth: 6"-30" Core Recovery: 30"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

~~SEDIMENT/PUSH #1~~

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

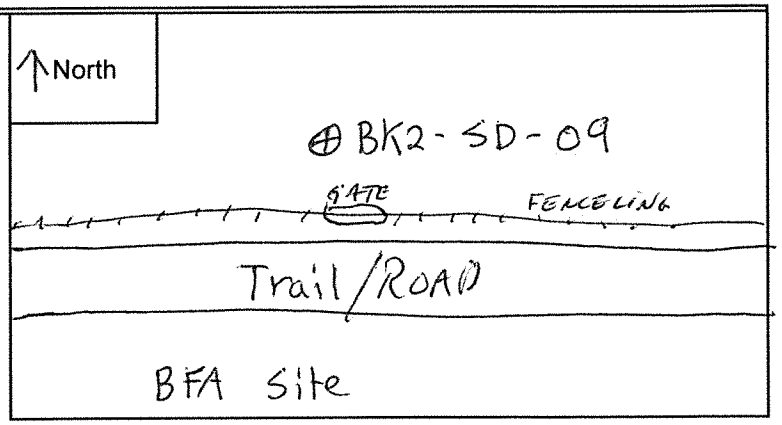
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File Name: Brookfield
Lat / (N): 630960.55
Lon / (E): 585086.07
PDOP: N/K

Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH - 8855T.00

COMMENTS / NOTES

Collected A horizon w/shovel. Then able to use PC to collect 6" - 30" core.

Coring Tube Used: 5'
Preparer's Initial: [signature]



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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10 14 18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DJN, CLS, DJS
Arrival & Departure Times: 1035 – 1128
Station ID #: BK2-SD-10
Weather: (Clear) Cloudy Rain Other ____
Photos: (Y) N Photo Nos.: See PICS
Wind Conditions (Speed/Direction): 0-5 mph, E

FIELD DATA

Water Depth: 0 ft. Tide: (Ebb) Flood Low Slack High Slack Other ____
Turbidity: ____ ntu pH: ____ Salinity: ____ ppt DO: ____ mg/L ORP: ____ mV
SC: ____ mS/cm H_2O Temp.: ____ °C PID: See Log ppm H_2S: See Log ppm Air Temp.: 75 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-10 Coring Time: 1050 Penetration Depth: 12" Core Recovery: 12"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-10 Coring Time: 1100 Penetration Depth: 14" Core Recovery: 14"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-10 Coring Time: 1115 Penetration Depth: 27" Core Recovery: 27"
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / (Portable Clamp-on) / NA Sampling Equipment Deconned or Replaced: (Y) N

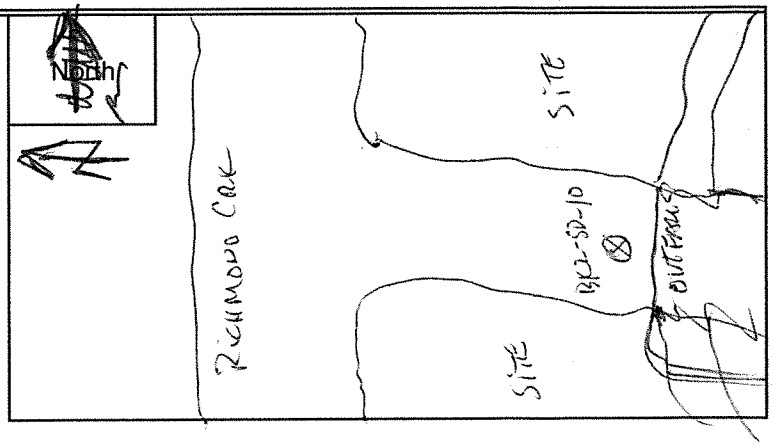
DGPS DATA

Operator: CLS
File Name: Brookfield
Lat / (N): 631023.51
Lon / (E): 585461.06
PDOP: N/A
Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 – NY East 3101
GPS Serial #: GEOXH-88957.60

COMMENTS / NOTES

ATTEMPTED TO USE PC TWICE – MINIMAL PENETRATION + RECOVERY – 3rd TRY USED VC – HIT REFUSAL @ 25".
SAND & GRAVEL – AREA PROBE BUT SOLID LAYER AROUND 2.0'

Coring Tube Used: 10 FT
Preparer's Initial: [signature]



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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10/21/18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DV ~~DJN, CLS~~, DJS, DSN, CLS
Arrival & Departure Times: 1245 – 1502
Station ID #: BK2-SD-11
Weather: Clear (Cloudy) Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 8-10 mph E

FIELD DATA

Water Depth: 10.0 ft
Tide: Ebb (Flood) Low Slack High Slack Other ____
Turbidity: N/A ntu
pH: N/A
Salinity: N/A ppt
DO: N/A mg/L
ORP: N/A mV
SC: N/A mS/cm
H2O Temp.: N/A °C
PID: ~~53~~ 0.3 ppm
H2S: 2.3 ppm
Air Temp.: 50 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-11A
Coring Time: 1315
Penetration Depth: 0"-6"
Core Recovery: 0"-6"
Sample Method: Ponar / Vibracore / Piston Core / (Manual)
Coring Material: CAB / Aluminum / (SS)
Core Diameter (OD): ~~2" 3" 4"~~
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) SHOVEL
Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-11B
Coring Time: 1335
Penetration Depth: 50"
Core Recovery: 10"
Sample Method: Ponar / (Vibracore) / Piston Core / Manual
Coring Material: (CAB) / Aluminum / SS
Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / (Portable Clamp-on) / NA
Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: BK2-SD-11B
Coring Time: 1410
Penetration Depth: 6"-12"
Core Recovery: 6"-12"
Sample Method: Ponar / Vibracore / Piston Core / (Manual)
Coring Material: CAB / Aluminum / (SS)
Core Diameter (OD): ~~2" 3" 4"~~
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) SHOVEL
Sampling Equipment Deconned or Replaced: (Y) N

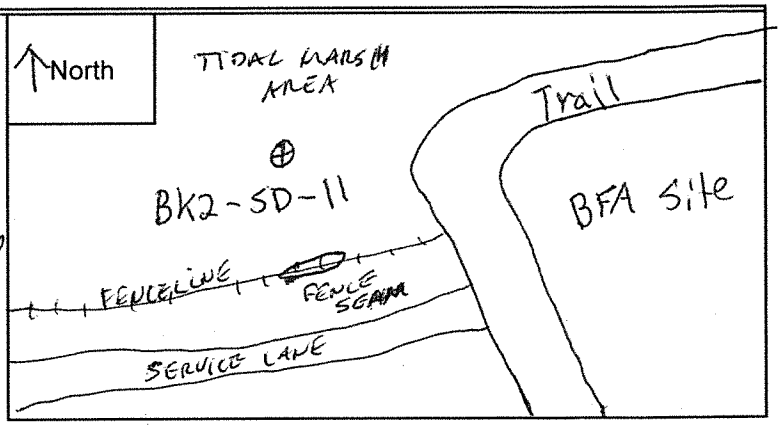
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Lon / (E): 585737.68
PDOP: N/A
Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 - NY East 3101
GPS Serial #: GEOXH-8895.00

COMMENTS / NOTES

DURING HIGH TIDE, AREA FLOODS; WE STARTED TO CLEAR AREA AND TIDE STARTED FLOODING AREA. MAX = 10'. TOP 0-2' is ROOT W/ OM + SILT/LOAM MIX - MOSTLY ROOTS. GOT APPROVAL (DJG) TO COLLECT ROOT MIX (0-6) W/ SHOVEL & FILL JARS W/ GLOVED HANDS. PUSH #2 TRIED VC FROM 6" TO 40" AND ROOTS PLUGGED TUBE. NO RECOVERY; ~~BK-SD-11 PUSH #2~~, HAD TO COLLECT BY SHOVEL & HAND AGAIN. PUSH #3.

Coring Tube Used: 3.0"
Preparer's Initial:



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ATTACHMENT B
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FIELD DATA SHEET

Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: Richmond Cty, Staten Island	**State:** NY	**Date:** 10 / 12 / 2018

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: ~~DJN, CLS~~, DJS, DJN, CLS
Arrival & Departure Times: 1245 – 1500
Station ID #: BK2-SD-11
Weather: Clear (Cloudy) Rain Other ____
Photos: (Y) N Photo Nos.: SEE PICS
Wind Conditions (Speed/Direction): 8-10 light

FIELD DATA

Water Depth: 10.0" ft. Tide: Ebb (Flood) Low Slack High Slack Other ____
Turbidity: N/A ntu pH: N/A Salinity: N/A ppt DO: N/A mg/L ORP: N/A mV
SC: N/A mS/cm H_2O Temp.: N/A °C PID: 0.3 ppm H_2S: 2.3 ppm Air Temp.: 80 °F

SEDIMENT/PUSH #~~1~~ 4

Core ID#: BK2-SD-11C Coring Time: 1445 Penetration Depth: 10" Core Recovery: 10"
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / (Portable Clamp-on) / NA Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: ____ Coring Time: ____ Penetration Depth: ____ Core Recovery: ____
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: ____
File Name: SEE PG #1 of 2
Lat / N: ____
Lon / E: ____
PDOP: ____
Coordinate Units: ____
Datum: ____
Proj.: SEE PG #1 of 2
GPS Serial #: ____

COMMENTS / NOTES

PUSH #4 - DUG THRU ROOTS W/SHOVEL TO ~20-24" - VL CORE TO STOP @ 34". (24"-34") PLUG.
FYI - AREA IS A FLOATING MASS OF VEG. & ROOTS - CAN FEEL THE MOVEMENT WHEN DIGGING, ETC.

Coring Tube Used: N/A
Preparer's Initial: ____

North

SEE PG #1 of 2

NORMANDEAU ASSOCIATES
Environmental Consultants

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FIELD DATA SHEET

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Project Name:	**BCA - Brookfield Avenue Landfill – 2018 Post-Closure Surface Water and Sediment Sampling Program**	**Proj. #: 24242.000**
Site Name:	**Brookfield Avenue Landfill**	**Task #: N/A**
City: **Richmond Cty, Staten Island**	**State:** **NY**	**Date:** 10/3/18

Field Team Leader(s): RMK
Field Team Safety Coordinator: RMK
Field Crew: DJN, CLS, DJS
Arrival & Departure Times: 1520 – 1535
Station ID #: BK2-SD-12
Weather: (Clear) Cloudy Rain Other
Photos: (Y) N Photo Nos.: See pics
Wind Conditions (Speed/Direction): 10-15 mph; W

FIELD DATA

Water Depth: 2.5 ft. Tide: Ebb Flood Low Slack (High Slack) Other
Turbidity: — ntu pH: — Salinity: — ppt DO: — mg/L ORP: — mV
SC: — mS/cm H_2O Temp.: — °C PID: See Logs ppm H_2S: See Logs ppm Air Temp.: 80 °F

SEDIMENT/PUSH #1

Core ID#: BK2-SD-12 Coring Time: 1525 Penetration Depth: 30" Core Recovery: 30"
Sample Method: Ponar / Vibracore / (Piston Core) / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / (NA) Sampling Equipment Deconned or Replaced: (Y) N

SEDIMENT/PUSH #1

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

SEDIMENT/PUSH #1

Core ID#: Coring Time: Penetration Depth: Core Recovery:
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / NA Sampling Equipment Deconned or Replaced: Y N

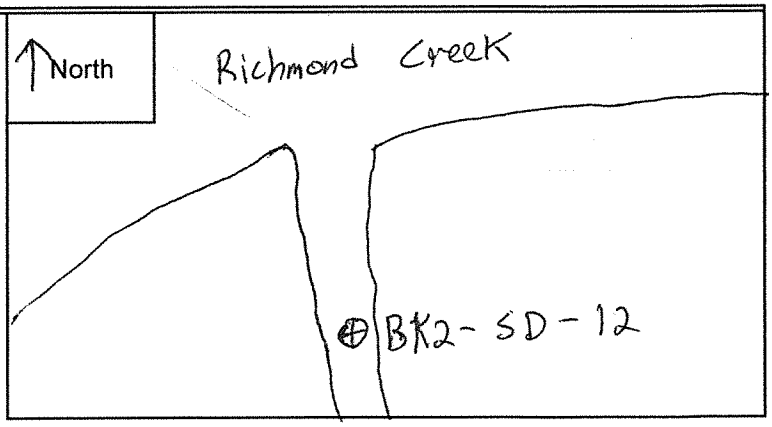
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Operator: CLS
File Name: Brookfield
Lat / (N): 631823.82
Lon / (E): 585501.40
PDOP: N/A
Coordinate Units: Feet
Datum: NAD 1983
Proj.: State Plane 1983 – NY East 3101
GPS Serial #: GFOXH – 88957.00

COMMENTS / NOTES

INSTALLED MARKER @ SITE.

Coring Tube Used: 5'
Preparer's Initial:



NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-01

Soil Boring Log

10-04-2018 @ 0851

PROJECT : Brookfield Ave Landfill Sampling 2018
LOCATION : Richmond Creek, Staten Island NY
ELEVATION : NA
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core
WATER LEVELS : 3.4 ft
START : 0840 END : 0915
LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT) / RECOVERY (FT) / #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"			0" - 15"	BK2-SD-01A
			Organic Silt (60%), Sand (25%), Gravel (5%)	0" - 6"
			Medium stiffness	H_2S: 10.5 ppm VOC: 2.0 ppm
			Olive Gray	2 Jar
			Gley 1 - 2.5/10Y	
			Non-plastic, Non-cohesive	
			Homogenous	BK2-SD-01B
			A few shells	6" - 12"
				H_2S: 0.6 ppm VOC: 0.0 ppm
15"				2 Jar
			15" - 30"	
			Lean Clay (no sand)	
			Medium plasticity, cohesive	BK2-SD-01C
			Light Brown	24" - 30"
			5YR - 4/4	H_2S: 0.0 ppm VOC: 0.0 ppm
			Moist, soft	2 Jar
			Homogenous	
30"				

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-01-MS/MSD Soil Boring Log 10-04-2018 @ 0851

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ PISTON CORER

WATER LEVELS : START : END : LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					0" - 14" Organic, fine Silt w/sand gravel Dark olive Gray Grey 1 - 2.5/10Y 15% Sand, 80% Silt, 5% gravel Moist - wet No plasticity, non-cohesive Homogenous	BK2-SD-01A 0" - 6" H_2S: 1.0 ppm VOC: 0.0 ppm * No sample
14"					14" - 30" Clay w/o sand Light brown ~~Wet~~ Moist Homogenous Medium plasticity, cohesive 5YR - 4/4	BK2-SD-01B 6" - 12" H_2S: 4.5 ppm VOC: 0.0 ppm *No sample BK2-SD-01C-MS/MSD 24" - 30" H_2S: 0.0 ppm VOC: 0.0 ppm 4 Jars
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-02 **Soil Boring Log** 10-04-2018 @ 0825

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core

WATER LEVELS : 1.8 Ft START : 0820 END : 0831 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT) / RECOVERY (FT) / #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"			Soft, fine, Organic silt - ~~Gray~~ Gley 1 - 2.5/10Y Homogenous Moist Non-plastic, non-cohesive Dark Gray-Green	BK2-SD-02A 0"-6" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
				BK2-SD-02B 6"-12" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
24"		24"-30"	Soft, fine silt w/ some clay Olive Gray Very low plasticity, cohesive Moist Gley 1 - 3/10Y	BK2-SD-02C 24"-30" 2 Jars H_2S: 0.0 ppm VOC: 0.0 ppm BK2-SD-02C-Dup 2 Jars
30"				

NAI-Boring Log Form-6/05

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2 - SD - 03

Soil Boring Log

10 - 04 - 2018 @ 0808

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core

WATER LEVELS : 2.7 ft START : 0802 END : 0815 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Soft, fine, organic silt Moist - wet Homogenous Non - plastic, non-cohesive Dark Gray - Green Gley 1 - 2.5/10Y 0" - 10"	BK2 - SD - 03 A 0" - 6" H_2S: 2.0 ppm VOC: 0.0 ppm 2 Jars
						BK2 - SD - 03 B 6" - 12" H_2S: 1.0 ppm VOC: 0.0 ppm 2 Jars
10"				10	10" - 30" Soft, fine silt - clay Moist Homogenous Low plasticity, cohesive Gley 1 - 3/10Y	BK2 - SD - 03C 24" - 30" H_2S: 4.5 ppm VOC: 0.5 ppm 2 Jars
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-04

Soil Boring Log

10-03-2018 @ 1500

PROJECT : Brookfield Ave Landfill Sampling 2018
LOCATION : Richmond Creek, Staten Island NY
ELEVATION : NA
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ ~~Push~~ Core Piston Core
WATER LEVELS : 3.2 ft
START : 1458 END : 1508 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					H_2S: 0.0 VOC: 0.0 Olive Grey Soft, Silt - Clay NO ~~Plasticity~~ non Cohesive Moist - Wet Gley 1 - 3/5 GY Organic soil w/ decaying veg. Homogenous	BK2-SD-04 A 0" - 6" H_2S: 0.0 ppm VOC: 0.0 ppm BK2-SD-04 B H_2S: 1.0 ppm VOC: 0.0 ppm 6" - 12"
26"					26" - 30" Soft Clay, Moist Light Brown Medium plasticity Cohesive Inorganic	BK2-SD-04C 24" - 30" H_2S: 0.0 ppm VOC: 0.0 ppm
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-05

Soil Boring Log 10-03-2018 @ 1510

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core

WATER LEVELS : 1.5 ft START : 1445 END : 1455 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Soft, Fine Silt- ~~Clay~~	BK2-SD-05A @ 1510
				No	~~Clay~~ plasticity, non Cohesive	0"-6"
					Moist	2 Jars
					Organic soil w/ decaying veg.	H_2S: 0.0 ppm
						VOC: 0.0 ppm
					Homogenous	BK2-SD-05B @ 1510
					Gley 1 - 2.5/10Y	6"-12"
					Dark Green Gray	2 Jars
					H_2S: 0.0 ppm (thru out)	H_2S: 0.0 ppm
					VOC: 0.0 ppm (thru out)	VOC: 0.0 ppm
						BK2-SD-05C @ 1510
						24"-30"
						2 Jars
						H_2S: 0.0 ppm
						VOC: 0.0 ppm
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-06

Soil Boring Log

10-03-2018 @ 1420

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core

WATER LEVELS : 3.0 ft START : 1330 END : 1430 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					H_2S: 0.7 ppm VOC: 0.0 ppm Soft, Olive Gray Silt ~~[illegible]~~, NO plasticity Moist, Cohesive Organic soil w/ decaying veg. Gley 1 - 3/5GY Homogenous	BK2-SD-06A @ 1420 0" - 6" H_2S: 0.7 ppm VOC: 0.0 ppm BK2-SD-06B @ 1420 6" - 12" H_2S + VOC: 0.0 ppm BK2-SD-06C @ 1420 24" - 30" H_2S + VOC: 0.0 ppm
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-07

Soil Boring Log

10-04-2018 @ 1300

PROJECT : Brookfield Ave Landfill Sampling 2018
LOCATION : Richmond Creek, Staten Island NY
ELEVATION : NA
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core
WATER LEVELS : 0.0 ft
START : 1230 END : 1330
LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					Soft, fine Silt w/ organic veg.	BK2-SD-07A
					Olive Gray	0"-6" 2 Jars
					Gley 1 - 2.5/10Y	H_2S: 0.0 ppm VOC: 0.0 ppm
					Moist	BK2-SD-07A-MS/MSD
					Non-plastic	0"-6"
					Non-cohesive	4 Jars
					80% Silt, 20% clay	BK2-SD-07B
					* Duplicate core for	6"-12"
					MS/MSD taken (0"-12")	H_2S: 0.0 ppm VOC: 0.0 ppm
					w/ sediment same as above	2 Jars
						BK2-SD-07C
						24"-30"
						H_2S: 0.0 ppm VOC: 0.0 ppm
						2 Jars
30"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-08

Soil Boring Log 10-03-2018

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Poner~~ Hand / Piston Core 10-03-2018

WATER LEVELS : 0.0 ft START : 0815 END : 0915 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					0" - 24"	BK2-SD-08A @ 0830
					Roots	0" - 6"
					Soft, fine silt w/	2 Jars
					dense root mass	H_2S + VOC: 0.0 ppm
					* See Below	BK2-SD-08B @ 0840
					xx USED SHOVEL FOR 0"-24"	6" - 12"
						2 Jars
						H_2S + VOC: 0.0 ppm
						BK2-SD08C @ 0900
						24" - 30"
						2 Jars
					24" - 58"	BK2-SD08C - Dup
					VOC: 0.0 ppm	@ 0900
					H_2S: 2.0 ppm	24" - 30"
					Soft - Medium Density	2 Jars * No TOC analysis
					Gley 1 - 3/10Y (Dark Brown)	
					Fine grain silt w/ roots and organic material	
					Wet	
				No	~~Plas~~ Plasticity, non-Cohesive	
					Silty Organic Soil	
					*USED ~~PISTON~~ CORER	
58"						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-09

Soil Boring Log 10-03-2018

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Hand / Piston Core 10-3-2018

WATER LEVELS : 0.0 ft START : 0945 END : 1045 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					~~0"-24"~~ 0-6"	BK2-SD-09A @ 1015
					DSN 10-3-18	0"-6"
					Silt w/ Dense root mass	2 Jars
					* See below	BK2-SD-09B @ 1028
					H_2S: 0.0 ppm	6-12"
					VOC: 0.0 ppm	2 jars
6"					* USED SHOVEL	
					6-12" VOC 0.0 ppm	BK2-SD-09C @ 1045
					Soft-med H_2S 0.1 ppm	24-30"
					density.	2 Jars
					Gley 1-2.5/10Y Dark Brown	
					Fine grain silt with organic	
					matter and roots.	
					wet, ~~NO~~ plasticity.	
				Non	cohesive, silty organic	
12"					soil * USED PISTON CORE	
					24-30" VOC 0.0 ppm	
					H_2S 2.2 ppm	
					Soft-Med density	
					Gley 1-2.5/10Y Dark Brown	
					Fine Grain Silt with	
					organic matter and roots	
					wet, ~~NO~~ Plasticity,	
				Non	-Cohesive, Silty organic	
30"					Soil * USED PISTON CORE	

NORMANDEAU ASSOCIATES
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PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-10

Soil Boring Log 10-04-2018 @ 1115

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : (Vibracore) ~~Ponar~~ or Piston Core

WATER LEVELS : 0.0 ft START : 1035 END : 1128 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"					0" - 3" 80% Sand, 20% Silt Very Stiff Dark Gray Moist, non-plastic non-cohesive	BK2-SD-10A 0" - 6" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
					3" - 24" 60% Sand, 40% Silt Very Stiff Dark Gray Moist, non-plastic noncohesive	BK2-SD-10B 6" - 12" H_2S: 3.5 ppm VOC: 0.0 ppm 2 Jars
					24" - 27" Same as top	BK2-SD-10C 24" - 27" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
27"						

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ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-11

Soil Boring Log

10-02-2018

PROJECT : Brookfield Ave Landfill Sampling 2018
LOCATION : Richmond Creek, Staten Island NY
ELEVATION : NA
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core / Hand
WATER LEVELS : 10"
START : 1245 END : 1500 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT) / RECOVERY (FT) / #/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"			0" - 24" Organic Silt Soft, homogenous, wet Non-plastic, non-cohesive Olive gray Glay 1 - 3/10Y Plant roots throughout * Dug by hand due to root mass	BK2-SD-11A @1315 0" - 6" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars BK2-SD-11B @ ~~1315~~ 1410 6" - 12" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
			24" - 30" * Same as above w/o a lot of roots * Sampled w/ ~~Piston~~ Core	BK2-SD-11C @1445 24" - 30" H_2S: 0.0 ppm VOC: 0.0 ppm 2 Jars
30"				

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

PROJECT NUMBER	BORING NUMBER
24242.000	SHEET 1 OF 1

BK2-SD-12

Soil Boring Log 10-03-2018 @ 1525

PROJECT : Brookfield Ave Landfill Sampling 2018 LOCATION : Richmond Creek, Staten Island NY

ELEVATION : NA DRILLING CONTRACTOR : Normandeau Associates, Inc.

DRILLING METHOD AND EQUIPMENT USED : ~~Vibracore / Ponar~~ Piston Core

WATER LEVELS : 2.5 ft START : 1520 END : 1535 LOGGER : CLS

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0"				NO	Soft, fine silt - ~~Clay~~ Moist ~~Brown~~ Non-plasticity, Cohesive Dark Gray Green Organic soil w/ decaying veg. Gley 1 - 2.5/10Y Homogenous 0" - 22"	BK2-SD-12A @1525 0" - 6" 2 Jars H_2S: 2.5 ppm VOC: 0.0 ppm BK2-SD-12B @1525 6" - 12" 2 Jars H_2S: 0.0 ppm VOC: 0.0 ppm
					22" - 30" Soft, fine clay - silt Moist ~~Brown~~ plasticity Low Dark Gray Green Organic w/ decaying veg. Gley 1 - 4/10Y	BK2-SD-12C @1525 24" - 30" 2 Jars H_2S: 0.0 ppm VOC: 0.0 ppm
30"						

APPENDIX C

Laboratory Results for Surface-Water and Sediment Samples

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Analytical Report

Prepared for

Brookfield Construction Associates, LLC

3730 Park Avenue

South Plainfield, NJ 07080

Report Information

Project Name: Brookfield Ave Landfill - 002

AAR Work Order: **1801556**

Client Sample ID	Laboratory Sample Number
BK2-SW-07	1801556-01
BK2-SW-06	1801556-02
BK2-SW-01	1801556-03
BK2-SW-02	1801556-04

New Jersey Certification Number: 12007
New York Certification Number: 11109
Pennsylvania Certification Number: 68-02799
CT Certification Number: PH-0219

This data has been reviewed and accepted by:

Daniel Miguel
Technical Director

10/15/2018

This report shall not be reproduced, except in its entirety, without the written consent of Accredited Analytical Resources, LLC. The test results included in this report relate only to the samples analyzed.

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Methodology Summary

Dissolved Mercury by SW846 7470

EPA 7470A

Dissolved Metals by EPA Method SW846 6010

6010D

EPA Method SW846 8081B/8082A

NY 8081B/8082A

Semivolatile Organic Compounds EPA Method SW846 8270

8270D

Total Mercury by SW846 7470

EPA 7470A

Total Metals by EPA Method SW846 6010

6010D

Volatile Organic Compounds EPA Method SW846 8260

8260C

Wet Chemistry

NJ Hardness by SM 2340 C
NY Hardness by SM 2340 B

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Condition of Samples on Receipt

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002
AAR Work Order Number:	1801556

Temperature of Cooler:	3°C
Chain of Custody Filled Out Properly	Yes
Proper Containers and Volumes	Yes
Received Within Holding Time	Yes
Samples Received with Correct Preservation	Yes
Samples Received On Ice	Yes
Sample Received Via Field Services	Yes
Samples Hand Delivered	No

CHAIN OF CUSTODY FORM

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	BROOKFIELD ARTHUR KILL - OU2
CONTACT:	MIKE TUCKER
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	JOE BATTISTA
EMAIL FOR INVOICE:	BATTISTAJ@BARBECACONSTRUCTION.COM

CLIENT NAME:	BROOKFIELD
ADDRESS:	ARTHUR KILL Rd.
CITY:	STATEN ISLAND
STATE:	NY ZIP: 10308

AAR QUOTE #	
AAR WORK ORDER #	1801556
P.O. #	

ANALYSIS

COLLECTION INFORMATION																			
CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	PRES. CODE →	1	—	2	—	—	—							AAR SAMPLE #
						CONT. CODE →	G	G	P	AG	P	P							
							TCL VOC	TCL BNA	TOT. HARDNESS	PEST/PCB	TAL METALS	P'SS TAL METALS (FILTERED)							
BK2-SW-07	10/1/2018 1250	SW	12"		G	2	1	1	1	1	1	1							- 01
BK2-SW-06	10/1/2018 1345	SW	12"		G	2	1	1	1	1	1	1							- 02
BK2-SW-01	10/1/2018 1500	SW	12"		G	2	1	1	1	1	1	1							- 03
BK2-SW-02	10/1/2018 1535	SW	12"		G	2	1	1	1	1	1	1							- 04

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ____ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 3°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: RICHARD KING (NORMANDEAN) SIGN:

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: RICHARD KING	Print Name: M. TUCKER	Print Name: M. TUCKER	Print Name: K. MUNIZ
Signature:	Signature:	Signature:	Signature:
Agent of: NORMANDEAN ASSOC.	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received:	10/1/18 Time: 1611	Date Received: 10/1/18	Time: 1655
RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Ref. No: G 375214439

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Analytical Report for Samples

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002

Client Field ID	AAR Laboratory Number	Matrix	Date/Time Sampled	Date/Time Received
BK2-SW-07	1801556-01	Surface Water	10/01/2018 12:50	10/01/2018 16:55
BK2-SW-06	1801556-02	Surface Water	10/01/2018 13:45	10/01/2018 16:55
BK2-SW-01	1801556-03	Surface Water	10/01/2018 15:00	10/01/2018 16:55
BK2-SW-02	1801556-04	Surface Water	10/01/2018 15:35	10/01/2018 16:55

Data Qualifiers

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit
VC - The container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

PEST/PCB

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24446.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 18:32
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00208	0.00208	U
319-85-7	beta-BHC	ND	0.00208	0.00208	U
319-86-8	delta-BHC	ND	0.00208	0.00208	U
58-89-9	gamma-BHC [Lindane]	ND	0.00208	0.00208	U
76-44-8	Heptachlor	ND	0.00208	0.00208	U
309-00-2	Aldrin	ND	0.00208	0.00208	U
1024-57-3	Heptachlor Epoxide	ND	0.00208	0.00208	U
959-98-8	Endosulfan I	ND	0.00208	0.00208	U
60-57-1	Dieldrin	ND	0.00417	0.00417	U
72-55-9	4,4'-DDE	ND	0.00417	0.00417	U
72-20-8	Endrin	ND	0.00417	0.00417	U
33213-65-9	Endosulfan II	ND	0.00417	0.00417	U
72-54-8	4,4'-DDD	ND	0.00417	0.00417	U
1031-07-8	Endosulfan sulfate	ND	0.00417	0.00417	U
50-29-3	4,4'-DDT	ND	0.00417	0.00417	U
72-43-5	Methoxychlor	ND	0.0208	0.0208	U
53494-70-5	Endrin ketone	ND	0.00417	0.0417	U
7421-93-4	Endrin aldehyde	ND	0.00417	0.0417	U
5103-71-9	alpha-Chlordane	ND	0.00208	0.00208	U
5566-34-7	gamma-Chlordane	ND	0.00208	0.00208	U
8001-35-2	Toxaphene	ND	0.104	0.104	U
12674-11-2	Aroclor-1016	ND	0.0521	0.104	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24446.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 18:32
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0521	0.104	U
11141-16-5	Aroclor-1232	ND	0.0521	0.104	U
53469-21-9	Aroclor-1242	ND	0.0521	0.104	U
12672-29-6	Aroclor-1248	ND	0.0521	0.104	U
11097-69-1	Aroclor-1254	ND	0.0521	0.104	U
11096-82-5	Aroclor-1260	ND	0.0521	0.104	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	82.1%	10-132
Tetrachloro-m-xylene [2C]	70.0%	10-157
Decachlorobiphenyl	90.4%	10-147
Decachlorobiphenyl [2C]	79.4%	10-154

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at or above the MDL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24447.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:01
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00211	0.00211	U
319-85-7	beta-BHC	ND	0.00211	0.00211	U
319-86-8	delta-BHC	ND	0.00211	0.00211	U
58-89-9	gamma-BHC [Lindane]	ND	0.00211	0.00211	U
76-44-8	Heptachlor	ND	0.00211	0.00211	U
309-00-2	Aldrin	ND	0.00211	0.00211	U
1024-57-3	Heptachlor Epoxide	ND	0.00211	0.00211	U
959-98-8	Endosulfan I	ND	0.00211	0.00211	U
60-57-1	Dieldrin	ND	0.00421	0.00421	U
72-55-9	4,4'-DDE	ND	0.00421	0.00421	U
72-20-8	Endrin	ND	0.00421	0.00421	U
33213-65-9	Endosulfan II	ND	0.00421	0.00421	U
72-54-8	4,4'-DDD	ND	0.00421	0.00421	U
1031-07-8	Endosulfan sulfate	ND	0.00421	0.00421	U
50-29-3	4,4'-DDT	ND	0.00421	0.00421	U
72-43-5	Methoxychlor	ND	0.0211	0.0211	U
53494-70-5	Endrin ketone	ND	0.00421	0.0421	U
7421-93-4	Endrin aldehyde	ND	0.00421	0.0421	U
5103-71-9	alpha-Chlordane	ND	0.00211	0.00211	U
5566-34-7	gamma-Chlordane	ND	0.00211	0.00211	U
8001-35-2	Toxaphene	ND	0.105	0.105	U
12674-11-2	Aroclor-1016	ND	0.0526	0.105	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24447.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:01
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0526	0.105	U
11141-16-5	Aroclor-1232	ND	0.0526	0.105	U
53469-21-9	Aroclor-1242	ND	0.0526	0.105	U
12672-29-6	Aroclor-1248	ND	0.0526	0.105	U
11097-69-1	Aroclor-1254	ND	0.0526	0.105	U
11096-82-5	Aroclor-1260	ND	0.0526	0.105	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	101%	10-132
Tetrachloro-m-xylene [2C]	71.7%	10-157
Decachlorobiphenyl	82.2%	10-147
Decachlorobiphenyl [2C]	75.9%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24448.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:30
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00227	0.00227	U
319-85-7	beta-BHC	ND	0.00227	0.00227	U
319-86-8	delta-BHC	ND	0.00227	0.00227	U
58-89-9	gamma-BHC [Lindane]	ND	0.00227	0.00227	U
76-44-8	Heptachlor	ND	0.00227	0.00227	U
309-00-2	Aldrin	ND	0.00227	0.00227	U
1024-57-3	Heptachlor Epoxide	ND	0.00227	0.00227	U
959-98-8	Endosulfan I	ND	0.00227	0.00227	U
60-57-1	Dieldrin	ND	0.00455	0.00455	U
72-55-9	4,4'-DDE	ND	0.00455	0.00455	U
72-20-8	Endrin	ND	0.00455	0.00455	U
33213-65-9	Endosulfan II	ND	0.00455	0.00455	U
72-54-8	4,4'-DDD	ND	0.00455	0.00455	U
1031-07-8	Endosulfan sulfate	ND	0.00455	0.00455	U
50-29-3	4,4'-DDT	ND	0.00455	0.00455	U
72-43-5	Methoxychlor	ND	0.0227	0.0227	U
53494-70-5	Endrin ketone	ND	0.00455	0.0455	U
7421-93-4	Endrin aldehyde	ND	0.00455	0.0455	U
5103-71-9	alpha-Chlordane	ND	0.00227	0.00227	U
5566-34-7	gamma-Chlordane	ND	0.00227	0.00227	U
8001-35-2	Toxaphene	ND	0.114	0.114	U
12674-11-2	Aroclor-1016	ND	0.0568	0.114	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24448.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:30
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0568	0.114	U
11141-16-5	Aroclor-1232	ND	0.0568	0.114	U
53469-21-9	Aroclor-1242	ND	0.0568	0.114	U
12672-29-6	Aroclor-1248	ND	0.0568	0.114	U
11097-69-1	Aroclor-1254	ND	0.0568	0.114	U
11096-82-5	Aroclor-1260	ND	0.0568	0.114	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	81.6%	10-132
Tetrachloro-m-xylene [2C]	63.1%	10-157
Decachlorobiphenyl	81.4%	10-147
Decachlorobiphenyl [2C]	82.2%	10-154

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at or above the MDL
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24449.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:58
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00222	0.00222	U
319-85-7	beta-BHC	ND	0.00222	0.00222	U
319-86-8	delta-BHC	ND	0.00222	0.00222	U
58-89-9	gamma-BHC [Lindane]	ND	0.00222	0.00222	U
76-44-8	Heptachlor	ND	0.00222	0.00222	U
309-00-2	Aldrin	ND	0.00222	0.00222	U
1024-57-3	Heptachlor Epoxide	ND	0.00222	0.00222	U
959-98-8	Endosulfan I	ND	0.00222	0.00222	U
60-57-1	Dieldrin	ND	0.00444	0.00444	U
72-55-9	4,4'-DDE	ND	0.00444	0.00444	U
72-20-8	Endrin	ND	0.00444	0.00444	U
33213-65-9	Endosulfan II	ND	0.00444	0.00444	U
72-54-8	4,4'-DDD	ND	0.00444	0.00444	U
1031-07-8	Endosulfan sulfate	ND	0.00444	0.00444	U
50-29-3	4,4'-DDT	ND	0.00444	0.00444	U
72-43-5	Methoxychlor	ND	0.0222	0.0222	U
53494-70-5	Endrin ketone	ND	0.00444	0.0444	U
7421-93-4	Endrin aldehyde	ND	0.00444	0.0444	U
5103-71-9	alpha-Chlordane	ND	0.00222	0.00222	U
5566-34-7	gamma-Chlordane	ND	0.00222	0.00222	U
8001-35-2	Toxaphene	ND	0.111	0.111	U
12674-11-2	Aroclor-1016	ND	0.0556	0.111	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/02/18 05:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24449.D
Prep Batch:	B8J0201	Sequence:	S8J0403	Analyzed:	10/04/18 19:58
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0556	0.111	U
11141-16-5	Aroclor-1232	ND	0.0556	0.111	U
53469-21-9	Aroclor-1242	ND	0.0556	0.111	U
12672-29-6	Aroclor-1248	ND	0.0556	0.111	U
11097-69-1	Aroclor-1254	ND	0.0556	0.111	U
11096-82-5	Aroclor-1260	ND	0.0556	0.111	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	69.0%	10-132
Tetrachloro-m-xylene [2C]	67.3%	10-157
Decachlorobiphenyl	84.1%	10-147
Decachlorobiphenyl [2C]	86.4%	10-154

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Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

SEMIVOLATILES

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18872.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:09
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.521	2.60	U
108-95-2	Phenol	ND	0.521	2.60	U
111-44-4	bis(2-chloroethyl)ether	ND	0.521	2.60	U
95-57-8	2-Chlorophenol	ND	0.521	2.60	U
541-73-1	1,3-Dichlorobenzene	ND	0.521	2.60	U
106-46-7	1,4-Dichlorobenzene	ND	0.521	2.60	U
100-51-6	Benzyl alcohol	ND	0.521	2.60	U
95-50-1	1,2-Dichlorobenzene	ND	0.521	2.60	U
95-48-7	2-Methylphenol	ND	0.521	2.60	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.521	2.60	U
106-44-5	3 & 4-Methylphenol	ND	0.521	2.60	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.521	2.60	U
67-72-1	Hexachloroethane	ND	0.521	2.60	U
98-95-3	Nitrobenzene	ND	0.521	2.60	U
78-59-1	Isophorone	ND	0.521	2.60	U
88-75-5	2-Nitrophenol	ND	0.521	2.60	U
105-67-9	2,4-Dimethylphenol	ND	0.521	2.60	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.521	2.60	U
120-83-2	2,4-Dichlorophenol	ND	0.521	2.60	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.521	2.60	U
91-20-3	Naphthalene	ND	0.521	2.60	U
106-47-8	4-Chloroaniline	ND	0.521	2.60	U
87-68-3	Hexachlorobutadiene	ND	0.521	2.60	U
59-50-7	4-Chloro-3-methylphenol	ND	0.521	2.60	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18872.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:09
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.521	2.60	U
77-47-4	Hexachlorocyclopentadiene	ND	0.521	2.60	U
88-06-2	2,4,6-Trichlorophenol	ND	0.521	2.60	U
95-95-4	2,4,5-Trichlorophenol	ND	0.521	2.60	U
91-58-7	2-Chloronaphthalene	ND	0.521	2.60	U
88-74-4	2-Nitroaniline	ND	0.521	2.60	U
131-11-3	Dimethylphthalate	ND	0.521	2.60	U
208-96-8	Acenaphthylene	ND	0.521	2.60	U
99-09-2	3-Nitroaniline	ND	0.521	2.60	U
83-32-9	Acenaphthene	ND	0.521	2.60	U
51-28-5	2,4-Dinitrophenol	ND	1.04	5.21	U
100-02-7	4-Nitrophenol	ND	0.521	2.60	U
132-64-9	Dibenzofuran	ND	0.521	2.60	U
606-20-2	2,6-Dinitrotoluene	ND	0.521	2.60	U
121-14-2	2,4-Dinitrotoluene	ND	0.521	2.60	U
84-66-2	Diethyl phthalate	ND	0.521	2.60	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.521	2.60	U
86-73-7	Fluorene	ND	0.521	2.60	U
100-01-6	4-Nitroaniline	ND	0.521	2.60	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.521	2.60	U
86-30-6	N-Nitrosodiphenylamine	ND	0.521	2.60	U
101-55-3	4-Bromophenyl-phenylether	ND	0.521	2.60	U
118-74-1	Hexachlorobenzene	ND	0.521	2.60	U
87-86-5	Pentachlorophenol	ND	0.521	2.60	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18872.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:09
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.104	2.60	U
120-12-7	Anthracene	ND	0.521	2.60	U
84-74-2	Di-n-butyl phthalate	ND	0.521	2.60	U
206-44-0	Fluoranthene	ND	0.521	2.60	U
129-00-0	Pyrene	ND	0.521	2.60	U
85-68-7	Butylbenzylphthalate	ND	0.521	2.60	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.521	2.60	U
56-55-3	Benzo[a]anthracene	ND	0.104	2.60	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.521	2.60	U
218-01-9	Chrysene	ND	0.104	2.60	U
117-84-0	Di-n-octyl phthalate	ND	0.521	2.60	U
205-99-2	Benzo[b]fluoranthene	ND	0.208	2.60	U
207-08-9	Benzo[k]fluoranthene	ND	0.521	2.60	U
50-32-8	Benzo[a]pyrene	ND	0.521	2.60	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.521	2.60	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.208	2.60	U
191-24-2	Benzo[ghi]perylene	ND	0.521	2.60	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	36%	10-94
Phenol-d5	22%	10-112
Nitrobenzene-d5	73%	22-116
2-Fluorobiphenyl	69%	23-109
2,4,6-Tribromophenol	83%	10-181
Terphenyl-d14	107%	17-133

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18873.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:54
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.543	2.72	U
108-95-2	Phenol	ND	0.543	2.72	U
111-44-4	bis(2-chloroethyl)ether	ND	0.543	2.72	U
95-57-8	2-Chlorophenol	ND	0.543	2.72	U
541-73-1	1,3-Dichlorobenzene	ND	0.543	2.72	U
106-46-7	1,4-Dichlorobenzene	ND	0.543	2.72	U
100-51-6	Benzyl alcohol	ND	0.543	2.72	U
95-50-1	1,2-Dichlorobenzene	ND	0.543	2.72	U
95-48-7	2-Methylphenol	ND	0.543	2.72	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.543	2.72	U
106-44-5	3 & 4-Methylphenol	ND	0.543	2.72	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.543	2.72	U
67-72-1	Hexachloroethane	ND	0.543	2.72	U
98-95-3	Nitrobenzene	ND	0.543	2.72	U
78-59-1	Isophorone	ND	0.543	2.72	U
88-75-5	2-Nitrophenol	ND	0.543	2.72	U
105-67-9	2,4-Dimethylphenol	ND	0.543	2.72	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.543	2.72	U
120-83-2	2,4-Dichlorophenol	ND	0.543	2.72	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.543	2.72	U
91-20-3	Naphthalene	ND	0.543	2.72	U
106-47-8	4-Chloroaniline	ND	0.543	2.72	U
87-68-3	Hexachlorobutadiene	ND	0.543	2.72	U
59-50-7	4-Chloro-3-methylphenol	ND	0.543	2.72	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18873.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:54
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.543	2.72	U
77-47-4	Hexachlorocyclopentadiene	ND	0.543	2.72	U
88-06-2	2,4,6-Trichlorophenol	ND	0.543	2.72	U
95-95-4	2,4,5-Trichlorophenol	ND	0.543	2.72	U
91-58-7	2-Chloronaphthalene	ND	0.543	2.72	U
88-74-4	2-Nitroaniline	ND	0.543	2.72	U
131-11-3	Dimethylphthalate	ND	0.543	2.72	U
208-96-8	Acenaphthylene	ND	0.543	2.72	U
99-09-2	3-Nitroaniline	ND	0.543	2.72	U
83-32-9	Acenaphthene	ND	0.543	2.72	U
51-28-5	2,4-Dinitrophenol	ND	1.09	5.43	U
100-02-7	4-Nitrophenol	ND	0.543	2.72	U
132-64-9	Dibenzofuran	ND	0.543	2.72	U
606-20-2	2,6-Dinitrotoluene	ND	0.543	2.72	U
121-14-2	2,4-Dinitrotoluene	ND	0.543	2.72	U
84-66-2	Diethyl phthalate	ND	0.543	2.72	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.543	2.72	U
86-73-7	Fluorene	ND	0.543	2.72	U
100-01-6	4-Nitroaniline	ND	0.543	2.72	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.543	2.72	U
86-30-6	N-Nitrosodiphenylamine	ND	0.543	2.72	U
101-55-3	4-Bromophenyl-phenylether	ND	0.543	2.72	U
118-74-1	Hexachlorobenzene	ND	0.543	2.72	U
87-86-5	Pentachlorophenol	ND	0.543	2.72	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18873.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 15:54
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.109	2.72	U
120-12-7	Anthracene	ND	0.543	2.72	U
84-74-2	Di-n-butyl phthalate	ND	0.543	2.72	U
206-44-0	Fluoranthene	ND	0.543	2.72	U
129-00-0	Pyrene	ND	0.543	2.72	U
85-68-7	Butylbenzylphthalate	ND	0.543	2.72	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.543	2.72	U
56-55-3	Benzo[a]anthracene	ND	0.109	2.72	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.543	2.72	U
218-01-9	Chrysene	ND	0.109	2.72	U
117-84-0	Di-n-octyl phthalate	ND	0.543	2.72	U
205-99-2	Benzo[b]fluoranthene	ND	0.217	2.72	U
207-08-9	Benzo[k]fluoranthene	ND	0.543	2.72	U
50-32-8	Benzo[a]pyrene	ND	0.543	2.72	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.543	2.72	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.217	2.72	U
191-24-2	Benzo[ghi]perylene	ND	0.543	2.72	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	34%	10-94
Phenol-d5	22%	10-112
Nitrobenzene-d5	70%	22-116
2-Fluorobiphenyl	68%	23-109
2,4,6-Tribromophenol	70%	10-181
Terphenyl-d14	90%	17-133

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Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18874.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 16:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.510	2.55	U
108-95-2	Phenol	ND	0.510	2.55	U
111-44-4	bis(2-chloroethyl)ether	ND	0.510	2.55	U
95-57-8	2-Chlorophenol	ND	0.510	2.55	U
541-73-1	1,3-Dichlorobenzene	ND	0.510	2.55	U
106-46-7	1,4-Dichlorobenzene	ND	0.510	2.55	U
100-51-6	Benzyl alcohol	ND	0.510	2.55	U
95-50-1	1,2-Dichlorobenzene	ND	0.510	2.55	U
95-48-7	2-Methylphenol	ND	0.510	2.55	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.510	2.55	U
106-44-5	3 & 4-Methylphenol	ND	0.510	2.55	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.510	2.55	U
67-72-1	Hexachloroethane	ND	0.510	2.55	U
98-95-3	Nitrobenzene	ND	0.510	2.55	U
78-59-1	Isophorone	ND	0.510	2.55	U
88-75-5	2-Nitrophenol	ND	0.510	2.55	U
105-67-9	2,4-Dimethylphenol	ND	0.510	2.55	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.510	2.55	U
120-83-2	2,4-Dichlorophenol	ND	0.510	2.55	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.510	2.55	U
91-20-3	Naphthalene	ND	0.510	2.55	U
106-47-8	4-Chloroaniline	ND	0.510	2.55	U
87-68-3	Hexachlorobutadiene	ND	0.510	2.55	U
59-50-7	4-Chloro-3-methylphenol	ND	0.510	2.55	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18874.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 16:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.510	2.55	U
77-47-4	Hexachlorocyclopentadiene	ND	0.510	2.55	U
88-06-2	2,4,6-Trichlorophenol	ND	0.510	2.55	U
95-95-4	2,4,5-Trichlorophenol	ND	0.510	2.55	U
91-58-7	2-Chloronaphthalene	ND	0.510	2.55	U
88-74-4	2-Nitroaniline	ND	0.510	2.55	U
131-11-3	Dimethylphthalate	ND	0.510	2.55	U
208-96-8	Acenaphthylene	ND	0.510	2.55	U
99-09-2	3-Nitroaniline	ND	0.510	2.55	U
83-32-9	Acenaphthene	ND	0.510	2.55	U
51-28-5	2,4-Dinitrophenol	ND	1.02	5.10	U
100-02-7	4-Nitrophenol	ND	0.510	2.55	U
132-64-9	Dibenzofuran	ND	0.510	2.55	U
606-20-2	2,6-Dinitrotoluene	ND	0.510	2.55	U
121-14-2	2,4-Dinitrotoluene	ND	0.510	2.55	U
84-66-2	Diethyl phthalate	ND	0.510	2.55	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.510	2.55	U
86-73-7	Fluorene	ND	0.510	2.55	U
100-01-6	4-Nitroaniline	ND	0.510	2.55	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.510	2.55	U
86-30-6	N-Nitrosodiphenylamine	ND	0.510	2.55	U
101-55-3	4-Bromophenyl-phenylether	ND	0.510	2.55	U
118-74-1	Hexachlorobenzene	ND	0.510	2.55	U
87-86-5	Pentachlorophenol	ND	0.510	2.55	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18874.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 16:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.102	2.55	U
120-12-7	Anthracene	ND	0.510	2.55	U
84-74-2	Di-n-butyl phthalate	ND	0.510	2.55	U
206-44-0	Fluoranthene	ND	0.510	2.55	U
129-00-0	Pyrene	ND	0.510	2.55	U
85-68-7	Butylbenzylphthalate	ND	0.510	2.55	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.510	2.55	U
56-55-3	Benzo[a]anthracene	ND	0.102	2.55	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.510	2.55	U
218-01-9	Chrysene	ND	0.102	2.55	U
117-84-0	Di-n-octyl phthalate	ND	0.510	2.55	U
205-99-2	Benzo[b]fluoranthene	ND	0.204	2.55	U
207-08-9	Benzo[k]fluoranthene	ND	0.510	2.55	U
50-32-8	Benzo[a]pyrene	ND	0.510	2.55	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.510	2.55	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.204	2.55	U
191-24-2	Benzo[ghi]perylene	ND	0.510	2.55	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	32%	10-94
Phenol-d5	21%	10-112
Nitrobenzene-d5	74%	22-116
2-Fluorobiphenyl	69%	23-109
2,4,6-Tribromophenol	73%	10-181
Terphenyl-d14	86%	17-133

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U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18875.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 17:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.510	2.55	U
108-95-2	Phenol	ND	0.510	2.55	U
111-44-4	bis(2-chloroethyl)ether	ND	0.510	2.55	U
95-57-8	2-Chlorophenol	ND	0.510	2.55	U
541-73-1	1,3-Dichlorobenzene	ND	0.510	2.55	U
106-46-7	1,4-Dichlorobenzene	ND	0.510	2.55	U
100-51-6	Benzyl alcohol	ND	0.510	2.55	U
95-50-1	1,2-Dichlorobenzene	ND	0.510	2.55	U
95-48-7	2-Methylphenol	ND	0.510	2.55	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.510	2.55	U
106-44-5	3 & 4-Methylphenol	ND	0.510	2.55	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.510	2.55	U
67-72-1	Hexachloroethane	ND	0.510	2.55	U
98-95-3	Nitrobenzene	ND	0.510	2.55	U
78-59-1	Isophorone	ND	0.510	2.55	U
88-75-5	2-Nitrophenol	ND	0.510	2.55	U
105-67-9	2,4-Dimethylphenol	ND	0.510	2.55	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.510	2.55	U
120-83-2	2,4-Dichlorophenol	ND	0.510	2.55	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.510	2.55	U
91-20-3	Naphthalene	ND	0.510	2.55	U
106-47-8	4-Chloroaniline	ND	0.510	2.55	U
87-68-3	Hexachlorobutadiene	ND	0.510	2.55	U
59-50-7	4-Chloro-3-methylphenol	ND	0.510	2.55	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18875.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 17:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.510	2.55	U
77-47-4	Hexachlorocyclopentadiene	ND	0.510	2.55	U
88-06-2	2,4,6-Trichlorophenol	ND	0.510	2.55	U
95-95-4	2,4,5-Trichlorophenol	ND	0.510	2.55	U
91-58-7	2-Chloronaphthalene	ND	0.510	2.55	U
88-74-4	2-Nitroaniline	ND	0.510	2.55	U
131-11-3	Dimethylphthalate	ND	0.510	2.55	U
208-96-8	Acenaphthylene	ND	0.510	2.55	U
99-09-2	3-Nitroaniline	ND	0.510	2.55	U
83-32-9	Acenaphthene	ND	0.510	2.55	U
51-28-5	2,4-Dinitrophenol	ND	1.02	5.10	U
100-02-7	4-Nitrophenol	ND	0.510	2.55	U
132-64-9	Dibenzofuran	ND	0.510	2.55	U
606-20-2	2,6-Dinitrotoluene	ND	0.510	2.55	U
121-14-2	2,4-Dinitrotoluene	ND	0.510	2.55	U
84-66-2	Diethyl phthalate	ND	0.510	2.55	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.510	2.55	U
86-73-7	Fluorene	ND	0.510	2.55	U
100-01-6	4-Nitroaniline	ND	0.510	2.55	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.510	2.55	U
86-30-6	N-Nitrosodiphenylamine	ND	0.510	2.55	U
101-55-3	4-Bromophenyl-phenylether	ND	0.510	2.55	U
118-74-1	Hexachlorobenzene	ND	0.510	2.55	U
87-86-5	Pentachlorophenol	ND	0.510	2.55	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/03/18 06:32	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18875.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 17:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.102	2.55	U
120-12-7	Anthracene	ND	0.510	2.55	U
84-74-2	Di-n-butyl phthalate	ND	0.510	2.55	U
206-44-0	Fluoranthene	ND	0.510	2.55	U
129-00-0	Pyrene	ND	0.510	2.55	U
85-68-7	Butylbenzylphthalate	ND	0.510	2.55	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.510	2.55	U
56-55-3	Benzo[a]anthracene	ND	0.102	2.55	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.510	2.55	U
218-01-9	Chrysene	ND	0.102	2.55	U
117-84-0	Di-n-octyl phthalate	ND	0.510	2.55	U
205-99-2	Benzo[b]fluoranthene	ND	0.204	2.55	U
207-08-9	Benzo[k]fluoranthene	ND	0.510	2.55	U
50-32-8	Benzo[a]pyrene	ND	0.510	2.55	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.510	2.55	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.204	2.55	U
191-24-2	Benzo[ghi]perylene	ND	0.510	2.55	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	29%	10-94
Phenol-d5	19%	10-112
Nitrobenzene-d5	67%	22-116
2-Fluorobiphenyl	68%	23-109
2,4,6-Tribromophenol	76%	10-181
Terphenyl-d14	93%	17-133

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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VOLATILES SAMPLE DATA

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/04/18 16:25	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28734.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:25
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/04/18 16:25	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28734.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:25
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-07**
Lab Sample ID: **1801556-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 12:50	Prep Date:	10/04/18 16:25	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28734.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:25
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	105%	66-143
Toluene-d8	102%	83-120
Bromofluorobenzene	100%	79-127

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/04/18 16:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28735.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/04/18 16:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28735.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-06**
Lab Sample ID: **1801556-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 13:45	Prep Date:	10/04/18 16:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28735.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 16:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	103%	83-120
Bromofluorobenzene	103%	79-127

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/04/18 17:58	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28737.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 17:58
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/04/18 17:58	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28737.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 17:58
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Prep Date:	10/04/18 17:58	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28737.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 17:58
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	104%	66-143
Toluene-d8	101%	83-120
Bromofluorobenzene	104%	79-127

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/04/18 18:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28738.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 18:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	5.01	2.50	5.00	
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/04/18 18:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28738.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 18:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-02**
Lab Sample ID: **1801556-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:35	Prep Date:	10/04/18 18:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28738.D
Prep Batch:	B8J0411	Sequence:	S8J0407	Analyzed:	10/04/18 18:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	103%	83-120
Bromofluorobenzene	104%	79-127

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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METALS

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-07
Lab Sample ID: 1801556-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	100318A-009

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/03/18 08:49	EPA 7470A	10/03/18 11:45 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-38-2	Arsenic	ND	3.00	3.00	1	U	10/03/18 08:39	EPA 3005A	10/05/18 13:02 LIT	EPA 6010D
7440-39-3	Barium	92.6	20.0	20.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-70-2	Calcium	27200	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7439-89-6	Iron	1270	300	300	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7439-95-4	Magnesium	28900	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7439-96-5	Manganese	277	10.0	10.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-02-0	Nickel	16.2	10.0	10.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-09-7	Potassium	3250	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-23-5	Sodium	80100	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:24 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-06
Lab Sample ID: 1801556-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 13:45	Matrix:	Surface Water
Percent Solids:		File ID:	100318A-014

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	262	200	200	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/03/18 08:49	EPA 7470A	10/03/18 11:54 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-38-2	Arsenic	6.35	3.00	3.00	1		10/03/18 08:39	EPA 3005A	10/05/18 13:27 LIT	EPA 6010D
7440-39-3	Barium	54.6	20.0	20.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-70-2	Calcium	121000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7439-89-6	Iron	421	300	300	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7439-95-4	Magnesium	342000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7439-96-5	Manganese	136	10.0	10.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-09-7	Potassium	114000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-23-5	Sodium	3150000	100000	100000	100	D	10/03/18 08:39	EPA 3005A	10/03/18 16:15 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:49 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-01
Lab Sample ID: 1801556-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 15:00	Matrix:	Surface Water
Percent Solids:		File ID:	100318A-015

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/03/18 08:49	EPA 7470A	10/03/18 11:57 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-38-2	Arsenic	4.30	3.00	3.00	1		10/03/18 08:39	EPA 3005A	10/05/18 13:32 LIT	EPA 6010D
7440-39-3	Barium	42.5	20.0	20.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-70-2	Calcium	148000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7439-95-4	Magnesium	440000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7439-96-5	Manganese	92.3	10.0	10.0	1		10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-09-7	Potassium	149000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-23-5	Sodium	4040000	100000	100000	100	D	10/03/18 08:39	EPA 3005A	10/03/18 16:21 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 15:55 LIT	EPA 6010D

* Values outside of QC limits
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-02
Lab Sample ID: 1801556-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 15:35	Matrix:	Surface Water
Percent Solids:		File ID:	100318A-016

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/03/18 08:49	EPA 7470A	10/03/18 11:59 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-38-2	Arsenic	3.95	3.00	3.00	1		10/03/18 08:39	EPA 3005A	10/05/18 13:37 LIT	EPA 6010D
7440-39-3	Barium	46.3	20.0	20.0	1		10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-70-2	Calcium	139000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7439-95-4	Magnesium	411000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7439-96-5	Manganese	97.1	10.0	10.0	1		10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-09-7	Potassium	138000	1000	1000	1		10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-23-5	Sodium	3800000	100000	100000	100	D	10/03/18 08:39	EPA 3005A	10/03/18 16:26 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/03/18 08:39	EPA 3005A	10/03/18 16:00 LIT	EPA 6010D

* Values outside of QC limits
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METALS

Accredited Analytical Resources, LLC.

20 Pershing Ave
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-07
Lab Sample ID: 1801556-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	100318B-013

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7439-96-5	Manganese (diss)	259	10.0	10.0	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7439-89-6	Iron (diss)	448	300	300	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-39-3	Barium (diss)	82.9	20.0	20.0	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-70-2	Calcium (diss)	26100	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	28000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-09-7	Potassium (diss)	3090	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-02-0	Nickel (diss)	13.8	10.0	10.0	1		10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/03/18 09:04	EPA 3005A	10/05/18 10:44 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	3.03	3.00	3.00	1		10/03/18 09:04	EPA 3005A	10/05/18 10:44 LIT	EPA 6010D
7440-23-5	Sodium (diss)	73800	1000	1000	1		10/03/18 09:04	EPA 3005A	10/05/18 10:44 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:36 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 17:48 LIT	EPA 6010D

* Values outside of QC limits
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-06
Lab Sample ID: 1801556-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 13:45	Matrix:	Surface Water
Percent Solids:		File ID:	100318B-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-70-2	Calcium (diss)	119000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-39-3	Barium (diss)	50.5	20.0	20.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-09-7	Potassium (diss)	112000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7439-96-5	Manganese (diss)	128	10.0	10.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	342000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	9.38	3.00	3.00	1		10/03/18 09:04	EPA 3005A	10/05/18 11:09 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/03/18 09:04	EPA 3005A	10/05/18 11:09 LIT	EPA 6010D
7440-23-5	Sodium (diss)	3160000	100000	100000	100	D	10/03/18 09:04	EPA 3005A	10/15/18 15:48 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:38 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:13 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-01
Lab Sample ID: 1801556-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 15:00	Matrix:	Surface Water
Percent Solids:		File ID:	100318B-019

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7439-96-5	Manganese (diss)	90.1	10.0	10.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-39-3	Barium (diss)	41.2	20.0	20.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	441000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-09-7	Potassium (diss)	148000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-70-2	Calcium (diss)	147000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/03/18 09:04	EPA 3005A	10/05/18 11:14 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	4.90	3.00	3.00	1		10/03/18 09:04	EPA 3005A	10/05/18 11:14 LIT	EPA 6010D
7440-23-5	Sodium (diss)	4210000	100000	100000	100	D	10/03/18 09:04	EPA 3005A	10/15/18 15:53 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:40 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:18 LIT	EPA 6010D

* Values outside of QC limits
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E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-02
Lab Sample ID: 1801556-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 15:35	Matrix:	Surface Water
Percent Solids:		File ID:	100318B-020

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-70-2	Calcium (diss)	125000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	364000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-09-7	Potassium (diss)	121000	1000	1000	1		10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-39-3	Barium (diss)	43.2	20.0	20.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7439-96-5	Manganese (diss)	90.8	10.0	10.0	1		10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	5.32	3.00	3.00	1		10/03/18 09:04	EPA 3005A	10/05/18 11:19 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/03/18 09:04	EPA 3005A	10/05/18 11:19 LIT	EPA 6010D
7440-23-5	Sodium (diss)	3550000	100000	100000	100	D	10/03/18 09:04	EPA 3005A	10/15/18 15:59 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:43 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/03/18 09:04	EPA 3005A	10/03/18 18:23 LIT	EPA 6010D

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Carteret, New Jersey 07008
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WET CHEMISTRY

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Carteret, New Jersey 07008
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WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-07
Lab Sample ID: 1801556-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	180	4.00	4.00	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

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ND - Indicates compound analyzed for but not detected
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WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-06
Lab Sample ID: 1801556-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 13:45	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	2200	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

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U - Indicates compound analyzed for but not detected at the MDL
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ANALYSIS DATA SHEET

Inorganics

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-01**
Lab Sample ID: **1801556-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801556**

Date Sampled:	10/01/18 15:00	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	2200	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-02
Lab Sample ID: 1801556-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801556

Date Sampled:	10/01/18 15:35	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1900	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

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U - Indicates compound analyzed for but not detected at the MDL
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Analytical Report

Prepared for

Brookfield Construction Associates, LLC

3730 Park Avenue

South Plainfield, NJ 07080

Report Information

Project Name: Richmond Creek

AAR Work Order: **1801576**

Client Sample ID	Laboratory Sample Number
BK2-SW-11	1801576-01
BK2-SW-12	1801576-02
BK2-SW-13	1801576-03
BK2-SW-14	1801576-04
BK2-SW-TB	1801576-05
BK2-SW-FB01	1801576-06

New Jersey Certification Number: 12007
New York Certification Number: 11109
Pennsylvania Certification Number: 68-02799
CT Certification Number: PH-0219

This data has been reviewed and accepted by:

Daniel Miguel
Technical Director

10/18/2018

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Methodology Summary

EPA Method SW846 8081B/8082A

NY 8081B/8082A

Semivolatile Organic Compounds EPA Method SW846 8270

8270D

Total Mercury by SW846 7470

EPA 7470A

Total Metals by EPA Method SW846 6010

6010D

Volatile Organic Compounds EPA Method SW846 8260

8260C

Wet Chemistry

NJ Hardness by SM 2340 C
NY Hardness by SM 2340 B

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Dissolved Mercury by SW846 7470

EPA 7470A

Dissolved Metals by EPA Method SW846 6010

6010D

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Condition of Samples on Receipt

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Richmond Creek
AAR Work Order Number:	1801576

Temperature of Cooler:	4°C
Chain of Custody Filled Out Properly	Yes
Proper Containers and Volumes	Yes
Received Within Holding Time	Yes
Samples Received with Correct Preservation	Yes
Samples Received On Ice	Yes
Sample Received Via Field Services	No
Samples Hand Delivered	Yes

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

CHAIN OF CUSTODY FORM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Richmond Creek
CONTACT:	Mike Tucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd
CITY:	Staten Island
STATE:	NY ZIP: 10308

AAR QUOTE #	
AAR WORK ORDER #	1801576
P.O. #	

COLLECTION INFORMATION / ANALYSIS

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL BNA	TCL PEST/PCBS	TAL Metals	Diss Metals	TCL VOA	Total Hardness	TOC	Mi	AAR SAMPLE #
PRES. CODE →						G	G	P	P	G	R	2	3	
CONT. CODE →														
~~BK2-SW-03~~	~~10/3/18~~	~~SW~~		~~7~~										
~~-04~~				~~7~~		DSN 10-3-18								
~~-05~~				~~7~~										
BK2-SW-11	1140			7		1	1	1	1	2	1			-01
-12	1210			7		1	1	1	1	2	1			-02
-13	1245			7		1	1	1	1	2	1			-03
-14	0905			7		1	1	1	1	2	1			-04
BK2-SW-TB	10/3/18									2				-05
BK2-SD-FB01	10-3-18 1150			4		1	1	1		2		1		-06

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ✓ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: SIGN:

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don NAZARIO	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: D. Miguel
Signature:	Signature:	Signature:	Signature:
Agent of: Northeast	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received: 10/03/18 Time: 1705		Date Received: 10/03/18 Time: 18:00	

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / / Time:		Date Received: / / Time:	

Ref. No: G 370214439

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Analytical Report for Samples

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Richmond Creek

Client Field ID	AAR Laboratory Number	Matrix	Date/Time Sampled	Date/Time Received
BK2-SW-11	1801576-01	Surface Water	10/03/2018 11:40	10/03/2018 18:00
BK2-SW-12	1801576-02	Surface Water	10/03/2018 12:10	10/03/2018 18:00
BK2-SW-13	1801576-03	Surface Water	10/03/2018 12:45	10/03/2018 18:00
BK2-SW-14	1801576-04	Surface Water	10/03/2018 09:05	10/03/2018 18:00
BK2-SW-TB	1801576-05	Aqueous	10/03/2018 00:00	10/03/2018 18:00
BK2-SW-FB01	1801576-06	Aqueous	10/03/2018 11:50	10/03/2018 18:00

Data Qualifiers

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ND - Indicates compound analyzed for but not detected at or above the MDL
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VC - The container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.

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PEST/PCB

Accredited Analytical Resources, LLC.

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24603.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 16:52
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00220	0.00220	U
319-85-7	beta-BHC	ND	0.00220	0.00220	U
319-86-8	delta-BHC	ND	0.00220	0.00220	U
58-89-9	gamma-BHC [Lindane]	ND	0.00220	0.00220	U
76-44-8	Heptachlor	ND	0.00220	0.00220	U
309-00-2	Aldrin	ND	0.00220	0.00220	U
1024-57-3	Heptachlor Epoxide	ND	0.00220	0.00220	U
959-98-8	Endosulfan I	ND	0.00220	0.00220	U
60-57-1	Dieldrin	ND	0.00440	0.00440	U
72-55-9	4,4'-DDE	ND	0.00440	0.00440	U
72-20-8	Endrin	ND	0.00440	0.00440	U
33213-65-9	Endosulfan II	ND	0.00440	0.00440	U
72-54-8	4,4'-DDD	ND	0.00440	0.00440	U
1031-07-8	Endosulfan sulfate	ND	0.00440	0.00440	U
50-29-3	4,4'-DDT	ND	0.00440	0.00440	U
72-43-5	Methoxychlor	ND	0.0220	0.0220	U
53494-70-5	Endrin ketone	ND	0.00440	0.0440	U
7421-93-4	Endrin aldehyde	ND	0.00440	0.0440	U
5103-71-9	alpha-Chlordane	ND	0.00220	0.00220	U
5566-34-7	gamma-Chlordane	ND	0.00220	0.00220	U
8001-35-2	Toxaphene	ND	0.110	0.110	U
12674-11-2	Aroclor-1016	ND	0.0549	0.110	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24603.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 16:52
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0549	0.110	U
11141-16-5	Aroclor-1232	ND	0.0549	0.110	U
53469-21-9	Aroclor-1242	ND	0.0549	0.110	U
12672-29-6	Aroclor-1248	ND	0.0549	0.110	U
11097-69-1	Aroclor-1254	ND	0.0549	0.110	U
11096-82-5	Aroclor-1260	ND	0.0549	0.110	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	37.3%	10-132
Tetrachloro-m-xylene [2C]	38.4%	10-157
Decachlorobiphenyl	48.8%	10-147
Decachlorobiphenyl [2C]	57.4%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24604.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 17:21
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00215	0.00215	U
319-85-7	beta-BHC	ND	0.00215	0.00215	U
319-86-8	delta-BHC	ND	0.00215	0.00215	U
58-89-9	gamma-BHC [Lindane]	ND	0.00215	0.00215	U
76-44-8	Heptachlor	ND	0.00215	0.00215	U
309-00-2	Aldrin	ND	0.00215	0.00215	U
1024-57-3	Heptachlor Epoxide	ND	0.00215	0.00215	U
959-98-8	Endosulfan I	ND	0.00215	0.00215	U
60-57-1	Dieldrin	ND	0.00430	0.00430	U
72-55-9	4,4'-DDE	ND	0.00430	0.00430	U
72-20-8	Endrin	ND	0.00430	0.00430	U
33213-65-9	Endosulfan II	ND	0.00430	0.00430	U
72-54-8	4,4'-DDD	ND	0.00430	0.00430	U
1031-07-8	Endosulfan sulfate	ND	0.00430	0.00430	U
50-29-3	4,4'-DDT	ND	0.00430	0.00430	U
72-43-5	Methoxychlor	ND	0.0215	0.0215	U
53494-70-5	Endrin ketone	ND	0.00430	0.0430	U
7421-93-4	Endrin aldehyde	ND	0.00430	0.0430	U
5103-71-9	alpha-Chlordane	ND	0.00215	0.00215	U
5566-34-7	gamma-Chlordane	ND	0.00215	0.00215	U
8001-35-2	Toxaphene	ND	0.108	0.108	U
12674-11-2	Aroclor-1016	ND	0.0538	0.108	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24604.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 17:21
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0538	0.108	U
11141-16-5	Aroclor-1232	ND	0.0538	0.108	U
53469-21-9	Aroclor-1242	ND	0.0538	0.108	U
12672-29-6	Aroclor-1248	ND	0.0538	0.108	U
11097-69-1	Aroclor-1254	ND	0.0538	0.108	U
11096-82-5	Aroclor-1260	ND	0.0538	0.108	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.5%	10-132
Tetrachloro-m-xylene [2C]	52.6%	10-157
Decachlorobiphenyl	48.8%	10-147
Decachlorobiphenyl [2C]	55.6%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24605.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 17:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00206	0.00206	U
319-85-7	beta-BHC	ND	0.00206	0.00206	U
319-86-8	delta-BHC	ND	0.00206	0.00206	U
58-89-9	gamma-BHC [Lindane]	ND	0.00206	0.00206	U
76-44-8	Heptachlor	ND	0.00206	0.00206	U
309-00-2	Aldrin	ND	0.00206	0.00206	U
1024-57-3	Heptachlor Epoxide	ND	0.00206	0.00206	U
959-98-8	Endosulfan I	ND	0.00206	0.00206	U
60-57-1	Dieldrin	ND	0.00412	0.00412	U
72-55-9	4,4'-DDE	ND	0.00412	0.00412	U
72-20-8	Endrin	ND	0.00412	0.00412	U
33213-65-9	Endosulfan II	ND	0.00412	0.00412	U
72-54-8	4,4'-DDD	ND	0.00412	0.00412	U
1031-07-8	Endosulfan sulfate	ND	0.00412	0.00412	U
50-29-3	4,4'-DDT	ND	0.00412	0.00412	U
72-43-5	Methoxychlor	ND	0.0206	0.0206	U
53494-70-5	Endrin ketone	ND	0.00412	0.0412	U
7421-93-4	Endrin aldehyde	ND	0.00412	0.0412	U
5103-71-9	alpha-Chlordane	ND	0.00206	0.00206	U
5566-34-7	gamma-Chlordane	ND	0.00206	0.00206	U
8001-35-2	Toxaphene	ND	0.103	0.103	U
12674-11-2	Aroclor-1016	ND	0.0515	0.103	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24605.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 17:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0515	0.103	U
11141-16-5	Aroclor-1232	ND	0.0515	0.103	U
53469-21-9	Aroclor-1242	ND	0.0515	0.103	U
12672-29-6	Aroclor-1248	ND	0.0515	0.103	U
11097-69-1	Aroclor-1254	ND	0.0515	0.103	U
11096-82-5	Aroclor-1260	ND	0.0515	0.103	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	35.7%	10-132
Tetrachloro-m-xylene [2C]	35.9%	10-157
Decachlorobiphenyl	37.4%	10-147
Decachlorobiphenyl [2C]	41.3%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24606.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 18:18
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00204	0.00204	U
319-85-7	beta-BHC	ND	0.00204	0.00204	U
319-86-8	delta-BHC	ND	0.00204	0.00204	U
58-89-9	gamma-BHC [Lindane]	ND	0.00204	0.00204	U
76-44-8	Heptachlor	ND	0.00204	0.00204	U
309-00-2	Aldrin	ND	0.00204	0.00204	U
1024-57-3	Heptachlor Epoxide	ND	0.00204	0.00204	U
959-98-8	Endosulfan I	ND	0.00204	0.00204	U
60-57-1	Dieldrin	ND	0.00408	0.00408	U
72-55-9	4,4'-DDE	ND	0.00408	0.00408	U
72-20-8	Endrin	ND	0.00408	0.00408	U
33213-65-9	Endosulfan II	ND	0.00408	0.00408	U
72-54-8	4,4'-DDD	ND	0.00408	0.00408	U
1031-07-8	Endosulfan sulfate	ND	0.00408	0.00408	U
50-29-3	4,4'-DDT	ND	0.00408	0.00408	U
72-43-5	Methoxychlor	ND	0.0204	0.0204	U
53494-70-5	Endrin ketone	ND	0.00408	0.0408	U
7421-93-4	Endrin aldehyde	ND	0.00408	0.0408	U
5103-71-9	alpha-Chlordane	ND	0.00204	0.00204	U
5566-34-7	gamma-Chlordane	ND	0.00204	0.00204	U
8001-35-2	Toxaphene	ND	0.102	0.102	U
12674-11-2	Aroclor-1016	ND	0.0510	0.102	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24606.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 18:18
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0510	0.102	U
11141-16-5	Aroclor-1232	ND	0.0510	0.102	U
53469-21-9	Aroclor-1242	ND	0.0510	0.102	U
12672-29-6	Aroclor-1248	ND	0.0510	0.102	U
11097-69-1	Aroclor-1254	ND	0.0510	0.102	U
11096-82-5	Aroclor-1260	ND	0.0510	0.102	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	42.7%	10-132
Tetrachloro-m-xylene [2C]	38.4%	10-157
Decachlorobiphenyl	57.7%	10-147
Decachlorobiphenyl [2C]	64.2%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/07/18 08:33	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24607.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 18:47
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00200	0.00200	U
319-85-7	beta-BHC	ND	0.00200	0.00200	U
319-86-8	delta-BHC	ND	0.00200	0.00200	U
58-89-9	gamma-BHC [Lindane]	ND	0.00200	0.00200	U
76-44-8	Heptachlor	ND	0.00200	0.00200	U
309-00-2	Aldrin	ND	0.00200	0.00200	U
1024-57-3	Heptachlor Epoxide	ND	0.00200	0.00200	U
959-98-8	Endosulfan I	ND	0.00200	0.00200	U
60-57-1	Dieldrin	ND	0.00400	0.00400	U
72-55-9	4,4'-DDE	ND	0.00400	0.00400	U
72-20-8	Endrin	ND	0.00400	0.00400	U
33213-65-9	Endosulfan II	ND	0.00400	0.00400	U
72-54-8	4,4'-DDD	ND	0.00400	0.00400	U
1031-07-8	Endosulfan sulfate	ND	0.00400	0.00400	U
50-29-3	4,4'-DDT	ND	0.00400	0.00400	U
72-43-5	Methoxychlor	ND	0.0200	0.0200	U
53494-70-5	Endrin ketone	ND	0.00400	0.0400	U
7421-93-4	Endrin aldehyde	ND	0.00400	0.0400	U
5103-71-9	alpha-Chlordane	ND	0.00200	0.00200	U
5566-34-7	gamma-Chlordane	ND	0.00200	0.00200	U
8001-35-2	Toxaphene	ND	0.100	0.100	U
12674-11-2	Aroclor-1016	ND	0.0500	0.100	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/07/18 08:33	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24607.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 18:47
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0500	0.100	U
11141-16-5	Aroclor-1232	ND	0.0500	0.100	U
53469-21-9	Aroclor-1242	ND	0.0500	0.100	U
12672-29-6	Aroclor-1248	ND	0.0500	0.100	U
11097-69-1	Aroclor-1254	ND	0.0500	0.100	U
11096-82-5	Aroclor-1260	ND	0.0500	0.100	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	78.3%	10-132
Tetrachloro-m-xylene [2C]	78.8%	10-157
Decachlorobiphenyl	62.5%	10-147
Decachlorobiphenyl [2C]	68.7%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.
20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15924.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/11/18 23:46
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.549	2.75	U
108-95-2	Phenol	ND	0.549	2.75	U
111-44-4	bis(2-chloroethyl)ether	ND	0.549	2.75	U
95-57-8	2-Chlorophenol	ND	0.549	2.75	U
541-73-1	1,3-Dichlorobenzene	ND	0.549	2.75	U
106-46-7	1,4-Dichlorobenzene	ND	0.549	2.75	U
100-51-6	Benzyl alcohol	ND	0.549	2.75	U
95-50-1	1,2-Dichlorobenzene	ND	0.549	2.75	U
95-48-7	2-Methylphenol	ND	0.549	2.75	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.549	2.75	U
106-44-5	3 & 4-Methylphenol	ND	0.549	2.75	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.549	2.75	U
67-72-1	Hexachloroethane	ND	0.549	2.75	U
98-95-3	Nitrobenzene	ND	0.549	2.75	U
78-59-1	Isophorone	ND	0.549	2.75	U
88-75-5	2-Nitrophenol	ND	0.549	2.75	U
105-67-9	2,4-Dimethylphenol	ND	0.549	2.75	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.549	2.75	U
120-83-2	2,4-Dichlorophenol	ND	0.549	2.75	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.549	2.75	U
91-20-3	Naphthalene	ND	0.549	2.75	U
106-47-8	4-Chloroaniline	ND	0.549	2.75	U
87-68-3	Hexachlorobutadiene	ND	0.549	2.75	U
59-50-7	4-Chloro-3-methylphenol	ND	0.549	2.75	U

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15924.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/11/18 23:46
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.549	2.75	U
77-47-4	Hexachlorocyclopentadiene	ND	0.549	2.75	U
88-06-2	2,4,6-Trichlorophenol	ND	0.549	2.75	U
95-95-4	2,4,5-Trichlorophenol	ND	0.549	2.75	U
91-58-7	2-Chloronaphthalene	ND	0.549	2.75	U
88-74-4	2-Nitroaniline	ND	0.549	2.75	U
131-11-3	Dimethylphthalate	ND	0.549	2.75	U
208-96-8	Acenaphthylene	ND	0.549	2.75	U
99-09-2	3-Nitroaniline	ND	0.549	2.75	U
83-32-9	Acenaphthene	ND	0.549	2.75	U
51-28-5	2,4-Dinitrophenol	ND	1.10	5.49	U
100-02-7	4-Nitrophenol	ND	0.549	2.75	U
132-64-9	Dibenzofuran	ND	0.549	2.75	U
606-20-2	2,6-Dinitrotoluene	ND	0.549	2.75	U
121-14-2	2,4-Dinitrotoluene	ND	0.549	2.75	U
84-66-2	Diethyl phthalate	ND	0.549	2.75	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.549	2.75	U
86-73-7	Fluorene	ND	0.549	2.75	U
100-01-6	4-Nitroaniline	ND	0.549	2.75	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.549	2.75	U
86-30-6	N-Nitrosodiphenylamine	ND	0.549	2.75	U
101-55-3	4-Bromophenyl-phenylether	ND	0.549	2.75	U
118-74-1	Hexachlorobenzene	ND	0.549	2.75	U
87-86-5	Pentachlorophenol	ND	0.549	2.75	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15924.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/11/18 23:46
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.110	2.75	U
120-12-7	Anthracene	ND	0.549	2.75	U
84-74-2	Di-n-butyl phthalate	ND	0.549	2.75	U
206-44-0	Fluoranthene	ND	0.549	2.75	U
129-00-0	Pyrene	ND	0.549	2.75	U
85-68-7	Butylbenzylphthalate	ND	0.549	2.75	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.549	2.75	U
56-55-3	Benzo[a]anthracene	ND	0.110	2.75	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.549	2.75	U
218-01-9	Chrysene	ND	0.110	2.75	U
117-84-0	Di-n-octyl phthalate	ND	0.549	2.75	U
205-99-2	Benzo[b]fluoranthene	ND	0.220	2.75	U
207-08-9	Benzo[k]fluoranthene	ND	0.549	2.75	U
50-32-8	Benzo[a]pyrene	ND	0.549	2.75	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.549	2.75	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.220	2.75	U
191-24-2	Benzo[ghi]perylene	ND	0.549	2.75	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	36%	10-94
Phenol-d5	29%	10-112
Nitrobenzene-d5	70%	22-116
2-Fluorobiphenyl	73%	23-109
2,4,6-Tribromophenol	100%	10-181
Terphenyl-d14	83%	17-133

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Phone: 732-969-6112
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15925.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 00:29
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.521	2.60	U
108-95-2	Phenol	ND	0.521	2.60	U
111-44-4	bis(2-chloroethyl)ether	ND	0.521	2.60	U
95-57-8	2-Chlorophenol	ND	0.521	2.60	U
541-73-1	1,3-Dichlorobenzene	ND	0.521	2.60	U
106-46-7	1,4-Dichlorobenzene	ND	0.521	2.60	U
100-51-6	Benzyl alcohol	ND	0.521	2.60	U
95-50-1	1,2-Dichlorobenzene	ND	0.521	2.60	U
95-48-7	2-Methylphenol	ND	0.521	2.60	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.521	2.60	U
106-44-5	3 & 4-Methylphenol	ND	0.521	2.60	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.521	2.60	U
67-72-1	Hexachloroethane	ND	0.521	2.60	U
98-95-3	Nitrobenzene	ND	0.521	2.60	U
78-59-1	Isophorone	ND	0.521	2.60	U
88-75-5	2-Nitrophenol	ND	0.521	2.60	U
105-67-9	2,4-Dimethylphenol	ND	0.521	2.60	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.521	2.60	U
120-83-2	2,4-Dichlorophenol	ND	0.521	2.60	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.521	2.60	U
91-20-3	Naphthalene	ND	0.521	2.60	U
106-47-8	4-Chloroaniline	ND	0.521	2.60	U
87-68-3	Hexachlorobutadiene	ND	0.521	2.60	U
59-50-7	4-Chloro-3-methylphenol	ND	0.521	2.60	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15925.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 00:29
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.521	2.60	U
77-47-4	Hexachlorocyclopentadiene	ND	0.521	2.60	U
88-06-2	2,4,6-Trichlorophenol	ND	0.521	2.60	U
95-95-4	2,4,5-Trichlorophenol	ND	0.521	2.60	U
91-58-7	2-Chloronaphthalene	ND	0.521	2.60	U
88-74-4	2-Nitroaniline	ND	0.521	2.60	U
131-11-3	Dimethylphthalate	ND	0.521	2.60	U
208-96-8	Acenaphthylene	ND	0.521	2.60	U
99-09-2	3-Nitroaniline	ND	0.521	2.60	U
83-32-9	Acenaphthene	ND	0.521	2.60	U
51-28-5	2,4-Dinitrophenol	ND	1.04	5.21	U
100-02-7	4-Nitrophenol	ND	0.521	2.60	U
132-64-9	Dibenzofuran	ND	0.521	2.60	U
606-20-2	2,6-Dinitrotoluene	ND	0.521	2.60	U
121-14-2	2,4-Dinitrotoluene	ND	0.521	2.60	U
84-66-2	Diethyl phthalate	ND	0.521	2.60	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.521	2.60	U
86-73-7	Fluorene	ND	0.521	2.60	U
100-01-6	4-Nitroaniline	ND	0.521	2.60	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.521	2.60	U
86-30-6	N-Nitrosodiphenylamine	ND	0.521	2.60	U
101-55-3	4-Bromophenyl-phenylether	ND	0.521	2.60	U
118-74-1	Hexachlorobenzene	ND	0.521	2.60	U
87-86-5	Pentachlorophenol	ND	0.521	2.60	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15925.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 00:29
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.104	2.60	U
120-12-7	Anthracene	ND	0.521	2.60	U
84-74-2	Di-n-butyl phthalate	ND	0.521	2.60	U
206-44-0	Fluoranthene	ND	0.521	2.60	U
129-00-0	Pyrene	ND	0.521	2.60	U
85-68-7	Butylbenzylphthalate	ND	0.521	2.60	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.521	2.60	U
56-55-3	Benzo[a]anthracene	ND	0.104	2.60	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.521	2.60	U
218-01-9	Chrysene	ND	0.104	2.60	U
117-84-0	Di-n-octyl phthalate	ND	0.521	2.60	U
205-99-2	Benzo[b]fluoranthene	ND	0.208	2.60	U
207-08-9	Benzo[k]fluoranthene	ND	0.521	2.60	U
50-32-8	Benzo[a]pyrene	ND	0.521	2.60	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.521	2.60	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.208	2.60	U
191-24-2	Benzo[ghi]perylene	ND	0.521	2.60	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	30%	10-94
Phenol-d5	24%	10-112
Nitrobenzene-d5	66%	22-116
2-Fluorobiphenyl	67%	23-109
2,4,6-Tribromophenol	91%	10-181
Terphenyl-d14	76%	17-133

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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15926.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:13
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.556	2.78	U
108-95-2	Phenol	ND	0.556	2.78	U
111-44-4	bis(2-chloroethyl)ether	ND	0.556	2.78	U
95-57-8	2-Chlorophenol	ND	0.556	2.78	U
541-73-1	1,3-Dichlorobenzene	ND	0.556	2.78	U
106-46-7	1,4-Dichlorobenzene	ND	0.556	2.78	U
100-51-6	Benzyl alcohol	ND	0.556	2.78	U
95-50-1	1,2-Dichlorobenzene	ND	0.556	2.78	U
95-48-7	2-Methylphenol	ND	0.556	2.78	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.556	2.78	U
106-44-5	3 & 4-Methylphenol	ND	0.556	2.78	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.556	2.78	U
67-72-1	Hexachloroethane	ND	0.556	2.78	U
98-95-3	Nitrobenzene	ND	0.556	2.78	U
78-59-1	Isophorone	ND	0.556	2.78	U
88-75-5	2-Nitrophenol	ND	0.556	2.78	U
105-67-9	2,4-Dimethylphenol	ND	0.556	2.78	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.556	2.78	U
120-83-2	2,4-Dichlorophenol	ND	0.556	2.78	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.556	2.78	U
91-20-3	Naphthalene	ND	0.556	2.78	U
106-47-8	4-Chloroaniline	ND	0.556	2.78	U
87-68-3	Hexachlorobutadiene	ND	0.556	2.78	U
59-50-7	4-Chloro-3-methylphenol	ND	0.556	2.78	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15926.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:13
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.556	2.78	U
77-47-4	Hexachlorocyclopentadiene	ND	0.556	2.78	U
88-06-2	2,4,6-Trichlorophenol	ND	0.556	2.78	U
95-95-4	2,4,5-Trichlorophenol	ND	0.556	2.78	U
91-58-7	2-Chloronaphthalene	ND	0.556	2.78	U
88-74-4	2-Nitroaniline	ND	0.556	2.78	U
131-11-3	Dimethylphthalate	ND	0.556	2.78	U
208-96-8	Acenaphthylene	ND	0.556	2.78	U
99-09-2	3-Nitroaniline	ND	0.556	2.78	U
83-32-9	Acenaphthene	ND	0.556	2.78	U
51-28-5	2,4-Dinitrophenol	ND	1.11	5.56	U
100-02-7	4-Nitrophenol	ND	0.556	2.78	U
132-64-9	Dibenzofuran	ND	0.556	2.78	U
606-20-2	2,6-Dinitrotoluene	ND	0.556	2.78	U
121-14-2	2,4-Dinitrotoluene	ND	0.556	2.78	U
84-66-2	Diethyl phthalate	ND	0.556	2.78	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.556	2.78	U
86-73-7	Fluorene	ND	0.556	2.78	U
100-01-6	4-Nitroaniline	ND	0.556	2.78	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.556	2.78	U
86-30-6	N-Nitrosodiphenylamine	ND	0.556	2.78	U
101-55-3	4-Bromophenyl-phenylether	ND	0.556	2.78	U
118-74-1	Hexachlorobenzene	ND	0.556	2.78	U
87-86-5	Pentachlorophenol	ND	0.556	2.78	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15926.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:13
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.111	2.78	U
120-12-7	Anthracene	ND	0.556	2.78	U
84-74-2	Di-n-butyl phthalate	ND	0.556	2.78	U
206-44-0	Fluoranthene	ND	0.556	2.78	U
129-00-0	Pyrene	ND	0.556	2.78	U
85-68-7	Butylbenzylphthalate	ND	0.556	2.78	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.556	2.78	U
56-55-3	Benzo[a]anthracene	ND	0.111	2.78	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.556	2.78	U
218-01-9	Chrysene	ND	0.111	2.78	U
117-84-0	Di-n-octyl phthalate	ND	0.556	2.78	U
205-99-2	Benzo[b]fluoranthene	ND	0.222	2.78	U
207-08-9	Benzo[k]fluoranthene	ND	0.556	2.78	U
50-32-8	Benzo[a]pyrene	ND	0.556	2.78	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.556	2.78	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.222	2.78	U
191-24-2	Benzo[ghi]perylene	ND	0.556	2.78	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	33%	10-94
Phenol-d5	27%	10-112
Nitrobenzene-d5	72%	22-116
2-Fluorobiphenyl	73%	23-109
2,4,6-Tribromophenol	104%	10-181
Terphenyl-d14	80%	17-133

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Carteret, New Jersey 07008
Phone: 732-969-6112
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15927.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:57
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.515	2.58	U
108-95-2	Phenol	ND	0.515	2.58	U
111-44-4	bis(2-chloroethyl)ether	ND	0.515	2.58	U
95-57-8	2-Chlorophenol	ND	0.515	2.58	U
541-73-1	1,3-Dichlorobenzene	ND	0.515	2.58	U
106-46-7	1,4-Dichlorobenzene	ND	0.515	2.58	U
100-51-6	Benzyl alcohol	ND	0.515	2.58	U
95-50-1	1,2-Dichlorobenzene	ND	0.515	2.58	U
95-48-7	2-Methylphenol	ND	0.515	2.58	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.515	2.58	U
106-44-5	3 & 4-Methylphenol	ND	0.515	2.58	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.515	2.58	U
67-72-1	Hexachloroethane	ND	0.515	2.58	U
98-95-3	Nitrobenzene	ND	0.515	2.58	U
78-59-1	Isophorone	ND	0.515	2.58	U
88-75-5	2-Nitrophenol	ND	0.515	2.58	U
105-67-9	2,4-Dimethylphenol	ND	0.515	2.58	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.515	2.58	U
120-83-2	2,4-Dichlorophenol	ND	0.515	2.58	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.515	2.58	U
91-20-3	Naphthalene	ND	0.515	2.58	U
106-47-8	4-Chloroaniline	ND	0.515	2.58	U
87-68-3	Hexachlorobutadiene	ND	0.515	2.58	U
59-50-7	4-Chloro-3-methylphenol	ND	0.515	2.58	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15927.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:57
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.515	2.58	U
77-47-4	Hexachlorocyclopentadiene	ND	0.515	2.58	U
88-06-2	2,4,6-Trichlorophenol	ND	0.515	2.58	U
95-95-4	2,4,5-Trichlorophenol	ND	0.515	2.58	U
91-58-7	2-Chloronaphthalene	ND	0.515	2.58	U
88-74-4	2-Nitroaniline	ND	0.515	2.58	U
131-11-3	Dimethylphthalate	ND	0.515	2.58	U
208-96-8	Acenaphthylene	ND	0.515	2.58	U
99-09-2	3-Nitroaniline	ND	0.515	2.58	U
83-32-9	Acenaphthene	ND	0.515	2.58	U
51-28-5	2,4-Dinitrophenol	ND	1.03	5.15	U
100-02-7	4-Nitrophenol	ND	0.515	2.58	U
132-64-9	Dibenzofuran	ND	0.515	2.58	U
606-20-2	2,6-Dinitrotoluene	ND	0.515	2.58	U
121-14-2	2,4-Dinitrotoluene	ND	0.515	2.58	U
84-66-2	Diethyl phthalate	ND	0.515	2.58	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.515	2.58	U
86-73-7	Fluorene	ND	0.515	2.58	U
100-01-6	4-Nitroaniline	ND	0.515	2.58	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.515	2.58	U
86-30-6	N-Nitrosodiphenylamine	ND	0.515	2.58	U
101-55-3	4-Bromophenyl-phenylether	ND	0.515	2.58	U
118-74-1	Hexachlorobenzene	ND	0.515	2.58	U
87-86-5	Pentachlorophenol	ND	0.515	2.58	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/10/18 05:41	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15927.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 01:57
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.103	2.58	U
120-12-7	Anthracene	ND	0.515	2.58	U
84-74-2	Di-n-butyl phthalate	ND	0.515	2.58	U
206-44-0	Fluoranthene	ND	0.515	2.58	U
129-00-0	Pyrene	ND	0.515	2.58	U
85-68-7	Butylbenzylphthalate	ND	0.515	2.58	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.515	2.58	U
56-55-3	Benzo[a]anthracene	ND	0.103	2.58	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.515	2.58	U
218-01-9	Chrysene	ND	0.103	2.58	U
117-84-0	Di-n-octyl phthalate	ND	0.515	2.58	U
205-99-2	Benzo[b]fluoranthene	ND	0.206	2.58	U
207-08-9	Benzo[k]fluoranthene	ND	0.515	2.58	U
50-32-8	Benzo[a]pyrene	ND	0.515	2.58	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.515	2.58	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.206	2.58	U
191-24-2	Benzo[ghi]perylene	ND	0.515	2.58	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	26%	10-94
Phenol-d5	21%	10-112
Nitrobenzene-d5	74%	22-116
2-Fluorobiphenyl	74%	23-109
2,4,6-Tribromophenol	97%	10-181
Terphenyl-d14	84%	17-133

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15928.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 02:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.521	2.60	U
108-95-2	Phenol	ND	0.521	2.60	U
111-44-4	bis(2-chloroethyl)ether	ND	0.521	2.60	U
95-57-8	2-Chlorophenol	ND	0.521	2.60	U
541-73-1	1,3-Dichlorobenzene	ND	0.521	2.60	U
106-46-7	1,4-Dichlorobenzene	ND	0.521	2.60	U
100-51-6	Benzyl alcohol	ND	0.521	2.60	U
95-50-1	1,2-Dichlorobenzene	ND	0.521	2.60	U
95-48-7	2-Methylphenol	ND	0.521	2.60	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.521	2.60	U
106-44-5	3 & 4-Methylphenol	ND	0.521	2.60	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.521	2.60	U
67-72-1	Hexachloroethane	ND	0.521	2.60	U
98-95-3	Nitrobenzene	ND	0.521	2.60	U
78-59-1	Isophorone	ND	0.521	2.60	U
88-75-5	2-Nitrophenol	ND	0.521	2.60	U
105-67-9	2,4-Dimethylphenol	ND	0.521	2.60	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.521	2.60	U
120-83-2	2,4-Dichlorophenol	ND	0.521	2.60	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.521	2.60	U
91-20-3	Naphthalene	ND	0.521	2.60	U
106-47-8	4-Chloroaniline	ND	0.521	2.60	U
87-68-3	Hexachlorobutadiene	ND	0.521	2.60	U
59-50-7	4-Chloro-3-methylphenol	ND	0.521	2.60	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15928.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 02:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.521	2.60	U
77-47-4	Hexachlorocyclopentadiene	ND	0.521	2.60	U
88-06-2	2,4,6-Trichlorophenol	ND	0.521	2.60	U
95-95-4	2,4,5-Trichlorophenol	ND	0.521	2.60	U
91-58-7	2-Chloronaphthalene	ND	0.521	2.60	U
88-74-4	2-Nitroaniline	ND	0.521	2.60	U
131-11-3	Dimethylphthalate	ND	0.521	2.60	U
208-96-8	Acenaphthylene	ND	0.521	2.60	U
99-09-2	3-Nitroaniline	ND	0.521	2.60	U
83-32-9	Acenaphthene	ND	0.521	2.60	U
51-28-5	2,4-Dinitrophenol	ND	1.04	5.21	U
100-02-7	4-Nitrophenol	ND	0.521	2.60	U
132-64-9	Dibenzofuran	ND	0.521	2.60	U
606-20-2	2,6-Dinitrotoluene	ND	0.521	2.60	U
121-14-2	2,4-Dinitrotoluene	ND	0.521	2.60	U
84-66-2	Diethyl phthalate	ND	0.521	2.60	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.521	2.60	U
86-73-7	Fluorene	ND	0.521	2.60	U
100-01-6	4-Nitroaniline	ND	0.521	2.60	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.521	2.60	U
86-30-6	N-Nitrosodiphenylamine	ND	0.521	2.60	U
101-55-3	4-Bromophenyl-phenylether	ND	0.521	2.60	U
118-74-1	Hexachlorobenzene	ND	0.521	2.60	U
87-86-5	Pentachlorophenol	ND	0.521	2.60	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15928.D
Prep Batch:	B8J1003	Sequence:	S8J1113	Analyzed:	10/12/18 02:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.104	2.60	U
120-12-7	Anthracene	ND	0.521	2.60	U
84-74-2	Di-n-butyl phthalate	ND	0.521	2.60	U
206-44-0	Fluoranthene	ND	0.521	2.60	U
129-00-0	Pyrene	ND	0.521	2.60	U
85-68-7	Butylbenzylphthalate	ND	0.521	2.60	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.521	2.60	U
56-55-3	Benzo[a]anthracene	ND	0.104	2.60	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.521	2.60	U
218-01-9	Chrysene	ND	0.104	2.60	U
117-84-0	Di-n-octyl phthalate	ND	0.521	2.60	U
205-99-2	Benzo[b]fluoranthene	ND	0.208	2.60	U
207-08-9	Benzo[k]fluoranthene	ND	0.521	2.60	U
50-32-8	Benzo[a]pyrene	ND	0.521	2.60	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.521	2.60	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.208	2.60	U
191-24-2	Benzo[ghi]perylene	ND	0.521	2.60	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	30%	10-94
Phenol-d5	23%	10-112
Nitrobenzene-d5	69%	22-116
2-Fluorobiphenyl	68%	23-109
2,4,6-Tribromophenol	96%	10-181
Terphenyl-d14	91%	17-133

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Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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VOLATILES SAMPLE DATA

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/05/18 21:26	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28764.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:26
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/05/18 21:26	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28764.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:26
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-11**
Lab Sample ID: **1801576-01**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:40	Prep Date:	10/05/18 21:26	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28764.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:26
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	107%	66-143
Toluene-d8	107%	83-120
Bromofluorobenzene	110%	79-127

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/05/18 21:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28765.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/05/18 21:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28765.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-12**
Lab Sample ID: **1801576-02**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:10	Prep Date:	10/05/18 21:56	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28765.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 21:56
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	107%	66-143
Toluene-d8	106%	83-120
Bromofluorobenzene	106%	79-127

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/05/18 22:28	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28766.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 22:28
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	2.56	2.50	5.00	J
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/05/18 22:28	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28766.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 22:28
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Prep Date:	10/05/18 22:28	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28766.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 22:28
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	106%	66-143
Toluene-d8	105%	83-120
Bromofluorobenzene	107%	79-127

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/08/18 18:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28783.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:22
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/08/18 18:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28783.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:22
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-14**
Lab Sample ID: **1801576-04**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 09:05	Prep Date:	10/08/18 18:22	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28783.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:22
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	100%	83-120
Bromofluorobenzene	109%	79-127

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-TB**
Lab Sample ID: **1801576-05**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 00:00	Prep Date:	10/11/18 15:30	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28803.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 15:30
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	1.33	0.400	1.00	
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-TB**
Lab Sample ID: **1801576-05**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 00:00	Prep Date:	10/11/18 15:30	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28803.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 15:30
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-TB**
Lab Sample ID: **1801576-05**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 00:00	Prep Date:	10/11/18 15:30	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28803.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 15:30
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	101%	66-143
Toluene-d8	103%	83-120
Bromofluorobenzene	109%	79-127

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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/05/18 16:44	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28755.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 16:44
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/05/18 16:44	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28755.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 16:44
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB01**
Lab Sample ID: **1801576-06**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 11:50	Prep Date:	10/05/18 16:44	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28755.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 16:44
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	110%	66-143
Toluene-d8	106%	83-120
Bromofluorobenzene	105%	79-127

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D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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METALS

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-11
Lab Sample ID: 1801576-01
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 11:40	Matrix:	Surface Water
Percent Solids:		File ID:	101118B-013

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	470	200	200	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:58 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-38-2	Arsenic	6.15	3.00	3.00	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-39-3	Barium	48.2	20.0	20.0	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-70-2	Calcium	82200	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-50-8	Copper	15.9	8.00	8.00	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7439-89-6	Iron	1040	300	300	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7439-92-1	Lead	12.0	5.00	5.00	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7439-95-4	Magnesium	218000	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7439-96-5	Manganese	157	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-09-7	Potassium	70200	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-23-5	Sodium	2200000	100000	100000	100	D	10/10/18 12:32	EPA 3005A	10/11/18 17:13 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D
7440-66-6	Zinc	31.4	25.0	25.0	1		10/10/18 12:32	EPA 3005A	10/11/18 14:58 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-12
Lab Sample ID: 1801576-02
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 12:10	Matrix:	Surface Water
Percent Solids:		File ID:	101118B-019

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	589	200	200	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 15:00 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-38-2	Arsenic	6.88	3.00	3.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-39-3	Barium	50.0	20.0	20.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-70-2	Calcium	87700	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-50-8	Copper	16.2	8.00	8.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7439-89-6	Iron	933	300	300	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7439-92-1	Lead	13.4	5.00	5.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7439-95-4	Magnesium	238000	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7439-96-5	Manganese	151	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-02-0	Nickel	13.5	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-09-7	Potassium	77000	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-23-5	Sodium	3060000	100000	100000	100	D	10/10/18 12:32	EPA 3005A	10/11/18 17:40 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D
7440-66-6	Zinc	37.2	25.0	25.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:29 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-13
Lab Sample ID: 1801576-03
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 12:45	Matrix:	Surface Water
Percent Solids:		File ID:	101118B-020

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	495	200	200	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 15:03 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-38-2	Arsenic	5.64	3.00	3.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-39-3	Barium	49.4	20.0	20.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-70-2	Calcium	74400	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-50-8	Copper	14.9	8.00	8.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7439-89-6	Iron	943	300	300	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7439-92-1	Lead	14.3	5.00	5.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7439-95-4	Magnesium	191000	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7439-96-5	Manganese	167	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-09-7	Potassium	61600	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-23-5	Sodium	1630000	100000	100000	100	D	10/10/18 12:32	EPA 3005A	10/11/18 17:55 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D
7440-66-6	Zinc	29.0	25.0	25.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:35 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-14
Lab Sample ID: 1801576-04
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 09:05	Matrix:	Surface Water
Percent Solids:		File ID:	101118B-023

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	425	200	200	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 15:05 BFG	EPA 7470A
7440-36-0	Antimony	6.42	5.00	5.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-38-2	Arsenic	ND	3.00	3.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-39-3	Barium	60.4	20.0	20.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-70-2	Calcium	16200	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-50-8	Copper	9.36	8.00	8.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7439-89-6	Iron	1230	300	300	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7439-92-1	Lead	5.87	5.00	5.00	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7439-95-4	Magnesium	16800	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7439-96-5	Manganese	193	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-02-0	Nickel	16.4	10.0	10.0	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-09-7	Potassium	2730	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-23-5	Sodium	48400	1000	1000	1		10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:50 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-FB01
Lab Sample ID: 1801576-06
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 11:50	Matrix:	Aqueous
Percent Solids:		File ID:	101118B-024

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 15:07 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-38-2	Arsenic	ND	3.00	3.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-39-3	Barium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-70-2	Calcium	ND	1000	1000	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7439-95-4	Magnesium	ND	1000	1000	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7439-96-5	Manganese	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-09-7	Potassium	ND	1000	1000	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-23-5	Sodium	ND	1000	1000	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/10/18 12:32	EPA 3005A	10/11/18 15:55 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-11
Lab Sample ID: 1801576-01
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 11:40	Matrix:	Surface Water
Percent Solids:		File ID:	101518B-013

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	208000	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7439-96-5	Manganese (diss)	139	10.0	10.0	1		10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-09-7	Potassium (diss)	69100	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-39-3	Barium (diss)	40.1	20.0	20.0	1		10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-23-5	Sodium (diss)	1890000	100000	100000	100	D	10/11/18 06:43	EPA 3005A	10/15/18 18:15 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:20 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:20 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	3.62	3.00	3.00	1		10/11/18 06:43	EPA 3005A	10/16/18 10:20 LIT	EPA 6010D
7440-70-2	Calcium (diss)	79100	1000	1000	1		10/11/18 06:43	EPA 3005A	10/16/18 10:20 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:07 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 17:39 LIT	EPA 6010D

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-12
Lab Sample ID: 1801576-02
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 12:10	Matrix:	Surface Water
Percent Solids:		File ID:	101518B-027

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-23-5	Sodium (diss)	1980000	100000	100000	100	D	10/11/18 06:43	EPA 3005A	10/15/18 18:52 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	223000	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7439-96-5	Manganese (diss)	137	10.0	10.0	1		10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-09-7	Potassium (diss)	75800	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-39-3	Barium (diss)	40.2	20.0	20.0	1		10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:46 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:46 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	ND	3.00	3.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:46 LIT	EPA 6010D
7440-70-2	Calcium (diss)	86900	1000	1000	1		10/11/18 06:43	EPA 3005A	10/16/18 10:46 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:10 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 19:23 LIT	EPA 6010D

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-13
Lab Sample ID: 1801576-03
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 12:45	Matrix:	Surface Water
Percent Solids:		File ID:	101518B-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	183000	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7439-96-5	Manganese (diss)	151	10.0	10.0	1		10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-09-7	Potassium (diss)	61100	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-39-3	Barium (diss)	41.6	20.0	20.0	1		10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-23-5	Sodium (diss)	1540000	100000	100000	100	D	10/11/18 06:43	EPA 3005A	10/15/18 18:57 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:51 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:51 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	4.27	3.00	3.00	1		10/11/18 06:43	EPA 3005A	10/16/18 10:51 LIT	EPA 6010D
7440-70-2	Calcium (diss)	71800	1000	1000	1		10/11/18 06:43	EPA 3005A	10/16/18 10:51 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:12 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:05 LIT	EPA 6010D

* Values outside of QC limits
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-14
Lab Sample ID: 1801576-04
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 09:05	Matrix:	Surface Water
Percent Solids:		File ID:	101518B-019

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7439-89-6	Iron (diss)	459	300	300	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	15900	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7439-96-5	Manganese (diss)	154	10.0	10.0	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-02-0	Nickel (diss)	10.8	10.0	10.0	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-09-7	Potassium (diss)	2660	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-23-5	Sodium (diss)	46700	1000	1000	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-39-3	Barium (diss)	49.4	20.0	20.0	1		10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:56 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:56 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	ND	3.00	3.00	1	U	10/11/18 06:43	EPA 3005A	10/16/18 10:56 LIT	EPA 6010D
7440-70-2	Calcium (diss)	15800	1000	1000	1		10/11/18 06:43	EPA 3005A	10/16/18 10:56 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:14 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/11/18 06:43	EPA 3005A	10/15/18 18:10 LIT	EPA 6010D

* Values outside of QC limits
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20 Pershing Ave
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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

WET CHEMISTRY

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-11
Lab Sample ID: 1801576-01
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 11:40	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1100	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-12
Lab Sample ID: 1801576-02
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 12:10	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1100	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-13**
Lab Sample ID: **1801576-03**
Project: **Richmond Creek**
Work Order: **1801576**

Date Sampled:	10/03/18 12:45	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1000	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-14
Lab Sample ID: 1801576-04
Project: Richmond Creek
Work Order: 1801576

Date Sampled:	10/03/18 09:05	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	100	6.67	6.67	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

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Analytical Report

Prepared for

Brookfield Construction Associates, LLC

3730 Park Avenue

South Plainfield, NJ 07080

Report Information

Project Name: Brookfield Ave Landfill - 002

AAR Work Order: **1801565**

Client Sample ID	Laboratory Sample Number
BK2-SW-09	1801565-01
BK2-SW-08	1801565-02
BK2-SW-10	1801565-03
BK2-SW-FB	1801565-04
BK2-SW-05	1801565-05
BK2-SW-04	1801565-06
BK2-SW-04 DUP	1801565-07
BK2-SW-03	1801565-08
BK2-SW-03 MS	1801565-09
BK2-SW-03 MSD	1801565-10
BK2-SD-11B	1801565-12
BK2-SD-11C	1801565-13
Trip Blank	1801565-14

NELAP ACCREDITED TNI LABORATORY

New Jersey Certification Number: 12007
New York Certification Number: 11109
Pennsylvania Certification Number: 68-02799
CT Certification Number: PH-0219

This data has been reviewed and accepted by:

Daniel Miguel
Technical Director

10/24/2018

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Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Methodology Summary

Dissolved Mercury by SW846 7470

EPA 7470A

Dissolved Metals by EPA Method SW846 6010

6010D

EPA Method SW846 8081B/8082A

NY 8081B/8082A

Semivolatile Organic Compounds EPA Method SW846 8270

8270D

Total Mercury by SW846 7470

EPA 7470A

Total Mercury by SW846 7471

EPA 7471B

Total Metals by EPA Method SW846 6010

6010D

Volatile Organic Compounds EPA Method SW846 8260

8260C

Wet Chemistry

NJ Hardness by SM 2340 C
NY Hardness by SM 2340 B
Total Organic Carbon by EPA 9060A

Accredited Analytical Resources, LLC.

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Condition of Samples on Receipt

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002
AAR Work Order Number:	1801565

Temperature of Cooler:	3°C
Chain of Custody Filled Out Properly	Yes
Proper Containers and Volumes	Yes
Received Within Holding Time	Yes
Samples Received with Correct Preservation	Yes
Samples Received On Ice	Yes
Sample Received Via Field Services	No
Samples Hand Delivered	Yes

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

CHAIN OF CUSTODY FORM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave Landfill - 002
CONTACT:	Mike Trucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	BattistaJ@Barbellaconstruction.com

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd
CITY:	Staten Island
STATE:	NY ZIP: 10308

AAR QUOTE #
AAR WORK ORDER # 1801565
P.O. #

ANALYSIS

PRES. CODE →	1	—	—	—	—	2											
CONT. CODE →	G	G	G	P	P	P											

COLLECTION INFORMATION

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL VOA	TCL BNA	TCL Pest/PCBs	TAL Metals	*TAL Diss Metals	Total Hardness								AAR SAMPLE #
BK2-SW-09	10/2/18 0820	SW		7		2	1	1	1	1	1								-01
08	0915	SW		7		2	1	1	1	1	1								-02
10	1005	SW		7		2	1	1	1	1	1								-03
FB	1205	SW		6		2	1	1	1	1									-04
05	1250	SW		7		2	1	1	1	1	1								-05
04	1320	SW		7		2	1	1	1	1	1								-06
04 DUP	1320	SW		6 MS		2	1	1	1	1	X	DSN 10-2-18							-07
03	1405	SW		7		2	1	1	1	1	1								-08
03MS	1405	SW		4		2	1	1											-09
03MSD	1405	SW		4		2	1	1											-10

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ____ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS: 2 x 40ml VOA Vials - Trip Blanks included
* Dissolved Metals were Field Filtered

COOLER TEMP: 3°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: DON NAZARIO SIGN: DNazario

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don Nazario	Print Name: M. Trucker	Print Name: M. Trucker	Print Name: K. Muniz
Signature: DNazario	Signature: M. Trucker	Signature: M. Trucker	Signature: K. Muniz
Agent of: Normandeau	Agent of: BCA	Agent of: BCA	Agent of: AAR
	Date Received: 10/02/18 Time: 1602	Date Received: 10/2/18	Time: 1700
RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
	Date Received: / / Time:	Date Received: / /	Time:

Ref. No. G 375214459

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

CHAIN OF CUSTODY FORM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Richmond Creek
CONTACT:	Mike Tucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd
CITY:	Staten Island
STATE:	NY
ZIP:	10308

AAR QUOTE #
AAR WORK ORDER # 1801565
P.O. #

ANALYSIS

PRES. CODE → – – – –
CONT. CODE → G G G G

COLLECTION INFORMATION

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL BNA	TCL 8080	TAL Metals	TOC	TCL VOC	AAR SAMPLE #
BK2-SD-11A	10-2-18 1315	S		2		X	X	X	X		-11
-11B	1410	S		2		X	X	X	X		-12
-11C	1445	S		2		X	X	X	X		-13
Trip Blank	10-2-18	A		2						X	-14

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____
CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) STANDARD 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ____ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 3°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: DON NAZARIO SIGN: DNazario

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don NAZARIO	Print Name: M. Tucker	Print Name: M Tucker	Print Name: K. Muniz
Signature: DNazario	Signature: M. Tucker	Signature: M. Tucker	Signature: K. Muniz
Agent of: Normandeau	Agent of: BCA	Agent of: BCA	Agent of: AAR
	Date Received: 10/02/18 Time: 1603	Date Received: 10/2/18	Time: 1700

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Rel. No. G 375214439

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Analytical Report for Samples

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002

Client Field ID	AAR Laboratory Number	Matrix	Date/Time Sampled	Date/Time Received
BK2-SW-09	1801565-01	Surface Water	10/02/2018 08:20	10/02/2018 17:00
BK2-SW-08	1801565-02	Surface Water	10/02/2018 09:15	10/02/2018 17:00
BK2-SW-10	1801565-03	Surface Water	10/02/2018 10:05	10/02/2018 17:00
BK2-SW-FB	1801565-04	Surface Water	10/02/2018 12:05	10/02/2018 17:00
BK2-SW-05	1801565-05	Surface Water	10/02/2018 12:50	10/02/2018 17:00
BK2-SW-04	1801565-06	Surface Water	10/02/2018 13:20	10/02/2018 17:00
BK2-SW-04 DUP	1801565-07	Surface Water	10/02/2018 13:20	10/02/2018 17:00
BK2-SW-03	1801565-08	Surface Water	10/02/2018 14:05	10/02/2018 17:00
BK2-SW-03 MS	1801565-09	Surface Water	10/02/2018 14:05	10/02/2018 17:00
BK2-SW-03 MSD	1801565-10	Surface Water	10/02/2018 14:05	10/02/2018 17:00
BK2-SD-11B	1801565-12	Soil	10/02/2018 14:10	10/02/2018 17:00
BK2-SD-11C	1801565-13	Soil	10/02/2018 14:45	10/02/2018 17:00
Trip Blank	1801565-14	Aqueous	10/02/2018 00:00	10/02/2018 17:00

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Data Qualifiers

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit
VC - The container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

PEST/PCB

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24569.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00217	0.00217	U
319-85-7	beta-BHC	ND	0.00217	0.00217	U
319-86-8	delta-BHC	ND	0.00217	0.00217	U
58-89-9	gamma-BHC [Lindane]	ND	0.00217	0.00217	U
76-44-8	Heptachlor	ND	0.00217	0.00217	U
309-00-2	Aldrin	ND	0.00217	0.00217	U
1024-57-3	Heptachlor Epoxide	ND	0.00217	0.00217	U
959-98-8	Endosulfan I	ND	0.00217	0.00217	U
60-57-1	Dieldrin	ND	0.00435	0.00435	U
72-55-9	4,4'-DDE	ND	0.00435	0.00435	U
72-20-8	Endrin	ND	0.00435	0.00435	U
33213-65-9	Endosulfan II	ND	0.00435	0.00435	U
72-54-8	4,4'-DDD	0.00620	0.00435	0.00435	
1031-07-8	Endosulfan sulfate	ND	0.00435	0.00435	U
50-29-3	4,4'-DDT	ND	0.00435	0.00435	U
72-43-5	Methoxychlor	ND	0.0217	0.0217	U
53494-70-5	Endrin ketone	ND	0.00435	0.0435	U
7421-93-4	Endrin aldehyde	ND	0.00435	0.0435	U
5103-71-9	alpha-Chlordane	ND	0.00217	0.00217	U
5566-34-7	gamma-Chlordane	ND	0.00217	0.00217	U
8001-35-2	Toxaphene	ND	0.109	0.109	U
12674-11-2	Aroclor-1016	ND	0.0543	0.109	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24569.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0543	0.109	U
11141-16-5	Aroclor-1232	ND	0.0543	0.109	U
53469-21-9	Aroclor-1242	ND	0.0543	0.109	U
12672-29-6	Aroclor-1248	ND	0.0543	0.109	U
11097-69-1	Aroclor-1254	ND	0.0543	0.109	U
11096-82-5	Aroclor-1260	ND	0.0543	0.109	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	57.2%	10-132
Tetrachloro-m-xylene [2C]	64.2%	10-157
Decachlorobiphenyl	77.7%	10-147
Decachlorobiphenyl [2C]	83.5%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24570.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00213	0.00213	U
319-85-7	beta-BHC	ND	0.00213	0.00213	U
319-86-8	delta-BHC	ND	0.00213	0.00213	U
58-89-9	gamma-BHC [Lindane]	ND	0.00213	0.00213	U
76-44-8	Heptachlor	ND	0.00213	0.00213	U
309-00-2	Aldrin	ND	0.00213	0.00213	U
1024-57-3	Heptachlor Epoxide	ND	0.00213	0.00213	U
959-98-8	Endosulfan I	ND	0.00213	0.00213	U
60-57-1	Dieldrin	ND	0.00426	0.00426	U
72-55-9	4,4'-DDE	ND	0.00426	0.00426	U
72-20-8	Endrin	ND	0.00426	0.00426	U
33213-65-9	Endosulfan II	ND	0.00426	0.00426	U
72-54-8	4,4'-DDD	0.00628	0.00426	0.00426	
1031-07-8	Endosulfan sulfate	ND	0.00426	0.00426	U
50-29-3	4,4'-DDT	ND	0.00426	0.00426	U
72-43-5	Methoxychlor	ND	0.0213	0.0213	U
53494-70-5	Endrin ketone	ND	0.00426	0.0426	U
7421-93-4	Endrin aldehyde	ND	0.00426	0.0426	U
5103-71-9	alpha-Chlordane	ND	0.00213	0.00213	U
5566-34-7	gamma-Chlordane	ND	0.00213	0.00213	U
8001-35-2	Toxaphene	ND	0.106	0.106	U
12674-11-2	Aroclor-1016	ND	0.0532	0.106	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24570.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0532	0.106	U
11141-16-5	Aroclor-1232	ND	0.0532	0.106	U
53469-21-9	Aroclor-1242	ND	0.0532	0.106	U
12672-29-6	Aroclor-1248	ND	0.0532	0.106	U
11097-69-1	Aroclor-1254	ND	0.0532	0.106	U
11096-82-5	Aroclor-1260	ND	0.0532	0.106	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	94.9%	10-132
Tetrachloro-m-xylene [2C]	84.8%	10-157
Decachlorobiphenyl	118%	10-147
Decachlorobiphenyl [2C]	118%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24571.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 22:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00225	0.00225	U
319-85-7	beta-BHC	ND	0.00225	0.00225	U
319-86-8	delta-BHC	ND	0.00225	0.00225	U
58-89-9	gamma-BHC [Lindane]	ND	0.00225	0.00225	U
76-44-8	Heptachlor	ND	0.00225	0.00225	U
309-00-2	Aldrin	ND	0.00225	0.00225	U
1024-57-3	Heptachlor Epoxide	ND	0.00225	0.00225	U
959-98-8	Endosulfan I	ND	0.00225	0.00225	U
60-57-1	Dieldrin	ND	0.00449	0.00449	U
72-55-9	4,4'-DDE	ND	0.00449	0.00449	U
72-20-8	Endrin	ND	0.00449	0.00449	U
33213-65-9	Endosulfan II	ND	0.00449	0.00449	U
72-54-8	4,4'-DDD	ND	0.00449	0.00449	U
1031-07-8	Endosulfan sulfate	ND	0.00449	0.00449	U
50-29-3	4,4'-DDT	ND	0.00449	0.00449	U
72-43-5	Methoxychlor	ND	0.0225	0.0225	U
53494-70-5	Endrin ketone	ND	0.00449	0.0449	U
7421-93-4	Endrin aldehyde	ND	0.00449	0.0449	U
5103-71-9	alpha-Chlordane	ND	0.00225	0.00225	U
5566-34-7	gamma-Chlordane	ND	0.00225	0.00225	U
8001-35-2	Toxaphene	ND	0.112	0.112	U
12674-11-2	Aroclor-1016	ND	0.0562	0.112	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24571.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 22:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0562	0.112	U
11141-16-5	Aroclor-1232	ND	0.0562	0.112	U
53469-21-9	Aroclor-1242	ND	0.0562	0.112	U
12672-29-6	Aroclor-1248	ND	0.0562	0.112	U
11097-69-1	Aroclor-1254	ND	0.0562	0.112	U
11096-82-5	Aroclor-1260	ND	0.0562	0.112	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	77.2%	10-132
Tetrachloro-m-xylene [2C]	73.4%	10-157
Decachlorobiphenyl	95.7%	10-147
Decachlorobiphenyl [2C]	102%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24572.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 22:48
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00208	0.00208	U
319-85-7	beta-BHC	ND	0.00208	0.00208	U
319-86-8	delta-BHC	ND	0.00208	0.00208	U
58-89-9	gamma-BHC [Lindane]	ND	0.00208	0.00208	U
76-44-8	Heptachlor	ND	0.00208	0.00208	U
309-00-2	Aldrin	ND	0.00208	0.00208	U
1024-57-3	Heptachlor Epoxide	ND	0.00208	0.00208	U
959-98-8	Endosulfan I	ND	0.00208	0.00208	U
60-57-1	Dieldrin	ND	0.00417	0.00417	U
72-55-9	4,4'-DDE	ND	0.00417	0.00417	U
72-20-8	Endrin	ND	0.00417	0.00417	U
33213-65-9	Endosulfan II	ND	0.00417	0.00417	U
72-54-8	4,4'-DDD	ND	0.00417	0.00417	U
1031-07-8	Endosulfan sulfate	ND	0.00417	0.00417	U
50-29-3	4,4'-DDT	ND	0.00417	0.00417	U
72-43-5	Methoxychlor	ND	0.0208	0.0208	U
53494-70-5	Endrin ketone	ND	0.00417	0.0417	U
7421-93-4	Endrin aldehyde	ND	0.00417	0.0417	U
5103-71-9	alpha-Chlordane	ND	0.00208	0.00208	U
5566-34-7	gamma-Chlordane	ND	0.00208	0.00208	U
8001-35-2	Toxaphene	ND	0.104	0.104	U
12674-11-2	Aroclor-1016	ND	0.0521	0.104	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24572.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 22:48
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0521	0.104	U
11141-16-5	Aroclor-1232	ND	0.0521	0.104	U
53469-21-9	Aroclor-1242	ND	0.0521	0.104	U
12672-29-6	Aroclor-1248	ND	0.0521	0.104	U
11097-69-1	Aroclor-1254	ND	0.0521	0.104	U
11096-82-5	Aroclor-1260	ND	0.0521	0.104	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	82.3%	10-132
Tetrachloro-m-xylene [2C]	88.0%	10-157
Decachlorobiphenyl	80.6%	10-147
Decachlorobiphenyl [2C]	77.3%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24573.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 23:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00213	0.00213	U
319-85-7	beta-BHC	ND	0.00213	0.00213	U
319-86-8	delta-BHC	ND	0.00213	0.00213	U
58-89-9	gamma-BHC [Lindane]	ND	0.00213	0.00213	U
76-44-8	Heptachlor	ND	0.00213	0.00213	U
309-00-2	Aldrin	ND	0.00213	0.00213	U
1024-57-3	Heptachlor Epoxide	ND	0.00213	0.00213	U
959-98-8	Endosulfan I	ND	0.00213	0.00213	U
60-57-1	Dieldrin	ND	0.00426	0.00426	U
72-55-9	4,4'-DDE	ND	0.00426	0.00426	U
72-20-8	Endrin	ND	0.00426	0.00426	U
33213-65-9	Endosulfan II	ND	0.00426	0.00426	U
72-54-8	4,4'-DDD	ND	0.00426	0.00426	U
1031-07-8	Endosulfan sulfate	ND	0.00426	0.00426	U
50-29-3	4,4'-DDT	ND	0.00426	0.00426	U
72-43-5	Methoxychlor	ND	0.0213	0.0213	U
53494-70-5	Endrin ketone	ND	0.00426	0.0426	U
7421-93-4	Endrin aldehyde	ND	0.00426	0.0426	U
5103-71-9	alpha-Chlordane	ND	0.00213	0.00213	U
5566-34-7	gamma-Chlordane	ND	0.00213	0.00213	U
8001-35-2	Toxaphene	ND	0.106	0.106	U
12674-11-2	Aroclor-1016	ND	0.0532	0.106	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24573.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 23:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0532	0.106	U
11141-16-5	Aroclor-1232	ND	0.0532	0.106	U
53469-21-9	Aroclor-1242	ND	0.0532	0.106	U
12672-29-6	Aroclor-1248	ND	0.0532	0.106	U
11097-69-1	Aroclor-1254	ND	0.0532	0.106	U
11096-82-5	Aroclor-1260	ND	0.0532	0.106	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	81.3%	10-132
Tetrachloro-m-xylene [2C]	67.8%	10-157
Decachlorobiphenyl	76.6%	10-147
Decachlorobiphenyl [2C]	77.1%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24574.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 23:45
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00208	0.00208	U
319-85-7	beta-BHC	ND	0.00208	0.00208	U
319-86-8	delta-BHC	ND	0.00208	0.00208	U
58-89-9	gamma-BHC [Lindane]	ND	0.00208	0.00208	U
76-44-8	Heptachlor	ND	0.00208	0.00208	U
309-00-2	Aldrin	ND	0.00208	0.00208	U
1024-57-3	Heptachlor Epoxide	ND	0.00208	0.00208	U
959-98-8	Endosulfan I	ND	0.00208	0.00208	U
60-57-1	Dieldrin	ND	0.00417	0.00417	U
72-55-9	4,4'-DDE	ND	0.00417	0.00417	U
72-20-8	Endrin	ND	0.00417	0.00417	U
33213-65-9	Endosulfan II	ND	0.00417	0.00417	U
72-54-8	4,4'-DDD	ND	0.00417	0.00417	U
1031-07-8	Endosulfan sulfate	ND	0.00417	0.00417	U
50-29-3	4,4'-DDT	ND	0.00417	0.00417	U
72-43-5	Methoxychlor	ND	0.0208	0.0208	U
53494-70-5	Endrin ketone	ND	0.00417	0.0417	U
7421-93-4	Endrin aldehyde	ND	0.00417	0.0417	U
5103-71-9	alpha-Chlordane	ND	0.00208	0.00208	U
5566-34-7	gamma-Chlordane	ND	0.00208	0.00208	U
8001-35-2	Toxaphene	ND	0.104	0.104	U
12674-11-2	Aroclor-1016	ND	0.0521	0.104	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24574.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 23:45
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0521	0.104	U
11141-16-5	Aroclor-1232	ND	0.0521	0.104	U
53469-21-9	Aroclor-1242	ND	0.0521	0.104	U
12672-29-6	Aroclor-1248	ND	0.0521	0.104	U
11097-69-1	Aroclor-1254	ND	0.0521	0.104	U
11096-82-5	Aroclor-1260	ND	0.0521	0.104	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	75.2%	10-132
Tetrachloro-m-xylene [2C]	64.1%	10-157
Decachlorobiphenyl	63.9%	10-147
Decachlorobiphenyl [2C]	67.2%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24601.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 15:55
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00206	0.00206	U
319-85-7	beta-BHC	ND	0.00206	0.00206	U
319-86-8	delta-BHC	ND	0.00206	0.00206	U
58-89-9	gamma-BHC [Lindane]	ND	0.00206	0.00206	U
76-44-8	Heptachlor	ND	0.00206	0.00206	U
309-00-2	Aldrin	ND	0.00206	0.00206	U
1024-57-3	Heptachlor Epoxide	ND	0.00206	0.00206	U
959-98-8	Endosulfan I	ND	0.00206	0.00206	U
60-57-1	Dieldrin	ND	0.00412	0.00412	U
72-55-9	4,4'-DDE	ND	0.00412	0.00412	U
72-20-8	Endrin	ND	0.00412	0.00412	U
33213-65-9	Endosulfan II	ND	0.00412	0.00412	U
72-54-8	4,4'-DDD	ND	0.00412	0.00412	U
1031-07-8	Endosulfan sulfate	ND	0.00412	0.00412	U
50-29-3	4,4'-DDT	ND	0.00412	0.00412	U
72-43-5	Methoxychlor	ND	0.0206	0.0206	U
53494-70-5	Endrin ketone	ND	0.00412	0.0412	U
7421-93-4	Endrin aldehyde	ND	0.00412	0.0412	U
5103-71-9	alpha-Chlordane	ND	0.00206	0.00206	U
5566-34-7	gamma-Chlordane	ND	0.00206	0.00206	U
8001-35-2	Toxaphene	ND	0.103	0.103	U
12674-11-2	Aroclor-1016	ND	0.0515	0.103	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24601.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 15:55
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0515	0.103	U
11141-16-5	Aroclor-1232	ND	0.0515	0.103	U
53469-21-9	Aroclor-1242	ND	0.0515	0.103	U
12672-29-6	Aroclor-1248	ND	0.0515	0.103	U
11097-69-1	Aroclor-1254	ND	0.0515	0.103	U
11096-82-5	Aroclor-1260	ND	0.0515	0.103	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	39.3%	10-132
Tetrachloro-m-xylene [2C]	40.1%	10-157
Decachlorobiphenyl	52.3%	10-147
Decachlorobiphenyl [2C]	55.0%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24602.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 16:23
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00215	0.00215	U
319-85-7	beta-BHC	ND	0.00215	0.00215	U
319-86-8	delta-BHC	ND	0.00215	0.00215	U
58-89-9	gamma-BHC [Lindane]	ND	0.00215	0.00215	U
76-44-8	Heptachlor	ND	0.00215	0.00215	U
309-00-2	Aldrin	ND	0.00215	0.00215	U
1024-57-3	Heptachlor Epoxide	ND	0.00215	0.00215	U
959-98-8	Endosulfan I	ND	0.00215	0.00215	U
60-57-1	Dieldrin	ND	0.00430	0.00430	U
72-55-9	4,4'-DDE	ND	0.00430	0.00430	U
72-20-8	Endrin	ND	0.00430	0.00430	U
33213-65-9	Endosulfan II	ND	0.00430	0.00430	U
72-54-8	4,4'-DDD	ND	0.00430	0.00430	U
1031-07-8	Endosulfan sulfate	ND	0.00430	0.00430	U
50-29-3	4,4'-DDT	ND	0.00430	0.00430	U
72-43-5	Methoxychlor	ND	0.0215	0.0215	U
53494-70-5	Endrin ketone	ND	0.00430	0.0430	U
7421-93-4	Endrin aldehyde	ND	0.00430	0.0430	U
5103-71-9	alpha-Chlordane	ND	0.00215	0.00215	U
5566-34-7	gamma-Chlordane	ND	0.00215	0.00215	U
8001-35-2	Toxaphene	ND	0.108	0.108	U
12674-11-2	Aroclor-1016	ND	0.0538	0.108	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24602.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 16:23
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0538	0.108	U
11141-16-5	Aroclor-1232	ND	0.0538	0.108	U
53469-21-9	Aroclor-1242	ND	0.0538	0.108	U
12672-29-6	Aroclor-1248	ND	0.0538	0.108	U
11097-69-1	Aroclor-1254	ND	0.0538	0.108	U
11096-82-5	Aroclor-1260	ND	0.0538	0.108	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.7%	10-132
Tetrachloro-m-xylene [2C]	46.1%	10-157
Decachlorobiphenyl	53.6%	10-147
Decachlorobiphenyl [2C]	58.4%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24600.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 15:26
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	0.0452	0.00220	0.00220	
319-85-7	beta-BHC	0.0412	0.00220	0.00220	
319-86-8	delta-BHC	0.0388	0.00220	0.00220	
58-89-9	gamma-BHC [Lindane]	0.0235	0.00220	0.00220	
76-44-8	Heptachlor	0.0407	0.00220	0.00220	
309-00-2	Aldrin	0.0303	0.00220	0.00220	
1024-57-3	Heptachlor Epoxide	0.0336	0.00220	0.00220	
959-98-8	Endosulfan I	0.0298	0.00220	0.00220	
60-57-1	Dieldrin	0.0411	0.00440	0.00440	
72-55-9	4,4'-DDE	0.0255	0.00440	0.00440	
72-20-8	Endrin	0.0402	0.00440	0.00440	
33213-65-9	Endosulfan II	0.0365	0.00440	0.00440	
72-54-8	4,4'-DDD	0.0422	0.00440	0.00440	
1031-07-8	Endosulfan sulfate	0.0314	0.00440	0.00440	
50-29-3	4,4'-DDT	0.0365	0.00440	0.00440	
72-43-5	Methoxychlor	0.0454	0.0220	0.0220	
53494-70-5	Endrin ketone	0.0337	0.00440	0.0440	J
7421-93-4	Endrin aldehyde	0.0381	0.00440	0.0440	J
5103-71-9	alpha-Chlordane	0.0420	0.00220	0.00220	
5566-34-7	gamma-Chlordane	0.0358	0.00220	0.00220	
8001-35-2	Toxaphene	ND	0.110	0.110	U
12674-11-2	Aroclor-1016	ND	0.0549	0.110	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24600.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 15:26
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0549	0.110	U
11141-16-5	Aroclor-1232	ND	0.0549	0.110	U
53469-21-9	Aroclor-1242	ND	0.0549	0.110	U
12672-29-6	Aroclor-1248	ND	0.0549	0.110	U
11097-69-1	Aroclor-1254	ND	0.0549	0.110	U
11096-82-5	Aroclor-1260	ND	0.0549	0.110	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	51.2%	10-132
Tetrachloro-m-xylene [2C]	58.5%	10-157
Decachlorobiphenyl	74.5%	10-147
Decachlorobiphenyl [2C]	76.3%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24575.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/11/18 00:14
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00230	0.00230	U
319-85-7	beta-BHC	ND	0.00230	0.00230	U
319-86-8	delta-BHC	ND	0.00230	0.00230	U
58-89-9	gamma-BHC [Lindane]	ND	0.00230	0.00230	U
76-44-8	Heptachlor	ND	0.00230	0.00230	U
309-00-2	Aldrin	ND	0.00230	0.00230	U
1024-57-3	Heptachlor Epoxide	ND	0.00230	0.00230	U
959-98-8	Endosulfan I	ND	0.00230	0.00230	U
60-57-1	Dieldrin	ND	0.00460	0.00460	U
72-55-9	4,4'-DDE	ND	0.00460	0.00460	U
72-20-8	Endrin	ND	0.00460	0.00460	U
33213-65-9	Endosulfan II	ND	0.00460	0.00460	U
72-54-8	4,4'-DDD	ND	0.00460	0.00460	U
1031-07-8	Endosulfan sulfate	ND	0.00460	0.00460	U
50-29-3	4,4'-DDT	ND	0.00460	0.00460	U
72-43-5	Methoxychlor	ND	0.0230	0.0230	U
53494-70-5	Endrin ketone	ND	0.00460	0.0460	U
7421-93-4	Endrin aldehyde	ND	0.00460	0.0460	U
5103-71-9	alpha-Chlordane	ND	0.00230	0.00230	U
5566-34-7	gamma-Chlordane	ND	0.00230	0.00230	U
8001-35-2	Toxaphene	ND	0.115	0.115	U
12674-11-2	Aroclor-1016	1.02	0.0575	0.115	

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24575.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/11/18 00:14
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0575	0.115	U
11141-16-5	Aroclor-1232	ND	0.0575	0.115	U
53469-21-9	Aroclor-1242	ND	0.0575	0.115	U
12672-29-6	Aroclor-1248	ND	0.0575	0.115	U
11097-69-1	Aroclor-1254	ND	0.0575	0.115	U
11096-82-5	Aroclor-1260	1.08	0.0575	0.115	

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	100%	10-132
Tetrachloro-m-xylene [2C]	87.8%	10-157
Decachlorobiphenyl	105%	10-147
Decachlorobiphenyl [2C]	110%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11A**
Lab Sample ID: **1801565-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29536.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 14:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.63	1.63	U
319-85-7	beta-BHC	ND	1.63	1.63	U
319-86-8	delta-BHC	ND	1.63	1.63	U
58-89-9	gamma-BHC [Lindane]	ND	1.63	1.63	U
76-44-8	Heptachlor	ND	1.63	1.63	U
309-00-2	Aldrin	ND	1.63	1.63	U
1024-57-3	Heptachlor Epoxide	ND	1.63	1.63	U
959-98-8	Endosulfan I	ND	1.63	1.63	U
60-57-1	Dieldrin	ND	3.29	3.29	U
72-55-9	4,4'-DDE	7.18	3.29	3.29	
72-20-8	Endrin	ND	3.29	3.29	U
33213-65-9	Endosulfan II	ND	3.29	3.29	U
72-54-8	4,4'-DDD	3.55	3.29	3.29	
1031-07-8	Endosulfan sulfate	ND	3.29	3.29	U
50-29-3	4,4'-DDT	ND	3.29	3.29	U
72-43-5	Methoxychlor	ND	4.95	16.5	U
53494-70-5	Endrin ketone	ND	3.29	3.29	U
7421-93-4	Endrin aldehyde	ND	3.29	3.29	U
5103-71-9	alpha-Chlordane	ND	1.63	1.63	U
5566-34-7	gamma-Chlordane	ND	1.63	1.63	U
8001-35-2	Toxaphene	ND	82.4	82.4	U
12674-11-2	Aroclor-1016	ND	41.1	82.4	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11A**
Lab Sample ID: **1801565-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29536.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 14:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	41.1	82.4	U
11141-16-5	Aroclor-1232	ND	41.1	82.4	U
53469-21-9	Aroclor-1242	ND	41.1	82.4	U
12672-29-6	Aroclor-1248	ND	41.1	82.4	U
11097-69-1	Aroclor-1254	ND	41.1	82.4	U
11096-82-5	Aroclor-1260	ND	41.1	82.4	U
37324-23-5	Aroclor-1262	ND	41.1	82.4	U
11100-14-4	Aroclor-1268	ND	41.1	82.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.3%	27-137
Tetrachloro-m-xylene [2C]	59.6%	39-138
Decachlorobiphenyl	45.1%	21-150
Decachlorobiphenyl [2C]	65.3%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11B**
Lab Sample ID: **1801565-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:10	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29537.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:07
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.63	1.63	U
319-85-7	beta-BHC	ND	1.63	1.63	U
319-86-8	delta-BHC	ND	1.63	1.63	U
58-89-9	gamma-BHC [Lindane]	ND	1.63	1.63	U
76-44-8	Heptachlor	ND	1.63	1.63	U
309-00-2	Aldrin	ND	1.63	1.63	U
1024-57-3	Heptachlor Epoxide	ND	1.63	1.63	U
959-98-8	Endosulfan I	ND	1.63	1.63	U
60-57-1	Dieldrin	ND	3.29	3.29	U
72-55-9	4,4'-DDE	ND	3.29	3.29	U
72-20-8	Endrin	ND	3.29	3.29	U
33213-65-9	Endosulfan II	ND	3.29	3.29	U
72-54-8	4,4'-DDD	58.5	3.29	3.29	
1031-07-8	Endosulfan sulfate	ND	3.29	3.29	U
50-29-3	4,4'-DDT	ND	3.29	3.29	U
72-43-5	Methoxychlor	ND	4.95	16.5	U
53494-70-5	Endrin ketone	ND	3.29	3.29	U
7421-93-4	Endrin aldehyde	ND	3.29	3.29	U
5103-71-9	alpha-Chlordane	ND	1.63	1.63	U
5566-34-7	gamma-Chlordane	5.45	1.63	1.63	
8001-35-2	Toxaphene	ND	82.4	82.4	U
12674-11-2	Aroclor-1016	ND	41.1	82.4	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11B**
Lab Sample ID: **1801565-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:10	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29537.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:07
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	41.1	82.4	U
11141-16-5	Aroclor-1232	ND	41.1	82.4	U
53469-21-9	Aroclor-1242	ND	41.1	82.4	U
12672-29-6	Aroclor-1248	ND	41.1	82.4	U
11097-69-1	Aroclor-1254	ND	41.1	82.4	U
11096-82-5	Aroclor-1260	ND	41.1	82.4	U
37324-23-5	Aroclor-1262	ND	41.1	82.4	U
11100-14-4	Aroclor-1268	ND	41.1	82.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	46.4%	27-137
Tetrachloro-m-xylene [2C]	81.5%	39-138
Decachlorobiphenyl	47.4%	21-150
Decachlorobiphenyl [2C]	73.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11C**
Lab Sample ID: **1801565-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:45	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	15.50	Prep Method:	EPA 3550B	File ID:	A29538.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:32
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	2.13	2.13	U
319-85-7	beta-BHC	ND	2.13	2.13	U
319-86-8	delta-BHC	ND	2.13	2.13	U
58-89-9	gamma-BHC [Lindane]	ND	2.13	2.13	U
76-44-8	Heptachlor	ND	2.13	2.13	U
309-00-2	Aldrin	ND	2.13	2.13	U
1024-57-3	Heptachlor Epoxide	ND	2.13	2.13	U
959-98-8	Endosulfan I	ND	2.13	2.13	U
60-57-1	Dieldrin	ND	4.29	4.29	U
72-55-9	4,4'-DDE	6.45	4.29	4.29	
72-20-8	Endrin	ND	4.29	4.29	U
33213-65-9	Endosulfan II	ND	4.29	4.29	U
72-54-8	4,4'-DDD	ND	4.29	4.29	U
1031-07-8	Endosulfan sulfate	ND	4.29	4.29	U
50-29-3	4,4'-DDT	ND	4.29	4.29	U
72-43-5	Methoxychlor	ND	6.45	21.5	U
53494-70-5	Endrin ketone	ND	4.29	4.29	U
7421-93-4	Endrin aldehyde	ND	4.29	4.29	U
5103-71-9	alpha-Chlordane	ND	2.13	2.13	U
5566-34-7	gamma-Chlordane	ND	2.13	2.13	U
8001-35-2	Toxaphene	ND	107	107	U
12674-11-2	Aroclor-1016	ND	53.5	107	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11C**
Lab Sample ID: **1801565-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:45	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	15.50	Prep Method:	EPA 3550B	File ID:	A29538.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:32
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	53.5	107	U
11141-16-5	Aroclor-1232	ND	53.5	107	U
53469-21-9	Aroclor-1242	ND	53.5	107	U
12672-29-6	Aroclor-1248	ND	53.5	107	U
11097-69-1	Aroclor-1254	ND	53.5	107	U
11096-82-5	Aroclor-1260	ND	53.5	107	U
37324-23-5	Aroclor-1262	ND	53.5	107	U
11100-14-4	Aroclor-1268	ND	53.5	107	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	50.2%	27-137
Tetrachloro-m-xylene [2C]	73.4%	39-138
Decachlorobiphenyl	54.7%	21-150
Decachlorobiphenyl [2C]	76.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.543	2.72	U
108-95-2	Phenol	ND	0.543	2.72	U
111-44-4	bis(2-chloroethyl)ether	ND	0.543	2.72	U
95-57-8	2-Chlorophenol	ND	0.543	2.72	U
541-73-1	1,3-Dichlorobenzene	ND	0.543	2.72	U
106-46-7	1,4-Dichlorobenzene	ND	0.543	2.72	U
100-51-6	Benzyl alcohol	ND	0.543	2.72	U
95-50-1	1,2-Dichlorobenzene	ND	0.543	2.72	U
95-48-7	2-Methylphenol	ND	0.543	2.72	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.543	2.72	U
106-44-5	3 & 4-Methylphenol	ND	0.543	2.72	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.543	2.72	U
67-72-1	Hexachloroethane	ND	0.543	2.72	U
98-95-3	Nitrobenzene	ND	0.543	2.72	U
78-59-1	Isophorone	ND	0.543	2.72	U
88-75-5	2-Nitrophenol	ND	0.543	2.72	U
105-67-9	2,4-Dimethylphenol	ND	0.543	2.72	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.543	2.72	U
120-83-2	2,4-Dichlorophenol	ND	0.543	2.72	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.543	2.72	U
91-20-3	Naphthalene	ND	0.543	2.72	U
106-47-8	4-Chloroaniline	ND	0.543	2.72	U
87-68-3	Hexachlorobutadiene	ND	0.543	2.72	U
59-50-7	4-Chloro-3-methylphenol	ND	0.543	2.72	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.543	2.72	U
77-47-4	Hexachlorocyclopentadiene	ND	0.543	2.72	U
88-06-2	2,4,6-Trichlorophenol	ND	0.543	2.72	U
95-95-4	2,4,5-Trichlorophenol	ND	0.543	2.72	U
91-58-7	2-Chloronaphthalene	ND	0.543	2.72	U
88-74-4	2-Nitroaniline	ND	0.543	2.72	U
131-11-3	Dimethylphthalate	ND	0.543	2.72	U
208-96-8	Acenaphthylene	ND	0.543	2.72	U
99-09-2	3-Nitroaniline	ND	0.543	2.72	U
83-32-9	Acenaphthene	ND	0.543	2.72	U
51-28-5	2,4-Dinitrophenol	ND	1.09	5.43	U
100-02-7	4-Nitrophenol	ND	0.543	2.72	U
132-64-9	Dibenzofuran	ND	0.543	2.72	U
606-20-2	2,6-Dinitrotoluene	ND	0.543	2.72	U
121-14-2	2,4-Dinitrotoluene	ND	0.543	2.72	U
84-66-2	Diethyl phthalate	ND	0.543	2.72	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.543	2.72	U
86-73-7	Fluorene	ND	0.543	2.72	U
100-01-6	4-Nitroaniline	ND	0.543	2.72	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.543	2.72	U
86-30-6	N-Nitrosodiphenylamine	ND	0.543	2.72	U
101-55-3	4-Bromophenyl-phenylether	ND	0.543	2.72	U
118-74-1	Hexachlorobenzene	ND	0.543	2.72	U
87-86-5	Pentachlorophenol	ND	0.543	2.72	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.109	2.72	U
120-12-7	Anthracene	ND	0.543	2.72	U
84-74-2	Di-n-butyl phthalate	ND	0.543	2.72	U
206-44-0	Fluoranthene	ND	0.543	2.72	U
129-00-0	Pyrene	ND	0.543	2.72	U
85-68-7	Butylbenzylphthalate	ND	0.543	2.72	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.543	2.72	U
56-55-3	Benzo[a]anthracene	ND	0.109	2.72	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.543	2.72	U
218-01-9	Chrysene	ND	0.109	2.72	U
117-84-0	Di-n-octyl phthalate	ND	0.543	2.72	U
205-99-2	Benzo[b]fluoranthene	ND	0.217	2.72	U
207-08-9	Benzo[k]fluoranthene	ND	0.543	2.72	U
50-32-8	Benzo[a]pyrene	ND	0.543	2.72	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.543	2.72	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.217	2.72	U
191-24-2	Benzo[ghi]perylene	ND	0.543	2.72	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	32%	10-94
Phenol-d5	25%	10-112
Nitrobenzene-d5	67%	22-116
2-Fluorobiphenyl	66%	23-109
2,4,6-Tribromophenol	89%	10-181
Terphenyl-d14	80%	17-133

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15936.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 14:35
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.521	2.60	U
108-95-2	Phenol	ND	0.521	2.60	U
111-44-4	bis(2-chloroethyl)ether	ND	0.521	2.60	U
95-57-8	2-Chlorophenol	ND	0.521	2.60	U
541-73-1	1,3-Dichlorobenzene	ND	0.521	2.60	U
106-46-7	1,4-Dichlorobenzene	ND	0.521	2.60	U
100-51-6	Benzyl alcohol	ND	0.521	2.60	U
95-50-1	1,2-Dichlorobenzene	ND	0.521	2.60	U
95-48-7	2-Methylphenol	ND	0.521	2.60	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.521	2.60	U
106-44-5	3 & 4-Methylphenol	ND	0.521	2.60	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.521	2.60	U
67-72-1	Hexachloroethane	ND	0.521	2.60	U
98-95-3	Nitrobenzene	ND	0.521	2.60	U
78-59-1	Isophorone	ND	0.521	2.60	U
88-75-5	2-Nitrophenol	ND	0.521	2.60	U
105-67-9	2,4-Dimethylphenol	ND	0.521	2.60	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.521	2.60	U
120-83-2	2,4-Dichlorophenol	ND	0.521	2.60	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.521	2.60	U
91-20-3	Naphthalene	ND	0.521	2.60	U
106-47-8	4-Chloroaniline	ND	0.521	2.60	U
87-68-3	Hexachlorobutadiene	ND	0.521	2.60	U
59-50-7	4-Chloro-3-methylphenol	ND	0.521	2.60	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15936.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 14:35
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.521	2.60	U
77-47-4	Hexachlorocyclopentadiene	ND	0.521	2.60	U
88-06-2	2,4,6-Trichlorophenol	ND	0.521	2.60	U
95-95-4	2,4,5-Trichlorophenol	ND	0.521	2.60	U
91-58-7	2-Chloronaphthalene	ND	0.521	2.60	U
88-74-4	2-Nitroaniline	ND	0.521	2.60	U
131-11-3	Dimethylphthalate	ND	0.521	2.60	U
208-96-8	Acenaphthylene	ND	0.521	2.60	U
99-09-2	3-Nitroaniline	ND	0.521	2.60	U
83-32-9	Acenaphthene	ND	0.521	2.60	U
51-28-5	2,4-Dinitrophenol	ND	1.04	5.21	U
100-02-7	4-Nitrophenol	ND	0.521	2.60	U
132-64-9	Dibenzofuran	ND	0.521	2.60	U
606-20-2	2,6-Dinitrotoluene	ND	0.521	2.60	U
121-14-2	2,4-Dinitrotoluene	ND	0.521	2.60	U
84-66-2	Diethyl phthalate	ND	0.521	2.60	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.521	2.60	U
86-73-7	Fluorene	ND	0.521	2.60	U
100-01-6	4-Nitroaniline	ND	0.521	2.60	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.521	2.60	U
86-30-6	N-Nitrosodiphenylamine	ND	0.521	2.60	U
101-55-3	4-Bromophenyl-phenylether	ND	0.521	2.60	U
118-74-1	Hexachlorobenzene	ND	0.521	2.60	U
87-86-5	Pentachlorophenol	ND	0.521	2.60	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15936.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 14:35
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.104	2.60	U
120-12-7	Anthracene	ND	0.521	2.60	U
84-74-2	Di-n-butyl phthalate	ND	0.521	2.60	U
206-44-0	Fluoranthene	ND	0.521	2.60	U
129-00-0	Pyrene	ND	0.521	2.60	U
85-68-7	Butylbenzylphthalate	ND	0.521	2.60	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.521	2.60	U
56-55-3	Benzo[a]anthracene	ND	0.104	2.60	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.521	2.60	U
218-01-9	Chrysene	ND	0.104	2.60	U
117-84-0	Di-n-octyl phthalate	ND	0.521	2.60	U
205-99-2	Benzo[b]fluoranthene	ND	0.208	2.60	U
207-08-9	Benzo[k]fluoranthene	ND	0.521	2.60	U
50-32-8	Benzo[a]pyrene	ND	0.521	2.60	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.521	2.60	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.208	2.60	U
191-24-2	Benzo[ghi]perylene	ND	0.521	2.60	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	35%	10-94
Phenol-d5	27%	10-112
Nitrobenzene-d5	73%	22-116
2-Fluorobiphenyl	73%	23-109
2,4,6-Tribromophenol	98%	10-181
Terphenyl-d14	89%	17-133

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ND - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15937.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 15:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.556	2.78	U
108-95-2	Phenol	ND	0.556	2.78	U
111-44-4	bis(2-chloroethyl)ether	ND	0.556	2.78	U
95-57-8	2-Chlorophenol	ND	0.556	2.78	U
541-73-1	1,3-Dichlorobenzene	ND	0.556	2.78	U
106-46-7	1,4-Dichlorobenzene	ND	0.556	2.78	U
100-51-6	Benzyl alcohol	ND	0.556	2.78	U
95-50-1	1,2-Dichlorobenzene	ND	0.556	2.78	U
95-48-7	2-Methylphenol	ND	0.556	2.78	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.556	2.78	U
106-44-5	3 & 4-Methylphenol	ND	0.556	2.78	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.556	2.78	U
67-72-1	Hexachloroethane	ND	0.556	2.78	U
98-95-3	Nitrobenzene	ND	0.556	2.78	U
78-59-1	Isophorone	ND	0.556	2.78	U
88-75-5	2-Nitrophenol	ND	0.556	2.78	U
105-67-9	2,4-Dimethylphenol	ND	0.556	2.78	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.556	2.78	U
120-83-2	2,4-Dichlorophenol	ND	0.556	2.78	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.556	2.78	U
91-20-3	Naphthalene	ND	0.556	2.78	U
106-47-8	4-Chloroaniline	ND	0.556	2.78	U
87-68-3	Hexachlorobutadiene	ND	0.556	2.78	U
59-50-7	4-Chloro-3-methylphenol	ND	0.556	2.78	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15937.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 15:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.556	2.78	U
77-47-4	Hexachlorocyclopentadiene	ND	0.556	2.78	U
88-06-2	2,4,6-Trichlorophenol	ND	0.556	2.78	U
95-95-4	2,4,5-Trichlorophenol	ND	0.556	2.78	U
91-58-7	2-Chloronaphthalene	ND	0.556	2.78	U
88-74-4	2-Nitroaniline	ND	0.556	2.78	U
131-11-3	Dimethylphthalate	ND	0.556	2.78	U
208-96-8	Acenaphthylene	ND	0.556	2.78	U
99-09-2	3-Nitroaniline	ND	0.556	2.78	U
83-32-9	Acenaphthene	ND	0.556	2.78	U
51-28-5	2,4-Dinitrophenol	ND	1.11	5.56	U
100-02-7	4-Nitrophenol	ND	0.556	2.78	U
132-64-9	Dibenzofuran	ND	0.556	2.78	U
606-20-2	2,6-Dinitrotoluene	ND	0.556	2.78	U
121-14-2	2,4-Dinitrotoluene	ND	0.556	2.78	U
84-66-2	Diethyl phthalate	ND	0.556	2.78	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.556	2.78	U
86-73-7	Fluorene	ND	0.556	2.78	U
100-01-6	4-Nitroaniline	ND	0.556	2.78	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.556	2.78	U
86-30-6	N-Nitrosodiphenylamine	ND	0.556	2.78	U
101-55-3	4-Bromophenyl-phenylether	ND	0.556	2.78	U
118-74-1	Hexachlorobenzene	ND	0.556	2.78	U
87-86-5	Pentachlorophenol	ND	0.556	2.78	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15937.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 15:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.111	2.78	U
120-12-7	Anthracene	ND	0.556	2.78	U
84-74-2	Di-n-butyl phthalate	ND	0.556	2.78	U
206-44-0	Fluoranthene	ND	0.556	2.78	U
129-00-0	Pyrene	ND	0.556	2.78	U
85-68-7	Butylbenzylphthalate	ND	0.556	2.78	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.556	2.78	U
56-55-3	Benzo[a]anthracene	ND	0.111	2.78	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.556	2.78	U
218-01-9	Chrysene	ND	0.111	2.78	U
117-84-0	Di-n-octyl phthalate	ND	0.556	2.78	U
205-99-2	Benzo[b]fluoranthene	ND	0.222	2.78	U
207-08-9	Benzo[k]fluoranthene	ND	0.556	2.78	U
50-32-8	Benzo[a]pyrene	ND	0.556	2.78	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.556	2.78	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.222	2.78	U
191-24-2	Benzo[ghi]perylene	ND	0.556	2.78	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	41%	10-94
Phenol-d5	32%	10-112
Nitrobenzene-d5	77%	22-116
2-Fluorobiphenyl	79%	23-109
2,4,6-Tribromophenol	102%	10-181
Terphenyl-d14	90%	17-133

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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15938.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:01
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.532	2.66	U
108-95-2	Phenol	ND	0.532	2.66	U
111-44-4	bis(2-chloroethyl)ether	ND	0.532	2.66	U
95-57-8	2-Chlorophenol	ND	0.532	2.66	U
541-73-1	1,3-Dichlorobenzene	ND	0.532	2.66	U
106-46-7	1,4-Dichlorobenzene	ND	0.532	2.66	U
100-51-6	Benzyl alcohol	ND	0.532	2.66	U
95-50-1	1,2-Dichlorobenzene	ND	0.532	2.66	U
95-48-7	2-Methylphenol	ND	0.532	2.66	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.532	2.66	U
106-44-5	3 & 4-Methylphenol	ND	0.532	2.66	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.532	2.66	U
67-72-1	Hexachloroethane	ND	0.532	2.66	U
98-95-3	Nitrobenzene	ND	0.532	2.66	U
78-59-1	Isophorone	ND	0.532	2.66	U
88-75-5	2-Nitrophenol	ND	0.532	2.66	U
105-67-9	2,4-Dimethylphenol	ND	0.532	2.66	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.532	2.66	U
120-83-2	2,4-Dichlorophenol	ND	0.532	2.66	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.532	2.66	U
91-20-3	Naphthalene	ND	0.532	2.66	U
106-47-8	4-Chloroaniline	ND	0.532	2.66	U
87-68-3	Hexachlorobutadiene	ND	0.532	2.66	U
59-50-7	4-Chloro-3-methylphenol	ND	0.532	2.66	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15938.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:01
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.532	2.66	U
77-47-4	Hexachlorocyclopentadiene	ND	0.532	2.66	U
88-06-2	2,4,6-Trichlorophenol	ND	0.532	2.66	U
95-95-4	2,4,5-Trichlorophenol	ND	0.532	2.66	U
91-58-7	2-Chloronaphthalene	ND	0.532	2.66	U
88-74-4	2-Nitroaniline	ND	0.532	2.66	U
131-11-3	Dimethylphthalate	ND	0.532	2.66	U
208-96-8	Acenaphthylene	ND	0.532	2.66	U
99-09-2	3-Nitroaniline	ND	0.532	2.66	U
83-32-9	Acenaphthene	ND	0.532	2.66	U
51-28-5	2,4-Dinitrophenol	ND	1.06	5.32	U
100-02-7	4-Nitrophenol	ND	0.532	2.66	U
132-64-9	Dibenzofuran	ND	0.532	2.66	U
606-20-2	2,6-Dinitrotoluene	ND	0.532	2.66	U
121-14-2	2,4-Dinitrotoluene	ND	0.532	2.66	U
84-66-2	Diethyl phthalate	ND	0.532	2.66	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.532	2.66	U
86-73-7	Fluorene	ND	0.532	2.66	U
100-01-6	4-Nitroaniline	ND	0.532	2.66	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.532	2.66	U
86-30-6	N-Nitrosodiphenylamine	ND	0.532	2.66	U
101-55-3	4-Bromophenyl-phenylether	ND	0.532	2.66	U
118-74-1	Hexachlorobenzene	ND	0.532	2.66	U
87-86-5	Pentachlorophenol	ND	0.532	2.66	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15938.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:01
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.106	2.66	U
120-12-7	Anthracene	ND	0.532	2.66	U
84-74-2	Di-n-butyl phthalate	ND	0.532	2.66	U
206-44-0	Fluoranthene	ND	0.532	2.66	U
129-00-0	Pyrene	ND	0.532	2.66	U
85-68-7	Butylbenzylphthalate	ND	0.532	2.66	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.532	2.66	U
56-55-3	Benzo[a]anthracene	ND	0.106	2.66	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.532	2.66	U
218-01-9	Chrysene	ND	0.106	2.66	U
117-84-0	Di-n-octyl phthalate	ND	0.532	2.66	U
205-99-2	Benzo[b]fluoranthene	ND	0.213	2.66	U
207-08-9	Benzo[k]fluoranthene	ND	0.532	2.66	U
50-32-8	Benzo[a]pyrene	ND	0.532	2.66	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.532	2.66	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.213	2.66	U
191-24-2	Benzo[ghi]perylene	ND	0.532	2.66	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	49%	10-94
Phenol-d5	36%	10-112
Nitrobenzene-d5	103%	22-116
2-Fluorobiphenyl	99%	23-109
2,4,6-Tribromophenol	117%	10-181
Terphenyl-d14	117%	17-133

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15939.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.549	2.75	U
108-95-2	Phenol	ND	0.549	2.75	U
111-44-4	bis(2-chloroethyl)ether	ND	0.549	2.75	U
95-57-8	2-Chlorophenol	ND	0.549	2.75	U
541-73-1	1,3-Dichlorobenzene	ND	0.549	2.75	U
106-46-7	1,4-Dichlorobenzene	ND	0.549	2.75	U
100-51-6	Benzyl alcohol	ND	0.549	2.75	U
95-50-1	1,2-Dichlorobenzene	ND	0.549	2.75	U
95-48-7	2-Methylphenol	ND	0.549	2.75	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.549	2.75	U
106-44-5	3 & 4-Methylphenol	ND	0.549	2.75	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.549	2.75	U
67-72-1	Hexachloroethane	ND	0.549	2.75	U
98-95-3	Nitrobenzene	ND	0.549	2.75	U
78-59-1	Isophorone	ND	0.549	2.75	U
88-75-5	2-Nitrophenol	ND	0.549	2.75	U
105-67-9	2,4-Dimethylphenol	ND	0.549	2.75	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.549	2.75	U
120-83-2	2,4-Dichlorophenol	ND	0.549	2.75	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.549	2.75	U
91-20-3	Naphthalene	ND	0.549	2.75	U
106-47-8	4-Chloroaniline	ND	0.549	2.75	U
87-68-3	Hexachlorobutadiene	ND	0.549	2.75	U
59-50-7	4-Chloro-3-methylphenol	ND	0.549	2.75	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15939.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.549	2.75	U
77-47-4	Hexachlorocyclopentadiene	ND	0.549	2.75	U
88-06-2	2,4,6-Trichlorophenol	ND	0.549	2.75	U
95-95-4	2,4,5-Trichlorophenol	ND	0.549	2.75	U
91-58-7	2-Chloronaphthalene	ND	0.549	2.75	U
88-74-4	2-Nitroaniline	ND	0.549	2.75	U
131-11-3	Dimethylphthalate	ND	0.549	2.75	U
208-96-8	Acenaphthylene	ND	0.549	2.75	U
99-09-2	3-Nitroaniline	ND	0.549	2.75	U
83-32-9	Acenaphthene	ND	0.549	2.75	U
51-28-5	2,4-Dinitrophenol	ND	1.10	5.49	U
100-02-7	4-Nitrophenol	ND	0.549	2.75	U
132-64-9	Dibenzofuran	ND	0.549	2.75	U
606-20-2	2,6-Dinitrotoluene	ND	0.549	2.75	U
121-14-2	2,4-Dinitrotoluene	ND	0.549	2.75	U
84-66-2	Diethyl phthalate	ND	0.549	2.75	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.549	2.75	U
86-73-7	Fluorene	ND	0.549	2.75	U
100-01-6	4-Nitroaniline	ND	0.549	2.75	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.549	2.75	U
86-30-6	N-Nitrosodiphenylamine	ND	0.549	2.75	U
101-55-3	4-Bromophenyl-phenylether	ND	0.549	2.75	U
118-74-1	Hexachlorobenzene	ND	0.549	2.75	U
87-86-5	Pentachlorophenol	ND	0.549	2.75	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15939.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 16:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.110	2.75	U
120-12-7	Anthracene	ND	0.549	2.75	U
84-74-2	Di-n-butyl phthalate	ND	0.549	2.75	U
206-44-0	Fluoranthene	ND	0.549	2.75	U
129-00-0	Pyrene	ND	0.549	2.75	U
85-68-7	Butylbenzylphthalate	ND	0.549	2.75	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.549	2.75	U
56-55-3	Benzo[a]anthracene	ND	0.110	2.75	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.549	2.75	U
218-01-9	Chrysene	ND	0.110	2.75	U
117-84-0	Di-n-octyl phthalate	ND	0.549	2.75	U
205-99-2	Benzo[b]fluoranthene	ND	0.220	2.75	U
207-08-9	Benzo[k]fluoranthene	ND	0.549	2.75	U
50-32-8	Benzo[a]pyrene	ND	0.549	2.75	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.549	2.75	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.220	2.75	U
191-24-2	Benzo[ghi]perylene	ND	0.549	2.75	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	37%	10-94
Phenol-d5	29%	10-112
Nitrobenzene-d5	72%	22-116
2-Fluorobiphenyl	73%	23-109
2,4,6-Tribromophenol	95%	10-181
Terphenyl-d14	87%	17-133

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18879.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 20:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.515	2.58	U
108-95-2	Phenol	ND	0.515	2.58	U
111-44-4	bis(2-chloroethyl)ether	ND	0.515	2.58	U
95-57-8	2-Chlorophenol	ND	0.515	2.58	U
541-73-1	1,3-Dichlorobenzene	ND	0.515	2.58	U
106-46-7	1,4-Dichlorobenzene	ND	0.515	2.58	U
100-51-6	Benzyl alcohol	ND	0.515	2.58	U
95-50-1	1,2-Dichlorobenzene	ND	0.515	2.58	U
95-48-7	2-Methylphenol	ND	0.515	2.58	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.515	2.58	U
106-44-5	3 & 4-Methylphenol	ND	0.515	2.58	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.515	2.58	U
67-72-1	Hexachloroethane	ND	0.515	2.58	U
98-95-3	Nitrobenzene	ND	0.515	2.58	U
78-59-1	Isophorone	ND	0.515	2.58	U
88-75-5	2-Nitrophenol	ND	0.515	2.58	U
105-67-9	2,4-Dimethylphenol	ND	0.515	2.58	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.515	2.58	U
120-83-2	2,4-Dichlorophenol	ND	0.515	2.58	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.515	2.58	U
91-20-3	Naphthalene	ND	0.515	2.58	U
106-47-8	4-Chloroaniline	ND	0.515	2.58	U
87-68-3	Hexachlorobutadiene	ND	0.515	2.58	U
59-50-7	4-Chloro-3-methylphenol	ND	0.515	2.58	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18879.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 20:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.515	2.58	U
77-47-4	Hexachlorocyclopentadiene	ND	0.515	2.58	U
88-06-2	2,4,6-Trichlorophenol	ND	0.515	2.58	U
95-95-4	2,4,5-Trichlorophenol	ND	0.515	2.58	U
91-58-7	2-Chloronaphthalene	ND	0.515	2.58	U
88-74-4	2-Nitroaniline	ND	0.515	2.58	U
131-11-3	Dimethylphthalate	ND	0.515	2.58	U
208-96-8	Acenaphthylene	ND	0.515	2.58	U
99-09-2	3-Nitroaniline	ND	0.515	2.58	U
83-32-9	Acenaphthene	ND	0.515	2.58	U
51-28-5	2,4-Dinitrophenol	ND	1.03	5.15	U
100-02-7	4-Nitrophenol	ND	0.515	2.58	U
132-64-9	Dibenzofuran	ND	0.515	2.58	U
606-20-2	2,6-Dinitrotoluene	ND	0.515	2.58	U
121-14-2	2,4-Dinitrotoluene	ND	0.515	2.58	U
84-66-2	Diethyl phthalate	ND	0.515	2.58	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.515	2.58	U
86-73-7	Fluorene	ND	0.515	2.58	U
100-01-6	4-Nitroaniline	ND	0.515	2.58	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.515	2.58	U
86-30-6	N-Nitrosodiphenylamine	ND	0.515	2.58	U
101-55-3	4-Bromophenyl-phenylether	ND	0.515	2.58	U
118-74-1	Hexachlorobenzene	ND	0.515	2.58	U
87-86-5	Pentachlorophenol	ND	0.515	2.58	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18879.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 20:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.103	2.58	U
120-12-7	Anthracene	ND	0.515	2.58	U
84-74-2	Di-n-butyl phthalate	ND	0.515	2.58	U
206-44-0	Fluoranthene	ND	0.515	2.58	U
129-00-0	Pyrene	ND	0.515	2.58	U
85-68-7	Butylbenzylphthalate	ND	0.515	2.58	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.515	2.58	U
56-55-3	Benzo[a]anthracene	ND	0.103	2.58	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.515	2.58	U
218-01-9	Chrysene	ND	0.103	2.58	U
117-84-0	Di-n-octyl phthalate	ND	0.515	2.58	U
205-99-2	Benzo[b]fluoranthene	ND	0.206	2.58	U
207-08-9	Benzo[k]fluoranthene	ND	0.515	2.58	U
50-32-8	Benzo[a]pyrene	ND	0.515	2.58	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.515	2.58	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.206	2.58	U
191-24-2	Benzo[ghi]perylene	ND	0.515	2.58	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	40%	10-94
Phenol-d5	25%	10-112
Nitrobenzene-d5	81%	22-116
2-Fluorobiphenyl	78%	23-109
2,4,6-Tribromophenol	81%	10-181
Terphenyl-d14	114%	17-133

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18878.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 19:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.538	2.69	U
108-95-2	Phenol	ND	0.538	2.69	U
111-44-4	bis(2-chloroethyl)ether	ND	0.538	2.69	U
95-57-8	2-Chlorophenol	ND	0.538	2.69	U
541-73-1	1,3-Dichlorobenzene	ND	0.538	2.69	U
106-46-7	1,4-Dichlorobenzene	ND	0.538	2.69	U
100-51-6	Benzyl alcohol	ND	0.538	2.69	U
95-50-1	1,2-Dichlorobenzene	ND	0.538	2.69	U
95-48-7	2-Methylphenol	ND	0.538	2.69	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.538	2.69	U
106-44-5	3 & 4-Methylphenol	ND	0.538	2.69	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.538	2.69	U
67-72-1	Hexachloroethane	ND	0.538	2.69	U
98-95-3	Nitrobenzene	ND	0.538	2.69	U
78-59-1	Isophorone	ND	0.538	2.69	U
88-75-5	2-Nitrophenol	ND	0.538	2.69	U
105-67-9	2,4-Dimethylphenol	ND	0.538	2.69	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.538	2.69	U
120-83-2	2,4-Dichlorophenol	ND	0.538	2.69	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.538	2.69	U
91-20-3	Naphthalene	ND	0.538	2.69	U
106-47-8	4-Chloroaniline	ND	0.538	2.69	U
87-68-3	Hexachlorobutadiene	ND	0.538	2.69	U
59-50-7	4-Chloro-3-methylphenol	ND	0.538	2.69	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18878.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 19:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.538	2.69	U
77-47-4	Hexachlorocyclopentadiene	ND	0.538	2.69	U
88-06-2	2,4,6-Trichlorophenol	ND	0.538	2.69	U
95-95-4	2,4,5-Trichlorophenol	ND	0.538	2.69	U
91-58-7	2-Chloronaphthalene	ND	0.538	2.69	U
88-74-4	2-Nitroaniline	ND	0.538	2.69	U
131-11-3	Dimethylphthalate	ND	0.538	2.69	U
208-96-8	Acenaphthylene	ND	0.538	2.69	U
99-09-2	3-Nitroaniline	ND	0.538	2.69	U
83-32-9	Acenaphthene	ND	0.538	2.69	U
51-28-5	2,4-Dinitrophenol	ND	1.08	5.38	U
100-02-7	4-Nitrophenol	ND	0.538	2.69	U
132-64-9	Dibenzofuran	ND	0.538	2.69	U
606-20-2	2,6-Dinitrotoluene	ND	0.538	2.69	U
121-14-2	2,4-Dinitrotoluene	ND	0.538	2.69	U
84-66-2	Diethyl phthalate	ND	0.538	2.69	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.538	2.69	U
86-73-7	Fluorene	ND	0.538	2.69	U
100-01-6	4-Nitroaniline	ND	0.538	2.69	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.538	2.69	U
86-30-6	N-Nitrosodiphenylamine	ND	0.538	2.69	U
101-55-3	4-Bromophenyl-phenylether	ND	0.538	2.69	U
118-74-1	Hexachlorobenzene	ND	0.538	2.69	U
87-86-5	Pentachlorophenol	ND	0.538	2.69	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18878.D
Prep Batch:	B8J0301	Sequence:	S8J0405	Analyzed:	10/04/18 19:38
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.108	2.69	U
120-12-7	Anthracene	ND	0.538	2.69	U
84-74-2	Di-n-butyl phthalate	ND	0.538	2.69	U
206-44-0	Fluoranthene	ND	0.538	2.69	U
129-00-0	Pyrene	ND	0.538	2.69	U
85-68-7	Butylbenzylphthalate	ND	0.538	2.69	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.538	2.69	U
56-55-3	Benzo[a]anthracene	ND	0.108	2.69	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.538	2.69	U
218-01-9	Chrysene	ND	0.108	2.69	U
117-84-0	Di-n-octyl phthalate	ND	0.538	2.69	U
205-99-2	Benzo[b]fluoranthene	ND	0.215	2.69	U
207-08-9	Benzo[k]fluoranthene	ND	0.538	2.69	U
50-32-8	Benzo[a]pyrene	ND	0.538	2.69	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.538	2.69	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.215	2.69	U
191-24-2	Benzo[ghi]perylene	ND	0.538	2.69	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	41%	10-94
Phenol-d5	25%	10-112
Nitrobenzene-d5	84%	22-116
2-Fluorobiphenyl	81%	23-109
2,4,6-Tribromophenol	83%	10-181
Terphenyl-d14	115%	17-133

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15940.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 17:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.562	2.81	U
108-95-2	Phenol	ND	0.562	2.81	U
111-44-4	bis(2-chloroethyl)ether	ND	0.562	2.81	U
95-57-8	2-Chlorophenol	ND	0.562	2.81	U
541-73-1	1,3-Dichlorobenzene	ND	0.562	2.81	U
106-46-7	1,4-Dichlorobenzene	ND	0.562	2.81	U
100-51-6	Benzyl alcohol	ND	0.562	2.81	U
95-50-1	1,2-Dichlorobenzene	ND	0.562	2.81	U
95-48-7	2-Methylphenol	ND	0.562	2.81	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.562	2.81	U
106-44-5	3 & 4-Methylphenol	ND	0.562	2.81	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.562	2.81	U
67-72-1	Hexachloroethane	ND	0.562	2.81	U
98-95-3	Nitrobenzene	ND	0.562	2.81	U
78-59-1	Isophorone	ND	0.562	2.81	U
88-75-5	2-Nitrophenol	ND	0.562	2.81	U
105-67-9	2,4-Dimethylphenol	ND	0.562	2.81	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.562	2.81	U
120-83-2	2,4-Dichlorophenol	ND	0.562	2.81	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.562	2.81	U
91-20-3	Naphthalene	ND	0.562	2.81	U
106-47-8	4-Chloroaniline	ND	0.562	2.81	U
87-68-3	Hexachlorobutadiene	ND	0.562	2.81	U
59-50-7	4-Chloro-3-methylphenol	ND	0.562	2.81	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15940.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 17:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.562	2.81	U
77-47-4	Hexachlorocyclopentadiene	ND	0.562	2.81	U
88-06-2	2,4,6-Trichlorophenol	ND	0.562	2.81	U
95-95-4	2,4,5-Trichlorophenol	ND	0.562	2.81	U
91-58-7	2-Chloronaphthalene	ND	0.562	2.81	U
88-74-4	2-Nitroaniline	ND	0.562	2.81	U
131-11-3	Dimethylphthalate	ND	0.562	2.81	U
208-96-8	Acenaphthylene	ND	0.562	2.81	U
99-09-2	3-Nitroaniline	ND	0.562	2.81	U
83-32-9	Acenaphthene	ND	0.562	2.81	U
51-28-5	2,4-Dinitrophenol	ND	1.12	5.62	U
100-02-7	4-Nitrophenol	ND	0.562	2.81	U
132-64-9	Dibenzofuran	ND	0.562	2.81	U
606-20-2	2,6-Dinitrotoluene	ND	0.562	2.81	U
121-14-2	2,4-Dinitrotoluene	ND	0.562	2.81	U
84-66-2	Diethyl phthalate	ND	0.562	2.81	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.562	2.81	U
86-73-7	Fluorene	ND	0.562	2.81	U
100-01-6	4-Nitroaniline	ND	0.562	2.81	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.562	2.81	U
86-30-6	N-Nitrosodiphenylamine	ND	0.562	2.81	U
101-55-3	4-Bromophenyl-phenylether	ND	0.562	2.81	U
118-74-1	Hexachlorobenzene	ND	0.562	2.81	U
87-86-5	Pentachlorophenol	ND	0.562	2.81	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15940.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 17:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.112	2.81	U
120-12-7	Anthracene	ND	0.562	2.81	U
84-74-2	Di-n-butyl phthalate	ND	0.562	2.81	U
206-44-0	Fluoranthene	ND	0.562	2.81	U
129-00-0	Pyrene	ND	0.562	2.81	U
85-68-7	Butylbenzylphthalate	ND	0.562	2.81	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.562	2.81	U
56-55-3	Benzo[a]anthracene	ND	0.112	2.81	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.562	2.81	U
218-01-9	Chrysene	ND	0.112	2.81	U
117-84-0	Di-n-octyl phthalate	ND	0.562	2.81	U
205-99-2	Benzo[b]fluoranthene	ND	0.225	2.81	U
207-08-9	Benzo[k]fluoranthene	ND	0.562	2.81	U
50-32-8	Benzo[a]pyrene	ND	0.562	2.81	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.562	2.81	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.225	2.81	U
191-24-2	Benzo[ghi]perylene	ND	0.562	2.81	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	38%	10-94
Phenol-d5	29%	10-112
Nitrobenzene-d5	77%	22-116
2-Fluorobiphenyl	78%	23-109
2,4,6-Tribromophenol	103%	10-181
Terphenyl-d14	86%	17-133

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Phone: 732-969-6112
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15934.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	14.3	0.538	2.69	
108-95-2	Phenol	14.8	0.538	2.69	
111-44-4	bis(2-chloroethyl)ether	40.1	0.538	2.69	
95-57-8	2-Chlorophenol	36.9	0.538	2.69	
541-73-1	1,3-Dichlorobenzene	34.6	0.538	2.69	
106-46-7	1,4-Dichlorobenzene	35.2	0.538	2.69	
100-51-6	Benzyl alcohol	26.3	0.538	2.69	
95-50-1	1,2-Dichlorobenzene	36.5	0.538	2.69	
95-48-7	2-Methylphenol	34.1	0.538	2.69	
39638-32-9	bis(2-chloroisopropyl)ether	42.2	0.538	2.69	
106-44-5	3 & 4-Methylphenol	30.1	0.538	2.69	
621-64-7	N-Nitroso-di-n-propylamine	42.6	0.538	2.69	
67-72-1	Hexachloroethane	34.5	0.538	2.69	
98-95-3	Nitrobenzene	43.6	0.538	2.69	
78-59-1	Isophorone	43.0	0.538	2.69	
88-75-5	2-Nitrophenol	41.6	0.538	2.69	
105-67-9	2,4-Dimethylphenol	33.7	0.538	2.69	
111-91-1	bis(2-chloroethoxy)methane	45.0	0.538	2.69	
120-83-2	2,4-Dichlorophenol	42.5	0.538	2.69	
120-82-1	1,2,4-Trichlorobenzene	41.0	0.538	2.69	
91-20-3	Naphthalene	42.6	0.538	2.69	
106-47-8	4-Chloroaniline	9.38	0.538	2.69	
87-68-3	Hexachlorobutadiene	39.6	0.538	2.69	
59-50-7	4-Chloro-3-methylphenol	47.9	0.538	2.69	

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15934.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	43.5	0.538	2.69	
77-47-4	Hexachlorocyclopentadiene	32.1	0.538	2.69	
88-06-2	2,4,6-Trichlorophenol	44.4	0.538	2.69	
95-95-4	2,4,5-Trichlorophenol	44.5	0.538	2.69	
91-58-7	2-Chloronaphthalene	40.2	0.538	2.69	
88-74-4	2-Nitroaniline	37.5	0.538	2.69	
131-11-3	Dimethylphthalate	46.2	0.538	2.69	
208-96-8	Acenaphthylene	43.5	0.538	2.69	
99-09-2	3-Nitroaniline	4.56	0.538	2.69	
83-32-9	Acenaphthene	46.5	0.538	2.69	
51-28-5	2,4-Dinitrophenol	58.3	1.08	5.38	
100-02-7	4-Nitrophenol	22.4	0.538	2.69	
132-64-9	Dibenzofuran	46.3	0.538	2.69	
606-20-2	2,6-Dinitrotoluene	48.4	0.538	2.69	
121-14-2	2,4-Dinitrotoluene	53.5	0.538	2.69	
84-66-2	Diethyl phthalate	50.5	0.538	2.69	
7005-72-3	4-Chlorophenyl-phenylether	48.6	0.538	2.69	
86-73-7	Fluorene	47.5	0.538	2.69	
100-01-6	4-Nitroaniline	7.55	0.538	2.69	
534-52-1	4,6-Dinitro-2-methylphenol	55.8	0.538	2.69	
86-30-6	N-Nitrosodiphenylamine	48.2	0.538	2.69	
101-55-3	4-Bromophenyl-phenylether	50.3	0.538	2.69	
118-74-1	Hexachlorobenzene	50.2	0.538	2.69	
87-86-5	Pentachlorophenol	56.8	0.538	2.69	

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15934.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	51.7	0.108	2.69	
120-12-7	Anthracene	49.4	0.538	2.69	
84-74-2	Di-n-butyl phthalate	50.7	0.538	2.69	
206-44-0	Fluoranthene	50.0	0.538	2.69	
129-00-0	Pyrene	56.3	0.538	2.69	
85-68-7	Butylbenzylphthalate	58.2	0.538	2.69	
91-94-1	3,3'-Dichlorobenzidine	ND	0.538	2.69	U
56-55-3	Benzo[a]anthracene	51.8	0.108	2.69	
117-81-7	bis(2-ethylhexyl)phthalate	54.9	0.538	2.69	
218-01-9	Chrysene	52.2	0.108	2.69	
117-84-0	Di-n-octyl phthalate	48.8	0.538	2.69	
205-99-2	Benzo[b]fluoranthene	50.9	0.215	2.69	
207-08-9	Benzo[k]fluoranthene	51.6	0.538	2.69	
50-32-8	Benzo[a]pyrene	50.6	0.538	2.69	
193-39-5	Indeno(1,2,3-cd)pyrene	50.5	0.538	2.69	
53-70-3	Dibenzo(a,h)anthracene	50.7	0.215	2.69	
191-24-2	Benzo[ghi]perylene	52.3	0.538	2.69	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	40%	10-94
Phenol-d5	30%	10-112
Nitrobenzene-d5	76%	22-116
2-Fluorobiphenyl	75%	23-109
2,4,6-Tribromophenol	99%	10-181
Terphenyl-d14	87%	17-133

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15935.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:52
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	15.4	0.526	2.63	
108-95-2	Phenol	15.0	0.526	2.63	
111-44-4	bis(2-chloroethyl)ether	42.8	0.526	2.63	
95-57-8	2-Chlorophenol	38.9	0.526	2.63	
541-73-1	1,3-Dichlorobenzene	36.6	0.526	2.63	
106-46-7	1,4-Dichlorobenzene	36.7	0.526	2.63	
100-51-6	Benzyl alcohol	27.1	0.526	2.63	
95-50-1	1,2-Dichlorobenzene	38.2	0.526	2.63	
95-48-7	2-Methylphenol	35.1	0.526	2.63	
39638-32-9	bis(2-chloroisopropyl)ether	42.6	0.526	2.63	
106-44-5	3 & 4-Methylphenol	30.9	0.526	2.63	
621-64-7	N-Nitroso-di-n-propylamine	44.1	0.526	2.63	
67-72-1	Hexachloroethane	36.0	0.526	2.63	
98-95-3	Nitrobenzene	45.2	0.526	2.63	
78-59-1	Isophorone	44.5	0.526	2.63	
88-75-5	2-Nitrophenol	43.5	0.526	2.63	
105-67-9	2,4-Dimethylphenol	38.2	0.526	2.63	
111-91-1	bis(2-chloroethoxy)methane	45.9	0.526	2.63	
120-83-2	2,4-Dichlorophenol	44.2	0.526	2.63	
120-82-1	1,2,4-Trichlorobenzene	42.4	0.526	2.63	
91-20-3	Naphthalene	43.1	0.526	2.63	
106-47-8	4-Chloroaniline	8.31	0.526	2.63	
87-68-3	Hexachlorobutadiene	42.0	0.526	2.63	
59-50-7	4-Chloro-3-methylphenol	50.3	0.526	2.63	

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15935.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:52
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	44.7	0.526	2.63	
77-47-4	Hexachlorocyclopentadiene	31.9	0.526	2.63	
88-06-2	2,4,6-Trichlorophenol	46.9	0.526	2.63	
95-95-4	2,4,5-Trichlorophenol	47.4	0.526	2.63	
91-58-7	2-Chloronaphthalene	42.1	0.526	2.63	
88-74-4	2-Nitroaniline	34.0	0.526	2.63	
131-11-3	Dimethylphthalate	48.4	0.526	2.63	
208-96-8	Acenaphthylene	45.6	0.526	2.63	
99-09-2	3-Nitroaniline	2.39	0.526	2.63	J
83-32-9	Acenaphthene	48.8	0.526	2.63	
51-28-5	2,4-Dinitrophenol	61.3	1.05	5.26	
100-02-7	4-Nitrophenol	22.2	0.526	2.63	
132-64-9	Dibenzofuran	48.6	0.526	2.63	
606-20-2	2,6-Dinitrotoluene	50.0	0.526	2.63	
121-14-2	2,4-Dinitrotoluene	54.7	0.526	2.63	
84-66-2	Diethyl phthalate	51.0	0.526	2.63	
7005-72-3	4-Chlorophenyl-phenylether	50.6	0.526	2.63	
86-73-7	Fluorene	49.5	0.526	2.63	
100-01-6	4-Nitroaniline	3.35	0.526	2.63	
534-52-1	4,6-Dinitro-2-methylphenol	56.3	0.526	2.63	
86-30-6	N-Nitrosodiphenylamine	49.2	0.526	2.63	
101-55-3	4-Bromophenyl-phenylether	51.0	0.526	2.63	
118-74-1	Hexachlorobenzene	50.0	0.526	2.63	
87-86-5	Pentachlorophenol	58.0	0.526	2.63	

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15935.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 13:52
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	51.8	0.105	2.63	
120-12-7	Anthracene	49.6	0.526	2.63	
84-74-2	Di-n-butyl phthalate	50.6	0.526	2.63	
206-44-0	Fluoranthene	49.6	0.526	2.63	
129-00-0	Pyrene	55.3	0.526	2.63	
85-68-7	Butylbenzylphthalate	57.7	0.526	2.63	
91-94-1	3,3'-Dichlorobenzidine	ND	0.526	2.63	U
56-55-3	Benzo[a]anthracene	51.4	0.105	2.63	
117-81-7	bis(2-ethylhexyl)phthalate	54.6	0.526	2.63	
218-01-9	Chrysene	52.3	0.105	2.63	
117-84-0	Di-n-octyl phthalate	48.2	0.526	2.63	
205-99-2	Benzo[b]fluoranthene	51.2	0.211	2.63	
207-08-9	Benzo[k]fluoranthene	50.4	0.526	2.63	
50-32-8	Benzo[a]pyrene	50.6	0.526	2.63	
193-39-5	Indeno(1,2,3-cd)pyrene	49.6	0.526	2.63	
53-70-3	Dibenzo(a,h)anthracene	50.1	0.211	2.63	
191-24-2	Benzo[ghi]perylene	51.9	0.526	2.63	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	43%	10-94
Phenol-d5	32%	10-112
Nitrobenzene-d5	83%	22-116
2-Fluorobiphenyl	82%	23-109
2,4,6-Tribromophenol	102%	10-181
Terphenyl-d14	90%	17-133

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11A**
Lab Sample ID: **1801565-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:15	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19007.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	165	412	U
108-95-2	Phenol	ND	165	412	U
111-44-4	bis(2-chloroethyl)ether	ND	165	412	U
95-57-8	2-Chlorophenol	ND	165	412	U
541-73-1	1,3-Dichlorobenzene	ND	165	412	U
106-46-7	1,4-Dichlorobenzene	ND	165	412	U
100-51-6	Benzyl alcohol	ND	165	412	U
95-50-1	1,2-Dichlorobenzene	ND	165	412	U
95-48-7	2-Methylphenol	ND	165	412	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	165	412	U
106-44-5	3 & 4-Methylphenol	ND	165	412	U
621-64-7	N-Nitroso-di-n-propylamine	ND	165	412	U
67-72-1	Hexachloroethane	ND	165	412	U
98-95-3	Nitrobenzene	ND	165	412	U
78-59-1	Isophorone	ND	165	412	U
88-75-5	2-Nitrophenol	ND	165	412	U
105-67-9	2,4-Dimethylphenol	ND	165	412	U
111-91-1	bis(2-chloroethoxy)methane	ND	165	412	U
120-83-2	2,4-Dichlorophenol	ND	165	412	U
120-82-1	1,2,4-Trichlorobenzene	ND	165	412	U
91-20-3	Naphthalene	ND	165	412	U
106-47-8	4-Chloroaniline	ND	165	412	U
87-68-3	Hexachlorobutadiene	ND	165	412	U
59-50-7	4-Chloro-3-methylphenol	ND	165	412	U

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Lab Sample ID: **1801565-11**
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Work Order: **1801565**

Date Sampled:	10/02/18 13:15	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19007.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	165	412	U
77-47-4	Hexachlorocyclopentadiene	ND	165	412	U
88-06-2	2,4,6-Trichlorophenol	ND	165	412	U
95-95-4	2,4,5-Trichlorophenol	ND	165	412	U
91-58-7	2-Chloronaphthalene	ND	165	412	U
88-74-4	2-Nitroaniline	ND	165	412	U
131-11-3	Dimethylphthalate	ND	165	412	U
208-96-8	Acenaphthylene	ND	165	412	U
99-09-2	3-Nitroaniline	ND	165	412	U
83-32-9	Acenaphthene	ND	165	412	U
51-28-5	2,4-Dinitrophenol	ND	165	827	U
100-02-7	4-Nitrophenol	ND	165	412	U
132-64-9	Dibenzofuran	ND	165	412	U
606-20-2	2,6-Dinitrotoluene	ND	165	412	U
121-14-2	2,4-Dinitrotoluene	ND	165	412	U
84-66-2	Diethyl phthalate	ND	165	412	U
7005-72-3	4-Chlorophenyl-phenylether	ND	165	412	U
86-73-7	Fluorene	ND	165	412	U
100-01-6	4-Nitroaniline	ND	165	412	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	165	412	U
86-30-6	N-Nitrosodiphenylamine	ND	165	412	U
101-55-3	4-Bromophenyl-phenylether	ND	165	412	U
118-74-1	Hexachlorobenzene	ND	165	412	U
87-86-5	Pentachlorophenol	ND	165	412	U

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Work Order: **1801565**

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Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	165	412	U
120-12-7	Anthracene	ND	165	412	U
84-74-2	Di-n-butyl phthalate	ND	165	412	U
206-44-0	Fluoranthene	ND	165	412	U
129-00-0	Pyrene	ND	165	412	U
85-68-7	Butylbenzylphthalate	ND	165	412	U
91-94-1	3,3'-Dichlorobenzidine	ND	411	412	U
56-55-3	Benzo[a]anthracene	ND	165	412	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	165	412	U
218-01-9	Chrysene	ND	165	412	U
117-84-0	Di-n-octyl phthalate	ND	165	412	U
205-99-2	Benzo[b]fluoranthene	ND	165	412	U
207-08-9	Benzo[k]fluoranthene	ND	165	412	U
50-32-8	Benzo[a]pyrene	ND	165	412	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	165	412	U
53-70-3	Dibenzo(a,h)anthracene	ND	165	412	U
191-24-2	Benzo[ghi]perylene	ND	165	412	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	69%	41-102
Phenol-d5	70%	47-113
Nitrobenzene-d5	67%	38-100
2-Fluorobiphenyl	63%	38-88
2,4,6-Tribromophenol	89%	40-129
Terphenyl-d14	99%	31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11B**
Lab Sample ID: **1801565-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:10	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	165	412	U
108-95-2	Phenol	ND	165	412	U
111-44-4	bis(2-chloroethyl)ether	ND	165	412	U
95-57-8	2-Chlorophenol	ND	165	412	U
541-73-1	1,3-Dichlorobenzene	ND	165	412	U
106-46-7	1,4-Dichlorobenzene	ND	165	412	U
100-51-6	Benzyl alcohol	ND	165	412	U
95-50-1	1,2-Dichlorobenzene	ND	165	412	U
95-48-7	2-Methylphenol	ND	165	412	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	165	412	U
106-44-5	3 & 4-Methylphenol	ND	165	412	U
621-64-7	N-Nitroso-di-n-propylamine	ND	165	412	U
67-72-1	Hexachloroethane	ND	165	412	U
98-95-3	Nitrobenzene	ND	165	412	U
78-59-1	Isophorone	ND	165	412	U
88-75-5	2-Nitrophenol	ND	165	412	U
105-67-9	2,4-Dimethylphenol	ND	165	412	U
111-91-1	bis(2-chloroethoxy)methane	ND	165	412	U
120-83-2	2,4-Dichlorophenol	ND	165	412	U
120-82-1	1,2,4-Trichlorobenzene	ND	165	412	U
91-20-3	Naphthalene	ND	165	412	U
106-47-8	4-Chloroaniline	ND	165	412	U
87-68-3	Hexachlorobutadiene	ND	165	412	U
59-50-7	4-Chloro-3-methylphenol	ND	165	412	U

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Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

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Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	165	412	U
77-47-4	Hexachlorocyclopentadiene	ND	165	412	U
88-06-2	2,4,6-Trichlorophenol	ND	165	412	U
95-95-4	2,4,5-Trichlorophenol	ND	165	412	U
91-58-7	2-Chloronaphthalene	ND	165	412	U
88-74-4	2-Nitroaniline	ND	165	412	U
131-11-3	Dimethylphthalate	ND	165	412	U
208-96-8	Acenaphthylene	ND	165	412	U
99-09-2	3-Nitroaniline	ND	165	412	U
83-32-9	Acenaphthene	ND	165	412	U
51-28-5	2,4-Dinitrophenol	ND	165	827	U
100-02-7	4-Nitrophenol	ND	165	412	U
132-64-9	Dibenzofuran	ND	165	412	U
606-20-2	2,6-Dinitrotoluene	ND	165	412	U
121-14-2	2,4-Dinitrotoluene	ND	165	412	U
84-66-2	Diethyl phthalate	ND	165	412	U
7005-72-3	4-Chlorophenyl-phenylether	ND	165	412	U
86-73-7	Fluorene	ND	165	412	U
100-01-6	4-Nitroaniline	ND	165	412	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	165	412	U
86-30-6	N-Nitrosodiphenylamine	ND	165	412	U
101-55-3	4-Bromophenyl-phenylether	ND	165	412	U
118-74-1	Hexachlorobenzene	ND	165	412	U
87-86-5	Pentachlorophenol	ND	165	412	U

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11B**
Lab Sample ID: **1801565-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:10	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	165	412	U
120-12-7	Anthracene	ND	165	412	U
84-74-2	Di-n-butyl phthalate	ND	165	412	U
206-44-0	Fluoranthene	ND	165	412	U
129-00-0	Pyrene	ND	165	412	U
85-68-7	Butylbenzylphthalate	ND	165	412	U
91-94-1	3,3'-Dichlorobenzidine	ND	411	412	U
56-55-3	Benzo[a]anthracene	ND	165	412	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	165	412	U
218-01-9	Chrysene	ND	165	412	U
117-84-0	Di-n-octyl phthalate	ND	165	412	U
205-99-2	Benzo[b]fluoranthene	ND	165	412	U
207-08-9	Benzo[k]fluoranthene	ND	165	412	U
50-32-8	Benzo[a]pyrene	ND	165	412	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	165	412	U
53-70-3	Dibenzo(a,h)anthracene	ND	165	412	U
191-24-2	Benzo[ghi]perylene	ND	165	412	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	75%	41-102
Phenol-d5	76%	47-113
Nitrobenzene-d5	74%	38-100
2-Fluorobiphenyl	71%	38-88
2,4,6-Tribromophenol	91%	40-129
Terphenyl-d14	105%	31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11C**
Lab Sample ID: **1801565-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:45	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	15.50	Prep Method:	EPA 3550B GCMS	File ID:	F19005.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 17:40
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	215	537	U
108-95-2	Phenol	ND	215	537	U
111-44-4	bis(2-chloroethyl)ether	ND	215	537	U
95-57-8	2-Chlorophenol	ND	215	537	U
541-73-1	1,3-Dichlorobenzene	ND	215	537	U
106-46-7	1,4-Dichlorobenzene	ND	215	537	U
100-51-6	Benzyl alcohol	ND	215	537	U
95-50-1	1,2-Dichlorobenzene	ND	215	537	U
95-48-7	2-Methylphenol	ND	215	537	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	215	537	U
106-44-5	3 & 4-Methylphenol	ND	215	537	U
621-64-7	N-Nitroso-di-n-propylamine	ND	215	537	U
67-72-1	Hexachloroethane	ND	215	537	U
98-95-3	Nitrobenzene	ND	215	537	U
78-59-1	Isophorone	ND	215	537	U
88-75-5	2-Nitrophenol	ND	215	537	U
105-67-9	2,4-Dimethylphenol	ND	215	537	U
111-91-1	bis(2-chloroethoxy)methane	ND	215	537	U
120-83-2	2,4-Dichlorophenol	ND	215	537	U
120-82-1	1,2,4-Trichlorobenzene	ND	215	537	U
91-20-3	Naphthalene	ND	215	537	U
106-47-8	4-Chloroaniline	ND	215	537	U
87-68-3	Hexachlorobutadiene	ND	215	537	U
59-50-7	4-Chloro-3-methylphenol	ND	215	537	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11C**
Lab Sample ID: **1801565-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:45	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	15.50	Prep Method:	EPA 3550B GCMS	File ID:	F19005.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 17:40
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	215	537	U
77-47-4	Hexachlorocyclopentadiene	ND	215	537	U
88-06-2	2,4,6-Trichlorophenol	ND	215	537	U
95-95-4	2,4,5-Trichlorophenol	ND	215	537	U
91-58-7	2-Chloronaphthalene	ND	215	537	U
88-74-4	2-Nitroaniline	ND	215	537	U
131-11-3	Dimethylphthalate	ND	215	537	U
208-96-8	Acenaphthylene	ND	215	537	U
99-09-2	3-Nitroaniline	ND	215	537	U
83-32-9	Acenaphthene	ND	215	537	U
51-28-5	2,4-Dinitrophenol	ND	215	1080	U
100-02-7	4-Nitrophenol	ND	215	537	U
132-64-9	Dibenzofuran	ND	215	537	U
606-20-2	2,6-Dinitrotoluene	ND	215	537	U
121-14-2	2,4-Dinitrotoluene	ND	215	537	U
84-66-2	Diethyl phthalate	ND	215	537	U
7005-72-3	4-Chlorophenyl-phenylether	ND	215	537	U
86-73-7	Fluorene	ND	215	537	U
100-01-6	4-Nitroaniline	ND	215	537	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	215	537	U
86-30-6	N-Nitrosodiphenylamine	ND	215	537	U
101-55-3	4-Bromophenyl-phenylether	ND	215	537	U
118-74-1	Hexachlorobenzene	ND	215	537	U
87-86-5	Pentachlorophenol	ND	215	537	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11C**
Lab Sample ID: **1801565-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:45	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	15.50	Prep Method:	EPA 3550B GCMS	File ID:	F19005.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 17:40
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	215	537	U
120-12-7	Anthracene	ND	215	537	U
84-74-2	Di-n-butyl phthalate	ND	215	537	U
206-44-0	Fluoranthene	ND	215	537	U
129-00-0	Pyrene	ND	215	537	U
85-68-7	Butylbenzylphthalate	ND	215	537	U
91-94-1	3,3'-Dichlorobenzidine	ND	535	537	U
56-55-3	Benzo[a]anthracene	ND	215	537	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	215	537	U
218-01-9	Chrysene	ND	215	537	U
117-84-0	Di-n-octyl phthalate	ND	215	537	U
205-99-2	Benzo[b]fluoranthene	ND	215	537	U
207-08-9	Benzo[k]fluoranthene	ND	215	537	U
50-32-8	Benzo[a]pyrene	ND	215	537	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	215	537	U
53-70-3	Dibenzo(a,h)anthracene	ND	215	537	U
191-24-2	Benzo[ghi]perylene	ND	215	537	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	79%	41-102
Phenol-d5	80%	47-113
Nitrobenzene-d5	80%	38-100
2-Fluorobiphenyl	75%	38-88
2,4,6-Tribromophenol	89%	40-129
Terphenyl-d14	102%	31-145

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E - Concentration exceeds highest calibration standard
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MDL - Minimum detection limit
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VOLATILES SAMPLE DATA

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-09**
Lab Sample ID: **1801565-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	105%	83-120
Bromofluorobenzene	104%	79-127

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/05/18 18:19	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28758.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:19
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	2.89	2.50	5.00	J
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/05/18 18:19	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28758.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:19
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-08**
Lab Sample ID: **1801565-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 09:15	Prep Date:	10/05/18 18:19	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28758.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:19
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	108%	66-143
Toluene-d8	107%	83-120
Bromofluorobenzene	107%	79-127

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/05/18 18:50	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28759.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:50
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	3.75	2.50	5.00	J
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/05/18 18:50	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28759.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:50
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-10**
Lab Sample ID: **1801565-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 10:05	Prep Date:	10/05/18 18:50	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28759.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 18:50
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	107%	66-143
Toluene-d8	107%	83-120
Bromofluorobenzene	105%	79-127

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Phone: 732-969-6112
Fax: 732-541-1383
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/08/18 18:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28784.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/08/18 18:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28784.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-FB**
Lab Sample ID: **1801565-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:05	Prep Date:	10/08/18 18:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28784.D
Prep Batch:	B8J0819	Sequence:	S8J0816	Analyzed:	10/08/18 18:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	107%	66-143
Toluene-d8	103%	83-120
Bromofluorobenzene	107%	79-127

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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/05/18 19:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28761.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 19:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	3.13	2.50	5.00	J
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/05/18 19:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28761.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 19:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-05**
Lab Sample ID: **1801565-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 12:50	Prep Date:	10/05/18 19:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28761.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 19:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	108%	66-143
Toluene-d8	105%	83-120
Bromofluorobenzene	108%	79-127

Accredited Analytical Resources, LLC.
20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:24	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28762.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:24
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:24	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28762.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:24
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04**
Lab Sample ID: **1801565-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:24	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28762.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:24
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	108%	66-143
Toluene-d8	105%	83-120
Bromofluorobenzene	106%	79-127

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:55	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28763.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:55
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:55	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28763.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:55
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-04 DUP**
Lab Sample ID: **1801565-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 13:20	Prep Date:	10/05/18 20:55	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28763.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 20:55
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	107%	66-143
Toluene-d8	106%	83-120
Bromofluorobenzene	106%	79-127

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 17:17	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28756.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:17
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 17:17	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28756.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:17
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03**
Lab Sample ID: **1801565-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 17:17	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28756.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:17
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	108%	66-143
Toluene-d8	104%	83-120
Bromofluorobenzene	106%	79-127

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 13:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28750.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 13:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	96.7	6.00	10.0	
107-13-1	Acrylonitrile	106	2.00	10.0	
67-64-1	Acetone	11.2	2.50	5.00	
75-71-8	Dichlorodifluoromethane	18.4	1.00	1.00	
74-87-3	Chloromethane	22.8	1.00	1.00	
75-01-4	Vinyl chloride	24.1	1.00	1.00	
74-83-9	Bromomethane	26.4	1.00	1.00	
75-00-3	Chloroethane	25.5	1.00	1.00	
75-69-4	Trichlorofluoromethane	28.2	1.00	1.00	
75-35-4	1,1-Dichloroethene	27.5	0.400	1.00	
75-15-0	Carbon disulfide	26.0	0.400	1.00	
75-09-2	Methylene Chloride	28.6	0.400	1.00	
156-60-5	trans-1,2-Dichloroethene	25.9	0.400	1.00	
75-34-3	1,1-Dichloroethane	26.8	0.400	1.00	
108-05-4	Vinyl acetate	24.7	0.400	1.00	
590-20-7	2,2-Dichloropropane	26.0	0.400	1.00	
78-93-3	2-Butanone	15.1	2.50	5.00	
156-59-4	cis-1,2-Dichloroethene	25.9	0.500	1.00	
67-66-3	Chloroform	25.6	0.500	1.00	
74-97-5	Bromochloromethane	24.9	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	27.3	0.500	1.00	
563-58-6	1,1-Dichloropropene	24.1	0.500	1.00	
56-23-5	Carbon Tetrachloride	27.4	0.500	1.00	
107-06-2	1,2-Dichloroethane	23.1	0.500	1.00	

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 13:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28750.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 13:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	24.6	0.500	1.00	
79-01-6	Trichloroethene	25.0	0.500	1.00	
78-87-5	1,2-Dichloropropane	24.3	0.500	1.00	
75-27-4	Bromodichloromethane	25.5	0.500	1.00	
74-95-3	Dibromomethane	23.1	0.500	1.00	
110-75-8	2-Chloroethyl vinyl ether	4.83	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	24.1	0.500	1.00	
108-88-3	Toluene	24.4	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	24.0	0.500	1.00	
79-00-5	1,1,2-Trichloroethane	23.4	0.500	1.00	
108-10-1	4-Methyl-2-pentanone	19.7	2.50	5.00	
106-93-4	1,2-Dibromoethane	22.2	0.500	1.00	
591-78-6	2-Hexanone	17.4	2.50	5.00	
142-28-9	1,3-Dichloropropane	23.0	0.500	1.00	
127-18-4	Tetrachloroethene	23.6	0.500	1.00	
124-48-1	Dibromochloromethane	23.4	0.500	1.00	
100-41-4	Ethylbenzene	25.5	0.500	1.00	
108-90-7	Chlorobenzene	24.7	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	25.1	0.500	1.00	
108-38-3/106-42	m,p-Xylenes	50.9	1.00	2.00	
95-47-6	o-Xylene	49.7	1.00	2.00	
100-42-5	Styrene	49.9	1.00	2.00	
75-25-2	Bromoform	23.2	0.500	1.00	
98-82-8	Isopropylbenzene	26.8	0.500	1.00	

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MS**
Lab Sample ID: **1801565-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 13:52	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28750.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 13:52
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	23.7	0.500	1.00	
96-18-4	1,2,3-Trichloropropane	22.3	0.500	1.00	
103-65-1	n-Propyl Benzene	26.5	0.500	1.00	
108-86-1	Bromobenzene	25.4	0.500	1.00	
108-67-8	1,3,5-Trimethylbenzene	26.7	0.500	1.00	
95-49-8	2-Chlorotoluene	25.9	0.500	1.00	
106-43-4	4-Chlorotoluene	26.8	0.500	1.00	
98-06-6	tert-Butylbenzene	26.1	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	26.5	0.500	1.00	
135-98-8	sec-Butylbenzene	26.2	0.500	1.00	
99-87-6	p-Isopropyltoluene	26.4	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	24.9	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	24.9	0.500	1.00	
104-51-8	n-Butyl Benzene	26.6	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	24.8	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	22.6	0.500	1.00	
120-82-1	1,2,4-Trichlorobenzene	23.5	0.500	1.00	
87-68-3	Hexachlorobutadiene	24.7	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	23.0	0.500	1.00	

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	98%	66-143
Toluene-d8	103%	83-120
Bromofluorobenzene	103%	79-127

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Carteret, New Jersey 07008
Phone: 732-969-6112
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
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MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 14:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28751.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 14:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	109	6.00	10.0	
107-13-1	Acrylonitrile	126	2.00	10.0	
67-64-1	Acetone	15.0	2.50	5.00	
75-71-8	Dichlorodifluoromethane	16.3	1.00	1.00	
74-87-3	Chloromethane	22.0	1.00	1.00	
75-01-4	Vinyl chloride	21.9	1.00	1.00	
74-83-9	Bromomethane	25.5	1.00	1.00	
75-00-3	Chloroethane	23.9	1.00	1.00	
75-69-4	Trichlorofluoromethane	26.7	1.00	1.00	
75-35-4	1,1-Dichloroethene	28.6	0.400	1.00	
75-15-0	Carbon disulfide	26.9	0.400	1.00	
75-09-2	Methylene Chloride	30.4	0.400	1.00	
156-60-5	trans-1,2-Dichloroethene	26.3	0.400	1.00	
75-34-3	1,1-Dichloroethane	28.9	0.400	1.00	
108-05-4	Vinyl acetate	26.2	0.400	1.00	
590-20-7	2,2-Dichloropropane	25.8	0.400	1.00	
78-93-3	2-Butanone	16.4	2.50	5.00	
156-59-4	cis-1,2-Dichloroethene	27.9	0.500	1.00	
67-66-3	Chloroform	27.1	0.500	1.00	
74-97-5	Bromochloromethane	27.3	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	27.2	0.500	1.00	
563-58-6	1,1-Dichloropropene	25.4	0.500	1.00	
56-23-5	Carbon Tetrachloride	28.4	0.500	1.00	
107-06-2	1,2-Dichloroethane	25.3	0.500	1.00	

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 14:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28751.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 14:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	25.4	0.500	1.00	
79-01-6	Trichloroethene	26.5	0.500	1.00	
78-87-5	1,2-Dichloropropane	26.4	0.500	1.00	
75-27-4	Bromodichloromethane	28.4	0.500	1.00	
74-95-3	Dibromomethane	26.1	0.500	1.00	
110-75-8	2-Chloroethyl vinyl ether	4.78	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	27.6	0.500	1.00	
108-88-3	Toluene	27.6	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	28.7	0.500	1.00	
79-00-5	1,1,2-Trichloroethane	27.0	0.500	1.00	
108-10-1	4-Methyl-2-pentanone	25.5	2.50	5.00	
106-93-4	1,2-Dibromoethane	27.6	0.500	1.00	
591-78-6	2-Hexanone	21.1	2.50	5.00	
142-28-9	1,3-Dichloropropane	26.6	0.500	1.00	
127-18-4	Tetrachloroethene	25.4	0.500	1.00	
124-48-1	Dibromochloromethane	27.9	0.500	1.00	
100-41-4	Ethylbenzene	27.2	0.500	1.00	
108-90-7	Chlorobenzene	27.1	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	28.6	0.500	1.00	
108-38-3/106-42	m,p-Xylenes	54.9	1.00	2.00	
95-47-6	o-Xylene	53.7	1.00	2.00	
100-42-5	Styrene	54.3	1.00	2.00	
75-25-2	Bromoform	28.2	0.500	1.00	
98-82-8	Isopropylbenzene	28.2	0.500	1.00	

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SW-03 MSD**
Lab Sample ID: **1801565-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:05	Prep Date:	10/05/18 14:29	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28751.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 14:29
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	27.6	0.500	1.00	
96-18-4	1,2,3-Trichloropropane	26.2	0.500	1.00	
103-65-1	n-Propyl Benzene	28.0	0.500	1.00	
108-86-1	Bromobenzene	27.8	0.500	1.00	
108-67-8	1,3,5-Trimethylbenzene	28.2	0.500	1.00	
95-49-8	2-Chlorotoluene	27.2	0.500	1.00	
106-43-4	4-Chlorotoluene	27.9	0.500	1.00	
98-06-6	tert-Butylbenzene	27.1	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	28.0	0.500	1.00	
135-98-8	sec-Butylbenzene	27.2	0.500	1.00	
99-87-6	p-Isopropyltoluene	27.5	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	27.0	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	26.3	0.500	1.00	
104-51-8	n-Butyl Benzene	27.8	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	27.0	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	0.500	1.00	
120-82-1	1,2,4-Trichlorobenzene	26.6	0.500	1.00	
87-68-3	Hexachlorobutadiene	26.3	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	27.1	0.500	1.00	

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	98%	66-143
Toluene-d8	107%	83-120
Bromofluorobenzene	109%	79-127

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **Trip Blank**
Lab Sample ID: **1801565-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 00:00	Prep Date:	10/11/18 14:59	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28802.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 14:59
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	1.63	0.400	1.00	
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **Trip Blank**
Lab Sample ID: **1801565-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 00:00	Prep Date:	10/11/18 14:59	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28802.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 14:59
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8260C

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **Trip Blank**
Lab Sample ID: **1801565-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 00:00	Prep Date:	10/11/18 14:59	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28802.D
Prep Batch:	B8J1111	Sequence:	S8J1110	Analyzed:	10/11/18 14:59
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	104%	83-120
Bromofluorobenzene	111%	79-127

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
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WWW.Accreditedanalytical.com

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

METALS

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:29 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-38-2	Arsenic	8.00	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:14 LIT	EPA 6010D
7440-39-3	Barium	56.4	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:14 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-70-2	Calcium	91500	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-89-6	Iron	419	300	300	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-92-1	Lead	6.10	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-95-4	Magnesium	243000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-96-5	Manganese	197	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-09-7	Potassium	76100	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-23-5	Sodium	2120000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 11:39 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:43 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:43 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-08
Lab Sample ID: 1801565-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 09:15	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-019

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:36 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-38-2	Arsenic	7.60	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:19 LIT	EPA 6010D
7440-39-3	Barium	53.5	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:19 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-70-2	Calcium	116000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7439-89-6	Iron	344	300	300	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7439-92-1	Lead	6.18	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7439-95-4	Magnesium	332000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7439-96-5	Manganese	149	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-09-7	Potassium	107000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-23-5	Sodium	2740000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 11:44 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:49 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:16 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:49 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-10
Lab Sample ID: 1801565-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 10:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-013

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:38 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-38-2	Arsenic	7.68	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 19:48 LIT	EPA 6010D
7440-39-3	Barium	55.1	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 19:48 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-70-2	Calcium	116000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7439-89-6	Iron	384	300	300	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7439-92-1	Lead	8.23	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7439-95-4	Magnesium	331000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7439-96-5	Manganese	153	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-09-7	Potassium	107000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-23-5	Sodium	2660000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 11:14 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:18 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 09:47 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:18 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-FB
Lab Sample ID: 1801565-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 12:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-020

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:40 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-38-2	Arsenic	ND	3.00	3.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:24 LIT	EPA 6010D
7440-39-3	Barium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:24 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-70-2	Calcium	ND	1000	1000	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7439-95-4	Magnesium	ND	1000	1000	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7439-96-5	Manganese	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-09-7	Potassium	ND	1000	1000	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-23-5	Sodium	ND	1000	1000	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:04 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:21 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:04 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-05
Lab Sample ID: 1801565-05
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-023

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:43 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-38-2	Arsenic	8.56	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:42 LIT	EPA 6010D
7440-39-3	Barium	54.0	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:42 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-70-2	Calcium	155000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7439-92-1	Lead	5.04	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7439-95-4	Magnesium	466000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7439-96-5	Manganese	112	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-09-7	Potassium	149000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-23-5	Sodium	3470000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 11:49 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:09 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:35 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:09 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-04
Lab Sample ID: 1801565-06
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-024

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:45 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-38-2	Arsenic	6.59	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:47 LIT	EPA 6010D
7440-39-3	Barium	41.9	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:47 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-70-2	Calcium	148000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7439-95-4	Magnesium	454000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7439-96-5	Manganese	92.2	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-09-7	Potassium	144000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-23-5	Sodium	4350000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 11:54 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:15 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:40 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:15 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-04 DUP
Lab Sample ID: 1801565-07
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-025

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:54 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-38-2	Arsenic	4.48	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:52 LIT	EPA 6010D
7440-39-3	Barium	41.3	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:52 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-70-2	Calcium	147000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7439-92-1	Lead	5.63	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7439-95-4	Magnesium	450000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7439-96-5	Manganese	91.6	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-09-7	Potassium	144000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-23-5	Sodium	4010000	100000	100000	100	D	10/04/18 09:51	EPA 3005A	10/05/18 12:08 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:20 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:45 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:20 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-03
Lab Sample ID: 1801565-08
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-029

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:56 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-38-2	Arsenic	6.91	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:58 LIT	EPA 6010D
7440-39-3	Barium	39.2	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:58 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-70-2	Calcium	159000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7439-89-6	Iron	ND	300	300	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7439-92-1	Lead	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7439-95-4	Magnesium	493000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7439-96-5	Manganese	81.9	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-09-7	Potassium	160000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-23-5	Sodium	2830000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:25 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 11:10 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 21:25 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Matrix:	Soil
Percent Solids:	20.20	File ID:	101018C-025

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	13400	54.0	54.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-97-6	Mercury	3.70	0.244	0.244	1		10/08/18 11:02	EPA 7471B	10/09/18 11:41 BFG	EPA 7471B
7440-36-0	Antimony	ND	10.8	10.8	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-38-2	Arsenic	16.4	2.70	2.70	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-39-3	Barium	76.5	54.0	54.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.35	1.35	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.35	1.35	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-70-2	Calcium	4530	67.5	67.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-47-3	Chromium	113	5.40	5.40	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-48-4	Cobalt	ND	13.5	13.5	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-50-8	Copper	235	8.10	8.10	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-89-6	Iron	19000	67.5	67.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-92-1	Lead	178	2.70	2.70	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-95-4	Magnesium	8220	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-96-5	Manganese	210	5.40	5.40	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-02-0	Nickel	49.0	10.8	10.8	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-09-7	Potassium	3020	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.8	10.8	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-22-4	Silver	2.89	1.35	1.35	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-23-5	Sodium	16100	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.05	8.10	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-62-2	Vanadium	64.0	13.5	13.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-66-6	Zinc	256	16.2	16.2	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Matrix:	Soil
Percent Solids:	20.20	File ID:	101018C-026

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	15000	54.9	54.9	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-97-6	Mercury	4.90	0.288	0.288	1		10/08/18 11:02	EPA 7471B	10/09/18 11:43 BFG	EPA 7471B
7440-36-0	Antimony	ND	11.0	11.0	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-38-2	Arsenic	100	2.74	2.74	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-39-3	Barium	77.2	54.9	54.9	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-41-7	Beryllium	1.82	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-43-9	Cadmium	2.31	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-70-2	Calcium	4770	68.6	68.6	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-47-3	Chromium	205	5.49	5.49	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-48-4	Cobalt	26.6	13.7	13.7	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-50-8	Copper	381	8.23	8.23	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-89-6	Iron	50800	68.6	68.6	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-92-1	Lead	426	2.74	2.74	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-95-4	Magnesium	8470	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-96-5	Manganese	293	5.49	5.49	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-02-0	Nickel	135	11.0	11.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-09-7	Potassium	3260	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7782-49-2	Selenium	ND	11.0	11.0	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-22-4	Silver	2.84	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-23-5	Sodium	16900	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.12	8.23	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-62-2	Vanadium	110	13.7	13.7	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-66-6	Zinc	702	16.5	16.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D

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ND - Indicates compound analyzed for but not detected
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11C
Lab Sample ID: 1801565-13
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:45	Matrix:	Soil
Percent Solids:	15.50	File ID:	101018C-033

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	8650	64.7	64.7	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.334	0.334	1	U	10/08/18 11:02	EPA 7471B	10/09/18 11:45 BFG	EPA 7471B
7440-36-0	Antimony	ND	12.9	12.9	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-38-2	Arsenic	ND	3.23	3.23	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-39-3	Barium	ND	64.7	64.7	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.62	1.62	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.62	1.62	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-70-2	Calcium	4140	80.8	80.8	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-47-3	Chromium	20.4	6.47	6.47	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-48-4	Cobalt	ND	16.2	16.2	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-50-8	Copper	ND	9.70	9.70	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7439-89-6	Iron	8830	80.8	80.8	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7439-92-1	Lead	6.18	3.23	3.23	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7439-95-4	Magnesium	7710	162	162	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7439-96-5	Manganese	148	6.47	6.47	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-02-0	Nickel	29.4	12.9	12.9	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-09-7	Potassium	2970	162	162	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7782-49-2	Selenium	ND	12.9	12.9	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-22-4	Silver	ND	1.62	1.62	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-23-5	Sodium	29500	162	162	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.85	9.70	1	U	10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-62-2	Vanadium	28.0	16.2	16.2	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D
7440-66-6	Zinc	32.0	19.4	19.4	1		10/09/18 09:13	EPA 3050B	10/10/18 17:13 LIT	EPA 6010D

* Values outside of QC limits
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

METALS
DISSOLVED

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-09-7	Potassium (diss)	69400	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-96-5	Manganese (diss)	210	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	225000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-39-3	Barium (diss)	56.6	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-70-2	Calcium (diss)	86100	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	7.74	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 12:53 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 12:53 LIT	EPA 6010D
7440-23-5	Sodium (diss)	1780000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:19 LIT	EPA 6010D
7440-28-0	Thallium (diss)	3.13	2.00	2.00	1		10/04/18 11:15	EPA 3005A	10/09/18 17:58 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:45 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-08
Lab Sample ID: 1801565-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 09:15	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-019

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-39-3	Barium (diss)	58.1	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	341000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-70-2	Calcium (diss)	119000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7439-96-5	Manganese (diss)	166	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-09-7	Potassium (diss)	109000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	7.12	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 12:59 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 12:59 LIT	EPA 6010D
7440-23-5	Sodium (diss)	2660000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:24 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:03 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:54 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:16 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-10
Lab Sample ID: 1801565-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 10:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-013

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-70-2	Calcium (diss)	121000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7439-96-5	Manganese (diss)	168	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-39-3	Barium (diss)	58.0	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	347000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-09-7	Potassium (diss)	108000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	7.70	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 12:28 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 12:28 LIT	EPA 6010D
7440-23-5	Sodium (diss)	2500000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 13:43 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 17:33 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:29 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 13:47 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-FB
Lab Sample ID: 1801565-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 12:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-023

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7439-96-5	Manganese (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-70-2	Calcium (diss)	ND	1000	1000	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	ND	1000	1000	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-39-3	Barium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-09-7	Potassium (diss)	ND	1000	1000	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7440-23-5	Sodium (diss)	ND	1000	1000	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:14 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:14 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	ND	3.00	3.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:14 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:19 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:56 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:35 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-05
Lab Sample ID: 1801565-05
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-020

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-70-2	Calcium (diss)	146000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-39-3	Barium (diss)	52.3	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-09-7	Potassium (diss)	141000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	440000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7439-96-5	Manganese (diss)	123	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	7.31	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 13:19 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:19 LIT	EPA 6010D
7440-23-5	Sodium (diss)	3360000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:29 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:24 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:58 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D
7439-92-1	Lead (diss)	5.35	5.00	5.00	1		10/04/18 11:15	EPA 3005A	10/05/18 14:21 LIT	EPA 6010D

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Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-04
Lab Sample ID: 1801565-06
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-024

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-39-3	Barium (diss)	47.1	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	461000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-09-7	Potassium (diss)	151000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-70-2	Calcium (diss)	151000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7439-96-5	Manganese (diss)	103	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	6.13	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 13:25 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:25 LIT	EPA 6010D
7440-23-5	Sodium (diss)	3610000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:35 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:29 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:01 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:51 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-04 DUP
Lab Sample ID: 1801565-07
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-025

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-39-3	Barium (diss)	46.5	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7439-96-5	Manganese (diss)	102	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-70-2	Calcium (diss)	150000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	456000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-09-7	Potassium (diss)	150000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:30 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	5.02	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 13:30 LIT	EPA 6010D
7440-23-5	Sodium (diss)	3690000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:40 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:35 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:03 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:56 LIT	EPA 6010D

* Values outside of QC limits
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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-03
Lab Sample ID: 1801565-08
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:05	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-026

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7439-96-5	Manganese (diss)	82.5	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-70-2	Calcium (diss)	162000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	502000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-39-3	Barium (diss)	40.9	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-09-7	Potassium (diss)	167000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 13:35 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	5.78	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 13:35 LIT	EPA 6010D
7440-23-5	Sodium (diss)	4260000	100000	100000	100	D	10/04/18 11:15	EPA 3005A	10/08/18 14:45 LIT	EPA 6010D
7440-28-0	Thallium (diss)	ND	2.00	2.00	1	U	10/04/18 11:15	EPA 3005A	10/09/18 18:40 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 16:05 RMK	EPA 7470A
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 15:01 LIT	EPA 6010D

* Values outside of QC limits
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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

WET CHEMISTRY

Accredited Analytical Resources, LLC.

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1200	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
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20 Pershing Ave
Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-08
Lab Sample ID: 1801565-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 09:15	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1700	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-10
Lab Sample ID: 1801565-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 10:05	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1800	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-05
Lab Sample ID: 1801565-05
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 12:50	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	2100	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-04
Lab Sample ID: 1801565-06
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:20	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	2200	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-03
Lab Sample ID: 1801565-08
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:05	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	2400	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Matrix:	Soil
Percent Solids:	20.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	10300	198	495	1		10/16/18 08:43	By Method	10/16/18 13:28 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	20.2	0.100	0.100	1		10/03/18 11:48	Percent Solids	10/04/18 09:33 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Matrix:	Soil
Percent Solids:	20.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	11200	198	495	1		10/16/18 08:43	By Method	10/16/18 13:28 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	20.2	0.100	0.100	1		10/03/18 11:48	Percent Solids	10/04/18 09:33 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11C
Lab Sample ID: 1801565-13
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:45	Matrix:	Soil
Percent Solids:	15.50	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	15900	258	645	1		10/16/18 08:43	By Method	10/16/18 13:28 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	15.5	0.100	0.100	1		10/03/18 11:48	Percent Solids	10/04/18 09:33 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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Fax: 732-541-1383
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Analytical Report

Prepared for

Brookfield Construction Associates, LLC

3730 Park Avenue

South Plainfield, NJ 07080

Report Information

Project Name: Brookfield Ave Landfill - 002

AAR Work Order: **1801587**

Client Sample ID	Laboratory Sample Number
BK2-SD-12A	1801587-01
BK2-SD-12B	1801587-02
BK2-SD-12C	1801587-03
BK2-SD-6A	1801587-04
BK2-SD-6B	1801587-05
BK2-SD-6C	1801587-06
BK2-SD-5A	1801587-07
BK2-SD-5B	1801587-08
BK2-SD-5C	1801587-09
BK2-SD-10A	1801587-10
BK2-SD-10B	1801587-11
BK2-SD-10C	1801587-12
BK2-SD-3A	1801587-13
BK2-SD-3B	1801587-14
BK2-SD-3C	1801587-15
BK2-SD-FB02	1801587-16
BK2-SD-7A	1801587-17
BK2-SD-7B	1801587-18
BK2-SD-7C	1801587-19
BK2-SD-1A	1801587-20
BK2-SD-1B	1801587-21

This report shall not be reproduced, except in its entirety, without the written consent of Accredited Analytical Resources, LLC. The test results included in this report relate only to the samples analyzed.

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Client Sample ID	Laboratory Sample Number
BK2-SD-1C	1801587-22
BK2-SD-2A	1801587-23
BK2-SD-2B	1801587-24
BK2-SD-2C	1801587-25
BK2-SD-2C DUP	1801587-26
BK2-SD-4A	1801587-27
BK2-SD-4B	1801587-28
BK2-SD-4C	1801587-29
BK2-SD-9A	1801587-30
BK2-SD-9B	1801587-31
BK2-SD-9C	1801587-32
BK2-SD-8A	1801587-33
BK2-SD-8B	1801587-34
BK2-SD-8C	1801587-35
BK2-SD-8C DUP	1801587-36
BK2-SD-07A MS	1801587-37
BK2-SD-07A MSD	1801587-38
BK2-SD-01C MS	1801587-39
BK2-SD-01C MSD	1801587-40

New Jersey Certification Number: 12007
New York Certification Number: 11109
Pennsylvania Certification Number: 68-02799
CT Certification Number: PH-0219

This data has been reviewed and accepted by:

Daniel Miguel
Technical Director

11/1/2018

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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Methodology Summary

EPA Method SW846 8081B/8082A

NY 8081B/8082A

Semivolatile Organic Compounds EPA Method SW846 8270

8270D

Total Mercury by SW846 7471

EPA 7471B

Total Metals by EPA Method SW846 6010

6010D

Wet Chemistry

Percent Solids by SM 2540 G

Total Organic Carbon by EPA 9060A

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Carteret, New Jersey 07008
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Condition of Samples on Receipt

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002
AAR Work Order Number:	1801587

Temperature of Cooler:	4°C
Chain of Custody Filled Out Properly	Yes
Proper Containers and Volumes	Yes
Received Within Holding Time	Yes
Samples Received with Correct Preservation	Yes
Samples Received On Ice	Yes
Sample Received Via Field Services	No
Samples Hand Delivered	Yes

CHAIN OF CUSTODY FORM

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave - Landfill - 002
CONTACT:	Mike Tucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd
CITY:	Staten Island
STATE:	NY ZIP: 10308

AAR QUOTE #	
AAR WORK ORDER #	1801587
P.O. #	

COLLECTION INFORMATION / ANALYSIS

PRES. CODE → – – – –
CONT. CODE → G G G G

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL BNA	TCL Rest IRCBs	TAL Metals	TOC	AAR SAMPLE #
BK2-SD-12A	10-3-18 1525	~~KS~~		2		X	X	X	X	-01
12B	↓	↓		2		X	X	X	X	-02
12C	↓			2		X	X	X	X	-03
6A	1420			2		X	X	X	X	-04
6B	↓			2		X	X	X	X	-05
6C	↓			2		X	X	X	X	-06
5A	1510			2		X	X	X	X	-07
5B	↓			2		X	X	X	X	-08
5C	↓			2		X	X	X	X	-09

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE

PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ____ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: Don Nazario SIGN: [signature]

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don Nazario	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: K. Munz
Signature: [signature]	Signature: M. Tucker	Signature: M. Tucker	Signature: K. Munz
Agent of: Normandeau	Agent of: BCA	Agent of: BCA	Agent of: AAR
	Date Received: 10/04/18 Time: 1555		Date Received: 10/4/18 Time: 1729

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
	Date Received: / / Time:		Date Received: / / Time:

Ref. No: G 375214439

CHAIN OF CUSTODY FORM

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave
CONTACT:	Mike Tucker
OFFICE PHONE #	
OFFICE FAX #	
INITIAL RESULTS TO:	
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	
CITY:	
STATE:	Staten Island NY ZIP: 10308

AAR QUOTE #	
AAR WORK ORDER #	1801587
P.O. #	

ANALYSIS

COLLECTION INFORMATION

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL BNA	TCL Pest/PCB	TAL Metals	TOC	TCL BNA	TCL Pest/PCB	TAL Metals	AAR SAMPLE #
BK2-SD-10A	10-4-18 1115	S		2		X	X	X	X				-10
10B	↓	|		2		X	X	X	X				-11
10C		|		2		X	X	X	X				-12
3A	0808	|		2		X	X	X	X				-13
3B		|		2		X	X	X	X				-14
3C		|		2		X	X	X	X				-15
BK2-SD-FB02	10-4 1500	A		3		~~X~~	~~X~~	~~X~~		X	X	X	-16

DON 10-4-18

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ✓ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: Don Nazario SIGN:

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don Nazario	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: K Muntz
Signature:	Signature: M. Tucker	Signature: M. Tucker	Signature: K. Muntz
Agent of: Normandeau	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received: 10/04/18	Time: 1555	Date Received: 10/4/18	Time: 1720
RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Rel. No: G 925214439

CHAIN OF CUSTODY FORM

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave - Landfill - 002
CONTACT:	Mike Tucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthurkill Rd
CITY:	Staten Island
STATE:	NY ZIP: 10308

AAR QUOTE #	
AAR WORK ORDER #	1801587
P.O. #	

COLLECTION INFORMATION

ANALYSIS

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	PRES. CODE →	—	—	—	—									AAR SAMPLE #
						CONT. CODE →	G	G	G	G	TCL BNA	TCL Rest/PCB	TAL Metals	TOC					
BK2-SD-7A	10-4-18 1300	S		6	2		X	X	X	X					MS/MSD				-17
7B	↓			2	MS		X	X	X	X					MT 10/4/18				-18
7C				2			X	X	X	X									-19
1A	0851			2			X	X	X	X									-20
1B	↓			2			X	X	X	X									-21
1C				6	2		X	X	X	X					MS/MSD				-22
2A	0825			2	MS		X	X	X	X					MT 10/4/18				-23
2B	↓			2			X	X	X	X									-24
2C	↓			2			X	X	X	X									-25
2CDup	↓	↓		2			X	X	X	X									-26

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE)	(STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____ (IF BLANK STANDARD WILL APPLY)
REPORT TYPE:	RESULTS ONLY ____ REDUCED ✓ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: SIGN:

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: DON	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: K. MUNIZ
Signature:	Signature: M. Tucker	Signature: M. Tucker	Signature: K. MUNIZ
Agent of:	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received: 10/04/18	Time: 1555	Date Received: 10/4/18	Time: 1720

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Ref. No: G 375214439

CHAIN OF CUSTODY FORM

Accredited Analytical Resources, LLC.
20 PERSHING AVE, CARTERET, NJ 07008
Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave Landfill-OU5
CONTACT:	Mike Tucker
OFFICE PHONE #	
OFFICE FAX #	
INITIAL RESULTS TO:	
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd.
CITY:	Staten Island
STATE:	NY
ZIP:	10308

AAR QUOTE #	
AAR WORK ORDER #	1801587
P.O. #	

ANALYSIS

COLLECTION INFORMATION

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	PRES. CODE →	—	—	—	—	AAR SAMPLE #
						CONT. CODE →	6	6	G	G	
							TCL BNA	TCL Pest/PCBs	TAL Metals	TOC	
BK2-SD-4A	10-3-18 1500	S		2			X	X	X	X	-27
4B	↓			2			X	X	X	X	-28
4C				2			X	X	X	X	-29
9A	1015			2			X	X	X	X	-30
9B	1028			2			X	X	X	X	-31
9C	1045			2			X	X	X	X	-32
8A	0830			2			X	X	X	X	-33
8B	0840			2			X	X	X	X	-34
8C	0900			2			X	X	X	X	-35
8C Dup	↓ 0900	↓		2			X	X	X	X	-36

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE)	(STANDARD)	5 DAY	72 HRS.	48 HRS.	24 HRS.	OTHER _____
	(IF BLANK STANDARD WILL APPLY)					
REPORT TYPE:	RESULTS ONLY ____	REDUCED (✓)	FULL ____	EDD ____	EXCEL SPREADSHEET ____	

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: Don NAZARIO SIGN: [signature]

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: Don NAZARIO	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: K Muniz
Signature: [signature]	Signature: M. Tucker	Signature: M. Tucker	Signature: [signature]
Agent of: Normandeau	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received: 10/04/18	Time: 1555	Date Received: 10/4/18	Time: 1780

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Ref. No: G 375214439

CHAIN OF CUSTODY FORM

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Tel. 732-969-6112 FAX 732-541-1383
WEB: WWW.ACCREDITEDANALYTICAL.COM

STATE AGENCY (CIRCLE ONE)	NJ (NY) PA
PROJECT NAME:	Brookfield Ave-Landfill ow2
CONTACT:	Mike Tucker
OFFICE PHONE #	908-334-3238
OFFICE FAX #	
INITIAL RESULTS TO:	Joe Battista
EMAIL FOR INVOICE:	

CLIENT NAME:	Brookfield
ADDRESS:	Arthur Kill Rd.
CITY:	Staten Island
STATE:	NY ZIP: 10309

AAR QUOTE #	
AAR WORK ORDER #	1801587
P.O. #	

COLLECTION INFORMATION / ANALYSIS

CUSTOMER SAMPLE # / ID	DATE / TIME SAMPLED	MATRIX CODE	DEPTH	# OF CONTAINERS	GRAB (G) COMP (C)	TCL BNA	TCL Pest/PCB	TAL Metals	TOC	AAR SAMPLE #
BK2 SD 07A MS	10/4/18 1300	S		2		X	X	X	X	-37
" MSD	1300			2		X	X	X	X	-38
" MS001C	0851			2		X	X	X	X	-39
" MSD001C	0851			2		X	X	X	X	-40

PRES. CODE → – – – –
CONT. CODE → G G G G

MATRIX CODES: S = SOIL A = AQUEOUS GW = GROUND WATER WW = WASTE WATER SW = SURFACE WATER P = POTABLE WATER O = OIL K = SOLID X = OTHER _____

CONTAINER TYPE CODES: G = GLASS P = PLASTIC E = ENCORE

PRESERVATIVES CODES: 1 = HCL 2 = HNO_3 3 = H_2SO_4 4 = NaOH 5 = OTHER _____

TURNAROUND TIME: (CIRCLE ONE) (STANDARD) 5 DAY 72 HRS. 48 HRS. 24 HRS. OTHER _____
(IF BLANK STANDARD WILL APPLY)

REPORT TYPE: RESULTS ONLY ____ REDUCED ✓ FULL ____ EDD ____ EXCEL SPREADSHEET ____

COMMENTS:

COOLER TEMP: 4°C

PERSON(S) ASSUMING RESPONSIBILITY FOR SAMPLING: PRINT: M. Tucker For Dom Mazzaro SIGN: M. Tucker

SIGN BELOW WHEN DELIVERING SAMPLES. EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY, CUSTODY MUST BE DOCUMENTED.

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name: For Dom Mazzaro	Print Name: M. Tucker	Print Name: M. Tucker	Print Name: K. Muniz
Signature: M. Tucker	Signature: M. Tucker	Signature: M. Tucker	Signature: Muniz
Agent of: BCA	Agent of: BCA	Agent of: BCA	Agent of: AAR
Date Received: 10/04/18	Time: 1555	Date Received: 10/4/18	Time: 1700

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Print Name:	Print Name:	Print Name:	Print Name:
Signature:	Signature:	Signature:	Signature:
Agent of:	Agent of:	Agent of:	Agent of:
Date Received: / /	Time:	Date Received: / /	Time:

Rel. No: G 375214439

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Analytical Report for Samples

Client Name:	Brookfield Construction Associates, LLC
Project Name:	Brookfield Ave Landfill - 002

Client Field ID	AAR Laboratory Number	Matrix	Date/Time Sampled	Date/Time Received
BK2-SD-12A	1801587-01	Soil	10/03/2018 15:25	10/04/2018 17:20
BK2-SD-12B	1801587-02	Soil	10/03/2018 15:25	10/04/2018 17:20
BK2-SD-12C	1801587-03	Soil	10/03/2018 15:25	10/04/2018 17:20
BK2-SD-6A	1801587-04	Soil	10/03/2018 14:20	10/04/2018 17:20
BK2-SD-6B	1801587-05	Soil	10/03/2018 14:20	10/04/2018 17:20
BK2-SD-6C	1801587-06	Soil	10/03/2018 14:20	10/04/2018 17:20
BK2-SD-5A	1801587-07	Soil	10/03/2018 15:10	10/04/2018 17:20
BK2-SD-5B	1801587-08	Soil	10/03/2018 15:10	10/04/2018 17:20
BK2-SD-5C	1801587-09	Soil	10/03/2018 15:10	10/04/2018 17:20
BK2-SD-10A	1801587-10	Soil	10/04/2018 11:15	10/04/2018 17:20
BK2-SD-10B	1801587-11	Soil	10/04/2018 11:15	10/04/2018 17:20
BK2-SD-10C	1801587-12	Soil	10/04/2018 11:15	10/04/2018 17:20
BK2-SD-3A	1801587-13	Soil	10/04/2018 08:08	10/04/2018 17:20
BK2-SD-3B	1801587-14	Soil	10/04/2018 08:08	10/04/2018 17:20
BK2-SD-3C	1801587-15	Soil	10/04/2018 08:08	10/04/2018 17:20
BK2-SD-FB02	1801587-16	Aqueous	10/04/2018 15:00	10/04/2018 17:20
BK2-SD-7A	1801587-17	Soil	10/04/2018 13:00	10/04/2018 17:20
BK2-SD-7B	1801587-18	Soil	10/04/2018 13:00	10/04/2018 17:20
BK2-SD-7C	1801587-19	Soil	10/04/2018 13:00	10/04/2018 17:20
BK2-SD-1A	1801587-20	Soil	10/04/2018 08:51	10/04/2018 17:20
BK2-SD-1B	1801587-21	Soil	10/04/2018 08:51	10/04/2018 17:20

Accredited Analytical Resources, LLC.

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Fax: 732-541-1383
WWW.Accreditedanalytical.com

Client Field ID	AAR Laboratory Number	Matrix	Date/Time Sampled	Date/Time Received
BK2-SD-1C	1801587-22	Soil	10/04/2018 08:51	10/04/2018 17:20
BK2-SD-2A	1801587-23	Soil	10/04/2018 08:25	10/04/2018 17:20
BK2-SD-2B	1801587-24	Soil	10/04/2018 08:25	10/04/2018 17:20
BK2-SD-2C	1801587-25	Soil	10/04/2018 08:25	10/04/2018 17:20
BK2-SD-2C DUP	1801587-26	Soil	10/04/2018 08:25	10/04/2018 17:20
BK2-SD-4A	1801587-27	Soil	10/03/2018 15:00	10/04/2018 17:20
BK2-SD-4B	1801587-28	Soil	10/03/2018 15:00	10/04/2018 17:20
BK2-SD-4C	1801587-29	Soil	10/03/2018 15:00	10/04/2018 17:20
BK2-SD-9A	1801587-30	Soil	10/03/2018 10:15	10/04/2018 17:20
BK2-SD-9B	1801587-31	Soil	10/03/2018 10:28	10/04/2018 17:20
BK2-SD-9C	1801587-32	Soil	10/03/2018 10:45	10/04/2018 17:20
BK2-SD-8A	1801587-33	Soil	10/03/2018 08:30	10/04/2018 17:20
BK2-SD-8B	1801587-34	Soil	10/03/2018 08:40	10/04/2018 17:20
BK2-SD-8C	1801587-35	Soil	10/03/2018 09:00	10/04/2018 17:20
BK2-SD-8C DUP	1801587-36	Soil	10/03/2018 09:00	10/04/2018 17:20
BK2-SD-07A MS	1801587-37	Soil	10/04/2018 13:00	10/04/2018 17:20
BK2-SD-07A MSD	1801587-38	Soil	10/04/2018 13:00	10/04/2018 17:20
BK2-SD-01C MS	1801587-39	Soil	10/04/2018 08:51	10/04/2018 17:20
BK2-SD-01C MSD	1801587-40	Soil	10/04/2018 08:51	10/04/2018 17:20

Accredited Analytical Resources, LLC.

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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

Data Qualifiers

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit
VC - The container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.

Accredited Analytical Resources, LLC.

20 Pershing Ave
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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

PEST/PCB

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12A**
Lab Sample ID: **1801587-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	32.00	Prep Method:	EPA 3550B	File ID:	G24691.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 22:46
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.03	1.03	U
319-85-7	beta-BHC	ND	1.03	1.03	U
319-86-8	delta-BHC	ND	1.03	1.03	U
58-89-9	gamma-BHC [Lindane]	ND	1.03	1.03	U
76-44-8	Heptachlor	ND	1.03	1.03	U
309-00-2	Aldrin	ND	1.03	1.03	U
1024-57-3	Heptachlor Epoxide	ND	1.03	1.03	U
959-98-8	Endosulfan I	ND	1.03	1.03	U
60-57-1	Dieldrin	ND	2.08	2.08	U
72-55-9	4,4'-DDE	11.7	2.08	2.08	
72-20-8	Endrin	ND	2.08	2.08	U
33213-65-9	Endosulfan II	ND	2.08	2.08	U
72-54-8	4,4'-DDD	ND	2.08	2.08	U
1031-07-8	Endosulfan sulfate	ND	2.08	2.08	U
50-29-3	4,4'-DDT	ND	2.08	2.08	U
72-43-5	Methoxychlor	ND	3.12	10.4	U
53494-70-5	Endrin ketone	ND	2.08	2.08	U
7421-93-4	Endrin aldehyde	ND	2.08	2.08	U
5103-71-9	alpha-Chlordane	ND	1.03	1.03	U
5566-34-7	gamma-Chlordane [2C]	2.19	1.03	1.03	
8001-35-2	Toxaphene	ND	52.0	52.0	U
12674-11-2	Aroclor-1016	ND	25.9	52.0	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12A**
Lab Sample ID: **1801587-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	32.00	Prep Method:	EPA 3550B	File ID:	G24691.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 22:46
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	25.9	52.0	U
11141-16-5	Aroclor-1232	ND	25.9	52.0	U
53469-21-9	Aroclor-1242	ND	25.9	52.0	U
12672-29-6	Aroclor-1248	ND	25.9	52.0	U
11097-69-1	Aroclor-1254	28.8	25.9	52.0	J
11096-82-5	Aroclor-1260	ND	25.9	52.0	U
37324-23-5	Aroclor-1262	ND	25.9	52.0	U
11100-14-4	Aroclor-1268	ND	25.9	52.0	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	26.6%	*	27-137
Tetrachloro-m-xylene [2C]	21.6%	*	39-138
Decachlorobiphenyl	31.8%		21-150
Decachlorobiphenyl [2C]	27.1%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12B**
Lab Sample ID: **1801587-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	36.30	Prep Method:	EPA 3550B	File ID:	G24692.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 23:15
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.909	0.909	U
319-85-7	beta-BHC	ND	0.909	0.909	U
319-86-8	delta-BHC	ND	0.909	0.909	U
58-89-9	gamma-BHC [Lindane]	ND	0.909	0.909	U
76-44-8	Heptachlor	ND	0.909	0.909	U
309-00-2	Aldrin	ND	0.909	0.909	U
1024-57-3	Heptachlor Epoxide	ND	0.909	0.909	U
959-98-8	Endosulfan I	ND	0.909	0.909	U
60-57-1	Dieldrin	ND	1.83	1.83	U
72-55-9	4,4'-DDE [2C]	9.23	1.83	1.83	
72-20-8	Endrin	ND	1.83	1.83	U
33213-65-9	Endosulfan II	ND	1.83	1.83	U
72-54-8	4,4'-DDD	ND	1.83	1.83	U
1031-07-8	Endosulfan sulfate	ND	1.83	1.83	U
50-29-3	4,4'-DDT	ND	1.83	1.83	U
72-43-5	Methoxychlor	ND	2.75	9.17	U
53494-70-5	Endrin ketone	ND	1.83	1.83	U
7421-93-4	Endrin aldehyde	ND	1.83	1.83	U
5103-71-9	alpha-Chlordane	ND	0.909	0.909	U
5566-34-7	gamma-Chlordane	ND	0.909	0.909	U
8001-35-2	Toxaphene	ND	45.9	45.9	U
12674-11-2	Aroclor-1016	ND	22.9	45.9	U

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12B**
Lab Sample ID: **1801587-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	36.30	Prep Method:	EPA 3550B	File ID:	G24692.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 23:15
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	22.9	45.9	U
11141-16-5	Aroclor-1232	ND	22.9	45.9	U
53469-21-9	Aroclor-1242	ND	22.9	45.9	U
12672-29-6	Aroclor-1248	ND	22.9	45.9	U
11097-69-1	Aroclor-1254	ND	22.9	45.9	U
11096-82-5	Aroclor-1260	ND	22.9	45.9	U
37324-23-5	Aroclor-1262	ND	22.9	45.9	U
11100-14-4	Aroclor-1268	ND	22.9	45.9	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	31.2%		27-137
Tetrachloro-m-xylene [2C]	26.7%	*	39-138
Decachlorobiphenyl	27.8%		21-150
Decachlorobiphenyl [2C]	26.1%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12C**
Lab Sample ID: **1801587-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	42.80	Prep Method:	EPA 3550B	File ID:	G24693.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 23:44
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.771	0.771	U
319-85-7	beta-BHC	ND	0.771	0.771	U
319-86-8	delta-BHC	ND	0.771	0.771	U
58-89-9	gamma-BHC [Lindane]	ND	0.771	0.771	U
76-44-8	Heptachlor	ND	0.771	0.771	U
309-00-2	Aldrin	ND	0.771	0.771	U
1024-57-3	Heptachlor Epoxide	ND	0.771	0.771	U
959-98-8	Endosulfan I	ND	0.771	0.771	U
60-57-1	Dieldrin	ND	1.55	1.55	U
72-55-9	4,4'-DDE	ND	1.55	1.55	U
72-20-8	Endrin	ND	1.55	1.55	U
33213-65-9	Endosulfan II	ND	1.55	1.55	U
72-54-8	4,4'-DDD	ND	1.55	1.55	U
1031-07-8	Endosulfan sulfate	ND	1.55	1.55	U
50-29-3	4,4'-DDT	ND	1.55	1.55	U
72-43-5	Methoxychlor	ND	2.34	7.78	U
53494-70-5	Endrin ketone	ND	1.55	1.55	U
7421-93-4	Endrin aldehyde	ND	1.55	1.55	U
5103-71-9	alpha-Chlordane	ND	0.771	0.771	U
5566-34-7	gamma-Chlordane	ND	0.771	0.771	U
8001-35-2	Toxaphene	ND	38.9	38.9	U
12674-11-2	Aroclor-1016	ND	19.4	38.9	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12C**
Lab Sample ID: **1801587-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	42.80	Prep Method:	EPA 3550B	File ID:	G24693.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/16/18 23:44
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	19.4	38.9	U
11141-16-5	Aroclor-1232	ND	19.4	38.9	U
53469-21-9	Aroclor-1242	ND	19.4	38.9	U
12672-29-6	Aroclor-1248	ND	19.4	38.9	U
11097-69-1	Aroclor-1254	ND	19.4	38.9	U
11096-82-5	Aroclor-1260	ND	19.4	38.9	U
37324-23-5	Aroclor-1262	ND	19.4	38.9	U
11100-14-4	Aroclor-1268	ND	19.4	38.9	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	31.4%		27-137
Tetrachloro-m-xylene [2C]	30.2%	*	39-138
Decachlorobiphenyl	31.8%		21-150
Decachlorobiphenyl [2C]	28.2%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6A**
Lab Sample ID: **1801587-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	35.30	Prep Method:	EPA 3550B	File ID:	G24694.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/17/18 00:12
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.935	0.935	U
319-85-7	beta-BHC	ND	0.935	0.935	U
319-86-8	delta-BHC	ND	0.935	0.935	U
58-89-9	gamma-BHC [Lindane]	ND	0.935	0.935	U
76-44-8	Heptachlor	ND	0.935	0.935	U
309-00-2	Aldrin	ND	0.935	0.935	U
1024-57-3	Heptachlor Epoxide	ND	0.935	0.935	U
959-98-8	Endosulfan I	ND	0.935	0.935	U
60-57-1	Dieldrin	ND	1.88	1.88	U
72-55-9	4,4'-DDE	3.07	1.88	1.88	
72-20-8	Endrin	ND	1.88	1.88	U
33213-65-9	Endosulfan II	ND	1.88	1.88	U
72-54-8	4,4'-DDD	ND	1.88	1.88	U
1031-07-8	Endosulfan sulfate	ND	1.88	1.88	U
50-29-3	4,4'-DDT	ND	1.88	1.88	U
72-43-5	Methoxychlor	ND	2.83	9.43	U
53494-70-5	Endrin ketone	ND	1.88	1.88	U
7421-93-4	Endrin aldehyde	ND	1.88	1.88	U
5103-71-9	alpha-Chlordane	ND	0.935	0.935	U
5566-34-7	gamma-Chlordane	ND	0.935	0.935	U
8001-35-2	Toxaphene	ND	47.2	47.2	U
12674-11-2	Aroclor-1016	ND	23.5	47.2	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6A**
Lab Sample ID: **1801587-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	35.30	Prep Method:	EPA 3550B	File ID:	G24694.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/17/18 00:12
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	23.5	47.2	U
11141-16-5	Aroclor-1232	ND	23.5	47.2	U
53469-21-9	Aroclor-1242	ND	23.5	47.2	U
12672-29-6	Aroclor-1248	ND	23.5	47.2	U
11097-69-1	Aroclor-1254	ND	23.5	47.2	U
11096-82-5	Aroclor-1260	ND	23.5	47.2	U
37324-23-5	Aroclor-1262	ND	23.5	47.2	U
11100-14-4	Aroclor-1268	ND	23.5	47.2	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	24.2%	*	27-137
Tetrachloro-m-xylene [2C]	23.4%	*	39-138
Decachlorobiphenyl	25.3%		21-150
Decachlorobiphenyl [2C]	25.0%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6B**
Lab Sample ID: **1801587-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	33.30	Prep Method:	EPA 3550B	File ID:	G24695.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/17/18 00:41
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.991	0.991	U
319-85-7	beta-BHC	ND	0.991	0.991	U
319-86-8	delta-BHC	ND	0.991	0.991	U
58-89-9	gamma-BHC [Lindane]	ND	0.991	0.991	U
76-44-8	Heptachlor	ND	0.991	0.991	U
309-00-2	Aldrin	ND	0.991	0.991	U
1024-57-3	Heptachlor Epoxide	ND	0.991	0.991	U
959-98-8	Endosulfan I	ND	0.991	0.991	U
60-57-1	Dieldrin	ND	2.00	2.00	U
72-55-9	4,4'-DDE	7.71	2.00	2.00	
72-20-8	Endrin	ND	2.00	2.00	U
33213-65-9	Endosulfan II	ND	2.00	2.00	U
72-54-8	4,4'-DDD [2C]	2.20	2.00	2.00	
1031-07-8	Endosulfan sulfate	ND	2.00	2.00	U
50-29-3	4,4'-DDT	ND	2.00	2.00	U
72-43-5	Methoxychlor	ND	3.00	10.0	U
53494-70-5	Endrin ketone	ND	2.00	2.00	U
7421-93-4	Endrin aldehyde	ND	2.00	2.00	U
5103-71-9	alpha-Chlordane	ND	0.991	0.991	U
5566-34-7	gamma-Chlordane	1.20	0.991	0.991	
8001-35-2	Toxaphene	ND	50.0	50.0	U
12674-11-2	Aroclor-1016	ND	24.9	50.0	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6B**
Lab Sample ID: **1801587-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	33.30	Prep Method:	EPA 3550B	File ID:	G24695.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/17/18 00:41
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	24.9	50.0	U
11141-16-5	Aroclor-1232	ND	24.9	50.0	U
53469-21-9	Aroclor-1242	ND	24.9	50.0	U
12672-29-6	Aroclor-1248	ND	24.9	50.0	U
11097-69-1	Aroclor-1254	ND	24.9	50.0	U
11096-82-5	Aroclor-1260	ND	24.9	50.0	U
37324-23-5	Aroclor-1262	ND	24.9	50.0	U
11100-14-4	Aroclor-1268	ND	24.9	50.0	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	37.8%		27-137
Tetrachloro-m-xylene [2C]	34.9%	*	39-138
Decachlorobiphenyl	38.1%		21-150
Decachlorobiphenyl [2C]	34.2%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6C**
Lab Sample ID: **1801587-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.60	Prep Method:	EPA 3550B	File ID:	G24750.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 18:53
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.793	0.793	U
319-85-7	beta-BHC	ND	0.793	0.793	U
319-86-8	delta-BHC	ND	0.793	0.793	U
58-89-9	gamma-BHC [Lindane]	ND	0.793	0.793	U
76-44-8	Heptachlor	ND	0.793	0.793	U
309-00-2	Aldrin	ND	0.793	0.793	U
1024-57-3	Heptachlor Epoxide	ND	0.793	0.793	U
959-98-8	Endosulfan I	ND	0.793	0.793	U
60-57-1	Dieldrin	ND	1.60	1.60	U
72-55-9	4,4'-DDE	ND	1.60	1.60	U
72-20-8	Endrin	ND	1.60	1.60	U
33213-65-9	Endosulfan II	ND	1.60	1.60	U
72-54-8	4,4'-DDD	ND	1.60	1.60	U
1031-07-8	Endosulfan sulfate	ND	1.60	1.60	U
50-29-3	4,4'-DDT	ND	1.60	1.60	U
72-43-5	Methoxychlor	ND	2.40	8.00	U
53494-70-5	Endrin ketone	ND	1.60	1.60	U
7421-93-4	Endrin aldehyde	ND	1.60	1.60	U
5103-71-9	alpha-Chlordane	ND	0.793	0.793	U
5566-34-7	gamma-Chlordane	ND	0.793	0.793	U
8001-35-2	Toxaphene	ND	40.0	40.0	U
12674-11-2	Aroclor-1016	ND	20.0	40.0	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6C**
Lab Sample ID: **1801587-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.60	Prep Method:	EPA 3550B	File ID:	G24750.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 18:53
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.0	40.0	U
11141-16-5	Aroclor-1232	ND	20.0	40.0	U
53469-21-9	Aroclor-1242	ND	20.0	40.0	U
12672-29-6	Aroclor-1248	ND	20.0	40.0	U
11097-69-1	Aroclor-1254	ND	20.0	40.0	U
11096-82-5	Aroclor-1260	ND	20.0	40.0	U
37324-23-5	Aroclor-1262	ND	20.0	40.0	U
11100-14-4	Aroclor-1268	ND	20.0	40.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	48.6%	27-137
Tetrachloro-m-xylene [2C]	50.1%	39-138
Decachlorobiphenyl	49.7%	21-150
Decachlorobiphenyl [2C]	54.7%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5A**
Lab Sample ID: **1801587-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.20	Prep Method:	EPA 3550B	File ID:	G24751.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 19:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.801	0.801	U
319-85-7	beta-BHC	ND	0.801	0.801	U
319-86-8	delta-BHC	ND	0.801	0.801	U
58-89-9	gamma-BHC [Lindane]	ND	0.801	0.801	U
76-44-8	Heptachlor	ND	0.801	0.801	U
309-00-2	Aldrin	ND	0.801	0.801	U
1024-57-3	Heptachlor Epoxide	ND	0.801	0.801	U
959-98-8	Endosulfan I	ND	0.801	0.801	U
60-57-1	Dieldrin	ND	1.61	1.61	U
72-55-9	4,4'-DDE	6.55	1.61	1.61	
72-20-8	Endrin	ND	1.61	1.61	U
33213-65-9	Endosulfan II	ND	1.61	1.61	U
72-54-8	4,4'-DDD	1.94	1.61	1.61	
1031-07-8	Endosulfan sulfate	ND	1.61	1.61	U
50-29-3	4,4'-DDT	ND	1.61	1.61	U
72-43-5	Methoxychlor	ND	2.43	8.08	U
53494-70-5	Endrin ketone	ND	1.61	1.61	U
7421-93-4	Endrin aldehyde	ND	1.61	1.61	U
5103-71-9	alpha-Chlordane	ND	0.801	0.801	U
5566-34-7	gamma-Chlordane	ND	0.801	0.801	U
8001-35-2	Toxaphene	ND	40.4	40.4	U
12674-11-2	Aroclor-1016	ND	20.1	40.4	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5A**
Lab Sample ID: **1801587-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.20	Prep Method:	EPA 3550B	File ID:	G24751.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 19:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.1	40.4	U
11141-16-5	Aroclor-1232	ND	20.1	40.4	U
53469-21-9	Aroclor-1242	ND	20.1	40.4	U
12672-29-6	Aroclor-1248	ND	20.1	40.4	U
11097-69-1	Aroclor-1254	ND	20.1	40.4	U
11096-82-5	Aroclor-1260	ND	20.1	40.4	U
37324-23-5	Aroclor-1262	ND	20.1	40.4	U
11100-14-4	Aroclor-1268	ND	20.1	40.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	58.0%	27-137
Tetrachloro-m-xylene [2C]	49.3%	39-138
Decachlorobiphenyl	64.0%	21-150
Decachlorobiphenyl [2C]	72.2%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5B**
Lab Sample ID: **1801587-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	40.60	Prep Method:	EPA 3550B	File ID:	G24752.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 19:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.813	0.813	U
319-85-7	beta-BHC	ND	0.813	0.813	U
319-86-8	delta-BHC	ND	0.813	0.813	U
58-89-9	gamma-BHC [Lindane]	ND	0.813	0.813	U
76-44-8	Heptachlor	ND	0.813	0.813	U
309-00-2	Aldrin	ND	0.813	0.813	U
1024-57-3	Heptachlor Epoxide	ND	0.813	0.813	U
959-98-8	Endosulfan I	ND	0.813	0.813	U
60-57-1	Dieldrin	ND	1.64	1.64	U
72-55-9	4,4'-DDE	7.10	1.64	1.64	
72-20-8	Endrin	ND	1.64	1.64	U
33213-65-9	Endosulfan II	ND	1.64	1.64	U
72-54-8	4,4'-DDD	ND	1.64	1.64	U
1031-07-8	Endosulfan sulfate	ND	1.64	1.64	U
50-29-3	4,4'-DDT	ND	1.64	1.64	U
72-43-5	Methoxychlor	ND	2.46	8.20	U
53494-70-5	Endrin ketone	ND	1.64	1.64	U
7421-93-4	Endrin aldehyde	ND	1.64	1.64	U
5103-71-9	alpha-Chlordane	ND	0.813	0.813	U
5566-34-7	gamma-Chlordane	ND	0.813	0.813	U
8001-35-2	Toxaphene	ND	41.0	41.0	U
12674-11-2	Aroclor-1016	ND	20.4	41.0	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5B**
Lab Sample ID: **1801587-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	40.60	Prep Method:	EPA 3550B	File ID:	G24752.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 19:50
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.4	41.0	U
11141-16-5	Aroclor-1232	ND	20.4	41.0	U
53469-21-9	Aroclor-1242	ND	20.4	41.0	U
12672-29-6	Aroclor-1248	ND	20.4	41.0	U
11097-69-1	Aroclor-1254	24.2	20.4	41.0	J
11096-82-5	Aroclor-1260	ND	20.4	41.0	U
37324-23-5	Aroclor-1262	ND	20.4	41.0	U
11100-14-4	Aroclor-1268	ND	20.4	41.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	54.9%	27-137
Tetrachloro-m-xylene [2C]	48.9%	39-138
Decachlorobiphenyl	58.6%	21-150
Decachlorobiphenyl [2C]	67.0%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5C**
Lab Sample ID: **1801587-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	34.60	Prep Method:	EPA 3550B	File ID:	G24753.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 20:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.954	0.954	U
319-85-7	beta-BHC	ND	0.954	0.954	U
319-86-8	delta-BHC	ND	0.954	0.954	U
58-89-9	gamma-BHC [Lindane]	ND	0.954	0.954	U
76-44-8	Heptachlor	ND	0.954	0.954	U
309-00-2	Aldrin	ND	0.954	0.954	U
1024-57-3	Heptachlor Epoxide	ND	0.954	0.954	U
959-98-8	Endosulfan I	ND	0.954	0.954	U
60-57-1	Dieldrin	ND	1.92	1.92	U
72-55-9	4,4'-DDE	12.1	1.92	1.92	
72-20-8	Endrin	ND	1.92	1.92	U
33213-65-9	Endosulfan II	ND	1.92	1.92	U
72-54-8	4,4'-DDD	ND	1.92	1.92	U
1031-07-8	Endosulfan sulfate	ND	1.92	1.92	U
50-29-3	4,4'-DDT	ND	1.92	1.92	U
72-43-5	Methoxychlor	ND	2.89	9.62	U
53494-70-5	Endrin ketone	ND	1.92	1.92	U
7421-93-4	Endrin aldehyde	ND	1.92	1.92	U
5103-71-9	alpha-Chlordane	ND	0.954	0.954	U
5566-34-7	gamma-Chlordane	ND	0.954	0.954	U
8001-35-2	Toxaphene	ND	48.1	48.1	U
12674-11-2	Aroclor-1016	ND	24.0	48.1	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5C**
Lab Sample ID: **1801587-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	34.60	Prep Method:	EPA 3550B	File ID:	G24753.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 20:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	24.0	48.1	U
11141-16-5	Aroclor-1232	ND	24.0	48.1	U
53469-21-9	Aroclor-1242	ND	24.0	48.1	U
12672-29-6	Aroclor-1248	ND	24.0	48.1	U
11097-69-1	Aroclor-1254	40.8	24.0	48.1	J
11096-82-5	Aroclor-1260	ND	24.0	48.1	U
37324-23-5	Aroclor-1262	ND	24.0	48.1	U
11100-14-4	Aroclor-1268	ND	24.0	48.1	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	63.3%	27-137
Tetrachloro-m-xylene [2C]	49.1%	39-138
Decachlorobiphenyl	60.8%	21-150
Decachlorobiphenyl [2C]	65.3%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10A**
Lab Sample ID: **1801587-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	75.70	Prep Method:	EPA 3550B	File ID:	G24754.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 20:48
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.436	0.436	U
319-85-7	beta-BHC	ND	0.436	0.436	U
319-86-8	delta-BHC	ND	0.436	0.436	U
58-89-9	gamma-BHC [Lindane]	ND	0.436	0.436	U
76-44-8	Heptachlor	ND	0.436	0.436	U
309-00-2	Aldrin	ND	0.436	0.436	U
1024-57-3	Heptachlor Epoxide	ND	0.436	0.436	U
959-98-8	Endosulfan I	ND	0.436	0.436	U
60-57-1	Dieldrin	ND	0.878	0.878	U
72-55-9	4,4'-DDE [2C]	4.45	0.878	0.878	
72-20-8	Endrin	ND	0.878	0.878	U
33213-65-9	Endosulfan II	ND	0.878	0.878	U
72-54-8	4,4'-DDD	3.85	0.878	0.878	
1031-07-8	Endosulfan sulfate	ND	0.878	0.878	U
50-29-3	4,4'-DDT	ND	0.878	0.878	U
72-43-5	Methoxychlor	ND	1.32	4.40	U
53494-70-5	Endrin ketone	ND	0.878	0.878	U
7421-93-4	Endrin aldehyde	ND	0.878	0.878	U
5103-71-9	alpha-Chlordane	1.50	0.436	0.436	
5566-34-7	gamma-Chlordane	2.40	0.436	0.436	
8001-35-2	Toxaphene	ND	22.0	22.0	U
12674-11-2	Aroclor-1016	ND	11.0	22.0	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10A**
Lab Sample ID: **1801587-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	75.70	Prep Method:	EPA 3550B	File ID:	G24754.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 20:48
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	11.0	22.0	U
11141-16-5	Aroclor-1232	ND	11.0	22.0	U
53469-21-9	Aroclor-1242	ND	11.0	22.0	U
12672-29-6	Aroclor-1248	ND	11.0	22.0	U
11097-69-1	Aroclor-1254	15.6	11.0	22.0	J
11096-82-5	Aroclor-1260	ND	11.0	22.0	U
37324-23-5	Aroclor-1262	ND	11.0	22.0	U
11100-14-4	Aroclor-1268	ND	11.0	22.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	63.5%	27-137
Tetrachloro-m-xylene [2C]	58.1%	39-138
Decachlorobiphenyl	64.4%	21-150
Decachlorobiphenyl [2C]	72.9%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10B**
Lab Sample ID: **1801587-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	72.00	Prep Method:	EPA 3550B	File ID:	G24755.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 21:17
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.458	0.458	U
319-85-7	beta-BHC	ND	0.458	0.458	U
319-86-8	delta-BHC	ND	0.458	0.458	U
58-89-9	gamma-BHC [Lindane]	ND	0.458	0.458	U
76-44-8	Heptachlor	ND	0.458	0.458	U
309-00-2	Aldrin	ND	0.458	0.458	U
1024-57-3	Heptachlor Epoxide	ND	0.458	0.458	U
959-98-8	Endosulfan I	ND	0.458	0.458	U
60-57-1	Dieldrin	ND	0.924	0.924	U
72-55-9	4,4'-DDE	3.47	0.924	0.924	
72-20-8	Endrin	ND	0.924	0.924	U
33213-65-9	Endosulfan II	ND	0.924	0.924	U
72-54-8	4,4'-DDD	3.66	0.924	0.924	
1031-07-8	Endosulfan sulfate	ND	0.924	0.924	U
50-29-3	4,4'-DDT	ND	0.924	0.924	U
72-43-5	Methoxychlor	ND	1.39	4.62	U
53494-70-5	Endrin ketone	ND	0.924	0.924	U
7421-93-4	Endrin aldehyde	ND	0.924	0.924	U
5103-71-9	alpha-Chlordane	1.99	0.458	0.458	
5566-34-7	gamma-Chlordane	3.36	0.458	0.458	
8001-35-2	Toxaphene	ND	23.1	23.1	U
12674-11-2	Aroclor-1016	ND	11.5	23.1	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10B**
Lab Sample ID: **1801587-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	72.00	Prep Method:	EPA 3550B	File ID:	G24755.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 21:17
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	11.5	23.1	U
11141-16-5	Aroclor-1232	ND	11.5	23.1	U
53469-21-9	Aroclor-1242	ND	11.5	23.1	U
12672-29-6	Aroclor-1248	ND	11.5	23.1	U
11097-69-1	Aroclor-1254 [2C]	12.0	11.5	23.1	J
11096-82-5	Aroclor-1260	ND	11.5	23.1	U
37324-23-5	Aroclor-1262	ND	11.5	23.1	U
11100-14-4	Aroclor-1268	ND	11.5	23.1	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	55.6%	27-137
Tetrachloro-m-xylene [2C]	53.4%	39-138
Decachlorobiphenyl	56.9%	21-150
Decachlorobiphenyl [2C]	65.0%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10C**
Lab Sample ID: **1801587-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	77.70	Prep Method:	EPA 3550B	File ID:	G24756.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 21:45
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.425	0.425	U
319-85-7	beta-BHC	ND	0.425	0.425	U
319-86-8	delta-BHC	ND	0.425	0.425	U
58-89-9	gamma-BHC [Lindane]	ND	0.425	0.425	U
76-44-8	Heptachlor	ND	0.425	0.425	U
309-00-2	Aldrin	ND	0.425	0.425	U
1024-57-3	Heptachlor Epoxide	ND	0.425	0.425	U
959-98-8	Endosulfan I	ND	0.425	0.425	U
60-57-1	Dieldrin	ND	0.856	0.856	U
72-55-9	4,4'-DDE [2C]	1.24	0.856	0.856	
72-20-8	Endrin	ND	0.856	0.856	U
33213-65-9	Endosulfan II	ND	0.856	0.856	U
72-54-8	4,4'-DDD	2.12	0.856	0.856	
1031-07-8	Endosulfan sulfate	ND	0.856	0.856	U
50-29-3	4,4'-DDT	ND	0.856	0.856	U
72-43-5	Methoxychlor	ND	1.29	4.29	U
53494-70-5	Endrin ketone	ND	0.856	0.856	U
7421-93-4	Endrin aldehyde	ND	0.856	0.856	U
5103-71-9	alpha-Chlordane	3.07	0.425	0.425	
5566-34-7	gamma-Chlordane	3.13	0.425	0.425	
8001-35-2	Toxaphene	ND	21.4	21.4	U
12674-11-2	Aroclor-1016	ND	10.7	21.4	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10C**
Lab Sample ID: **1801587-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	77.70	Prep Method:	EPA 3550B	File ID:	G24756.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 21:45
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	10.7	21.4	U
11141-16-5	Aroclor-1232	ND	10.7	21.4	U
53469-21-9	Aroclor-1242	ND	10.7	21.4	U
12672-29-6	Aroclor-1248	ND	10.7	21.4	U
11097-69-1	Aroclor-1254	ND	10.7	21.4	U
11096-82-5	Aroclor-1260	ND	10.7	21.4	U
37324-23-5	Aroclor-1262	ND	10.7	21.4	U
11100-14-4	Aroclor-1268	ND	10.7	21.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	56.7%	27-137
Tetrachloro-m-xylene [2C]	44.0%	39-138
Decachlorobiphenyl	48.8%	21-150
Decachlorobiphenyl [2C]	51.6%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3A**
Lab Sample ID: **1801587-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	36.90	Prep Method:	EPA 3550B	File ID:	G24757.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 22:14
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.894	0.894	U
319-85-7	beta-BHC	ND	0.894	0.894	U
319-86-8	delta-BHC	ND	0.894	0.894	U
58-89-9	gamma-BHC [Lindane]	ND	0.894	0.894	U
76-44-8	Heptachlor	ND	0.894	0.894	U
309-00-2	Aldrin	ND	0.894	0.894	U
1024-57-3	Heptachlor Epoxide	ND	0.894	0.894	U
959-98-8	Endosulfan I	ND	0.894	0.894	U
60-57-1	Dieldrin	ND	1.80	1.80	U
72-55-9	4,4'-DDE	19.3	1.80	1.80	
72-20-8	Endrin	ND	1.80	1.80	U
33213-65-9	Endosulfan II	ND	1.80	1.80	U
72-54-8	4,4'-DDD	8.67	1.80	1.80	
1031-07-8	Endosulfan sulfate	ND	1.80	1.80	U
50-29-3	4,4'-DDT	ND	1.80	1.80	U
72-43-5	Methoxychlor	ND	2.71	9.02	U
53494-70-5	Endrin ketone	ND	1.80	1.80	U
7421-93-4	Endrin aldehyde	ND	1.80	1.80	U
5103-71-9	alpha-Chlordane	ND	0.894	0.894	U
5566-34-7	gamma-Chlordane	1.67	0.894	0.894	
8001-35-2	Toxaphene	ND	45.1	45.1	U
12674-11-2	Aroclor-1016	ND	22.5	45.1	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3A**
Lab Sample ID: **1801587-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	36.90	Prep Method:	EPA 3550B	File ID:	G24757.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 22:14
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	22.5	45.1	U
11141-16-5	Aroclor-1232	ND	22.5	45.1	U
53469-21-9	Aroclor-1242	ND	22.5	45.1	U
12672-29-6	Aroclor-1248	ND	22.5	45.1	U
11097-69-1	Aroclor-1254	30.1	22.5	45.1	J
11096-82-5	Aroclor-1260	ND	22.5	45.1	U
37324-23-5	Aroclor-1262	ND	22.5	45.1	U
11100-14-4	Aroclor-1268	ND	22.5	45.1	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	53.4%	27-137
Tetrachloro-m-xylene [2C]	45.6%	39-138
Decachlorobiphenyl	50.8%	21-150
Decachlorobiphenyl [2C]	57.0%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3B**
Lab Sample ID: **1801587-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.30	Prep Method:	EPA 3550B	File ID:	G24758.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 22:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.799	0.799	U
319-85-7	beta-BHC	ND	0.799	0.799	U
319-86-8	delta-BHC	ND	0.799	0.799	U
58-89-9	gamma-BHC [Lindane]	ND	0.799	0.799	U
76-44-8	Heptachlor	ND	0.799	0.799	U
309-00-2	Aldrin	ND	0.799	0.799	U
1024-57-3	Heptachlor Epoxide	ND	0.799	0.799	U
959-98-8	Endosulfan I	ND	0.799	0.799	U
60-57-1	Dieldrin	ND	1.61	1.61	U
72-55-9	4,4'-DDE [2C]	26.7	1.61	1.61	
72-20-8	Endrin	ND	1.61	1.61	U
33213-65-9	Endosulfan II	ND	1.61	1.61	U
72-54-8	4,4'-DDD	4.16	1.61	1.61	
1031-07-8	Endosulfan sulfate	ND	1.61	1.61	U
50-29-3	4,4'-DDT	ND	1.61	1.61	U
72-43-5	Methoxychlor	ND	2.42	8.06	U
53494-70-5	Endrin ketone	ND	1.61	1.61	U
7421-93-4	Endrin aldehyde	ND	1.61	1.61	U
5103-71-9	alpha-Chlordane	ND	0.799	0.799	U
5566-34-7	gamma-Chlordane	2.42	0.799	0.799	
8001-35-2	Toxaphene	ND	40.3	40.3	U
12674-11-2	Aroclor-1016	ND	20.1	40.3	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3B**
Lab Sample ID: **1801587-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.30	Prep Method:	EPA 3550B	File ID:	G24758.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 22:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.1	40.3	U
11141-16-5	Aroclor-1232	ND	20.1	40.3	U
53469-21-9	Aroclor-1242	ND	20.1	40.3	U
12672-29-6	Aroclor-1248	ND	20.1	40.3	U
11097-69-1	Aroclor-1254	39.6	20.1	40.3	J
11096-82-5	Aroclor-1260	ND	20.1	40.3	U
37324-23-5	Aroclor-1262	ND	20.1	40.3	U
11100-14-4	Aroclor-1268	ND	20.1	40.3	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	42.8%		27-137
Tetrachloro-m-xylene [2C]	35.2%	*	39-138
Decachlorobiphenyl	40.2%		21-150
Decachlorobiphenyl [2C]	53.6%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3C**
Lab Sample ID: **1801587-15**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	43.10	Prep Method:	EPA 3550B	File ID:	G24759.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 23:11
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.766	0.766	U
319-85-7	beta-BHC	ND	0.766	0.766	U
319-86-8	delta-BHC	ND	0.766	0.766	U
58-89-9	gamma-BHC [Lindane]	ND	0.766	0.766	U
76-44-8	Heptachlor	ND	0.766	0.766	U
309-00-2	Aldrin	ND	0.766	0.766	U
1024-57-3	Heptachlor Epoxide	ND	0.766	0.766	U
959-98-8	Endosulfan I	ND	0.766	0.766	U
60-57-1	Dieldrin	ND	1.54	1.54	U
72-55-9	4,4'-DDE	ND	1.54	1.54	U
72-20-8	Endrin	ND	1.54	1.54	U
33213-65-9	Endosulfan II	ND	1.54	1.54	U
72-54-8	4,4'-DDD	ND	1.54	1.54	U
1031-07-8	Endosulfan sulfate	ND	1.54	1.54	U
50-29-3	4,4'-DDT	ND	1.54	1.54	U
72-43-5	Methoxychlor	ND	2.32	7.73	U
53494-70-5	Endrin ketone	ND	1.54	1.54	U
7421-93-4	Endrin aldehyde	ND	1.54	1.54	U
5103-71-9	alpha-Chlordane	ND	0.766	0.766	U
5566-34-7	gamma-Chlordane	ND	0.766	0.766	U
8001-35-2	Toxaphene	ND	38.6	38.6	U
12674-11-2	Aroclor-1016	ND	19.3	38.6	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3C**
Lab Sample ID: **1801587-15**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	43.10	Prep Method:	EPA 3550B	File ID:	G24759.D
Prep Batch:	B8J1501	Sequence:	S8J1803	Analyzed:	10/18/18 23:11
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	19.3	38.6	U
11141-16-5	Aroclor-1232	ND	19.3	38.6	U
53469-21-9	Aroclor-1242	ND	19.3	38.6	U
12672-29-6	Aroclor-1248	ND	19.3	38.6	U
11097-69-1	Aroclor-1254	ND	19.3	38.6	U
11096-82-5	Aroclor-1260	ND	19.3	38.6	U
37324-23-5	Aroclor-1262	ND	19.3	38.6	U
11100-14-4	Aroclor-1268	ND	19.3	38.6	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	65.4%	27-137
Tetrachloro-m-xylene [2C]	64.3%	39-138
Decachlorobiphenyl	59.2%	21-150
Decachlorobiphenyl [2C]	62.4%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-FB02**
Lab Sample ID: **1801587-16**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 15:00	Prep Date:	10/07/18 08:33	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24608.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 19:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00202	0.00202	U
319-85-7	beta-BHC	ND	0.00202	0.00202	U
319-86-8	delta-BHC	ND	0.00202	0.00202	U
58-89-9	gamma-BHC [Lindane]	ND	0.00202	0.00202	U
76-44-8	Heptachlor	ND	0.00202	0.00202	U
309-00-2	Aldrin	ND	0.00202	0.00202	U
1024-57-3	Heptachlor Epoxide	ND	0.00202	0.00202	U
959-98-8	Endosulfan I	ND	0.00202	0.00202	U
60-57-1	Dieldrin	ND	0.00404	0.00404	U
72-55-9	4,4'-DDE	ND	0.00404	0.00404	U
72-20-8	Endrin	ND	0.00404	0.00404	U
33213-65-9	Endosulfan II	ND	0.00404	0.00404	U
72-54-8	4,4'-DDD	ND	0.00404	0.00404	U
1031-07-8	Endosulfan sulfate	ND	0.00404	0.00404	U
50-29-3	4,4'-DDT	ND	0.00404	0.00404	U
72-43-5	Methoxychlor	ND	0.0202	0.0202	U
53494-70-5	Endrin ketone	ND	0.00404	0.0404	U
7421-93-4	Endrin aldehyde	ND	0.00404	0.0404	U
5103-71-9	alpha-Chlordane	ND	0.00202	0.00202	U
5566-34-7	gamma-Chlordane	ND	0.00202	0.00202	U
8001-35-2	Toxaphene	ND	0.101	0.101	U
12674-11-2	Aroclor-1016	ND	0.0505	0.101	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-FB02**
Lab Sample ID: **1801587-16**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 15:00	Prep Date:	10/07/18 08:33	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24608.D
Prep Batch:	B8J0701	Sequence:	S8J1104	Analyzed:	10/11/18 19:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0505	0.101	U
11141-16-5	Aroclor-1232	ND	0.0505	0.101	U
53469-21-9	Aroclor-1242	ND	0.0505	0.101	U
12672-29-6	Aroclor-1248	ND	0.0505	0.101	U
11097-69-1	Aroclor-1254	ND	0.0505	0.101	U
11096-82-5	Aroclor-1260	ND	0.0505	0.101	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	63.5%	10-132
Tetrachloro-m-xylene [2C]	54.9%	10-157
Decachlorobiphenyl	53.4%	10-147
Decachlorobiphenyl [2C]	58.2%	10-154

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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7A**
Lab Sample ID: **1801587-17**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	35.00	Prep Method:	EPA 3550B	File ID:	G24778.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 19:02
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.943	0.943	U
319-85-7	beta-BHC	ND	0.943	0.943	U
319-86-8	delta-BHC	ND	0.943	0.943	U
58-89-9	gamma-BHC [Lindane]	ND	0.943	0.943	U
76-44-8	Heptachlor	ND	0.943	0.943	U
309-00-2	Aldrin	ND	0.943	0.943	U
1024-57-3	Heptachlor Epoxide	ND	0.943	0.943	U
959-98-8	Endosulfan I	ND	0.943	0.943	U
60-57-1	Dieldrin	ND	1.90	1.90	U
72-55-9	4,4'-DDE	ND	1.90	1.90	U
72-20-8	Endrin	ND	1.90	1.90	U
33213-65-9	Endosulfan II	ND	1.90	1.90	U
72-54-8	4,4'-DDD	ND	1.90	1.90	U
1031-07-8	Endosulfan sulfate	ND	1.90	1.90	U
50-29-3	4,4'-DDT	ND	1.90	1.90	U
72-43-5	Methoxychlor	ND	2.86	9.51	U
53494-70-5	Endrin ketone	ND	1.90	1.90	U
7421-93-4	Endrin aldehyde	ND	1.90	1.90	U
5103-71-9	alpha-Chlordane	ND	0.943	0.943	U
5566-34-7	gamma-Chlordane	ND	0.943	0.943	U
8001-35-2	Toxaphene	ND	47.6	47.6	U
12674-11-2	Aroclor-1016	ND	23.7	47.6	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7A**
Lab Sample ID: **1801587-17**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	35.00	Prep Method:	EPA 3550B	File ID:	G24778.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 19:02
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	23.7	47.6	U
11141-16-5	Aroclor-1232	ND	23.7	47.6	U
53469-21-9	Aroclor-1242	ND	23.7	47.6	U
12672-29-6	Aroclor-1248	ND	23.7	47.6	U
11097-69-1	Aroclor-1254	ND	23.7	47.6	U
11096-82-5	Aroclor-1260	ND	23.7	47.6	U
37324-23-5	Aroclor-1262	ND	23.7	47.6	U
11100-14-4	Aroclor-1268	ND	23.7	47.6	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	71.6%	27-137
Tetrachloro-m-xylene [2C]	64.4%	39-138
Decachlorobiphenyl	77.6%	21-150
Decachlorobiphenyl [2C]	74.9%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7B**
Lab Sample ID: **1801587-18**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B	File ID:	G24779.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 19:31
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.864	0.864	U
319-85-7	beta-BHC	ND	0.864	0.864	U
319-86-8	delta-BHC	ND	0.864	0.864	U
58-89-9	gamma-BHC [Lindane]	ND	0.864	0.864	U
76-44-8	Heptachlor	ND	0.864	0.864	U
309-00-2	Aldrin	ND	0.864	0.864	U
1024-57-3	Heptachlor Epoxide	ND	0.864	0.864	U
959-98-8	Endosulfan I	ND	0.864	0.864	U
60-57-1	Dieldrin	ND	1.74	1.74	U
72-55-9	4,4'-DDE	ND	1.74	1.74	U
72-20-8	Endrin	ND	1.74	1.74	U
33213-65-9	Endosulfan II	ND	1.74	1.74	U
72-54-8	4,4'-DDD	ND	1.74	1.74	U
1031-07-8	Endosulfan sulfate	ND	1.74	1.74	U
50-29-3	4,4'-DDT	ND	1.74	1.74	U
72-43-5	Methoxychlor	ND	2.62	8.72	U
53494-70-5	Endrin ketone	ND	1.74	1.74	U
7421-93-4	Endrin aldehyde	ND	1.74	1.74	U
5103-71-9	alpha-Chlordane	ND	0.864	0.864	U
5566-34-7	gamma-Chlordane	ND	0.864	0.864	U
8001-35-2	Toxaphene	ND	43.6	43.6	U
12674-11-2	Aroclor-1016	ND	21.7	43.6	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7B**
Lab Sample ID: **1801587-18**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B	File ID:	G24779.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 19:31
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	21.7	43.6	U
11141-16-5	Aroclor-1232	ND	21.7	43.6	U
53469-21-9	Aroclor-1242	ND	21.7	43.6	U
12672-29-6	Aroclor-1248	ND	21.7	43.6	U
11097-69-1	Aroclor-1254	ND	21.7	43.6	U
11096-82-5	Aroclor-1260	ND	21.7	43.6	U
37324-23-5	Aroclor-1262	ND	21.7	43.6	U
11100-14-4	Aroclor-1268	ND	21.7	43.6	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	82.4%	27-137
Tetrachloro-m-xylene [2C]	79.2%	39-138
Decachlorobiphenyl	80.2%	21-150
Decachlorobiphenyl [2C]	79.1%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7C**
Lab Sample ID: **1801587-19**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	38.80	Prep Method:	EPA 3550B	File ID:	G24780.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:00
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.851	0.851	U
319-85-7	beta-BHC	ND	0.851	0.851	U
319-86-8	delta-BHC	ND	0.851	0.851	U
58-89-9	gamma-BHC [Lindane]	ND	0.851	0.851	U
76-44-8	Heptachlor	ND	0.851	0.851	U
309-00-2	Aldrin	ND	0.851	0.851	U
1024-57-3	Heptachlor Epoxide	ND	0.851	0.851	U
959-98-8	Endosulfan I	ND	0.851	0.851	U
60-57-1	Dieldrin	ND	1.71	1.71	U
72-55-9	4,4'-DDE	ND	1.71	1.71	U
72-20-8	Endrin	ND	1.71	1.71	U
33213-65-9	Endosulfan II	ND	1.71	1.71	U
72-54-8	4,4'-DDD	ND	1.71	1.71	U
1031-07-8	Endosulfan sulfate	ND	1.71	1.71	U
50-29-3	4,4'-DDT	ND	1.71	1.71	U
72-43-5	Methoxychlor	ND	2.58	8.58	U
53494-70-5	Endrin ketone	ND	1.71	1.71	U
7421-93-4	Endrin aldehyde	ND	1.71	1.71	U
5103-71-9	alpha-Chlordane	ND	0.851	0.851	U
5566-34-7	gamma-Chlordane	ND	0.851	0.851	U
8001-35-2	Toxaphene	ND	42.9	42.9	U
12674-11-2	Aroclor-1016	ND	21.4	42.9	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7C**
Lab Sample ID: **1801587-19**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	38.80	Prep Method:	EPA 3550B	File ID:	G24780.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:00
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	21.4	42.9	U
11141-16-5	Aroclor-1232	ND	21.4	42.9	U
53469-21-9	Aroclor-1242	ND	21.4	42.9	U
12672-29-6	Aroclor-1248	ND	21.4	42.9	U
11097-69-1	Aroclor-1254	ND	21.4	42.9	U
11096-82-5	Aroclor-1260	ND	21.4	42.9	U
37324-23-5	Aroclor-1262	ND	21.4	42.9	U
11100-14-4	Aroclor-1268	ND	21.4	42.9	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	58.2%	27-137
Tetrachloro-m-xylene [2C]	61.7%	39-138
Decachlorobiphenyl	70.0%	21-150
Decachlorobiphenyl [2C]	68.6%	24-171

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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B	File ID:	A29669.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 18:15
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.443	0.443	U
319-85-7	beta-BHC	ND	0.443	0.443	U
319-86-8	delta-BHC	ND	0.443	0.443	U
58-89-9	gamma-BHC [Lindane]	ND	0.443	0.443	U
76-44-8	Heptachlor	ND	0.443	0.443	U
309-00-2	Aldrin	ND	0.443	0.443	U
1024-57-3	Heptachlor Epoxide	ND	0.443	0.443	U
959-98-8	Endosulfan I	ND	0.443	0.443	U
60-57-1	Dieldrin	ND	0.893	0.893	U
72-55-9	4,4'-DDE	12.1	0.893	0.893	
72-20-8	Endrin	ND	0.893	0.893	U
33213-65-9	Endosulfan II	ND	0.893	0.893	U
72-54-8	4,4'-DDD	5.01	0.893	0.893	
1031-07-8	Endosulfan sulfate	ND	0.893	0.893	U
50-29-3	4,4'-DDT	ND	0.893	0.893	U
72-43-5	Methoxychlor	ND	1.34	4.47	U
53494-70-5	Endrin ketone	ND	0.893	0.893	U
7421-93-4	Endrin aldehyde	ND	0.893	0.893	U
5103-71-9	alpha-Chlordane	2.17	0.443	0.443	
5566-34-7	gamma-Chlordane	7.67	0.443	0.443	
8001-35-2	Toxaphene	ND	22.3	22.3	U
12674-11-2	Aroclor-1016	ND	11.1	22.3	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B	File ID:	A29669.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 18:15
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	11.1	22.3	U
11141-16-5	Aroclor-1232	ND	11.1	22.3	U
53469-21-9	Aroclor-1242	ND	11.1	22.3	U
12672-29-6	Aroclor-1248	ND	11.1	22.3	U
11097-69-1	Aroclor-1254	87.9	11.1	22.3	
11096-82-5	Aroclor-1260	ND	11.1	22.3	U
37324-23-5	Aroclor-1262	ND	11.1	22.3	U
11100-14-4	Aroclor-1268	ND	11.1	22.3	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.0%	27-137
Tetrachloro-m-xylene [2C]	54.6%	39-138
Decachlorobiphenyl	47.1%	21-150
Decachlorobiphenyl [2C]	52.2%	24-171

* Values outside of QC limits
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29670.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 18:40
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.556	0.556	U
319-85-7	beta-BHC	ND	0.556	0.556	U
319-86-8	delta-BHC	ND	0.556	0.556	U
58-89-9	gamma-BHC [Lindane]	ND	0.556	0.556	U
76-44-8	Heptachlor	ND	0.556	0.556	U
309-00-2	Aldrin	ND	0.556	0.556	U
1024-57-3	Heptachlor Epoxide	ND	0.556	0.556	U
959-98-8	Endosulfan I	ND	0.556	0.556	U
60-57-1	Dieldrin	ND	1.12	1.12	U
72-55-9	4,4'-DDE	102	1.12	1.12	E
72-20-8	Endrin	ND	1.12	1.12	U
33213-65-9	Endosulfan II	ND	1.12	1.12	U
72-54-8	4,4'-DDD	10.4	1.12	1.12	
1031-07-8	Endosulfan sulfate	ND	1.12	1.12	U
50-29-3	4,4'-DDT	ND	1.12	1.12	U
72-43-5	Methoxychlor	ND	1.68	5.61	U
53494-70-5	Endrin ketone	ND	1.12	1.12	U
7421-93-4	Endrin aldehyde	ND	1.12	1.12	U
5103-71-9	alpha-Chlordane	ND	0.556	0.556	U
5566-34-7	gamma-Chlordane	ND	0.556	0.556	U
8001-35-2	Toxaphene	ND	28.0	28.0	U
12674-11-2	Aroclor-1016	ND	14.0	28.0	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29670.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 18:40
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	14.0	28.0	U
11141-16-5	Aroclor-1232	ND	14.0	28.0	U
53469-21-9	Aroclor-1242	ND	14.0	28.0	U
12672-29-6	Aroclor-1248	ND	14.0	28.0	U
11097-69-1	Aroclor-1254 [2C]	118	14.0	28.0	
11096-82-5	Aroclor-1260	ND	14.0	28.0	U
37324-23-5	Aroclor-1262	ND	14.0	28.0	U
11100-14-4	Aroclor-1268	ND	14.0	28.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	40.2%	27-137
Tetrachloro-m-xylene [2C]	53.9%	39-138
Decachlorobiphenyl	46.1%	21-150
Decachlorobiphenyl [2C]	76.4%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29699.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 18:52
Dilution:	10			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	5.56	5.56	U
319-85-7	beta-BHC	ND	5.56	5.56	U
319-86-8	delta-BHC	ND	5.56	5.56	U
58-89-9	gamma-BHC [Lindane]	ND	5.56	5.56	U
76-44-8	Heptachlor	ND	5.56	5.56	U
309-00-2	Aldrin	ND	5.56	5.56	U
1024-57-3	Heptachlor Epoxide	ND	5.56	5.56	U
959-98-8	Endosulfan I	ND	5.56	5.56	U
60-57-1	Dieldrin	ND	11.2	11.2	U
72-55-9	4,4'-DDE	124	11.2	11.2	D
72-20-8	Endrin	ND	11.2	11.2	U
33213-65-9	Endosulfan II	ND	11.2	11.2	U
72-54-8	4,4'-DDD	ND	11.2	11.2	U
1031-07-8	Endosulfan sulfate	ND	11.2	11.2	U
50-29-3	4,4'-DDT	ND	11.2	11.2	U
72-43-5	Methoxychlor	ND	16.8	56.1	U
53494-70-5	Endrin ketone	ND	11.2	11.2	U
7421-93-4	Endrin aldehyde	ND	11.2	11.2	U
5103-71-9	alpha-Chlordane	ND	5.56	5.56	U
5566-34-7	gamma-Chlordane	ND	5.56	5.56	U
8001-35-2	Toxaphene	ND	280	280	U
12674-11-2	Aroclor-1016	ND	140	280	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29699.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 18:52
Dilution:	10			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	140	280	U
11141-16-5	Aroclor-1232	ND	140	280	U
53469-21-9	Aroclor-1242	ND	140	280	U
12672-29-6	Aroclor-1248	ND	140	280	U
11097-69-1	Aroclor-1254	ND	140	280	U
11096-82-5	Aroclor-1260	ND	140	280	U
37324-23-5	Aroclor-1262	ND	140	280	U
11100-14-4	Aroclor-1268	ND	140	280	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	63.0%	27-137
Tetrachloro-m-xylene [2C]	61.0%	39-138
Decachlorobiphenyl	58.0%	21-150
Decachlorobiphenyl [2C]	142%	24-171

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U - Indicates compound analyzed for but not detected at or above the MDL
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D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1C**
Lab Sample ID: **1801587-22**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	65.70	Prep Method:	EPA 3550B	File ID:	A29671.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:04
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.502	0.502	U
319-85-7	beta-BHC	ND	0.502	0.502	U
319-86-8	delta-BHC	ND	0.502	0.502	U
58-89-9	gamma-BHC [Lindane]	ND	0.502	0.502	U
76-44-8	Heptachlor	ND	0.502	0.502	U
309-00-2	Aldrin	ND	0.502	0.502	U
1024-57-3	Heptachlor Epoxide	ND	0.502	0.502	U
959-98-8	Endosulfan I	ND	0.502	0.502	U
60-57-1	Dieldrin	ND	1.01	1.01	U
72-55-9	4,4'-DDE	ND	1.01	1.01	U
72-20-8	Endrin	ND	1.01	1.01	U
33213-65-9	Endosulfan II	ND	1.01	1.01	U
72-54-8	4,4'-DDD	ND	1.01	1.01	U
1031-07-8	Endosulfan sulfate	ND	1.01	1.01	U
50-29-3	4,4'-DDT	ND	1.01	1.01	U
72-43-5	Methoxychlor	ND	1.52	5.07	U
53494-70-5	Endrin ketone	ND	1.01	1.01	U
7421-93-4	Endrin aldehyde	ND	1.01	1.01	U
5103-71-9	alpha-Chlordane	ND	0.502	0.502	U
5566-34-7	gamma-Chlordane	ND	0.502	0.502	U
8001-35-2	Toxaphene	ND	25.3	25.3	U
12674-11-2	Aroclor-1016	ND	12.6	25.3	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1C**
Lab Sample ID: **1801587-22**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	65.70	Prep Method:	EPA 3550B	File ID:	A29671.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:04
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	12.6	25.3	U
11141-16-5	Aroclor-1232	ND	12.6	25.3	U
53469-21-9	Aroclor-1242	ND	12.6	25.3	U
12672-29-6	Aroclor-1248	ND	12.6	25.3	U
11097-69-1	Aroclor-1254	ND	12.6	25.3	U
11096-82-5	Aroclor-1260	ND	12.6	25.3	U
37324-23-5	Aroclor-1262	ND	12.6	25.3	U
11100-14-4	Aroclor-1268	ND	12.6	25.3	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	54.6%	27-137
Tetrachloro-m-xylene [2C]	71.4%	39-138
Decachlorobiphenyl	56.6%	21-150
Decachlorobiphenyl [2C]	67.5%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B	File ID:	A29672.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:29
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.864	0.864	U
319-85-7	beta-BHC	ND	0.864	0.864	U
319-86-8	delta-BHC	ND	0.864	0.864	U
58-89-9	gamma-BHC [Lindane]	ND	0.864	0.864	U
76-44-8	Heptachlor	ND	0.864	0.864	U
309-00-2	Aldrin	ND	0.864	0.864	U
1024-57-3	Heptachlor Epoxide	ND	0.864	0.864	U
959-98-8	Endosulfan I	ND	0.864	0.864	U
60-57-1	Dieldrin	ND	1.74	1.74	U
72-55-9	4,4'-DDE	35.0	1.74	1.74	
72-20-8	Endrin	ND	1.74	1.74	U
33213-65-9	Endosulfan II	ND	1.74	1.74	U
72-54-8	4,4'-DDD	5.45	1.74	1.74	
1031-07-8	Endosulfan sulfate	ND	1.74	1.74	U
50-29-3	4,4'-DDT	ND	1.74	1.74	U
72-43-5	Methoxychlor	ND	2.62	8.72	U
53494-70-5	Endrin ketone	ND	1.74	1.74	U
7421-93-4	Endrin aldehyde	ND	1.74	1.74	U
5103-71-9	alpha-Chlordane	3.14	0.864	0.864	
5566-34-7	gamma-Chlordane	13.3	0.864	0.864	
8001-35-2	Toxaphene	ND	43.6	43.6	U
12674-11-2	Aroclor-1016	ND	21.7	43.6	U

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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B	File ID:	A29672.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:29
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	21.7	43.6	U
11141-16-5	Aroclor-1232	ND	21.7	43.6	U
53469-21-9	Aroclor-1242	ND	21.7	43.6	U
12672-29-6	Aroclor-1248	ND	21.7	43.6	U
11097-69-1	Aroclor-1254	128	21.7	43.6	
11096-82-5	Aroclor-1260	ND	21.7	43.6	U
37324-23-5	Aroclor-1262	ND	21.7	43.6	U
11100-14-4	Aroclor-1268	ND	21.7	43.6	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	39.4%	27-137
Tetrachloro-m-xylene [2C]	51.8%	39-138
Decachlorobiphenyl	43.2%	21-150
Decachlorobiphenyl [2C]	49.3%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B	File ID:	A29673.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:54
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.846	0.846	U
319-85-7	beta-BHC	ND	0.846	0.846	U
319-86-8	delta-BHC	ND	0.846	0.846	U
58-89-9	gamma-BHC [Lindane]	ND	0.846	0.846	U
76-44-8	Heptachlor	ND	0.846	0.846	U
309-00-2	Aldrin	ND	0.846	0.846	U
1024-57-3	Heptachlor Epoxide	ND	0.846	0.846	U
959-98-8	Endosulfan I	ND	0.846	0.846	U
60-57-1	Dieldrin	ND	1.71	1.71	U
72-55-9	4,4'-DDE	37.6	1.71	1.71	
72-20-8	Endrin	ND	1.71	1.71	U
33213-65-9	Endosulfan II	ND	1.71	1.71	U
72-54-8	4,4'-DDD	11.4	1.71	1.71	
1031-07-8	Endosulfan sulfate	ND	1.71	1.71	U
50-29-3	4,4'-DDT	ND	1.71	1.71	U
72-43-5	Methoxychlor	ND	2.56	8.54	U
53494-70-5	Endrin ketone	ND	1.71	1.71	U
7421-93-4	Endrin aldehyde	ND	1.71	1.71	U
5103-71-9	alpha-Chlordane	3.63	0.846	0.846	
5566-34-7	gamma-Chlordane	16.0	0.846	0.846	
8001-35-2	Toxaphene	ND	42.7	42.7	U
12674-11-2	Aroclor-1016	ND	21.3	42.7	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B	File ID:	A29673.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 19:54
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	21.3	42.7	U
11141-16-5	Aroclor-1232	ND	21.3	42.7	U
53469-21-9	Aroclor-1242	ND	21.3	42.7	U
12672-29-6	Aroclor-1248	ND	21.3	42.7	U
11097-69-1	Aroclor-1254 [2C]	163	21.3	42.7	
11096-82-5	Aroclor-1260	ND	21.3	42.7	U
37324-23-5	Aroclor-1262	ND	21.3	42.7	U
11100-14-4	Aroclor-1268	ND	21.3	42.7	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	45.5%	27-137
Tetrachloro-m-xylene [2C]	59.6%	39-138
Decachlorobiphenyl	51.0%	21-150
Decachlorobiphenyl [2C]	61.7%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C**
Lab Sample ID: **1801587-25**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	51.50	Prep Method:	EPA 3550B	File ID:	G24781.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:28
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.641	0.641	U
319-85-7	beta-BHC	ND	0.641	0.641	U
319-86-8	delta-BHC	ND	0.641	0.641	U
58-89-9	gamma-BHC [Lindane]	ND	0.641	0.641	U
76-44-8	Heptachlor	ND	0.641	0.641	U
309-00-2	Aldrin	ND	0.641	0.641	U
1024-57-3	Heptachlor Epoxide	ND	0.641	0.641	U
959-98-8	Endosulfan I	ND	0.641	0.641	U
60-57-1	Dieldrin	ND	1.29	1.29	U
72-55-9	4,4'-DDE	6.38	1.29	1.29	
72-20-8	Endrin	ND	1.29	1.29	U
33213-65-9	Endosulfan II	ND	1.29	1.29	U
72-54-8	4,4'-DDD	1.97	1.29	1.29	
1031-07-8	Endosulfan sulfate	ND	1.29	1.29	U
50-29-3	4,4'-DDT	ND	1.29	1.29	U
72-43-5	Methoxychlor	ND	1.94	6.47	U
53494-70-5	Endrin ketone	ND	1.29	1.29	U
7421-93-4	Endrin aldehyde	ND	1.29	1.29	U
5103-71-9	alpha-Chlordane	ND	0.641	0.641	U
5566-34-7	gamma-Chlordane	ND	0.641	0.641	U
8001-35-2	Toxaphene	ND	32.3	32.3	U
12674-11-2	Aroclor-1016	ND	16.1	32.3	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C**
Lab Sample ID: **1801587-25**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	51.50	Prep Method:	EPA 3550B	File ID:	G24781.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:28
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	16.1	32.3	U
11141-16-5	Aroclor-1232	ND	16.1	32.3	U
53469-21-9	Aroclor-1242	ND	16.1	32.3	U
12672-29-6	Aroclor-1248	ND	16.1	32.3	U
11097-69-1	Aroclor-1254	ND	16.1	32.3	U
11096-82-5	Aroclor-1260	ND	16.1	32.3	U
37324-23-5	Aroclor-1262	ND	16.1	32.3	U
11100-14-4	Aroclor-1268	ND	16.1	32.3	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	57.6%	27-137
Tetrachloro-m-xylene [2C]	68.1%	39-138
Decachlorobiphenyl	67.1%	21-150
Decachlorobiphenyl [2C]	67.5%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C DUP**
Lab Sample ID: **1801587-26**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	50.00	Prep Method:	EPA 3550B	File ID:	G24782.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:57
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.660	0.660	U
319-85-7	beta-BHC	ND	0.660	0.660	U
319-86-8	delta-BHC	ND	0.660	0.660	U
58-89-9	gamma-BHC [Lindane]	ND	0.660	0.660	U
76-44-8	Heptachlor	ND	0.660	0.660	U
309-00-2	Aldrin	ND	0.660	0.660	U
1024-57-3	Heptachlor Epoxide	ND	0.660	0.660	U
959-98-8	Endosulfan I	ND	0.660	0.660	U
60-57-1	Dieldrin	ND	1.33	1.33	U
72-55-9	4,4'-DDE	15.6	1.33	1.33	
72-20-8	Endrin	ND	1.33	1.33	U
33213-65-9	Endosulfan II	ND	1.33	1.33	U
72-54-8	4,4'-DDD	3.93	1.33	1.33	
1031-07-8	Endosulfan sulfate	ND	1.33	1.33	U
50-29-3	4,4'-DDT	ND	1.33	1.33	U
72-43-5	Methoxychlor	ND	2.00	6.66	U
53494-70-5	Endrin ketone	ND	1.33	1.33	U
7421-93-4	Endrin aldehyde	ND	1.33	1.33	U
5103-71-9	alpha-Chlordane	ND	0.660	0.660	U
5566-34-7	gamma-Chlordane	ND	0.660	0.660	U
8001-35-2	Toxaphene	ND	33.3	33.3	U
12674-11-2	Aroclor-1016	ND	16.6	33.3	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C DUP**
Lab Sample ID: **1801587-26**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	50.00	Prep Method:	EPA 3550B	File ID:	G24782.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 20:57
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	16.6	33.3	U
11141-16-5	Aroclor-1232	ND	16.6	33.3	U
53469-21-9	Aroclor-1242	ND	16.6	33.3	U
12672-29-6	Aroclor-1248	ND	16.6	33.3	U
11097-69-1	Aroclor-1254	ND	16.6	33.3	U
11096-82-5	Aroclor-1260	ND	16.6	33.3	U
37324-23-5	Aroclor-1262	ND	16.6	33.3	U
11100-14-4	Aroclor-1268	ND	16.6	33.3	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	67.7%	27-137
Tetrachloro-m-xylene [2C]	54.4%	39-138
Decachlorobiphenyl	75.0%	21-150
Decachlorobiphenyl [2C]	75.6%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B	File ID:	A29674.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 20:18
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.02	1.02	U
319-85-7	beta-BHC	ND	1.02	1.02	U
319-86-8	delta-BHC	ND	1.02	1.02	U
58-89-9	gamma-BHC [Lindane]	ND	1.02	1.02	U
76-44-8	Heptachlor	ND	1.02	1.02	U
309-00-2	Aldrin	ND	1.02	1.02	U
1024-57-3	Heptachlor Epoxide	ND	1.02	1.02	U
959-98-8	Endosulfan I	ND	1.02	1.02	U
60-57-1	Dieldrin	ND	2.05	2.05	U
72-55-9	4,4'-DDE	9.62	2.05	2.05	
72-20-8	Endrin	ND	2.05	2.05	U
33213-65-9	Endosulfan II	ND	2.05	2.05	U
72-54-8	4,4'-DDD	2.21	2.05	2.05	
1031-07-8	Endosulfan sulfate	ND	2.05	2.05	U
50-29-3	4,4'-DDT	ND	2.05	2.05	U
72-43-5	Methoxychlor	ND	3.09	10.3	U
53494-70-5	Endrin ketone	ND	2.05	2.05	U
7421-93-4	Endrin aldehyde	ND	2.05	2.05	U
5103-71-9	alpha-Chlordane	ND	1.02	1.02	U
5566-34-7	gamma-Chlordane	2.83	1.02	1.02	
8001-35-2	Toxaphene	ND	51.4	51.4	U
12674-11-2	Aroclor-1016	ND	25.6	51.4	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B	File ID:	A29674.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 20:18
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	25.6	51.4	U
11141-16-5	Aroclor-1232	ND	25.6	51.4	U
53469-21-9	Aroclor-1242	ND	25.6	51.4	U
12672-29-6	Aroclor-1248	ND	25.6	51.4	U
11097-69-1	Aroclor-1254	35.3	25.6	51.4	J
11096-82-5	Aroclor-1260	ND	25.6	51.4	U
37324-23-5	Aroclor-1262	ND	25.6	51.4	U
11100-14-4	Aroclor-1268	ND	25.6	51.4	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	22.8%	*	27-137
Tetrachloro-m-xylene [2C]	23.5%	*	39-138
Decachlorobiphenyl	20.3%	*	21-150
Decachlorobiphenyl [2C]	23.4%	*	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B	File ID:	A29675.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 20:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.809	0.809	U
319-85-7	beta-BHC	ND	0.809	0.809	U
319-86-8	delta-BHC	ND	0.809	0.809	U
58-89-9	gamma-BHC [Lindane]	ND	0.809	0.809	U
76-44-8	Heptachlor	ND	0.809	0.809	U
309-00-2	Aldrin	ND	0.809	0.809	U
1024-57-3	Heptachlor Epoxide	ND	0.809	0.809	U
959-98-8	Endosulfan I	ND	0.809	0.809	U
60-57-1	Dieldrin	ND	1.63	1.63	U
72-55-9	4,4'-DDE	38.5	1.63	1.63	
72-20-8	Endrin	ND	1.63	1.63	U
33213-65-9	Endosulfan II	ND	1.63	1.63	U
72-54-8	4,4'-DDD	7.72	1.63	1.63	
1031-07-8	Endosulfan sulfate	ND	1.63	1.63	U
50-29-3	4,4'-DDT	ND	1.63	1.63	U
72-43-5	Methoxychlor	ND	2.45	8.16	U
53494-70-5	Endrin ketone	ND	1.63	1.63	U
7421-93-4	Endrin aldehyde	ND	1.63	1.63	U
5103-71-9	alpha-Chlordane	2.25	0.809	0.809	
5566-34-7	gamma-Chlordane	10.7	0.809	0.809	
8001-35-2	Toxaphene	ND	40.8	40.8	U
12674-11-2	Aroclor-1016	ND	20.3	40.8	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B	File ID:	A29675.D
Prep Batch:	B8J1601	Sequence:	S8J2502	Analyzed:	10/25/18 20:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.3	40.8	U
11141-16-5	Aroclor-1232	ND	20.3	40.8	U
53469-21-9	Aroclor-1242	ND	20.3	40.8	U
12672-29-6	Aroclor-1248	ND	20.3	40.8	U
11097-69-1	Aroclor-1254 [2C]	138	20.3	40.8	
11096-82-5	Aroclor-1260	ND	20.3	40.8	U
37324-23-5	Aroclor-1262	ND	20.3	40.8	U
11100-14-4	Aroclor-1268	ND	20.3	40.8	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	49.3%	27-137
Tetrachloro-m-xylene [2C]	60.9%	39-138
Decachlorobiphenyl	52.5%	21-150
Decachlorobiphenyl [2C]	58.4%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4C**
Lab Sample ID: **1801587-29**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29700.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 19:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.556	0.556	U
319-85-7	beta-BHC	ND	0.556	0.556	U
319-86-8	delta-BHC	ND	0.556	0.556	U
58-89-9	gamma-BHC [Lindane]	ND	0.556	0.556	U
76-44-8	Heptachlor	ND	0.556	0.556	U
309-00-2	Aldrin	ND	0.556	0.556	U
1024-57-3	Heptachlor Epoxide	ND	0.556	0.556	U
959-98-8	Endosulfan I	ND	0.556	0.556	U
60-57-1	Dieldrin	ND	1.12	1.12	U
72-55-9	4,4'-DDE	35.7	1.12	1.12	
72-20-8	Endrin	ND	1.12	1.12	U
33213-65-9	Endosulfan II	ND	1.12	1.12	U
72-54-8	4,4'-DDD	7.41	1.12	1.12	
1031-07-8	Endosulfan sulfate	ND	1.12	1.12	U
50-29-3	4,4'-DDT	ND	1.12	1.12	U
72-43-5	Methoxychlor	ND	1.68	5.61	U
53494-70-5	Endrin ketone	ND	1.12	1.12	U
7421-93-4	Endrin aldehyde	ND	1.12	1.12	U
5103-71-9	alpha-Chlordane	ND	0.556	0.556	U
5566-34-7	gamma-Chlordane	7.24	0.556	0.556	
8001-35-2	Toxaphene	ND	28.0	28.0	U
12674-11-2	Aroclor-1016	ND	14.0	28.0	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4C**
Lab Sample ID: **1801587-29**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B	File ID:	A29700.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 19:16
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	14.0	28.0	U
11141-16-5	Aroclor-1232	ND	14.0	28.0	U
53469-21-9	Aroclor-1242	ND	14.0	28.0	U
12672-29-6	Aroclor-1248	ND	14.0	28.0	U
11097-69-1	Aroclor-1254	68.3	14.0	28.0	
11096-82-5	Aroclor-1260	ND	14.0	28.0	U
37324-23-5	Aroclor-1262	ND	14.0	28.0	U
11100-14-4	Aroclor-1268	ND	14.0	28.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	48.5%	27-137
Tetrachloro-m-xylene [2C]	66.9%	39-138
Decachlorobiphenyl	53.8%	21-150
Decachlorobiphenyl [2C]	69.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9A**
Lab Sample ID: **1801587-30**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	29.10	Prep Method:	EPA 3550B	File ID:	A29701.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 19:41
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.13	1.13	U
319-85-7	beta-BHC	ND	1.13	1.13	U
319-86-8	delta-BHC	ND	1.13	1.13	U
58-89-9	gamma-BHC [Lindane]	ND	1.13	1.13	U
76-44-8	Heptachlor	ND	1.13	1.13	U
309-00-2	Aldrin	ND	1.13	1.13	U
1024-57-3	Heptachlor Epoxide	ND	1.13	1.13	U
959-98-8	Endosulfan I	ND	1.13	1.13	U
60-57-1	Dieldrin	ND	2.29	2.29	U
72-55-9	4,4'-DDE	34.9	2.29	2.29	
72-20-8	Endrin	ND	2.29	2.29	U
33213-65-9	Endosulfan II	ND	2.29	2.29	U
72-54-8	4,4'-DDD	4.70	2.29	2.29	
1031-07-8	Endosulfan sulfate	ND	2.29	2.29	U
50-29-3	4,4'-DDT	ND	2.29	2.29	U
72-43-5	Methoxychlor	ND	3.44	11.4	U
53494-70-5	Endrin ketone	ND	2.29	2.29	U
7421-93-4	Endrin aldehyde	ND	2.29	2.29	U
5103-71-9	alpha-Chlordane	1.32	1.13	1.13	
5566-34-7	gamma-Chlordane	2.35	1.13	1.13	
8001-35-2	Toxaphene	ND	57.2	57.2	U
12674-11-2	Aroclor-1016	ND	28.5	57.2	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9A**
Lab Sample ID: **1801587-30**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	29.10	Prep Method:	EPA 3550B	File ID:	A29701.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 19:41
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	28.5	57.2	U
11141-16-5	Aroclor-1232	ND	28.5	57.2	U
53469-21-9	Aroclor-1242	ND	28.5	57.2	U
12672-29-6	Aroclor-1248	ND	28.5	57.2	U
11097-69-1	Aroclor-1254 [2C]	74.2	28.5	57.2	
11096-82-5	Aroclor-1260	ND	28.5	57.2	U
37324-23-5	Aroclor-1262	ND	28.5	57.2	U
11100-14-4	Aroclor-1268	ND	28.5	57.2	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	52.5%	27-137
Tetrachloro-m-xylene [2C]	68.8%	39-138
Decachlorobiphenyl	56.3%	21-150
Decachlorobiphenyl [2C]	67.0%	24-171

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9B**
Lab Sample ID: **1801587-31**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:28	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	21.00	Prep Method:	EPA 3550B	File ID:	A29702.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:05
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.57	1.57	U
319-85-7	beta-BHC	ND	1.57	1.57	U
319-86-8	delta-BHC	ND	1.57	1.57	U
58-89-9	gamma-BHC [Lindane]	ND	1.57	1.57	U
76-44-8	Heptachlor	ND	1.57	1.57	U
309-00-2	Aldrin	ND	1.57	1.57	U
1024-57-3	Heptachlor Epoxide	ND	1.57	1.57	U
959-98-8	Endosulfan I	ND	1.57	1.57	U
60-57-1	Dieldrin	ND	3.17	3.17	U
72-55-9	4,4'-DDE	10.6	3.17	3.17	
72-20-8	Endrin	ND	3.17	3.17	U
33213-65-9	Endosulfan II	ND	3.17	3.17	U
72-54-8	4,4'-DDD	6.35	3.17	3.17	
1031-07-8	Endosulfan sulfate	ND	3.17	3.17	U
50-29-3	4,4'-DDT	ND	3.17	3.17	U
72-43-5	Methoxychlor	ND	4.76	15.9	U
53494-70-5	Endrin ketone	ND	3.17	3.17	U
7421-93-4	Endrin aldehyde	ND	3.17	3.17	U
5103-71-9	alpha-Chlordane	ND	1.57	1.57	U
5566-34-7	gamma-Chlordane	ND	1.57	1.57	U
8001-35-2	Toxaphene	ND	79.3	79.3	U
12674-11-2	Aroclor-1016	ND	39.5	79.3	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9B**
Lab Sample ID: **1801587-31**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:28	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	21.00	Prep Method:	EPA 3550B	File ID:	A29702.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:05
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	39.5	79.3	U
11141-16-5	Aroclor-1232	ND	39.5	79.3	U
53469-21-9	Aroclor-1242	ND	39.5	79.3	U
12672-29-6	Aroclor-1248	ND	39.5	79.3	U
11097-69-1	Aroclor-1254	ND	39.5	79.3	U
11096-82-5	Aroclor-1260	ND	39.5	79.3	U
37324-23-5	Aroclor-1262	ND	39.5	79.3	U
11100-14-4	Aroclor-1268	ND	39.5	79.3	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	50.3%	27-137
Tetrachloro-m-xylene [2C]	68.6%	39-138
Decachlorobiphenyl	54.6%	21-150
Decachlorobiphenyl [2C]	68.2%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9C**
Lab Sample ID: **1801587-32**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:45	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	31.70	Prep Method:	EPA 3550B	File ID:	A29703.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:30
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.04	1.04	U
319-85-7	beta-BHC	ND	1.04	1.04	U
319-86-8	delta-BHC	ND	1.04	1.04	U
58-89-9	gamma-BHC [Lindane]	ND	1.04	1.04	U
76-44-8	Heptachlor	ND	1.04	1.04	U
309-00-2	Aldrin	ND	1.04	1.04	U
1024-57-3	Heptachlor Epoxide	ND	1.04	1.04	U
959-98-8	Endosulfan I	ND	1.04	1.04	U
60-57-1	Dieldrin	ND	2.10	2.10	U
72-55-9	4,4'-DDE	ND	2.10	2.10	U
72-20-8	Endrin	ND	2.10	2.10	U
33213-65-9	Endosulfan II	ND	2.10	2.10	U
72-54-8	4,4'-DDD	ND	2.10	2.10	U
1031-07-8	Endosulfan sulfate	ND	2.10	2.10	U
50-29-3	4,4'-DDT	ND	2.10	2.10	U
72-43-5	Methoxychlor	ND	3.15	10.5	U
53494-70-5	Endrin ketone	ND	2.10	2.10	U
7421-93-4	Endrin aldehyde	ND	2.10	2.10	U
5103-71-9	alpha-Chlordane	ND	1.04	1.04	U
5566-34-7	gamma-Chlordane	ND	1.04	1.04	U
8001-35-2	Toxaphene	ND	52.5	52.5	U
12674-11-2	Aroclor-1016	ND	26.2	52.5	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9C**
Lab Sample ID: **1801587-32**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:45	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	31.70	Prep Method:	EPA 3550B	File ID:	A29703.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:30
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	26.2	52.5	U
11141-16-5	Aroclor-1232	ND	26.2	52.5	U
53469-21-9	Aroclor-1242	ND	26.2	52.5	U
12672-29-6	Aroclor-1248	ND	26.2	52.5	U
11097-69-1	Aroclor-1254	ND	26.2	52.5	U
11096-82-5	Aroclor-1260	ND	26.2	52.5	U
37324-23-5	Aroclor-1262	ND	26.2	52.5	U
11100-14-4	Aroclor-1268	ND	26.2	52.5	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	50.7%	27-137
Tetrachloro-m-xylene [2C]	61.4%	39-138
Decachlorobiphenyl	43.4%	21-150
Decachlorobiphenyl [2C]	55.5%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8A**
Lab Sample ID: **1801587-33**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:30	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	30.00	Prep Method:	EPA 3550B	File ID:	A29704.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:54
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.10	1.10	U
319-85-7	beta-BHC	ND	1.10	1.10	U
319-86-8	delta-BHC	ND	1.10	1.10	U
58-89-9	gamma-BHC [Lindane]	ND	1.10	1.10	U
76-44-8	Heptachlor	ND	1.10	1.10	U
309-00-2	Aldrin	ND	1.10	1.10	U
1024-57-3	Heptachlor Epoxide	ND	1.10	1.10	U
959-98-8	Endosulfan I	ND	1.10	1.10	U
60-57-1	Dieldrin	ND	2.22	2.22	U
72-55-9	4,4'-DDE	16.9	2.22	2.22	
72-20-8	Endrin	ND	2.22	2.22	U
33213-65-9	Endosulfan II	ND	2.22	2.22	U
72-54-8	4,4'-DDD	4.78	2.22	2.22	
1031-07-8	Endosulfan sulfate	ND	2.22	2.22	U
50-29-3	4,4'-DDT	ND	2.22	2.22	U
72-43-5	Methoxychlor	ND	3.33	11.1	U
53494-70-5	Endrin ketone	ND	2.22	2.22	U
7421-93-4	Endrin aldehyde	ND	2.22	2.22	U
5103-71-9	alpha-Chlordane	1.28	1.10	1.10	
5566-34-7	gamma-Chlordane [2C]	3.39	1.10	1.10	
8001-35-2	Toxaphene	ND	55.5	55.5	U
12674-11-2	Aroclor-1016	ND	27.7	55.5	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8A**
Lab Sample ID: **1801587-33**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:30	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	30.00	Prep Method:	EPA 3550B	File ID:	A29704.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 20:54
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	27.7	55.5	U
11141-16-5	Aroclor-1232	ND	27.7	55.5	U
53469-21-9	Aroclor-1242	ND	27.7	55.5	U
12672-29-6	Aroclor-1248	ND	27.7	55.5	U
11097-69-1	Aroclor-1254	53.9	27.7	55.5	J
11096-82-5	Aroclor-1260	ND	27.7	55.5	U
37324-23-5	Aroclor-1262	ND	27.7	55.5	U
11100-14-4	Aroclor-1268	ND	27.7	55.5	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	56.1%	27-137
Tetrachloro-m-xylene [2C]	78.1%	39-138
Decachlorobiphenyl	62.2%	21-150
Decachlorobiphenyl [2C]	76.4%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B	File ID:	A29705.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 21:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.27	1.27	U
319-85-7	beta-BHC	ND	1.27	1.27	U
319-86-8	delta-BHC	ND	1.27	1.27	U
58-89-9	gamma-BHC [Lindane]	ND	1.27	1.27	U
76-44-8	Heptachlor	ND	1.27	1.27	U
309-00-2	Aldrin	ND	1.27	1.27	U
1024-57-3	Heptachlor Epoxide	ND	1.27	1.27	U
959-98-8	Endosulfan I	ND	1.27	1.27	U
60-57-1	Dieldrin	ND	2.56	2.56	U
72-55-9	4,4'-DDE	256	2.56	2.56	E
72-20-8	Endrin	ND	2.56	2.56	U
33213-65-9	Endosulfan II	ND	2.56	2.56	U
72-54-8	4,4'-DDD	103	2.56	2.56	E
1031-07-8	Endosulfan sulfate	ND	2.56	2.56	U
50-29-3	4,4'-DDT	ND	2.56	2.56	U
72-43-5	Methoxychlor	ND	3.85	12.8	U
53494-70-5	Endrin ketone	ND	2.56	2.56	U
7421-93-4	Endrin aldehyde	ND	2.56	2.56	U
5103-71-9	alpha-Chlordane	5.00	1.27	1.27	
5566-34-7	gamma-Chlordane [2C]	29.0	1.27	1.27	
8001-35-2	Toxaphene	ND	64.0	64.0	U
12674-11-2	Aroclor-1016	ND	31.9	64.0	U

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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B	File ID:	A29705.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 21:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	31.9	64.0	U
11141-16-5	Aroclor-1232	ND	31.9	64.0	U
53469-21-9	Aroclor-1242	ND	31.9	64.0	U
12672-29-6	Aroclor-1248	ND	31.9	64.0	U
11097-69-1	Aroclor-1254	153	31.9	64.0	
11096-82-5	Aroclor-1260	ND	31.9	64.0	U
37324-23-5	Aroclor-1262	ND	31.9	64.0	U
11100-14-4	Aroclor-1268	ND	31.9	64.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	70.1%	27-137
Tetrachloro-m-xylene [2C]	100%	39-138
Decachlorobiphenyl	73.0%	21-150
Decachlorobiphenyl [2C]	96.0%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B	File ID:	G24857.D
Prep Batch:	B8J1601	Sequence:	S8J3002	Analyzed:	10/30/18 10:05
Dilution:	10			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	12.7	12.7	U
319-85-7	beta-BHC	ND	12.7	12.7	U
319-86-8	delta-BHC	ND	12.7	12.7	U
58-89-9	gamma-BHC [Lindane]	ND	12.7	12.7	U
76-44-8	Heptachlor	ND	12.7	12.7	U
309-00-2	Aldrin	ND	12.7	12.7	U
1024-57-3	Heptachlor Epoxide	ND	12.7	12.7	U
959-98-8	Endosulfan I	ND	12.7	12.7	U
60-57-1	Dieldrin	ND	25.6	25.6	U
72-55-9	4,4'-DDE	397	25.6	25.6	D
72-20-8	Endrin	ND	25.6	25.6	U
33213-65-9	Endosulfan II	ND	25.6	25.6	U
72-54-8	4,4'-DDD	311	25.6	25.6	D
1031-07-8	Endosulfan sulfate	ND	25.6	25.6	U
50-29-3	4,4'-DDT	ND	25.6	25.6	U
72-43-5	Methoxychlor	ND	38.5	128	U
53494-70-5	Endrin ketone	ND	25.6	25.6	U
7421-93-4	Endrin aldehyde	ND	25.6	25.6	U
5103-71-9	alpha-Chlordane	ND	12.7	12.7	U
5566-34-7	gamma-Chlordane	ND	12.7	12.7	U
8001-35-2	Toxaphene	ND	640	640	U
12674-11-2	Aroclor-1016	ND	319	640	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B	File ID:	G24857.D
Prep Batch:	B8J1601	Sequence:	S8J3002	Analyzed:	10/30/18 10:05
Dilution:	10			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	319	640	U
11141-16-5	Aroclor-1232	ND	319	640	U
53469-21-9	Aroclor-1242	ND	319	640	U
12672-29-6	Aroclor-1248	ND	319	640	U
11097-69-1	Aroclor-1254	ND	319	640	U
11096-82-5	Aroclor-1260	ND	319	640	U
37324-23-5	Aroclor-1262	ND	319	640	U
11100-14-4	Aroclor-1268	ND	319	640	U

Surrogate	% Recovery		Recovery Limits
Tetrachloro-m-xylene	139%	*	27-137
Tetrachloro-m-xylene [2C]	138%		39-138
Decachlorobiphenyl	151%	*	21-150
Decachlorobiphenyl [2C]	136%		24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C**
Lab Sample ID: **1801587-35**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	17.00	Prep Method:	EPA 3550B	File ID:	A29706.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 21:44
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.94	1.94	U
319-85-7	beta-BHC	ND	1.94	1.94	U
319-86-8	delta-BHC	ND	1.94	1.94	U
58-89-9	gamma-BHC [Lindane]	ND	1.94	1.94	U
76-44-8	Heptachlor [2C]	2.94	1.94	1.94	
309-00-2	Aldrin	ND	1.94	1.94	U
1024-57-3	Heptachlor Epoxide	ND	1.94	1.94	U
959-98-8	Endosulfan I	ND	1.94	1.94	U
60-57-1	Dieldrin	ND	3.91	3.91	U
72-55-9	4,4'-DDE	ND	3.91	3.91	U
72-20-8	Endrin	ND	3.91	3.91	U
33213-65-9	Endosulfan II	ND	3.91	3.91	U
72-54-8	4,4'-DDD	ND	3.91	3.91	U
1031-07-8	Endosulfan sulfate	ND	3.91	3.91	U
50-29-3	4,4'-DDT	ND	3.91	3.91	U
72-43-5	Methoxychlor	ND	5.88	19.6	U
53494-70-5	Endrin ketone	ND	3.91	3.91	U
7421-93-4	Endrin aldehyde	ND	3.91	3.91	U
5103-71-9	alpha-Chlordane	ND	1.94	1.94	U
5566-34-7	gamma-Chlordane	ND	1.94	1.94	U
8001-35-2	Toxaphene	ND	97.9	97.9	U
12674-11-2	Aroclor-1016	ND	48.8	97.9	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C**
Lab Sample ID: **1801587-35**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	17.00	Prep Method:	EPA 3550B	File ID:	A29706.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 21:44
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	48.8	97.9	U
11141-16-5	Aroclor-1232	ND	48.8	97.9	U
53469-21-9	Aroclor-1242	ND	48.8	97.9	U
12672-29-6	Aroclor-1248	ND	48.8	97.9	U
11097-69-1	Aroclor-1254	ND	48.8	97.9	U
11096-82-5	Aroclor-1260	ND	48.8	97.9	U
37324-23-5	Aroclor-1262	ND	48.8	97.9	U
11100-14-4	Aroclor-1268	ND	48.8	97.9	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	68.7%	27-137
Tetrachloro-m-xylene [2C]	96.6%	39-138
Decachlorobiphenyl	61.3%	21-150
Decachlorobiphenyl [2C]	81.7%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C DUP**
Lab Sample ID: **1801587-36**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	18.00	Prep Method:	EPA 3550B	File ID:	A29707.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 22:08
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.83	1.83	U
319-85-7	beta-BHC	ND	1.83	1.83	U
319-86-8	delta-BHC	ND	1.83	1.83	U
58-89-9	gamma-BHC [Lindane]	ND	1.83	1.83	U
76-44-8	Heptachlor	ND	1.83	1.83	U
309-00-2	Aldrin	ND	1.83	1.83	U
1024-57-3	Heptachlor Epoxide	ND	1.83	1.83	U
959-98-8	Endosulfan I	ND	1.83	1.83	U
60-57-1	Dieldrin	ND	3.69	3.69	U
72-55-9	4,4'-DDE	ND	3.69	3.69	U
72-20-8	Endrin	ND	3.69	3.69	U
33213-65-9	Endosulfan II	ND	3.69	3.69	U
72-54-8	4,4'-DDD	ND	3.69	3.69	U
1031-07-8	Endosulfan sulfate	ND	3.69	3.69	U
50-29-3	4,4'-DDT	ND	3.69	3.69	U
72-43-5	Methoxychlor	ND	5.56	18.5	U
53494-70-5	Endrin ketone	ND	3.69	3.69	U
7421-93-4	Endrin aldehyde	ND	3.69	3.69	U
5103-71-9	alpha-Chlordane	ND	1.83	1.83	U
5566-34-7	gamma-Chlordane	ND	1.83	1.83	U
8001-35-2	Toxaphene	ND	92.5	92.5	U
12674-11-2	Aroclor-1016	ND	46.1	92.5	U

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Phone: 732-969-6112
Fax: 732-541-1383
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EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C DUP**
Lab Sample ID: **1801587-36**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	18.00	Prep Method:	EPA 3550B	File ID:	A29707.D
Prep Batch:	B8J1601	Sequence:	S8J2604	Analyzed:	10/26/18 22:08
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	46.1	92.5	U
11141-16-5	Aroclor-1232	ND	46.1	92.5	U
53469-21-9	Aroclor-1242	ND	46.1	92.5	U
12672-29-6	Aroclor-1248	ND	46.1	92.5	U
11097-69-1	Aroclor-1254	ND	46.1	92.5	U
11096-82-5	Aroclor-1260	ND	46.1	92.5	U
37324-23-5	Aroclor-1262	ND	46.1	92.5	U
11100-14-4	Aroclor-1268	ND	46.1	92.5	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.8%	27-137
Tetrachloro-m-xylene [2C]	57.6%	39-138
Decachlorobiphenyl	41.1%	21-150
Decachlorobiphenyl [2C]	41.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MS**
Lab Sample ID: **1801587-37**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.00	Prep Method:	EPA 3550B	File ID:	G24786.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 22:52
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	14.9	0.805	0.805	
319-85-7	beta-BHC	11.9	0.805	0.805	
319-86-8	delta-BHC	10.9	0.805	0.805	
58-89-9	gamma-BHC [Lindane]	12.1	0.805	0.805	
76-44-8	Heptachlor	11.7	0.805	0.805	
309-00-2	Aldrin	12.4	0.805	0.805	
1024-57-3	Heptachlor Epoxide	12.1	0.805	0.805	
959-98-8	Endosulfan I	9.07	0.805	0.805	
60-57-1	Dieldrin	12.6	1.62	1.62	
72-55-9	4,4'-DDE	10.2	1.62	1.62	
72-20-8	Endrin	12.1	1.62	1.62	
33213-65-9	Endosulfan II	11.1	1.62	1.62	
72-54-8	4,4'-DDD	13.9	1.62	1.62	
1031-07-8	Endosulfan sulfate	10.3	1.62	1.62	
50-29-3	4,4'-DDT	9.80	1.62	1.62	
72-43-5	Methoxychlor	12.2	2.44	8.12	
53494-70-5	Endrin ketone	18.0	1.62	1.62	
7421-93-4	Endrin aldehyde	11.1	1.62	1.62	
5103-71-9	alpha-Chlordane	13.8	0.805	0.805	
5566-34-7	gamma-Chlordane	10.9	0.805	0.805	
8001-35-2	Toxaphene	ND	40.6	40.6	U
12674-11-2	Aroclor-1016	ND	20.2	40.6	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MS**
Lab Sample ID: **1801587-37**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	41.00	Prep Method:	EPA 3550B	File ID:	G24786.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 22:52
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	20.2	40.6	U
11141-16-5	Aroclor-1232	ND	20.2	40.6	U
53469-21-9	Aroclor-1242	ND	20.2	40.6	U
12672-29-6	Aroclor-1248	ND	20.2	40.6	U
11097-69-1	Aroclor-1254	ND	20.2	40.6	U
11096-82-5	Aroclor-1260	ND	20.2	40.6	U
37324-23-5	Aroclor-1262	ND	20.2	40.6	U
11100-14-4	Aroclor-1268	ND	20.2	40.6	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	98.1%	27-137
Tetrachloro-m-xylene [2C]	76.9%	39-138
Decachlorobiphenyl	81.4%	21-150
Decachlorobiphenyl [2C]	79.1%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MSD**
Lab Sample ID: **1801587-38**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	46.50	Prep Method:	EPA 3550B	File ID:	G24787.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 23:21
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	12.4	0.710	0.710	
319-85-7	beta-BHC	9.96	0.710	0.710	
319-86-8	delta-BHC	10.0	0.710	0.710	
58-89-9	gamma-BHC [Lindane]	11.2	0.710	0.710	
76-44-8	Heptachlor	10.2	0.710	0.710	
309-00-2	Aldrin	9.53	0.710	0.710	
1024-57-3	Heptachlor Epoxide	10.0	0.710	0.710	
959-98-8	Endosulfan I	7.89	0.710	0.710	
60-57-1	Dieldrin	10.6	1.43	1.43	
72-55-9	4,4'-DDE	8.78	1.43	1.43	
72-20-8	Endrin	10.4	1.43	1.43	
33213-65-9	Endosulfan II	9.61	1.43	1.43	
72-54-8	4,4'-DDD	13.0	1.43	1.43	
1031-07-8	Endosulfan sulfate	9.78	1.43	1.43	
50-29-3	4,4'-DDT	9.32	1.43	1.43	
72-43-5	Methoxychlor	10.1	2.15	7.16	
53494-70-5	Endrin ketone	15.4	1.43	1.43	
7421-93-4	Endrin aldehyde	9.86	1.43	1.43	
5103-71-9	alpha-Chlordane	11.5	0.710	0.710	
5566-34-7	gamma-Chlordane	9.00	0.710	0.710	
8001-35-2	Toxaphene	ND	35.8	35.8	U
12674-11-2	Aroclor-1016	ND	17.8	35.8	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MSD**
Lab Sample ID: **1801587-38**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/15/18 05:32	Matrix:	Soil
Percent Solids:	46.50	Prep Method:	EPA 3550B	File ID:	G24787.D
Prep Batch:	B8J1501	Sequence:	S8J1905	Analyzed:	10/19/18 23:21
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	17.8	35.8	U
11141-16-5	Aroclor-1232	ND	17.8	35.8	U
53469-21-9	Aroclor-1242	ND	17.8	35.8	U
12672-29-6	Aroclor-1248	ND	17.8	35.8	U
11097-69-1	Aroclor-1254	ND	17.8	35.8	U
11096-82-5	Aroclor-1260	ND	17.8	35.8	U
37324-23-5	Aroclor-1262	ND	17.8	35.8	U
11100-14-4	Aroclor-1268	ND	17.8	35.8	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	95.9%	27-137
Tetrachloro-m-xylene [2C]	82.1%	39-138
Decachlorobiphenyl	77.6%	21-150
Decachlorobiphenyl [2C]	81.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MS**
Lab Sample ID: **1801587-39**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	71.30	Prep Method:	EPA 3550B	File ID:	A29556.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 22:55
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	5.59	0.463	0.463	
319-85-7	beta-BHC	6.76	0.463	0.463	
319-86-8	delta-BHC	7.32	0.463	0.463	
58-89-9	gamma-BHC [Lindane]	4.14	0.463	0.463	
76-44-8	Heptachlor [2C]	ND	0.463	0.463	U
309-00-2	Aldrin	5.66	0.463	0.463	
1024-57-3	Heptachlor Epoxide	3.93	0.463	0.463	
959-98-8	Endosulfan I	5.47	0.463	0.463	
60-57-1	Dieldrin	6.03	0.933	0.933	
72-55-9	4,4'-DDE	5.31	0.933	0.933	
72-20-8	Endrin	4.00	0.933	0.933	
33213-65-9	Endosulfan II	4.65	0.933	0.933	
72-54-8	4,4'-DDD	5.49	0.933	0.933	
1031-07-8	Endosulfan sulfate	4.58	0.933	0.933	
50-29-3	4,4'-DDT	6.17	0.933	0.933	
72-43-5	Methoxychlor	ND	1.40	4.67	U
53494-70-5	Endrin ketone	0.935	0.933	0.933	
7421-93-4	Endrin aldehyde	5.07	0.933	0.933	
5103-71-9	alpha-Chlordane	4.84	0.463	0.463	
5566-34-7	gamma-Chlordane	4.98	0.463	0.463	
8001-35-2	Toxaphene	ND	23.4	23.4	U
12674-11-2	Aroclor-1016	ND	11.6	23.4	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MS**
Lab Sample ID: **1801587-39**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	71.30	Prep Method:	EPA 3550B	File ID:	A29556.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 22:55
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	11.6	23.4	U
11141-16-5	Aroclor-1232	ND	11.6	23.4	U
53469-21-9	Aroclor-1242	ND	11.6	23.4	U
12672-29-6	Aroclor-1248	ND	11.6	23.4	U
11097-69-1	Aroclor-1254	ND	11.6	23.4	U
11096-82-5	Aroclor-1260	ND	11.6	23.4	U
37324-23-5	Aroclor-1262	ND	11.6	23.4	U
11100-14-4	Aroclor-1268	ND	11.6	23.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	52.4%	27-137
Tetrachloro-m-xylene [2C]	108%	39-138
Decachlorobiphenyl	51.3%	21-150
Decachlorobiphenyl [2C]	85.2%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MSD**
Lab Sample ID: **1801587-40**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	69.30	Prep Method:	EPA 3550B	File ID:	A29557.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 23:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	6.01	0.476	0.476	
319-85-7	beta-BHC	1.76	0.476	0.476	
319-86-8	delta-BHC [2C]	10.5	0.476	0.476	
58-89-9	gamma-BHC [Lindane]	3.08	0.476	0.476	
76-44-8	Heptachlor	0.794	0.476	0.476	
309-00-2	Aldrin	7.17	0.476	0.476	
1024-57-3	Heptachlor Epoxide	6.40	0.476	0.476	
959-98-8	Endosulfan I	7.02	0.476	0.476	
60-57-1	Dieldrin	6.45	0.960	0.960	
72-55-9	4,4'-DDE	5.70	0.960	0.960	
72-20-8	Endrin [2C]	4.23	0.960	0.960	
33213-65-9	Endosulfan II	4.98	0.960	0.960	
72-54-8	4,4'-DDD	5.99	0.960	0.960	
1031-07-8	Endosulfan sulfate	5.03	0.960	0.960	
50-29-3	4,4'-DDT	6.78	0.960	0.960	
72-43-5	Methoxychlor	ND	1.44	4.81	U
53494-70-5	Endrin ketone	1.01	0.960	0.960	
7421-93-4	Endrin aldehyde	5.48	0.960	0.960	
5103-71-9	alpha-Chlordane	5.12	0.476	0.476	
5566-34-7	gamma-Chlordane	6.30	0.476	0.476	
8001-35-2	Toxaphene	ND	24.0	24.0	U
12674-11-2	Aroclor-1016	ND	12.0	24.0	U

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MSD**
Lab Sample ID: **1801587-40**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	69.30	Prep Method:	EPA 3550B	File ID:	A29557.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 23:19
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	12.0	24.0	U
11141-16-5	Aroclor-1232	ND	12.0	24.0	U
53469-21-9	Aroclor-1242	ND	12.0	24.0	U
12672-29-6	Aroclor-1248	ND	12.0	24.0	U
11097-69-1	Aroclor-1254	ND	12.0	24.0	U
11096-82-5	Aroclor-1260	ND	12.0	24.0	U
37324-23-5	Aroclor-1262	ND	12.0	24.0	U
11100-14-4	Aroclor-1268	ND	12.0	24.0	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	55.8%	27-137
Tetrachloro-m-xylene [2C]	102%	39-138
Decachlorobiphenyl	55.0%	21-150
Decachlorobiphenyl [2C]	88.6%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12A**
Lab Sample ID: **1801587-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	32.00	Prep Method:	EPA 3550B GCMS	File ID:	E15993.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 18:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	104	260	U
108-95-2	Phenol	ND	104	260	U
111-44-4	bis(2-chloroethyl)ether	ND	104	260	U
95-57-8	2-Chlorophenol	ND	104	260	U
541-73-1	1,3-Dichlorobenzene	ND	104	260	U
106-46-7	1,4-Dichlorobenzene	ND	104	260	U
100-51-6	Benzyl alcohol	ND	104	260	U
95-50-1	1,2-Dichlorobenzene	ND	104	260	U
95-48-7	2-Methylphenol	ND	104	260	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	104	260	U
106-44-5	3 & 4-Methylphenol	ND	104	260	U
621-64-7	N-Nitroso-di-n-propylamine	ND	104	260	U
67-72-1	Hexachloroethane	ND	104	260	U
98-95-3	Nitrobenzene	ND	104	260	U
78-59-1	Isophorone	ND	104	260	U
88-75-5	2-Nitrophenol	ND	104	260	U
105-67-9	2,4-Dimethylphenol	ND	104	260	U
111-91-1	bis(2-chloroethoxy)methane	ND	104	260	U
120-83-2	2,4-Dichlorophenol	ND	104	260	U
120-82-1	1,2,4-Trichlorobenzene	ND	104	260	U
91-20-3	Naphthalene	ND	104	260	U
106-47-8	4-Chloroaniline	ND	104	260	U
87-68-3	Hexachlorobutadiene	ND	104	260	U
59-50-7	4-Chloro-3-methylphenol	ND	104	260	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12A**
Lab Sample ID: **1801587-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	32.00	Prep Method:	EPA 3550B GCMS	File ID:	E15993.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 18:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	104	260	U
77-47-4	Hexachlorocyclopentadiene	ND	104	260	U
88-06-2	2,4,6-Trichlorophenol	ND	104	260	U
95-95-4	2,4,5-Trichlorophenol	ND	104	260	U
91-58-7	2-Chloronaphthalene	ND	104	260	U
88-74-4	2-Nitroaniline	ND	104	260	U
131-11-3	Dimethylphthalate	ND	104	260	U
208-96-8	Acenaphthylene	ND	104	260	U
99-09-2	3-Nitroaniline	ND	104	260	U
83-32-9	Acenaphthene	ND	104	260	U
51-28-5	2,4-Dinitrophenol	ND	104	522	U
100-02-7	4-Nitrophenol	ND	104	260	U
132-64-9	Dibenzofuran	ND	104	260	U
606-20-2	2,6-Dinitrotoluene	ND	104	260	U
121-14-2	2,4-Dinitrotoluene	ND	104	260	U
84-66-2	Diethyl phthalate	ND	104	260	U
7005-72-3	4-Chlorophenyl-phenylether	ND	104	260	U
86-73-7	Fluorene	ND	104	260	U
100-01-6	4-Nitroaniline	ND	104	260	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	104	260	U
86-30-6	N-Nitrosodiphenylamine	ND	104	260	U
101-55-3	4-Bromophenyl-phenylether	ND	104	260	U
118-74-1	Hexachlorobenzene	ND	104	260	U
87-86-5	Pentachlorophenol	ND	104	260	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12A**
Lab Sample ID: **1801587-01**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	32.00	Prep Method:	EPA 3550B GCMS	File ID:	E15993.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 18:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	104	260	U
120-12-7	Anthracene	ND	104	260	U
84-74-2	Di-n-butyl phthalate	ND	104	260	U
206-44-0	Fluoranthene	ND	104	260	U
129-00-0	Pyrene	ND	104	260	U
85-68-7	Butylbenzylphthalate	ND	104	260	U
91-94-1	3,3'-Dichlorobenzidine	ND	259	260	U
56-55-3	Benzo[a]anthracene	ND	104	260	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	104	260	U
218-01-9	Chrysene	ND	104	260	U
117-84-0	Di-n-octyl phthalate	ND	104	260	U
205-99-2	Benzo[b]fluoranthene	ND	104	260	U
207-08-9	Benzo[k]fluoranthene	ND	104	260	U
50-32-8	Benzo[a]pyrene	ND	104	260	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	104	260	U
53-70-3	Dibenzo(a,h)anthracene	ND	104	260	U
191-24-2	Benzo[ghi]perylene	ND	104	260	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	61%	41-102
Phenol-d5	72%	47-113
Nitrobenzene-d5	61%	38-100
2-Fluorobiphenyl	71%	38-88
2,4,6-Tribromophenol	83%	40-129
Terphenyl-d14	91%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12B**
Lab Sample ID: **1801587-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.30	Prep Method:	EPA 3550B GCMS	File ID:	E15989.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 15:20
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	91.7	229	U
108-95-2	Phenol	ND	91.7	229	U
111-44-4	bis(2-chloroethyl)ether	ND	91.7	229	U
95-57-8	2-Chlorophenol	ND	91.7	229	U
541-73-1	1,3-Dichlorobenzene	ND	91.7	229	U
106-46-7	1,4-Dichlorobenzene	ND	91.7	229	U
100-51-6	Benzyl alcohol	ND	91.7	229	U
95-50-1	1,2-Dichlorobenzene	ND	91.7	229	U
95-48-7	2-Methylphenol	ND	91.7	229	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	91.7	229	U
106-44-5	3 & 4-Methylphenol	ND	91.7	229	U
621-64-7	N-Nitroso-di-n-propylamine	ND	91.7	229	U
67-72-1	Hexachloroethane	ND	91.7	229	U
98-95-3	Nitrobenzene	ND	91.7	229	U
78-59-1	Isophorone	ND	91.7	229	U
88-75-5	2-Nitrophenol	ND	91.7	229	U
105-67-9	2,4-Dimethylphenol	ND	91.7	229	U
111-91-1	bis(2-chloroethoxy)methane	ND	91.7	229	U
120-83-2	2,4-Dichlorophenol	ND	91.7	229	U
120-82-1	1,2,4-Trichlorobenzene	ND	91.7	229	U
91-20-3	Naphthalene	ND	91.7	229	U
106-47-8	4-Chloroaniline	ND	91.7	229	U
87-68-3	Hexachlorobutadiene	ND	91.7	229	U
59-50-7	4-Chloro-3-methylphenol	ND	91.7	229	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12B**
Lab Sample ID: **1801587-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.30	Prep Method:	EPA 3550B GCMS	File ID:	E15989.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 15:20
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	91.7	229	U
77-47-4	Hexachlorocyclopentadiene	ND	91.7	229	U
88-06-2	2,4,6-Trichlorophenol	ND	91.7	229	U
95-95-4	2,4,5-Trichlorophenol	ND	91.7	229	U
91-58-7	2-Chloronaphthalene	ND	91.7	229	U
88-74-4	2-Nitroaniline	ND	91.7	229	U
131-11-3	Dimethylphthalate	ND	91.7	229	U
208-96-8	Acenaphthylene	ND	91.7	229	U
99-09-2	3-Nitroaniline	ND	91.7	229	U
83-32-9	Acenaphthene	ND	91.7	229	U
51-28-5	2,4-Dinitrophenol	ND	91.7	460	U
100-02-7	4-Nitrophenol	ND	91.7	229	U
132-64-9	Dibenzofuran	ND	91.7	229	U
606-20-2	2,6-Dinitrotoluene	ND	91.7	229	U
121-14-2	2,4-Dinitrotoluene	ND	91.7	229	U
84-66-2	Diethyl phthalate	ND	91.7	229	U
7005-72-3	4-Chlorophenyl-phenylether	ND	91.7	229	U
86-73-7	Fluorene	ND	91.7	229	U
100-01-6	4-Nitroaniline	ND	91.7	229	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	91.7	229	U
86-30-6	N-Nitrosodiphenylamine	ND	91.7	229	U
101-55-3	4-Bromophenyl-phenylether	ND	91.7	229	U
118-74-1	Hexachlorobenzene	ND	91.7	229	U
87-86-5	Pentachlorophenol	ND	91.7	229	U

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12B**
Lab Sample ID: **1801587-02**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.30	Prep Method:	EPA 3550B GCMS	File ID:	E15989.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 15:20
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	91.7	229	U
120-12-7	Anthracene	ND	91.7	229	U
84-74-2	Di-n-butyl phthalate	ND	91.7	229	U
206-44-0	Fluoranthene	ND	91.7	229	U
129-00-0	Pyrene	ND	91.7	229	U
85-68-7	Butylbenzylphthalate	ND	91.7	229	U
91-94-1	3,3'-Dichlorobenzidine	ND	229	229	U
56-55-3	Benzo[a]anthracene	ND	91.7	229	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	91.7	229	U
218-01-9	Chrysene	ND	91.7	229	U
117-84-0	Di-n-octyl phthalate	ND	91.7	229	U
205-99-2	Benzo[b]fluoranthene	ND	91.7	229	U
207-08-9	Benzo[k]fluoranthene	ND	91.7	229	U
50-32-8	Benzo[a]pyrene	ND	91.7	229	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	91.7	229	U
53-70-3	Dibenzo(a,h)anthracene	ND	91.7	229	U
191-24-2	Benzo[ghi]perylene	ND	91.7	229	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	70%	41-102
Phenol-d5	82%	47-113
Nitrobenzene-d5	71%	38-100
2-Fluorobiphenyl	77%	38-88
2,4,6-Tribromophenol	89%	40-129
Terphenyl-d14	99%	31-145

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B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12C**
Lab Sample ID: **1801587-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	42.80	Prep Method:	EPA 3550B GCMS	File ID:	E15959.D
Prep Batch:	B8J1215	Sequence:	S8J1511	Analyzed:	10/15/18 18:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	77.8	195	U
108-95-2	Phenol	ND	77.8	195	U
111-44-4	bis(2-chloroethyl)ether	ND	77.8	195	U
95-57-8	2-Chlorophenol	ND	77.8	195	U
541-73-1	1,3-Dichlorobenzene	ND	77.8	195	U
106-46-7	1,4-Dichlorobenzene	ND	77.8	195	U
100-51-6	Benzyl alcohol	ND	77.8	195	U
95-50-1	1,2-Dichlorobenzene	ND	77.8	195	U
95-48-7	2-Methylphenol	ND	77.8	195	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	77.8	195	U
106-44-5	3 & 4-Methylphenol	ND	77.8	195	U
621-64-7	N-Nitroso-di-n-propylamine	ND	77.8	195	U
67-72-1	Hexachloroethane	ND	77.8	195	U
98-95-3	Nitrobenzene	ND	77.8	195	U
78-59-1	Isophorone	ND	77.8	195	U
88-75-5	2-Nitrophenol	ND	77.8	195	U
105-67-9	2,4-Dimethylphenol	ND	77.8	195	U
65-85-0	Benzoic acid	ND	194	390	U
111-91-1	bis(2-chloroethoxy)methane	ND	77.8	195	U
120-83-2	2,4-Dichlorophenol	ND	77.8	195	U
120-82-1	1,2,4-Trichlorobenzene	ND	77.8	195	U
91-20-3	Naphthalene	ND	77.8	195	U
106-47-8	4-Chloroaniline	ND	77.8	195	U
87-68-3	Hexachlorobutadiene	ND	77.8	195	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12C**
Lab Sample ID: **1801587-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	42.80	Prep Method:	EPA 3550B GCMS	File ID:	E15959.D
Prep Batch:	B8J1215	Sequence:	S8J1511	Analyzed:	10/15/18 18:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	77.8	195	U
91-57-6	2-Methylnaphthylene	ND	77.8	195	U
77-47-4	Hexachlorocyclopentadiene	ND	77.8	195	U
88-06-2	2,4,6-Trichlorophenol	ND	77.8	195	U
95-95-4	2,4,5-Trichlorophenol	ND	77.8	195	U
91-58-7	2-Chloronaphthalene	ND	77.8	195	U
88-74-4	2-Nitroaniline	ND	77.8	195	U
131-11-3	Dimethylphthalate	ND	77.8	195	U
208-96-8	Acenaphthylene	ND	77.8	195	U
99-09-2	3-Nitroaniline	ND	77.8	195	U
83-32-9	Acenaphthene	ND	77.8	195	U
51-28-5	2,4-Dinitrophenol	ND	77.8	390	U
100-02-7	4-Nitrophenol	ND	77.8	195	U
132-64-9	Dibenzofuran	ND	77.8	195	U
606-20-2	2,6-Dinitrotoluene	ND	77.8	195	U
121-14-2	2,4-Dinitrotoluene	ND	77.8	195	U
84-66-2	Diethyl phthalate	ND	77.8	195	U
7005-72-3	4-Chlorophenyl-phenylether	ND	77.8	195	U
86-73-7	Fluorene	ND	77.8	195	U
100-01-6	4-Nitroaniline	ND	77.8	195	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	77.8	195	U
86-30-6	N-Nitrosodiphenylamine	ND	77.8	195	U
101-55-3	4-Bromophenyl-phenylether	ND	77.8	195	U
118-74-1	Hexachlorobenzene	ND	77.8	195	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-12C**
Lab Sample ID: **1801587-03**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	42.80	Prep Method:	EPA 3550B GCMS	File ID:	E15959.D
Prep Batch:	B8J1215	Sequence:	S8J1511	Analyzed:	10/15/18 18:18
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	77.8	195	U
85-01-8	Phenanthrene	ND	77.8	195	U
120-12-7	Anthracene	ND	77.8	195	U
84-74-2	Di-n-butyl phthalate	ND	77.8	195	U
206-44-0	Fluoranthene	ND	77.8	195	U
129-00-0	Pyrene	ND	77.8	195	U
85-68-7	Butylbenzylphthalate	ND	77.8	195	U
91-94-1	3,3'-Dichlorobenzidine	ND	194	195	U
56-55-3	Benzo[a]anthracene	ND	77.8	195	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	77.8	195	U
218-01-9	Chrysene	ND	77.8	195	U
117-84-0	Di-n-octyl phthalate	ND	77.8	195	U
205-99-2	Benzo[b]fluoranthene	ND	77.8	195	U
207-08-9	Benzo[k]fluoranthene	ND	77.8	195	U
50-32-8	Benzo[a]pyrene	ND	77.8	195	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	77.8	195	U
53-70-3	Dibenzo(a,h)anthracene	ND	77.8	195	U
191-24-2	Benzo[ghi]perylene	ND	77.8	195	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	91%	41-102
Phenol-d5	98%	47-113
Nitrobenzene-d5	83%	38-100
2-Fluorobiphenyl	85%	38-88
2,4,6-Tribromophenol	92%	40-129
Terphenyl-d14	98%	31-145

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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6A**
Lab Sample ID: **1801587-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.30	Prep Method:	EPA 3550B GCMS	File ID:	E15995.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 19:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	94.3	236	U
108-95-2	Phenol	ND	94.3	236	U
111-44-4	bis(2-chloroethyl)ether	ND	94.3	236	U
95-57-8	2-Chlorophenol	ND	94.3	236	U
541-73-1	1,3-Dichlorobenzene	ND	94.3	236	U
106-46-7	1,4-Dichlorobenzene	ND	94.3	236	U
100-51-6	Benzyl alcohol	ND	94.3	236	U
95-50-1	1,2-Dichlorobenzene	ND	94.3	236	U
95-48-7	2-Methylphenol	ND	94.3	236	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	94.3	236	U
106-44-5	3 & 4-Methylphenol	ND	94.3	236	U
621-64-7	N-Nitroso-di-n-propylamine	ND	94.3	236	U
67-72-1	Hexachloroethane	ND	94.3	236	U
98-95-3	Nitrobenzene	ND	94.3	236	U
78-59-1	Isophorone	ND	94.3	236	U
88-75-5	2-Nitrophenol	ND	94.3	236	U
105-67-9	2,4-Dimethylphenol	ND	94.3	236	U
111-91-1	bis(2-chloroethoxy)methane	ND	94.3	236	U
120-83-2	2,4-Dichlorophenol	ND	94.3	236	U
120-82-1	1,2,4-Trichlorobenzene	ND	94.3	236	U
91-20-3	Naphthalene	ND	94.3	236	U
106-47-8	4-Chloroaniline	ND	94.3	236	U
87-68-3	Hexachlorobutadiene	ND	94.3	236	U
59-50-7	4-Chloro-3-methylphenol	ND	94.3	236	U

Accredited Analytical Resources, LLC.

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6A**
Lab Sample ID: **1801587-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.30	Prep Method:	EPA 3550B GCMS	File ID:	E15995.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 19:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	94.3	236	U
77-47-4	Hexachlorocyclopentadiene	ND	94.3	236	U
88-06-2	2,4,6-Trichlorophenol	ND	94.3	236	U
95-95-4	2,4,5-Trichlorophenol	ND	94.3	236	U
91-58-7	2-Chloronaphthalene	ND	94.3	236	U
88-74-4	2-Nitroaniline	ND	94.3	236	U
131-11-3	Dimethylphthalate	ND	94.3	236	U
208-96-8	Acenaphthylene	ND	94.3	236	U
99-09-2	3-Nitroaniline	ND	94.3	236	U
83-32-9	Acenaphthene	ND	94.3	236	U
51-28-5	2,4-Dinitrophenol	ND	94.3	473	U
100-02-7	4-Nitrophenol	ND	94.3	236	U
132-64-9	Dibenzofuran	ND	94.3	236	U
606-20-2	2,6-Dinitrotoluene	ND	94.3	236	U
121-14-2	2,4-Dinitrotoluene	ND	94.3	236	U
84-66-2	Diethyl phthalate	ND	94.3	236	U
7005-72-3	4-Chlorophenyl-phenylether	ND	94.3	236	U
86-73-7	Fluorene	ND	94.3	236	U
100-01-6	4-Nitroaniline	ND	94.3	236	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	94.3	236	U
86-30-6	N-Nitrosodiphenylamine	ND	94.3	236	U
101-55-3	4-Bromophenyl-phenylether	ND	94.3	236	U
118-74-1	Hexachlorobenzene	ND	94.3	236	U
87-86-5	Pentachlorophenol	ND	94.3	236	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6A**
Lab Sample ID: **1801587-04**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.30	Prep Method:	EPA 3550B GCMS	File ID:	E15995.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 19:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	94.3	236	U
120-12-7	Anthracene	ND	94.3	236	U
84-74-2	Di-n-butyl phthalate	ND	94.3	236	U
206-44-0	Fluoranthene	ND	94.3	236	U
129-00-0	Pyrene	ND	94.3	236	U
85-68-7	Butylbenzylphthalate	ND	94.3	236	U
91-94-1	3,3'-Dichlorobenzidine	ND	235	236	U
56-55-3	Benzo[a]anthracene	ND	94.3	236	U
117-81-7	bis(2-ethylhexyl)phthalate	132	94.3	236	J
218-01-9	Chrysene	ND	94.3	236	U
117-84-0	Di-n-octyl phthalate	ND	94.3	236	U
205-99-2	Benzo[b]fluoranthene	ND	94.3	236	U
207-08-9	Benzo[k]fluoranthene	ND	94.3	236	U
50-32-8	Benzo[a]pyrene	ND	94.3	236	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	94.3	236	U
53-70-3	Dibenzo(a,h)anthracene	ND	94.3	236	U
191-24-2	Benzo[ghi]perylene	ND	94.3	236	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	61%	41-102
Phenol-d5	74%	47-113
Nitrobenzene-d5	63%	38-100
2-Fluorobiphenyl	72%	38-88
2,4,6-Tribromophenol	79%	40-129
Terphenyl-d14	85%	31-145

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Carteret, New Jersey 07008
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6B**
Lab Sample ID: **1801587-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	33.30	Prep Method:	EPA 3550B GCMS	File ID:	E15987.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 13:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	100	250	U
108-95-2	Phenol	ND	100	250	U
111-44-4	bis(2-chloroethyl)ether	ND	100	250	U
95-57-8	2-Chlorophenol	ND	100	250	U
541-73-1	1,3-Dichlorobenzene	ND	100	250	U
106-46-7	1,4-Dichlorobenzene	ND	100	250	U
100-51-6	Benzyl alcohol	ND	100	250	U
95-50-1	1,2-Dichlorobenzene	ND	100	250	U
95-48-7	2-Methylphenol	ND	100	250	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	100	250	U
106-44-5	3 & 4-Methylphenol	ND	100	250	U
621-64-7	N-Nitroso-di-n-propylamine	ND	100	250	U
67-72-1	Hexachloroethane	ND	100	250	U
98-95-3	Nitrobenzene	ND	100	250	U
78-59-1	Isophorone	ND	100	250	U
88-75-5	2-Nitrophenol	ND	100	250	U
105-67-9	2,4-Dimethylphenol	ND	100	250	U
111-91-1	bis(2-chloroethoxy)methane	ND	100	250	U
120-83-2	2,4-Dichlorophenol	ND	100	250	U
120-82-1	1,2,4-Trichlorobenzene	ND	100	250	U
91-20-3	Naphthalene	ND	100	250	U
106-47-8	4-Chloroaniline	ND	100	250	U
87-68-3	Hexachlorobutadiene	ND	100	250	U
59-50-7	4-Chloro-3-methylphenol	ND	100	250	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6B**
Lab Sample ID: **1801587-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	33.30	Prep Method:	EPA 3550B GCMS	File ID:	E15987.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 13:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	100	250	U
77-47-4	Hexachlorocyclopentadiene	ND	100	250	U
88-06-2	2,4,6-Trichlorophenol	ND	100	250	U
95-95-4	2,4,5-Trichlorophenol	ND	100	250	U
91-58-7	2-Chloronaphthalene	ND	100	250	U
88-74-4	2-Nitroaniline	ND	100	250	U
131-11-3	Dimethylphthalate	ND	100	250	U
208-96-8	Acenaphthylene	ND	100	250	U
99-09-2	3-Nitroaniline	ND	100	250	U
83-32-9	Acenaphthene	ND	100	250	U
51-28-5	2,4-Dinitrophenol	ND	100	502	U
100-02-7	4-Nitrophenol	ND	100	250	U
132-64-9	Dibenzofuran	ND	100	250	U
606-20-2	2,6-Dinitrotoluene	ND	100	250	U
121-14-2	2,4-Dinitrotoluene	ND	100	250	U
84-66-2	Diethyl phthalate	ND	100	250	U
7005-72-3	4-Chlorophenyl-phenylether	ND	100	250	U
86-73-7	Fluorene	ND	100	250	U
100-01-6	4-Nitroaniline	ND	100	250	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	100	250	U
86-30-6	N-Nitrosodiphenylamine	ND	100	250	U
101-55-3	4-Bromophenyl-phenylether	ND	100	250	U
118-74-1	Hexachlorobenzene	ND	100	250	U
87-86-5	Pentachlorophenol	ND	100	250	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6B**
Lab Sample ID: **1801587-05**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	33.30	Prep Method:	EPA 3550B GCMS	File ID:	E15987.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 13:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	100	250	U
120-12-7	Anthracene	ND	100	250	U
84-74-2	Di-n-butyl phthalate	ND	100	250	U
206-44-0	Fluoranthene	ND	100	250	U
129-00-0	Pyrene	ND	100	250	U
85-68-7	Butylbenzylphthalate	ND	100	250	U
91-94-1	3,3'-Dichlorobenzidine	ND	249	250	U
56-55-3	Benzo[a]anthracene	ND	100	250	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	100	250	U
218-01-9	Chrysene	ND	100	250	U
117-84-0	Di-n-octyl phthalate	ND	100	250	U
205-99-2	Benzo[b]fluoranthene	ND	100	250	U
207-08-9	Benzo[k]fluoranthene	ND	100	250	U
50-32-8	Benzo[a]pyrene	ND	100	250	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	250	U
53-70-3	Dibenzo(a,h)anthracene	ND	100	250	U
191-24-2	Benzo[ghi]perylene	ND	100	250	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	71%	41-102
Phenol-d5	82%	47-113
Nitrobenzene-d5	72%	38-100
2-Fluorobiphenyl	72%	38-88
2,4,6-Tribromophenol	82%	40-129
Terphenyl-d14	89%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6C**
Lab Sample ID: **1801587-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.60	Prep Method:	EPA 3550B GCMS	File ID:	E15965.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 11:48
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	80.0	200	U
108-95-2	Phenol	ND	80.0	200	U
111-44-4	bis(2-chloroethyl)ether	ND	80.0	200	U
95-57-8	2-Chlorophenol	ND	80.0	200	U
541-73-1	1,3-Dichlorobenzene	ND	80.0	200	U
106-46-7	1,4-Dichlorobenzene	ND	80.0	200	U
100-51-6	Benzyl alcohol	ND	80.0	200	U
95-50-1	1,2-Dichlorobenzene	ND	80.0	200	U
95-48-7	2-Methylphenol	ND	80.0	200	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	80.0	200	U
106-44-5	3 & 4-Methylphenol	ND	80.0	200	U
621-64-7	N-Nitroso-di-n-propylamine	ND	80.0	200	U
67-72-1	Hexachloroethane	ND	80.0	200	U
98-95-3	Nitrobenzene	ND	80.0	200	U
78-59-1	Isophorone	ND	80.0	200	U
88-75-5	2-Nitrophenol	ND	80.0	200	U
105-67-9	2,4-Dimethylphenol	ND	80.0	200	U
111-91-1	bis(2-chloroethoxy)methane	ND	80.0	200	U
120-83-2	2,4-Dichlorophenol	ND	80.0	200	U
120-82-1	1,2,4-Trichlorobenzene	ND	80.0	200	U
91-20-3	Naphthalene	ND	80.0	200	U
106-47-8	4-Chloroaniline	ND	80.0	200	U
87-68-3	Hexachlorobutadiene	ND	80.0	200	U
59-50-7	4-Chloro-3-methylphenol	ND	80.0	200	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6C**
Lab Sample ID: **1801587-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.60	Prep Method:	EPA 3550B GCMS	File ID:	E15965.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 11:48
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	80.0	200	U
77-47-4	Hexachlorocyclopentadiene	ND	80.0	200	U
88-06-2	2,4,6-Trichlorophenol	ND	80.0	200	U
95-95-4	2,4,5-Trichlorophenol	ND	80.0	200	U
91-58-7	2-Chloronaphthalene	ND	80.0	200	U
88-74-4	2-Nitroaniline	ND	80.0	200	U
131-11-3	Dimethylphthalate	ND	80.0	200	U
208-96-8	Acenaphthylene	ND	80.0	200	U
99-09-2	3-Nitroaniline	ND	80.0	200	U
83-32-9	Acenaphthene	ND	80.0	200	U
51-28-5	2,4-Dinitrophenol	ND	80.0	401	U
100-02-7	4-Nitrophenol	ND	80.0	200	U
132-64-9	Dibenzofuran	ND	80.0	200	U
606-20-2	2,6-Dinitrotoluene	ND	80.0	200	U
121-14-2	2,4-Dinitrotoluene	ND	80.0	200	U
84-66-2	Diethyl phthalate	ND	80.0	200	U
7005-72-3	4-Chlorophenyl-phenylether	ND	80.0	200	U
86-73-7	Fluorene	ND	80.0	200	U
100-01-6	4-Nitroaniline	ND	80.0	200	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	80.0	200	U
86-30-6	N-Nitrosodiphenylamine	ND	80.0	200	U
101-55-3	4-Bromophenyl-phenylether	ND	80.0	200	U
118-74-1	Hexachlorobenzene	ND	80.0	200	U
87-86-5	Pentachlorophenol	ND	80.0	200	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-6C**
Lab Sample ID: **1801587-06**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 14:20	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.60	Prep Method:	EPA 3550B GCMS	File ID:	E15965.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 11:48
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	80.0	200	U
120-12-7	Anthracene	ND	80.0	200	U
84-74-2	Di-n-butyl phthalate	ND	80.0	200	U
206-44-0	Fluoranthene	ND	80.0	200	U
129-00-0	Pyrene	ND	80.0	200	U
85-68-7	Butylbenzylphthalate	ND	80.0	200	U
91-94-1	3,3'-Dichlorobenzidine	ND	200	200	U
56-55-3	Benzo[a]anthracene	ND	80.0	200	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	80.0	200	U
218-01-9	Chrysene	ND	80.0	200	U
117-84-0	Di-n-octyl phthalate	ND	80.0	200	U
205-99-2	Benzo[b]fluoranthene	ND	80.0	200	U
207-08-9	Benzo[k]fluoranthene	ND	80.0	200	U
50-32-8	Benzo[a]pyrene	ND	80.0	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	80.0	200	U
53-70-3	Dibenzo(a,h)anthracene	ND	80.0	200	U
191-24-2	Benzo[ghi]perylene	ND	80.0	200	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	75%	41-102
Phenol-d5	86%	47-113
Nitrobenzene-d5	76%	38-100
2-Fluorobiphenyl	77%	38-88
2,4,6-Tribromophenol	86%	40-129
Terphenyl-d14	91%	31-145

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5A**
Lab Sample ID: **1801587-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.20	Prep Method:	EPA 3550B GCMS	File ID:	E15992.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 17:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	80.8	202	U
108-95-2	Phenol	ND	80.8	202	U
111-44-4	bis(2-chloroethyl)ether	ND	80.8	202	U
95-57-8	2-Chlorophenol	ND	80.8	202	U
541-73-1	1,3-Dichlorobenzene	ND	80.8	202	U
106-46-7	1,4-Dichlorobenzene	ND	80.8	202	U
100-51-6	Benzyl alcohol	ND	80.8	202	U
95-50-1	1,2-Dichlorobenzene	ND	80.8	202	U
95-48-7	2-Methylphenol	ND	80.8	202	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	80.8	202	U
106-44-5	3 & 4-Methylphenol	ND	80.8	202	U
621-64-7	N-Nitroso-di-n-propylamine	ND	80.8	202	U
67-72-1	Hexachloroethane	ND	80.8	202	U
98-95-3	Nitrobenzene	ND	80.8	202	U
78-59-1	Isophorone	ND	80.8	202	U
88-75-5	2-Nitrophenol	ND	80.8	202	U
105-67-9	2,4-Dimethylphenol	ND	80.8	202	U
111-91-1	bis(2-chloroethoxy)methane	ND	80.8	202	U
120-83-2	2,4-Dichlorophenol	ND	80.8	202	U
120-82-1	1,2,4-Trichlorobenzene	ND	80.8	202	U
91-20-3	Naphthalene	ND	80.8	202	U
106-47-8	4-Chloroaniline	ND	80.8	202	U
87-68-3	Hexachlorobutadiene	ND	80.8	202	U
59-50-7	4-Chloro-3-methylphenol	ND	80.8	202	U

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5A**
Lab Sample ID: **1801587-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.20	Prep Method:	EPA 3550B GCMS	File ID:	E15992.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 17:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	80.8	202	U
77-47-4	Hexachlorocyclopentadiene	ND	80.8	202	U
88-06-2	2,4,6-Trichlorophenol	ND	80.8	202	U
95-95-4	2,4,5-Trichlorophenol	ND	80.8	202	U
91-58-7	2-Chloronaphthalene	ND	80.8	202	U
88-74-4	2-Nitroaniline	ND	80.8	202	U
131-11-3	Dimethylphthalate	ND	80.8	202	U
208-96-8	Acenaphthylene	ND	80.8	202	U
99-09-2	3-Nitroaniline	ND	80.8	202	U
83-32-9	Acenaphthene	ND	80.8	202	U
51-28-5	2,4-Dinitrophenol	ND	80.8	405	U
100-02-7	4-Nitrophenol	ND	80.8	202	U
132-64-9	Dibenzofuran	ND	80.8	202	U
606-20-2	2,6-Dinitrotoluene	ND	80.8	202	U
121-14-2	2,4-Dinitrotoluene	ND	80.8	202	U
84-66-2	Diethyl phthalate	ND	80.8	202	U
7005-72-3	4-Chlorophenyl-phenylether	ND	80.8	202	U
86-73-7	Fluorene	ND	80.8	202	U
100-01-6	4-Nitroaniline	ND	80.8	202	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	80.8	202	U
86-30-6	N-Nitrosodiphenylamine	ND	80.8	202	U
101-55-3	4-Bromophenyl-phenylether	ND	80.8	202	U
118-74-1	Hexachlorobenzene	ND	80.8	202	U
87-86-5	Pentachlorophenol	ND	80.8	202	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5A**
Lab Sample ID: **1801587-07**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.20	Prep Method:	EPA 3550B GCMS	File ID:	E15992.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 17:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	80.8	202	U
120-12-7	Anthracene	ND	80.8	202	U
84-74-2	Di-n-butyl phthalate	ND	80.8	202	U
206-44-0	Fluoranthene	ND	80.8	202	U
129-00-0	Pyrene	ND	80.8	202	U
85-68-7	Butylbenzylphthalate	ND	80.8	202	U
91-94-1	3,3'-Dichlorobenzidine	ND	201	202	U
56-55-3	Benzo[a]anthracene	ND	80.8	202	U
117-81-7	bis(2-ethylhexyl)phthalate	104	80.8	202	J
218-01-9	Chrysene	ND	80.8	202	U
117-84-0	Di-n-octyl phthalate	ND	80.8	202	U
205-99-2	Benzo[b]fluoranthene	ND	80.8	202	U
207-08-9	Benzo[k]fluoranthene	ND	80.8	202	U
50-32-8	Benzo[a]pyrene	ND	80.8	202	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	80.8	202	U
53-70-3	Dibenzo(a,h)anthracene	ND	80.8	202	U
191-24-2	Benzo[ghi]perylene	ND	80.8	202	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	53%	41-102
Phenol-d5	65%	47-113
Nitrobenzene-d5	56%	38-100
2-Fluorobiphenyl	67%	38-88
2,4,6-Tribromophenol	79%	40-129
Terphenyl-d14	87%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5B**
Lab Sample ID: **1801587-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	40.60	Prep Method:	EPA 3550B GCMS	File ID:	E15988.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 14:36
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	82.0	205	U
108-95-2	Phenol	ND	82.0	205	U
111-44-4	bis(2-chloroethyl)ether	ND	82.0	205	U
95-57-8	2-Chlorophenol	ND	82.0	205	U
541-73-1	1,3-Dichlorobenzene	ND	82.0	205	U
106-46-7	1,4-Dichlorobenzene	ND	82.0	205	U
100-51-6	Benzyl alcohol	ND	82.0	205	U
95-50-1	1,2-Dichlorobenzene	ND	82.0	205	U
95-48-7	2-Methylphenol	ND	82.0	205	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	82.0	205	U
106-44-5	3 & 4-Methylphenol	ND	82.0	205	U
621-64-7	N-Nitroso-di-n-propylamine	ND	82.0	205	U
67-72-1	Hexachloroethane	ND	82.0	205	U
98-95-3	Nitrobenzene	ND	82.0	205	U
78-59-1	Isophorone	ND	82.0	205	U
88-75-5	2-Nitrophenol	ND	82.0	205	U
105-67-9	2,4-Dimethylphenol	ND	82.0	205	U
111-91-1	bis(2-chloroethoxy)methane	ND	82.0	205	U
120-83-2	2,4-Dichlorophenol	ND	82.0	205	U
120-82-1	1,2,4-Trichlorobenzene	ND	82.0	205	U
91-20-3	Naphthalene	ND	82.0	205	U
106-47-8	4-Chloroaniline	ND	82.0	205	U
87-68-3	Hexachlorobutadiene	ND	82.0	205	U
59-50-7	4-Chloro-3-methylphenol	ND	82.0	205	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5B**
Lab Sample ID: **1801587-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	40.60	Prep Method:	EPA 3550B GCMS	File ID:	E15988.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 14:36
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	82.0	205	U
77-47-4	Hexachlorocyclopentadiene	ND	82.0	205	U
88-06-2	2,4,6-Trichlorophenol	ND	82.0	205	U
95-95-4	2,4,5-Trichlorophenol	ND	82.0	205	U
91-58-7	2-Chloronaphthalene	ND	82.0	205	U
88-74-4	2-Nitroaniline	ND	82.0	205	U
131-11-3	Dimethylphthalate	ND	82.0	205	U
208-96-8	Acenaphthylene	ND	82.0	205	U
99-09-2	3-Nitroaniline	ND	82.0	205	U
83-32-9	Acenaphthene	ND	82.0	205	U
51-28-5	2,4-Dinitrophenol	ND	82.0	411	U
100-02-7	4-Nitrophenol	ND	82.0	205	U
132-64-9	Dibenzofuran	ND	82.0	205	U
606-20-2	2,6-Dinitrotoluene	ND	82.0	205	U
121-14-2	2,4-Dinitrotoluene	ND	82.0	205	U
84-66-2	Diethyl phthalate	ND	82.0	205	U
7005-72-3	4-Chlorophenyl-phenylether	ND	82.0	205	U
86-73-7	Fluorene	ND	82.0	205	U
100-01-6	4-Nitroaniline	ND	82.0	205	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	82.0	205	U
86-30-6	N-Nitrosodiphenylamine	ND	82.0	205	U
101-55-3	4-Bromophenyl-phenylether	ND	82.0	205	U
118-74-1	Hexachlorobenzene	ND	82.0	205	U
87-86-5	Pentachlorophenol	ND	82.0	205	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5B**
Lab Sample ID: **1801587-08**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	40.60	Prep Method:	EPA 3550B GCMS	File ID:	E15988.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 14:36
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	82.0	205	U
120-12-7	Anthracene	ND	82.0	205	U
84-74-2	Di-n-butyl phthalate	ND	82.0	205	U
206-44-0	Fluoranthene	ND	82.0	205	U
129-00-0	Pyrene	ND	82.0	205	U
85-68-7	Butylbenzylphthalate	ND	82.0	205	U
91-94-1	3,3'-Dichlorobenzidine	ND	204	205	U
56-55-3	Benzo[a]anthracene	ND	82.0	205	U
117-81-7	bis(2-ethylhexyl)phthalate	157	82.0	205	J
218-01-9	Chrysene	ND	82.0	205	U
117-84-0	Di-n-octyl phthalate	ND	82.0	205	U
205-99-2	Benzo[b]fluoranthene	ND	82.0	205	U
207-08-9	Benzo[k]fluoranthene	ND	82.0	205	U
50-32-8	Benzo[a]pyrene	ND	82.0	205	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	82.0	205	U
53-70-3	Dibenzo(a,h)anthracene	ND	82.0	205	U
191-24-2	Benzo[ghi]perylene	ND	82.0	205	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	76%	41-102
Phenol-d5	88%	47-113
Nitrobenzene-d5	75%	38-100
2-Fluorobiphenyl	80%	38-88
2,4,6-Tribromophenol	84%	40-129
Terphenyl-d14	88%	31-145

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Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5C**
Lab Sample ID: **1801587-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	34.60	Prep Method:	EPA 3550B GCMS	File ID:	E15966.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 12:31
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	96.2	241	U
108-95-2	Phenol	ND	96.2	241	U
111-44-4	bis(2-chloroethyl)ether	ND	96.2	241	U
95-57-8	2-Chlorophenol	ND	96.2	241	U
541-73-1	1,3-Dichlorobenzene	ND	96.2	241	U
106-46-7	1,4-Dichlorobenzene	ND	96.2	241	U
100-51-6	Benzyl alcohol	ND	96.2	241	U
95-50-1	1,2-Dichlorobenzene	ND	96.2	241	U
95-48-7	2-Methylphenol	ND	96.2	241	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	96.2	241	U
106-44-5	3 & 4-Methylphenol	ND	96.2	241	U
621-64-7	N-Nitroso-di-n-propylamine	ND	96.2	241	U
67-72-1	Hexachloroethane	ND	96.2	241	U
98-95-3	Nitrobenzene	ND	96.2	241	U
78-59-1	Isophorone	ND	96.2	241	U
88-75-5	2-Nitrophenol	ND	96.2	241	U
105-67-9	2,4-Dimethylphenol	ND	96.2	241	U
111-91-1	bis(2-chloroethoxy)methane	ND	96.2	241	U
120-83-2	2,4-Dichlorophenol	ND	96.2	241	U
120-82-1	1,2,4-Trichlorobenzene	ND	96.2	241	U
91-20-3	Naphthalene	ND	96.2	241	U
106-47-8	4-Chloroaniline	ND	96.2	241	U
87-68-3	Hexachlorobutadiene	ND	96.2	241	U
59-50-7	4-Chloro-3-methylphenol	ND	96.2	241	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5C**
Lab Sample ID: **1801587-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	34.60	Prep Method:	EPA 3550B GCMS	File ID:	E15966.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 12:31
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	96.2	241	U
77-47-4	Hexachlorocyclopentadiene	ND	96.2	241	U
88-06-2	2,4,6-Trichlorophenol	ND	96.2	241	U
95-95-4	2,4,5-Trichlorophenol	ND	96.2	241	U
91-58-7	2-Chloronaphthalene	ND	96.2	241	U
88-74-4	2-Nitroaniline	ND	96.2	241	U
131-11-3	Dimethylphthalate	ND	96.2	241	U
208-96-8	Acenaphthylene	ND	96.2	241	U
99-09-2	3-Nitroaniline	ND	96.2	241	U
83-32-9	Acenaphthene	ND	96.2	241	U
51-28-5	2,4-Dinitrophenol	ND	96.2	483	U
100-02-7	4-Nitrophenol	ND	96.2	241	U
132-64-9	Dibenzofuran	ND	96.2	241	U
606-20-2	2,6-Dinitrotoluene	ND	96.2	241	U
121-14-2	2,4-Dinitrotoluene	ND	96.2	241	U
84-66-2	Diethyl phthalate	ND	96.2	241	U
7005-72-3	4-Chlorophenyl-phenylether	ND	96.2	241	U
86-73-7	Fluorene	ND	96.2	241	U
100-01-6	4-Nitroaniline	ND	96.2	241	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	96.2	241	U
86-30-6	N-Nitrosodiphenylamine	ND	96.2	241	U
101-55-3	4-Bromophenyl-phenylether	ND	96.2	241	U
118-74-1	Hexachlorobenzene	ND	96.2	241	U
87-86-5	Pentachlorophenol	ND	96.2	241	U

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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-5C**
Lab Sample ID: **1801587-09**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:10	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	34.60	Prep Method:	EPA 3550B GCMS	File ID:	E15966.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 12:31
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	96.2	241	U
120-12-7	Anthracene	ND	96.2	241	U
84-74-2	Di-n-butyl phthalate	ND	96.2	241	U
206-44-0	Fluoranthene	ND	96.2	241	U
129-00-0	Pyrene	ND	96.2	241	U
85-68-7	Butylbenzylphthalate	ND	96.2	241	U
91-94-1	3,3'-Dichlorobenzidine	ND	240	241	U
56-55-3	Benzo[a]anthracene	ND	96.2	241	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	96.2	241	U
218-01-9	Chrysene	ND	96.2	241	U
117-84-0	Di-n-octyl phthalate	ND	96.2	241	U
205-99-2	Benzo[b]fluoranthene	ND	96.2	241	U
207-08-9	Benzo[k]fluoranthene	ND	96.2	241	U
50-32-8	Benzo[a]pyrene	ND	96.2	241	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	96.2	241	U
53-70-3	Dibenzo(a,h)anthracene	ND	96.2	241	U
191-24-2	Benzo[ghi]perylene	ND	96.2	241	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	80%	41-102
Phenol-d5	94%	47-113
Nitrobenzene-d5	79%	38-100
2-Fluorobiphenyl	82%	38-88
2,4,6-Tribromophenol	91%	40-129
Terphenyl-d14	93%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10A**
Lab Sample ID: **1801587-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	75.70	Prep Method:	EPA 3550B GCMS	File ID:	E16008.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:07
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	44.0	110	U
108-95-2	Phenol	ND	44.0	110	U
111-44-4	bis(2-chloroethyl)ether	ND	44.0	110	U
95-57-8	2-Chlorophenol	ND	44.0	110	U
541-73-1	1,3-Dichlorobenzene	ND	44.0	110	U
106-46-7	1,4-Dichlorobenzene	ND	44.0	110	U
100-51-6	Benzyl alcohol	ND	44.0	110	U
95-50-1	1,2-Dichlorobenzene	ND	44.0	110	U
95-48-7	2-Methylphenol	ND	44.0	110	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	44.0	110	U
106-44-5	3 & 4-Methylphenol	ND	44.0	110	U
621-64-7	N-Nitroso-di-n-propylamine	ND	44.0	110	U
67-72-1	Hexachloroethane	ND	44.0	110	U
98-95-3	Nitrobenzene	ND	44.0	110	U
78-59-1	Isophorone	ND	44.0	110	U
88-75-5	2-Nitrophenol	ND	44.0	110	U
105-67-9	2,4-Dimethylphenol	ND	44.0	110	U
111-91-1	bis(2-chloroethoxy)methane	ND	44.0	110	U
120-83-2	2,4-Dichlorophenol	ND	44.0	110	U
120-82-1	1,2,4-Trichlorobenzene	ND	44.0	110	U
91-20-3	Naphthalene	ND	44.0	110	U
106-47-8	4-Chloroaniline	ND	44.0	110	U
87-68-3	Hexachlorobutadiene	ND	44.0	110	U
59-50-7	4-Chloro-3-methylphenol	ND	44.0	110	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10A**
Lab Sample ID: **1801587-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	75.70	Prep Method:	EPA 3550B GCMS	File ID:	E16008.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:07
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	44.0	110	U
77-47-4	Hexachlorocyclopentadiene	ND	44.0	110	U
88-06-2	2,4,6-Trichlorophenol	ND	44.0	110	U
95-95-4	2,4,5-Trichlorophenol	ND	44.0	110	U
91-58-7	2-Chloronaphthalene	ND	44.0	110	U
88-74-4	2-Nitroaniline	ND	44.0	110	U
131-11-3	Dimethylphthalate	ND	44.0	110	U
208-96-8	Acenaphthylene	ND	44.0	110	U
99-09-2	3-Nitroaniline	ND	44.0	110	U
83-32-9	Acenaphthene	ND	44.0	110	U
51-28-5	2,4-Dinitrophenol	ND	44.0	221	U
100-02-7	4-Nitrophenol	ND	44.0	110	U
132-64-9	Dibenzofuran	ND	44.0	110	U
606-20-2	2,6-Dinitrotoluene	ND	44.0	110	U
121-14-2	2,4-Dinitrotoluene	ND	44.0	110	U
84-66-2	Diethyl phthalate	ND	44.0	110	U
7005-72-3	4-Chlorophenyl-phenylether	ND	44.0	110	U
86-73-7	Fluorene	ND	44.0	110	U
100-01-6	4-Nitroaniline	ND	44.0	110	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	44.0	110	U
86-30-6	N-Nitrosodiphenylamine	ND	44.0	110	U
101-55-3	4-Bromophenyl-phenylether	ND	44.0	110	U
118-74-1	Hexachlorobenzene	ND	44.0	110	U
87-86-5	Pentachlorophenol	ND	44.0	110	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10A**
Lab Sample ID: **1801587-10**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	75.70	Prep Method:	EPA 3550B GCMS	File ID:	E16008.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:07
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	44.0	110	U
120-12-7	Anthracene	ND	44.0	110	U
84-74-2	Di-n-butyl phthalate	ND	44.0	110	U
206-44-0	Fluoranthene	ND	44.0	110	U
129-00-0	Pyrene	52.2	44.0	110	J
85-68-7	Butylbenzylphthalate	ND	44.0	110	U
91-94-1	3,3'-Dichlorobenzidine	ND	110	110	U
56-55-3	Benzo[a]anthracene	ND	44.0	110	U
117-81-7	bis(2-ethylhexyl)phthalate	162	44.0	110	
218-01-9	Chrysene	ND	44.0	110	U
117-84-0	Di-n-octyl phthalate	ND	44.0	110	U
205-99-2	Benzo[b]fluoranthene	ND	44.0	110	U
207-08-9	Benzo[k]fluoranthene	ND	44.0	110	U
50-32-8	Benzo[a]pyrene	ND	44.0	110	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	44.0	110	U
53-70-3	Dibenzo(a,h)anthracene	ND	44.0	110	U
191-24-2	Benzo[ghi]perylene	ND	44.0	110	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	71%	41-102
Phenol-d5	86%	47-113
Nitrobenzene-d5	73%	38-100
2-Fluorobiphenyl	81%	38-88
2,4,6-Tribromophenol	88%	40-129
Terphenyl-d14	98%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10B**
Lab Sample ID: **1801587-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	72.00	Prep Method:	EPA 3550B GCMS	File ID:	E16009.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	46.2	116	U
108-95-2	Phenol	ND	46.2	116	U
111-44-4	bis(2-chloroethyl)ether	ND	46.2	116	U
95-57-8	2-Chlorophenol	ND	46.2	116	U
541-73-1	1,3-Dichlorobenzene	ND	46.2	116	U
106-46-7	1,4-Dichlorobenzene	ND	46.2	116	U
100-51-6	Benzyl alcohol	ND	46.2	116	U
95-50-1	1,2-Dichlorobenzene	ND	46.2	116	U
95-48-7	2-Methylphenol	ND	46.2	116	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	46.2	116	U
106-44-5	3 & 4-Methylphenol	ND	46.2	116	U
621-64-7	N-Nitroso-di-n-propylamine	ND	46.2	116	U
67-72-1	Hexachloroethane	ND	46.2	116	U
98-95-3	Nitrobenzene	ND	46.2	116	U
78-59-1	Isophorone	ND	46.2	116	U
88-75-5	2-Nitrophenol	ND	46.2	116	U
105-67-9	2,4-Dimethylphenol	ND	46.2	116	U
111-91-1	bis(2-chloroethoxy)methane	ND	46.2	116	U
120-83-2	2,4-Dichlorophenol	ND	46.2	116	U
120-82-1	1,2,4-Trichlorobenzene	ND	46.2	116	U
91-20-3	Naphthalene	ND	46.2	116	U
106-47-8	4-Chloroaniline	ND	46.2	116	U
87-68-3	Hexachlorobutadiene	ND	46.2	116	U
59-50-7	4-Chloro-3-methylphenol	ND	46.2	116	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10B**
Lab Sample ID: **1801587-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	72.00	Prep Method:	EPA 3550B GCMS	File ID:	E16009.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	46.2	116	U
77-47-4	Hexachlorocyclopentadiene	ND	46.2	116	U
88-06-2	2,4,6-Trichlorophenol	ND	46.2	116	U
95-95-4	2,4,5-Trichlorophenol	ND	46.2	116	U
91-58-7	2-Chloronaphthalene	ND	46.2	116	U
88-74-4	2-Nitroaniline	ND	46.2	116	U
131-11-3	Dimethylphthalate	ND	46.2	116	U
208-96-8	Acenaphthylene	ND	46.2	116	U
99-09-2	3-Nitroaniline	ND	46.2	116	U
83-32-9	Acenaphthene	ND	46.2	116	U
51-28-5	2,4-Dinitrophenol	ND	46.2	232	U
100-02-7	4-Nitrophenol	ND	46.2	116	U
132-64-9	Dibenzofuran	ND	46.2	116	U
606-20-2	2,6-Dinitrotoluene	ND	46.2	116	U
121-14-2	2,4-Dinitrotoluene	ND	46.2	116	U
84-66-2	Diethyl phthalate	ND	46.2	116	U
7005-72-3	4-Chlorophenyl-phenylether	ND	46.2	116	U
86-73-7	Fluorene	ND	46.2	116	U
100-01-6	4-Nitroaniline	ND	46.2	116	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	46.2	116	U
86-30-6	N-Nitrosodiphenylamine	ND	46.2	116	U
101-55-3	4-Bromophenyl-phenylether	ND	46.2	116	U
118-74-1	Hexachlorobenzene	ND	46.2	116	U
87-86-5	Pentachlorophenol	ND	46.2	116	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10B**
Lab Sample ID: **1801587-11**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	72.00	Prep Method:	EPA 3550B GCMS	File ID:	E16009.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 15:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	46.2	116	U
120-12-7	Anthracene	ND	46.2	116	U
84-74-2	Di-n-butyl phthalate	ND	46.2	116	U
206-44-0	Fluoranthene	ND	46.2	116	U
129-00-0	Pyrene	ND	46.2	116	U
85-68-7	Butylbenzylphthalate	ND	46.2	116	U
91-94-1	3,3'-Dichlorobenzidine	ND	115	116	U
56-55-3	Benzo[a]anthracene	ND	46.2	116	U
117-81-7	bis(2-ethylhexyl)phthalate	113	46.2	116	J
218-01-9	Chrysene	ND	46.2	116	U
117-84-0	Di-n-octyl phthalate	ND	46.2	116	U
205-99-2	Benzo[b]fluoranthene	ND	46.2	116	U
207-08-9	Benzo[k]fluoranthene	ND	46.2	116	U
50-32-8	Benzo[a]pyrene	ND	46.2	116	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	46.2	116	U
53-70-3	Dibenzo(a,h)anthracene	ND	46.2	116	U
191-24-2	Benzo[ghi]perylene	ND	46.2	116	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	74%	41-102
Phenol-d5	86%	47-113
Nitrobenzene-d5	76%	38-100
2-Fluorobiphenyl	81%	38-88
2,4,6-Tribromophenol	86%	40-129
Terphenyl-d14	101%	31-145

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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10C**
Lab Sample ID: **1801587-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	77.70	Prep Method:	EPA 3550B GCMS	File ID:	E16010.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 16:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	42.9	107	U
108-95-2	Phenol	ND	42.9	107	U
111-44-4	bis(2-chloroethyl)ether	ND	42.9	107	U
95-57-8	2-Chlorophenol	ND	42.9	107	U
541-73-1	1,3-Dichlorobenzene	ND	42.9	107	U
106-46-7	1,4-Dichlorobenzene	ND	42.9	107	U
100-51-6	Benzyl alcohol	ND	42.9	107	U
95-50-1	1,2-Dichlorobenzene	ND	42.9	107	U
95-48-7	2-Methylphenol	ND	42.9	107	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	42.9	107	U
106-44-5	3 & 4-Methylphenol	ND	42.9	107	U
621-64-7	N-Nitroso-di-n-propylamine	ND	42.9	107	U
67-72-1	Hexachloroethane	ND	42.9	107	U
98-95-3	Nitrobenzene	ND	42.9	107	U
78-59-1	Isophorone	ND	42.9	107	U
88-75-5	2-Nitrophenol	ND	42.9	107	U
105-67-9	2,4-Dimethylphenol	ND	42.9	107	U
111-91-1	bis(2-chloroethoxy)methane	ND	42.9	107	U
120-83-2	2,4-Dichlorophenol	ND	42.9	107	U
120-82-1	1,2,4-Trichlorobenzene	ND	42.9	107	U
91-20-3	Naphthalene	ND	42.9	107	U
106-47-8	4-Chloroaniline	ND	42.9	107	U
87-68-3	Hexachlorobutadiene	ND	42.9	107	U
59-50-7	4-Chloro-3-methylphenol	ND	42.9	107	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10C**
Lab Sample ID: **1801587-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	77.70	Prep Method:	EPA 3550B GCMS	File ID:	E16010.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 16:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	42.9	107	U
77-47-4	Hexachlorocyclopentadiene	ND	42.9	107	U
88-06-2	2,4,6-Trichlorophenol	ND	42.9	107	U
95-95-4	2,4,5-Trichlorophenol	ND	42.9	107	U
91-58-7	2-Chloronaphthalene	ND	42.9	107	U
88-74-4	2-Nitroaniline	ND	42.9	107	U
131-11-3	Dimethylphthalate	ND	42.9	107	U
208-96-8	Acenaphthylene	ND	42.9	107	U
99-09-2	3-Nitroaniline	ND	42.9	107	U
83-32-9	Acenaphthene	ND	42.9	107	U
51-28-5	2,4-Dinitrophenol	ND	42.9	215	U
100-02-7	4-Nitrophenol	ND	42.9	107	U
132-64-9	Dibenzofuran	ND	42.9	107	U
606-20-2	2,6-Dinitrotoluene	ND	42.9	107	U
121-14-2	2,4-Dinitrotoluene	ND	42.9	107	U
84-66-2	Diethyl phthalate	ND	42.9	107	U
7005-72-3	4-Chlorophenyl-phenylether	ND	42.9	107	U
86-73-7	Fluorene	ND	42.9	107	U
100-01-6	4-Nitroaniline	ND	42.9	107	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	42.9	107	U
86-30-6	N-Nitrosodiphenylamine	ND	42.9	107	U
101-55-3	4-Bromophenyl-phenylether	ND	42.9	107	U
118-74-1	Hexachlorobenzene	ND	42.9	107	U
87-86-5	Pentachlorophenol	ND	42.9	107	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-10C**
Lab Sample ID: **1801587-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 11:15	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	77.70	Prep Method:	EPA 3550B GCMS	File ID:	E16010.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 16:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	61.2	42.9	107	J
120-12-7	Anthracene	ND	42.9	107	U
84-74-2	Di-n-butyl phthalate	ND	42.9	107	U
206-44-0	Fluoranthene	171	42.9	107	
129-00-0	Pyrene	204	42.9	107	
85-68-7	Butylbenzylphthalate	ND	42.9	107	U
91-94-1	3,3'-Dichlorobenzidine	ND	107	107	U
56-55-3	Benzo[a]anthracene	88.6	42.9	107	J
117-81-7	bis(2-ethylhexyl)phthalate	294	42.9	107	
218-01-9	Chrysene	85.3	42.9	107	J
117-84-0	Di-n-octyl phthalate	ND	42.9	107	U
205-99-2	Benzo[b]fluoranthene	136	42.9	107	
207-08-9	Benzo[k]fluoranthene	47.1	42.9	107	J
50-32-8	Benzo[a]pyrene	68.0	42.9	107	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	42.9	107	U
53-70-3	Dibenzo(a,h)anthracene	ND	42.9	107	U
191-24-2	Benzo[ghi]perylene	ND	42.9	107	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	77%	41-102
Phenol-d5	88%	47-113
Nitrobenzene-d5	79%	38-100
2-Fluorobiphenyl	83%	38-88
2,4,6-Tribromophenol	87%	40-129
Terphenyl-d14	101%	31-145

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Phone: 732-969-6112
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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3A**
Lab Sample ID: **1801587-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.90	Prep Method:	EPA 3550B GCMS	File ID:	E16004.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 12:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	90.2	226	U
108-95-2	Phenol	ND	90.2	226	U
111-44-4	bis(2-chloroethyl)ether	ND	90.2	226	U
95-57-8	2-Chlorophenol	ND	90.2	226	U
541-73-1	1,3-Dichlorobenzene	ND	90.2	226	U
106-46-7	1,4-Dichlorobenzene	ND	90.2	226	U
100-51-6	Benzyl alcohol	ND	90.2	226	U
95-50-1	1,2-Dichlorobenzene	ND	90.2	226	U
95-48-7	2-Methylphenol	ND	90.2	226	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	90.2	226	U
106-44-5	3 & 4-Methylphenol	ND	90.2	226	U
621-64-7	N-Nitroso-di-n-propylamine	ND	90.2	226	U
67-72-1	Hexachloroethane	ND	90.2	226	U
98-95-3	Nitrobenzene	ND	90.2	226	U
78-59-1	Isophorone	ND	90.2	226	U
88-75-5	2-Nitrophenol	ND	90.2	226	U
105-67-9	2,4-Dimethylphenol	ND	90.2	226	U
111-91-1	bis(2-chloroethoxy)methane	ND	90.2	226	U
120-83-2	2,4-Dichlorophenol	ND	90.2	226	U
120-82-1	1,2,4-Trichlorobenzene	ND	90.2	226	U
91-20-3	Naphthalene	ND	90.2	226	U
106-47-8	4-Chloroaniline	ND	90.2	226	U
87-68-3	Hexachlorobutadiene	ND	90.2	226	U
59-50-7	4-Chloro-3-methylphenol	ND	90.2	226	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3A**
Lab Sample ID: **1801587-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.90	Prep Method:	EPA 3550B GCMS	File ID:	E16004.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 12:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	90.2	226	U
77-47-4	Hexachlorocyclopentadiene	ND	90.2	226	U
88-06-2	2,4,6-Trichlorophenol	ND	90.2	226	U
95-95-4	2,4,5-Trichlorophenol	ND	90.2	226	U
91-58-7	2-Chloronaphthalene	ND	90.2	226	U
88-74-4	2-Nitroaniline	ND	90.2	226	U
131-11-3	Dimethylphthalate	ND	90.2	226	U
208-96-8	Acenaphthylene	ND	90.2	226	U
99-09-2	3-Nitroaniline	ND	90.2	226	U
83-32-9	Acenaphthene	ND	90.2	226	U
51-28-5	2,4-Dinitrophenol	ND	90.2	453	U
100-02-7	4-Nitrophenol	ND	90.2	226	U
132-64-9	Dibenzofuran	ND	90.2	226	U
606-20-2	2,6-Dinitrotoluene	ND	90.2	226	U
121-14-2	2,4-Dinitrotoluene	ND	90.2	226	U
84-66-2	Diethyl phthalate	ND	90.2	226	U
7005-72-3	4-Chlorophenyl-phenylether	ND	90.2	226	U
86-73-7	Fluorene	ND	90.2	226	U
100-01-6	4-Nitroaniline	ND	90.2	226	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	90.2	226	U
86-30-6	N-Nitrosodiphenylamine	ND	90.2	226	U
101-55-3	4-Bromophenyl-phenylether	ND	90.2	226	U
118-74-1	Hexachlorobenzene	ND	90.2	226	U
87-86-5	Pentachlorophenol	ND	90.2	226	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3A**
Lab Sample ID: **1801587-13**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	36.90	Prep Method:	EPA 3550B GCMS	File ID:	E16004.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 12:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	90.2	226	U
120-12-7	Anthracene	ND	90.2	226	U
84-74-2	Di-n-butyl phthalate	ND	90.2	226	U
206-44-0	Fluoranthene	130	90.2	226	J
129-00-0	Pyrene	166	90.2	226	J
85-68-7	Butylbenzylphthalate	ND	90.2	226	U
91-94-1	3,3'-Dichlorobenzidine	ND	225	226	U
56-55-3	Benzo[a]anthracene	ND	90.2	226	U
117-81-7	bis(2-ethylhexyl)phthalate	274	90.2	226	
218-01-9	Chrysene	ND	90.2	226	U
117-84-0	Di-n-octyl phthalate	ND	90.2	226	U
205-99-2	Benzo[b]fluoranthene	108	90.2	226	J
207-08-9	Benzo[k]fluoranthene	ND	90.2	226	U
50-32-8	Benzo[a]pyrene	ND	90.2	226	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	90.2	226	U
53-70-3	Dibenzo(a,h)anthracene	ND	90.2	226	U
191-24-2	Benzo[ghi]perylene	ND	90.2	226	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	63%	41-102
Phenol-d5	75%	47-113
Nitrobenzene-d5	68%	38-100
2-Fluorobiphenyl	76%	38-88
2,4,6-Tribromophenol	82%	40-129
Terphenyl-d14	95%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3B**
Lab Sample ID: **1801587-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.30	Prep Method:	EPA 3550B GCMS	File ID:	E15990.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 16:04
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	80.6	202	U
108-95-2	Phenol	ND	80.6	202	U
111-44-4	bis(2-chloroethyl)ether	ND	80.6	202	U
95-57-8	2-Chlorophenol	ND	80.6	202	U
541-73-1	1,3-Dichlorobenzene	ND	80.6	202	U
106-46-7	1,4-Dichlorobenzene	ND	80.6	202	U
100-51-6	Benzyl alcohol	ND	80.6	202	U
95-50-1	1,2-Dichlorobenzene	ND	80.6	202	U
95-48-7	2-Methylphenol	ND	80.6	202	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	80.6	202	U
106-44-5	3 & 4-Methylphenol	ND	80.6	202	U
621-64-7	N-Nitroso-di-n-propylamine	ND	80.6	202	U
67-72-1	Hexachloroethane	ND	80.6	202	U
98-95-3	Nitrobenzene	ND	80.6	202	U
78-59-1	Isophorone	ND	80.6	202	U
88-75-5	2-Nitrophenol	ND	80.6	202	U
105-67-9	2,4-Dimethylphenol	ND	80.6	202	U
111-91-1	bis(2-chloroethoxy)methane	ND	80.6	202	U
120-83-2	2,4-Dichlorophenol	ND	80.6	202	U
120-82-1	1,2,4-Trichlorobenzene	ND	80.6	202	U
91-20-3	Naphthalene	ND	80.6	202	U
106-47-8	4-Chloroaniline	ND	80.6	202	U
87-68-3	Hexachlorobutadiene	ND	80.6	202	U
59-50-7	4-Chloro-3-methylphenol	ND	80.6	202	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3B**
Lab Sample ID: **1801587-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.30	Prep Method:	EPA 3550B GCMS	File ID:	E15990.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 16:04
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	80.6	202	U
77-47-4	Hexachlorocyclopentadiene	ND	80.6	202	U
88-06-2	2,4,6-Trichlorophenol	ND	80.6	202	U
95-95-4	2,4,5-Trichlorophenol	ND	80.6	202	U
91-58-7	2-Chloronaphthalene	ND	80.6	202	U
88-74-4	2-Nitroaniline	ND	80.6	202	U
131-11-3	Dimethylphthalate	ND	80.6	202	U
208-96-8	Acenaphthylene	ND	80.6	202	U
99-09-2	3-Nitroaniline	ND	80.6	202	U
83-32-9	Acenaphthene	ND	80.6	202	U
51-28-5	2,4-Dinitrophenol	ND	80.6	404	U
100-02-7	4-Nitrophenol	ND	80.6	202	U
132-64-9	Dibenzofuran	ND	80.6	202	U
606-20-2	2,6-Dinitrotoluene	ND	80.6	202	U
121-14-2	2,4-Dinitrotoluene	ND	80.6	202	U
84-66-2	Diethyl phthalate	ND	80.6	202	U
7005-72-3	4-Chlorophenyl-phenylether	ND	80.6	202	U
86-73-7	Fluorene	ND	80.6	202	U
100-01-6	4-Nitroaniline	ND	80.6	202	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	80.6	202	U
86-30-6	N-Nitrosodiphenylamine	ND	80.6	202	U
101-55-3	4-Bromophenyl-phenylether	ND	80.6	202	U
118-74-1	Hexachlorobenzene	ND	80.6	202	U
87-86-5	Pentachlorophenol	ND	80.6	202	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3B**
Lab Sample ID: **1801587-14**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.30	Prep Method:	EPA 3550B GCMS	File ID:	E15990.D
Prep Batch:	B8J1215	Sequence:	S8J1703	Analyzed:	10/17/18 16:04
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	80.6	202	U
120-12-7	Anthracene	ND	80.6	202	U
84-74-2	Di-n-butyl phthalate	ND	80.6	202	U
206-44-0	Fluoranthene	ND	80.6	202	U
129-00-0	Pyrene	102	80.6	202	J
85-68-7	Butylbenzylphthalate	ND	80.6	202	U
91-94-1	3,3'-Dichlorobenzidine	ND	201	202	U
56-55-3	Benzo[a]anthracene	ND	80.6	202	U
117-81-7	bis(2-ethylhexyl)phthalate	134	80.6	202	J
218-01-9	Chrysene	ND	80.6	202	U
117-84-0	Di-n-octyl phthalate	ND	80.6	202	U
205-99-2	Benzo[b]fluoranthene	ND	80.6	202	U
207-08-9	Benzo[k]fluoranthene	ND	80.6	202	U
50-32-8	Benzo[a]pyrene	ND	80.6	202	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	80.6	202	U
53-70-3	Dibenzo(a,h)anthracene	ND	80.6	202	U
191-24-2	Benzo[ghi]perylene	ND	80.6	202	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	54%	41-102
Phenol-d5	64%	47-113
Nitrobenzene-d5	55%	38-100
2-Fluorobiphenyl	60%	38-88
2,4,6-Tribromophenol	86%	40-129
Terphenyl-d14	86%	31-145

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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3C**
Lab Sample ID: **1801587-15**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	43.10	Prep Method:	EPA 3550B GCMS	File ID:	E15967.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	77.3	193	U
108-95-2	Phenol	ND	77.3	193	U
111-44-4	bis(2-chloroethyl)ether	ND	77.3	193	U
95-57-8	2-Chlorophenol	ND	77.3	193	U
541-73-1	1,3-Dichlorobenzene	ND	77.3	193	U
106-46-7	1,4-Dichlorobenzene	ND	77.3	193	U
100-51-6	Benzyl alcohol	ND	77.3	193	U
95-50-1	1,2-Dichlorobenzene	ND	77.3	193	U
95-48-7	2-Methylphenol	ND	77.3	193	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	77.3	193	U
106-44-5	3 & 4-Methylphenol	ND	77.3	193	U
621-64-7	N-Nitroso-di-n-propylamine	ND	77.3	193	U
67-72-1	Hexachloroethane	ND	77.3	193	U
98-95-3	Nitrobenzene	ND	77.3	193	U
78-59-1	Isophorone	ND	77.3	193	U
88-75-5	2-Nitrophenol	ND	77.3	193	U
105-67-9	2,4-Dimethylphenol	ND	77.3	193	U
111-91-1	bis(2-chloroethoxy)methane	ND	77.3	193	U
120-83-2	2,4-Dichlorophenol	ND	77.3	193	U
120-82-1	1,2,4-Trichlorobenzene	ND	77.3	193	U
91-20-3	Naphthalene	ND	77.3	193	U
106-47-8	4-Chloroaniline	ND	77.3	193	U
87-68-3	Hexachlorobutadiene	ND	77.3	193	U
59-50-7	4-Chloro-3-methylphenol	ND	77.3	193	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3C**
Lab Sample ID: **1801587-15**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	43.10	Prep Method:	EPA 3550B GCMS	File ID:	E15967.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	77.3	193	U
77-47-4	Hexachlorocyclopentadiene	ND	77.3	193	U
88-06-2	2,4,6-Trichlorophenol	ND	77.3	193	U
95-95-4	2,4,5-Trichlorophenol	ND	77.3	193	U
91-58-7	2-Chloronaphthalene	ND	77.3	193	U
88-74-4	2-Nitroaniline	ND	77.3	193	U
131-11-3	Dimethylphthalate	ND	77.3	193	U
208-96-8	Acenaphthylene	ND	77.3	193	U
99-09-2	3-Nitroaniline	ND	77.3	193	U
83-32-9	Acenaphthene	ND	77.3	193	U
51-28-5	2,4-Dinitrophenol	ND	77.3	387	U
100-02-7	4-Nitrophenol	ND	77.3	193	U
132-64-9	Dibenzofuran	ND	77.3	193	U
606-20-2	2,6-Dinitrotoluene	ND	77.3	193	U
121-14-2	2,4-Dinitrotoluene	ND	77.3	193	U
84-66-2	Diethyl phthalate	ND	77.3	193	U
7005-72-3	4-Chlorophenyl-phenylether	ND	77.3	193	U
86-73-7	Fluorene	ND	77.3	193	U
100-01-6	4-Nitroaniline	ND	77.3	193	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	77.3	193	U
86-30-6	N-Nitrosodiphenylamine	ND	77.3	193	U
101-55-3	4-Bromophenyl-phenylether	ND	77.3	193	U
118-74-1	Hexachlorobenzene	ND	77.3	193	U
87-86-5	Pentachlorophenol	ND	77.3	193	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-3C**
Lab Sample ID: **1801587-15**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:08	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	43.10	Prep Method:	EPA 3550B GCMS	File ID:	E15967.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:15
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	77.3	193	U
120-12-7	Anthracene	ND	77.3	193	U
84-74-2	Di-n-butyl phthalate	ND	77.3	193	U
206-44-0	Fluoranthene	ND	77.3	193	U
129-00-0	Pyrene	ND	77.3	193	U
85-68-7	Butylbenzylphthalate	ND	77.3	193	U
91-94-1	3,3'-Dichlorobenzidine	ND	193	193	U
56-55-3	Benzo[a]anthracene	ND	77.3	193	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	77.3	193	U
218-01-9	Chrysene	ND	77.3	193	U
117-84-0	Di-n-octyl phthalate	ND	77.3	193	U
205-99-2	Benzo[b]fluoranthene	ND	77.3	193	U
207-08-9	Benzo[k]fluoranthene	ND	77.3	193	U
50-32-8	Benzo[a]pyrene	ND	77.3	193	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	77.3	193	U
53-70-3	Dibenzo(a,h)anthracene	ND	77.3	193	U
191-24-2	Benzo[ghi]perylene	ND	77.3	193	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	78%	41-102
Phenol-d5	92%	47-113
Nitrobenzene-d5	75%	38-100
2-Fluorobiphenyl	75%	38-88
2,4,6-Tribromophenol	90%	40-129
Terphenyl-d14	96%	31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-FB02**
Lab Sample ID: **1801587-16**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 15:00	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18980.D
Prep Batch:	B8J1003	Sequence:	S8J1302	Analyzed:	10/13/18 16:03
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.510	2.55	U
108-95-2	Phenol	ND	0.510	2.55	U
111-44-4	bis(2-chloroethyl)ether	ND	0.510	2.55	U
95-57-8	2-Chlorophenol	ND	0.510	2.55	U
541-73-1	1,3-Dichlorobenzene	ND	0.510	2.55	U
106-46-7	1,4-Dichlorobenzene	ND	0.510	2.55	U
100-51-6	Benzyl alcohol	ND	0.510	2.55	U
95-50-1	1,2-Dichlorobenzene	ND	0.510	2.55	U
95-48-7	2-Methylphenol	ND	0.510	2.55	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.510	2.55	U
106-44-5	3 & 4-Methylphenol	ND	0.510	2.55	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.510	2.55	U
67-72-1	Hexachloroethane	ND	0.510	2.55	U
98-95-3	Nitrobenzene	ND	0.510	2.55	U
78-59-1	Isophorone	ND	0.510	2.55	U
88-75-5	2-Nitrophenol	ND	0.510	2.55	U
105-67-9	2,4-Dimethylphenol	ND	0.510	2.55	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.510	2.55	U
120-83-2	2,4-Dichlorophenol	ND	0.510	2.55	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.510	2.55	U
91-20-3	Naphthalene	ND	0.510	2.55	U
106-47-8	4-Chloroaniline	ND	0.510	2.55	U
87-68-3	Hexachlorobutadiene	ND	0.510	2.55	U
59-50-7	4-Chloro-3-methylphenol	ND	0.510	2.55	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-FB02**
Lab Sample ID: **1801587-16**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 15:00	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18980.D
Prep Batch:	B8J1003	Sequence:	S8J1302	Analyzed:	10/13/18 16:03
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.510	2.55	U
77-47-4	Hexachlorocyclopentadiene	ND	0.510	2.55	U
88-06-2	2,4,6-Trichlorophenol	ND	0.510	2.55	U
95-95-4	2,4,5-Trichlorophenol	ND	0.510	2.55	U
91-58-7	2-Chloronaphthalene	ND	0.510	2.55	U
88-74-4	2-Nitroaniline	ND	0.510	2.55	U
131-11-3	Dimethylphthalate	ND	0.510	2.55	U
208-96-8	Acenaphthylene	ND	0.510	2.55	U
99-09-2	3-Nitroaniline	ND	0.510	2.55	U
83-32-9	Acenaphthene	ND	0.510	2.55	U
51-28-5	2,4-Dinitrophenol	ND	1.02	5.10	U
100-02-7	4-Nitrophenol	ND	0.510	2.55	U
132-64-9	Dibenzofuran	ND	0.510	2.55	U
606-20-2	2,6-Dinitrotoluene	ND	0.510	2.55	U
121-14-2	2,4-Dinitrotoluene	ND	0.510	2.55	U
84-66-2	Diethyl phthalate	ND	0.510	2.55	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.510	2.55	U
86-73-7	Fluorene	ND	0.510	2.55	U
100-01-6	4-Nitroaniline	ND	0.510	2.55	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.510	2.55	U
86-30-6	N-Nitrosodiphenylamine	ND	0.510	2.55	U
101-55-3	4-Bromophenyl-phenylether	ND	0.510	2.55	U
118-74-1	Hexachlorobenzene	ND	0.510	2.55	U
87-86-5	Pentachlorophenol	ND	0.510	2.55	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-FB02**
Lab Sample ID: **1801587-16**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 15:00	Prep Date:	10/10/18 05:41	Matrix:	Aqueous
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	F18980.D
Prep Batch:	B8J1003	Sequence:	S8J1302	Analyzed:	10/13/18 16:03
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.102	2.55	U
120-12-7	Anthracene	ND	0.510	2.55	U
84-74-2	Di-n-butyl phthalate	ND	0.510	2.55	U
206-44-0	Fluoranthene	ND	0.510	2.55	U
129-00-0	Pyrene	ND	0.510	2.55	U
85-68-7	Butylbenzylphthalate	ND	0.510	2.55	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.510	2.55	U
56-55-3	Benzo[a]anthracene	ND	0.102	2.55	U
117-81-7	bis(2-ethylhexyl)phthalate	1.22	0.510	2.55	J
218-01-9	Chrysene	ND	0.102	2.55	U
117-84-0	Di-n-octyl phthalate	ND	0.510	2.55	U
205-99-2	Benzo[b]fluoranthene	ND	0.204	2.55	U
207-08-9	Benzo[k]fluoranthene	ND	0.510	2.55	U
50-32-8	Benzo[a]pyrene	ND	0.510	2.55	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.510	2.55	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.204	2.55	U
191-24-2	Benzo[ghi]perylene	ND	0.510	2.55	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	37%	10-94
Phenol-d5	24%	10-112
Nitrobenzene-d5	84%	22-116
2-Fluorobiphenyl	79%	23-109
2,4,6-Tribromophenol	92%	10-181
Terphenyl-d14	119%	17-133

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Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7A**
Lab Sample ID: **1801587-17**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.00	Prep Method:	EPA 3550B GCMS	File ID:	E15968.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	95.1	238	U
108-95-2	Phenol	ND	95.1	238	U
111-44-4	bis(2-chloroethyl)ether	ND	95.1	238	U
95-57-8	2-Chlorophenol	ND	95.1	238	U
541-73-1	1,3-Dichlorobenzene	ND	95.1	238	U
106-46-7	1,4-Dichlorobenzene	ND	95.1	238	U
100-51-6	Benzyl alcohol	ND	95.1	238	U
95-50-1	1,2-Dichlorobenzene	ND	95.1	238	U
95-48-7	2-Methylphenol	ND	95.1	238	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	95.1	238	U
106-44-5	3 & 4-Methylphenol	ND	95.1	238	U
621-64-7	N-Nitroso-di-n-propylamine	ND	95.1	238	U
67-72-1	Hexachloroethane	ND	95.1	238	U
98-95-3	Nitrobenzene	ND	95.1	238	U
78-59-1	Isophorone	ND	95.1	238	U
88-75-5	2-Nitrophenol	ND	95.1	238	U
105-67-9	2,4-Dimethylphenol	ND	95.1	238	U
111-91-1	bis(2-chloroethoxy)methane	ND	95.1	238	U
120-83-2	2,4-Dichlorophenol	ND	95.1	238	U
120-82-1	1,2,4-Trichlorobenzene	ND	95.1	238	U
91-20-3	Naphthalene	ND	95.1	238	U
106-47-8	4-Chloroaniline	ND	95.1	238	U
87-68-3	Hexachlorobutadiene	ND	95.1	238	U
59-50-7	4-Chloro-3-methylphenol	ND	95.1	238	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7A**
Lab Sample ID: **1801587-17**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.00	Prep Method:	EPA 3550B GCMS	File ID:	E15968.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	95.1	238	U
77-47-4	Hexachlorocyclopentadiene	ND	95.1	238	U
88-06-2	2,4,6-Trichlorophenol	ND	95.1	238	U
95-95-4	2,4,5-Trichlorophenol	ND	95.1	238	U
91-58-7	2-Chloronaphthalene	ND	95.1	238	U
88-74-4	2-Nitroaniline	ND	95.1	238	U
131-11-3	Dimethylphthalate	ND	95.1	238	U
208-96-8	Acenaphthylene	ND	95.1	238	U
99-09-2	3-Nitroaniline	ND	95.1	238	U
83-32-9	Acenaphthene	ND	95.1	238	U
51-28-5	2,4-Dinitrophenol	ND	95.1	477	U
100-02-7	4-Nitrophenol	ND	95.1	238	U
132-64-9	Dibenzofuran	ND	95.1	238	U
606-20-2	2,6-Dinitrotoluene	ND	95.1	238	U
121-14-2	2,4-Dinitrotoluene	ND	95.1	238	U
84-66-2	Diethyl phthalate	ND	95.1	238	U
7005-72-3	4-Chlorophenyl-phenylether	ND	95.1	238	U
86-73-7	Fluorene	ND	95.1	238	U
100-01-6	4-Nitroaniline	ND	95.1	238	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	95.1	238	U
86-30-6	N-Nitrosodiphenylamine	ND	95.1	238	U
101-55-3	4-Bromophenyl-phenylether	ND	95.1	238	U
118-74-1	Hexachlorobenzene	ND	95.1	238	U
87-86-5	Pentachlorophenol	ND	95.1	238	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7A**
Lab Sample ID: **1801587-17**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	35.00	Prep Method:	EPA 3550B GCMS	File ID:	E15968.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 13:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	95.1	238	U
120-12-7	Anthracene	ND	95.1	238	U
84-74-2	Di-n-butyl phthalate	ND	95.1	238	U
206-44-0	Fluoranthene	ND	95.1	238	U
129-00-0	Pyrene	ND	95.1	238	U
85-68-7	Butylbenzylphthalate	ND	95.1	238	U
91-94-1	3,3'-Dichlorobenzidine	ND	237	238	U
56-55-3	Benzo[a]anthracene	ND	95.1	238	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	95.1	238	U
218-01-9	Chrysene	ND	95.1	238	U
117-84-0	Di-n-octyl phthalate	ND	95.1	238	U
205-99-2	Benzo[b]fluoranthene	ND	95.1	238	U
207-08-9	Benzo[k]fluoranthene	ND	95.1	238	U
50-32-8	Benzo[a]pyrene	ND	95.1	238	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	95.1	238	U
53-70-3	Dibenzo(a,h)anthracene	ND	95.1	238	U
191-24-2	Benzo[ghi]perylene	ND	95.1	238	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	79%	41-102
Phenol-d5	93%	47-113
Nitrobenzene-d5	74%	38-100
2-Fluorobiphenyl	76%	38-88
2,4,6-Tribromophenol	95%	40-129
Terphenyl-d14	94%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7B**
Lab Sample ID: **1801587-18**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E15969.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 14:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	87.2	218	U
108-95-2	Phenol	ND	87.2	218	U
111-44-4	bis(2-chloroethyl)ether	ND	87.2	218	U
95-57-8	2-Chlorophenol	ND	87.2	218	U
541-73-1	1,3-Dichlorobenzene	ND	87.2	218	U
106-46-7	1,4-Dichlorobenzene	ND	87.2	218	U
100-51-6	Benzyl alcohol	ND	87.2	218	U
95-50-1	1,2-Dichlorobenzene	ND	87.2	218	U
95-48-7	2-Methylphenol	ND	87.2	218	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	87.2	218	U
106-44-5	3 & 4-Methylphenol	ND	87.2	218	U
621-64-7	N-Nitroso-di-n-propylamine	ND	87.2	218	U
67-72-1	Hexachloroethane	ND	87.2	218	U
98-95-3	Nitrobenzene	ND	87.2	218	U
78-59-1	Isophorone	ND	87.2	218	U
88-75-5	2-Nitrophenol	ND	87.2	218	U
105-67-9	2,4-Dimethylphenol	ND	87.2	218	U
111-91-1	bis(2-chloroethoxy)methane	ND	87.2	218	U
120-83-2	2,4-Dichlorophenol	ND	87.2	218	U
120-82-1	1,2,4-Trichlorobenzene	ND	87.2	218	U
91-20-3	Naphthalene	ND	87.2	218	U
106-47-8	4-Chloroaniline	ND	87.2	218	U
87-68-3	Hexachlorobutadiene	ND	87.2	218	U
59-50-7	4-Chloro-3-methylphenol	ND	87.2	218	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7B**
Lab Sample ID: **1801587-18**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E15969.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 14:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	87.2	218	U
77-47-4	Hexachlorocyclopentadiene	ND	87.2	218	U
88-06-2	2,4,6-Trichlorophenol	ND	87.2	218	U
95-95-4	2,4,5-Trichlorophenol	ND	87.2	218	U
91-58-7	2-Chloronaphthalene	ND	87.2	218	U
88-74-4	2-Nitroaniline	ND	87.2	218	U
131-11-3	Dimethylphthalate	ND	87.2	218	U
208-96-8	Acenaphthylene	ND	87.2	218	U
99-09-2	3-Nitroaniline	ND	87.2	218	U
83-32-9	Acenaphthene	ND	87.2	218	U
51-28-5	2,4-Dinitrophenol	ND	87.2	437	U
100-02-7	4-Nitrophenol	ND	87.2	218	U
132-64-9	Dibenzofuran	ND	87.2	218	U
606-20-2	2,6-Dinitrotoluene	ND	87.2	218	U
121-14-2	2,4-Dinitrotoluene	ND	87.2	218	U
84-66-2	Diethyl phthalate	ND	87.2	218	U
7005-72-3	4-Chlorophenyl-phenylether	ND	87.2	218	U
86-73-7	Fluorene	ND	87.2	218	U
100-01-6	4-Nitroaniline	ND	87.2	218	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	87.2	218	U
86-30-6	N-Nitrosodiphenylamine	ND	87.2	218	U
101-55-3	4-Bromophenyl-phenylether	ND	87.2	218	U
118-74-1	Hexachlorobenzene	ND	87.2	218	U
87-86-5	Pentachlorophenol	ND	87.2	218	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7B**
Lab Sample ID: **1801587-18**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E15969.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 14:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	87.2	218	U
120-12-7	Anthracene	ND	87.2	218	U
84-74-2	Di-n-butyl phthalate	ND	87.2	218	U
206-44-0	Fluoranthene	ND	87.2	218	U
129-00-0	Pyrene	ND	87.2	218	U
85-68-7	Butylbenzylphthalate	ND	87.2	218	U
91-94-1	3,3'-Dichlorobenzidine	ND	217	218	U
56-55-3	Benzo[a]anthracene	ND	87.2	218	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	87.2	218	U
218-01-9	Chrysene	ND	87.2	218	U
117-84-0	Di-n-octyl phthalate	ND	87.2	218	U
205-99-2	Benzo[b]fluoranthene	ND	87.2	218	U
207-08-9	Benzo[k]fluoranthene	ND	87.2	218	U
50-32-8	Benzo[a]pyrene	ND	87.2	218	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	87.2	218	U
53-70-3	Dibenzo(a,h)anthracene	ND	87.2	218	U
191-24-2	Benzo[ghi]perylene	ND	87.2	218	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	71%	41-102
Phenol-d5	83%	47-113
Nitrobenzene-d5	70%	38-100
2-Fluorobiphenyl	73%	38-88
2,4,6-Tribromophenol	92%	40-129
Terphenyl-d14	98%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7C**
Lab Sample ID: **1801587-19**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.80	Prep Method:	EPA 3550B GCMS	File ID:	E15970.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 15:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	85.8	215	U
108-95-2	Phenol	ND	85.8	215	U
111-44-4	bis(2-chloroethyl)ether	ND	85.8	215	U
95-57-8	2-Chlorophenol	ND	85.8	215	U
541-73-1	1,3-Dichlorobenzene	ND	85.8	215	U
106-46-7	1,4-Dichlorobenzene	ND	85.8	215	U
100-51-6	Benzyl alcohol	ND	85.8	215	U
95-50-1	1,2-Dichlorobenzene	ND	85.8	215	U
95-48-7	2-Methylphenol	ND	85.8	215	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	85.8	215	U
106-44-5	3 & 4-Methylphenol	ND	85.8	215	U
621-64-7	N-Nitroso-di-n-propylamine	ND	85.8	215	U
67-72-1	Hexachloroethane	ND	85.8	215	U
98-95-3	Nitrobenzene	ND	85.8	215	U
78-59-1	Isophorone	ND	85.8	215	U
88-75-5	2-Nitrophenol	ND	85.8	215	U
105-67-9	2,4-Dimethylphenol	ND	85.8	215	U
111-91-1	bis(2-chloroethoxy)methane	ND	85.8	215	U
120-83-2	2,4-Dichlorophenol	ND	85.8	215	U
120-82-1	1,2,4-Trichlorobenzene	ND	85.8	215	U
91-20-3	Naphthalene	ND	85.8	215	U
106-47-8	4-Chloroaniline	ND	85.8	215	U
87-68-3	Hexachlorobutadiene	ND	85.8	215	U
59-50-7	4-Chloro-3-methylphenol	ND	85.8	215	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7C**
Lab Sample ID: **1801587-19**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.80	Prep Method:	EPA 3550B GCMS	File ID:	E15970.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 15:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	85.8	215	U
77-47-4	Hexachlorocyclopentadiene	ND	85.8	215	U
88-06-2	2,4,6-Trichlorophenol	ND	85.8	215	U
95-95-4	2,4,5-Trichlorophenol	ND	85.8	215	U
91-58-7	2-Chloronaphthalene	ND	85.8	215	U
88-74-4	2-Nitroaniline	ND	85.8	215	U
131-11-3	Dimethylphthalate	ND	85.8	215	U
208-96-8	Acenaphthylene	ND	85.8	215	U
99-09-2	3-Nitroaniline	ND	85.8	215	U
83-32-9	Acenaphthene	ND	85.8	215	U
51-28-5	2,4-Dinitrophenol	ND	85.8	430	U
100-02-7	4-Nitrophenol	ND	85.8	215	U
132-64-9	Dibenzofuran	ND	85.8	215	U
606-20-2	2,6-Dinitrotoluene	ND	85.8	215	U
121-14-2	2,4-Dinitrotoluene	ND	85.8	215	U
84-66-2	Diethyl phthalate	ND	85.8	215	U
7005-72-3	4-Chlorophenyl-phenylether	ND	85.8	215	U
86-73-7	Fluorene	ND	85.8	215	U
100-01-6	4-Nitroaniline	ND	85.8	215	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	85.8	215	U
86-30-6	N-Nitrosodiphenylamine	ND	85.8	215	U
101-55-3	4-Bromophenyl-phenylether	ND	85.8	215	U
118-74-1	Hexachlorobenzene	ND	85.8	215	U
87-86-5	Pentachlorophenol	ND	85.8	215	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-7C**
Lab Sample ID: **1801587-19**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.80	Prep Method:	EPA 3550B GCMS	File ID:	E15970.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 15:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	85.8	215	U
120-12-7	Anthracene	ND	85.8	215	U
84-74-2	Di-n-butyl phthalate	ND	85.8	215	U
206-44-0	Fluoranthene	ND	85.8	215	U
129-00-0	Pyrene	ND	85.8	215	U
85-68-7	Butylbenzylphthalate	ND	85.8	215	U
91-94-1	3,3'-Dichlorobenzidine	ND	214	215	U
56-55-3	Benzo[a]anthracene	ND	85.8	215	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	85.8	215	U
218-01-9	Chrysene	ND	85.8	215	U
117-84-0	Di-n-octyl phthalate	ND	85.8	215	U
205-99-2	Benzo[b]fluoranthene	ND	85.8	215	U
207-08-9	Benzo[k]fluoranthene	ND	85.8	215	U
50-32-8	Benzo[a]pyrene	ND	85.8	215	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	85.8	215	U
53-70-3	Dibenzo(a,h)anthracene	ND	85.8	215	U
191-24-2	Benzo[ghi]perylene	ND	85.8	215	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	60%	41-102
Phenol-d5	69%	47-113
Nitrobenzene-d5	61%	38-100
2-Fluorobiphenyl	61%	38-88
2,4,6-Tribromophenol	69%	40-129
Terphenyl-d14	75%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
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E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16016.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	44.7	112	U
108-95-2	Phenol	ND	44.7	112	U
111-44-4	bis(2-chloroethyl)ether	ND	44.7	112	U
95-57-8	2-Chlorophenol	ND	44.7	112	U
541-73-1	1,3-Dichlorobenzene	ND	44.7	112	U
106-46-7	1,4-Dichlorobenzene	ND	44.7	112	U
100-51-6	Benzyl alcohol	ND	44.7	112	U
95-50-1	1,2-Dichlorobenzene	ND	44.7	112	U
95-48-7	2-Methylphenol	ND	44.7	112	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	44.7	112	U
106-44-5	3 & 4-Methylphenol	ND	44.7	112	U
621-64-7	N-Nitroso-di-n-propylamine	ND	44.7	112	U
67-72-1	Hexachloroethane	ND	44.7	112	U
98-95-3	Nitrobenzene	ND	44.7	112	U
78-59-1	Isophorone	ND	44.7	112	U
88-75-5	2-Nitrophenol	ND	44.7	112	U
105-67-9	2,4-Dimethylphenol	ND	44.7	112	U
111-91-1	bis(2-chloroethoxy)methane	ND	44.7	112	U
120-83-2	2,4-Dichlorophenol	ND	44.7	112	U
120-82-1	1,2,4-Trichlorobenzene	ND	44.7	112	U
91-20-3	Naphthalene	ND	44.7	112	U
106-47-8	4-Chloroaniline	ND	44.7	112	U
87-68-3	Hexachlorobutadiene	ND	44.7	112	U
59-50-7	4-Chloro-3-methylphenol	ND	44.7	112	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16016.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	44.7	112	U
77-47-4	Hexachlorocyclopentadiene	ND	44.7	112	U
88-06-2	2,4,6-Trichlorophenol	ND	44.7	112	U
95-95-4	2,4,5-Trichlorophenol	ND	44.7	112	U
91-58-7	2-Chloronaphthalene	ND	44.7	112	U
88-74-4	2-Nitroaniline	ND	44.7	112	U
131-11-3	Dimethylphthalate	ND	44.7	112	U
208-96-8	Acenaphthylene	ND	44.7	112	U
99-09-2	3-Nitroaniline	ND	44.7	112	U
83-32-9	Acenaphthene	ND	44.7	112	U
51-28-5	2,4-Dinitrophenol	ND	44.7	224	U
100-02-7	4-Nitrophenol	ND	44.7	112	U
132-64-9	Dibenzofuran	ND	44.7	112	U
606-20-2	2,6-Dinitrotoluene	ND	44.7	112	U
121-14-2	2,4-Dinitrotoluene	ND	44.7	112	U
84-66-2	Diethyl phthalate	ND	44.7	112	U
7005-72-3	4-Chlorophenyl-phenylether	ND	44.7	112	U
86-73-7	Fluorene	ND	44.7	112	U
100-01-6	4-Nitroaniline	ND	44.7	112	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	44.7	112	U
86-30-6	N-Nitrosodiphenylamine	ND	44.7	112	U
101-55-3	4-Bromophenyl-phenylether	ND	44.7	112	U
118-74-1	Hexachlorobenzene	ND	44.7	112	U
87-86-5	Pentachlorophenol	ND	44.7	112	U

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16016.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:53
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	118	44.7	112	
120-12-7	Anthracene	ND	44.7	112	U
84-74-2	Di-n-butyl phthalate	ND	44.7	112	U
206-44-0	Fluoranthene	348	44.7	112	
129-00-0	Pyrene	898	44.7	112	
85-68-7	Butylbenzylphthalate	ND	44.7	112	U
91-94-1	3,3'-Dichlorobenzidine	ND	111	112	U
56-55-3	Benzo[a]anthracene	253	44.7	112	
117-81-7	bis(2-ethylhexyl)phthalate	1110	44.7	112	
218-01-9	Chrysene	316	44.7	112	
117-84-0	Di-n-octyl phthalate	ND	44.7	112	U
205-99-2	Benzo[b]fluoranthene	589	44.7	112	
207-08-9	Benzo[k]fluoranthene	149	44.7	112	
50-32-8	Benzo[a]pyrene	254	44.7	112	
193-39-5	Indeno(1,2,3-cd)pyrene	87.5	44.7	112	J
53-70-3	Dibenzo(a,h)anthracene	ND	44.7	112	U
191-24-2	Benzo[ghi]perylene	ND	44.7	112	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	33%	*	41-102
Phenol-d5	43%	*	47-113
Nitrobenzene-d5	37%	*	38-100
2-Fluorobiphenyl	41%		38-88
2,4,6-Tribromophenol	46%		40-129
Terphenyl-d14	109%		31-145

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16025.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 15:02
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	223	559	U
108-95-2	Phenol	ND	223	559	U
111-44-4	bis(2-chloroethyl)ether	ND	223	559	U
95-57-8	2-Chlorophenol	ND	223	559	U
541-73-1	1,3-Dichlorobenzene	ND	223	559	U
106-46-7	1,4-Dichlorobenzene	ND	223	559	U
100-51-6	Benzyl alcohol	ND	223	559	U
95-50-1	1,2-Dichlorobenzene	ND	223	559	U
95-48-7	2-Methylphenol	ND	223	559	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	223	559	U
106-44-5	3 & 4-Methylphenol	ND	223	559	U
621-64-7	N-Nitroso-di-n-propylamine	ND	223	559	U
67-72-1	Hexachloroethane	ND	223	559	U
98-95-3	Nitrobenzene	ND	223	559	U
78-59-1	Isophorone	ND	223	559	U
88-75-5	2-Nitrophenol	ND	223	559	U
105-67-9	2,4-Dimethylphenol	ND	223	559	U
65-85-0	Benzoic acid	ND	557	1120	U
111-91-1	bis(2-chloroethoxy)methane	ND	223	559	U
120-83-2	2,4-Dichlorophenol	ND	223	559	U
120-82-1	1,2,4-Trichlorobenzene	ND	223	559	U
91-20-3	Naphthalene	ND	223	559	U
106-47-8	4-Chloroaniline	ND	223	559	U
87-68-3	Hexachlorobutadiene	ND	223	559	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16025.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 15:02
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	223	559	U
91-57-6	2-Methylnaphthylene	ND	223	559	U
77-47-4	Hexachlorocyclopentadiene	ND	223	559	U
88-06-2	2,4,6-Trichlorophenol	ND	223	559	U
95-95-4	2,4,5-Trichlorophenol	ND	223	559	U
91-58-7	2-Chloronaphthalene	ND	223	559	U
88-74-4	2-Nitroaniline	ND	223	559	U
131-11-3	Dimethylphthalate	ND	223	559	U
208-96-8	Acenaphthylene	ND	223	559	U
99-09-2	3-Nitroaniline	ND	223	559	U
83-32-9	Acenaphthene	ND	223	559	U
51-28-5	2,4-Dinitrophenol	ND	223	1120	U
100-02-7	4-Nitrophenol	ND	223	559	U
132-64-9	Dibenzofuran	ND	223	559	U
606-20-2	2,6-Dinitrotoluene	ND	223	559	U
121-14-2	2,4-Dinitrotoluene	ND	223	559	U
84-66-2	Diethyl phthalate	ND	223	559	U
7005-72-3	4-Chlorophenyl-phenylether	ND	223	559	U
86-73-7	Fluorene	ND	223	559	U
100-01-6	4-Nitroaniline	ND	223	559	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	223	559	U
86-30-6	N-Nitrosodiphenylamine	ND	223	559	U
101-55-3	4-Bromophenyl-phenylether	ND	223	559	U
118-74-1	Hexachlorobenzene	ND	223	559	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1A**
Lab Sample ID: **1801587-20RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	74.50	Prep Method:	EPA 3550B GCMS	File ID:	E16025.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 15:02
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	223	559	U
85-01-8	Phenanthrene	ND	223	559	U
120-12-7	Anthracene	ND	223	559	U
84-74-2	Di-n-butyl phthalate	ND	223	559	U
206-44-0	Fluoranthene	473	223	559	J, D
129-00-0	Pyrene	610	223	559	D
85-68-7	Butylbenzylphthalate	ND	223	559	U
91-94-1	3,3'-Dichlorobenzidine	ND	557	559	U
56-55-3	Benzo[a]anthracene	315	223	559	J, D
117-81-7	bis(2-ethylhexyl)phthalate	663	223	559	D
218-01-9	Chrysene	374	223	559	J, D
117-84-0	Di-n-octyl phthalate	ND	223	559	U
205-99-2	Benzo[b]fluoranthene	565	223	559	D
207-08-9	Benzo[k]fluoranthene	ND	223	559	U
50-32-8	Benzo[a]pyrene	320	223	559	J, D
193-39-5	Indeno(1,2,3-cd)pyrene	ND	223	559	U
53-70-3	Dibenzo(a,h)anthracene	ND	223	559	U
191-24-2	Benzo[ghi]perylene	ND	223	559	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	35%	*	41-102
Phenol-d5	49%		47-113
Nitrobenzene-d5	42%		38-100
2-Fluorobiphenyl	47%		38-88
2,4,6-Tribromophenol	51%		40-129
Terphenyl-d14	60%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E16015.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:10
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	56.1	140	U
108-95-2	Phenol	ND	56.1	140	U
111-44-4	bis(2-chloroethyl)ether	ND	56.1	140	U
95-57-8	2-Chlorophenol	ND	56.1	140	U
541-73-1	1,3-Dichlorobenzene	ND	56.1	140	U
106-46-7	1,4-Dichlorobenzene	ND	56.1	140	U
100-51-6	Benzyl alcohol	ND	56.1	140	U
95-50-1	1,2-Dichlorobenzene	ND	56.1	140	U
95-48-7	2-Methylphenol	ND	56.1	140	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	56.1	140	U
106-44-5	3 & 4-Methylphenol	ND	56.1	140	U
621-64-7	N-Nitroso-di-n-propylamine	ND	56.1	140	U
67-72-1	Hexachloroethane	ND	56.1	140	U
98-95-3	Nitrobenzene	ND	56.1	140	U
78-59-1	Isophorone	ND	56.1	140	U
88-75-5	2-Nitrophenol	ND	56.1	140	U
105-67-9	2,4-Dimethylphenol	ND	56.1	140	U
111-91-1	bis(2-chloroethoxy)methane	ND	56.1	140	U
120-83-2	2,4-Dichlorophenol	ND	56.1	140	U
120-82-1	1,2,4-Trichlorobenzene	ND	56.1	140	U
91-20-3	Naphthalene	ND	56.1	140	U
106-47-8	4-Chloroaniline	ND	56.1	140	U
87-68-3	Hexachlorobutadiene	ND	56.1	140	U
59-50-7	4-Chloro-3-methylphenol	ND	56.1	140	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E16015.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:10
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	56.1	140	U
77-47-4	Hexachlorocyclopentadiene	ND	56.1	140	U
88-06-2	2,4,6-Trichlorophenol	ND	56.1	140	U
95-95-4	2,4,5-Trichlorophenol	ND	56.1	140	U
91-58-7	2-Chloronaphthalene	ND	56.1	140	U
88-74-4	2-Nitroaniline	ND	56.1	140	U
131-11-3	Dimethylphthalate	ND	56.1	140	U
208-96-8	Acenaphthylene	ND	56.1	140	U
99-09-2	3-Nitroaniline	ND	56.1	140	U
83-32-9	Acenaphthene	ND	56.1	140	U
51-28-5	2,4-Dinitrophenol	ND	56.1	281	U
100-02-7	4-Nitrophenol	ND	56.1	140	U
132-64-9	Dibenzofuran	ND	56.1	140	U
606-20-2	2,6-Dinitrotoluene	ND	56.1	140	U
121-14-2	2,4-Dinitrotoluene	ND	56.1	140	U
84-66-2	Diethyl phthalate	ND	56.1	140	U
7005-72-3	4-Chlorophenyl-phenylether	ND	56.1	140	U
86-73-7	Fluorene	ND	56.1	140	U
100-01-6	4-Nitroaniline	ND	56.1	140	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	56.1	140	U
86-30-6	N-Nitrosodiphenylamine	ND	56.1	140	U
101-55-3	4-Bromophenyl-phenylether	ND	56.1	140	U
118-74-1	Hexachlorobenzene	ND	56.1	140	U
87-86-5	Pentachlorophenol	ND	56.1	140	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1B**
Lab Sample ID: **1801587-21**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E16015.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 20:10
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	93.3	56.1	140	J
120-12-7	Anthracene	ND	56.1	140	U
84-74-2	Di-n-butyl phthalate	ND	56.1	140	U
206-44-0	Fluoranthene	259	56.1	140	
129-00-0	Pyrene	474	56.1	140	
85-68-7	Butylbenzylphthalate	ND	56.1	140	U
91-94-1	3,3'-Dichlorobenzidine	ND	140	140	U
56-55-3	Benzo[a]anthracene	153	56.1	140	
117-81-7	bis(2-ethylhexyl)phthalate	738	56.1	140	
218-01-9	Chrysene	160	56.1	140	
117-84-0	Di-n-octyl phthalate	ND	56.1	140	U
205-99-2	Benzo[b]fluoranthene	269	56.1	140	
207-08-9	Benzo[k]fluoranthene	116	56.1	140	J
50-32-8	Benzo[a]pyrene	164	56.1	140	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	56.1	140	U
53-70-3	Dibenzo(a,h)anthracene	ND	56.1	140	U
191-24-2	Benzo[ghi]perylene	ND	56.1	140	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	40%	*	41-102
Phenol-d5	50%		47-113
Nitrobenzene-d5	45%		38-100
2-Fluorobiphenyl	50%		38-88
2,4,6-Tribromophenol	56%		40-129
Terphenyl-d14	97%		31-145

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1C**
Lab Sample ID: **1801587-22**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	65.70	Prep Method:	EPA 3550B GCMS	File ID:	E15971.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:08
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	50.7	127	U
108-95-2	Phenol	ND	50.7	127	U
111-44-4	bis(2-chloroethyl)ether	ND	50.7	127	U
95-57-8	2-Chlorophenol	ND	50.7	127	U
541-73-1	1,3-Dichlorobenzene	ND	50.7	127	U
106-46-7	1,4-Dichlorobenzene	ND	50.7	127	U
100-51-6	Benzyl alcohol	ND	50.7	127	U
95-50-1	1,2-Dichlorobenzene	ND	50.7	127	U
95-48-7	2-Methylphenol	ND	50.7	127	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	50.7	127	U
106-44-5	3 & 4-Methylphenol	ND	50.7	127	U
621-64-7	N-Nitroso-di-n-propylamine	ND	50.7	127	U
67-72-1	Hexachloroethane	ND	50.7	127	U
98-95-3	Nitrobenzene	ND	50.7	127	U
78-59-1	Isophorone	ND	50.7	127	U
88-75-5	2-Nitrophenol	ND	50.7	127	U
105-67-9	2,4-Dimethylphenol	ND	50.7	127	U
111-91-1	bis(2-chloroethoxy)methane	ND	50.7	127	U
120-83-2	2,4-Dichlorophenol	ND	50.7	127	U
120-82-1	1,2,4-Trichlorobenzene	ND	50.7	127	U
91-20-3	Naphthalene	ND	50.7	127	U
106-47-8	4-Chloroaniline	ND	50.7	127	U
87-68-3	Hexachlorobutadiene	ND	50.7	127	U
59-50-7	4-Chloro-3-methylphenol	ND	50.7	127	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1C**
Lab Sample ID: **1801587-22**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	65.70	Prep Method:	EPA 3550B GCMS	File ID:	E15971.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:08
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	50.7	127	U
77-47-4	Hexachlorocyclopentadiene	ND	50.7	127	U
88-06-2	2,4,6-Trichlorophenol	ND	50.7	127	U
95-95-4	2,4,5-Trichlorophenol	ND	50.7	127	U
91-58-7	2-Chloronaphthalene	ND	50.7	127	U
88-74-4	2-Nitroaniline	ND	50.7	127	U
131-11-3	Dimethylphthalate	ND	50.7	127	U
208-96-8	Acenaphthylene	ND	50.7	127	U
99-09-2	3-Nitroaniline	ND	50.7	127	U
83-32-9	Acenaphthene	ND	50.7	127	U
51-28-5	2,4-Dinitrophenol	217	50.7	254	J
100-02-7	4-Nitrophenol	ND	50.7	127	U
132-64-9	Dibenzofuran	ND	50.7	127	U
606-20-2	2,6-Dinitrotoluene	ND	50.7	127	U
121-14-2	2,4-Dinitrotoluene	ND	50.7	127	U
84-66-2	Diethyl phthalate	ND	50.7	127	U
7005-72-3	4-Chlorophenyl-phenylether	ND	50.7	127	U
86-73-7	Fluorene	ND	50.7	127	U
100-01-6	4-Nitroaniline	ND	50.7	127	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	50.7	127	U
86-30-6	N-Nitrosodiphenylamine	ND	50.7	127	U
101-55-3	4-Bromophenyl-phenylether	ND	50.7	127	U
118-74-1	Hexachlorobenzene	ND	50.7	127	U
87-86-5	Pentachlorophenol	ND	50.7	127	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-1C**
Lab Sample ID: **1801587-22**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	65.70	Prep Method:	EPA 3550B GCMS	File ID:	E15971.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:08
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	50.7	127	U
120-12-7	Anthracene	ND	50.7	127	U
84-74-2	Di-n-butyl phthalate	ND	50.7	127	U
206-44-0	Fluoranthene	ND	50.7	127	U
129-00-0	Pyrene	ND	50.7	127	U
85-68-7	Butylbenzylphthalate	ND	50.7	127	U
91-94-1	3,3'-Dichlorobenzidine	ND	126	127	U
56-55-3	Benzo[a]anthracene	ND	50.7	127	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	50.7	127	U
218-01-9	Chrysene	ND	50.7	127	U
117-84-0	Di-n-octyl phthalate	ND	50.7	127	U
205-99-2	Benzo[b]fluoranthene	ND	50.7	127	U
207-08-9	Benzo[k]fluoranthene	ND	50.7	127	U
50-32-8	Benzo[a]pyrene	ND	50.7	127	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50.7	127	U
53-70-3	Dibenzo(a,h)anthracene	ND	50.7	127	U
191-24-2	Benzo[ghi]perylene	ND	50.7	127	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	51%	41-102
Phenol-d5	61%	47-113
Nitrobenzene-d5	50%	38-100
2-Fluorobiphenyl	51%	38-88
2,4,6-Tribromophenol	59%	40-129
Terphenyl-d14	61%	31-145

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16013.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	87.2	218	U
108-95-2	Phenol	ND	87.2	218	U
111-44-4	bis(2-chloroethyl)ether	ND	87.2	218	U
95-57-8	2-Chlorophenol	ND	87.2	218	U
541-73-1	1,3-Dichlorobenzene	ND	87.2	218	U
106-46-7	1,4-Dichlorobenzene	ND	87.2	218	U
100-51-6	Benzyl alcohol	ND	87.2	218	U
95-50-1	1,2-Dichlorobenzene	ND	87.2	218	U
95-48-7	2-Methylphenol	ND	87.2	218	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	87.2	218	U
106-44-5	3 & 4-Methylphenol	ND	87.2	218	U
621-64-7	N-Nitroso-di-n-propylamine	ND	87.2	218	U
67-72-1	Hexachloroethane	ND	87.2	218	U
98-95-3	Nitrobenzene	ND	87.2	218	U
78-59-1	Isophorone	ND	87.2	218	U
88-75-5	2-Nitrophenol	ND	87.2	218	U
105-67-9	2,4-Dimethylphenol	ND	87.2	218	U
111-91-1	bis(2-chloroethoxy)methane	ND	87.2	218	U
120-83-2	2,4-Dichlorophenol	ND	87.2	218	U
120-82-1	1,2,4-Trichlorobenzene	ND	87.2	218	U
91-20-3	Naphthalene	ND	87.2	218	U
106-47-8	4-Chloroaniline	ND	87.2	218	U
87-68-3	Hexachlorobutadiene	ND	87.2	218	U
59-50-7	4-Chloro-3-methylphenol	ND	87.2	218	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16013.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	87.2	218	U
77-47-4	Hexachlorocyclopentadiene	ND	87.2	218	U
88-06-2	2,4,6-Trichlorophenol	ND	87.2	218	U
95-95-4	2,4,5-Trichlorophenol	ND	87.2	218	U
91-58-7	2-Chloronaphthalene	ND	87.2	218	U
88-74-4	2-Nitroaniline	ND	87.2	218	U
131-11-3	Dimethylphthalate	ND	87.2	218	U
208-96-8	Acenaphthylene	ND	87.2	218	U
99-09-2	3-Nitroaniline	ND	87.2	218	U
83-32-9	Acenaphthene	ND	87.2	218	U
51-28-5	2,4-Dinitrophenol	ND	87.2	437	U
100-02-7	4-Nitrophenol	ND	87.2	218	U
132-64-9	Dibenzofuran	ND	87.2	218	U
606-20-2	2,6-Dinitrotoluene	ND	87.2	218	U
121-14-2	2,4-Dinitrotoluene	ND	87.2	218	U
84-66-2	Diethyl phthalate	ND	87.2	218	U
7005-72-3	4-Chlorophenyl-phenylether	ND	87.2	218	U
86-73-7	Fluorene	ND	87.2	218	U
100-01-6	4-Nitroaniline	ND	87.2	218	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	87.2	218	U
86-30-6	N-Nitrosodiphenylamine	ND	87.2	218	U
101-55-3	4-Bromophenyl-phenylether	ND	87.2	218	U
118-74-1	Hexachlorobenzene	ND	87.2	218	U
87-86-5	Pentachlorophenol	ND	87.2	218	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16013.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:44
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	94.0	87.2	218	J
120-12-7	Anthracene	ND	87.2	218	U
84-74-2	Di-n-butyl phthalate	ND	87.2	218	U
206-44-0	Fluoranthene	223	87.2	218	
129-00-0	Pyrene	394	87.2	218	
85-68-7	Butylbenzylphthalate	ND	87.2	218	U
91-94-1	3,3'-Dichlorobenzidine	ND	217	218	U
56-55-3	Benzo[a]anthracene	173	87.2	218	J
117-81-7	bis(2-ethylhexyl)phthalate	907	87.2	218	
218-01-9	Chrysene	221	87.2	218	
117-84-0	Di-n-octyl phthalate	ND	87.2	218	U
205-99-2	Benzo[b]fluoranthene	344	87.2	218	
207-08-9	Benzo[k]fluoranthene	192	87.2	218	J
50-32-8	Benzo[a]pyrene	198	87.2	218	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	87.2	218	U
53-70-3	Dibenzo(a,h)anthracene	ND	87.2	218	U
191-24-2	Benzo[ghi]perylene	ND	87.2	218	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	25%	*	41-102
Phenol-d5	31%	*	47-113
Nitrobenzene-d5	28%	*	38-100
2-Fluorobiphenyl	33%	*	38-88
2,4,6-Tribromophenol	41%		40-129
Terphenyl-d14	67%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16028.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:11
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	436	1090	U
108-95-2	Phenol	ND	436	1090	U
111-44-4	bis(2-chloroethyl)ether	ND	436	1090	U
95-57-8	2-Chlorophenol	ND	436	1090	U
541-73-1	1,3-Dichlorobenzene	ND	436	1090	U
106-46-7	1,4-Dichlorobenzene	ND	436	1090	U
100-51-6	Benzyl alcohol	ND	436	1090	U
95-50-1	1,2-Dichlorobenzene	ND	436	1090	U
95-48-7	2-Methylphenol	ND	436	1090	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	436	1090	U
106-44-5	3 & 4-Methylphenol	ND	436	1090	U
621-64-7	N-Nitroso-di-n-propylamine	ND	436	1090	U
67-72-1	Hexachloroethane	ND	436	1090	U
98-95-3	Nitrobenzene	ND	436	1090	U
78-59-1	Isophorone	ND	436	1090	U
88-75-5	2-Nitrophenol	ND	436	1090	U
105-67-9	2,4-Dimethylphenol	ND	436	1090	U
65-85-0	Benzoic acid	ND	1090	2190	U
111-91-1	bis(2-chloroethoxy)methane	ND	436	1090	U
120-83-2	2,4-Dichlorophenol	ND	436	1090	U
120-82-1	1,2,4-Trichlorobenzene	ND	436	1090	U
91-20-3	Naphthalene	ND	436	1090	U
106-47-8	4-Chloroaniline	ND	436	1090	U
87-68-3	Hexachlorobutadiene	ND	436	1090	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16028.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:11
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	436	1090	U
91-57-6	2-Methylnaphthylene	ND	436	1090	U
77-47-4	Hexachlorocyclopentadiene	ND	436	1090	U
88-06-2	2,4,6-Trichlorophenol	ND	436	1090	U
95-95-4	2,4,5-Trichlorophenol	ND	436	1090	U
91-58-7	2-Chloronaphthalene	ND	436	1090	U
88-74-4	2-Nitroaniline	ND	436	1090	U
131-11-3	Dimethylphthalate	ND	436	1090	U
208-96-8	Acenaphthylene	ND	436	1090	U
99-09-2	3-Nitroaniline	ND	436	1090	U
83-32-9	Acenaphthene	ND	436	1090	U
51-28-5	2,4-Dinitrophenol	ND	436	2190	U
100-02-7	4-Nitrophenol	ND	436	1090	U
132-64-9	Dibenzofuran	ND	436	1090	U
606-20-2	2,6-Dinitrotoluene	ND	436	1090	U
121-14-2	2,4-Dinitrotoluene	ND	436	1090	U
84-66-2	Diethyl phthalate	ND	436	1090	U
7005-72-3	4-Chlorophenyl-phenylether	ND	436	1090	U
86-73-7	Fluorene	ND	436	1090	U
100-01-6	4-Nitroaniline	ND	436	1090	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	436	1090	U
86-30-6	N-Nitrosodiphenylamine	ND	436	1090	U
101-55-3	4-Bromophenyl-phenylether	ND	436	1090	U
118-74-1	Hexachlorobenzene	ND	436	1090	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2A**
Lab Sample ID: **1801587-23RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	38.20	Prep Method:	EPA 3550B GCMS	File ID:	E16028.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:11
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	436	1090	U
85-01-8	Phenanthrene	ND	436	1090	U
120-12-7	Anthracene	ND	436	1090	U
84-74-2	Di-n-butyl phthalate	ND	436	1090	U
206-44-0	Fluoranthene	ND	436	1090	U
129-00-0	Pyrene	ND	436	1090	U
85-68-7	Butylbenzylphthalate	ND	436	1090	U
91-94-1	3,3'-Dichlorobenzidine	ND	1090	1090	U
56-55-3	Benzo[a]anthracene	ND	436	1090	U
117-81-7	bis(2-ethylhexyl)phthalate	825	436	1090	J, D
218-01-9	Chrysene	ND	436	1090	U
117-84-0	Di-n-octyl phthalate	ND	436	1090	U
205-99-2	Benzo[b]fluoranthene	ND	436	1090	U
207-08-9	Benzo[k]fluoranthene	ND	436	1090	U
50-32-8	Benzo[a]pyrene	ND	436	1090	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	436	1090	U
53-70-3	Dibenzo(a,h)anthracene	ND	436	1090	U
191-24-2	Benzo[ghi]perylene	ND	436	1090	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	28%	*	41-102
Phenol-d5	36%	*	47-113
Nitrobenzene-d5	32%	*	38-100
2-Fluorobiphenyl	37%	*	38-88
2,4,6-Tribromophenol	40%		40-129
Terphenyl-d14	55%		31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16012.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:00
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	85.4	214	U
108-95-2	Phenol	ND	85.4	214	U
111-44-4	bis(2-chloroethyl)ether	ND	85.4	214	U
95-57-8	2-Chlorophenol	ND	85.4	214	U
541-73-1	1,3-Dichlorobenzene	ND	85.4	214	U
106-46-7	1,4-Dichlorobenzene	ND	85.4	214	U
100-51-6	Benzyl alcohol	ND	85.4	214	U
95-50-1	1,2-Dichlorobenzene	ND	85.4	214	U
95-48-7	2-Methylphenol	ND	85.4	214	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	85.4	214	U
106-44-5	3 & 4-Methylphenol	ND	85.4	214	U
621-64-7	N-Nitroso-di-n-propylamine	ND	85.4	214	U
67-72-1	Hexachloroethane	ND	85.4	214	U
98-95-3	Nitrobenzene	ND	85.4	214	U
78-59-1	Isophorone	ND	85.4	214	U
88-75-5	2-Nitrophenol	ND	85.4	214	U
105-67-9	2,4-Dimethylphenol	ND	85.4	214	U
111-91-1	bis(2-chloroethoxy)methane	ND	85.4	214	U
120-83-2	2,4-Dichlorophenol	ND	85.4	214	U
120-82-1	1,2,4-Trichlorobenzene	ND	85.4	214	U
91-20-3	Naphthalene	ND	85.4	214	U
106-47-8	4-Chloroaniline	ND	85.4	214	U
87-68-3	Hexachlorobutadiene	ND	85.4	214	U
59-50-7	4-Chloro-3-methylphenol	ND	85.4	214	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16012.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:00
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	85.4	214	U
77-47-4	Hexachlorocyclopentadiene	ND	85.4	214	U
88-06-2	2,4,6-Trichlorophenol	ND	85.4	214	U
95-95-4	2,4,5-Trichlorophenol	ND	85.4	214	U
91-58-7	2-Chloronaphthalene	ND	85.4	214	U
88-74-4	2-Nitroaniline	ND	85.4	214	U
131-11-3	Dimethylphthalate	ND	85.4	214	U
208-96-8	Acenaphthylene	ND	85.4	214	U
99-09-2	3-Nitroaniline	ND	85.4	214	U
83-32-9	Acenaphthene	ND	85.4	214	U
51-28-5	2,4-Dinitrophenol	ND	85.4	428	U
100-02-7	4-Nitrophenol	ND	85.4	214	U
132-64-9	Dibenzofuran	ND	85.4	214	U
606-20-2	2,6-Dinitrotoluene	ND	85.4	214	U
121-14-2	2,4-Dinitrotoluene	ND	85.4	214	U
84-66-2	Diethyl phthalate	ND	85.4	214	U
7005-72-3	4-Chlorophenyl-phenylether	ND	85.4	214	U
86-73-7	Fluorene	ND	85.4	214	U
100-01-6	4-Nitroaniline	ND	85.4	214	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	85.4	214	U
86-30-6	N-Nitrosodiphenylamine	ND	85.4	214	U
101-55-3	4-Bromophenyl-phenylether	ND	85.4	214	U
118-74-1	Hexachlorobenzene	ND	85.4	214	U
87-86-5	Pentachlorophenol	ND	85.4	214	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16012.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 18:00
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	85.4	214	U
120-12-7	Anthracene	ND	85.4	214	U
84-74-2	Di-n-butyl phthalate	ND	85.4	214	U
206-44-0	Fluoranthene	159	85.4	214	J
129-00-0	Pyrene	251	85.4	214	
85-68-7	Butylbenzylphthalate	ND	85.4	214	U
91-94-1	3,3'-Dichlorobenzidine	ND	213	214	U
56-55-3	Benzo[a]anthracene	97.0	85.4	214	J
117-81-7	bis(2-ethylhexyl)phthalate	529	85.4	214	
218-01-9	Chrysene	134	85.4	214	J
117-84-0	Di-n-octyl phthalate	ND	85.4	214	U
205-99-2	Benzo[b]fluoranthene	251	85.4	214	
207-08-9	Benzo[k]fluoranthene	94.1	85.4	214	J
50-32-8	Benzo[a]pyrene	124	85.4	214	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	85.4	214	U
53-70-3	Dibenzo(a,h)anthracene	ND	85.4	214	U
191-24-2	Benzo[ghi]perylene	ND	85.4	214	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	19%	*	41-102
Phenol-d5	23%	*	47-113
Nitrobenzene-d5	22%	*	38-100
2-Fluorobiphenyl	24%	*	38-88
2,4,6-Tribromophenol	27%	*	40-129
Terphenyl-d14	47%		31-145

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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16029.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:54
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	427	1070	U
108-95-2	Phenol	ND	427	1070	U
111-44-4	bis(2-chloroethyl)ether	ND	427	1070	U
95-57-8	2-Chlorophenol	ND	427	1070	U
541-73-1	1,3-Dichlorobenzene	ND	427	1070	U
106-46-7	1,4-Dichlorobenzene	ND	427	1070	U
100-51-6	Benzyl alcohol	ND	427	1070	U
95-50-1	1,2-Dichlorobenzene	ND	427	1070	U
95-48-7	2-Methylphenol	ND	427	1070	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	427	1070	U
106-44-5	3 & 4-Methylphenol	ND	427	1070	U
621-64-7	N-Nitroso-di-n-propylamine	ND	427	1070	U
67-72-1	Hexachloroethane	ND	427	1070	U
98-95-3	Nitrobenzene	ND	427	1070	U
78-59-1	Isophorone	ND	427	1070	U
88-75-5	2-Nitrophenol	ND	427	1070	U
105-67-9	2,4-Dimethylphenol	ND	427	1070	U
65-85-0	Benzoic acid	ND	1060	2140	U
111-91-1	bis(2-chloroethoxy)methane	ND	427	1070	U
120-83-2	2,4-Dichlorophenol	ND	427	1070	U
120-82-1	1,2,4-Trichlorobenzene	ND	427	1070	U
91-20-3	Naphthalene	ND	427	1070	U
106-47-8	4-Chloroaniline	ND	427	1070	U
87-68-3	Hexachlorobutadiene	ND	427	1070	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16029.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:54
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	427	1070	U
91-57-6	2-Methylnaphthylene	ND	427	1070	U
77-47-4	Hexachlorocyclopentadiene	ND	427	1070	U
88-06-2	2,4,6-Trichlorophenol	ND	427	1070	U
95-95-4	2,4,5-Trichlorophenol	ND	427	1070	U
91-58-7	2-Chloronaphthalene	ND	427	1070	U
88-74-4	2-Nitroaniline	ND	427	1070	U
131-11-3	Dimethylphthalate	ND	427	1070	U
208-96-8	Acenaphthylene	ND	427	1070	U
99-09-2	3-Nitroaniline	ND	427	1070	U
83-32-9	Acenaphthene	ND	427	1070	U
51-28-5	2,4-Dinitrophenol	ND	427	2140	U
100-02-7	4-Nitrophenol	ND	427	1070	U
132-64-9	Dibenzofuran	ND	427	1070	U
606-20-2	2,6-Dinitrotoluene	ND	427	1070	U
121-14-2	2,4-Dinitrotoluene	ND	427	1070	U
84-66-2	Diethyl phthalate	ND	427	1070	U
7005-72-3	4-Chlorophenyl-phenylether	ND	427	1070	U
86-73-7	Fluorene	ND	427	1070	U
100-01-6	4-Nitroaniline	ND	427	1070	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	427	1070	U
86-30-6	N-Nitrosodiphenylamine	ND	427	1070	U
101-55-3	4-Bromophenyl-phenylether	ND	427	1070	U
118-74-1	Hexachlorobenzene	ND	427	1070	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2B**
Lab Sample ID: **1801587-24RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	39.00	Prep Method:	EPA 3550B GCMS	File ID:	E16029.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 17:54
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	427	1070	U
85-01-8	Phenanthrene	ND	427	1070	U
120-12-7	Anthracene	ND	427	1070	U
84-74-2	Di-n-butyl phthalate	ND	427	1070	U
206-44-0	Fluoranthene	ND	427	1070	U
129-00-0	Pyrene	ND	427	1070	U
85-68-7	Butylbenzylphthalate	ND	427	1070	U
91-94-1	3,3'-Dichlorobenzidine	ND	1060	1070	U
56-55-3	Benzo[a]anthracene	ND	427	1070	U
117-81-7	bis(2-ethylhexyl)phthalate	550	427	1070	D, J
218-01-9	Chrysene	ND	427	1070	U
117-84-0	Di-n-octyl phthalate	ND	427	1070	U
205-99-2	Benzo[b]fluoranthene	ND	427	1070	U
207-08-9	Benzo[k]fluoranthene	ND	427	1070	U
50-32-8	Benzo[a]pyrene	ND	427	1070	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	427	1070	U
53-70-3	Dibenzo(a,h)anthracene	ND	427	1070	U
191-24-2	Benzo[ghi]perylene	ND	427	1070	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	21%	*	41-102
Phenol-d5	27%	*	47-113
Nitrobenzene-d5	25%	*	38-100
2-Fluorobiphenyl	28%	*	38-88
2,4,6-Tribromophenol	28%	*	40-129
Terphenyl-d14	45%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C**
Lab Sample ID: **1801587-25**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	51.50	Prep Method:	EPA 3550B GCMS	File ID:	E15997.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 21:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	64.7	162	U
108-95-2	Phenol	ND	64.7	162	U
111-44-4	bis(2-chloroethyl)ether	ND	64.7	162	U
95-57-8	2-Chlorophenol	ND	64.7	162	U
541-73-1	1,3-Dichlorobenzene	ND	64.7	162	U
106-46-7	1,4-Dichlorobenzene	ND	64.7	162	U
100-51-6	Benzyl alcohol	ND	64.7	162	U
95-50-1	1,2-Dichlorobenzene	ND	64.7	162	U
95-48-7	2-Methylphenol	ND	64.7	162	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	64.7	162	U
106-44-5	3 & 4-Methylphenol	ND	64.7	162	U
621-64-7	N-Nitroso-di-n-propylamine	ND	64.7	162	U
67-72-1	Hexachloroethane	ND	64.7	162	U
98-95-3	Nitrobenzene	ND	64.7	162	U
78-59-1	Isophorone	ND	64.7	162	U
88-75-5	2-Nitrophenol	ND	64.7	162	U
105-67-9	2,4-Dimethylphenol	ND	64.7	162	U
111-91-1	bis(2-chloroethoxy)methane	ND	64.7	162	U
120-83-2	2,4-Dichlorophenol	ND	64.7	162	U
120-82-1	1,2,4-Trichlorobenzene	ND	64.7	162	U
91-20-3	Naphthalene	ND	64.7	162	U
106-47-8	4-Chloroaniline	ND	64.7	162	U
87-68-3	Hexachlorobutadiene	ND	64.7	162	U
59-50-7	4-Chloro-3-methylphenol	ND	64.7	162	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C**
Lab Sample ID: **1801587-25**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	51.50	Prep Method:	EPA 3550B GCMS	File ID:	E15997.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 21:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	64.7	162	U
77-47-4	Hexachlorocyclopentadiene	ND	64.7	162	U
88-06-2	2,4,6-Trichlorophenol	ND	64.7	162	U
95-95-4	2,4,5-Trichlorophenol	ND	64.7	162	U
91-58-7	2-Chloronaphthalene	ND	64.7	162	U
88-74-4	2-Nitroaniline	ND	64.7	162	U
131-11-3	Dimethylphthalate	ND	64.7	162	U
208-96-8	Acenaphthylene	ND	64.7	162	U
99-09-2	3-Nitroaniline	ND	64.7	162	U
83-32-9	Acenaphthene	ND	64.7	162	U
51-28-5	2,4-Dinitrophenol	ND	64.7	324	U
100-02-7	4-Nitrophenol	ND	64.7	162	U
132-64-9	Dibenzofuran	ND	64.7	162	U
606-20-2	2,6-Dinitrotoluene	ND	64.7	162	U
121-14-2	2,4-Dinitrotoluene	ND	64.7	162	U
84-66-2	Diethyl phthalate	ND	64.7	162	U
7005-72-3	4-Chlorophenyl-phenylether	ND	64.7	162	U
86-73-7	Fluorene	ND	64.7	162	U
100-01-6	4-Nitroaniline	ND	64.7	162	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	64.7	162	U
86-30-6	N-Nitrosodiphenylamine	ND	64.7	162	U
101-55-3	4-Bromophenyl-phenylether	ND	64.7	162	U
118-74-1	Hexachlorobenzene	ND	64.7	162	U
87-86-5	Pentachlorophenol	ND	64.7	162	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C**
Lab Sample ID: **1801587-25**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	51.50	Prep Method:	EPA 3550B GCMS	File ID:	E15997.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 21:09
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	64.7	162	U
120-12-7	Anthracene	ND	64.7	162	U
84-74-2	Di-n-butyl phthalate	ND	64.7	162	U
206-44-0	Fluoranthene	71.2	64.7	162	J
129-00-0	Pyrene	105	64.7	162	J
85-68-7	Butylbenzylphthalate	ND	64.7	162	U
91-94-1	3,3'-Dichlorobenzidine	ND	161	162	U
56-55-3	Benzo[a]anthracene	ND	64.7	162	U
117-81-7	bis(2-ethylhexyl)phthalate	96.4	64.7	162	J
218-01-9	Chrysene	70.2	64.7	162	J
117-84-0	Di-n-octyl phthalate	ND	64.7	162	U
205-99-2	Benzo[b]fluoranthene	80.8	64.7	162	J
207-08-9	Benzo[k]fluoranthene	ND	64.7	162	U
50-32-8	Benzo[a]pyrene	ND	64.7	162	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	64.7	162	U
53-70-3	Dibenzo(a,h)anthracene	ND	64.7	162	U
191-24-2	Benzo[ghi]perylene	ND	64.7	162	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	46%	41-102
Phenol-d5	55%	47-113
Nitrobenzene-d5	47%	38-100
2-Fluorobiphenyl	50%	38-88
2,4,6-Tribromophenol	55%	40-129
Terphenyl-d14	57%	31-145

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C DUP**
Lab Sample ID: **1801587-26**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	50.00	Prep Method:	EPA 3550B GCMS	File ID:	E15977.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 20:28
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	66.6	167	U
108-95-2	Phenol	ND	66.6	167	U
111-44-4	bis(2-chloroethyl)ether	ND	66.6	167	U
95-57-8	2-Chlorophenol	ND	66.6	167	U
541-73-1	1,3-Dichlorobenzene	ND	66.6	167	U
106-46-7	1,4-Dichlorobenzene	ND	66.6	167	U
100-51-6	Benzyl alcohol	ND	66.6	167	U
95-50-1	1,2-Dichlorobenzene	ND	66.6	167	U
95-48-7	2-Methylphenol	ND	66.6	167	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	66.6	167	U
106-44-5	3 & 4-Methylphenol	ND	66.6	167	U
621-64-7	N-Nitroso-di-n-propylamine	ND	66.6	167	U
67-72-1	Hexachloroethane	ND	66.6	167	U
98-95-3	Nitrobenzene	ND	66.6	167	U
78-59-1	Isophorone	ND	66.6	167	U
88-75-5	2-Nitrophenol	ND	66.6	167	U
105-67-9	2,4-Dimethylphenol	ND	66.6	167	U
111-91-1	bis(2-chloroethoxy)methane	ND	66.6	167	U
120-83-2	2,4-Dichlorophenol	ND	66.6	167	U
120-82-1	1,2,4-Trichlorobenzene	ND	66.6	167	U
91-20-3	Naphthalene	ND	66.6	167	U
106-47-8	4-Chloroaniline	ND	66.6	167	U
87-68-3	Hexachlorobutadiene	ND	66.6	167	U
59-50-7	4-Chloro-3-methylphenol	ND	66.6	167	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C DUP**
Lab Sample ID: **1801587-26**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	50.00	Prep Method:	EPA 3550B GCMS	File ID:	E15977.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 20:28
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	66.6	167	U
77-47-4	Hexachlorocyclopentadiene	ND	66.6	167	U
88-06-2	2,4,6-Trichlorophenol	ND	66.6	167	U
95-95-4	2,4,5-Trichlorophenol	ND	66.6	167	U
91-58-7	2-Chloronaphthalene	ND	66.6	167	U
88-74-4	2-Nitroaniline	ND	66.6	167	U
131-11-3	Dimethylphthalate	ND	66.6	167	U
208-96-8	Acenaphthylene	ND	66.6	167	U
99-09-2	3-Nitroaniline	ND	66.6	167	U
83-32-9	Acenaphthene	ND	66.6	167	U
51-28-5	2,4-Dinitrophenol	ND	66.6	334	U
100-02-7	4-Nitrophenol	ND	66.6	167	U
132-64-9	Dibenzofuran	ND	66.6	167	U
606-20-2	2,6-Dinitrotoluene	ND	66.6	167	U
121-14-2	2,4-Dinitrotoluene	ND	66.6	167	U
84-66-2	Diethyl phthalate	ND	66.6	167	U
7005-72-3	4-Chlorophenyl-phenylether	ND	66.6	167	U
86-73-7	Fluorene	ND	66.6	167	U
100-01-6	4-Nitroaniline	ND	66.6	167	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	66.6	167	U
86-30-6	N-Nitrosodiphenylamine	ND	66.6	167	U
101-55-3	4-Bromophenyl-phenylether	ND	66.6	167	U
118-74-1	Hexachlorobenzene	ND	66.6	167	U
87-86-5	Pentachlorophenol	ND	66.6	167	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-2C DUP**
Lab Sample ID: **1801587-26**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:25	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	50.00	Prep Method:	EPA 3550B GCMS	File ID:	E15977.D
Prep Batch:	B8J1215	Sequence:	S8J1607	Analyzed:	10/16/18 20:28
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	66.6	167	U
120-12-7	Anthracene	ND	66.6	167	U
84-74-2	Di-n-butyl phthalate	ND	66.6	167	U
206-44-0	Fluoranthene	ND	66.6	167	U
129-00-0	Pyrene	ND	66.6	167	U
85-68-7	Butylbenzylphthalate	ND	66.6	167	U
91-94-1	3,3'-Dichlorobenzidine	ND	166	167	U
56-55-3	Benzo[a]anthracene	ND	66.6	167	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	66.6	167	U
218-01-9	Chrysene	ND	66.6	167	U
117-84-0	Di-n-octyl phthalate	ND	66.6	167	U
205-99-2	Benzo[b]fluoranthene	ND	66.6	167	U
207-08-9	Benzo[k]fluoranthene	ND	66.6	167	U
50-32-8	Benzo[a]pyrene	ND	66.6	167	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	66.6	167	U
53-70-3	Dibenzo(a,h)anthracene	ND	66.6	167	U
191-24-2	Benzo[ghi]perylene	ND	66.6	167	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	69%	41-102
Phenol-d5	80%	47-113
Nitrobenzene-d5	68%	38-100
2-Fluorobiphenyl	71%	38-88
2,4,6-Tribromophenol	77%	40-129
Terphenyl-d14	80%	31-145

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U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16011.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 17:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	103	257	U
108-95-2	Phenol	ND	103	257	U
111-44-4	bis(2-chloroethyl)ether	ND	103	257	U
95-57-8	2-Chlorophenol	ND	103	257	U
541-73-1	1,3-Dichlorobenzene	ND	103	257	U
106-46-7	1,4-Dichlorobenzene	ND	103	257	U
100-51-6	Benzyl alcohol	ND	103	257	U
95-50-1	1,2-Dichlorobenzene	ND	103	257	U
95-48-7	2-Methylphenol	ND	103	257	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	103	257	U
106-44-5	3 & 4-Methylphenol	ND	103	257	U
621-64-7	N-Nitroso-di-n-propylamine	ND	103	257	U
67-72-1	Hexachloroethane	ND	103	257	U
98-95-3	Nitrobenzene	ND	103	257	U
78-59-1	Isophorone	ND	103	257	U
88-75-5	2-Nitrophenol	ND	103	257	U
105-67-9	2,4-Dimethylphenol	ND	103	257	U
111-91-1	bis(2-chloroethoxy)methane	ND	103	257	U
120-83-2	2,4-Dichlorophenol	ND	103	257	U
120-82-1	1,2,4-Trichlorobenzene	ND	103	257	U
91-20-3	Naphthalene	ND	103	257	U
106-47-8	4-Chloroaniline	ND	103	257	U
87-68-3	Hexachlorobutadiene	ND	103	257	U
59-50-7	4-Chloro-3-methylphenol	ND	103	257	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16011.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 17:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	103	257	U
77-47-4	Hexachlorocyclopentadiene	ND	103	257	U
88-06-2	2,4,6-Trichlorophenol	ND	103	257	U
95-95-4	2,4,5-Trichlorophenol	ND	103	257	U
91-58-7	2-Chloronaphthalene	ND	103	257	U
88-74-4	2-Nitroaniline	ND	103	257	U
131-11-3	Dimethylphthalate	ND	103	257	U
208-96-8	Acenaphthylene	ND	103	257	U
99-09-2	3-Nitroaniline	ND	103	257	U
83-32-9	Acenaphthene	ND	103	257	U
51-28-5	2,4-Dinitrophenol	ND	103	515	U
100-02-7	4-Nitrophenol	ND	103	257	U
132-64-9	Dibenzofuran	ND	103	257	U
606-20-2	2,6-Dinitrotoluene	ND	103	257	U
121-14-2	2,4-Dinitrotoluene	ND	103	257	U
84-66-2	Diethyl phthalate	ND	103	257	U
7005-72-3	4-Chlorophenyl-phenylether	ND	103	257	U
86-73-7	Fluorene	ND	103	257	U
100-01-6	4-Nitroaniline	ND	103	257	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	103	257	U
86-30-6	N-Nitrosodiphenylamine	ND	103	257	U
101-55-3	4-Bromophenyl-phenylether	ND	103	257	U
118-74-1	Hexachlorobenzene	ND	103	257	U
87-86-5	Pentachlorophenol	ND	103	257	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16011.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 17:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	103	257	U
120-12-7	Anthracene	ND	103	257	U
84-74-2	Di-n-butyl phthalate	ND	103	257	U
206-44-0	Fluoranthene	206	103	257	J
129-00-0	Pyrene	303	103	257	
85-68-7	Butylbenzylphthalate	ND	103	257	U
91-94-1	3,3'-Dichlorobenzidine	ND	256	257	U
56-55-3	Benzo[a]anthracene	132	103	257	J
117-81-7	bis(2-ethylhexyl)phthalate	831	103	257	
218-01-9	Chrysene	184	103	257	J
117-84-0	Di-n-octyl phthalate	ND	103	257	U
205-99-2	Benzo[b]fluoranthene	382	103	257	
207-08-9	Benzo[k]fluoranthene	141	103	257	J
50-32-8	Benzo[a]pyrene	176	103	257	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	103	257	U
53-70-3	Dibenzo(a,h)anthracene	ND	103	257	U
191-24-2	Benzo[ghi]perylene	ND	103	257	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	34%	*	41-102
Phenol-d5	43%	*	47-113
Nitrobenzene-d5	37%	*	38-100
2-Fluorobiphenyl	43%		38-88
2,4,6-Tribromophenol	52%		40-129
Terphenyl-d14	74%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16030.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 18:37
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	514	1290	U
108-95-2	Phenol	ND	514	1290	U
111-44-4	bis(2-chloroethyl)ether	ND	514	1290	U
95-57-8	2-Chlorophenol	ND	514	1290	U
541-73-1	1,3-Dichlorobenzene	ND	514	1290	U
106-46-7	1,4-Dichlorobenzene	ND	514	1290	U
100-51-6	Benzyl alcohol	ND	514	1290	U
95-50-1	1,2-Dichlorobenzene	ND	514	1290	U
95-48-7	2-Methylphenol	ND	514	1290	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	514	1290	U
106-44-5	3 & 4-Methylphenol	ND	514	1290	U
621-64-7	N-Nitroso-di-n-propylamine	ND	514	1290	U
67-72-1	Hexachloroethane	ND	514	1290	U
98-95-3	Nitrobenzene	ND	514	1290	U
78-59-1	Isophorone	ND	514	1290	U
88-75-5	2-Nitrophenol	ND	514	1290	U
105-67-9	2,4-Dimethylphenol	ND	514	1290	U
65-85-0	Benzoic acid	ND	1280	2580	U
111-91-1	bis(2-chloroethoxy)methane	ND	514	1290	U
120-83-2	2,4-Dichlorophenol	ND	514	1290	U
120-82-1	1,2,4-Trichlorobenzene	ND	514	1290	U
91-20-3	Naphthalene	ND	514	1290	U
106-47-8	4-Chloroaniline	ND	514	1290	U
87-68-3	Hexachlorobutadiene	ND	514	1290	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16030.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 18:37
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	514	1290	U
91-57-6	2-Methylnaphthylene	ND	514	1290	U
77-47-4	Hexachlorocyclopentadiene	ND	514	1290	U
88-06-2	2,4,6-Trichlorophenol	ND	514	1290	U
95-95-4	2,4,5-Trichlorophenol	ND	514	1290	U
91-58-7	2-Chloronaphthalene	ND	514	1290	U
88-74-4	2-Nitroaniline	ND	514	1290	U
131-11-3	Dimethylphthalate	ND	514	1290	U
208-96-8	Acenaphthylene	ND	514	1290	U
99-09-2	3-Nitroaniline	ND	514	1290	U
83-32-9	Acenaphthene	ND	514	1290	U
51-28-5	2,4-Dinitrophenol	ND	514	2580	U
100-02-7	4-Nitrophenol	ND	514	1290	U
132-64-9	Dibenzofuran	ND	514	1290	U
606-20-2	2,6-Dinitrotoluene	ND	514	1290	U
121-14-2	2,4-Dinitrotoluene	ND	514	1290	U
84-66-2	Diethyl phthalate	ND	514	1290	U
7005-72-3	4-Chlorophenyl-phenylether	ND	514	1290	U
86-73-7	Fluorene	ND	514	1290	U
100-01-6	4-Nitroaniline	ND	514	1290	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	514	1290	U
86-30-6	N-Nitrosodiphenylamine	ND	514	1290	U
101-55-3	4-Bromophenyl-phenylether	ND	514	1290	U
118-74-1	Hexachlorobenzene	ND	514	1290	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4A**
Lab Sample ID: **1801587-27RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	32.40	Prep Method:	EPA 3550B GCMS	File ID:	E16030.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 18:37
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	514	1290	U
85-01-8	Phenanthrene	ND	514	1290	U
120-12-7	Anthracene	ND	514	1290	U
84-74-2	Di-n-butyl phthalate	ND	514	1290	U
206-44-0	Fluoranthene	ND	514	1290	U
129-00-0	Pyrene	ND	514	1290	U
85-68-7	Butylbenzylphthalate	ND	514	1290	U
91-94-1	3,3'-Dichlorobenzidine	ND	1280	1290	U
56-55-3	Benzo[a]anthracene	ND	514	1290	U
117-81-7	bis(2-ethylhexyl)phthalate	820	514	1290	J, D
218-01-9	Chrysene	ND	514	1290	U
117-84-0	Di-n-octyl phthalate	ND	514	1290	U
205-99-2	Benzo[b]fluoranthene	ND	514	1290	U
207-08-9	Benzo[k]fluoranthene	ND	514	1290	U
50-32-8	Benzo[a]pyrene	ND	514	1290	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	514	1290	U
53-70-3	Dibenzo(a,h)anthracene	ND	514	1290	U
191-24-2	Benzo[ghi]perylene	ND	514	1290	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	33%	*	41-102
Phenol-d5	42%	*	47-113
Nitrobenzene-d5	37%	*	38-100
2-Fluorobiphenyl	43%		38-88
2,4,6-Tribromophenol	48%		40-129
Terphenyl-d14	63%		31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16014.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 19:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	81.6	204	U
108-95-2	Phenol	ND	81.6	204	U
111-44-4	bis(2-chloroethyl)ether	ND	81.6	204	U
95-57-8	2-Chlorophenol	ND	81.6	204	U
541-73-1	1,3-Dichlorobenzene	ND	81.6	204	U
106-46-7	1,4-Dichlorobenzene	ND	81.6	204	U
100-51-6	Benzyl alcohol	ND	81.6	204	U
95-50-1	1,2-Dichlorobenzene	ND	81.6	204	U
95-48-7	2-Methylphenol	ND	81.6	204	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	81.6	204	U
106-44-5	3 & 4-Methylphenol	ND	81.6	204	U
621-64-7	N-Nitroso-di-n-propylamine	ND	81.6	204	U
67-72-1	Hexachloroethane	ND	81.6	204	U
98-95-3	Nitrobenzene	ND	81.6	204	U
78-59-1	Isophorone	ND	81.6	204	U
88-75-5	2-Nitrophenol	ND	81.6	204	U
105-67-9	2,4-Dimethylphenol	ND	81.6	204	U
111-91-1	bis(2-chloroethoxy)methane	ND	81.6	204	U
120-83-2	2,4-Dichlorophenol	ND	81.6	204	U
120-82-1	1,2,4-Trichlorobenzene	ND	81.6	204	U
91-20-3	Naphthalene	ND	81.6	204	U
106-47-8	4-Chloroaniline	ND	81.6	204	U
87-68-3	Hexachlorobutadiene	ND	81.6	204	U
59-50-7	4-Chloro-3-methylphenol	ND	81.6	204	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16014.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 19:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	81.6	204	U
77-47-4	Hexachlorocyclopentadiene	ND	81.6	204	U
88-06-2	2,4,6-Trichlorophenol	ND	81.6	204	U
95-95-4	2,4,5-Trichlorophenol	ND	81.6	204	U
91-58-7	2-Chloronaphthalene	ND	81.6	204	U
88-74-4	2-Nitroaniline	ND	81.6	204	U
131-11-3	Dimethylphthalate	ND	81.6	204	U
208-96-8	Acenaphthylene	ND	81.6	204	U
99-09-2	3-Nitroaniline	ND	81.6	204	U
83-32-9	Acenaphthene	ND	81.6	204	U
51-28-5	2,4-Dinitrophenol	ND	81.6	409	U
100-02-7	4-Nitrophenol	ND	81.6	204	U
132-64-9	Dibenzofuran	ND	81.6	204	U
606-20-2	2,6-Dinitrotoluene	ND	81.6	204	U
121-14-2	2,4-Dinitrotoluene	ND	81.6	204	U
84-66-2	Diethyl phthalate	ND	81.6	204	U
7005-72-3	4-Chlorophenyl-phenylether	ND	81.6	204	U
86-73-7	Fluorene	ND	81.6	204	U
100-01-6	4-Nitroaniline	ND	81.6	204	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	81.6	204	U
86-30-6	N-Nitrosodiphenylamine	ND	81.6	204	U
101-55-3	4-Bromophenyl-phenylether	ND	81.6	204	U
118-74-1	Hexachlorobenzene	ND	81.6	204	U
87-86-5	Pentachlorophenol	ND	81.6	204	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16014.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 19:27
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	81.6	204	U
120-12-7	Anthracene	ND	81.6	204	U
84-74-2	Di-n-butyl phthalate	ND	81.6	204	U
206-44-0	Fluoranthene	161	81.6	204	J
129-00-0	Pyrene	275	81.6	204	
85-68-7	Butylbenzylphthalate	ND	81.6	204	U
91-94-1	3,3'-Dichlorobenzidine	ND	203	204	U
56-55-3	Benzo[a]anthracene	112	81.6	204	J
117-81-7	bis(2-ethylhexyl)phthalate	991	81.6	204	
218-01-9	Chrysene	130	81.6	204	J
117-84-0	Di-n-octyl phthalate	ND	81.6	204	U
205-99-2	Benzo[b]fluoranthene	300	81.6	204	
207-08-9	Benzo[k]fluoranthene	87.0	81.6	204	J
50-32-8	Benzo[a]pyrene	143	81.6	204	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	81.6	204	U
53-70-3	Dibenzo(a,h)anthracene	ND	81.6	204	U
191-24-2	Benzo[ghi]perylene	ND	81.6	204	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	31%	*	41-102
Phenol-d5	39%	*	47-113
Nitrobenzene-d5	34%	*	38-100
2-Fluorobiphenyl	40%		38-88
2,4,6-Tribromophenol	50%		40-129
Terphenyl-d14	84%		31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16031.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 19:20
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	408	1020	U
108-95-2	Phenol	ND	408	1020	U
111-44-4	bis(2-chloroethyl)ether	ND	408	1020	U
95-57-8	2-Chlorophenol	ND	408	1020	U
541-73-1	1,3-Dichlorobenzene	ND	408	1020	U
106-46-7	1,4-Dichlorobenzene	ND	408	1020	U
100-51-6	Benzyl alcohol	ND	408	1020	U
95-50-1	1,2-Dichlorobenzene	ND	408	1020	U
95-48-7	2-Methylphenol	ND	408	1020	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	408	1020	U
106-44-5	3 & 4-Methylphenol	ND	408	1020	U
621-64-7	N-Nitroso-di-n-propylamine	ND	408	1020	U
67-72-1	Hexachloroethane	ND	408	1020	U
98-95-3	Nitrobenzene	ND	408	1020	U
78-59-1	Isophorone	ND	408	1020	U
88-75-5	2-Nitrophenol	ND	408	1020	U
105-67-9	2,4-Dimethylphenol	ND	408	1020	U
65-85-0	Benzoic acid	ND	1020	2050	U
111-91-1	bis(2-chloroethoxy)methane	ND	408	1020	U
120-83-2	2,4-Dichlorophenol	ND	408	1020	U
120-82-1	1,2,4-Trichlorobenzene	ND	408	1020	U
91-20-3	Naphthalene	ND	408	1020	U
106-47-8	4-Chloroaniline	ND	408	1020	U
87-68-3	Hexachlorobutadiene	ND	408	1020	U

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16031.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 19:20
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
59-50-7	4-Chloro-3-methylphenol	ND	408	1020	U
91-57-6	2-Methylnaphthylene	ND	408	1020	U
77-47-4	Hexachlorocyclopentadiene	ND	408	1020	U
88-06-2	2,4,6-Trichlorophenol	ND	408	1020	U
95-95-4	2,4,5-Trichlorophenol	ND	408	1020	U
91-58-7	2-Chloronaphthalene	ND	408	1020	U
88-74-4	2-Nitroaniline	ND	408	1020	U
131-11-3	Dimethylphthalate	ND	408	1020	U
208-96-8	Acenaphthylene	ND	408	1020	U
99-09-2	3-Nitroaniline	ND	408	1020	U
83-32-9	Acenaphthene	ND	408	1020	U
51-28-5	2,4-Dinitrophenol	ND	408	2050	U
100-02-7	4-Nitrophenol	ND	408	1020	U
132-64-9	Dibenzofuran	ND	408	1020	U
606-20-2	2,6-Dinitrotoluene	ND	408	1020	U
121-14-2	2,4-Dinitrotoluene	ND	408	1020	U
84-66-2	Diethyl phthalate	ND	408	1020	U
7005-72-3	4-Chlorophenyl-phenylether	ND	408	1020	U
86-73-7	Fluorene	ND	408	1020	U
100-01-6	4-Nitroaniline	ND	408	1020	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	408	1020	U
86-30-6	N-Nitrosodiphenylamine	ND	408	1020	U
101-55-3	4-Bromophenyl-phenylether	ND	408	1020	U
118-74-1	Hexachlorobenzene	ND	408	1020	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4B**
Lab Sample ID: **1801587-28RE1**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	40.80	Prep Method:	EPA 3550B GCMS	File ID:	E16031.D
Prep Batch:	B8J1301	Sequence:	S8J2203	Analyzed:	10/22/18 19:20
Dilution:	5			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
87-86-5	Pentachlorophenol	ND	408	1020	U
85-01-8	Phenanthrene	ND	408	1020	U
120-12-7	Anthracene	ND	408	1020	U
84-74-2	Di-n-butyl phthalate	ND	408	1020	U
206-44-0	Fluoranthene	ND	408	1020	U
129-00-0	Pyrene	ND	408	1020	U
85-68-7	Butylbenzylphthalate	ND	408	1020	U
91-94-1	3,3'-Dichlorobenzidine	ND	1020	1020	U
56-55-3	Benzo[a]anthracene	ND	408	1020	U
117-81-7	bis(2-ethylhexyl)phthalate	922	408	1020	J, D
218-01-9	Chrysene	ND	408	1020	U
117-84-0	Di-n-octyl phthalate	ND	408	1020	U
205-99-2	Benzo[b]fluoranthene	ND	408	1020	U
207-08-9	Benzo[k]fluoranthene	ND	408	1020	U
50-32-8	Benzo[a]pyrene	ND	408	1020	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	408	1020	U
53-70-3	Dibenzo(a,h)anthracene	ND	408	1020	U
191-24-2	Benzo[ghi]perylene	ND	408	1020	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	32%	*	41-102
Phenol-d5	45%	*	47-113
Nitrobenzene-d5	39%		38-100
2-Fluorobiphenyl	43%		38-88
2,4,6-Tribromophenol	50%		40-129
Terphenyl-d14	66%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4C**
Lab Sample ID: **1801587-29**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E15996.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 20:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	56.1	140	U
108-95-2	Phenol	ND	56.1	140	U
111-44-4	bis(2-chloroethyl)ether	ND	56.1	140	U
95-57-8	2-Chlorophenol	ND	56.1	140	U
541-73-1	1,3-Dichlorobenzene	ND	56.1	140	U
106-46-7	1,4-Dichlorobenzene	ND	56.1	140	U
100-51-6	Benzyl alcohol	ND	56.1	140	U
95-50-1	1,2-Dichlorobenzene	ND	56.1	140	U
95-48-7	2-Methylphenol	ND	56.1	140	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	56.1	140	U
106-44-5	3 & 4-Methylphenol	ND	56.1	140	U
621-64-7	N-Nitroso-di-n-propylamine	ND	56.1	140	U
67-72-1	Hexachloroethane	ND	56.1	140	U
98-95-3	Nitrobenzene	ND	56.1	140	U
78-59-1	Isophorone	ND	56.1	140	U
88-75-5	2-Nitrophenol	ND	56.1	140	U
105-67-9	2,4-Dimethylphenol	ND	56.1	140	U
111-91-1	bis(2-chloroethoxy)methane	ND	56.1	140	U
120-83-2	2,4-Dichlorophenol	ND	56.1	140	U
120-82-1	1,2,4-Trichlorobenzene	ND	56.1	140	U
91-20-3	Naphthalene	ND	56.1	140	U
106-47-8	4-Chloroaniline	ND	56.1	140	U
87-68-3	Hexachlorobutadiene	ND	56.1	140	U
59-50-7	4-Chloro-3-methylphenol	ND	56.1	140	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4C**
Lab Sample ID: **1801587-29**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E15996.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 20:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	56.1	140	U
77-47-4	Hexachlorocyclopentadiene	ND	56.1	140	U
88-06-2	2,4,6-Trichlorophenol	ND	56.1	140	U
95-95-4	2,4,5-Trichlorophenol	ND	56.1	140	U
91-58-7	2-Chloronaphthalene	ND	56.1	140	U
88-74-4	2-Nitroaniline	ND	56.1	140	U
131-11-3	Dimethylphthalate	ND	56.1	140	U
208-96-8	Acenaphthylene	ND	56.1	140	U
99-09-2	3-Nitroaniline	ND	56.1	140	U
83-32-9	Acenaphthene	ND	56.1	140	U
51-28-5	2,4-Dinitrophenol	ND	56.1	281	U
100-02-7	4-Nitrophenol	ND	56.1	140	U
132-64-9	Dibenzofuran	ND	56.1	140	U
606-20-2	2,6-Dinitrotoluene	ND	56.1	140	U
121-14-2	2,4-Dinitrotoluene	ND	56.1	140	U
84-66-2	Diethyl phthalate	ND	56.1	140	U
7005-72-3	4-Chlorophenyl-phenylether	ND	56.1	140	U
86-73-7	Fluorene	ND	56.1	140	U
100-01-6	4-Nitroaniline	ND	56.1	140	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	56.1	140	U
86-30-6	N-Nitrosodiphenylamine	ND	56.1	140	U
101-55-3	4-Bromophenyl-phenylether	ND	56.1	140	U
118-74-1	Hexachlorobenzene	ND	56.1	140	U
87-86-5	Pentachlorophenol	ND	56.1	140	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-4C**
Lab Sample ID: **1801587-29**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 15:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	59.40	Prep Method:	EPA 3550B GCMS	File ID:	E15996.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 20:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	384	56.1	140	
120-12-7	Anthracene	ND	56.1	140	U
84-74-2	Di-n-butyl phthalate	ND	56.1	140	U
206-44-0	Fluoranthene	529	56.1	140	
129-00-0	Pyrene	528	56.1	140	
85-68-7	Butylbenzylphthalate	ND	56.1	140	U
91-94-1	3,3'-Dichlorobenzidine	ND	140	140	U
56-55-3	Benzo[a]anthracene	212	56.1	140	
117-81-7	bis(2-ethylhexyl)phthalate	ND	56.1	140	U
218-01-9	Chrysene	255	56.1	140	
117-84-0	Di-n-octyl phthalate	ND	56.1	140	U
205-99-2	Benzo[b]fluoranthene	312	56.1	140	
207-08-9	Benzo[k]fluoranthene	62.2	56.1	140	J
50-32-8	Benzo[a]pyrene	180	56.1	140	
193-39-5	Indeno(1,2,3-cd)pyrene	63.2	56.1	140	J
53-70-3	Dibenzo(a,h)anthracene	ND	56.1	140	U
191-24-2	Benzo[ghi]perylene	62.2	56.1	140	J

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	54%	41-102
Phenol-d5	64%	47-113
Nitrobenzene-d5	58%	38-100
2-Fluorobiphenyl	63%	38-88
2,4,6-Tribromophenol	66%	40-129
Terphenyl-d14	73%	31-145

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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9A**
Lab Sample ID: **1801587-30**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:15	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	29.10	Prep Method:	EPA 3550B GCMS	File ID:	E16005.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 12:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	114	286	U
108-95-2	Phenol	ND	114	286	U
111-44-4	bis(2-chloroethyl)ether	ND	114	286	U
95-57-8	2-Chlorophenol	ND	114	286	U
541-73-1	1,3-Dichlorobenzene	ND	114	286	U
106-46-7	1,4-Dichlorobenzene	ND	114	286	U
100-51-6	Benzyl alcohol	ND	114	286	U
95-50-1	1,2-Dichlorobenzene	ND	114	286	U
95-48-7	2-Methylphenol	ND	114	286	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	114	286	U
106-44-5	3 & 4-Methylphenol	ND	114	286	U
621-64-7	N-Nitroso-di-n-propylamine	ND	114	286	U
67-72-1	Hexachloroethane	ND	114	286	U
98-95-3	Nitrobenzene	ND	114	286	U
78-59-1	Isophorone	ND	114	286	U
88-75-5	2-Nitrophenol	ND	114	286	U
105-67-9	2,4-Dimethylphenol	ND	114	286	U
111-91-1	bis(2-chloroethoxy)methane	ND	114	286	U
120-83-2	2,4-Dichlorophenol	ND	114	286	U
120-82-1	1,2,4-Trichlorobenzene	ND	114	286	U
91-20-3	Naphthalene	ND	114	286	U
106-47-8	4-Chloroaniline	ND	114	286	U
87-68-3	Hexachlorobutadiene	ND	114	286	U
59-50-7	4-Chloro-3-methylphenol	ND	114	286	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9A**
Lab Sample ID: **1801587-30**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:15	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	29.10	Prep Method:	EPA 3550B GCMS	File ID:	E16005.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 12:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	114	286	U
77-47-4	Hexachlorocyclopentadiene	ND	114	286	U
88-06-2	2,4,6-Trichlorophenol	ND	114	286	U
95-95-4	2,4,5-Trichlorophenol	ND	114	286	U
91-58-7	2-Chloronaphthalene	ND	114	286	U
88-74-4	2-Nitroaniline	ND	114	286	U
131-11-3	Dimethylphthalate	ND	114	286	U
208-96-8	Acenaphthylene	ND	114	286	U
99-09-2	3-Nitroaniline	ND	114	286	U
83-32-9	Acenaphthene	ND	114	286	U
51-28-5	2,4-Dinitrophenol	ND	114	574	U
100-02-7	4-Nitrophenol	ND	114	286	U
132-64-9	Dibenzofuran	ND	114	286	U
606-20-2	2,6-Dinitrotoluene	ND	114	286	U
121-14-2	2,4-Dinitrotoluene	ND	114	286	U
84-66-2	Diethyl phthalate	ND	114	286	U
7005-72-3	4-Chlorophenyl-phenylether	ND	114	286	U
86-73-7	Fluorene	ND	114	286	U
100-01-6	4-Nitroaniline	ND	114	286	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	114	286	U
86-30-6	N-Nitrosodiphenylamine	ND	114	286	U
101-55-3	4-Bromophenyl-phenylether	ND	114	286	U
118-74-1	Hexachlorobenzene	ND	114	286	U
87-86-5	Pentachlorophenol	ND	114	286	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9A**
Lab Sample ID: **1801587-30**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:15	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	29.10	Prep Method:	EPA 3550B GCMS	File ID:	E16005.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 12:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	114	286	U
120-12-7	Anthracene	ND	114	286	U
84-74-2	Di-n-butyl phthalate	ND	114	286	U
206-44-0	Fluoranthene	ND	114	286	U
129-00-0	Pyrene	127	114	286	J
85-68-7	Butylbenzylphthalate	ND	114	286	U
91-94-1	3,3'-Dichlorobenzidine	ND	285	286	U
56-55-3	Benzo[a]anthracene	ND	114	286	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	114	286	U
218-01-9	Chrysene	ND	114	286	U
117-84-0	Di-n-octyl phthalate	ND	114	286	U
205-99-2	Benzo[b]fluoranthene	ND	114	286	U
207-08-9	Benzo[k]fluoranthene	ND	114	286	U
50-32-8	Benzo[a]pyrene	ND	114	286	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	114	286	U
53-70-3	Dibenzo(a,h)anthracene	ND	114	286	U
191-24-2	Benzo[ghi]perylene	ND	114	286	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	39%	*	41-102
Phenol-d5	50%		47-113
Nitrobenzene-d5	42%		38-100
2-Fluorobiphenyl	47%		38-88
2,4,6-Tribromophenol	65%		40-129
Terphenyl-d14	78%		31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9B**
Lab Sample ID: **1801587-31**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:28	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	21.00	Prep Method:	EPA 3550B GCMS	File ID:	E15972.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	159	397	U
108-95-2	Phenol	ND	159	397	U
111-44-4	bis(2-chloroethyl)ether	ND	159	397	U
95-57-8	2-Chlorophenol	ND	159	397	U
541-73-1	1,3-Dichlorobenzene	ND	159	397	U
106-46-7	1,4-Dichlorobenzene	ND	159	397	U
100-51-6	Benzyl alcohol	ND	159	397	U
95-50-1	1,2-Dichlorobenzene	ND	159	397	U
95-48-7	2-Methylphenol	ND	159	397	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	159	397	U
106-44-5	3 & 4-Methylphenol	ND	159	397	U
621-64-7	N-Nitroso-di-n-propylamine	ND	159	397	U
67-72-1	Hexachloroethane	ND	159	397	U
98-95-3	Nitrobenzene	ND	159	397	U
78-59-1	Isophorone	ND	159	397	U
88-75-5	2-Nitrophenol	ND	159	397	U
105-67-9	2,4-Dimethylphenol	ND	159	397	U
111-91-1	bis(2-chloroethoxy)methane	ND	159	397	U
120-83-2	2,4-Dichlorophenol	ND	159	397	U
120-82-1	1,2,4-Trichlorobenzene	ND	159	397	U
91-20-3	Naphthalene	ND	159	397	U
106-47-8	4-Chloroaniline	ND	159	397	U
87-68-3	Hexachlorobutadiene	ND	159	397	U
59-50-7	4-Chloro-3-methylphenol	ND	159	397	U

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Fax: 732-541-1383
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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9B**
Lab Sample ID: **1801587-31**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:28	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	21.00	Prep Method:	EPA 3550B GCMS	File ID:	E15972.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	159	397	U
77-47-4	Hexachlorocyclopentadiene	ND	159	397	U
88-06-2	2,4,6-Trichlorophenol	ND	159	397	U
95-95-4	2,4,5-Trichlorophenol	ND	159	397	U
91-58-7	2-Chloronaphthalene	ND	159	397	U
88-74-4	2-Nitroaniline	ND	159	397	U
131-11-3	Dimethylphthalate	ND	159	397	U
208-96-8	Acenaphthylene	ND	159	397	U
99-09-2	3-Nitroaniline	ND	159	397	U
83-32-9	Acenaphthene	ND	159	397	U
51-28-5	2,4-Dinitrophenol	ND	159	795	U
100-02-7	4-Nitrophenol	ND	159	397	U
132-64-9	Dibenzofuran	ND	159	397	U
606-20-2	2,6-Dinitrotoluene	ND	159	397	U
121-14-2	2,4-Dinitrotoluene	ND	159	397	U
84-66-2	Diethyl phthalate	ND	159	397	U
7005-72-3	4-Chlorophenyl-phenylether	ND	159	397	U
86-73-7	Fluorene	ND	159	397	U
100-01-6	4-Nitroaniline	ND	159	397	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	159	397	U
86-30-6	N-Nitrosodiphenylamine	ND	159	397	U
101-55-3	4-Bromophenyl-phenylether	ND	159	397	U
118-74-1	Hexachlorobenzene	ND	159	397	U
87-86-5	Pentachlorophenol	ND	159	397	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9B**
Lab Sample ID: **1801587-31**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:28	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	21.00	Prep Method:	EPA 3550B GCMS	File ID:	E15972.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 16:51
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	159	397	U
120-12-7	Anthracene	ND	159	397	U
84-74-2	Di-n-butyl phthalate	ND	159	397	U
206-44-0	Fluoranthene	ND	159	397	U
129-00-0	Pyrene	ND	159	397	U
85-68-7	Butylbenzylphthalate	ND	159	397	U
91-94-1	3,3'-Dichlorobenzidine	ND	395	397	U
56-55-3	Benzo[a]anthracene	ND	159	397	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	159	397	U
218-01-9	Chrysene	ND	159	397	U
117-84-0	Di-n-octyl phthalate	ND	159	397	U
205-99-2	Benzo[b]fluoranthene	ND	159	397	U
207-08-9	Benzo[k]fluoranthene	ND	159	397	U
50-32-8	Benzo[a]pyrene	ND	159	397	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	159	397	U
53-70-3	Dibenzo(a,h)anthracene	ND	159	397	U
191-24-2	Benzo[ghi]perylene	ND	159	397	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	71%	41-102
Phenol-d5	84%	47-113
Nitrobenzene-d5	63%	38-100
2-Fluorobiphenyl	63%	38-88
2,4,6-Tribromophenol	82%	40-129
Terphenyl-d14	76%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9C**
Lab Sample ID: **1801587-32**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:45	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	31.70	Prep Method:	EPA 3550B GCMS	File ID:	E15973.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 17:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	105	263	U
108-95-2	Phenol	ND	105	263	U
111-44-4	bis(2-chloroethyl)ether	ND	105	263	U
95-57-8	2-Chlorophenol	ND	105	263	U
541-73-1	1,3-Dichlorobenzene	ND	105	263	U
106-46-7	1,4-Dichlorobenzene	ND	105	263	U
100-51-6	Benzyl alcohol	ND	105	263	U
95-50-1	1,2-Dichlorobenzene	ND	105	263	U
95-48-7	2-Methylphenol	ND	105	263	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	105	263	U
106-44-5	3 & 4-Methylphenol	ND	105	263	U
621-64-7	N-Nitroso-di-n-propylamine	ND	105	263	U
67-72-1	Hexachloroethane	ND	105	263	U
98-95-3	Nitrobenzene	ND	105	263	U
78-59-1	Isophorone	ND	105	263	U
88-75-5	2-Nitrophenol	ND	105	263	U
105-67-9	2,4-Dimethylphenol	ND	105	263	U
111-91-1	bis(2-chloroethoxy)methane	ND	105	263	U
120-83-2	2,4-Dichlorophenol	ND	105	263	U
120-82-1	1,2,4-Trichlorobenzene	ND	105	263	U
91-20-3	Naphthalene	ND	105	263	U
106-47-8	4-Chloroaniline	ND	105	263	U
87-68-3	Hexachlorobutadiene	ND	105	263	U
59-50-7	4-Chloro-3-methylphenol	ND	105	263	U

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9C**
Lab Sample ID: **1801587-32**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:45	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	31.70	Prep Method:	EPA 3550B GCMS	File ID:	E15973.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 17:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	105	263	U
77-47-4	Hexachlorocyclopentadiene	ND	105	263	U
88-06-2	2,4,6-Trichlorophenol	ND	105	263	U
95-95-4	2,4,5-Trichlorophenol	ND	105	263	U
91-58-7	2-Chloronaphthalene	ND	105	263	U
88-74-4	2-Nitroaniline	ND	105	263	U
131-11-3	Dimethylphthalate	ND	105	263	U
208-96-8	Acenaphthylene	ND	105	263	U
99-09-2	3-Nitroaniline	ND	105	263	U
83-32-9	Acenaphthene	ND	105	263	U
51-28-5	2,4-Dinitrophenol	ND	105	527	U
100-02-7	4-Nitrophenol	ND	105	263	U
132-64-9	Dibenzofuran	ND	105	263	U
606-20-2	2,6-Dinitrotoluene	ND	105	263	U
121-14-2	2,4-Dinitrotoluene	ND	105	263	U
84-66-2	Diethyl phthalate	ND	105	263	U
7005-72-3	4-Chlorophenyl-phenylether	ND	105	263	U
86-73-7	Fluorene	ND	105	263	U
100-01-6	4-Nitroaniline	ND	105	263	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	105	263	U
86-30-6	N-Nitrosodiphenylamine	ND	105	263	U
101-55-3	4-Bromophenyl-phenylether	ND	105	263	U
118-74-1	Hexachlorobenzene	ND	105	263	U
87-86-5	Pentachlorophenol	ND	105	263	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-9C**
Lab Sample ID: **1801587-32**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 10:45	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	31.70	Prep Method:	EPA 3550B GCMS	File ID:	E15973.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 17:34
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	105	263	U
120-12-7	Anthracene	ND	105	263	U
84-74-2	Di-n-butyl phthalate	ND	105	263	U
206-44-0	Fluoranthene	ND	105	263	U
129-00-0	Pyrene	ND	105	263	U
85-68-7	Butylbenzylphthalate	ND	105	263	U
91-94-1	3,3'-Dichlorobenzidine	ND	262	263	U
56-55-3	Benzo[a]anthracene	ND	105	263	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	105	263	U
218-01-9	Chrysene	ND	105	263	U
117-84-0	Di-n-octyl phthalate	ND	105	263	U
205-99-2	Benzo[b]fluoranthene	ND	105	263	U
207-08-9	Benzo[k]fluoranthene	ND	105	263	U
50-32-8	Benzo[a]pyrene	ND	105	263	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	105	263	U
53-70-3	Dibenzo(a,h)anthracene	ND	105	263	U
191-24-2	Benzo[ghi]perylene	ND	105	263	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	50%	41-102
Phenol-d5	59%	47-113
Nitrobenzene-d5	51%	38-100
2-Fluorobiphenyl	50%	38-88
2,4,6-Tribromophenol	59%	40-129
Terphenyl-d14	64%	31-145

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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8A**
Lab Sample ID: **1801587-33**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:30	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	30.00	Prep Method:	EPA 3550B GCMS	File ID:	E16003.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 11:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	111	278	U
108-95-2	Phenol	ND	111	278	U
111-44-4	bis(2-chloroethyl)ether	ND	111	278	U
95-57-8	2-Chlorophenol	ND	111	278	U
541-73-1	1,3-Dichlorobenzene	ND	111	278	U
106-46-7	1,4-Dichlorobenzene	ND	111	278	U
100-51-6	Benzyl alcohol	ND	111	278	U
95-50-1	1,2-Dichlorobenzene	ND	111	278	U
95-48-7	2-Methylphenol	ND	111	278	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	111	278	U
106-44-5	3 & 4-Methylphenol	ND	111	278	U
621-64-7	N-Nitroso-di-n-propylamine	ND	111	278	U
67-72-1	Hexachloroethane	ND	111	278	U
98-95-3	Nitrobenzene	ND	111	278	U
78-59-1	Isophorone	ND	111	278	U
88-75-5	2-Nitrophenol	ND	111	278	U
105-67-9	2,4-Dimethylphenol	ND	111	278	U
111-91-1	bis(2-chloroethoxy)methane	ND	111	278	U
120-83-2	2,4-Dichlorophenol	ND	111	278	U
120-82-1	1,2,4-Trichlorobenzene	ND	111	278	U
91-20-3	Naphthalene	ND	111	278	U
106-47-8	4-Chloroaniline	ND	111	278	U
87-68-3	Hexachlorobutadiene	ND	111	278	U
59-50-7	4-Chloro-3-methylphenol	ND	111	278	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8A**
Lab Sample ID: **1801587-33**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:30	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	30.00	Prep Method:	EPA 3550B GCMS	File ID:	E16003.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 11:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	111	278	U
77-47-4	Hexachlorocyclopentadiene	ND	111	278	U
88-06-2	2,4,6-Trichlorophenol	ND	111	278	U
95-95-4	2,4,5-Trichlorophenol	ND	111	278	U
91-58-7	2-Chloronaphthalene	ND	111	278	U
88-74-4	2-Nitroaniline	ND	111	278	U
131-11-3	Dimethylphthalate	ND	111	278	U
208-96-8	Acenaphthylene	ND	111	278	U
99-09-2	3-Nitroaniline	ND	111	278	U
83-32-9	Acenaphthene	ND	111	278	U
51-28-5	2,4-Dinitrophenol	ND	111	557	U
100-02-7	4-Nitrophenol	ND	111	278	U
132-64-9	Dibenzofuran	ND	111	278	U
606-20-2	2,6-Dinitrotoluene	ND	111	278	U
121-14-2	2,4-Dinitrotoluene	ND	111	278	U
84-66-2	Diethyl phthalate	ND	111	278	U
7005-72-3	4-Chlorophenyl-phenylether	ND	111	278	U
86-73-7	Fluorene	ND	111	278	U
100-01-6	4-Nitroaniline	ND	111	278	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	111	278	U
86-30-6	N-Nitrosodiphenylamine	ND	111	278	U
101-55-3	4-Bromophenyl-phenylether	ND	111	278	U
118-74-1	Hexachlorobenzene	ND	111	278	U
87-86-5	Pentachlorophenol	ND	111	278	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8A**
Lab Sample ID: **1801587-33**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:30	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	30.00	Prep Method:	EPA 3550B GCMS	File ID:	E16003.D
Prep Batch:	B8J1301	Sequence:	S8J1804	Analyzed:	10/18/18 11:32
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	111	278	U
120-12-7	Anthracene	ND	111	278	U
84-74-2	Di-n-butyl phthalate	ND	111	278	U
206-44-0	Fluoranthene	ND	111	278	U
129-00-0	Pyrene	ND	111	278	U
85-68-7	Butylbenzylphthalate	ND	111	278	U
91-94-1	3,3'-Dichlorobenzidine	ND	277	278	U
56-55-3	Benzo[a]anthracene	ND	111	278	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	111	278	U
218-01-9	Chrysene	ND	111	278	U
117-84-0	Di-n-octyl phthalate	ND	111	278	U
205-99-2	Benzo[b]fluoranthene	ND	111	278	U
207-08-9	Benzo[k]fluoranthene	ND	111	278	U
50-32-8	Benzo[a]pyrene	ND	111	278	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	111	278	U
53-70-3	Dibenzo(a,h)anthracene	ND	111	278	U
191-24-2	Benzo[ghi]perylene	ND	111	278	U

Surrogate	% Recovery		Recovery Limits
2-Fluorophenol	39%	*	41-102
Phenol-d5	47%		47-113
Nitrobenzene-d5	43%		38-100
2-Fluorobiphenyl	44%		38-88
2,4,6-Tribromophenol	60%		40-129
Terphenyl-d14	69%		31-145

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Phone: 732-969-6112
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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B GCMS	File ID:	E15994.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 18:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	128	320	U
108-95-2	Phenol	ND	128	320	U
111-44-4	bis(2-chloroethyl)ether	ND	128	320	U
95-57-8	2-Chlorophenol	ND	128	320	U
541-73-1	1,3-Dichlorobenzene	ND	128	320	U
106-46-7	1,4-Dichlorobenzene	ND	128	320	U
100-51-6	Benzyl alcohol	ND	128	320	U
95-50-1	1,2-Dichlorobenzene	ND	128	320	U
95-48-7	2-Methylphenol	ND	128	320	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	128	320	U
106-44-5	3 & 4-Methylphenol	ND	128	320	U
621-64-7	N-Nitroso-di-n-propylamine	ND	128	320	U
67-72-1	Hexachloroethane	ND	128	320	U
98-95-3	Nitrobenzene	ND	128	320	U
78-59-1	Isophorone	ND	128	320	U
88-75-5	2-Nitrophenol	ND	128	320	U
105-67-9	2,4-Dimethylphenol	ND	128	320	U
111-91-1	bis(2-chloroethoxy)methane	ND	128	320	U
120-83-2	2,4-Dichlorophenol	ND	128	320	U
120-82-1	1,2,4-Trichlorobenzene	ND	128	320	U
91-20-3	Naphthalene	ND	128	320	U
106-47-8	4-Chloroaniline	ND	128	320	U
87-68-3	Hexachlorobutadiene	ND	128	320	U
59-50-7	4-Chloro-3-methylphenol	ND	128	320	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B GCMS	File ID:	E15994.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 18:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	128	320	U
77-47-4	Hexachlorocyclopentadiene	ND	128	320	U
88-06-2	2,4,6-Trichlorophenol	ND	128	320	U
95-95-4	2,4,5-Trichlorophenol	ND	128	320	U
91-58-7	2-Chloronaphthalene	ND	128	320	U
88-74-4	2-Nitroaniline	ND	128	320	U
131-11-3	Dimethylphthalate	ND	128	320	U
208-96-8	Acenaphthylene	ND	128	320	U
99-09-2	3-Nitroaniline	ND	128	320	U
83-32-9	Acenaphthene	ND	128	320	U
51-28-5	2,4-Dinitrophenol	ND	128	642	U
100-02-7	4-Nitrophenol	ND	128	320	U
132-64-9	Dibenzofuran	ND	128	320	U
606-20-2	2,6-Dinitrotoluene	ND	128	320	U
121-14-2	2,4-Dinitrotoluene	ND	128	320	U
84-66-2	Diethyl phthalate	ND	128	320	U
7005-72-3	4-Chlorophenyl-phenylether	ND	128	320	U
86-73-7	Fluorene	ND	128	320	U
100-01-6	4-Nitroaniline	ND	128	320	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	128	320	U
86-30-6	N-Nitrosodiphenylamine	ND	128	320	U
101-55-3	4-Bromophenyl-phenylether	ND	128	320	U
118-74-1	Hexachlorobenzene	ND	128	320	U
87-86-5	Pentachlorophenol	ND	128	320	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8B**
Lab Sample ID: **1801587-34**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 08:40	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	26.00	Prep Method:	EPA 3550B GCMS	File ID:	E15994.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 18:58
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	128	320	U
120-12-7	Anthracene	ND	128	320	U
84-74-2	Di-n-butyl phthalate	ND	128	320	U
206-44-0	Fluoranthene	ND	128	320	U
129-00-0	Pyrene	ND	128	320	U
85-68-7	Butylbenzylphthalate	ND	128	320	U
91-94-1	3,3'-Dichlorobenzidine	ND	319	320	U
56-55-3	Benzo[a]anthracene	ND	128	320	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	128	320	U
218-01-9	Chrysene	ND	128	320	U
117-84-0	Di-n-octyl phthalate	ND	128	320	U
205-99-2	Benzo[b]fluoranthene	ND	128	320	U
207-08-9	Benzo[k]fluoranthene	ND	128	320	U
50-32-8	Benzo[a]pyrene	ND	128	320	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	128	320	U
53-70-3	Dibenzo(a,h)anthracene	ND	128	320	U
191-24-2	Benzo[ghi]perylene	ND	128	320	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	41%	41-102
Phenol-d5	51%	47-113
Nitrobenzene-d5	42%	38-100
2-Fluorobiphenyl	46%	38-88
2,4,6-Tribromophenol	66%	40-129
Terphenyl-d14	77%	31-145

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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C**
Lab Sample ID: **1801587-35**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	17.00	Prep Method:	EPA 3550B GCMS	File ID:	E15978.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 21:11
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	196	490	U
108-95-2	Phenol	ND	196	490	U
111-44-4	bis(2-chloroethyl)ether	ND	196	490	U
95-57-8	2-Chlorophenol	ND	196	490	U
541-73-1	1,3-Dichlorobenzene	ND	196	490	U
106-46-7	1,4-Dichlorobenzene	ND	196	490	U
100-51-6	Benzyl alcohol	ND	196	490	U
95-50-1	1,2-Dichlorobenzene	ND	196	490	U
95-48-7	2-Methylphenol	ND	196	490	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	196	490	U
106-44-5	3 & 4-Methylphenol	ND	196	490	U
621-64-7	N-Nitroso-di-n-propylamine	ND	196	490	U
67-72-1	Hexachloroethane	ND	196	490	U
98-95-3	Nitrobenzene	ND	196	490	U
78-59-1	Isophorone	ND	196	490	U
88-75-5	2-Nitrophenol	ND	196	490	U
105-67-9	2,4-Dimethylphenol	ND	196	490	U
111-91-1	bis(2-chloroethoxy)methane	ND	196	490	U
120-83-2	2,4-Dichlorophenol	ND	196	490	U
120-82-1	1,2,4-Trichlorobenzene	ND	196	490	U
91-20-3	Naphthalene	ND	196	490	U
106-47-8	4-Chloroaniline	ND	196	490	U
87-68-3	Hexachlorobutadiene	ND	196	490	U
59-50-7	4-Chloro-3-methylphenol	ND	196	490	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C**
Lab Sample ID: **1801587-35**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	17.00	Prep Method:	EPA 3550B GCMS	File ID:	E15978.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 21:11
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	196	490	U
77-47-4	Hexachlorocyclopentadiene	ND	196	490	U
88-06-2	2,4,6-Trichlorophenol	ND	196	490	U
95-95-4	2,4,5-Trichlorophenol	ND	196	490	U
91-58-7	2-Chloronaphthalene	ND	196	490	U
88-74-4	2-Nitroaniline	ND	196	490	U
131-11-3	Dimethylphthalate	ND	196	490	U
208-96-8	Acenaphthylene	ND	196	490	U
99-09-2	3-Nitroaniline	ND	196	490	U
83-32-9	Acenaphthene	ND	196	490	U
51-28-5	2,4-Dinitrophenol	ND	196	982	U
100-02-7	4-Nitrophenol	ND	196	490	U
132-64-9	Dibenzofuran	ND	196	490	U
606-20-2	2,6-Dinitrotoluene	ND	196	490	U
121-14-2	2,4-Dinitrotoluene	ND	196	490	U
84-66-2	Diethyl phthalate	ND	196	490	U
7005-72-3	4-Chlorophenyl-phenylether	ND	196	490	U
86-73-7	Fluorene	ND	196	490	U
100-01-6	4-Nitroaniline	ND	196	490	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	196	490	U
86-30-6	N-Nitrosodiphenylamine	ND	196	490	U
101-55-3	4-Bromophenyl-phenylether	ND	196	490	U
118-74-1	Hexachlorobenzene	ND	196	490	U
87-86-5	Pentachlorophenol	ND	196	490	U

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C**
Lab Sample ID: **1801587-35**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	17.00	Prep Method:	EPA 3550B GCMS	File ID:	E15978.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 21:11
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	196	490	U
120-12-7	Anthracene	ND	196	490	U
84-74-2	Di-n-butyl phthalate	ND	196	490	U
206-44-0	Fluoranthene	ND	196	490	U
129-00-0	Pyrene	ND	196	490	U
85-68-7	Butylbenzylphthalate	ND	196	490	U
91-94-1	3,3'-Dichlorobenzidine	ND	488	490	U
56-55-3	Benzo[a]anthracene	ND	196	490	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	196	490	U
218-01-9	Chrysene	ND	196	490	U
117-84-0	Di-n-octyl phthalate	ND	196	490	U
205-99-2	Benzo[b]fluoranthene	ND	196	490	U
207-08-9	Benzo[k]fluoranthene	ND	196	490	U
50-32-8	Benzo[a]pyrene	ND	196	490	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	196	490	U
53-70-3	Dibenzo(a,h)anthracene	ND	196	490	U
191-24-2	Benzo[ghi]perylene	ND	196	490	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	59%	41-102
Phenol-d5	69%	47-113
Nitrobenzene-d5	58%	38-100
2-Fluorobiphenyl	60%	38-88
2,4,6-Tribromophenol	69%	40-129
Terphenyl-d14	72%	31-145

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C DUP**
Lab Sample ID: **1801587-36**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	18.00	Prep Method:	EPA 3550B GCMS	File ID:	E15974.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 18:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	185	463	U
108-95-2	Phenol	ND	185	463	U
111-44-4	bis(2-chloroethyl)ether	ND	185	463	U
95-57-8	2-Chlorophenol	ND	185	463	U
541-73-1	1,3-Dichlorobenzene	ND	185	463	U
106-46-7	1,4-Dichlorobenzene	ND	185	463	U
100-51-6	Benzyl alcohol	ND	185	463	U
95-50-1	1,2-Dichlorobenzene	ND	185	463	U
95-48-7	2-Methylphenol	ND	185	463	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	185	463	U
106-44-5	3 & 4-Methylphenol	ND	185	463	U
621-64-7	N-Nitroso-di-n-propylamine	ND	185	463	U
67-72-1	Hexachloroethane	ND	185	463	U
98-95-3	Nitrobenzene	ND	185	463	U
78-59-1	Isophorone	ND	185	463	U
88-75-5	2-Nitrophenol	ND	185	463	U
105-67-9	2,4-Dimethylphenol	ND	185	463	U
111-91-1	bis(2-chloroethoxy)methane	ND	185	463	U
120-83-2	2,4-Dichlorophenol	ND	185	463	U
120-82-1	1,2,4-Trichlorobenzene	ND	185	463	U
91-20-3	Naphthalene	ND	185	463	U
106-47-8	4-Chloroaniline	ND	185	463	U
87-68-3	Hexachlorobutadiene	ND	185	463	U
59-50-7	4-Chloro-3-methylphenol	ND	185	463	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C DUP**
Lab Sample ID: **1801587-36**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	18.00	Prep Method:	EPA 3550B GCMS	File ID:	E15974.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 18:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	185	463	U
77-47-4	Hexachlorocyclopentadiene	ND	185	463	U
88-06-2	2,4,6-Trichlorophenol	ND	185	463	U
95-95-4	2,4,5-Trichlorophenol	ND	185	463	U
91-58-7	2-Chloronaphthalene	ND	185	463	U
88-74-4	2-Nitroaniline	ND	185	463	U
131-11-3	Dimethylphthalate	ND	185	463	U
208-96-8	Acenaphthylene	ND	185	463	U
99-09-2	3-Nitroaniline	ND	185	463	U
83-32-9	Acenaphthene	ND	185	463	U
51-28-5	2,4-Dinitrophenol	ND	185	928	U
100-02-7	4-Nitrophenol	ND	185	463	U
132-64-9	Dibenzofuran	ND	185	463	U
606-20-2	2,6-Dinitrotoluene	ND	185	463	U
121-14-2	2,4-Dinitrotoluene	ND	185	463	U
84-66-2	Diethyl phthalate	ND	185	463	U
7005-72-3	4-Chlorophenyl-phenylether	ND	185	463	U
86-73-7	Fluorene	ND	185	463	U
100-01-6	4-Nitroaniline	ND	185	463	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	185	463	U
86-30-6	N-Nitrosodiphenylamine	ND	185	463	U
101-55-3	4-Bromophenyl-phenylether	ND	185	463	U
118-74-1	Hexachlorobenzene	ND	185	463	U
87-86-5	Pentachlorophenol	ND	185	463	U

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-8C DUP**
Lab Sample ID: **1801587-36**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/03/18 09:00	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	18.00	Prep Method:	EPA 3550B GCMS	File ID:	E15974.D
Prep Batch:	B8J1301	Sequence:	S8J1607	Analyzed:	10/16/18 18:17
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	185	463	U
120-12-7	Anthracene	ND	185	463	U
84-74-2	Di-n-butyl phthalate	ND	185	463	U
206-44-0	Fluoranthene	ND	185	463	U
129-00-0	Pyrene	ND	185	463	U
85-68-7	Butylbenzylphthalate	ND	185	463	U
91-94-1	3,3'-Dichlorobenzidine	ND	461	463	U
56-55-3	Benzo[a]anthracene	ND	185	463	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	185	463	U
218-01-9	Chrysene	ND	185	463	U
117-84-0	Di-n-octyl phthalate	ND	185	463	U
205-99-2	Benzo[b]fluoranthene	ND	185	463	U
207-08-9	Benzo[k]fluoranthene	ND	185	463	U
50-32-8	Benzo[a]pyrene	ND	185	463	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	185	463	U
53-70-3	Dibenzo(a,h)anthracene	ND	185	463	U
191-24-2	Benzo[ghi]perylene	ND	185	463	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	47%	41-102
Phenol-d5	56%	47-113
Nitrobenzene-d5	47%	38-100
2-Fluorobiphenyl	47%	38-88
2,4,6-Tribromophenol	62%	40-129
Terphenyl-d14	65%	31-145

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U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MS**
Lab Sample ID: **1801587-37**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.00	Prep Method:	EPA 3550B GCMS	File ID:	E16006.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 13:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	3140	81.2	203	
108-95-2	Phenol	4090	81.2	203	
111-44-4	bis(2-chloroethyl)ether	3810	81.2	203	
95-57-8	2-Chlorophenol	3980	81.2	203	
541-73-1	1,3-Dichlorobenzene	3930	81.2	203	
106-46-7	1,4-Dichlorobenzene	3970	81.2	203	
100-51-6	Benzyl alcohol	3730	81.2	203	
95-50-1	1,2-Dichlorobenzene	3990	81.2	203	
95-48-7	2-Methylphenol	4230	81.2	203	
39638-32-9	bis(2-chloroisopropyl)ether	3700	81.2	203	
106-44-5	3 & 4-Methylphenol	4230	81.2	203	
621-64-7	N-Nitroso-di-n-propylamine	3930	81.2	203	
67-72-1	Hexachloroethane	3450	81.2	203	
98-95-3	Nitrobenzene	3760	81.2	203	
78-59-1	Isophorone	3790	81.2	203	
88-75-5	2-Nitrophenol	3790	81.2	203	
105-67-9	2,4-Dimethylphenol	3960	81.2	203	
111-91-1	bis(2-chloroethoxy)methane	3940	81.2	203	
120-83-2	2,4-Dichlorophenol	4150	81.2	203	
120-82-1	1,2,4-Trichlorobenzene	3980	81.2	203	
91-20-3	Naphthalene	4100	81.2	203	
106-47-8	4-Chloroaniline	1760	81.2	203	
87-68-3	Hexachlorobutadiene	4110	81.2	203	
59-50-7	4-Chloro-3-methylphenol	4610	81.2	203	

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MS**
Lab Sample ID: **1801587-37**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.00	Prep Method:	EPA 3550B GCMS	File ID:	E16006.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 13:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	4260	81.2	203	
77-47-4	Hexachlorocyclopentadiene	900	81.2	203	
88-06-2	2,4,6-Trichlorophenol	4280	81.2	203	
95-95-4	2,4,5-Trichlorophenol	4200	81.2	203	
91-58-7	2-Chloronaphthalene	3790	81.2	203	
88-74-4	2-Nitroaniline	3990	81.2	203	
131-11-3	Dimethylphthalate	4400	81.2	203	
208-96-8	Acenaphthylene	4080	81.2	203	
99-09-2	3-Nitroaniline	3290	81.2	203	
83-32-9	Acenaphthene	4470	81.2	203	
51-28-5	2,4-Dinitrophenol	3920	81.2	407	
100-02-7	4-Nitrophenol	4590	81.2	203	
132-64-9	Dibenzofuran	4470	81.2	203	
606-20-2	2,6-Dinitrotoluene	4240	81.2	203	
121-14-2	2,4-Dinitrotoluene	4460	81.2	203	
84-66-2	Diethyl phthalate	4480	81.2	203	
7005-72-3	4-Chlorophenyl-phenylether	4400	81.2	203	
86-73-7	Fluorene	4400	81.2	203	
100-01-6	4-Nitroaniline	4230	81.2	203	
534-52-1	4,6-Dinitro-2-methylphenol	4160	81.2	203	
86-30-6	N-Nitrosodiphenylamine	4410	81.2	203	
101-55-3	4-Bromophenyl-phenylether	4450	81.2	203	
118-74-1	Hexachlorobenzene	4240	81.2	203	
87-86-5	Pentachlorophenol	4430	81.2	203	

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EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MS**
Lab Sample ID: **1801587-37**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	41.00	Prep Method:	EPA 3550B GCMS	File ID:	E16006.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 13:41
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	4740	81.2	203	
120-12-7	Anthracene	4490	81.2	203	
84-74-2	Di-n-butyl phthalate	4350	81.2	203	
206-44-0	Fluoranthene	4300	81.2	203	
129-00-0	Pyrene	5480	81.2	203	
85-68-7	Butylbenzylphthalate	5030	81.2	203	
91-94-1	3,3'-Dichlorobenzidine	ND	202	203	U
56-55-3	Benzo[a]anthracene	4410	81.2	203	
117-81-7	bis(2-ethylhexyl)phthalate	5040	81.2	203	
218-01-9	Chrysene	5010	81.2	203	
117-84-0	Di-n-octyl phthalate	6090	81.2	203	
205-99-2	Benzo[b]fluoranthene	5060	81.2	203	
207-08-9	Benzo[k]fluoranthene	5170	81.2	203	
50-32-8	Benzo[a]pyrene	4380	81.2	203	
193-39-5	Indeno(1,2,3-cd)pyrene	2330	81.2	203	
53-70-3	Dibenzo(a,h)anthracene	2520	81.2	203	
191-24-2	Benzo[ghi]perylene	1960	81.2	203	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	89%	41-102
Phenol-d5	102%	47-113
Nitrobenzene-d5	87%	38-100
2-Fluorobiphenyl	88%	38-88
2,4,6-Tribromophenol	99%	40-129
Terphenyl-d14	106%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MSD**
Lab Sample ID: **1801587-38**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	46.50	Prep Method:	EPA 3550B GCMS	File ID:	E16007.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 14:24
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	2280	71.6	179	
108-95-2	Phenol	2960	71.6	179	
111-44-4	bis(2-chloroethyl)ether	2780	71.6	179	
95-57-8	2-Chlorophenol	2890	71.6	179	
541-73-1	1,3-Dichlorobenzene	2870	71.6	179	
106-46-7	1,4-Dichlorobenzene	2880	71.6	179	
100-51-6	Benzyl alcohol	2780	71.6	179	
95-50-1	1,2-Dichlorobenzene	2930	71.6	179	
95-48-7	2-Methylphenol	3090	71.6	179	
39638-32-9	bis(2-chloroisopropyl)ether	2710	71.6	179	
106-44-5	3 & 4-Methylphenol	3000	71.6	179	
621-64-7	N-Nitroso-di-n-propylamine	2870	71.6	179	
67-72-1	Hexachloroethane	2500	71.6	179	
98-95-3	Nitrobenzene	2870	71.6	179	
78-59-1	Isophorone	2910	71.6	179	
88-75-5	2-Nitrophenol	2870	71.6	179	
105-67-9	2,4-Dimethylphenol	3060	71.6	179	
111-91-1	bis(2-chloroethoxy)methane	2970	71.6	179	
120-83-2	2,4-Dichlorophenol	3120	71.6	179	
120-82-1	1,2,4-Trichlorobenzene	3010	71.6	179	
91-20-3	Naphthalene	3080	71.6	179	
106-47-8	4-Chloroaniline	955	71.6	179	
87-68-3	Hexachlorobutadiene	3100	71.6	179	
59-50-7	4-Chloro-3-methylphenol	3510	71.6	179	

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-07A MSD**
Lab Sample ID: **1801587-38**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	46.50	Prep Method:	EPA 3550B GCMS	File ID:	E16007.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 14:24
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	3190	71.6	179	
77-47-4	Hexachlorocyclopentadiene	673	71.6	179	
88-06-2	2,4,6-Trichlorophenol	3190	71.6	179	
95-95-4	2,4,5-Trichlorophenol	3150	71.6	179	
91-58-7	2-Chloronaphthalene	2840	71.6	179	
88-74-4	2-Nitroaniline	3020	71.6	179	
131-11-3	Dimethylphthalate	3330	71.6	179	
208-96-8	Acenaphthylene	3100	71.6	179	
99-09-2	3-Nitroaniline	2120	71.6	179	
83-32-9	Acenaphthene	3310	71.6	179	
51-28-5	2,4-Dinitrophenol	2090	71.6	359	
100-02-7	4-Nitrophenol	3320	71.6	179	
132-64-9	Dibenzofuran	3310	71.6	179	
606-20-2	2,6-Dinitrotoluene	3150	71.6	179	
121-14-2	2,4-Dinitrotoluene	3400	71.6	179	
84-66-2	Diethyl phthalate	3360	71.6	179	
7005-72-3	4-Chlorophenyl-phenylether	3250	71.6	179	
86-73-7	Fluorene	3280	71.6	179	
100-01-6	4-Nitroaniline	3080	71.6	179	
534-52-1	4,6-Dinitro-2-methylphenol	2670	71.6	179	
86-30-6	N-Nitrosodiphenylamine	3300	71.6	179	
101-55-3	4-Bromophenyl-phenylether	3360	71.6	179	
118-74-1	Hexachlorobenzene	3220	71.6	179	
87-86-5	Pentachlorophenol	3280	71.6	179	

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ANALYSIS DATA SHEET

EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-07A MSD
Lab Sample ID: 1801587-38
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Prep Date:	10/12/18 11:42	Matrix:	Soil
Percent Solids:	46.50	Prep Method:	EPA 3550B GCMS	File ID:	E16007.D
Prep Batch:	B8J1215	Sequence:	S8J1804	Analyzed:	10/18/18 14:24
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	3480	71.6	179	
120-12-7	Anthracene	3360	71.6	179	
84-74-2	Di-n-butyl phthalate	3230	71.6	179	
206-44-0	Fluoranthene	3160	71.6	179	
129-00-0	Pyrene	4160	71.6	179	
85-68-7	Butylbenzylphthalate	3760	71.6	179	
91-94-1	3,3'-Dichlorobenzidine	ND	178	179	U
56-55-3	Benzo[a]anthracene	3260	71.6	179	
117-81-7	bis(2-ethylhexyl)phthalate	3790	71.6	179	
218-01-9	Chrysene	3680	71.6	179	
117-84-0	Di-n-octyl phthalate	4790	71.6	179	
205-99-2	Benzo[b]fluoranthene	3750	71.6	179	
207-08-9	Benzo[k]fluoranthene	3880	71.6	179	
50-32-8	Benzo[a]pyrene	3300	71.6	179	
193-39-5	Indeno(1,2,3-cd)pyrene	1660	71.6	179	
53-70-3	Dibenzo(a,h)anthracene	1770	71.6	179	
191-24-2	Benzo[ghi]perylene	1390	71.6	179	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	76%	41-102
Phenol-d5	86%	47-113
Nitrobenzene-d5	76%	38-100
2-Fluorobiphenyl	76%	38-88
2,4,6-Tribromophenol	88%	40-129
Terphenyl-d14	91%	31-145

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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MS**
Lab Sample ID: **1801587-39**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	71.30	Prep Method:	EPA 3550B GCMS	File ID:	E15984.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 11:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	1700	46.7	117	
108-95-2	Phenol	2040	46.7	117	
111-44-4	bis(2-chloroethyl)ether	1960	46.7	117	
95-57-8	2-Chlorophenol	2060	46.7	117	
541-73-1	1,3-Dichlorobenzene	1990	46.7	117	
106-46-7	1,4-Dichlorobenzene	2020	46.7	117	
100-51-6	Benzyl alcohol	1920	46.7	117	
95-50-1	1,2-Dichlorobenzene	2030	46.7	117	
95-48-7	2-Methylphenol	2110	46.7	117	
39638-32-9	bis(2-chloroisopropyl)ether	1870	46.7	117	
106-44-5	3 & 4-Methylphenol	2050	46.7	117	
621-64-7	N-Nitroso-di-n-propylamine	1980	46.7	117	
67-72-1	Hexachloroethane	2000	46.7	117	
98-95-3	Nitrobenzene	1920	46.7	117	
78-59-1	Isophorone	1990	46.7	117	
88-75-5	2-Nitrophenol	2000	46.7	117	
105-67-9	2,4-Dimethylphenol	2060	46.7	117	
111-91-1	bis(2-chloroethoxy)methane	2060	46.7	117	
120-83-2	2,4-Dichlorophenol	2080	46.7	117	
120-82-1	1,2,4-Trichlorobenzene	2060	46.7	117	
91-20-3	Naphthalene	2070	46.7	117	
106-47-8	4-Chloroaniline	1900	46.7	117	
87-68-3	Hexachlorobutadiene	2170	46.7	117	
59-50-7	4-Chloro-3-methylphenol	2270	46.7	117	

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MS**
Lab Sample ID: **1801587-39**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	71.30	Prep Method:	EPA 3550B GCMS	File ID:	E15984.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 11:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	2080	46.7	117	
77-47-4	Hexachlorocyclopentadiene	1880	46.7	117	
88-06-2	2,4,6-Trichlorophenol	2180	46.7	117	
95-95-4	2,4,5-Trichlorophenol	2170	46.7	117	
91-58-7	2-Chloronaphthalene	1920	46.7	117	
88-74-4	2-Nitroaniline	2070	46.7	117	
131-11-3	Dimethylphthalate	2400	46.7	117	
208-96-8	Acenaphthylene	2060	46.7	117	
99-09-2	3-Nitroaniline	2180	46.7	117	
83-32-9	Acenaphthene	2190	46.7	117	
51-28-5	2,4-Dinitrophenol	1870	46.7	234	
100-02-7	4-Nitrophenol	2200	46.7	117	
132-64-9	Dibenzofuran	2180	46.7	117	
606-20-2	2,6-Dinitrotoluene	2200	46.7	117	
121-14-2	2,4-Dinitrotoluene	2420	46.7	117	
84-66-2	Diethyl phthalate	2340	46.7	117	
7005-72-3	4-Chlorophenyl-phenylether	2200	46.7	117	
86-73-7	Fluorene	2210	46.7	117	
100-01-6	4-Nitroaniline	2230	46.7	117	
534-52-1	4,6-Dinitro-2-methylphenol	2570	46.7	117	
86-30-6	N-Nitrosodiphenylamine	2190	46.7	117	
101-55-3	4-Bromophenyl-phenylether	2250	46.7	117	
118-74-1	Hexachlorobenzene	2170	46.7	117	
87-86-5	Pentachlorophenol	2370	46.7	117	

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MS**
Lab Sample ID: **1801587-39**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	71.30	Prep Method:	EPA 3550B GCMS	File ID:	E15984.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 11:42
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	2310	46.7	117	
120-12-7	Anthracene	2250	46.7	117	
84-74-2	Di-n-butyl phthalate	2220	46.7	117	
206-44-0	Fluoranthene	2130	46.7	117	
129-00-0	Pyrene	2620	46.7	117	
85-68-7	Butylbenzylphthalate	2520	46.7	117	
91-94-1	3,3'-Dichlorobenzidine	ND	116	117	U
56-55-3	Benzo[a]anthracene	2340	46.7	117	
117-81-7	bis(2-ethylhexyl)phthalate	2460	46.7	117	
218-01-9	Chrysene	2480	46.7	117	
117-84-0	Di-n-octyl phthalate	2300	46.7	117	
205-99-2	Benzo[b]fluoranthene	2220	46.7	117	
207-08-9	Benzo[k]fluoranthene	2250	46.7	117	
50-32-8	Benzo[a]pyrene	2240	46.7	117	
193-39-5	Indeno(1,2,3-cd)pyrene	2160	46.7	117	
53-70-3	Dibenzo(a,h)anthracene	2190	46.7	117	
191-24-2	Benzo[ghi]perylene	2220	46.7	117	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	95%	41-102
Phenol-d5	106%	47-113
Nitrobenzene-d5	85%	38-100
2-Fluorobiphenyl	84%	38-88
2,4,6-Tribromophenol	108%	40-129
Terphenyl-d14	97%	31-145

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J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MSD**
Lab Sample ID: **1801587-40**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	69.30	Prep Method:	EPA 3550B GCMS	File ID:	E15985.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 12:26
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	1740	48.1	120	
108-95-2	Phenol	2190	48.1	120	
111-44-4	bis(2-chloroethyl)ether	2050	48.1	120	
95-57-8	2-Chlorophenol	2150	48.1	120	
541-73-1	1,3-Dichlorobenzene	2120	48.1	120	
106-46-7	1,4-Dichlorobenzene	2120	48.1	120	
100-51-6	Benzyl alcohol	2020	48.1	120	
95-50-1	1,2-Dichlorobenzene	2150	48.1	120	
95-48-7	2-Methylphenol	2210	48.1	120	
39638-32-9	bis(2-chloroisopropyl)ether	1960	48.1	120	
106-44-5	3 & 4-Methylphenol	2160	48.1	120	
621-64-7	N-Nitroso-di-n-propylamine	2060	48.1	120	
67-72-1	Hexachloroethane	2080	48.1	120	
98-95-3	Nitrobenzene	2040	48.1	120	
78-59-1	Isophorone	2040	48.1	120	
88-75-5	2-Nitrophenol	2080	48.1	120	
105-67-9	2,4-Dimethylphenol	2160	48.1	120	
111-91-1	bis(2-chloroethoxy)methane	2140	48.1	120	
120-83-2	2,4-Dichlorophenol	2210	48.1	120	
120-82-1	1,2,4-Trichlorobenzene	2180	48.1	120	
91-20-3	Naphthalene	2190	48.1	120	
106-47-8	4-Chloroaniline	1580	48.1	120	
87-68-3	Hexachlorobutadiene	2250	48.1	120	
59-50-7	4-Chloro-3-methylphenol	2320	48.1	120	

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MSD**
Lab Sample ID: **1801587-40**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	69.30	Prep Method:	EPA 3550B GCMS	File ID:	E15985.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 12:26
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	2180	48.1	120	
77-47-4	Hexachlorocyclopentadiene	1820	48.1	120	
88-06-2	2,4,6-Trichlorophenol	2240	48.1	120	
95-95-4	2,4,5-Trichlorophenol	2200	48.1	120	
91-58-7	2-Chloronaphthalene	1990	48.1	120	
88-74-4	2-Nitroaniline	2140	48.1	120	
131-11-3	Dimethylphthalate	2450	48.1	120	
208-96-8	Acenaphthylene	2150	48.1	120	
99-09-2	3-Nitroaniline	2050	48.1	120	
83-32-9	Acenaphthene	2270	48.1	120	
51-28-5	2,4-Dinitrophenol	1680	48.1	241	
100-02-7	4-Nitrophenol	2300	48.1	120	
132-64-9	Dibenzofuran	2240	48.1	120	
606-20-2	2,6-Dinitrotoluene	2260	48.1	120	
121-14-2	2,4-Dinitrotoluene	2420	48.1	120	
84-66-2	Diethyl phthalate	2390	48.1	120	
7005-72-3	4-Chlorophenyl-phenylether	2300	48.1	120	
86-73-7	Fluorene	2280	48.1	120	
100-01-6	4-Nitroaniline	2300	48.1	120	
534-52-1	4,6-Dinitro-2-methylphenol	2520	48.1	120	
86-30-6	N-Nitrosodiphenylamine	2280	48.1	120	
101-55-3	4-Bromophenyl-phenylether	2280	48.1	120	
118-74-1	Hexachlorobenzene	2220	48.1	120	
87-86-5	Pentachlorophenol	2410	48.1	120	

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ANALYSIS DATA SHEET

EPA 8270D

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-01C MSD**
Lab Sample ID: **1801587-40**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801587**

Date Sampled:	10/04/18 08:51	Prep Date:	10/13/18 08:47	Matrix:	Soil
Percent Solids:	69.30	Prep Method:	EPA 3550B GCMS	File ID:	E15985.D
Prep Batch:	B8J1301	Sequence:	S8J1703	Analyzed:	10/17/18 12:26
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	2370	48.1	120	
120-12-7	Anthracene	2340	48.1	120	
84-74-2	Di-n-butyl phthalate	2220	48.1	120	
206-44-0	Fluoranthene	2150	48.1	120	
129-00-0	Pyrene	2670	48.1	120	
85-68-7	Butylbenzylphthalate	2510	48.1	120	
91-94-1	3,3'-Dichlorobenzidine	ND	120	120	U
56-55-3	Benzo[a]anthracene	2330	48.1	120	
117-81-7	bis(2-ethylhexyl)phthalate	2570	48.1	120	
218-01-9	Chrysene	2520	48.1	120	
117-84-0	Di-n-octyl phthalate	2300	48.1	120	
205-99-2	Benzo[b]fluoranthene	2230	48.1	120	
207-08-9	Benzo[k]fluoranthene	2280	48.1	120	
50-32-8	Benzo[a]pyrene	2210	48.1	120	
193-39-5	Indeno(1,2,3-cd)pyrene	2130	48.1	120	
53-70-3	Dibenzo(a,h)anthracene	2200	48.1	120	
191-24-2	Benzo[ghi]perylene	2190	48.1	120	

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	95%	41-102
Phenol-d5	106%	47-113
Nitrobenzene-d5	89%	38-100
2-Fluorobiphenyl	88%	38-88
2,4,6-Tribromophenol	105%	40-129
Terphenyl-d14	98%	31-145

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ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
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B - Indicates compound found in associated blank

E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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METALS

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12A
Lab Sample ID: 1801587-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	32.00	File ID:	101618C-017

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14200	33.7	33.7	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7439-97-6	Mercury	6.28	0.206	0.206	1		10/08/18 11:02	EPA 7471B	10/09/18 11:48 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.75	6.75	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-38-2	Arsenic	35.7	1.69	1.69	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-39-3	Barium	98.3	33.7	33.7	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-41-7	Beryllium	1.22	0.844	0.844	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-43-9	Cadmium	5.05	0.844	0.844	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-70-2	Calcium	3770	42.2	42.2	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-47-3	Chromium	142	3.37	3.37	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-48-4	Cobalt	12.0	8.44	8.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-50-8	Copper	360	5.06	5.06	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7439-89-6	Iron	37000	1050	1050	25	D	10/15/18 17:06	EPA 3050B	10/16/18 17:53 LIT	EPA 6010D
7439-92-1	Lead	262	1.69	1.69	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7439-95-4	Magnesium	8030	84.4	84.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7439-96-5	Manganese	358	3.37	3.37	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-02-0	Nickel	59.7	6.75	6.75	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-09-7	Potassium	2840	84.4	84.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.75	6.75	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-22-4	Silver	3.28	0.844	0.844	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-23-5	Sodium	11800	84.4	84.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-28-0	Thallium	ND	5.06	5.06	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-62-2	Vanadium	52.9	8.44	8.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D
7440-66-6	Zinc	434	10.1	10.1	1		10/15/18 17:06	EPA 3050B	10/16/18 15:27 LIT	EPA 6010D

* Values outside of QC limits
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12B
Lab Sample ID: 1801587-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	36.30	File ID:	101618C-018

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14100	27.7	27.7	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7439-97-6	Mercury	5.29	0.167	0.167	1		10/08/18 11:02	EPA 7471B	10/09/18 11:50 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.55	5.55	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-38-2	Arsenic	39.7	1.39	1.39	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-39-3	Barium	84.9	27.7	27.7	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-41-7	Beryllium	1.16	0.693	0.693	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-43-9	Cadmium	5.86	0.693	0.693	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-70-2	Calcium	5450	34.7	34.7	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-47-3	Chromium	136	2.77	2.77	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-48-4	Cobalt	12.6	6.93	6.93	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-50-8	Copper	342	4.16	4.16	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7439-89-6	Iron	40600	867	867	25	D	10/15/18 17:06	EPA 3050B	10/16/18 17:58 LIT	EPA 6010D
7439-92-1	Lead	252	1.39	1.39	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7439-95-4	Magnesium	7920	69.3	69.3	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7439-96-5	Manganese	371	2.77	2.77	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-02-0	Nickel	64.4	5.55	5.55	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-09-7	Potassium	2910	69.3	69.3	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.55	5.55	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-22-4	Silver	3.35	0.693	0.693	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-23-5	Sodium	10300	69.3	69.3	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.16	4.16	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-62-2	Vanadium	51.4	6.93	6.93	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D
7440-66-6	Zinc	452	8.32	8.32	1		10/15/18 17:06	EPA 3050B	10/16/18 15:32 LIT	EPA 6010D

* Values outside of QC limits
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12C
Lab Sample ID: 1801587-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	42.80	File ID:	101618C-019

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	16200	25.9	25.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.118	0.118	1	U	10/08/18 11:02	EPA 7471B	10/09/18 11:59 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.19	5.19	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-38-2	Arsenic	12.9	1.30	1.30	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-39-3	Barium	31.2	25.9	25.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-41-7	Beryllium	1.14	0.649	0.649	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-43-9	Cadmium	1.65	0.649	0.649	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-70-2	Calcium	2630	32.4	32.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-47-3	Chromium	36.4	2.59	2.59	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-48-4	Cobalt	9.55	6.49	6.49	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-50-8	Copper	16.9	3.89	3.89	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7439-89-6	Iron	43700	811	811	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:04 LIT	EPA 6010D
7439-92-1	Lead	30.5	1.30	1.30	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7439-95-4	Magnesium	7370	64.9	64.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7439-96-5	Manganese	383	2.59	2.59	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-02-0	Nickel	29.7	5.19	5.19	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-09-7	Potassium	3410	64.9	64.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.19	5.19	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-22-4	Silver	ND	0.649	0.649	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-23-5	Sodium	4220	64.9	64.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.89	3.89	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-62-2	Vanadium	41.3	6.49	6.49	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D
7440-66-6	Zinc	89.3	7.78	7.78	1		10/15/18 17:06	EPA 3050B	10/16/18 15:37 LIT	EPA 6010D

* Values outside of QC limits
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6A
Lab Sample ID: 1801587-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	35.30	File ID:	101618C-022

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14600	28.8	28.8	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7439-97-6	Mercury	5.75	0.315	0.315	2	D	10/08/18 11:02	EPA 7471B	10/09/18 12:45 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.76	5.76	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-38-2	Arsenic	51.3	1.44	1.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-39-3	Barium	94.4	28.8	28.8	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-41-7	Beryllium	1.35	0.720	0.720	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-43-9	Cadmium	5.83	0.720	0.720	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-70-2	Calcium	3180	36.0	36.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-47-3	Chromium	156	2.88	2.88	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-48-4	Cobalt	21.2	7.20	7.20	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-50-8	Copper	354	4.32	4.32	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7439-89-6	Iron	48900	900	900	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:09 LIT	EPA 6010D
7439-92-1	Lead	301	1.44	1.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7439-95-4	Magnesium	8110	72.0	72.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7439-96-5	Manganese	302	2.88	2.88	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-02-0	Nickel	140	5.76	5.76	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-09-7	Potassium	2750	72.0	72.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.76	5.76	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-22-4	Silver	3.23	0.720	0.720	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-23-5	Sodium	10000	72.0	72.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.32	4.32	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-62-2	Vanadium	62.5	7.20	7.20	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D
7440-66-6	Zinc	477	8.64	8.64	1		10/15/18 17:06	EPA 3050B	10/16/18 15:52 LIT	EPA 6010D

* Values outside of QC limits
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P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6B
Lab Sample ID: 1801587-05
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	33.30	File ID:	101618C-023

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	12700	33.6	33.6	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7439-97-6	Mercury	4.83	0.246	0.246	2	D	10/08/18 11:02	EPA 7471B	10/09/18 12:47 BFG	EPA 7471B
7440-36-0	Antimony	9.09	6.72	6.72	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-38-2	Arsenic	161	1.68	1.68	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-39-3	Barium	70.2	33.6	33.6	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-41-7	Beryllium	1.33	0.840	0.840	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-43-9	Cadmium	4.59	0.840	0.840	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-70-2	Calcium	3020	42.0	42.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-47-3	Chromium	126	3.36	3.36	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-48-4	Cobalt	39.4	8.40	8.40	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-50-8	Copper	311	5.04	5.04	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7439-89-6	Iron	53000	1050	1050	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:14 LIT	EPA 6010D
7439-92-1	Lead	413	1.68	1.68	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7439-95-4	Magnesium	7150	84.0	84.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7439-96-5	Manganese	367	3.36	3.36	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-02-0	Nickel	223	6.72	6.72	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-09-7	Potassium	2490	84.0	84.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7782-49-2	Selenium	7.64	6.72	6.72	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-22-4	Silver	1.35	0.840	0.840	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-23-5	Sodium	11600	84.0	84.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-28-0	Thallium	ND	5.04	5.04	1	U	10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-62-2	Vanadium	74.0	8.40	8.40	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D
7440-66-6	Zinc	810	10.1	10.1	1		10/15/18 17:06	EPA 3050B	10/16/18 15:57 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6C
Lab Sample ID: 1801587-06
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	41.60	File ID:	101618C-024

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	18700	25.9	25.9	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7439-97-6	Mercury	2.55	0.129	0.129	1		10/08/18 11:02	EPA 7471B	10/09/18 12:05 BFG	EPA 7471B
7440-36-0	Antimony	5.23	5.18	5.18	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-38-2	Arsenic	77.6	1.29	1.29	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-39-3	Barium	51.3	25.9	25.9	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-41-7	Beryllium	1.39	0.647	0.647	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-43-9	Cadmium	2.07	0.647	0.647	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-70-2	Calcium	2710	32.3	32.3	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-47-3	Chromium	80.2	2.59	2.59	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-48-4	Cobalt	27.6	6.47	6.47	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-50-8	Copper	151	3.88	3.88	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7439-89-6	Iron	41800	809	809	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:19 LIT	EPA 6010D
7439-92-1	Lead	169	1.29	1.29	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7439-95-4	Magnesium	8600	64.7	64.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7439-96-5	Manganese	712	2.59	2.59	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-02-0	Nickel	158	5.18	5.18	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-09-7	Potassium	3070	64.7	64.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.18	5.18	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-22-4	Silver	ND	0.647	0.647	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-23-5	Sodium	7070	64.7	64.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.88	3.88	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-62-2	Vanadium	51.8	6.47	6.47	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D
7440-66-6	Zinc	325	7.76	7.76	1		10/15/18 17:06	EPA 3050B	10/16/18 16:02 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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J - Indicates estimated value for TICs and all results when detected below the RL
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5A
Lab Sample ID: 1801587-07
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	41.20	File ID:	101618C-025

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	11400	25.6	25.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7439-97-6	Mercury	3.76	0.123	0.123	1		10/08/18 11:02	EPA 7471B	10/09/18 12:08 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.13	5.13	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-38-2	Arsenic	27.9	1.28	1.28	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-39-3	Barium	80.8	25.6	25.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-41-7	Beryllium	1.02	0.641	0.641	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-43-9	Cadmium	6.16	0.641	0.641	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-70-2	Calcium	4320	32.1	32.1	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-47-3	Chromium	115	2.56	2.56	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-48-4	Cobalt	10.8	6.41	6.41	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-50-8	Copper	298	3.85	3.85	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7439-89-6	Iron	38700	801	801	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:24 LIT	EPA 6010D
7439-92-1	Lead	196	1.28	1.28	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7439-95-4	Magnesium	7290	64.1	64.1	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7439-96-5	Manganese	289	2.56	2.56	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-02-0	Nickel	69.0	5.13	5.13	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-09-7	Potassium	2160	64.1	64.1	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.13	5.13	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-22-4	Silver	2.44	0.641	0.641	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-23-5	Sodium	6550	64.1	64.1	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.85	3.85	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-62-2	Vanadium	40.5	6.41	6.41	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D
7440-66-6	Zinc	439	7.69	7.69	1		10/15/18 17:06	EPA 3050B	10/16/18 16:07 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5B
Lab Sample ID: 1801587-08
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	40.60	File ID:	101618C-026

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14300	26.8	26.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7439-97-6	Mercury	6.25	0.205	0.205	2	D	10/08/18 11:02	EPA 7471B	10/09/18 12:49 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.36	5.36	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-38-2	Arsenic	34.8	1.34	1.34	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-39-3	Barium	97.4	26.8	26.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-41-7	Beryllium	1.44	0.670	0.670	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-43-9	Cadmium	11.0	0.670	0.670	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-70-2	Calcium	5450	33.5	33.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-47-3	Chromium	154	2.68	2.68	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-48-4	Cobalt	14.5	6.70	6.70	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-50-8	Copper	408	4.02	4.02	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7439-89-6	Iron	40000	838	838	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:30 LIT	EPA 6010D
7439-92-1	Lead	283	1.34	1.34	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7439-95-4	Magnesium	8500	67.0	67.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7439-96-5	Manganese	304	2.68	2.68	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-02-0	Nickel	103	5.36	5.36	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-09-7	Potassium	2680	67.0	67.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.36	5.36	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-22-4	Silver	3.98	0.670	0.670	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-23-5	Sodium	7870	67.0	67.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.02	4.02	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-62-2	Vanadium	55.6	6.70	6.70	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D
7440-66-6	Zinc	591	8.04	8.04	1		10/15/18 17:06	EPA 3050B	10/16/18 16:12 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5C
Lab Sample ID: 1801587-09
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	34.60	File ID:	101618C-027

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	16000	30.4	30.4	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7439-97-6	Mercury	8.65	1.18	1.18	10	D	10/08/18 11:02	EPA 7471B	10/09/18 12:51 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.08	6.08	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-38-2	Arsenic	55.4	1.52	1.52	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-39-3	Barium	338	30.4	30.4	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-41-7	Beryllium	1.46	0.760	0.760	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-43-9	Cadmium	13.5	0.760	0.760	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-70-2	Calcium	6460	38.0	38.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-47-3	Chromium	200	3.04	3.04	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-48-4	Cobalt	16.0	7.60	7.60	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-50-8	Copper	564	4.56	4.56	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7439-89-6	Iron	48100	950	950	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:35 LIT	EPA 6010D
7439-92-1	Lead	396	1.52	1.52	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7439-95-4	Magnesium	9730	76.0	76.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7439-96-5	Manganese	368	3.04	3.04	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-02-0	Nickel	126	6.08	6.08	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-09-7	Potassium	3010	76.0	76.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.08	6.08	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-22-4	Silver	4.72	0.760	0.760	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-23-5	Sodium	9630	76.0	76.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.56	4.56	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-62-2	Vanadium	67.7	7.60	7.60	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D
7440-66-6	Zinc	763	9.12	9.12	1		10/15/18 17:06	EPA 3050B	10/16/18 16:17 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10A
Lab Sample ID: 1801587-10
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	75.70	File ID:	101618C-028

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	2780	14.2	14.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7439-97-6	Mercury	0.305	0.0623	0.0623	1		10/08/18 11:02	EPA 7471B	10/09/18 12:20 BFG	EPA 7471B
7440-36-0	Antimony	ND	2.84	2.84	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-38-2	Arsenic	5.51	0.710	0.710	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-39-3	Barium	22.7	14.2	14.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.355	0.355	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-43-9	Cadmium	1.18	0.355	0.355	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-70-2	Calcium	5000	17.7	17.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-47-3	Chromium	21.4	1.42	1.42	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-48-4	Cobalt	ND	3.55	3.55	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-50-8	Copper	54.2	2.13	2.13	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7439-89-6	Iron	8930	444	444	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:40 LIT	EPA 6010D
7439-92-1	Lead	41.7	0.710	0.710	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7439-95-4	Magnesium	3800	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7439-96-5	Manganese	73.7	1.42	1.42	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-02-0	Nickel	13.2	2.84	2.84	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-09-7	Potassium	497	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7782-49-2	Selenium	ND	2.84	2.84	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-22-4	Silver	0.549	0.355	0.355	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-23-5	Sodium	947	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.13	2.13	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-62-2	Vanadium	12.1	3.55	3.55	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D
7440-66-6	Zinc	115	4.26	4.26	1		10/15/18 17:06	EPA 3050B	10/16/18 16:22 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10B
Lab Sample ID: 1801587-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	72.00	File ID:	101618C-029

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	3850	14.2	14.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7439-97-6	Mercury	0.772	0.0827	0.0827	1		10/08/18 11:02	EPA 7471B	10/09/18 12:22 BFG	EPA 7471B
7440-36-0	Antimony	ND	2.84	2.84	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-38-2	Arsenic	7.67	0.711	0.711	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-39-3	Barium	35.7	14.2	14.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.355	0.355	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-43-9	Cadmium	1.74	0.355	0.355	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-70-2	Calcium	3920	17.8	17.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-47-3	Chromium	31.5	1.42	1.42	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-48-4	Cobalt	3.82	3.55	3.55	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-50-8	Copper	79.6	2.13	2.13	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7439-89-6	Iron	13800	444	444	25	D	10/15/18 17:06	EPA 3050B	10/16/18 18:55 LIT	EPA 6010D
7439-92-1	Lead	65.7	0.711	0.711	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7439-95-4	Magnesium	3480	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7439-96-5	Manganese	120	1.42	1.42	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-02-0	Nickel	17.3	2.84	2.84	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-09-7	Potassium	680	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7782-49-2	Selenium	ND	2.84	2.84	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-22-4	Silver	0.752	0.355	0.355	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-23-5	Sodium	990	35.5	35.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.13	2.13	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-62-2	Vanadium	15.8	3.55	3.55	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D
7440-66-6	Zinc	164	4.26	4.26	1		10/15/18 17:06	EPA 3050B	10/16/18 16:27 LIT	EPA 6010D

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10C
Lab Sample ID: 1801587-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	77.70	File ID:	101618C-030

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	2490	13.6	13.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7439-97-6	Mercury	0.187	0.0754	0.0754	1		10/08/18 11:02	EPA 7471B	10/09/18 12:24 BFG	EPA 7471B
7440-36-0	Antimony	ND	2.71	2.71	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-38-2	Arsenic	4.19	0.678	0.678	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-39-3	Barium	29.8	13.6	13.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.339	0.339	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-43-9	Cadmium	1.08	0.339	0.339	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-70-2	Calcium	4250	17.0	17.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-47-3	Chromium	16.9	1.36	1.36	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-48-4	Cobalt	ND	3.39	3.39	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-50-8	Copper	132	2.03	2.03	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7439-89-6	Iron	9420	424	424	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:01 LIT	EPA 6010D
7439-92-1	Lead	82.7	0.678	0.678	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7439-95-4	Magnesium	2940	33.9	33.9	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7439-96-5	Manganese	87.4	1.36	1.36	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-02-0	Nickel	14.0	2.71	2.71	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-09-7	Potassium	399	33.9	33.9	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7782-49-2	Selenium	ND	2.71	2.71	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-22-4	Silver	0.405	0.339	0.339	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-23-5	Sodium	670	33.9	33.9	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.03	2.03	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-62-2	Vanadium	12.7	3.39	3.39	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D
7440-66-6	Zinc	120	4.07	4.07	1		10/15/18 17:06	EPA 3050B	10/16/18 16:32 LIT	EPA 6010D

* Values outside of QC limits
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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3A
Lab Sample ID: 1801587-13
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	36.90	File ID:	101618C-031

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	11400	27.5	27.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7439-97-6	Mercury	4.62	0.168	0.168	1		10/08/18 11:02	EPA 7471B	10/09/18 12:40 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.50	5.50	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-38-2	Arsenic	33.7	1.38	1.38	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-39-3	Barium	96.9	27.5	27.5	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-41-7	Beryllium	1.00	0.688	0.688	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-43-9	Cadmium	5.71	0.688	0.688	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-70-2	Calcium	5840	34.4	34.4	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-47-3	Chromium	118	2.75	2.75	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-48-4	Cobalt	10.1	6.88	6.88	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-50-8	Copper	308	4.13	4.13	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7439-89-6	Iron	37300	860	860	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:06 LIT	EPA 6010D
7439-92-1	Lead	196	1.38	1.38	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7439-95-4	Magnesium	7780	68.8	68.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7439-96-5	Manganese	287	2.75	2.75	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-02-0	Nickel	65.4	5.50	5.50	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-09-7	Potassium	2290	68.8	68.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.50	5.50	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-22-4	Silver	2.53	0.688	0.688	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-23-5	Sodium	9000	68.8	68.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.13	4.13	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-62-2	Vanadium	38.9	6.88	6.88	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D
7440-66-6	Zinc	473	8.25	8.25	1		10/15/18 17:06	EPA 3050B	10/16/18 16:37 LIT	EPA 6010D

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3B
Lab Sample ID: 1801587-14
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	41.30	File ID:	101618C-034

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	15200	27.0	27.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7439-97-6	Mercury	7.77	0.873	0.873	5	D	10/15/18 12:17	EPA 7471B	10/17/18 16:36 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.41	5.41	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-38-2	Arsenic	88.7	1.35	1.35	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-39-3	Barium	89.7	27.0	27.0	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-41-7	Beryllium	1.48	0.676	0.676	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-43-9	Cadmium	5.24	0.676	0.676	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-70-2	Calcium	5180	33.8	33.8	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-47-3	Chromium	101	2.70	2.70	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-48-4	Cobalt	14.3	6.76	6.76	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-50-8	Copper	378	4.06	4.06	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7439-89-6	Iron	48000	845	845	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:11 LIT	EPA 6010D
7439-92-1	Lead	220	1.35	1.35	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7439-95-4	Magnesium	9230	67.6	67.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7439-96-5	Manganese	415	2.70	2.70	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-02-0	Nickel	83.8	5.41	5.41	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-09-7	Potassium	3450	67.6	67.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7782-49-2	Selenium	6.19	5.41	5.41	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-22-4	Silver	ND	0.676	0.676	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-23-5	Sodium	6600	67.6	67.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.06	4.06	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-62-2	Vanadium	49.3	6.76	6.76	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D
7440-66-6	Zinc	499	8.11	8.11	1		10/15/18 17:06	EPA 3050B	10/16/18 16:52 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3C
Lab Sample ID: 1801587-15
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	43.10	File ID:	101618C-035

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14700	23.7	23.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.123	0.123	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:10 BFG	EPA 7471B
7440-36-0	Antimony	ND	4.74	4.74	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-38-2	Arsenic	13.6	1.18	1.18	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-39-3	Barium	31.2	23.7	23.7	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-41-7	Beryllium	1.08	0.592	0.592	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-43-9	Cadmium	1.13	0.592	0.592	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-70-2	Calcium	2230	29.6	29.6	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-47-3	Chromium	39.4	2.37	2.37	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-48-4	Cobalt	10.4	5.92	5.92	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-50-8	Copper	18.8	3.55	3.55	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7439-89-6	Iron	33000	740	740	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:16 LIT	EPA 6010D
7439-92-1	Lead	27.8	1.18	1.18	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7439-95-4	Magnesium	6870	59.2	59.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7439-96-5	Manganese	230	2.37	2.37	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-02-0	Nickel	38.8	4.74	4.74	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-09-7	Potassium	3070	59.2	59.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7782-49-2	Selenium	ND	4.74	4.74	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-22-4	Silver	ND	0.592	0.592	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-23-5	Sodium	5760	59.2	59.2	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.55	3.55	1	U	10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-62-2	Vanadium	44.9	5.92	5.92	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D
7440-66-6	Zinc	68.1	7.10	7.10	1		10/15/18 17:06	EPA 3050B	10/16/18 16:57 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-FB02
Lab Sample ID: 1801587-16
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 15:00	Matrix:	Aqueous
Percent Solids:		File ID:	s8j1805s.xml-018

CAS NO.	Analyte	Concentration (mg/kg wet)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	20.0	20.0	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:28 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.0750	0.0750	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:12 BFG	EPA 7471B
7440-36-0	Antimony	ND	4.00	4.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-38-2	Arsenic	ND	1.00	1.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-39-3	Barium	ND	20.0	20.0	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.500	0.500	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-43-9	Cadmium	ND	0.500	0.500	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-70-2	Calcium	ND	25.0	25.0	1	U	10/17/18 07:52	EPA 3050B	10/18/18 17:12 LIT	EPA 6010D
7440-47-3	Chromium	ND	2.00	2.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-48-4	Cobalt	ND	5.00	5.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-50-8	Copper	ND	3.00	3.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7439-89-6	Iron	ND	25.0	25.0	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:28 LIT	EPA 6010D
7439-92-1	Lead	ND	1.00	1.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7439-95-4	Magnesium	ND	50.0	50.0	1	U	10/17/18 07:52	EPA 3050B	10/18/18 17:12 LIT	EPA 6010D
7439-96-5	Manganese	ND	2.00	2.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-02-0	Nickel	ND	4.00	4.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-09-7	Potassium	ND	50.0	50.0	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7782-49-2	Selenium	ND	4.00	4.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-22-4	Silver	ND	0.500	0.500	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-23-5	Sodium	ND	50.0	50.0	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.00	3.00	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:28 LIT	EPA 6010D
7440-62-2	Vanadium	ND	5.00	5.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D
7440-66-6	Zinc	ND	6.00	6.00	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:33 LIT	EPA 6010D

* Values outside of QC limits
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7A
Lab Sample ID: 1801587-17
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	35.00	File ID:	101718B-010

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10400	31.5	31.5	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.202	0.202	1	U	10/08/18 11:02	EPA 7471B	10/09/18 11:34 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.31	6.31	1	U	10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-38-2	Arsenic	9.52	1.58	1.58	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-39-3	Barium	71.7	31.5	31.5	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-41-7	Beryllium	0.896	0.788	0.788	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-43-9	Cadmium	1.28	0.788	0.788	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-70-2	Calcium	6790	39.4	39.4	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-47-3	Chromium	79.2	3.15	3.15	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-48-4	Cobalt	22.3	7.88	7.88	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-50-8	Copper	46.3	4.73	4.73	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7439-89-6	Iron	29000	985	985	25	D	10/15/18 17:06	EPA 3050B	10/17/18 16:53 LIT	EPA 6010D
7439-92-1	Lead	132	1.58	1.58	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7439-95-4	Magnesium	11200	78.8	78.8	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7439-96-5	Manganese	287	3.15	3.15	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-02-0	Nickel	290	6.31	6.31	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-09-7	Potassium	1460	78.8	78.8	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.31	6.31	1	U	10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-22-4	Silver	ND	0.788	0.788	1	U	10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-23-5	Sodium	2070	78.8	78.8	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.73	4.73	1	U	10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-62-2	Vanadium	44.3	7.88	7.88	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D
7440-66-6	Zinc	147	9.46	9.46	1		10/15/18 17:06	EPA 3050B	10/17/18 16:43 LIT	EPA 6010D

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7B
Lab Sample ID: 1801587-18
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	38.20	File ID:	101618C-037

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10500	27.8	27.8	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.172	0.172	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:14 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.56	5.56	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-38-2	Arsenic	8.32	1.39	1.39	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-39-3	Barium	49.5	27.8	27.8	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-41-7	Beryllium	0.919	0.695	0.695	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-43-9	Cadmium	1.09	0.695	0.695	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-70-2	Calcium	2560	34.7	34.7	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-47-3	Chromium	65.2	2.78	2.78	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-48-4	Cobalt	21.3	6.95	6.95	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-50-8	Copper	16.3	4.17	4.17	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7439-89-6	Iron	32400	868	868	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:27 LIT	EPA 6010D
7439-92-1	Lead	30.5	1.39	1.39	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7439-95-4	Magnesium	6110	69.5	69.5	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7439-96-5	Manganese	360	2.78	2.78	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-02-0	Nickel	222	5.56	5.56	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-09-7	Potassium	1580	69.5	69.5	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.56	5.56	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-22-4	Silver	ND	0.695	0.695	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-23-5	Sodium	2120	69.5	69.5	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.17	4.17	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-62-2	Vanadium	39.7	6.95	6.95	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D
7440-66-6	Zinc	65.2	8.34	8.34	1		10/15/18 17:06	EPA 3050B	10/16/18 17:07 LIT	EPA 6010D

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7C
Lab Sample ID: 1801587-19
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	38.80	File ID:	101618C-038

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	11200	26.7	26.7	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.173	0.173	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:17 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.33	5.33	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-38-2	Arsenic	7.96	1.33	1.33	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-39-3	Barium	52.2	26.7	26.7	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-41-7	Beryllium	0.924	0.666	0.666	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-43-9	Cadmium	0.984	0.666	0.666	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-70-2	Calcium	2040	33.3	33.3	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-47-3	Chromium	71.8	2.67	2.67	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-48-4	Cobalt	23.3	6.66	6.66	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-50-8	Copper	14.9	4.00	4.00	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7439-89-6	Iron	34100	833	833	25	D	10/15/18 17:06	EPA 3050B	10/16/18 19:32 LIT	EPA 6010D
7439-92-1	Lead	23.2	1.33	1.33	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7439-95-4	Magnesium	6150	66.6	66.6	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7439-96-5	Manganese	345	2.67	2.67	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-02-0	Nickel	250	5.33	5.33	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-09-7	Potassium	1660	66.6	66.6	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.33	5.33	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-22-4	Silver	ND	0.666	0.666	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-23-5	Sodium	1940	66.6	66.6	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.00	4.00	1	U	10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-62-2	Vanadium	41.1	6.66	6.66	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D
7440-66-6	Zinc	62.4	8.00	8.00	1		10/15/18 17:06	EPA 3050B	10/16/18 17:12 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1A
Lab Sample ID: 1801587-20
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	74.50	File ID:	s8j1805s.xml-019

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	2240	13.8	13.8	1		10/17/18 07:52	EPA 3050B	10/18/18 14:32 LIT	EPA 6010D
7439-97-6	Mercury	0.568	0.0774	0.0774	1		10/15/18 12:17	EPA 7471B	10/17/18 15:26 BFG	EPA 7471B
7440-36-0	Antimony	ND	2.77	2.77	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-38-2	Arsenic	5.31	0.692	0.692	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-39-3	Barium	19.0	13.8	13.8	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.346	0.346	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-43-9	Cadmium	0.644	0.346	0.346	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-70-2	Calcium	6610	17.3	17.3	1		10/17/18 07:52	EPA 3050B	10/18/18 16:47 LIT	EPA 6010D
7440-47-3	Chromium	19.6	1.38	1.38	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-48-4	Cobalt	ND	3.46	3.46	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-50-8	Copper	39.5	2.08	2.08	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7439-89-6	Iron	6660	17.3	17.3	1		10/17/18 07:52	EPA 3050B	10/18/18 14:32 LIT	EPA 6010D
7439-92-1	Lead	73.1	0.692	0.692	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7439-95-4	Magnesium	4940	34.6	34.6	1		10/17/18 07:52	EPA 3050B	10/18/18 16:47 LIT	EPA 6010D
7439-96-5	Manganese	65.6	1.38	1.38	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-02-0	Nickel	13.5	2.77	2.77	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-09-7	Potassium	444	34.6	34.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7782-49-2	Selenium	ND	2.77	2.77	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-22-4	Silver	ND	0.346	0.346	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-23-5	Sodium	1650	34.6	34.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.08	2.08	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:32 LIT	EPA 6010D
7440-62-2	Vanadium	9.92	3.46	3.46	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D
7440-66-6	Zinc	91.3	4.15	4.15	1		10/17/18 07:52	EPA 3050B	10/17/18 16:14 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1B
Lab Sample ID: 1801587-21
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	59.40	File ID:	s8j1805s.xml-020

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	3810	18.5	18.5	1		10/17/18 07:52	EPA 3050B	10/18/18 14:37 LIT	EPA 6010D
7439-97-6	Mercury	4.01	0.540	0.540	5	D	10/15/18 12:17	EPA 7471B	10/17/18 16:38 BFG	EPA 7471B
7440-36-0	Antimony	ND	3.69	3.69	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-38-2	Arsenic	27.9	0.923	0.923	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-39-3	Barium	50.8	18.5	18.5	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.462	0.462	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-43-9	Cadmium	1.04	0.462	0.462	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-70-2	Calcium	915	23.1	23.1	1		10/17/18 07:52	EPA 3050B	10/18/18 16:52 LIT	EPA 6010D
7440-47-3	Chromium	29.8	1.85	1.85	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-48-4	Cobalt	ND	4.62	4.62	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-50-8	Copper	91.9	2.77	2.77	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7439-89-6	Iron	9230	23.1	23.1	1		10/17/18 07:52	EPA 3050B	10/18/18 14:37 LIT	EPA 6010D
7439-92-1	Lead	113	0.923	0.923	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7439-95-4	Magnesium	2000	46.2	46.2	1		10/17/18 07:52	EPA 3050B	10/18/18 16:52 LIT	EPA 6010D
7439-96-5	Manganese	69.4	1.85	1.85	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-02-0	Nickel	20.1	3.69	3.69	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-09-7	Potassium	744	46.2	46.2	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7782-49-2	Selenium	ND	3.69	3.69	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-22-4	Silver	0.519	0.462	0.462	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-23-5	Sodium	2770	46.2	46.2	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.77	2.77	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:37 LIT	EPA 6010D
7440-62-2	Vanadium	13.2	4.62	4.62	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D
7440-66-6	Zinc	167	5.54	5.54	1		10/17/18 07:52	EPA 3050B	10/17/18 16:19 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1C
Lab Sample ID: 1801587-22
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	65.70	File ID:	s8j1805s.xml-011

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	7870	16.9	16.9	1		10/17/18 07:52	EPA 3050B	10/18/18 13:44 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.0885	0.0885	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:01 BFG	EPA 7471B
7440-36-0	Antimony	ND	3.38	3.38	1	U	10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-38-2	Arsenic	5.80	0.845	0.845	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-39-3	Barium	58.2	16.9	16.9	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-41-7	Beryllium	0.773	0.423	0.423	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-43-9	Cadmium	ND	0.423	0.423	1	U	10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-70-2	Calcium	10600	21.1	21.1	1		10/17/18 07:52	EPA 3050B	10/18/18 16:21 LIT	EPA 6010D
7440-47-3	Chromium	23.6	1.69	1.69	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-48-4	Cobalt	9.53	4.23	4.23	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-50-8	Copper	24.0	2.54	2.54	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7439-89-6	Iron	26000	528	528	25	D	10/17/18 07:52	EPA 3050B	10/18/18 15:58 LIT	EPA 6010D
7439-92-1	Lead	13.2	0.845	0.845	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7439-95-4	Magnesium	8130	42.3	42.3	1		10/17/18 07:52	EPA 3050B	10/18/18 16:21 LIT	EPA 6010D
7439-96-5	Manganese	421	1.69	1.69	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-02-0	Nickel	38.9	3.38	3.38	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-09-7	Potassium	2030	42.3	42.3	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7782-49-2	Selenium	ND	3.38	3.38	1	U	10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-22-4	Silver	ND	0.423	0.423	1	U	10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-23-5	Sodium	2560	42.3	42.3	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.54	2.54	1	U	10/17/18 07:52	EPA 3050B	10/18/18 13:44 LIT	EPA 6010D
7440-62-2	Vanadium	26.6	4.23	4.23	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D
7440-66-6	Zinc	62.7	5.07	5.07	1		10/17/18 07:52	EPA 3050B	10/17/18 15:41 LIT	EPA 6010D

* Values outside of QC limits
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2A
Lab Sample ID: 1801587-23
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	38.20	File ID:	s8j1805s.xml-021

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	9460	28.9	28.9	1		10/17/18 07:52	EPA 3050B	10/18/18 14:42 LIT	EPA 6010D
7439-97-6	Mercury	3.95	0.161	0.161	1		10/15/18 12:17	EPA 7471B	10/17/18 15:30 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.79	5.79	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-38-2	Arsenic	21.6	1.45	1.45	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-39-3	Barium	110	28.9	28.9	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-41-7	Beryllium	0.745	0.723	0.723	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-43-9	Cadmium	3.12	0.723	0.723	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-70-2	Calcium	6630	36.2	36.2	1		10/17/18 07:52	EPA 3050B	10/18/18 16:57 LIT	EPA 6010D
7440-47-3	Chromium	94.2	2.89	2.89	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-48-4	Cobalt	8.30	7.23	7.23	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-50-8	Copper	238	4.34	4.34	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7439-89-6	Iron	35800	904	904	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:45 LIT	EPA 6010D
7439-92-1	Lead	146	1.45	1.45	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7439-95-4	Magnesium	8550	72.3	72.3	1		10/17/18 07:52	EPA 3050B	10/18/18 16:57 LIT	EPA 6010D
7439-96-5	Manganese	236	2.89	2.89	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-02-0	Nickel	48.0	5.79	5.79	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-09-7	Potassium	1870	72.3	72.3	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.79	5.79	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-22-4	Silver	2.03	0.723	0.723	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-23-5	Sodium	7690	72.3	72.3	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.34	4.34	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:42 LIT	EPA 6010D
7440-62-2	Vanadium	36.2	7.23	7.23	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D
7440-66-6	Zinc	387	8.68	8.68	1		10/17/18 07:52	EPA 3050B	10/17/18 16:24 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2B
Lab Sample ID: 1801587-24
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	39.00	File ID:	s8j1805s.xml-022

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	8670	27.8	27.8	1		10/17/18 07:52	EPA 3050B	10/18/18 14:46 LIT	EPA 6010D
7439-97-6	Mercury	3.59	0.148	0.148	1		10/15/18 12:17	EPA 7471B	10/17/18 15:32 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.55	5.55	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-38-2	Arsenic	20.4	1.39	1.39	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-39-3	Barium	118	27.8	27.8	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-41-7	Beryllium	0.770	0.694	0.694	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-43-9	Cadmium	3.00	0.694	0.694	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-70-2	Calcium	6950	34.7	34.7	1		10/17/18 07:52	EPA 3050B	10/18/18 17:17 LIT	EPA 6010D
7440-47-3	Chromium	90.0	2.78	2.78	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-48-4	Cobalt	8.19	6.94	6.94	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-50-8	Copper	237	4.16	4.16	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7439-89-6	Iron	40000	867	867	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:50 LIT	EPA 6010D
7439-92-1	Lead	139	1.39	1.39	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7439-95-4	Magnesium	7420	69.4	69.4	1		10/17/18 07:52	EPA 3050B	10/18/18 17:17 LIT	EPA 6010D
7439-96-5	Manganese	217	2.78	2.78	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-02-0	Nickel	48.4	5.55	5.55	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-09-7	Potassium	1890	69.4	69.4	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.55	5.55	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-22-4	Silver	1.97	0.694	0.694	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-23-5	Sodium	7810	69.4	69.4	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.16	4.16	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:46 LIT	EPA 6010D
7440-62-2	Vanadium	34.2	6.94	6.94	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D
7440-66-6	Zinc	372	8.33	8.33	1		10/17/18 07:52	EPA 3050B	10/17/18 16:36 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2C
Lab Sample ID: 1801587-25
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	51.50	File ID:	s8j1805s.xml-023

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10100	19.9	19.9	1		10/17/18 07:52	EPA 3050B	10/18/18 14:51 LIT	EPA 6010D
7439-97-6	Mercury	3.35	0.111	0.111	1		10/15/18 12:17	EPA 7471B	10/17/18 15:35 BFG	EPA 7471B
7440-36-0	Antimony	ND	3.97	3.97	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-38-2	Arsenic	50.8	0.993	0.993	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-39-3	Barium	124	19.9	19.9	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-41-7	Beryllium	0.793	0.496	0.496	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-43-9	Cadmium	1.10	0.496	0.496	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-70-2	Calcium	2580	24.8	24.8	1		10/17/18 07:52	EPA 3050B	10/18/18 17:22 LIT	EPA 6010D
7440-47-3	Chromium	68.6	1.99	1.99	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-48-4	Cobalt	8.11	4.96	4.96	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-50-8	Copper	248	2.98	2.98	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7439-89-6	Iron	34900	620	620	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:55 LIT	EPA 6010D
7439-92-1	Lead	163	0.993	0.993	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7439-95-4	Magnesium	5490	49.6	49.6	1		10/17/18 07:52	EPA 3050B	10/18/18 17:22 LIT	EPA 6010D
7439-96-5	Manganese	174	1.99	1.99	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-02-0	Nickel	72.7	3.97	3.97	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-09-7	Potassium	1740	49.6	49.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7782-49-2	Selenium	12.5	3.97	3.97	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-22-4	Silver	0.868	0.496	0.496	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-23-5	Sodium	4050	49.6	49.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.98	2.98	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:51 LIT	EPA 6010D
7440-62-2	Vanadium	26.7	4.96	4.96	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D
7440-66-6	Zinc	313	5.96	5.96	1		10/17/18 07:52	EPA 3050B	10/17/18 16:40 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2C DUP
Lab Sample ID: 1801587-26
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	50.00	File ID:	s8j1805s.xml-024

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	9480	20.3	20.3	1		10/17/18 07:52	EPA 3050B	10/18/18 14:57 LIT	EPA 6010D
7439-97-6	Mercury	3.47	0.121	0.121	1		10/15/18 12:17	EPA 7471B	10/17/18 15:37 BFG	EPA 7471B
7440-36-0	Antimony	ND	4.05	4.05	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-38-2	Arsenic	54.9	1.01	1.01	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-39-3	Barium	110	20.3	20.3	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-41-7	Beryllium	0.768	0.507	0.507	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-43-9	Cadmium	2.21	0.507	0.507	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-70-2	Calcium	2860	25.3	25.3	1		10/17/18 07:52	EPA 3050B	10/18/18 17:27 LIT	EPA 6010D
7440-47-3	Chromium	80.0	2.03	2.03	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-48-4	Cobalt	8.24	5.07	5.07	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-50-8	Copper	242	3.04	3.04	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7439-89-6	Iron	31300	634	634	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:59 LIT	EPA 6010D
7439-92-1	Lead	151	1.01	1.01	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7439-95-4	Magnesium	5960	50.7	50.7	1		10/17/18 07:52	EPA 3050B	10/18/18 17:27 LIT	EPA 6010D
7439-96-5	Manganese	184	2.03	2.03	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-02-0	Nickel	69.0	4.05	4.05	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-09-7	Potassium	1670	50.7	50.7	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7782-49-2	Selenium	9.20	4.05	4.05	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-22-4	Silver	1.07	0.507	0.507	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-23-5	Sodium	4160	50.7	50.7	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.04	3.04	1	U	10/17/18 07:52	EPA 3050B	10/18/18 14:57 LIT	EPA 6010D
7440-62-2	Vanadium	32.1	5.07	5.07	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D
7440-66-6	Zinc	328	6.08	6.08	1		10/17/18 07:52	EPA 3050B	10/17/18 16:45 LIT	EPA 6010D

* Values outside of QC limits
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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4A
Lab Sample ID: 1801587-27
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	32.40	File ID:	s8j1805s.xml-025

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	11500	31.6	31.6	1		10/17/18 07:52	EPA 3050B	10/18/18 15:02 LIT	EPA 6010D
7439-97-6	Mercury	5.13	0.218	0.218	1		10/15/18 12:17	EPA 7471B	10/17/18 15:39 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.33	6.33	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-38-2	Arsenic	23.0	1.58	1.58	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-39-3	Barium	140	31.6	31.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-41-7	Beryllium	0.879	0.791	0.791	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-43-9	Cadmium	3.84	0.791	0.791	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-70-2	Calcium	4980	39.5	39.5	1		10/17/18 07:52	EPA 3050B	10/18/18 17:32 LIT	EPA 6010D
7440-47-3	Chromium	112	3.16	3.16	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-48-4	Cobalt	9.55	7.91	7.91	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-50-8	Copper	287	4.75	4.75	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7439-89-6	Iron	43100	989	989	25	D	10/17/18 07:52	EPA 3050B	10/18/18 17:04 LIT	EPA 6010D
7439-92-1	Lead	168	1.58	1.58	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7439-95-4	Magnesium	8070	79.1	79.1	1		10/17/18 07:52	EPA 3050B	10/18/18 17:32 LIT	EPA 6010D
7439-96-5	Manganese	253	3.16	3.16	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-02-0	Nickel	57.9	6.33	6.33	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-09-7	Potassium	2200	79.1	79.1	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.33	6.33	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-22-4	Silver	2.46	0.791	0.791	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-23-5	Sodium	6010	79.1	79.1	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.75	4.75	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:02 LIT	EPA 6010D
7440-62-2	Vanadium	33.6	7.91	7.91	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D
7440-66-6	Zinc	418	9.49	9.49	1		10/17/18 07:52	EPA 3050B	10/17/18 16:50 LIT	EPA 6010D

* Values outside of QC limits
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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4B
Lab Sample ID: 1801587-28
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	40.80	File ID:	s8j1805s.xml-026

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10300	25.1	25.1	1		10/17/18 07:52	EPA 3050B	10/18/18 15:07 LIT	EPA 6010D
7439-97-6	Mercury	4.89	0.476	0.476	5	D	10/15/18 12:17	EPA 7471B	10/17/18 16:40 BFG	EPA 7471B
7440-36-0	Antimony	ND	5.02	5.02	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-38-2	Arsenic	21.4	1.25	1.25	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-39-3	Barium	124	25.1	25.1	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-41-7	Beryllium	0.793	0.627	0.627	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-43-9	Cadmium	3.59	0.627	0.627	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-70-2	Calcium	4920	31.4	31.4	1		10/17/18 07:52	EPA 3050B	10/18/18 17:37 LIT	EPA 6010D
7440-47-3	Chromium	99.9	2.51	2.51	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-48-4	Cobalt	9.04	6.27	6.27	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-50-8	Copper	252	3.76	3.76	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7439-89-6	Iron	38300	784	784	25	D	10/17/18 07:52	EPA 3050B	10/18/18 17:09 LIT	EPA 6010D
7439-92-1	Lead	155	1.25	1.25	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7439-95-4	Magnesium	7660	62.7	62.7	1		10/17/18 07:52	EPA 3050B	10/18/18 17:37 LIT	EPA 6010D
7439-96-5	Manganese	237	2.51	2.51	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-02-0	Nickel	55.3	5.02	5.02	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-09-7	Potassium	2040	62.7	62.7	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7782-49-2	Selenium	ND	5.02	5.02	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-22-4	Silver	2.27	0.627	0.627	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-23-5	Sodium	6530	62.7	62.7	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-28-0	Thallium	ND	3.76	3.76	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:07 LIT	EPA 6010D
7440-62-2	Vanadium	31.1	6.27	6.27	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D
7440-66-6	Zinc	380	7.53	7.53	1		10/17/18 07:52	EPA 3050B	10/17/18 16:54 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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Carteret, New Jersey 07008
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Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4C
Lab Sample ID: 1801587-29
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	59.40	File ID:	s8j1805s.xml-027

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	6660	17.6	17.6	1		10/17/18 07:52	EPA 3050B	10/18/18 15:11 LIT	EPA 6010D
7439-97-6	Mercury	2.69	0.0871	0.0871	1		10/15/18 12:17	EPA 7471B	10/17/18 15:44 BFG	EPA 7471B
7440-36-0	Antimony	ND	3.51	3.51	1	U	10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-38-2	Arsenic	46.5	0.879	0.879	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-39-3	Barium	72.2	17.6	17.6	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-41-7	Beryllium	0.566	0.439	0.439	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-43-9	Cadmium	2.27	0.439	0.439	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-70-2	Calcium	2420	22.0	22.0	1		10/17/18 07:52	EPA 3050B	10/18/18 17:42 LIT	EPA 6010D
7440-47-3	Chromium	61.4	1.76	1.76	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-48-4	Cobalt	7.48	4.39	4.39	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-50-8	Copper	160	2.64	2.64	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7439-89-6	Iron	22500	549	549	25	D	10/17/18 07:52	EPA 3050B	10/18/18 17:14 LIT	EPA 6010D
7439-92-1	Lead	120	0.879	0.879	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7439-95-4	Magnesium	4600	43.9	43.9	1		10/17/18 07:52	EPA 3050B	10/18/18 17:42 LIT	EPA 6010D
7439-96-5	Manganese	139	1.76	1.76	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-02-0	Nickel	66.8	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-09-7	Potassium	1170	43.9	43.9	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7782-49-2	Selenium	3.97	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-22-4	Silver	0.830	0.439	0.439	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-23-5	Sodium	2960	43.9	43.9	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.64	2.64	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:11 LIT	EPA 6010D
7440-62-2	Vanadium	24.1	4.39	4.39	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D
7440-66-6	Zinc	291	5.27	5.27	1		10/17/18 07:52	EPA 3050B	10/17/18 16:59 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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Accredited Analytical Resources, LLC.

20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9A
Lab Sample ID: 1801587-30
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:15	Matrix:	Soil
Percent Solids:	29.10	File ID:	s8j1805s.xml-030

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	8780	35.1	35.1	1		10/17/18 07:52	EPA 3050B	10/18/18 15:25 LIT	EPA 6010D
7439-97-6	Mercury	1.92	0.168	0.168	1		10/15/18 12:17	EPA 7471B	10/17/18 15:46 BFG	EPA 7471B
7440-36-0	Antimony	ND	7.03	7.03	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-38-2	Arsenic	30.4	1.76	1.76	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-39-3	Barium	48.5	35.1	35.1	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.878	0.878	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-43-9	Cadmium	ND	0.878	0.878	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-70-2	Calcium	3070	43.9	43.9	1		10/17/18 07:52	EPA 3050B	10/18/18 17:47 LIT	EPA 6010D
7440-47-3	Chromium	62.4	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-48-4	Cobalt	ND	8.78	8.78	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-50-8	Copper	132	5.27	5.27	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7439-89-6	Iron	14600	43.9	43.9	1		10/17/18 07:52	EPA 3050B	10/18/18 15:25 LIT	EPA 6010D
7439-92-1	Lead	155	1.76	1.76	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7439-95-4	Magnesium	5730	87.8	87.8	1		10/17/18 07:52	EPA 3050B	10/18/18 17:47 LIT	EPA 6010D
7439-96-5	Manganese	127	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-02-0	Nickel	36.6	7.03	7.03	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-09-7	Potassium	1920	87.8	87.8	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7782-49-2	Selenium	ND	7.03	7.03	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-22-4	Silver	0.907	0.878	0.878	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-23-5	Sodium	8930	87.8	87.8	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-28-0	Thallium	ND	5.27	5.27	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:25 LIT	EPA 6010D
7440-62-2	Vanadium	52.2	8.78	8.78	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D
7440-66-6	Zinc	174	10.5	10.5	1		10/17/18 07:52	EPA 3050B	10/17/18 17:15 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9B
Lab Sample ID: 1801587-31
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:28	Matrix:	Soil
Percent Solids:	21.00	File ID:	s8j1805s.xml-031

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	2100	47.7	47.7	1		10/17/18 07:52	EPA 3050B	10/18/18 15:30 LIT	EPA 6010D
7439-97-6	Mercury	0.346	0.267	0.267	1		10/15/18 12:17	EPA 7471B	10/17/18 15:55 BFG	EPA 7471B
7440-36-0	Antimony	ND	9.54	9.54	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-38-2	Arsenic	80.1	2.39	2.39	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-39-3	Barium	ND	47.7	47.7	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.19	1.19	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.19	1.19	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-70-2	Calcium	4700	59.6	59.6	1		10/17/18 07:52	EPA 3050B	10/18/18 17:52 LIT	EPA 6010D
7440-47-3	Chromium	14.9	4.77	4.77	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-48-4	Cobalt	ND	11.9	11.9	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-50-8	Copper	234	7.16	7.16	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7439-89-6	Iron	13500	59.6	59.6	1		10/17/18 07:52	EPA 3050B	10/18/18 15:30 LIT	EPA 6010D
7439-92-1	Lead	68.7	2.39	2.39	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7439-95-4	Magnesium	4840	119	119	1		10/17/18 07:52	EPA 3050B	10/18/18 17:52 LIT	EPA 6010D
7439-96-5	Manganese	55.7	4.77	4.77	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-02-0	Nickel	52.9	9.54	9.54	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-09-7	Potassium	1190	119	119	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7782-49-2	Selenium	15.4	9.54	9.54	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-22-4	Silver	1.52	1.19	1.19	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-23-5	Sodium	19900	119	119	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-28-0	Thallium	ND	7.16	7.16	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:30 LIT	EPA 6010D
7440-62-2	Vanadium	36.0	11.9	11.9	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D
7440-66-6	Zinc	191	14.3	14.3	1		10/17/18 07:52	EPA 3050B	10/17/18 17:19 LIT	EPA 6010D

* Values outside of QC limits
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9C
Lab Sample ID: 1801587-32
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:45	Matrix:	Soil
Percent Solids:	31.70	File ID:	s8j1805s.xml-032

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	9800	32.1	32.1	1		10/17/18 07:52	EPA 3050B	10/18/18 15:35 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.151	0.151	1	U	10/15/18 12:17	EPA 7471B	10/17/18 15:57 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.41	6.41	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-38-2	Arsenic	3.48	1.60	1.60	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-39-3	Barium	ND	32.1	32.1	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.801	0.801	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-43-9	Cadmium	ND	0.801	0.801	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-70-2	Calcium	2490	40.1	40.1	1		10/17/18 07:52	EPA 3050B	10/18/18 17:57 LIT	EPA 6010D
7440-47-3	Chromium	18.1	3.21	3.21	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-48-4	Cobalt	ND	8.01	8.01	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-50-8	Copper	11.9	4.81	4.81	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7439-89-6	Iron	8850	40.1	40.1	1		10/17/18 07:52	EPA 3050B	10/18/18 15:35 LIT	EPA 6010D
7439-92-1	Lead	8.74	1.60	1.60	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7439-95-4	Magnesium	5030	80.1	80.1	1		10/17/18 07:52	EPA 3050B	10/18/18 17:57 LIT	EPA 6010D
7439-96-5	Manganese	97.0	3.21	3.21	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-02-0	Nickel	15.3	6.41	6.41	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-09-7	Potassium	1250	80.1	80.1	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.41	6.41	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-22-4	Silver	ND	0.801	0.801	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-23-5	Sodium	9270	80.1	80.1	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-28-0	Thallium	ND	4.81	4.81	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:35 LIT	EPA 6010D
7440-62-2	Vanadium	19.4	8.01	8.01	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D
7440-66-6	Zinc	49.1	9.62	9.62	1		10/17/18 07:52	EPA 3050B	10/17/18 17:24 LIT	EPA 6010D

* Values outside of QC limits
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8A
Lab Sample ID: 1801587-33
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 08:30	Matrix:	Soil
Percent Solids:	30.00	File ID:	s8j1805s.xml-033

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	8400	33.6	33.6	1		10/17/18 07:52	EPA 3050B	10/18/18 15:39 LIT	EPA 6010D
7439-97-6	Mercury	1.93	0.221	0.221	1		10/17/18 08:44	EPA 7471B	10/17/18 16:10 BFG	EPA 7471B
7440-36-0	Antimony	ND	6.72	6.72	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-38-2	Arsenic	27.3	1.68	1.68	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-39-3	Barium	38.1	33.6	33.6	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-41-7	Beryllium	ND	0.840	0.840	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-43-9	Cadmium	0.971	0.840	0.840	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-70-2	Calcium	2740	42.0	42.0	1		10/17/18 07:52	EPA 3050B	10/18/18 18:14 LIT	EPA 6010D
7440-47-3	Chromium	67.1	3.36	3.36	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-48-4	Cobalt	ND	8.40	8.40	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-50-8	Copper	155	5.04	5.04	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7439-89-6	Iron	15100	42.0	42.0	1		10/17/18 07:52	EPA 3050B	10/18/18 15:39 LIT	EPA 6010D
7439-92-1	Lead	154	1.68	1.68	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7439-95-4	Magnesium	5680	84.0	84.0	1		10/17/18 07:52	EPA 3050B	10/18/18 18:14 LIT	EPA 6010D
7439-96-5	Manganese	147	3.36	3.36	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-02-0	Nickel	36.2	6.72	6.72	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-09-7	Potassium	1960	84.0	84.0	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7782-49-2	Selenium	ND	6.72	6.72	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-22-4	Silver	1.33	0.840	0.840	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-23-5	Sodium	8570	84.0	84.0	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-28-0	Thallium	ND	5.04	5.04	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:39 LIT	EPA 6010D
7440-62-2	Vanadium	45.6	8.40	8.40	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D
7440-66-6	Zinc	208	10.1	10.1	1		10/17/18 07:52	EPA 3050B	10/17/18 17:29 LIT	EPA 6010D

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
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E - Concentration exceeds highest calibration standard
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MDL - Minimum detection limit
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20 Pershing Ave
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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8B
Lab Sample ID: 1801587-34
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 08:40	Matrix:	Soil
Percent Solids:	26.00	File ID:	s8j1805s.xml-034

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	6260	41.6	41.6	1		10/17/18 07:52	EPA 3050B	10/18/18 15:44 LIT	EPA 6010D
7439-97-6	Mercury	3.49	0.203	0.203	1		10/17/18 08:44	EPA 7471B	10/17/18 16:13 BFG	EPA 7471B
7440-36-0	Antimony	ND	8.31	8.31	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-38-2	Arsenic	74.9	2.08	2.08	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-39-3	Barium	49.5	41.6	41.6	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.04	1.04	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.04	1.04	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-70-2	Calcium	3040	51.9	51.9	1		10/17/18 07:52	EPA 3050B	10/18/18 18:19 LIT	EPA 6010D
7440-47-3	Chromium	94.1	4.16	4.16	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-48-4	Cobalt	26.9	10.4	10.4	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-50-8	Copper	343	6.23	6.23	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7439-89-6	Iron	19200	51.9	51.9	1		10/17/18 07:52	EPA 3050B	10/18/18 15:44 LIT	EPA 6010D
7439-92-1	Lead	299	2.08	2.08	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7439-95-4	Magnesium	5000	104	104	1		10/17/18 07:52	EPA 3050B	10/18/18 18:19 LIT	EPA 6010D
7439-96-5	Manganese	211	4.16	4.16	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-02-0	Nickel	104	8.31	8.31	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-09-7	Potassium	1670	104	104	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7782-49-2	Selenium	10.8	8.31	8.31	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-22-4	Silver	1.86	1.04	1.04	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-23-5	Sodium	13600	104	104	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-28-0	Thallium	ND	6.23	6.23	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:44 LIT	EPA 6010D
7440-62-2	Vanadium	62.5	10.4	10.4	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D
7440-66-6	Zinc	325	12.5	12.5	1		10/17/18 07:52	EPA 3050B	10/17/18 17:38 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8C
Lab Sample ID: 1801587-35
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 09:00	Matrix:	Soil
Percent Solids:	17.00	File ID:	s8j1805s.xml-035

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	8510	59.5	59.5	1		10/17/18 07:52	EPA 3050B	10/18/18 15:48 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.345	0.345	1	U	10/17/18 08:44	EPA 7471B	10/17/18 16:15 BFG	EPA 7471B
7440-36-0	Antimony	ND	11.9	11.9	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-38-2	Arsenic	7.94	2.97	2.97	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-39-3	Barium	ND	59.5	59.5	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.49	1.49	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.49	1.49	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-70-2	Calcium	3920	74.3	74.3	1		10/17/18 07:52	EPA 3050B	10/18/18 18:24 LIT	EPA 6010D
7440-47-3	Chromium	17.5	5.95	5.95	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-48-4	Cobalt	ND	14.9	14.9	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-50-8	Copper	11.2	8.92	8.92	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7439-89-6	Iron	17300	74.3	74.3	1		10/17/18 07:52	EPA 3050B	10/18/18 15:48 LIT	EPA 6010D
7439-92-1	Lead	10.7	2.97	2.97	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7439-95-4	Magnesium	7150	149	149	1		10/17/18 07:52	EPA 3050B	10/18/18 18:24 LIT	EPA 6010D
7439-96-5	Manganese	206	5.95	5.95	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-02-0	Nickel	27.7	11.9	11.9	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-09-7	Potassium	2710	149	149	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7782-49-2	Selenium	ND	11.9	11.9	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-22-4	Silver	ND	1.49	1.49	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-23-5	Sodium	24700	149	149	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-28-0	Thallium	ND	8.92	8.92	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:48 LIT	EPA 6010D
7440-62-2	Vanadium	34.8	14.9	14.9	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D
7440-66-6	Zinc	96.8	17.8	17.8	1		10/17/18 07:52	EPA 3050B	10/17/18 17:43 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
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Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8C DUP
Lab Sample ID: 1801587-36
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 09:00	Matrix:	Soil
Percent Solids:	18.00	File ID:	s8j1805s.xml-036

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	17700	56.4	56.4	1		10/17/18 07:52	EPA 3050B	10/18/18 15:53 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.347	0.347	1	U	10/17/18 08:44	EPA 7471B	10/17/18 16:24 BFG	EPA 7471B
7440-36-0	Antimony	ND	11.3	11.3	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-38-2	Arsenic	11.6	2.82	2.82	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-39-3	Barium	ND	56.4	56.4	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.41	1.41	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.41	1.41	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-70-2	Calcium	3960	70.5	70.5	1		10/17/18 07:52	EPA 3050B	10/18/18 18:29 LIT	EPA 6010D
7440-47-3	Chromium	34.9	5.64	5.64	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-48-4	Cobalt	ND	14.1	14.1	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-50-8	Copper	17.7	8.46	8.46	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7439-89-6	Iron	56800	1760	1760	25	D	10/17/18 07:52	EPA 3050B	10/18/18 17:18 LIT	EPA 6010D
7439-92-1	Lead	17.8	2.82	2.82	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7439-95-4	Magnesium	10200	141	141	1		10/17/18 07:52	EPA 3050B	10/18/18 18:29 LIT	EPA 6010D
7439-96-5	Manganese	448	5.64	5.64	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-02-0	Nickel	40.7	11.3	11.3	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-09-7	Potassium	4260	141	141	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7782-49-2	Selenium	ND	11.3	11.3	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-22-4	Silver	ND	1.41	1.41	1	U	10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-23-5	Sodium	21100	141	141	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-28-0	Thallium	ND	8.46	8.46	1	U	10/17/18 07:52	EPA 3050B	10/18/18 15:53 LIT	EPA 6010D
7440-62-2	Vanadium	51.9	14.1	14.1	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D
7440-66-6	Zinc	112	16.9	16.9	1		10/17/18 07:52	EPA 3050B	10/17/18 17:48 LIT	EPA 6010D

* Values outside of QC limits
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-07A MS
Lab Sample ID: 1801587-37
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	41.00	File ID:	101618C-014

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	16300	24.4	24.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7439-97-6	Mercury	4.69	0.162	0.162	1		10/08/18 11:02	EPA 7471B	10/09/18 11:36 BFG	EPA 7471B
7440-36-0	Antimony	292	4.88	4.88	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-38-2	Arsenic	311	1.22	1.22	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-39-3	Barium	375	24.4	24.4	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-41-7	Beryllium	299	0.610	0.610	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-43-9	Cadmium	283	0.610	0.610	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-70-2	Calcium	3280	30.5	30.5	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-47-3	Chromium	404	2.44	2.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-48-4	Cobalt	307	6.10	6.10	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-50-8	Copper	304	3.66	3.66	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7439-89-6	Iron	26700	762	762	25	D	10/15/18 17:06	EPA 3050B	10/16/18 17:28 LIT	EPA 6010D
7439-92-1	Lead	326	1.22	1.22	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7439-95-4	Magnesium	10200	61.0	61.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7439-96-5	Manganese	547	2.44	2.44	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-02-0	Nickel	626	4.88	4.88	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-09-7	Potassium	2210	61.0	61.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7782-49-2	Selenium	299	4.88	4.88	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-22-4	Silver	27.9	0.610	0.610	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-23-5	Sodium	2200	61.0	61.0	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-28-0	Thallium	248	3.66	3.66	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-62-2	Vanadium	349	6.10	6.10	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D
7440-66-6	Zinc	378	7.32	7.32	1		10/15/18 17:06	EPA 3050B	10/16/18 15:13 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-07A MSD
Lab Sample ID: 1801587-38
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	46.50	File ID:	101618C-015

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	14500	21.5	21.5	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7439-97-6	Mercury	3.86	0.139	0.139	1		10/08/18 11:02	EPA 7471B	10/09/18 11:39 BFG	EPA 7471B
7440-36-0	Antimony	257	4.30	4.30	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-38-2	Arsenic	281	1.08	1.08	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-39-3	Barium	253	21.5	21.5	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-41-7	Beryllium	267	0.538	0.538	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-43-9	Cadmium	253	0.538	0.538	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-70-2	Calcium	2180	26.9	26.9	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-47-3	Chromium	348	2.15	2.15	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-48-4	Cobalt	292	5.38	5.38	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-50-8	Copper	263	3.23	3.23	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7439-89-6	Iron	20900	672	672	25	D	10/15/18 17:06	EPA 3050B	10/16/18 17:33 LIT	EPA 6010D
7439-92-1	Lead	271	1.08	1.08	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7439-95-4	Magnesium	7670	53.8	53.8	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7439-96-5	Manganese	493	2.15	2.15	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-02-0	Nickel	669	4.30	4.30	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-09-7	Potassium	1990	53.8	53.8	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7782-49-2	Selenium	270	4.30	4.30	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-22-4	Silver	24.6	0.538	0.538	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-23-5	Sodium	2050	53.8	53.8	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-28-0	Thallium	221	3.23	3.23	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-62-2	Vanadium	308	5.38	5.38	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D
7440-66-6	Zinc	310	6.45	6.45	1		10/15/18 17:06	EPA 3050B	10/16/18 15:18 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-01C MS
Lab Sample ID: 1801587-39
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	71.30	File ID:	s8j1805s.xml-013

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10300	14.0	14.0	1		10/17/18 07:52	EPA 3050B	10/18/18 13:53 LIT	EPA 6010D
7439-97-6	Mercury	2.58	0.0877	0.0877	1		10/15/18 12:17	EPA 7471B	10/17/18 15:03 BFG	EPA 7471B
7440-36-0	Antimony	116	2.81	2.81	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-38-2	Arsenic	132	0.701	0.701	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-39-3	Barium	167	14.0	14.0	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-41-7	Beryllium	120	0.351	0.351	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-43-9	Cadmium	113	0.351	0.351	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-70-2	Calcium	10100	17.5	17.5	1		10/17/18 07:52	EPA 3050B	10/18/18 16:32 LIT	EPA 6010D
7440-47-3	Chromium	145	1.40	1.40	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-48-4	Cobalt	122	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-50-8	Copper	135	2.10	2.10	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7439-89-6	Iron	31400	438	438	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:08 LIT	EPA 6010D
7439-92-1	Lead	118	0.701	0.701	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7439-95-4	Magnesium	8250	35.1	35.1	1		10/17/18 07:52	EPA 3050B	10/18/18 16:32 LIT	EPA 6010D
7439-96-5	Manganese	499	1.40	1.40	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-02-0	Nickel	142	2.81	2.81	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-09-7	Potassium	2870	35.1	35.1	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7782-49-2	Selenium	118	2.81	2.81	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-22-4	Silver	11.2	0.351	0.351	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-23-5	Sodium	2560	35.1	35.1	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-28-0	Thallium	101	2.10	2.10	1		10/17/18 07:52	EPA 3050B	10/18/18 13:53 LIT	EPA 6010D
7440-62-2	Vanadium	153	3.51	3.51	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D
7440-66-6	Zinc	165	4.21	4.21	1		10/17/18 07:52	EPA 3050B	10/17/18 15:50 LIT	EPA 6010D

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-01C MSD
Lab Sample ID: 1801587-40
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	69.30	File ID:	s8j1805s.xml-014

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	10700	14.4	14.4	1		10/17/18 07:52	EPA 3050B	10/18/18 14:05 LIT	EPA 6010D
7439-97-6	Mercury	2.44	0.0839	0.0839	1		10/15/18 12:17	EPA 7471B	10/17/18 15:05 BFG	EPA 7471B
7440-36-0	Antimony	119	2.89	2.89	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-38-2	Arsenic	137	0.722	0.722	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-39-3	Barium	163	14.4	14.4	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-41-7	Beryllium	123	0.361	0.361	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-43-9	Cadmium	116	0.361	0.361	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-70-2	Calcium	9720	18.0	18.0	1		10/17/18 07:52	EPA 3050B	10/18/18 16:37 LIT	EPA 6010D
7440-47-3	Chromium	151	1.44	1.44	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-48-4	Cobalt	125	3.61	3.61	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-50-8	Copper	141	2.16	2.16	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7439-89-6	Iron	33000	451	451	25	D	10/17/18 07:52	EPA 3050B	10/18/18 16:36 LIT	EPA 6010D
7439-92-1	Lead	126	0.722	0.722	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7439-95-4	Magnesium	8310	36.1	36.1	1		10/17/18 07:52	EPA 3050B	10/18/18 16:37 LIT	EPA 6010D
7439-96-5	Manganese	503	1.44	1.44	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-02-0	Nickel	148	2.89	2.89	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-09-7	Potassium	2970	36.1	36.1	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7782-49-2	Selenium	123	2.89	2.89	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-22-4	Silver	11.4	0.361	0.361	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-23-5	Sodium	2770	36.1	36.1	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-28-0	Thallium	103	2.16	2.16	1		10/17/18 07:52	EPA 3050B	10/18/18 14:05 LIT	EPA 6010D
7440-62-2	Vanadium	159	3.61	3.61	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D
7440-66-6	Zinc	173	4.33	4.33	1		10/17/18 07:52	EPA 3050B	10/17/18 15:55 LIT	EPA 6010D

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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WET CHEMISTRY

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12A
Lab Sample ID: 1801587-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	32.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	4760	125	312	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	32.0	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12B
Lab Sample ID: 1801587-02
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	36.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	4500	110	275	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	36.3	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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Carteret, New Jersey 07008
Phone: 732-969-6112
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-12C
Lab Sample ID: 1801587-03
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:25	Matrix:	Soil
Percent Solids:	42.80	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	19100	93.5	234	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	42.8	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6A
Lab Sample ID: 1801587-04
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	35.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	18500	113	283	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	35.3	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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U - Indicates compound analyzed for but not detected at the MDL
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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6B
Lab Sample ID: 1801587-05
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	33.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	14000	120	300	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	33.3	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-6C
Lab Sample ID: 1801587-06
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 14:20	Matrix:	Soil
Percent Solids:	41.60	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	2050	96.2	240	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	41.6	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5A
Lab Sample ID: 1801587-07
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	41.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	10100	97.1	243	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	41.2	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5B
Lab Sample ID: 1801587-08
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	40.60	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	2290	98.5	246	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	40.6	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
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U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-5C
Lab Sample ID: 1801587-09
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:10	Matrix:	Soil
Percent Solids:	34.60	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	14500	116	289	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	34.6	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10A
Lab Sample ID: 1801587-10
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	75.70	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	4990	52.8	132	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	75.7	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10B
Lab Sample ID: 1801587-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	72.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	4060	55.6	139	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	72.0	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-10C
Lab Sample ID: 1801587-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 11:15	Matrix:	Soil
Percent Solids:	77.70	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	8420	51.5	129	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	77.7	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3A
Lab Sample ID: 1801587-13
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	36.90	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	21700	108	271	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	36.9	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3B
Lab Sample ID: 1801587-14
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	41.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	17900	96.9	242	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	41.3	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-3C
Lab Sample ID: 1801587-15
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:08	Matrix:	Soil
Percent Solids:	43.10	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	19600	92.8	232	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	43.1	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7A
Lab Sample ID: 1801587-17
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	35.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	16600	114	286	1		10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	35.0	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7B
Lab Sample ID: 1801587-18
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	38.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	1570	105	262	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	38.2	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-7C
Lab Sample ID: 1801587-19
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	38.80	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	18100	103	258	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	38.8	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1A
Lab Sample ID: 1801587-20
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	74.50	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	12200	53.7	134	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	74.5	0.100	0.100	1		10/16/18 10:39	Percent Solids	10/17/18 09:34 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1B
Lab Sample ID: 1801587-21
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	59.40	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	6640	67.3	168	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	59.4	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-1C
Lab Sample ID: 1801587-22
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	65.70	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	5590	60.9	152	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	65.7	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2A
Lab Sample ID: 1801587-23
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	38.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	9620	105	262	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	38.2	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2B
Lab Sample ID: 1801587-24
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	39.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	19400	103	256	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	39.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2C
Lab Sample ID: 1801587-25
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	51.50	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	11300	77.7	194	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	51.5	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-2C DUP
Lab Sample ID: 1801587-26
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:25	Matrix:	Soil
Percent Solids:	50.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	12900	80.0	200	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	50.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4A
Lab Sample ID: 1801587-27
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	32.40	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	18500	123	309	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	32.4	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4B
Lab Sample ID: 1801587-28
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	40.80	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	17300	98.0	245	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	40.8	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-4C
Lab Sample ID: 1801587-29
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 15:00	Matrix:	Soil
Percent Solids:	59.40	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	10800	67.3	168	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	59.4	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9A
Lab Sample ID: 1801587-30
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:15	Matrix:	Soil
Percent Solids:	29.10	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	31900	137	344	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	29.1	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9B
Lab Sample ID: 1801587-31
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:28	Matrix:	Soil
Percent Solids:	21.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	88900	952	2380	5	D	10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	21.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-9C
Lab Sample ID: 1801587-32
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 10:45	Matrix:	Soil
Percent Solids:	31.70	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	31400	126	315	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	31.7	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

Accredited Analytical Resources, LLC.

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8A
Lab Sample ID: 1801587-33
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 08:30	Matrix:	Soil
Percent Solids:	30.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	33200	133	333	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	30.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8B
Lab Sample ID: 1801587-34
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 08:40	Matrix:	Soil
Percent Solids:	26.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	64800	769	1920	5	D	10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	26.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8C
Lab Sample ID: 1801587-35
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 09:00	Matrix:	Soil
Percent Solids:	17.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	45300	235	588	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	17.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-8C DUP
Lab Sample ID: 1801587-36
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/03/18 09:00	Matrix:	Soil
Percent Solids:	18.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	54700	222	556	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	18.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-07A MS
Lab Sample ID: 1801587-37
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	41.00	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	31200	488	1220	5	D	10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	41.0	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-07A MSD
Lab Sample ID: 1801587-38
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 13:00	Matrix:	Soil
Percent Solids:	46.50	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	23800	430	1080	5	D	10/16/18 08:43	By Method	10/17/18 08:50 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	46.5	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-01C MS
Lab Sample ID: 1801587-39
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	71.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	13000	56.1	140	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	71.3	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-01C MSD
Lab Sample ID: 1801587-40
Project: Brookfield Ave Landfill - 002
Work Order: 1801587

Date Sampled:	10/04/18 08:51	Matrix:	Soil
Percent Solids:	69.30	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	13500	57.7	144	1		10/17/18 10:49	By Method	10/19/18 09:13 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	69.3	0.100	0.100	1		10/16/18 10:40	Percent Solids	10/17/18 09:36 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

APPENDIX D

Data Usability Summary Report

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
BROOKFIELD AVE LANDFILL, STATEN ISLAND, NEW YORK

Client: Brookfield Construction Associates, South Plainfield, New Jersey
SDG: 1801565
Laboratory: Accredited Analytical Resources, Carteret, New Jersey
Site: Brookfield Ave Landfill, Staten Island, New York
Date: January 17, 2019

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	BK2-SW-09	1801565-01	Water
1D	BK2-SW-09	1801565-01	Water
2*	BK2-SD-11A	1801565-11	Sediment
3*	BK2-SD-11B	1801565-12	Sediment

* - SVOC, Pesticides, PCBs, Metals, TOC only D - Dissolved Metals

A Data Usability Summary Review was performed on the analytical data for one surface water sample and two sediment samples collected on October 2, 2018 by Brookfield Construction Associates at the Brookfield Ave Landfill in Staten Island, New York. The samples were analyzed under Environmental Protection Agency (USEPA) "Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions" and the "Standard Methods for the Examination of Water and Wastewater".

Specific method references are as follows:

Analysis	*Method References*
VOCs	USEPA SW846 Method 8260C
SVOCs	USEPA SW846 Method 8270D
Pesticides	USEPA SW846 Method 8081B
PCBs	USEPA SW846 Method 8082A
Metals/Mercury (T/D)	USEPA SW846 Methods 6010D/7470A/7471B
Total Organic Carbon	USEPA SW846 Method 9060A
Hardness	Standard Method SM2340B

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-33A, Revision 1, September 2016: Low/Medium Volatile Data Validation;
- SOP Number HW-35A, Revision 1, September 2016: Semivolatile Data Validation;
- SOP Number HW-36A, Revision 1, October 2016: Pesticide Data Validation;
- SOP Number HW-37A, Revision 0, June 2015: Polychlorinated Biphenyl (PCB) Aroclor Data Validation;

- SOP Number HW-3a, Revision 1, September 2016: ICP-AES Data Validation;
- SOP Number HW-3b, Revision 1, September 2016: ICP-MS Data Validation;
- SOP Number HW-3c, Revision 1, September 2016: Mercury and Cyanide Data Validation;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Holding times and sample preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Inorganics

- Holding times and sample preservation
- Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) Tuning
- Initial and continuing calibration verifications
- Method blank and field QC blank contamination
- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Volatile Organic Compounds (VOCs)

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The following table presents compounds that exceeded various percent difference (%D) and/or RRF values <0.05 (0.01 for poor performers) in the continuing calibration (CCAL). A low RRF indicates poor instrument sensitivity for these compounds. Positive results for these compounds in the affected samples are considered estimated and qualified (J). Non-detect results for these compounds in the affected samples are rejected (R) and are unusable for project objectives. A high %D may indicate a potential high or low bias. All results for these compounds in affected samples are considered estimated and qualified (J/UJ).

CCAL Date	Compound	%D	Qualifier	Affected Samples
10/05/18	2-Chloroethylvinyl Ether	31.1%	UJ	1
	2-Hexanone	24.9%	UJ	

Method Blank

- The method blanks were free of contamination.

Field Blank

- The following table lists field QC samples with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. For detected compound concentrations <RL, the results are negated and qualified (U). For detected sample concentrations >RL of acetone, 2-butanone and methylene chloride (common laboratory contaminants) less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are

negated and qualified with a (U). For all other compounds >RL, an action level of five times (5x) the highest associated blank concentration is used.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
TRIP BLANK	Methylene Chloride	1.63	None	Sample ND

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The following table presents LCS samples that exhibited percent recoveries (%R) outside the QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

LCS Sample ID	Compound	%R	Qualifier	Affected Samples
B8J0518-BS1	Carbon Tetrachloride	119%	None	Sample ND

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Tentatively Identified Compounds (TICs)

- TICs were not detected.

Field Duplicate Sample Precision

- Field duplicate samples were not reviewed.

Semivolatile Organic Compounds

Holding Times

- All samples were extracted within 7 days for water samples and 14 days for sediment samples and analyzed within 40 days for all samples.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Tentatively Identified Compounds (TICs)

- TICs were not detected.

Field Duplicate Sample Precision

- Field duplicate samples were not reviewed.

Pesticides/Polychlorinated Biphenyls (Pest/PCBs)

Holding Times

- All samples were extracted within 7 days for water samples and 14 days for sediment samples and analyzed within 40 days for all samples.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The following table presents LCS samples that exhibited percent recoveries (%R) outside the QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

LCS Sample ID	Compound	%R	Qualifier	Affected Samples
B8J0701-BS1	Heptachlor	183%	None	Samples ND

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not reviewed.

Column Difference

- The following table presents samples that exhibited compounds with high percent differences (%D) between columns. A high %D may indicate a potential high bias. Positive results are considered estimated and qualified (J).

EDS Sample ID	Compound	%D	Qualifier
1	4,4'-DDD	27.3%	J
2	4,4'-DDE	45.1%	J
3	gamma-Chlordane	44.7%	J

Metals/Mercury & Hardness

Holding Times

- All samples were prepared and analyzed within 28 days for mercury and 180 days for all other metals.

Initial Calibration Verification

- All initial calibration criteria were met.

Continuing Calibration Verification

- All continuing calibration criteria were met.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

ICP Interference Check Sample

- The ICP ICS exhibited acceptable recoveries.

Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J).

MS/MSD Sample ID	Compound	MS %R/MS %R/RPD	Qualifier	Affected Samples
REFERENCE (water)	Thallium	68.7%/69.3%/OK	UJ	1
	Several Compounds	High/High/OK	None	4X Rule Applies
REFERENCE (soil)	Calcium	175%/190%/OK	J	2, 3
	Potassium	360%/321%/OK	J	
	Thallium	OK/73.8%/OK	UJ	
	Several Compounds	High/High/OK	None	4X Rule Applies

ICP Serial Dilution

- The following table presents ICP serial dilution samples that exhibited percent difference (%D) outside the QC limits. A high %D may indicate a potential high bias. Positive results are considered estimated and qualified (J).

ICP SD Sample ID	Compound	%D	Qualifier	Affected Samples
REFERENCE (soil)	Arsenic	17.3%	J	2, 3
	Lead	25.9%	J	
	Magnesium	15.5%	J	
	Zinc	16.1%	J	

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not reviewed.

Total Organic Carbon (TOC)

Holding Times

- All samples were prepared and analyzed within the recommended holding time for each analysis.

Initial and Continuing Calibration

- All %R criteria were met.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The LCS sample exhibited acceptable recoveries.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not reviewed.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: _____ Dated: 1/18/19

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8260C

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
107-02-8	Acrolein	ND	6.00	10.0	U
107-13-1	Acrylonitrile	ND	2.00	10.0	U
67-64-1	Acetone	ND	2.50	5.00	U
75-71-8	Dichlorodifluoromethane	ND	1.00	1.00	U
74-87-3	Chloromethane	ND	1.00	1.00	U
75-01-4	Vinyl chloride	ND	1.00	1.00	U
74-83-9	Bromomethane	ND	1.00	1.00	U
75-00-3	Chloroethane	ND	1.00	1.00	U
75-69-4	Trichlorofluoromethane	ND	1.00	1.00	U
75-35-4	1,1-Dichloroethene	ND	0.400	1.00	U
75-15-0	Carbon disulfide	ND	0.400	1.00	U
75-09-2	Methylene Chloride	ND	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	1.00	U
75-34-3	1,1-Dichloroethane	ND	0.400	1.00	U
108-05-4	Vinyl acetate	ND	0.400	1.00	U
590-20-7	2,2-Dichloropropane	ND	0.400	1.00	U
78-93-3	2-Butanone	ND	2.50	5.00	U
156-59-4	cis-1,2-Dichloroethene	ND	0.500	1.00	U
67-66-3	Chloroform	ND	0.500	1.00	U
74-97-5	Bromochloromethane	ND	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane	ND	0.500	1.00	U
563-58-6	1,1-Dichloropropene	ND	0.500	1.00	U
56-23-5	Carbon Tetrachloride	ND	0.500	1.00	U
107-06-2	1,2-Dichloroethane	ND	0.500	1.00	U

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ANALYSIS DATA SHEET

EPA 8260C

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
71-43-2	Benzene	ND	0.500	1.00	U
79-01-6	Trichloroethene	ND	0.500	1.00	U
78-87-5	1,2-Dichloropropane	ND	0.500	1.00	U
75-27-4	Bromodichloromethane	ND	0.500	1.00	U
74-95-3	Dibromomethane	ND	0.500	1.00	U
110-75-8	2-Chloroethyl vinyl ether	ND	0.500	1.00	U UJ
10061-01-5	cis-1,3-Dichloropropene	ND	0.500	1.00	U
108-88-3	Toluene	ND	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.500	1.00	U
79-00-5	1,1,2-Trichloroethane	ND	0.500	1.00	U
108-10-1	4-Methyl-2-pentanone	ND	2.50	5.00	U
106-93-4	1,2-Dibromoethane	ND	0.500	1.00	U
591-78-6	2-Hexanone	ND	2.50	5.00	U UJ
142-28-9	1,3-Dichloropropane	ND	0.500	1.00	U
127-18-4	Tetrachloroethene	ND	0.500	1.00	U
124-48-1	Dibromochloromethane	ND	0.500	1.00	U
100-41-4	Ethylbenzene	ND	0.500	1.00	U
108-90-7	Chlorobenzene	ND	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.500	1.00	U
108-38-3/106-42	m,p-Xylenes	ND	1.00	2.00	U
95-47-6	o-Xylene	ND	1.00	2.00	U
100-42-5	Styrene	ND	1.00	2.00	U
75-25-2	Bromoform	ND	0.500	1.00	U
98-82-8	Isopropylbenzene	ND	0.500	1.00	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET
EPA 8260C

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/05/18 17:48	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 5030C	File ID:	M28757.D
Prep Batch:	B8J0518	Sequence:	S8J0509	Analyzed:	10/05/18 17:48
Dilution:	1			Analyst:	SG

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.500	1.00	U
96-18-4	1,2,3-Trichloropropane	ND	0.500	1.00	U
103-65-1	n-Propyl Benzene	ND	0.500	1.00	U
108-86-1	Bromobenzene	ND	0.500	1.00	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.500	1.00	U
95-49-8	2-Chlorotoluene	ND	0.500	1.00	U
106-43-4	4-Chlorotoluene	ND	0.500	1.00	U
98-06-6	tert-Butylbenzene	ND	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.500	1.00	U
135-98-8	sec-Butylbenzene	ND	0.500	1.00	U
99-87-6	p-Isopropyltoluene	ND	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene	ND	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene	ND	0.500	1.00	U
104-51-8	n-Butyl Benzene	ND	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene	ND	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.500	1.00	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.500	1.00	U
87-68-3	Hexachlorobutadiene	ND	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.500	1.00	U

Surrogate	% Recovery	Recovery Limits
1,2-Dichloroethane-d4	103%	66-143
Toluene-d8	105%	83-120
Bromofluorobenzene	104%	79-127

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	0.543	2.72	U
108-95-2	Phenol	ND	0.543	2.72	U
111-44-4	bis(2-chloroethyl)ether	ND	0.543	2.72	U
95-57-8	2-Chlorophenol	ND	0.543	2.72	U
541-73-1	1,3-Dichlorobenzene	ND	0.543	2.72	U
106-46-7	1,4-Dichlorobenzene	ND	0.543	2.72	U
100-51-6	Benzyl alcohol	ND	0.543	2.72	U
95-50-1	1,2-Dichlorobenzene	ND	0.543	2.72	U
95-48-7	2-Methylphenol	ND	0.543	2.72	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	0.543	2.72	U
106-44-5	3 & 4-Methylphenol	ND	0.543	2.72	U
621-64-7	N-Nitroso-di-n-propylamine	ND	0.543	2.72	U
67-72-1	Hexachloroethane	ND	0.543	2.72	U
98-95-3	Nitrobenzene	ND	0.543	2.72	U
78-59-1	Isophorone	ND	0.543	2.72	U
88-75-5	2-Nitrophenol	ND	0.543	2.72	U
105-67-9	2,4-Dimethylphenol	ND	0.543	2.72	U
111-91-1	bis(2-chloroethoxy)methane	ND	0.543	2.72	U
120-83-2	2,4-Dichlorophenol	ND	0.543	2.72	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.543	2.72	U
91-20-3	Naphthalene	ND	0.543	2.72	U
106-47-8	4-Chloroaniline	ND	0.543	2.72	U
87-68-3	Hexachlorobutadiene	ND	0.543	2.72	U
59-50-7	4-Chloro-3-methylphenol	ND	0.543	2.72	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	0.543	2.72	U
77-47-4	Hexachlorocyclopentadiene	ND	0.543	2.72	U
88-06-2	2,4,6-Trichlorophenol	ND	0.543	2.72	U
95-95-4	2,4,5-Trichlorophenol	ND	0.543	2.72	U
91-58-7	2-Chloronaphthalene	ND	0.543	2.72	U
88-74-4	2-Nitroaniline	ND	0.543	2.72	U
131-11-3	Dimethylphthalate	ND	0.543	2.72	U
208-96-8	Acenaphthylene	ND	0.543	2.72	U
99-09-2	3-Nitroaniline	ND	0.543	2.72	U
83-32-9	Acenaphthene	ND	0.543	2.72	U
51-28-5	2,4-Dinitrophenol	ND	1.09	5.43	U
100-02-7	4-Nitrophenol	ND	0.543	2.72	U
132-64-9	Dibenzofuran	ND	0.543	2.72	U
606-20-2	2,6-Dinitrotoluene	ND	0.543	2.72	U
121-14-2	2,4-Dinitrotoluene	ND	0.543	2.72	U
84-66-2	Diethyl phthalate	ND	0.543	2.72	U
7005-72-3	4-Chlorophenyl-phenylether	ND	0.543	2.72	U
86-73-7	Fluorene	ND	0.543	2.72	U
100-01-6	4-Nitroaniline	ND	0.543	2.72	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	0.543	2.72	U
86-30-6	N-Nitrosodiphenylamine	ND	0.543	2.72	U
101-55-3	4-Bromophenyl-phenylether	ND	0.543	2.72	U
118-74-1	Hexachlorobenzene	ND	0.543	2.72	U
87-86-5	Pentachlorophenol	ND	0.543	2.72	U

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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/03/18 09:42	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C GCMS	File ID:	E15933.D
Prep Batch:	B8J0301	Sequence:	S8J1211	Analyzed:	10/12/18 12:25
Dilution:	1			Analyst:	DSM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
85-01-8	Phenanthrene	ND	0.109	2.72	U
120-12-7	Anthracene	ND	0.543	2.72	U
84-74-2	Di-n-butyl phthalate	ND	0.543	2.72	U
206-44-0	Fluoranthene	ND	0.543	2.72	U
129-00-0	Pyrene	ND	0.543	2.72	U
85-68-7	Butylbenzylphthalate	ND	0.543	2.72	U
91-94-1	3,3'-Dichlorobenzidine	ND	0.543	2.72	U
56-55-3	Benzo[a]anthracene	ND	0.109	2.72	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	0.543	2.72	U
218-01-9	Chrysene	ND	0.109	2.72	U
117-84-0	Di-n-octyl phthalate	ND	0.543	2.72	U
205-99-2	Benzo[b]fluoranthene	ND	0.217	2.72	U
207-08-9	Benzo[k]fluoranthene	ND	0.543	2.72	U
50-32-8	Benzo[a]pyrene	ND	0.543	2.72	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.543	2.72	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.217	2.72	U
191-24-2	Benzo[ghi]perylene	ND	0.543	2.72	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	32%	10-94
Phenol-d5	25%	10-112
Nitrobenzene-d5	67%	22-116
2-Fluorobiphenyl	66%	23-109
2,4,6-Tribromophenol	89%	10-181
Terphenyl-d14	80%	17-133

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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19007.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	165	412	U
108-95-2	Phenol	ND	165	412	U
111-44-4	bis(2-chloroethyl)ether	ND	165	412	U
95-57-8	2-Chlorophenol	ND	165	412	U
541-73-1	1,3-Dichlorobenzene	ND	165	412	U
106-46-7	1,4-Dichlorobenzene	ND	165	412	U
100-51-6	Benzyl alcohol	ND	165	412	U
95-50-1	1,2-Dichlorobenzene	ND	165	412	U
95-48-7	2-Methylphenol	ND	165	412	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	165	412	U
106-44-5	3 & 4-Methylphenol	ND	165	412	U
621-64-7	N-Nitroso-di-n-propylamine	ND	165	412	U
67-72-1	Hexachloroethane	ND	165	412	U
98-95-3	Nitrobenzene	ND	165	412	U
78-59-1	Isophorone	ND	165	412	U
88-75-5	2-Nitrophenol	ND	165	412	U
105-67-9	2,4-Dimethylphenol	ND	165	412	U
111-91-1	bis(2-chloroethoxy)methane	ND	165	412	U
120-83-2	2,4-Dichlorophenol	ND	165	412	U
120-82-1	1,2,4-Trichlorobenzene	ND	165	412	U
91-20-3	Naphthalene	ND	165	412	U
106-47-8	4-Chloroaniline	ND	165	412	U
87-68-3	Hexachlorobutadiene	ND	165	412	U
59-50-7	4-Chloro-3-methylphenol	ND	165	412	U

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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19007.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	165	412	U
77-47-4	Hexachlorocyclopentadiene	ND	165	412	U
88-06-2	2,4,6-Trichlorophenol	ND	165	412	U
95-95-4	2,4,5-Trichlorophenol	ND	165	412	U
91-58-7	2-Chloronaphthalene	ND	165	412	U
88-74-4	2-Nitroaniline	ND	165	412	U
131-11-3	Dimethylphthalate	ND	165	412	U
208-96-8	Acenaphthylene	ND	165	412	U
99-09-2	3-Nitroaniline	ND	165	412	U
83-32-9	Acenaphthene	ND	165	412	U
51-28-5	2,4-Dinitrophenol	ND	165	827	U
100-02-7	4-Nitrophenol	ND	165	412	U
132-64-9	Dibenzofuran	ND	165	412	U
606-20-2	2,6-Dinitrotoluene	ND	165	412	U
121-14-2	2,4-Dinitrotoluene	ND	165	412	U
84-66-2	Diethyl phthalate	ND	165	412	U
7005-72-3	4-Chlorophenyl-phenylether	ND	165	412	U
86-73-7	Fluorene	ND	165	412	U
100-01-6	4-Nitroaniline	ND	165	412	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	165	412	U
86-30-6	N-Nitrosodiphenylamine	ND	165	412	U
101-55-3	4-Bromophenyl-phenylether	ND	165	412	U
118-74-1	Hexachlorobenzene	ND	165	412	U
87-86-5	Pentachlorophenol	ND	165	412	U

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Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19007.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 19:07
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	165	412	U
120-12-7	Anthracene	ND	165	412	U
84-74-2	Di-n-butyl phthalate	ND	165	412	U
206-44-0	Fluoranthene	ND	165	412	U
129-00-0	Pyrene	ND	165	412	U
85-68-7	Butylbenzylphthalate	ND	165	412	U
91-94-1	3,3'-Dichlorobenzidine	ND	411	412	U
56-55-3	Benzo[a]anthracene	ND	165	412	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	165	412	U
218-01-9	Chrysene	ND	165	412	U
117-84-0	Di-n-octyl phthalate	ND	165	412	U
205-99-2	Benzo[b]fluoranthene	ND	165	412	U
207-08-9	Benzo[k]fluoranthene	ND	165	412	U
50-32-8	Benzo[a]pyrene	ND	165	412	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	165	412	U
53-70-3	Dibenzo(a,h)anthracene	ND	165	412	U
191-24-2	Benzo[ghi]perylene	ND	165	412	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	69%	41-102
Phenol-d5	70%	47-113
Nitrobenzene-d5	67%	38-100
2-Fluorobiphenyl	63%	38-88
2,4,6-Tribromophenol	89%	40-129
Terphenyl-d14	99%	31-145

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
62-75-9	N-Nitrosodimethylamine	ND	165	412	U
108-95-2	Phenol	ND	165	412	U
111-44-4	bis(2-chloroethyl)ether	ND	165	412	U
95-57-8	2-Chlorophenol	ND	165	412	U
541-73-1	1,3-Dichlorobenzene	ND	165	412	U
106-46-7	1,4-Dichlorobenzene	ND	165	412	U
100-51-6	Benzyl alcohol	ND	165	412	U
95-50-1	1,2-Dichlorobenzene	ND	165	412	U
95-48-7	2-Methylphenol	ND	165	412	U
39638-32-9	bis(2-chloroisopropyl)ether	ND	165	412	U
106-44-5	3 & 4-Methylphenol	ND	165	412	U
621-64-7	N-Nitroso-di-n-propylamine	ND	165	412	U
67-72-1	Hexachloroethane	ND	165	412	U
98-95-3	Nitrobenzene	ND	165	412	U
78-59-1	Isophorone	ND	165	412	U
88-75-5	2-Nitrophenol	ND	165	412	U
105-67-9	2,4-Dimethylphenol	ND	165	412	U
111-91-1	bis(2-chloroethoxy)methane	ND	165	412	U
120-83-2	2,4-Dichlorophenol	ND	165	412	U
120-82-1	1,2,4-Trichlorobenzene	ND	165	412	U
91-20-3	Naphthalene	ND	165	412	U
106-47-8	4-Chloroaniline	ND	165	412	U
87-68-3	Hexachlorobutadiene	ND	165	412	U
59-50-7	4-Chloro-3-methylphenol	ND	165	412	U

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Phone: 732-969-6112
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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
91-57-6	2-Methylnaphthylene	ND	165	412	U
77-47-4	Hexachlorocyclopentadiene	ND	165	412	U
88-06-2	2,4,6-Trichlorophenol	ND	165	412	U
95-95-4	2,4,5-Trichlorophenol	ND	165	412	U
91-58-7	2-Chloronaphthalene	ND	165	412	U
88-74-4	2-Nitroaniline	ND	165	412	U
131-11-3	Dimethylphthalate	ND	165	412	U
208-96-8	Acenaphthylene	ND	165	412	U
99-09-2	3-Nitroaniline	ND	165	412	U
83-32-9	Acenaphthene	ND	165	412	U
51-28-5	2,4-Dinitrophenol	ND	165	827	U
100-02-7	4-Nitrophenol	ND	165	412	U
132-64-9	Dibenzofuran	ND	165	412	U
606-20-2	2,6-Dinitrotoluene	ND	165	412	U
121-14-2	2,4-Dinitrotoluene	ND	165	412	U
84-66-2	Diethyl phthalate	ND	165	412	U
7005-72-3	4-Chlorophenyl-phenylether	ND	165	412	U
86-73-7	Fluorene	ND	165	412	U
100-01-6	4-Nitroaniline	ND	165	412	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	165	412	U
86-30-6	N-Nitrosodiphenylamine	ND	165	412	U
101-55-3	4-Bromophenyl-phenylether	ND	165	412	U
118-74-1	Hexachlorobenzene	ND	165	412	U
87-86-5	Pentachlorophenol	ND	165	412	U

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Carteret, New Jersey 07008
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ANALYSIS DATA SHEET
EPA 8270D

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Prep Date:	10/15/18 08:18	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B GCMS	File ID:	F19006.D
Prep Batch:	B8J1512	Sequence:	S8J1509	Analyzed:	10/15/18 18:24
Dilution:	1			Analyst:	EAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
85-01-8	Phenanthrene	ND	165	412	U
120-12-7	Anthracene	ND	165	412	U
84-74-2	Di-n-butyl phthalate	ND	165	412	U
206-44-0	Fluoranthene	ND	165	412	U
129-00-0	Pyrene	ND	165	412	U
85-68-7	Butylbenzylphthalate	ND	165	412	U
91-94-1	3,3'-Dichlorobenzidine	ND	411	412	U
56-55-3	Benzo[a]anthracene	ND	165	412	U
117-81-7	bis(2-ethylhexyl)phthalate	ND	165	412	U
218-01-9	Chrysene	ND	165	412	U
117-84-0	Di-n-octyl phthalate	ND	165	412	U
205-99-2	Benzo[b]fluoranthene	ND	165	412	U
207-08-9	Benzo[k]fluoranthene	ND	165	412	U
50-32-8	Benzo[a]pyrene	ND	165	412	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	165	412	U
53-70-3	Dibenzo(a,h)anthracene	ND	165	412	U
191-24-2	Benzo[ghi]perylene	ND	165	412	U

Surrogate	% Recovery	Recovery Limits
2-Fluorophenol	75%	41-102
Phenol-d5	76%	47-113
Nitrobenzene-d5	74%	38-100
2-Fluorobiphenyl	71%	38-88
2,4,6-Tribromophenol	91%	40-129
Terphenyl-d14	105%	31-145

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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24569.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
319-84-6	alpha-BHC	ND	0.00217	0.00217	U
319-85-7	beta-BHC	ND	0.00217	0.00217	U
319-86-8	delta-BHC	ND	0.00217	0.00217	U
58-89-9	gamma-BHC [Lindane]	ND	0.00217	0.00217	U
76-44-8	Heptachlor	ND	0.00217	0.00217	U
309-00-2	Aldrin	ND	0.00217	0.00217	U
1024-57-3	Heptachlor Epoxide	ND	0.00217	0.00217	U
959-98-8	Endosulfan I	ND	0.00217	0.00217	U
60-57-1	Dieldrin	ND	0.00435	0.00435	U
72-55-9	4,4'-DDE	ND	0.00435	0.00435	U
72-20-8	Endrin	ND	0.00435	0.00435	U
33213-65-9	Endosulfan II	ND	0.00435	0.00435	U
72-54-8	4,4'-DDD	0.00620 J	0.00435	0.00435	
1031-07-8	Endosulfan sulfate	ND	0.00435	0.00435	U
50-29-3	4,4'-DDT	ND	0.00435	0.00435	U
72-43-5	Methoxychlor	ND	0.0217	0.0217	U
53494-70-5	Endrin ketone	ND	0.00435	0.0435	U
7421-93-4	Endrin aldehyde	ND	0.00435	0.0435	U
5103-71-9	alpha-Chlordane	ND	0.00217	0.00217	U
5566-34-7	gamma-Chlordane	ND	0.00217	0.00217	U
8001-35-2	Toxaphene	ND	0.109	0.109	U
12674-11-2	Aroclor-1016	ND	0.0543	0.109	U

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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Prep Date:	10/07/18 08:33	Matrix:	Surface Water
Percent Solids:		Prep Method:	EPA 3510C	File ID:	G24569.D
Prep Batch:	B8J0701	Sequence:	S8J1002	Analyzed:	10/10/18 21:22
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	0.0543	0.109	U
11141-16-5	Aroclor-1232	ND	0.0543	0.109	U
53469-21-9	Aroclor-1242	ND	0.0543	0.109	U
12672-29-6	Aroclor-1248	ND	0.0543	0.109	U
11097-69-1	Aroclor-1254	ND	0.0543	0.109	U
11096-82-5	Aroclor-1260	ND	0.0543	0.109	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	57.2%	10-132
Tetrachloro-m-xylene [2C]	64.2%	10-157
Decachlorobiphenyl	77.7%	10-147
Decachlorobiphenyl [2C]	83.5%	10-154

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29536.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 14:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.63	1.63	U
319-85-7	beta-BHC	ND	1.63	1.63	U
319-86-8	delta-BHC	ND	1.63	1.63	U
58-89-9	gamma-BHC [Lindane]	ND	1.63	1.63	U
76-44-8	Heptachlor	ND	1.63	1.63	U
309-00-2	Aldrin	ND	1.63	1.63	U
1024-57-3	Heptachlor Epoxide	ND	1.63	1.63	U
959-98-8	Endosulfan I	ND	1.63	1.63	U
60-57-1	Dieldrin	ND	3.29	3.29	U
72-55-9	4,4'-DDE	7.18 J	3.29	3.29	
72-20-8	Endrin	ND	3.29	3.29	U
33213-65-9	Endosulfan II	ND	3.29	3.29	U
72-54-8	4,4'-DDD	3.55	3.29	3.29	
1031-07-8	Endosulfan sulfate	ND	3.29	3.29	U
50-29-3	4,4'-DDT	ND	3.29	3.29	U
72-43-5	Methoxychlor	ND	4.95	16.5	U
53494-70-5	Endrin ketone	ND	3.29	3.29	U
7421-93-4	Endrin aldehyde	ND	3.29	3.29	U
5103-71-9	alpha-Chlordane	ND	1.63	1.63	U
5566-34-7	gamma-Chlordane	ND	1.63	1.63	U
8001-35-2	Toxaphene	ND	82.4	82.4	U
12674-11-2	Aroclor-1016	ND	41.1	82.4	U

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20 Pershing Ave
Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29536.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 14:43
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	41.1	82.4	U
11141-16-5	Aroclor-1232	ND	41.1	82.4	U
53469-21-9	Aroclor-1242	ND	41.1	82.4	U
12672-29-6	Aroclor-1248	ND	41.1	82.4	U
11097-69-1	Aroclor-1254	ND	41.1	82.4	U
11096-82-5	Aroclor-1260	ND	41.1	82.4	U
37324-23-5	Aroclor-1262	ND	41.1	82.4	U
11100-14-4	Aroclor-1268	ND	41.1	82.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	43.3%	27-137
Tetrachloro-m-xylene [2C]	59.6%	39-138
Decachlorobiphenyl	45.1%	21-150
Decachlorobiphenyl [2C]	65.3%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29537.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:07
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
319-84-6	alpha-BHC	ND	1.63	1.63	U
319-85-7	beta-BHC	ND	1.63	1.63	U
319-86-8	delta-BHC	ND	1.63	1.63	U
58-89-9	gamma-BHC [Lindane]	ND	1.63	1.63	U
76-44-8	Heptachlor	ND	1.63	1.63	U
309-00-2	Aldrin	ND	1.63	1.63	U
1024-57-3	Heptachlor Epoxide	ND	1.63	1.63	U
959-98-8	Endosulfan I	ND	1.63	1.63	U
60-57-1	Dieldrin	ND	3.29	3.29	U
72-55-9	4,4'-DDE	ND	3.29	3.29	U
72-20-8	Endrin	ND	3.29	3.29	U
33213-65-9	Endosulfan II	ND	3.29	3.29	U
72-54-8	4,4'-DDD	58.5	3.29	3.29	
1031-07-8	Endosulfan sulfate	ND	3.29	3.29	U
50-29-3	4,4'-DDT	ND	3.29	3.29	U
72-43-5	Methoxychlor	ND	4.95	16.5	U
53494-70-5	Endrin ketone	ND	3.29	3.29	U
7421-93-4	Endrin aldehyde	ND	3.29	3.29	U
5103-71-9	alpha-Chlordane	ND	1.63	1.63	U
5566-34-7	gamma-Chlordane	5.45 J	1.63	1.63	
8001-35-2	Toxaphene	ND	82.4	82.4	U
12674-11-2	Aroclor-1016	ND	41.1	82.4	U

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Fax: 732-541-1383
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ANALYSIS DATA SHEET

EPA 8081B/8082A

Client: **Brookfield Construction Associates, LLC**
Client Sample ID: **BK2-SD-11B**
Lab Sample ID: **1801565-12**
Project: **Brookfield Ave Landfill - 002**
Work Order: **1801565**

Date Sampled:	10/02/18 14:10	Prep Date:	10/16/18 05:28	Matrix:	Soil
Percent Solids:	20.20	Prep Method:	EPA 3550B	File ID:	A29537.D
Prep Batch:	B8J1601	Sequence:	S8J1904	Analyzed:	10/19/18 15:07
Dilution:	1			Analyst:	JAM

CAS NO.	COMPOUND	CONC. (ug/kg dry)	MDL	RL	Q
11104-28-2	Aroclor-1221	ND	41.1	82.4	U
11141-16-5	Aroclor-1232	ND	41.1	82.4	U
53469-21-9	Aroclor-1242	ND	41.1	82.4	U
12672-29-6	Aroclor-1248	ND	41.1	82.4	U
11097-69-1	Aroclor-1254	ND	41.1	82.4	U
11096-82-5	Aroclor-1260	ND	41.1	82.4	U
37324-23-5	Aroclor-1262	ND	41.1	82.4	U
11100-14-4	Aroclor-1268	ND	41.1	82.4	U

Surrogate	% Recovery	Recovery Limits
Tetrachloro-m-xylene	46.4%	27-137
Tetrachloro-m-xylene [2C]	81.5%	39-138
Decachlorobiphenyl	47.4%	21-150
Decachlorobiphenyl [2C]	73.8%	24-171

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected at or above the MDL
U - Indicates compound analyzed for but not detected at or above the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Phone: 732-969-6112
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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0408g2.xml-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	ND	200	200	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-97-6	Mercury	ND	0.500	0.500	1	U	10/09/18 09:28	EPA 7470A	10/09/18 14:29 BFG	EPA 7470A
7440-36-0	Antimony	ND	5.00	5.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-38-2	Arsenic	8.00	3.00	3.00	1		10/04/18 09:51	EPA 3005A	10/18/18 20:14 LIT	EPA 6010D
7440-39-3	Barium	56.4	20.0	20.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.00	1.00	1	U	10/04/18 09:51	EPA 3005A	10/18/18 20:14 LIT	EPA 6010D
7440-43-9	Cadmium	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-70-2	Calcium	91500	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-47-3	Chromium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-48-4	Cobalt	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-50-8	Copper	ND	8.00	8.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-89-6	Iron	419	300	300	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-92-1	Lead	6.10	5.00	5.00	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-95-4	Magnesium	243000	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7439-96-5	Manganese	197	10.0	10.0	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-02-0	Nickel	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-09-7	Potassium	76100	1000	1000	1		10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.0	10.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-22-4	Silver	ND	4.00	4.00	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-23-5	Sodium	2120000	100000	100000	100	P	10/04/18 09:51	EPA 3005A	10/05/18 11:39 LIT	EPA 6010D
7440-28-0	Thallium	ND	2.00	2.00	1	UJ U	10/04/18 09:51	EPA 3005A	10/09/18 20:43 LIT	EPA 6010D
7440-62-2	Vanadium	ND	20.0	20.0	1	U	10/04/18 09:51	EPA 3005A	10/05/18 10:11 LIT	EPA 6010D
7440-66-6	Zinc	ND	25.0	25.0	1	U	10/04/18 09:51	EPA 3005A	10/09/18 20:43 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

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Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	s8j0410d1.xml-018

CAS NO.	Analyte	Concentration (ug/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7440-02-0	Nickel (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-22-4	Silver (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-66-6	Zinc (diss)	ND	25.0	25.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-09-7	Potassium (diss)	69400	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7429-90-5	Aluminum (diss)	ND	200	200	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-36-0	Antimony (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7782-49-2	Selenium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-48-4	Cobalt (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-50-8	Copper (diss)	ND	8.00	8.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-47-3	Chromium (diss)	ND	10.0	10.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-96-5	Manganese (diss)	210	10.0	10.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-95-4	Magnesium (diss)	225000	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7439-89-6	Iron (diss)	ND	300	300	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-39-3	Barium (diss)	56.6	20.0	20.0	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-62-2	Vanadium (diss)	ND	20.0	20.0	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-70-2	Calcium (diss)	86100	1000	1000	1		10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-38-2	Arsenic (diss)	7.74	3.00	3.00	1		10/04/18 11:15	EPA 3005A	10/08/18 12:53 LIT	EPA 6010D
7440-41-7	Beryllium (diss)	ND	1.00	1.00	1	U	10/04/18 11:15	EPA 3005A	10/08/18 12:53 LIT	EPA 6010D
7440-23-5	Sodium (diss)	1780000	100000	100000	100	P	10/04/18 11:15	EPA 3005A	10/08/18 14:19 LIT	EPA 6010D
7440-28-0	Thallium (diss)	3.13	2.00	2.00	1		10/04/18 11:15	EPA 3005A	10/09/18 17:58 LIT	EPA 6010D
7439-97-6	Dissolved Mercury	ND	0.500	0.500	1	U	10/12/18 09:23	EPA 7470A	10/12/18 15:45 RMK	EPA 7470A
7439-92-1	Lead (diss)	ND	5.00	5.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D
7440-43-9	Cadmium (diss)	ND	4.00	4.00	1	U	10/04/18 11:15	EPA 3005A	10/05/18 14:11 LIT	EPA 6010D

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
J - Indicates estimated value for TICs and all results when detected below the RL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
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MDL - Minimum detection limit
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20 Pershing Ave
Carteret, New Jersey 07008
Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Matrix:	Soil
Percent Solids:	20.20	File ID:	101018C-025

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	13400	54.0	54.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-97-6	Mercury	3.70	0.244	0.244	1		10/08/18 11:02	EPA 7471B	10/09/18 11:41 BFG	EPA 7471B
7440-36-0	Antimony	ND	10.8	10.8	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-38-2	Arsenic	16.4 J	2.70	2.70	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-39-3	Barium	76.5	54.0	54.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-41-7	Beryllium	ND	1.35	1.35	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-43-9	Cadmium	ND	1.35	1.35	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-70-2	Calcium	4530 J	67.5	67.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-47-3	Chromium	113	5.40	5.40	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-48-4	Cobalt	ND	13.5	13.5	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-50-8	Copper	235	8.10	8.10	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-89-6	Iron	19000	67.5	67.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-92-1	Lead	178 J	2.70	2.70	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-95-4	Magnesium	8220 J	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7439-96-5	Manganese	210	5.40	5.40	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-02-0	Nickel	49.0	10.8	10.8	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-09-7	Potassium	3020 J	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7782-49-2	Selenium	ND	10.8	10.8	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-22-4	Silver	2.89	1.35	1.35	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-23-5	Sodium	16100	135	135	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-28-0	Thallium	ND UJ	4.05	8.10	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-62-2	Vanadium	64.0	13.5	13.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D
7440-66-6	Zinc	256 J	16.2	16.2	1		10/09/18 09:13	EPA 3050B	10/10/18 16:32 LIT	EPA 6010D

* Values outside of QC limits
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Matrix:	Soil
Percent Solids:	20.20	File ID:	101018C-026

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
7429-90-5	Aluminum	15000	54.9	54.9	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-97-6	Mercury	4.90	0.288	0.288	1		10/08/18 11:02	EPA 7471B	10/09/18 11:43 BFG	EPA 7471B
7440-36-0	Antimony	ND	11.0	11.0	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-38-2	Arsenic	100 J	2.74	2.74	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-39-3	Barium	77.2	54.9	54.9	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-41-7	Beryllium	1.82	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-43-9	Cadmium	2.31	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-70-2	Calcium	4770 J	68.6	68.6	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-47-3	Chromium	205	5.49	5.49	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-48-4	Cobalt	26.6	13.7	13.7	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-50-8	Copper	381	8.23	8.23	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-89-6	Iron	50800	68.6	68.6	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-92-1	Lead	426 J	2.74	2.74	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-95-4	Magnesium	8470 J	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7439-96-5	Manganese	293	5.49	5.49	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-02-0	Nickel	135	11.0	11.0	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-09-7	Potassium	3260 J	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7782-49-2	Selenium	ND	11.0	11.0	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-22-4	Silver	2.84	1.37	1.37	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-23-5	Sodium	16900	137	137	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-28-0	Thallium	ND UJ	4.12	8.23	1	U	10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-62-2	Vanadium	110	13.7	13.7	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D
7440-66-6	Zinc	702 J	16.5	16.5	1		10/09/18 09:13	EPA 3050B	10/10/18 16:37 LIT	EPA 6010D

* Values outside of QC limits
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RL - Reporting limit

11/17/19

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20 Pershing Ave
Carteret, New Jersey 07008
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Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SW-09
Lab Sample ID: 1801565-01
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 08:20	Matrix:	Surface Water
Percent Solids:		File ID:	

CAS NO.	Analyte	Concentration (mg CaCO3/L)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Hardness	1200	100	100	1		10/10/18 08:38	By Method	10/10/18 16:00 BFG	SM 2340

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit
RL - Reporting limit

11/7/19

Accredited Analytical Resources, LLC.

20 Pershing Ave
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Phone: 732-969-6112
Fax: 732-541-1383
WWW.Accreditedanalytical.com

ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11A
Lab Sample ID: 1801565-11
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 13:15	Matrix:	Soil
Percent Solids:	20.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	10300	198	495	1		10/16/18 08:43	By Method	10/16/18 13:28 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	20.2	0.100	0.100	1		10/03/18 11:48	Percent Solids	10/04/18 09:33 KMC	SM 2540 G

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MDL - Minimum detection limit
RL - Reporting limit

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Accredited Analytical Resources, LLC.

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ANALYSIS DATA SHEET

Inorganics

Client: Brookfield Construction Associates, LLC
Client Sample ID: BK2-SD-11B
Lab Sample ID: 1801565-12
Project: Brookfield Ave Landfill - 002
Work Order: 1801565

Date Sampled:	10/02/18 14:10	Matrix:	Soil
Percent Solids:	20.20	File ID:	

CAS NO.	Analyte	Concentration (mg/kg dry)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Carbon, Total Orga	11200	198	495	1		10/16/18 08:43	By Method	10/16/18 13:28 RMK	EPA 9060A

CAS NO.	Analyte	Concentration (%)	MDL	RL	DF	Q	Prepared	Prep Method	Analyzed By	Method
NA	Percent Solids	20.2	0.100	0.100	1		10/03/18 11:48	Percent Solids	10/04/18 09:33 KMC	SM 2540 G

* Values outside of QC limits
ND - Indicates compound analyzed for but not detected
U - Indicates compound analyzed for but not detected at the MDL
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nw 1/17/19